

E3.2b Mediterranean short moist grassland of mountains

Summary

This habitat comprises grass-dominated vegetation typical of moist ground at high altitudes in the west Mediterranean. Remaining green through the summer, these pastures provide valuable grazing for transhumant cattle and sheep. Abandonment of traditional pastoral systems, as well as off-piste skiing and climate change, threaten their sustainability. However, at present, extent and quality appear still stable.

Synthesis

What little detailed information is available suggests that this habitat is stable in both quantity and quality.

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, but certainly the species composition on the Iberian island differs from that in Corsica.

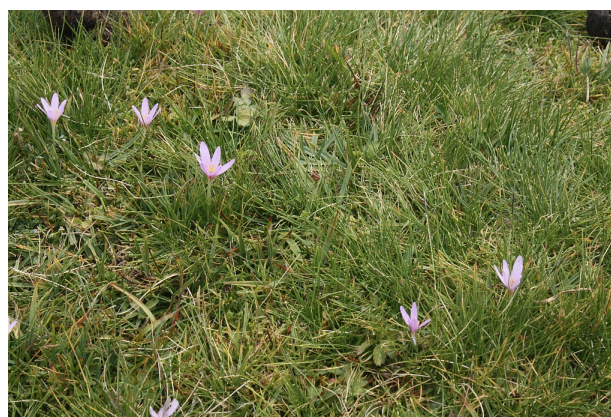
Habitat Type

Code and name

E3.2b Mediterranean short moist grassland of mountains



Nardus-dominated E3.2b grassland in the Sierra de la Demanda, Spain (Photo: Javier Loidi).



Colchicum in Nardus grassland in the high mountains of Corsica (Photo: John Janssen).

Habitat description

High mountain evergreen pastures of the western Mediterranean dominated by tussocky grasses such as *Nardus stricta* and *Festuca microphylla* (= *Festuca nigrescens* subsp. *microphylla*), located in moist places such as depressions experiencing long-lasting snow cover and even a certain water stagnation. The vegetation cover is near to closed with the grasses forming a continuous sward. As they remain green and productive during summer, those meadows constitute an important resource for the transhumant flocks of sheep and cows which spend the summer at high altitudes. In the Sierra Nevada these grasslands are called *borreguiles*, derived from *borrego*, sheep, while in the rest of the areas receive the name of *cervunales*. This name is derived from the *pasto cervuno* or *cebruno*, the Spanish name of *Nardus stricta*, as it was the main grass which was the pasture of an extinct Iberian endemic equidae, called Zebro (*Equus*

hydruntinus).

The grasslands occur in the central and southern Iberian siliceous mountains of the Cordillera Central, Sierra Nevada and northern Iberian System, extending to the neighboring North African mountains of the Rif and Atlas. They also occur in the high mountains of Corsica on slightly drier sites than the D2.2b Relict mires of Medi-terranean mountains dominated by *Carex intricata*.

Indicators of good quality:

- Closed carpet-like sward without open soil patches due to intensive grazing or trampling
- Dominance of grasses, such as *Nardus* or *Festuca*, combined with an even representation of the other herbaceous species
- Absence of nitrophilous species indicative of very heavy grazing pressure

Characteristic species:

Vascular plants in the Iberian Peninsula: *Nardus stricta*, *Agrostis nevadensis*, *Allium schoenoprasum* subsp. *gredense*, *Allium schoenoprasum* subsp. *latiorifolium*, *Armeria splendens*, *Campanula herminii*, *Carex furva*, *Cirsium gregarium*, *Dactylis juncinella*, *Deschampsia refracta* subsp. *gredensis*, *Dianthus langeanus* subsp. *gredensis*, *Dianthus lusitanus* subsp. *legionensis*, *Erodium carvifolium*, *Festuca henriquesii*, *Festuca iberica*, *Festuca microphylla*, *Festuca rothmaleri*, *Galium saxatile*, *Gentiana boryi*, *Gentiana pneumonanthe* subsp. *depressa*, *Gentiana verna* subsp. *sierrae*, *Hieracium pilosela* subsp. *tricholepium*, *Jasione laevis* subsp. *carpetana*, *Jasione laevis* subsp. *gredensis*, *Juncus squarrosus*, *Leontodon carpetanus* subsp. *carpetanus*, *Leontodon carpetanus* subsp. *nevadensis*, *Lotus glacialis*, *Lotus glareosus*, *Luzula campestris* subsp. *carpetana*, *Luzula hispanica* subsp. *nevadensis*, *Meum athamanticum* subsp. *nevadense*, *Narcissus bulbocodium* subsp. *graellsii*, *Narcissus bulbocodium* subsp. *nivalis*, *Phleum abbreviatum*, *Plantago alpina* subsp. *penyalarensis*, *Plantago nivalis*, *Plantago radicata* subsp. *granatensis*, *Poa alpina* subsp. *legionensis*, *Potentilla erecta*, *Potentilla nevadensis* subsp. *condensata*, *Potentilla recta* subsp. *asturica*, *Potentilla reuteri*, *Ranunculus abnormis*, *Ranunculus acetosellifolius*, *Ranunculus bulbosus* subsp. *castellanus*, *Ranunculus cacuminalis*, *Ranunculus demissus* var. *hispanicus*, *Sagina nevadensis*, *Sedum melanantherum*, *Trifolium nevadense*.

Vascular plants in Corsica: *Anthoxanthum odoratum*, *Bellium bellidioides*, *Botrychium matricariifolium*, *Botrychium simplex*, *Carex caryophyllea*, *Carex flava* subsp. *nevadensis*, *Carex nigra* ssp. *intricata*, *Carex ovalis*, *Carex pallescens*, *Colchicum alpinum* subsp. *parvulum*, *Cynosurus cristatus*, *Danthonia decumbens*, *Luzula spicata* subsp. *italica*, *Potentilla anglica* subsp. *nesogenes*, *Ophioglossum azoricum*, *Ophioglossum vulgatum*, *Plantago subulata* var. *insularis* (= *Plantago sarda* var. *alpinoides*), *Polygala serpyllifolia*, *Sagina pilifera*, *Potentilla anglica* subsp. *nesogenes*, *Potentilla erecta*, *Poa supina*, *Veronica serpyllifolia* subsp. *repens*

Classification

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

EUNIS:

E3.2 Mediterranean short humid grassland

EuroVegChecklist:

Plantaginion nivalis Quézel 1953 (Sierra Nevada)

Sieglingion decumbentis Gamisans 1976 (Corsica)

Campanulo hermini-Nardion strictae Rivas-Mart. 1964 (Central Iberian mountains)

Annex 1:

(In France possibly included under 6170 Alpine and subalpine calcareous grasslands)

Emerald:

E1.83 Mediterraneo-montane *Nardus stricta* swards

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 western Mediterranean climate and the particular transhumance pastoralism of the region, being the summer pastures for the sheep flocks spending the dry period in the high mountain.

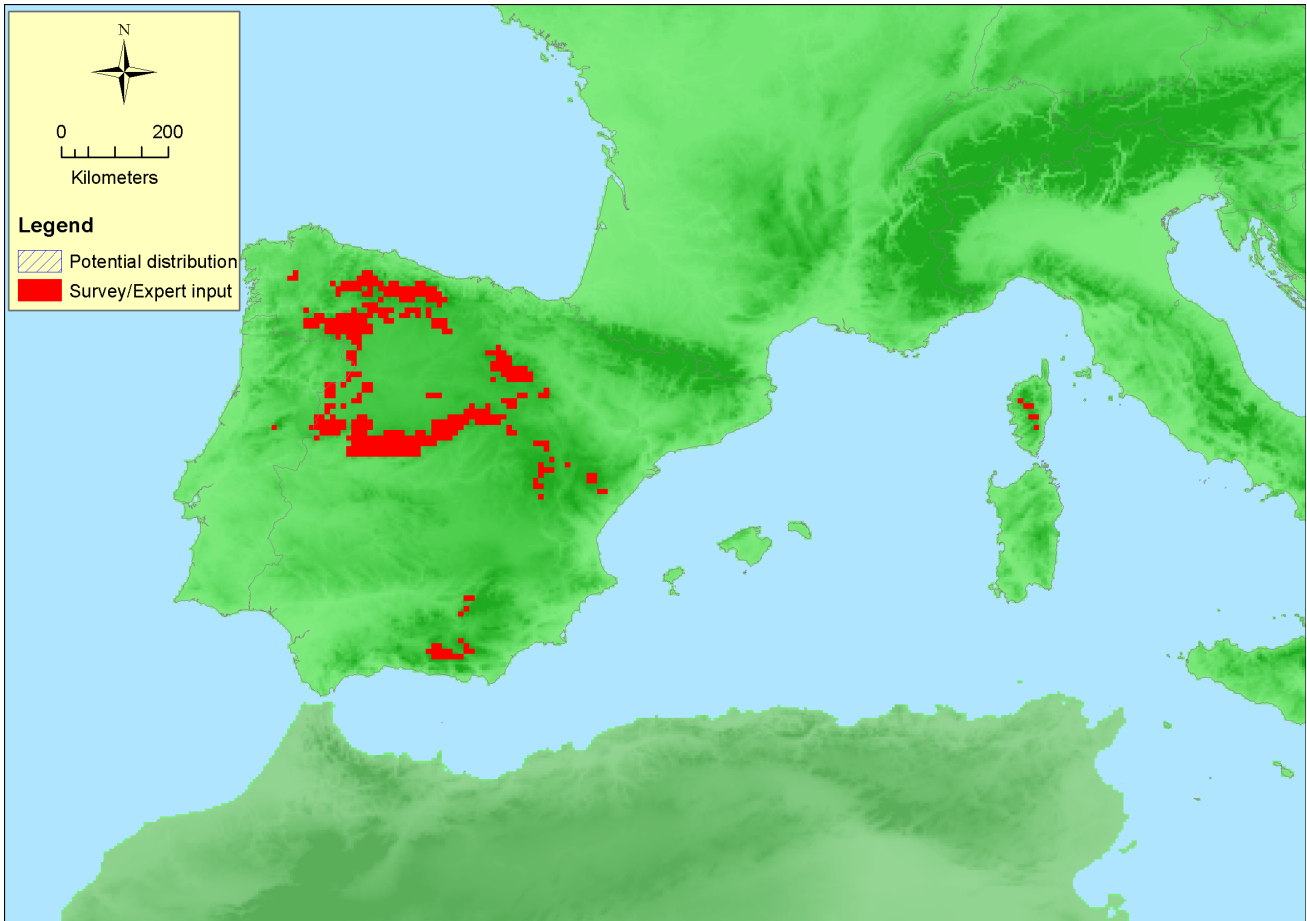
Geographic occurrence and trends

EU 28	Present or Presence Uncertain	Current area of habitat	Recent trend in quantity (last 50 yrs)	Recent trend in quality (last 50 yrs)
<i>France</i>	Corsica: Present	unknown Km ²	Unknown	Unknown
<i>Portugal</i>	Portugal mainland: Present	23 Km ²	Increasing	Unknown
<i>Spain</i>	Spain mainland: Present	526 Km ²	Stable	Stable

Extent of Occurrence, Area of Occupancy and habitat area

	Extent of Occurrence (EOO)	Area of Occupancy (AOO)	Current estimated Total Area	Comment
<i>EU 28</i>	596700 Km ²	409	549 Km ²	Over 95% of this habitat is in Spain and we have no data from Corsica.
<i>EU 28+</i>	596700 Km ²	409	unknown Km ²	

Distribution map



The map is complete for Spain and Corsica, but with data gaps for Portugal. Data: NAT, EVA.

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

Likely 95% of the habitat is within the EU28, but a certain representation is also in the northern Moroccan mountains of Rif and Atlas.

Trends in quantity

Long-term historical trend is unknown but in more recent time, the habitat has been stable in Spain and has increased modestly in extent in Portugal. In future, the situation is expected to be stable.

- Average current trend in quantity (extent)

EU 28: Stable

EU 28+: Stable

- Does the habitat type have a small natural range following regression?

No

Justification

The limited range is related to the combination of distinctive climate and regional pastoral tradition.

- Does the habitat have a small natural range by reason of its intrinsically restricted area?

Yes

Justification

The limited range is related to the combination of distinctive climate and regional pastoral tradition.

Trends in quality

Apart from an assessment of present stability, no information is available about past or likely future changes in quality.

- Average current trend in quality

EU 28: Stable
EU 28+: Stable

Pressures and threats

Most important threat is the abandonment of traditional grazing.

List of pressures and threats

Agriculture

Grazing
Abandonment of pastoral systems, lack of grazing

Human intrusions and disturbances

Outdoor sports and leisure activities, recreational activities
Skiing, off-piste

Climate change

Droughts and less precipitations

Conservation and management

Continuation of traditional grazing is the most important conservation activity.

List of conservation and management needs

Measures related to agriculture and open habitats

Maintaining grasslands and other open habitats

Measures related to spatial planning

Establish protected areas/sites

Conservation status

No equivalent Annex I type.

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

Restoration depends greatly on the feasibility of restoring the distinctive hydrological conditions at high altitude in the face of a changing climate.

Effort required

10 years	20 years	50+ years	200+ years
Through intervention	Through intervention	Naturally	Naturally

Red List Assessment

Criterion A: Reduction in quantity

Criterion A	A1	A2a	A2b	A3
EU 28	0 %	unknown %	unknown %	unknown %
EU 28+	0 %	unknown %	unknown %	unknown %

The situation is stable in Spain and there has been a modest increase in recent times in Portugal. Data on present and past extent are lacking from Corsica. Overall, as the area is Corsica seems relatively small, the trend is stable.

Criterion B: Restricted geographic distribution

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

EOO, AOO and number of locations are much larger than the thresholds for criterion B.

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	unknown %	unknown %	unknown %	unknown %	unknown %	unknown %
EU 28+	unknown %	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%

The trend in quality over the last 50 years is stable in Spain and unknown in Portugal. Data from Corsica are lacking. As Spain is likely to have the largest area of this type, it is unlikely that the thresholds for criteria C/D1 are met.

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	LC	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)

Assessors

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References

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