

# 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	5276
0.2.2 Species name	<b>Aphanius almiriensis</b>
0.2.3 Alternative species scientific name	N/A
0.2.4 Common name	Zacharias Almyris

## 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

Triantafyllidis A., Leonardos I., Bista I., Kyriazis I.D., Stoumboudi M.Th., Kappas I., Amat F. & Abatzopoulos T.J. (2007). Phylogeography and genetic structure of the Mediterranean killifish *Aphanius fasciatus* (Cyprinodontidae). *Marine Biology*, Vol. 152(5): 1159-1167.

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

Geiger M.F., Herder F., Monaghan M.T., Almada V., Barbieri R., Bariche M., Berrebi P., Bohlen J., Casal-Lopez M., Delmastro G.B., Denys G.P.J., Dettai A., Doadrio I., Kalogianni E., Kärst H., Kottelat M., Kovačić M., Laporte M., Lorenzoni M., Marčić M., Özuluğ M., Perdices A., Perea S., Persat H., Porcelotti S., Puzzi C., Robalo J., Šanda R., Schneider M., Šlechtová V., Stoumboudi M., Walter S. & Freyhof J. (2014). Spatial heterogeneity in the Mediterranean Biodiversity Hotspot affects barcoding accuracy of its freshwater fishes. *Molecular Ecology Resources* 2014.

### 2.3 Range

2.3.1 Surface area - Range (km <sup>2</sup> )	13
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 <sup>2</sup> ) operator approximately equal to (≈) unkown No method Basic assumption: Favourable Reference Range = Surface Area Range (current range)

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## 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	13	max	13
2.4.3 Additional information	Definition of locality			
	Conversion method			
	Problems	Few samples, 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 Map		

## 2.4.15 Reason for change

## 2.5 Habitat for the Species

2.5.1 Surface area - Habitat (km <sup>2</sup> )		13		
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		decrease (-)		
2.5.7 Long-term trend period				
2.5.8 Long term trend direction		N/A		
2.5.9 Area of suitable habitat (km <sup>2</sup> )		0		
2.5.10 Reason for change				

## 2.6 Main Pressures

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Pressure	ranking	pollution qualifier(s)
Urbanised areas, human habitation (E01)	medium importance (M)	N/A
large scale water deviation (J02.03.01)	high importance (H)	N/A
surface water abstractions for agriculture (J02.06.01)	high importance (H)	N/A
modifying structures of inland water courses (J02.05.02)	high importance (H)	N/A
reduction or loss of specific habitat features (J03.01)	high importance (H)	N/A
invasive non-native species (I01)	high importance (H)	N/A
Pollution to surface waters (limnic & terrestrial, marine & brackish) (H01)	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)
Urbanised areas, human habitation (E01)	medium importance (M)	N/A
large scale water deviation (J02.03.01)	high importance (H)	N/A
surface water abstractions for agriculture (J02.06.01)	high importance (H)	N/A
modifying structures of inland water courses (J02.05.02)	high importance (H)	N/A
reduction or loss of specific habitat features (J03.01)	high importance (H)	N/A
invasive non-native species (I01)	high importance (H)	N/A
Pollution to surface waters (limnic & terrestrial, marine & brackish) (H01)	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

1. Identified as endemic to two wetlands in northeastern Peloponnese, first located at a spring-fed wetland near Kato Almiri village (type locality) and at Moustos Lagoon (eastern Peloponnese). The species is presumed extinct in its type locality, allegedly due to anthropogenic changes in the spring's hydrological regime. Despite repeated survey attempts, the last specimens were caught at Kato Almiri in 2003. Genetic analyses of *Aphanius fasciatus* populations of the Aegean basins show very close relationships to *Aphanius almiriensis*. Although *A. almiriensis* is currently a valid species, more research is needed to verify the identity of some *Aphanius* populations that are currently considered *Aphanius fasciatus* but genetically very closely related to *Aphanius almiriensis* (Geiger et al. 2014). The new data may change the conservation status of this range-restricted species.
2. Population assessment took into account, besides Favourable Reference Population (relative grid), population structure and reproduction trends. Short-term trend took into account population structure and reproduction trends. In several samplings, only very few specimens were sampled.
3. 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

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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).

## 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 declining (-)
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 6 max 6
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 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	medium importance (M)	Inside	Enhance Long term