E3.1a Mediterranean tall humid inland grassland

Summary

This habitat comprises rush- and grass-dominated vegetation of seasonally water-logged soils, both base-rich and acidic, throughout the Mediterranean basin. Though not dependent on grazing, it can be a valuable source of fodder for cattle and sheep during summer when other pastures are dried up. Intensification of farming and conversion to arable cropping can threaten this habitat but more widespread is loss to increased human settlements and their associated infrastructure, including changes to the distinctive hydrology on which the habitat depends. Reduction in extent is not substantial, though likely to continue, and the biotic and abiotic habitat quality is declining.

Synthesis

The small amount of available quantitative data supports an evaluation of Least Concern (LC), despite a continuing decline in quantity and quality and of several threats the habitat faces.

Overall Category & Criteria			
EU 28		EU 28+	
Red List Category	Red List Criteria	Red List Category	Red List Criteria
Least Concern	-	Least Concern	-

Sub-habitat types that may require further examination

No sub-habitats have been distinguished for further analysis.

Habitat Type

Code and name

E3.1a Mediterranean tall humid inland grassland

Scirpus holoschoenus-dominated grassland, Spain (Photo: Javier Loidi).

Vegetation dominated by Schoenus nigricans in a calcareous, damp depression near Lake Vrana, Croatia (Photo: John Janssen).

Habitat description

Mediterranean humid herb communities dominated by rushes (*Scirpus holoschoenus*) and tall grasses, common in depressions with wet soils, on both siliceous and calcareous terrain. The water table remains permanently near to the surface but is subject to strong seasonal fluctuations, experiencing a lower level during summer and a higher in the rainy season, although the habitat is never or very rarely flooded. It is more frequent in areas under a predominantly stock-rearing system, being thus more abundant in siliceous regions. It is widespread in the entire Mediterranean basin, extending as far as the coasts of the Black Sea

and the Balkans, north to Romania. This habitat has been traditionally grazed in the areas where summer pastures dry out and cattle and sheep have to graze humid pastures in the dry season. However, it is not dependent on grazing and its sustainability can be assured without this intervention.

Indicators of good quality:

- Domination by a complete and dense cover of reeds (*Scirpus holoschoenus*) and grasses
- High plant species diversity
- Absence of shrubs, particularly willows, ashes or poplars, indicating initial stages of succession towards forest
- No signs of heavy grazing.

Characteristic species:

Vascular plants: *Agrostis stolonifera, Agrostis reuteri, Alopecurus arundinaceus* subsp*. castellanus, Blackstonia perfoliata, Carex mairii, Centaurea jacea* subsp*. vinyalsii, Cirsium monspessulanum, Cirsium pyreanicum* subsp*. micranthum, Cirsium pyrenaicum* subsp*. pyrenaicum, Cochlearia glastifolia, Cochlearia megalosperma, Cyperus eragrostis, Dorycnium rectum, Erica erigena, Euphorbia hirsuta, Festuca arundinacea* subsp*. mediterranea, Festuca fenas, Galium debile, Genista tinctoria, Hypericum caprifolium, Hypericum hircinum* subsp*. cambessedesii, Hypericum pubescens, Hypericum tetrapterum, Hypericum tomentosum, Juncus striatus, Linum tenue, Lysimachia ephemerum, Melilotus indicus, Molinia caerulea* subsp*. arundinacea, Oenanthe lachenalii, Oenanthe pimpinelloides, Peucedanum hispanicum, Phalaris aquatica, Prunella vulgaris, Pulicaria dysenterica* var*. ramossisima, Ranunculus bulbosus* subsp*. aleae, Ranunculus granatensis, Ranunculus macrophyllus, Senecio doria, Sonchus aquatilis, Schoenus nigricans, Scirpus holoschoenus (Holoschoenus vulgaris),Scrophularia balbisii* subsp*. valentina, Serapias vomeracea, Sonchus maritimus* subsp*. aquatilis, Succisella andreae-molinae, Tetragonolobus maritimus* var*. hirsutus, Thalictrum flavum, Thalictrum minus* subsp*. matritense, Thalictrum speciosissimum.*

Classification

This habitat may be equivalent to, or broader than, or narrower than the habitats or ecosystems in the following typologies.

EUNIS:

E3.1 Mediterranean tall humid grassland

EuroVegChecklist:

Molinio-Holoschoenion Br.-Bl. ex Tchou 1948

Annex 1:

6420 Mediterranean tall humid grasslands

6460 Peat grasslands of Troodos

Emerald:

E3.1 Mediterranean tall humid grassland

MAES-2:

Grassland

IUCN:

4.4 Temperate Grassland

Does the habitat type present an outstanding example of typical characteristics of one or more biogeographic regions?
Yes

Regions
Mediterranean

Justification
The distribution is strongly related to the distinctive Mediterranean climate, in particular the effects of seasonal rainfall on fluctuations in the soil water table.

Geographic occurrence and trends

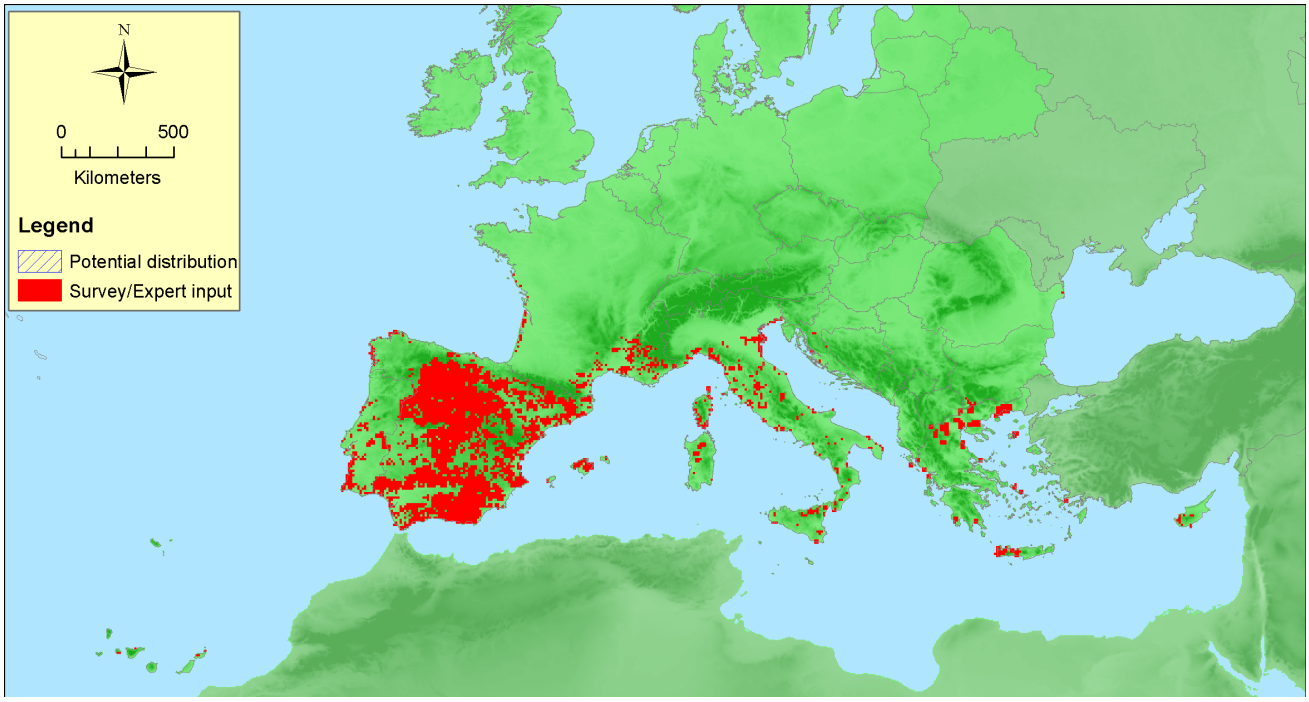
EU 28	Present or Presence Uncertain	Current area of habitat	Recent trend in quantity (last 50 yrs)	Recent trend in quality (last 50 yrs)
Bulgaria	Present	0.5 Km^2	Decreasing	Decreasing
Cyprus	Present	0.01 Km^2	Stable	Decreasing
France	France mainland: Present	45 Km^2	Decreasing	Decreasing
Greece	Greece (mainland and other islands): Present	68 Km^2	Stable	Unknown
Italy	Italy mainland: Present	114 Km^2	Decreasing	Decreasing
Portugal	Portugal mainland: Present	51 Km^2	Decreasing	Unknown
Romania	Present	5 Km^2	Decreasing	Decreasing
Spain	Spain mainland: Present	909 Km^2	Stable	Stable

EU 28 +	Present or Presence Uncertain	Current area of habitat	Recent trend in quantity (last 50 yrs)	Recent trend in quality (last 50 yrs)
Montenegro	Uncertain	unknown Km^2	Unknown	Unknown

Extent of Occurrence, Area of Occupancy and habitat area

	Extent of Occurrence (EOO)	Area of Occupancy (AOO)	Current estimated Total Area	Comment
EU 28	5304250 Km^2	3655	1125 Km^2	Most of this habitat is in Italy and Spain
EU 28+	5304250 Km^2	3662	1125 Km^2	

Distribution map



The map is largely complete for EU, but with with data gaps along the eastern Adriatic coast, and probably overestimation in coastal dune sites. Sources: EVA, Art17.

How much of the current distribution of the habitat type lies within the EU 28?

Probably >95%.

Trends in quantity

Where an assessment has been made, the recent historical trend is for a decrease of less than 30% and, in Bulgaria and Romania, there is evidence that this has been a longer term shift. Only these countries and Spain make a qualitative assessment of likely future change and that is for a continuing decrease in extent.

- Average current trend in quantity (extent)
  EU 28: Decreasing
  EU 28+: Unknown
- Does the habitat type have a small natural range following regression?
  No
  Justification
  There has been a reduction in extent but the overall range is probably largely unchanged.
- Does the habitat have a small natural range by reason of its intrinsically restricted area?
  No
  Justification
  The habitat is widespread through the entire Mediterranean basin.

Trends in quality

In recent historical time, there has been a slight-severe decline in the biotic and abiotic quality of this habitat over part up to a high proportion of its extent. Longer term historical data are lacking and no assessments of future change are provided.

- Average current trend in quality
  EU 28: Decreasing
  EU 28+: Decreasing

Pressures and threats

The main threats to this habitat are from development of settlements, associated infrastructure and the consequences of habitation such as pollution, together with, in some places, intensification of farming. The impact has been patchy, locally intensive but overall moderate. In some localities, the pressures will remain.

List of pressures and threats

Agriculture

Modification of cultivation practices
Grassland removal for arable land
Grazing
Abandonment of pastoral systems, lack of grazing

Urbanisation, residential and commercial development

Urbanised areas, human habitation

Pollution

Pollution to surface waters (limnic, terrestrial, marine & brackish)

Natural System modifications

Human induced changes in hydraulic conditions

Conservation and management

No detailed information is available.

List of conservation and management needs

Measures related to agriculture and open habitats

Maintaining grasslands and other open habitats

Conservation status

Annex 1 types:

6420: ALP U1, ATL U1, BLS U2, CON U1, MAC FV, MED U1

6460: MED FV

When severely damaged, does the habitat retain the capacity to recover its typical character and functionality?

Recovery depends greatly on the feasibility of restoring the distinctive hydrological conditions.

Effort required

10 years	20 years
Unknown	Through intervention

Red List Assessment

Criterion A: Reduction in quantity

Criterion A	A1	A2a	A2b	A3
EU 28	-15 %	unknown %	unknown %	unknown %
EU 28+	-15 %	unknown %	unknown %	unknown %

Quantitative estimates of loss have been calculated based on data from only Italy and Portugal.

Criterion B: Restricted geographic distribution

Criterion B	B1				B2				B3
	EOO	a	b	c	AOO	a	b	c	
EU 28	>50000 Km^2	Yes	Yes	unknown	>50	Yes	Yes	unknown	unknown
EU 28+	>50000 Km^2	Yes	Yes	unknown	>50	Yes	Yes	unknown	unknown

The EOO and probably the AOO do not come close to the thresholds for B1/2, although there is a continuing decline in extent (B1/2Ai) and biotic/abiotic quality (B1/2Aii & iii) due to ongoing agricultural change and modification of drainage, threats which remain (B1/2b). Also the number of location is large (B3).

Criterion C and D: Reduction in abiotic and/or biotic quality

Criteria C/D	C/D1		C/D2		C/D3	
	Extent affected	Relative severity	Extent affected	Relative severity	Extent affected	Relative severity
EU 28	19 %	78 %	unknown %	unknown %	unknown %	unknown %
EU 28+	19 %	78 %	unknown %	unknown %	unknown %	unknown %

Criterion C	C1		C2		C3	
	Extent affected	Relative severity	Extent affected	Relative severity	Extent affected	Relative severity
EU 28	unknown %	unknown %	unknown %	unknown %	unknown %	unknown %
EU 28+	unknown %	unknown %	unknown %	unknown %	unknown %	unknown %

Criterion D	D1		D2		D3	
	Extent affected	Relative severity	Extent affected	Relative severity	Extent affected	Relative severity
EU 28	unknown %	unknown%	unknown %	unknown%	unknown %	unknown%
EU 28+	unknown %	unknown%	unknown %	unknown%	unknown %	unknown%

Quantitative data are available only for Bulgaria and Italy and there the threshold for VU is not closely approached.

Criterion E: Quantitative analysis to evaluate risk of habitat collapse

Criterion E	Probability of collapse
EU 28	unknown
EU 28+	unknown

There is no quantitative analysis available that estimates the probability of collapse of this habitat type.

Overall assessment "Balance sheet" for EU 28 and EU 28+

	A1	A2a	A2b	A3	B1	B2	B3	C/D1	C/D2	C/D3	C1	C2	C3	D1	D2	D3	E
EU28	LC	DD	DD	DD	LC	LC	LC	LC	DD	DD	DD	DD	DD	DD	DD	DD	DD
EU28+	LC	DD	DD	DD	LC	LC	LC	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD

Overall Category & Criteria			
EU 28		EU 28+	
Red List Category	Red List Criteria	Red List Category	Red List Criteria
Least Concern	-	Least Concern	-

Confidence in the assessment
Low (mainly based on uncertain or indirect information, inferred and suspected data values, and/or limited expert knowledge)

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