

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

NATIONAL LEVEL

1. General information

1.1 Member State	GR
1.2 Species code	1992
1.3 Species scientific name	Valencia letourneuxi
1.4 Alternative species scientific name	
1.5 Common name (in national language)	Zacharias

2. Maps

2.1 Sensitive species	Yes
2.2 Year or period	2015
2.3 Distribution map	Yes
2.4 Distribution map Method used	Based mainly on extrapolation from a limited amount of 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

BIOGEOGRAPHICAL LEVEL

4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

Mediterranean (MED)

4.2 Sources of information

Kalogianni, E., Giakoumi, S., Zogaris, S., Chatzinikolaou, Y., Stoumboudi, M.Th., Barbieri, R., Economou, A.N., Zimmerman, B. (2006). Rapid assessment of the status of Valencia letourneuxi, the Greek Killifish. HCMR, ZSL, EUAC. 180 p.

Kottelat M. & Freyhof J. (2007). Handbook of European freshwater fishes. Publications Kottelat, Cornol, Switzerland.

Economou A.N., Giakoumi S., Vardakas L., Barbieri R., Stoumboudi M. & Zogaris S. (2007). The freshwater ichthyofauna of Greece - an update based on a hydrographic basin survey. Mediterranean Marine Science, Vol. 8(1): 91-166.

Economidis, P.S. & Chrysopolitou V. (2009). Valencia letourneuxi. In Red Data Book of threatened Animals of Greece. Legakis A. & Maragou P. (eds). Hellenic Zoological Society, Athens.

Freyhof, J., H. Kärst & M. Geiger. 2014. Valencia robertae, a new killifish from lower Pinios River, Greece (Cyprinodontiformes: Valenciidae). Ichthyological Exploration of Freshwaters, 24: 289-298.

Kalogianni, E., S.Giakoumi, S. Zogaris, Y. Chatzinikolaou, B.Zimmerman and A.N. Economou (2010) Current distribution and ecology of the critically endangered Valencia letourneuxi in Greece. Biologia Section Biology 65/1: 128-139.

Economidis, P.S. (1995). Endangered freshwater fishes of Greece. Biological Conservation 72, 201-211.

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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 extrapolation from a limited amount of 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 d) Method	Approximately equal to (≈) Basic assumption: Favourable Reference Population = value extracted from Additional Range and Distribution Maps
6.16 Change and reason for change in population size	No change The change is mainly due to:	
6.17 Additional information	Most data are described as semi-quantitative or qualitative. Few quantitative data. Too much variability between existing samples, especially between different river basins, making it difficult to extrapolate a number or a class for reporting population unit.	

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 extrapolation from a limited amount of 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	The surface area of the habitat is estimated at 724 km ² and its quality is bad.	

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8. Main pressures and threats

8.1 Characterisation of pressures/threats

Pressure	Ranking
Other invasive alien species (other than species of Union concern) (I02)	H
Other human intrusions and disturbance not mentioned above (H08)	H
Modification of hydrological flow (K04)	M
Active abstractions from groundwater, surface water or mixed water for agriculture (A30)	M
Drainage for use as agricultural land (A31)	H
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	H
Accumulation of organic material (L03)	M
Agricultural activities generating point source pollution to surface or ground waters (A25)	M
Drainage (K02)	M
Threat	Ranking
Deposition and treatment of waste/garbage from household/recreational facilities (F09)	M
Deposition and treatment of waste/garbage from commercial and industrial facilities (F10)	M
Other invasive alien species (other than species of Union concern) (I02)	H
Other human intrusions and disturbance not mentioned above (H08)	H
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	M
Modification of hydrological flow (K04)	H
Physical alteration of water bodies (K05)	M
Active abstractions from groundwater, surface water or mixed water for agriculture (A30)	H
Drainage for use as agricultural land (A31)	M
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	H

8.2 Sources of information

PRESSURES: Mainly based on expert judgement and other data.
THREATS: Based on expert opinion.

8.3 Additional information

IAS: *Gambusia holbrooki*, *Oncorhynchus mykiss*, *Lepomis gibbosus*

9. Conservation measures

9.1 Status of measures

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

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9.2 Main purpose of the measures taken

9.3 Location of the measures taken

9.4 Response to the measures

9.5 List of main conservation measures

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

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

Reduce impact of multi-purpose hydrological changes (CJ02)

Restore small landscape features on agricultural land (CA02)

Adapt mowing, grazing and other equivalent agricultural activities (CA05)

Reduce impact of other specific human actions (CH03)

Restore habitats impacted by multi-purpose hydrological changes (CJ03)

Manage drainage and irrigation operations and infrastructures in agriculture (CA15)

Habitat restoration of areas impacted by transport (CE06)

Management of habitats (others than agriculture and forest) to slow, stop or reverse natural processes (CL01)

9.6 Additional information

Partial implementation of CI03 during recent project for assisted migration at pilot sites in Evinos Delta.

10. Future prospects

10.1 Future prospects of parameters

a) Range	Good
b) Population	Poor
c) Habitat of the species	Bad

10.2 Additional information

11. Conclusions

11.1. Range

Favourable (FV)

11.2. Population

Unfavourable - Inadequate (U1)

11.3. Habitat for the species

Unfavourable - Bad (U2)

11.4. Future prospects

Unfavourable - Bad (U2)

11.5 Overall assessment of Conservation Status

Unfavourable - Bad (U2)

11.6 Overall trend in Conservation Status

Deteriorating (-)

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

a) Overall assessment of conservation status

No change

The change is mainly due to:

b) Overall trend in conservation status

No change

The change is mainly due to:

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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) 374
12.2 Type of estimate	Best estimate	
12.3 Population size inside the network Method used	Based mainly on extrapolation from a limited amount of data	
12.4 Short-term trend of population size within the network Direction	Stable (0)	
12.5 Short-term trend of population size within the network Method used	Based mainly on extrapolation from a limited amount of data	
12.6 Additional information	Species for which either new Natura sites have been designated or former ones have been expanded to cover a bigger part of their populations. The change in 12.1 (in comparison to the previous report) is mainly due to the recent update of the Greek Natura 2000 Database (extended areas of current Natura 2000 sites and newly proposed SCIs) and also (in cases of absent data or mandatory population unit 1x1 grid) to a different approach/method used for the calculation of the population size in GIS.	

13. Complementary information

13.1 Justification of % thresholds for trends	The % threshold could not be used for the assessment since: a) a different method for assessing range was employed, compared to the 2nd Reporting Period or b) no data were reported in the 2nd Reporting Period.
13.2 Trans-boundary assessment	
13.3 Other relevant Information	<ol style="list-style-type: none">1. Populations of the recently described valid species, <i>Valencia robertae</i>, in the Pinios river of the Peloponnese Peninsula are critically threatened and numbers are very low. The species status in the adjacent Alfios river is considered extirpated but a thorough survey is needed to ascertain this.2. Basic Assumptions:<ol style="list-style-type: none">i) "Surface Area Range" (field 5.1) = value extracted from "Range Map" (field 2.5).ii) "Favourable Reference Range" (field 5.10a) = a) "Surface Area Range" (field 5.1) OR b) value extracted from "Additional Reference Range Map" (provided). Depends on whether the Favourable range is equal or larger than actual species range.iii) "Population Size" (field 6.2 or 6.4) = value extracted from "Distribution Map" (field 2.3) or "Additional Distribution Map" (field 2.5) (when provided).iv) "Favourable Reference Population" (field 6.15a) = a) "Population Size" (field 6.2 or 6.4) OR b) value extracted from "Additional Reference

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Range Map" (provided). Depends on whether the Favourable population is equal or larger than actual species population.

v) Habitat "Area Estimation" (field 7.9) = "Distribution Map" (field 2.3) or "Additional Distribution Map" (field 2.5) (when provided).

3. Population assessment and short term trend took into account, besides Favourable Reference Population, population structure and reproduction trends. Species is monitored since 2002. In several localities, population numbers are declining.

4. The distribution of *Valencia letourneuxi* has contracted to the point that the species was considered extirpated on Corfu Island (Kalogianni et al. 2010, Barbieri et al. 2015). However, its absence in surveys should not be taken as proof of local extirpation, without a thorough investigation and monitoring of former habitats. Antinioti Lagoon (GR2230001) has not been surveyed adequately and the particular site is very difficult to survey (deep waters, spring-fed reed swamp conditions); however, the site still holds a large spring and adequate habitats for the species. We therefore include Antinioti within the distribution and range of the species, based on knowledge of former presence in the area. In contrast, Korission Lagoon (GR2230002) has been surveyed in recent years without any positive record of the species. Additionally, the habitats and special conditions that the species requires are severely degraded and near-absent at this site. Therefore the species distribution does not include this site during this reporting period (distribution). We feel it is important to have substantiated recent evidence of presence at Korission Lagoon, since the habitats that the species requires have been severely degraded since the mid 1980s (i.e. spring-fed habitats see Economidis 1995). As far as the range of the species in the particular site is concerned, Korission Lagoon is included.