

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

| | |
|---|----------------------|
| 0.1 Member State | GR |
| 0.2.1 Species code | 1992 |
| 0.2.2 Species name | Valencia letourneuxi |
| 0.2.3 Alternative species scientific name | N/A |
| 0.2.4 Common name | Zacharias |

1. National Level

1.1 Maps

| | |
|--------------------------|---|
| 1.1.1 Distribution Map | Yes |
| 1.1.1a Sensitive species | Yes |
| 1.1.2 Method used - map | Estimate based on partial data with some extrapolation and/or modelling (2) |
| 1.1.3 Year or period | 2007-2012 |
| 1.1.4 Additional map | Yes |
| 1.1.5 Range map | Yes |

2. Biogeographical Or Marine Level

2.1 Biogeographical Region

Mediterranean (MED)

2.2 Published sources

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.

Barbieri R., S. Zogaris, E. Kalogianni, M. Th. Stoumboudi, Y. Chatzinikolaou, S. Giakoumi, Y. Kapakos, D. Kommatas, N. Koutsikos, V. Tachos, L. Vardakas & Economou A.N. (2015). Freshwater Fishes and Lampreys of Greece: An annotated checklist. Monographs on Marine Sciences No. 8. Hellenic Centre for Marine Research: Athens, Greece.

2.3 Range

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| | |
|---|---|
| 2.3.1 Surface area - Range (km ²) | 796 |
| 2.3.2 Method - Range surface area | Estimate based on partial data with some extrapolation and/or modelling (2) |
| 2.3.3 Short-term trend period | 2001-2012 |
| 2.3.4 Short-term trend direction | stable (0) |
| 2.3.5 Short-term trend magnitude | min max |
| 2.3.6 Long-term trend period | |
| 2.3.7 Long-term trend direction | N/A |
| 2.3.8 Long-term trend magnitude | min max |
| 2.3.9 Favourable reference range | area (km ²) operator approximately equal to (≈) unkown No method Basic assumption: Favourable Reference Range = Surface Area Range (current range) |

2.3.10 Reason for change

2.4 Population

| | |
|---|--|
| 2.4.1 Population size (individuals or agreed exception) | Unit N/A min max |
| 2.4.2 Population size (other than individuals) | Unit number of map 1x1 km grid cells (grids1x1) min 724 max 796 |
| 2.4.3 Additional information | Definition of locality Conversion method Problems 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 individuals or classes for reporting population unit. |
| 2.4.4 Year or period | 2006-2012 |
| 2.4.5 Method – population size | Estimate based on partial data with some extrapolation and/or modelling (2) |
| 2.4.6 Short-term trend period | 2001-2012 |
| 2.4.7 Short term trend direction | decrease (-) |
| 2.4.8 Short-term trend magnitude | min max confidence interval |
| 2.4.9 Short-term trend method | Estimate based on partial data with some extrapolation and/or modelling (2) |
| 2.4.10 Long-term trend period | |
| 2.4.11 Long term trend direction | N/A |
| 2.4.12 Long-term trend magnitude | min max confidence interval |
| 2.4.13 Long-term trend method | N/A |
| 2.4.14 Favourable reference population | number operator approximately equal to (≈) unknown No method Basic assumption: Favourable Reference Population = value extracted from Additional Range and Distribution Maps |

2.4.15 Reason for change

2.5 Habitat for the Species

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| | |
|---|---|
| 2.5.1 Surface area - Habitat (km ²) | 724 |
| 2.5.2 Year or period | 2006-2012 |
| 2.5.3 Method used - habitat | Estimate based on partial data with some extrapolation and/or modelling (2) |
| 2.5.4 a) Quality of habitat | Bad |
| 2.5.4 b) Quality of habitat - method | Based on partial data with some extrapolation and expert judgment. |
| 2.5.5 Short term trend period | 2001-2012 |
| 2.5.6 Short term trend direction | unknown (x) |
| 2.5.7 Long-term trend period | |
| 2.5.8 Long term trend direction | N/A |
| 2.5.9 Area of suitable habitat (km ²) | 0 |
| 2.5.10 Reason for change | |

2.6 Main Pressures

| Pressure | ranking | pollution qualifier(s) |
|---|-----------------------|------------------------|
| Discharges (E03) | low importance (L) | N/A |
| invasive non-native species (I01) | high importance (H) | N/A |
| reduction or loss of specific habitat features (J03.01) | high importance (H) | N/A |
| Pollution to surface waters (limnic & terrestrial, marine & brackish) (H01) | low importance (L) | N/A |
| dykes and flooding defence in inland water systems (J02.12.02) | low importance (L) | N/A |
| canalisation (J02.03.02) | low importance (L) | N/A |
| management of aquatic and bank vegetation for drainage purposes (J02.10) | medium importance (M) | N/A |
| surface water abstractions for agriculture (J02.06.01) | medium importance (M) | N/A |

2.6.1 Method used – pressures mainly based on expert judgement and other data (2)

2.7 Main Threats

| Threat | ranking | pollution qualifier(s) |
|---|-----------------------|------------------------|
| Discharges (E03) | medium importance (M) | N/A |
| invasive non-native species (I01) | high importance (H) | N/A |
| reduction or loss of specific habitat features (J03.01) | high importance (H) | N/A |
| Pollution to surface waters (limnic & terrestrial, marine & brackish) (H01) | medium importance (M) | N/A |
| dykes and flooding defence in inland water systems (J02.12.02) | medium importance (M) | N/A |
| canalisation (J02.03.02) | medium importance (M) | N/A |
| management of aquatic and bank vegetation for drainage purposes (J02.10) | high importance (H) | N/A |
| surface water abstractions for agriculture (J02.06.01) | high importance (H) | N/A |

2.7.1 Method used – threats expert opinion (1)

2.8 Complementary Information

2.8.1 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

2.8.2 Other relevant Information 1. Populations of the recently described valid species, Valencia robertae, in the

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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:

i) "Surface Area Range" (field 2.3.1) = value extracted from "Range Map" (field 1.1.5).

ii) "Favourable Reference Range" (field 2.3.9a) = a) "Surface Area Range" (field 2.3.1) 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 2.4.2) = value extracted from "Distribution Map" (field 1.1.1) or "Additional Distribution Map" (field 1.1.4) (when provided).

iv) "Favourable Reference Population" (field 2.4.14) = a) "Population Size" (field 2.4.2) OR b) value extracted from "Additional Reference Range Map" (provided). Depends on whether the Favourable population is equal or larger than actual species population.

v) Habitat "Area Estimation" (field 2.5.1) = "Distribution Map" (field 1.1.1) or "Additional Distribution Map" (field 1.1.4) (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.

2.8.3 Trans-boundary assessment

2.9 Conclusions (assessment of conservation status at end of reporting period)

2.9.1 Range

assessment Favourable (FV)
qualifiers N/A

2.9.2. Population

assessment Inadequate (U1)
qualifiers declining (-)

2.9.3. Habitat

assessment Bad (U2)
qualifiers unknown (x)

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|---|---|
| 2.9.4. Future prospects | assessment Bad (U2) qualifiers declining (-) |
| 2.9.5 Overall assessment of Conservation Status | Bad (U2) |
| 2.9.5 Overall trend in Conservation Status | declining (-) |

3. Natura 2000 coverage and conservation measures - Annex II species

3.1 Population

| | | |
|---------------------------------------|---|--|
| 3.1.1 Population Size | Unit | number of map 1x1 km grid cells (grids1x1) |
| | min | 356 |
| | max | 374 |
| 3.1.2 Method used | Estimate based on partial data with some extrapolation and/or modelling (2) | |
| 3.1.3 Trend of population size within | stable (0) | |

3.2 Conservation Measures

| 3.2.1 Measure | 3.2.2 Type | 3.2.3 Ranking | 3.2.4 Location | 3.2.5 Broad Evaluation |
|--|------------|-----------------------|----------------|------------------------|
| Legal protection of habitats and species (6.3) | Legal | high importance (H) | Both | Enhance |
| Establish protected areas/sites (6.1) | Legal | medium importance (M) | Inside | Enhance Long term |