

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	1152
0.2.2 Species name	Aphanius fasciatus
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	No
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

Λεγάκης Α. & Μαραγκού Π. (2009). Το Κόκκινο Βιβλίο των Απειλούμενων Ζώων της Ελλάδας. Ελληνική Ζωολογική Εταιρεία, Αθήνα.

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

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*, 8 (1): 91-168.

Leonardos I. & Sinis A. (1999). Population age and sex structure of *Aphanius fasciatus* Nardo, 1827 (Pisces: Cyprinodontidae) in the Mesolongi and Etolikon lagoons (W. Greece). *Fisheries Research*, 40 (3): 227-235.

Leonardos I. & Sinis A. (1998). Reproductive strategy of *Aphanius fasciatus* (Nardo, 1827) (Pisces: Cyprinodontidae) in the Mesolongi and Etolikon lagoons (W. Greece). *Fisheries Research*, 35: 171-181.

Leonardos I., Sinis A. & Petridis D. (1996). Influence of environmental factors of the population dynamics of *Aphanius fasciatus* (Nardo, 1827) (Pisces: Cyprinodontidae) in the lagoons of Messolongi and Etolikon (W. Greece). *Israel Journal of Zoology*, 42: 231-249.

2.3 Range

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2.3.1 Surface area - Range (km ²)	1445
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 (≈) unknown No method Basic assumption: Favourable Reference Range = Surface Area Range (current range)
2.3.10 Reason for change	Improved knowledge/more accurate data Use of different method

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 1445 max 1445
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 a number or a class 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	stable (0)
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 Map
2.4.15 Reason for change	Improved knowledge/more accurate data Use of different method

2.5 Habitat for the Species

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2.5.1 Surface area - Habitat (km ²)	1445
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	Moderate
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	stable (0)
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	Improved knowledge/more accurate data Use of different method

2.6 Main Pressures

Pressure	ranking	pollution qualifier(s)
Discharges (E03)	medium importance (M)	N/A
canalisation (J02.03.02)	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
modifying structures of inland water courses (J02.05.02)	low importance (L)	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
canalisation (J02.03.02)	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
modifying structures of inland water courses (J02.05.02)	low importance (L)	N/A

2.7.1 Method used – threats expert opinion (1)

2.8 Complementary Information

2.8.1 Justification of % thresholds for trends

2.8.2 Other relevant Information

The % threshold could not be used for the assessment since: a) a different method for assessing range was employed, compared to the 2nd Reporting

- Basic Assumptions:
 - "Surface Area Range" (field 2.3.1) = value extracted from "Range Map" (field 1.1.5).
 - "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.
 - "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).
 - "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.
- Habitat "Area Estimation" (field 2.5.1) = "Distribution Map" (field

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1.1.1) or "Additional Distribution Map" (field 1.1.4) (when provided).
 2. *Aphanius fasciatus* is a widespread species, unfortunately poorly surveyed, since there are scant scientific surveys of transitional waters – brackish water environments – so far. Epanomi Lagoon (GR1220012) and the Strymonas Estuary (GR1260002), near Amphipoli, have not been adequately surveyed recently. However, it is true that the species is known to be present there (so these sites are included in the maps).

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 Favourable (FV) qualifiers N/A
2.9.3. Habitat	assessment Inadequate (U1) qualifiers stable (=)
2.9.4. Future prospects	assessment Inadequate (U1) qualifiers stable (=)
2.9.5 Overall assessment of Conservation Status	Inadequate (U1)
2.9.5 Overall trend in Conservation Status	stable (=)

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 1328 max 1328
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	unknown (x)

3.2 Conversation Measures

3.2.1 Measure	3.2.2 Type	3.2.3 Ranking	3.2.4 Location	3.2.5 Broad Evaluation
Establish protected areas/sites (6.1)	Legal Administrative One-off	high importance (H)	Inside	Enhance Long term