

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	1354
0.2.2 Species name	Ursus arctos
0.2.3 Alternative species scientific name	N/A
0.2.4 Common name	Kafe arkouda

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	2003-2012
1.1.4 Additional map	No
1.1.5 Range map	Yes

2. Biogeographical Or Marine Level

2.1 Biogeographical Region

2.2 Published sources

Mediterranean (MED)

The present species assessment (fields 0.1-2.9) has been compiled by Alexandros A. Karamanlidis - ARCTUROS. Information and unpublished data have been provided by ARCTUROS. The following published and unpublished sources have been used/consulted: Adamakopoulos, T., & Matsoukas, P. (1994). Social and land-use aspects of bear country in Pindos, Greece: a preliminary approach. In G. M. Dorrestein & M. M. Kahraman (Eds.), *International Conference on Aspects of Bear Conservation* (pp. 249-258). Bursa, Turkey: REPRO, Utrecht University. [\[2\]](#)

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2.3 Range

2.3.1 Surface area - Range (km ²)	34868
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	2002-2012
2.3.4 Short-term trend direction	increase (+)
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 more than (>) unkown No method Expert opinion
2.3.10 Reason for change	Genuine Improved knowledge/more accurate data

2.4 Population

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2.4.1 Population size (individuals or agreed exception)	Unit	number of individuals (i)		
	min	400	max	500
2.4.2 Population size (other than individuals)	Unit	N/A		
	min		max	
2.4.3 Additional information	Definition of locality			
	Conversion method			
	Problems	The population estimation was carried out by intensive non-invasive genetic monitoring in four sampling areas in the core range of the species. These efforts were carried out at approximately less than half the core range and one third of the entire range of the species. The total population size was an extrapolation and expert judgement.		
2.4.4 Year or period		2007-2010		
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		2002-2012		
2.4.7 Short term trend direction		increase (+)		
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	more than (>)		
	unknown	No		
	method	Expert opinion		
2.4.15 Reason for change		Genuine Improved knowledge/more accurate data	Use of different method	
2.5 Habitat for the Species				
2.5.1 Surface area - Habitat (km ²)		16825		
2.5.2 Year or period		2003-2012		
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		Good		
2.5.4 b) Quality of habitat - method		Expert opinion based (inferred from habitat use data, population density and human - bear interactions data). A. Quercetalia pubescentis (Oak forests – including 9250 & 9280) It covers 50% of the forests throughout the bear habitat. This zone is composed mainly by pure or mixed oak forests with Fagus sp., Castanea vasca, Acer platanoides, Pinus nigra, Carpinus orientalis and Fraxinus ornus. In the western sector (Peristeri, Pindos) the pure form is dominant, in particular in Peristeri, while in the eastern sector the pure and mixed stands are in about equal proportions. They are mainly coppice forests with low productivity. Only in Rhodope a 25% shows standing volume more than 100 m ³ /ha, while in Peristeri and Pindus the corresponding figures are 10% and 16%. B. Pinetalia nigrae (Black pine forests- 9530*) The black pine (Pinus nigra v. pallasiana) appears in the geographical area of the beech and the fir but also in the area of the oak. The black pine forests show a geological dependence. In Northern Greece these forests appear on serpentine and limestone grounds. The black pine forests cover 19% of the forested areas and primarily exist in sector 3		

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(91%). The black pine forms usually pure stands but also mixed with fir, beech and oaks. The stands have closed canopy, are not separated by large continuous openings, and have large productivity. C. Fagetalia (Beech - Fir forests) (including 9110, 9130 & 9150) This zone represents 30% of the forested area and is composed mainly by beech forests, most of which are in sector 3, where there are all the forests of *Abies borissii-regis*. In Rhodope, and even more in Peristeri, beech is found in pure stands while in Pindus about 43% of the beech forest are mixed with fir, black pine, oak, maple and Balkan pine (*A. borissii-regis*, *Pinus nigra*, *Quercus* sp., *Acer* sp. and *Pinus leucodermis*). The pine forests are 30% mixed mainly with beech and oaks. This zone is characterised of forests with large productivity. D. Vaccinio - Picetalia (Spruce and Scots pine forests) (9410) Here belongs 6% of the forests, of which 81% is in Rhodope sector and is composed of spruce, scots pine and birch forests. This zone is absent from sector 2 while in Pindus it is represented by the Balkan pine, which forms mainly pure stands. On the contrary, in Rhodope the mixed stands prevail, which are formed by the above species and in which participate the beech and, in smaller percentages, the oaks. They are forests with closed canopy and relatively continuous, particularly in Rhodope, and have the highest productivity in Greece. In particularly with regard to the spruce, the standing volume ranges from 246 m³/ha at the worst sites to 1,160 m³/ha at the best. ☐ The main habitat features for the species as described above include also the following habitat types: - 9180*, 91E0*, 9250, 9260, 9270, 9560*, 91F0, 7230

2.5.5 Short term trend period	2002-2012
2.5.6 Short term trend direction	increase (+)
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)	17850
2.5.10 Reason for change	Genuine Improved knowledge/more accurate data

2.6 Main Pressures

Pressure	ranking	pollution qualifier(s)
trapping, poisoning, poaching (F03.02.03)	high importance (H)	N/A
reduction in genetic exchange (J03.02.03)	medium importance (M)	N/A
death or injury by collision (G05.11)	medium importance (M)	N/A
paths, tracks, cycling tracks (D01.01)	low importance (L)	N/A
roads, motorways (D01.02)	medium importance (M)	N/A
anthropogenic reduction of habitat connectivity (J03.02)	medium importance (M)	N/A

2.6.1 Method used – pressures based exclusively or to a larger extent on real data from sites/occurrences or other

2.7 Main Threats

Threat	ranking	pollution qualifier(s)
trapping, poisoning, poaching (F03.02.03)	high importance (H)	N/A
reduction in genetic exchange (J03.02.03)	medium importance (M)	N/A
death or injury by collision (G05.11)	medium importance (M)	N/A
paths, tracks, cycling tracks (D01.01)	low importance (L)	N/A
roads, motorways (D01.02)	medium importance (M)	N/A
anthropogenic reduction of habitat connectivity (J03.02)	medium importance (M)	N/A

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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 reasons for the population increase are: a difference in methodology use. The genetic monitoring carried out is more accurate than the field methods used previously to monitor the population size of the species. However, the increased population numbers provided in this assessment are due partly also to an actual increase of the brown bear population in Greece.

2.8.3 Trans-boundary assessment

2.9 Conclusions (assessment of conservation status at end of reporting period)

2.9.1 Range assessment Inadequate (U1)
qualifiers improving (+)

2.9.2. Population assessment Inadequate (U1)
qualifiers improving (+)

2.9.3. Habitat assessment Inadequate (U1)
qualifiers improving (+)

2.9.4. Future prospects assessment Inadequate (U1)
qualifiers improving (+)

2.9.5 Overall assessment of Conservation Status Inadequate (U1)

2.9.5 Overall trend in Conservation Status improving (+)

3. Natura 2000 coverage and conservation measures - Annex II species

3.1 Population

3.1.1 Population Size Unit number of individuals (i)
min 200 max 300

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 increase (+)

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
Other agriculture-related measures (2.0)	One-off	medium importance (M)	Outside	Long term
Restoring/improving forest habitats (3.1)	Recurrent	high importance (H)	Both	Long term
Adapt forest management (3.2)	Recurrent	high importance (H)	Both	Long term
Establish protected areas/sites (6.1)	Legal Administrative	high importance (H)	Inside	Long term
Other species management measures (7.0)	Recurrent	high importance (H)	Both	Long term