

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	1152
1.3 Species scientific name	<i>Aphanius fasciatus</i>
1.4 Alternative species scientific name	
1.5 Common name (in national language)	Zacharias

2. Maps

2.1 Sensitive species	No
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

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.

5. Range

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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 Approximately equal to (\approx)
- c) Unknown
- d) Method Basic assumption: Favourable Reference Population = value extracted from Additional Range Map

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

Stable (0)

7.5 Short-term trend Method used

Based mainly on extrapolation from a limited amount of data

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 1445 km² and its quality is moderate.

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)	H
Hydropower (dams, weirs, run-off-the-river), including infrastructure (D02)	M

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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
Threat	Ranking
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Hydropower (dams, weirs, run-off-the-river), including infrastructure (D02)	H
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

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

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

Habitat restoration of areas impacted by transport (CE06)

Reduce impact of hydropower operation and infrastructure (CC04)

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

Reduce impact of other specific human actions (CH03)

9.6 Additional information Partial implementation of above measures during Life nature project (Pylos, Gialova lagoon).
Also, refugia creation in Alyki Aigaion Lagoon by NGO - independent application.

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10. Future prospects

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

10.2 Additional information

11. Conclusions

11.1. Range	Favourable (FV)
11.2. Population	Favourable (FV)
11.3. Habitat for the species	Unfavourable - Inadequate (U1)
11.4. Future prospects	Unfavourable - Inadequate (U1)
11.5 Overall assessment of Conservation Status	Unfavourable - Inadequate (U1)
11.6 Overall trend in Conservation Status	Stable (=)
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:
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) 1274
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	Unknown (x)	
12.5 Short-term trend of population size within the network Method used	Insufficient or no data available	
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	

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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

1. Basic Assumptions:

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 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).

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).