



## Yellow Vetch (*Vicia lutea*)



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

#### Background

One of the most immediate reflections, upon seeing Yellow Vetch, is that it is not yellow - at best it is cream. But that being said, the plant is a delicate and attractive native wildflower that is scarce in a wider (UK) context.

It was first recorded on the Island in 1902, but because of its cliff-side habitat, it has only been intermittently recorded since. A site visit on 8<sup>th</sup> June 2023 re-found this species in its historical location, and this has been the spur to produce this BAP.

#### Description



Yellow Vetch is an annual plant with cream/white pea-like flowers, which flower from May onwards. However, it is likely to flower much later if the seed-set is prolonged by grazing pressures.

Without support, it is semi-prostrate and around 20cm tall. However, with side support, it can scramble and climb 50cm or more, using leaf-tip tendrils.

Once it finishes flowering, it rapidly develops pea-like seed pods, each containing 3-5 seeds on average.

#### British Isles Distribution



Commonly thought of as a coastal plant, this species will also grow inland on quarries and disturbance habitats.

It is absent from Ireland and Northern Scotland. In a European context, it is particularly common on some Mediterranean Islands.



## Isle of Man Distribution

Yellow Vetch was recorded in Baie ny Carrickey in 1902 and later at the Chasms in 1907 by P. G. Ralfe. After a gap of records for a century, it was recorded again in 2007 from the Chasms from an off-Island botanist, Mark Jannanick, which was confirmed by Prof Clive Stace

Yellow vetch is confined to the Chasms undercliffs (MNH land) at SC1900 6638 (pictured left at yellow dot). It grows from around sea-level to 70-80m. The route of the survey undertaken on 8th June 2023 is shown as a blue line.

In 1902 it was seen as a transient plant on the beach at Kentraugh but has not been recorded there since.



## Habitat

This species grows on a variety of coastal and inland locations in the UK. On the English south coast, chalk cliffs and shingle beaches are typical. In Scotland (and the Isle of Man) sea cliffs predominate. Inland, limestone/chalk quarries and sparse road-verge habitats are the most frequently reported habitats. It is assumed from this list of sites, that known habitats are not frequently grazed by stock. In almost all cases, the substrate will have elements of instability, infertility, sharp drainage and open ground.

## Ecology

Yellow Vetch can form long-lasting populations in the right habitat (the Chasms population appears unchanged in 115 years). This requires land with inherent long-term instability to create the open conditions needed for this annual to germinate.

The site visit to the Chasms population in 2023 was near the end of a spell of drought, and one feature of the species was evident - when all the other species there were dormant due to drought, the Yellow Vetch was still actively growing. It was also clear that Yellow Vetch had been selectively grazed upon by the feral Loaghtan sheep, removing all fresh growing tips and flowers. It is expected that the plant would re-sprout to flower again.

What is unknown, is the tolerance to grazing that this species is able to sustain. However, it is likely to be a limiting factor, and nor do we know what dormancy periods the seeds have. Many vetches can remain dormant for decades and it is expected that this species has the same capacity. Chasms-collected seed sown in December 2023 by MWT germinated by January 2024.



The species is at the northern edge of its global range (it is particularly common around the Mediterranean Sea). Thus, the near sea-level site, and south-facing sheltered aspect, are not surprising and probably essential. This may become less critical with a climate warming scenario, which may aid natural spread.

While the species is found on chalk cliffs and limestone quarries on the south coast of England, on the Isle of Man, it is growing on somewhat acid soils. Therefore, it seems to have a wide pH range. From shingle beaches to chalk-cliffs, inherent very low fertility is no barrier for this species - in part due to its nitrogen-fixing abilities.

The long-range dispersal mechanisms are unknown, but it is a species more frequently being recorded inland in quarries and other habitats of disturbance. Thus it has a bird, mammal, or human vector (probably bird).

## Legal protection

Originally Black-listed (thought to be extinct) on the Plants of Conservation Concern in the Isle of Man 2021, it has subsequently been reclassified as Red-listed. It is listed as scarce in the UK and is on many UK county 'rare species lists'.

The only Manx site for this species is on land owned by the Manx Museum & National Trust.

## Threats

The species appears to be in a very stable population. However, a number of potential threats have developed:

- Sea level rise could squeeze the population into a smaller area.
- Feral Loaghtan sheep have become established over the past decade and may be increasing.
- Climate change is leading to increased, and more serious, drought events.
- This area of coast is unstable and dramatic. Periodic landslip events do occur and could remove the entire colony (a major slip occurred at the Yellow Vetch site in the winter of 2023-2024, for which no subsequent assessment has yet been made of the impact). Sea-level rise, and increased exceptional rainfall events, increase the chances of this occurring.
- The decline in gull populations may well lead to the abandonment of nesting over the vetch site, which could change ecological factors such as reduced phosphate deposition and bare ground disturbance.

## Reason for BAP

The range of threats on the small, single known Isle of Man colony, give reasonable grounds for concerns of Island extinction.

## Aims

- To maintain the population at the Chasms, through awareness, site protection and potential management interventions.
- To establish the species in other suitable Manx locations.



## Linked BAPS

Shaking Grass, Action for Wildlife and associated BAPs.

Delivery Options	Active	Challenges
Add species to Schedule 7 at next revision.	(DEFA)	Officer time.
Protect Chasms coast as an Area of Special Scientific Interest.	(DEFA)	Officer time.
Maintain Chams in optimal condition for species.	(MNH)	Awareness and institutional focus.
Establish ex-situ population for seed.	(MWT)	Underway as of 2023
Establish species at Billown Quarries Nature Reserve (extension).	(MWT)	May only provide sustainable population to medium-term.
Find and introduce species to suitable sea-cliff/slope site.	No	Potentially low chance of success, (though for relatively small effort).
Annual review and update of this document.	By MWT	

## Delivery Plan

Action	Lead
Add to Schedule 7 at next review.	Department of Environment, Food and Agriculture
Protect site through Area of Special Scientific Interest when time allows (as part of a larger Area of Special Scientific Interest).	Department of Environment, Food and Agriculture
Maintain and monitor population at Chasms (with a watching brief on long-term effects of sheep browsing and land slips).	Manx Wildlife Trust/Manx National Heritage
Establish plants ex-situ for seed production in horticultural context (2023-2027).	Manx Wildlife Trust
Establish plants in interim (possibly long-term) location at Billown extension site (2025 onwards).	Manx Wildlife Trust
Locate suitable long-term coastal receptor sites and develop introduction plan (2027 onwards).	Manx Wildlife Trust

## Annual Updates

Year	
2023	Seed collected (08/06/2023) and sown at Billown extension site.

