

Technical paper N° 3/2017

# Supporting elements for the Mediterranean Natura 2000 review seminar

(2<sup>nd</sup> part: Fact sheets for "Low hanging fruits" habitats)

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#### 1 Introduction

The following fact sheets describe 23 habitat types from the Mediterranean biogeographical region selected as "Low Hanging Fruits' habitats according to the methodology described in the document entitled "Supporting elements for the Mediterranean review seminar, 1<sup>st</sup> part: core document".

The following information is provided for each habitat:

- Summary: A summary of main features described in the following sections
- Habitat description: as reflected in Manual of Habitats interpretation
- Distribution in the Mediterranean region and coverage by Natura 2000 network: as reported by Member States in their 2013 report (covering the period 2007-2012)
- Biogeographical conservation status assessment: as reported by Member States in their 2013 report (covering the period 2007-2012) and available at: http://bd. Eionet.europar.eu/article17/reports2012
- Pressures, threats and proposed measures: as reported by Member States in their 2013 report (covering the period 2007-2012)
- Reason for selection as 'Low Hanging Fruit' habitat in the Mediterranean region: outcome of an analysis of the parameters which could rapidly improve
- Priority conservation measures needed: outcome of an expert judgment analysis
- Links: link to the relevant page on the Art 17 portal: https://bd.eionet.europa.eu/article17/reports2012/habitat/summary/

### 2 Fact sheets for LHF habitat types

#### 1520 Iberian gypsum vegetation (Gypsophiletalia)

	Selected for first round of Biogeographical Seminar
Χ	Selected using "Low hanging fruit" approach

#### **Habitat summary**

The overall conservation status in the Mediterranean region is unfavourable - inadequate due to the assessment of Spain. The habitat is in the Mediterranean biogeographic region widespread in Spain; it occurs also in Cyprus. Almost whole habitat area is located in Spain.

Improvement of habitat structure in Spain is needed. The main measures should include establishment of protected sites and legal protection of habitats. The policy for gypsum-rich areas must implement both the protection of mining-free, natural reserves and suitable restoration strategies for quarries when extraction activities come to an end. Farming, unsuitable reforestation, urban development and new infrastructure are also important negative factors. Indeed, their impact on gypsum surfaces is or can become more dramatic than that of quarrying and therefore they should be addressed by the respective measures like sustainable grassland management, adaptation of forest management spatial development regulation.

#### **Habitat description**

Garrigues occupying gypsum-rich soils of the Iberian peninsula, usually very open and floristically characterised by the presence of numerous gypsophilous species. Characteristic syntaxa are *Lepidion subulati, Gypsophilion hispanicae* and *Thymo-Teucrion verticillati*.

### Distribution in the Mediterranean region and coverage by Natura 2000 network

The habitat type is widespread in Spain. It occurs also in Cyprus. The rather low representation of the habitat in Natura 2000 sites (ca 33 %) is due to area of this habitat in Natura 2000 sites in Spain.



Natu	ra 2000 sites in th	e Mediterra	nean region
Country	Habitat area /km²/	Coverage /%/	Number of sites
Cyprus	0.00133	21	1
Spain	796	33	148
Total	796	33	149

The table shows size of the habitat area in Natura 2000 sites and its proportion compared to habitat area in the whole biogeographic region ("coverage") as reported by MS in the 2013 Article 17 report. The number of sites was extracted from the 2016 Natura 2000 database.

#### Biogeographical conservation status assessment

The overall conservation status of this habitat type in the Mediterranean biogeographical region is unfavourable - inadequate due to assessment of Spain. Cyprus reported favourable conservation status. On the level of biogeographical region, two parameters (Range, Area) were assessed as favourable, other two (Structure and Functions; Future prospect) as unfavourable – inadequate. The overall conservation status for the region has been changed against previous reporting from unknown to unfavourable – inadequate. This change is not genuine, it is due to different methods used (Spain), and better data (Cyprus).

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#### Pressures, threats and proposed measures

Cyprus reported only two pressures: forest and plantation management and use, and paths, tracks, cycling tracks. Spain reported a broad range of pressures; the most important ones are annual crops for food production, perennial non-timber crops, forest planting on open ground (native trees), open cast mining. Other important pressures are modification of cultivation practices, irrigation, restructuring agricultural land holding, urbanised areas, human habitation, and industrial or commercial areas.

Code	Pressure name	CY	ES
A02	Modification of cultivation practices		М
A04.01	Intensive grazing		L
A06.01	Annual crops for food production		Н
A06.02	Perennial non-timber crops		Н
A07	Use of biocides, hormones and chemicals		L
A08	Fertilisation		L
A09	Irrigation		M
A10	Restructuring agricultural land holding		М

Code	Pressure name	CY	ES
B01.01	Forest planting on open ground (native trees)		Н
B02	Forest and Plantation management & use	Н	
C01.04.01	Open cast mining		Н
C03.03	Wind energy production		L
D01.01	Paths, tracks, cycling tracks	M	
E01	Urbanised areas, human habitation		М
E02	Industrial or commercial areas		М
G01.03	Motorised vehicles		L

Legend: Low intensity M Medium intensity H High intensity

According to both countries, establishment of protected areas/sites, and legal protection of habitats and species are the most important measures. Other important measures are maintaining grasslands and other open habitats, specific single species or species group management measures, restoring/improving forest habitats, adapt forest management.

Code	Measure name	CY	ES
2.0	Other agriculture-related measures		М
2.1	Maintaining grasslands and other open habitats		Н
3.0	Other forestry-related measures		M
3.1	Restoring/improving forest habitats		M
3.2	Adapt forest management		M
4.0	Other wetland-related measures		L
4.2	Restoring/improving the hydrological regime		L
6.0	Other spatial measures		M
6.1	Establish protected areas/sites	Н	Н
6.3	Legal protection of habitats and species	Н	Н
7.0	Other species management measures		M
7.4	Specific single species or species group management measures		Н

Legend: Low importance M Medium importance H High importance

## Reason for selection as "Low Hanging Fruit" (LHF) habitat in the Mediterranean region

Applying the methodology to identify LHF habitats in the Alpine region, habitat reached the LHF score 3.00. This habitat type was classified as LHF especially because, to reach improvement, the change from unknown to improving trend within the category U1 (unfavourable-inadequate) is sufficient. It is normally much easier to improve a trend than to reach a change in conservation status category. The habitat type was included as LHF also because of the fact that the improvement of trend of only one parameter (Structure & Functions) in one country (Spain) is needed to reach the overall improvement.

#### Priority conservation measures needed

For the improvement of the overall conservation status in the Mediterranean biogeographical region, improvement of the habitat structure in Spain is needed. The main measures should include establishment of protected sites and legal protection of the habitat. Mining activities are the most harmful menace for this habitat (Martínez-Hernández et al. 2011). The policy for gypsum-rich areas must implement both the protection of mining-free, natural reserves and suitable restoration strategies for quarries when extraction activities come to an end. The only way to mitigate the

impact of mining is to plan and monitor exploitations appropriately and subsequently carry out ecological restoration programmes). The restoration strategies should rely on the high colonising potential of some gypsophytes, they clearly tend to recover their former populations in an autogeneous primary succession process, a fact which reveals the extraordinary resilience of this habitat. The widely used technique of covering the quarry squares after the end of exploitation with top soil seems to promote vegetation very different from the aboriginal gypsicolous ones (Mota et al. 2004) and thus should be avoided. Farming, unsuitable reforestation, urban development and new infrastructure are also important negative factors (Martínez-Hernández et al. 2011). Indeed, their impact on gypsum surfaces is or can become more dramatic than that of quarrying and therefore they should be addressed by the respective measures like sustainable grassland management, adaptation of forest management spatial development regulation.

#### Links

https://bd.eionet.europa.eu/article17/reports2012/habitat/summary/?period=3&group=Coastal+habitats&subject=1520&region=MED

Martínez-Hernández, F., Pérez-García, F.J., Garrido-Becerra, J.A., Mendoza-Fernández, A.J., Medina-Cazorla, J.M., Martínez-Nieto, M.I., Encarnació Merlo Calvente, M.E., Mota Poveda, J.F., 2011: The distribution of Iberian gypsophilous flora as a criterion for conservation policy. - Biodiversity Conservation 20: 1353–1364

Mota J.F., Sola A.J., Jiménez-Sánchez M.L., Pérez-García F.J, Merlo M.E., 2004: Gypsicolous flora, conservation and restoration of quarries in the southeast of the Iberian Peninsula. - Biodiversity and Conservation 13: 1797–1808.

#### 2150 Atlantic decalcified fixed dunes (Calluno-Ulicetea)

	Selected for first round of Biogeographical Seminar
Х	Selected using "Low hanging fruit" approach

#### **Habitat summary**

The overall conservation status in the Mediterranean region is unfavourable - inadequate due to the assessment of Portugal. The habitat is in the Mediterranean biogeographic region widespread in Portugal and it occurs also in Spain. Based on distribution map, the main part of the habitat area is located in Portugal (size of the habitat area not specified in the Article 17 report from 2013) Improvement of habitat structure and increase of habitat area are needed. The main measures should include regulation/management of natural resources exploitation, regulation of urbanisation and tourism expansion, management of water abstraction. Other important measures are adapting forest management, establishment of protected sites, and legal protection of habitats and species, to develop practices of sustainable exploration of the psamophile pine forest, combining the reduction of the fire risks and the preservation of this habitat, control of illegal dumping of rubbish, debris, and control of exotic weeds. The habitat restoration should be incorporated to broader recovery of dunes.

#### **Habitat description**

Decalcified dunes of France, Belgium and Britain, colonised by heaths of the alliances *Calluno-Genistion* or *Ulicion minoris*, and of Iberia, colonised by heaths of the alliance *Ericion umbellatae*.

### Distribution in the Mediterranean region and coverage by Natura 2000 network

The habitat type is widespread in Portugal. It occurs also in Spain. The overall representation of the habitat in Natura 2000 sites cannot be calculated because of missing data from Portugal. Almost the whole national habitat area (98 %) is located in Natura 2000 sites in Spain.



Natur	a 2000 sites in th	e Mediterran	ean region
Country	Habitat area /km²/	Coverage /%/	Number of sites
Portugal	709	N/A	12
Spain	35	98	4
Total	744	n/a	16

The table shows size of the habitat area in Natura 2000 sites and its proportion compared to habitat area in the whole biogeographic region ("coverage") as reported by MS in the 2013 Article 17 report. The number of sites was extracted from the 2016 Natura 2000 database.

#### Biogeographical conservation status assessment

The overall conservation status of this habitat type in the Mediterranean biogeographical region is unfavourable - inadequate due to assessment of Portugal. This conclusion was reached despite favourable status in Spain. On the level of biogeographical region, two parameters (Range, Area) were assessed as favourable, Structure and Functions as unfavourable – inadequate and Future prospect as unknown. The overall conservation status for the region has not been changed from previous reporting.

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#### Pressures, threats and proposed measures

Spain and Portugal reported some pressures; the most important are invasive non-native species, water abstractions from groundwater, and groundwater abstractions for agriculture. Other important pressures are sand and gravel quarries, roads, paths and railroads, urbanised areas, human habitation.

Code	Pressure name	ES	PT
A11	Agriculture activities not referred to above		М
B02	Forest and Plantation management & use	L	
B02.03	Removal of forest undergrowth	L	
C01.01.01	Sand and gravel quarries		М
D01	Roads, paths and railroads		М
E01	Urbanised areas, human habitation		М
H05.01	Garbage and solid waste		L
101	Invasive non-native species		Н
J02.01	Landfill, land reclamation and drying out, general		М
J02.07	Water abstractions from groundwater	Н	
J02.07.01	Groundwater abstractions for agriculture	Н	
K02	Biocenotic evolution, succession	L	
K02.01	Species composition change (succession)	L	

Both countries presented regulating/management exploitation of natural resources on land, as an important measure. The management of water abstraction, and other spatial measures seem to be also very important. Other important measures are adapting forest management, establishment of protected areas/sites, legal protection of habitats and species.

Code	Measure name	ES	PT
1.2	Measures needed, but not implemented		NA
3.2	Adapt forest management		M
4.3	Managing water abstraction	Н	
6.0	Other spatial measures		Н
6.1	Establish protected areas/sites	M	
6.3	Legal protection of habitats and species	M	
7.1	Regulation/ Management of hunting and taking	L	
7.4	Specific single species or species group management measures	M	
8.2	Specific management of traffic and energy transport systems	M	
9.1	Regulating/Management exploitation of natural resources on land	M	Н

Legend: L Low importance M Medium importance H High importance

### Reason for selection as "Low Hanging Fruit" (LHF) habitat in the Mediterranean region

Applying the methodology to identify LHF habitats in the Mediterranean region, habitat 2150 reached the LHF score 3.22. This habitat type was classified as LHF especially because, to reach improvement, the change from stable to improving trend within the category U1 (unfavourable-inadequate) is sufficient. It is normally much easier to improve a trend than to reach change in category. The habitat type was included to LHF also because of quite significant representation of the habitat in Natura 2000 sites and the fact that the improvement of trend of only one parameter (Structure & Functions) in one country (Portugal) is needed to reach the overall improvement.

#### Priority conservation measures needed

For the improvement of the overall conservation status in the Mediterranean biogeographical region, improvement of the habitat structure and functions in Portugal is needed. The main measures should include regulation/management of natural resources exploitation, regulation of urbanisation and tourism expansion, management of water abstraction. Other important measures are adapting forest management, establishment of protected sites, and legal protection of habitats and species, to develop practices of sustainable exploration of the psamophile pine forest, combining the reduction of the fire risks and the preservation of this habitat, control of illegal dumping of rubbish, debris, and control of exotic weeds. The habitat restoration should be incorporated to broader recovery of dunes.

#### Links

https://bd.eionet.europa.eu/article17/reports2012/habitat/summary/?period=3&group=Dunes+habitats&subject=2150&region=MED

ICNB: \* Dunas fixas descalcificadas atlanticas (Calluno-Ulicetea). — Plano Sectorial da Rede Natura 2000, 5 pp. - http://www.icnf.pt/portal/pn/biodiversidade/rn2000/resource/docs/rn-planset/hab/hab-2150

### 3150 Natural eutrophic lakes with *Magnopotamion* and *Hydrocharition* - type vegetation

	Selected for first round of Biogeographical Seminar
Χ	Selected using "Low hanging fruit" approach

#### **Habitat summary**

The overall conservation status in the Mediterranean region is unfavourable - inadequate due to the assessment of four countries (Greece, Spain, Italy, and Portugal). The habitat is in the Mediterranean biogeographic region widespread in Spain and Italy; it occurs also in Portugal, France, Greece, and Cyprus. Around 47 % of the habitat area is located in Spain.

For the improvement of the overall conservation status in the Mediterranean biogeographical region, improvement of the habitat structure in Italy is sufficient. Further improvement could be reached by improving habitat structure in Italy and Portugal and increase of the habitat area by habitat restoration in Greece, Spain, and Italy. The main measures should include restoration or improvement of the water quality and hydrological regime, but because of the complexity of these issues, this task is quite demanding. Measures for reduction of water pollution from agriculture (fertilisation, use of biocides) are important; also measures for urban and industrial waste management and water abstraction reduction are relevant. Other proposed measures are establishment of protected sites and legal protection of habitat. Better information about habitat structure and functioning is needed in Spain.

#### **Habitat description**

Lakes and ponds with mostly dirty grey to blue-green, more or less turbid waters, particularly rich in dissolved bases (pH usually > 7), with free-floating surface communities of the *Hydrocharition* or, in deep, open waters, with associations of large pondweeds (*Magnopotamion*).

### Distribution in the Mediterranean region and coverage by Natura 2000 network

The habitat type is widespread in Spain and Italy. It occurs also in Portugal, France, Greece, and Cyprus. The overall representation of the habitat in Natura 2000 sites seems to be high, the calculation is influenced by probably overestimated habitat area in Spain. The whole national habitat area is located in Natura 2000 sites in Cyprus, a large part also in Italy (96 %), Spain and France (67 %).



Natura	Natura 2000 sites in the Mediterranean region								
Country	Habitat area /km²/	Coverage /%/	Number of sites						
Cyprus	0.05	100	1						
France	38	67	26						
Greece	0	0	29						
Italy	200	96	153						
Portugal	0	N/A	28						
Spain	328	127	254						
Total	566	104	491						

The table shows size of the habitat area in Natura 2000 sites and its proportion compared to habitat area in the whole biogeographic region ("coverage") as reported by MS in the 2013 Article 17 report. The number of sites was extracted from the 2016 Natura 2000 database.

#### Biogeographical conservation status assessment

The overall conservation status of this habitat type in the Mediterranean biogeographical region is unfavourable - inadequate due to assessment of four countries (Greece, Spain, Italy, and Portugal). France reported unfavourable – bad conservation status, Cyprus indicated favourable status. On the level of biogeographical region, three parameters (Range; Area; Future prospect) were assessed as unfavourable – inadequate, the last one (Structure and Functions) as unknown. The overall conservation status for the region has been changed against previous reporting from unknown to unfavourable – inadequate. This change is not genuine, it is due to different methods used (Spain, France, and Italy), and better data or improved knowledge (Cyprus).

Treated	data fr	om Mei	mber S	tates re	ports									
MS		Range	e (km²)		Area			Struct &	Future		Overa	all asses.		
IVIS	Surface	% MS	Trend	Ref.	Surface	% MS	Trend	Ref.	func.	prosp.	Curr. CS	Qualifier	Prev. CS	Nat. of ch.
CY	3	0	0	≈3	0.05	0	0	≈0.05	FV	FV	FV		XX	b1
GR	21.10	0	0	>21.10	21.10	3.9	0	>21.10	FV	U1	U1	N/A	U1	
ES	85853	45.4	+	>85853	258	47.4	x	>258	XX	U1	U1	=	XX	c1
FR	11300	6	0	≈11300	56.70	10.4	0	≈56.70	U1	U2	U2	- 5	U1	c1
IT	71200	37.6	0	>71200	208.63	38.3	0	>208.63	U1	UI	Ui		FV	c1
PT	20900	11	0	≈20900	N/A	N/A	x	×	U1	FV	U1	=	FV	е
EU27	189277	Concl. 11	+ >189	9277 5	Concl 544 2GD	х	>544	func.		MTX	2	Concl. XX	no	ntrib. Type
Legend: respective structure previous Countries	e Mem and fu conser	ber St inction vation	ate coi is; Futi status;	mpared ure pro: Nat. of	to who sp. – fu f ch. – r : 1: - tar	ole Bio uture p nature get 1 o	geogra prospe of cha of the E	aphical ct; Curr ange; El EU 2020	Region; r. CS – J27: ass Biodive	Ref current sessme ersity S	- referent consent con the trategy.	nce valuervation s ne level e	e; Struct status; P of all EU	: & func. rev. CS - Membe
Conserva				avourab				le - inad	•	U2	Jnfavour	able - bac	XX	Unknown
Trend				increase 				nknow	n					
Qualifier Nature o				tive; - n				or data	orima	rovodi	rnovile d	go: h2	dua ta t	avanami
Nature o change	re	a – genuine change; b – change due to better data or improved knowledge; b2 – due to taxonomic review; c1 – due to different methods to measure or evaluate; c2 - due to different thresholds use; d - no information about nature of change; e - due to less accurate or absent data; nc - no change												
Target 1 contribu	Α	- favoι	ırable a	assessm	ents; B	- impr	roved	assess.;	C - det	eriorat	ed asse	ssments;	D - unf	avourable

#### Pressures, threats and proposed measures

The Member Countries reported a broad range of pressures; the most important is pollution to surface waters, invasive non-native species, fertilisation, and modification of hydrographic functioning. Other important pressures are drying out, human induced changes in hydraulic conditions, soil pollution and solid waste, use of biocides, hormones and chemicals.

Code	Pressure name	CY	ES	FR	IT	PT
A01	Cultivation		M			
A02	Modification of cultivation practices		M			
A04	Grazing		L			
A05	Livestock farming and animal breeding (without grazing)		L			
A07	Use of biocides, hormones and chemicals			М	М	
A08	Fertilisation		M	Н	М	
A09	Irrigation		M			
A10	Restructuring agricultural land holding		М			
D01	Roads, paths and railroads		M			
D03	Shipping lanes, ports, marine constructions			L		
E03	Discharges				M	
F01	Marine and Freshwater Aquaculture			L		
F02.03	Leisure fishing		М			
G05.01	Trampling, overuse		M			
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	M	Н	Н	М	
H01.01	Pollution to surface waters by industrial plants					L
1101 05	Diffuse pollution to surface waters due to agricultural and forestry					D.4
H01.05	activities					M
U01 00	Diffuse pollution to surface waters due to household sewage and waste					
H01.08	waters					L
H02	Pollution to groundwater (point sources and diffuse sources)		М			
H05	Soil pollution and solid waste (excluding discharges)				Н	
H07	Other forms of pollution		M			
101	Invasive non-native species		M	Н		Η
J02	Human induced changes in hydraulic conditions	L		Н		
J02.01.03	Infilling of ditches, dykes, ponds, pools, marshes or pits				M	
J02.03.02	Canalisation				М	
J02.04	Flooding modifications	L				
J02.05	Modification of hydrographic functioning, general	L	Н			L
J02.05.02	Modifying structures of inland water courses				M	
J02.07	Water abstractions from groundwater				M	
J02.15	Other human induced changes in hydraulic conditions				М	
K01	Abiotic (slow) natural processes			L		
K01.01	Erosion		M			
K01.02	Silting up		М			
K01.03	Drying out		Н			
K02	Biocenotic evolution, succession		М	L		
K03	Interspecific faunal relations			L		
K04	Interspecific floral relations			M		
K05	Reduced fecundity/ genetic depression		М			

Legend: Low intensity M Medium intensity H High intensity

The establishment of protected areas/sites and legal protection of habitats and species are the most important proposed measures. Other important measures are restoring/improving water quality, restoring/improving the hydrological regime.

Code	Measure name	CY	ES	FR	IT	PT
1.2	Measures needed, but not implemented					NA
1.3	No measure known/ impossible to carry out specific measures			М		
2.0	Other agriculture-related measures		L			
2.2	Adapting crop production			М		
4.0	Other wetland-related measures		L			
4.1	Restoring/improving water quality		L	M	Н	
4.2	Restoring/improving the hydrological regime		L	M	Н	
4.3	Managing water abstraction		L			
4.4	Restoring coastal areas		L			
6.1	Establish protected areas/sites	Н	Н		Н	
6.3	Legal protection of habitats and species	Н	Н		Н	
6.4	Manage landscape features		L			
8.1	Urban and industrial waste management	М	L			

Legend: Low importance M Medium importance H High importance

### Reason for selection as "Low Hanging Fruit" (LHF) habitat in the Mediterranean region

Applying the methodology to identify LHF habitats in the Mediterranean region, habitat 3150 reached the LHF score 8.58. This habitat type was classified as LHF especially because, to reach improvement, the change from decreasing to stable trend within the category U1 (unfavourable-inadequate) is sufficient. It is normally much easier to improve a trend than to reach change in category. The habitat type was included to LHF also because of significant representation of the habitat in Natura 2000 sites and the fact that the improvement of trend of only one parameter (Structure & Functions) in one country (Italy) is needed to reach the overall improvement.

#### **Priority conservation measures needed**

For the improvement of the overall conservation status in the Mediterranean biogeographical region, improvement of the habitat structure in Italy is sufficient. Further improvement could be reached by improving habitat structure in Italy and Portugal and increase of the habitat area by habitat restoration in Greece, Spain, and Italy. The main measures should include restoration or improvement of the water quality and hydrological regime, but because of the complexity of these issues, this task is quite demanding. Measures for reduction of water pollution from agriculture (fertilisation, use of biocides) are important; also measures for urban and industrial waste management and water abstraction reduction are relevant. Other proposed measures are establishment of protected sites and legal protection of habitat. Better information about habitat structure and functioning is needed in Spain.

#### Links

https://bd.eionet.europa.eu/article17/reports2012/habitat/summary/?period=3&group=Freshwater +habitats&subject=3150&region=MED

#### 3230 Alpine rivers and their ligneous vegetation with Myricaria germanica

Selected for first round of Biogeographical Seminar

X Selected using "Low hanging fruit" approach

#### **Habitat summary**

The overall conservation status in the Mediterranean region is unfavourable - inadequate due to the assessment of both Spain and France. The habitat occurs in the Mediterranean biogeographic region in France and Spain. Around 78% of the habitat area is located in France.

Improvement of the habitat structure and functioning in both France and Spain is needed. The main measures should be focused on maintenance of natural dynamics and natural hydrological regime and its restoration where changed as well as on control of gravel extraction. The relevant measures are exclusion of channel regulation, removal of eventual dykes, embankments, weirs and other structures modifying water regime, strict control of water abstraction. The regulation of natural resources exploitation is necessary, especially control or elimination of gravel extractions - including upstream parts. The habitat restoration is needed in Spain that reported smaller habitat area than the reference value. Better information about habitat range is needed in Spain.

#### **Habitat description**

Communities of low shrubby pioneers invading the herbaceous formations of 24.221 (Boreo-alpine stream gravel communities) and 24.222 (Montane river gravel communities) on gravel deposits rich in fine silt, of mountain and northern boreal streams with an alpine, summer-high, flow regime. *Myricaria germanica* and *Salix* spp. are characteristic (*Salici-Myricarietum*).

### Distribution in the Mediterranean region and coverage by Natura 2000 network

The habitat type occurs in France and Spain. The overall representation of the habitat in Natura 2000 sites is high (ca 92 %) due to area of this habitat in Natura 2000 sites in Spain, where the whole and France with large part (92 %) of the national habitat area located in Natura 2000 sites.

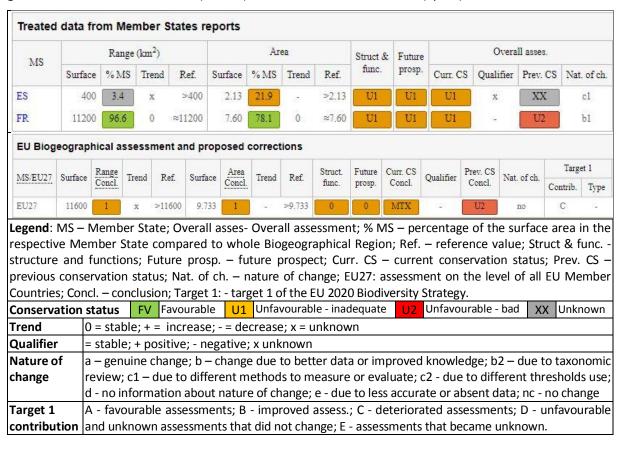


Natura 2000 sites in the Mediterranean region								
Country	Habitat area /km²/	Coverage /%/	Number of sites					
France	7	92	7					
Spain	2.13	100	9					
Total	9	92	16					

The table shows size of the habitat area in Natura 2000 sites and its proportion compared to habitat area in the whole biogeographic region ("coverage") as reported by MS in the 2013 Article 17 report. The number of sites was extracted from the 2016 Natura 2000 database.

#### Biogeographical conservation status assessment

The overall conservation status of this habitat type in the Mediterranean biogeographical region is unfavourable - inadequate due to assessment of both Spain and France. All parameters (Range; Area; Structure and Functions; Future prospect) were assessed as unfavourable – inadequate on the level of biogeographical region. The overall conservation status for the region has been changed against previous reporting from unfavourable – bad to unfavourable – inadequate. This change is not genuine, it is due to better data (France) and different methods used (Spain).



#### Pressures, threats and proposed measures

Spain and France reported some pressures; both countries reported as important pollution to surface waters and invasive non-native species, but also mining and quarrying, sand and gravel extraction, human induced changes in hydraulic conditions, canalisation and water deviation, modification of hydrographic functioning. Other important pressures are fertilisation, roads, paths and railroads, flooding modifications.

Code	Pressure name	ES	FR
A04	Grazing		L
A08	Fertilisation		M
C01	Mining and quarrying		Н
C01.01	Sand and gravel extraction	Н	
D01	Roads, paths and railroads	M	
D05	Improved access to site	L	
E01	Urbanised areas, human habitation		M
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	L	M
101	Invasive non-native species	M	М
J02	Human induced changes in hydraulic conditions		Н
J02.03	Canalisation & water deviation	Н	
J02.04	Flooding modifications	M	
J02.05	Modification of hydrographic functioning, general	Н	
J02.11	Siltation rate changes, dumping, depositing of dredged deposits	L	
M01	Changes in abiotic conditions		L

Legend: Low intensity M Medium intensity H High intensity

Countries did not report specific measures to be implemented.

Code	Measure name	ES	FR
1.2	Measures needed, but not implemented	NA	
1.3	No measure known/ impossible to carry out specific measures		M

Legend: Low importance M Medium importance H High importance

### Reason for selection as "Low Hanging Fruit" (LHF) habitat in the Mediterranean region

Applying the methodology to identify LHF habitats in the Mediterranean region, habitat 3230 reached the LHF score 4.26. This habitat type was classified as LHF especially because, to reach improvement, the change from decreasing to stable trend within the category U1 (unfavourable-inadequate) is sufficient. It is normally much easier to improve a trend than to reach change in category. The habitat type was included to LHF also because of significant representation of the habitat in Natura 2000 sites and the fact that the improvement of trend of only one parameter (Structure & Functions) in one country (France) is needed to reach the overall improvement.

#### Priority conservation measures needed

For the improvement of the overall conservation status in the Mediterranean biogeographical region, improvement of the habitat structure and functioning in both France and Spain is needed. The main measures should be focused on maintenance of natural dynamics and natural hydrological regime and its restoration where changed as well as on control of gravel extraction. The relevant measures are exclusion of channel regulation, removal of eventual dykes, embankments, weirs and other structures modifying water regime, strict control of water abstraction. The regulation of natural resources exploitation is necessary, especially control or elimination of gravel extractions - including upstream parts. The habitat restoration is needed in Spain that reported smaller habitat area than the reference value. Better information about habitat range is needed in Spain.

#### Links

https://bd.eionet.europa.eu/article17/reports2012/habitat/summary/?period=3&group=Freshwater +habitats&subject=3230&region=MED

#### 3240 Alpine rivers and their ligneous vegetation with Salix elaeagnos

	Selected for first round of Biogeographical Seminar
Χ	Selected using "Low hanging fruit" approach

#### **Habitat summary**

The overall conservation status in the Mediterranean region is unfavourable - inadequate due to the assessment of Spain and France. Habitat is in the Mediterranean biogeographic region widespread in Spain and France; it occurs also in Italy and Greece. Around 58% of the habitat area is located in France.

Improvement of habitat structure and functioning in Spain is needed. The main measures should include restoration or improvement of the hydrological regime and water quality, managing water abstraction, restoring coastal areas and legal protection of habitat Better information about habitat structure and functioning is needed in Spain and Italy.

#### **Habitat description**

Thickets or woods of, among others, *Salix* spp., *Hippophae rhamnoides*, *Alnus* spp., *Betula* spp., on stream gravels of mountain and northern boreal streams with an alpine, summer-high, flow regime. Formations of *Salix elaeagnos*, *Salix purpurea* ssp. *gracilis*, *Salix daphnoides*, *Salix nigricans* and *Hippophae rhamnoides* of higher gravel shoals in Alpine and peri-Alpine valleys.

### Distribution in the Mediterranean region and coverage by Natura 2000 network

The habitat type is widespread in Spain and France. It occurs also in Italy and Greece. The overall representation of the habitat in Natura 2000 sites is not very high (ca 45 %). It is mainly due to area of this habitat in Natura 2000 sites in France (27-36 %) and Greece. Larger national habitat area located in Natura 2000 sites is in Italy (70 %) and Spain (63).

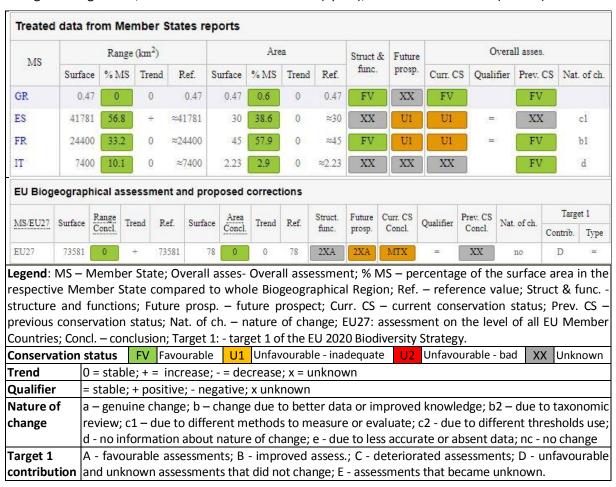


Natura 2000 sites in the Mediterranean region								
Country	Habitat area /km²/	Coverage /%/	Number of sites					
France	12-16	27-36	35					
Greece	0	0	3					
Italy	1.57	70	18					
Spain	19	63	74					
Total	33-37	45	130					

The table shows size of the habitat area in Natura 2000 sites and its proportion compared to habitat area in the whole biogeographic region ("coverage") as reported by MS in the 2013 Article 17 report. The number of sites was extracted from the 2016 Natura 2000 database.

#### Biogeographical conservation status assessment

The overall conservation status of this habitat type in Mediterranean biogeographical region is unfavourable - inadequate due to assessment of Spain and France. Greece reported favourable and Italy unknown conservation status. Insufficient information on habitat structure and functioning is in Spain and Italy, both countries reported this parameter as unknown. On the level of biogeographical region, two parameters (Range; Area) were assessed as favourable, Future prospect as unfavourable – inadequate, Structure and Functions as unknown. The overall conservation status for the region has been changed against previous reporting from unknown to unfavourable – inadequate. This change is not genuine, it is due to different methods (Spain), and better data used (France).



#### Pressures, threats and proposed measures

The member countries reported some pressures; the most important are invasive non-native species, irrigation, sand and gravel extraction, renewable abiotic energy use, human induced changes in hydraulic conditions, canalisation and water deviation. Other important pressures are pollution to surface waters, roads, paths and railroads, urbanised areas, human habitation, cultivation, fertilisation, use of biocides, hormones and chemicals.

Code	Pressure name	ES	FR	IT
A01	Cultivation	M		
A07	Use of biocides, hormones and chemicals	M		
A08	Fertilisation	M		
A09	Irrigation	Н		
A10	Restructuring agricultural land holding	M		
B01	Forest planting on open ground	M		
C01	Mining and quarrying		М	
C01.01	Sand and gravel extraction	Н		
C03	Renewable abiotic energy use		Н	
D01	Roads, paths and railroads	M	М	
D01.04	Railway lines, TGV			М
D02	Utility and service lines		М	
D05	Improved access to site	M		
E01	Urbanised areas, human habitation	M	L	
E02	Industrial or commercial areas		L	
F02.03	Leisure fishing	M		
G01	Outdoor sports and leisure activities, recreational activities		М	
G01.02	Walking, horse riding and non-motorised vehicles			L
G02	Sport and leisure structures	M		
G02.08	Camping and caravans	M		
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	M	М	
101	Invasive non-native species	L	Н	
J02	Human induced changes in hydraulic conditions		Н	
J02.03	Canalisation & water deviation	Н		
J02.04	Flooding modifications	M		
J02.05	Modification of hydrographic functioning, general	M		
J02.11	Siltation rate changes, dumping, depositing of dredged deposits	M		
K01.01	Erosion	M		
K02	Biocenotic evolution, succession		М	
M01	Changes in abiotic conditions		М	

Legend: L Low intensity M Medium intensity H High intensity

All three countries consider other wetland-related measures as important. According to Italy, legal protection of habitats and species is the most important proposed measures. Other important measures are managing water abstraction, restoring coastal areas, restoring/improving the hydrological regime and water quality, and other spatial measures.

Code	Measure name	ES	FR	IT
4.0	Other wetland-related measures	L	М	М
4.1	Restoring/improving water quality	ш		
4.2	Restoring/improving the hydrological regime	ш		
4.3	Managing water abstraction	ш		
4.4	Restoring coastal areas	ш		
6.0	Other spatial measures			M

Code	Measure name	ES	FR	IT
6.3	Legal protection of habitats and species			Н
7.2	Regulation/ Management of fishery in limnic systems	L		
7.4	Specific single species or species group management measures	L		
8.1	Urban and industrial waste management	L		

Legend: L Low importance M Medium importance H High importance

### Reason for selection as "Low Hanging Fruit" (LHF) habitat in the Mediterranean region

Applying the methodology to identify LHF habitats in the Mediterranean region, habitat 3240 reached the LHF score 4.45. This habitat type was classified as LHF especially because, to reach improvement, the change from stable to improving trend within the category U1 (unfavourable-inadequate) is sufficient. It is normally much easier to improve a trend than to reach change in category. The habitat type was included to LHF also because of the fact that the improvement of trend of only one parameter (Structure & Functions) in one country (Spain) is needed to reach the overall improvement.

#### Priority conservation measures needed

For the improvement of the overall conservation status in the Mediterranean biogeographical region, improvement of the habitat structure and functioning in Spain is needed. The main measures should include restoration or improvement of the hydrological regime and water quality, managing water abstraction, restoring coastal areas. Because of the complexity of these issues, this task is quite demanding – it includes measures like control of water abstraction or irrigation, elimination of water deviation, removal of the flow regulating structures, control of grazing, fertilisation and chemicals use in agriculture. The removal of invasive species, removal and prevention of waste disposal, regulation of sport and recreational activities are other supporting measures. The legal protection of habitat is in this respect helpful, facilitating and supporting all mentioned measures. Better information about habitat structure and functioning is needed in Spain and Italy.

#### Links

 $https://bd.eionet.europa.eu/article17/reports2012/habitat/summary/?period=3\&group=Freshwater \\ +habitats\&subject=3240\&region=MED$ 

#### 3250 Constantly flowing Mediterranean rivers with Glaucium flavum

	Selected for first round of Biogeographical Seminar
Χ	Selected using "Low hanging fruit" approach

#### **Habitat summary**

The overall conservation status in the Mediterranean region is unfavourable - inadequate due to the assessment of Spain, France, and Italy. The habitat is in the Mediterranean biogeographic region widespread in Spain and Italy; it occurs also in Portugal, France, and Greece. In Italy is located around 44 % of the habitat area and in Spain around 43%.

Improvement of the habitat structure in Italy is needed. Further improvement could be reached by improving structure and functioning in Portugal, Spain, and France. The main measures should include establishment of protected sites, legal protection of habitat, restoration or improvement of the hydrological regime, regulating exploitation of natural resources. The habitat restoration is needed in all countries that reported smaller habitat area than the reference value: Spain and France. Better information about habitat range and area is needed in Portugal.

#### **Habitat description**

Communities colonising gravel deposits of rivers with a Mediterranean, summer-low regime, with formations of the *Glaucion flavi*. The habitat is typical by the alternation of flooding and marked summer dryness.

### Distribution in the Mediterranean region and coverage by Natura 2000 network

The habitat type is widespread in Spain and Italy. It occurs also in Portugal, France, and Greece. The overall representation of the habitat in Natura 2000 sites is ca 64 %. Whole national habitat area is located in Natura 2000 sites in France, large part also in Spain (68 %).

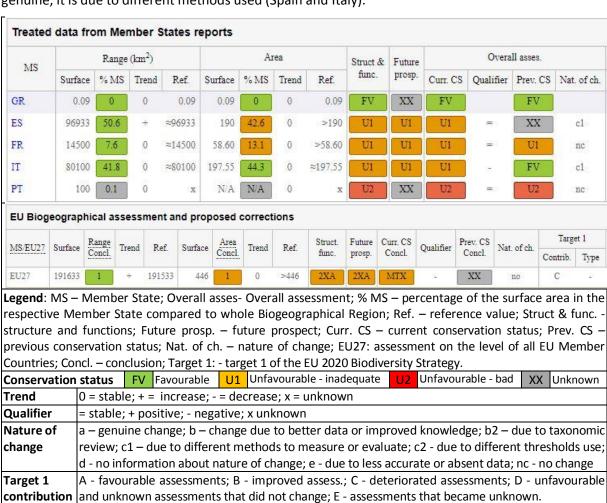


Natura 2	Natura 2000 sites in the Mediterranean region							
Country	Habitat area /km²/	Coverage /%/	Number of sites					
France	59	100	27					
Greece	0	0	1					
Italy	93	47	51					
Portugal	5.6	N/A	3					
Spain	130	68	141					
Total	287	64	223					

The table shows size of the habitat area in Natura 2000 sites and its proportion compared to habitat area in the whole biogeographic region ("coverage") as reported by MS in the 2013 Article 17 report. The number of sites was extracted from the 2016 Natura 2000 database.

#### Biogeographical conservation status assessment

The overall conservation status of this habitat type in Mediterranean biogeographical region is unfavourable - inadequate due to assessment of Spain, France, and Italy. Portugal reported unfavourable – bad and Greece favourable conservation status. The knowledge on habitat range and area is not sufficient in Portugal. On the level of biogeographical region, the parameter Range was assessed as favourable while other three parameters (Area; Structure and Functions; Future prospect) as unfavourable – inadequate. The overall conservation status for the region has been changed against previous reporting from unknown to unfavourable – inadequate. This change is not genuine, it is due to different methods used (Spain and Italy).



#### Pressures, threats and proposed measures

The member countries reported a broad range of pressures. Three out of four countries highlighted sand and gravel extraction as the most important one. Other highly important pressures are urbanised areas, human habitation, mining and quarrying, renewable abiotic energy use, soil pollution and solid waste (excluding discharges), human induced changes in hydraulic conditions, canalisation and water deviation.

Code	Pressure name	ES	FR	IT	PT
A01	Cultivation	М			
A07	Use of biocides, hormones and chemicals	M		М	
A08	Fertilisation	M		M	
B02	Forest and Plantation management & use		L		
C01	Mining and quarrying		Н		
C01.01	Sand and gravel extraction	Н		M	Н
C03	Renewable abiotic energy use		Н		
D01	Roads, paths and railroads	M			M
D02	Utility and service lines		Ш		
D05	Improved access to site	M			
E01	Urbanised areas, human habitation	Н		M	
E03	Discharges		٦	М	
E05	Storage of materials		Μ		
F02.03	Leisure fishing	M			
G01	Outdoor sports and leisure activities, recreational activities				L
G01.03	Motorised vehicles				M
G02	Sport and leisure structures	M			
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	M		M	
H05	Soil pollution and solid waste (excluding discharges)			Н	
101	Invasive non-native species	M	М		
J02	Human induced changes in hydraulic conditions		Ι		
J02.02.01	Dredging/ removal of limnic sediments	M			
J02.03	Canalisation & water deviation	Н			
J02.04	Flooding modifications	M			
J02.05	Modification of hydrographic functioning, general	M		М	
J02.05.02	Modifying structures of inland water courses				М
J02.11	Siltation rate changes, dumping, depositing of dredged deposits	M			
K01.01	Erosion	M			
K02	Biocenotic evolution, succession		М		

Legend: L Low intensity M Medium intensity H High intensity

The establishment of protected areas/sites, and legal protection of habitats and species are the most important proposed measures. Other important measures are restoring/improving the hydrological regime, other spatial measures, regulating/management exploitation of natural resources on land.

Code	Measure name	ES	FR	IT	PT
1.2	Measures needed, but not implemented				NA
1.3	No measure known/impossible to carry out specific measures		M		
2.2	Adapting crop production	M			
3.1	Restoring/improving forest habitats	L			
4.0	Other wetland-related measures	M			
4.1	Restoring/improving water quality	M	М		
4.2	Restoring/improving the hydrological regime	Н	М		
4.3	Managing water abstraction	L			
4.4	Restoring coastal areas	L			

Code	Measure name	ES	FR	IT	PT
6.0	Other spatial measures	M		Н	
6.1	Establish protected areas/sites	Н		Н	
6.3	Legal protection of habitats and species	Н		Н	
6.4	Manage landscape features	M			
7.0	Other species management measures	M			
7.4	Specific single species or species group management measures	M			
8.1	Urban and industrial waste management	M			
9.1	Regulating/Management exploitation of natural resources on land	M			Н

Legend: Low importance M Medium importance H High importance

# Reason for selection as "Low Hanging Fruit" (LHF) habitat in the Mediterranean region

Applying the methodology to identify LHF habitats in the Mediterranean region, habitat 3250 reached the LHF score 16.18. This habitat type was classified as LHF especially because, to reach improvement, the change from declining to stable trend within the category U1 (unfavourable-inadequate) is sufficient. It is normally much easier to improve a trend than to reach change in category. The habitat type was included to LHF also because of quite significant representation of the habitat in Natura 2000 sites and the fact that the improvement of trend of only one parameter (Structure & Functions) in one country (Italy) is needed to reach the overall improvement.

#### **Priority conservation measures needed**

For the improvement of the overall conservation status in the Mediterranean biogeographical region, improvement of the habitat structure in Italy is needed. Further improvement could be reached by improving structure and functioning in Portugal, Spain, and France. The main measures should include establishment of protected sites, legal protection of habitat, restoration or improvement of the hydrological regime, regulating exploitation of natural resources. The habitat is strongly linked to the torrential dynamics, and the protection of the hydrosystem and its dynamics is crucial, it is important to avoid the watercourse regulation. In case of exploitation in neighbouring riparian forests, all necessary precautions should be taken to avoid deterioration of this habitat. The habitat restoration is needed in all countries that reported smaller habitat area than the reference value: Spain and France. For residual, linear habitats, possible restoration work can be undertaken by reconstructing the habitat behind the habitat line, by taking plant material in situ. Better information about habitat range and area is needed in Portugal.

#### Links

https://bd.eionet.europa.eu/article17/reports2012/habitat/summary/?period=3&group=Freshwater+habitats&subject=3250&region=MED

Anonymous: Végétation pionnière des rivières méditerranéennes à Glaucière jaune et Scrophulaire des chiens. https://inpn.mnhn.fr/site/natura2000/habitat/3250/cahiers-habitats

### 3280 Constantly flowing Mediterranean rivers with *Paspalo-Agrostidion* species and hanging curtains of *Salix* and *Populus alba*

	Selected for first round of Biogeographical Seminar
Χ	Selected using "Low hanging fruit" approach

#### **Habitat summary**

The overall conservation status in the Mediterranean region is unfavourable - inadequate due to the assessment of Spain. The habitat is in the Mediterranean biogeographic region widespread in Spain and Italy; it occurs also in Portugal, France, and Greece. Around 65% of the habitat area is located in Spain.

Improvement of the habitat structure in France and Spain is needed. The main measures should include establishment of protected sites, legal protection of habitat, restoring or improving the water quality and hydrological regime, and other wetland-related measures. The objective should be to maintain natural dynamics of the watercourse and to regulate/remove any human activity changing this dynamics. The reduction of the pollutant load of the water courses should be achieved mainly through the reinforcement of the treatment of domestic and agro-livestock effluents and the adoption of good agricultural practices, in particular as regards the use of fertilizers. The maintenance of extensive agricultural and pastoral practices, the control of ecological succession, and the removal of invasive species is an important measure as well. Better information about habitat area is needed in Spain.

#### **Habitat description**

Nitrophilous annual and perennial grass and sedge formations of the alluvial banks of large Mediterranean rivers, with *Paspalum paspaloides*, *P. vaginatum*, *Polypogon viridis* (= *Agrostis semiverticillata*), *Cyperus fuscus*, and hanging curtains of *Salix* spp. and *Populus alba*.

### Distribution in the Mediterranean region and coverage by Natura 2000 network

The habitat type is widespread in Spain and Italy. It occurs also in Portugal, France, and Greece. The overall quite low representation of the habitat in Natura 2000 sites (ca 44 %) is due to lower area of this habitat in Natura 2000 sites in Spain (29 %) and absence of data from Portugal. The whole national habitat area is located in Natura 2000 sites in France, a large part also in Italy.

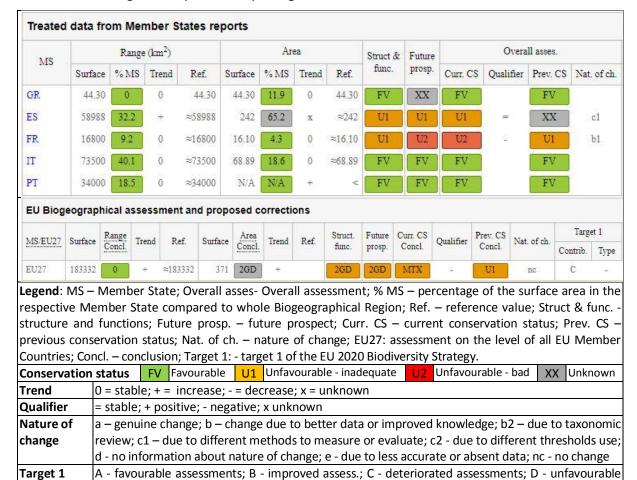


Natura 2	Natura 2000 sites in the Mediterranean region						
Country	Habitat area /km²/	Coverage /%/	Number of sites				
France	16	100	26				
Greece	0	0	20				
Italy	66	96	128				
Portugal	13	N/A	27				
Spain	70	29	102				
Total	165	44	303				

The table shows size of the habitat area in Natura 2000 sites and its proportion compared to habitat area in the whole biogeographic region ("coverage") as reported by MS in the 2013 Article 17 report. The number of sites was extracted from the 2016 Natura 2000 database.

#### Biogeographical conservation status assessment

The overall conservation status of this habitat type in Mediterranean biogeographical region is unfavourable - inadequate due to assessment of Spain. This conclusion was reached despite favourable status in Greece, Italy, and Portugal. France reported unfavourable – bad conservation status. The habitat area is insufficiently known in Spain. On the level of biogeographical region, Range was assessed as favourable, other two parameters (Structure and Functions; Future prospect) as unfavourable – inadequate and Area as unknown. The overall conservation status for the region has not been changed from previous reporting.



contribution and unknown assessments that did not change; E - assessments that became unknown.

#### Pressures, threats and proposed measures

The member countries reported a broad range of pressures; the most important are sand and gravel extraction, invasive non-native species, urbanised areas, human habitation, other urbanisation, industrial and similar activities, soil pollution and solid waste, water abstractions from surface waters. Other important pressures are use of biocides, hormones and chemicals, fertilisation, discharges, pollution to surface waters, modification of hydrographic functioning, and erosion.

Code	Pressure name	ES	FR	IT	PT
A01	Cultivation	M			
A04	Grazing	M			
A04.01	Intensive grazing				М
A07	Use of biocides, hormones and chemicals	M		M	
A08	Fertilisation	M		М	
A09	Irrigation	M			
A10	Restructuring agricultural land holding	M			
B01.02	Artificial planting on open ground (non-native trees)			М	
C01	Mining and quarrying		М		
C01.01	Sand and gravel extraction	Н		М	
C03	Renewable abiotic energy use		М		
D01	Roads, paths and railroads	M			
D01.02	Roads, motorways			M	
D01.05	Bridge, viaduct			M	
D02	Utility and service lines	М			
D05	Improved access to site	M			
E01	Urbanised areas, human habitation	Н			
E01.02	Discontinuous urbanisation			M	
E03	Discharges		М	M	
E05	Storage of materials		L		
E06	Other urbanisation, industrial and similar activities		Н		
F02.03	Leisure fishing	M			
G02	Sport and leisure structures	M			
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	M		M	
H05	Soil pollution and solid waste (excluding discharges)			Ι	
101	Invasive non-native species		Н	М	
J02	Human induced changes in hydraulic conditions		Ι		
J02.03	Canalisation & water deviation	Н			
J02.03.02	Canalisation			М	
J02.04	Flooding modifications	M			L
J02.05	Modification of hydrographic functioning, general	M		М	L
J02.05.02	Modifying structures of inland water courses			M	
J02.06	Water abstractions from surface waters	Н			
J02.11	Siltation rate changes, dumping, depositing of dredged deposits	M			
K01.01	Erosion	M		M	
K02.01	Species composition change (succession)				M
K04	Interspecific floral relations		L		

Legend: L Low intensity M Medium intensity H High intensity

The establishment of protected areas/sites, and legal protection of habitats and species are the most important proposed measures. Other important measures are management of landscape features, restoring/improving water quality, restoring/improving the hydrological regime, and other wetland-related measures.

Code	Measure name	ES	FR	IT	PT
1.2	Measures needed, but not implemented				NA

Code	Measure name	ES	FR	IT	PT
2.2	Adapting crop production	M			
3.0	Other forestry-related measures	L			
3.1	Restoring/improving forest habitats	M			
4.0	Other wetland-related measures	M		M	Н
4.1	Restoring/improving water quality	Н	М		
4.2	Restoring/improving the hydrological regime	Н	М		
4.3	Managing water abstraction	M			
4.4	Restoring coastal areas	L			
6.0	Other spatial measures	M		М	
6.1	Establish protected areas/sites	Н		Н	
6.3	Legal protection of habitats and species	Н		Н	
6.4	Manage landscape features	Н			
7.0	Other species management measures	M			
7.2	Regulation/ Management of fishery in limnic systems	L			
7.4	Specific single species or species group management measures	M			
8.1	Urban and industrial waste management	M			
9.1	Regulating/Management exploitation of natural resources on land	M			

Legend: Low importance M Medium importance H High importance

### Reason for selection as "Low Hanging Fruit" (LHF) habitat in the Mediterranean region

Applying the methodology to identify LHF habitats in the Mediterranean region, habitat 3280 reached the LHF score 5.97. This habitat type was classified as LHF especially because, to reach improvement, the change from decreasing to stable trend within the category U1 (unfavourable-inadequate) is sufficient. It is normally much easier to improve a trend than to reach change in category. The habitat type was included to LHF also because of the fact that the improvement of trend of only one parameter (Structure & Functions) in one country (France) is needed to reach the overall improvement.

#### **Priority conservation measures needed**

For the improvement of the overall conservation status in the Mediterranean biogeographical region, improvement of the habitat structure in France and Spain is needed. The main measures should include establishment of protected sites, legal protection of habitat, restoring or improving the water quality and hydrological regime, and other wetland-related measures. The objective should be to maintain natural dynamics of the watercourse and to regulate/remove any human activity changing this dynamics. The reduction of the pollutant load of the water courses should be achieved mainly through the reinforcement of the treatment of domestic and agro-livestock effluents and the adoption of good agricultural practices, in particular as regards the use of fertilizers. The maintenance of extensive agricultural and pastoral practices, the control of ecological succession, and the removal of invasive species is an important measure as well. Better information about habitat area is needed in Spain.

#### Links

https://bd.eionet.europa.eu/article17/reports2012/habitat/summary/?period=3&group=Freshwater +habitats&subject=3280&region=MED

Anonymous: Rivières permanentes méditerranéennes du *Paspalo-Agrostidion* avec rideaux boisés riverains à Salix et Populus alba. https://inpn.mnhn.fr/site/natura2000/habitat/3280/cahiers-habitats

#### 4010 Northern Atlantic wt heaths with Erica tetralix

	Selected for first round of Biogeographical Seminar
Χ	Selected using "Low hanging fruit" approach

#### **Habitat summary**

The overall conservation status in the Mediterranean region is unfavourable - inadequate due to the assessment of Portugal. The habitat is in the Mediterranean biogeographic region distributed only in Portugal.

Increase of the habitat area by habitat restoration is needed in Portugal. Besides restoration, traditional forms of management remain a key requirement for the habitat maintenance within a wider heathland complex. These practices combine to stop succession to woodland once areas were cleared; with balanced grazing as the main management concept while additional or complementary measures such as controlled burning or cutting are recommended to be applied much more restrictively (Hampton 2008).

#### **Habitat description**

North Atlantic wet heath is a natural or more commonly semi-natural habitat of humid, peaty or semipeaty character. The habitat is dominated by dwarf shrub species and usually occurs on acidic, nutrient-poor substrates, such as shallow peats (<0.5m) or sandy soils with impeded drainage. Wet heath generally has a water table that is above or at ground level for at least some of the year.

The community includes mixtures of *Erica tetralix* (cross-leaved heath), *Trichophorum cespitosus* (deer grass), *Calluna vulgaris* (heather) and *Molinia caerulea* (purple moor-grass), and in some cases over an under-storey of mosses, often including carpets of *Sphagnum* species (bog mosses) (Hampton 2008).

### Distribution in the Mediterranean region and coverage by Natura 2000 network

The habitat type occurs in Mediterranean biogeographical region only in Portugal. The habitat is not very well represented in the Natura 2000 network - ca 24 % of its habitat area is located in Natura 2000 sites.

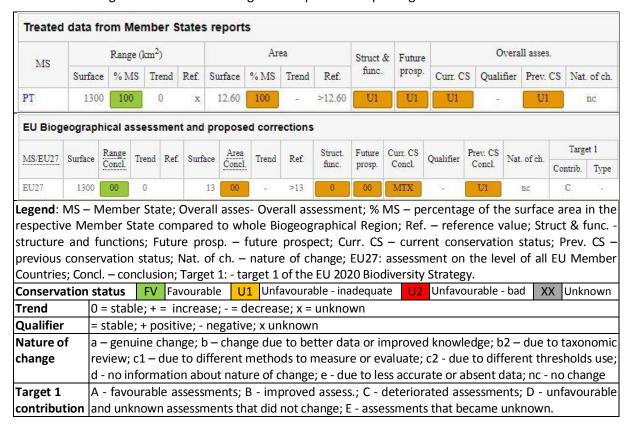


Natura 2000 sites in the Mediterranean region					
Country	Habitat area /km²/	Coverage /%/	Number of sites		
Portugal	2-4	16-32	3		
Total	2-4	24	3		

The table shows size of the habitat area in Natura 2000 sites and its proportion compared to habitat area in the whole biogeographic region ("coverage") as reported by MS in the 2013 Article 17 report. The number of sites was extracted from the 2016 Natura 2000 database.

#### Biogeographical conservation status assessment

The overall conservation status of this habitat type in the Mediterranean biogeographical region is unfavourable - inadequate. Portugal assessed Range as favourable, other three parameters (Area; Structure and Functions; Future prospect) as unfavourable – inadequate. The overall conservation status for the region has not been changed from previous reporting.



#### Pressures, threats and proposed measures

Portugal reported several pressures and threats; the most important is modification of hydrographic functioning. Other important pressures are intensive grazing, trampling, overuse, burning down, water abstractions from surface waters, water abstractions from groundwater.

Code	Pressure name	PT
A04.01	Intensive grazing	М
G05.01	Trampling, overuse	М
J01.01	Burning down	М
J02.05	Modification of hydrographic functioning, general	Н
J02.06	Water abstractions from surface waters	М
J02.07	Water abstractions from groundwater	М

Legend: Low intensity M Medium intensity H High intensity

Maintaining grasslands and other open habitats, and other wetland-related measures are considered as important proposed measures.

Code	Measure name	PT
2.1	Maintaining grasslands and other open habitats	Н
4.0	Other wetland-related measures	Н

### Reason for selection as "Low Hanging Fruit" (LHF) habitat in the Mediterranean region

Applying the methodology to identify LHF habitats in the Mediterranean region, habitat 4010 reached the LHF score 8.91. This habitat type was classified as LHF especially because, to reach improvement, the change from declining to stable trend within the category U1 (unfavourable-inadequate) is sufficient. It is normally much easier to improve a trend than to reach change in category. The habitat type was included to LHF also because of the fact that the improvement of trend of only one parameter (Area) in one country (Portugal) is needed to reach the overall improvement.

#### **Priority conservation measures needed**

For the improvement of the overall conservation status in the Mediterranean biogeographical region, increase of the habitat area by habitat restoration is needed in Portugal. Besides restoration, traditional forms of management remain a key requirement for the habitat maintenance within a wider heathland complex. These practices combine to stop succession to woodland once areas were cleared; with balanced grazing as the main management concept while additional or complementary measures such as controlled burning or cutting are recommended to be applied much more restrictively (Hampton 2008).

#### Links

Hampton M. (2008): Management of Natura 2000 habitats. 4010 Northern Atlantic wet heaths with *Erica tetralix*. - European Commission, Technical Report 2008 08/24, 26 pp.

https://bd.eionet.europa.eu/article17/reports2012/habitat/summary/?period=3&group=Heath+%26 +scrub&subject=4010&region=MED

#### 4030 European dry heaths

	Selected for first round of Biogeographical Seminar
Х	Selected using "Low hanging fruit" approach

#### **Habitat summary**

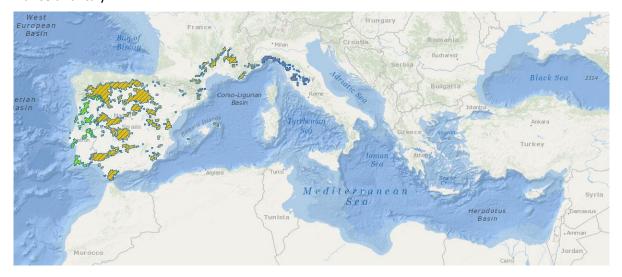
The overall conservation status in the Mediterranean region is unfavourable - inadequate due to the assessment of Spain and France. Habitat is in the Mediterranean biogeographic region widespread in Spain; it occurs also in Portugal, France, and Italy. Around 97% of the habitat area is located in Spain. Improvement of the habitat structure in Spain is needed. Further improvement could be reached by improving habitat structure and functioning in France. The main measures should include maintaining grasslands and other open habitats, legal protection of habitat, and establishment of protected sites. Grazing represents the most important measure for maintenance of this habitat type, where suitable, combined with the traditional way of fire management. These measures should be sufficient to stop the habitat area decrease and they could be funded from the Rural Development Programme (CAP), where several instruments are applicable — agri-environmental measures, Less Favourable Areas scheme, greening measures, high nature value farming. Better information about habitat structure and functioning is needed in Spain, Italy, and Portugal.

#### **Habitat description**

Mesophile or xerophile heaths on siliceous, podsolic soils in moist Atlantic and sub-Atlantic climates of plains and low mountains of Western, Central and Northern Europe. There are five sub-types: Sub-montane *Vaccinium-Calluna* heaths, Sub-Atlantic *Calluna-Genista* heaths, Atlantic *Erica-Ulex* heaths, Ibero-Atlantic *Erica-Ulex-Cistus* heaths, Boreo-Atlantic *Erica cinerea* heaths.

### Distribution in the Mediterranean region and coverage by Natura 2000 network

The habitat type is widespread in Spain. It occurs also in Portugal, France, and Italy. The overall quite low representation of the habitat in Natura 2000 sites (ca 42 %) is due to area of this habitat in Natura 2000 sites in Spain (41 %). The whole national habitat area is located in Natura 2000 sites in France and Italy.

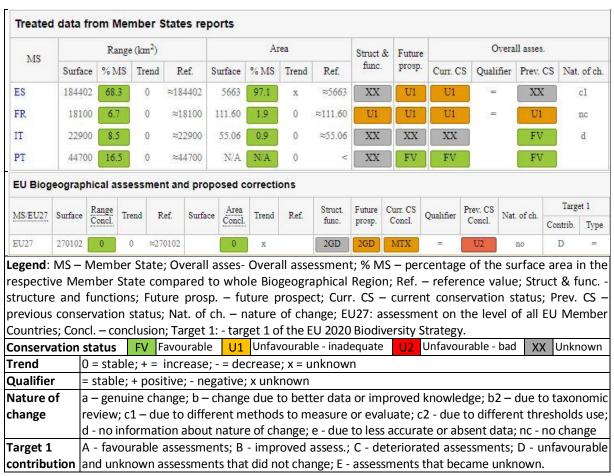


Natura 2000 sites in the Mediterranean region					
Country	Habitat area /km²/	Coverage /%/	Number of sites		
France	112	100	24		
Italy	55	100	54		
Portugal	0	N/A	42		
Spain	2,298	41	193		
Total	2,465	42	313		

The table shows size of the habitat area in Natura 2000 sites and its proportion compared to habitat area in the whole biogeographic region ("coverage") as reported by MS in the 2013 Article 17 report. The number of sites was extracted from the 2016 Natura 2000 database.

#### Biogeographical conservation status assessment

The overall conservation status of this habitat type in the Mediterranean biogeographical region is unfavourable - inadequate due to assessment of Spain and France. Portugal reported favourable and Italy unknown conservation status. On the level of biogeographical region, two parameters (Range; Area) were assessed as favourable, Structure and Functions as unknown, and Future prospect as unfavourable – inadequate. The overall conservation status for the region has been changed against previous reporting from unfavourable – bad to unfavourable – inadequate. This change is not considered genuine, it is due to different methods used (Spain).



#### Pressures, threats and proposed measures

The member countries reported a broad range of pressures; the most important seems to be fire and fire suppression, burning down, invasive non-native species, renewable abiotic energy use, abandonment of pastoral systems, and lack of grazing. Other important pressures are forest planting

on open ground, artificial planting on open ground (non-native trees), grazing, roads, paths and railroads.

Code	Pressure name	ES	FR	IT	PT
A01	Cultivation	L			
A02	Modification of cultivation practices		M		
A04	Grazing	М	L		
A04.03	Abandonment of pastoral systems, lack of grazing				Н
A05	Livestock farming and animal breeding (without grazing)	М			
B01	Forest planting on open ground	М	М		
B01.02	Artificial planting on open ground (non-native trees)	L		М	
B02	Forest and Plantation management & use	М			
B02.03	Removal of forest undergrowth			М	
B03	Forest exploitation without replanting or natural regrowth	M			
B07	Forestry activities not referred to above	M			
C03	Renewable abiotic energy use		L	Η	
D01	Roads, paths and railroads	М	L		М
D01.02	Roads, motorways			М	
D02	Utility and service lines	L			
D02.01	Electricity and phone lines			M	
D06	Other forms of transportation and communication		L		
E01	Urbanised areas, human habitation	L	L		М
E01.02	Discontinuous urbanisation			M	
E01.03	Dispersed habitation			L	
E02	Industrial or commercial areas	L	L		
E03	Discharges	L			
E03.03	Disposal of inert materials			M	
E04	Structures, buildings in the landscape		L		
F04	Taking / Removal of terrestrial plants, general			L	
F06	Hunting, fishing or collecting activities not referred to above	M			
G01	Outdoor sports and leisure activities, recreational activities	М	L		
G01.03	Motorised vehicles			М	
G01.03.02	Off-road motorized driving	L			
G05.01	Trampling, overuse				М
101	Invasive non-native species				Н
J01	Fire and fire suppression	M	М		Н
J01.01	Burning down			M	Н
K02	Biocenotic evolution, succession		М		
K02.01	Species composition change (succession)			L	М
K03	Interspecific faunal relations		L		
K04	Interspecific floral relations		L		
K05	Reduced fecundity/ genetic depression	М			
L09	Fire (natural)	М			
M01	Changes in abiotic conditions	L			

Legend: Low intensity M Medium intensity H High intensity

The legal protection of habitats and species, other spatial measures are the most important proposed measures. Other important measures are maintaining grasslands and other open habitats, establishment protected areas/sites.

Code	Measure name	ES	FR	IT	PT
1.2	Measures needed, but not implemented				NA
2.0	Other agriculture-related measures	L	М		

Code	Measure name	ES	FR	IT	PT
2.1	Maintaining grasslands and other open habitats	M	М		L
2.2	Adapting crop production	L	М		
3.0	Other forestry-related measures	L	М		
3.1	Restoring/improving forest habitats	M			
3.2	Adapt forest management	M			
4.0	Other wetland-related measures	L			
6.0	Other spatial measures	M			Н
6.1	Establish protected areas/sites	M		М	
6.3	Legal protection of habitats and species	Н		М	
6.4	Manage landscape features	L			
7.4	Specific single species or species group management measures	M			

Legend: L Low importance M Medium importance H High importance

# Reason for selection as "Low Hanging Fruit" (LHF) habitat in the Mediterranean region

Applying the methodology to identify LHF habitats in the Mediterranean region, habitat 4030 reached the LHF score 9.46. This habitat type was classified as LHF especially because, to reach improvement, the change from stable to improving trend within the category U1 (unfavourable-inadequate) is sufficient. It is normally much easier to improve a trend than to reach change in category. The habitat type was included to LHF also because of the fact that the improvement of trend of only one parameter (Structure & Functions) in one country (Spain) is needed to reach the overall improvement.

#### **Priority conservation measures needed**

For the improvement of the overall conservation status in the Mediterranean biogeographical region, improvement of the habitat structure in Spain is needed. Further improvement could be reached by improving habitat structure and functioning in France. The main measures should include maintaining grasslands and other open habitats, legal protection of habitat, and establishment of protected sites. Grazing represents the most important measure for maintenance of this habitat type, where suitable, combined with the traditional way of fire management. These measures should be sufficient to stop the habitat area decrease and they could be funded from the Rural Development Programme (CAP), where several instruments are applicable — agri-environmental measures, Less Favourable Areas scheme, greening measures, high nature value farming.

Better information about habitat structure and functioning is needed in Spain, Italy, and Portugal.

#### Links

https://bd.eionet.europa.eu/article17/reports2012/habitat/summary/?period=3&group=Heath+%26+scrub&subject=4030&region=MED

#### 5140 Cistus palhinhae formations on maritime wet heaths

	Selected for first round of Biogeographical Seminar
Χ	Selected using "Low hanging fruit" approach

#### **Habitat summary**

The overall conservation status in the Mediterranean region is unfavourable - inadequate due to the assessment of Portugal. The habitat occurs in the Mediterranean biogeographic region only in Portugal.

For the improvement of the overall conservation status in the Mediterranean biogeographical region, it is necessary to stop the decline of the area in Portugal. To reach further improvement, improvement of the habitat structure and increase of the habitat area by restoration is needed. It is recommended to restrict access to the sites and provide appropriate protection and to improve connectivity between habitat patches. Other proposed measures include prohibition of land use change, control of waste disposal, establishment of network of micro-reserves for this habitat and scientific study of the habitat. Better information about habitat range and area is needed.

#### **Habitat description**

Low scrub and garrigue formations of the dolomitic tableland, karsts, sands and terra-rosas, rich in endemic species (*Ulicetum erinacei, Genisto triacanthi-Cistetum palhinhae*).

### Distribution in the Mediterranean region and coverage by Natura 2000 network

The habitat type occurs only in Portugal. The information on Natura 2000 percentual coverage is not available.

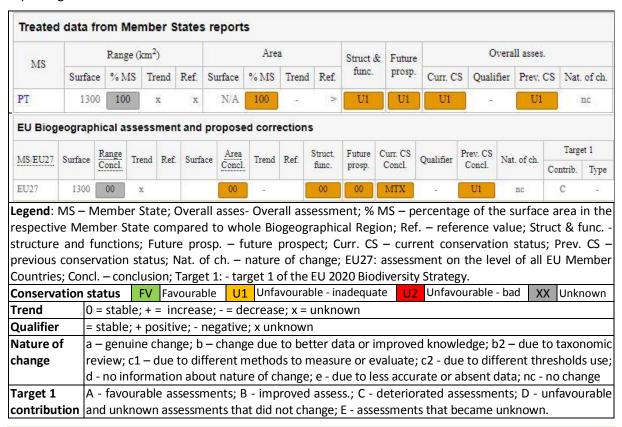


Natura	2000 sites in the	Mediterr	anean region
Country	Habitat area /km²/	Coverage /%/	Number of sites
Portugal	45	N/A	2
Total	45	N/A	2

The table shows size of the habitat area in Natura 2000 sites and its proportion compared to habitat area in the whole biogeographic region ("coverage") as reported by MS in the 2013 Article 17 report. The number of sites was extracted from the 2016 Natura 2000 database.

#### Biogeographical conservation status assessment

The overall conservation status of this habitat type in the Mediterranean biogeographical region is unfavourable - inadequate due to assessment of Portugal. Portugal assessed three parameters (Area; Structure and Functions; Future prospect) as unfavourable – inadequate, the last one (Range) as unknown. The overall conservation status for the region has not been changed from previous reporting.



#### Pressures, threats and proposed measures

Portugal reported several pressures; the most important ones are trampling, and overuse, paths, tracks, cycling tracks, motorised vehicles. Other important pressures are car parks and parking areas, urbanised areas, human habitation, structures, buildings in the landscape, sport and leisure structures, landfill, land reclamation and drying out.

Code	Pressure name	PT
D01.01	Paths, tracks, cycling tracks	Н
D01.02	Roads, motorways	L
D01.03	Car parks and parking areas	М
E01	Urbanised areas, human habitation	М
E04	Structures, buildings in the landscape	М
G01.03	Motorised vehicles	Н
G02	Sport and leisure structures	М
G05.01	Trampling, overuse	Η
H05.01	Garbage and solid waste	L
J02.01	Landfill, land reclamation and drying out, general	М

Legend: Low intensity M Medium intensity H High intensity

The other spatial measures are the most important proposed measures. Portugal informed also that there are measures needed, but not implemented.

Code	Measure name	PT
1.2	Measures needed, but not implemented	NA
6.0	Other spatial measures	Н

Legend: L Low importance M Medium importance H High importance

### Reason for selection as "Low Hanging Fruit" (LHF) habitat in the Mediterranean region

Applying the methodology to identify LHF habitats in the Mediterranean region, habitat 5140 reached the LHF score 6.67. This habitat type was classified as LHF especially because, to reach improvement, the change from declining to stable trend within the category U1 (unfavourable-inadequate) is sufficient. It is normally much easier to improve a trend than to reach change in category. The habitat type was included to LHF also because of the fact that the improvement of trend of only one parameter (Area) in one country (Portugal) is needed to reach the overall improvement.

#### Priority conservation measures needed

For the improvement of the overall conservation status in the Mediterranean biogeographical region, it is necessary to stop the decline of the area in Portugal. To reach further improvement, improvement of the habitat structure and increase of the habitat area by restoration is needed. It is recommended to restrict access to the sites and provide appropriate protection and to improve connectivity between habitat patches. Better information about habitat range and area is needed.

Portugal proposed in the Sectorial plan (ICNB) these measures:

- Intermit changes to land use in the area of habitat occupancy.
- Interdict the transit of people, vehicles and domestic animals in the area of occupation of the habitat.
- Reinforce inspection on the deposition of residues in the area of habitat occupancy.
- Promote the inclusion of this habitat in integrated micro-reserves networks to be created.
- Promote scientific studies on habitat.

Disclose the importance of habitat for conservation.

#### Links

https://bd.eionet.europa.eu/article17/reports2012/habitat/summary/?period=3&group=Sclerophyllous+scrubs&subject=5140&region=MED

ICNB: 5140\* Formações de Cistus palhinhae em charnecas maritimas. — Plano Sectorial da Rede Natura 2000, 5 pp. http://www.icnf.pt/portal/pn/biodiversidade/rn2000/resource/docs/rn-plan-set/hab/hab-5140

#### 5220 Arborescent matorral with Zyziphus

	Selected for first round of Biogeographical Seminar
Х	Selected using "Low hanging fruit" approach

#### **Habitat summary**

The overall conservation status in the Mediterranean region is unfavourable - bad due to assessment of both Spain and Italy. Habitat occurs in the Mediterranean biogeographic region in Spain and Italy. Almost the whole habitat area is located in Spain.

Improvement of the habitat structure in Spain is needed. Further improvement could be reached by improving the habitat structure and functioning as well as by increasing habitat range in Italy. The main measures should address main threats and thus adaptation of agriculture is needed: decrease fertilisation, control of water abstraction from groundwater, grazing and cultivation. Control of invasive species should include eradication campaigns of the genus *Agave* in areas of this habitat. It is necessary to identify fragmented formations that can be interconnected to create areas with an adequate minimum extent, including degraded areas of this habitat whose could be restored. Other human activities should be regulated: urbanisation, outdoor sport and recreational activities. The habitat restoration is needed in both Spain and Italy as they reported smaller habitat area than the reference value.

#### **Habitat description**

Pre-desert deciduous scrub of *Periploca laevigata, Lycium intricatum, Asparagus stipularis, A. albus, Withania frutescens* with tall *Zyziphus lotus*, confined to the arid Iberian South-west under a xerophytic thermo-Mediterranean bio-climate; corresponds to the mature phase or climax of climatophile and edapho-xero-psammophile vegetation series (*Periplocion angustifoliae*: *Ziziphetum loti, Zizipho-Maytenetum europaei, Mayteno-Periplocetum*).

### Distribution in the Mediterranean region and coverage by Natura 2000 network

The habitat type occurs in Spain and Italy. The habitat occurrence is indicated by Cyprus as well, but there is a lack of information. The overall low representation of the habitat in Natura 2000 sites (ca 10 %) is due to area of this habitat in Natura 2000 sites in Spain and also very small habitat area (0.02 km²) in Italy. A large part of the national habitat area is located in Natura 2000 sites in Italy (78 %).

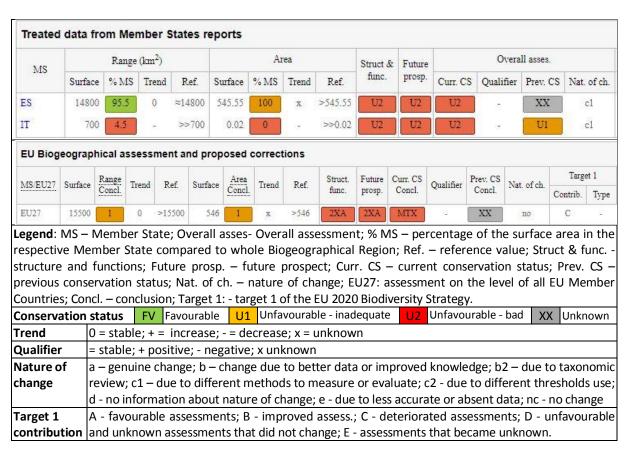


Natura	Natura 2000 sites in the Mediterranean region									
Country	Habitat area /km²/	Coverage /%/	Number of sites							
Cyprus	N/A	N/A	11							
Italy	0.02	78	3							
Spain	54	10	42							
Total	54	10	56							

The table shows size of the habitat area in Natura 2000 sites and its proportion compared to habitat area in the whole biogeographic region ("coverage") as reported by MS in the 2013 Article 17 report. The number of sites was extracted from the 2016 Natura 2000 database.

#### Biogeographical conservation status assessment

The overall conservation status of this habitat type in the Mediterranean biogeographical region is unfavourable - bad due to assessment of both Spain and Italy. Italy reported all parameters as unfavourable - bad. On the level of biogeographical region, two parameters (Range; Area) were assessed as unfavourable - inadequate, other two (Structure and Functions; Future prospect) as unfavourable - bad. The overall conservation status for the region has been changed against previous reporting from unknown to unfavourable - bad. This change is considered not genuine, it is due to different methods used by both countries.



### Pressures, threats and proposed measures

Spain and Italy reported several pressures. According to both countries cultivation is medium intensive threat. The most important pressures are fertilisation, urbanised areas, human habitation, groundwater abstractions for agriculture, changes in abiotic conditions. Other important pressures are grazing, livestock farming and animal breeding (without grazing), roads, paths and railroads, outdoor sports and leisure activities, recreational activities.

Code	Pressure name	ES	IT
A01	Cultivation	М	M
A04	Grazing	M	
A05	Livestock farming and animal breeding (without grazing)	M	
A08	Fertilisation	Н	
B01.02	Artificial planting on open ground (non-native trees)		L
C01	Mining and quarrying		L
D01	Roads, paths and railroads	M	
D01.02	Roads, motorways		L
E01	Urbanised areas, human habitation	Н	
E01.02	Discontinuous urbanisation		M
F03	Hunting and collection of wild animals (terrestrial)	L	
G01	Outdoor sports and leisure activities, recreational activities	M	
G01.03	Motorised vehicles		L
H06.01	Noise nuisance, noise pollution		L
J01.01	Burning down		M
J02.07.01	Groundwater abstractions for agriculture	Н	
M01	Changes in abiotic conditions	Н	

Legend: Low intensity M Medium intensity H High intensity

According to Spain adapting crop production, other agriculture-related measures, and other spatial measures are the most important proposed measures. Other important measures are maintaining grasslands and other open habitats, restoring/improving forest habitats. Italy states that measures are needed, but not implemented.

Code	Measure name	ES	IT
1.2	Measures needed, but not implemented		NA
2.0	Other agriculture-related measures	Н	
2.1	Maintaining grasslands and other open habitats	М	
2.2	Adapting crop production	Н	
3.1	Restoring/improving forest habitats	М	
6.0	Other spatial measures	Н	
6.4	Manage landscape features	L	

Legend: L Low importance M Medium importance H High importance

# Reason for selection as "Low Hanging Fruit" (LHF) habitat in the Mediterranean region

Applying the methodology to identify LHF habitats in the Mediterranean region, habitat 5220 reached the LHF score 90.89. This habitat type was classified as LHF especially because, to reach improvement, the change from declining to stable trend within the category U2 (unfavourable-bad) is sufficient. It is normally much easier to improve a trend than to reach change in category. The habitat type was included to LHF also because of the fact that the improvement of trend of only one parameter (Structure & Functions) in one country (Spain) is needed to reach the overall improvement.

#### **Priority conservation measures needed**

For the improvement of the overall conservation status in the Mediterranean biogeographical region, improvement of the habitat structure in Spain is needed. Further improvement could be reached by improving the habitat structure and functioning as well as by increasing habitat range in Italy. The main measures should address main threats and thus adaptation of agriculture is needed: decrease fertilisation, control of water abstraction from groundwater, grazing and cultivation. Control of invasive species should include eradication campaigns of the genus Agave in areas of this habitat. It is necessary to identify fragmented formations that can be interconnected to create areas with an adequate minimum extent, including degraded areas of this habitat whose could be restored (Tirado 2009). Other human activities should be regulated: urbanisation, outdoor sport and recreational activities. Habitat restoration is needed in both Spain and Italy as they reported smaller habitat area than the reference value.

#### Links

https://bd.eionet.europa.eu/article17/reports2012/habitat/summary/?period=3&group=Sclerophyllous+scrubs&subject=5220&region=MED

Tirado, R., 2009. 5220 Matorrales arborescentes con Ziziphus (\*). - In: VV.AA., Bases ecológicas preliminares para la conservación de los tipos de hábitat de interés comunitario en España. Ministerio de Medio Ambiente, y Medio Rural y Marino. 68 p.

http://www.jolube.es/Habitat\_Espana/documentos/5220.pdf

#### 5320 Low formation of Euphorbia close to cliffs

	Selected for first round of Biogeographical Seminar
Χ	Selected using "Low hanging fruit" approach

#### **Habitat summary**

The overall conservation status in the Mediterranean region is unfavourable - inadequate due to the assessment of Spain and United Kingdom. France reported unfavourable – bad conservation status. The habitat is in the Mediterranean biogeographic region widespread in Italy; it occurs also in France, Spain, Portugal, and United Kingdom (Gibraltar). Around 93% of the habitat area is located in Italy.

For the improvement of the overall conservation status in the Mediterranean biogeographical region, increase of the habitat area by habitat restoration in France is needed. Further improvement could be reached by improving of the habitat structure in France. The main measures should include legal protection of habitats and species, restoration of coastal areas; management of landscape features, and other spatial measures. In frequently visited areas with public access, to limit the possibilities for rambling off-piste walkers. Needed is also control of rapidly growing invasive species such as species of genus *Carpobrotus* or *Pennisetum*. Better information about habitat structure and functioning is needed in Portugal.

### **Habitat description**

Low formations of *Helichrysum* (*H. italicum* ssp. *microphyllum*, *H. italicum* ssp. *italicum*) with spurges (*Euphorbia pithyusa*, i.a.), *Pistacia lentiscus*, *Camphorosma monspeliaca*, *Artemisia densiflora* or *Thymelaea passerina*, *T. hirsuta*, *T. tartonraira* in the immediate vicinity of sea cliffs, forming the transition between cliff vegetation or clifftop phryganas and thermo-Mediterranean scrub.

### Distribution in the Mediterranean region and coverage by Natura 2000 network

The habitat type is widespread in Italy. It occurs also in France, Spain, Portugal, and United Kingdom (Gibraltar). The overall low representation of the habitat in Natura 2000 sites (ca 36 %) is due to area of this habitat in Natura 2000 sites in Italy (21 %). Whole national habitat area is located in Natura 2000 sites in Portugal and United Kingdom.



Natura	Natura 2000 sites in the Mediterranean region										
Country	Habitat area /km²/	Coverage /%/	Number of sites								
France	20	N/A	15								
Italy	30	21	101								
Portugal	0.8	100	1								
Spain	3.41	41	8								
UK	0.8	100	1								
Total	55	36	126								

The table shows size of the habitat area in Natura 2000 sites and its proportion compared to habitat area in the whole biogeographic region ("coverage") as reported by MS in the 2013 Article 17 report. The number of sites was extracted from the 2016 Natura 2000 database.

#### Biogeographical conservation status assessment

The overall conservation status of this habitat type in the Mediterranean biogeographical region is unfavourable - inadequate due to assessment of Spain and United Kingdom. This conclusion was reached despite favourable status in Italy and Portugal. France reported unfavourable – bad conservation status of the habitat type. On the level of biogeographical region, three parameters (Range; Area; Structure and Functions) were assessed as favourable, the last one (Future prospect) as unfavourable – inadequate. The overall conservation status for the region has not been changed from previous reporting.

MS		Range	(km <sup>2</sup> )			A	rea		Struct &	Future	e Overall asses.				
1/13	Surface	% MS	Trend	Ref.	Surface	% MS	Trend	Ref.	func.	prosp.	Curr. C	S Qualifi	ier Prev.	CS Nat.	of ch
ES	7451	24.7	0	х	8.40	5.6	0	x	FV	U1	U1	x	U1		nc
FR	4600	15.3	0	≈4600	N/A	N/A	19	>>	U1	U2	U2	1	U1		b1
IT	17800	59	0	≈17800	140.98	93.4	0	≈140.98	FV	FV	FV		FV		
PT	300	1	0	≈300	0.80	0.5	0	≈0.80	XX	FV	FV		Ul		c1
UK	1	0	0	1	0.80	0.5	0	0.80	U1	U1	U1	8	U1+	-	a
MS/EU27		Range Concl. Tr	end Re	ef. Surfa	Area Concl	Trend	Ref.	Struct. func.	ACCURATION OF THE	Curr. CS Concl.	Qualifier	Prev. CS Concl.	Nat. of ch.	Targe Contrib.	Type
EU Biog	eograph	ical ass	essmer	nt and pr	oposed	correc	tions								
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### Pressures, threats and proposed measures

The countries reported several pressures; the most important are invasive non-native species, urbanised areas, human habitation, and improved access to site, outdoor sports and leisure activities, recreational activities. Other important pressures are mining and quarrying, sport and leisure structures.

Code	Pressure name	ES	FR	IT	PT	UK
B01.02	Artificial planting on open ground (non-native trees)			L		
C01	Mining and quarrying		L	М		
C01.01	Sand and gravel extraction			М		
D01	Roads, paths and railroads		L			
D01.01	Paths, tracks, cycling tracks				Μ	
D01.02	Roads, motorways			М		
D03	Shipping lanes, ports, marine constructions		L			
D05	Improved access to site		Н		М	
E01	Urbanised areas, human habitation	Н	М		L	
E01.02	Discontinuous urbanisation			М		
E01.03	Dispersed habitation			М		
E02	Industrial or commercial areas		M			
E03	Discharges		L			
E04	Structures, buildings in the landscape		М			
E05	Storage of materials		L			
G01	Outdoor sports and leisure activities, recreational activities		Н			
G01.03	Motorised vehicles			M		
G02	Sport and leisure structures		М		L	
G04.01	Military manouvres					M
G05.01	Trampling, overuse				М	
101	Invasive non-native species	Н	Н			
J01.01	Burning down			М		
K01.01	Erosion			М		
K02.01	Species composition change (succession)					Н

Legend: Low intensity M Medium intensity H High intensity

Legal protection of habitats and species is the most important proposed measure. Other important measures are restoration of coastal areas; management of landscape features, and other spatial measures. According to France there is no measures needed for the conservation of the habitat/species.

Code	Measure name	ES	FR	IT	PT	UK
1.1	No measures needed for the conservation of the habitat/species		М			
1.2	Measures needed, but not implemented	NA			NA	Н
4.4	Restoring coastal areas		М	M		
6.0	Other spatial measures		М		Н	
6.3	Legal protection of habitats and species			М		Н
6.4	Manage landscape features		М			

Legend: L Low importance M Medium importance H High importance

# Reason for selection as "Low Hanging Fruit" (LHF) habitat in the Mediterranean region

Applying the methodology to identify LHF habitats in the Mediterranean region, habitat 5320 reached the LHF score 31.73. This habitat type was classified as LHF especially because, to reach improvement, the change from declining to stable trend within the category U1 (unfavourable-inadequate) is sufficient. It is normally much easier to improve a trend than to reach change in category. The habitat type was included to LHF also because of the fact that the improvement of trend of only one parameter (Area) in one country (France) is needed to reach the overall improvement.

#### **Priority conservation measures needed**

For the improvement of the overall conservation status in the Mediterranean biogeographical region, increase of the habitat area by habitat restoration in France is needed. Further improvement could be reached by improving of the habitat structure in France. The main measures should include legal protection of habitats and species, restoration of coastal areas; management of landscape features, and other spatial measures. In frequently visited areas with public access, to limit the possibilities for rambling off-piste walkers. Needed is also control of rapidly growing invasive species such as species of genus *Carpobrotus* or *Pennisetum*. Better information about habitat structure and functioning is needed in Portugal.

According to France there is no measure needed for the conservation of the habitat/species. This information is in contradiction with both three measures of medium importance proposed by France and with unfavourable – bad overall conservation status reported by France.

#### Links

Anonymous, 2012: Formations basses d'euphorbes près des falaises. http://www.paca.developpement-durable.gouv.fr/IMG/pdf/1\_H5320\_cle2b7578.pdf

https://bd.eionet.europa.eu/article17/reports2012/habitat/summary/?period=3&group=Sclerophyllous+scrubs&subject=5320&region=MED

Rodríguez, J., Traveset, A., 2009. 5320 Formaciones bajas de Euphorbia pythyusa próximas a acantilados. - In: VV.AA., Bases ecológicas preliminares para la conservación de los tipos de hábitat de interés comunitario en España. Madrid: Ministerio de Medio Ambiente, y Medio Rural y Marino. 56 p.

#### 5430 Endemic phryganas of the Euphorbio-Verbascion

	Selected for first round of Biogeographical Seminar
Χ	Selected using "Low hanging fruit" approach

#### **Habitat summary**

The overall conservation status in the Mediterranean region is unfavourable - inadequate due to the assessment of Spain and Italy. The habitat is in the Mediterranean biogeographic region distributed in Mediterranean islands. It is widespread in Sardinia (Italy) and Crete (Greece). It occurs also in Lampedusa, Linosa, Pantelleria (all Italy), Malta, and Balearic islands (Spain).

Improvement of the habitat structure in Italy is needed. The main measures should include establishment of protected sites, legal protection of habitat and management of landscape features. Also control of rapidly growing invasive species such as species of genus *Carpobrotus* or *Pennisetum* is needed. Better information about habitat range and area is needed in Spain.

#### **Habitat description**

Cushion-forming thermo-Mediterranean sclerophyllous formations, often thorny and summer deciduous. There are several sub-types: Mid-elevation phryganas of Crete, *Hypericum* phryganas, Italian *Sarcopoterium* phryganas, Sardinian *Genista acanthoclada* phrygana, Balearic clifftop phryganas, Cyrno-Sardian *Genista* phryganas, Pantelleria phrygana.

### Distribution in the Mediterranean region and coverage by Natura 2000 network

The habitat type is distributed in Mediterranean islands. It is widespread in Sardinia (Italy) and Crete (Greece). It occurs also in Lampedusa, Linosa, Pantelleria (all Italy), Malta, and Balearic islands (Spain). Almost the whole national habitat area is located in Natura 2000 sites in Italy (98 %) and Malta (97 %).



Natu	Natura 2000 sites in the Mediterranean region							
Country	Habitat area /km²/	Coverage /%/	Number of sites					
Greece	0	0	11					
Italy	121	98	43					
Malta	32	97	3					
Spain	2.88	35	25					
Total	156	37	82					

The table shows size of the habitat area in Natura 2000 sites and its proportion compared to habitat area in the whole biogeographic region ("coverage") as reported by MS in the 2013 Article 17 report. The number of sites was extracted from the 2016 Natura 2000 database.

#### Biogeographical conservation status assessment

The overall conservation status of this habitat type in the Mediterranean biogeographical region is unfavourable - inadequate due to assessment of Spain and Italy. This conclusion was reached despite favourable status in Greece and Malta. On the level of biogeographical region, two parameters (Range; Area) were assessed as favourable, other two (Structure and Functions; Future prospect) as unfavourable – inadequate. The overall conservation status for the region has been changed against previous reporting from unknown to unfavourable – inadequate. This change is not genuine, it is due to different methods used (Spain and Italy).

Treated	data f	rom Me	mber \$	States r	eports									
MS		Range (km²)		Area			Struct &	Future		Over	all asses.			
1/13	Surfac	e % MS	Trend	Ref.	Surface	% MS	Trend	Ref.	func.	prosp.	Curr. CS	Qualifier	Prev. CS	Nat. of ch.
GR	254.3	0.9	0	254.30	254.30	60.8	0	254.30	FV	XX	FV		FV	
ES	392	8 14.5	x	x	8.19	2	18	x	FV	U1	U1	x	XX	c1
IT	2290	0 84.5	0	≈22900	122.75	29.3	0	≈122.75	U1	U1	U1		FV	c1
MT	3	3 0.1	0	≈33	33	7.9	0	≈33	FV	FV	FV		XX	nc
EU Biog	eograp	hical ass	essmei	nt and pi	oposed	correct	tions			11	1			***
		Range			Area			Struct.	Future C	urr. CS		Prev. CS		Target 1
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Qualifier				tive; - r	•				<u>'111</u>					
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change	r	eview;	:1 – du	e to dif	ferent n	nethod	ds to m	neasure	or evalu	uate; c	2 - due 1	to differe	nt thres	holds use;
	d	- no in	format	ion abo	ut natu	re of cl	hange;	e - due	to less	accura	te or ab	sent data	; nc - nc	change
Target 1					-			-				-		favourable
contribu	tion  a	nd unk	nown a	issessm	ents tha	at did r	not cha	inge; E -	- assessr	nents	that bec	<u>ame u</u> nk	nown.	

#### Pressures, threats and proposed measures

The countries reported several pressures. Spain states continuous urbanisation, discontinuous urbanisation, dispersed habitation, trampling, overuse, problematic native species as the most important. Invasive non-native species were considered as medium intensive according to all three countries. Other important pressures are removal of terrestrial plants, general, cultivation, grazing, sand and gravel extraction.

Code	Pressure name	ES	IT	MT
A01	Cultivation		М	
A04	Grazing		М	L
B01.02	Artificial planting on open ground (non-native trees)		М	
C01	Mining and quarrying			М
C01.01	Sand and gravel extraction		М	
D01	Roads, paths and railroads			М
D01.02	Roads, motorways		М	

Code	Pressure name	ES	IT	MT
E01.01	Continuous urbanisation	Н		
E01.02	Discontinuous urbanisation	Н		
E01.03	Dispersed habitation	Н	М	
E01.04	Other patterns of habitation	M		
E03	Discharges		М	
E03.03	Disposal of inert materials			L
F04	Taking / Removal of terrestrial plants, general		М	М
G01.03	Motorised vehicles		М	
G05.01	Trampling, overuse	Н		М
101	Invasive non-native species	М	М	М
102	Problematic native species			Н
J01.01	Burning down		М	
K01.01	Erosion		М	
L09	Fire (natural)			М

Legend: Low intensity M Medium intensity H High intensity

Malta proposed establishment of protected areas/sites, legal protection of habitats and species, management of landscape features, regulation/management of hunting and taking as highly important. Italy informed that there are measures needed, but not implemented.

Code	Measure name	ES	IT	MT
1.2	Measures needed, but not implemented		NA	
6.1	Establish protected areas/sites			Н
6.3	Legal protection of habitats and species			Н
6.4	Manage landscape features			Н
7.1	Regulation/ Management of hunting and taking			Н
Legend:	L Low importance M Medium importance H High importance		•	

# Reason for selection as "Low Hanging Fruit" (LHF) habitat in the Mediterranean region

Applying the methodology to identify LHF habitats in the Mediterranean region, habitat 5430 reached the LHF score 3.13. This habitat type was classified as LHF especially because, to reach improvement, the change from decreasing to stable trend within the category U1 (unfavourable-inadequate) is sufficient. It is normally much easier to improve a trend than to reach change in category. The habitat type was included to LHF also because of the fact that the improvement of trend of only one parameter (Structure & Functions) in one country (Italy) and better information from Spain is needed to reach the overall improvement.

#### **Priority conservation measures needed**

For the improvement of the overall conservation status in the Mediterranean biogeographical region, improvement of the habitat structure in Italy is needed. The main measures should include establishment of protected sites, legal protection of habitat and management of landscape features. Also control of rapidly growing invasive species such as species of genus *Carpobrotus* or *Pennisetum* is needed (Rodríguez Pérez et Traveset 2009). Better information about habitat range and area is needed in Spain.

### Links

https://bd.eionet.europa.eu/article17/reports2012/habitat/summary/?period=3&group=Sclerophyllous+scrubs&subject=5430&region=MED

Rodríguez Pérez, J., Traveset, A., 2009. 5430 Matorrales de tipo frigánico endémicos de Euphorbio-Verbascion. - In: VV.AA., Bases ecológicas preliminares para la conservación de los tipos de hábitat de interés comunitario en España. Madrid: Ministerio de Medio Ambiente, y Medio Rural y Marino. 53 p.

#### 6520 Mountain hay meadows

	Selected for first round of Biogeographical Seminar
Χ	Selected using "Low hanging fruit" approach

#### **Habitat summary**

The habitat occurs in the Mediterranean biogeographical region in France only and its overall conservation status in the Mediterranean region is assessed as unfavourable - bad due to the habitat area far below the reference value.

For the improvement of the overall conservation status, stopping of the habitat area decrease in France is needed. Further improvement could be reached by habitat restoration. The restoration measures include removal of scrub, trees and dead herb biomass and start of mowing and grazing. The improving the conservation status of the habitat requires suitable management on large spatial scale and avoidance of intensive management. The most effective management is the combination of mowing once a year with subsequent grazing by small groups of cattle.

#### **Habitat description**

Species-rich mesophile hay meadows of the montane and sub-alpine levels (mostly above 600 metres) usually dominated by *Trisetum flavescens* and with *Heracleum sphondylium, Viola cornuta, Astrantia major, Carum carvi, Crepis mollis, C. pyrenaica, Bistorta major (Polygonum bistorta), Silene dioica, S. vulgaris, Campanula glomerata, Salvia pratensis, Centaurea nemoralis, Anthoxanthum odoratum, Crocus albiflorus, Geranium phaeum, G. sylvaticum, Narcissus poeticus, Malva moschata, Valeriana repens, Trollius europaeus, Pimpinella major, Muscari botryoides, Lilium bulbiferum, Thlaspi caerulescens, Viola tricolor ssp. subalpina, Phyteuma halleri, P. orbiculare, Primula elatior, Chaerophyllum hirsutum and many others.* 

### Distribution in the Mediterranean region and coverage by Natura 2000 network

The habitat type occurs in the Mediterranean biogeographical region only in France with the habitat area of 54 km<sup>2</sup>. The whole national habitat area is located in Natura 2000 sites.

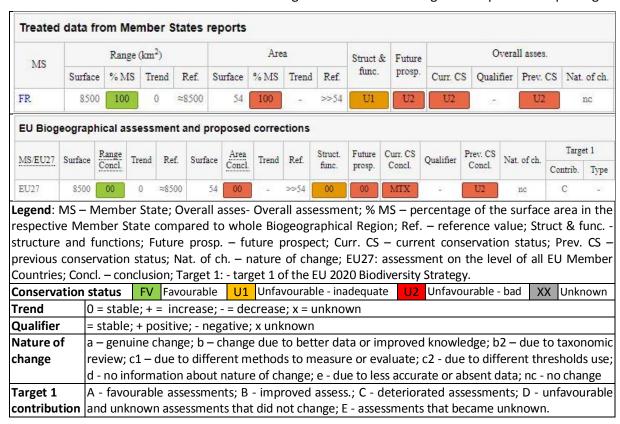


Natura 2000 sites in the Mediterranean region								
Country	Habitat area /km²/	Coverage /%/	Number of sites					
France	54	100	17					
Italy	N/A	N/A	2					
Total	54	100	19					

The table shows size of the habitat area in Natura 2000 sites and its proportion compared to habitat area in the whole biogeographic region ("coverage") as reported by MS in the 2013 Article 17 report. The number of sites was extracted from the 2016 Natura 2000 database.

#### Biogeographical conservation status assessment

France reported unfavourable - bad overall conservation status of this habitat type. Only the parameter (Range) was assessed as favourable. Parameter Structure and Functions was assessed as unfavourable - inadequate and the last two parameters (Area and Future prospects) as unfavourable - bad. The overall conservation status for the region has not been changed from previous reporting.



#### Pressures, threats and proposed measures

France reported several pressures; the most important is fertilisation. Other important pressures are cultivation and biocenotic evolution, succession.

Code	Pressure name	FR
A01	Cultivation	M
A02	Modification of cultivation practices	L
A04	Grazing	L
A08	Fertilisation	Н
K02	Biocenotic evolution, succession	M

Legend: L Low intensity M Medium intensity H High intensity

France considers maintaining grasslands and other open habitats, adapting crop production, and other agriculture-related measures as medium important.

Code	Measure name	FR
2.0	Other agriculture-related measures	M
2.1	Maintaining grasslands and other open habitats	M
2.2	Adapting crop production	M

Legend: Low importance M Medium importance H High importance

### Reason for selection as "Low Hanging Fruit" (LHF) habitat in the Mediterranean region

Applying the methodology to identify LHF habitats in the Mediterranean region, habitat 6520 reached the LHF score 3.00. This habitat type was classified as LHF especially because, to reach improvement, the change from decreasing to stable trend within the category U1 (unfavourable-inadequate) is sufficient. It is normally much easier to improve a trend than to reach change in category. The habitat type was included to LHF also all habitat area in France is located in Natura 2000 sites and the fact that the improvement of trend of only one parameter (Area) in one country (France) is needed to reach the overall improvement.

#### **Priority conservation measures needed**

For the improvement of the overall conservation status in the Mediterranean biogeographical region, stopping of the habitat area decrease in France is needed. Further improvement could be reached by habitat restoration. The most effective way of maintaining the species structure of mountain hay meadows is the combination of mowing once a year with subsequent grazing. Grazing, however, should be done by small groups of cattle grazing the vegetation for a short time at the beginning of the growing season, and then after the first or second mowing (the autumn grazing of fresh grass). Mulching twice a year, while leaving the biomass on the site, is the preferred way of maintaining the meadows with a lower biomass production in lower altitudes, especially where the hay has no use. It is not suitable for grasslands in higher altitudes with frequent rains where decomposition of a large volume of biomass is slower. In case that the meadows are only mown, it is appropriate to fertilize them (Hegedüšová et al., 2011). The restoration measures include removal of scrub, trees and dead herb biomass and start of mowing and grazing.

#### Links

https://bd.eionet.europa.eu/article17/reports2012/habitat/summary/?period=3&group=Grasslands &subject=6520&region=MED

Hegedüšová, K., Ružičková, H., Janák, M., 2011: Mountain hay meadows. - In: Šefferová Stanová, V., Plassman Čierna M. (eds.): Management models for grassland habitats. Daphne, Bratislava: 16-17.

#### **8240 Limestone pavements**

	Selected for first round of Biogeographical Seminar
Χ	Selected using "Low hanging fruit" approach

#### **Habitat summary**

The overall conservation status in the Mediterranean region is unfavourable - inadequate due to the assessment of Portugal. The habitat occurs in the Mediterranean biogeographic region in Italy, France, and Portugal. Around 73% of the habitat area is located in Italy.

For the improvement of the overall conservation status in the Mediterranean biogeographical region, stopping habitat area decrease in Portugal is needed. Further improvement could be reached by habitat restoration and thus increasing of the habitat area in Portugal. The main measure is regulation of exploitation of natural resources, especially interdiction of quarrying in the area of habitat occurrence. Pasture management should be oriented to the maintenance of extensive grazing (ICNB). Other important measure is legal protection of habitat.

#### **Habitat description**

Regular blocks of limestone known as "clints" with loose flags separated by a network of vertical fissures known as "grykes" or "shattered pavements", containing more loose limestone rubble. The rock surface is almost devoid of overlying soils (considerably less than 50% cover) except for some patches of shallow skeletal or loessic soils, although more extensive areas of deeper soil occasionally occur; sometimes there is encroachment of peat. This morphology offers a variety of microclimates allowing the establishment of complex vegetation consisting of a mosaic of different communities. The fissures provide a cold humid microclimate where shade-tolerant vascular plants such as *Geranium robertianum* and *Ceterach officinale* occur, as well as formations of herbaceous species typical of calcareous woodland; the small pockets of soil are occupied by communities of *Mesobromion* (e.g. *Seslerio-Mesobromenion*); heath and scrub also occur (e.g. *Corylo-Fraxinetum*). Apart from areas of species rich scrub (generally *Prunetalia spinosae*), the ecosystem is maintained by grazing in some regions; this, combined with severe winds, means that isolated shrubs can only survive in prostrate growth form (e.g. *Dryas octopetala*); at the margins of ungrazed sites *Geranium sanguineum* occurs.

### Distribution in the Mediterranean region and coverage by Natura 2000 network

The habitat type occurs in Italy, France, and Portugal. The overall representation of the habitat in Natura 2000 sites is high (ca 99 %). The whole national habitat area is located in Natura 2000 sites in France and also in Italy.

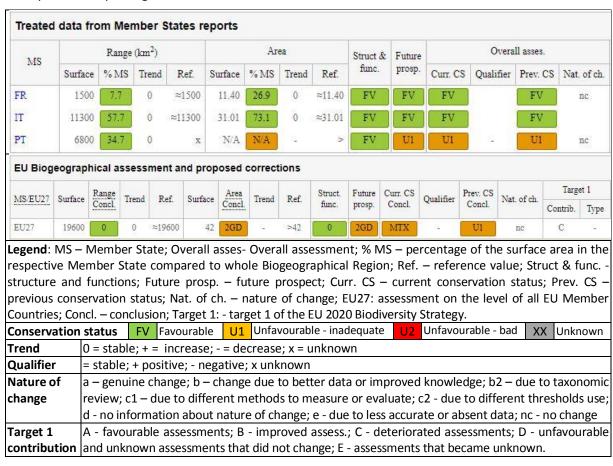


Natura 2000 sites in the Mediterranean region							
Country	Habitat area /km²/	Coverage /%/	Number of sites				
France	11	100	7				
Italy	31	100	33				
Portugal	0	N/A	5				
Total	42	99	45				

The table shows size of the habitat area in Natura 2000 sites and its proportion compared to habitat area in the whole biogeographic region ("coverage") as reported by MS in the 2013 Article 17 report. The number of sites was extracted from the 2016 Natura 2000 database.

#### Biogeographical conservation status assessment

The overall conservation status of this habitat type in the Mediterranean biogeographical region is unfavourable - inadequate due to assessment of Portugal. This conclusion was reached despite favourable status in France and Italy. On the level of biogeographical region, two parameters (Structure and Functions; Range) were assessed as favourable, other two (Future prospects; Area) as unfavourable – inadequate. The overall conservation status for the region has not been changed from previous reporting.



#### Pressures, threats and proposed measures

The countries reported several pressures; the most important is mining and quarrying. Other important pressures are abandonment of pastoral systems, lack of grazing, sand and gravel quarries, renewable abiotic energy use, discharges, and skiing complex.

Code	Pressure name	FR	IT	PT
A04.03	Abandonment of pastoral systems, lack of grazing			М
C01	Mining and quarrying	М	Н	_

Code	Pressure name	FR	IT	PT
C01.01.01	Sand and gravel quarries			М
C03	Renewable abiotic energy use	М		
D01	Roads, paths and railroads	L		
D02	Utility and service lines	L		
E01	Urbanised areas, human habitation	L		
E02	Industrial or commercial areas	L		
E03	Discharges	М		
E04	Structures, buildings in the landscape	L		
E05	Storage of materials	L		
G01.04	Mountaineering, rock climbing, speleology		L	
G01.06	Skiing, off-piste		L	
G02.02	Skiing complex		М	
G05.01	Trampling, overuse		L	
K02.01	Species composition change (succession)			L
L04	Avalanche		L	

Legend: L Low intensity M Medium intensity H High intensity

The regulating/management exploitation of natural resources is the most important proposed measure. Another important measure is legal protection of habitats and species. According to France there is no measure known or it is impossible to carry out specific measures.

Code	Measure name	FR	IT	PT
1.3	No measure known/ impossible to carry out specific measures	М		
2.1	Maintaining grasslands and other open habitats			L
6.3	Legal protection of habitats and species		М	
9.1	Regulating/Management exploitation of natural resources on land		Н	Н

Legend: L Low importance M Medium importance H High importance

# Reason for selection as "Low Hanging Fruit" (LHF) habitat in the Mediterranean region

Applying the methodology to identify LHF habitats in the Mediterranean region, habitat 8240 reached the LHF score 1.00. This habitat type was classified as LHF especially because, to reach improvement, the change from decreasing to stable trend within the category U1 (unfavourable-inadequate) is sufficient. It is normally much easier to improve a trend than to reach change in category. The habitat type was included to LHF also because of quite significant representation of the habitat in Natura 2000 sites (up to 99 %) and the fact that the improvement of trend of only one parameter (Area) in one country (Portugal) is needed to reach the overall improvement.

#### Priority conservation measures needed

For the improvement of the overall conservation status in the Mediterranean biogeographical region, stopping habitat area decrease in Portugal is needed. Further improvement could be reached by the habitat restoration and thus increasing of the habitat area in Portugal. The main measure is regulation of exploitation of natural resources, especially interdiction of quarrying in the area of habitat occurrence. Pasture management should be oriented to the maintenance of extensive grazing (ICNB). Other important measure is legal protection of habitat. According to France there is no measure known or it is impossible to carry out specific measures.

### Links

https://bd.eionet.europa.eu/article17/reports2012/habitat/summary/?period=3&group=Rocky+habitats&subject=8240&region=MED

ICNB: 8240 \*Lajes calcarias. http://www.icnf.pt/portal/pn/biodiversidade/rn2000/resource/docs/rn-plan-set/hab/hab-8240

#### 9180 Tilio-Acerion forests of slopes, screes and ravines

	Selected for first round of Biogeographical Seminar
Χ	Selected using "Low hanging fruit" approach

#### **Habitat summary**

The overall conservation status in the Mediterranean region is unfavourable - inadequate due to the assessment of France and Italy. The habitat occurs in the Mediterranean biogeographic region in Italy, France, Spain, and Greece. Around 65% of the habitat area is located in Italy.

Improvement of the habitat structure in Italy is needed. Further improvement could be reached by habitat restoration and thus increasing of the habitat area in Italy. The main measures should include adaptation of forest management and restoring forest habitat. The measures should respect the soil protection and anti-erosion functions of the habitat and support them. The management interventions should be minimised and fine measures preferred. It is needed to replace clear-cuts by individual trees selection, the stands in extreme positions (steep relief, shallow soils, screes) should be excluded from management, the natural regeneration should be preferred, the dead wood should be left in stands. Other important measures include establishment of protected sites and legal protection of habitats and species. Better information about habitat area in France and habitat structure and functioning in Spain is needed.

#### **Habitat description**

Mixed forests of secondary species (*Acer pseudoplatanus, Fraxinus excelsior, Ulmus glabra, Tilia cordata*) of coarse scree, abrupt rocky slopes or coarse colluvions of slopes, particularly on calcareous, but also on siliceous, substrates (*Tilio-Acerion* Klika 55). A distinction can be made between one grouping which is typical of cool and humid environments (hygroscopic and shade tolerant forests), generally dominated by the sycamore maple (*Acer pseudoplatanus*) - sub-alliance *Lunario-Acerenion*, and another which is typical of dry, warm screes (xerothermophile forests), generally dominated by limes (*Tilia cordata, T. platyphyllos*) - sub-alliance *Tilio-Acerenion*. The habitat types belonging to the *Carpinion* should not be included here.

# Distribution in the Mediterranean region and coverage by Natura 2000 network

The habitat type occurs in Italy, France, Spain, and Greece. Quite a large proportion of the national habitat area is located in Natura 2000 sites in France (around 70%), a large part also in Spain, but there might be an overestimation of the habitat area in Natura 2000 sites.

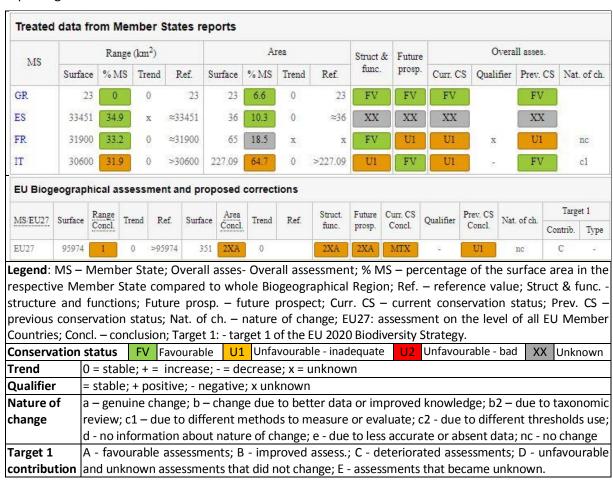


Natura 2000 sites in the Mediterranean region							
Country	Habitat area /km²/	Coverage /%/	Number of sites				
France	40-50	62-77	42				
Greece	0	0	6				
Italy	71	31	81				
Spain	50	139	39				
Total	161-171	47	168				

The table shows size of the habitat area in Natura 2000 sites and its proportion compared to habitat area in the whole biogeographic region ("coverage") as reported by MS in the 2013 Article 17 report. The number of sites was extracted from the 2016 Natura 2000 database.

#### Biogeographical conservation status assessment

The overall conservation status of this habitat type in the Mediterranean biogeographical region is unfavourable - inadequate due to assessment of France and Italy. The overall conservation status is favourable in Greece and unknown in Spain. Better knowledge of habitat area in France and habitat structure and functions in Spain is needed. On the level of biogeographical region, all four parameters (Range; Area; Structure and Functions; Future prospect) were assessed as unfavourable – inadequate. The overall conservation status for the region has not been changed from previous reporting.



#### Pressures, threats and proposed measures

The countries reported a broad range of pressures; the most important is grazing (reported by to Spain). Other important pressures are forest exploitation without replanting or natural regrowth,

roads, paths and railroads, livestock farming and animal breeding (without grazing), forest planting on open ground, pollution to surface waters, and burning down.

Code	Pressure name	ES	FR	IT
A04	Grazing	Н		
A05	Livestock farming and animal breeding (without grazing)	M		
B01	Forest planting on open ground	M		
B01.02	Artificial planting on open ground (non-native trees)			М
B02	Forest and Plantation management & use		М	
B02.02	Forestry clearance			М
B03	Forest exploitation without replanting or natural regrowth	M		М
D01	Roads, paths and railroads	M	L	
D01.02	Roads, motorways			М
E03	Discharges		L	М
E06	Other urbanisation, industrial and similar activities	L		
F06	Hunting, fishing or collecting activities not referred to above	L		
G01	Outdoor sports and leisure activities, recreational activities	L		
G01.03	Motorised vehicles			М
G01.04	Mountaineering, rock climbing, speleology	L		
G02	Sport and leisure structures	L		
G02.02	Skiing complex	L		
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)			М
H06.01	Noise nuisance, noise pollution	L		
101	Invasive non-native species		L	L
J01.01	Burning down			М
J02	Human induced changes in hydraulic conditions		L	
J02.05.02	Modifying structures of inland water courses			М
K01	Abiotic (slow) natural processes		L	
K01.01	Erosion	L		
K02	Biocenotic evolution, succession		L	
K03.04	Predation	L		
K04	Interspecific floral relations	L		
K05	Reduced fecundity/ genetic depression	L		
L04	Avalanche	L		
L09	Fire (natural)	L		

Legend: Low intensity M Medium intensity H High intensity

Adapting forest management, restoring/improving forest habitats are the most important proposed measures. Other important measures are establishment of protected areas/sites, legal protection of habitats and species, and other species management measures.

Code	Measure name	ES	FR	IT
1.2	Measures needed, but not implemented	N/A		
3.0	Other forestry-related measures	L		
3.1	Restoring/improving forest habitats	М		Н
3.2	Adapt forest management	L	Μ	Н
6.0	Other spatial measures	L		
6.1	Establish protected areas/sites	Н		L
6.3	Legal protection of habitats and species	Н		
7.0	Other species management measures	Н		
7.4	Specific single species or species group management measures	М		
9.0	Other resource use measures	М		

Legend: L Low importance M Medium importance H High importance

# Reason for selection as "Low Hanging Fruit" (LHF) habitat in the Mediterranean region

Applying the methodology to identify LHF habitats in the Mediterranean region, habitat 9180 reached the LHF score 13.60. This habitat type was classified as LHF especially because, to reach improvement, the change from decreasing to stable trend within the category U1 (unfavourable-inadequate) is sufficient. It is normally much easier to improve a trend than to reach change in category. The habitat type was included to LHF also because of the fact that the improvement of trend of only one parameter (Structure & Functions) in one country (Italy) and better information from Spain and France are needed to reach the overall improvement.

#### Priority conservation measures needed

For the improvement of the overall conservation status in the Mediterranean biogeographical region, improvement of the habitat structure in Italy is needed. Further improvement could be reached by habitat restoration and thus increasing of the habitat area in Italy. The main measures should include adaptation of forest management and restoring forest habitat. The measures should respect the soil protection and anti-erosion functions of the habitat and support them. The management interventions should be minimised and fine measures preferred. It is needed to replace clear-cuts by individual trees selection, the stands in extreme positions (steep relief, shallow soils, screes) should be excluded from management, the natural regeneration should be preferred, the dead wood should be left in stands. Other important measures include establishment of protected sites and legal protection of habitats and species. Better information about habitat area in France and habitat structure and functioning in Spain is needed.

#### Links

https://bd.eionet.europa.eu/article17/reports2012/habitat/summary/?period=3&group=Forests&subject=9180&region=MED

### 9430 Subalpine and montane *Pinus uncinata* forests (\* if on gypsum or limestone)

	Selected for first round of Biogeographical Seminar
Χ	Selected using "Low hanging fruit" approach

#### **Habitat summary**

The overall conservation status in the Mediterranean region is unfavourable -bad due to assessment of Spain. The habitat occurs in the Mediterranean biogeographic region in France and Spain. Around 62% of the habitat area is located in France.

Improvement of the habitat structure in Spain is needed. The main measures should include establishing of protected areas, adaptation of forest management, restoration or improvement of forest habitat, and legal protection of the habitat. The management of the habitat should preserve the habitat extent and the processes and dynamics that regenerate these forests and maintain their biodiversity. There is a need to apply management techniques that emulate the regime of natural disturbances in the opening of clearings. Forest regeneration should be protected from excessive pressure by herbivores, especially in relict populations with recruitment difficulties. Some areas must be preserved from any intervention for their integral conservation, monitoring and research. The regulation or elimination of other human activities is needed, too, especially urbanisation, mining, road building, sport and recreation, hunting.

#### **Habitat description**

Mountain pine (*Pinus uncinata*) forests, usually open and with a very developed shrubby understory, of the subalpine and montane levels; on limestone, gypsum or siliceous substrate in a cool or thermophile situation depending on the region. Sometimes mixed with *Pinus sylvestris*, more rarely with *Larix-Pinus cembra*. There are two major types: mountain pine forests of the western outer Alps, the Jura and Pyrenean ubacs, developed on siliceous or decalcified soils of the subalpine level with a predominately ericaceous undergrowth comprising *Rhododendron ferrugineum* (*Rhododendro-Vaccinion* p.), and xerocline mountain pine forests of the inner Alps, of the western outer Alps and the Jura, and of Pyrenean adrets, accompanied by a shrubby undergrowth in which *Rhododendron ferrugineum* (*Junipero-Pinion* p., *Erico-Pinion* p.).

### Distribution in the Mediterranean region and coverage by Natura 2000 network

The habitat type occurs in France and Spain. The overall representation of the habitat in Natura 2000 sites is high, more precise calculation is not possible because of a large range reported by France. A large part of the national habitat area is located in Natura 2000 sites in Spain (95 %).

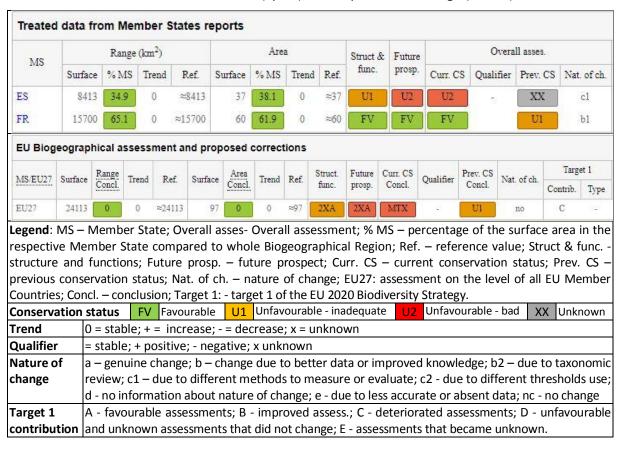


Natura 2000 sites in the Mediterranean region							
Country	Habitat area /km²/	Coverage /%/	Number of sites				
France	2-60	3-100	9				
Spain	35	95	21				
Total	37-95	68	30				

The table shows size of the habitat area in Natura 2000 sites and its proportion compared to habitat area in the whole biogeographic region ("coverage") as reported by MS in the 2013 Article 17 report. The number of sites was extracted from the 2016 Natura 2000 database.

#### Biogeographical conservation status assessment

The overall conservation status of this habitat type in the Mediterranean biogeographical region is unfavourable - bad due to assessment of Spain. This conclusion was reached despite favourable status in France. On the level of biogeographical region, two parameters (Range; Area) were assessed as favourable, Structure and Functions as unfavourable – inadequate and the parameter Future prospect as unfavourable - bad. The overall conservation status for the region has been changed from previous reporting from unfavourable – inadequate to unfavourable – bad, but only due to different methods to measure or evaluate (Spain), and improved knowledge (France).



#### Pressures, threats and proposed measures

The member countries reported a broad range of pressures. According to Spain, forestry clearance is the most important pressure. Both countries reported grazing, forest and plantation management and use, roads, paths and railroads, sport and leisure structures, and Introduced genetic material, GMO. Other important pressures are removal of dead and dying trees, forest exploitation without replanting or natural regrowth, hunting of wild animals, outdoor sports and leisure activities, recreational activities.

Code	Pressure name	ES	FR
A04	Grazing	M	М
A05	Livestock farming and animal breeding (without grazing)	M	
B02	Forest and Plantation management & use	M	L
B02.02	Forestry clearance	Н	
B02.04	Removal of dead and dying trees	M	
B03	Forest exploitation without replanting or natural regrowth	M	
B06	Grazing in forests/ woodland		L
B07	Forestry activities not referred to above	M	
C01.04	Mines	L	
D01	Roads, paths and railroads	L	L
E01.03	Dispersed habitation	M	
E05	Storage of materials	L	
F03	Hunting and collection of wild animals (terrestrial)	M	
G01	Outdoor sports and leisure activities, recreational activities	M	
G02	Sport and leisure structures	M	L
H04	Air pollution, air-borne pollutants		L
103	Introduced genetic material, GMO	L	L
J01	Fire and fire suppression	M	
K01.01	Erosion	L	
K04	Interspecific floral relations	L	
L09	Fire (natural)	M	
M01	Changes in abiotic conditions	M	

Legend: L Low intensity M Medium intensity H High intensity

According to both countries restoring/improving forest habitats and adapting forest management are important proposed measures. Other important measures are the establishment of protected areas/sites, legal protection of habitats and species, specific single species or species group management measures.

Code	Measure name	ES	FR
3.0	Other forestry-related measures	M	
3.1	Restoring/improving forest habitats	M	М
3.2	Adapt forest management	M	М
6.0	Other spatial measures	M	
6.1	Establish protected areas/sites	Н	
6.3	Legal protection of habitats and species	M	
7.4	Specific single species or species group management measures	M	

Legend: L Low importance M Medium importance H High importance

# Reason for selection as "Low Hanging Fruit" (LHF) habitat in the Mediterranean region

Applying the methodology to identify LHF habitats in the Mediterranean region, habitat 9430 reached the LHF score 2.11. This habitat type was classified as LHF especially because, to reach improvement, the change from decreasing to stable trend within the category U2 (unfavourable-bad) is sufficient. It is normally much easier to improve a trend than to reach change in category. The habitat type was included to LHF also because of quite significant representation of the habitat in Natura 2000 sites and the fact that the improvement of trend of only one parameter (Structure & Functions) in one country (Spain) is needed to reach the overall improvement.

#### Priority conservation measures needed

For the improvement of the overall conservation status in the Mediterranean biogeographical region, improvement of the habitat structure in Spain is needed. The main measures should include establishing of protected areas, adaptation of forest management, restoration or improvement of forest habitat, and legal protection of the habitat. The management of the habitat should preserve the habitat extent and the processes and dynamics that regenerate these forests and maintain their biodiversity. It is recommended to carry out integrated and sustainable forest management respecting also accompanying forest tree species and the preservation of specific habitat features such as stumps, dead standing trees. There is a need to apply management techniques that emulate the regime of natural disturbances in the opening of clearings necessary for the regeneration and establishment of seedlings. Forest regeneration should be protected from excessive pressure by herbivores, especially in relict populations with recruitment difficulties. Some areas must be preserved from any intervention for their integral conservation, monitoring and research (Camarero 2009). The regulation or elimination of other human activities is needed, too, especially urbanisation, mining, road building, sport and recreation, hunting.

#### Links

Camarero, J. J., 2009. 9430 Bosques montanos y subalpinos de Pinus uncinata (en sustratos yesosos o calcáreos) (\*). In: VV.AA., Bases ecológicas preliminares para la conservación de los tipos de hábitat de interés comunitario en España. Madrid: Ministerio de Medio Ambiente, y Medio Rural y Marino. 64 pp. http://www.jolube.es/Habitat\_Espana/documentos/9430.pdf

https://bd.eionet.europa.eu/article17/reports2012/habitat/summary/?period=3&group=Forests&subject=9430&region=MED

#### 9510 Southern Apennine Abies alba forests

	Selected for first round of Biogeographical Seminar
Χ	Selected using "Low hanging fruit" approach

#### **Habitat summary**

Italy reported unfavourable - inadequate overall conservation status of this habitat type in Mediterranean biogeographical region. The habitat is in the Mediterranean biogeographic region distributed in Italy only.

Improvement of habitat structure and increase of the habitat area by habitat restoration in Italy are needed. The main measures are establishment of protected sites, legal protection of habitat and adaptation of forest management. The forest management adaptation should include elimination or reduction of some not sustainable practices like artificial forest planting using non-native trees, forest exploitation without replanting or natural regrowth, and removal of forest undergrowth. The control of human activities like roads, motorways, and skiing complex building, and generally urbanisation is also important.

#### **Habitat description**

Relict Abies alba woods associated with the beech forests of the Geranio versicolori-Fagion.

### Distribution in the Mediterranean region and coverage by Natura 2000 network

The habitat type occurs in Italy. The overall representation of the habitat in Natura 2000 sites is high (ca 75 %).

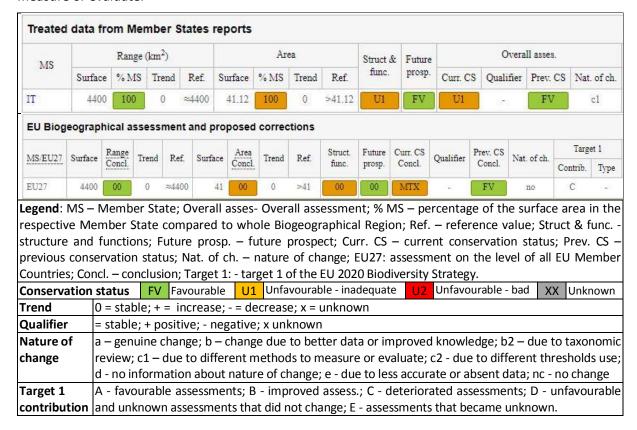


Natura 2000 sites in the Mediterranean region							
Country Habitat area   Coverage /%/ Number of site							
Italy	31	75	12				
Total	31	75	12				

The table shows size of the habitat area in Natura 2000 sites and its proportion compared to habitat area in the whole biogeographic region ("coverage") as reported by MS in the 2013 Article 17 report. The number of sites was extracted from the 2016 Natura 2000 database.

#### Biogeographical conservation status assessment

Italy reported unfavourable - inadequate overall conservation status of this habitat type in Mediterranean biogeographical region. Two parameters (Range; Future prospect) were assessed as favourable, other two (Structure and Functions Area) as unfavourable – inadequate. The overall conservation status for the region has been changed against previous reporting from favourable to unfavourable - inadequate, but this change is considered not genuine, due to different methods to measure or evaluate.



#### Pressures, threats and proposed measures

Italy reported several pressures of medium intensity: artificial planting on open ground (non-native trees), removal of forest undergrowth, roads, motorways, skiing complex, genetic pollution (plants). Low intensity pressures are forest exploitation without replanting or natural regrowth and urbanised areas, human habitation.

Code	Pressure name	IT
B01.02	Artificial planting on open ground (non-native trees)	M
B02.03	Removal of forest undergrowth	M
B03	Forest exploitation without replanting or natural regrowth	L
D01.02	Roads, motorways	M
E01	Urbanised areas, human habitation	L
E01.02	Discontinuous urbanisation	M
G02.02	Skiing complex	M
103.02	Genetic pollution (plants)	M

Legend: L Low intensity M Medium intensity H High intensity

The establishment of protected areas/sites and legal protection of habitats and species are the most important proposed measures in Italy. Other important measure is adaptation of forest management.

Code	Measure name	IT
3.2	Adapt forest management	M
6.1	Establish protected areas/sites	Н
6.3	Legal protection of habitats and species	Н

Legend: Low importance M Medium importance H High importance

# Reason for selection as "Low Hanging Fruit" (LHF) habitat in the Mediterranean region

Applying the methodology to identify LHF habitats in the Mediterranean region, habitat 9510 reached the LHF score 2.65. This habitat type was classified as LHF especially because, to reach improvement, the change from declining to stable trend within the category U1 (unfavourable-inadequate) is sufficient. It is normally much easier to improve a trend than to reach change in category. The habitat type was included to LHF also because of quite significant representation of the habitat in Natura 2000 sites (up to 75 %) and the fact that the improvement of trend of only one parameter (Structure & Functions) in one country (Italy) is needed to reach the overall improvement. In addition, no pressure of high intensity is reported by countries.

#### Priority conservation measures needed

For the improvement of the overall conservation status in the Mediterranean biogeographical region, improvement of the habitat structure in Italy is needed. The additional improvement could be reached by increasing of the habitat area by habitat restoration. The main measures should include establishment of protected sites, legal protection of habitat and adaptation of forest management. The forest management adaptation includes avoiding or reduction of some not sustainable practices like artificial forest planting using non-native trees, forest exploitation without replanting or natural regrowth, and removal of forest undergrowth. The control of human activities like roads, motorways, and skiing complex building, and generally urbanisation is also important.

#### Links

https://bd.eionet.europa.eu/article17/reports2012/habitat/summary/?period=3&group=Forests&subject=9510&region=MED

#### 9560 Endemic forests with Juniperus spp.

	Selected for first round of Biogeographical Seminar
Χ	Selected using "Low hanging fruit" approach

#### **Habitat summary**

The overall conservation status in the Mediterranean region is unfavourable - bad due to assessment of Spain. The habitat is in the Mediterranean biogeographic region widespread in Spain; it occurs also in Portugal, France, Italy, Cyprus, and Greece. Around 96% of the habitat area is located in Spain.

Improvement of habitat structure in Spain is needed. To reach further improvement, habitat structure should be improved also in France and Portugal. The habitat restoration is needed in Portugal because of reporting smaller habitat area than the reference value. The main measures should include establishment of protected sites, legal protection of habitat, and restoring or improving forest habitat. The forest management should be adapted in order to address main reported pressures: forest replanting using non-native trees, forestry clearance, removal of dead and dying trees, forest exploitation without replanting or natural regrowth. Further measures should be focused especially on regulation of grazing in forest, regulation of the recreational activities, elimination or reduction of problematic native and invasive alien species, prevention of forest fires, and measures against vegetation succession. It would be advisable to develop ecological restoration programs that include the elimination of exotic species (*Opuntia* sp., *Agave americana*), the planting of juvenile junipers in areas where natural regeneration is problematic.

#### **Habitat description**

Medium altitude forest formations dominated by *Juniperus* spp. The arborescent matorrals (32.13 and 31.3) should not be included. There are five sub-types: Spanish juniper woods (*Juniperon thuriferae*), Grecian juniper woods (*Juniperetum excelsae*), Stinking juniper woods, Syrian juniper woods, Macaronesian juniper woods.

### Distribution in the Mediterranean region and coverage by Natura 2000 network

The habitat type is widespread in Spain. It occurs also in Portugal, France, Italy, Cyprus, and Greece. The overall quite low representation of the habitat in Natura 2000 sites (ca 35 %) is due to area of this habitat in Natura 2000 sites in Spain (only 34 %) and missing data from Portugal. The whole national habitat area is located in Natura 2000 sites in Cyprus and France. Information on the coverage of the Natura 2000 sites in Portugal is not available.



Natura 2000 sites in the Mediterranean region								
Country	Habitat area /km²/	Coverage /%/	Number of sites					
Cyprus	2.1	100	3					
France	4	100	8					
Greece	0	0	13					
Italy	N/A	N/A	1					
Portugal	50-80	N/A	8					
Spain	1,145	34	113					
Total	1,201-1,231	35	146					

The table shows size of the habitat area in Natura 2000 sites and its proportion compared to habitat area in the whole biogeographic region ("coverage") as reported by MS in the 2013 Article 17 report. The number of sites was extracted from the 2016 Natura 2000 database.

#### Biogeographical conservation status assessment

The overall conservation status of this habitat type in the Mediterranean biogeographical region is unfavourable - bad due to assessment of Spain. Greece and Cyprus indicated favourable status and France and Portugal reported unfavourable – inadequate conservation status. On the level of biogeographical region, two parameters (Range; Area) were assessed as favourable, Structure and Functions as unfavourable – inadequate, and Future prospect as unfavourable - bad. The overall conservation status for the region has been changed against previous reporting from unknown to unfavourable – bad. This change is not genuine, it is due to better data (Cyprus and France) and different methods used (Spain).

MS		Range (km²)			Area				Struct &	Future		Overa	all asses.	
50.00	Surface	% MS	Trend	Ref.	Surface	% MS	Trend	Ref.	func.	prosp.	Curr. CS	Qualifier	Prev. CS	Nat. of ch
CY	99.48	0.1	+	99.48	2.09	0.1	+	2.09	FV	FV	FV		XX	b1
GR	120	0.1	+	120	120	3.5	÷	120	FV	FV	FV		FV	
ES	75211	89.4	0	≈75211	3347	96.4	x	≈3347	Ul	U2.	U2	v	XX	c1
FR.	5600	6.7	0	≈5600	4	0.1	+	≈4	U1	U1	Ul	=	FV	b1
PT	3100	3.7	0	x	N/A	N/A	+	>	U1	XX	U1	=	U1	nc
EU27	84130	2GD	0	34	73 <b>2GD</b>	x		2GD	2GD	MTX	- [	XX	no	C -
Legend: MS – Member State; Overall asses- Overall assessment; % MS – percentage of the surface area in the respective Member State compared to whole Biogeographical Region; Ref. – reference value; Struct & func structure and functions; Future prosp. – future prospect; Curr. CS – current conservation status; Prev. CS – previous conservation status; Nat. of ch. – nature of change; EU27: assessment on the level of all EU Member Countries; Concl. – conclusion; Target 1: - target 1 of the EU 2020 Biodiversity Strategy.														
Conserva				vourab					dequate	U2	Unfavou	rable - ba	d XX	Unknown
Trend Qualifier		0 = stable; + = increase; - = decrease; x = unknown												
Vature o		= stable; + positive; - negative; x unknown a – genuine change; b – change due to better data or improved knowledge; b2 – due to taxonomic												
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contribution and unknown assessments that did not change; E - assessments that became unknown.

### Pressures, threats and proposed measures

The member countries reported a broad range of pressures; the most important is grazing, fire and fire suppression. Other important pressures are modifications of cultivation practices, problematic native species, biocenotic evolution, succession, fire (natural), changes in abiotic conditions.

Code	Pressure name	CY	ES	FR	PT
A01	Cultivation				L
A02	Modification of cultivation practices		М	М	
A03	Mowing / cutting of grassland		М		
A04	Grazing		М	Н	М
A04.01.04	Intensive goat grazing	L			
A05	Livestock farming and animal breeding (without grazing)		L		
A10	Restructuring agricultural land holding		М		
B01	Forest planting on open ground			М	
B02	Forest and Plantation management & use			М	
B02.01	Forest replanting		М		
B02.01.02	Forest replanting (non native trees)				L
B02.02	Forestry clearance		М		L
B02.03	Removal of forest undergrowth				L
B02.04	Removal of dead and dying trees		М		
B03	Forest exploitation without replanting or natural regrowth		М		
B06	Grazing in forests/ woodland			Н	
B07	Forestry activities not referred to above		М		
C01	Mining and quarrying			L	
D01	Roads, paths and railroads		М		
D01.01	Paths, tracks, cycling tracks	L			L
D01.02	Roads, motorways				L
D02	Utility and service lines		L		
E01	Urbanised areas, human habitation		L		L
E04.01	Agricultural structures, buildings in the landscape		L		
G01.03	Motorised vehicles				L
G05.01	Trampling, overuse	L			L
H05.01	Garbage and solid waste				L
H06.01	Noise nuisance, noise pollution		L		
101	Invasive non-native species			Μ	
102	Problematic native species			Ι	
J01	Fire and fire suppression		Μ	Μ	М
J02.01	Landfill, land reclamation and drying out, general				L
K01.01	Erosion	M			
K02	Biocenotic evolution, succession			Н	
K04	Interspecific floral relations		L		
L05	Collapse of terrain, landslide			L	
L09	Fire (natural)		М	M	
M01	Changes in abiotic conditions		Н		
M02	Changes in biotic conditions			L	

Legend: L Low intensity M Medium intensity H High intensity

The establishment of protected areas/sites, legal protection of habitats and species, restoring/improving forest habitats are the most important proposed measures. Other important measures are other agriculture-related measures, forestry-related measures, and other spatial measures.

Code	Measure name	CY	ES	FR	PT
1.1	No measures needed for the conservation of the habitat/species			M	
1.2	Measures needed, but not implemented				NA
2.0	Other agriculture-related measures		М	М	
2.1	Maintaining grasslands and other open habitats		L		
3.0	Other forestry-related measures	Н	М		
3.1	Restoring/improving forest habitats	Н	М		М
3.2	Adapt forest management		М		
6.0	Other spatial measures		М		Н
6.1	Establish protected areas/sites	Н	Н		L
6.3	Legal protection of habitats and species	Н	Н		
6.4	Manage landscape features		L		
7.0	Other species management measures		М		
7.4	Specific single species or species group management measures		М		
8.2	Specific management of traffic and energy transport systems	М			

Legend: Low importance M Medium importance H High importance

# Reason for selection as "Low Hanging Fruit" (LHF) habitat in the Mediterranean region

Applying the methodology to identify LHF habitats in the Mediterranean region, habitat 9560 reached the LHF score 14.17. This habitat type was classified as LHF especially because, to reach improvement, the change from decreasing to stable trend within the category U2 (unfavourable-bad) is sufficient. It is normally much easier to improve a trend than to reach change in category. The habitat type was included to LHF also because of the fact that the improvement of trend of only one parameter (Structure & Functions) in one country (Spain) is needed to reach the overall improvement.

### **Priority conservation measures needed**

For the improvement of the overall conservation status in the Mediterranean biogeographical region, improvement of the habitat structure in Spain is needed. To reach further improvement, habitat structure should be improved also in France and Portugal. The habitat restoration is needed in Portugal because of reporting smaller habitat area than the reference value.

The main measures should include establishment of protected sites (integrated micro-reserves networks to be created), legal protection of habitat, and restoring or improving forest habitat. Intermit changes to land use in the area of habitat occupancy, e.g. expansion of agricultural use, forest with species of rapid growth and urban expansion (ICNB). The most direct threat factors (cuts, devastation, sub-forest disturbance, partial or total destruction) should be minimized. The forest management should be adapted in order to address main reported pressures: forest replanting using non-native trees, forestry clearance, removal of dead and dying trees, forest exploitation without replanting or natural regrowth.

Further measures should be focused especially on regulation of grazing in forest, regulation of the recreational activities (camping areas, off-road vehicles, hunting, etc.), elimination or reduction of problematic native and invasive alien species, and measures against vegetation succession.

The prevention of forest fires and reduction of fire risks should be performed, particularly by cleaning roads and shrubs, reducing the degree of coverage of nearby shrub vegetation. However, the maintenance of these sites by winter pastoral fires has been complementary to grazing.

It would be advisable to develop ecological restoration programs that include the elimination of exotic species (*Opuntia* sp., *Agave americana*), the planting of juvenile junipers in areas where natural regeneration is problematic (Montesinos et al., 2009). In regenerating spots, the process of establishing tree dominance can be facilitated by the selective thinning of very dense sticks and closely coupled or dominated individuals favouring larger ones.

Primary stands situated on rock bars and steep rocky areas apparently need no management.

#### Links

- https://bd.eionet.europa.eu/article17/reports2012/habitat/summary/?period=3&group=Forests&subject=9560&region=MED
- ICNB: 9560 Florestas endemicas de Juniperus spp. http://www.icnf.pt/portal/pn/biodiversidade/rn2000/resource/docs/rn-plan-set/hab/hab-9560
- Montesinos, D, Otto, R., Fernández Palacios, J. M., 2009: 9560 Bosques endémicos de Juniperus spp(\*). In: VV.AA., Bases ecológicas preliminares para la conservación de los tipos de hábitat de interés comunitario en España. Madrid: Ministerio de Medio Ambiente, y Medio Rural y Marino. Madrid. 84 p. http://www.jolube.es/Habitat\_Espana/documentos/9560.pdf
- Tzonev, R., Dimitrov, D., 2015: Forests of Grecian juniper (Juniperus excelsa). In: Biserkov, V., Gussev, Ch. (eds).: Red Data Book of the Republic of Bulgaria. Vol. 3 Natural habitats. http://eecodb.bas.bg/rdb/en/vol3/39G3.html

#### 91L0 Illyrian oak-hornbeam forests (Erythronio-Carpinion)

	Selected for first round of Biogeographical Seminar
Χ	Selected using "Low hanging fruit" approach

#### **Habitat summary**

The habitat occurs in the Mediterranean biogeographical region only in Italy that reported unfavourable - inadequate overall conservation status. While two parameters (Range; Area) were assessed as favourable, other two (Structure and Functions; Future prospect) as unfavourable – inadequate.

Improvement of habitat structure and increase of habitat area in Italy are needed. The main measures should include adaptation of forest management, restoration or improving the forest habitats and other forestry-related measures as proposed by Italy. The adaptation of forest management is needed in favour of the habitat, which includes also avoidance of practices like artificial planting using non-native trees, forestry clearance and removal of forest undergrowth. The suitable measures are: adopting specific forest management plan, definition of forest areas to be left free to evolve, definition of conversion guidelines and structural improvement interventions that promote maximum floristic-structural diversification, promoting less impact forest management techniques, regulation of grazing in forest, introduction of measures for the regulation of hunting activities. It is also desirable to implement measures for better regulation of human activities like building of roads and urbanisation. The representation of the habitat in Natura 2000 sites should be improved.

#### **Habitat description**

Forests of *Quercus robur* or *Q. petraea*, sometimes *Q. cerris*, and *Carpinus betulus* on both calcareous and siliceous bedrocks, mostly on deep neutral to slightly acidic brown forest soils, with mild humus in the SE-Alpine-Dinaric region, West- and Central Balkans extending northwards to Lake Balaton mostly in hilly and submontane regions, river valleys and the plains of the Drava and Sava. The climate is more continental than in sub-Mediterranean regions and warmer than in middle Europe; these forests are intermediate between oak-hornbeam woods (e.g. 9170) of central Europe and those of the Balkans and merge northwards into the Pannonic oak woods (91G0). They have a much higher species richness than the Central European oak woods. Outliers of these forests also occur in Frioul and the northern Apennines.

### Distribution in the Mediterranean region and coverage by Natura 2000 network

The habitat type occurs in the Mediterranean biogeographical region only in Italy. Indication of the habitat from Greece should be confirmed. The overall representation of the habitat in Natura 2000 sites is low (ca 12 %).



Natura	Natura 2000 sites in the Mediterranean region								
Country	Habitat area /km²/	Coverage /%/	Number of sites						
Greece	N/A	N/A	1						
Italy	53	12	34						
Total	53	12	35						

The table shows size of the habitat area in Natura 2000 sites and its proportion compared to habitat area in the whole biogeographic region ("coverage") as reported by MS in the 2013 Article 17 report. The number of sites was extracted from the 2016 Natura 2000 database.

#### **Biogeographical conservation status assessment**

Italy assessed the overall conservation status of this habitat type in Mediterranean biogeographical region as unfavourable - inadequate. Two parameters (Range; Area) were assessed as favourable, other two (Structure and Functions; Future prospect) as unfavourable – inadequate. The overall conservation status for the region has been changed against previous reporting from unknown to unfavourable – inadequate. This change is not considered genuine.

MS		Range (km²)				Area				Future	Overall asses.					
	Surface	% MS	Trend	Ref.	Surfac	e % MS	Trend	Ref.	func.	prosp.	Curr. C	S Qual	ifier	Prev. (	CS Nat	of ch
IT	32000	100	0	≈32000	443.5	2 100	0	≈443.52	U1	U1	U1	x		N/A		
EU Biog	geograph	ical ass	essme	nt and	propose	d correc	tions				-1-5					
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MS/EU27	Surface	Concl.	rend R	ef. Su	rface Co	cl. Trend	Ref.	func.	prosp.	Concl.	Qualifier	Concl.	Nat. o	of ch.	Contrib.	Туре
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#### Pressures, threats and proposed measures

Italy reported some pressures of medium intensity: artificial planting on open ground (non-native trees), removal of forest undergrowth, roads, motorways, discontinuous urbanisation, burning down. Less important pressures are forestry clearance and dispersed habitation.

Code	Pressure name	IT
B01.02	Artificial planting on open ground (non-native trees)	M
B02.02	Forestry clearance	L
B02.03	Removal of forest undergrowth	M
D01.02	Roads, motorways	M
E01.02	Discontinuous urbanisation	M
E01.03	Dispersed habitation	L
J01.01	Burning down	M

Legend: L Low intensity M Medium intensity H High intensity

The adaptation of forest management and other forestry-related measures are the most important measures proposed by Italy. Other important measure is restoring/improving forest habitats.

Code	Measure name	IT
3.0	Other forestry-related measures	Н
3.1	Restoring/improving forest habitats	М
3.2	Adapt forest management	Н

Legend: Low importance M Medium importance H High importance

### Reason for selection as "Low Hanging Fruit" (LHF) habitat in the Mediterranean region

Applying the methodology to identify LHF habitats in the Mediterranean region, habitat 91L0 reached the LHF score 8.40. This habitat type was classified as LHF especially because, to reach improvement, the change from unknown to improving trend within the category U1 (unfavourable-inadequate) is sufficient. It is normally much easier to improve a trend than to reach change in category. The habitat type was included to LHF also because of the fact that the improvement of trend of only one parameter (Structure & Functions) in one country (Italy) is needed to reach the overall improvement. In addition, no pressure of high intensity is reported by Italy.

#### Priority conservation measures needed

For the improvement of the overall conservation status in the Mediterranean biogeographical region, improvement of the habitat structure in Italy is needed. The main measures should include adaptation of forest management, restoration or improving the forest habitats and other forestry-related measures as proposed by Italy. The adaptation of forest management is needed in favour of the habitat, what includes also avoidance of practices like artificial planting using non-native trees, forestry clearance and removal of forest undergrowth. The suitable measures are: adopting specific forest management plan, definition of forest areas to be left free to evolve, definition of conversion guidelines and structural improvement interventions that promote maximum floristic-structural diversification, promoting less impact forest management techniques, regulation of grazing in forest, introduction of measures for the regulation of hunting activities. It is also desirable to implement measures for better regulation of human activities like building of roads and urbanisation. The representation of the habitat in Natura 2000 sites should be improved.

### Links

https://bd.eionet.europa.eu/article17/reports2012/habitat/summary/?period=3&group=Forests&subject=91L0&region=MED

https://www.regione.marche.it/natura2000/pagina\_base98d2.html?id=1666

#### 91M0 Pannonian-Balkanic turkey oak-sessile oak forests

	Selected for first round of Biogeographical Seminar
Χ	Selected using "Low hanging fruit" approach

#### **Habitat summary**

The overall conservation status in the Mediterranean region is unfavourable - inadequate due to the assessment of Italy. The habitat is in the Mediterranean biogeographic region widespread in Italy, it occurs also in Greece. Around 73% of the habitat area is located in Italy.

Improvement of the habitat structure in Italy is needed. The adaptation of forest management is the main proposed measure. It should include promotion of the renewal of the tree species, the maintenance of the undergrowth species (particularly the rare ones), retaining of dead trees and trunks, as well as prohibition of grazing in the forest. The eventually abandoned adjacent surfaces to the current nuclei of this habitat could be used for habitat expansion. Effective fire plans should be prepared.

#### **Habitat description**

Sub-continental thermo-xerophile *Quercus cerris, Q. petraea* or *Q. frainetto* and related deciduous oaks, locally of *Q. pedunculiflora* or *Q. virgiliana* forests of the Pannonic, hills and plains of western and southern Romania, northern Balcanic hilly regions and of the supra-Mediterranean level of continental north east Greece, and of supra-Mediterranean Anatolia and in lower mountains with the continental *Acer tataricum*. Distributed generally between 250 and 600 (800) m above sea level and developed on varied substrates: limestones, andesites, basalt, loess, clay, sand, etc., on slightly acidic, usually deep brown soils.

### Distribution in the Mediterranean region and coverage by Natura 2000 network

The habitat type is widespread in Italy and Greece. The overall representation of the habitat in Natura 2000 sites is very low (ca 3 %).

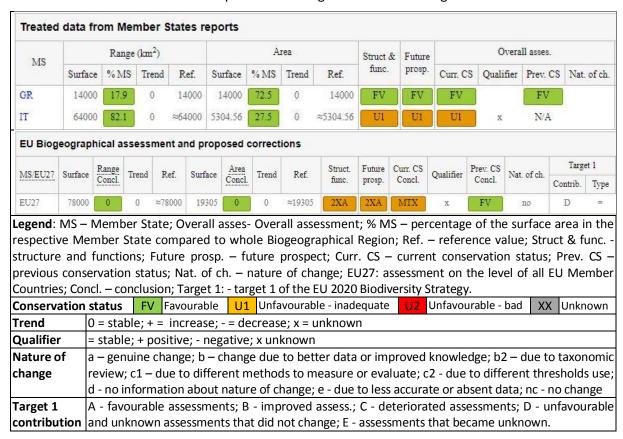


Natura 2000 sites in the Mediterranean region							
Country	Habitat area /km²/	Coverage /%/	Number of sites				
Greece	N/A	N/A	N/A				
Italy	593.91	11	161				
Total	594	3	161				

The table shows size of the habitat area in Natura 2000 sites and its proportion compared to habitat area in the whole biogeographic region ("coverage") as reported by MS in the 2013 Article 17 report. The number of sites was extracted from the 2016 Natura 2000 database.

#### Biogeographical conservation status assessment

The overall conservation status of this habitat type in Mediterranean biogeographical region is unfavourable - inadequate due to assessment of Italy. Greece reported favourable conservation status. On the level of biogeographical region, two parameters (Range; Area) were assessed as favourable, other two (Structure and Functions; Future prospect) as unfavourable - inadequate. The overall conservation status for the region has been changed against previous reporting from favourable to unfavourable – inadequate. This change is not considered genuine.



#### Pressures, threats and proposed measures

Italy reported some pressures of medium intensity: grazing, artificial planting on open ground (non-native trees), removal of forest undergrowth, urbanised areas, human habitation, roads, motorways, dispersed habitation, and burning down.

Code	Pressure name	IT	GR
A04	grazing	М	
B01.02	artificial planting on open ground (non-native trees)	М	
B02.02	forestry clearance	L	
B02.03	removal of forest undergrowth	М	

Code	Pressure name	IT	GR
D01.02	roads, motorways	М	
E01	Urbanised areas, human habitation	М	
E01.03	dispersed habitation	М	
J01.01	burning down	М	

Legend: L Low intensity M Medium intensity H High intensity

The adapting of forest management was the only measure proposed by Italy.

Code	Measure name	IT	GR
3.2	Adapt forest management	М	

Legend: Low importance M Medium importance H High importance

# Reason for selection as "Low Hanging Fruit" (LHF) habitat in the Mediterranean region

Applying the methodology to identify LHF habitats in the Mediterranean region, habitat 91M0 reached the LHF score 6.07. This habitat type was classified as LHF especially because, to reach improvement, the change from unknown to improving trend within the category U1 (unfavourable-inadequate) is sufficient. It is normally much easier to improve a trend than to reach change in category. The habitat type was included to LHF also because of the fact that the improvement of trend of only one parameter (Structure & Functions) in one country (Italy) is needed to reach the overall improvement. In addition, no pressure of high intensity was reported.

#### Priority conservation measures needed

For the improvement of the overall conservation status in the Mediterranean biogeographical region, improvement of the habitat structure in Italy is needed. The adaptation of forest management is the main proposed measure. It should include promotion of the renewal of the tree species, the maintenance of the undergrowth species (particularly the rare ones), retaining of dead trees and trunks, as well as prohibition of grazing in the forest. The eventually abandoned adjacent surfaces to the current nuclei of this habitat could be used for the habitat expansion. The effective fire plans should be prepared.

#### Links

https://bd.eionet.europa.eu/article17/reports2012/habitat/summary/?period=3&group=Forests&subject=91M0&region=MED

# 3 Template for reporting on Member States perspectives

Each descriptive fact should be completed by a report compiled by Member States, answering questions according to the below template

Member States perspectives (to be filled by MS, experts; length not restricted)