

F9.3 Mediterranean riparian scrub

Summary

This riparian scrub is an azonal habitat of irregularly flooded environments in a warm Mediterranean climate, occurring mainly along the beds of uncontrolled rivers but also in relatively fresh or brackish coastal sites. Summer drought is long and severe and, even inland, salinisation is possible. The habitat is threatened by changes in the hydrology of rivers to maintain water supplies and also by pollution, afforestation, removal of shrubs for cultivation and intensive grazing and urbanisation.

Synthesis

The overall decrease in quantity is relatively low (-12%), resulting in the category Least Concern (LC). The quality shows a slight negative trend affecting on average 20% of the surface with a moderately high severity (49%). Also these values lead to the conclusion Least Concern.

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

The Mediterranean riparian scrub is defined to include some coastal scrub on the Black Sea shores. This subhabitat differs from the core of the habitat definition, which relates to Mediterranean alluvial scrub, and may be considered as a separate habitat for assessing the threatened status. It is possible (but not certain, because of data gaps) that the Black Sea shore type is more threatened than the Mediterranean type.

Habitat Type

Code and name

F9.3 Mediterranean riparian scrub



Mediterranean riparian scrub with *Nerium oleander* at Fiumara Castelbuono, Palermo, Italy (Photo: Ricardo Guarino).



Nerio oleandri-Salicetum pedicellatae in Andalusia, southern Spain (Photo: Carlos Salazar).

Habitat description

Alluvial Mediterranean tamarisk (*Tamarix spp.*), oleander (*Nerium oleander*), and chaste tree (*Vitex agnus-castus*) galleries and thickets, and similar low ligneous formations living in irregularly flooded environments. In climates with severe seasonal drought, such as the Mediterranean, streams can be

intensely fluctuant and even temporary; often the flooding temporal pattern is extremely irregular. This can leave riverbeds (or large portions of them) completely dry for long periods, in which often salinity increases during the drought. The hydric requirements of the scrub in such river beds are much lower than those of the willow, poplar or alder riparian forests (habitat G1.3). Under even more extreme conditions pioneer communities of habitat C3.5e are found.

These scrub and thickets are frequent in the areas where summer drought is long and severe, i.e. the thermo- and meso-Mediterranean belts of southern Europe (central and southern Iberia, southern Italy and southern Greece) and the Canary Islands, expanding in North Africa and Middle East along the Saharo-Arabian and Irano-Turanian regions. They include formations of *Tamarix ramossissima* of stream sides and coastal localities of the Pontic and Steppic areas of the Black Sea shores in SE Europe.

This habitat is rarely forming a dense shrubland due to disturbance regime determined by the floods. The best examples are found in uncontrolled stretches of mature rivers, rivulets or depressions.

Indicators of good quality:

- periodically inundated with flood waters
- bushes distributed scattered, sometimes closing in a more dense thicket
- no signal of timber or firewood exploitation
- no sign of eutrophication due to anthropogenically polluted or enriched flood-waters, with appearance of nitrophilic herbs
- no sign of non-native invaders

Characteristic species:

Vascular plants: *Flueggea tinctoria* (= *Rhamnus tinctoria*; *Rhamnus saxatilis* subsp. *tinctorius*), *Lonicera biflora*, *Nerium oleander*, *Polygonum equisetiforme*, *Prunus lusitanica*, *Rubus bollei*, *Rubus ulmifolius*, *Tamarix africana*, *Tamarix arborea*, *Tamarix boveana*, *Tamarix canariensis*, *Tamarix gallica*, *Tamarix dalmatica*, *Tamarix hampeana*, *Tamarix mascatensis*, *Tamarix ramossissima*, *Tamarix tetrandra*, *Vitex agnus-castus*.

Classification

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

EUNIS:

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EuroVegChecklist:

Rubio periclymeni-Rubion ulmifolii Oberd. ex Rivas-Mart. et al. 1993

Tamaricion africanae Br.-Bl. et O. de Bolòs 1958

Tamaricion boveano-canariensis Izco et al. 1984

Rubio ulmifolii-Nerion oleandri O. de Bolòs 1958

Flueggion tinctoriaea Rivas Goday ex Lopez Saenz et Velasco 1995 nom. mut.

Tamaricion parviflorae I. Kárpáti et V. Kárpáti 1961

Rubio sancti-Nerion oleandri Brullo et al. 2004

Artemisio scopariae-Tamaricion ramosissimae Simon et Dihoru 1963

Agropyro fragilis-Tamaricion ramosissimae Golub et Kuzmina 1996

Annex 1:

92D0 Southern riparian galleries and thickets (*Nerio-Tamaricetea* and *Securinegion tinctoriae*)

Emerald:

F9.3 Southern riparian galleries and thickets

MAES-2:

Heathland and shrub

IUCN:

3.8. Mediterranean-type Shrubby Vegetation

5.2. Seasonal/Intermittent/Irregular Rivers/Streams/Creeks

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

Yes

Regions

Mediterranean

Justification

This is a characteristic habitat for the azonal streams and rivers in the Mediterranean climatic regions.

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>Bulgaria</i>	Present	1.2 Km ²	Decreasing	Decreasing
<i>Croatia</i>	Present	0.04 Km ²	Stable	Stable
<i>Cyprus</i>	Present	6.6 Km ²	Stable	Stable
<i>France</i>	Corsica: Present France mainland: Present	2 Km ²	Decreasing	Decreasing
<i>Greece</i>	Crete: Present East Aegean: Present Greece (mainland and other islands): Present	137 Km ²	Unknown	Stable
<i>Italy</i>	Italy mainland: Present Sardinia: Present Sicily: Present	177 Km ²	Decreasing	Decreasing
<i>Portugal</i>	Madeira: Uncertain Portugal Azores: Uncertain Portugal mainland: Present Savage Islands: Uncertain	27 Km ²	Decreasing	Decreasing
<i>Romania</i>	Present	10 Km ²	Decreasing	Decreasing
<i>Spain</i>	Balearic Islands: Present Canary Islands: Present Spain mainland: Present	525 Km ²	Decreasing	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)
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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>Albania</i>	Present	Unknown Km ²	Unknown	Unknown
<i>Montenegro</i>	Present	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
<i>EU 28</i>	Km ²		886 Km ²	
<i>EU 28+</i>	Km ²		900 Km ²	

Distribution map

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

The range of the habitat covers the Mediterranean parts of the EU and EU28+, but exceeds into Turkey, the Middle-East and Northern Africa. It is roughly estimated that about 50% of the habitat occurs within the EU.

Trends in quantity

Overall an average trend of -12.7% over about 50 years within the EU28 countries was calculated from the territorial data. No data for the EU28+ is available. Long term trends may be slightly higher, but quantitative data were only reported from Spain (15-20% decrease).

- Average current trend in quantity (extent)

EU 28: Decreasing

EU 28+: Decreasing

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

No

Justification

The habitat has a wide range, covering large parts of the Mediterranean region in Europe, Asia and Northern Africa.

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

No

Justification

The habitat may occur as small stands, sometimes associated with other habitats, but in other cases it may form larger, linear stands along the borders or rivers.

Trends in quality

On average there is a decrease in quality, although Greece, Cyprus and Croatia reported stable conditions. No data from outside the EU28+ was received.

- Average current trend in quality

EU 28: Decreasing

EU 28+: Decreasing

Pressures and threats

The habitat suffers from human induced changes in hydrological conditions in rivers, including canalisation

of rivers and the use of water for agricultural purposes. Other problems are pollution (including the use of pesticides), planting of trees (forestry), removal of shrubs for agricultural land (cultivation) and urbanisation, and too intensive grazing.

List of pressures and threats

Agriculture

Cultivation

Sylviculture, forestry

Forest planting on open ground

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

In natural functioning rivers, extreme dynamics (temporary flooding, strong periodical drought) cause regularly development of new habitat and at the same time prevent succession of the habitat into alluvial forest at large scale. In these situation no management is needed. However, where the hydrological conditions have been altered, restoration practices should be applied, focussing on restoration of the hydrological functioning of rivers and coastal sites. In this way the habitat will develop spontaneously.

List of conservation and management needs

No measures

No measures needed for the conservation of the habitat/species

Measures related to wetland, freshwater and coastal habitats

Restoring/Improving the hydrological regime

Restoring coastal areas

Conservation status

Annex I:

92D0: BLS U1, CON U1, MAC U1, MED U1, STE U1

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

When the hydrological functioning of rivers (and coastal sites) is being restored through intervention, the habitat will develop naturally within a short time frame. Therefore restoration is a combination of intervention (first) and spontaneous development (next).

Effort required

10 years
Naturally and through intervention

Red List Assessment

Criterion A: Reduction in quantity

Criterion A	A1	A2a	A2b	A3
EU 28	-12.7 %	unknown %	unknown %	unknown %
EU 28+	-12.7 %	unknown %	unknown %	unknown %

Territorial data on trends in area over about the last 50 years were reported from EU28 countries only. The trend data covers more than 80% of the reported surface data, with by far the largest area in Spain. Overall an average trend of -12.7% over about 50 years was calculated. No data from EU28+ countries is available, but it may be assumed that the status is similar or better in the additional countries Albania and Montenegro. The presence in Bosnia & Herzegovina is unknown. Based on these calculations, the assessment results in the category Least Concern for criterion A1. For the long term trend only data from Spain was reported, indicating a negative trend of 10-20%. Some other countries reported long-term decreases but no quantitative data was provided.

Criterion B: Restricted geographic distribution

Criterion B	B1				B2				B3
	EOO	a	b	c	AOO	a	b	c	
EU 28	>50000 Km ²	Yes	No	No	>50	Yes	No	No	No
EU 28+	>50000 Km ²	Yes	No	No	>50	Yes	No	No	No

The EOO and AOO are far beyond the thresholds for criteria under B, while the habitat is present in many locations. Therefore the assessment of criteria B leads to the conclusion Least Concern (LC).

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	20 %	49 %	unknown %	unknown %	unknown %	unknown %
EU 28+	20 %	49 %	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 %

On average there is a decrease in quality affecting 20% of the surface with an average severity of 49%, based on more than 95% of the reported surface. The values are too low to meet the thresholds for the Vulnerable category, and that far from the thresholds that the conclusion leads to Least Concern (LC). The average data is strongly affected by the data reported for Spain, as the surface of Spain covers about 60%

of the area in the EU. No data was reported from EU28+ countries; it is expected that the situation in these countries is similar to that within the EU28. Decrease in quality relates both to biotic and abiotic conditions and processes, therefore no split into criteria C and D could be made.

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			
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Confidence in the assessment

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

Assessors

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References

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