H3.2d Mediterranean base-rich inland cliff

Summary

This habitat is composed of cliffs of limestone, calcareous conglomerates and other base-rich rocks in the lowlands to high mountains through the Mediterranean (excepting in salt-sprayed coastal situations). They are characterised by a diverse flora of calcicole vascular perennial plants, often of rosulate, prostrate, succulent and cushion form, tussock grasses, small ferns, dwarf shrubs, shrubs and sometimes woody climbers and small trees, rooted in fissures and crevices. There are also bryophytes, lichens and epi- and endolithic micro-organisms. Towards the foothills and lowlands, the habitat is more prone to be affected by human disturbances, especially its species composition. High mountain cliffs are usually well preserved, with a high degree of naturalness. Threats are mainly linked to securing cliffs alongside roads and rail, sport and leisure activities (e.g. rock-climbing) and, especially at lowere elevations, mining, quarrying and invasive/alien plants. Public awareness raising and scientifically-based management of this habitat type is needed.

Synthesis

The habitat type is assessed as Least Concern status (LC) in view of its stable trend, since a reduction of only 0.4% has occurred over the last 50 years. Reductions in quality cannot be estimated due to lack of information. Future trends for this habitat are rather unpredictable, but most of the Mediterranean cliffs fall within natural reserves or protected areas and thus are presumed to be stable.

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 subhabitats have been distinguished, but it is clear for the high number of alliances that the habitat contains large diversity, and several regional subtypes may be distinguished.

Habitat Type

Code and name

H3.2d Mediterranean base-rich inland cliff

Baserich cliffs, Island of Chios, Greece (Photo: Gianpietro Giusso del Galdo).

Ebenus cretica, an endemic chasmophyte of the lowland cliffs of Crete (Photo: Gianpietro Giusso del Galdo).

Habitat description

This habitat is composed of cliffs of limestone, calcareous conglomerates and other base-rich rocks in the Mediterranean, except if they are halophytic as a result of being under sea spray influence, with calcicole vascular plants, growing in fissures and crevices (chasmophytes), bryophytes, lichens and epi- and endolithic micro-organisms. The chasmophytic flora is diverse in composition and growth form; it consists mainly of perennial herbs, small ferns, dwarf shrubs, shrubs, tussock grasses, and sometimes woody climbers and small trees. Rosulate, prostrate, succulent and cushion are characteristic growth forms. Genera such as *Asplenium, Campanula, Centaurea, Hieracium, Saxifraga, Silene* and *Teucrium* are particularly species-rich and well represented in many Mediterranean regions. Cliff habitats are known to promote speciation and relict endemism through geographical isolation and long-term habitat continuity. Although not particularly rich in species per site (alpha diversity), relicts, as well as neo-endemisms, lead to an extraordinary regional and supra-regional diversity. The large number of floristically well-defined plant communities and alliances reflects these geographical and altitudinal patterns. Apart from the striking biogeographical variation, local-scale differences in species composition occur due to exposure, cliff topography, rock texture, mineral composition and humidity.

Mediterranean base-rich inland cliffs occur in most of the Iberian Peninsula (except the northern part), the Balearic islands, southern France, Corsica, Sardinia, Sicily, the Tyrrhenian coastal region with the islands, the Apennines, the Adriatic and Ionian coastal regions and islands, the southern Balkans (as far as Mediterranean climate is prevailing), the Aegean, Cyprus, further to Mediterranean Turkey (Anatolia) and the Mediterranean parts of Syria, Lebanon, Jordan and Israel, as well as to northern Africa (i.e. Cyrenaica in Lybia, Tunisia, Algeria and Morocco). Non-halophytic cliffs are present from sea-level up to the high mountains, exposed or sheltered, in ravines, gorges, precipices and summit areas. Ultramafic cliffs are included under habitat H3.2g, while halophytic coastal cliffs are included under habitat B3.1-3b.

Indicators of quality:

Mediterranean limestone cliffs are mostly natural habitats with only little or marginal human influence. Mediterranean cliffs support a characteristic chasmophytic flora rich in local and regional endemics. There are several examples of neo-endemics (Quaternary speciation) as well as paleo-endemics (Tertiary relics). The occurrence of rare and phytogeographically significant endemics indicates high quality. Since the chasmophytic flora varies much between areas, the quality of particular sites should be judged by the

chasmophytes occurring in the site proportional to those in the wider area.

Cliff habitats are mostly inaccessible and as such to some extent they are naturally protected. Human impacts such as quarrying and rock control structures are tantamount to the destruction of the habitat. The following characteristics may be used as indicators of good quality:

- Occurrence of a representative set of rare species, in particular narrow or regional endemics
- Presence of different aspects of rock walls, different exposure to insolation, moisture and rock structures such as vertical rock faces, overhangs, cavities, rock shelters and ledges
- Contact with natural habitats such as extensive screes, rock shrubs and dry grasslands
- Absence of limestone mining and quarrying
- Absence of rock control structures
- Absence of garbage dumping and nutrient input from above the cliff
- Absence of rock climbing facilities

Characteristic species:

Vascular plants: *Achillea (ageratifolia subsp. aizoon, cretica, pindicola subsp. integrifolia), Aethionema (lycium, saxatile, schistosum, spicatum), Alchemilla ellenbergiana, Allium (antonii-bolosii, grosii), Allosorus (acrosticus, hispanicus, persicus), Alyssoides cretica, Alyssum (baeticum, cadevallianum), Amelanchier parviflora, Anogramma leptophylla, Antirrhinum (hispanicum subsp. mollissimum, microphyllum, pertegasii, pulverulentum, subbaeticum, valentinum), Anthriscus kotschyi, Arabis (alpina subsp. brevifolia, alpina subsp. caucasica, bryoides), Arenaria (balearica, cretica, deflexa, kotschyana subsp. kotschyana, pamphylica, tmolea, uninervia), Artemisia chamaemelifolia subsp. cantabrica, Asperula (arcadiensis, boissieri, boryana, paui subsp. dianensis, paui subsp. paui, pubescens, serotina, stricta subsp. grandiflora, tournefortii), Asplenium (aegaeum, ceterach, creticum, fissum, fontanum, lepidum subp. lepdium, lepidum subsp. haussknechtii petrarchae, ruta-muraria, sagittatum, seelosii subsp. glabrum, tadei, trichomanes), Asyneuma (compactum, linifolium subsp. linifolium, lycium), Athamanta vayredana, Aubrieta (canescens subsp. canescens, deltoidea, thessala), Aurinia (corymbosa, rupestris subsp. cyclocarpa, saxatilis subsp. orientalis), Bellium bellidioides, Biscutella frutescens, Brassica (balearica, cretica subsp. cretica, cretica subsp. aegaea, cretica subsp. laconica, cretica subsp. nivea), Bubon macedonicum, Bufonia calyculata, Bupleurum (barceloi, kakiskalae), Campanula (affinis, aizoon, celsii, cretica, cymbalaria, isaurica, laciniata, mollis, oreadum, pelviformis, rotundifolia subsp. hispanica, rupestris, rupicola, tubulosa, versicolor), Capparis orientalis, Cardamine plumierii, Carex rorulenta, Carum meoides, Centaurea (argentea, boissieri subsp. mariolensis, cariensis subsp. microlepis, clementei, drabifolia, lancifolia, mariana, ossaea, poculatoris, redempta, resupinata subsp. lagascae, rouyi, saxicola, segariensis), Centranthus ruber subsp. sibthorpii, Cephalaria squamiflora (subsp. balearica, subsp. mediterranea), Chaenorhinum (origanifolium subsp. cadevallii, origanifolium subsp. crassifolium, origanifolium subsp. origanifolium, origanifolium subsp. segoviense, tenellum), Chiliadenus glutinosus, Clinopodium (rouyanum, serpyllifolium subsp. fruticosum), Cosentinia vellea, Crepis (auriculifolia, triasii), Crocus cambessedesii, Cystopteris fragilis, Danthoniastrum compactum, Davallia canariensis, Dianthus (elegans, fruticosus, juniperinus, rupicola, xylorrhizus), Digitalis dubia, Doronicum cacaliifolium, Dorystaechas hastata, Draba (acaulis, lacaitae, lasiocarpa subsp. dolichostyla, scardica), Ebenus cretica, Erodium reichardii, Eryngium ternatum, Erysimum candicum, Euphorbia herniariifolia, Festuca pseudosupina, Ficus carica, Galatella cretica, Galium (canum, crespianum, degenii, erythrorrhizon, fruticosum subsp. ephedroides, fruticosum subsp. fruticosum, graecum), Geranium glaberrimum, Globularia majoricensis, Gnaphalium leucopilinum, Gypsophila montserratii, Helichrysum (crassifolium, heldreichii, melitense, orientale), Helictochloa crassifolia, Hieracium (amplexicaule, arragonense, bourgaei subsp. baeticum, candidum, elisaeanum, humile, laniferum, lawsonii, loscosianum, mixtum, pannosum, sartorianum, scapigerum, texedense), Hippocrepis (balearica, valentina), Hirtellina (fruticosa, lobelii), Hormathophylla reverchonii, Hypericum (aciferum, amblycalyx, jovis, origanifolium, taygeteum), Iberis gibraltarica, Inula (candida, heterolepis, methanaea, oxylepis, parnassica, pseudolimonella, verbascifolia), Jacobaea gnaphalioides, Jankaea heldreichii, Jasione foliosa, Lactuca*

acanthifolia, Lafuentea rotundifolia, Laserpitium petrophilum, Lepidium villarsii subsp. anticarium, Linaria (anticaria, cavanillesii, verticillata), Linum arboreum, Lomelosia (albocincta, crenata, cretica, hymettia, minoana, variifolia), Macrotomia densiflora, Melica rectiflora, Michauxia tchihatcheffii, Micromeria (filiformis, myrtifolia), Minuartia valentina, Moehringia intricata (subsp. castellana, subsp. intricata, subsp. tejedensis), Myosotis speluncicola, Narcissus calcicola, Naufraga balearica, Nepeta (concolor, phyllochlamys), Odontites linkii, Omphalodes luciliae subsp. cilicica, Onobrychis sphaciotica, Onosma graeca, Origanum dictamnus, Papaver rupifragum subsp. rupifragum, Petrorhagia dianthoides, Petromarula pinnata, Phagnalon (rupestre subsp. graecum, sordidum), Poa cenisia, Polypodium (cambricum subsp. cambricum, interjectum, vulgare), Potentilla (caulescens subsp. caulescens, caulescens subsp. nebrodensis, deorum, kotschyana, pulvinaris, speciosa), Pseudoscabiosa (grosii, saxatilis), Ptilostemon chamaepeuce, Ramonda myconi, Ranunculus (creticus, weyleri), Rhamnus (alpina subsp. fallax, libanotica, pumila, sibthorpiana), Rosularia (libanotica, serrata), Rubia angustifolia, Rupicapnos africana subsp. decipiens, Sanguisorba (ancistroides, cretica, rupicola), Sarcocapnos (baetica subsp. baetica, baetica subsp. integrifolia, crassifolia subsp. speciosa, enneaphylla subsp. saetabensis, pulcherrima), Satureja parnassica, Saxifraga (biternata, bourgaeana, camposii, corsica subsp. corsica, corsica subsp. cossoniana, cuneata, exarata, federici-augusti subsp. grisebachii, fragilis subsp. fragilis, fragilis subsp. paniculata, glabella, granatensis, kotschyi, latepetiolata, longifolia subsp. longifolia, losae, luteoviridis, marginata, moncayensis, paniculata, porophylla, reuteriana, rigoi, scardica, sempervivum, sibthorpii, spruneri, taygetea), Scorzonera cretica, Scrophularia (depauperata, heterophylla, kotschyana, libanotica), Scutellaria sieberi, Securigera globosa, Sedum (dasyphyllum subsp. dasyphyllum, dasyphyllum subsp. glanduliferum, dasyphyllum subsp. granatense, magellense), Selaginella denticulata, Sempervivum marmoreum, Senecio castagneanus, Sesleria (doerfleri, insularis), Sibthorpia africana, Sideritis (glauca, perfoliata, stachydioides), Silene (andryalifolia, auriculata, boryi, congesta, gazulensis, gigantea, hifacensis, leptoclada, mollissima, odontopetala, parnassica, pusilla, saxifraga, tomentosa), Solenopsis balearica, Stachys (candida, chrysantha, parolinii, spreitzenhoferi, swainsonii), Staehelina petiolata, Symphytum creticum, Tanacetum (argenteum subsp. canum, argenteum subsp. flabellifolium, armenum), Teucrium (aroanium, buxifolium subsp. buxifolium, cuneifolium, fragile, francisci-werneri, freynii, halacsyanum, hifacense, intricatum, rivasii, rivas-martinezii, rotundifolium subsp. rotundifolium, thymifolium), Thymus richardii (subsp. ebusitanus, subsp. richardii), Trisetum velutinum, Umbilicus (horizontalis, luteus, rupestris), Valeriana (apula, asarifolia, longiflora, sisymbriifolia, speluncaria, tripteris), Verbascum (arcturus, pestalozzae), Veronica (bellidioides subsp. lilacina, kotschyana), Viola (chelmea, herzogii, parnonia, perinensis, poetica).

Bryophytes: *Anoectangium aestivum, Anomodon viticulosus, Didymodon vinealis, Brachythecium glareosum, Brachythecium laetum, Bryum elegans, Ctenidium molluscum, Distichium capillaceum, Ditrichum flexicaule, Distichium inclinatum, Encalypta streptocarpa, Encalypta vulgaris, Frullania tamarisci, Gymnostomum calcareum, Grimmia anodon, Grimmia capillata, Grimmia crinita, Grimmia orbicularis, Grimmia teretinervis, Grimmia tergestina, Gymnostomum aeruginosum, Gymnostomum viridulum, Gyroweisia tenuis, Homalia trichomanoides, Homalothecium lutescens, Homalothecium philippeanum, Homalothecium sericeum, Isothecium myosuroides, Leiocolea collaris, Mnium marginatum, Mnium stellare, Myurella tenerrima, Neckera complanata, Neckera crispa, Orthotrichum anomalum, Orthotrichum cupulatum, Plagiochila exigua, Plagiochila spinulosa, Porella platyphylla, Pseudoleskea incurvata, Pseudoleskeella catenulata, Pterogonium gracile, Reboulia hemisphaerica, Schistidium apocarpum, Schistidium brunnescens, Schistidium crassipilum, Seligeria calcarea, Targionia hypophylla, Timmia bavarica, Tortella tortuosa, Tortula calcicolens, Tortula crinita, Tortula muralis, Tortula norvegica, Tortula ruralis, Trichostomum crispulum.*

Classification

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

EUNIS:

H3.2 Basic and ultra-basic inland cliffs

EuroVeg Checklist:

Adiantion Br.-Bl. ex Horvatić 1934

Amphoricarpion neumayeri Lakušić 1968

Arenarion balearicae O. de Bolòs et Molinier 1969

Arenarion bertolonii Gamisans ex Theurillat in Mucina et al. 2014

Arenarion creticae Dimopoulos, Sýkora, Mucina et Georgiadis ex Bergmeier 2002

Asperulion garganicae Bianco et al. 1989

Asplenio celtiberici-Saxifragion cuneatae Rivas-Mart. in Loidi et Fernández Prieto 1986

Asplenion glandulosi Br.-Bl. in Meier et Br.-Bl. 1934

Asterion cretici Zaffran ex Bergmeier et al. 2011

Aubrietion olympicae Quézel et Pamukçuoğlu 1970

Brassicion insularis Gamisans 1991

Brassico balearicae-Helichrysion rupestris O. de Bolòs et Molinier 1958

Campanulion cymbalariae Hein et al. 1998

Campanulion isauricae Hein et al. 1998

Campanulion velutinae Martínez-Parras et Peinado Lorca 1990

Campanulion versicoloris Quézel 1964

Capparo-Amaracion tournefortii Horvat in Horvat, Glavač et Ellenberg ex Bergmeier et al. 2011

Caro multiflori-Aurinion megalocarpae Terzi et D'Amico 2008

Centaureo dalmaticae-Campanulion Horvatić 1934

Centaureo filiformis-Micromerion cordatae Arrigoni et Di Tommaso 1991

Centaureo-Portenschlagiellion Trinajstić 1980

Cosentinio bivalentis-Lafuenteion rotundifoliae Asensi et al. 1990

Dianthion rupicolae S. Brullo et Marcenó 1979

Drabion acaulis Hein et al. 1998

Edraianthion Lakušić 1968

Galion degenii Quézel 1967

Inulion heterolepidis Horvat in Horvat, Glavač et Ellenberg ex Bergmeier et al. 2011

Jasionion foliosae O. de Bolòs 1957

Micromerion croaticae Horvat et al. 1974

Onosmion mutabilis Quézel 1973

Petrocoptidion glaucifoliae (P. Fernández et al. 1983) Rivas-Mart., Cantó et Izco in Rivas-Mart. et al. 2002

Petromarulo-Centaurion argenteae Horvat in Horvat, Glavač et Ellenberg ex Bergmeier et al. 2011

Pinguiculion longifoliae Fernandez Casas 1970

Polypodion serrati Br.-Bl. in Br.-Bl. et al. 1952

Sarcocapnion enneaphyllae Fernandez Casas 1972

Sarcocapnion pulcherrimae Fernandez Casas 1972 corr. Rivas-Mart. et al. 2002

Saxifragion australis Biondi et Ballelli ex S. Brullo 1984

Saxifragion camposii Cuatrecasas ex Quézel 1953

Saxifragion scardicae Dimopoulos et al. 1997

Silenion auriculatae Quézel 1964

Silenion odontopetalae Quézel 1973

Teucrion buxifolii Rivas Goday 1956

Valeriano longifoliae-Petrocoptidion Fernandez Casas 1972

Centaureion pentadactyli Brullo, Scelsi et Spampinato 2001

Athamantion dellae-cellae Brullo et Furnari 1996

Terucrion cyrenaici Brullo et Furnari 1996

Annex 1:

8210 Calcareous rocky slopes with chasmophytic vegetation

Emerald:

H3.2 Basic and ultra-basic inland cliff

MAES-2:

Sparsely or unvegetated land

IUCN:

6. Rocky areas

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

Regions
Mediterranean

Justification
The habitat represents an outstanding example of the Mediterranean biogeographic region as a result of the occurrence of a pool of species, mostly endemic, characterized by a high ecological specialization and a remarkable phytogeographical, genetic and evolutionary value.

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)

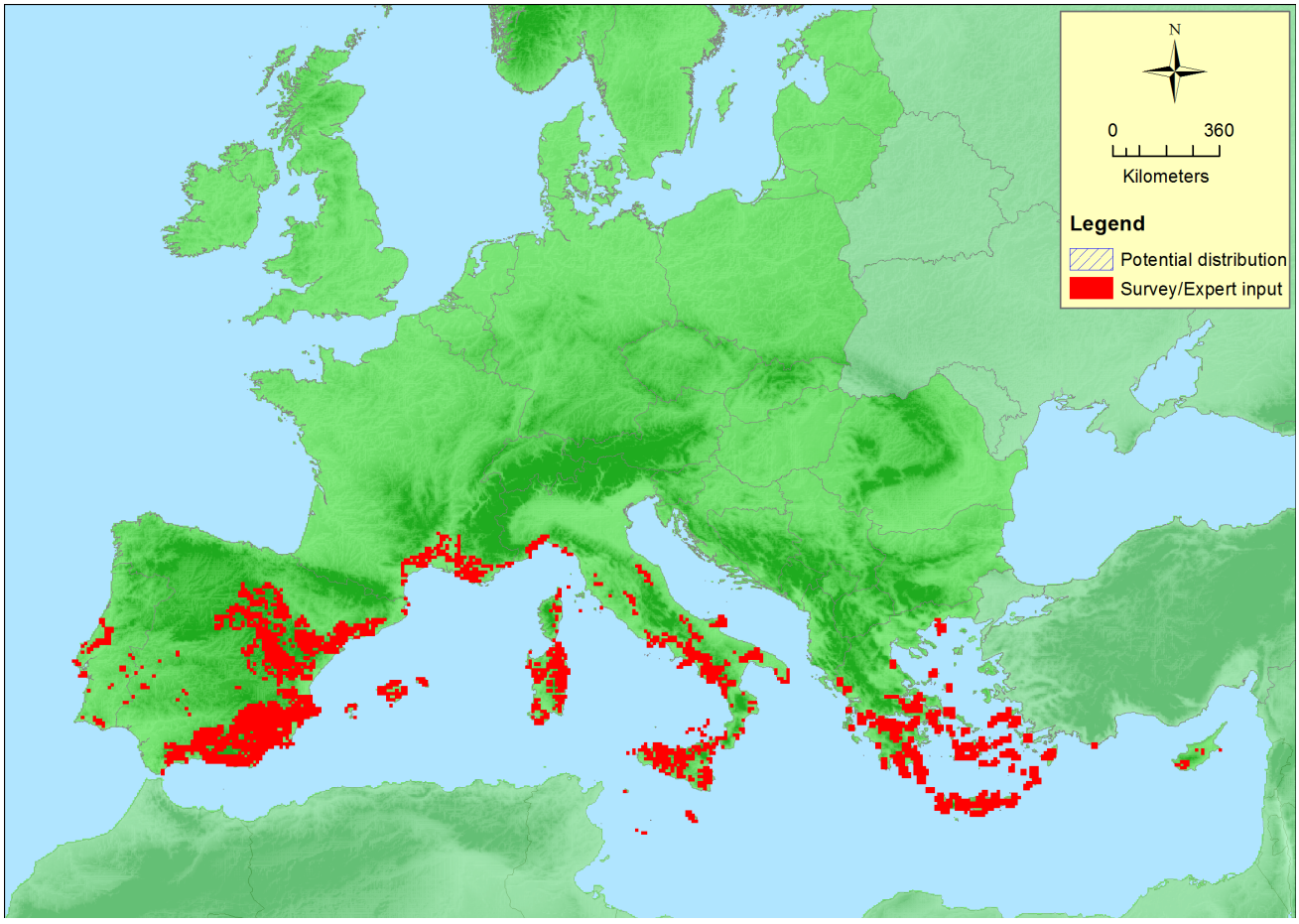
EU 28	Present or Presence Uncertain	Current area of habitat	Recent trend in quantity (last 50 yrs)	Recent trend in quality (last 50 yrs)
Croatia	Present	25 Km^2	Stable	Stable
Cyprus	Present	unknown Km^2	Unknown	Unknown
France	Corsica: Present France mainland: Present	175 Km^2	Decreasing	Decreasing
Greece	Crete: Present East Aegean: Present Greece (mainland and other islands): Present	150 Km^2	Unknown	Unknown
Italy	Italy mainland: Present Sardinia: Present Sicily: Present	137 Km^2	Stable	Decreasing
Portugal	Portugal mainland: Present	15 Km^2	Increasing	Unknown
Slovenia	Present	1 Km^2	Stable	Stable
Spain	Spain mainland: Present	261 Km^2	Stable	Decreasing

EU 28 +	Present or Presence Uncertain	Current area of habitat	Recent trend in quantity (last 50 yrs)	Recent trend in quality (last 50 yrs)
Albania	Present	unknown Km^2	Unknown	Unknown
Bosnia and Herzegovina	Present	5 Km^2	Stable	-

Extent of Occurrence, Area of Occupancy and habitat area

	Extent of Occurrence (EOO)	Area of Occupancy (AOO)	Current estimated Total Area	Comment
EU 28	>50.000 Km^2	>50	764 Km^2	
EU 28+	>50.000 Km^2	>50	769 Km^2	These figures are calculated without considering data from Cyprus and Albania, as it was not available.

Distribution map



The map is rather complete, except for some possible occurrences on the eastern side of the Adriatic sea. Data sources: Art17.

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

More than 90% of the current distribution of this habitat type lies within the EU 28.

Trends in quantity

Based on the provided data, the reduction of this habitat type over the last 50 years is 0.4% for both the EU 28 and for the EU 28+. Thus, it can be considered stable. Although no figure or estimation can be provided for future trends, its future extent trends can be realistically considered as 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
  There has been no relevant regression over the last 50 years.
- Does the habitat have a small natural range by reason of its intrinsically restricted area?
  Yes
  Justification
  This habitat cannot occur everywhere since its establishment requires very specific climatic and geo-morphological features. Therefore, the total area occupied is naturally very limited.

Trends in quality

Past, historical and future trends cannot be estimated due to the lacking of data. In addition, when

provided, data are incomplete and thus, not adequate to calculate reliable trends in quality. The extent and severity of degradation are both unknown.

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

Pressures and threats

This habitat type is not very affected by human activities, especially on mountain stands and rather inaccessible sites. Despite this fact, some disturbances may be caused by sport and leisure activities (e.g. rock-climbing), mining and quarrying (at lower elevations), invasive and/or alien plants (at low altitudes), and cliff securing.

List of pressures and threats

Mining, extraction of materials and energy production

Mining and quarrying

Transportation and service corridors

Roads, paths and railroads
Roads, motorways
Tunnel

Human intrusions and disturbances

Outdoor sports and leisure activities, recreational activities
Mountaineering, rock climbing, speleology
Mountaineering & rock climbing
Recreational cave visits
Fences, fencing

Invasive, other problematic species and genes

Invasive non-native species

Conservation and management

The best management practice for this highly natural habitat is to leave it simply untouched, thus avoiding any human interference with its natural processes. Luckily, cliffs are mostly present in protected areas.

Information about the biological value of this habitat to the potential users, such as climbers, should be extensively provided. In addition, public awareness about the biological relevance of such apparently inhospitable environments should be increased.

List of conservation and management needs

Measures related to spatial planning

Establish protected areas/sites
Manage landscape features

Measures related to special resouce use

Regulating/Management exploitation of natural resources on land

Conservation status

Annex I:

8210: MED XX

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

Unless completely destroyed, cliff recovery is possible provided that it is potentially connected with similar environments and that natural geo-morphological processes are not hampered. As many specialised plants of this habitat type are poor dispersers, the species composition is expected to remain impoverished even after initial habitat recovery.

Effort required

10 years	200+ years
Unknown	Naturally

Red List Assessment

Criterion A: Reduction in quantity

Criterion A	A1	A2a	A2b	A3
EU 28	-0.4 %	Unknown %	Unknown %	Unknown %
EU 28+	-0.4 %	Unknown %	Unknown %	Unknown %

A decline of 0.4% has been calculated over the past 50 years. There is no information on future and historic declines. Therefore, the habitat type is assessed as Least Concern under Criterion A.

Criterion B: Restricted geographic distribution

Criterion B	B1				B2				B3
	EOO	a	b	c	AOO	a	b	c	
EU 28	>50.000 Km^2	Unknown	Unknown	Unknown	>50	Unknown	Unknown	Unknown	Unknown
EU 28+	>50.000 Km^2	Unknown	Unknown	Unknown	>50	Unknown	Unknown	Unknown	Unknown

The EOO and AOO values largely exceed the thresholds for a threatened category. Therefore, the habitat type is assessed as Least Concern under Criterion B. In addition, it is unknown whether there has been a continuing decline in spatial extent, abiotic and biotic quality; whether there is a threatening process that is likely to cause declines in the next 20 years, and whether the habitat exists at very few locations.

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 %	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%

There is no information on past, historical and future reductions in quality, and thus the habitat is assessed as Data Deficient under Criterion C/D.

Criterion E: Quantitative analysis to evaluate risk of habitat collapse

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

There is no information available to estimate the risk of collapse under Criterion E, and therefore it is assessed as Data Deficient.

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	DD	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)

Assessors
G. Giusso del Galdo

Contributors
Type description: E. Bergmeier & G. Giusso del Galdo

Territorial data: E. Agrillo, O. Argagnon, F. Attorre, S. Bagella, J. Capelo, A.Čarni, L. Casella, D. Espírito-Santo, D. Gigante, G. Giusso del Galdo, J. Loidi, C. Marcenò, D. Milanovic, S. Sciandrello, Z. Škvorc, D. Viciani

Working Group Sparsely Vegetated Habitats: F. Essl, G. Giusso Del Galdo, A. Mikolajczak, D. Paternoster, M. Valachovič, M. Valderrabano

Reviewers
M. García Criado

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