

# 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	6292
1.3 Species scientific name	<i>Knipowitschia goerneri</i>
1.4 Alternative species scientific name	
1.5 Common name (in national language)	Kerkyrogovios

### 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

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

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

Vanhove M.P.M., Economou A.N., Zogaris S., Larmuseau M.H.D., Giakoumi S., Kalogianni E., Volckaert F.A.M. & Huyse T. (2012). Phylogenetics and biogeography of the Balkan 'sand gobies' (Teleostei: Gobiidae): vulnerable species in need of taxonomic revision. *Biological Journal of the Linnean Society*, Vol. 105: 73–91.

Economidis P.S., Vogiatzis V.P., Bobori D.C. (1996). Freshwater Fishes. In: S. Dafis, E. Papastergiadou, K. Georghiou, D. Babalonas, T. Georgiadis, M. Papageorgiou, Th. Lazaridou, V. Tsiaoussi (Eds), Directive 92/43/EEC, The Greek "Habitat" Project NATURA 2000: An overview, pp. 604-635. Life Contract B4-3200/94/756 Commission of the European Communities DG XI, The Goulandris Natural History Museum - Greek Biotope/Wetland Center.

### 5. Range

5.1 Surface area

24

5.2 Short-term trend Period

2007-2018

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5.3 Short-term trend Direction	Decreasing (-)	
5.4 Short-term trend Magnitude	a) Minimum	b) Maximum
5.5 Short-term trend Method used	Based mainly on extrapolation from a limited amount of data	
5.6 Long-term trend Period		
5.7 Long-term trend Direction		
5.8 Long-term trend Magnitude	a) Minimum	b) Maximum
5.9 Long-term trend Method used		
5.10 Favourable reference range	a) Area (km <sup>2</sup> )	93
	b) Operator	
	c) Unknown	
	d) Method	Basic assumption: Favourable Reference Range = Historic Range = value extracted from Additional Reference Range Map
5.11 Change and reason for change in surface area of range	No change The change is mainly due to:	
5.12 Additional information		

## 6. Population

6.1 Year or period	2015	
6.2 Population size (in reporting unit)	a) Unit	number of map 1x1 km grid cells (grids1x1)
	b) Minimum	
	c) Maximum	
	d) Best single value	24
6.3 Type of estimate	Best estimate	
6.4 Additional population size (using population unit other than reporting unit)	a) Unit	
	b) Minimum	
	c) Maximum	
	d) Best single value	
6.5 Type of estimate		
6.6 Population size Method used	Based mainly on extrapolation from a limited amount of data	
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		

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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	93 with unit number of map 1x1 km grid cells (grids1x1)  Basic assumption: Favourable Reference Population = value extracted from Additional Reference 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)? b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?	No 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	Decreasing (-)	
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 24 km <sup>2</sup> and its quality is moderate.	

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

Pressure	Ranking
Conversion from other land uses to housing, settlement or recreational areas (excluding drainage and modification of coastline, estuary and coastal conditions) (F01)	M
Deposition and treatment of waste/garbage from household/recreational facilities (F09)	M
Modification of hydrological flow (K04)	M

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Physical alteration of water bodies (K05)	H
Active abstractions from groundwater, surface water or mixed water for agriculture (A30)	H
Construction or modification (e.g. of housing and settlements) in existing urban or recreational areas (F02)	M
Deposition and treatment of waste/garbage from commercial and industrial facilities (F10)	M
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Drainage for use as agricultural land (A31)	H
Hydropower (dams, weirs, run-off-the-river), including infrastructure (D02)	M

Threat	Ranking
Conversion from other land uses to housing, settlement or recreational areas (excluding drainage and modification of coastline, estuary and coastal conditions) (F01)	H
Deposition and treatment of waste/garbage from household/recreational facilities (F09)	M
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	M
Modification of hydrological flow (K04)	H
Active abstractions from groundwater, surface water or mixed water for agriculture (A30)	H
Construction or modification (e.g. of housing and settlements) in existing urban or recreational areas (F02)	M
Deposition and treatment of waste/garbage from commercial and industrial facilities (F10)	M
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Drainage for use as agricultural land (A31)	H
Hydropower (dams, weirs, run-off-the-river), including infrastructure (D02)	M

## 8.2 Sources of information

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

## 8.3 Additional information

# 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

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## 9.5 List of main conservation measures

Manage conversion of land for construction and development of infrastructure (CF01)

Habitat restoration of areas impacted by residential, commercial, industrial and recreational infrastructure, operations and activities (CF02)

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

Reduce impact of multi-purpose hydrological changes (CJ02)

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

Other measures related to residential, commercial, industrial and recreational infrastructures, operations and activities (CF12)

Habitat restoration of areas impacted by transport (CE06)

Reduce impact of hydropower operation and infrastructure (CC04)

## 9.6 Additional information

## 10. Future prospects

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

## 10.2 Additional information

## 11. Conclusions

11.1. Range	Unfavourable - Bad (U2)
11.2. Population	Unfavourable - Bad (U2)
11.3. Habitat for the species	Unfavourable - Inadequate (U1)
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:

## 11.8 Additional information

## 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

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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

12.2 Type of estimate

12.3 Population size inside the network Method used

12.4 Short-term trend of population size within the network Direction

12.5 Short-term trend of population size within the network Method used

12.6 Additional information

## 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. Endemic to the Korission lagoon area on southern Corfu Island. This tiny goby was originally found in a spring-fed freshwater wetland near the lagoon and in brackish waters within Korission Lagoon. The fringing wetland habitats have been degraded by water abstraction and human land-use change. There are still taxonomic problems in the identification and range distribution data of the *Knipowitschia* gobies in the Ionian Ecoregion, more work is needed to define lineages, significant population units. Due to its extremely range restricted distribution and sensitive wetland habitat requirements it should be considered one of the rarest and most threatened fishes in Greece.

2. 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).

3. The two Greek *Knipowitschia* gobies (*K. goerneri* and *K. milleri*) are rather recently described and poorly studied species that are related to the *Pomatoschistus* sand gobies (Vanhove et al. 2012). Due to these relationships

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Economidis et al. (1996) placed them under the *Pomatoschistus canestrini* species name and we insist that this was a proper course of action; since so little was known at the time about species systematics among these poorly studied species.