

# 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	1188
1.3 Species scientific name	Bombina bombina
1.4 Alternative species scientific name	
1.5 Common name (in national language)	crveni mukač

## 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/ quantity taken	Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period					
	Season/ year 1	Season/ year 2	Season/ year 3	Season/ year 4	Season/ year 5	Season/ 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

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

Dzukic, G., Cvijanovic, M., Urosevic, A., Vukov, T., Tomasevic-Kolarov, N., Slijepcevic, M., Ivanovic, A., Kalezic, M., 2015. The batrachological collections of the Institute for biological research "Sinisa Stankovic", University of Belgrade. Bulletin of the Natural History Museum 118–167.  
<https://doi.org/10.5937/bnhmb1508118D>

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., 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.

Jurinac, A.E., 1887. Prilog hrvatskoj fauni ogulinsko-slunjske okolice i pećina. Rad Jugoslavenske akademije znanosti i umjetnosti 8, 86–128.

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

## 5. Range

5.1 Surface area

26600

5.2 Short-term trend Period

2007-2018

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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 (≈) It is our expert opinion that, based on the current distribution and extrapolated range (using Range Tool), the presented range covers the majority of the actual species' distribution in Croatia.
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 330
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	Decreasing (-)
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	

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## 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
- d) Method

x

## 6.16 Change and reason for change in population size

The change is mainly due to:

## 6.17 Additional information

Jelić et al. (2012) state that the population trend in Croatia is negative.

Populations of *B. variegata* and *B. bombina* in the continental biogeographic region in Croatia greatly overlap and hybrids are regularly present in those areas.

## 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)?
- 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

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

Jelić et al. (2012) state that habitat loss is one of the main threats to the survival of this species. The drainage of wetlands is an ongoing problem in Croatia.

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

Pressure	Ranking
Drainage (K02)	H
Change of habitat location, size, and / or quality due to climate change (N05)	M
Drainage for use as agricultural land (A31)	M
Use of plant protection chemicals in agriculture (A21)	M



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Threat	Ranking
Drainage (K02)	H
Change of habitat location, size, and / or quality due to climate change (N05)	H
Drainage for use as agricultural land (A31)	M
Plant and animal diseases, pathogens and pests (I05)	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

Manage changes in hydrological and coastal systems and regimes for construction and development (CF10)

Reduce impact of multi-purpose hydrological changes (CJ02)

Manage the use of natural fertilisers and chemicals in agricultural (plant and animal) production (CA09)

### 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

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

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    213

### 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	1193
1.3 Species scientific name	Bombina variegata
1.4 Alternative species scientific name	
1.5 Common name (in national language)	

## 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/ quantity taken	Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period					
	Season/ year 1	Season/ year 2	Season/ year 3	Season/ year 4	Season/ year 5	Season/ 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

Depoli, G., 1898. I Rettili ed Anfibi del territorio di Fiume. Riv. it. Sc. Nat. 18, 47–50.

Dzukic, G., Cvijanovic, M., Urosevic, A., Vukov, T., Tomasevic-Kolarov, N., Slijepcevic, M., Ivanovic, A., Kalezic, M., 2015. The batrachological collections of the Institute for biological research "Sinisa Stankovic", University of Belgrade. Bulletin of the Natural History Museum 118–167.  
<https://doi.org/10.5937/bnhmb1508118D>

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.

Lanza, B., Vanni, S., 1987. Hypothesis on the Origins of the Mediterranean Islands Batrachofauna. Bulletin de la Société Zoologique de France 112, 179–196.

Pavletić, J., 1964. Amphibia i reptilia: zbirke Hrvatskog narodnog zoološkog muzeja u Zagrebu. Hrvatski narodni zoološki muzej, Zagreb.

Schimmenti, G., Fabris, V., 2000. Note sull' erpetofauna dell'isola di Krk (Croatia nordoccidentale). Museo Regionale di Scienze Naturali Torino 2000, 643–652.

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

Tvrković, N., Kletečki, E., 1993. Vertebrates of the Velebit mountain (Croatia). Part I: Amphibians. Natura Croatica 2, 27–46

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	9300
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	

## 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 132
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

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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
Plant and animal diseases, pathogens and pests (I05)	M
Change of habitat location, size, and / or quality due to climate change (N05)	M
Use of plant protection chemicals in agriculture (A21)	M
Clear-cutting, removal of all trees (B09)	M
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	M

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Threat	Ranking
Plant and animal diseases, pathogens and pests (I05)	H
Change of habitat location, size, and / or quality due to climate change (N05)	H
Use of plant protection chemicals in agriculture (A21)	M
Clear-cutting, removal of all trees (B09)	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

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.
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## 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)

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## 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    95

### 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)**



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## 4.2 Sources of information

- Depoli, G., 1898. I Rettili ed Anfibi del territorio di Fiume. Riv. it. Sc. Nat. 18, 47–50.
- Dzukic, G., Cvijanovic, M., Urosevic, A., Vukov, T., Tomasevic-Kolarov, N., Slijepcevic, M., Ivanovic, A., Kalezic, M., 2015. The batrachological collections of the Institute for biological research "Sinisa Stankovic", University of Belgrade. Bulletin of the Natural History Museum 118–167.  
<https://doi.org/10.5937/bnhmb1508118D>
- 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.
- Lanza, B., Vanni, S., 1987. Hypothesis on the Origins of the Mediterranean Islands Batrachofauna. Bulletin de la Société Zoologique de France 112, 179–196.
- Pavletić, J., 1964. Amphibia i reptilia: zbirke Hrvatskog narodnog zoološkog muzeja u Zagrebu. Hrvatski narodni zoološki muzej, Zagreb.
- Schimmenti, G., Fabris, V., 2000. Note sull' erpetofauna dell'isola di Krk (Croatia nordoccidentale). Museo Regionale di Scienze Naturali Torino 2000, 643–652.
- Tóth, T., Grillitsch, H., Farkas, B., Gál, J., Sušić, G., 2006. Herpetofaunal data from Cres Island, Croatia. Herpetozoa 19, 27–58.
- Tvrčković, N., Kletečki, E., 1993. Vertebrates of the Velebit mountain (Croatia). Part I: Amphibians. Natura Croatica 2, 27–46
- M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

5.1 Surface area	10500
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	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	95

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
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6.6 Population size Method used	Based mainly on expert opinion with very limited data
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6.7 Short-term trend Period	2007-2018
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6.8 Short-term trend Direction	Unknown (x)
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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
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6.11 Long-term trend Period
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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
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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:
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6.17 Additional information
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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
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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
Use of plant protection chemicals in agriculture (A21)	M
Clear-cutting, removal of all trees (B09)	M
Change of habitat location, size, and / or quality due to climate change (N05)	M
Threat	Ranking
Plant and animal diseases, pathogens and pests (I05)	H
Change of habitat location, size, and / or quality due to climate change (N05)	H
Use of plant protection chemicals in agriculture (A21)	M
Clear-cutting, removal of all trees (B09)	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

Manage changes in hydrological and coastal systems and regimes for construction and development (CF10)

Reduce impact of multi-purpose hydrological changes (CJ02)

Manage the use of natural fertilisers and chemicals in agricultural (plant and animal) production (CA09)

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
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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	74
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		

# 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

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

### Continental (CON)

4.2 Sources of information

Depoli, G., 1898. I Rettili ed Anfibi del territorio di Fiume. Riv. it. Sc. Nat. 18, 47–50.

Dzukic, G., Cvijanovic, M., Urosevic, A., Vukov, T., Tomasevic-Kolarov, N., Slijepcevic, M., Ivanovic, A., Kalezic, M., 2015. The batrachological collections of the Institute for biological research “Sinisa Stankovic”, University of Belgrade. Bulletin of the Natural History Museum 118–167.  
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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.

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Pavletić, J., 1964. Amphibia i reptilia: zbirke Hrvatskog narodnog zoološkog muzeja u Zagrebu. Hrvatski narodni zoološki muzej, Zagreb.

Schimmenti, G., Fabris, V., 2000. Note sull' erpetofauna dell'isola di Krk (Croatia nordoccidentale). Museo Regionale di Scienze Naturali Torino 2000, 643–652.

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

Tvrčković, N., Kletečki, E., 1993. Vertebrates of the Velebit mountain (Croatia). Part I: Amphibians. Natura Croatica 2, 27–46

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

## 5. Range

5.1 Surface area

30300

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>)

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 534

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

Populations of *B. variegata* and *B. bombina* in the continental biogeographic region in Croatia greatly overlap and hybrids are regularly present in those areas.

## 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
Clear-cutting, removal of all trees (B09)	M
Use of plant protection chemicals in agriculture (A21)	M
Change of habitat location, size, and / or quality due to climate change (N05)	M
Threat	
Ranking	
Clear-cutting, removal of all trees (B09)	M
Use of plant protection chemicals in agriculture (A21)	M
Change of habitat location, size, and / or quality due to climate change (N05)	H
Plant and animal diseases, pathogens and pests (I05)	H

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

Manage changes in hydrological and coastal systems and regimes for construction and development (CF10)

Reduce impact of multi-purpose hydrological changes (CJ02)

Manage the use of natural fertilisers and chemicals in agricultural (plant and animal) production (CA09)

### 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:



# 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	number of map 1x1 km grid cells (grids1x1)
	b) Minimum	
	c) Maximum	
	d) Best single value	290

### 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	6962
1.3 Species scientific name	Bufotes viridis Complex
1.4 Alternative species scientific name	
1.5 Common name (in national language)	zelena krastača

## 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/ quantity taken	Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period					
	Season/ year 1	Season/ year 2	Season/ year 3	Season/ year 4	Season/ year 5	Season/ 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

Dzukic, G., Cvijanovic, M., Urosevic, A., Vukov, T., Tomasevic-Kolarov, N., Slijepcevic, M., Ivanovic, A., Kalezic, M., 2015. The batrachological collections of the Institute for biological research "Sinisa Stankovic", University of Belgrade. Bulletin of the Natural History Museum 118–167.  
<https://doi.org/10.5937/bnhmb1508118D>

Henle, K., 1980. Herpetologische Beobachtungen in der Umgebung Rovinjs. Herpetofauna 6, 6–10.

Hlavati, D., 2011. Winter activity of *Pseudepidalea viridis* (L a u r e n t i , 1768). Hyla : Herpetological bulletin 2011, 47–48.

Kiauta, B., 1954. Vtisi biologa iz Male Paklenice. Proteus 17, 115–118.

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.

Kušt, M., 1999. (4) Herpetološka grupa, in: Lukač, G. (Ed.), Međunarodni ljetni biološki kamp "Paklenica '99." Udruga studenata biologije – BIUS, Starigrad Paklenica, pp. 9–12.

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

Lucić, V., Kapelj, S., Strišković, S., Popić, S., Kolarić, A., Kovač, D., Krstinić, P., Čolić, L., 2008. Inventory survey of the herpetofauna in the Lastovo archipelago Nature Park, in: Prvan, M., Čavrak, V.V. (Eds.), . Udruga studenata biologije - BIUS, Zagreb, pp. 96–99.

Mosauer, W., Wallis, K., 1924. Herpetologisches von einer Reise nach Istrien. Blätter für Aquarien- und Terrarienkunde 35, 172–175.

Osojnik, N., 2017. Poročilo o delu skupine za dvoživke, in: Ekosistemi Balkana,

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Vransko jezero 2016. Društvo študentov biologije, Ljubljana, pp. 58–64.  
Peaker, M., Peaker, S.J., 1968. Spring herpetofauna of the Rovinj area (Istria, Yugoslavia). *British Journal of Herpetology* 4, 36–37.  
Schimmenti, G., Fabris, V., 2000. Note sull' erpetofauna dell'isola di Krk (Croatia nordoccidentale). *Museo Regionale di Scienze Naturali Torino* 2000, 643–652.  
Tóth, T., Farkas, B., Géczy, C., Molnár, Z., 2009a. Herpetofaunal data from Ilovik and neighboring islets (Cres-Lošinj Archipelago, Croatia). *Herpetozoa* 22, 82–87.  
Tóth, T., Géczy, C., Sós, E., Molnár, Z., Halpern, B., 2009b. Further data on the herpetofauna of Lošinj Island, Croatia. *Herpetozoa* 21, 192.  
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.  
Werner, F., 1891. *Biologische Beobachtungen an Reptilien von Istrien und Dalmatien*. Der Zoologische Garten.  
M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanja 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> ) b) Operator c) Unknownx 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) b) Minimum c) Maximum d) Best single value213

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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)?                      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	

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7.8 Long-term trend Method used

7.9 Additional information

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

Pressure	Ranking
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Change of habitat location, size, and / or quality due to climate change (N05)	M
Use of plant protection chemicals in agriculture (A21)	M
Threat	Ranking
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Change of habitat location, size, and / or quality due to climate change (N05)	H
Use of plant protection chemicals in agriculture (A21)	M
Plant and animal diseases, pathogens and pests (I05)	H
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	H
Drainage (K02)	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	Poor

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

## 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

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

### 4.2 Sources of information

#### Alpine (ALP)

- Dzukic, G., Cvijanovic, M., Urosevic, A., Vukov, T., Tomasevic-Kolarov, N., Slijepcevic, M., Ivanovic, A., Kalezic, M., 2015. The batrachological collections of the Institute for biological research "Sinisa Stankovic", University of Belgrade. Bulletin of the Natural History Museum 118–167.  
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- Henle, K., 1980. Herpetologische Beobachtungen in der Umgebung Rovinjs. Herpetofauna 6, 6–10.
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- Kiauta, B., 1954. Vtisi biologa iz Male Paklenice. Proteus 17, 115–118.
- 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.
- Kušt, M., 1999. (4) Herpetološka grupa, in: Lukač, G. (Ed.), Međunarodni ljetni biološki kamp "Paklenica '99." Udruga studenata biologije – BIUS, Starigrad Paklenica, pp. 9–12.
- Lauš, B., 2010. A contribution to the herpetofauna of Žirje Island (Dalmatia, Croatia). Natura Sloveniae 12, 61–63.
- Lucić, V., Kapelj, S., Strišković, S., Popić, S., Kolarić, A., Kovač, D., Krstinić, P., Čolić, L., 2008. Inventory survey of the herpetofauna in the Lastovo archipelago Nature Park, in: Prvan, M., Čavrak, V.V. (Eds.), . Udruga studenata biologije - BIUS, Zagreb, pp. 96–99.
- Mosauer, W., Wallis, K., 1924. Herpetologisches von einer Reise nach Istrien. Blätter für Aquarien- und Terrarienkunde 35, 172–175.
- Osojnik, N., 2017. Poročilo o delu skupine za dvoživke, in: Ekosistemi Balkana, Vransko jezero 2016. Društvo študentov biologije, Ljubljana, pp. 58–64.
- Peaker, M., Peaker, S.J., 1968. Spring herpetofauna of the Rovinj area (Istria, Yugoslavia). British Journal of Herpetology 4, 36–37.
- Schimmenti, G., Fabris, V., 2000. Note sull' erpetofauna dell'isola di Krk (Croatia nordoccidentale). Museo Regionale di Scienze Naturali Torino 2000, 643–652.
- Tóth, T., Farkas, B., Géczy, C., Molnár, Z., 2009a. Herpetofaunal data from Ilovik and neighboring islets (Cres-Lošinj Archipelago, Croatia). Herpetozoa 22, 82–87.
- Tóth, T., Géczy, C., Sós, E., Molnár, Z., Halpern, B., 2009b. Further data on the herpetofauna of Lošinj Island, Croatia. Herpetozoa 21, 192.
- 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.
- Werner, F., 1891. Biologische Beobachtungen an Reptilien von Istrien und Dalmatien. Der Zoologische Garten.
- 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	3800
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	

## 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 8
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

# 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
Use of plant protection chemicals in agriculture (A21)	M
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Change of habitat location, size, and / or quality due to climate change (N05)	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)

Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Change of habitat location, size, and / or quality due to climate change (N05)	H
Plant and animal diseases, pathogens and pests (I05)	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

## 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

Džukić, G., Cvijanovic, M., Urosevic, A., Vukov, T., Tomasevic-Kolarov, N., Slijepcevic, M., Ivanovic, A., Kalezic, M., 2015. The batrachological collections of the Institute for biological research "Sinisa Stankovic", University of Belgrade. Bulletin of the Natural History Museum 118–167.  
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Schimmenti, G., Fabris, V., 2000. Note sull' erpetofauna dell'isola di Krk (Croatia nordoccidentale). *Museo Regionale di Scienze Naturali Torino* 2000, 643–652.

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

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

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

## 5. Range

5.1 Surface area	18500
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 63

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
Use of plant protection chemicals in agriculture (A21)	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
Use of plant protection chemicals in agriculture (A21)	M
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
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	H
Plant and animal diseases, pathogens and pests (I05)	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**

# 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)
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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
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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	1203
1.3 Species scientific name	Hyla arborea
1.4 Alternative species scientific name	
1.5 Common name (in national language)	gatalinka

## 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/ quantity taken	Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period					
	Season/ year 1	Season/ year 2	Season/ year 3	Season/ year 4	Season/ year 5	Season/ 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.

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

Dzukic, G., Cvijanovic, M., Urosevic, A., Vukov, T., Tomasevic-Kolarov, N., Slijepcevic, M., Ivanovic, A., Kalezic, M., 2015. The batrachological collections of the Institute for biological research "Sinisa Stankovic", University of Belgrade. Bulletin of the Natural History Museum 118–167.  
<https://doi.org/10.5937/bnhmb1508118D>

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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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Osojnik, N., 2017. Poročilo o delu skupine za dvoživke, in: Ekosistemi Balkana, Vransko jezero 2016. Društvo študentov biologije, Ljubljana, pp. 58–64.

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	18900
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	

## 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 101
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

# 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
Conversion into agricultural land (excluding drainage and burning) (A01)	M
Drainage (K02)	M
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
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)

Other invasive alien species (other than species of Union concern) (I02) H

Threat Ranking

Conversion into agricultural land (excluding drainage and burning) (A01) M

Drainage (K02) M

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

Use of plant protection chemicals in agriculture (A21) M

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) 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

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

## 4.2 Sources of information

### Alpine (ALP)

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

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

Džukić, G., Cvijanović, M., Urosević, A., Vukov, T., Tomasević-Kolarov, N., Slijepčević, M., Ivanović, A., Kalezić, M., 2015. The batrachological collections of the Institute for biological research "Sinisa Stanković", University of Belgrade. Bulletin of the Natural History Museum 118–167.  
<https://doi.org/10.5937/bnhmb1508118D>

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.

Koren, T., Jelić, D., 2011. Interesting color forms of the European tree frog, *Hyla arborea* (Linnaeus, 1758) (Amphibia: Ranidae) from Croatia. Hyla : Herpetological bulletin 2011, 27–29.

Osojnik, N., 2017. Poročilo o delu skupine za dvoživke, in: Ekosistemi Balkana, Vransko jezero 2016. Društvo študentov biologije, Ljubljana, pp. 58–64.

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

## 5. Range

### 5.1 Surface area

8400

### 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



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

## 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 22
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

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

## 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
Use of plant protection chemicals in agriculture (A21)	M
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Threat	Ranking
Conversion into agricultural land (excluding drainage and burning) (A01)	M
Drainage (K02)	M
Use of plant protection chemicals in agriculture (A21)	M
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Change of habitat location, size, and / or quality due to climate change (N05)	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

# 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

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

4.2 Sources of information

### Continental (CON)

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

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

Dzukic, G., Cvijanovic, M., Urosevic, A., Vukov, T., Tomasevic-Kolarov, N., Slijepcevic, M., Ivanovic, A., Kalezic, M., 2015. The batrachological collections of the Institute for biological research "Sinisa Stankovic", University of Belgrade. Bulletin of the Natural History Museum 118–167.  
<https://doi.org/10.5937/bnhmb1508118D>

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.

Koren, T., Jelić, D., 2011. Interesting color forms of the European tree frog, *Hyla arborea* (Linnaeus, 1758) (Amphibia: Ranidae) from Croatia. Hyla : Herpetological bulletin 2011, 27–29.

Osojnik, N., 2017. Poročilo o delu skupine za dvoživke, in: Ekosistemi Balkana, Vransko jezero 2016. Društvo študentov biologije, Ljubljana, pp. 58–64.

# 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	30400
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

## 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 165
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)

# 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 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)? 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		

## 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

# 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
Drainage (K02)	M
Threat	Ranking
Use of plant protection chemicals in agriculture (A21)	M
Conversion into agricultural land (excluding drainage and burning) (A01)	M
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Drainage (K02)	M
Change of habitat location, size, and / or quality due to climate change (N05)	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

### 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



# 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	1197
1.3 Species scientific name	<i>Pelobates fuscus</i>
1.4 Alternative species scientific name	
1.5 Common name (in national language)	češnjača

## 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/ quantity taken	Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period					
	Season/ year 1	Season/ year 2	Season/ year 3	Season/ year 4	Season/ year 5	Season/ 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

Anonymous, 2010. The Gazetteer of the Republic of Croatia (=Registar geografskih imena Republike Hrvatske).  
 Ćurić, A., Zimić, A., Bogdanović, T., Jelić, D., 2017. New data and distribution of common spadefoot toad *Pelobates fuscus* (Laurenti, 1768) (Anura: Pelobatidae) in Western Balkans. North-Western Journal of Zoology.  
 Džukic, G., Cvijanovic, M., Urosevic, A., Vukov, T., Tomasevic-Kolarov, N., Slijepcevic, M., Ivanovic, A., Kalezic, M., 2015. The batrachological collections of the Institute for biological research "Sinisa Stankovic", University of Belgrade. Bulletin of the Natural History Museum 118–167.  
<https://doi.org/10.5937/bnhmb1508118D>  
 Tvrtković, N., Topić, J., Kerovec, M., Janev Hutinec, B., Malić Limari, S., 2011. Prijedlog Strategije očuvanja biološke raznolikosti u regionalnom razvoju Grada Zagreba. NVU "Natura," Zagreb.  
 M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

5.1 Surface area

5.2 Short-term trend Period

5.3 Short-term trend Direction

5.4 Short-term trend Magnitude

a) Minimum

b) Maximum

5.5 Short-term trend Method used

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

5.6 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

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

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

6.3 Type of estimate

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

6.7 Short-term trend Period

6.8 Short-term trend Direction

6.9 Short-term trend Magnitude

a) Minimum

b) Maximum

c) Confidence interval

6.10 Short-term trend Method used

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
- 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)?
- 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

7.3 Short-term trend Period

7.4 Short-term trend Direction

7.5 Short-term trend Method used

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
--------	---------

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

# 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

## 9.5 List of main conservation measures

## 9.6 Additional information

## 10. Future prospects

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

## 10.2 Additional information

## 11. Conclusions

### 11.1. Range

### 11.2. Population

### 11.3. Habitat for the species

### 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

### Continental (CON)

4.2 Sources of information

Anonymous, 2010. The Gazetteer of the Republic of Croatia (=Registar geografskih imena Republike Hrvatske).  
Ćurić, A., Zimić, A., Bogdanović, T., Jelić, D., 2017. New data and distribution of common spadefoot toad *Pelobates fuscus* (Laurenti, 1768) (Anura: Pelobatidae) in Western Balkans. North-Western Journal of Zoology.  
Dzukic, G., Cvijanovic, M., Urosevic, A., Vukov, T., Tomasevic-Kolarov, N., Slijepcevic, M., Ivanovic, A., Kalezic, M., 2015. The batrachological collections of the Institute for biological research "Sinisa Stankovic", University of Belgrade. Bulletin of the Natural History Museum 118–167.  
<https://doi.org/10.5937/bnhmb1508118D>  
Tvrtković, N., Topić, J., Kerovec, M., Janev Hutinec, B., Malić Limari, S., 2011. Prijedlog Strategije očuvanja biološke raznolikosti u regionalnom razvoju Grada Zagreba. NVU "Natura," Zagreb.  
M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

5.1 Surface area

16800

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

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

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 113

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
Use of plant protection chemicals in agriculture (A21)	M
Drainage (K02)	M
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	M
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	M
Threat	Ranking
Use of plant protection chemicals in agriculture (A21)	M
Drainage (K02)	M
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	M
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	M
Change of habitat location, size, and / or quality due to climate change (N05)	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	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

# 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	6976
1.3 Species scientific name	<i>Pelophylax esculentus</i>
1.4 Alternative species scientific name	
1.5 Common name (in national language)	zelena žaba

## 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?	Yes																
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/ quantity taken	Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period					
	Season/ year 1	Season/ year 2	Season/ year 3	Season/ year 4	Season/ year 5	Season/ 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

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

Čavlović, K., Buj, I., Karaica, D., Jelić, D., Choleva, L., 2018. Composition and age structure of the *Pelophylax esculentus* complex (Anura; Ranidae) population in inland Croatia. *Salamandra* 54, 11–20.

Dzukic, G., Cvijanovic, M., Urosevic, A., Vukov, T., Tomasevic-Kolarov, N., Slijepcevic, M., Ivanovic, A., Kalezic, M., 2015. The batrachological collections of the Institute for biological research "Sinisa Stankovic", University of Belgrade. *Bulletin of the Natural History Museum* 118–167.  
<https://doi.org/10.5937/bnhmb1508118D>

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, M., Vucić, M., Klobučar, G., Korlević, P., Đikić, D., Franjević, D., Jelić, D., 2015. Molecular study on water frogs (genus *Pelophylax*) in Croatia – preliminary results.

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

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.

Osojnik, N., 2017. Poročilo o delu skupine za dvoživke, in: *Ekosistemi Balkana, Vransko jezero 2016. Društvo študentov biologije, Ljubljana*, pp. 58–64.

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	35400
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	

## 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 944
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

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

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

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
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Drainage (K02)	M

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

Threat	Ranking
Use of plant protection chemicals in agriculture (A21)	M
Conversion into agricultural land (excluding drainage and burning) (A01)	M
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Drainage (K02)	M
Change of habitat location, size, and / or quality due to climate change (N05)	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

### 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

Currently it is impossible to differentiate the various species and hybrids of the genus *Pelophylax* present in Croatia based on external morphology. It is also not always easy to differentiate them using genetic analysis and currently only a few locations were tested. Therefore, all data for green frogs was pooled and presented together.



# 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	6981
1.3 Species scientific name	<i>Pelophylax lessonae</i>
1.4 Alternative species scientific name	
1.5 Common name (in national language)	mala zelena žaba

## 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/ quantity taken	Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period					
	Season/ year 1	Season/ year 2	Season/ year 3	Season/ year 4	Season/ year 5	Season/ 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

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

Čavlović, K., Buj, I., Karaica, D., Jelić, D., Choleva, L., 2018. Composition and age structure of the *Pelophylax esculentus* complex (Anura; Ranidae) population in inland Croatia. *Salamandra* 54, 11–20.

Dzukic, G., Cvijanovic, M., Urosevic, A., Vukov, T., Tomasevic-Kolarov, N., Slijepcevic, M., Ivanovic, A., Kalezic, M., 2015. The batrachological collections of the Institute for biological research “Sinisa Stankovic”, University of Belgrade. *Bulletin of the Natural History Museum* 118–167.  
<https://doi.org/10.5937/bnhmb1508118D>

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, M., Vucić, M., Klobučar, G., Korlević, P., Đikić, D., Franjević, D., Jelić, D., 2015. Molecular study on water frogs (genus *Pelophylax*) in Croatia – preliminary results.

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

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.

Osojnik, N., 2017. Poročilo o delu skupine za dvoživke, in: *Ekosistemi Balkana, Vransko jezero 2016. Društvo študentov biologije, Ljubljana*, pp. 58–64.

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	35400
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	

## 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 944
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

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

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

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
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Drainage (K02)	M

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

Threat	Ranking
Use of plant protection chemicals in agriculture (A21)	M
Conversion into agricultural land (excluding drainage and burning) (A01)	M
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Drainage (K02)	M
Change of habitat location, size, and / or quality due to climate change (N05)	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

### 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

Currently it is impossible to differentiate the various species and hybrids of the genus *Pelophylax* present in Croatia based on external morphology. It is also not always easy to differentiate them using genetic analysis and currently only a few locations were tested. Therefore, all data for green frogs was pooled and presented together.

# 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	6938
1.3 Species scientific name	Pelophylax ridibundus
1.4 Alternative species scientific name	
1.5 Common name (in national language)	velika zelena žaba

## 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?	Yes	
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/ quantity taken	Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period					
	Season/ year 1	Season/ year 2	Season/ year 3	Season/ year 4	Season/ year 5	Season/ 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.

Čavlović, K., Buj, I., Karaica, D., Jelić, D., Choleva, L., 2018. Composition and age structure of the *Pelophylax esculentus* complex (Anura; Ranidae) population in inland Croatia. *Salamandra* 54, 11–20.

Dzukic, G., Cvijanovic, M., Urosevic, A., Vukov, T., Tomasevic-Kolarov, N., Slijepcevic, M., Ivanovic, A., Kalezic, M., 2015. The batrachological collections of the Institute for biological research "Sinisa Stankovic", University of Belgrade. *Bulletin of the Natural History Museum* 118–167.  
<https://doi.org/10.5937/bnhmb1508118D>

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, M., Vucić, M., Klobučar, G., Korlević, P., Đikić, D., Franjević, D., Jelić, D., 2015. Molecular study on water frogs (genus *Pelophylax*) in Croatia – preliminary results.

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

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.

Osojnik, N., 2017. Poročilo o delu skupine za dvoživke, in: *Ekosistemi Balkana, Vransko jezero 2016. Društvo študentov biologije, Ljubljana*, pp. 58–64.

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	25000
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	

## 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 368
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

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

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

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
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Drainage (K02)	M

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

Threat	Ranking
Use of plant protection chemicals in agriculture (A21)	M
Conversion into agricultural land (excluding drainage and burning) (A01)	M
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Drainage (K02)	M
Change of habitat location, size, and / or quality due to climate change (N05)	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

### 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

Currently it is impossible to differentiate the various species and hybrids of the genus *Pelophylax* present in Croatia based on external morphology. It is also not always easy to differentiate them using genetic analysis and currently only a few locations were tested. Therefore, all data for green frogs was pooled and presented together.

## 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

## 4.2 Sources of information

### Alpine (ALP)

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

Čavlović, K., Buj, I., Karaica, D., Jelić, D., Choleva, L., 2018. Composition and age structure of the *Pelophylax esculentus* complex (Anura; Ranidae) population in inland Croatia. *Salamandra* 54, 11–20.

Dzukic, G., Cvijanovic, M., Urosevic, A., Vukov, T., Tomasevic-Kolarov, N., Slijepcevic, M., Ivanovic, A., Kalezic, M., 2015. The batrachological collections of the Institute for biological research "Sinisa Stankovic", University of Belgrade. *Bulletin of the Natural History Museum* 118–167.  
<https://doi.org/10.5937/bnhmb1508118D>

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, M., Vucić, M., Klobučar, G., Korlević, P., Đikić, D., Franjević, D., Jelić, D., 2015. Molecular study on water frogs (genus *Pelophylax*) in Croatia – preliminary results.

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

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.

Osojnik, N., 2017. Poročilo o delu skupine za dvoživke, in: *Ekosistemi Balkana, Vransko jezero 2016. Društvo študentov biologije, Ljubljana*, pp. 58–64.

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

## 5. Range

### 5.1 Surface area

10400

### 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

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

## 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 64
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

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

## 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
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Drainage (K02)	M
Threat	Ranking
Use of plant protection chemicals in agriculture (A21)	M
Conversion into agricultural land (excluding drainage and burning) (A01)	M
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Drainage (K02)	M
Change of habitat location, size, and / or quality due to climate change (N05)	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**

# 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

Currently it is impossible to differentiate the various species and hybrids of the genus *Pelophylax* present in Croatia based on external morphology. It is also not always easy to differentiate them using genetic analysis and currently only a few locations were tested. Therefore, all data for green frogs was pooled and presented together.

## 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.

Čavlović, K., Buj, I., Karaica, D., Jelić, D., Choleva, L., 2018. Composition and age structure of the *Pelophylax esculentus* complex (Anura; Ranidae) population in inland Croatia. *Salamandra* 54, 11–20.

Dzukic, G., Cvijanovic, M., Urosevic, A., Vukov, T., Tomasevic-Kolarov, N., Slijepcevic, M., Ivanovic, A., Kalezic, M., 2015. The batrachological collections of the Institute for biological research “Sinisa Stankovic”, University of Belgrade. *Bulletin of the Natural History Museum* 118–167.  
<https://doi.org/10.5937/bnhmb1508118D>

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, M., Vucić, M., Klobučar, G., Korlević, P., Đikić, D., Franjević, D., Jelić, D., 2015. Molecular study on water frogs (genus *Pelophylax*) in Croatia – preliminary results.

JU Brijuni, 2016. Nacionalni park Brijuni. PLAN UPRAVLJANJA (razdoblje

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

provođenja plana od 2016. do 2025. godine).

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.

Osojnik, N., 2017. Poročilo o delu skupine za dvoživke, in: Ekosistemi Balkana, Vransko jezero 2016. Društvo študentov biologije, Ljubljana, pp. 58–64.

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

## 5. Range

5.1 Surface area	35400
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> ) b) Operator c) Unknownx 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) b) Minimum c) Maximum d) Best single value944
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

# 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 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)? 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
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
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Drainage (K02)	M
Threat	Ranking
Use of plant protection chemicals in agriculture (A21)	M
Conversion into agricultural land (excluding drainage and burning) (A01)	M
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Drainage (K02)	M
Change of habitat location, size, and / or quality due to climate change (N05)	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

## 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)

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

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	Currently it is impossible to differentiate the various species and hybrids of the genus <i>Pelophylax</i> present in Croatia based on external morphology. It is also not always easy to differentiate them using genetic analysis and currently only a few locations were tested. Therefore, all data for green frogs was pooled and presented together.

## **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	1214
1.3 Species scientific name	Rana arvalis
1.4 Alternative species scientific name	
1.5 Common name (in national language)	močvarna smeđa žaba

## 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/ quantity taken	Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period					
	Season/ year 1	Season/ year 2	Season/ year 3	Season/ year 4	Season/ year 5	Season/ 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

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

Dzukic, G., Cvijanovic, M., Urosevic, A., Vukov, T., Tomasevic-Kolarov, N., Slijepcevic, M., Ivanovic, A., Kalezic, M., 2015. The batrachological collections of the Institute for biological research "Sinisa Stankovic", University of Belgrade. Bulletin of the Natural History Museum 118–167.  
<https://doi.org/10.5937/bnhmb1508118D>

Tvrković, N., Kletečki, E., 2008. Distribution of *Rana arvalis* in Croatia with remarks on habitats and phenology. Zeitschrift für Feldherpetologie 13: 329-336.

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

## 5. Range

5.1 Surface area

17900

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  
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 102

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
Use of plant protection chemicals in agriculture (A21)	M
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	M
Drainage (K02)	H
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	M
Threat	Ranking
Use of plant protection chemicals in agriculture (A21)	M
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	M
Drainage (K02)	H
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	M
Change of habitat location, size, and / or quality due to climate change (N05)	H

### 8.2 Sources of information

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

## 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

## 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	1209
1.3 Species scientific name	Rana dalmatina
1.4 Alternative species scientific name	
1.5 Common name (in national language)	šumska smeđa žaba

## 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/ quantity taken	Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period					
	Season/ year 1	Season/ year 2	Season/ year 3	Season/ year 4	Season/ year 5	Season/ 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.

Dzukic, G., Cvijanovic, M., Urosevic, A., Vukov, T., Tomasevic-Kolarov, N., Slijepcevic, M., Ivanovic, A., Kalezic, M., 2015. The batrachological collections of the Institute for biological research "Sinisa Stankovic", University of Belgrade. Bulletin of the Natural History Museum 118–167.  
<https://doi.org/10.5937/bnhmb1508118D>

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.

Osojnik, N., 2017. Poročilo o delu skupine za dvoživke, in: Ekosistemi Balkana, Vransko jezero 2016. Društvo študentov biologije, Ljubljana, pp. 58–64.

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

## 5. Range

5.1 Surface area

13700

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> ) b) Operator c) Unknown 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	104
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
Use of plant protection chemicals in agriculture (A21)	M
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	M
Drainage (K02)	H
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	M
Threat	Ranking
Use of plant protection chemicals in agriculture (A21)	M
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	M
Drainage (K02)	H
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	M



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

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:

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

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

Dzukic, G., Cvijanovic, M., Urosevic, A., Vukov, T., Tomasevic-Kolarov, N., Slijepcevic, M., Ivanovic, A., Kalezic, M., 2015. The batrachological collections of the Institute for biological research "Sinisa Stankovic", University of Belgrade. Bulletin of the Natural History Museum 118–167.  
<https://doi.org/10.5937/bnhmb1508118D>

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.

Osojnik, N., 2017. Poročilo o delu skupine za dvoživke, in: Ekosistemi Balkana, Vransko jezero 2016. Društvo študentov biologije, Ljubljana, pp. 58–64.

# 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	10100
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

## 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 39
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)

# 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 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)? 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		

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

Pressure	Ranking
Use of plant protection chemicals in agriculture (A21)	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)

Drainage (K02)	H
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	M
Threat	Ranking
Use of plant protection chemicals in agriculture (A21)	M
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	M
Drainage (K02)	H
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	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)

# 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

**Continental (CON)**

# 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

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

Dzunic, G., Cvijanovic, M., Urosevic, A., Vukov, T., Tomasevic-Kolarov, N., Slijepcevic, M., Ivanovic, A., Kalezic, M., 2015. The batrachological collections of the Institute for biological research "Sinisa Stankovic", University of Belgrade. Bulletin of the Natural History Museum 118–167.  
<https://doi.org/10.5937/bnhmb1508118D>

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.

Osojnik, N., 2017. Poročilo o delu skupine za dvoživke, in: Ekosistemi Balkana, Vransko jezero 2016. Društvo študentov biologije, Ljubljana, pp. 58–64.

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

## 5. Range

5.1 Surface area	34500
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	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 603
6.3 Type of estimate	Minimum

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

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)? 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



# 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
Use of plant protection chemicals in agriculture (A21)	M
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	M
Drainage (K02)	H
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	M
Threat	Ranking
Use of plant protection chemicals in agriculture (A21)	M
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	M
Drainage (K02)	H
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	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

# 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  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)**

# 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	1215
1.3 Species scientific name	<i>Rana latastei</i>
1.4 Alternative species scientific name	
1.5 Common name (in national language)	talijanska smeđa žaba

## 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/ quantity taken	Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period					
	Season/ year 1	Season/ year 2	Season/ year 3	Season/ year 4	Season/ year 5	Season/ 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

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.  
 Kuljerić, M., 2011. Lombardijska smeđa žaba, *Rana latastei* Boulenger, 1879 (Amphibia, Anura). Hyla : herpetological bulletin 2011, 3–20.  
 M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

5.1 Surface area

900

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

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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 64

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

Decreasing (-)

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  
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)?

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)	M
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	M
Drainage (K02)	H
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	M
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	H
Conversion to other types of forests including monocultures (B02)	M
Clear-cutting, removal of all trees (B09)	M
Physical alteration of water bodies (K05)	H
Threat	Ranking
Use of plant protection chemicals in agriculture (A21)	M
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	M
Drainage (K02)	H
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	M
Change of habitat location, size, and / or quality due to climate change (N05)	H

# 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)	H
Conversion to other types of forests including monocultures (B02)	M
Clear-cutting, removal of all trees (B09)	M
Physical alteration of water bodies (K05)	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

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.
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## 10. Future prospects

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	Unknown (XX)
11.2. Population	Unfavourable - Bad (U2)
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 (-)



# 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    52

### 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

Decreasing (-)

### 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

### 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	1213
1.3 Species scientific name	Rana temporaria
1.4 Alternative species scientific name	
1.5 Common name (in national language)	livadna smeđa žaba

## 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?	Yes	
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/ quantity taken	Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period					
	Season/ year 1	Season/ year 2	Season/ year 3	Season/ year 4	Season/ year 5	Season/ 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

This species is exploited for food in the alpine biogeographic region.

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

**Alpine (ALP)**

4.2 Sources of information

Dzukic, G., Cvijanovic, M., Urosevic, A., Vukov, T., Tomasevic-Kolarov, N., Slijepcevic, M., Ivanovic, A., Kalezic, M., 2015. The batrachological collections of the Institute for biological research "Sinisa Stankovic", University of Belgrade. Bulletin of the Natural History Museum 118–167.  
<https://doi.org/10.5937/bnhmb1508118D>  
 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.  
 M. Zadavec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 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

# 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 5

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

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
Use of plant protection chemicals in agriculture (A21)	M
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	M
Drainage (K02)	H
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	M
Illegal shooting/killing (G10)	M
Threat	Ranking
Use of plant protection chemicals in agriculture (A21)	M
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	M
Drainage (K02)	H
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	M
Change of habitat location, size, and / or quality due to climate change (N05)	H
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)

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

**Continental (CON)**

4.2 Sources of information

Dzukic, G., Cvijanovic, M., Urosevic, A., Vukov, T., Tomasevic-Kolarov, N., Slijepcevic, M., Ivanovic, A., Kalezic, M., 2015. The batrachological collections of the Institute for biological research "Sinisa Stankovic", University of Belgrade. Bulletin of the Natural History Museum 118–167.  
<https://doi.org/10.5937/bnhmb1508118D>  
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.  
M. Zadavec, 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	18600
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	

## 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    169
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	



# 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
Use of plant protection chemicals in agriculture (A21)	M
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	M
Drainage (K02)	H
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	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)

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

Drainage (K02)	H
----------------	---

Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	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

# 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	1177
1.3 Species scientific name	<i>Salamandra atra</i>
1.4 Alternative species scientific name	
1.5 Common name (in national language)	crni daždevnjak

## 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

# 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/ quantity taken	Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period					
	Season/ year 1	Season/ year 2	Season/ year 3	Season/ year 4	Season/ year 5	Season/ 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

Đurić, P., Jeran, N., Žganec, K., 2004. Crni daždevnjak (*Salamandra atra*) na Žumberku – popularizacija vrste, edukacija stanovništva i kartiranje mogućih staništa u svrhu zaštite vrste. Hrvatsko herpetološko društvo – Hyla, Zagreb.

Jeran, N., Đurić, P., Žganec, K., 2011. Finding of the Alpine salamander (*Salamandra atra* Laurenti, 1768; Salamandridae, Caudata) in the Nature Park Žumberak - Samoborsko gorje (NW Croatia). Hyla : Herpetological bulletin 2011, 35–46.

Lukač, M., 2014. Hitridiomikoza - što sve treba znati prije odlaska na teren.

Šunje, E., Pasmans, F., Maksimović, Z., Martel, A., Rifatbehović, M., 2018. Recorded mortality in the vulnerable Alpine salamander, *Salamandra atra* prenjensis (Amphibia: Caudata), is not associated with the presence of known amphibian pathogens. Salamandra 54, 75–79.

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

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

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

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	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 b) Minimum c) Maximum d) Best single value	number of map 1x1 km grid cells (grids1x1)   2
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
Change of habitat location, size, and / or quality due to climate change (N05)	M
Clear-cutting, removal of all trees (B09)	M
Threat	Ranking
Change of habitat location, size, and / or quality due to climate change (N05)	H
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	H

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

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



# 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

### Alpine (ALP)

4.2 Sources of information

Đurić, P., Jeran, N., Žganec, K., 2004. Crni daždevnjak (*Salamandra atra*) na Žumberku – popularizacija vrste, edukacija stanovništva i kartiranje mogućih staništa u svrhu zaštite vrste. Hrvatsko herpetološko društvo – Hyla, Zagreb.

Jeran, N., Đurić, P., Žganec, K., 2011. Finding of the Alpine salamander (*Salamandra atra* Laurenti, 1768; Salamandridae, Caudata) in the Nature Park Žumberak - Samoborsko gorje (NW Croatia). Hyla : Herpetological bulletin 2011, 35–46.

Lukač, M., 2014. Hitridiomikoza - što sve treba znati prije odlaska na teren.

Šunje, E., Pasmans, F., Maksimović, Z., Martel, A., Rifatbehović, M., 2018. Recorded mortality in the vulnerable Alpine salamander, *Salamandra atra* prenjensis (Amphibia: Caudata), is not associated with the presence of known amphibian pathogens. Salamandra 54, 75–79.

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

# 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	400
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	

## 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 5
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

# 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
Change of habitat location, size, and / or quality due to climate change (N05)	M
Threat	Ranking
Change of habitat location, size, and / or quality due to climate change (N05)	H
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	H

# 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

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	1167
1.3 Species scientific name	<i>Triturus carnifex</i>
1.4 Alternative species scientific name	
1.5 Common name (in national language)	veliki vodenjak

## 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/ quantity taken	Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period					
	Season/ year 1	Season/ year 2	Season/ year 3	Season/ year 4	Season/ year 5	Season/ 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

Arntzen, J.W., Espregueira Themudo, G., Wielstra, B., 2007. The phylogeny of crested newts (*Triturus cristatus* superspecies): nuclear and mitochondrial genetic characters suggest a hard polytomy, in line with the paleogeography of the centre of origin. *Contributions to Zoology* 76, 261–278.

Dzukic, G., Cvijanovic, M., Urosevic, A., Vukov, T., Tomasevic-Kolarov, N., Slijepcevic, M., Ivanovic, A., Kalezic, M., 2015. The batrachological collections of the Institute for biological research “Sinisa Stankovic”, University of Belgrade. *Bulletin of the Natural History Museum* 118–167.

<https://doi.org/10.5937/bnhmb1508118D>

Werner, F., 1897. *Die Reptilien und Amphibien Oesterreich - Ungarns und der Occupationslaender*. Pichlers Witwe & Sohn, Wien.

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

5100

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  
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 49

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
Drainage (K02)	M
Use of plant protection chemicals in agriculture (A21)	M
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	M
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	M
Threat	Ranking
Drainage (K02)	M
Use of plant protection chemicals in agriculture (A21)	M
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	M
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	M
Change of habitat location, size, and / or quality due to climate change (N05)	M

### 8.2 Sources of information

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

## 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

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

# 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	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

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs	<b>Alpine (ALP)</b>
4.2 Sources of information	<p>Arntzen, J.W., Espregueira Themudo, G., Wielstra, B., 2007. The phylogeny of crested newts (<i>Triturus cristatus</i> superspecies): nuclear and mitochondrial genetic characters suggest a hard polytomy, in line with the paleogeography of the centre of origin. <i>Contributions to Zoology</i> 76, 261–278.</p> <p>Dzukic, G., Cvijanovic, M., Urosevic, A., Vukov, T., Tomasevic-Kolarov, N., Slijepcevic, M., Ivanovic, A., Kalezic, M., 2015. The batrachological collections of the Institute for biological research “Sinisa Stankovic”, University of Belgrade. <i>Bulletin of the Natural History Museum</i> 118–167.</p> <p><a href="https://doi.org/10.5937/bnhmb1508118D">https://doi.org/10.5937/bnhmb1508118D</a></p> <p>Werner, F., 1897. <i>Die Reptilien und Amphibien Oesterreich - Ungarns und der Occupationslaender</i>. Pichlers Witwe &amp; Sohn, Wien.</p> <p>M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta</p>

# 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. 285 str.

## 5. Range

5.1 Surface area	7200
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	

## 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 31
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

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

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 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
Drainage (K02)	M
Use of plant protection chemicals in agriculture (A21)	M
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	M
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	M

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

Threat	Ranking
Drainage (K02)	M
Use of plant protection chemicals in agriculture (A21)	M
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	M
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	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

### 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)

# 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                      number of map 1x1 km grid cells (grids1x1)  
b) Minimum  
c) Maximum  
d) Best single value    26

### 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)

# 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

Arntzen, J.W., Espregueira Themudo, G., Wielstra, B., 2007. The phylogeny of crested newts (*Triturus cristatus* superspecies): nuclear and mitochondrial genetic characters suggest a hard polytomy, in line with the paleogeography of the centre of origin. *Contributions to Zoology* 76, 261–278.

Dzukic, G., Cvijanovic, M., Urosevic, A., Vukov, T., Tomasevic-Kolarov, N., Slijepcevic, M., Ivanovic, A., Kalezic, M., 2015. The batrachological collections of the Institute for biological research "Sinisa Stankovic", University of Belgrade. *Bulletin of the Natural History Museum* 118–167.  
<https://doi.org/10.5937/bnhmb1508118D>

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. 285 str.

## 5. Range

5.1 Surface area	6500
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

## 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 53
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

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)? 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

# 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
Drainage (K02)	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
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	M
Threat	Ranking
Drainage (K02)	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
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	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

### 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

Manage changes in hydrological and coastal systems and regimes for construction and development (CF10)

Reduce impact of multi-purpose hydrological changes (CJ02)

Manage the use of natural fertilisers and chemicals in agricultural (plant and animal) production (CA09)

### 9.6 Additional information

Conservation measures are included in water management planning documents.

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

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	34

### 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)

# 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

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	1993
1.3 Species scientific name	<i>Triturus dobrogicus</i>
1.4 Alternative species scientific name	
1.5 Common name (in national language)	veliki dunavski vodenjak

## 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/ quantity taken	Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period					
	Season/ year 1	Season/ year 2	Season/ year 3	Season/ year 4	Season/ year 5	Season/ 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

Arntzen, J.W., Espregueira Themudo, G., Wielstra, B., 2007. The phylogeny of crested newts (*Triturus cristatus* superspecies): nuclear and mitochondrial genetic characters suggest a hard polytomy, in line with the paleogeography of the centre of origin. *Contributions to Zoology* 76, 261–278.

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

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

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

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	
	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 92

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
Drainage (K02)	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
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	M
Threat	Ranking
Drainage (K02)	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
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	M
Change of habitat location, size, and / or quality due to climate change (N05)	M

### 8.2 Sources of information



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

## 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

Manage changes in hydrological and coastal systems and regimes for construction and development (CF10)

Reduce impact of multi-purpose hydrological changes (CJ02)

Manage the use of natural fertilisers and chemicals in agricultural (plant and animal) production (CA09)

### 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

# 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                      number of map 1x1 km grid cells (grids1x1)  
b) Minimum  
c) Maximum  
d) Best single value    49

### 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	1186
1.3 Species scientific name	<i>Proteus anguinus</i>
1.4 Alternative species scientific name	
1.5 Common name (in national language)	čovječja ribica

## 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/ quantity taken	Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period					
	Season/ year 1	Season/ year 2	Season/ year 3	Season/ year 4	Season/ year 5	Season/ 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

Ozimec, R., Jalžić, B., Mihoci, I., Hanžek, N., Rnjak, G., Grgurev, M., Lacković, D., Matočec, N., 2015. Studija Glavne ocjene prihvatljivosti zahvata za ekološku mrežu HE Ombla. Knjiga 3. Bioraznolikost špiljskih objekata na širem području zahvata. OIKON, Hrvatski prirodoslovni muzej, GEONATURA. 319 str.  
M. Zadravec, P. Gambiroža, 2019. Prvo izvješće o stanju očuvanosti vrsta vodozemaca i gmazova Republike Hrvatske, Zagreb.

## 5. Range

5.1 Surface area

5900

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

x

# 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

## 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 37

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

# 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
Use of plant protection chemicals in agriculture (A21)	M
Forestry activities generating soil pollution (B26)	M
Hydropower (dams, weirs, run-off-the-river), including infrastructure (D02)	M
Land, water and air transport activities generating pollution to surface or ground waters (E05)	M
Pollution to surface or ground water due to urban run-offs (F11)	M
Discharge of urban waste water (excluding storm overflows and/or urban run-offs) generating pollution to surface or ground water (F12)	M
Problematic native species (I04)	M
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	M
Threat	Ranking
Use of plant protection chemicals in agriculture (A21)	M
Forestry activities generating soil pollution (B26)	M
Hydropower (dams, weirs, run-off-the-river), including infrastructure (D02)	M
Land, water and air transport activities generating pollution to surface or ground waters (E05)	M
Pollution to surface or ground water due to urban run-offs (F11)	M

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Discharge of urban waste water (excluding storm overflows and/or urban run-offs) generating pollution to surface or ground water (F12) M

Problematic native species (I04) M

Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01) 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

### 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:

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## 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 30

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

There is one N2k site which is proclaimed specifically for this species, but it is possible the olm is not present within that particular cave. There are several other caves in close proximity, it is possible the protected one was mistook for one of those.

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

There are at least several locations where the olm had been found in the past, but at which it had not been observed for at least 20-30 years or (substantially) longer. Those locations have been removed from the dataset until the olm's presence there can be re-evaluated, if the locations are still accessible.

## 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

Alpine (ALP)



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## 4.2 Sources of information

Ozimec, R., Jalžić, B., Mihoci, I., Hanžek, N., Rnjak, G., Grgurev, M., Lacković, D., Matošec, N., 2015. Studija Glavne ocjene prihvatljivosti zahvata za ekološku mrežu HE Ombla. Knjiga 3. Bioraznolikost špiljskih objekata na širem području zahvata. OIKON, Hrvatski prirodoslovni muzej, GEONATURA. 319 str.  
M. Zadravec, 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) 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

## 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 15

### 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

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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	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
Forestry activities generating soil pollution (B26)	M

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Hydropower (dams, weirs, run-off-the-river), including infrastructure (D02)	M
Land, water and air transport activities generating pollution to surface or ground waters (E05)	M
Pollution to surface or ground water due to urban run-offs (F11)	M
Discharge of urban waste water (excluding storm overflows and/or urban run-offs) generating pollution to surface or ground water (F12)	M
Problematic native species (I04)	M
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	M
<b>Threat</b>	<b>Ranking</b>
Use of plant protection chemicals in agriculture (A21)	M
Forestry activities generating soil pollution (B26)	M
Hydropower (dams, weirs, run-off-the-river), including infrastructure (D02)	M
Land, water and air transport activities generating pollution to surface or ground waters (E05)	M
Pollution to surface or ground water due to urban run-offs (F11)	M
Discharge of urban waste water (excluding storm overflows and/or urban run-offs) generating pollution to surface or ground water (F12)	M
Problematic native species (I04)	M
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	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

## 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

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

## 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	number of map 1x1 km grid cells (grids1x1)   15
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		

# 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