

# 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	1028
1.3 Species scientific name	<i>Pinna nobilis</i>
1.4 Alternative species scientific name	
1.5 Common name (in national language)	

### 2. Maps

2.1 Sensitive species	No
2.2 Year or period	2018
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

#### Marine Mediterranean (MMED)

4.2 Sources of information

Katsanevakis S, Leukaditou E, Galinou-Mitsoudi S, Koutsoubas D, Zenetos A, 2008. Molluscan species of minor commercial interest in Hellenic seas: Distribution, exploitation and conservation status. *Mediterranean Marine Science* 9(1): 77-118.

Tagalis D, Theodorou J, 2013. Distribution of the endangered bivalve mollusc *Pinna nobilis*, (Linnaeus, 1758) in the shallow littoral ecosystem of the Northern Maliakos Gulf (NE Mediterranean, Greece). *Proceedings of the 15th Panhellenic Congress of Ichthyologists*.

Antoniadou C, Vafidis D, Voultziadou E, Chintiroglou C, 2013. Population parameters of the protected fan mussel *Pinna nobilis* by implementing non-destructive techniques in the Dodecanese. *Proceedings of the 15th Panhellenic Congress of Ichthyologists*.

Poursanidis D, Issaris Y, Katsanevakis S, Thessalou-Legaki M, 2010. Population density estimation of the bivalve mollusc *Pinna nobilis* (Linnaeus 1758) in the National Marine Park of Zakynthos. *Proceedings of the 13th Panhellenic Congress of Ichthyologists*.

Katsanevakis S, Poursanidis D, Issaris Y, Panou A, Petza D, Vassilopoulou V, Chaldaïou I, Sini M, 2011. "Protected" marine shelled molluscs: thriving in Greek seafood restaurants. *Mediterranean Marine Science* 12(2): 429-438.

HCMR unpublished data (2007-2014).

Katsanevakis et al. 2019. "The cryptogenic parasite *Haplosporidium pinnae* invades the Aegean Sea and causes the collapse of *Pinna nobilis* populations." *Aquatic Invasions* 14.

HCMR unpublished data (2014-2018).



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6.8 Short-term trend Direction	Decreasing (-)	
6.9 Short-term trend Magnitude	a) Minimum	50
	b) Maximum	75
	c) Confidence interval	
6.10 Short-term trend Method used	Based mainly on expert opinion with very limited data	
6.11 Long-term trend Period		
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	Much more than (>>)
	c) Unknown	
	d) Method	The ongoing massive mortality event that is affecting the <i>Pinna nobilis</i> in the whole Mediterranean region (and in Greece since 2018) has caused the collapse of its population in many areas within its range. Although it has not been studied thoroughly, given that it has already affected some of the densest populations in the country (Evoikos Gulf, Thermaikos Gulf, Lesvos island, Saronikos Gulf), it is estimated that there has been a decrease of the <i>Pinna nobilis</i> population of more than 60% since early 2018. The assessment of the FRV is based on expert judgment, based on some preliminary field data.
6.16 Change and reason for change in population size	Genuine	
	The change is mainly due to:	Genuine change
6.17 Additional information	The ongoing massive mortality of <i>Pinna nobilis</i> in Greece since the summer of 2018 has caused the collapse of its population in many areas in the Aegean and Ionian seas.	

## 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	Decreasing (-)	
7.5 Short-term trend Method used	Based mainly on extrapolation from a limited amount of data	

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## 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 calculated at 13375 km<sup>2</sup> and the quality of the habitat is moderate. Relevant conclusions from the assessment of the habitat types 1120 and 1110, which comprise most of the habitat of the species.

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

Pressure	Ranking
Sports, tourism and leisure activities (F07)	M
Plant and animal diseases, pathogens and pests (I05)	H
Marine fish and shellfish harvesting (professional, recreational) causing reduction of species/prey populations and disturbance of species (G01)	M
Marine fish and shellfish harvesting (professional, recreational) activities causing physical loss and disturbance of seafloor habitats (G03)	M
Illegal shooting/killing (G10)	H
Illegal harvesting, collecting and taking (G11)	H
Discharge of urban waste water (excluding storm overflows and/or urban run-offs) generating pollution to surface or ground water (F12)	M

Threat	Ranking
Sports, tourism and leisure activities (F07)	H
Plant and animal diseases, pathogens and pests (I05)	H
Modification of coastline, estuary and coastal conditions for development, use and protection of residential, commercial, industrial and recreational infrastructure and areas (including sea defences or coastal protection works and infrastructures) (F08)	M
Marine fish and shellfish harvesting (professional, recreational) causing reduction of species/prey populations and disturbance of species (G01)	M
Illegal shooting/killing (G10)	H
Illegal harvesting, collecting and taking (G11)	H
Shipping lanes, ferry lanes and anchorage infrastructure (e.g. canalisation, dredging) (E03)	M
Marine aquaculture generating marine pollution (G16)	M

### 8.2 Sources of information

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

### 8.3 Additional information

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## 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

Controlling and eradicating plant and animal diseases, pathogens and pests (CI07)

Control/eradication of illegal killing, fishing and harvesting (CG04)

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

Reduce impact of outdoor sports, leisure and recreational activities (CF03)

Reduce/eliminate point source pollution to surface or ground waters from industrial, commercial, residential and recreational areas and activities (CF04)

### 9.6 Additional information

## 10. Future prospects

### 10.1 Future prospects of parameters

- a) Range Poor
- b) Population Bad
- c) Habitat of the species Poor

### 10.2 Additional information

## 11. Conclusions

### 11.1. Range

Unfavourable - Inadequate (U1)

### 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

Genuine

Improved knowledge/more accurate data

The change is mainly due to: Genuine change

#### b) Overall trend in conservation status

No change

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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

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

13.2 Trans-boundary assessment

13.3 Other relevant Information

A large sample size is required to refine the rather large 95% confidence interval (population size).