

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                         |
|---|-------------------------|
| 1.1 Member State                        | HR                      |
| 1.2 Species code                        | 1220                    |
| 1.3 Species scientific name             | <i>Emys orbicularis</i> |
| 1.4 Alternative species scientific name |                         |
| 1.5 Common name (in national language)  | barska kornjača         |

## 2. Maps

|                                  |   |
|----------------------------------|---|
| 2.1 Sensitive species            | No  |
| 2.2 Year or period               | 2008-2018   |
| 2.3 Distribution map             | Yes   |
| 2.4 Distribution map Method used | Based mainly on expert opinion with very limited data |
| 2.5 Additional maps              | No  |

## 3. Information related to Annex V Species (Art. 14)

|   |   |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
|---|---|---|----|---|----|---|----|--|----|--|----|---|----|---|----|-------------------|----|
| 3.1 Is the species taken in the wild/exploited?   | No  |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
| 3.2 Which of the measures in Art. 14 have been taken?   | <table><tr><td>a) regulations regarding access to property</td><td>No</td></tr><tr><td>b) temporary or local prohibition of the taking of specimens in the wild and exploitation</td><td>No</td></tr><tr><td>c) regulation of the periods and/or methods of taking specimens</td><td>No</td></tr><tr><td>d) application of hunting and fishing rules which take account of the conservation of such populations</td><td>No</td></tr><tr><td>e) establishment of a system of licences for taking specimens or of quotas</td><td>No</td></tr><tr><td>f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens</td><td>No</td></tr><tr><td>g) breeding in captivity of animal species as well as artificial propagation of plant species</td><td>No</td></tr><tr><td>h) other measures</td><td>No</td></tr></table> | a) regulations regarding access to property | No | b) temporary or local prohibition of the taking of specimens in the wild and exploitation | No | c) regulation of the periods and/or methods of taking specimens | No | d) application of hunting and fishing rules which take account of the conservation of such populations | No | e) establishment of a system of licences for taking specimens or of quotas | No | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No | g) breeding in captivity of animal species as well as artificial propagation of plant species | No | h) other measures | No |
| a) regulations regarding access to property   | No  |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
| b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No  |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
| c) regulation of the periods and/or methods of taking specimens   | No  |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
| d) application of hunting and fishing rules which take account of the conservation of such populations      | No  |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
| e) establishment of a system of licences for taking specimens or of quotas                                  | No  |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
| f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No  |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
| g) breeding in captivity of animal species as well as artificial propagation of plant species               | No  |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
| h) other measures   | No  |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |

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## 3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

### a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

## 3.4. Hunting bag or quantity taken in the wild Method used

## 3.5. Additional information

## 4. Biogeographical and marine regions

### 4.1 Biogeographical or marine region where the species occurs

#### Mediterranean (MED)

### 4.2 Sources of information

Baškiera, S., Koller, K., 2016. Istraživanje vodozemaca i gmazova na području šume Žutice, izvještaj za 2016. godinu (završni izvještaj). Hrvatsko herpetološko društvo – Hyla, Zagreb.

Dajčman, U., 2017. Poročilo o delu skupine za plazilce, in: Ekosistemi Balkana, Vransko jezero 2016. Društvo študentov biologije, Ljubljana, pp. 66–72.

Fritz, U., 1992. Zur innerartlichen Variabilität von *Emys orbicularis* (Linnaeus, 1758) 2. Variabilität in Osteuropa und Redefinition von *Emys orbicularis orbicularis* (Linnaeus, 1758) und *E. o. hellenica* (Valenciennes, 1832) (Reptilia, Testudines: Emydidae). Zoologische Abhandlungen aus dem Staatlichen Museum für Tierkunde in Dresden 47, 37–78.

Iglesias, R., Garca-Estévez, J.M., Ayres, C., Acuña, A., Cordero-Rivera, A., 2015. First reported outbreak of severe spirorchidiasis in *Emys orbicularis*, probably resulting from a parasite spillover event. Dis Aquat Org 113, 75–80. <https://doi.org/10.3354/dao02812>

Jelić, D., Karaica, D., 2012. First data on the fauna of amphibians and reptiles of the lower Una River and its coastal area. Hyla : Herpetological bulletin 2012, 22–41.

JU Brijuni, 2016. Nacionalni park Brijuni. PLAN UPRAVLJANJA (razdoblje provođenja plana od 2016. do 2025. godine).

Koller, K., 2017. Underground occurrences of three species of amphibians and reptiles with special emphasis on *Rana latastei* (Amphibia: Anura). North-Western Journal of Zoology 13, 176–179.

Koren, T., Črne, M., Koprivnikar, N., Trkov, D., Drašler, K., Jelić, D., 2013. Contribution to the herpetofauna (Amphibia & Reptilia) of lower Neretva River (Croatia & Bosnia and Herzegovina). Hyla : Herpetological bulletin 2012, 19–40.

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Koren, T., Štih, A., Burić, I., Koller, K., Lauš, B., Zadavec, M., 2018. The current distribution of pond slider *Trachemys scripta* (Reptilia: Emydidae) in Croatia. *Natura Sloveniae* 20, 33–44.

Kuljerić, M., 2010. Analitička studija herpetofaune s Dodatka II Direktive o zaštiti divlje faune i flore (završni izvještaj). Hrvatsko herpetološko društvo – Hyla, Zagreb.

Moravec, J., 2003. Some notes on the population of dwarfed *Emys orbicularis* from Pag (Croatia). *Časopis Národního muzea, Řada přírodovědná* 172, 55–60.

M. Zadavec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb

## 5. Range

|  |  |
|--|--|
| 5.1 Surface area   | 19900  |
| 5.2 Short-term trend Period                                | 2008-2018  |
| 5.3 Short-term trend Direction                             | Uncertain (u)  |
| 5.4 Short-term trend Magnitude                             | a) Minimumb) Maximum   |
| 5.5 Short-term trend Method used                           | Insufficient or no data available  |
| 5.6 Long-term trend Period                                 |  |
| 5.7 Long-term trend Direction                              |  |
| 5.8 Long-term trend Magnitude                              | a) Minimumb) Maximum   |
| 5.9 Long-term trend Method used                            |  |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknownx<br>d) Method  |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:   |
| 5.12 Additional information                                | It is possible the populations on Rab, Plavnik and Kornat islands became extinct in recent times, therefore the range could be smaller than reported here. However, until this is confirmed (or disproven), they are included in this report |

## 6. Population

|   |  |
|---|--|
| 6.1 Year or period                      | 2008-2018  |
| 6.2 Population size (in reporting unit) | a) Unitnumber of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value168 |
| 6.3 Type of estimate                    | Minimum  |

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|  |  |
|--|--|
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value  |
| 6.5 Type of estimate   |  |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data  |
| 6.7 Short-term trend Period  | 2008-2018  |
| 6.8 Short-term trend Direction   | Unknown (x)  |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval   |
| 6.10 Short-term trend Method used  | Insufficient or no data available  |
| 6.11 Long-term trend Period  |  |
| 6.12 Long-term trend Direction   |  |
| 6.13 Long-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval   |
| 6.14 Long-term trend Method used   |  |
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4)              | a) Population size<br>b) Operator<br>c) Unknown                      x<br>d) Method  |
| 6.16 Change and reason for change in population size                             | The change is mainly due to:   |
| 6.17 Additional information  | It is possible the populations on Rab, Plavnik and Kornat islands became extinct in recent times, therefore the population size could be smaller than reported here. However, until this is confirmed (or disproven), they are included in this report |

## 7. Habitat for the species

|   |   |         |
|---|---|---------|
| 7.1 Sufficiency of area and quality of occupied habitat             | a) Are area and quality of occupied habitat sufficient (for long-term survival)?<br>b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)? | Unknown |
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Insufficient or no data available   |         |
| 7.3 Short-term trend Period   | 2008-2018   |         |
| 7.4 Short-term trend Direction                                      | Unknown (x)   |         |
| 7.5 Short-term trend Method used                                    | Insufficient or no data available   |         |



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7.6 Long-term trend Period

7.7 Long-term trend Direction

7.8 Long-term trend Method used

7.9 Additional information

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure   | Ranking |
|--|---------|
| Invasive alien species of Union concern (I01)  | M       |
| Interspecific relations (competition, predation, parasitism, pathogens) (L06)              | M       |
| Change of habitat location, size, and / or quality due to climate change (N05)             | M       |
| Conversion into agricultural land (excluding drainage and burning) (A01)                   | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01) | M       |
| Use of plant protection chemicals in agriculture (A21)                                     | M       |
| Threat   | Ranking |
| Invasive alien species of Union concern (I01)  | H       |
| Interspecific relations (competition, predation, parasitism, pathogens) (L06)              | H       |
| Change of habitat location, size, and / or quality due to climate change (N05)             | H       |
| Conversion into agricultural land (excluding drainage and burning) (A01)                   | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01) | M       |
| Use of plant protection chemicals in agriculture (A21)                                     | M       |

### 8.2 Sources of information

### 8.3 Additional information

IAS union concern : *Herpestes javanicus* É. Geoffroy Saint-Hilaire, 1818; *Pseudorasbora parva* Temminck & Schlegel, 1846; *Threskiornis aethiopicus* Latham, 1790; *Trachemys scripta* Schoepff, 1792; *Vespa velutina nigrithorax* de Buysson, 1905;  
IAS union concern : *Herpestes javanicus* É. Geoffroy Saint-Hilaire, 1818; *Pseudorasbora parva* Temminck & Schlegel, 1846; *Threskiornis aethiopicus* Latham, 1790; *Trachemys scripta* Schoepff, 1792; *Vespa velutina nigrithorax* de Buysson, 1905;

## 9. Conservation measures

### 9.1 Status of measures

- a) Are measures needed? Yes
- b) Indicate the status of measures Measures identified, but none yet taken

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9.2 Main purpose of the measures taken

9.3 Location of the measures taken

9.4 Response to the measures

9.5 List of main conservation measures

Reduce impact of multi-purpose hydrological changes (CJ02)

9.6 Additional information

Conservation measures are included in water management planning documents. However, as there is no systematic monitoring, there is no data to what extent are these measures really incorporated in water management activities and the system for evaluation of effectiveness of those measures is lacking.

## 10. Future prospects

10.1 Future prospects of parameters

|                           |         |
|---------------------------|---------|
| a) Range                  | Unknown |
| b) Population             | Unknown |
| c) Habitat of the species | Unknown |

10.2 Additional information

## 11. Conclusions

11.1. Range

Unknown (XX)

11.2. Population

Unknown (XX)

11.3. Habitat for the species

Unknown (XX)

11.4. Future prospects

Unknown (XX)

11.5 Overall assessment of Conservation Status

Unknown (XX)

11.6 Overall trend in Conservation Status

11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

|                      |  |
|----------------------|--|
| a) Unit              | number of map 1x1 km grid cells (grids1x1) |
| b) Minimum           |  |
| c) Maximum           |  |
| d) Best single value | 136  |

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|   |   |
|---|---|
| 12.2 Type of estimate   | Minimum   |
| 12.3 Population size inside the network Method used                     | Based mainly on expert opinion with very limited data |
| 12.4 Short-term trend of population size within the network Direction   | Unknown (x)   |
| 12.5 Short-term trend of population size within the network Method used | Insufficient or no data available                     |
| 12.6 Additional information   |   |

## 13. Complementary information

|   |
|---|
| 13.1 Justification of % thresholds for trends |
| 13.2 Trans-boundary assessment                |
| 13.3 Other relevant Information               |

## 4. Biogeographical and marine regions

|   |
|---|
| 4.1 Biogeographical or marine region where the species occurs |
|---|

### Continental (CON)

|                            |
|----------------------------|
| 4.2 Sources of information |
|----------------------------|

Baškiera, S., Koller, K., 2016. Istraživanje vodozemaca i gmazova na području šume Žutice, izvještaj za 2016. godinu (završni izvještaj). Hrvatsko herpetološko društvo – Hyla, Zagreb.

Dajčman, U., 2017. Poročilo o delu skupine za plazilce, in: Ekosistemi Balkana, Vransko jezero 2016. Društvo študentov biologije, Ljubljana, pp. 66–72.

Fritz, U., 1992. Zur innerartliehen Variabilität von *Emys orbicularis* (Linnaeus, 1758) 2. Variabilität in Osteuropa und Redefinition von *Emys orbicularis orbicularis* (Linnaeus, 1758) und *E. o. hellenica* (Valenciennes, 1832) (Reptilia, Testudines: Emydidae). Zoologische Abhandlungen aus dem Staatlichen Museum für Tierkunde in Dresden 47, 37–78.

Iglesias, R., Garca-Estévez, J.M., Ayres, C., Acuña, A., Cordero-Rivera, A., 2015. First reported outbreak of severe spirorchidiasis in *Emys orbicularis*, probably resulting from a parasite spillover event. Dis Aquat Org 113, 75–80. <https://doi.org/10.3354/dao02812>

Jelić, D., Karaica, D., 2012. First data on the fauna of amphibians and reptiles of the lower Una River and its coastal area. Hyla : Herpetological bulletin 2012, 22–41.

JU Brijuni, 2016. Nacionalni park Brijuni. PLAN UPRAVLJANJA (razdoblje provođenja plana od 2016. do 2025. godine).

Koller, K., 2017. Underground occurrences of three species of amphibians and

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reptiles with special emphasis on *Rana latastei* (Amphibia: Anura). North-Western Journal of Zoology 13, 176–179.

Koren, T., Črne, M., Koprivnikar, N., Trkov, D., Drašler, K., Jelić, D., 2013. Contribution to the herpetofauna (Amphibia & Reptilia) of lower Neretva River (Croatia & Bosnia and Herzegovina). Hyla : Herpetological bulletin 2012, 19–40.

Koren, T., Štih, A., Burić, I., Koller, K., Lauš, B., Zadravec, M., 2018. The current distribution of pond slider *Trachemys scripta* (Reptilia: Emydidae) in Croatia. Natura Sloveniae 20, 33–44.

Kuljerić, M., 2010. Analitička studija herpetofaune s Dodatka II Direktive o zaštiti divlje faune i flore (završni izvještaj). Hrvatsko herpetološko društvo – Hyla, Zagreb.

Moravec, J., 2003. Some notes on the population of dwarfed *Emys orbicularis* from Pag (Croatia). Časopis Národního muzea, Řada přírodovědná 172, 55–60.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb

## 5. Range

|  |  |
|--|--|
| 5.1 Surface area   | 34100  |
| 5.2 Short-term trend Period                                | 2008-2018  |
| 5.3 Short-term trend Direction                             | Stable (0)   |
| 5.4 Short-term trend Magnitude                             | a) Minimum                      b) Maximum   |
| 5.5 Short-term trend Method used                           | Based mainly on expert opinion with very limited data  |
| 5.6 Long-term trend Period                                 |  |
| 5.7 Long-term trend Direction                              |  |
| 5.8 Long-term trend Magnitude                              | a) Minimum                      b) Maximum   |
| 5.9 Long-term trend Method used                            |  |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator                      Approximately equal to (≈)<br>c) Unknown<br>d) Method |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:   |
| 5.12 Additional information                                |  |

## 6. Population

|   |  |
|---|--|
| 6.1 Year or period                      | 2008-2018  |
| 6.2 Population size (in reporting unit) | a) Unit                      number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value      362 |
| 6.3 Type of estimate                    | Minimum  |

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6.4 Additional population size (using population unit other than reporting unit)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

6.5 Type of estimate

6.6 Population size Method used

Based mainly on expert opinion with very limited data

6.7 Short-term trend Period

2008-2018

6.8 Short-term trend Direction

Unknown (x)

6.9 Short-term trend Magnitude

- a) Minimum
- b) Maximum
- c) Confidence interval

6.10 Short-term trend Method used

Insufficient or no data available

6.11 Long-term trend Period

6.12 Long-term trend Direction

6.13 Long-term trend Magnitude

- a) Minimum
- b) Maximum
- c) Confidence interval

6.14 Long-term trend Method used

6.15 Favourable reference population (using the unit in 6.2 or 6.4)

- a) Population size
- b) Operator
- c) Unknown x
- d) Method

6.16 Change and reason for change in population size

The change is mainly due to:

6.17 Additional information

## 7. Habitat for the species

7.1 Sufficiency of area and quality of occupied habitat

- a) Are area and quality of occupied habitat sufficient (for long-term survival)? Unknown
- b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?

7.2 Sufficiency of area and quality of occupied habitat Method used

Insufficient or no data available

7.3 Short-term trend Period

2008-2018

7.4 Short-term trend Direction

Unknown (x)

7.5 Short-term trend Method used

Insufficient or no data available

7.6 Long-term trend Period

7.7 Long-term trend Direction

7.8 Long-term trend Method used

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## 7.9 Additional information

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure   | Ranking |
|--|---------|
| Plant and animal diseases, pathogens and pests (I05)                                       | M       |
| Use of plant protection chemicals in agriculture (A21)                                     | M       |
| Interspecific relations (competition, predation, parasitism, pathogens) (L06)              | M       |
| Invasive alien species of Union concern (I01)  | M       |
| Physical alteration of water bodies (K05)  | M       |
| Conversion into agricultural land (excluding drainage and burning) (A01)                   | M       |
| Change of habitat location, size, and / or quality due to climate change (N05)             | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01) | M       |
| Threat   | Ranking |
| Plant and animal diseases, pathogens and pests (I05)                                       | H       |
| Use of plant protection chemicals in agriculture (A21)                                     | M       |
| Interspecific relations (competition, predation, parasitism, pathogens) (L06)              | H       |
| Invasive alien species of Union concern (I01)  | H       |
| Physical alteration of water bodies (K05)  | H       |
| Conversion into agricultural land (excluding drainage and burning) (A01)                   | M       |
| Change of habitat location, size, and / or quality due to climate change (N05)             | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01) | M       |

### 8.2 Sources of information

### 8.3 Additional information

IAS union concern : *Herpestes javanicus* É. Geoffroy Saint-Hilaire, 1818; *Pseudorasbora parva* Temminck & Schlegel, 1846; *Threskiornis aethiopicus* Latham, 1790; *Trachemys scripta* Schoepff, 1792; *Vespa velutina nigrithorax* de Buysson, 1905;

## 9. Conservation measures

### 9.1 Status of measures

a) Are measures needed?

Yes

b) Indicate the status of measures

Measures identified, but none yet taken

### 9.2 Main purpose of the measures taken

### 9.3 Location of the measures taken

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## 9.4 Response to the measures

## 9.5 List of main conservation measures

Reduce impact of multi-purpose hydrological changes (CJ02)

## 9.6 Additional information

Conservation measures are included in water management planning documents. However, as there is no systematic monitoring, there is no data to what extent are these measures really incorporated in water management activities and the system for evaluation of effectiveness of those measures is lacking.

## 10. Future prospects

### 10.1 Future prospects of parameters

|                           |         |
|---------------------------|---------|
| a) Range                  | Good    |
| b) Population             | Unknown |
| c) Habitat of the species | Unknown |

### 10.2 Additional information

## 11. Conclusions

### 11.1. Range

Favourable (FV)

### 11.2. Population

Unknown (XX)

### 11.3. Habitat for the species

Unknown (XX)

### 11.4. Future prospects

Unknown (XX)

### 11.5 Overall assessment of Conservation Status

Unknown (XX)

### 11.6 Overall trend in Conservation Status

### 11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

### 11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

### 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

|                      |  |
|----------------------|--|
| a) Unit              | number of map 1x1 km grid cells (grids1x1) |
| b) Minimum           |  |
| c) Maximum           |  |
| d) Best single value | 187  |

### 12.2 Type of estimate

Minimum

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12.3 Population size inside the network Method used

Based mainly on expert opinion with very limited data

12.4 Short-term trend of population size within the network Direction

Unknown (x)

12.5 Short-term trend of population size within the network Method used

Insufficient or no data available

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information



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## 1. General information

|   |                   |
|---|-------------------|
| 1.1 Member State                        | HR                |
| 1.2 Species code                        | 2373              |
| 1.3 Species scientific name             | Mauremys rivulata |
| 1.4 Alternative species scientific name |                   |
| 1.5 Common name (in national language)  | riječna kornjača  |

## 2. Maps

|                                  |  |
|----------------------------------|--|
| 2.1 Sensitive species            | No   |
| 2.2 Year or period               | 2007-2018  |
| 2.3 Distribution map             | Yes  |
| 2.4 Distribution map Method used | Complete survey or a statistically robust estimate |
| 2.5 Additional maps              | Yes  |

## 3. Information related to Annex V Species (Art. 14)

|   |   |    |
|---|---|----|
| 3.1 Is the species taken in the wild/exploited?       | No  |    |
| 3.2 Which of the measures in Art. 14 have been taken? | a) regulations regarding access to property   | No |
|   | b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No |
|   | c) regulation of the periods and/or methods of taking specimens   | No |
|   | d) application of hunting and fishing rules which take account of the conservation of such populations      | No |
|   | e) establishment of a system of licences for taking specimens or of quotas                                  | No |
|   | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No |
|   | g) breeding in captivity of animal species as well as artificial propagation of plant species               | No |
|   | h) other measures   | No |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

3.4. Hunting bag or quantity taken in the wild Method used

3.5. Additional information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

**Mediterranean (MED)**

4.2 Sources of information

Iglesias, R., Garca-Estévez, J.M., Ayres, C., Acuña, A., Cordero-Rivera, A., 2015. First reported outbreak of severe spirorchidiasis in *Emys orbicularis*, probably resulting from a parasite spillover event. *Dis Aquat Org* 113, 75–80.  
<https://doi.org/10.3354/dao02812>

Koren, T., Štih, A., Burić, I., Koller, K., Lauš, B., Zadravec, M., 2018. The current distribution of pond slider *Trachemys scripta* (Reptilia: Emydidae) in Croatia. *Natura Sloveniae* 20, 33–44.

Štih, A., Koren, T., Zadravec, M., 2015. The Balkan Terrapin - secretive resident of southern Croatia. *Croatian Herpetological Society - Hyla. Kopko d.o.o., Zagreb.*

Štih, A., Šalamon, D., 2018. Livin' on the edge – threats to the survival of the Balkan Terrapin in Croatia.

Štih, A. i Šalamon, D., 2018. Usluga izrade stručne podloge – riječna kornjača u sklopu projekta „Izrada prijedloga planova upravljanja strogo zaštićenim vrstama (s akcijskim planovima). Izvješće nakon prve godine terenskih istraživanja. Udruga Hyla. Zagreb, 31 str.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb, 285 str.

## 5. Range

5.1 Surface area

1600

5.2 Short-term trend Period

2007-2018

5.3 Short-term trend Direction

Uncertain (u)

5.4 Short-term trend Magnitude

a) Minimum

b) Maximum

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|  |  |                            |
|--|--|----------------------------|
| 5.5 Short-term trend Method used                           | Based mainly on expert opinion with very limited data                |                            |
| 5.6 Long-term trend Period                                 |  |                            |
| 5.7 Long-term trend Direction                              |  |                            |
| 5.8 Long-term trend Magnitude                              | a) Minimum   | b) Maximum                 |
| 5.9 Long-term trend Method used                            |  |                            |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown<br>d) Method | Approximately equal to (≈) |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:   |                            |
| 5.12 Additional information                                |  |                            |

## 6. Population

|  |   |  |
|--|---|--|
| 6.1 Year or period   | 2007-2018   |  |
| 6.2 Population size (in reporting unit)  | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value | number of map 1x1 km grid cells (grids1x1)<br><br><br>28 |
| 6.3 Type of estimate   | Best estimate   |  |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value |  |
| 6.5 Type of estimate   |   |  |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data       |  |
| 6.7 Short-term trend Period  | 2007-2018   |  |
| 6.8 Short-term trend Direction   | Uncertain (u)   |  |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval          |  |
| 6.10 Short-term trend Method used  | Based mainly on expert opinion with very limited data       |  |
| 6.11 Long-term trend Period  | 1994-2018   |  |
| 6.12 Long-term trend Direction   | Decreasing (-)  |  |
| 6.13 Long-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval          |  |
| 6.14 Long-term trend Method used   | Based mainly on expert opinion with very limited data       |  |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

6.15 Favourable reference population (using the unit in 6.2 or 6.4)

a) Population size  
b) Operator  
c) Unknown x  
d) Method

6.16 Change and reason for change in population size

The change is mainly due to:

6.17 Additional information

## 7. Habitat for the species

7.1 Sufficiency of area and quality of occupied habitat

a) Are area and quality of occupied habitat sufficient (for long-term survival)? No  
b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)? Unknown

7.2 Sufficiency of area and quality of occupied habitat Method used

Based mainly on expert opinion with very limited data

7.3 Short-term trend Period

2007-2018

7.4 Short-term trend Direction

Decreasing (-)

7.5 Short-term trend Method used

Based mainly on expert opinion with very limited data

7.6 Long-term trend Period

7.7 Long-term trend Direction

7.8 Long-term trend Method used

7.9 Additional information

## 8. Main pressures and threats

8.1 Characterisation of pressures/threats

| Pressure   | Ranking |
|--|---------|
| Use of plant protection chemicals in agriculture (A21)                             | H       |
| Drainage for use as agricultural land (A31)  | M       |
| Abandonment of grassland management (e.g. cessation of grazing or mowing) (A06)    | H       |
| Hydropower (dams, weirs, run-off-the-river), including infrastructure (D02)        | M       |
| Bycatch and incidental killing (due to fishing and hunting activities) (G12)       | H       |
| Invasive alien species of Union concern (I01)                                      | H       |
| Plant and animal diseases, pathogens and pests (I05)                               | H       |
| Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01) | M       |
| Physical alteration of water bodies (K05)  | M       |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

Reduced fecundity / genetic depression (e.g. inbreeding or endogamy) (L05) M

| Threat   | Ranking |
|--|---------|
| Use of plant protection chemicals in agriculture (A21)                             | H       |
| Drainage for use as agricultural land (A31)  | M       |
| Abandonment of grassland management (e.g. cessation of grazing or mowing) (A06)    | H       |
| Hydropower (dams, weirs, run-off-the-river), including infrastructure (D02)        | M       |
| Bycatch and incidental killing (due to fishing and hunting activities) (G12)       | H       |
| Invasive alien species of Union concern (I01)                                      | H       |
| Plant and animal diseases, pathogens and pests (I05)                               | H       |
| Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01) | M       |
| Physical alteration of water bodies (K05)  | M       |
| Reduced fecundity / genetic depression (e.g. inbreeding or endogamy) (L05)         | M       |

## 8.2 Sources of information

## 8.3 Additional information

IAS union concern : *Trachemys scripta* Schoepff, 1792;

# 9. Conservation measures

## 9.1 Status of measures

a) Are measures needed?

Yes

b) Indicate the status of measures

Measures identified, but none yet taken

## 9.2 Main purpose of the measures taken

## 9.3 Location of the measures taken

## 9.4 Response to the measures

## 9.5 List of main conservation measures

Early detection and rapid eradication of invasive alien species of Union concern (CI01)

Reduce impact of multi-purpose hydrological changes (CJ02)

## 9.6 Additional information

Conservation measures are included in water management planning documents. However, as there is no systematic monitoring, there is no data to what extent are these measures really incorporated in water management activities and the system for evaluation of effectiveness of those measures is lacking.

# 10. Future prospects

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|                                     |                           |      |
|-------------------------------------|---------------------------|------|
| 10.1 Future prospects of parameters | a) Range                  | Poor |
|                                     | b) Population             | Bad  |
|                                     | c) Habitat of the species | Bad  |

## 10.2 Additional information

## 11. Conclusions

|   |   |
|---|---|
| 11.1. Range   | Unfavourable - Inadequate (U1)  |
| 11.2. Population  | Unfavourable - Inadequate (U1)  |
| 11.3. Habitat for the species   | Unfavourable - Bad (U2)   |
| 11.4. Future prospects  | Unfavourable - Bad (U2)   |
| 11.5 Overall assessment of Conservation Status  | Unfavourable - Bad (U2)   |
| 11.6 Overall trend in Conservation Status   | Unknown (x)   |
| 11.7 Change and reasons for change in conservation status and conservation status trend | a) Overall assessment of conservation status<br><br>The change is mainly due to:<br><br>b) Overall trend in conservation status<br><br>The change is mainly due to: |
| 11.8 Additional information   |   |

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

|   |   |  |
|---|---|--|
| 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present) | a) Unit   | number of map 1x1 km grid cells (grids1x1) |
|   | b) Minimum  |  |
|   | c) Maximum  |  |
|   | d) Best single value                                  | 28   |
| 12.2 Type of estimate   | Best estimate   |  |
| 12.3 Population size inside the network Method used   | Based mainly on expert opinion with very limited data |  |
| 12.4 Short-term trend of population size within the network Direction   | Uncertain (u)   |  |
| 12.5 Short-term trend of population size within the network Method used   | Based mainly on expert opinion with very limited data |  |
| 12.6 Additional information   |   |  |

## 13. Complementary information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                  |
|---|------------------|
| 1.1 Member State                        | HR               |
| 1.2 Species code                        | 1217             |
| 1.3 Species scientific name             | Testudo hermanni |
| 1.4 Alternative species scientific name |                  |
| 1.5 Common name (in national language)  | kopnena kornjača |

## 2. Maps

|                                  |   |
|----------------------------------|---|
| 2.1 Sensitive species            | No  |
| 2.2 Year or period               | 2007-2018   |
| 2.3 Distribution map             | Yes   |
| 2.4 Distribution map Method used | Based mainly on expert opinion with very limited data |
| 2.5 Additional maps              | Yes   |

## 3. Information related to Annex V Species (Art. 14)

|   |   |    |
|---|---|----|
| 3.1 Is the species taken in the wild/exploited?       | No  |    |
| 3.2 Which of the measures in Art. 14 have been taken? | a) regulations regarding access to property   | No |
|   | b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No |
|   | c) regulation of the periods and/or methods of taking specimens   | No |
|   | d) application of hunting and fishing rules which take account of the conservation of such populations      | No |
|   | e) establishment of a system of licences for taking specimens or of quotas                                  | No |
|   | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No |
|   | g) breeding in captivity of animal species as well as artificial propagation of plant species               | No |
|   | h) other measures   | No |



# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

### a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

## 3.4. Hunting bag or quantity taken in the wild Method used

## 3.5. Additional information

## 4. Biogeographical and marine regions

### 4.1 Biogeographical or marine region where the species occurs

#### Mediterranean (MED)

### 4.2 Sources of information

Dajčman, U., 2017. Poročilo o delu skupine za plazilce, in: Ekosistemi Balkana, Vransko jezero 2016. Društvo študentov biologije, Ljubljana, pp. 66–72.

Koren, T., Črne, M., Koprivnikar, N., Trkov, D., Drašler, K., Jelić, D., 2013. Contribution to the herpetofauna (Amphibia & Reptilia) of lower Neretva River (Croatia & Bosnia and Herzegovina). Hyla : Herpetological bulletin 2012, 19–40.

Koren, T., Lauš, B., Burić, I., Kuljerić, M., 2011. Contribution to the herpetofauna (amphibians & reptiles) of the Kornati archipelago, Croatia. Natura Croatica 20, 387–396.

Lauš, B., 2010. A contribution to the herpetofauna of Žirje Island (Dalmatia, Croatia). Natura Sloveniae 12, 61–63.

Ljubisavljević, K., Džukić, G., Vukov, T.D., Kalezić, M., 2014. Distribution patterns of Hermann's Tortoise *Testudo hermanni* GMELIN, 1789, in the region of former Yugoslavia (Testudines: Testudinidae). Herpetozoa 26, 125–138.

Sopotnik, M., Vamberger, M., 2016. Poročilo skupin za dvoživke in plazilce, in: Ekosistemi Jadrana - Mljet 2008, Ekosistemi Jadrana. Društvo študentov biologije, Ljubljana, pp. 38–42.

Tóth, T., Géczy, C., Sós, E., Molnár, Z., Halpern, B., 2009. Further data on the herpetofauna of Lošinj Island, Croatia. Herpetozoa 21, 192.

Vamberger, M., 2012. Poročilo skupine za dvoživke in plazilce, in: Ekosistemi Jadrana, Pag 2007. Društvo študentov biologije, Ljubljana, pp. 10–17.

Vervust, B., Grbac, I., Brecko, J., Tvrtković, N., Van Damme, R., 2009. Distribution of reptiles and amphibians in the nature park Lastovo Archipelago: possible underlying biotic and abiotic causes. Natura Croatica : Periodicum Musei Historiae Naturalis Croatici 18, 113–127.

Vilaj, I., 2014. Doprinos poznavanju herpetofaune otoka Hvara, in: Barišić, M.,

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

Burić, I., Gazić, M., Sučić, I. (Eds.), Istraživanje bioraznolikosti otoka Hvara 2011. Udruga studenata biologije - BIUS, Zagreb, pp. 136–156.  
M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb. 285 str.

## 5. Range

|  |   |
|--|---|
| 5.1 Surface area   | 23900   |
| 5.2 Short-term trend Period                                | 2007-2018   |
| 5.3 Short-term trend Direction                             | Unknown (x)   |
| 5.4 Short-term trend Magnitude                             | a) Minimum b) Maximum   |
| 5.5 Short-term trend Method used                           | Insufficient or no data available   |
| 5.6 Long-term trend Period                                 |   |
| 5.7 Long-term trend Direction                              |   |
| 5.8 Long-term trend Magnitude                              | a) Minimum b) Maximum   |
| 5.9 Long-term trend Method used                            |   |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator Approximately equal to (≈)<br>c) Unknown<br>d) Method |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:  |
| 5.12 Additional information                                |   |

## 6. Population

|  |  |
|--|--|
| 6.1 Year or period   | 2007-2018  |
| 6.2 Population size (in reporting unit)  | a) Unit number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value 280 |
| 6.3 Type of estimate   | Minimum  |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value  |
| 6.5 Type of estimate   |  |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data  |
| 6.7 Short-term trend Period  | 2007-2018  |
| 6.8 Short-term trend Direction   | Unknown (x)  |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|   |   |
|---|---|
| 6.9 Short-term trend Magnitude                                      | a) Minimum<br>b) Maximum<br>c) Confidence interval                                  |
| 6.10 Short-term trend Method used                                   | Insufficient or no data available   |
| 6.11 Long-term trend Period   |   |
| 6.12 Long-term trend Direction                                      |   |
| 6.13 Long-term trend Magnitude                                      | a) Minimum<br>b) Maximum<br>c) Confidence interval                                  |
| 6.14 Long-term trend Method used                                    |   |
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4) | a) Population size<br>b) Operator<br>c) Unknown                      x<br>d) Method |
| 6.16 Change and reason for change in population size                | The change is mainly due to:  |
| 6.17 Additional information   |   |

## 7. Habitat for the species

|   |  |
|---|--|
| 7.1 Sufficiency of area and quality of occupied habitat             | a) Are area and quality of occupied habitat sufficient (for long-term survival)?                      Yes<br><br>b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)? |
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Based mainly on expert opinion with very limited data  |
| 7.3 Short-term trend Period   | 2007-2018  |
| 7.4 Short-term trend Direction                                      | Unknown (x)  |
| 7.5 Short-term trend Method used                                    | Insufficient or no data available  |
| 7.6 Long-term trend Period  |  |
| 7.7 Long-term trend Direction                                       |  |
| 7.8 Long-term trend Method used                                     |  |
| 7.9 Additional information  |  |

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure   | Ranking |
|--|---------|
| Illegal shooting/killing (G10)   | H       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01) | M       |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|  |         |
|--|---------|
| Conversion into agricultural land (excluding drainage and burning) (A01)                   | M       |
| Interspecific relations (competition, predation, parasitism, pathogens) (L06)              | M       |
| Use of plant protection chemicals in agriculture (A21)                                     | M       |
| Threat   | Ranking |
| Illegal shooting/killing (G10)   | H       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01) | M       |
| Conversion into agricultural land (excluding drainage and burning) (A01)                   | M       |
| Interspecific relations (competition, predation, parasitism, pathogens) (L06)              | M       |
| Use of plant protection chemicals in agriculture (A21)                                     | M       |

## 8.2 Sources of information

## 8.3 Additional information

# 9. Conservation measures

|                        |                                    |   |
|------------------------|------------------------------------|---|
| 9.1 Status of measures | a) Are measures needed?            | Yes                                     |
|                        | b) Indicate the status of measures | Measures identified, but none yet taken |

## 9.2 Main purpose of the measures taken

## 9.3 Location of the measures taken

## 9.4 Response to the measures

## 9.5 List of main conservation measures

## 9.6 Additional information

# 10. Future prospects

|                                     |                           |         |
|-------------------------------------|---------------------------|---------|
| 10.1 Future prospects of parameters | a) Range                  | Unknown |
|                                     | b) Population             | Unknown |
|                                     | c) Habitat of the species | Unknown |

## 10.2 Additional information

# 11. Conclusions

|                               |              |
|-------------------------------|--------------|
| 11.1. Range                   | Unknown (XX) |
| 11.2. Population              | Unknown (XX) |
| 11.3. Habitat for the species | Unknown (XX) |
| 11.4. Future prospects        | Unknown (XX) |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 11.5 Overall assessment of Conservation Status

Unknown (XX)

## 11.6 Overall trend in Conservation Status

## 11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

## 11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

### 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

a) Unit                      number of map 1x1 km grid cells (grids1x1)  
b) Minimum  
c) Maximum  
d) Best single value    190

### 12.2 Type of estimate

Minimum

### 12.3 Population size inside the network Method used

Based mainly on expert opinion with very limited data

### 12.4 Short-term trend of population size within the network Direction

Unknown (x)

### 12.5 Short-term trend of population size within the network Method used

Insufficient or no data available

## 12.6 Additional information

## 13. Complementary information

### 13.1 Justification of % thresholds for trends

### 13.2 Trans-boundary assessment

### 13.3 Other relevant Information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                       |
|---|-----------------------|
| 1.1 Member State                        | HR                    |
| 1.2 Species code                        | 1276                  |
| 1.3 Species scientific name             | Ablepharus kitaibelii |
| 1.4 Alternative species scientific name |                       |
| 1.5 Common name (in national language)  | ivanjski rovaš        |

## 2. Maps

|                                  |  |
|----------------------------------|--|
| 2.1 Sensitive species            | No   |
| 2.2 Year or period               | 2008-2018  |
| 2.3 Distribution map             | Yes  |
| 2.4 Distribution map Method used | Complete survey or a statistically robust estimate |
| 2.5 Additional maps              | No   |

## 3. Information related to Annex V Species (Art. 14)

|   |   |    |
|---|---|----|
| 3.1 Is the species taken in the wild/exploited?       | No  |    |
| 3.2 Which of the measures in Art. 14 have been taken? | a) regulations regarding access to property   | No |
|   | b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No |
|   | c) regulation of the periods and/or methods of taking specimens   | No |
|   | d) application of hunting and fishing rules which take account of the conservation of such populations      | No |
|   | e) establishment of a system of licences for taking specimens or of quotas                                  | No |
|   | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No |
|   | g) breeding in captivity of animal species as well as artificial propagation of plant species               | No |
|   | h) other measures   | No |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

### a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

## 3.4. Hunting bag or quantity taken in the wild Method used

## 3.5. Additional information

## 4. Biogeographical and marine regions

### 4.1 Biogeographical or marine region where the species occurs

#### Continental (CON)

### 4.2 Sources of information

Bogdanović, T., 2008. Inventarizacija i valorizacija faune vodozemaca (Amphibia) i gmazova (Reptilia) Parka prirode "Papuk." Sveučilište J. J. Strossmayera, Odjel za biologiju, Osjek.

Janev Hutinec, B., Kletečki, E., Lazar, B., Podnar Lešić, M., Skejić, J., Tadić, Z., Tvrtković, N., 2006. Crvena knjiga vodozemaca i gmazova Hrvatske. Ministarstvo kulture, Državni zavod za zaštitu prirode, Zagreb.

Jelić, D., Basta, J., Marchand, M.A., Szövényi, G., 2009a. Prilog poznavanju rasprostranjenosti ivanjskog rovaša (*Ablepharus kitaibelii* Bibron & Bory, 1833) u Hrvatskoj.

Jelić, D., Jovanović Glavaš, O., Barišić, F., 2018. Monitoring ivanjskog rovaša, *Ablepharus kitaibelii*, na području Parka prirode Papuk. Izvještaj za 2018. godinu (final report). BIOTA j.d.o.o, Zagreb.

Jelić, D., Kuljerić, M., Koren, T., Treer, D., Šalamon, D., Lončar, M., Podnar Lešić, M., Janev Hutinec, B., Bogdanović, T., Mekinić, S., Jelić, K., 2012. Crvena knjiga vodozemaca i gmazova Hrvatske. Ministarstvo zaštite okoliša i prirode, Državni zavod za zaštitu prirode, Republika Hrvatska.

Samardžić, I., 2010. Plan upravljanja Parka prirode Papuk 2011.-2020. Javna ustanova Park prirode Papuk, Velika.

Szövényi, G., Jelić, D., 2011. Distribution and conservation status of snake eyed skink (*Ablepharus kitaibelii* Bibron & Bory, 1833) in Croatia. North-Western Journal of Zoology 7, 20–2.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

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## 5. Range

|  |  |
|--|--|
| 5.1 Surface area   | 8  |
| 5.2 Short-term trend Period                                | 2008-2018  |
| 5.3 Short-term trend Direction                             | Increasing (+)   |
| 5.4 Short-term trend Magnitude                             | a) Minimum b) Maximum  |
| 5.5 Short-term trend Method used                           | Complete survey or a statistically robust estimate   |
| 5.6 Long-term trend Period                                 |  |
| 5.7 Long-term trend Direction                              |  |
| 5.8 Long-term trend Magnitude                              | a) Minimum b) Maximum  |
| 5.9 Long-term trend Method used                            |  |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown x<br>d) Method   |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:   |
| 5.12 Additional information                                | Although the translocation of new (sub)populations on Papuk Mt. has been deemed successful (Jelić et al., 2018), it is still too early to say whether they are both viable in the long run - this needs to be monitored further. For now, both are included in this report and because of this the range is treated as "increasing".<br><br>FRR cannot be calculated at this time due to too many factors being unknown. |

## 6. Population

|  |  |
|--|--|
| 6.1 Year or period   | 2008-2018  |
| 6.2 Population size (in reporting unit)  | a) Unit number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value 8 |
| 6.3 Type of estimate   | Best estimate  |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value  |
| 6.5 Type of estimate   |  |
| 6.6 Population size Method used  | Complete survey or a statistically robust estimate   |
| 6.7 Short-term trend Period  | 2008-2018  |



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|   |   |
|---|---|
| 6.8 Short-term trend Direction                                      | Uncertain (u)   |
| 6.9 Short-term trend Magnitude                                      | a) Minimum<br>b) Maximum<br>c) Confidence interval  |
| 6.10 Short-term trend Method used                                   | Insufficient or no data available   |
| 6.11 Long-term trend Period   |   |
| 6.12 Long-term trend Direction                                      |   |
| 6.13 Long-term trend Magnitude                                      | a) Minimum<br>b) Maximum<br>c) Confidence interval  |
| 6.14 Long-term trend Method used                                    |   |
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4) | a) Population size<br>b) Operator<br>c) Unknown                      x<br>d) Method   |
| 6.16 Change and reason for change in population size                | The change is mainly due to:  |
| 6.17 Additional information   | The main Papuk population, i.e. not counting the recent (re)introductions, experienced a significant decline between 2016 and 2018, however it is as of yet unknown whether this is a natural oscillation, or a real decline. |

## 7. Habitat for the species

|   |  |
|---|--|
| 7.1 Sufficiency of area and quality of occupied habitat             | a) Are area and quality of occupied habitat sufficient (for long-term survival)?                      No<br><br>b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?                      Unknown |
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Based mainly on expert opinion with very limited data  |
| 7.3 Short-term trend Period   | 2008-2018  |
| 7.4 Short-term trend Direction                                      | Uncertain (u)  |
| 7.5 Short-term trend Method used                                    | Based mainly on expert opinion with very limited data  |
| 7.6 Long-term trend Period  |  |
| 7.7 Long-term trend Direction                                       |  |
| 7.8 Long-term trend Method used                                     |  |
| 7.9 Additional information  | Although some apparently successful habitat maintenance/restoration efforts had been performed at Papuk, these are by no means enough as a standalone measure.   |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02)                                 | H       |
| Other invasive alien species (other than species of Union concern) (I02)  | H       |
| Conversion from other land uses to housing, settlement or recreational areas (excluding drainage and modification of coastline, estuary and coastal conditions) (F01) | M       |
| Extraction of minerals (e.g. rock, metal ores, gravel, sand, shell) (C01)   | M       |
| Replanting with or introducing non-native or non-typical species (including new species and GMOs) (B03)   | H       |
| Threat  | Ranking |
| Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02)                                 | H       |
| Other invasive alien species (other than species of Union concern) (I02)  | H       |
| Change of habitat location, size, and / or quality due to climate change (N05)  | M       |
| Fire (natural) (M09)  | M       |
| Conversion from other land uses to housing, settlement or recreational areas (excluding drainage and modification of coastline, estuary and coastal conditions) (F01) | M       |
| Reduced fecundity / genetic depression (e.g. inbreeding or endogamy) (L05)  | M       |
| Extraction of minerals (e.g. rock, metal ores, gravel, sand, shell) (C01)   | M       |
| Replanting with or introducing non-native or non-typical species (including new species and GMOs) (B03)   | M       |

### 8.2 Sources of information

Jelić et al. (2012), Szövényi & Jelić (2011)

### 8.3 Additional information

Additional risks stem from the fact that this species is present in only a few fragmented and disconnected areas.

## 9. Conservation measures

### 9.1 Status of measures

- a) Are measures needed? Yes
- b) Indicate the status of measures Measures identified and taken

### 9.2 Main purpose of the measures taken

Maintain the current range, population and/or habitat for the species

### 9.3 Location of the measures taken

Only inside Natura 2000

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 9.4 Response to the measures

Medium-term results (within the next two reporting periods, 2019-2030)

## 9.5 List of main conservation measures

Prevent conversion of (semi-) natural habitats into forests and of (semi-)natural forests into intensive forest plantation (CB01)

Reinforce populations of species from the directives (CS01)

Improvement of habitat of species from the directives (CS03)

Management, control or eradication of other invasive alien species (CI03)

Adapt/manage extraction of non-energy resources (CC01)

Adopt climate change mitigation measures (CN01)

## 9.6 Additional information

Although some of the measures have been identified, some are still unknown. Of those that were identified, some have even been implemented, but not at all locations where they were needed, and not necessarily in the needed amount.

## 10. Future prospects

### 10.1 Future prospects of parameters

|                           |         |
|---------------------------|---------|
| a) Range                  | Unknown |
| b) Population             | Unknown |
| c) Habitat of the species | Bad     |

### 10.2 Additional information

This species occurs only on two sites and is therefore very susceptible to negative influences.

## 11. Conclusions

### 11.1. Range

Favourable (FV)

### 11.2. Population

Unknown (XX)

### 11.3. Habitat for the species

Unfavourable - Bad (U2)

### 11.4. Future prospects

Unfavourable - Bad (U2)

### 11.5 Overall assessment of Conservation Status

Unfavourable - Bad (U2)

### 11.6 Overall trend in Conservation Status

Unknown (x)

### 11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

### 11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

12.2 Type of estimate

12.3 Population size inside the network Method used

12.4 Short-term trend of population size within the network Direction

12.5 Short-term trend of population size within the network Method used

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                           |
|---|---------------------------|
| 1.1 Member State                        | HR                        |
| 1.2 Species code                        | 1243                      |
| 1.3 Species scientific name             | Algyroides nigropunctatus |
| 1.4 Alternative species scientific name |                           |
| 1.5 Common name (in national language)  | mrki (ljuskavi) gušter    |

## 2. Maps

|                                  |   |
|----------------------------------|---|
| 2.1 Sensitive species            | No  |
| 2.2 Year or period               | 2005-2018   |
| 2.3 Distribution map             | Yes   |
| 2.4 Distribution map Method used | Based mainly on expert opinion with very limited data |
| 2.5 Additional maps              | Yes   |

## 3. Information related to Annex V Species (Art. 14)

|   |   |    |
|---|---|----|
| 3.1 Is the species taken in the wild/exploited?       | No  |    |
| 3.2 Which of the measures in Art. 14 have been taken? | a) regulations regarding access to property   | No |
|   | b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No |
|   | c) regulation of the periods and/or methods of taking specimens   | No |
|   | d) application of hunting and fishing rules which take account of the conservation of such populations      | No |
|   | e) establishment of a system of licences for taking specimens or of quotas                                  | No |
|   | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No |
|   | g) breeding in captivity of animal species as well as artificial propagation of plant species               | No |
|   | h) other measures   | No |

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## 3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

### a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

## 3.4. Hunting bag or quantity taken in the wild Method used

## 3.5. Additional information

## 4. Biogeographical and marine regions

### 4.1 Biogeographical or marine region where the species occurs

#### Alpine (ALP)

### 4.2 Sources of information

De Luca, N., Kovačič, D., Đulić, B., 1990. Fauna vodozemaca, gmazova i sisavaca NP Krka, in: NP Kpka - Ekološka monografija 2. pp. 523–543.

Džukić, G., 1970. Beitrag zur Kenntnis der Verbreitung der *Algyroides nigropunctatus* Dumeril et Bibron in Jugoslawien. *Fragmenta Balcanica Musei Macedonici scientiarum naturalium* 7, 149–155.

Džukić, G., Pasuljević, G., 1979. O rasprostranjenju ljuskavog guštera – *Algyroides nigropunctatus* (Dumeril et Bibron, 1839) Reptilia, Lacertidae. *Biosistematika* 5, 61–70.

Lauš, B., Jelić, D., Burić, I., Kolarić, A., Koren, T., 2013. Distribution and Conservation of Batrachofauna and Herpetofauna of the Zrmanja River catchment area. *Hyla : Herpetological bulletin* 2012, 3–17.

Marguš, D., 2009. Gmazovi Nacionalnog parka "Krka," *Biološka raznolikost rijeke Krke*. Javna ustanova "Nacionalni park Krka," Šibenik.

Podnar, M., Mayer, W., 2006. First insights into the mitochondrial DNA diversity of Dalmatian *Algyroides*, *Algyroides nigropunctatus* (Lacertidae). *Periodicum Biologorum* 108, 85–87.

Schmidtler, J.F., 1999. Notes on the altitudinal distribution of lizards and some other reptiles on Mount Biokovo (Croatia) and its immediate surroundings. *Natura Croatica* 8, 223–237.

Schulz, K.-D., Philippen, H.-D., 1987. Erstnachweis eines melanistischen Exemplares von *Algyroides nigropunctatus* (DUMERIL & BIBRON, 1839) (Sauria: Lacertidae). *Salamandra* 23, 63–64.

Tóth, T., Farkas, B., Géczy, C., Molnár, Z., 2009. Herpetofaunal data from Ilovik and neighboring islets (Cres-Lošinj Archipelago, Croatia). *Herpetozoa* 22, 82–87.

Tóth, T., Grillitsch, H., Farkas, B., Gál, J., Sušić, G., 2006. Herpetofaunal data from

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Cres Island, Croatia. Herpetozoa 19, 27–58.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

|  |  |
|--|--|
| 5.1 Surface area   | 700  |
| 5.2 Short-term trend Period                                | 2005-2016  |
| 5.3 Short-term trend Direction                             | Unknown (x)  |
| 5.4 Short-term trend Magnitude                             | a) Minimum b) Maximum  |
| 5.5 Short-term trend Method used                           | Insufficient or no data available  |
| 5.6 Long-term trend Period                                 |  |
| 5.7 Long-term trend Direction                              |  |
| 5.8 Long-term trend Magnitude                              | a) Minimum b) Maximum  |
| 5.9 Long-term trend Method used                            |  |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown<br>d) Method<br>Approximately equal to (≈) |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:   |

5.12 Additional information

## 6. Population

|  |  |
|--|--|
| 6.1 Year or period   | 2005-2016  |
| 6.2 Population size (in reporting unit)  | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value<br>number of map 1x1 km grid cells (grids1x1)<br>1 |
| 6.3 Type of estimate   | Minimum  |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value  |
| 6.5 Type of estimate   |  |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data  |
| 6.7 Short-term trend Period  | 2005-2016  |
| 6.8 Short-term trend Direction   | Unknown (x)  |

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|   |  |
|---|--|
| 6.9 Short-term trend Magnitude                                      | a) Minimum<br>b) Maximum<br>c) Confidence interval           |
| 6.10 Short-term trend Method used                                   | Insufficient or no data available                            |
| 6.11 Long-term trend Period   |  |
| 6.12 Long-term trend Direction                                      |  |
| 6.13 Long-term trend Magnitude                                      | a) Minimum<br>b) Maximum<br>c) Confidence interval           |
| 6.14 Long-term trend Method used                                    |  |
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4) | a) Population size<br>b) Operator<br>c) Unknown<br>d) Method |
| 6.16 Change and reason for change in population size                | The change is mainly due to:                                 |
| 6.17 Additional information   |  |

## 7. Habitat for the species

|   |   |         |
|---|---|---------|
| 7.1 Sufficiency of area and quality of occupied habitat             | a) Are area and quality of occupied habitat sufficient (for long-term survival)?<br>b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)? | Unknown |
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Insufficient or no data available   |         |
| 7.3 Short-term trend Period   | 2005-2016   |         |
| 7.4 Short-term trend Direction                                      | Unknown (x)   |         |
| 7.5 Short-term trend Method used                                    | Insufficient or no data available   |         |
| 7.6 Long-term trend Period  |   |         |
| 7.7 Long-term trend Direction                                       |   |         |
| 7.8 Long-term trend Method used                                     |   |         |
| 7.9 Additional information  |   |         |

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

|                                |         |
|--------------------------------|---------|
| Pressure                       | Ranking |
| Unknown pressure (Xu)          |         |
| Threat                         | Ranking |
| No information on threats (Xt) |         |



# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

8.2 Sources of information

8.3 Additional information

## 9. Conservation measures

9.1 Status of measures

a) Are measures needed?

No

b) Indicate the status of measures

9.2 Main purpose of the measures taken

9.3 Location of the measures taken

9.4 Response to the measures

9.5 List of main conservation measures

9.6 Additional information

## 10. Future prospects

10.1 Future prospects of parameters

a) Range

Unknown

b) Population

Unknown

c) Habitat of the species

Unknown

10.2 Additional information

## 11. Conclusions

11.1. Range

Unknown (XX)

11.2. Population

Unknown (XX)

11.3. Habitat for the species

Unknown (XX)

11.4. Future prospects

Unknown (XX)

11.5 Overall assessment of Conservation Status

Unknown (XX)

11.6 Overall trend in Conservation Status

11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

11.8 Additional information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

12.2 Type of estimate

12.3 Population size inside the network Method used

12.4 Short-term trend of population size within the network Direction

12.5 Short-term trend of population size within the network Method used

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

### Mediterranean (MED)

4.2 Sources of information

De Luca, N., Kovačič, D., Đulić, B., 1990. Fauna vodozemaca, gmazova i sisavaca NP Krka, in: NP Kpka - Ekološka monografija 2. pp. 523–543.

Džukić, G., 1970. Beitrag zur Kenntnis der Verbreitung der *Algyroides nigropunctatus* Dumeril et Bibron in Jugoslawien. *Fragmenta Balcanica Musei Macedonici scientiarum naturalium* 7, 149–155.

Džukić, G., Pasuljević, G., 1979. O rasprostranjenju ljuskavog guštera – *Algyroides nigropunctatus* (Dumeril et Bibron, 1839) Reptilia, Lacertidae. *Biosistematika* 5, 61–70.

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Schmidtler, J.F., 1999. Notes on the altitudinal distribution of lizards and some other reptiles on Mount Biokovo (Croatia) and its immediate surroundings. *Natura Croatica* 8, 223–237.

Schulz, K.-D., Philippen, H.-D., 1987. Erstnachweis eines melanistischen Exemplares von *Algyroides nigropunctatus* (DUMERIL & BIBRON, 1839) (Sauria: Lacertidae). *Salamandra* 23, 63–64.

Tóth, T., Farkas, B., Géczy, C., Molnár, Z., 2009. Herpetofaunal data from Ilovik and neighboring islets (Cres-Lošinj Archipelago, Croatia). *Herpetozoa* 22, 82–87.

Tóth, T., Grillitsch, H., Farkas, B., Gál, J., Sušić, G., 2006. Herpetofaunal data from Cres Island, Croatia. *Herpetozoa* 19, 27–58.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

|  |   |
|--|---|
| 5.1 Surface area   | 14700   |
| 5.2 Short-term trend Period                                | 2008-2018   |
| 5.3 Short-term trend Direction                             | Unknown (x)   |
| 5.4 Short-term trend Magnitude                             | a) Minimum                      b) Maximum  |
| 5.5 Short-term trend Method used                           | Insufficient or no data available   |
| 5.6 Long-term trend Period                                 |   |
| 5.7 Long-term trend Direction                              |   |
| 5.8 Long-term trend Magnitude                              | a) Minimum                      b) Maximum  |
| 5.9 Long-term trend Method used                            |   |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown                      x<br>d) Method |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:  |

5.12 Additional information

## 6. Population

|   |  |
|---|--|
| 6.1 Year or period                      | 2008-2018  |
| 6.2 Population size (in reporting unit) | a) Unit                      number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value    157 |
| 6.3 Type of estimate                    | Minimum  |

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|  |  |
|--|--|
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value  |
| 6.5 Type of estimate   |  |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data        |
| 6.7 Short-term trend Period  | 2008-2018  |
| 6.8 Short-term trend Direction   | Unknown (x)  |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval           |
| 6.10 Short-term trend Method used  | Insufficient or no data available                            |
| 6.11 Long-term trend Period  |  |
| 6.12 Long-term trend Direction   |  |
| 6.13 Long-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval           |
| 6.14 Long-term trend Method used   |  |
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4)              | a) Population size<br>b) Operator<br>c) Unknown<br>d) Method |
| 6.16 Change and reason for change in population size                             | The change is mainly due to:                                 |
| 6.17 Additional information  |  |

## 7. Habitat for the species

|   |   |     |
|---|---|-----|
| 7.1 Sufficiency of area and quality of occupied habitat             | a) Are area and quality of occupied habitat sufficient (for long-term survival)?<br>b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)? | Yes |
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Based mainly on expert opinion with very limited data   |     |
| 7.3 Short-term trend Period   | 2008-2018   |     |
| 7.4 Short-term trend Direction                                      | Unknown (x)   |     |
| 7.5 Short-term trend Method used                                    | Insufficient or no data available   |     |
| 7.6 Long-term trend Period  |   |     |
| 7.7 Long-term trend Direction                                       |   |     |
| 7.8 Long-term trend Method used                                     |   |     |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 7.9 Additional information

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure                       | Ranking |
|--------------------------------|---------|
| Unknown pressure (Xu)          |         |
| Threat                         | Ranking |
| No information on threats (Xt) |         |

### 8.2 Sources of information

### 8.3 Additional information

## 9. Conservation measures

|                        |                                    |    |
|------------------------|------------------------------------|----|
| 9.1 Status of measures | a) Are measures needed?            | No |
|                        | b) Indicate the status of measures |    |

### 9.2 Main purpose of the measures taken

### 9.3 Location of the measures taken

### 9.4 Response to the measures

### 9.5 List of main conservation measures

### 9.6 Additional information

## 10. Future prospects

|                                     |                           |         |
|-------------------------------------|---------------------------|---------|
| 10.1 Future prospects of parameters | a) Range                  | Unknown |
|                                     | b) Population             | Unknown |
|                                     | c) Habitat of the species | Unknown |

### 10.2 Additional information

## 11. Conclusions

|  |              |
|--|--------------|
| 11.1. Range                                    | Unknown (XX) |
| 11.2. Population                               | Unknown (XX) |
| 11.3. Habitat for the species                  | Unknown (XX) |
| 11.4. Future prospects                         | Unknown (XX) |
| 11.5 Overall assessment of Conservation Status | Unknown (XX) |
| 11.6 Overall trend in Conservation Status      |              |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

12.2 Type of estimate

12.3 Population size inside the network Method used

12.4 Short-term trend of population size within the network Direction

12.5 Short-term trend of population size within the network Method used

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                           |
|---|---------------------------|
| 1.1 Member State                        | HR                        |
| 1.2 Species code                        | 6341                      |
| 1.3 Species scientific name             | Dalmatolacerta oxycephala |
| 1.4 Alternative species scientific name |                           |
| 1.5 Common name (in national language)  | oštroglava gušterica      |

## 2. Maps

|                                  |   |
|----------------------------------|---|
| 2.1 Sensitive species            | No  |
| 2.2 Year or period               | 2007-2018   |
| 2.3 Distribution map             | Yes   |
| 2.4 Distribution map Method used | Based mainly on expert opinion with very limited data |
| 2.5 Additional maps              | Yes   |

## 3. Information related to Annex V Species (Art. 14)

|   |   |    |
|---|---|----|
| 3.1 Is the species taken in the wild/exploited?       | No  |    |
| 3.2 Which of the measures in Art. 14 have been taken? | a) regulations regarding access to property   | No |
|   | b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No |
|   | c) regulation of the periods and/or methods of taking specimens   | No |
|   | d) application of hunting and fishing rules which take account of the conservation of such populations      | No |
|   | e) establishment of a system of licences for taking specimens or of quotas                                  | No |
|   | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No |
|   | g) breeding in captivity of animal species as well as artificial propagation of plant species               | No |
|   | h) other measures   | No |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

### a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

## 3.4. Hunting bag or quantity taken in the wild Method used

## 3.5. Additional information

## 4. Biogeographical and marine regions

### 4.1 Biogeographical or marine region where the species occurs

#### Mediterranean (MED)

### 4.2 Sources of information

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- M. Zadavec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

|                                  |  |
|----------------------------------|--|
| 5.1 Surface area                 | 13400  |
| 5.2 Short-term trend Period      | 2007-2018  |
| 5.3 Short-term trend Direction   | Unknown (x)  |
| 5.4 Short-term trend Magnitude   | a) Minimum b) Maximum  |
| 5.5 Short-term trend Method used | Insufficient or no data available                                      |
| 5.6 Long-term trend Period       |  |
| 5.7 Long-term trend Direction    |  |
| 5.8 Long-term trend Magnitude    | a) Minimum b) Maximum  |
| 5.9 Long-term trend Method used  |  |
| 5.10 Favourable reference range  | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown x<br>d) Method |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 5.11 Change and reason for change in surface area of range

The change is mainly due to:

## 5.12 Additional information

There is an isolated population in the town of Osor, on Cres Island, which was introduced several decades ago. Since then, it has become established there, although localised. Here we consider it a part of the established range.

## 6. Population

### 6.1 Year or period

2007-2018

### 6.2 Population size (in reporting unit)

a) Unit number of map 1x1 km grid cells (grids1x1)  
b) Minimum  
c) Maximum  
d) Best single value 207

### 6.3 Type of estimate

Minimum

### 6.4 Additional population size (using population unit other than reporting unit)

a) Unit  
b) Minimum  
c) Maximum  
d) Best single value

### 6.5 Type of estimate

### 6.6 Population size Method used

Based mainly on expert opinion with very limited data

### 6.7 Short-term trend Period

2007-2018

### 6.8 Short-term trend Direction

Unknown (x)

### 6.9 Short-term trend Magnitude

a) Minimum  
b) Maximum  
c) Confidence interval

### 6.10 Short-term trend Method used

Insufficient or no data available

### 6.11 Long-term trend Period

### 6.12 Long-term trend Direction

### 6.13 Long-term trend Magnitude

a) Minimum  
b) Maximum  
c) Confidence interval

### 6.14 Long-term trend Method used

### 6.15 Favourable reference population (using the unit in 6.2 or 6.4)

a) Population size  
b) Operator  
c) Unknown x  
d) Method

### 6.16 Change and reason for change in population size

The change is mainly due to:

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 6.17 Additional information

## 7. Habitat for the species

|   |   |     |
|---|---|-----|
| 7.1 Sufficiency of area and quality of occupied habitat             | a) Are area and quality of occupied habitat sufficient (for long-term survival)?                          | Yes |
|   | b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)? |     |
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Based mainly on expert opinion with very limited data   |     |
| 7.3 Short-term trend Period   | 2007-2018   |     |
| 7.4 Short-term trend Direction                                      | Unknown (x)   |     |
| 7.5 Short-term trend Method used                                    | Insufficient or no data available   |     |
| 7.6 Long-term trend Period  |   |     |
| 7.7 Long-term trend Direction                                       |   |     |
| 7.8 Long-term trend Method used                                     |   |     |
| 7.9 Additional information  |   |     |

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |
| Conversion into agricultural land (excluding drainage and burning) (A01)  | M       |
| Threat  | Ranking |
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |
| Conversion into agricultural land (excluding drainage and burning) (A01)  | M       |
| Change of habitat location, size, and / or quality due to climate change (N05)  | M       |

### 8.2 Sources of information

### 8.3 Additional information

## 9. Conservation measures

|                        |                                    |    |
|------------------------|------------------------------------|----|
| 9.1 Status of measures | a) Are measures needed?            | No |
|                        | b) Indicate the status of measures |    |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

9.2 Main purpose of the measures taken

9.3 Location of the measures taken

9.4 Response to the measures

9.5 List of main conservation measures

9.6 Additional information

## 10. Future prospects

10.1 Future prospects of parameters

|                           |         |
|---------------------------|---------|
| a) Range                  | Unknown |
| b) Population             | Unknown |
| c) Habitat of the species | Unknown |

10.2 Additional information

## 11. Conclusions

11.1. Range

Unknown (XX)

11.2. Population

Unknown (XX)

11.3. Habitat for the species

Unknown (XX)

11.4. Future prospects

Unknown (XX)

11.5 Overall assessment of Conservation Status

Unknown (XX)

11.6 Overall trend in Conservation Status

11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

|                      |
|----------------------|
| a) Unit              |
| b) Minimum           |
| c) Maximum           |
| d) Best single value |

12.2 Type of estimate

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

12.3 Population size inside the network Method used

12.4 Short-term trend of population size within the network Direction

12.5 Short-term trend of population size within the network Method used

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                          |
|---|--------------------------|
| 1.1 Member State                        | HR                       |
| 1.2 Species code                        | 6342                     |
| 1.3 Species scientific name             | Dinarolacerta mosorensis |
| 1.4 Alternative species scientific name | Lacerta mosorensis       |
| 1.5 Common name (in national language)  | mosorska gušterica       |

## 2. Maps

|                                  |   |
|----------------------------------|---|
| 2.1 Sensitive species            | No  |
| 2.2 Year or period               | 1989-2018   |
| 2.3 Distribution map             | Yes   |
| 2.4 Distribution map Method used | Based mainly on expert opinion with very limited data |
| 2.5 Additional maps              | No  |

## 3. Information related to Annex V Species (Art. 14)

|   |   |    |
|---|---|----|
| 3.1 Is the species taken in the wild/exploited?       | No  |    |
| 3.2 Which of the measures in Art. 14 have been taken? | a) regulations regarding access to property   | No |
|   | b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No |
|   | c) regulation of the periods and/or methods of taking specimens   | No |
|   | d) application of hunting and fishing rules which take account of the conservation of such populations      | No |
|   | e) establishment of a system of licences for taking specimens or of quotas                                  | No |
|   | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No |
|   | g) breeding in captivity of animal species as well as artificial propagation of plant species               | No |
|   | h) other measures   | No |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

### a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

## 3.4. Hunting bag or quantity taken in the wild Method used

## 3.5. Additional information

## 4. Biogeographical and marine regions

### 4.1 Biogeographical or marine region where the species occurs

#### Mediterranean (MED)

### 4.2 Sources of information

Bischoff, W., 1984. *Lacerta mosorensis* Kolombatović, 1886, Mosor-Eidechse, in: Böhme, W. (Ed.), *Handbuch der Reptilien und Amphibien Europas*, Echsen II (*Lacerta*). Aula Verlag, Wiesbaden, pp. 290–300.

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Tvrković, N., Kletečki, E., 1993. Preliminarna istraživanja terestričkih kralješnjaka Biokova. *Acta Biokovica* 6, 11–18.



# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

M. Zadavec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb

## 5. Range

|  |   |
|--|---|
| 5.1 Surface area   | 1100  |
| 5.2 Short-term trend Period                                | 2007-2018   |
| 5.3 Short-term trend Direction                             | Unknown (x)   |
| 5.4 Short-term trend Magnitude                             | a) Minimumb) Maximum  |
| 5.5 Short-term trend Method used                           | Insufficient or no data available   |
| 5.6 Long-term trend Period                                 |   |
| 5.7 Long-term trend Direction                              |   |
| 5.8 Long-term trend Magnitude                              | a) Minimumb) Maximum  |
| 5.9 Long-term trend Method used                            |   |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknownx<br>d) Method   |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:  |
| 5.12 Additional information                                | Two locations, Opor and Kozjak, have not been confirmed in recent years. Research efforts in 2017 yielded no findings of this secretive and hard to find species. However, this does not necessarily mean it went extinct there, therefore the locations are still included in this report. |

## 6. Population

|  |   |
|--|---|
| 6.1 Year or period   | 2007-2018   |
| 6.2 Population size (in reporting unit)  | a) Unitnumber of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value25 |
| 6.3 Type of estimate   | Best estimate   |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value   |
| 6.5 Type of estimate   |   |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data   |
| 6.7 Short-term trend Period  | 2007-2018   |
| 6.8 Short-term trend Direction   | Unknown (x)   |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 6.9 Short-term trend Magnitude

- a) Minimum
- b) Maximum
- c) Confidence interval

## 6.10 Short-term trend Method used

Insufficient or no data available

## 6.11 Long-term trend Period

## 6.12 Long-term trend Direction

## 6.13 Long-term trend Magnitude

- a) Minimum
- b) Maximum
- c) Confidence interval

## 6.14 Long-term trend Method used

## 6.15 Favourable reference population (using the unit in 6.2 or 6.4)

- a) Population size
- b) Operator
- c) Unknown x
- d) Method

## 6.16 Change and reason for change in population size

The change is mainly due to:

## 6.17 Additional information

Two locations, Opor and Kozjak, have not been confirmed in recent years. Research efforts in 2017 yielded no findings of this secretive and hard to find species. However, this does not necessarily mean it went extinct there, therefore the finds from those locations are still included in the population size.

## 7. Habitat for the species

### 7.1 Sufficiency of area and quality of occupied habitat

- a) Are area and quality of occupied habitat sufficient (for long-term survival)? Unknown

- b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?

### 7.2 Sufficiency of area and quality of occupied habitat Method used

Insufficient or no data available

### 7.3 Short-term trend Period

2007-2018

### 7.4 Short-term trend Direction

Unknown (x)

### 7.5 Short-term trend Method used

Insufficient or no data available

### 7.6 Long-term trend Period

### 7.7 Long-term trend Direction

### 7.8 Long-term trend Method used

### 7.9 Additional information

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

Pressure

Ranking

Change of habitat location, size, and / or quality due to

M

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

climate change (N05)

|  |   |
|--|---|
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01) | M |
|--|---|

| Threat | Ranking |
|--------|---------|
|--------|---------|

|  |   |
|--|---|
| Change of habitat location, size, and / or quality due to climate change (N05) | H |
|--|---|

|  |   |
|--|---|
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01) | M |
|--|---|

|   |   |
|---|---|
| Creation or development of sports, tourism and leisure infrastructure (outside the urban or recreational areas) (F05) | M |
|---|---|

|  |   |
|--|---|
| Wind, wave and tidal power, including infrastructure (D01) | M |
|--|---|

8.2 Sources of information

8.3 Additional information

## 9. Conservation measures

9.1 Status of measures

a) Are measures needed?

Yes

b) Indicate the status of measures

Measures identified, but none yet taken

9.2 Main purpose of the measures taken

9.3 Location of the measures taken

9.4 Response to the measures

9.5 List of main conservation measures

9.6 Additional information

## 10. Future prospects

10.1 Future prospects of parameters

a) Range

Unknown

b) Population

Unknown

c) Habitat of the species

Unknown

10.2 Additional information

## 11. Conclusions

11.1. Range

Unknown (XX)

11.2. Population

Unknown (XX)

11.3. Habitat for the species

Unknown (XX)

11.4. Future prospects

Unknown (XX)

11.5 Overall assessment of Conservation Status

Unknown (XX)

11.6 Overall trend in Conservation Status

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 11.7 Change and reasons for change in conservation status and conservation status trend

### a) Overall assessment of conservation status

The change is mainly due to:

### b) Overall trend in conservation status

The change is mainly due to:

## 11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

### 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit                      number of map 1x1 km grid cells (grids1x1)  
b) Minimum  
c) Maximum  
d) Best single value    24

### 12.2 Type of estimate

Minimum

### 12.3 Population size inside the network Method used

Based mainly on expert opinion with very limited data

### 12.4 Short-term trend of population size within the network Direction

Unknown (x)

### 12.5 Short-term trend of population size within the network Method used

Insufficient or no data available

## 12.6 Additional information

## 13. Complementary information

### 13.1 Justification of % thresholds for trends

### 13.2 Trans-boundary assessment

### 13.3 Other relevant Information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                       |
|---|-----------------------|
| 1.1 Member State                        | HR                    |
| 1.2 Species code                        | 5676                  |
| 1.3 Species scientific name             | Iberolacerta horvathi |
| 1.4 Alternative species scientific name |                       |
| 1.5 Common name (in national language)  | Horvatova gušterica   |

## 2. Maps

|                                  |                                   |
|----------------------------------|-----------------------------------|
| 2.1 Sensitive species            | No                                |
| 2.2 Year or period               | 2007-2018                         |
| 2.3 Distribution map             | Yes                               |
| 2.4 Distribution map Method used | Insufficient or no data available |
| 2.5 Additional maps              | No                                |

## 3. Information related to Annex V Species (Art. 14)

|   |   |    |
|---|---|----|
| 3.1 Is the species taken in the wild/exploited?       | No  |    |
| 3.2 Which of the measures in Art. 14 have been taken? | a) regulations regarding access to property   | No |
|   | b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No |
|   | c) regulation of the periods and/or methods of taking specimens   | No |
|   | d) application of hunting and fishing rules which take account of the conservation of such populations      | No |
|   | e) establishment of a system of licences for taking specimens or of quotas                                  | No |
|   | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No |
|   | g) breeding in captivity of animal species as well as artificial propagation of plant species               | No |
|   | h) other measures   | No |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

3.4. Hunting bag or quantity taken in the wild Method used

3.5. Additional information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

**Alpine (ALP)**

4.2 Sources of information

Jelić, D., Kuljerić, M., Koren, T., Treer, D., Šalamon, D., Lončar, M., Podnar Lešić, M., Janev Hutinec, B., Bogdanović, T., Mekinić, S., Jelić, K., 2012. Crvena knjiga vodozemaca i gmazova Hrvatske. Ministarstvo zaštite okoliša i prirode, Državni zavod za zaštitu prirode, Republika Hrvatska.

Žagar, A., Carretero, M.A., Krofel, M., Lužnik, M., Podnar, M., Tvrtković, N., 2014. Reptile survey in Dinara mountain (Croatia) revealed the southernmost known population of Horvath's rock lizard (*Iberolacerta horvathi*). Nat. Croat. 23, 235–240.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

5.1 Surface area

2000

5.2 Short-term trend Period

2007-2018

5.3 Short-term trend Direction

Unknown (x)

5.4 Short-term trend Magnitude

a) Minimum

b) Maximum

5.5 Short-term trend Method used

Insufficient or no data available

5.6 Long-term trend Period

5.7 Long-term trend Direction

5.8 Long-term trend Magnitude

a) Minimum

b) Maximum

5.9 Long-term trend Method used

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

5.10 Favourable reference range

a) Area (km<sup>2</sup>)  
 b) Operator  
 c) Unknown x  
 d) Method

5.11 Change and reason for change in surface area of range

The change is mainly due to:

5.12 Additional information

## 6. Population

6.1 Year or period 2007-2018

6.2 Population size (in reporting unit)

a) Unit number of map 1x1 km grid cells (grids1x1)  
 b) Minimum  
 c) Maximum  
 d) Best single value 14

6.3 Type of estimate Minimum

6.4 Additional population size (using population unit other than reporting unit)

a) Unit  
 b) Minimum  
 c) Maximum  
 d) Best single value

6.5 Type of estimate

6.6 Population size Method used Based mainly on expert opinion with very limited data

6.7 Short-term trend Period 2007-2018

6.8 Short-term trend Direction Unknown (x)

6.9 Short-term trend Magnitude

a) Minimum  
 b) Maximum  
 c) Confidence interval

6.10 Short-term trend Method used Insufficient or no data available

6.11 Long-term trend Period

6.12 Long-term trend Direction

6.13 Long-term trend Magnitude

a) Minimum  
 b) Maximum  
 c) Confidence interval

6.14 Long-term trend Method used

6.15 Favourable reference population (using the unit in 6.2 or 6.4)

a) Population size  
 b) Operator  
 c) Unknown x  
 d) Method

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 6.16 Change and reason for change in population size

The change is mainly due to:

## 6.17 Additional information

## 7. Habitat for the species

### 7.1 Sufficiency of area and quality of occupied habitat

a) Are area and quality of occupied habitat sufficient (for long-term survival)?

Unknown

b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?

### 7.2 Sufficiency of area and quality of occupied habitat Method used

Insufficient or no data available

### 7.3 Short-term trend Period

2007-2018

### 7.4 Short-term trend Direction

Unknown (x)

### 7.5 Short-term trend Method used

Insufficient or no data available

### 7.6 Long-term trend Period

### 7.7 Long-term trend Direction

### 7.8 Long-term trend Method used

### 7.9 Additional information

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure   | Ranking |
|--|---------|
| No information on pressures (Xp)   |         |
| Threat   | Ranking |
| Change of habitat location, size, and / or quality due to climate change (N05) | H       |
| Reduced fecundity / genetic depression (e.g. inbreeding or endogamy) (L05)     | M       |

### 8.2 Sources of information

### 8.3 Additional information

## 9. Conservation measures

### 9.1 Status of measures

a) Are measures needed?

No

b) Indicate the status of measures

### 9.2 Main purpose of the measures taken

### 9.3 Location of the measures taken

### 9.4 Response to the measures



# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 9.5 List of main conservation measures

## 9.6 Additional information

## 10. Future prospects

|                                     |                           |         |
|-------------------------------------|---------------------------|---------|
| 10.1 Future prospects of parameters | a) Range                  | Unknown |
|                                     | b) Population             | Unknown |
|                                     | c) Habitat of the species | Unknown |

## 10.2 Additional information

## 11. Conclusions

|   |  |
|---|--|
| 11.1. Range   | Unknown (XX)                                 |
| 11.2. Population  | Unknown (XX)                                 |
| 11.3. Habitat for the species   | Unknown (XX)                                 |
| 11.4. Future prospects  | Unknown (XX)                                 |
| 11.5 Overall assessment of Conservation Status  | Unknown (XX)                                 |
| 11.6 Overall trend in Conservation Status   |  |
| 11.7 Change and reasons for change in conservation status and conservation status trend | a) Overall assessment of conservation status |
|   | The change is mainly due to:                 |
|   | b) Overall trend in conservation status      |
|   | The change is mainly due to:                 |
|   |  |
| 11.8 Additional information   |  |

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

|   |                      |
|---|----------------------|
| 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present) | a) Unit              |
|   | b) Minimum           |
|   | c) Maximum           |
|   | d) Best single value |
| 12.2 Type of estimate   |                      |
| 12.3 Population size inside the network Method used   |                      |
| 12.4 Short-term trend of population size within the network Direction   |                      |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

12.5 Short-term trend of population size within the network Method used

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

### Mediterranean (MED)

4.2 Sources of information

Jelić, D., Kuljerić, M., Koren, T., Treer, D., Šalamon, D., Lončar, M., Podnar Lešić, M., Janev Hutinec, B., Bogdanović, T., Mekinić, S., Jelić, K., 2012. Crvena knjiga vodozemaca i gmazova Hrvatske. Ministarstvo zaštite okoliša i prirode, Državni zavod za zaštitu prirode, Republika Hrvatska.

Žagar, A., Carretero, M.A., Krofel, M., Lužnik, M., Podnar, M., Tvrtković, N., 2014. Reptile survey in Dinara mountain (Croatia) revealed the southernmost known population of Horvath's rock lizard (*Iberolacerta horvathi*). Nat. Croat. 23, 235–240.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

5.1 Surface area

800

5.2 Short-term trend Period

2007-2018

5.3 Short-term trend Direction

Unknown (x)

5.4 Short-term trend Magnitude

a) Minimum

b) Maximum

5.5 Short-term trend Method used

Insufficient or no data available

5.6 Long-term trend Period

5.7 Long-term trend Direction

5.8 Long-term trend Magnitude

a) Minimum

b) Maximum

5.9 Long-term trend Method used

5.10 Favourable reference range

a) Area (km<sup>2</sup>)

b) Operator

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

c) Unknown x  
d) Method

5.11 Change and reason for change in surface area of range

The change is mainly due to:

5.12 Additional information

## 6. Population

6.1 Year or period

2007-2018

6.2 Population size (in reporting unit)

a) Unit number of map 1x1 km grid cells (grids1x1)  
b) Minimum  
c) Maximum  
d) Best single value 21

6.3 Type of estimate

Minimum

6.4 Additional population size (using population unit other than reporting unit)

a) Unit  
b) Minimum  
c) Maximum  
d) Best single value

6.5 Type of estimate

6.6 Population size Method used

Based mainly on expert opinion with very limited data

6.7 Short-term trend Period

2007-2018

6.8 Short-term trend Direction

Unknown (x)

6.9 Short-term trend Magnitude

a) Minimum  
b) Maximum  
c) Confidence interval

6.10 Short-term trend Method used

Insufficient or no data available

6.11 Long-term trend Period

6.12 Long-term trend Direction

6.13 Long-term trend Magnitude

a) Minimum  
b) Maximum  
c) Confidence interval

6.14 Long-term trend Method used

6.15 Favourable reference population (using the unit in 6.2 or 6.4)

a) Population size  
b) Operator  
c) Unknown x  
d) Method

6.16 Change and reason for change in population size

The change is mainly due to:

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 6.17 Additional information

## 7. Habitat for the species

|   |   |         |
|---|---|---------|
| 7.1 Sufficiency of area and quality of occupied habitat             | a) Are area and quality of occupied habitat sufficient (for long-term survival)?                          | Unknown |
|   | b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)? |         |
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Insufficient or no data available   |         |
| 7.3 Short-term trend Period   | 2007-2018   |         |
| 7.4 Short-term trend Direction                                      | Unknown (x)   |         |
| 7.5 Short-term trend Method used                                    | Insufficient or no data available   |         |
| 7.6 Long-term trend Period  |   |         |
| 7.7 Long-term trend Direction                                       |   |         |
| 7.8 Long-term trend Method used                                     |   |         |
| 7.9 Additional information  |   |         |

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure   | Ranking |
|--|---------|
| No information on pressures (Xp)   |         |
| Threat   | Ranking |
| Reduced fecundity / genetic depression (e.g. inbreeding or endogamy) (L05)     | M       |
| Change of habitat location, size, and / or quality due to climate change (N05) | H       |

### 8.2 Sources of information

### 8.3 Additional information

## 9. Conservation measures

|  |                                    |    |
|--|------------------------------------|----|
| 9.1 Status of measures                 | a) Are measures needed?            | No |
|  | b) Indicate the status of measures |    |
| 9.2 Main purpose of the measures taken |                                    |    |
| 9.3 Location of the measures taken     |                                    |    |
| 9.4 Response to the measures           |                                    |    |
| 9.5 List of main conservation measures |                                    |    |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 9.6 Additional information

## 10. Future prospects

|                                     |                           |         |
|-------------------------------------|---------------------------|---------|
| 10.1 Future prospects of parameters | a) Range                  | Unknown |
|                                     | b) Population             | Unknown |
|                                     | c) Habitat of the species | Unknown |

## 10.2 Additional information

## 11. Conclusions

|   |   |
|---|---|
| 11.1. Range   | Unknown (XX)  |
| 11.2. Population  | Unknown (XX)  |
| 11.3. Habitat for the species   | Unknown (XX)  |
| 11.4. Future prospects  | Unknown (XX)  |
| 11.5 Overall assessment of Conservation Status  | Unknown (XX)  |
| 11.6 Overall trend in Conservation Status   |   |
| 11.7 Change and reasons for change in conservation status and conservation status trend | a) Overall assessment of conservation status<br><br>The change is mainly due to:<br><br>b) Overall trend in conservation status<br><br>The change is mainly due to: |

## 11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

|   |   |
|---|---|
| 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value |
| 12.2 Type of estimate   |   |
| 12.3 Population size inside the network Method used   |   |
| 12.4 Short-term trend of population size within the network Direction   |   |
| 12.5 Short-term trend of population size within the network Method used   |   |
| 12.6 Additional information   |   |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                   |
|---|-------------------|
| 1.1 Member State                        | HR                |
| 1.2 Species code                        | 1261              |
| 1.3 Species scientific name             | Lacerta agilis    |
| 1.4 Alternative species scientific name |                   |
| 1.5 Common name (in national language)  | livadna gušterica |

## 2. Maps

|                                  |   |
|----------------------------------|---|
| 2.1 Sensitive species            | No  |
| 2.2 Year or period               | 2007-2018   |
| 2.3 Distribution map             | Yes   |
| 2.4 Distribution map Method used | Based mainly on expert opinion with very limited data |
| 2.5 Additional maps              | Yes   |

## 3. Information related to Annex V Species (Art. 14)

|   |  |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
|---|--|---|----|---|----|---|----|--|----|--|----|---|----|---|----|-------------------|----|
| 3.1 Is the species taken in the wild/exploited?   | No   |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
| 3.2 Which of the measures in Art. 14 have been taken?   | <table> <tr> <td>a) regulations regarding access to property</td><td>No</td></tr> <tr> <td>b) temporary or local prohibition of the taking of specimens in the wild and exploitation</td><td>No</td></tr> <tr> <td>c) regulation of the periods and/or methods of taking specimens</td><td>No</td></tr> <tr> <td>d) application of hunting and fishing rules which take account of the conservation of such populations</td><td>No</td></tr> <tr> <td>e) establishment of a system of licences for taking specimens or of quotas</td><td>No</td></tr> <tr> <td>f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens</td><td>No</td></tr> <tr> <td>g) breeding in captivity of animal species as well as artificial propagation of plant species</td><td>No</td></tr> <tr> <td>h) other measures</td><td>No</td></tr> </table> | a) regulations regarding access to property | No | b) temporary or local prohibition of the taking of specimens in the wild and exploitation | No | c) regulation of the periods and/or methods of taking specimens | No | d) application of hunting and fishing rules which take account of the conservation of such populations | No | e) establishment of a system of licences for taking specimens or of quotas | No | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No | g) breeding in captivity of animal species as well as artificial propagation of plant species | No | h) other measures | No |
| a) regulations regarding access to property   | No   |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
| b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No   |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
| c) regulation of the periods and/or methods of taking specimens   | No   |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
| d) application of hunting and fishing rules which take account of the conservation of such populations      | No   |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
| e) establishment of a system of licences for taking specimens or of quotas                                  | No   |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
| f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No   |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
| g) breeding in captivity of animal species as well as artificial propagation of plant species               | No   |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
| h) other measures   | No   |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

### a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

## 3.4. Hunting bag or quantity taken in the wild Method used

## 3.5. Additional information

## 4. Biogeographical and marine regions

### 4.1 Biogeographical or marine region where the species occurs

#### Alpine (ALP)

### 4.2 Sources of information

Baškiera, S., Koller, K., 2016. Istraživanje vodozemaca i gmazova na području šume Žutice, izvještaj za 2016. godinu (završni izvještaj). Hrvatsko herpetološko društvo – Hyla, Zagreb.

Cesarec, R., Zadavec, M., 2018. First record of the erythronotus color morph in *Lacerta agilis bosnica* SCHREIBER, 1912, from Croatia. *Herpetozoa* 31, 101–102.

Džukić, G., Tomović, L., Anđelković, M., Urošević, A., Nikolić, S., Kalezić, M., 2017. The herpetological collection of the Institute for biological research “Siniša Stanković”, University of Belgrade. *Bulletin of the Natural History Museum* 10, 57–104. <https://doi.org/10.5937/bnhmb1710057D>

Jelić, D., 2010. First record of the erythronotus coloration morph in *Lacerta agilis argus* Laurenti, 1768 from Croatia. *Natura Croatica* 19, 459–462.

Vilaj, I., 2014. Doprinos poznavanju herpetofaune otoka Hvara, in: Barišić, M., Burić, I., Gazić, M., Sučić, I. (Eds.), *Istraživanje bioraznolikosti otoka Hvara 2011*. Udruga studenata biologije - BIUS, Zagreb, pp. 136–156.

Vilaj, I., Dvorski, P., 2014. First record of the erythronotus colouration in a female individual *Lacerta agilis* (Laurenti, 1768) in Croatia. *Hyla : Herpetological bulletin* 2014, 25–26.

Žagar, A., Carretero, M.A., Krofel, M., Lužnik, M., Podnar, M., Tvrtković, N., 2014. Reptile survey in Dinara mountain (Croatia) revealed the southernmost known population of Horvath's rock lizard (*Iberolacerta horvathi*). *Nat. Croat.* 23, 235–240.

M. Zadavec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.



# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 5. Range

|  |  |
|--|--|
| 5.1 Surface area   | 6200   |
| 5.2 Short-term trend Period                                | 2007-2018  |
| 5.3 Short-term trend Direction                             | Unknown (x)  |
| 5.4 Short-term trend Magnitude                             | a) Minimum b) Maximum  |
| 5.5 Short-term trend Method used                           | Insufficient or no data available                                      |
| 5.6 Long-term trend Period                                 |  |
| 5.7 Long-term trend Direction                              |  |
| 5.8 Long-term trend Magnitude                              | a) Minimum b) Maximum  |
| 5.9 Long-term trend Method used                            |  |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown x<br>d) Method |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:   |
| 5.12 Additional information                                |  |

## 6. Population

|  |   |
|--|---|
| 6.1 Year or period   | 2007-2018   |
| 6.2 Population size (in reporting unit)  | a) Unit number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value 98 |
| 6.3 Type of estimate   | Minimum   |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value   |
| 6.5 Type of estimate   |   |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data   |
| 6.7 Short-term trend Period  | 2007-2018   |
| 6.8 Short-term trend Direction   | Unknown (x)   |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval  |
| 6.10 Short-term trend Method used  | Insufficient or no data available   |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

6.11 Long-term trend Period

6.12 Long-term trend Direction

6.13 Long-term trend Magnitude

- a) Minimum
- b) Maximum
- c) Confidence interval

6.14 Long-term trend Method used

6.15 Favourable reference population (using the unit in 6.2 or 6.4)

- a) Population size
- b) Operator
- c) Unknown x
- d) Method

6.16 Change and reason for change in population size

The change is mainly due to:

6.17 Additional information

## 7. Habitat for the species

7.1 Sufficiency of area and quality of occupied habitat

a) Are area and quality of occupied habitat sufficient (for long-term survival)? Yes

b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?

7.2 Sufficiency of area and quality of occupied habitat Method used

Based mainly on expert opinion with very limited data

7.3 Short-term trend Period

2007-2018

7.4 Short-term trend Direction

Unknown (x)

7.5 Short-term trend Method used

Insufficient or no data available

7.6 Long-term trend Period

7.7 Long-term trend Direction

7.8 Long-term trend Method used

7.9 Additional information

## 8. Main pressures and threats

8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Use of plant protection chemicals in agriculture (A21)                          | M       |
| Conversion into agricultural land (excluding drainage and burning) (A01)        | M       |
| Intensive grazing or overgrazing by livestock (A09)                             | M       |
| Abandonment of grassland management (e.g. cessation of grazing or mowing) (A06) | M       |
| Threat  | Ranking |
| Use of plant protection chemicals in agriculture (A21)                          | M       |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|   |   |
|---|---|
| Conversion into agricultural land (excluding drainage and burning) (A01)        | M |
| Intensive grazing or overgrazing by livestock (A09)                             | M |
| Abandonment of grassland management (e.g. cessation of grazing or mowing) (A06) | M |
| Change of habitat location, size, and / or quality due to climate change (N05)  | H |

## 8.2 Sources of information

## 8.3 Additional information

## 9. Conservation measures

|                        |                                    |   |
|------------------------|------------------------------------|---|
| 9.1 Status of measures | a) Are measures needed?            | Yes                                     |
|                        | b) Indicate the status of measures | Measures identified, but none yet taken |

## 9.2 Main purpose of the measures taken

## 9.3 Location of the measures taken

## 9.4 Response to the measures

## 9.5 List of main conservation measures

## 9.6 Additional information

## 10. Future prospects

|                                     |                           |         |
|-------------------------------------|---------------------------|---------|
| 10.1 Future prospects of parameters | a) Range                  | Unknown |
|                                     | b) Population             | Unknown |
|                                     | c) Habitat of the species | Unknown |

## 10.2 Additional information

## 11. Conclusions

|   |  |
|---|--|
| 11.1. Range   | Unknown (XX)                                 |
| 11.2. Population  | Unknown (XX)                                 |
| 11.3. Habitat for the species   | Unknown (XX)                                 |
| 11.4. Future prospects  | Unknown (XX)                                 |
| 11.5 Overall assessment of Conservation Status  | Unknown (XX)                                 |
| 11.6 Overall trend in Conservation Status   |  |
| 11.7 Change and reasons for change in conservation status and conservation status trend | a) Overall assessment of conservation status |
|   | The change is mainly due to:                 |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## b) Overall trend in conservation status

The change is mainly due to:

### 11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

12.2 Type of estimate

12.3 Population size inside the network Method used

12.4 Short-term trend of population size within the network Direction

12.5 Short-term trend of population size within the network Method used

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

### Continental (CON)

4.2 Sources of information

Baškiera, S., Koller, K., 2016. Istraživanje vodozemaca i gmazova na području šume Žutice, izvještaj za 2016. godinu (završni izvještaj). Hrvatsko herpetološko društvo – Hyla, Zagreb.

Cesarec, R., Zadavec, M., 2018. First record of the erythronotus color morph in *Lacerta agilis bosnica* SCHREIBER, 1912, from Croatia. *Herpetozoa* 31, 101–102.

Džukić, G., Tomović, L., Anđelković, M., Urošević, A., Nikolić, S., Kalezić, M., 2017.

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

The herpetological collection of the Institute for biological research “Siniša Stanković”, University of Belgrade. Bulletin of the Natural History Museum 10, 57–104. <https://doi.org/10.5937/bnhmb1710057D>

Jelić, D., 2010. First record of the erythronotus coloration morph in *Lacerta agilis argus* Laurenti, 1768 from Croatia. *Natura Croatica* 19, 459–462.

Vilaj, I., 2014. Doprinos poznavanju herpetofaune otoka Hvara, in: Barišić, M., Burić, I., Gazić, M., Sučić, I. (Eds.), *Istraživanje bioraznolikosti otoka Hvara 2011*. Udruga studenata biologije - BIUS, Zagreb, pp. 136–156.

Vilaj, I., Dvorski, P., 2014. First record of the erythronotus colouration in a female individual *Lacerta agilis* (Laurenti, 1768) in Croatia. *Hyla : Herpetological bulletin* 2014, 25–26.

Žagar, A., Carretero, M.A., Krofel, M., Lužnik, M., Podnar, M., Tvrtković, N., 2014. Reptile survey in Dinara mountain (Croatia) revealed the southernmost known population of Horvath’s rock lizard (*Iberolacerta horvathi*). *Nat. Croat.* 23, 235–240.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

|  |   |
|--|---|
| 5.1 Surface area   | 25600   |
| 5.2 Short-term trend Period                                | 2007-2018   |
| 5.3 Short-term trend Direction                             | Unknown (x)   |
| 5.4 Short-term trend Magnitude                             | a) Minimumb) Maximum  |
| 5.5 Short-term trend Method used                           | Insufficient or no data available                                     |
| 5.6 Long-term trend Period                                 |   |
| 5.7 Long-term trend Direction                              |   |
| 5.8 Long-term trend Magnitude                              | a) Minimumb) Maximum  |
| 5.9 Long-term trend Method used                            |   |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknownx<br>d) Method |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:  |
| 5.12 Additional information                                |   |

## 6. Population

|   |  |
|---|--|
| 6.1 Year or period                      | 2007-2018  |
| 6.2 Population size (in reporting unit) | a) Unitnumber of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value232 |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|  |   |
|--|---|
| 6.3 Type of estimate   | Minimum   |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value                         |
| 6.5 Type of estimate   |   |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data                               |
| 6.7 Short-term trend Period  | 2007-2018   |
| 6.8 Short-term trend Direction   | Unknown (x)   |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval                                  |
| 6.10 Short-term trend Method used  | Insufficient or no data available   |
| 6.11 Long-term trend Period  |   |
| 6.12 Long-term trend Direction   |   |
| 6.13 Long-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval                                  |
| 6.14 Long-term trend Method used   |   |
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4)              | a) Population size<br>b) Operator<br>c) Unknown                      x<br>d) Method |
| 6.16 Change and reason for change in population size                             | The change is mainly due to:  |
| 6.17 Additional information  |   |

## 7. Habitat for the species

|   |  |
|---|--|
| 7.1 Sufficiency of area and quality of occupied habitat             | a) Are area and quality of occupied habitat sufficient (for long-term survival)?                      Unknown<br><br>b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)? |
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Insufficient or no data available  |
| 7.3 Short-term trend Period   | 2007-2018  |
| 7.4 Short-term trend Direction                                      | Unknown (x)  |
| 7.5 Short-term trend Method used                                    | Insufficient or no data available  |
| 7.6 Long-term trend Period  |  |
| 7.7 Long-term trend Direction                                       |  |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

7.8 Long-term trend Method used

7.9 Additional information

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Use of plant protection chemicals in agriculture (A21)  | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)          | M       |
| Conversion from one type of agricultural land use to another (excluding drainage and burning) (A02) | M       |
| Abandonment of grassland management (e.g. cessation of grazing or mowing) (A06)                     | M       |
| Threat  | Ranking |
| Use of plant protection chemicals in agriculture (A21)  | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)          | M       |
| Conversion from one type of agricultural land use to another (excluding drainage and burning) (A02) | M       |
| Change of habitat location, size, and / or quality due to climate change (N05)                      | M       |
| Abandonment of grassland management (e.g. cessation of grazing or mowing) (A06)                     | H       |

8.2 Sources of information

8.3 Additional information

## 9. Conservation measures

9.1 Status of measures

a) Are measures needed?

Yes

b) Indicate the status of measures

Measures identified, but none yet taken

9.2 Main purpose of the measures taken

9.3 Location of the measures taken

9.4 Response to the measures

9.5 List of main conservation measures

9.6 Additional information

## 10. Future prospects

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|                                     |                           |         |
|-------------------------------------|---------------------------|---------|
| 10.1 Future prospects of parameters | a) Range                  | Unknown |
|                                     | b) Population             | Unknown |
|                                     | c) Habitat of the species | Unknown |

## 10.2 Additional information

## 11. Conclusions

|   |   |
|---|---|
| 11.1. Range   | Unknown (XX)  |
| 11.2. Population  | Unknown (XX)  |
| 11.3. Habitat for the species   | Unknown (XX)  |
| 11.4. Future prospects  | Unknown (XX)  |
| 11.5 Overall assessment of Conservation Status  | Unknown (XX)  |
| 11.6 Overall trend in Conservation Status   |   |
| 11.7 Change and reasons for change in conservation status and conservation status trend | a) Overall assessment of conservation status<br><br>The change is mainly due to:<br><br>b) Overall trend in conservation status<br><br>The change is mainly due to: |
| 11.8 Additional information   |   |

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

|   |   |
|---|---|
| 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value |
| 12.2 Type of estimate   |   |
| 12.3 Population size inside the network Method used   |   |
| 12.4 Short-term trend of population size within the network Direction   |   |
| 12.5 Short-term trend of population size within the network Method used   |   |
| 12.6 Additional information   |   |

## 13. Complementary information

|   |
|---|
| 13.1 Justification of % thresholds for trends |
|---|



# **Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)**

13.2 Trans-boundary assessment

13.3 Other relevant Information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                               |
|---|-------------------------------|
| 1.1 Member State                        | HR                            |
| 1.2 Species code                        | 5179                          |
| 1.3 Species scientific name             | Lacerta bilineata             |
| 1.4 Alternative species scientific name |                               |
| 1.5 Common name (in national language)  | zapadnomediterranski zelembać |

## 2. Maps

|                                  |   |
|----------------------------------|---|
| 2.1 Sensitive species            | No  |
| 2.2 Year or period               | 2016  |
| 2.3 Distribution map             | Yes   |
| 2.4 Distribution map Method used | Based mainly on expert opinion with very limited data |
| 2.5 Additional maps              | Yes   |

## 3. Information related to Annex V Species (Art. 14)

|   |   |    |
|---|---|----|
| 3.1 Is the species taken in the wild/exploited?       | No  |    |
| 3.2 Which of the measures in Art. 14 have been taken? | a) regulations regarding access to property   | No |
|   | b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No |
|   | c) regulation of the periods and/or methods of taking specimens   | No |
|   | d) application of hunting and fishing rules which take account of the conservation of such populations      | No |
|   | e) establishment of a system of licences for taking specimens or of quotas                                  | No |
|   | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No |
|   | g) breeding in captivity of animal species as well as artificial propagation of plant species               | No |
|   | h) other measures   | No |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

3.4. Hunting bag or quantity taken in the wild Method used

3.5. Additional information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

**Mediterranean (MED)**

4.2 Sources of information

Marzahn, E., Mayer, W., Joger, U., Ilgaz, Ç., Jablonski, D., Kindler, C., Kumlutaş, Y., Nistri, A., Schneeweiss, N., Vamberger, M., Žagar, A., Fritz, U., 2016. Phylogeography of the *Lacerta viridis* complex: mitochondrial and nuclear markers provide taxonomic insights. *Journal of Zoological Systematics and Evolutionary Research* n/a-n/a. <https://doi.org/10.1111/jzs.12115>

Tóth, T., Farkas, B., Géczy, C., Molnár, Z., 2009. Herpetofaunal data from Ilovik and neighboring islets (Cres-Lošinj Archipelago, Croatia). *Herpetozoa* 22, 82–87.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

5.1 Surface area

1900

5.2 Short-term trend Period

2007-2018

5.3 Short-term trend Direction

Unknown (x)

5.4 Short-term trend Magnitude

a) Minimum

b) Maximum

5.5 Short-term trend Method used

Insufficient or no data available

5.6 Long-term trend Period

5.7 Long-term trend Direction

5.8 Long-term trend Magnitude

a) Minimum

b) Maximum

5.9 Long-term trend Method used

5.10 Favourable reference range

a) Area (km<sup>2</sup>)

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|  |   |   |
|--|---|---|
|  | b) Operator<br>c) Unknown<br>d) Method  | Approximately equal to (≈)                                  |
| 5.11 Change and reason for change in surface area of range                       | The change is mainly due to:  |   |
| 5.12 Additional information  | According to the latest (phylo)genetic research, <i>L. bilineata</i> is currently only reliably known from Cres island in Croatia. Records from other areas are thus discounted. This may or may not change in the future, as additional samples are analysed (Marzahn et al., 2016). |   |
| 6. Population  |   |   |
| 6.1 Year or period   | 2007-2018   |   |
| 6.2 Population size (in reporting unit)  | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value   | number of map 1x1 km grid cells (grids1x1)<br><br><br><br>1 |
| 6.3 Type of estimate   | Minimum   |   |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value   |   |
| 6.5 Type of estimate   |   |   |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data   |   |
| 6.7 Short-term trend Period  | 2007-2018   |   |
| 6.8 Short-term trend Direction   | Unknown (x)   |   |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval  |   |
| 6.10 Short-term trend Method used  | Insufficient or no data available   |   |
| 6.11 Long-term trend Period  |   |   |
| 6.12 Long-term trend Direction   |   |   |
| 6.13 Long-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval  |   |
| 6.14 Long-term trend Method used   |   |   |
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4)              | a) Population size<br>b) Operator<br>c) Unknown<br>d) Method  | Much more than (>>)   |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 6.16 Change and reason for change in population size

The change is mainly due to:

## 6.17 Additional information

## 7. Habitat for the species

### 7.1 Sufficiency of area and quality of occupied habitat

a) Are area and quality of occupied habitat sufficient (for long-term survival)?

Yes

b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?

### 7.2 Sufficiency of area and quality of occupied habitat Method used

Based mainly on expert opinion with very limited data

### 7.3 Short-term trend Period

2007-2018

### 7.4 Short-term trend Direction

Unknown (x)

### 7.5 Short-term trend Method used

Insufficient or no data available

### 7.6 Long-term trend Period

### 7.7 Long-term trend Direction

### 7.8 Long-term trend Method used

### 7.9 Additional information

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Abandonment of management/use of other agricultural and agroforestry systems (all except grassland) (A07)   | M       |
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |
| Reduced fecundity / genetic depression (e.g. inbreeding or endogamy) (L05)  | M       |
| Interspecific relations (competition, predation, parasitism, pathogens) (L06)   | M       |
| Threat  | Ranking |
| Abandonment of management/use of other agricultural and agroforestry systems (all except grassland) (A07)   | M       |
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |
| Reduced fecundity / genetic depression (e.g. inbreeding or endogamy) (L05)  | M       |
| Interspecific relations (competition, predation, parasitism, pathogens) (L06)   | M       |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

8.2 Sources of information

8.3 Additional information

## 9. Conservation measures

9.1 Status of measures

a) Are measures needed?

Yes

b) Indicate the status of measures

Measures identified, but none yet taken

9.2 Main purpose of the measures taken

9.3 Location of the measures taken

9.4 Response to the measures

9.5 List of main conservation measures

9.6 Additional information

## 10. Future prospects

10.1 Future prospects of parameters

a) Range

Unknown

b) Population

Unknown

c) Habitat of the species

Unknown

10.2 Additional information

## 11. Conclusions

11.1. Range

Unknown (XX)

11.2. Population

Unfavourable - Bad (U2)

11.3. Habitat for the species

Unknown (XX)

11.4. Future prospects

Unknown (XX)

11.5 Overall assessment of Conservation Status

Unfavourable - Bad (U2)

11.6 Overall trend in Conservation Status

Unknown (x)

11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

11.8 Additional information

Although 11.2 and 11.5 are here reported as in the red, this does not necessarily reflect a bad condition in reality. In stead, the former is simply because of a lack of records, after recent (phylo)genetic studies, while the latter results from the former.

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

12.2 Type of estimate

12.3 Population size inside the network Method used

12.4 Short-term trend of population size within the network Direction

12.5 Short-term trend of population size within the network Method used

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                    |
|---|--------------------|
| 1.1 Member State                        | HR                 |
| 1.2 Species code                        | 1251               |
| 1.3 Species scientific name             | Lacerta trilineata |
| 1.4 Alternative species scientific name |                    |
| 1.5 Common name (in national language)  | veliki zelembać    |

## 2. Maps

|                                  |   |
|----------------------------------|---|
| 2.1 Sensitive species            | No  |
| 2.2 Year or period               | 2007-2018   |
| 2.3 Distribution map             | Yes   |
| 2.4 Distribution map Method used | Based mainly on expert opinion with very limited data |
| 2.5 Additional maps              | Yes   |

## 3. Information related to Annex V Species (Art. 14)

|   |   |    |
|---|---|----|
| 3.1 Is the species taken in the wild/exploited?       | No  |    |
| 3.2 Which of the measures in Art. 14 have been taken? | a) regulations regarding access to property   | No |
|   | b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No |
|   | c) regulation of the periods and/or methods of taking specimens   | No |
|   | d) application of hunting and fishing rules which take account of the conservation of such populations      | No |
|   | e) establishment of a system of licences for taking specimens or of quotas                                  | No |
|   | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No |
|   | g) breeding in captivity of animal species as well as artificial propagation of plant species               | No |
|   | h) other measures   | No |



# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

### a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

## 3.4. Hunting bag or quantity taken in the wild Method used

## 3.5. Additional information

## 4. Biogeographical and marine regions

### 4.1 Biogeographical or marine region where the species occurs

#### Alpine (ALP)

### 4.2 Sources of information

Dajčman, U., 2017. Poročilo o delu skupine za plazilce, in: Ekosistemi Balkana, Vransko jezero 2016. Društvo študentov biologije, Ljubljana, pp. 66–72.

Drašler, K., 2014. Poročilo o delu skupine za plazilce, in: Ekosistemi Jadrana 2011 - delta Neretve. Društvo študentov biologije, Ljubljana, pp. 35–41.

Durbešić, P., Đulić, B., 1989. Preliminarni podaci o istraženosti kopnene faune otoka Lokruma, in: Zbornik radova sa Simpozija održanog od 8. - 11.9.1987. u Dubrovniku u organizaciji Sveučilišta u Zagrebu. Hrvatsko ekološko društvo, Dubrovnik, pp. 265–277.

Džukić, G., Tomović, L., Anđelković, M., Urošević, A., Nikolić, S., Kalezić, M., 2017. The herpetological collection of the Institute for biological research "Siniša Stanković", University of Belgrade. Bulletin of the Natural History Museum 10, 57–104. <https://doi.org/10.5937/bnhmb1710057D>

Koren, T., Črne, M., Koprivnikar, N., Trkov, D., Drašler, K., Jelić, D., 2013. Contribution to the herpetofauna (Amphibia & Reptilia) of lower Neretva River (Croatia & Bosnia and Herzegovina). Hyla : Herpetological bulletin 2012, 19–40.

Schweiger, M., 2008. Report on my trips to the Croatian island Krk, from May 11th till May 17th, and from July 3rd till July 12th 2008. VipersGarden - Amphibians and Reptiles of Europe and the Mediterranean. URL <http://vipersgarden.at/reports/krk08.php> (accessed 10.26.18).

Žagar, A., Carretero, M.A., Krofel, M., Lužnik, M., Podnar, M., Tvrtković, N., 2014. Reptile survey in Dinara mountain (Croatia) revealed the southernmost known population of Horvath's rock lizard (Iberolacerta horvathi). Nat. Croat. 23, 235–240.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 5. Range

|  |   |
|--|---|
| 5.1 Surface area   | 100   |
| 5.2 Short-term trend Period                                | 2007-2018   |
| 5.3 Short-term trend Direction                             | Unknown (x)   |
| 5.4 Short-term trend Magnitude                             | a) Minimum                      b) Maximum  |
| 5.5 Short-term trend Method used                           | Insufficient or no data available   |
| 5.6 Long-term trend Period                                 |   |
| 5.7 Long-term trend Direction                              |   |
| 5.8 Long-term trend Magnitude                              | a) Minimum                      b) Maximum  |
| 5.9 Long-term trend Method used                            |   |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown                      x<br>d) Method |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:  |
| 5.12 Additional information                                |   |

## 6. Population

|  |  |
|--|--|
| 6.1 Year or period   | 2007-2018  |
| 6.2 Population size (in reporting unit)  | a) Unit                      number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value    1 |
| 6.3 Type of estimate   | Minimum  |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value  |
| 6.5 Type of estimate   |  |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data  |
| 6.7 Short-term trend Period  | 2007-2018  |
| 6.8 Short-term trend Direction   | Unknown (x)  |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval   |
| 6.10 Short-term trend Method used  | Insufficient or no data available  |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

6.11 Long-term trend Period

6.12 Long-term trend Direction

6.13 Long-term trend Magnitude

- a) Minimum
- b) Maximum
- c) Confidence interval

6.14 Long-term trend Method used

6.15 Favourable reference population (using the unit in 6.2 or 6.4)

- a) Population size
- b) Operator
- c) Unknown x
- d) Method

6.16 Change and reason for change in population size

The change is mainly due to:

6.17 Additional information

## 7. Habitat for the species

7.1 Sufficiency of area and quality of occupied habitat

- a) Are area and quality of occupied habitat sufficient (for long-term survival)? Unknown
- b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?

7.2 Sufficiency of area and quality of occupied habitat Method used

Insufficient or no data available

7.3 Short-term trend Period

2007-2018

7.4 Short-term trend Direction

Unknown (x)

7.5 Short-term trend Method used

Insufficient or no data available

7.6 Long-term trend Period

7.7 Long-term trend Direction

7.8 Long-term trend Method used

7.9 Additional information

## 8. Main pressures and threats

8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Abandonment of management/use of other agricultural and agroforestry systems (all except grassland) (A07)   | M       |
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |
| Reduced fecundity / genetic depression (e.g. inbreeding or endogamy) (L05)  | M       |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

Interspecific relations (competition, predation, parasitism, pathogens) (L06) M

| Threat | Ranking |
|--------|---------|
|--------|---------|

|   |   |
|---|---|
| Abandonment of management/use of other agricultural and agroforestry systems (all except grassland) (A07) | M |
|---|---|

|   |   |
|---|---|
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M |
|---|---|

|  |   |
|--|---|
| Reduced fecundity / genetic depression (e.g. inbreeding or endogamy) (L05) | M |
|--|---|

|   |   |
|---|---|
| Interspecific relations (competition, predation, parasitism, pathogens) (L06) | M |
|---|---|

## 8.2 Sources of information

## 8.3 Additional information

# 9. Conservation measures

## 9.1 Status of measures

a) Are measures needed?

Yes

b) Indicate the status of measures

Measures identified, but none yet taken

## 9.2 Main purpose of the measures taken

## 9.3 Location of the measures taken

## 9.4 Response to the measures

## 9.5 List of main conservation measures

## 9.6 Additional information

# 10. Future prospects

## 10.1 Future prospects of parameters

a) Range

Unknown

b) Population

Unknown

c) Habitat of the species

Unknown

## 10.2 Additional information

# 11. Conclusions

## 11.1. Range

Unknown (XX)

## 11.2. Population

Unknown (XX)

## 11.3. Habitat for the species

Unknown (XX)

## 11.4. Future prospects

Unknown (XX)

## 11.5 Overall assessment of Conservation Status

Unknown (XX)

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 11.6 Overall trend in Conservation Status

## 11.7 Change and reasons for change in conservation status and conservation status trend

### a) Overall assessment of conservation status

The change is mainly due to:

### b) Overall trend in conservation status

The change is mainly due to:

## 11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

### 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

### 12.2 Type of estimate

### 12.3 Population size inside the network Method used

### 12.4 Short-term trend of population size within the network Direction

### 12.5 Short-term trend of population size within the network Method used

## 12.6 Additional information

## 13. Complementary information

### 13.1 Justification of % thresholds for trends

### 13.2 Trans-boundary assessment

### 13.3 Other relevant Information

## 4. Biogeographical and marine regions

### 4.1 Biogeographical or marine region where the species occurs

**Mediterranean (MED)**

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 4.2 Sources of information

Dajčman, U., 2017. Poročilo o delu skupine za plazilce, in: Ekosistemi Balkana, Vransko jezero 2016. Društvo študentov biologije, Ljubljana, pp. 66–72.

Drašler, K., 2014. Poročilo o delu skupine za plazilce, in: Ekosistemi Jadrana 2011 - delta Neretve. Društvo študentov biologije, Ljubljana, pp. 35–41.

Durbešić, P., Đulić, B., 1989. Preliminarni podaci o istraženosti kopnene faune otoka Lokruma, in: Zbornik radova sa Simpozija održanog od 8. - 11.9.1987. u Dubrovniku u organizaciji Sveučilišta u Zagrebu. Hrvatsko ekološko društvo, Dubrovnik, pp. 265–277.

Džukić, G., Tomović, L., Anđelković, M., Urošević, A., Nikolić, S., Kalezić, M., 2017. The herpetological collection of the Institute for biological research “Siniša Stanković”, University of Belgrade. Bulletin of the Natural History Museum 10, 57–104. <https://doi.org/10.5937/bnhmb1710057D>

Koren, T., Črne, M., Koprivnikar, N., Trkov, D., Drašler, K., Jelić, D., 2013. Contribution to the herpetofauna (Amphibia & Reptilia) of lower Neretva River (Croatia & Bosnia and Herzegovina). Hyla : Herpetological bulletin 2012, 19–40.

Schweiger, M., 2008. Report on my trips to the Croatian island Krk, from May 11th till May 17th, and from July 3rd till July 12th 2008. VipersGarden - Amphibians and Reptiles of Europe and the Mediterranean. URL <http://vipersgarden.at/reports/krk08.php> (accessed 10.26.18).

Žagar, A., Carretero, M.A., Krofel, M., Lužnik, M., Podnar, M., Tvrtković, N., 2014. Reptile survey in Dinara mountain (Croatia) revealed the southernmost known population of Horvath's rock lizard (*Iberolacerta horvathi*). Nat. Croat. 23, 235–240.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

|  |   |
|--|---|
| 5.1 Surface area   | 16400   |
| 5.2 Short-term trend Period                                | 2007-2018   |
| 5.3 Short-term trend Direction                             | Unknown (x)   |
| 5.4 Short-term trend Magnitude                             | a) Minimumb) Maximum  |
| 5.5 Short-term trend Method used                           | Insufficient or no data available                                     |
| 5.6 Long-term trend Period                                 |   |
| 5.7 Long-term trend Direction                              |   |
| 5.8 Long-term trend Magnitude                              | a) Minimumb) Maximum  |
| 5.9 Long-term trend Method used                            |   |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknownx<br>d) Method |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:  |
| 5.12 Additional information                                |   |

## 6. Population

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|  |  |
|--|--|
| 6.1 Year or period   | 2007-2018  |
| 6.2 Population size (in reporting unit)  | a) Unit number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value 350 |
| 6.3 Type of estimate   | Minimum  |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value  |
| 6.5 Type of estimate   |  |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data  |
| 6.7 Short-term trend Period  | 2007-2018  |
| 6.8 Short-term trend Direction   | Unknown (x)  |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval   |
| 6.10 Short-term trend Method used  | Insufficient or no data available  |
| 6.11 Long-term trend Period  |  |
| 6.12 Long-term trend Direction   |  |
| 6.13 Long-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval   |
| 6.14 Long-term trend Method used   |  |
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4)              | a) Population size<br>b) Operator<br>c) Unknown x<br>d) Method   |
| 6.16 Change and reason for change in population size                             | The change is mainly due to:   |
| 6.17 Additional information  |  |

## 7. Habitat for the species

|   |   |
|---|---|
| 7.1 Sufficiency of area and quality of occupied habitat | a) Are area and quality of occupied habitat sufficient (for long-term survival)? Yes<br>b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)? |
|---|---|

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|   |   |
|---|---|
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Based mainly on expert opinion with very limited data |
| 7.3 Short-term trend Period   | 2007-2018   |
| 7.4 Short-term trend Direction                                      | Unknown (x)   |
| 7.5 Short-term trend Method used                                    | Insufficient or no data available                     |
| 7.6 Long-term trend Period  |   |
| 7.7 Long-term trend Direction                                       |   |
| 7.8 Long-term trend Method used                                     |   |
| 7.9 Additional information  |   |

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Abandonment of management/use of other agricultural and agroforestry systems (all except grassland) (A07)   | M       |
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |
| Reduced fecundity / genetic depression (e.g. inbreeding or endogamy) (L05)  | M       |
| Interspecific relations (competition, predation, parasitism, pathogens) (L06)   | M       |
| Threat  | Ranking |
| Abandonment of management/use of other agricultural and agroforestry systems (all except grassland) (A07)   | M       |
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |
| Reduced fecundity / genetic depression (e.g. inbreeding or endogamy) (L05)  | M       |
| Interspecific relations (competition, predation, parasitism, pathogens) (L06)   | M       |

### 8.2 Sources of information

### 8.3 Additional information

## 9. Conservation measures

|  |                                    |   |
|--|------------------------------------|---|
| 9.1 Status of measures                 | a) Are measures needed?            | Yes                                     |
|  | b) Indicate the status of measures | Measures identified, but none yet taken |
| 9.2 Main purpose of the measures taken |                                    |   |
| 9.3 Location of the measures taken     |                                    |   |
| 9.4 Response to the measures           |                                    |   |



# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 9.5 List of main conservation measures

## 9.6 Additional information

## 10. Future prospects

|                                     |                           |         |
|-------------------------------------|---------------------------|---------|
| 10.1 Future prospects of parameters | a) Range                  | Unknown |
|                                     | b) Population             | Unknown |
|                                     | c) Habitat of the species | Unknown |

## 10.2 Additional information

## 11. Conclusions

|   |   |
|---|---|
| 11.1. Range   | Unknown (XX)  |
| 11.2. Population  | Unknown (XX)  |
| 11.3. Habitat for the species   | Unknown (XX)  |
| 11.4. Future prospects  | Unknown (XX)  |
| 11.5 Overall assessment of Conservation Status  | Unknown (XX)  |
| 11.6 Overall trend in Conservation Status   |   |
| 11.7 Change and reasons for change in conservation status and conservation status trend | a) Overall assessment of conservation status<br><br>The change is mainly due to:<br><br>b) Overall trend in conservation status<br><br>The change is mainly due to: |
| 11.8 Additional information   |   |

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

|   |   |
|---|---|
| 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value |
| 12.2 Type of estimate   |   |
| 12.3 Population size inside the network Method used   |   |
| 12.4 Short-term trend of population size within the network Direction   |   |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

12.5 Short-term trend of population size within the network Method used

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                 |
|---|-----------------|
| 1.1 Member State                        | HR              |
| 1.2 Species code                        | 1263            |
| 1.3 Species scientific name             | Lacerta viridis |
| 1.4 Alternative species scientific name |                 |
| 1.5 Common name (in national language)  | zelembać        |

## 2. Maps

|                                  |   |
|----------------------------------|---|
| 2.1 Sensitive species            | No  |
| 2.2 Year or period               | 2007-2018   |
| 2.3 Distribution map             | Yes   |
| 2.4 Distribution map Method used | Based mainly on expert opinion with very limited data |
| 2.5 Additional maps              | Yes   |

## 3. Information related to Annex V Species (Art. 14)

|   |   |    |
|---|---|----|
| 3.1 Is the species taken in the wild/exploited?       | No  |    |
| 3.2 Which of the measures in Art. 14 have been taken? | a) regulations regarding access to property   | No |
|   | b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No |
|   | c) regulation of the periods and/or methods of taking specimens   | No |
|   | d) application of hunting and fishing rules which take account of the conservation of such populations      | No |
|   | e) establishment of a system of licences for taking specimens or of quotas                                  | No |
|   | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No |
|   | g) breeding in captivity of animal species as well as artificial propagation of plant species               | No |
|   | h) other measures   | No |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

3.4. Hunting bag or quantity taken in the wild Method used

3.5. Additional information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

**Continental (CON)**

4.2 Sources of information

Džukić, G., Tomović, L., Anđelković, M., Urošević, A., Nikolić, S., Kalezić, M., 2017. The herpetological collection of the Institute for biological research "Siniša Stanković", University of Belgrade. Bulletin of the Natural History Museum 10, 57–104. <https://doi.org/10.5937/bnhmb1710057D>

Jelić, D., Karaica, D., 2012. First data on the fauna of amphibians and reptiles of the lower Una River and its coastal area. Hyla : Herpetological bulletin 2012, 22–41.

Žagar, A., Carretero, M.A., Krofel, M., Lužnik, M., Podnar, M., Tvrtković, N., 2014. Reptile survey in Dinara mountain (Croatia) revealed the southernmost known population of Horvath's rock lizard (Iberolacerta horvathi). Nat. Croat. 23, 235–240.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

5.1 Surface area

30500

5.2 Short-term trend Period

2007-2018

5.3 Short-term trend Direction

Unknown (x)

5.4 Short-term trend Magnitude

a) Minimum

b) Maximum

5.5 Short-term trend Method used

Insufficient or no data available

5.6 Long-term trend Period

5.7 Long-term trend Direction

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|                                 |                            |                            |
|---------------------------------|----------------------------|----------------------------|
| 5.8 Long-term trend Magnitude   | a) Minimum                 | b) Maximum                 |
| 5.9 Long-term trend Method used |                            |                            |
| 5.10 Favourable reference range | a) Area (km <sup>2</sup> ) |                            |
|                                 | b) Operator                | Approximately equal to (≈) |
|                                 | c) Unknown                 |                            |
|                                 | d) Method                  |                            |

|  |                              |
|--|------------------------------|
| 5.11 Change and reason for change in surface area of range | The change is mainly due to: |
|--|------------------------------|

5.12 Additional information

## 6. Population

|  |   |
|--|---|
| 6.1 Year or period   | 2007-2018   |
| 6.2 Population size (in reporting unit)  | a) Unit number of map 1x1 km grid cells (grids1x1)    |
|  | b) Minimum  |
|  | c) Maximum  |
|  | d) Best single value 384                              |
| 6.3 Type of estimate   | Minimum   |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit   |
|  | b) Minimum  |
|  | c) Maximum  |
|  | d) Best single value                                  |
| 6.5 Type of estimate   |   |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data |
| 6.7 Short-term trend Period  | 2007-2018   |
| 6.8 Short-term trend Direction   | Unknown (x)   |
| 6.9 Short-term trend Magnitude   | a) Minimum  |
|  | b) Maximum  |
|  | c) Confidence interval                                |
| 6.10 Short-term trend Method used  | Insufficient or no data available                     |
| 6.11 Long-term trend Period  |   |
| 6.12 Long-term trend Direction   |   |
| 6.13 Long-term trend Magnitude   | a) Minimum  |
|  | b) Maximum  |
|  | c) Confidence interval                                |
| 6.14 Long-term trend Method used   |   |
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4)              | a) Population size                                    |
|  | b) Operator   |
|  | c) Unknown x  |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## d) Method

### 6.16 Change and reason for change in population size

The change is mainly due to:

### 6.17 Additional information

## 7. Habitat for the species

### 7.1 Sufficiency of area and quality of occupied habitat

a) Are area and quality of occupied habitat sufficient (for long-term survival)?

Unknown

b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?

### 7.2 Sufficiency of area and quality of occupied habitat Method used

Insufficient or no data available

### 7.3 Short-term trend Period

2007-2018

### 7.4 Short-term trend Direction

Unknown (x)

### 7.5 Short-term trend Method used

Insufficient or no data available

### 7.6 Long-term trend Period

### 7.7 Long-term trend Direction

### 7.8 Long-term trend Method used

### 7.9 Additional information

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |
| Abandonment of grassland management (e.g. cessation of grazing or mowing) (A06)   | M       |
| Use of plant protection chemicals in agriculture (A21)  | M       |
| Interspecific relations (competition, predation, parasitism, pathogens) (L06)   | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Threat  | Ranking |
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |
| Abandonment of grassland management (e.g. cessation of grazing or mowing) (A06)   | M       |
| Use of plant protection chemicals in agriculture (A21)  | M       |

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Interspecific relations (competition, predation, parasitism, pathogens) (L06) M

Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01) M

## 8.2 Sources of information

## 8.3 Additional information

## 9. Conservation measures

9.1 Status of measures

|                                    |   |
|------------------------------------|---|
| a) Are measures needed?            | Yes                                     |
| b) Indicate the status of measures | Measures identified, but none yet taken |

## 9.2 Main purpose of the measures taken

## 9.3 Location of the measures taken

## 9.4 Response to the measures

## 9.5 List of main conservation measures

## 9.6 Additional information

## 10. Future prospects

10.1 Future prospects of parameters

|                           |         |
|---------------------------|---------|
| a) Range                  | Unknown |
| b) Population             | Unknown |
| c) Habitat of the species | Unknown |

## 10.2 Additional information

## 11. Conclusions

11.1. Range Unknown (XX)

11.2. Population Unknown (XX)

11.3. Habitat for the species Unknown (XX)

11.4. Future prospects Unknown (XX)

11.5 Overall assessment of Conservation Status Unknown (XX)

## 11.6 Overall trend in Conservation Status

11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

12.2 Type of estimate

12.3 Population size inside the network Method used

12.4 Short-term trend of population size within the network Direction

12.5 Short-term trend of population size within the network Method used

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

### Alpine (ALP)

4.2 Sources of information

Džukić, G., Tomović, L., Anđelković, M., Urošević, A., Nikolić, S., Kalezić, M., 2017. The herpetological collection of the Institute for biological research "Siniša Stanković", University of Belgrade. Bulletin of the Natural History Museum 10, 57–104. <https://doi.org/10.5937/bnhmb1710057D>

Jelić, D., Karaica, D., 2012. First data on the fauna of amphibians and reptiles of the lower Una River and its coastal area. Hyla : Herpetological bulletin 2012, 22–41.

Žagar, A., Carretero, M.A., Krofel, M., Lužnik, M., Podnar, M., Tvrtković, N., 2014. Reptile survey in Dinara mountain (Croatia) revealed the southernmost known population of Horvath's rock lizard (Iberolacerta horvathi). Nat. Croat. 23, 235–240.



# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

M. Zadavec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

|  |  |
|--|--|
| 5.1 Surface area   | 10300  |
| 5.2 Short-term trend Period                                | 2007-2018  |
| 5.3 Short-term trend Direction                             | Unknown (x)  |
| 5.4 Short-term trend Magnitude                             | a) Minimum b) Maximum  |
| 5.5 Short-term trend Method used                           | Insufficient or no data available  |
| 5.6 Long-term trend Period                                 |  |
| 5.7 Long-term trend Direction                              |  |
| 5.8 Long-term trend Magnitude                              | a) Minimum b) Maximum  |
| 5.9 Long-term trend Method used                            |  |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator c) Unknown d) Method<br>Approximately equal to (≈) |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:   |

5.12 Additional information

## 6. Population

|  |  |
|--|--|
| 6.1 Year or period   | 2007-2018  |
| 6.2 Population size (in reporting unit)  | a) Unit number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value 162 |
| 6.3 Type of estimate   | Minimum  |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value  |
| 6.5 Type of estimate   |  |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data  |
| 6.7 Short-term trend Period  | 2007-2018  |
| 6.8 Short-term trend Direction   | Unknown (x)  |

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|   |  |
|---|--|
| 6.9 Short-term trend Magnitude                                      | a) Minimum<br>b) Maximum<br>c) Confidence interval           |
| 6.10 Short-term trend Method used                                   | Insufficient or no data available                            |
| 6.11 Long-term trend Period   |  |
| 6.12 Long-term trend Direction                                      |  |
| 6.13 Long-term trend Magnitude                                      | a) Minimum<br>b) Maximum<br>c) Confidence interval           |
| 6.14 Long-term trend Method used                                    |  |
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4) | a) Population size<br>b) Operator<br>c) Unknown<br>d) Method |
| 6.16 Change and reason for change in population size                | The change is mainly due to:                                 |
| 6.17 Additional information   |  |

## 7. Habitat for the species

|   |   |     |
|---|---|-----|
| 7.1 Sufficiency of area and quality of occupied habitat             | a) Are area and quality of occupied habitat sufficient (for long-term survival)?<br>b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)? | Yes |
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Based mainly on expert opinion with very limited data   |     |
| 7.3 Short-term trend Period   | 2007-2018   |     |
| 7.4 Short-term trend Direction                                      | Unknown (x)   |     |
| 7.5 Short-term trend Method used                                    | Insufficient or no data available   |     |
| 7.6 Long-term trend Period  |   |     |
| 7.7 Long-term trend Direction                                       |   |     |
| 7.8 Long-term trend Method used                                     |   |     |
| 7.9 Additional information  |   |     |

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|   |   |
|---|---|
| Abandonment of grassland management (e.g. cessation of grazing or mowing) (A06) | M |
|---|---|

|   |   |
|---|---|
| Interspecific relations (competition, predation, parasitism, pathogens) (L06) | M |
|---|---|

| Threat | Ranking |
|--------|---------|
|--------|---------|

|   |   |
|---|---|
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M |
|---|---|

|   |   |
|---|---|
| Abandonment of grassland management (e.g. cessation of grazing or mowing) (A06) | M |
|---|---|

|   |   |
|---|---|
| Interspecific relations (competition, predation, parasitism, pathogens) (L06) | M |
|---|---|

## 8.2 Sources of information

## 8.3 Additional information

# 9. Conservation measures

## 9.1 Status of measures

a) Are measures needed?

Yes

b) Indicate the status of measures

Measures identified, but none yet taken

## 9.2 Main purpose of the measures taken

## 9.3 Location of the measures taken

## 9.4 Response to the measures

## 9.5 List of main conservation measures

## 9.6 Additional information

# 10. Future prospects

## 10.1 Future prospects of parameters

a) Range

Unknown

b) Population

Unknown

c) Habitat of the species

Unknown

## 10.2 Additional information

# 11. Conclusions

## 11.1. Range

Unknown (XX)

## 11.2. Population

Unknown (XX)

## 11.3. Habitat for the species

Unknown (XX)

## 11.4. Future prospects

Unknown (XX)

## 11.5 Overall assessment of Conservation Status

Unknown (XX)

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 11.6 Overall trend in Conservation Status

## 11.7 Change and reasons for change in conservation status and conservation status trend

### a) Overall assessment of conservation status

The change is mainly due to:

### b) Overall trend in conservation status

The change is mainly due to:

## 11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

### 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

### 12.2 Type of estimate

### 12.3 Population size inside the network Method used

### 12.4 Short-term trend of population size within the network Direction

### 12.5 Short-term trend of population size within the network Method used

## 12.6 Additional information

## 13. Complementary information

### 13.1 Justification of % thresholds for trends

### 13.2 Trans-boundary assessment

### 13.3 Other relevant Information

## 4. Biogeographical and marine regions

### 4.1 Biogeographical or marine region where the species occurs

**Mediterranean (MED)**

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 4.2 Sources of information

Džukić, G., Tomović, L., Anđelković, M., Urošević, A., Nikolić, S., Kalezić, M., 2017. The herpetological collection of the Institute for biological research "Siniša Stanković", University of Belgrade. Bulletin of the Natural History Museum 10, 57–104. <https://doi.org/10.5937/bnhmb1710057D>

Jelić, D., Karaica, D., 2012. First data on the fauna of amphibians and reptiles of the lower Una River and its coastal area. Hyla : Herpetological bulletin 2012, 22–41.

Žagar, A., Carretero, M.A., Krofel, M., Lužnik, M., Podnar, M., Tvrtković, N., 2014. Reptile survey in Dinara mountain (Croatia) revealed the southernmost known population of Horvath's rock lizard (*Iberolacerta horvathi*). Nat. Croat. 23, 235–240.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

|  |  |
|--|--|
| 5.1 Surface area   | 7800   |
| 5.2 Short-term trend Period                                | 2007-2018  |
| 5.3 Short-term trend Direction                             | Unknown (x)  |
| 5.4 Short-term trend Magnitude                             | a) Minimum b) Maximum  |
| 5.5 Short-term trend Method used                           | Insufficient or no data available                                      |
| 5.6 Long-term trend Period                                 |  |
| 5.7 Long-term trend Direction                              |  |
| 5.8 Long-term trend Magnitude                              | a) Minimum b) Maximum  |
| 5.9 Long-term trend Method used                            |  |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown x<br>d) Method |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:   |

## 5.12 Additional information

## 6. Population

|   |   |
|---|---|
| 6.1 Year or period                      | 2007-2018   |
| 6.2 Population size (in reporting unit) | a) Unit number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value 72 |
| 6.3 Type of estimate                    | Minimum   |

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|  |  |
|--|--|
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value  |
| 6.5 Type of estimate   |  |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data        |
| 6.7 Short-term trend Period  | 2007-2018  |
| 6.8 Short-term trend Direction   | Unknown (x)  |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval           |
| 6.10 Short-term trend Method used  | Insufficient or no data available                            |
| 6.11 Long-term trend Period  |  |
| 6.12 Long-term trend Direction   |  |
| 6.13 Long-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval           |
| 6.14 Long-term trend Method used   |  |
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4)              | a) Population size<br>b) Operator<br>c) Unknown<br>d) Method |
| 6.16 Change and reason for change in population size                             | The change is mainly due to:                                 |
| 6.17 Additional information  |  |

## 7. Habitat for the species

|   |   |     |
|---|---|-----|
| 7.1 Sufficiency of area and quality of occupied habitat             | a) Are area and quality of occupied habitat sufficient (for long-term survival)?<br>b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)? | Yes |
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Based mainly on expert opinion with very limited data   |     |
| 7.3 Short-term trend Period   | 2007-2018   |     |
| 7.4 Short-term trend Direction                                      | Unknown (x)   |     |
| 7.5 Short-term trend Method used                                    | Insufficient or no data available   |     |
| 7.6 Long-term trend Period  |   |     |
| 7.7 Long-term trend Direction                                       |   |     |
| 7.8 Long-term trend Method used                                     |   |     |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 7.9 Additional information

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |
| Abandonment of management/use of other agricultural and agroforestry systems (all except grassland) (A07)   | M       |
| Interspecific relations (competition, predation, parasitism, pathogens) (L06)   | M       |
| Threat  | Ranking |
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |
| Abandonment of management/use of other agricultural and agroforestry systems (all except grassland) (A07)   | M       |
| Interspecific relations (competition, predation, parasitism, pathogens) (L06)   | M       |

### 8.2 Sources of information

### 8.3 Additional information

## 9. Conservation measures

|                        |                                    |   |
|------------------------|------------------------------------|---|
| 9.1 Status of measures | a) Are measures needed?            | Yes                                     |
|                        | b) Indicate the status of measures | Measures identified, but none yet taken |

### 9.2 Main purpose of the measures taken

### 9.3 Location of the measures taken

### 9.4 Response to the measures

### 9.5 List of main conservation measures

### 9.6 Additional information

## 10. Future prospects

|                                     |                           |         |
|-------------------------------------|---------------------------|---------|
| 10.1 Future prospects of parameters | a) Range                  | Unknown |
|                                     | b) Population             | Unknown |
|                                     | c) Habitat of the species | Unknown |

### 10.2 Additional information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 11. Conclusions

|   |   |
|---|---|
| 11.1. Range   | Unknown (XX)  |
| 11.2. Population  | Unknown (XX)  |
| 11.3. Habitat for the species   | Unknown (XX)  |
| 11.4. Future prospects  | Unknown (XX)  |
| 11.5 Overall assessment of Conservation Status  | Unknown (XX)  |
| 11.6 Overall trend in Conservation Status   |   |
| 11.7 Change and reasons for change in conservation status and conservation status trend | a) Overall assessment of conservation status<br><br>The change is mainly due to:<br><br>b) Overall trend in conservation status<br><br>The change is mainly due to: |
| 11.8 Additional information   |   |

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

|   |   |
|---|---|
| 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value |
| 12.2 Type of estimate   |   |
| 12.3 Population size inside the network Method used   |   |
| 12.4 Short-term trend of population size within the network Direction   |   |
| 12.5 Short-term trend of population size within the network Method used   |   |
| 12.6 Additional information   |   |

## 13. Complementary information

|   |
|---|
| 13.1 Justification of % thresholds for trends |
| 13.2 Trans-boundary assessment                |
| 13.3 Other relevant Information               |



## **Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)**

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                        |
|---|------------------------|
| 1.1 Member State                        | HR                     |
| 1.2 Species code                        | 1241                   |
| 1.3 Species scientific name             | Podarcis melisellensis |
| 1.4 Alternative species scientific name |                        |
| 1.5 Common name (in national language)  | krška gušterica        |

## 2. Maps

|                                  |   |
|----------------------------------|---|
| 2.1 Sensitive species            | No  |
| 2.2 Year or period               | 2007-2018   |
| 2.3 Distribution map             | Yes   |
| 2.4 Distribution map Method used | Based mainly on expert opinion with very limited data |
| 2.5 Additional maps              | Yes   |

## 3. Information related to Annex V Species (Art. 14)

|   |   |    |
|---|---|----|
| 3.1 Is the species taken in the wild/exploited?       | No  |    |
| 3.2 Which of the measures in Art. 14 have been taken? | a) regulations regarding access to property   | No |
|   | b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No |
|   | c) regulation of the periods and/or methods of taking specimens   | No |
|   | d) application of hunting and fishing rules which take account of the conservation of such populations      | No |
|   | e) establishment of a system of licences for taking specimens or of quotas                                  | No |
|   | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No |
|   | g) breeding in captivity of animal species as well as artificial propagation of plant species               | No |
|   | h) other measures   | No |

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## 3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

### a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

## 3.4. Hunting bag or quantity taken in the wild Method used

## 3.5. Additional information

## 4. Biogeographical and marine regions

### 4.1 Biogeographical or marine region where the species occurs

#### Alpine (ALP)

### 4.2 Sources of information

Bruno, S., 1988. L'herpetofauna delle isole di Cres, Krk e Ada (Jugoslavia-Albania). Bull. Ecol. 19, 265–281.

Budinski, I., Kuljerić, M., Jelić, D., Čulina, A., 2008. Vodozemci i gmazovi Nacionalnog parka Mljet. Rasprostranjenost, ugroženost i mjere zaštite. Hrvatsko herpetološko društvo – Hyla, Zagreb.

Drašler, K., 2014. Poročilo o delu skupine za plazilce, in: Ekosistemi Jadrana 2011 - delta Neretve. Društvo študentov biologije, Ljubljana, pp. 35–41.

Džukić, G., Tomović, L., Anđelković, M., Urošević, A., Nikolić, S., Kalezić, M., 2017. The herpetological collection of the Institute for biological research "Siniša Stanković", University of Belgrade. Bulletin of the Natural History Museum 10, 57–104. <https://doi.org/10.5937/bnhmb1710057D>

Koren, T., Črne, M., Koprivnikar, N., Trkov, D., Drašler, K., Jelić, D., 2013. Contribution to the herpetofauna (Amphibia & Reptilia) of lower Neretva River (Croatia & Bosnia and Herzegovina). Hyla : Herpetological bulletin 2012, 19–40.

Koren, T., Lauš, B., Burić, I., Kuljerić, M., 2011. Contribution to the herpetofauna (amphibians & reptiles) of the Kornati archipelago, Croatia. Natura Croatica 20, 387–396.

Lauš, B., 2010. A contribution to the herpetofauna of Žirje Island (Dalmatia, Croatia). Natura Sloveniae 12, 61–63.

Sopotnik, M., Vamberger, M., 2016. Poročilno skupin za dvoživke in plazilce, in: Ekosistemi Jadrana - Mljet 2008, Ekosistemi Jadrana. Društvo študentov biologije, Ljubljana, pp. 38–42.

Tóth, T., Farkas, B., Géczy, C., Molnár, Z., 2009. Herpetofaunal data from Ilovik and neighboring islets (Cres-Lošinj Archipelago, Croatia). Herpetozoa 22, 82–87.

Tóth, T., Heltai, M., Keszi, A., Sušić, G., Moharos, L., Farkas, B., Géczy, C., Torda,

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O., Gál, J., 2017. Herpetofauna inventory of the small islands of the Cres–Lošinj Archipelago (North Adriatic Sea, Croatia) (Amphibia; Reptilia). *Herpetozoa* 30, 21–28.

Vamberger, M., 2012. Poročilo skupine za dvoživke in plazilce, in: *Ekosistemi Jadrana, Pag 2007*. Društvo študentov biologije, Ljubljana, pp. 10–17.

Žagar, A., Carretero, M.A., Krofel, M., Lužnik, M., Podnar, M., Tvrtković, N., 2014. Reptile survey in Dinara mountain (Croatia) revealed the southernmost known population of Horvath's rock lizard (*Iberolacerta horvathi*). *Nat. Croat.* 23, 235–240.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

|  |  |
|--|--|
| 5.1 Surface area   | 3000   |
| 5.2 Short-term trend Period                                | 2007-2018  |
| 5.3 Short-term trend Direction                             | Unknown (x)  |
| 5.4 Short-term trend Magnitude                             | a) Minimum b) Maximum  |
| 5.5 Short-term trend Method used                           | Insufficient or no data available                                      |
| 5.6 Long-term trend Period                                 |  |
| 5.7 Long-term trend Direction                              |  |
| 5.8 Long-term trend Magnitude                              | a) Minimum b) Maximum  |
| 5.9 Long-term trend Method used                            |  |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown x<br>d) Method |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:   |
| 5.12 Additional information                                |  |

## 6. Population

|  |   |
|--|---|
| 6.1 Year or period   | 2007-2018   |
| 6.2 Population size (in reporting unit)  | a) Unit number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value 36 |
| 6.3 Type of estimate   | Minimum   |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum   |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|   |  |
|---|--|
|   | d) Best single value   |
| 6.5 Type of estimate  |  |
| 6.6 Population size Method used                                     | Based mainly on expert opinion with very limited data          |
| 6.7 Short-term trend Period   | 2007-2018  |
| 6.8 Short-term trend Direction                                      | Unknown (x)  |
| 6.9 Short-term trend Magnitude                                      | a) Minimum<br>b) Maximum<br>c) Confidence interval             |
| 6.10 Short-term trend Method used                                   | Insufficient or no data available                              |
| 6.11 Long-term trend Period   |  |
| 6.12 Long-term trend Direction                                      |  |
| 6.13 Long-term trend Magnitude                                      | a) Minimum<br>b) Maximum<br>c) Confidence interval             |
| 6.14 Long-term trend Method used                                    |  |
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4) | a) Population size<br>b) Operator<br>c) Unknown x<br>d) Method |
| 6.16 Change and reason for change in population size                | The change is mainly due to:                                   |
| 6.17 Additional information   |  |

## 7. Habitat for the species

|   |   |         |
|---|---|---------|
| 7.1 Sufficiency of area and quality of occupied habitat             | a) Are area and quality of occupied habitat sufficient (for long-term survival)?                          | Unknown |
|   | b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)? |         |
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Insufficient or no data available   |         |
| 7.3 Short-term trend Period   | 2007-2018   |         |
| 7.4 Short-term trend Direction                                      | Unknown (x)   |         |
| 7.5 Short-term trend Method used                                    | Insufficient or no data available   |         |
| 7.6 Long-term trend Period  |   |         |
| 7.7 Long-term trend Direction                                       |   |         |
| 7.8 Long-term trend Method used                                     |   |         |
| 7.9 Additional information  |   |         |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Interspecific relations (competition, predation, parasitism, pathogens) (L06) | M       |
| Invasive alien species of Union concern (I01)                                 | M       |
| Threat  | Ranking |
| Interspecific relations (competition, predation, parasitism, pathogens) (L06) | M       |
| Invasive alien species of Union concern (I01)                                 | M       |

### 8.2 Sources of information

### 8.3 Additional information

IAS union concern : *Herpestes javanicus* É. Geoffroy Saint-Hilaire, 1818;

## 9. Conservation measures

### 9.1 Status of measures

- a) Are measures needed? Yes
- b) Indicate the status of measures Measures identified, but none yet taken

### 9.2 Main purpose of the measures taken

### 9.3 Location of the measures taken

### 9.4 Response to the measures

### 9.5 List of main conservation measures

### 9.6 Additional information

## 10. Future prospects

### 10.1 Future prospects of parameters

- a) Range Unknown
- b) Population Unknown
- c) Habitat of the species Unknown

### 10.2 Additional information

## 11. Conclusions

- 11.1. Range Unknown (XX)
- 11.2. Population Unknown (XX)
- 11.3. Habitat for the species Unknown (XX)
- 11.4. Future prospects Unknown (XX)
- 11.5 Overall assessment of Conservation Status Unknown (XX)

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 11.6 Overall trend in Conservation Status

## 11.7 Change and reasons for change in conservation status and conservation status trend

### a) Overall assessment of conservation status

The change is mainly due to:

### b) Overall trend in conservation status

The change is mainly due to:

## 11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

### 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

### 12.2 Type of estimate

### 12.3 Population size inside the network Method used

### 12.4 Short-term trend of population size within the network Direction

### 12.5 Short-term trend of population size within the network Method used

## 12.6 Additional information

## 13. Complementary information

### 13.1 Justification of % thresholds for trends

### 13.2 Trans-boundary assessment

### 13.3 Other relevant Information

## 4. Biogeographical and marine regions

### 4.1 Biogeographical or marine region where the species occurs

**Mediterranean (MED)**

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 4.2 Sources of information

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- Tóth, T., Farkas, B., Géczy, C., Molnár, Z., 2009. Herpetofaunal data from Ilovik and neighboring islets (Cres-Lošinj Archipelago, Croatia). Herpetozoa 22, 82–87.
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- M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

|                                  |  |
|----------------------------------|--|
| 5.1 Surface area                 | 33400  |
| 5.2 Short-term trend Period      | 2007-2018  |
| 5.3 Short-term trend Direction   | Stable (0)   |
| 5.4 Short-term trend Magnitude   | a) Minimum b) Maximum  |
| 5.5 Short-term trend Method used | Based mainly on expert opinion with very limited data                |
| 5.6 Long-term trend Period       |  |
| 5.7 Long-term trend Direction    |  |
| 5.8 Long-term trend Magnitude    | a) Minimum b) Maximum  |
| 5.9 Long-term trend Method used  |  |
| 5.10 Favourable reference range  | a) Area (km <sup>2</sup> )<br>b) Operator Approximately equal to (≈) |



# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

c) Unknown  
d) Method

5.11 Change and reason for change in surface area of range

The change is mainly due to:

5.12 Additional information

## 6. Population

6.1 Year or period

2007-2018

6.2 Population size (in reporting unit)

a) Unit number of map 1x1 km grid cells (grids1x1)  
b) Minimum  
c) Maximum  
d) Best single value 841

6.3 Type of estimate

Minimum

6.4 Additional population size (using population unit other than reporting unit)

a) Unit  
b) Minimum  
c) Maximum  
d) Best single value

6.5 Type of estimate

6.6 Population size Method used

Based mainly on expert opinion with very limited data

6.7 Short-term trend Period

2007-2018

6.8 Short-term trend Direction

Unknown (x)

6.9 Short-term trend Magnitude

a) Minimum  
b) Maximum  
c) Confidence interval

6.10 Short-term trend Method used

Insufficient or no data available

6.11 Long-term trend Period

6.12 Long-term trend Direction

6.13 Long-term trend Magnitude

a) Minimum  
b) Maximum  
c) Confidence interval

6.14 Long-term trend Method used

6.15 Favourable reference population (using the unit in 6.2 or 6.4)

a) Population size  
b) Operator  
c) Unknown x  
d) Method

6.16 Change and reason for change in population size

The change is mainly due to:

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 6.17 Additional information

## 7. Habitat for the species

### 7.1 Sufficiency of area and quality of occupied habitat

a) Are area and quality of occupied habitat sufficient (for long-term survival)? **Yes**

b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?

### 7.2 Sufficiency of area and quality of occupied habitat Method used

Based mainly on expert opinion with very limited data

### 7.3 Short-term trend Period

2007-2018

### 7.4 Short-term trend Direction

Unknown (x)

### 7.5 Short-term trend Method used

Insufficient or no data available

### 7.6 Long-term trend Period

### 7.7 Long-term trend Direction

### 7.8 Long-term trend Method used

### 7.9 Additional information

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Interspecific relations (competition, predation, parasitism, pathogens) (L06) | M       |
| Invasive alien species of Union concern (I01)                                 | M       |
| Threat  | Ranking |
| Interspecific relations (competition, predation, parasitism, pathogens) (L06) | M       |
| Invasive alien species of Union concern (I01)                                 | M       |

### 8.2 Sources of information

### 8.3 Additional information

IAS union concern : *Herpestes javanicus* É. Geoffroy Saint-Hilaire, 1818;

## 9. Conservation measures

### 9.1 Status of measures

a) Are measures needed? **Yes**  
b) Indicate the status of measures **Measures identified, but none yet taken**

### 9.2 Main purpose of the measures taken

### 9.3 Location of the measures taken

### 9.4 Response to the measures

### 9.5 List of main conservation measures

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 9.6 Additional information

## 10. Future prospects

|                                     |                           |         |
|-------------------------------------|---------------------------|---------|
| 10.1 Future prospects of parameters | a) Range                  | Good    |
|                                     | b) Population             | Unknown |
|                                     | c) Habitat of the species | Unknown |

## 10.2 Additional information

## 11. Conclusions

|   |  |
|---|--|
| 11.1. Range   | Favourable (FV)                              |
| 11.2. Population  | Unknown (XX)                                 |
| 11.3. Habitat for the species   | Unknown (XX)                                 |
| 11.4. Future prospects  | Unknown (XX)                                 |
| 11.5 Overall assessment of Conservation Status  | Unknown (XX)                                 |
| 11.6 Overall trend in Conservation Status   |  |
| 11.7 Change and reasons for change in conservation status and conservation status trend | a) Overall assessment of conservation status |
|   | The change is mainly due to:                 |
|   | b) Overall trend in conservation status      |
|   | The change is mainly due to:                 |

## 11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

|   |                      |
|---|----------------------|
| 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present) | a) Unit              |
|   | b) Minimum           |
|   | c) Maximum           |
|   | d) Best single value |
| 12.2 Type of estimate   |                      |
| 12.3 Population size inside the network Method used   |                      |
| 12.4 Short-term trend of population size within the network Direction   |                      |
| 12.5 Short-term trend of population size within the network Method used   |                      |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                  |
|---|------------------|
| 1.1 Member State                        | HR               |
| 1.2 Species code                        | 1256             |
| 1.3 Species scientific name             | Podarcis muralis |
| 1.4 Alternative species scientific name |                  |
| 1.5 Common name (in national language)  | zidna gušterica  |

## 2. Maps

|                                  |   |
|----------------------------------|---|
| 2.1 Sensitive species            | No  |
| 2.2 Year or period               | 2007-2018   |
| 2.3 Distribution map             | Yes   |
| 2.4 Distribution map Method used | Based mainly on expert opinion with very limited data |
| 2.5 Additional maps              | Yes   |

## 3. Information related to Annex V Species (Art. 14)

|   |  |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
|---|--|---|----|---|----|---|----|--|----|--|----|---|----|---|----|-------------------|----|
| 3.1 Is the species taken in the wild/exploited?   | No   |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
| 3.2 Which of the measures in Art. 14 have been taken?   | <table> <tr> <td>a) regulations regarding access to property</td><td>No</td></tr> <tr> <td>b) temporary or local prohibition of the taking of specimens in the wild and exploitation</td><td>No</td></tr> <tr> <td>c) regulation of the periods and/or methods of taking specimens</td><td>No</td></tr> <tr> <td>d) application of hunting and fishing rules which take account of the conservation of such populations</td><td>No</td></tr> <tr> <td>e) establishment of a system of licences for taking specimens or of quotas</td><td>No</td></tr> <tr> <td>f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens</td><td>No</td></tr> <tr> <td>g) breeding in captivity of animal species as well as artificial propagation of plant species</td><td>No</td></tr> <tr> <td>h) other measures</td><td>No</td></tr> </table> | a) regulations regarding access to property | No | b) temporary or local prohibition of the taking of specimens in the wild and exploitation | No | c) regulation of the periods and/or methods of taking specimens | No | d) application of hunting and fishing rules which take account of the conservation of such populations | No | e) establishment of a system of licences for taking specimens or of quotas | No | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No | g) breeding in captivity of animal species as well as artificial propagation of plant species | No | h) other measures | No |
| a) regulations regarding access to property   | No   |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
| b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No   |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
| c) regulation of the periods and/or methods of taking specimens   | No   |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
| d) application of hunting and fishing rules which take account of the conservation of such populations      | No   |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
| e) establishment of a system of licences for taking specimens or of quotas                                  | No   |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
| f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No   |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
| g) breeding in captivity of animal species as well as artificial propagation of plant species               | No   |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |
| h) other measures   | No   |   |    |   |    |   |    |  |    |  |    |   |    |   |    |                   |    |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

3.4. Hunting bag or quantity taken in the wild Method used

3.5. Additional information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

**Mediterranean (MED)**

4.2 Sources of information

Džukić, G., Tomović, L., Anđelković, M., Urošević, A., Nikolić, S., Kalezić, M., 2017. The herpetological collection of the Institute for biological research "Siniša Stanković", University of Belgrade. Bulletin of the Natural History Museum 10, 57–104. <https://doi.org/10.5937/bnhmb1710057D>

Jelić, D., Karaica, D., 2012. First data on the fauna of amphibians and reptiles of the lower Una River and its coastal area. Hyla : Herpetological bulletin 2012, 22–41.

Koren, T., Črne, M., Koprivnikar, N., Trkov, D., Drašler, K., Jelić, D., 2013. Contribution to the herpetofauna (Amphibia & Reptilia) of lower Neretva River (Croatia & Bosnia and Herzegovina). Hyla : Herpetological bulletin 2012, 19–40.

Žagar, A., Carretero, M.A., Krofel, M., Lužnik, M., Podnar, M., Tvrtković, N., 2014. Reptile survey in Dinara mountain (Croatia) revealed the southernmost known population of Horvath's rock lizard (Iberolacerta horvathi). Nat. Croat. 23, 235–240.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

5.1 Surface area

14900

5.2 Short-term trend Period

2007-2018

5.3 Short-term trend Direction

Unknown (x)

5.4 Short-term trend Magnitude

a) Minimum

b) Maximum

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|  |  |            |
|--|--|------------|
| 5.5 Short-term trend Method used                           | Insufficient or no data available                                    |            |
| 5.6 Long-term trend Period                                 |  |            |
| 5.7 Long-term trend Direction                              |  |            |
| 5.8 Long-term trend Magnitude                              | a) Minimum   | b) Maximum |
| 5.9 Long-term trend Method used                            |  |            |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown<br>d) Method | x          |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:   |            |
| 5.12 Additional information                                |  |            |

## 6. Population

|  |   |   |
|--|---|---|
| 6.1 Year or period   | 2007-2018   |   |
| 6.2 Population size (in reporting unit)  | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value | number of map 1x1 km grid cells (grids1x1)<br><br><br>157 |
| 6.3 Type of estimate   | Minimum   |   |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value |   |
| 6.5 Type of estimate   |   |   |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data       |   |
| 6.7 Short-term trend Period  | 2007-2018   |   |
| 6.8 Short-term trend Direction   | Unknown (x)   |   |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval          |   |
| 6.10 Short-term trend Method used  | Insufficient or no data available                           |   |
| 6.11 Long-term trend Period  |   |   |
| 6.12 Long-term trend Direction   |   |   |
| 6.13 Long-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval          |   |
| 6.14 Long-term trend Method used   |   |   |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

6.15 Favourable reference population (using the unit in 6.2 or 6.4)

- a) Population size
- b) Operator
- c) Unknown x
- d) Method

6.16 Change and reason for change in population size

The change is mainly due to:

6.17 Additional information

## 7. Habitat for the species

7.1 Sufficiency of area and quality of occupied habitat

- a) Are area and quality of occupied habitat sufficient (for long-term survival)? Unknown
- b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?

7.2 Sufficiency of area and quality of occupied habitat Method used

Insufficient or no data available

7.3 Short-term trend Period

2007-2018

7.4 Short-term trend Direction

Unknown (x)

7.5 Short-term trend Method used

Insufficient or no data available

7.6 Long-term trend Period

7.7 Long-term trend Direction

7.8 Long-term trend Method used

7.9 Additional information

## 8. Main pressures and threats

8.1 Characterisation of pressures/threats

| Pressure | Ranking |
|----------|---------|
|----------|---------|

|                                  |  |
|----------------------------------|--|
| No information on pressures (Xp) |  |
|----------------------------------|--|

| Threat | Ranking |
|--------|---------|
|--------|---------|

|  |   |
|--|---|
| Change of habitat location, size, and / or quality due to climate change (N05) | M |
|--|---|

8.2 Sources of information

8.3 Additional information

## 9. Conservation measures

9.1 Status of measures

- a) Are measures needed? No
- b) Indicate the status of measures

9.2 Main purpose of the measures taken



# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

9.3 Location of the measures taken

9.4 Response to the measures

9.5 List of main conservation measures

9.6 Additional information

## 10. Future prospects

10.1 Future prospects of parameters

|                           |         |
|---------------------------|---------|
| a) Range                  | Unknown |
| b) Population             | Unknown |
| c) Habitat of the species | Unknown |

10.2 Additional information

## 11. Conclusions

11.1. Range

Unknown (XX)

11.2. Population

Unknown (XX)

11.3. Habitat for the species

Unknown (XX)

11.4. Future prospects

Unknown (XX)

11.5 Overall assessment of Conservation Status

Unknown (XX)

11.6 Overall trend in Conservation Status

11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

|                      |
|----------------------|
| a) Unit              |
| b) Minimum           |
| c) Maximum           |
| d) Best single value |

12.2 Type of estimate

12.3 Population size inside the network Method used

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

12.4 Short-term trend of population size within the network Direction

12.5 Short-term trend of population size within the network Method used

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

### Continental (CON)

4.2 Sources of information

Džukić, G., Tomović, L., Anđelković, M., Urošević, A., Nikolić, S., Kalezić, M., 2017. The herpetological collection of the Institute for biological research "Siniša Stanković", University of Belgrade. Bulletin of the Natural History Museum 10, 57–104. <https://doi.org/10.5937/bnhmb1710057D>

Jelić, D., Karaica, D., 2012. First data on the fauna of amphibians and reptiles of the lower Una River and its coastal area. Hyla : Herpetological bulletin 2012, 22–41.

Koren, T., Črne, M., Koprivnikar, N., Trkov, D., Drašler, K., Jelić, D., 2013. Contribution to the herpetofauna (Amphibia & Reptilia) of lower Neretva River (Croatia & Bosnia and Herzegovina). Hyla : Herpetological bulletin 2012, 19–40.

Žagar, A., Carretero, M.A., Krofel, M., Lužnik, M., Podnar, M., Tvrtković, N., 2014. Reptile survey in Dinara mountain (Croatia) revealed the southernmost known population of Horvath's rock lizard (*Iberolacerta horvathi*). Nat. Croat. 23, 235–240.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

5.1 Surface area

26500

5.2 Short-term trend Period

2007-2018

5.3 Short-term trend Direction

Unknown (x)

5.4 Short-term trend Magnitude

a) Minimum

b) Maximum

5.5 Short-term trend Method used

Insufficient or no data available

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|  |  |            |
|--|--|------------|
| 5.6 Long-term trend Period                                 |  |            |
| 5.7 Long-term trend Direction                              |  |            |
| 5.8 Long-term trend Magnitude                              | a) Minimum   | b) Maximum |
| 5.9 Long-term trend Method used                            |  |            |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown<br>d) Method | x          |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:   |            |
| 5.12 Additional information                                |  |            |

## 6. Population

|  |   |  |
|--|---|--|
| 6.1 Year or period   | 2007-2018   |  |
| 6.2 Population size (in reporting unit)  | a) Unit   | number of map 1x1 km grid cells (grids1x1) |
|  | b) Minimum  |  |
|  | c) Maximum  |  |
|  | d) Best single value                                  | 296  |
| 6.3 Type of estimate   | Minimum   |  |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit   |  |
|  | b) Minimum  |  |
|  | c) Maximum  |  |
|  | d) Best single value                                  |  |
| 6.5 Type of estimate   |   |  |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data |  |
| 6.7 Short-term trend Period  | 2007-2018   |  |
| 6.8 Short-term trend Direction   | Unknown (x)   |  |
| 6.9 Short-term trend Magnitude   | a) Minimum  |  |
|  | b) Maximum  |  |
|  | c) Confidence interval                                |  |
| 6.10 Short-term trend Method used  | Insufficient or no data available                     |  |
| 6.11 Long-term trend Period  |   |  |
| 6.12 Long-term trend Direction   |   |  |
| 6.13 Long-term trend Magnitude   | a) Minimum  |  |
|  | b) Maximum  |  |
|  | c) Confidence interval                                |  |
| 6.14 Long-term trend Method used   |   |  |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

6.15 Favourable reference population (using the unit in 6.2 or 6.4)

- a) Population size
- b) Operator
- c) Unknown x
- d) Method

6.16 Change and reason for change in population size

The change is mainly due to:

6.17 Additional information

## 7. Habitat for the species

7.1 Sufficiency of area and quality of occupied habitat

- a) Are area and quality of occupied habitat sufficient (for long-term survival)? Unknown
- b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?

7.2 Sufficiency of area and quality of occupied habitat Method used

Insufficient or no data available

7.3 Short-term trend Period

2007-2018

7.4 Short-term trend Direction

Unknown (x)

7.5 Short-term trend Method used

Insufficient or no data available

7.6 Long-term trend Period

7.7 Long-term trend Direction

7.8 Long-term trend Method used

7.9 Additional information

## 8. Main pressures and threats

8.1 Characterisation of pressures/threats

| Pressure | Ranking |
|----------|---------|
|----------|---------|

|                                  |  |
|----------------------------------|--|
| No information on pressures (Xp) |  |
|----------------------------------|--|

| Threat | Ranking |
|--------|---------|
|--------|---------|

|  |   |
|--|---|
| Change of habitat location, size, and / or quality due to climate change (N05) | M |
|--|---|

8.2 Sources of information

8.3 Additional information

## 9. Conservation measures

9.1 Status of measures

- a) Are measures needed? No
- b) Indicate the status of measures

9.2 Main purpose of the measures taken

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

9.3 Location of the measures taken

9.4 Response to the measures

9.5 List of main conservation measures

9.6 Additional information

## 10. Future prospects

10.1 Future prospects of parameters

|                           |         |
|---------------------------|---------|
| a) Range                  | Unknown |
| b) Population             | Unknown |
| c) Habitat of the species | Unknown |

10.2 Additional information

## 11. Conclusions

11.1. Range

Unknown (XX)

11.2. Population

Unknown (XX)

11.3. Habitat for the species

Unknown (XX)

11.4. Future prospects

Unknown (XX)

11.5 Overall assessment of Conservation Status

Unknown (XX)

11.6 Overall trend in Conservation Status

11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

|                      |
|----------------------|
| a) Unit              |
| b) Minimum           |
| c) Maximum           |
| d) Best single value |

12.2 Type of estimate

12.3 Population size inside the network Method used

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

12.4 Short-term trend of population size within the network Direction

12.5 Short-term trend of population size within the network Method used

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

4.2 Sources of information

### Alpine (ALP)

Džukić, G., Tomović, L., Anđelković, M., Urošević, A., Nikolić, S., Kalezić, M., 2017. The herpetological collection of the Institute for biological research "Siniša Stanković", University of Belgrade. Bulletin of the Natural History Museum 10, 57–104. <https://doi.org/10.5937/bnhmb1710057D>

Jelić, D., Karaica, D., 2012. First data on the fauna of amphibians and reptiles of the lower Una River and its coastal area. Hyla : Herpetological bulletin 2012, 22–41.

Koren, T., Črne, M., Koprivnikar, N., Trkov, D., Drašler, K., Jelić, D., 2013. Contribution to the herpetofauna (Amphibia & Reptilia) of lower Neretva River (Croatia & Bosnia and Herzegovina). Hyla : Herpetological bulletin 2012, 19–40.

Žagar, A., Carretero, M.A., Krofel, M., Lužnik, M., Podnar, M., Tvrtković, N., 2014. Reptile survey in Dinara mountain (Croatia) revealed the southernmost known population of Horvath's rock lizard (*Iberolacerta horvathi*). Nat. Croat. 23, 235–240.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

5.1 Surface area

11800

5.2 Short-term trend Period

2007-2018

5.3 Short-term trend Direction

Unknown (x)

5.4 Short-term trend Magnitude

a) Minimum

b) Maximum

5.5 Short-term trend Method used

Insufficient or no data available

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

5.6 Long-term trend Period

5.7 Long-term trend Direction

5.8 Long-term trend Magnitude

5.9 Long-term trend Method used

5.10 Favourable reference range

a) Minimum

b) Maximum

a) Area (km<sup>2</sup>)

b) Operator

c) Unknown

d) Method

Approximately equal to (≈)

5.11 Change and reason for change in surface area of range

The change is mainly due to:

5.12 Additional information

## 6. Population

6.1 Year or period

2007-2018

6.2 Population size (in reporting unit)

a) Unit

number of map 1x1 km grid cells (grids1x1)

b) Minimum

c) Maximum

d) Best single value 136

6.3 Type of estimate

Minimum

6.4 Additional population size (using population unit other than reporting unit)

a) Unit

b) Minimum

c) Maximum

d) Best single value

6.5 Type of estimate

6.6 Population size Method used

Based mainly on expert opinion with very limited data

6.7 Short-term trend Period

2007-2018

6.8 Short-term trend Direction

Unknown (x)

6.9 Short-term trend Magnitude

a) Minimum

b) Maximum

c) Confidence interval

6.10 Short-term trend Method used

Insufficient or no data available

6.11 Long-term trend Period

6.12 Long-term trend Direction

6.13 Long-term trend Magnitude

a) Minimum

b) Maximum

c) Confidence interval

6.14 Long-term trend Method used

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

6.15 Favourable reference population (using the unit in 6.2 or 6.4)

a) Population size  
b) Operator  
c) Unknown x  
d) Method

6.16 Change and reason for change in population size

The change is mainly due to:

6.17 Additional information

## 7. Habitat for the species

7.1 Sufficiency of area and quality of occupied habitat

a) Are area and quality of occupied habitat sufficient (for long-term survival)? Yes

b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?

7.2 Sufficiency of area and quality of occupied habitat Method used

Based mainly on expert opinion with very limited data

7.3 Short-term trend Period

2007-2018

7.4 Short-term trend Direction

Stable (0)

7.5 Short-term trend Method used

Based mainly on expert opinion with very limited data

7.6 Long-term trend Period

7.7 Long-term trend Direction

7.8 Long-term trend Method used

7.9 Additional information

## 8. Main pressures and threats

8.1 Characterisation of pressures/threats

| Pressure | Ranking |
|----------|---------|
|----------|---------|

|                                  |  |
|----------------------------------|--|
| No information on pressures (Xp) |  |
|----------------------------------|--|

| Threat | Ranking |
|--------|---------|
|--------|---------|

|  |   |
|--|---|
| Change of habitat location, size, and / or quality due to climate change (N05) | M |
|--|---|

8.2 Sources of information

8.3 Additional information

## 9. Conservation measures

9.1 Status of measures

a) Are measures needed? No

b) Indicate the status of measures

9.2 Main purpose of the measures taken



# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

9.3 Location of the measures taken

9.4 Response to the measures

9.5 List of main conservation measures

9.6 Additional information

## 10. Future prospects

10.1 Future prospects of parameters

|                           |         |
|---------------------------|---------|
| a) Range                  | Unknown |
| b) Population             | Unknown |
| c) Habitat of the species | Good    |

10.2 Additional information

## 11. Conclusions

11.1. Range

Unknown (XX)

11.2. Population

Unknown (XX)

11.3. Habitat for the species

Favourable (FV)

11.4. Future prospects

Unknown (XX)

11.5 Overall assessment of Conservation Status

Unknown (XX)

11.6 Overall trend in Conservation Status

11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

|                      |
|----------------------|
| a) Unit              |
| b) Minimum           |
| c) Maximum           |
| d) Best single value |

12.2 Type of estimate

12.3 Population size inside the network Method used

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

12.4 Short-term trend of population size within the network Direction

12.5 Short-term trend of population size within the network Method used

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                     |
|---|---------------------|
| 1.1 Member State                        | HR                  |
| 1.2 Species code                        | 1250                |
| 1.3 Species scientific name             | Podarcis siculus    |
| 1.4 Alternative species scientific name |                     |
| 1.5 Common name (in national language)  | primorska gušterica |

## 2. Maps

|                                  |   |
|----------------------------------|---|
| 2.1 Sensitive species            | No  |
| 2.2 Year or period               | 2007-2018   |
| 2.3 Distribution map             | Yes   |
| 2.4 Distribution map Method used | Based mainly on expert opinion with very limited data |
| 2.5 Additional maps              | Yes   |

## 3. Information related to Annex V Species (Art. 14)

|   |   |    |
|---|---|----|
| 3.1 Is the species taken in the wild/exploited?       | No  |    |
| 3.2 Which of the measures in Art. 14 have been taken? | a) regulations regarding access to property   | No |
|   | b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No |
|   | c) regulation of the periods and/or methods of taking specimens   | No |
|   | d) application of hunting and fishing rules which take account of the conservation of such populations      | No |
|   | e) establishment of a system of licences for taking specimens or of quotas                                  | No |
|   | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No |
|   | g) breeding in captivity of animal species as well as artificial propagation of plant species               | No |
|   | h) other measures   | No |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

3.4. Hunting bag or quantity taken in the wild Method used

3.5. Additional information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

**Mediterranean (MED)**

4.2 Sources of information

Jelić, D., Kuljerić, M., Koren, T., Treer, D., Šalamon, D., Lončar, M., Podnar Lešić, M., Janev Hutinec, B., Bogdanović, T., Mekinić, S., Jelić, K., 2012. Crvena knjiga vodozemaca i gmazova Hrvatske. Ministarstvo zaštite okoliša i prirode, Državni zavod za zaštitu prirode, Republika Hrvatska.

Lauš, B., 2015. Istraživanje populacija četveroprugog kravosasa (*Elaphe quatuorlineata*) i crvenkrpice (*Zamenis situla*) na Natura 2000 području Ravni kotari (kod: HR2001361) (završni izvještaj). Hrvatsko herpetološko društvo – Hyla, Zagreb.

Lauš, B., Jelić, D., Burić, I., Kolarić, A., Koren, T., 2013. Distribution and Conservation of Batrachofauna and Herpetofauna of the Zrmanja River catchment area. Hyla : Herpetological bulletin 2012, 3–17.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

5.1 Surface area

19300

5.2 Short-term trend Period

2007-2018

5.3 Short-term trend Direction

Stable (0)

5.4 Short-term trend Magnitude

a) Minimum

b) Maximum

5.5 Short-term trend Method used

Based mainly on expert opinion with very limited data

5.6 Long-term trend Period

5.7 Long-term trend Direction

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

5.8 Long-term trend Magnitude a) Minimum b) Maximum

5.9 Long-term trend Method used

5.10 Favourable reference range  
a) Area (km<sup>2</sup>)  
b) Operator  
c) Unknown x  
d) Method

5.11 Change and reason for change in surface area of range  
The change is mainly due to:

5.12 Additional information

## 6. Population

6.1 Year or period 2007-2018

6.2 Population size (in reporting unit)  
a) Unit number of map 1x1 km grid cells (grids1x1)  
b) Minimum  
c) Maximum  
d) Best single value 276

6.3 Type of estimate Minimum

6.4 Additional population size (using population unit other than reporting unit)  
a) Unit  
b) Minimum  
c) Maximum  
d) Best single value

6.5 Type of estimate

6.6 Population size Method used Based mainly on expert opinion with very limited data

6.7 Short-term trend Period 2007-2018

6.8 Short-term trend Direction Unknown (x)

6.9 Short-term trend Magnitude  
a) Minimum  
b) Maximum  
c) Confidence interval

6.10 Short-term trend Method used Insufficient or no data available

6.11 Long-term trend Period

6.12 Long-term trend Direction

6.13 Long-term trend Magnitude  
a) Minimum  
b) Maximum  
c) Confidence interval

6.14 Long-term trend Method used

6.15 Favourable reference population (using the unit in 6.2 or 6.4)  
a) Population size  
b) Operator  
c) Unknown x

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## d) Method

### 6.16 Change and reason for change in population size

The change is mainly due to:

### 6.17 Additional information

## 7. Habitat for the species

### 7.1 Sufficiency of area and quality of occupied habitat

a) Are area and quality of occupied habitat sufficient (for long-term survival)? **Yes**

b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?

### 7.2 Sufficiency of area and quality of occupied habitat Method used

Based mainly on expert opinion with very limited data

### 7.3 Short-term trend Period

2007-2018

### 7.4 Short-term trend Direction

Unknown (x)

### 7.5 Short-term trend Method used

Insufficient or no data available

### 7.6 Long-term trend Period

### 7.7 Long-term trend Direction

### 7.8 Long-term trend Method used

### 7.9 Additional information

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Interspecific relations (competition, predation, parasitism, pathogens) (L06) | M       |
| Invasive alien species of Union concern (I01)                                 | M       |
| Threat  | Ranking |
| Interspecific relations (competition, predation, parasitism, pathogens) (L06) | M       |
| Invasive alien species of Union concern (I01)                                 | M       |

### 8.2 Sources of information

### 8.3 Additional information

IAS union concern : *Herpestes javanicus* É. Geoffroy Saint-Hilaire, 1818;

## 9. Conservation measures

### 9.1 Status of measures

a) Are measures needed? **Yes**  
b) Indicate the status of measures **Measures identified, but none yet taken**

### 9.2 Main purpose of the measures taken

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

9.3 Location of the measures taken

9.4 Response to the measures

9.5 List of main conservation measures

9.6 Additional information

## 10. Future prospects

|                                     |                           |         |
|-------------------------------------|---------------------------|---------|
| 10.1 Future prospects of parameters | a) Range                  | Unknown |
|                                     | b) Population             | Unknown |
|                                     | c) Habitat of the species | Unknown |

10.2 Additional information

## 11. Conclusions

11.1. Range Unknown (XX)

11.2. Population Unknown (XX)

11.3. Habitat for the species Unknown (XX)

11.4. Future prospects Unknown (XX)

11.5 Overall assessment of Conservation Status Unknown (XX)

11.6 Overall trend in Conservation Status

11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

|   |                      |
|---|----------------------|
| 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present) | a) Unit              |
|   | b) Minimum           |
|   | c) Maximum           |
|   | d) Best single value |

12.2 Type of estimate

12.3 Population size inside the network Method used

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

12.4 Short-term trend of population size within the network Direction

12.5 Short-term trend of population size within the network Method used

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information



# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                              |
|---|------------------------------|
| 1.1 Member State                        | HR                           |
| 1.2 Species code                        | 5037                         |
| 1.3 Species scientific name             | Lacerta vivipara pannonica   |
| 1.4 Alternative species scientific name |                              |
| 1.5 Common name (in national language)  | panonska živorodna gušterica |

## 2. Maps

|                                  |   |
|----------------------------------|---|
| 2.1 Sensitive species            | Yes   |
| 2.2 Year or period               | 2007-2018   |
| 2.3 Distribution map             | Yes   |
| 2.4 Distribution map Method used | Based mainly on expert opinion with very limited data |
| 2.5 Additional maps              | No  |

## 3. Information related to Annex V Species (Art. 14)

|   |   |    |
|---|---|----|
| 3.1 Is the species taken in the wild/exploited?       | No  |    |
| 3.2 Which of the measures in Art. 14 have been taken? | a) regulations regarding access to property   | No |
|   | b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No |
|   | c) regulation of the periods and/or methods of taking specimens   | No |
|   | d) application of hunting and fishing rules which take account of the conservation of such populations      | No |
|   | e) establishment of a system of licences for taking specimens or of quotas                                  | No |
|   | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No |
|   | g) breeding in captivity of animal species as well as artificial propagation of plant species               | No |
|   | h) other measures   | No |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

3.4. Hunting bag or quantity taken in the wild Method used

3.5. Additional information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

**Continental (CON)**

4.2 Sources of information

Jelić, D., Bogdanović, T., 2011. Preliminary data on existence of *Zootoca vivipara* ssp. *pannonica* (Lac & Kluch, 1968) in Croatia. *Hyla : Herpetological bulletin* 2011, 77–79.

Jelić, D., Kuljerić, M., Koren, T., Treer, D., Šalamon, D., Lončar, M., Podnar Lešić, M., Janev Hutinec, B., Bogdanović, T., Mekinić, S., Jelić, K., 2012. *Crvena knjiga vodozemaca i gmazova Hrvatske*. Ministarstvo zaštite okoliša i prirode, Državni zavod za zaštitu prirode, Republika Hrvatska.

M. Zadravec, P. Gambiroža, 2019. *Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske*, Zagreb.

## 5. Range

5.1 Surface area

300

5.2 Short-term trend Period

2007-2018

5.3 Short-term trend Direction

Unknown (x)

5.4 Short-term trend Magnitude

a) Minimum

b) Maximum

5.5 Short-term trend Method used

Insufficient or no data available

5.6 Long-term trend Period

5.7 Long-term trend Direction

5.8 Long-term trend Magnitude

a) Minimum

b) Maximum

5.9 Long-term trend Method used

5.10 Favourable reference range

a) Area (km<sup>2</sup>)

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|  |   |
|--|---|
|  | b) Operator<br>c) Unknown                      x<br>d) Method   |
| 5.11 Change and reason for change in surface area of range                       | The change is mainly due to:  |
| 5.12 Additional information  |   |
| <b>6. Population</b>   |   |
| 6.1 Year or period   | 2007-2018   |
| 6.2 Population size (in reporting unit)  | a) Unit                      number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value    11 |
| 6.3 Type of estimate   | Minimum   |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value   |
| 6.5 Type of estimate   |   |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data   |
| 6.7 Short-term trend Period  | 2007-2018   |
| 6.8 Short-term trend Direction   | Unknown (x)   |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval  |
| 6.10 Short-term trend Method used  | Insufficient or no data available   |
| 6.11 Long-term trend Period  |   |
| 6.12 Long-term trend Direction   |   |
| 6.13 Long-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval  |
| 6.14 Long-term trend Method used   |   |
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4)              | a) Population size<br>b) Operator<br>c) Unknown                      x<br>d) Method   |
| 6.16 Change and reason for change in population size                             | The change is mainly due to:  |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 6.17 Additional information

## 7. Habitat for the species

|   |   |         |
|---|---|---------|
| 7.1 Sufficiency of area and quality of occupied habitat             | a) Are area and quality of occupied habitat sufficient (for long-term survival)?                          | Unknown |
|   | b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)? |         |
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Insufficient or no data available   |         |
| 7.3 Short-term trend Period   | 2007-2018   |         |
| 7.4 Short-term trend Direction                                      | Unknown (x)   |         |
| 7.5 Short-term trend Method used                                    | Insufficient or no data available   |         |
| 7.6 Long-term trend Period  |   |         |
| 7.7 Long-term trend Direction                                       |   |         |
| 7.8 Long-term trend Method used                                     |   |         |
| 7.9 Additional information  |   |         |

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure   | Ranking |
|--|---------|
| Conversion into agricultural land (excluding drainage and burning) (A01)       | M       |
| Drainage (K02)   | M       |
| Clear-cutting, removal of all trees (B09)                                      | M       |
| Threat   | Ranking |
| Conversion into agricultural land (excluding drainage and burning) (A01)       | M       |
| Drainage (K02)   | M       |
| Clear-cutting, removal of all trees (B09)                                      | M       |
| Change of habitat location, size, and / or quality due to climate change (N05) | M       |

### 8.2 Sources of information

### 8.3 Additional information

## 9. Conservation measures

|                        |                                    |   |
|------------------------|------------------------------------|---|
| 9.1 Status of measures | a) Are measures needed?            | Yes                                     |
|                        | b) Indicate the status of measures | Measures identified, but none yet taken |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

9.2 Main purpose of the measures taken

9.3 Location of the measures taken

9.4 Response to the measures

9.5 List of main conservation measures

9.6 Additional information

## 10. Future prospects

10.1 Future prospects of parameters

|                           |         |
|---------------------------|---------|
| a) Range                  | Unknown |
| b) Population             | Unknown |
| c) Habitat of the species | Unknown |

10.2 Additional information

## 11. Conclusions

11.1. Range

Unknown (XX)

11.2. Population

Unknown (XX)

11.3. Habitat for the species

Unknown (XX)

11.4. Future prospects

Unknown (XX)

11.5 Overall assessment of Conservation Status

Unknown (XX)

11.6 Overall trend in Conservation Status

11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

|                      |
|----------------------|
| a) Unit              |
| b) Minimum           |
| c) Maximum           |
| d) Best single value |

12.2 Type of estimate

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

12.3 Population size inside the network Method used

12.4 Short-term trend of population size within the network Direction

12.5 Short-term trend of population size within the network Method used

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

Although the population from the Spačva basin, reported here, was attributed to the subspecies *Zootoca vivipara pannonica*, this was done purely based on the geographic/habitat/climate characteristics, along with the assumed mode of reproduction, which turned out to be incorrect. Since no morphometric and/or genetic comparison was ever published, maybe even not carried out, it is inappropriate to assign this population's subspecific status as *Z. v. pannonica*.

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                   |
|---|-------------------|
| 1.1 Member State                        | HR                |
| 1.2 Species code                        | 1269              |
| 1.3 Species scientific name             | Ophisaurus apodus |
| 1.4 Alternative species scientific name |                   |
| 1.5 Common name (in national language)  | blavor            |

## 2. Maps

|                                  |   |
|----------------------------------|---|
| 2.1 Sensitive species            | No  |
| 2.2 Year or period               | 2007-2018   |
| 2.3 Distribution map             | Yes   |
| 2.4 Distribution map Method used | Based mainly on expert opinion with very limited data |
| 2.5 Additional maps              | Yes   |

## 3. Information related to Annex V Species (Art. 14)

|   |   |    |
|---|---|----|
| 3.1 Is the species taken in the wild/exploited?       | No  |    |
| 3.2 Which of the measures in Art. 14 have been taken? | a) regulations regarding access to property   | No |
|   | b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No |
|   | c) regulation of the periods and/or methods of taking specimens   | No |
|   | d) application of hunting and fishing rules which take account of the conservation of such populations      | No |
|   | e) establishment of a system of licences for taking specimens or of quotas                                  | No |
|   | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No |
|   | g) breeding in captivity of animal species as well as artificial propagation of plant species               | No |
|   | h) other measures   | No |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

3.4. Hunting bag or quantity taken in the wild Method used

3.5. Additional information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

**Mediterranean (MED)**

4.2 Sources of information

Cafuta, V., 2004a. Skupina za dvoživke in plazilce, in: Ekosistemi Dalmacije - Brač 2003 in Korčula 2004. Društvo študentov biologije, Ljubljana, pp. 13–19.  
 Cafuta, V., 2004b. Herpetološka skupina, in: Ekosistemi Dalmacije - Brač 2003 in Korčula 2004. Društvo študentov biologije, Ljubljana, pp. 44–49.  
 Schweiger, M., 2008. Report on my trips to the Croatian island Krk, from May 11th till May 17th, and from July 3rd till July 12th 2008. VipersGarden - Amphibians and Reptiles of Europe and the Mediterranean. URL <http://vipersgarden.at/reports/krk08.php> (accessed 10.26.18).  
 Tóth, T., Géczy, C., Sós, E., Molnár, Z., Halpern, B., 2009. Further data on the herpetofauna of Lošinj Island, Croatia. Herpetozoa 21, 192.  
 Tóth, T., Grillitsch, H., Farkas, B., Gál, J., Sušić, G., 2006. Herpetofaunal data from Cres Island, Croatia. Herpetozoa 19, 27–58.  
 Vamberger, M., 2012. Poročilo skupine za dvoživke in plazilce, in: Ekosistemi Jadrana, Pag 2007. Društvo študentov biologije, Ljubljana, pp. 10–17.  
 M. Zadavec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

5.1 Surface area

18800

5.2 Short-term trend Period

2007-2018

5.3 Short-term trend Direction

Stable (0)

5.4 Short-term trend Magnitude

a) Minimum

b) Maximum



# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|  |  |            |
|--|--|------------|
| 5.5 Short-term trend Method used                           | Based mainly on expert opinion with very limited data  |            |
| 5.6 Long-term trend Period                                 |  |            |
| 5.7 Long-term trend Direction                              |  |            |
| 5.8 Long-term trend Magnitude                              | a) Minimum   | b) Maximum |
| 5.9 Long-term trend Method used                            |  |            |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown<br>d) Method   | x          |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:   |            |
| 5.12 Additional information                                | The actual range is greater than that reported here, but there are no records (published or otherwise) for some parts of Croatia, even though the species is (most certainly) present there. |            |

## 6. Population

|  |   |   |
|--|---|---|
| 6.1 Year or period   | 2007-2018   |   |
| 6.2 Population size (in reporting unit)  | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value | number of map 1x1 km grid cells (grids1x1)<br><br><br>298 |
| 6.3 Type of estimate   | Minimum   |   |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value |   |
| 6.5 Type of estimate   |   |   |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data       |   |
| 6.7 Short-term trend Period  | 2007-2018   |   |
| 6.8 Short-term trend Direction   | Unknown (x)   |   |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval          |   |
| 6.10 Short-term trend Method used  | Insufficient or no data available                           |   |
| 6.11 Long-term trend Period  |   |   |
| 6.12 Long-term trend Direction   |   |   |
| 6.13 Long-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval          |   |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 6.14 Long-term trend Method used

6.15 Favourable reference population (using the unit in 6.2 or 6.4)

- a) Population size
- b) Operator
- c) Unknown x
- d) Method

6.16 Change and reason for change in population size

The change is mainly due to:

## 6.17 Additional information

## 7. Habitat for the species

7.1 Sufficiency of area and quality of occupied habitat

a) Are area and quality of occupied habitat sufficient (for long-term survival)? Yes

b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?

7.2 Sufficiency of area and quality of occupied habitat Method used

Based mainly on expert opinion with very limited data

7.3 Short-term trend Period

2007-2018

7.4 Short-term trend Direction

Unknown (x)

7.5 Short-term trend Method used

Insufficient or no data available

7.6 Long-term trend Period

7.7 Long-term trend Direction

7.8 Long-term trend Method used

7.9 Additional information

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Invasive alien species of Union concern (I01)   | M       |
| Threat  | Ranking |
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

Invasive alien species of Union concern (I01)

M

## 8.2 Sources of information

## 8.3 Additional information

IAS union concern : *Herpestes javanicus* É. Geoffroy Saint-Hilaire, 1818

## 9. Conservation measures

### 9.1 Status of measures

a) Are measures needed?

Yes

b) Indicate the status of measures

Measures identified, but none yet taken

### 9.2 Main purpose of the measures taken

### 9.3 Location of the measures taken

### 9.4 Response to the measures

### 9.5 List of main conservation measures

### 9.6 Additional information

## 10. Future prospects

### 10.1 Future prospects of parameters

a) Range

Unknown

b) Population

Unknown

c) Habitat of the species

Unknown

### 10.2 Additional information

## 11. Conclusions

### 11.1. Range

Unknown (XX)

### 11.2. Population

Unknown (XX)

### 11.3. Habitat for the species

Unknown (XX)

### 11.4. Future prospects

Unknown (XX)

### 11.5 Overall assessment of Conservation Status

Unknown (XX)

### 11.6 Overall trend in Conservation Status

### 11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

### 11.8 Additional information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

12.2 Type of estimate

12.3 Population size inside the network Method used

12.4 Short-term trend of population size within the network Direction

12.5 Short-term trend of population size within the network Method used

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                     |
|---|---------------------|
| 1.1 Member State                        | HR                  |
| 1.2 Species code                        | 1283                |
| 1.3 Species scientific name             | Coronella austriaca |
| 1.4 Alternative species scientific name |                     |
| 1.5 Common name (in national language)  | smukulja            |

## 2. Maps

|                                  |   |
|----------------------------------|---|
| 2.1 Sensitive species            | No  |
| 2.2 Year or period               | 2009-2017   |
| 2.3 Distribution map             | Yes   |
| 2.4 Distribution map Method used | Based mainly on expert opinion with very limited data |
| 2.5 Additional maps              | Yes   |

## 3. Information related to Annex V Species (Art. 14)

|   |   |    |
|---|---|----|
| 3.1 Is the species taken in the wild/exploited?       | No  |    |
| 3.2 Which of the measures in Art. 14 have been taken? | a) regulations regarding access to property   | No |
|   | b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No |
|   | c) regulation of the periods and/or methods of taking specimens   | No |
|   | d) application of hunting and fishing rules which take account of the conservation of such populations      | No |
|   | e) establishment of a system of licences for taking specimens or of quotas                                  | No |
|   | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No |
|   | g) breeding in captivity of animal species as well as artificial propagation of plant species               | No |
|   | h) other measures   | No |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

3.4. Hunting bag or quantity taken in the wild Method used

3.5. Additional information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

**Mediterranean (MED)**

4.2 Sources of information

Bonte, C., 2012. Affirmation of *Coronella austriaca* (Laurenti, 1768) on the island of Cres, Croatia. *Herpetology Notes* 5, 65–66.  
 Hill, J., 2008. *Coronella austriaca* (Laurenti, 1768) from the Croatian Island of Cres. *Herpetozoa* 20, 192.  
 Jelić, D., 2010. Record of *Coronella austriaca* LAURENTI, 1768 from the Island of Mljet, southern Croatia. *Herpetozoa* 23, 85–87.  
 Jelić, D., Vilaj, I., 2011. Remarks on Death feigning in *Coronella austriaca* (Laurenti, 1768), *Natrix natrix* (Laurenti, 1768) and *Natrix tessellata* (Laurenti, 1768). *Hyla : Herpetological bulletin* 2011, 31–33.  
 Lauš, B., Burić, I., 2012. Colour abnormalities in *Coronella austriaca* (Laurenti, 1768) in Croatia. *Hyla : Herpetological bulletin* 2012, 43–44.  
 M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb

## 5. Range

5.1 Surface area

8300

5.2 Short-term trend Period

2007-2018

5.3 Short-term trend Direction

Unknown (x)

5.4 Short-term trend Magnitude

a) Minimum

b) Maximum

5.5 Short-term trend Method used

Insufficient or no data available

5.6 Long-term trend Period

5.7 Long-term trend Direction

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|  |  |            |
|--|--|------------|
| 5.8 Long-term trend Magnitude                              | a) Minimum   | b) Maximum |
| 5.9 Long-term trend Method used                            |  |            |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown<br>d) Method   | x          |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:   |            |
| 5.12 Additional information                                | The actual range is in reality much greater than reported here, but there are simply no records for many parts of Croatia. |            |

## 6. Population

|  |   |  |
|--|---|--|
| 6.1 Year or period   | 2007-2018   |  |
| 6.2 Population size (in reporting unit)  | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value | number of map 1x1 km grid cells (grids1x1)<br><br><br>30 |
| 6.3 Type of estimate   | Minimum   |  |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value |  |
| 6.5 Type of estimate   |   |  |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data       |  |
| 6.7 Short-term trend Period  | 2007-2018   |  |
| 6.8 Short-term trend Direction   | Unknown (x)   |  |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval          |  |
| 6.10 Short-term trend Method used  | Insufficient or no data available                           |  |
| 6.11 Long-term trend Period  |   |  |
| 6.12 Long-term trend Direction   |   |  |
| 6.13 Long-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval          |  |
| 6.14 Long-term trend Method used   |   |  |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

6.15 Favourable reference population (using the unit in 6.2 or 6.4)

a) Population size  
b) Operator  
c) Unknown x  
d) Method

6.16 Change and reason for change in population size

The change is mainly due to:

6.17 Additional information

## 7. Habitat for the species

7.1 Sufficiency of area and quality of occupied habitat

a) Are area and quality of occupied habitat sufficient (for long-term survival)? Unknown  
b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?

7.2 Sufficiency of area and quality of occupied habitat Method used

Insufficient or no data available

7.3 Short-term trend Period

2007-2018

7.4 Short-term trend Direction

Unknown (x)

7.5 Short-term trend Method used

Insufficient or no data available

7.6 Long-term trend Period

7.7 Long-term trend Direction

7.8 Long-term trend Method used

7.9 Additional information

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02) | M       |
| Conversion into agricultural land (excluding drainage and burning) (A01)  | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Illegal shooting/killing (G10)  | M       |
| Threat  | Ranking |
| Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02) | M       |
| Conversion into agricultural land (excluding drainage and burning) (A01)  | M       |



# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|  |   |
|--|---|
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01) | M |
|--|---|

|                                |   |
|--------------------------------|---|
| Illegal shooting/killing (G10) | M |
|--------------------------------|---|

## 8.2 Sources of information

## 8.3 Additional information

## 9. Conservation measures

### 9.1 Status of measures

a) Are measures needed?

Yes

b) Indicate the status of measures

Measures identified, but none yet taken

### 9.2 Main purpose of the measures taken

### 9.3 Location of the measures taken

### 9.4 Response to the measures

### 9.5 List of main conservation measures

### 9.6 Additional information

## 10. Future prospects

### 10.1 Future prospects of parameters

a) Range

Unknown

b) Population

Unknown

c) Habitat of the species

Unknown

### 10.2 Additional information

## 11. Conclusions

### 11.1. Range

Unknown (XX)

### 11.2. Population

Unknown (XX)

### 11.3. Habitat for the species

Unknown (XX)

### 11.4. Future prospects

Unknown (XX)

### 11.5 Overall assessment of Conservation Status

Unknown (XX)

### 11.6 Overall trend in Conservation Status

### 11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

### 11.8 Additional information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

12.2 Type of estimate

12.3 Population size inside the network Method used

12.4 Short-term trend of population size within the network Direction

12.5 Short-term trend of population size within the network Method used

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

### Alpine (ALP)

4.2 Sources of information

Bonte, C., 2012. Affirmation of *Coronella austriaca* (Laurenti, 1768) on the island of Cres, Croatia. *Herpetology Notes* 5, 65–66.  
Hill, J., 2008. *Coronella austriaca* (Laurenti, 1768) from the Croatian Island of Cres. *Herpetozoa* 20, 192.  
Jelić, D., 2010. Record of *Coronella austriaca* LAURENTI, 1768 from the Island of Mljet, southern Croatia. *Herpetozoa* 23, 85–87.  
Jelić, D., Vilaj, I., 2011. Remarks on Death feigning in *Coronella austriaca* (Laurenti, 1768), *Natrix natrix* (Laurenti, 1768) and *Natrix tessellata* (Laurenti, 1768). *Hyla : Herpetological bulletin* 2011, 31–33.  
Lauš, B., Burić, I., 2012. Colour abnormalities in *Coronella austriaca* (Laurenti, 1768) in Croatia. *Hyla : Herpetological bulletin* 2012, 43–44.  
M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

vodozemaca i gmazova Republike Hrvatske, Zagreb

## 5. Range

|  |  |
|--|--|
| 5.1 Surface area   | 8500   |
| 5.2 Short-term trend Period                                | 2007-2018  |
| 5.3 Short-term trend Direction                             | Unknown (x)  |
| 5.4 Short-term trend Magnitude                             | a) Minimum b) Maximum  |
| 5.5 Short-term trend Method used                           | Insufficient or no data available  |
| 5.6 Long-term trend Period                                 |  |
| 5.7 Long-term trend Direction                              |  |
| 5.8 Long-term trend Magnitude                              | a) Minimum b) Maximum  |
| 5.9 Long-term trend Method used                            |  |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown x<br>d) Method   |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:   |
| 5.12 Additional information                                | The actual range is in reality much greater than reported here, but there are simply no records for many parts of Croatia. |

## 6. Population

|  |   |
|--|---|
| 6.1 Year or period   | 2007-2018   |
| 6.2 Population size (in reporting unit)  | a) Unit number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value 66 |
| 6.3 Type of estimate   | Minimum   |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value   |
| 6.5 Type of estimate   |   |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data   |
| 6.7 Short-term trend Period  | 2007-2018   |
| 6.8 Short-term trend Direction   | Unknown (x)   |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|   |   |
|---|---|
| 6.9 Short-term trend Magnitude                                      | a) Minimum<br>b) Maximum<br>c) Confidence interval                                  |
| 6.10 Short-term trend Method used                                   | Insufficient or no data available   |
| 6.11 Long-term trend Period   |   |
| 6.12 Long-term trend Direction                                      |   |
| 6.13 Long-term trend Magnitude                                      | a) Minimum<br>b) Maximum<br>c) Confidence interval                                  |
| 6.14 Long-term trend Method used                                    |   |
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4) | a) Population size<br>b) Operator<br>c) Unknown                      x<br>d) Method |
| 6.16 Change and reason for change in population size                | The change is mainly due to:  |
| 6.17 Additional information   |   |

## 7. Habitat for the species

|   |  |
|---|--|
| 7.1 Sufficiency of area and quality of occupied habitat             | a) Are area and quality of occupied habitat sufficient (for long-term survival)?                      Unknown<br><br>b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)? |
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Based mainly on expert opinion with very limited data  |
| 7.3 Short-term trend Period   | 2007-2018  |
| 7.4 Short-term trend Direction                                      | Unknown (x)  |
| 7.5 Short-term trend Method used                                    | Insufficient or no data available  |
| 7.6 Long-term trend Period  |  |
| 7.7 Long-term trend Direction                                       |  |
| 7.8 Long-term trend Method used                                     |  |
| 7.9 Additional information  |  |

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02) | M       |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|   |         |
|---|---------|
| Conversion into agricultural land (excluding drainage and burning) (A01)  | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Illegal shooting/killing (G10)  | M       |
| Threat  | Ranking |
| Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02) | M       |
| Conversion into agricultural land (excluding drainage and burning) (A01)  | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Illegal shooting/killing (G10)  | M       |

## 8.2 Sources of information

## 8.3 Additional information

# 9. Conservation measures

|                        |                                    |   |
|------------------------|------------------------------------|---|
| 9.1 Status of measures | a) Are measures needed?            | Yes                                     |
|                        | b) Indicate the status of measures | Measures identified, but none yet taken |

## 9.2 Main purpose of the measures taken

## 9.3 Location of the measures taken

## 9.4 Response to the measures

## 9.5 List of main conservation measures

## 9.6 Additional information

# 10. Future prospects

|                                     |                           |         |
|-------------------------------------|---------------------------|---------|
| 10.1 Future prospects of parameters | a) Range                  | Unknown |
|                                     | b) Population             | Unknown |
|                                     | c) Habitat of the species | Unknown |

## 10.2 Additional information

# 11. Conclusions

|                               |              |
|-------------------------------|--------------|
| 11.1. Range                   | Unknown (XX) |
| 11.2. Population              | Unknown (XX) |
| 11.3. Habitat for the species | Unknown (XX) |
| 11.4. Future prospects        | Unknown (XX) |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

11.5 Overall assessment of Conservation Status

Unknown (XX)

11.6 Overall trend in Conservation Status

11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

12.2 Type of estimate

12.3 Population size inside the network Method used

12.4 Short-term trend of population size within the network Direction

12.5 Short-term trend of population size within the network Method used

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

## 4. Biogeographical and marine regions

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 4.1 Biogeographical or marine region where the species occurs

### Continental (CON)

## 4.2 Sources of information

Bonte, C., 2012. Affirmation of *Coronella austriaca* (Laurenti, 1768) on the island of Cres, Croatia. *Herpetology Notes* 5, 65–66.

Hill, J., 2008. *Coronella austriaca* (Laurenti, 1768) from the Croatian Island of Cres. *Herpetozoa* 20, 192.

Jelić, D., 2010. Record of *Coronella austriaca* LAURENTI, 1768 from the Island of Mljet, southern Croatia. *Herpetozoa* 23, 85–87.

Jelić, D., Vilaj, I., 2011. Remarks on Death feigning in *Coronella austriaca* (Laurenti, 1768), *Natrix natrix* (Laurenti, 1768) and *Natrix tessellata* (Laurenti, 1768). *Hyla : Herpetological bulletin* 2011, 31–33.

Lauš, B., Burić, I., 2012. Colour abnormalities in *Coronella austriaca* (Laurenti, 1768) in Croatia. *Hyla : Herpetological bulletin* 2012, 43–44.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb

## 5. Range

### 5.1 Surface area

12000

### 5.2 Short-term trend Period

2007-2018

### 5.3 Short-term trend Direction

Unknown (x)

### 5.4 Short-term trend Magnitude

a) Minimum b) Maximum

### 5.5 Short-term trend Method used

Insufficient or no data available

### 5.6 Long-term trend Period

### 5.7 Long-term trend Direction

### 5.8 Long-term trend Magnitude

a) Minimum b) Maximum

### 5.9 Long-term trend Method used

### 5.10 Favourable reference range

a) Area (km<sup>2</sup>)  
b) Operator  
c) Unknown x  
d) Method

### 5.11 Change and reason for change in surface area of range

The change is mainly due to:

### 5.12 Additional information

The actual range is in reality much greater than reported here, but there are simply no records for many parts of Croatia.

## 6. Population

### 6.1 Year or period

2007-2018

### 6.2 Population size (in reporting unit)

a) Unit number of map 1x1 km grid cells (grids1x1)  
b) Minimum  
c) Maximum  
d) Best single value 73

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|  |   |
|--|---|
| 6.3 Type of estimate   | Minimum   |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value                         |
| 6.5 Type of estimate   |   |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data                               |
| 6.7 Short-term trend Period  | 2007-2018   |
| 6.8 Short-term trend Direction   | Unknown (x)   |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval                                  |
| 6.10 Short-term trend Method used  | Insufficient or no data available   |
| 6.11 Long-term trend Period  |   |
| 6.12 Long-term trend Direction   |   |
| 6.13 Long-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval                                  |
| 6.14 Long-term trend Method used   |   |
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4)              | a) Population size<br>b) Operator<br>c) Unknown                      x<br>d) Method |
| 6.16 Change and reason for change in population size                             | The change is mainly due to:  |
| 6.17 Additional information  |   |

## 7. Habitat for the species

|   |  |
|---|--|
| 7.1 Sufficiency of area and quality of occupied habitat             | a) Are area and quality of occupied habitat sufficient (for long-term survival)?                      Unknown<br><br>b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)? |
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Insufficient or no data available  |
| 7.3 Short-term trend Period   | 2007-2018  |
| 7.4 Short-term trend Direction                                      | Unknown (x)  |
| 7.5 Short-term trend Method used                                    | Insufficient or no data available  |
| 7.6 Long-term trend Period  |  |
| 7.7 Long-term trend Direction                                       |  |



# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

7.8 Long-term trend Method used

7.9 Additional information

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02) | M       |
| Conversion into agricultural land (excluding drainage and burning) (A01)  | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Illegal shooting/killing (G10)  | M       |
| Threat  | Ranking |
| Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02) | M       |
| Conversion into agricultural land (excluding drainage and burning) (A01)  | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Illegal shooting/killing (G10)  | M       |

8.2 Sources of information

8.3 Additional information

## 9. Conservation measures

|                        |                                    |   |
|------------------------|------------------------------------|---|
| 9.1 Status of measures | a) Are measures needed?            | Yes                                     |
|                        | b) Indicate the status of measures | Measures identified, but none yet taken |

9.2 Main purpose of the measures taken

9.3 Location of the measures taken

9.4 Response to the measures

9.5 List of main conservation measures

9.6 Additional information

## 10. Future prospects

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 10.1 Future prospects of parameters

|                           |         |
|---------------------------|---------|
| a) Range                  | Unknown |
| b) Population             | Unknown |
| c) Habitat of the species | Unknown |

## 10.2 Additional information

## 11. Conclusions

### 11.1. Range

Unknown (XX)

### 11.2. Population

Unknown (XX)

### 11.3. Habitat for the species

Unknown (XX)

### 11.4. Future prospects

Unknown (XX)

### 11.5 Overall assessment of Conservation Status

Unknown (XX)

### 11.6 Overall trend in Conservation Status

### 11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

## 11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

### 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

### 12.2 Type of estimate

### 12.3 Population size inside the network Method used

### 12.4 Short-term trend of population size within the network Direction

### 12.5 Short-term trend of population size within the network Method used

## 12.6 Additional information

## 13. Complementary information

### 13.1 Justification of % thresholds for trends

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

13.2 Trans-boundary assessment

13.3 Other relevant Information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                            |
|---|----------------------------|
| 1.1 Member State                        | HR                         |
| 1.2 Species code                        | 6138                       |
| 1.3 Species scientific name             | <i>Dolichophis caspius</i> |
| 1.4 Alternative species scientific name |                            |
| 1.5 Common name (in national language)  | žuta poljarica             |

## 2. Maps

|                                  |   |
|----------------------------------|---|
| 2.1 Sensitive species            | No  |
| 2.2 Year or period               | 2009-2017   |
| 2.3 Distribution map             | Yes   |
| 2.4 Distribution map Method used | Based mainly on expert opinion with very limited data |
| 2.5 Additional maps              | No  |

## 3. Information related to Annex V Species (Art. 14)

|   |   |    |
|---|---|----|
| 3.1 Is the species taken in the wild/exploited?       | No  |    |
| 3.2 Which of the measures in Art. 14 have been taken? | a) regulations regarding access to property   | No |
|   | b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No |
|   | c) regulation of the periods and/or methods of taking specimens   | No |
|   | d) application of hunting and fishing rules which take account of the conservation of such populations      | No |
|   | e) establishment of a system of licences for taking specimens or of quotas                                  | No |
|   | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No |
|   | g) breeding in captivity of animal species as well as artificial propagation of plant species               | No |
|   | h) other measures   | No |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

3.4. Hunting bag or quantity taken in the wild Method used

3.5. Additional information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

**Mediterranean (MED)**

4.2 Sources of information

Jelić, D., Kuljerić, M., Koren, T., Treer, D., Šalamon, D., Lončar, M., Podnar Lešić, M., Janev Hutinec, B., Bogdanović, T., Mekinić, S., Jelić, K., 2012. Crvena knjiga vodozemaca i gmazova Hrvatske. Ministarstvo zaštite okoliša i prirode, Državni zavod za zaštitu prirode, Republika Hrvatska.

Kreiner, G., 2007. The Snakes of Europe: all species from west of the Caucasus Mountains. Edition Chimaira, Frankfurt am Main.

Mahtani-Williams, S., Halpern, B., Vörös, J., Lauš, B., Babocsay, G., Vági, B., László Péntek, A., Nagy, Z.T., Burger, P.A., 2017. Phylogeography and adaptive evolution of the Caspian whipsnake (*Dolichophis caspius*).

Vervust, B., Grbac, I., Brecko, J., Tvrtković, N., Van Damme, R., 2009. Distribution of reptiles and amphibians in the nature park Lastovo Archipelago: possible underlying biotic and abiotic causes. *Natura Croatica : Periodicum Musei Historiae Naturalis Croatici* 18, 113–127

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb

## 5. Range

5.1 Surface area

22

5.2 Short-term trend Period

2009-2017

5.3 Short-term trend Direction

Unknown (x)

5.4 Short-term trend Magnitude

a) Minimum

b) Maximum

5.5 Short-term trend Method used

Insufficient or no data available

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|  |   |
|--|---|
| 5.6 Long-term trend Period                                 |   |
| 5.7 Long-term trend Direction                              |   |
| 5.8 Long-term trend Magnitude                              | a) Minimum                      b) Maximum  |
| 5.9 Long-term trend Method used                            |   |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown                      x<br>d) Method   |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:  |
| 5.12 Additional information                                | This species is probably present all across Lastovo and Olib, but records exist for only a few parts of the islands. Therefore, the total range is probably higher.<br><br>1x1 km quadrants were used because the current known range encompasses a very small area, within the same 10x10 km quadrant. |

## 6. Population

|  |   |
|--|---|
| 6.1 Year or period   | 2009-2017   |
| 6.2 Population size (in reporting unit)  | a) Unit                      number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value    22 |
| 6.3 Type of estimate   | Minimum   |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value   |
| 6.5 Type of estimate   |   |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data   |
| 6.7 Short-term trend Period  | 2009-2017   |
| 6.8 Short-term trend Direction   | Unknown (x)   |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval  |
| 6.10 Short-term trend Method used  | Insufficient or no data available   |
| 6.11 Long-term trend Period  |   |
| 6.12 Long-term trend Direction   |   |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 6.13 Long-term trend Magnitude

- a) Minimum
- b) Maximum
- c) Confidence interval

## 6.14 Long-term trend Method used

## 6.15 Favourable reference population (using the unit in 6.2 or 6.4)

- a) Population size
- b) Operator
- c) Unknown x
- d) Method

## 6.16 Change and reason for change in population size

The change is mainly due to:

## 6.17 Additional information

This species is probably present all across Lastovo and Olib, but records exist for only a few parts of the islands. Therefore, the total population size is probably higher.

## 7. Habitat for the species

### 7.1 Sufficiency of area and quality of occupied habitat

- a) Are area and quality of occupied habitat sufficient (for long-term survival)? Unknown

- b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?

### 7.2 Sufficiency of area and quality of occupied habitat Method used

Insufficient or no data available

### 7.3 Short-term trend Period

2009-2017

### 7.4 Short-term trend Direction

Unknown (x)

### 7.5 Short-term trend Method used

Insufficient or no data available

### 7.6 Long-term trend Period

### 7.7 Long-term trend Direction

### 7.8 Long-term trend Method used

### 7.9 Additional information

Succession is problematic in some parts, while excessive removal of vegetation is a problem in others.

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Reduced fecundity / genetic depression (e.g. inbreeding or endogamy) (L05)  | H       |
| Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02) | M       |
| Change of habitat location, size, and / or quality due to climate change (N05)  | M       |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

| Threat  | Ranking |
|---|---------|
| Reduced fecundity / genetic depression (e.g. inbreeding or endogamy) (L05)  | H       |
| Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02) | M       |
| Change of habitat location, size, and / or quality due to climate change (N05)  | M       |

8.2 Sources of information Jelić et al. (2012), Mahtani-Williams et al. (2017)

8.3 Additional information

## 9. Conservation measures

9.1 Status of measures

a) Are measures needed? Yes

b) Indicate the status of measures Measures identified, but none yet taken

9.2 Main purpose of the measures taken

9.3 Location of the measures taken

9.4 Response to the measures

9.5 List of main conservation measures

9.6 Additional information

## 10. Future prospects

10.1 Future prospects of parameters

a) Range Poor

b) Population Poor

c) Habitat of the species Poor

10.2 Additional information

## 11. Conclusions

11.1. Range Unknown (XX)

11.2. Population Unknown (XX)

11.3. Habitat for the species Unknown (XX)

11.4. Future prospects Unfavourable - Inadequate (U1)

11.5 Overall assessment of Conservation Status Unfavourable - Inadequate (U1)

11.6 Overall trend in Conservation Status Unknown (x)

11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:



# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## b) Overall trend in conservation status

The change is mainly due to:

### 11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

### 12.2 Type of estimate

12.3 Population size inside the network Method used

12.4 Short-term trend of population size within the network Direction

12.5 Short-term trend of population size within the network Method used

### 12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

### Continental (CON)

4.2 Sources of information

Jelić, D., Kuljerić, M., Koren, T., Treer, D., Šalamon, D., Lončar, M., Podnar Lešić, M., Janev Hutinec, B., Bogdanović, T., Mekinić, S., Jelić, K., 2012. Crvena knjiga vodozemaca i gmazova Hrvatske. Ministarstvo zaštite okoliša i prirode, Državni zavod za zaštitu prirode, Republika Hrvatska.  
Kreiner, G., 2007. The Snakes of Europe: all species from west of the Caucasus Mountains. Edition Chimaira, Frankfurt am Main.

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Mahtani-Williams, S., Halpern, B., Vörös, J., Lauš, B., Babocsay, G., Vági, B., László Péntek, A., Nagy, Z.T., Burger, P.A., 2017. Phylogeography and adaptive evolution of the Caspian whipsnake (*Dolichophis caspius*).

Vervust, B., Grbac, I., Brecko, J., Tvrtković, N., Van Damme, R., 2009. Distribution of reptiles and amphibians in the nature park Lastovo Archipelago: possible underlying biotic and abiotic causes. *Natura Croatica : Periodicum Musei Historiae Naturalis Croatici* 18, 113–127

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb

## 5. Range

|  |  |
|--|--|
| 5.1 Surface area   | 3  |
| 5.2 Short-term trend Period                                | 2009-2017  |
| 5.3 Short-term trend Direction                             | Unknown (x)  |
| 5.4 Short-term trend Magnitude                             | a) Minimum                      b) Maximum   |
| 5.5 Short-term trend Method used                           | Insufficient or no data available  |
| 5.6 Long-term trend Period                                 |  |
| 5.7 Long-term trend Direction                              |  |
| 5.8 Long-term trend Magnitude                              | a) Minimum                      b) Maximum   |
| 5.9 Long-term trend Method used                            |  |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown                      x<br>d) Method                                  |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:   |
| 5.12 Additional information                                | 1x1 km quadrants were used because the current known range encompasses a very small area, within the same 10x10 km quadrant. |

## 6. Population

|  |  |
|--|--|
| 6.1 Year or period   | 2009-2017  |
| 6.2 Population size (in reporting unit)  | a) Unit                      number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value    3 |
| 6.3 Type of estimate   | Minimum  |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value  |

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|   |  |
|---|--|
| 6.5 Type of estimate  |  |
| 6.6 Population size Method used                                     | Based mainly on expert opinion with very limited data  |
| 6.7 Short-term trend Period   | 2009-2017  |
| 6.8 Short-term trend Direction                                      | Decreasing (-)   |
| 6.9 Short-term trend Magnitude                                      | a) Minimum<br>b) Maximum<br>c) Confidence interval   |
| 6.10 Short-term trend Method used                                   | Based mainly on expert opinion with very limited data  |
| 6.11 Long-term trend Period   |  |
| 6.12 Long-term trend Direction                                      |  |
| 6.13 Long-term trend Magnitude                                      | a) Minimum<br>b) Maximum<br>c) Confidence interval   |
| 6.14 Long-term trend Method used                                    |  |
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4) | a) Population size<br>b) Operator<br>c) Unknown x<br>d) Method   |
| 6.16 Change and reason for change in population size                | The change is mainly due to:   |
| 6.17 Additional information   | It is possible some populations still exist along the Danube, between Baranja and Fruška Gora - there have been at least two unconfirmed sightings. Therefore the population may be larger than what is reported here. |

## 7. Habitat for the species

|   |  |
|---|--|
| 7.1 Sufficiency of area and quality of occupied habitat             | a) Are area and quality of occupied habitat sufficient (for long-term survival)? No<br>b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)? Unknown |
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Based mainly on expert opinion with very limited data  |
| 7.3 Short-term trend Period   | 2009-2017  |
| 7.4 Short-term trend Direction                                      | Decreasing (-)   |
| 7.5 Short-term trend Method used                                    | Based mainly on expert opinion with very limited data  |
| 7.6 Long-term trend Period  |  |
| 7.7 Long-term trend Direction                                       |  |
| 7.8 Long-term trend Method used                                     |  |
| 7.9 Additional information  | Succession and overgrowing are one of the main threats to the survival of the population in the Continental biogeographic region.  |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02) | H       |
| Conversion into agricultural land (excluding drainage and burning) (A01)  | H       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | H       |
| Reduced fecundity / genetic depression (e.g. inbreeding or endogamy) (L05)  | M       |
| Threat  |         |
|   | Ranking |
| Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02) | H       |
| Conversion into agricultural land (excluding drainage and burning) (A01)  | H       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | H       |
| Reduced fecundity / genetic depression (e.g. inbreeding or endogamy) (L05)  | M       |

### 8.2 Sources of information

### 8.3 Additional information

## 9. Conservation measures

|                        |                                    |   |
|------------------------|------------------------------------|---|
| 9.1 Status of measures | a) Are measures needed?            | Yes                                     |
|                        | b) Indicate the status of measures | Measures identified, but none yet taken |

### 9.2 Main purpose of the measures taken

### 9.3 Location of the measures taken

### 9.4 Response to the measures

### 9.5 List of main conservation measures

### 9.6 Additional information

## 10. Future prospects

|                                     |                           |         |
|-------------------------------------|---------------------------|---------|
| 10.1 Future prospects of parameters | a) Range                  | Unknown |
|                                     | b) Population             | Bad     |
|                                     | c) Habitat of the species | Bad     |

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## 10.2 Additional information

## 11. Conclusions

|   |   |
|---|---|
| 11.1. Range   | Unknown (XX)  |
| 11.2. Population  | Unknown (XX)  |
| 11.3. Habitat for the species   | Unfavourable - Bad (U2)   |
| 11.4. Future prospects  | Unfavourable - Bad (U2)   |
| 11.5 Overall assessment of Conservation Status  | Unfavourable - Bad (U2)   |
| 11.6 Overall trend in Conservation Status   | Deteriorating (-)   |
| 11.7 Change and reasons for change in conservation status and conservation status trend | a) Overall assessment of conservation status<br><br>The change is mainly due to:<br><br>b) Overall trend in conservation status<br><br>The change is mainly due to: |

## 11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

|   |   |
|---|---|
| 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value |
| 12.2 Type of estimate   |   |
| 12.3 Population size inside the network Method used   |   |
| 12.4 Short-term trend of population size within the network Direction   |   |
| 12.5 Short-term trend of population size within the network Method used   |   |
| 12.6 Additional information   |   |

## 13. Complementary information

|   |
|---|
| 13.1 Justification of % thresholds for trends |
| 13.2 Trans-boundary assessment                |
| 13.3 Other relevant Information               |

## **Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)**

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                       |
|---|-----------------------|
| 1.1 Member State                        | HR                    |
| 1.2 Species code                        | 1279                  |
| 1.3 Species scientific name             | Elaphe quatuorlineata |
| 1.4 Alternative species scientific name |                       |
| 1.5 Common name (in national language)  | četveroprugi kravosas |

## 2. Maps

|                                  |   |
|----------------------------------|---|
| 2.1 Sensitive species            | No  |
| 2.2 Year or period               | 2007-2018   |
| 2.3 Distribution map             | Yes   |
| 2.4 Distribution map Method used | Based mainly on expert opinion with very limited data |
| 2.5 Additional maps              | Yes   |

## 3. Information related to Annex V Species (Art. 14)

|   |   |    |
|---|---|----|
| 3.1 Is the species taken in the wild/exploited?       | No  |    |
| 3.2 Which of the measures in Art. 14 have been taken? | a) regulations regarding access to property   | No |
|   | b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No |
|   | c) regulation of the periods and/or methods of taking specimens   | No |
|   | d) application of hunting and fishing rules which take account of the conservation of such populations      | No |
|   | e) establishment of a system of licences for taking specimens or of quotas                                  | No |
|   | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No |
|   | g) breeding in captivity of animal species as well as artificial propagation of plant species               | No |
|   | h) other measures   | No |

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## 3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

### a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

## 3.4. Hunting bag or quantity taken in the wild Method used

## 3.5. Additional information

## 4. Biogeographical and marine regions

### 4.1 Biogeographical or marine region where the species occurs

#### Mediterranean (MED)

### 4.2 Sources of information

Budinski, I., Kuljerić, M., Jelić, D., Čulina, A., 2008. Vodozemci i gmazovi Nacionalnog parka Mljet. Rasprostranjenost, ugroženost i mjere zaštite. Hrvatsko herpetološko društvo – Hyla, Zagreb.

Čevič, J., 2015. Fragmentacija staništa i ugroženost zmija u Hrvatskoj (bachelor). University of Zagreb, Faculty of Science, Zagreb.

Galvagni, E., 1902. Beiträge zur Kenntniss der Fauna einiger dalmatinischer Inseln. Verhandlungen zoologisch-botanischen Gesellschaft in Wien 52, 362–388.

Janev Hutinec, B., Lupret-Obradović, S., 2005. Zmije Hrvatske - priručnik za određivanje vrsta. Društvo za zaštitu i proučavanje vodozemaca i gmazova Hrvatske - Hyla, Kratis d.o.o., Zagreb.

Jelić, D., Budinski, I., Lauš, B., 2012. Distribution and conservation status of the batracho- and herpetofauna of the Croatian island of Mljet (Anura; Testudines; Squamata: Sauria, Serpentes). Herpetozoa 24, 165–178.

Jurinac, A.E., 1887. Prilog hrvatskoj fauni ogulinsko-slunjske okolice i pećina. Rad Jugoslavenske akademije znanosti i umjetnosti 8, 86–128.

Karaman, S., 1939. Über die Verbreitung der Reptilien in Jugoslawien. Annales Musei Serbiae Meridionalis, Skoplje 1, 1–20.

Koren, T., Črne, M., Koprivnikar, N., Trkov, D., Drašler, K., Jelić, D., 2013. Contribution to the herpetofauna (Amphibia & Reptilia) of lower Neretva River (Croatia & Bosnia and Herzegovina). Hyla : Herpetological bulletin 2012, 19–40.

Koren, T., Lauš, B., Burić, I., Kuljerić, M., 2011. Contribution to the herpetofauna (amphibians & reptiles) of the Kornati archipelago, Croatia. Natura Croatica 20, 387–396.

Lauš, B., 2015. Istraživanje populacija četveroprugog kravosasa (Elaphe quatuorlineata) i crvenkrpice (Zamenis situla) na Natura 2000 području Ravni



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kotari (kod: HR2001361) (završni izvještaj). Hrvatsko herpetološko društvo – Hyla, Zagreb.

Lauš, B., 2010. A contribution to the herpetofauna of Žirje Island (Dalmatia, Croatia). *Natura Sloveniae* 12, 61–63.

Lončar, M., 2005. Rasprostranjenost gmazova Hrvatske, Zbirka Hrvatskog prirodoslovnog muzeja (graduation thesis). Sveučilište u Zagrebu, Prirodoslovno-matematički fakultet, Zagreb.

Lukač, M., Horvatek Tomić, D., Mandac, Z., Mihoković, S., Prukner-Radovčić, E., 2017. Oral and cloacal aerobic bacterial and fungal flora of free-living four-lined snakes (*Elaphe quatuorlineata*) from Croatia. *Veterinary Archives* 87, 351–361.

Madl, R., 2017. First record of *Elaphe quatuorlineata* (BONNATERRE, 1790), from the Island of Dugi Otok (Croatia). *Herpetozoa* 30, 96–100.

Mekinić, S., Nediljko, Ž., Boban, J., Piasevoli, G., Vladović, D., 2015. Snakes in herpetological collection of the Natural History Museum in Split (Croatia) collected from 1924 until 2015. *Hyla : Herpetological bulletin* 2015, 4–10.

Schweiger, M., 2005. Ile of walls - Herpetologische Beobachtungen auf der Kroatischen Insel Pag. 3. Teil: Echsen und Schlangen. *ÖGH-Aktuell* 16, 5–7.

Werner, F., 1908. Die zoologische Reise des naturwissenschaftlichen Vereines nach Dalmatien im April 1906. A. Allgemeiner Teil. Bericht über den Verlauf der Reise. 3. Streifzüge der Ostpartie. *Mitteilungen des Naturwissenschaftlichen Vereines an der Universität Wien* 6, 12–18.

Werner, F., 1897. Die Reptilien und Amphibien Oesterreich - Ungarns und der Occupationslaender. Pichlers Witwe & Sohn, Wien.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

|  |  |
|--|--|
| 5.1 Surface area   | 23400  |
| 5.2 Short-term trend Period                                | 2007-2018  |
| 5.3 Short-term trend Direction                             | Unknown (x)  |
| 5.4 Short-term trend Magnitude                             | a) Minimumb) Maximum   |
| 5.5 Short-term trend Method used                           | Insufficient or no data available  |
| 5.6 Long-term trend Period                                 |  |
| 5.7 Long-term trend Direction                              |  |
| 5.8 Long-term trend Magnitude                              | a) Minimumb) Maximum   |
| 5.9 Long-term trend Method used                            |  |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknownx<br>d) Method  |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:   |
| 5.12 Additional information                                | There are several old literature records for this species on the island of Mljet. However, all of those refer to a single collected specimen mentioned by Werner (1897). No new records after that exist. Since mongooses were introduced to the island at the beginning of the 20th century, it is possible this species became |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

locally extinct. Therefore, we did not include the original record in the range and distribution.

## 6. Population

|  |  |
|--|--|
| 6.1 Year or period   | 2007-2018  |
| 6.2 Population size (in reporting unit)  | a) Unit                      number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value    215 |
| 6.3 Type of estimate   | Minimum  |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value  |
| 6.5 Type of estimate   |  |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data  |
| 6.7 Short-term trend Period  | 2007-2018  |
| 6.8 Short-term trend Direction   | Unknown (x)  |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval   |
| 6.10 Short-term trend Method used  | Insufficient or no data available  |
| 6.11 Long-term trend Period  |  |
| 6.12 Long-term trend Direction   |  |
| 6.13 Long-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval   |
| 6.14 Long-term trend Method used   |  |
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4)              | a) Population size<br>b) Operator<br>c) Unknown                      x<br>d) Method  |
| 6.16 Change and reason for change in population size                             | The change is mainly due to:   |
| 6.17 Additional information  | The record(s) from Mljet (see 5.12) was not included for the same reasons.   |

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## 7. Habitat for the species

|   |   |     |
|---|---|-----|
| 7.1 Sufficiency of area and quality of occupied habitat             | a) Are area and quality of occupied habitat sufficient (for long-term survival)?                          | Yes |
|   | b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)? |     |
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Based mainly on expert opinion with very limited data   |     |
| 7.3 Short-term trend Period   | 2007-2018   |     |
| 7.4 Short-term trend Direction                                      | Unknown (x)   |     |
| 7.5 Short-term trend Method used                                    | Insufficient or no data available   |     |
| 7.6 Long-term trend Period  |   |     |
| 7.7 Long-term trend Direction                                       |   |     |
| 7.8 Long-term trend Method used                                     |   |     |
| 7.9 Additional information  |   |     |

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Invasive alien species of Union concern (I01)   | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Conversion into agricultural land (excluding drainage and burning) (A01)  | M       |
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |
| Threat  | Ranking |
| Invasive alien species of Union concern (I01)   | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Conversion into agricultural land (excluding drainage and burning) (A01)  | M       |
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |
| Illegal shooting/killing (G10)  | M       |

### 8.2 Sources of information

8.3 Additional information IAS union concern : *Herpestes javanicus* É. Geoffroy Saint-Hilaire, 1818

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## 9. Conservation measures

### 9.1 Status of measures

a) Are measures needed?

Yes

b) Indicate the status of measures

Measures identified, but none yet taken

### 9.2 Main purpose of the measures taken

### 9.3 Location of the measures taken

### 9.4 Response to the measures

### 9.5 List of main conservation measures

### 9.6 Additional information

## 10. Future prospects

### 10.1 Future prospects of parameters

a) Range

Unknown

b) Population

Unknown

c) Habitat of the species

Unknown

### 10.2 Additional information

## 11. Conclusions

### 11.1. Range

Unknown (XX)

### 11.2. Population

Unknown (XX)

### 11.3. Habitat for the species

Unknown (XX)

### 11.4. Future prospects

Unknown (XX)

### 11.5 Overall assessment of Conservation Status

Unknown (XX)

### 11.6 Overall trend in Conservation Status

### 11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

### 11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

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|   |   |   |
|---|---|---|
| 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value | number of map 1x1 km grid cells (grids1x1)<br><br><br>164 |
| 12.2 Type of estimate   | Minimum   |   |
| 12.3 Population size inside the network Method used   | Based mainly on expert opinion with very limited data       |   |
| 12.4 Short-term trend of population size within the network Direction   | Unknown (x)   |   |
| 12.5 Short-term trend of population size within the network Method used   | Insufficient or no data available                           |   |
| 12.6 Additional information   |   |   |

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                      |
|---|----------------------|
| 1.1 Member State                        | HR                   |
| 1.2 Species code                        | 5669                 |
| 1.3 Species scientific name             | Hierophis gemonensis |
| 1.4 Alternative species scientific name |                      |
| 1.5 Common name (in national language)  | šara poljarica       |

## 2. Maps

|                                  |   |
|----------------------------------|---|
| 2.1 Sensitive species            | No  |
| 2.2 Year or period               | 2007-2018   |
| 2.3 Distribution map             | Yes   |
| 2.4 Distribution map Method used | Based mainly on expert opinion with very limited data |
| 2.5 Additional maps              | Yes   |

## 3. Information related to Annex V Species (Art. 14)

|   |   |    |
|---|---|----|
| 3.1 Is the species taken in the wild/exploited?       | No  |    |
| 3.2 Which of the measures in Art. 14 have been taken? | a) regulations regarding access to property   | No |
|   | b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No |
|   | c) regulation of the periods and/or methods of taking specimens   | No |
|   | d) application of hunting and fishing rules which take account of the conservation of such populations      | No |
|   | e) establishment of a system of licences for taking specimens or of quotas                                  | No |
|   | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No |
|   | g) breeding in captivity of animal species as well as artificial propagation of plant species               | No |
|   | h) other measures   | No |

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## 3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

### a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

## 3.4. Hunting bag or quantity taken in the wild Method used

## 3.5. Additional information

## 4. Biogeographical and marine regions

### 4.1 Biogeographical or marine region where the species occurs

#### Alpine (ALP)

### 4.2 Sources of information

Coz-Rakovac, R., Lisicic, D., Smuc, T., Popovic, N.T., Strunjak-Perovic, I., Jadan, M., Tadic, Z., Dujakovic, J.J., 2011. Classification Modeling of Physiological Stages in Captive Balkan Whip Snakes Using Blood Biochemistry Parameters. *Journal of Herpetology* 45, 525–529. <https://doi.org/10.1670/10-234.1>

Drašler, K., 2014. Poročilo o delu skupine za plazilce, in: *Ekosistemi Jadrana 2011 - delta Neretve*. Društvo študentov biologije, Ljubljana, pp. 35–41.

Džukić, G., Tomović, L., Anđelković, M., Urošević, A., Nikolić, S., Kalezić, M., 2017. The herpetological collection of the Institute for biological research “Siniša Stanković”, University of Belgrade. *Bulletin of the Natural History Museum* 10, 57–104. <https://doi.org/10.5937/bnhmb1710057D>

Jablonski, D., Szabolcs, M., Simović, A., Mizsei, E., 2017. Colour and pattern variation of the Balkan whip snake, *Hierophis gemonensis* (Laurenti, 1768). *Turkish Journal of Zoology* 41, 363–369. <https://doi.org/10.3906/zoo-1606-15>

Koren, T., Črne, M., Koprivnikar, N., Trkov, D., Drašler, K., Jelić, D., 2013. Contribution to the herpetofauna (Amphibia & Reptilia) of lower Neretva River (Croatia & Bosnia and Herzegovina). *Hyla : Herpetological bulletin* 2012, 19–40.

Lauš, B., 2010. A contribution to the herpetofauna of Žirje Island (Dalmatia, Croatia). *Natura Sloveniae* 12, 61–63.

Mekinić, S., Nediljko, Ž., Boban, J., Piasevoli, G., Vladović, D., 2015. Snakes in herpetological collection of the Natural History Museum in Split (Croatia) collected from 1924 until 2015. *Hyla : Herpetological bulletin* 2015, 4–10.

Tóth, T., Farkas, B., Géczy, C., Molnár, Z., 2009. Herpetofaunal data from Ilovik and neighboring islets (Cres-Lošinj Archipelago, Croatia). *Herpetozoa* 22, 82–87.

Tóth, T., Heltai, M., Keszi, A., Sušić, G., Moharos, L., Farkas, B., Géczy, C., Torda, O., Gál, J., 2017. Herpetofauna inventory of the small islands of the Cres-Lošinj

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Archipelago (North Adriatic Sea, Croatia) (Amphibia; Reptilia). Herpetozoa 30, 21–28.

Vamberger, M., 2012. Poročilo skupine za dvoživke in plazilce, in: Ekosistemi Jadrana, Pag 2007. Društvo študentov biologije, Ljubljana, pp. 10–17.

Vilaj, I., 2014. Doprinos poznavanju herpetofaune otoka Hvara, in: Barišić, M., Burić, I., Gazić, M., Sučić, I. (Eds.), Istraživanje bioraznolikosti otoka Hvara 2011. Udruga studenata biologije - BIUS, Zagreb, pp. 136–156.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

|  |  |
|--|--|
| 5.1 Surface area   | 2200   |
| 5.2 Short-term trend Period                                | 2007-2018  |
| 5.3 Short-term trend Direction                             | Unknown (x)  |
| 5.4 Short-term trend Magnitude                             | a) Minimum b) Maximum  |
| 5.5 Short-term trend Method used                           | Insufficient or no data available                                      |
| 5.6 Long-term trend Period                                 |  |
| 5.7 Long-term trend Direction                              |  |
| 5.8 Long-term trend Magnitude                              | a) Minimum b) Maximum  |
| 5.9 Long-term trend Method used                            |  |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown x<br>d) Method |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:   |
| 5.12 Additional information                                |  |

## 6. Population

|  |  |
|--|--|
| 6.1 Year or period   | 2007-2018  |
| 6.2 Population size (in reporting unit)  | a) Unit number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value 9 |
| 6.3 Type of estimate   | Minimum  |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value  |
| 6.5 Type of estimate   |  |



# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|   |  |
|---|--|
| 6.6 Population size Method used                                     | Based mainly on expert opinion with very limited data          |
| 6.7 Short-term trend Period   | 2007-2018  |
| 6.8 Short-term trend Direction                                      | Unknown (x)  |
| 6.9 Short-term trend Magnitude                                      | a) Minimum<br>b) Maximum<br>c) Confidence interval             |
| 6.10 Short-term trend Method used                                   | Insufficient or no data available                              |
| 6.11 Long-term trend Period   |  |
| 6.12 Long-term trend Direction                                      |  |
| 6.13 Long-term trend Magnitude                                      | a) Minimum<br>b) Maximum<br>c) Confidence interval             |
| 6.14 Long-term trend Method used                                    |  |
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4) | a) Population size<br>b) Operator<br>c) Unknown x<br>d) Method |
| 6.16 Change and reason for change in population size                | The change is mainly due to:                                   |
| 6.17 Additional information   |  |

## 7. Habitat for the species

|   |   |     |
|---|---|-----|
| 7.1 Sufficiency of area and quality of occupied habitat             | a) Are area and quality of occupied habitat sufficient (for long-term survival)?<br>b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)? | Yes |
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Based mainly on expert opinion with very limited data   |     |
| 7.3 Short-term trend Period   | 2007-2018   |     |
| 7.4 Short-term trend Direction                                      | Unknown (x)   |     |
| 7.5 Short-term trend Method used                                    | Insufficient or no data available   |     |
| 7.6 Long-term trend Period  |   |     |
| 7.7 Long-term trend Direction                                       |   |     |
| 7.8 Long-term trend Method used                                     |   |     |
| 7.9 Additional information  |   |     |

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure | Ranking |
|----------|---------|
|----------|---------|

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|   |         |
|---|---------|
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Illegal shooting/killing (G10)  | M       |
| Threat  | Ranking |
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Illegal shooting/killing (G10)  | M       |

## 8.2 Sources of information

## 8.3 Additional information

# 9. Conservation measures

## 9.1 Status of measures

- a) Are measures needed? No
- b) Indicate the status of measures

## 9.2 Main purpose of the measures taken

## 9.3 Location of the measures taken

## 9.4 Response to the measures

## 9.5 List of main conservation measures

## 9.6 Additional information

# 10. Future prospects

## 10.1 Future prospects of parameters

- a) Range Unknown
- b) Population Unknown
- c) Habitat of the species Unknown

## 10.2 Additional information

# 11. Conclusions

11.1. Range Unknown (XX)

11.2. Population Unknown (XX)

11.3. Habitat for the species Unknown (XX)

11.4. Future prospects Unknown (XX)

11.5 Overall assessment of Conservation Status Unknown (XX)

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 11.6 Overall trend in Conservation Status

### 11.7 Change and reasons for change in conservation status and conservation status trend

#### a) Overall assessment of conservation status

The change is mainly due to:

#### b) Overall trend in conservation status

The change is mainly due to:

## 11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

### 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

### 12.2 Type of estimate

### 12.3 Population size inside the network Method used

### 12.4 Short-term trend of population size within the network Direction

### 12.5 Short-term trend of population size within the network Method used

## 12.6 Additional information

## 13. Complementary information

### 13.1 Justification of % thresholds for trends

### 13.2 Trans-boundary assessment

### 13.3 Other relevant Information

## 4. Biogeographical and marine regions

### 4.1 Biogeographical or marine region where the species occurs

**Mediterranean (MED)**

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 4.2 Sources of information

- Coz-Rakovac, R., Lisicic, D., Smuc, T., Popovic, N.T., Strunjak-Perovic, I., Jadan, M., Tadic, Z., Dujakovic, J.J., 2011. Classification Modeling of Physiological Stages in Captive Balkan Whip Snakes Using Blood Biochemistry Parameters. *Journal of Herpetology* 45, 525–529. <https://doi.org/10.1670/10-234.1>
- Drašler, K., 2014. Poročilo o delu skupine za plazilce, in: *Ekosistemi Jadrana 2011 - delta Neretve*. Društvo študentov biologije, Ljubljana, pp. 35–41.
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- Vilaj, I., 2014. Doprinos poznavanju herpetofaune otoka Hvara, in: Barišić, M., Burić, I., Gazić, M., Sušić, I. (Eds.), *Istraživanje bioraznolikosti otoka Hvara 2011*. Udruga studenata biologije - BIUS, Zagreb, pp. 136–156.
- M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

|                                  |  |
|----------------------------------|--|
| 5.1 Surface area                 | 25600  |
| 5.2 Short-term trend Period      | 2007-2018  |
| 5.3 Short-term trend Direction   | Stable (0)   |
| 5.4 Short-term trend Magnitude   | a) Minimum b) Maximum  |
| 5.5 Short-term trend Method used | Based mainly on expert opinion with very limited data                |
| 5.6 Long-term trend Period       |  |
| 5.7 Long-term trend Direction    |  |
| 5.8 Long-term trend Magnitude    | a) Minimum b) Maximum  |
| 5.9 Long-term trend Method used  |  |
| 5.10 Favourable reference range  | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown<br>d) Method |
|                                  | More than (>)  |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 5.11 Change and reason for change in surface area of range

The change is mainly due to:

## 5.12 Additional information

The actual range is to an extent greater than that reported here, but there are no records (published or otherwise) for some parts of Croatia, even though the species is (most certainly) present there.

## 6. Population

### 6.1 Year or period

2007-2018

### 6.2 Population size (in reporting unit)

a) Unit number of map 1x1 km grid cells (grids1x1)  
b) Minimum  
c) Maximum  
d) Best single value 303

### 6.3 Type of estimate

Minimum

### 6.4 Additional population size (using population unit other than reporting unit)

a) Unit  
b) Minimum  
c) Maximum  
d) Best single value

### 6.5 Type of estimate

### 6.6 Population size Method used

Based mainly on expert opinion with very limited data

### 6.7 Short-term trend Period

2007-2018

### 6.8 Short-term trend Direction

Unknown (x)

### 6.9 Short-term trend Magnitude

a) Minimum  
b) Maximum  
c) Confidence interval

### 6.10 Short-term trend Method used

Insufficient or no data available

### 6.11 Long-term trend Period

### 6.12 Long-term trend Direction

### 6.13 Long-term trend Magnitude

a) Minimum  
b) Maximum  
c) Confidence interval

### 6.14 Long-term trend Method used

### 6.15 Favourable reference population (using the unit in 6.2 or 6.4)

a) Population size  
b) Operator  
c) Unknown x  
d) Method

### 6.16 Change and reason for change in population size

The change is mainly due to:

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 6.17 Additional information

## 7. Habitat for the species

|   |   |     |
|---|---|-----|
| 7.1 Sufficiency of area and quality of occupied habitat             | a) Are area and quality of occupied habitat sufficient (for long-term survival)?                          | Yes |
|   | b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)? |     |
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Based mainly on expert opinion with very limited data   |     |
| 7.3 Short-term trend Period   | 2007-2018   |     |
| 7.4 Short-term trend Direction                                      | Unknown (x)   |     |
| 7.5 Short-term trend Method used                                    | Insufficient or no data available   |     |
| 7.6 Long-term trend Period  |   |     |
| 7.7 Long-term trend Direction                                       |   |     |
| 7.8 Long-term trend Method used                                     |   |     |
| 7.9 Additional information  |   |     |

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Illegal shooting/killing (G10)  | M       |
| Invasive alien species of Union concern (I01)   | M       |
| Threat  | Ranking |
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Illegal shooting/killing (G10)  | M       |
| Invasive alien species of Union concern (I01)   | M       |

### 8.2 Sources of information

8.3 Additional information IAS union concern : *Herpestes javanicus* É. Geoffroy Saint-Hilaire, 1818

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 9. Conservation measures

### 9.1 Status of measures

a) Are measures needed?

Yes

b) Indicate the status of measures

Measures identified, but none yet taken

### 9.2 Main purpose of the measures taken

### 9.3 Location of the measures taken

### 9.4 Response to the measures

### 9.5 List of main conservation measures

### 9.6 Additional information

## 10. Future prospects

### 10.1 Future prospects of parameters

a) Range

Unknown

b) Population

Unknown

c) Habitat of the species

Unknown

### 10.2 Additional information

Future prospects are probably not that grim for this species, but we do not have sufficient data to reliably state this.

## 11. Conclusions

### 11.1. Range

Unknown (XX)

### 11.2. Population

Unknown (XX)

### 11.3. Habitat for the species

Unknown (XX)

### 11.4. Future prospects

Unknown (XX)

### 11.5 Overall assessment of Conservation Status

Unknown (XX)

### 11.6 Overall trend in Conservation Status

### 11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

### 11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

12.2 Type of estimate

12.3 Population size inside the network Method used

12.4 Short-term trend of population size within the network Direction

12.5 Short-term trend of population size within the network Method used

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information



# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                        |
|---|------------------------|
| 1.1 Member State                        | HR                     |
| 1.2 Species code                        | 5670                   |
| 1.3 Species scientific name             | Hierophis viridiflavus |
| 1.4 Alternative species scientific name |                        |
| 1.5 Common name (in national language)  | crna poljarica         |

## 2. Maps

|                                  |   |
|----------------------------------|---|
| 2.1 Sensitive species            | No  |
| 2.2 Year or period               | 2007-2018   |
| 2.3 Distribution map             | Yes   |
| 2.4 Distribution map Method used | Based mainly on expert opinion with very limited data |
| 2.5 Additional maps              | Yes   |

## 3. Information related to Annex V Species (Art. 14)

|   |   |    |
|---|---|----|
| 3.1 Is the species taken in the wild/exploited?       | No  |    |
| 3.2 Which of the measures in Art. 14 have been taken? | a) regulations regarding access to property   | No |
|   | b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No |
|   | c) regulation of the periods and/or methods of taking specimens   | No |
|   | d) application of hunting and fishing rules which take account of the conservation of such populations      | No |
|   | e) establishment of a system of licences for taking specimens or of quotas                                  | No |
|   | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No |
|   | g) breeding in captivity of animal species as well as artificial propagation of plant species               | No |
|   | h) other measures   | No |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

3.4. Hunting bag or quantity taken in the wild Method used

3.5. Additional information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

**Alpine (ALP)**

4.2 Sources of information

Godez, A., 1898. Beobachtungen über den Vogelzug auf der Insel Pelagosa im Adriatischen Meere. Die Schwalbe - Berichte des Comité für Ornithologische Beobachtungs-Stationen in Österreich - Neue Folge 1, 115–127.

Horvatić, B., 2008. Knjiga "Zmije Hrvatske" - ERRATA CORRIGE. Zagreb.

Janev Hutinec, B., Lupret-Obradović, S., 2005. Zmije Hrvatske - priručnik za određivanje vrsta. Društvo za zaštitu i proučavanje vodozemaca i gmazova Hrvatske - Hyla, Kratis d.o.o., Zagreb.

Tóth, T., Heltai, M., Keszi, A., Sušić, G., Moharos, L., Farkas, B., Géczy, C., Torda, O., Gál, J., 2017. Herpetofauna inventory of the small islands of the Cres-Lošinj Archipelago (North Adriatic Sea, Croatia) (Amphibia; Reptilia). Herpetozoa 30, 21–28.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

5.1 Surface area

2000

5.2 Short-term trend Period

2007-2018

5.3 Short-term trend Direction

Uncertain (u)

5.4 Short-term trend Magnitude

a) Minimum

b) Maximum

5.5 Short-term trend Method used

Based mainly on expert opinion with very limited data

5.6 Long-term trend Period

5.7 Long-term trend Direction

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|                                 |                            |                            |
|---------------------------------|----------------------------|----------------------------|
| 5.8 Long-term trend Magnitude   | a) Minimum                 | b) Maximum                 |
| 5.9 Long-term trend Method used |                            |                            |
| 5.10 Favourable reference range | a) Area (km <sup>2</sup> ) |                            |
|                                 | b) Operator                | Approximately equal to (≈) |
|                                 | c) Unknown                 |                            |
|                                 | d) Method                  |                            |

|  |                              |
|--|------------------------------|
| 5.11 Change and reason for change in surface area of range | The change is mainly due to: |
|--|------------------------------|

5.12 Additional information

## 6. Population

|  |   |
|--|---|
| 6.1 Year or period   | 2007-2018   |
| 6.2 Population size (in reporting unit)  | a) Unit number of map 1x1 km grid cells (grids1x1)    |
|  | b) Minimum  |
|  | c) Maximum  |
|  | d) Best single value 12                               |
| 6.3 Type of estimate   | Minimum   |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit   |
|  | b) Minimum  |
|  | c) Maximum  |
|  | d) Best single value                                  |
| 6.5 Type of estimate   |   |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data |
| 6.7 Short-term trend Period  | 2007-2018   |
| 6.8 Short-term trend Direction   | Unknown (x)   |
| 6.9 Short-term trend Magnitude   | a) Minimum  |
|  | b) Maximum  |
|  | c) Confidence interval                                |
| 6.10 Short-term trend Method used  | Insufficient or no data available                     |
| 6.11 Long-term trend Period  |   |
| 6.12 Long-term trend Direction   |   |
| 6.13 Long-term trend Magnitude   | a) Minimum  |
|  | b) Maximum  |
|  | c) Confidence interval                                |
| 6.14 Long-term trend Method used   |   |
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4)              | a) Population size                                    |
|  | b) Operator   |
|  | c) Unknown x  |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## d) Method

### 6.16 Change and reason for change in population size

The change is mainly due to:

### 6.17 Additional information

## 7. Habitat for the species

### 7.1 Sufficiency of area and quality of occupied habitat

a) Are area and quality of occupied habitat sufficient (for long-term survival)? **Yes**

b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?

### 7.2 Sufficiency of area and quality of occupied habitat Method used

Based mainly on expert opinion with very limited data

### 7.3 Short-term trend Period

2007-2018

### 7.4 Short-term trend Direction

Unknown (x)

### 7.5 Short-term trend Method used

Insufficient or no data available

### 7.6 Long-term trend Period

### 7.7 Long-term trend Direction

### 7.8 Long-term trend Method used

### 7.9 Additional information

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Illegal shooting/killing (G10)  | M       |
| Threat  | Ranking |
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Illegal shooting/killing (G10)  | M       |

### 8.2 Sources of information

### 8.3 Additional information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 9. Conservation measures

### 9.1 Status of measures

a) Are measures needed?

Yes

b) Indicate the status of measures

Measures identified, but none yet taken

### 9.2 Main purpose of the measures taken

### 9.3 Location of the measures taken

### 9.4 Response to the measures

### 9.5 List of main conservation measures

### 9.6 Additional information

## 10. Future prospects

### 10.1 Future prospects of parameters

a) Range

Good

b) Population

Unknown

c) Habitat of the species

Unknown

### 10.2 Additional information

## 11. Conclusions

### 11.1. Range

Favourable (FV)

### 11.2. Population

Unknown (XX)

### 11.3. Habitat for the species

Unknown (XX)

### 11.4. Future prospects

Unknown (XX)

### 11.5 Overall assessment of Conservation Status

Unknown (XX)

### 11.6 Overall trend in Conservation Status

### 11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

### 11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

12.2 Type of estimate

12.3 Population size inside the network Method used

12.4 Short-term trend of population size within the network Direction

12.5 Short-term trend of population size within the network Method used

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

### Mediterranean (MED)

4.2 Sources of information

Godez, A., 1898. Beobachtungen über den Vogelzug auf der Insel Pelagosa im Adriatischen Meere. Die Schwalbe - Berichte des Comité für Ornithologische Beobachtungs-Stationen in Österreich - Neue Folge 1, 115–127.

Horvatić, B., 2008. Knjiga "Zmije Hrvatske" - ERRATA CORRIGE. Zagreb.

Janev Hutinec, B., Lupret-Obradović, S., 2005. Zmije Hrvatske - priručnik za određivanje vrsta. Društvo za zaštitu i proučavanje vodozemaca i gmazova Hrvatske - Hyla, Kratis d.o.o., Zagreb.

Tóth, T., Heltai, M., Keszi, A., Sušić, G., Moharos, L., Farkas, B., Géczy, C., Torda, O., Gál, J., 2017. Herpetofauna inventory of the small islands of the Cres–Lošinj Archipelago (North Adriatic Sea, Croatia) (Amphibia; Reptilia). Herpetozoa 30, 21–28.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|  |  |
|--|--|
| 5.1 Surface area   | 8900   |
| 5.2 Short-term trend Period                                | 2007-2018  |
| 5.3 Short-term trend Direction                             | Stable (0)   |
| 5.4 Short-term trend Magnitude                             | a) Minimum                      b) Maximum   |
| 5.5 Short-term trend Method used                           | Based mainly on expert opinion with very limited data  |
| 5.6 Long-term trend Period                                 |  |
| 5.7 Long-term trend Direction                              |  |
| 5.8 Long-term trend Magnitude                              | a) Minimum                      b) Maximum   |
| 5.9 Long-term trend Method used                            |  |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator                      Approximately equal to (≈)<br>c) Unknown<br>d) Method |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:   |
| 5.12 Additional information                                |  |

## 6. Population

|  |   |
|--|---|
| 6.1 Year or period   | 2007-2018   |
| 6.2 Population size (in reporting unit)  | a) Unit                      number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value    76 |
| 6.3 Type of estimate   | Minimum   |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value   |
| 6.5 Type of estimate   |   |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data   |
| 6.7 Short-term trend Period  | 2007-2018   |
| 6.8 Short-term trend Direction   | Unknown (x)   |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval  |
| 6.10 Short-term trend Method used  | Insufficient or no data available   |
| 6.11 Long-term trend Period  |   |
| 6.12 Long-term trend Direction   |   |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 6.13 Long-term trend Magnitude

- a) Minimum
- b) Maximum
- c) Confidence interval

## 6.14 Long-term trend Method used

## 6.15 Favourable reference population (using the unit in 6.2 or 6.4)

- a) Population size
- b) Operator
- c) Unknown x
- d) Method

## 6.16 Change and reason for change in population size

The change is mainly due to:

## 6.17 Additional information

## 7. Habitat for the species

### 7.1 Sufficiency of area and quality of occupied habitat

a) Are area and quality of occupied habitat sufficient (for long-term survival)? Yes

b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?

### 7.2 Sufficiency of area and quality of occupied habitat Method used

Based mainly on expert opinion with very limited data

### 7.3 Short-term trend Period

2007-2018

### 7.4 Short-term trend Direction

Unknown (x)

### 7.5 Short-term trend Method used

Insufficient or no data available

### 7.6 Long-term trend Period

### 7.7 Long-term trend Direction

### 7.8 Long-term trend Method used

### 7.9 Additional information

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Illegal shooting/killing (G10)  | M       |
| Threat  | Ranking |
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |



# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|  |   |
|--|---|
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01) | M |
|--|---|

|                                |   |
|--------------------------------|---|
| Illegal shooting/killing (G10) | M |
|--------------------------------|---|

## 8.2 Sources of information

## 8.3 Additional information

## 9. Conservation measures

### 9.1 Status of measures

a) Are measures needed? Yes

b) Indicate the status of measures Measures identified, but none yet taken

### 9.2 Main purpose of the measures taken

### 9.3 Location of the measures taken

### 9.4 Response to the measures

### 9.5 List of main conservation measures

### 9.6 Additional information

## 10. Future prospects

### 10.1 Future prospects of parameters

|                           |         |
|---------------------------|---------|
| a) Range                  | Good    |
| b) Population             | Unknown |
| c) Habitat of the species | Unknown |

### 10.2 Additional information

## 11. Conclusions

11.1. Range Favourable (FV)

11.2. Population Unknown (XX)

11.3. Habitat for the species Unknown (XX)

11.4. Future prospects Unknown (XX)

11.5 Overall assessment of Conservation Status Unknown (XX)

### 11.6 Overall trend in Conservation Status

11.7 Change and reasons for change in conservation status and conservation status trend a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

### 11.8 Additional information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

12.2 Type of estimate

12.3 Population size inside the network Method used

12.4 Short-term trend of population size within the network Direction

12.5 Short-term trend of population size within the network Method used

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                          |
|---|--------------------------|
| 1.1 Member State                        | HR                       |
| 1.2 Species code                        | 1292                     |
| 1.3 Species scientific name             | <i>Natrix tessellata</i> |
| 1.4 Alternative species scientific name |                          |
| 1.5 Common name (in national language)  | ribarica                 |

## 2. Maps

|                                  |   |
|----------------------------------|---|
| 2.1 Sensitive species            | No  |
| 2.2 Year or period               | 2007-2018   |
| 2.3 Distribution map             | Yes   |
| 2.4 Distribution map Method used | Based mainly on expert opinion with very limited data |
| 2.5 Additional maps              | Yes   |

## 3. Information related to Annex V Species (Art. 14)

|   |   |    |
|---|---|----|
| 3.1 Is the species taken in the wild/exploited?       | No  |    |
| 3.2 Which of the measures in Art. 14 have been taken? | a) regulations regarding access to property   | No |
|   | b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No |
|   | c) regulation of the periods and/or methods of taking specimens   | No |
|   | d) application of hunting and fishing rules which take account of the conservation of such populations      | No |
|   | e) establishment of a system of licences for taking specimens or of quotas                                  | No |
|   | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No |
|   | g) breeding in captivity of animal species as well as artificial propagation of plant species               | No |
|   | h) other measures   | No |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

### a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

## 3.4. Hunting bag or quantity taken in the wild Method used

## 3.5. Additional information

## 4. Biogeographical and marine regions

### 4.1 Biogeographical or marine region where the species occurs

#### Mediterranean (MED)

### 4.2 Sources of information

Burić, I., Baškiera, S., 2014. New record of the Dice Snake (*Natrix tessellata*) from Cres island, Croatia. *Hyla : Herpetological bulletin* 2014, 18–19.

Dajčman, U., 2017. Poročilo o delu skupine za plazilce, in: *Ekosistemi Balkana, Vransko jezero 2016. Društvo študentov biologije, Ljubljana*, pp. 66–72.

Drašler, K., 2014. Poročilo o delu skupine za plazilce, in: *Ekosistemi Jadrana 2011 - delta Neretve. Društvo študentov biologije, Ljubljana*, pp. 35–41.

Džukić, G., Tomović, L., Anđelković, M., Urošević, A., Nikolić, S., Kalezić, M., 2017. The herpetological collection of the Institute for biological research “Siniša Stanković”, University of Belgrade. *Bulletin of the Natural History Museum* 10, 57–104. <https://doi.org/10.5937/bnhmb1710057D>

Jelić, D., Karaica, D., 2012. First data on the fauna of amphibians and reptiles of the lower Una River and its coastal area. *Hyla : Herpetological bulletin* 2012, 22–41.

Jelić, D., Lauš, B., 2011. The Gull *Larus cachinnans* (Pallas, 1811) as Natural Predator of *Natrix tessellata* (Laurenti, 1768). *Mertensiella* 18, 451–452.

Jelić, D., Lelo, S., 2011. Distribution and Status Quo of *Natrix tessellata* in Croatia, and Bosnia and Herzegovina. *Mertensiella* 18, 217–224.

Koren, T., Črne, M., Koprivnikar, N., Trkov, D., Drašler, K., Jelić, D., 2013. Contribution to the herpetofauna (Amphibia & Reptilia) of lower Neretva River (Croatia & Bosnia and Herzegovina). *Hyla : Herpetological bulletin* 2012, 19–40.

Vlček, P., Jablonski, D., Kudláček, M., Mebert, K., 2015. Rediscovery of the Dice Snake *Natrix tessellata* (LAURENTI, 1768), from the Island of Krk, Croatia. *Herpetozoa* 27, 191–196.

M. Zadavec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

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## 5. Range

|  |   |
|--|---|
| 5.1 Surface area   | 100   |
| 5.2 Short-term trend Period                                | 2007-2018   |
| 5.3 Short-term trend Direction                             | Unknown (x)   |
| 5.4 Short-term trend Magnitude                             | a) Minimum                      b) Maximum  |
| 5.5 Short-term trend Method used                           | Insufficient or no data available   |
| 5.6 Long-term trend Period                                 |   |
| 5.7 Long-term trend Direction                              |   |
| 5.8 Long-term trend Magnitude                              | a) Minimum                      b) Maximum  |
| 5.9 Long-term trend Method used                            |   |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown                      x<br>d) Method |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:  |
| 5.12 Additional information                                |   |

## 6. Population

|  |   |
|--|---|
| 6.1 Year or period   | 2007-2018   |
| 6.2 Population size (in reporting unit)  | a) Unit                      number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value    92 |
| 6.3 Type of estimate   | Minimum   |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value   |
| 6.5 Type of estimate   |   |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data   |
| 6.7 Short-term trend Period  | 2007-2018   |
| 6.8 Short-term trend Direction   | Unknown (x)   |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval  |
| 6.10 Short-term trend Method used  | Insufficient or no data available   |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

6.11 Long-term trend Period

6.12 Long-term trend Direction

6.13 Long-term trend Magnitude

- a) Minimum
- b) Maximum
- c) Confidence interval

6.14 Long-term trend Method used

6.15 Favourable reference population (using the unit in 6.2 or 6.4)

- a) Population size
- b) Operator
- c) Unknown x
- d) Method

6.16 Change and reason for change in population size

The change is mainly due to:

6.17 Additional information

## 7. Habitat for the species

7.1 Sufficiency of area and quality of occupied habitat

- a) Are area and quality of occupied habitat sufficient (for long-term survival)? Unknown
- b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?

7.2 Sufficiency of area and quality of occupied habitat Method used

Insufficient or no data available

7.3 Short-term trend Period

2007-2018

7.4 Short-term trend Direction

Unknown (x)

7.5 Short-term trend Method used

Insufficient or no data available

7.6 Long-term trend Period

7.7 Long-term trend Direction

7.8 Long-term trend Method used

7.9 Additional information

## 8. Main pressures and threats

8.1 Characterisation of pressures/threats

| Pressure   | Ranking |
|--|---------|
| Physical alteration of water bodies (K05)  | M       |
| Interspecific relations (competition, predation, parasitism, pathogens) (L06)      | M       |
| Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01) | M       |
| Threat   | Ranking |
| Physical alteration of water bodies (K05)  | M       |

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Interspecific relations (competition, predation, parasitism, pathogens) (L06) H

Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01) H

8.2 Sources of information

8.3 Additional information

## 9. Conservation measures

9.1 Status of measures

a) Are measures needed?

Yes

b) Indicate the status of measures

Measures identified, but none yet taken

9.2 Main purpose of the measures taken

9.3 Location of the measures taken

9.4 Response to the measures

9.5 List of main conservation measures

9.6 Additional information

## 10. Future prospects

10.1 Future prospects of parameters

a) Range

Unknown

b) Population

Unknown

c) Habitat of the species

Unknown

10.2 Additional information

## 11. Conclusions

11.1. Range

Unknown (XX)

11.2. Population

Unknown (XX)

11.3. Habitat for the species

Unknown (XX)

11.4. Future prospects

Unknown (XX)

11.5 Overall assessment of Conservation Status

Unknown (XX)

11.6 Overall trend in Conservation Status

11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

12.2 Type of estimate

12.3 Population size inside the network Method used

12.4 Short-term trend of population size within the network Direction

12.5 Short-term trend of population size within the network Method used

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

### Alpine (ALP)

4.2 Sources of information

Burić, I., Baškiera, S., 2014. New record of the Dice Snake (*Natrix tessellata*) from Cres island, Croatia. *Hyla : Herpetological bulletin* 2014, 18–19.

Dajčman, U., 2017. Poročilo o delu skupine za plazilce, in: *Ekosistemi Balkana, Vransko jezero 2016. Društvo študentov biologije, Ljubljana*, pp. 66–72.

Drašler, K., 2014. Poročilo o delu skupine za plazilce, in: *Ekosistemi Jadrana 2011 - delta Neretve. Društvo študentov biologije, Ljubljana*, pp. 35–41.

Džukić, G., Tomović, L., Anđelković, M., Urošević, A., Nikolić, S., Kalezić, M., 2017. The herpetological collection of the Institute for biological research “Siniša Stanković”, University of Belgrade. *Bulletin of the Natural History Museum* 10, 57–104. <https://doi.org/10.5937/bnhmb1710057D>

Jelić, D., Karaica, D., 2012. First data on the fauna of amphibians and reptiles of



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the lower Una River and its coastal area. Hyla : Herpetological bulletin 2012, 22–41.

Jelić, D., Lauš, B., 2011. The Gull *Larus cachinnans* (Pallas, 1811) as Natural Predator of *Natrix tessellata* (Laurenti, 1768). *Mertensiella* 18, 451–452.

Jelić, D., Lelo, S., 2011. Distribution and Status Quo of *Natrix tessellata* in Croatia, and Bosnia and Herzegovina. *Mertensiella* 18, 217–224.

Koren, T., Črne, M., Koprivnikar, N., Trkov, D., Drašler, K., Jelić, D., 2013. Contribution to the herpetofauna (Amphibia & Reptilia) of lower Neretva River (Croatia & Bosnia and Herzegovina). *Hyla : Herpetological bulletin* 2012, 19–40.

Višek, P., Jablonski, D., Kudláček, M., Mebert, K., 2015. Rediscovery of the Dice Snake *Natrix tessellata* (LAURENTI, 1768), from the Island of Krk, Croatia. *Herpetozoa* 27, 191–196.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

|                                  |   |
|----------------------------------|---|
| 5.1 Surface area                 | 6000  |
| 5.2 Short-term trend Period      | 2007-2018   |
| 5.3 Short-term trend Direction   | Unknown (x)   |
| 5.4 Short-term trend Magnitude   | a) Minimum                      b) Maximum  |
| 5.5 Short-term trend Method used | Insufficient or no data available   |
| 5.6 Long-term trend Period       |   |
| 5.7 Long-term trend Direction    |   |
| 5.8 Long-term trend Magnitude    | a) Minimum                      b) Maximum  |
| 5.9 Long-term trend Method used  |   |
| 5.10 Favourable reference range  | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown                      x<br>d) Method |

|  |                              |
|--|------------------------------|
| 5.11 Change and reason for change in surface area of range | The change is mainly due to: |
|--|------------------------------|

5.12 Additional information

## 6. Population

|   |   |
|---|---|
| 6.1 Year or period                      | 2007-2018   |
| 6.2 Population size (in reporting unit) | a) Unit                      number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value      17 |
| 6.3 Type of estimate                    | Minimum   |

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|  |  |
|--|--|
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value  |
| 6.5 Type of estimate   |  |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data        |
| 6.7 Short-term trend Period  | 2007-2018  |
| 6.8 Short-term trend Direction   | Unknown (x)  |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval           |
| 6.10 Short-term trend Method used  | Insufficient or no data available                            |
| 6.11 Long-term trend Period  |  |
| 6.12 Long-term trend Direction   |  |
| 6.13 Long-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval           |
| 6.14 Long-term trend Method used   |  |
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4)              | a) Population size<br>b) Operator<br>c) Unknown<br>d) Method |
| 6.16 Change and reason for change in population size                             | The change is mainly due to:                                 |
| 6.17 Additional information  |  |

## 7. Habitat for the species

|   |   |         |
|---|---|---------|
| 7.1 Sufficiency of area and quality of occupied habitat             | a) Are area and quality of occupied habitat sufficient (for long-term survival)?<br>b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)? | Unknown |
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Insufficient or no data available   |         |
| 7.3 Short-term trend Period   | 2007-2018   |         |
| 7.4 Short-term trend Direction                                      | Unknown (x)   |         |
| 7.5 Short-term trend Method used                                    | Insufficient or no data available   |         |
| 7.6 Long-term trend Period  |   |         |
| 7.7 Long-term trend Direction                                       |   |         |
| 7.8 Long-term trend Method used                                     |   |         |

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## 7.9 Additional information

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure   | Ranking |
|--|---------|
| Physical alteration of water bodies (K05)  | M       |
| Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01) | M       |
| Interspecific relations (competition, predation, parasitism, pathogens) (L06)      | M       |
| Threat   | Ranking |
| Physical alteration of water bodies (K05)  | M       |
| Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01) | M       |
| Interspecific relations (competition, predation, parasitism, pathogens) (L06)      | H       |

### 8.2 Sources of information

### 8.3 Additional information

## 9. Conservation measures

|                        |                                    |   |
|------------------------|------------------------------------|---|
| 9.1 Status of measures | a) Are measures needed?            | Yes                                     |
|                        | b) Indicate the status of measures | Measures identified, but none yet taken |

### 9.2 Main purpose of the measures taken

### 9.3 Location of the measures taken

### 9.4 Response to the measures

### 9.5 List of main conservation measures

### 9.6 Additional information

## 10. Future prospects

|                                     |                           |         |
|-------------------------------------|---------------------------|---------|
| 10.1 Future prospects of parameters | a) Range                  | Unknown |
|                                     | b) Population             | Unknown |
|                                     | c) Habitat of the species | Unknown |

### 10.2 Additional information

## 11. Conclusions

11.1. Range Unknown (XX)

11.2. Population Unknown (XX)

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 11.3. Habitat for the species

Unknown (XX)

## 11.4. Future prospects

Unknown (XX)

## 11.5 Overall assessment of Conservation Status

Unknown (XX)

## 11.6 Overall trend in Conservation Status

## 11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

## 11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

### 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

### 12.2 Type of estimate

### 12.3 Population size inside the network Method used

### 12.4 Short-term trend of population size within the network Direction

### 12.5 Short-term trend of population size within the network Method used

## 12.6 Additional information

## 13. Complementary information

### 13.1 Justification of % thresholds for trends

### 13.2 Trans-boundary assessment

### 13.3 Other relevant Information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 4. Biogeographical and marine regions

### 4.1 Biogeographical or marine region where the species occurs

#### Continental (CON)

### 4.2 Sources of information

Burić, I., Baškiera, S., 2014. New record of the Dice Snake (*Natrix tessellata*) from Cres island, Croatia. *Hyla : Herpetological bulletin* 2014, 18–19.

Dajčman, U., 2017. Poročilo o delu skupine za plazilce, in: *Ekosistemi Balkana, Vransko jezero 2016. Društvo študentov biologije, Ljubljana*, pp. 66–72.

Drašler, K., 2014. Poročilo o delu skupine za plazilce, in: *Ekosistemi Jadrana 2011 - delta Neretve. Društvo študentov biologije, Ljubljana*, pp. 35–41.

Džukić, G., Tomović, L., Anđelković, M., Urošević, A., Nikolić, S., Kalezić, M., 2017. The herpetological collection of the Institute for biological research "Siniša Stanković", University of Belgrade. *Bulletin of the Natural History Museum* 10, 57–104. <https://doi.org/10.5937/bnhmb1710057D>

Jelić, D., Karaica, D., 2012. First data on the fauna of amphibians and reptiles of the lower Una River and its coastal area. *Hyla : Herpetological bulletin* 2012, 22–41.

Jelić, D., Lauš, B., 2011. The Gull *Larus cachinnans* (Pallas, 1811) as Natural Predator of *Natrix tessellata* (Laurenti, 1768). *Mertensiella* 18, 451–452.

Jelić, D., Lelo, S., 2011. Distribution and Status Quo of *Natrix tessellata* in Croatia, and Bosnia and Herzegovina. *Mertensiella* 18, 217–224.

Koren, T., Črne, M., Koprivnikar, N., Trkov, D., Drašler, K., Jelić, D., 2013. Contribution to the herpetofauna (Amphibia & Reptilia) of lower Neretva River (Croatia & Bosnia and Herzegovina). *Hyla : Herpetological bulletin* 2012, 19–40.

Vlček, P., Jablonski, D., Kudláček, M., Mebert, K., 2015. Rediscovery of the Dice Snake *Natrix tessellata* (LAURENTI, 1768), from the Island of Krk, Croatia. *Herpetozoa* 27, 191–196.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

### 5.1 Surface area

28900

### 5.2 Short-term trend Period

2007-2018

### 5.3 Short-term trend Direction

Unknown (x)

### 5.4 Short-term trend Magnitude

a) Minimum b) Maximum

### 5.5 Short-term trend Method used

Insufficient or no data available

### 5.6 Long-term trend Period

### 5.7 Long-term trend Direction

### 5.8 Long-term trend Magnitude

a) Minimum b) Maximum

### 5.9 Long-term trend Method used

### 5.10 Favourable reference range

a) Area (km<sup>2</sup>)  
b) Operator  
c) Unknown x  
d) Method

### 5.11 Change and reason for change in surface area of range

The change is mainly due to:

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 5.12 Additional information

## 6. Population

|  |  |
|--|--|
| 6.1 Year or period   | 2007-2018  |
| 6.2 Population size (in reporting unit)  | a) Unit number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value 176 |
| 6.3 Type of estimate   | Minimum  |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value  |
| 6.5 Type of estimate   |  |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data  |
| 6.7 Short-term trend Period  | 2007-2018  |
| 6.8 Short-term trend Direction   | Unknown (x)  |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval   |
| 6.10 Short-term trend Method used  | Insufficient or no data available  |
| 6.11 Long-term trend Period  |  |
| 6.12 Long-term trend Direction   |  |
| 6.13 Long-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval   |
| 6.14 Long-term trend Method used   |  |
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4)              | a) Population size<br>b) Operator<br>c) Unknown x<br>d) Method   |
| 6.16 Change and reason for change in population size                             | The change is mainly due to:   |
| 6.17 Additional information  |  |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 7. Habitat for the species

|   |   |         |
|---|---|---------|
| 7.1 Sufficiency of area and quality of occupied habitat             | a) Are area and quality of occupied habitat sufficient (for long-term survival)?                          | Unknown |
|   | b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)? |         |
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Insufficient or no data available   |         |
| 7.3 Short-term trend Period   | 2007-2018   |         |
| 7.4 Short-term trend Direction                                      | Unknown (x)   |         |
| 7.5 Short-term trend Method used                                    | Insufficient or no data available   |         |
| 7.6 Long-term trend Period  |   |         |
| 7.7 Long-term trend Direction                                       |   |         |
| 7.8 Long-term trend Method used                                     |   |         |
| 7.9 Additional information  |   |         |

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure   | Ranking |
|--|---------|
| Physical alteration of water bodies (K05)  | M       |
| Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01) | M       |
| Interspecific relations (competition, predation, parasitism, pathogens) (L06)      | M       |
| Threat   | Ranking |
| Physical alteration of water bodies (K05)  | M       |
| Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01) | H       |
| Interspecific relations (competition, predation, parasitism, pathogens) (L06)      | H       |

### 8.2 Sources of information

### 8.3 Additional information

## 9. Conservation measures

|  |                                    |   |
|--|------------------------------------|---|
| 9.1 Status of measures                 | a) Are measures needed?            | Yes                                     |
|  | b) Indicate the status of measures | Measures identified, but none yet taken |
| 9.2 Main purpose of the measures taken |                                    |   |
| 9.3 Location of the measures taken     |                                    |   |
| 9.4 Response to the measures           |                                    |   |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 9.5 List of main conservation measures

## 9.6 Additional information

## 10. Future prospects

|                                     |                           |         |
|-------------------------------------|---------------------------|---------|
| 10.1 Future prospects of parameters | a) Range                  | Unknown |
|                                     | b) Population             | Unknown |
|                                     | c) Habitat of the species | Unknown |

## 10.2 Additional information

## 11. Conclusions

|   |  |
|---|--|
| 11.1. Range   | Unknown (XX)                                 |
| 11.2. Population  | Unknown (XX)                                 |
| 11.3. Habitat for the species   | Unknown (XX)                                 |
| 11.4. Future prospects  | Unknown (XX)                                 |
| 11.5 Overall assessment of Conservation Status  | Unknown (XX)                                 |
| 11.6 Overall trend in Conservation Status   |  |
| 11.7 Change and reasons for change in conservation status and conservation status trend | a) Overall assessment of conservation status |
|   | The change is mainly due to:                 |
|   | b) Overall trend in conservation status      |
|   | The change is mainly due to:                 |
|   |  |
| 11.8 Additional information   |  |

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

|   |                      |
|---|----------------------|
| 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present) | a) Unit              |
|   | b) Minimum           |
|   | c) Maximum           |
|   | d) Best single value |
| 12.2 Type of estimate   |                      |
| 12.3 Population size inside the network Method used   |                      |
| 12.4 Short-term trend of population size within the network Direction   |                      |



# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

12.5 Short-term trend of population size within the network Method used

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                       |
|---|-----------------------|
| 1.1 Member State                        | HR                    |
| 1.2 Species code                        | 6092                  |
| 1.3 Species scientific name             | Platycephalus najadum |
| 1.4 Alternative species scientific name |                       |
| 1.5 Common name (in national language)  | šilac                 |

## 2. Maps

|                                  |   |
|----------------------------------|---|
| 2.1 Sensitive species            | No  |
| 2.2 Year or period               | 2007-2018   |
| 2.3 Distribution map             | Yes   |
| 2.4 Distribution map Method used | Based mainly on expert opinion with very limited data |
| 2.5 Additional maps              | Yes   |

## 3. Information related to Annex V Species (Art. 14)

|   |   |    |
|---|---|----|
| 3.1 Is the species taken in the wild/exploited?       | No  |    |
| 3.2 Which of the measures in Art. 14 have been taken? | a) regulations regarding access to property   | No |
|   | b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No |
|   | c) regulation of the periods and/or methods of taking specimens   | No |
|   | d) application of hunting and fishing rules which take account of the conservation of such populations      | No |
|   | e) establishment of a system of licences for taking specimens or of quotas                                  | No |
|   | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No |
|   | g) breeding in captivity of animal species as well as artificial propagation of plant species               | No |
|   | h) other measures   | No |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

3.4. Hunting bag or quantity taken in the wild Method used

3.5. Additional information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

**Mediterranean (MED)**

4.2 Sources of information

Džukić, G., Tomović, L., Anđelković, M., Urošević, A., Nikolić, S., Kalezić, M., 2017. The herpetological collection of the Institute for biological research "Siniša Stanković", University of Belgrade. Bulletin of the Natural History Museum 10, 57–104. <https://doi.org/10.5937/bnhmb1710057D>  
 Horvatić, B., 2008. Knjiga "Zmije Hrvatske" - ERRATA CORRIGE. Zagreb.  
 JU Rezervat Lokrum, 2019. Otok Lokrum [WWW Document]. Otok Lokrum. URL <http://www.lokrum.hr/> (accessed 3.21.19).

Koren, T., Črne, M., Koprivnikar, N., Trkov, D., Drašler, K., Jelić, D., 2013. Contribution to the herpetofauna (Amphibia & Reptilia) of lower Neretva River (Croatia & Bosnia and Herzegovina). Hyla : Herpetological bulletin 2012, 19–40.  
 Mekinić, S., Nediljko, Ž., Boban, J., Piasevoli, G., Vladović, D., 2015. Snakes in herpetological collection of the Natural History Museum in Split (Croatia) collected from 1924 until 2015. Hyla : Herpetological bulletin 2015, 4–10.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

5.1 Surface area

10900

5.2 Short-term trend Period

2007-2018

5.3 Short-term trend Direction

Unknown (x)

5.4 Short-term trend Magnitude

a) Minimum

b) Maximum

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|  |  |            |
|--|--|------------|
| 5.5 Short-term trend Method used                           | Insufficient or no data available                                    |            |
| 5.6 Long-term trend Period                                 |  |            |
| 5.7 Long-term trend Direction                              |  |            |
| 5.8 Long-term trend Magnitude                              | a) Minimum   | b) Maximum |
| 5.9 Long-term trend Method used                            |  |            |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown<br>d) Method | x          |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:   |            |
| 5.12 Additional information                                |  |            |

## 6. Population

|  |   |  |
|--|---|--|
| 6.1 Year or period   | 2007-2018   |  |
| 6.2 Population size (in reporting unit)  | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value | number of map 1x1 km grid cells (grids1x1)<br><br><br>54 |
| 6.3 Type of estimate   | Minimum   |  |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value |  |
| 6.5 Type of estimate   |   |  |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data       |  |
| 6.7 Short-term trend Period  | 2007-2018   |  |
| 6.8 Short-term trend Direction   | Unknown (x)   |  |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval          |  |
| 6.10 Short-term trend Method used  | Insufficient or no data available                           |  |
| 6.11 Long-term trend Period  |   |  |
| 6.12 Long-term trend Direction   |   |  |
| 6.13 Long-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval          |  |
| 6.14 Long-term trend Method used   |   |  |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

6.15 Favourable reference population (using the unit in 6.2 or 6.4)

a) Population size  
b) Operator  
c) Unknown x  
d) Method

6.16 Change and reason for change in population size

The change is mainly due to:

6.17 Additional information

## 7. Habitat for the species

7.1 Sufficiency of area and quality of occupied habitat

a) Are area and quality of occupied habitat sufficient (for long-term survival)? Unknown  
b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?

7.2 Sufficiency of area and quality of occupied habitat Method used

Insufficient or no data available

7.3 Short-term trend Period

2007-2018

7.4 Short-term trend Direction

Unknown (x)

7.5 Short-term trend Method used

Insufficient or no data available

7.6 Long-term trend Period

7.7 Long-term trend Direction

7.8 Long-term trend Method used

7.9 Additional information

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Illegal shooting/killing (G10)  | M       |
| Invasive alien species of Union concern (I01)   | M       |
| Threat  | Ranking |
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Illegal shooting/killing (G10)  | M       |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

Invasive alien species of Union concern (I01)

M

8.2 Sources of information

8.3 Additional information

IAS union concern : *Herpestes javanicus* É. Geoffroy Saint-Hilaire

## 9. Conservation measures

9.1 Status of measures

a) Are measures needed?

Yes

b) Indicate the status of measures

Measures identified, but none yet taken

9.2 Main purpose of the measures taken

9.3 Location of the measures taken

9.4 Response to the measures

9.5 List of main conservation measures

9.6 Additional information

## 10. Future prospects

10.1 Future prospects of parameters

a) Range

Unknown

b) Population

Unknown

c) Habitat of the species

Unknown

10.2 Additional information

## 11. Conclusions

11.1. Range

Unknown (XX)

11.2. Population

Unknown (XX)

11.3. Habitat for the species

Unknown (XX)

11.4. Future prospects

Unknown (XX)

11.5 Overall assessment of Conservation Status

Unknown (XX)

11.6 Overall trend in Conservation Status

11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

11.8 Additional information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

12.2 Type of estimate

12.3 Population size inside the network Method used

12.4 Short-term trend of population size within the network Direction

12.5 Short-term trend of population size within the network Method used

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                   |
|---|-------------------|
| 1.1 Member State                        | HR                |
| 1.2 Species code                        | 1289              |
| 1.3 Species scientific name             | Telescopus fallax |
| 1.4 Alternative species scientific name |                   |
| 1.5 Common name (in national language)  | crnokrpica        |

## 2. Maps

|                                  |   |
|----------------------------------|---|
| 2.1 Sensitive species            | No  |
| 2.2 Year or period               | 2007-2018   |
| 2.3 Distribution map             | Yes   |
| 2.4 Distribution map Method used | Based mainly on expert opinion with very limited data |
| 2.5 Additional maps              | Yes   |

## 3. Information related to Annex V Species (Art. 14)

|   |   |    |
|---|---|----|
| 3.1 Is the species taken in the wild/exploited?       | No  |    |
| 3.2 Which of the measures in Art. 14 have been taken? | a) regulations regarding access to property   | No |
|   | b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No |
|   | c) regulation of the periods and/or methods of taking specimens   | No |
|   | d) application of hunting and fishing rules which take account of the conservation of such populations      | No |
|   | e) establishment of a system of licences for taking specimens or of quotas                                  | No |
|   | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No |
|   | g) breeding in captivity of animal species as well as artificial propagation of plant species               | No |
|   | h) other measures   | No |



# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

### a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

## 3.4. Hunting bag or quantity taken in the wild Method used

## 3.5. Additional information

## 4. Biogeographical and marine regions

### 4.1 Biogeographical or marine region where the species occurs

#### Mediterranean (MED)

### 4.2 Sources of information

Džukić, G., Tomović, L., Anđelković, M., Urošević, A., Nikolić, S., Kalezić, M., 2017. The herpetological collection of the Institute for biological research "Siniša Stanković", University of Belgrade. Bulletin of the Natural History Museum 10, 57–104. <https://doi.org/10.5937/bnhmb1710057D>

Janev Hutinec, B., Lupret-Obradović, S., 2005. Zmije Hrvatske - priručnik za određivanje vrsta. Društvo za zaštitu i proučavanje vodozemaca i gmazova Hrvatske - Hyla, Kratis d.o.o., Zagreb.

Koren, T., Lauš, B., Burić, I., Kuljerić, M., 2011. Contribution to the herpetofauna (amphibians & reptiles) of the Kornati archipelago, Croatia. Natura Croatica 20, 387–396.

Mekinić, S., Nediljko, Ž., Boban, J., Piasevoli, G., Vladović, D., 2015. Snakes in herpetological collection of the Natural History Museum in Split (Croatia) collected from 1924 until 2015. Hyla : Herpetological bulletin 2015, 4–10.

Tóth, T., Heltai, M., Keszi, A., Sušić, G., Moharos, L., Farkas, B., Géczy, C., Torda, O., Gál, J., 2017. Herpetofauna inventory of the small islands of the Cres–Lošinj Archipelago (North Adriatic Sea, Croatia) (Amphibia; Reptilia). Herpetozoa 30, 21–28.

Vilaj, I., 2014. Doprinos poznavanju herpetofaune otoka Hvara, in: Barišić, M., Burić, I., Gazić, M., Sušić, I. (Eds.), Istraživanje bioraznolikosti otoka Hvara 2011. Udruga studenata biologije - BIUS, Zagreb, pp. 136–156.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb. 285 str.

## 5. Range

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|  |   |
|--|---|
| 5.1 Surface area   | 15500   |
| 5.2 Short-term trend Period                                | 2007-2018   |
| 5.3 Short-term trend Direction                             | Unknown (x)   |
| 5.4 Short-term trend Magnitude                             | a) Minimum                      b) Maximum  |
| 5.5 Short-term trend Method used                           | Insufficient or no data available   |
| 5.6 Long-term trend Period                                 |   |
| 5.7 Long-term trend Direction                              |   |
| 5.8 Long-term trend Magnitude                              | a) Minimum                      b) Maximum  |
| 5.9 Long-term trend Method used                            |   |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown                      x<br>d) Method |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:  |
| 5.12 Additional information                                |   |

## 6. Population

|  |   |
|--|---|
| 6.1 Year or period   | 2007-2018   |
| 6.2 Population size (in reporting unit)  | a) Unit                      number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value    55 |
| 6.3 Type of estimate   | Minimum   |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value   |
| 6.5 Type of estimate   |   |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data   |
| 6.7 Short-term trend Period  | 2007-2018   |
| 6.8 Short-term trend Direction   | Unknown (x)   |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval  |
| 6.10 Short-term trend Method used  | Insufficient or no data available   |
| 6.11 Long-term trend Period  |   |
| 6.12 Long-term trend Direction   |   |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 6.13 Long-term trend Magnitude

- a) Minimum
- b) Maximum
- c) Confidence interval

## 6.14 Long-term trend Method used

## 6.15 Favourable reference population (using the unit in 6.2 or 6.4)

- a) Population size
- b) Operator
- c) Unknown x
- d) Method

## 6.16 Change and reason for change in population size

The change is mainly due to:

## 6.17 Additional information

## 7. Habitat for the species

### 7.1 Sufficiency of area and quality of occupied habitat

a) Are area and quality of occupied habitat sufficient (for long-term survival)? Unknown

b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?

### 7.2 Sufficiency of area and quality of occupied habitat Method used

Insufficient or no data available

### 7.3 Short-term trend Period

2007-2018

### 7.4 Short-term trend Direction

Unknown (x)

### 7.5 Short-term trend Method used

Insufficient or no data available

### 7.6 Long-term trend Period

### 7.7 Long-term trend Direction

### 7.8 Long-term trend Method used

### 7.9 Additional information

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Illegal shooting/killing (G10)  | M       |
| Invasive alien species of Union concern (I01)   | M       |
| Threat  |         |
| Ranking   |         |
| Removal of small landscape features for agricultural land   | M       |

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parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05)

|  |   |
|--|---|
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01) | M |
|--|---|

|                                |   |
|--------------------------------|---|
| Illegal shooting/killing (G10) | M |
|--------------------------------|---|

|   |   |
|---|---|
| Invasive alien species of Union concern (I01) | M |
|---|---|

## 8.2 Sources of information

## 8.3 Additional information

IAS union concern : *Herpestes javanicus* É. Geoffroy Saint-Hilaire

## 9. Conservation measures

### 9.1 Status of measures

a) Are measures needed?

Yes

b) Indicate the status of measures

Measures identified, but none yet taken

### 9.2 Main purpose of the measures taken

### 9.3 Location of the measures taken

### 9.4 Response to the measures

### 9.5 List of main conservation measures

### 9.6 Additional information

## 10. Future prospects

### 10.1 Future prospects of parameters

a) Range

Unknown

b) Population

Unknown

c) Habitat of the species

Unknown

### 10.2 Additional information

## 11. Conclusions

### 11.1. Range

Unknown (XX)

### 11.2. Population

Unknown (XX)

### 11.3. Habitat for the species

Unknown (XX)

### 11.4. Future prospects

Unknown (XX)

### 11.5 Overall assessment of Conservation Status

Unknown (XX)

### 11.6 Overall trend in Conservation Status

### 11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

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The change is mainly due to:

## 11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

### 12.2 Type of estimate

12.3 Population size inside the network Method used

12.4 Short-term trend of population size within the network Direction

12.5 Short-term trend of population size within the network Method used

### 12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

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## 1. General information

|   |                  |
|---|------------------|
| 1.1 Member State                        | HR               |
| 1.2 Species code                        | 1295             |
| 1.3 Species scientific name             | Vipera ammodytes |
| 1.4 Alternative species scientific name |                  |
| 1.5 Common name (in national language)  | poskok           |

## 2. Maps

|                                  |   |
|----------------------------------|---|
| 2.1 Sensitive species            | No  |
| 2.2 Year or period               | 2007-2018   |
| 2.3 Distribution map             | Yes   |
| 2.4 Distribution map Method used | Based mainly on expert opinion with very limited data |
| 2.5 Additional maps              | Yes   |

## 3. Information related to Annex V Species (Art. 14)

|   |   |    |
|---|---|----|
| 3.1 Is the species taken in the wild/exploited?       | No  |    |
| 3.2 Which of the measures in Art. 14 have been taken? | a) regulations regarding access to property   | No |
|   | b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No |
|   | c) regulation of the periods and/or methods of taking specimens   | No |
|   | d) application of hunting and fishing rules which take account of the conservation of such populations      | No |
|   | e) establishment of a system of licences for taking specimens or of quotas                                  | No |
|   | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No |
|   | g) breeding in captivity of animal species as well as artificial propagation of plant species               | No |
|   | h) other measures   | No |

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## 3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

### a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

## 3.4. Hunting bag or quantity taken in the wild Method used

## 3.5. Additional information

## 4. Biogeographical and marine regions

### 4.1 Biogeographical or marine region where the species occurs

#### Mediterranean (MED)

### 4.2 Sources of information

Dieckmann, M., 2006. Die Lacertiden der norddalmatinischen Insel Dugi Otok. Die Eidechse 17, 52–56.

Džukić, G., Tomović, L., Anđelković, M., Urošević, A., Nikolić, S., Kalezić, M., 2017. The herpetological collection of the Institute for biological research “Siniša Stanković”, University of Belgrade. Bulletin of the Natural History Museum 10, 57–104. <https://doi.org/10.5937/bnhmb1710057D>

Jelić, D., Ajtić, R., Sterijovski, B., Crnobrnja-Isailović, J., Lelo, S., Tomović, L., 2013. Distribution of the genus Vipera in the western and central Balkans (Squamata: Serpentes: Viperidae). Herpetozoa 25, 109–132.

Jelić, D., Budinski, I., Lauš, B., 2012. Distribution and conservation status of the batracho- and herpetofauna of the Croatian island of Mljet (Anura; Testudines; Squamata: Sauria, Serpentes). Herpetozoa 24, 165–178.

Kerovec, M., Mrakovčić, M., Hršak, V., Grubešić, M., Vujčić-Karlo, S., Kučinić, M., Radović, D., Ternjej, I., Mihaljević, Z., Gottstein, S., Schneider, D., Bartovsky, V., 1999. Projekt Sava Sustav obrane od poplava u srednjoj Posavini. Studija općih značajki bioloških resursa -dio procjene utjecaja na okoliš-. Prirodoslovno-matematički fakultet, Zagreb.

Koren, T., Črne, M., Koprivnikar, N., Trkov, D., Drašler, K., Jelić, D., 2013. Contribution to the herpetofauna (Amphibia & Reptilia) of lower Neretva River (Croatia & Bosnia and Herzegovina). Hyla : Herpetological bulletin 2012, 19–40.

Lauš, B., 2015. Istraživanje populacija četveroprugog kravosasa (Elaphe quatuorlineata) i crvenkrpice (Zamenis situla) na Natura 2000 području Ravni kotari (kod: HR2001361) (završni izvještaj). Hrvatsko herpetološko društvo – Hyla, Zagreb.

Madl, R., 2017. First record of Elaphe quatuorlineata (BONNATERRE, 1790), from

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the Island of Dugi Otok (Croatia). *Herpetozoa* 30, 96–100.

Mekinić, S., Nediljko, Ž., Boban, J., Piasevoli, G., Vladović, D., 2015. Snakes in herpetological collection of the Natural History Museum in Split (Croatia) collected from 1924 until 2015. *Hyla : Herpetological bulletin* 2015, 4–10.

Vamberger, M., 2012. Poročilo skupine za dvoživke in plazilce, in: *Ekosistemi Jadrana, Pag 2007. Društvo študentov biologije, Ljubljana*, pp. 10–17.

Vilaj, I., 2014. Doprinos poznavanju herpetofaune otoka Hvara, in: Barišić, M., Burić, I., Gazić, M., Sučić, I. (Eds.), *Istraživanje bioraznolikosti otoka Hvara 2011. Udruga studenata biologije - BIUS, Zagreb*, pp. 136–156.

Zadravec, M., Koren, T., 2017. Further evidence of nocturnal activity of *Vipera ammodytes* (Linnaeus, 1758). *Herpetozoa* 30, 107–108.

Žagar, A., Cafuta, V., Drašler, K., Jagar, T., Krofel, M., Lužnik, M., Ostanek, E., Petkovska, V., Planinc, G., Sopotnik, M., Vamberger, M., 2013. A review of eleven short-term reptile surveys in the Western Balkans. *Hyla : Herpetological bulletin* 2013, 3–18.

Žagar, A., Carretero, M.A., Krofel, M., Lužnik, M., Podnar, M., Tvrtković, N., 2014. Reptile survey in Dinara mountain (Croatia) revealed the southernmost known population of Horvath's rock lizard (*Iberolacerta horvathi*). *Nat. Croat.* 23, 235–240.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb. 285 str.

## 5. Range

|  |  |
|--|--|
| 5.1 Surface area   | 21400  |
| 5.2 Short-term trend Period                                | 2007-2018  |
| 5.3 Short-term trend Direction                             | Stable (0)   |
| 5.4 Short-term trend Magnitude                             | a) Minimum b) Maximum  |
| 5.5 Short-term trend Method used                           | Based mainly on expert opinion with very limited data  |
| 5.6 Long-term trend Period                                 |  |
| 5.7 Long-term trend Direction                              |  |
| 5.8 Long-term trend Magnitude                              | a) Minimum b) Maximum  |
| 5.9 Long-term trend Method used                            |  |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator c) Unknown d) Method<br>Approximately equal to (≈) |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:   |
| 5.12 Additional information                                |  |

## 6. Population

|                    |           |
|--------------------|-----------|
| 6.1 Year or period | 2007-2018 |
|--------------------|-----------|



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|   |                      |  |
|---|----------------------|--|
| 6.2 Population size (in reporting unit) | a) Unit              | number of map 1x1 km grid cells (grids1x1) |
|   | b) Minimum           |  |
|   | c) Maximum           |  |
|   | d) Best single value | 180  |

|                      |         |
|----------------------|---------|
| 6.3 Type of estimate | Minimum |
|----------------------|---------|

|  |                      |
|--|----------------------|
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit              |
|  | b) Minimum           |
|  | c) Maximum           |
|  | d) Best single value |

|                      |
|----------------------|
| 6.5 Type of estimate |
|----------------------|

|                                 |   |
|---------------------------------|---|
| 6.6 Population size Method used | Based mainly on expert opinion with very limited data |
|---------------------------------|---|

|                             |           |
|-----------------------------|-----------|
| 6.7 Short-term trend Period | 2007-2018 |
|-----------------------------|-----------|

|                                |             |
|--------------------------------|-------------|
| 6.8 Short-term trend Direction | Unknown (x) |
|--------------------------------|-------------|

|                                |                        |
|--------------------------------|------------------------|
| 6.9 Short-term trend Magnitude | a) Minimum             |
|                                | b) Maximum             |
|                                | c) Confidence interval |

|                                   |                                   |
|-----------------------------------|-----------------------------------|
| 6.10 Short-term trend Method used | Insufficient or no data available |
|-----------------------------------|-----------------------------------|

|                             |
|-----------------------------|
| 6.11 Long-term trend Period |
|-----------------------------|

|                                |
|--------------------------------|
| 6.12 Long-term trend Direction |
|--------------------------------|

|                                |                        |
|--------------------------------|------------------------|
| 6.13 Long-term trend Magnitude | a) Minimum             |
|                                | b) Maximum             |
|                                | c) Confidence interval |

|                                  |
|----------------------------------|
| 6.14 Long-term trend Method used |
|----------------------------------|

|   |                    |   |
|---|--------------------|---|
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4) | a) Population size |   |
|   | b) Operator        |   |
|   | c) Unknown         | x |
|   | d) Method          |   |

|  |                              |
|--|------------------------------|
| 6.16 Change and reason for change in population size | The change is mainly due to: |
|--|------------------------------|

|                             |
|-----------------------------|
| 6.17 Additional information |
|-----------------------------|

## 7. Habitat for the species

|   |   |     |
|---|---|-----|
| 7.1 Sufficiency of area and quality of occupied habitat | a) Are area and quality of occupied habitat sufficient (for long-term survival)?                          | Yes |
|   | b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)? |     |

|   |   |
|---|---|
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Based mainly on expert opinion with very limited data |
|---|---|

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|                                  |                                   |
|----------------------------------|-----------------------------------|
| 7.3 Short-term trend Period      | 2007-2018                         |
| 7.4 Short-term trend Direction   | Unknown (x)                       |
| 7.5 Short-term trend Method used | Insufficient or no data available |
| 7.6 Long-term trend Period       |                                   |
| 7.7 Long-term trend Direction    |                                   |
| 7.8 Long-term trend Method used  |                                   |
| 7.9 Additional information       |                                   |

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02) | M       |
| Conversion into agricultural land (excluding drainage and burning) (A01)  | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Illegal shooting/killing (G10)  | M       |
| Invasive alien species of Union concern (I01)   | M       |
| Threat  | Ranking |
| Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02) | M       |
| Conversion into agricultural land (excluding drainage and burning) (A01)  | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Illegal shooting/killing (G10)  | M       |
| Invasive alien species of Union concern (I01)   | M       |

### 8.2 Sources of information

|                            |  |
|----------------------------|--|
| 8.3 Additional information | IAS union concern : <i>Herpestes javanicus</i> É. Geoffroy Saint-Hilaire, 1818 |
|----------------------------|--|

## 9. Conservation measures

|  |                                    |   |
|--|------------------------------------|---|
| 9.1 Status of measures                 | a) Are measures needed?            | Yes                                     |
|  | b) Indicate the status of measures | Measures identified, but none yet taken |
| 9.2 Main purpose of the measures taken |                                    |   |
| 9.3 Location of the measures taken     |                                    |   |
| 9.4 Response to the measures           |                                    |   |

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## 9.5 List of main conservation measures

## 9.6 Additional information

## 10. Future prospects

|                                     |                           |         |
|-------------------------------------|---------------------------|---------|
| 10.1 Future prospects of parameters | a) Range                  | Good    |
|                                     | b) Population             | Unknown |
|                                     | c) Habitat of the species | Unknown |

## 10.2 Additional information

## 11. Conclusions

|   |  |
|---|--|
| 11.1. Range   | Favourable (FV)                              |
| 11.2. Population  | Unknown (XX)                                 |
| 11.3. Habitat for the species   | Unknown (XX)                                 |
| 11.4. Future prospects  | Unknown (XX)                                 |
| 11.5 Overall assessment of Conservation Status  | Unknown (XX)                                 |
| 11.6 Overall trend in Conservation Status   |  |
| 11.7 Change and reasons for change in conservation status and conservation status trend | a) Overall assessment of conservation status |
|   | The change is mainly due to:                 |
|   | b) Overall trend in conservation status      |
|   | The change is mainly due to:                 |
|   |  |
| 11.8 Additional information   |  |

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

|   |                      |
|---|----------------------|
| 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present) | a) Unit              |
|   | b) Minimum           |
|   | c) Maximum           |
|   | d) Best single value |
| 12.2 Type of estimate   |                      |
| 12.3 Population size inside the network Method used   |                      |
| 12.4 Short-term trend of population size within the network Direction   |                      |

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12.5 Short-term trend of population size within the network Method used

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

4.2 Sources of information

### Alpine (ALP)

Dieckmann, M., 2006. Die Lacertiden der norddalmatinischen Insel Dugi Otok. Die Eidechse 17, 52–56.

Džukić, G., Tomović, L., Anđelković, M., Urošević, A., Nikolić, S., Kalezić, M., 2017. The herpetological collection of the Institute for biological research “Siniša Stanković”, University of Belgrade. Bulletin of the Natural History Museum 10, 57–104. <https://doi.org/10.5937/bnhmb1710057D>

Jelić, D., Ajtić, R., Sterijovski, B., Crnobrnja-Isailović, J., Lelo, S., Tomović, L., 2013. Distribution of the genus Vipera in the western and central Balkans (Squamata: Serpentes: Viperidae). Herpetozoa 25, 109–132.

Jelić, D., Budinski, I., Lauš, B., 2012. Distribution and conservation status of the batracho- and herpetofauna of the Croatian island of Mljet (Anura; Testudines; Squamata: Sauria, Serpentes). Herpetozoa 24, 165–178.

Kerovec, M., Mrakovčić, M., Hršak, V., Grubešić, M., Vujčić-Karlo, S., Kučinić, M., Radović, D., Ternjej, I., Mihaljević, Z., Gottstein, S., Schneider, D., Bartovsky, V., 1999. Projekt Sava Sustav obrane od poplava u srednjoj Posavini. Studija općih značajki bioloških resursa -dio procjene utjecaja na okoliš-. Prirodoslovno-matematički fakultet, Zagreb.

Koren, T., Črne, M., Koprivnikar, N., Trkov, D., Drašler, K., Jelić, D., 2013. Contribution to the herpetofauna (Amphibia & Reptilia) of lower Neretva River (Croatia & Bosnia and Herzegovina). Hyla : Herpetological bulletin 2012, 19–40.

Lauš, B., 2015. Istraživanje populacija četveroprugog kravosasa (Elaphe quatuorlineata) i crvenkrpice (Zamenis situla) na Natura 2000 području Ravni kotari (kod: HR2001361) (završni izvještaj). Hrvatsko herpetološko društvo – Hyla, Zagreb.

Madl, R., 2017. First record of Elaphe quatuorlineata (BONNATERRE, 1790), from the Island of Dugi Otok (Croatia). Herpetozoa 30, 96–100.

Mekinić, S., Nediljko, Ž., Boban, J., Piasevoli, G., Vladović, D., 2015. Snakes in herpetological collection of the Natural History Museum in Split (Croatia)

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collected from 1924 until 2015. Hyla : Herpetological bulletin 2015, 4–10.  
 Vamberger, M., 2012. Poročilo skupine za dvoživke in plazilce, in: Ekosistemi Jadrana, Pag 2007. Društvo študentov biologije, Ljubljana, pp. 10–17.  
 Vilaj, I., 2014. Doprinos poznavanju herpetofaune otoka Hvara, in: Barišić, M., Burić, I., Gazić, M., Sučić, I. (Eds.), Istraživanje bioraznolikosti otoka Hvara 2011. Udruga studenata biologije - BIUS, Zagreb, pp. 136–156.  
 Zadravec, M., Koren, T., 2017. Further evidence of nocturnal activity of Vipera ammodytes (Linnaeus, 1758). Herpetozoa 30, 107–108.  
 Žagar, A., Cafuta, V., Drašler, K., Jager, T., Krofel, M., Lužnik, M., Ostanek, E., Petkovska, V., Planinc, G., Sopotnik, M., Vamberger, M., 2013. A review of eleven short-term reptile surveys in the Western Balkans. Hyla : Herpetological bulletin 2013, 3–18.  
 Žagar, A., Carretero, M.A., Krofel, M., Lužnik, M., Podnar, M., Tvrtković, N., 2014. Reptile survey in Dinara mountain (Croatia) revealed the southernmost known population of Horvath's rock lizard (Iberolacerta horvathi). Nat. Croat. 23, 235–240.  
 M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb. 285 str.

## 5. Range

|  |  |
|--|--|
| 5.1 Surface area   | 10400  |
| 5.2 Short-term trend Period                                | 2007-2018  |
| 5.3 Short-term trend Direction                             | Stable (0)   |
| 5.4 Short-term trend Magnitude                             | a) Minimum b) Maximum  |
| 5.5 Short-term trend Method used                           | Based mainly on expert opinion with very limited data  |
| 5.6 Long-term trend Period                                 |  |
| 5.7 Long-term trend Direction                              |  |
| 5.8 Long-term trend Magnitude                              | a) Minimum b) Maximum  |
| 5.9 Long-term trend Method used                            |  |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown<br>d) Method<br>Approximately equal to (≈) |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:   |
| 5.12 Additional information                                |  |

## 6. Population

|   |  |
|---|--|
| 6.1 Year or period                      | 2007-2018  |
| 6.2 Population size (in reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value<br>number of map 1x1 km grid cells (grids1x1)<br>137 |

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|  |   |
|--|---|
| 6.3 Type of estimate   | Minimum   |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value                         |
| 6.5 Type of estimate   |   |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data                               |
| 6.7 Short-term trend Period  | 2007-2018   |
| 6.8 Short-term trend Direction   | Unknown (x)   |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval                                  |
| 6.10 Short-term trend Method used  | Insufficient or no data available   |
| 6.11 Long-term trend Period  |   |
| 6.12 Long-term trend Direction   |   |
| 6.13 Long-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval                                  |
| 6.14 Long-term trend Method used   |   |
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4)              | a) Population size<br>b) Operator<br>c) Unknown                      x<br>d) Method |
| 6.16 Change and reason for change in population size                             | The change is mainly due to:  |
| 6.17 Additional information  |   |

## 7. Habitat for the species

|   |  |
|---|--|
| 7.1 Sufficiency of area and quality of occupied habitat             | a) Are area and quality of occupied habitat sufficient (for long-term survival)?                      Yes<br><br>b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)? |
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Based mainly on expert opinion with very limited data  |
| 7.3 Short-term trend Period   | 2007-2018  |
| 7.4 Short-term trend Direction                                      | Unknown (x)  |
| 7.5 Short-term trend Method used                                    | Insufficient or no data available  |
| 7.6 Long-term trend Period  |  |

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7.7 Long-term trend Direction

7.8 Long-term trend Method used

7.9 Additional information

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02) | M       |
| Conversion into agricultural land (excluding drainage and burning) (A01)  | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Illegal shooting/killing (G10)  | M       |
| Threat  | Ranking |
| Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02) | M       |
| Conversion into agricultural land (excluding drainage and burning) (A01)  | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Illegal shooting/killing (G10)  | M       |

8.2 Sources of information

8.3 Additional information

## 9. Conservation measures

|                        |                                    |   |
|------------------------|------------------------------------|---|
| 9.1 Status of measures | a) Are measures needed?            | Yes                                     |
|                        | b) Indicate the status of measures | Measures identified, but none yet taken |

9.2 Main purpose of the measures taken

9.3 Location of the measures taken

9.4 Response to the measures

9.5 List of main conservation measures

9.6 Additional information

## 10. Future prospects

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 10.1 Future prospects of parameters

|                           |         |
|---------------------------|---------|
| a) Range                  | Good    |
| b) Population             | Unknown |
| c) Habitat of the species | Unknown |

## 10.2 Additional information

## 11. Conclusions

### 11.1. Range

Favourable (FV)

### 11.2. Population

Unknown (XX)

### 11.3. Habitat for the species

Unknown (XX)

### 11.4. Future prospects

Unknown (XX)

### 11.5 Overall assessment of Conservation Status

Unknown (XX)

### 11.6 Overall trend in Conservation Status

### 11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

### 11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

### 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

### 12.2 Type of estimate

### 12.3 Population size inside the network Method used

### 12.4 Short-term trend of population size within the network Direction

### 12.5 Short-term trend of population size within the network Method used

### 12.6 Additional information

## 13. Complementary information

### 13.1 Justification of % thresholds for trends



# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 13.2 Trans-boundary assessment

## 13.3 Other relevant Information

## 4. Biogeographical and marine regions

### 4.1 Biogeographical or marine region where the species occurs

### 4.2 Sources of information

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M. Zadavec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb. 285 str.

## 5. Range

|  |  |
|--|--|
| 5.1 Surface area   | 6600   |
| 5.2 Short-term trend Period                                | 2007-2018  |
| 5.3 Short-term trend Direction                             | Stable (0)   |
| 5.4 Short-term trend Magnitude                             | a) Minimum b) Maximum  |
| 5.5 Short-term trend Method used                           | Based mainly on expert opinion with very limited data                  |
| 5.6 Long-term trend Period                                 |  |
| 5.7 Long-term trend Direction                              |  |
| 5.8 Long-term trend Magnitude                              | a) Minimum b) Maximum  |
| 5.9 Long-term trend Method used                            |  |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown x<br>d) Method |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:   |
| 5.12 Additional information                                |  |

## 6. Population

|  |   |
|--|---|
| 6.1 Year or period   | 2007-2018   |
| 6.2 Population size (in reporting unit)  | a) Unit number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value 74 |
| 6.3 Type of estimate   | Minimum   |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value   |
| 6.5 Type of estimate   |   |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data   |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|   |   |
|---|---|
| 6.7 Short-term trend Period   | 2007-2018   |
| 6.8 Short-term trend Direction                                      | Unknown (x)   |
| 6.9 Short-term trend Magnitude                                      | a) Minimum<br>b) Maximum<br>c) Confidence interval                                  |
| 6.10 Short-term trend Method used                                   | Insufficient or no data available   |
| 6.11 Long-term trend Period   |   |
| 6.12 Long-term trend Direction                                      |   |
| 6.13 Long-term trend Magnitude                                      | a) Minimum<br>b) Maximum<br>c) Confidence interval                                  |
| 6.14 Long-term trend Method used                                    |   |
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4) | a) Population size<br>b) Operator<br>c) Unknown                      x<br>d) Method |
| 6.16 Change and reason for change in population size                | The change is mainly due to:  |
| 6.17 Additional information   |   |

## 7. Habitat for the species

|   |   |         |
|---|---|---------|
| 7.1 Sufficiency of area and quality of occupied habitat             | a) Are area and quality of occupied habitat sufficient (for long-term survival)?<br>b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?   | Unknown |
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Insufficient or no data available   |         |
| 7.3 Short-term trend Period   | 2007-2018   |         |
| 7.4 Short-term trend Direction                                      | Unknown (x)   |         |
| 7.5 Short-term trend Method used                                    | Insufficient or no data available   |         |
| 7.6 Long-term trend Period  |   |         |
| 7.7 Long-term trend Direction                                       |   |         |
| 7.8 Long-term trend Method used                                     |   |         |
| 7.9 Additional information  | On some locations in this biogeographic region there is an apparent loss/deterioration of habitat (e.g. southern slopes of Medvednica Mt.), due to natural succession, expansion of urban areas, and/or deterioration of dry stone walls/stone piles, due to crumbling of rocks used in their construction. The latter results in a diminished number of hiding/hibernation spots, which has a detrimental effect on the local level, even though other habitat features remain favourable. |         |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02) | M       |
| Conversion into agricultural land (excluding drainage and burning) (A01)  | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Illegal shooting/killing (G10)  | M       |
| Threat  | Ranking |
| Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02) | M       |
| Conversion into agricultural land (excluding drainage and burning) (A01)  | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Illegal shooting/killing (G10)  | M       |

### 8.2 Sources of information

### 8.3 Additional information

## 9. Conservation measures

### 9.1 Status of measures

|                                    |   |
|------------------------------------|---|
| a) Are measures needed?            | Yes                                     |
| b) Indicate the status of measures | Measures identified, but none yet taken |

### 9.2 Main purpose of the measures taken

### 9.3 Location of the measures taken

### 9.4 Response to the measures

### 9.5 List of main conservation measures

### 9.6 Additional information

## 10. Future prospects

### 10.1 Future prospects of parameters

|                           |         |
|---------------------------|---------|
| a) Range                  | Unknown |
| b) Population             | Unknown |
| c) Habitat of the species | Unknown |

### 10.2 Additional information

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## 11. Conclusions

|   |   |
|---|---|
| 11.1. Range   | Unknown (XX)  |
| 11.2. Population  | Unknown (XX)  |
| 11.3. Habitat for the species   | Unknown (XX)  |
| 11.4. Future prospects  | Unknown (XX)  |
| 11.5 Overall assessment of Conservation Status  | Unknown (XX)  |
| 11.6 Overall trend in Conservation Status   |   |
| 11.7 Change and reasons for change in conservation status and conservation status trend | a) Overall assessment of conservation status<br><br>The change is mainly due to:<br><br>b) Overall trend in conservation status<br><br>The change is mainly due to: |
| 11.8 Additional information   |   |

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

|   |   |
|---|---|
| 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value |
| 12.2 Type of estimate   |   |
| 12.3 Population size inside the network Method used   |   |
| 12.4 Short-term trend of population size within the network Direction   |   |
| 12.5 Short-term trend of population size within the network Method used   |   |
| 12.6 Additional information   |   |

## 13. Complementary information

|   |
|---|
| 13.1 Justification of % thresholds for trends |
| 13.2 Trans-boundary assessment                |
| 13.3 Other relevant Information               |

## **Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)**

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                        |
|---|------------------------|
| 1.1 Member State                        | HR                     |
| 1.2 Species code                        | 6337                   |
| 1.3 Species scientific name             | Vipera ursinii macrops |
| 1.4 Alternative species scientific name |                        |
| 1.5 Common name (in national language)  | planinski žutokrug     |

## 2. Maps

|                                  |   |
|----------------------------------|---|
| 2.1 Sensitive species            | No  |
| 2.2 Year or period               | 2007-2018   |
| 2.3 Distribution map             | Yes   |
| 2.4 Distribution map Method used | Based mainly on expert opinion with very limited data |
| 2.5 Additional maps              | No  |

## 3. Information related to Annex V Species (Art. 14)

|   |   |    |
|---|---|----|
| 3.1 Is the species taken in the wild/exploited?       | No  |    |
| 3.2 Which of the measures in Art. 14 have been taken? | a) regulations regarding access to property   | No |
|   | b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No |
|   | c) regulation of the periods and/or methods of taking specimens   | No |
|   | d) application of hunting and fishing rules which take account of the conservation of such populations      | No |
|   | e) establishment of a system of licences for taking specimens or of quotas                                  | No |
|   | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No |
|   | g) breeding in captivity of animal species as well as artificial propagation of plant species               | No |
|   | h) other measures   | No |

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3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

3.4. Hunting bag or quantity taken in the wild Method used

3.5. Additional information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

**Mediterranean (MED)**

4.2 Sources of information

Jelić, D., Baškiera, S., 2014. Planinski žutokrug (*Vipera ursinii*), Nacionalni programi za praćenje stanja očuvanosti vrsta u Hrvatskoj. Državni zavod za zaštitu prirode, Zagreb.

Jelić, D., Gluhaković, M., Peranić, I., Lončar, M., 2007. Distribution of *Vipera ursinii* macrops and related taxa in Croatia.

Jelić, D., Kuljerić, M., Koren, T., Treer, D., Šalamon, D., Lončar, M., Podnar Lešić, M., Janev Hutinec, B., Bogdanović, T., Mekinić, S., Jelić, K., 2012. Crvena knjiga vodozemaca i gmazova Hrvatske. Ministarstvo zaštite okoliša i prirode, Državni zavod za zaštitu prirode, Republika Hrvatska.

Tonković, M., 1934. Zmije u srezu Imotskome. Priroda 24, 89–90.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb. 285 str.

## 5. Range

5.1 Surface area

300

5.2 Short-term trend Period

2007-2018

5.3 Short-term trend Direction

Unknown (x)

5.4 Short-term trend Magnitude

a) Minimum

b) Maximum

5.5 Short-term trend Method used

Insufficient or no data available

5.6 Long-term trend Period

5.7 Long-term trend Direction



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5.8 Long-term trend Magnitude a) Minimum b) Maximum

5.9 Long-term trend Method used

5.10 Favourable reference range  
a) Area (km<sup>2</sup>)  
b) Operator  
c) Unknown x  
d) Method

5.11 Change and reason for change in surface area of range  
The change is mainly due to:

5.12 Additional information

## 6. Population

6.1 Year or period 2007-2018

6.2 Population size (in reporting unit)  
a) Unit number of map 1x1 km grid cells (grids1x1)  
b) Minimum  
c) Maximum  
d) Best single value 9

6.3 Type of estimate Minimum

6.4 Additional population size (using population unit other than reporting unit)  
a) Unit  
b) Minimum  
c) Maximum  
d) Best single value

6.5 Type of estimate

6.6 Population size Method used Based mainly on expert opinion with very limited data

6.7 Short-term trend Period 2007-2018

6.8 Short-term trend Direction Unknown (x)

6.9 Short-term trend Magnitude  
a) Minimum  
b) Maximum  
c) Confidence interval

6.10 Short-term trend Method used Based mainly on expert opinion with very limited data

6.11 Long-term trend Period

6.12 Long-term trend Direction

6.13 Long-term trend Magnitude  
a) Minimum  
b) Maximum  
c) Confidence interval

6.14 Long-term trend Method used

6.15 Favourable reference population (using the unit in 6.2 or 6.4)  
a) Population size  
b) Operator  
c) Unknown x

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## d) Method

### 6.16 Change and reason for change in population size

The change is mainly due to:

### 6.17 Additional information

## 7. Habitat for the species

### 7.1 Sufficiency of area and quality of occupied habitat

a) Are area and quality of occupied habitat sufficient (for long-term survival)?

Unknown

b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?

### 7.2 Sufficiency of area and quality of occupied habitat Method used

Insufficient or no data available

### 7.3 Short-term trend Period

2007-2018

### 7.4 Short-term trend Direction

Unknown (x)

### 7.5 Short-term trend Method used

Insufficient or no data available

### 7.6 Long-term trend Period

### 7.7 Long-term trend Direction

### 7.8 Long-term trend Method used

### 7.9 Additional information

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure   | Ranking |
|--|---------|
| Abandonment of grassland management (e.g. cessation of grazing or mowing) (A06)            | H       |
| Intensive grazing or overgrazing by livestock (A09)  | M       |
| Wind, wave and tidal power, including infrastructure (D01)                                 | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01) | M       |
| Threat   | Ranking |
| Abandonment of grassland management (e.g. cessation of grazing or mowing) (A06)            | H       |
| Intensive grazing or overgrazing by livestock (A09)  | M       |
| Wind, wave and tidal power, including infrastructure (D01)                                 | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01) | M       |
| Reduced fecundity / genetic depression (e.g. inbreeding or endogamy) (L05)                 | M       |

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Conversion from other land uses to housing, settlement or recreational areas (excluding drainage and modification of coastline, estuary and coastal conditions) (F01)

M

Change of habitat location, size, and / or quality due to climate change (N05)

H

## 8.2 Sources of information

## 8.3 Additional information

# 9. Conservation measures

## 9.1 Status of measures

a) Are measures needed?

Yes

b) Indicate the status of measures

Measures identified, but none yet taken

## 9.2 Main purpose of the measures taken

## 9.3 Location of the measures taken

## 9.4 Response to the measures

## 9.5 List of main conservation measures

## 9.6 Additional information

# 10. Future prospects

## 10.1 Future prospects of parameters

a) Range

Poor

b) Population

Unknown

c) Habitat of the species

Poor

## 10.2 Additional information

# 11. Conclusions

## 11.1. Range

Unknown (XX)

## 11.2. Population

Unknown (XX)

## 11.3. Habitat for the species

Unknown (XX)

## 11.4. Future prospects

Unfavourable - Inadequate (U1)

## 11.5 Overall assessment of Conservation Status

Unfavourable - Inadequate (U1)

## 11.6 Overall trend in Conservation Status

Unknown (x)

## 11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

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The change is mainly due to:

## 11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

a) Unit number of map 1x1 km grid cells (grids1x1)  
b) Minimum  
c) Maximum  
d) Best single value 9

### 12.2 Type of estimate

Minimum

12.3 Population size inside the network Method used

Based mainly on expert opinion with very limited data

12.4 Short-term trend of population size within the network Direction

Unknown (x)

12.5 Short-term trend of population size within the network Method used

Insufficient or no data available

## 12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

### Alpine (ALP)

4.2 Sources of information

Jelić, D., Baškiera, S., 2014. Planinski žutokrug (*Vipera ursinii*), Nacionalni programi za praćenje stanja očuvanosti vrsta u Hrvatskoj. Državni zavod za zaštitu prirode, Zagreb.  
Jelić, D., Gluhaković, M., Peranić, I., Lončar, M., 2007. Distribution of *Vipera ursinii* macrops and related taxa in Croatia.  
Jelić, D., Kuljerić, M., Koren, T., Treer, D., Šalamon, D., Lončar, M., Podnar Lešić, M., Janev Hutinec, B., Bogdanović, T., Mekinić, S., Jelić, K., 2012. Crvena knjiga vodozemaca i gmazova Hrvatske. Ministarstvo zaštite okoliša i prirode, Državni

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zavod za zaštitu prirode, Republika Hrvatska.  
Tonković, M., 1934. Zmije u srezu Imotskome. Priroda 24, 89–90.  
M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb. 285 str.

## 5. Range

|  |   |
|--|---|
| 5.1 Surface area   | 1000  |
| 5.2 Short-term trend Period                                | 2007-2018   |
| 5.3 Short-term trend Direction                             | Unknown (x)   |
| 5.4 Short-term trend Magnitude                             | a) Minimum b) Maximum   |
| 5.5 Short-term trend Method used                           | Insufficient or no data available   |
| 5.6 Long-term trend Period                                 |   |
| 5.7 Long-term trend Direction                              |   |
| 5.8 Long-term trend Magnitude                              | a) Minimum b) Maximum   |
| 5.9 Long-term trend Method used                            |   |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator Approximately equal to (≈)<br>c) Unknown<br>d) Method |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:  |
| 5.12 Additional information                                |   |

## 6. Population

|  |   |
|--|---|
| 6.1 Year or period   | 2007-2018   |
| 6.2 Population size (in reporting unit)  | a) Unit number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value 38 |
| 6.3 Type of estimate   | Minimum   |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value   |
| 6.5 Type of estimate   |   |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data   |
| 6.7 Short-term trend Period  | 2007-2018   |
| 6.8 Short-term trend Direction   | Uncertain (u)   |

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|   |   |
|---|---|
| 6.9 Short-term trend Magnitude                                      | a) Minimum<br>b) Maximum<br>c) Confidence interval                                  |
| 6.10 Short-term trend Method used                                   | Based mainly on expert opinion with very limited data                               |
| 6.11 Long-term trend Period   |   |
| 6.12 Long-term trend Direction                                      |   |
| 6.13 Long-term trend Magnitude                                      | a) Minimum<br>b) Maximum<br>c) Confidence interval                                  |
| 6.14 Long-term trend Method used                                    |   |
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4) | a) Population size<br>b) Operator<br>c) Unknown                      x<br>d) Method |
| 6.16 Change and reason for change in population size                | The change is mainly due to:  |
| 6.17 Additional information   |   |

## 7. Habitat for the species

|   |  |
|---|--|
| 7.1 Sufficiency of area and quality of occupied habitat             | a) Are area and quality of occupied habitat sufficient (for long-term survival)?                      Unknown<br><br>b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)? |
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Insufficient or no data available  |
| 7.3 Short-term trend Period   | 2007-2018  |
| 7.4 Short-term trend Direction                                      | Unknown (x)  |
| 7.5 Short-term trend Method used                                    | Insufficient or no data available  |
| 7.6 Long-term trend Period  |  |
| 7.7 Long-term trend Direction                                       |  |
| 7.8 Long-term trend Method used                                     |  |
| 7.9 Additional information  |  |

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Abandonment of grassland management (e.g. cessation of grazing or mowing) (A06) | H       |
| Intensive grazing or overgrazing by livestock (A09)                             | M       |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|   |                |
|---|----------------|
| Wind, wave and tidal power, including infrastructure (D01)  | M              |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M              |
| <b>Threat</b>   | <b>Ranking</b> |
| Abandonment of grassland management (e.g. cessation of grazing or mowing) (A06)   | H              |
| Intensive grazing or overgrazing by livestock (A09)   | M              |
| Wind, wave and tidal power, including infrastructure (D01)  | M              |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M              |
| Reduced fecundity / genetic depression (e.g. inbreeding or endogamy) (L05)  | M              |
| Conversion from other land uses to housing, settlement or recreational areas (excluding drainage and modification of coastline, estuary and coastal conditions) (F01) | M              |
| Change of habitat location, size, and / or quality due to climate change (N05)  | H              |

## 8.2 Sources of information

## 8.3 Additional information

# 9. Conservation measures

|                        |                                    |   |
|------------------------|------------------------------------|---|
| 9.1 Status of measures | a) Are measures needed?            | Yes                                     |
|                        | b) Indicate the status of measures | Measures identified, but none yet taken |

## 9.2 Main purpose of the measures taken

## 9.3 Location of the measures taken

## 9.4 Response to the measures

## 9.5 List of main conservation measures

## 9.6 Additional information

# 10. Future prospects

|                                     |                           |         |
|-------------------------------------|---------------------------|---------|
| 10.1 Future prospects of parameters | a) Range                  | Poor    |
|                                     | b) Population             | Unknown |
|                                     | c) Habitat of the species | Poor    |

## 10.2 Additional information

# 11. Conclusions

|                  |              |
|------------------|--------------|
| 11.1. Range      | Unknown (XX) |
| 11.2. Population | Unknown (XX) |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|   |  |
|---|--|
| 11.3. Habitat for the species   | Unknown (XX)   |
| 11.4. Future prospects  | Unfavourable - Inadequate (U1)   |
| 11.5 Overall assessment of Conservation Status  | Unfavourable - Inadequate (U1)   |
| 11.6 Overall trend in Conservation Status   | Unknown (x)  |
| 11.7 Change and reasons for change in conservation status and conservation status trend | <p>a) Overall assessment of conservation status</p> <p>The change is mainly due to:</p> <p>b) Overall trend in conservation status</p> <p>The change is mainly due to:</p> |
| 11.8 Additional information   |  |

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

|   |  |
|---|--|
| 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present) | <p>a) Unit                      number of map 1x1 km grid cells (grids1x1)</p> <p>b) Minimum</p> <p>c) Maximum</p> <p>d) Best single value    34</p> |
| 12.2 Type of estimate   | Minimum  |
| 12.3 Population size inside the network Method used   | Based mainly on expert opinion with very limited data  |
| 12.4 Short-term trend of population size within the network Direction   | Unknown (x)  |
| 12.5 Short-term trend of population size within the network Method used   | Insufficient or no data available  |
| 12.6 Additional information   |  |

## 13. Complementary information

|   |
|---|
| 13.1 Justification of % thresholds for trends |
| 13.2 Trans-boundary assessment                |
| 13.3 Other relevant Information               |



# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                     |
|---|---------------------|
| 1.1 Member State                        | HR                  |
| 1.2 Species code                        | 6091                |
| 1.3 Species scientific name             | Zamenis longissimus |
| 1.4 Alternative species scientific name |                     |
| 1.5 Common name (in national language)  | bjelica             |

## 2. Maps

|                                  |   |
|----------------------------------|---|
| 2.1 Sensitive species            | No  |
| 2.2 Year or period               | 2009-2017   |
| 2.3 Distribution map             | Yes   |
| 2.4 Distribution map Method used | Based mainly on expert opinion with very limited data |
| 2.5 Additional maps              | No  |

## 3. Information related to Annex V Species (Art. 14)

|   |   |    |
|---|---|----|
| 3.1 Is the species taken in the wild/exploited?       | No  |    |
| 3.2 Which of the measures in Art. 14 have been taken? | a) regulations regarding access to property   | No |
|   | b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No |
|   | c) regulation of the periods and/or methods of taking specimens   | No |
|   | d) application of hunting and fishing rules which take account of the conservation of such populations      | No |
|   | e) establishment of a system of licences for taking specimens or of quotas                                  | No |
|   | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No |
|   | g) breeding in captivity of animal species as well as artificial propagation of plant species               | No |
|   | h) other measures   | No |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

3.4. Hunting bag or quantity taken in the wild Method used

3.5. Additional information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

**Mediterranean (MED)**

4.2 Sources of information

Džukić, G., Tomović, L., Anđelković, M., Urošević, A., Nikolić, S., Kalezić, M., 2017. The herpetological collection of the Institute for biological research "Siniša Stanković", University of Belgrade. Bulletin of the Natural History Museum 10, 57–104. <https://doi.org/10.5937/bnhmb1710057D>

Janev Hutinec, B., Lupret-Obradović, S., 2005. Zmije Hrvatske - priručnik za određivanje vrsta. Društvo za zaštitu i proučavanje vodozemaca i gmazova Hrvatske - Hyla, Kratis d.o.o., Zagreb.

Jelić, D., Karaica, D., 2012. First data on the fauna of amphibians and reptiles of the lower Una River and its coastal area. Hyla : Herpetological bulletin 2012, 22–41.

Koren, T., Črne, M., Koprivnikar, N., Trkov, D., Drašler, K., Jelić, D., 2013. Contribution to the herpetofauna (Amphibia & Reptilia) of lower Neretva River (Croatia & Bosnia and Herzegovina). Hyla : Herpetological bulletin 2012, 19–40.

Mekinić, S., Nediljko, Ž., Boban, J., Piasevoli, G., Vladović, D., 2015. Snakes in herpetological collection of the Natural History Museum in Split (Croatia) collected from 1924 until 2015. Hyla : Herpetological bulletin 2015, 4–10.

Žagar, A., Carretero, M.A., Krofel, M., Lužnik, M., Podnar, M., Tvrčković, N., 2014. Reptile survey in Dinara mountain (Croatia) revealed the southernmost known population of Horvath's rock lizard (Iberolacerta horvathi). Nat. Croat. 23, 235–240.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb. 285 str.

## 5. Range

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|  |  |
|--|--|
| 5.1 Surface area   | 20100  |
| 5.2 Short-term trend Period                                | 2007-2018  |
| 5.3 Short-term trend Direction                             | Unknown (x)  |
| 5.4 Short-term trend Magnitude                             | a) Minimum b) Maximum  |
| 5.5 Short-term trend Method used                           | Insufficient or no data available                                      |
| 5.6 Long-term trend Period                                 |  |
| 5.7 Long-term trend Direction                              |  |
| 5.8 Long-term trend Magnitude                              | a) Minimum b) Maximum  |
| 5.9 Long-term trend Method used                            |  |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown x<br>d) Method |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:   |
| 5.12 Additional information                                |  |

## 6. Population

|  |   |
|--|---|
| 6.1 Year or period   | 2007-2018   |
| 6.2 Population size (in reporting unit)  | a) Unit number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value 84 |
| 6.3 Type of estimate   | Minimum   |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value   |
| 6.5 Type of estimate   |   |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data   |
| 6.7 Short-term trend Period  | 2007-2018   |
| 6.8 Short-term trend Direction   | Unknown (x)   |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval  |
| 6.10 Short-term trend Method used  | Insufficient or no data available   |
| 6.11 Long-term trend Period  |   |
| 6.12 Long-term trend Direction   |   |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 6.13 Long-term trend Magnitude

- a) Minimum
- b) Maximum
- c) Confidence interval

## 6.14 Long-term trend Method used

## 6.15 Favourable reference population (using the unit in 6.2 or 6.4)

- a) Population size
- b) Operator
- c) Unknown x
- d) Method

## 6.16 Change and reason for change in population size

The change is mainly due to:

## 6.17 Additional information

# 7. Habitat for the species

## 7.1 Sufficiency of area and quality of occupied habitat

- a) Are area and quality of occupied habitat sufficient (for long-term survival)? Yes

- b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?

## 7.2 Sufficiency of area and quality of occupied habitat Method used

Based mainly on expert opinion with very limited data

## 7.3 Short-term trend Period

2007-2018

## 7.4 Short-term trend Direction

Unknown (x)

## 7.5 Short-term trend Method used

Insufficient or no data available

## 7.6 Long-term trend Period

## 7.7 Long-term trend Direction

## 7.8 Long-term trend Method used

## 7.9 Additional information

# 8. Main pressures and threats

## 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02) | M       |
| Conversion into agricultural land (excluding drainage and burning) (A01)  | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Threat  | Ranking |
| Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry                  | M       |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

practices) (L02)

|  |   |
|--|---|
| Conversion into agricultural land (excluding drainage and burning) (A01) | M |
|--|---|

|  |   |
|--|---|
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01) | M |
|--|---|

## 8.2 Sources of information

## 8.3 Additional information

# 9. Conservation measures

## 9.1 Status of measures

a) Are measures needed?

Yes

b) Indicate the status of measures

Measures identified, but none yet taken

## 9.2 Main purpose of the measures taken

## 9.3 Location of the measures taken

## 9.4 Response to the measures

## 9.5 List of main conservation measures

## 9.6 Additional information

# 10. Future prospects

## 10.1 Future prospects of parameters

a) Range

Unknown

b) Population

Unknown

c) Habitat of the species

Unknown

## 10.2 Additional information

# 11. Conclusions

## 11.1. Range

Unknown (XX)

## 11.2. Population

Unknown (XX)

## 11.3. Habitat for the species

Unknown (XX)

## 11.4. Future prospects

Unknown (XX)

## 11.5 Overall assessment of Conservation Status

Unknown (XX)

## 11.6 Overall trend in Conservation Status

## 11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

The change is mainly due to:

## 11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

### 12.2 Type of estimate

12.3 Population size inside the network Method used

12.4 Short-term trend of population size within the network Direction

12.5 Short-term trend of population size within the network Method used

### 12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

### Alpine (ALP)

4.2 Sources of information

Džukić, G., Tomović, L., Anđelković, M., Urošević, A., Nikolić, S., Kalezić, M., 2017. The herpetological collection of the Institute for biological research "Siniša Stanković", University of Belgrade. Bulletin of the Natural History Museum 10, 57–104. <https://doi.org/10.5937/bnhmb1710057D>

Janev Hutinec, B., Lupret-Obradović, S., 2005. Zmije Hrvatske - priručnik za određivanje vrsta. Društvo za zaštitu i proučavanje vodozemaca i gmazova Hrvatske - Hyla, Kratis d.o.o., Zagreb.

Jelić, D., Karaica, D., 2012. First data on the fauna of amphibians and reptiles of the lower Una River and its coastal area. Hyla : Herpetological bulletin 2012,

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

22–41.

Koren, T., Črne, M., Koprivnikar, N., Trkov, D., Drašler, K., Jelić, D., 2013. Contribution to the herpetofauna (Amphibia & Reptilia) of lower Neretva River (Croatia & Bosnia and Herzegovina). Hyla : Herpetological bulletin 2012, 19–40.

Mekinić, S., Nediljko, Ž., Boban, J., Piasevoli, G., Vladović, D., 2015. Snakes in herpetological collection of the Natural History Museum in Split (Croatia) collected from 1924 until 2015. Hyla : Herpetological bulletin 2015, 4–10.

Žagar, A., Carretero, M.A., Krofel, M., Lužnik, M., Podnar, M., Tvrtković, N., 2014. Reptile survey in Dinara mountain (Croatia) revealed the southernmost known population of Horvath's rock lizard (Iberolacerta horvathi). Nat. Croat. 23, 235–240.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb. 285 str.

## 5. Range

|  |  |
|--|--|
| 5.1 Surface area   | 9500   |
| 5.2 Short-term trend Period                                | 2007-2018  |
| 5.3 Short-term trend Direction                             | Unknown (x)  |
| 5.4 Short-term trend Magnitude                             | a) Minimum b) Maximum  |
| 5.5 Short-term trend Method used                           | Insufficient or no data available                                      |
| 5.6 Long-term trend Period                                 |  |
| 5.7 Long-term trend Direction                              |  |
| 5.8 Long-term trend Magnitude                              | a) Minimum b) Maximum  |
| 5.9 Long-term trend Method used                            |  |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown x<br>d) Method |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:   |
| 5.12 Additional information                                |  |

## 6. Population

|   |   |
|---|---|
| 6.1 Year or period                      | 2007-2018   |
| 6.2 Population size (in reporting unit) | a) Unit number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value 35 |
| 6.3 Type of estimate                    | Minimum   |

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|  |  |
|--|--|
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value  |
| 6.5 Type of estimate   |  |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data        |
| 6.7 Short-term trend Period  | 2007-2018  |
| 6.8 Short-term trend Direction   | Unknown (x)  |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval           |
| 6.10 Short-term trend Method used  | Insufficient or no data available                            |
| 6.11 Long-term trend Period  |  |
| 6.12 Long-term trend Direction   |  |
| 6.13 Long-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval           |
| 6.14 Long-term trend Method used   |  |
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4)              | a) Population size<br>b) Operator<br>c) Unknown<br>d) Method |
| 6.16 Change and reason for change in population size                             | The change is mainly due to:                                 |
| 6.17 Additional information  |  |

## 7. Habitat for the species

|   |   |     |
|---|---|-----|
| 7.1 Sufficiency of area and quality of occupied habitat             | a) Are area and quality of occupied habitat sufficient (for long-term survival)?<br>b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)? | Yes |
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Based mainly on expert opinion with very limited data   |     |
| 7.3 Short-term trend Period   | 2007-2018   |     |
| 7.4 Short-term trend Direction                                      | Unknown (x)   |     |
| 7.5 Short-term trend Method used                                    | Insufficient or no data available   |     |
| 7.6 Long-term trend Period  |   |     |
| 7.7 Long-term trend Direction                                       |   |     |
| 7.8 Long-term trend Method used                                     |   |     |



# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 7.9 Additional information

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02) | M       |
| Conversion into agricultural land (excluding drainage and burning) (A01)  | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Threat  | Ranking |
| Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02) | M       |
| Conversion into agricultural land (excluding drainage and burning) (A01)  | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |

### 8.2 Sources of information

### 8.3 Additional information

## 9. Conservation measures

|                        |                                    |   |
|------------------------|------------------------------------|---|
| 9.1 Status of measures | a) Are measures needed?            | Yes                                     |
|                        | b) Indicate the status of measures | Measures identified, but none yet taken |

### 9.2 Main purpose of the measures taken

### 9.3 Location of the measures taken

### 9.4 Response to the measures

### 9.5 List of main conservation measures

### 9.6 Additional information

## 10. Future prospects

|                                     |                           |         |
|-------------------------------------|---------------------------|---------|
| 10.1 Future prospects of parameters | a) Range                  | Unknown |
|                                     | b) Population             | Unknown |
|                                     | c) Habitat of the species | Unknown |

### 10.2 Additional information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 11. Conclusions

|   |   |
|---|---|
| 11.1. Range   | Unknown (XX)  |
| 11.2. Population  | Unknown (XX)  |
| 11.3. Habitat for the species   | Unknown (XX)  |
| 11.4. Future prospects  | Unknown (XX)  |
| 11.5 Overall assessment of Conservation Status  | Unknown (XX)  |
| 11.6 Overall trend in Conservation Status   |   |
| 11.7 Change and reasons for change in conservation status and conservation status trend | a) Overall assessment of conservation status<br><br>The change is mainly due to:<br><br>b) Overall trend in conservation status<br><br>The change is mainly due to: |
| 11.8 Additional information   |   |

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

|   |   |
|---|---|
| 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value |
| 12.2 Type of estimate   |   |
| 12.3 Population size inside the network Method used   |   |
| 12.4 Short-term trend of population size within the network Direction   |   |
| 12.5 Short-term trend of population size within the network Method used   |   |
| 12.6 Additional information   |   |

## 13. Complementary information

|   |
|---|
| 13.1 Justification of % thresholds for trends |
| 13.2 Trans-boundary assessment                |
| 13.3 Other relevant Information               |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 4. Biogeographical and marine regions

### 4.1 Biogeographical or marine region where the species occurs

#### Continental (CON)

### 4.2 Sources of information

Džukić, G., Tomović, L., Anđelković, M., Urošević, A., Nikolić, S., Kalezić, M., 2017. The herpetological collection of the Institute for biological research "Siniša Stanković", University of Belgrade. Bulletin of the Natural History Museum 10, 57–104. <https://doi.org/10.5937/bnhmb1710057D>

Janev Hutinec, B., Lupret-Obradović, S., 2005. Zmije Hrvatske - priručnik za određivanje vrsta. Društvo za zaštitu i proučavanje vodozemaca i gmazova Hrvatske - Hyla, Kratis d.o.o., Zagreb.

Jelić, D., Karaica, D., 2012. First data on the fauna of amphibians and reptiles of the lower Una River and its coastal area. Hyla : Herpetological bulletin 2012, 22–41.

Koren, T., Črne, M., Koprivnikar, N., Trkov, D., Drašler, K., Jelić, D., 2013. Contribution to the herpetofauna (Amphibia & Reptilia) of lower Neretva River (Croatia & Bosnia and Herzegovina). Hyla : Herpetological bulletin 2012, 19–40.

Mekinić, S., Nediljko, Ž., Boban, J., Piasevoli, G., Vladović, D., 2015. Snakes in herpetological collection of the Natural History Museum in Split (Croatia) collected from 1924 until 2015. Hyla : Herpetological bulletin 2015, 4–10.

Žagar, A., Carretero, M.A., Krofel, M., Lužnik, M., Podnar, M., Tvrtković, N., 2014. Reptile survey in Dinara mountain (Croatia) revealed the southernmost known population of Horvath's rock lizard (*Iberolacerta horvathi*). Nat. Croat. 23, 235–240.

M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb. 285 str.

## 5. Range

### 5.1 Surface area

28300

### 5.2 Short-term trend Period

2007-2018

### 5.3 Short-term trend Direction

Unknown (x)

### 5.4 Short-term trend Magnitude

a) Minimum b) Maximum

### 5.5 Short-term trend Method used

Insufficient or no data available

### 5.6 Long-term trend Period

### 5.7 Long-term trend Direction

### 5.8 Long-term trend Magnitude

a) Minimum b) Maximum

### 5.9 Long-term trend Method used

### 5.10 Favourable reference range

a) Area (km<sup>2</sup>)  
b) Operator c) Unknown d) Method  
Approximately equal to (≈)

### 5.11 Change and reason for change in surface area of range

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

The change is mainly due to:

## 5.12 Additional information

## 6. Population

|  |  |
|--|--|
| 6.1 Year or period   | 2007-2018  |
| 6.2 Population size (in reporting unit)  | a) Unit number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value 144 |
| 6.3 Type of estimate   | Minimum  |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value  |
| 6.5 Type of estimate   |  |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data  |
| 6.7 Short-term trend Period  | 2007-2018  |
| 6.8 Short-term trend Direction   | Unknown (x)  |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval   |
| 6.10 Short-term trend Method used  | Insufficient or no data available  |
| 6.11 Long-term trend Period  |  |
| 6.12 Long-term trend Direction   |  |
| 6.13 Long-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval   |
| 6.14 Long-term trend Method used   |  |
| 6.15 Favourable reference population (using the unit in 6.2 or 6.4)              | a) Population size<br>b) Operator<br>c) Unknown x<br>d) Method   |
| 6.16 Change and reason for change in population size                             | The change is mainly due to:   |
| 6.17 Additional information  |  |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 7. Habitat for the species

|   |   |     |
|---|---|-----|
| 7.1 Sufficiency of area and quality of occupied habitat             | a) Are area and quality of occupied habitat sufficient (for long-term survival)?                          | Yes |
|   | b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)? |     |
| 7.2 Sufficiency of area and quality of occupied habitat Method used | Based mainly on expert opinion with very limited data   |     |
| 7.3 Short-term trend Period   | 2007-2018   |     |
| 7.4 Short-term trend Direction                                      | Unknown (x)   |     |
| 7.5 Short-term trend Method used                                    | Insufficient or no data available   |     |
| 7.6 Long-term trend Period  |   |     |
| 7.7 Long-term trend Direction                                       |   |     |
| 7.8 Long-term trend Method used                                     |   |     |
| 7.9 Additional information  |   |     |

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02) | M       |
| Conversion into agricultural land (excluding drainage and burning) (A01)  | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Threat  | Ranking |
| Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02) | M       |
| Conversion into agricultural land (excluding drainage and burning) (A01)  | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |

### 8.2 Sources of information

### 8.3 Additional information

## 9. Conservation measures

|                        |                                    |   |
|------------------------|------------------------------------|---|
| 9.1 Status of measures | a) Are measures needed?            | Yes                                     |
|                        | b) Indicate the status of measures | Measures identified, but none yet taken |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

9.2 Main purpose of the measures taken

9.3 Location of the measures taken

9.4 Response to the measures

9.5 List of main conservation measures

9.6 Additional information

## 10. Future prospects

10.1 Future prospects of parameters

|                           |         |
|---------------------------|---------|
| a) Range                  | Unknown |
| b) Population             | Unknown |
| c) Habitat of the species | Unknown |

10.2 Additional information

## 11. Conclusions

11.1. Range

Unknown (XX)

11.2. Population

Unknown (XX)

11.3. Habitat for the species

Unknown (XX)

11.4. Future prospects

Unknown (XX)

11.5 Overall assessment of Conservation Status

Unknown (XX)

11.6 Overall trend in Conservation Status

11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

The change is mainly due to:

b) Overall trend in conservation status

The change is mainly due to:

11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

|                      |
|----------------------|
| a) Unit              |
| b) Minimum           |
| c) Maximum           |
| d) Best single value |

12.2 Type of estimate

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

12.3 Population size inside the network Method used

12.4 Short-term trend of population size within the network Direction

12.5 Short-term trend of population size within the network Method used

12.6 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 1. General information

|   |                |
|---|----------------|
| 1.1 Member State                        | HR             |
| 1.2 Species code                        | 6095           |
| 1.3 Species scientific name             | Zamenis situla |
| 1.4 Alternative species scientific name |                |
| 1.5 Common name (in national language)  | crvenkrpica    |

## 2. Maps

|                                  |   |
|----------------------------------|---|
| 2.1 Sensitive species            | No  |
| 2.2 Year or period               | 2007-2018   |
| 2.3 Distribution map             | Yes   |
| 2.4 Distribution map Method used | Based mainly on expert opinion with very limited data |
| 2.5 Additional maps              | Yes   |

## 3. Information related to Annex V Species (Art. 14)

|   |   |    |
|---|---|----|
| 3.1 Is the species taken in the wild/exploited?       | No  |    |
| 3.2 Which of the measures in Art. 14 have been taken? | a) regulations regarding access to property   | No |
|   | b) temporary or local prohibition of the taking of specimens in the wild and exploitation                   | No |
|   | c) regulation of the periods and/or methods of taking specimens   | No |
|   | d) application of hunting and fishing rules which take account of the conservation of such populations      | No |
|   | e) establishment of a system of licences for taking specimens or of quotas                                  | No |
|   | f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens | No |
|   | g) breeding in captivity of animal species as well as artificial propagation of plant species               | No |
|   | h) other measures   | No |



# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

### a) Unit

| b) Statistics/<br>quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |                   |                   |                   |                   |                   |
|----------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                  | Season/<br>year 1   | Season/<br>year 2 | Season/<br>year 3 | Season/<br>year 4 | Season/<br>year 5 | Season/<br>year 6 |
| Min. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Max. (raw, ie. not rounded)      |   |                   |                   |                   |                   |                   |
| Unknown                          | No  | No                | No                | No                | No                | No                |

## 3.4. Hunting bag or quantity taken in the wild Method used

## 3.5. Additional information

## 4. Biogeographical and marine regions

### 4.1 Biogeographical or marine region where the species occurs

#### Mediterranean (MED)

### 4.2 Sources of information

Dajčman, U., 2017. Poročilo o delu skupine za plazilce, in: Ekosistemi Balkana, Vransko jezero 2016. Društvo študentov biologije, Ljubljana, pp. 66–72.

Drašler, K., 2014. Poročilo o delu skupine za plazilce, in: Ekosistemi Jadrana 2011 - delta Neretve. Društvo študentov biologije, Ljubljana, pp. 35–41.

Džukić, G., Tomović, L., Anđelković, M., Urošević, A., Nikolić, S., Kalezić, M., 2017. The herpetological collection of the Institute for biological research "Siniša Stanković", University of Belgrade. Bulletin of the Natural History Museum 10, 57–104. <https://doi.org/10.5937/bnhmb1710057D>

Koren, T., Črne, M., Koprivnikar, N., Trkov, D., Drašler, K., Jelić, D., 2013. Contribution to the herpetofauna (Amphibia & Reptilia) of lower Neretva River (Croatia & Bosnia and Herzegovina). Hyla : Herpetological bulletin 2012, 19–40.

Lauš, B., 2010. A contribution to the herpetofauna of Žirje Island (Dalmatia, Croatia). Natura Sloveniae 12, 61–63.

Lužnik, M., 2006. Poročilo skupine za plazilce, in: Luštrik, R., Vinko, D. (Eds.), Ekosistemi Jadrana. Črna Gora 2005. Pelješac 2006. Spomladinski biološki dnevi. Jovsi 2006. Društvo študentov biologije, Ljubljana.

Mekinić, S., Nediljko, Ž., Boban, J., Piasevoli, G., Vladović, D., 2015. Snakes in herpetological collection of the Natural History Museum in Split (Croatia) collected from 1924 until 2015. Hyla : Herpetological bulletin 2015, 4–10.

M. Zdravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb. 285 str.

## 5. Range

### 5.1 Surface area

22800

## Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|  |  |
|--|--|
| 5.2 Short-term trend Period                                | 2007-2018  |
| 5.3 Short-term trend Direction                             | Unknown (x)  |
| 5.4 Short-term trend Magnitude                             | a) Minimum b) Maximum  |
| 5.5 Short-term trend Method used                           | Insufficient or no data available                                      |
| 5.6 Long-term trend Period                                 |  |
| 5.7 Long-term trend Direction                              |  |
| 5.8 Long-term trend Magnitude                              | a) Minimum b) Maximum  |
| 5.9 Long-term trend Method used                            |  |
| 5.10 Favourable reference range                            | a) Area (km <sup>2</sup> )<br>b) Operator<br>c) Unknown x<br>d) Method |
| 5.11 Change and reason for change in surface area of range | The change is mainly due to:   |
| 5.12 Additional information                                |  |

## 6. Population

|  |  |
|--|--|
| 6.1 Year or period   | 2007-2018  |
| 6.2 Population size (in reporting unit)  | a) Unit                      number of map 1x1 km grid cells (grids1x1)<br>b) Minimum<br>c) Maximum<br>d) Best single value    189 |
| 6.3 Type of estimate   | Minimum  |
| 6.4 Additional population size (using population unit other than reporting unit) | a) Unit<br>b) Minimum<br>c) Maximum<br>d) Best single value  |
| 6.5 Type of estimate   |  |
| 6.6 Population size Method used  | Based mainly on expert opinion with very limited data  |
| 6.7 Short-term trend Period  | 2007-2018  |
| 6.8 Short-term trend Direction   | Unknown (x)  |
| 6.9 Short-term trend Magnitude   | a) Minimum<br>b) Maximum<br>c) Confidence interval   |
| 6.10 Short-term trend Method used  | Insufficient or no data available  |
| 6.11 Long-term trend Period  |  |
| 6.12 Long-term trend Direction   |  |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 6.13 Long-term trend Magnitude

- a) Minimum
- b) Maximum
- c) Confidence interval

## 6.14 Long-term trend Method used

## 6.15 Favourable reference population (using the unit in 6.2 or 6.4)

- a) Population size
- b) Operator
- c) Unknown x
- d) Method

## 6.16 Change and reason for change in population size

The change is mainly due to:

## 6.17 Additional information

## 7. Habitat for the species

### 7.1 Sufficiency of area and quality of occupied habitat

a) Are area and quality of occupied habitat sufficient (for long-term survival)? Unknown

b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?

### 7.2 Sufficiency of area and quality of occupied habitat Method used

Insufficient or no data available

### 7.3 Short-term trend Period

2007-2018

### 7.4 Short-term trend Direction

Unknown (x)

### 7.5 Short-term trend Method used

Insufficient or no data available

### 7.6 Long-term trend Period

### 7.7 Long-term trend Direction

### 7.8 Long-term trend Method used

### 7.9 Additional information

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

| Pressure  | Ranking |
|---|---------|
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M       |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M       |
| Illegal shooting/killing (G10)  | H       |
| Invasive alien species of Union concern (I01)   | M       |
| Conversion into agricultural land (excluding drainage and burning) (A01)  | M       |
| Threat  | Ranking |

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

|   |   |
|---|---|
| Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05) | M |
| Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)  | M |
| Illegal shooting/killing (G10)  | H |
| Invasive alien species of Union concern (I01)   | M |
| Conversion into agricultural land (excluding drainage and burning) (A01)  | M |

## 8.2 Sources of information

## 8.3 Additional information

IAS union concern : *Herpestes javanicus* É. Geoffroy Saint-Hilaire

## 9. Conservation measures

### 9.1 Status of measures

#### a) Are measures needed?

Yes

#### b) Indicate the status of measures

Measures identified, but none yet taken

### 9.2 Main purpose of the measures taken

### 9.3 Location of the measures taken

### 9.4 Response to the measures

### 9.5 List of main conservation measures

### 9.6 Additional information

## 10. Future prospects

### 10.1 Future prospects of parameters

#### a) Range

Unknown

#### b) Population

Unknown

#### c) Habitat of the species

Unknown

### 10.2 Additional information

## 11. Conclusions

### 11.1. Range

Unknown (XX)

### 11.2. Population

Unknown (XX)

### 11.3. Habitat for the species

Unknown (XX)

### 11.4. Future prospects

Unknown (XX)

### 11.5 Overall assessment of Conservation Status

Unknown (XX)

### 11.6 Overall trend in Conservation Status

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## 11.7 Change and reasons for change in conservation status and conservation status trend

### a) Overall assessment of conservation status

The change is mainly due to:

### b) Overall trend in conservation status

The change is mainly due to:

## 11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

### 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit                      number of map 1x1 km grid cells (grids1x1)  
b) Minimum  
c) Maximum  
d) Best single value    146

### 12.2 Type of estimate

Minimum

### 12.3 Population size inside the network Method used

Based mainly on expert opinion with very limited data

### 12.4 Short-term trend of population size within the network Direction

Unknown (x)

### 12.5 Short-term trend of population size within the network Method used

Insufficient or no data available

## 12.6 Additional information

## 13. Complementary information

### 13.1 Justification of % thresholds for trends

### 13.2 Trans-boundary assessment

### 13.3 Other relevant Information