



## Crab Apple (*Malus sylvestris*)



### Biodiversity Action Plan | Cummey Yannoo Beiyen-Feie

#### Background

Crab Apple occurs as a rare native species on the Island, with highly glabrous (non-hairy) leaves. As this genotype, it is restricted to a few plants around Narradale.

This Biodiversity Action Plan (BAP) has been reformatted from a Rare Species Action Plan, produced by Wildflowers of Mann in 2004, and approved by the Department of Agriculture, Fisheries and Forestry in the same year.

#### Description



The Crab Apple is a long-lived, small sized, tree occasionally reaching 10 metres high. It is not only a host to many invertebrates, but its production of fruit is also welcomed by over-wintering birds and mammals.

#### British Isles Distribution

The Crab Apple is a common tree, native across Europe. In the British Isles, the species is common in the south, but becomes rare, or absent, in the north of Scotland. Its distribution is difficult to determine, due to it being over-recorded for wilding domestic apples (*M. pumila*).

#### Isle of Man Distribution

On the Isle of Man, Allen (1984) recorded three trees of *M. sylvestris* - one at Great Meadow (not re-found in recent years); one at Bushy's Glen, Mount Murray that is still present; and one at Narradale, which is thought to be the same tree as the old specimen at Cronk Sumark. This latter one, Allen determined as belonging to a native northern British race. Hundreds of other 'Crab Apple' trees occur on the Island, but most are assumed to be *M. pumila*. However, close examination has only occurred on a fraction of these, so other native Crab Apples may well lie undiscovered. The main reliable methods for determining *M. sylvestris* from *M. pumila* are the glabrous leaves, and occasional thorns on *M. sylvestris*.

#### Habitat and Ecology

Crab Apple refers strictly to *Malus sylvestris*, but wilding domestic apples (*M. pumila*), are also frequently called 'crab apples'. Identification between the two species can be somewhat problematic.

The Crab Apple is found in a range of habitats such as scrub, hedgerows and as an understory tree in woodlands, where its preference tends to be in lowland, oak/bluebell communities (NVC W10). Crab Apple



frequently grows as individual trees, and it is uncommon for them to be found in a high density. While the tree is quite capable of producing hybrids (Larson *et al.*), Stace (2010) reports that hybrids are uncommon.

## Legal protection

Red listed in *Plants of Conservation Concern in the Isle of Man 2022*.

## Threats

The last 4 native trees are very old, and no local regeneration replacements have been seen.

## Reason for BAP

There is a critical rarity of the local genotype. Crab Apple is a useful component of many woodland types, and its use in new plantings will be encouraged.

## Aims

To use local genotypes in new woodland/hedgerow planting, to ensure the local genotype becomes widespread and locally common.

## Linked BAPS

Woodland BAPs, Woodlands for Wildflowers Action for Wildlife project

## Delivery Options

### Active

### Challenges

## Delivery Plan

### Strategy

The first step will be to establish the status of the native Crab Apple. This will be done by visiting the two known trees in leaf and determining the glabrous qualities of the leaf.

The fruit will be collected from verified trees, and pips grown to whip sized plants by Manx Native Trees (MNT) (a local tree nursery). Seedlings should be checked for the glabrous qualities to restrict hybridized specimens (hairy leaved plants should be culled).

The crabs can be planted across the Ramsey Forest area in woodland, scrub, hedgerows and as an urban tree. In areas remote from domestic apples such as upper Glen Auldryn, the trees may be planted in groves, specifically as future seed trees.

### Lead

Manx Wildlife Trust

### Action

### Timing

### Responsibility

Verify nativeness of trees.

2013

Wildflowers of Mann

Collect Crabs.

2013 Onwards

Wildflowers of Mann

Grow saplings/cull hybrids.

2014 Onwards

Manx Native Trees (MNT)

Plant out in Ramsey Forest.

2014 Onwards

Wildflowers of Mann



Review	2015 Onwards	Wildflowers of Mann/Department of Environment, Food and Agriculture
<b>Annual Updates</b>		
<b>Year</b>		
2013	Cronk Sumack tree, a non-native crab, probably hybrid with a domestic apple based upon leaf size and hairiness.  Plan on hold unless native trees found.	
2017	Narradale population re-found and verified as native. Seed collected and sown.	
2018	First trees planted at Hairpin Woodland Park.	
2019	Over 60 trees planted at Hairpin Woodland Park.	
2022	First trees very well established and 3-4 metres high in places. In shadier areas, growth is limited (trees less than 1 metre high), but survival is high. No flowering recorded.	
2023	150 trees grown at University College Isle of Man and re-potted to Milntown.	

A. S. Larson, M. Jensen and E. D. KJÆR (2008): Crossability Between Wild (*Malus sylvestris*) and Cultivated (*M. x domestica*) Apples. *Silvae Genetica*, 57,3

C. A. Stace (2010): *New Flora of the British Isles*. Cambridge University Press. Cambridge.

D. E. Allen (1984): *Flora of the Isle of Man*, Manx National Heritage. Isle of Man

