

G1.3 Mediterranean and Macaronesian riparian woodland

Summary

This habitat of broadleaved deciduous woodlands of periodically- or seasonally-flooded alluvial or gravelly deposits in river valleys and along streamsides is typical of humid localities within the thermo- and meso-Mediterranean belts and Macaronesia. *Populus* spp. and *Platanus orientalis* are the commonest trees with different associates in the various regions but are typically fast-growing, forming a tall canopy, with an understorey beneath. The herb layer can be rich and the fern, bryophyte and lichen floras can be especially diverse and luxuriant in deep humid gorges. Major pressures are related to human activities such as agriculture or modification of the hydrogeological conditions. Conservation demands maintenance or restoration of the natural hydrological conditions and protection against alternative land use and development. However, as the habitat mainly include annual, pioneer, well adapted species to shoreline dynamics, it could recover naturally from modest damage.

Synthesis

The habitat type is considered Vulnerable (VU) based on extent and severity of degradation affecting a large part of its European range, particularly in Italy, France and Spain. This result is confirmed by the assessment of the equivalent Annex I types, that have been reported to be in an overall unfavourable conservation status.

Overall Category & Criteria			
EU 28		EU 28+	
Red List Category	Red List Criteria	Red List Category	Red List Criteria
Vulnerable	C/D1	Vulnerable	C/D1

Sub-habitat types that may require further examination

No sub-habitats have been distinguished for further assessment.

Habitat Type

Code and name

G1.3 Mediterranean and Macaronesian riparian woodland



Mediterranean and Macaronesian riparian woodland, Alluvial forest with *Fraxinus ornus* and *Salix* species, Ardeche, France (Photo: John Janssen).



Mediterranean and Macaronesian riparian woodland, *Platanus orientalis* vegetation along stream, Vikos Gorge, Greece (Photo: John Janssen).

Habitat description

These are broadleaved deciduous woodlands of periodically- or seasonally-flooded alluvial or gravelly

deposits in river valleys and along streamsides within the Mediterranean and Macaronesian regions. Typical of humid localities within the thermo- and meso-Mediterranean belts, this habitat has been long exploited for being an easy source of firewood and widely lost from the middle and lower reaches of rivers, often surviving now as more fragmentary relict stands in deeper steep-sided valleys extending upstream into the submediterranean zone. Dominance can be of a single tree species, among which *Populus alba* and, in Sicily, the Balkans and Greece, *Platanus orientalis* are the most widespread and these fast-growing trees can attain a huge size in a very tall canopy. To the east also, *Populus canescens*, *P. nigra* and *P. tremula* can be prominent along with *P. alba* while, on Rhodes, *Liquidambar orientalis* dominates in gallery woodlands of this kind. Also included here are woodlands with *Rhododendron ponticum* ssp. *baeticum* and *Betula parvibracteata* (a synonym of *B. pendula* subsp. *fontqueri* var. *parvibracteata*) that occur in riparian situations in the Iberian peninsula. Generally, *Fraxinus angustifolia*, *F. ornus*, *Salix alba*, *S. eleagnos*, *Alnus glutinosa* are common associates and can be locally prominent and where *Salix* spp. dominate in riparian woodlands in the Mediterranean and Macaronesia, they are included here and not in G1.1 Riparian and gallery woodland. Other woody species, sub-shrubs and lianas associated with this habitat are *Frangula alnus*, *Salix atrocinerea*, *Juglans regia*, *Crataegus monogyna*, *Cornus sanguinea*, *Nerium oleander*, *Vitex agnus-castus*, *Vitis vinifera* ssp. *sylvestris*, *Rubus* subsp., *Rosa sempervirens*, *Hedera helix*, *Clematis vitalba*. The field layer shares some species with the equivalent habitat type, G1.2 hardwood riparian woodland in the temperate and boreal zone, but more distinctive here are *Aristolochia grandiflora*, *Cyclamen hederifolium*, *C. repandum*, *C. creticum*, *Galanthus nivalis* subsp. *reginae-olgae*, *Dracunculus vulgaris* and *Arum italicum*. The associated fern, bryophyte and lichen floras can be very species-rich and especially luxuriant in deep humid gorges.

Indicators of good quality:

- Intact natural hydrology
- Natural composition of canopy
- Structural diversity/ complexity with (semi)natural age structure or completeness of layers
- Typical flora and fauna composition of the region
- Presence of natural disturbance such as treefall openings with natural regeneration
- Survival of larger stands of forest without anthropogenic fragmentation and isolation (to support fauna which need large undisturbed forests)
- Absence of non-native species in all layers (flora & fauna)
- No signs of pollution

Characteristic species:

Vascular plants: *Alnus glutinosa*, *Fraxinus angustifolia*, *Platanus orientalis*, *Populus nigra*, *P. alba*, *Salix alba*, *Ulmus minor*, *Arum italicum*, *Brachypodium sylvaticum*, *Bryonia cretica* subsp. *dioica*, *Carex pendula*, *Clematis vitalba*, *Crataegus monogyna*, *Galium aparine*, *Hedera helix*, *H. maroccana*, *Lonicera periclymenum*, *Oenanthe crocata*, *Rubus ulmifolius*, *Salix atrocinerea*, *Tamus communis*, *Urtica dioica*, *Athyrium filix-femina*, *Pteridium aquilinum*.

Classification

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

EUNIS:

G1.3 Mediterranean riparian woodland

G1.1 Riparian and gallery woodland. The *Salix*-dominated woodlands of the Mediterranean from this latter EUNIS habitat are included here.

EuroVegChecklist:

Populion albae Br.-Bl. ex Tchou Yen-Tcheng 1949

Salicion albae Soò 1951

Osmundo-Alnion glutinosae (Br.-Bl. et al. 1956) Dierschke et Rivas-Mart. in Rivas-Mart. 1975

Rhododendro pontici-Prunion lusitanicae A.V. Pérez, Galán et Cabezudo in A.V. Pérez et al. 1999

Platanion orientalis I. Kárpáti et V. Kárpáti 1961

Lauro nobilis-Fraxinion angustifoliae I. Kárpáti et Kárpáti 1961

Salicion canariensis Rivas-Mart. et al. ex Rivas-Mart., Fernández González et Loidi 1999

Annex 1:

92B0 Riparian formations on intermittent Mediterranean water course with *Rhododendron ponticum*, *Salix* and others

92C0 *Platanus orientalis* and *Liquidambar orientalis* woods (*Platanion orientalis*)

92A0 *Salix alba* and *Populus alba* galleries

Emerald:

G1.11 Riverine *Salix* woodland

G1.13 Southern *Alnus* and *Betula* galleries

G1.3 Mediterranean riparian woodland

MAES-2:

Woodland and forest

IUCN:

1.4 Temperate Forest

EFT:

12.3 Mediterranean and Macaronesian riparian forest

VME:

U4 Mediterranean-subMediterranean wet lowland alluvial forest & scrub

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

No

Justification

In the Mediterranean zone this habitat type characterizes azonal vegetation.

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	3 Km ²	Decreasing	Decreasing
<i>Croatia</i>	Present	Unknown Km ²	Unknown	Unknown
<i>Cyprus</i>	Present	20 Km ²	Increasing	Increasing

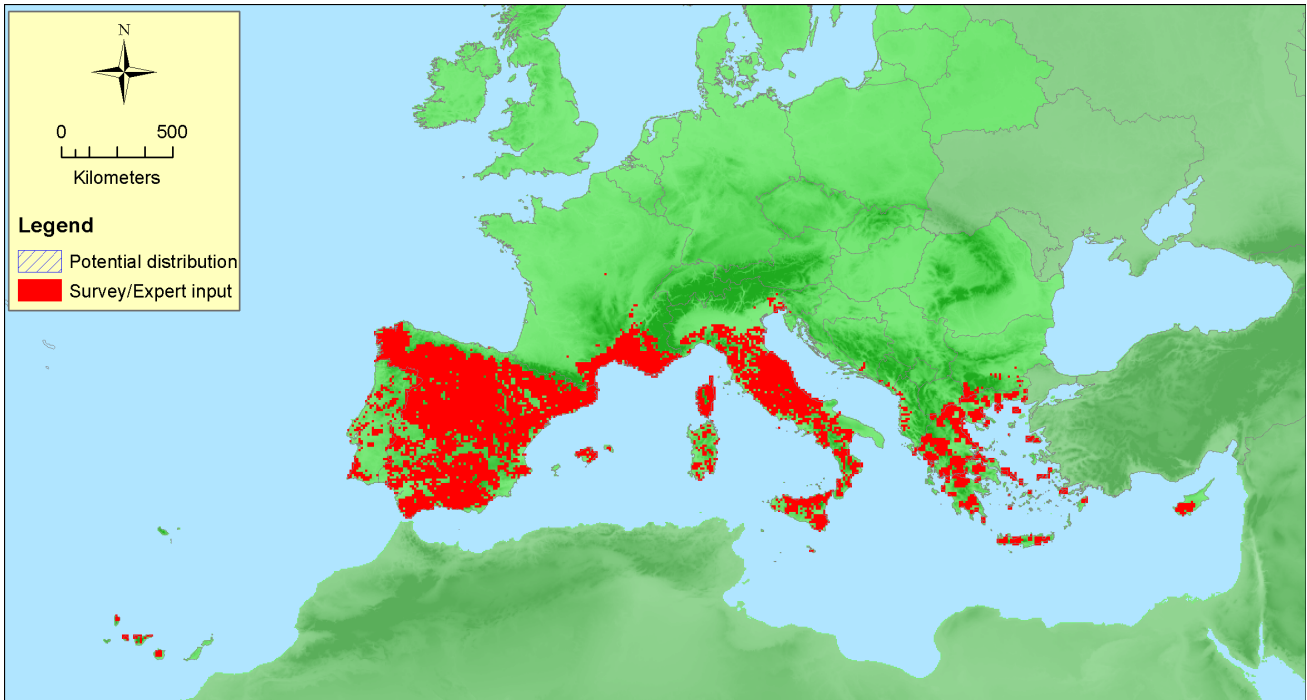
EU 28	Present or Presence Uncertain	Current area of habitat	Recent trend in quantity (last 50 yrs)	Recent trend in quality (last 50 yrs)
<i>France</i>	Corsica: Uncertain France mainland: Present	1100 Km ²	Decreasing	Stable
<i>Greece</i>	Crete: Uncertain East Aegean: Uncertain Greece (mainland and other islands): Present	551 Km ²	Stable	Increasing
<i>Italy</i>	Italy mainland: Present Sardinia: Present Sicily: Present	755 Km ²	Decreasing	Decreasing
<i>Malta</i>	Present	Unknown Km ²	Unknown	Unknown
<i>Portugal</i>	Madeira: Uncertain Portugal Azores: Uncertain Portugal mainland: Present Savage Islands: Uncertain	959 Km ²	Decreasing	Unknown
<i>Romania</i>	Uncertain	Unknown Km ²	Unknown	Unknown
<i>Spain</i>	Canary Islands: Present Spain mainland: Present	654 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)
<i>Bosnia and Herzegovina</i>	Present	20 Km ²	Decreasing	Decreasing
<i>Former Yugoslavian Republic of Macedonia (FYROM)</i>	Present	1 Km ²	Unknown	Decreasing
<i>Montenegro</i>	Present	10 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	4884350 Km ²	6898	3398 Km ²	
EU 28+	4884350 Km ²	6944	3419 Km ²	

Distribution map



The map is rather complete, with possible data gaps for the Balkan. Data sources: EVA, Art17, BOHN, EXP, NAT.

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

The worldwide distribution is about 50% in the EU28 countries, it is also present in Middle East, North Africa and limiting areas of the Euro-Siberian region.

Trends in quantity

The area of this habitat is decreasing everywhere in Europe. Only for Greece and Cyprus an increasing/stable trend has been reported.

- 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 EOO is far greater than 50.000 Km², even considering the reduction of about 10-20% reported for several countries as Spain, Bosnia and Portugal.

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

No

Justification

The Habitat it is quite widespread across Europe with significant area for several countries as Italy, France, Greece and Spain.

Trends in quality

Based on the calculation of the extent and severity of degradation respectively of 61% and 54%, the current quality trend is considered declining. Not enough data are reported to estimate the historical and future quality trend.

- Average current trend in quality

EU 28: Decreasing

Pressures and threats

Major threats to this habitat type are due to human induced changes in hydraulic conditions (i.e. constrained water courses), spread of alien species, bio-fuel production, impacts of agricultural activities.

List of pressures and threats

Sylviculture, forestry

Forest and Plantation management & use

Transportation and service corridors

Roads, paths and railroads

Urbanisation, residential and commercial development

Urbanised areas, human habitation

Invasive, other problematic species and genes

Invasive non-native species

Natural System modifications

Human induced changes in hydraulic conditions

Conservation and management

The main approach for the conservation of this habitat type is currently the inclusion in protected areas. Additional actions to be undertaken include: maintenance of the spatial integrity of the habitat within the landscape; minimization of edge disturbance; maintenance of natural river hydrological regime; no forestry exploitation, usually for soft timber, wood or paper pulp.

List of conservation and management needs

Measures related to forests and wooded habitats

Adapt forest management

Measures related to wetland, freshwater and coastal habitats

Restoring/Improving water quality

Restoring/Improving the hydrological regime

Measures related to spatial planning

Establish protected areas/sites

Legal protection of habitats and species

Measures related to urban areas, industry, energy and transport

Specific management of traffic and energy transport systems

Conservation status

Annex I:

92A0: ALP U1, ATL U1, BLS U1, CON U2, MED U2, PAN U1, STE U1

92B0 : MED U1

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

The intrinsic resilience of the habitat makes not necessary specific actions, but ceasing disturb.

Effort required

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

Red List Assessment

Criterion A: Reduction in quantity

Criterion A	A1	A2a	A2b	A3
EU 28	-10 %	Unknown %	Unknown %	Unknown %
EU 28+	-10 %	Unknown %	Unknown %	Unknown %

The average trends have been calculated based on data from 7 countries, from which one is outside the EU28.

Criterion B: Restricted geographic distribution

Criterion B	B1				B2				B3
	E00	a	b	c	A00	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 habitat is widespread with an E00,A00 and number of locations far larger than the thresholds for criteria B. The reported decline does not significantly effect these figures.

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	61 %	54 %	unknown %	unknown %	unknown %	unknown %
EU 28+	61 %	54 %	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%

Trends have been calculated using territorial data from 7 countries, three from outside the EU28.

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	DD	VU	DD	DD	DD	DD	DD	DD	DD	DD	DD
EU28+	LC	DD	DD	DD	LC	LC	DD	VU	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
Vulnerable	C/D1	Vulnerable	C/D1

Confidence in the assessment

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

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