



Bay Willow (*Salix pentandra*) | Shellagh Voainee Biodiversity Action Plan | Cummey Yannoo Beiyen-Feie



Background

Bay Willow is a native Manx tree, found primarily in wetland willow 'curragh'. While always historically uncommon, it appears to have had a stealthy decline based upon its lack of new recruitment and gradual loss of older trees.

Description

Bay Willow is a small tree or large shrub, and can make a handsome small tree if given room. The species was named because of the similarity of its leaves to the bay tree. Mature trees grow to 14 m (normally much smaller). The bark is dark grey in colour, with scaly, crossing ridges. Leaves are late to appear and are thick and glossy. Twigs are green-brown, glossy and smooth. It is dioecious, meaning that the male and female flowers are on separate plants, and these emerge after the leaves, in late spring. Male catkins are yellow and female catkins are greenish. After pollination by insects, female catkins develop into a fruit capsule which contains a number of tiny seeds embedded in white down, which aids dispersal by wind.

British Isles Distribution

The species is widespread but only occurs commonly from northern England/North Wales to mid-Scotland and Northern Ireland.

It is known as a northern/upland species in Europe, so its relative scarcity in Highland Scotland is a puzzle. In southern/eastern England its presence is often due to planting.



Isle of Man Distribution

On the Isle of Man its traditional distribution is roughly from the Congary Curragh in the west to Jurby in the north (see right).

Between 2007-2012 many of its recorded sites were looked for, with specimens found at Congary Curragh (2 trees), Port y Candas, MWT Curragh Feeagh (Cronk y Voddy) and MWT Ballamooar Meadow (Sandygate). The species was not found at other sites, but not all were searched (as location given was often too generic to locate).

A tree at the Wildlife Park may be planted but is in an area where the species has been recorded in the past.

In 2025 a resurvey of the five sites took place, with Port y Candas (on the road south of the Ballacraigne Crossroads), the Wildlife Park and Curragh Feeagh the only sites where the species was re-found.

It is highly likely to still occur in one or two other sites on the Isle of Man.



It has been planted at MWT Mullen y Cloie, MWT Hairpin Woodland Park, MWT Creg y Cowin and MWT Glion Darragh Nature Reserves in the past 12 years (all cuttings from the Port y Candas tree).

Habitat and Ecology

This species is a wetland plant, exclusive to fen peat sites on the edges of willow carr on the Isle of Man, but elsewhere it is a species also associated with stream-sides and upland gorges and even bare ground habitat such as industrial sites. While it grows well in the uplands it is not one of the montane (above tree-line) willow species. It is tolerant of a range of pH in soils, but avoids the most acidic sites such as blanket bog. The species naturally spreads via seed produced by the female plant, but local spread through layering of low branches also occurs, which allows the plant to extend its lifespan.

Legal protection

Amber-listed in *Plants of Conservation Concern in the Isle of Man 2022*. Warrants upgrading to red-listing at next review.

Threats

On the Isle of Man this species has historically been found as widely scattered bushes over a large area of the Island.

Dioecious willows like bay willow will reliably cross-fertilise if within 50 m of a tree of the opposite sex,ⁱ with over ten individuals required to ensure good outbreeding and good viability of seed. On the Isle of Man, these conditions have probably been unmet for centuries, leaving Bay Willow functionally extinct and surviving only through vegetative propagation.

Reason for BAP

The 20th century resurgence of willow carr habitat should have led to a huge increase in Bay Willow abundance on the Island, however this did not occur probably owing to low viability of its seed. Instead, it has had a long period of gradual decline and is now at high risk of Island extinction.

Bay Willow is native, supports a great diversity of wildlife and is in its perfect bio-climatic envelope on the Isle of Man, but for it to turn from functionally extinct to recovering and self-sustaining, a major intervention will be needed.

Aims

That by 2035, Bay Willow will have multiple (four or more) viable populations of over 50 plants that are non-clonal, showing an even sex ratio and with most trees being within 50 m of at least 2 other trees.

The new Manx Wildlife Trust rainforest restoration reserves will be perfect sites to host the species and create viable long-term populations as part of a wider nature recovery program.

By 2040, Bay Willow will naturally self-seed into the wider landscape.

Linked BAPS

Woodland and Rainforest BAPs.

Delivery Options	Active	Challenges
Propagate Bay Willow from the Port y Candas Wildlife Park and Curragh Feeagh stock (cuttings) in new woodland plantings in Manx Wildlife Trust's rainforest restoration program.	Yes	This will ensure that the last known Manx tree genes remain alive well into the future, but the species will remain functionally extinct as too little diversity exists in the last three trees (even if one is male and one is female).
Local awareness. To try and find further native Bay Willow specimens to provide propagation material.	Yes	Bay Willow is a surprisingly difficult species to find, especially when it is within a dense willow carr. Even finding several new plants would not be enough for a strongly viable outbreeding

		population to result but would mean that a larger proportion of plantings can be of native provenance.
Include UK stock of Bay Willow in future rainforest plantings.	No	This is an option if local native conservation efforts prove inadequate.

Delivery Plan

Strategy		Lead
To include bay willow as 2-5% of all future planting mixes in Manx Wildlife Trust's rainforest restoration programme. With viable populations of Bay Willow to be introduced to Creg y Cowin, Glion Darragh, Glen Audyn and any future rainforest sites. A least 30% of the Bay Willow planted will be native clones. The Wildlife Park tree will be used as clonal stock too (it may or may not be of native origin).		Manx Wildlife Trust: Woodland Team
Site surveyors such as Ecology Vannin should be made aware of the importance of Bay Willow, with any finds reported back to the Island's biological recorder.		Manx Wildlife Trust
Action	Timing	Responsibility
Create stock plant willow bed at Crossags for the three known native trees (ten plants of each tree). That can be coppiced annually for cuttings.	2025/26	Manx Wildlife Trust (Woodland Team)
Make local botanic surveyors/interested parties aware of the importance of Bay Willow and report the finding of any more to Manx Wildlife Trust	2026 onwards	Manx Wildlife Trust. Biological Recording Partnership
Propagate 100 local provenance Bay Willow from cuttings.	Annually	Manx Wildlife Trust (Woodland Team)
Include Bay Willow as 2-5% of tree planting mixes for Manx Rainforest restoration projects in future, with UK province trees making up 70% of planting.	Annually	Manx Wildlife Trust (Woodland Team)

Annual Updates

Year	

ⁱ Mountain Woodland Project. (2017) *Generating montane scrub from seeds and shoot and root cuttings*. Mountain Woodland Project. <https://www.msag.org.uk/uploads/4/0/7/3/40732079/mwp-bpg2finalnew.pdf>

