

E1.5c Cyrno-Sardean oromediterranean siliceous dry grassland

Summary

This habitat comprises grasslands of base-poor soils over siliceous bedrocks on the slopes and crests of high mountains in Corsica and (probably) Sardinia. There, the growing season is short, with harsh winters when strong winds blow the ground free of snow and leave the surface subject to deep cold which encourages the development of freeze-thaw features. The cover of vegetation is intermediate to complete, dominated by prostrate herbs, cushion plants and dwarf shrubs, and includes many endemics. Extreme conditions prevent succession and grazing, generally by sheep, is restricted to the brief summer and has little impact. The habitat is poorly known but the very limited extent makes for high vulnerability.

Synthesis

The habitat is assessed as Endangered (EN) based on a combination of restricted distribution and negative trends. In Corsica, accounting for more than 80% of the AOO, this habitat type showed during the last 50 year a slight but continuous qualitative decline, due to the abandonment of the traditional pastoral systems. Additionally, the total distribution (AOO = 14 grid cells of 10x10 km²) and extent (EOO = 7700 km²) are very small, so the habitat meets the conditions for the threat level Endangered. Figures about qualitative and quantitative decline of this habitat type are not available and there are no quantitative data about the past area.

Overall Category & Criteria			
EU 28		EU 28+	
Red List Category	Red List Criteria	Red List Category	Red List Criteria
Endangered	B1, B2	Endangered	B1, B2

Sub-habitat types that may require further examination

No sub-habitats need to be distinguished for further analysis.

Habitat Type

Code and name

E1.5c Cyrno-Sardean oromediterranean siliceous dry grassland



Sagina pilifera and *Luzula spicata* subsp. *italica* in high mountain grasslands of Corsica. France (Photo: John Janssen).



Oromediterranean siliceous dry grassland grazed by semi-wild pigs in the mountains of Corsica, with oro-mediterranean heathland in the back (Photo: John Janssen).

Habitat description

High-mountain siliceous grasslands of the oromediterranean belt of Corsica, occurring mainly at altitudes of 1,800-2,100 m, especially in the massifs of Monte Cinto, Monte Rotondo, Monte Renoso and Monte Incudine. These grasslands are dominated by herbs and graminoids, of which *Bellardiochloa variegata*, *Ligusticum corsicum*, *Plantago sarda*, *Sagina pilifera* and *Luzula spicata* subsp. *italica* are most frequent. Species endemic to Corsica are also common, including *Armeria multiceps*, *Paronychia polygonifolia* and *Trisetum conradiae*. In places dwarf shrubs may occur, especially *Genista lobelii*, and patches of creeping juniper *Juniperus communis* subsp. *alpina*. At altitudes between 2,100 and 2,200 m, these grasslands become more open.

This habitat type might be present also in Sardinia, represented by fragments localized on Mt. Gennargentu. The altitude of this mountain (1,834 m a.s.l.) reaches the oromediterranean climatic belt, and its top is characterized by strong winds that, in areas of ridges, exert a strict selection of the plant species in favor of crawling hemicryptophytes and cushion-like chamephytes, pushing the hemicryptophytic vegetation to find protection in between the dwarf shrubs. The most representative species are *Festuca morisiana*, *Armeria sardo* subsp. *genargentea*, *Hieracium soleirolianum* and other endemics.

This vegetation occurs on different types of siliceous rocks, which give rise to soils of pH between 5 and 6. These soils are influenced by cryoturbation and gelifluction.

Indicators of good quality:

- Occurrence of rare species, especially Corsican endemics
- Absence of nutrient-demanding, tall-growing competitive species
- No indication of the spread of (dwarf) shrubs
- Absence of overgrazing

Characteristic species:

Vascular plants: *Armeria multiceps*, *Bellardiochloa variegata* (= *Poa violacea*), *Cerastium soleirolii*, *Genista lobelii*, *Hieracium auricula* subsp. *micranthum*, *Juniperus communis* subsp. *alpina*, *Luzula spicata* subsp. *italica*, *Minuartia verna* s.l., *Nardus stricta*, *Paronychia polygonifolia*, *Plantago sarda*, *Poa balbisii* var. *prorepens*, *Reseda phyteuma* (= *Sesamoides pygmaea*), *Robertia taraxacoides*, *Sagina pilifera*, *Scleranthus burnatii*, *Sempervivum arachnoideum*, *Trisetum conradiae*

Classification

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

EUNIS

E1.5 Mediterranean-montane grassland

EuroVegChecklist alliances:

Sesamoido pygmaeae-Poion violaceae Gamisans 1975

Annex 1:

-

Emerald:

E4.3 Acid alpine and subalpine 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

This habitat is typical of the Mediterranean region, where it is limited to the oromediterranean belt where it occupies only a very restricted and isolated area.

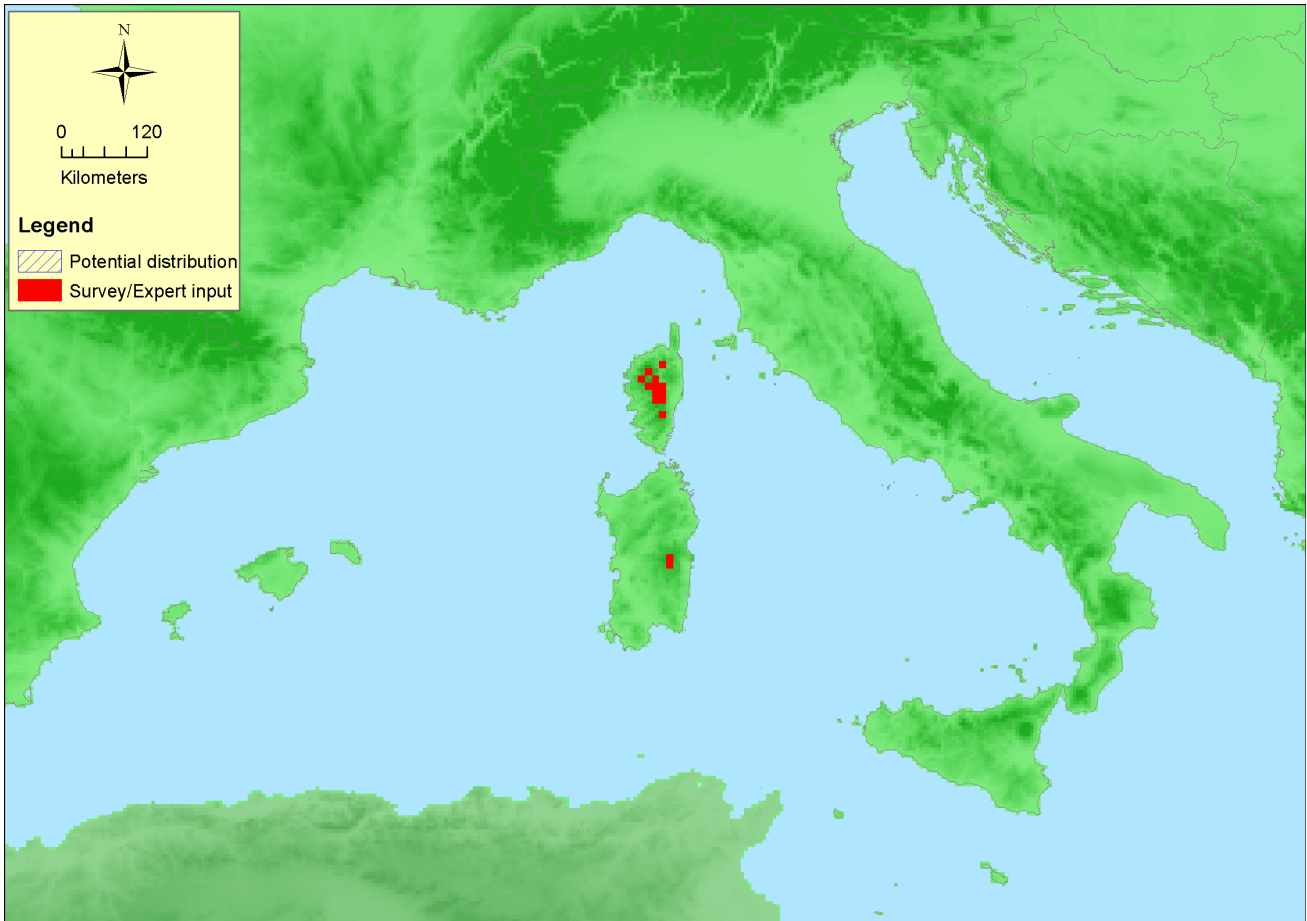
Geographic occurrence and trends

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	Stable	Decreasing
<i>Italy</i>	Sardinia: Present	Unknown Km ²	Stable	Unknown

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>	7700 Km ²	14	<1,400 Km ²	
<i>EU 28+</i>	7700 Km ²	14	<1,400 Km ²	

Distribution map



The map is complete. Data sources: EVA, LIT, BOHN.

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

The distribution area of this habitat type lies completely inside the EU 28 territory.

Trends in quantity

The knowledge about this habitat is very incomplete and fragmentary; precise figures about current and past quantitative trends are not available, all over its distribution area. Both in Corsica and in Sardinia, a current stable trend has been reported.

- 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 habitat has a very small natural range, with an EOO $\lll 50,000 \text{ Km}^2$, however according to the territorial data it has not undergone any important decline during the last 50 years.

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

Yes

Justification

The habitat has a very small natural range (with an EOO $\lll 50,000 \text{ Km}^2$) due to its peculiar biogeographic, bioclimatic and floristic traits; it is characterized by many endemic species and is itself an endemic habitat, so it can not be present elsewhere.

Trends in quality

The knowledge about this habitat is very incomplete and fragmentary; precise figures about current and past qualitative trends are not available, all over its distribution area. In Corsica a slight decline in quality is reported, in Sardinia there are no data.

- Average current trend in quality

EU 28: Decreasing

EU 28+: Decreasing

Pressures and threats

These grasslands are threatened by both intensive grazing (causing trampling, erosion, invasion by nitrophilous species) and lack of grazing (causing dynamic processes and invasion of dwarf shrubs). It should be considered that this ridge habitat is a mosaic of this dry grassland with dwarf shrubs. Traditional mountain pastoralism was abandoned since the 60s, but these grasslands are still maintained by wandering cattle. Fire is also an important factor and it also regressed more recently (starting approximately from 15 years ago). Climate change also represents a threat for this habitat, from both a quantitative and qualitative point of view.

List of pressures and threats

Agriculture

Grazing

Intensive grazing

Abandonment of pastoral systems, lack of grazing

Natural System modifications

Fire and fire suppression

Natural biotic and abiotic processes (without catastrophes)

Biocenotic evolution, succession

Climate change

Changes in abiotic conditions

Conservation and management

Maintaining the traditional pastoral systems, with a low intensity grazing, is the most effective way to maintain this habitat type. Due to the rather extreme climatic conditions, the successional processes are not particularly fast, however the lack of grazing should be avoided.

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

Legal protection of habitats and species

Manage landscape features

Conservation status

-

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

Maintaining or re-establishing the traditional pastoral systems, with a low intensity grazing, is necessary to preserve the characteristics of this habitat. Due to the extreme climatic conditions, when severely damaged, its capacity to recover its typical character and functionality is very low and, in case of extreme degradation, it might be very hard, if not impossible.

Effort required

50+ years
Through intervention

Red List Assessment

Criterion A: Reduction in quantity

Criterion A	A1	A2a	A2b	A3
EU 28	Unknown %	Unknown %	Unknown %	Unknown %
EU 28+	Unknown %	Unknown %	Unknown %	Unknown %

Figures about the quantitative decline of this habitat type are not available; both in Corsica and in Sardinia, a current stable trend has been reported, however there are no data about the past area, so the assessment brings to the category Data Deficient (DD).

Criterion B: Restricted geographic distribution

Criterion B	B1				B2				B3
	EOO	a	b	c	AOO	a	b	c	
EU 28	7700 Km ²	Yes	Yes	Unknown	14	Yes	Yes	Unknown	Unknown
EU 28+	7700 Km ²	Yes	Yes	Unknown	14	Yes	Yes	Unknown	Unknown

In Corsica, accounting for more than 80% of the distribution (AOO), this habitat type showed during the last 50 year a slight but continuous qualitative decline, due to the abandonment of the traditional pastoral systems (traditional mountain pastoralism was abandoned since the 1960s). Additionally, the total AOO and EOO are very small, so the conditions to apply Criterion B1 and B2 are met. The habitat is therefore assessed as Endangered (EN).

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 %	30 %	Unknown %	Unknown %	Unknown %	Unknown %
EU 28+	Unknown %	30 %	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%

Figures about the qualitative decline of this habitat type are not available, although a certain decline has been reported in Corsica, with no indication about its extent. As a consequence, the assessment brings to the category Date Deficient (DD).

Criterion E: Quantitative analysis to evaluate risk of habitat collapse

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

No data are available for the application of Criterion E.

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	DD	DD	DD	DD	EN	EN	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD
EU28+	DD	DD	DD	DD	EN	EN	DD	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
Endangered	B1, B2	Endangered	B1, B2

Confidence in the assessment

Medium (evenly split between quantitative data/literature and uncertain data sources and assured expert knowledge)

Assessors

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