

Rock Sea-lavender (*Limonium britannicum*)

Rock sea-lavender
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Western coastlines of the British Isles support eight species of rock sea-lavender that are found growing wild nowhere else in the world. One of these endemic species is *Limonium britannicum*.

This perennial species grows up to 30 cm high but is usually much smaller. Its mauve/blue flowers appear between July and September. A related plant, the common sea-lavender, can form thick carpets of flowers in saltmarshes but rock sea-lavenders, as their name suggests, are confined to drier, more rocky/shingly habitats.

All sea-lavenders have the same general appearance. Their leaves emerge close to the ground in a basal rosette from an underground woody rootstock. A single flower stem grows from the middle of the leaf rosette and this divides into side branches that carry groups of flowers.

Rock sea-lavenders tend to be more slender than the common sea-lavender and have leaves with one to three prominent veins and winged stalks. The flowers of the rock sea-lavender are also smaller and some of the lower side-branches, unlike those of other sea-lavenders, may lack flowers.

The taxonomy of rock-sea lavenders was revised in 1986 ⁽¹⁾ and the present system recognises nine species, some of which may be split into several sub-species.

Main Habitat(s): Shingle and stone sea defences

National Status

The rock sea-lavender *Limonium britannicum* is endemic to Great Britain occurring in scattered localities in western Britain between South Devon and Cumbria. Four sub-species have been distinguished, all of which currently qualify for inclusion in the British Red Data Book ⁽²⁾, where they are regarded as 'Low Risk - Near Threatened'.

Regional Status

Limonium britannicum sub-species *celticum* is confined to North Wales, Cheshire, Lancashire and Cumbria and is recorded in three 10 km squares in North West England ⁽²⁾.

Local Status

In Lancashire, two species of rock sea-lavender occur and they often hybridise.

In the county, *Limonium britannicum* sub-species *celticum* formerly occurred in scattered localities around both the Wyre and Lune estuaries. Currently, it is only known to occur along the tidal reach of the River Wyre. Here there are two colonies within 1km of each other, comprising a total of about 1300 plants. A former colony about 5 km upstream of the others had only a single surviving plant in 1999 following damage from road development ⁽⁵⁾.

Current factors affecting the species

The species is not considered to be under immediate threat. However, in Lancashire the species is largely confined to old stone retaining walls, whereas, formerly, it occurred on dryer mud and stabilised shingle on the upper parts of salt marshes. It is believed former colonies

were lost through the building of new sea defences. However, it is also suggested that changes to the natural mud substrate caused its extinction in that habitat and that adjacent sea walls provided an alternative man-made habitat similar to the rocky habitats favoured by rock sea-lavenders elsewhere in the country. Possible factors that might threaten the plant's habitat in the future would include:

- Erosion and/or a rise in sea level;
- Inappropriate sea defence works;
- Development;
- Pollution;
- Loss of suitable habitat and loss through competition with other species.

In the Wyre Estuary the old Victorian stone sea defences on which the plant grows are beginning to erode and the effects on the rock sea-lavender population need to be carefully monitored.

Baseline population studies are minimal and it is difficult to assess what, if any, effects competition with other plant species is having on colonies of the plant in the county.

Although pollution of offshore and inshore waters or from adjacent land has not been demonstrated to affect the species in Lancashire, elsewhere there has been speculation that the Sea Empress oil spill in 1996 may have badly affected a related endemic rock sea-lavender in Wales⁽³⁾.

Current Action / Mechanisms

The species receives general protection under the Wildlife and Countryside Act (1981) but it is not granted special protection under any Schedules of the Act.

All known colonies of the plant in Lancashire occur on sites designated either as SSSI or BHS (see Guideline Ff1)⁽⁴⁾. Part of the SSSI where the plant occurs is managed for nature conservation by the Wildlife Trust.

At a national level, some research is being conducted into the genetics of the rock sea-lavenders to help clarify aspects of this group's taxonomy.

Objectives, targets and proposed actions for rock sea-lavender in Lancashire

Broad Objective:	A. Maintain viable populations of the species at its existing known sites.			
Operational Objective	Action Required (Priority)	Partners	Time-scale	Type
1. Establish system to monitor the status of colonies of the plant.	1. Design a methodology to survey and monitor the population. (High)	WT	S	RM
	2. Undertake the base-line survey. The survey to be completed by 2003 and include the distribution, abundance, age and state of populations in the county. (High)	WT, Wyre BC, BSBI Recorders	M	RM

	3. Re-survey in 2005 and at five year intervals to monitor population. (High)	WT, Wyre BC	O	RM
2. Safeguard sites from adverse impacts	1. By 2003 carry out an assessment of the threats to existing colonies posed by the various factors outlined above. (High)	WT, Wyre BC, BSBI Recorders	M	RM
	2. With landowner and statutory authority agreement, implement the recommendations arising from the risk assessment. (High)	WT	L	LM, SS
	3. Ensure that relevant planning authorities are aware of the location of existing colonies. (High)	LCC, Wyre BC	S	SS
	4. Check that key policy documents (e.g. Shoreline Management Plans, Local Development Plans, Local Environment Agency Plans) take adequate account of this species. (Medium)	LCC, EA, Wyre BC	S	P
	5. Ensure that the county's contingency plans for oil spills make adequate provision to safeguard colonies. (Medium)	EA	S	P
3. Secure the appropriate management of the sites	1. Advise landowners and managers of the presence and importance of the species, specific management for its conservation and any potentially damaging actions. (Medium)	BHSP, Wyre BC	M	A, LM
Broad Objective:	B. Survey for possible new colonies within the estuary of the Wyre			
Operational Objective	Action Required (Priority)	Partners	Time-scale	Type
1. Systematically search for new colonies of the	1. Design a methodology to survey for new colonies. (High)	WT	S	RM

plant on the Wyre and Lune estuaries.	2. Complete survey by 2003 and collate data concerning the distribution, abundance, age and state of new colonies in the county. (High)	WT, Wyre BC, Lancaster City Council, BSBI Recorders	M	RM
Broad Objective:	C. Promote the rock sea lavender as a flagship species in the Lancashire BAP			
Operational Objective	Action Required (Priority)	Partners	Time-scale	Type
1. Produce material aimed at the general public that explains the importance of the sea lavender	1. Include information about the sea lavender in newsletters, and leaflets. (Low)	WT, Wyre BC	O	PR

Related Action Plans:

- Coastal plans when written

References & additional reading:

1. Ingrouille, M.J. & Stace, C.A. (1986) The *Limonium binervosum* aggregate (Plumbaginaceae) in the British Isles. *Botanical Journal of the Linnean Society*, Vol92 pp. 177 - 217.
2. Wigginton, M.J. (1999). *British Red Data Books 1 Vascular Plants* (3rd Edition), Joint Nature Conservation Committee.
3. English Nature (1998) UK Biodiversity Group Tranche 2 Action Plans. Volume 1 - Vertebrates and vascular plants. *Limonium* (endemic) SAP pp.201-203.
4. Lancashire County Council (1998) *Biological Heritage Sites - Guidelines for Site Selection*.
5. Greenwood, E. F. (2000) Pers. Comm.

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