The North-West Rare Plant Initiative: **A Conservation Programme for NW England**

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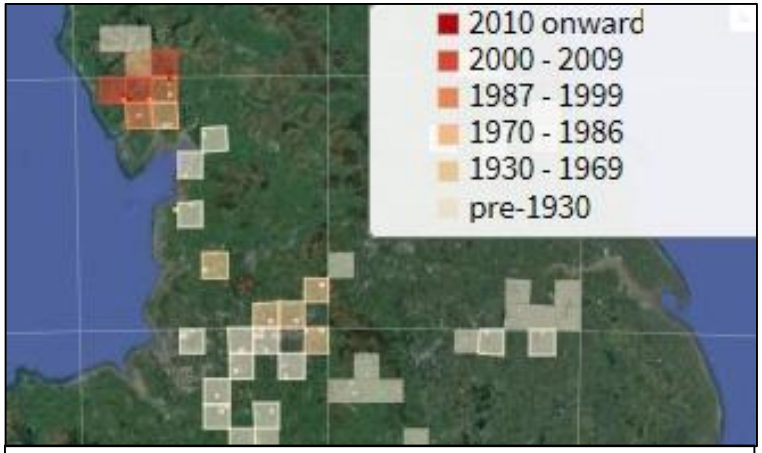
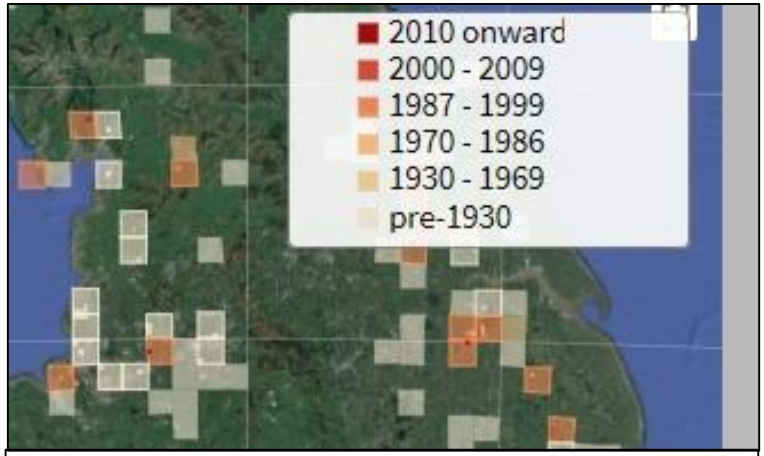
Rationale

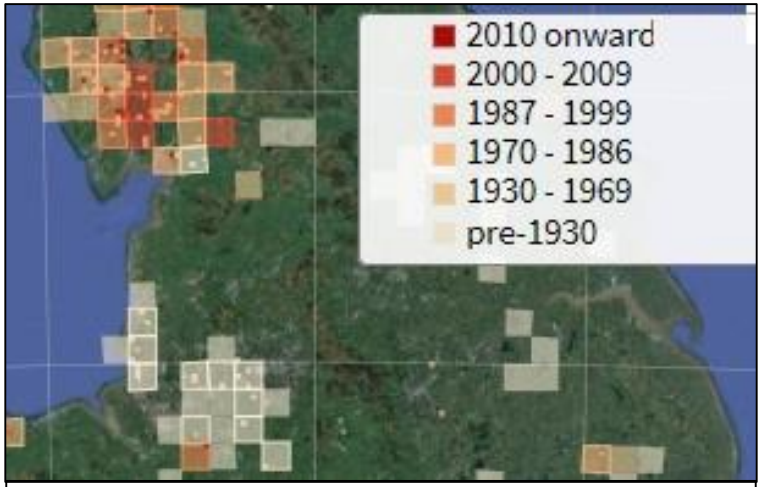
To address and reverse declines/extinctions of rare plants in the north-west of England…



Drosera anglica
>85% decline



Gentiana pneumonanthe
>95% decline



Utricularia minor
>80% decline

History

- Initiated in August 2017 to tackle recent major regional declines in targeted vascular plants.
- Obtained a partnership with Chester Zoo within two months of establishment.
- Over 15 years cultivation and botanical recording experience

Aims

To establish *ex situ* populations of 49 regionally threatened plants with the ultimate goal of reintroduction/reinforcement where appropriate.

Species Selection

- Species choice was informed by rare plant lists/registers, relevant county/VC floras, liaison with BSBI VC recorders and the English red-list.

- Ease of cultivation.

Gardening?

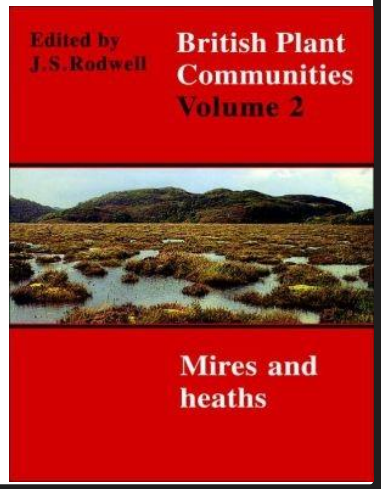
- Programme accords with IUCN guidelines and the BSBI best code of practice.

- Careful selection of receptor sites

Gardening?

- Is site within the former range of the target sp.?
- Are factors that lead to the sp. extinction no longer applicable?
- Is the receptor site sustainably managed?

- UK NVC survey data to determine extant vegetation types.

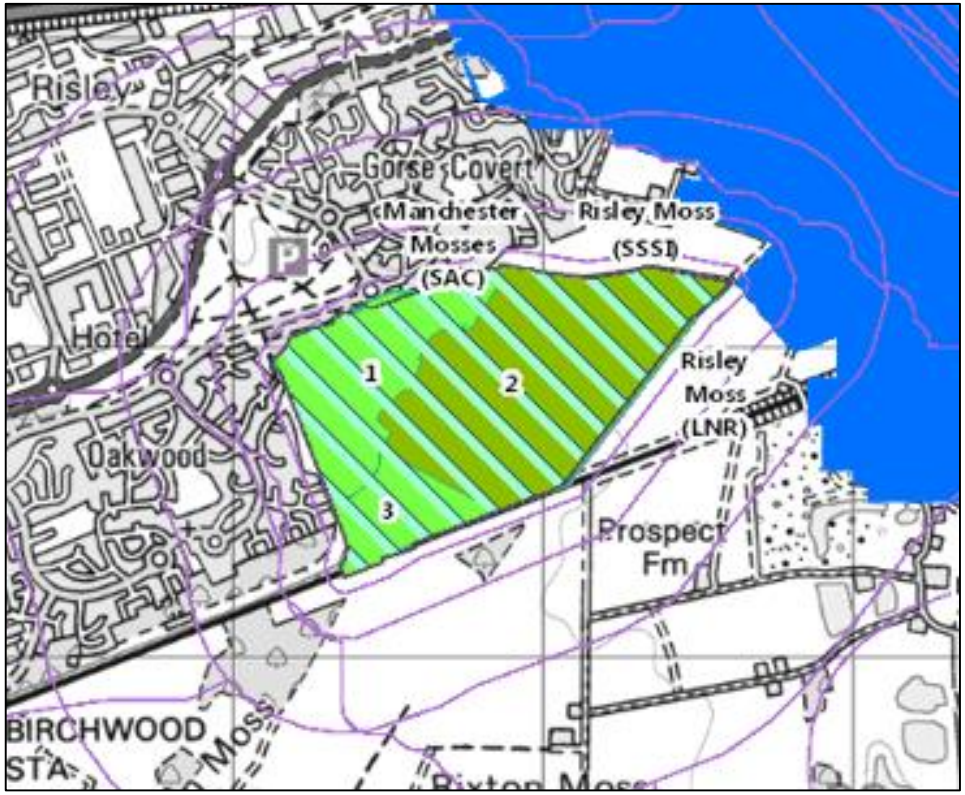


Protocol

Details available on website:

www.nwrpi.weebly.com

Case Study: Risley Moss SSSI



- Restoration works began in the 1980's
- Sphagnum began to recolonise including species such as *S. papillosum* and *S. magellanicum.*
- Largest expanse of raised mossland determined to be in 'favourable condition'.
- Historic records of peatland specialists.

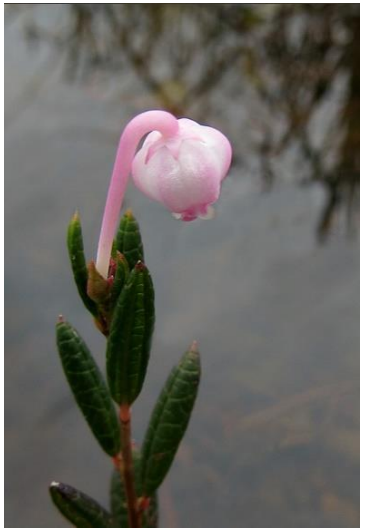
Restoration of Peatland Ecosystems

VU: Lesser Bladderwort
(*Utricularia minor*)

EN: Great Sundew
(*Drosera anglica*)

VU: Oblong-leaved Sundew
(*Drosera intermedia*)

NT: White Beak-sedge
(*Rhynchospora alba*)



NT: Bog-rosemary
(*Andromeda polifolia*)

Case Study: Risley Moss SSSI

Suitability assessment using the NVC

- Two communities identified in restored areas:

- **M2:** *Sphagnum cuspidatum/recurvum* bog pool
- **M18:** *Erica tetralix-Sphagnum papillosum* raised mire

Floristic table M2

	a	b	2
Eriophorum angustifolium	V (3–9)	V (1–9)	V (1–9)
Sphagnum cuspidatum	V (3–10)	III (2–7)	III (2–10)
Erica tetralix	IV (3–4)	III (1–6)	IV (1–6)
Drosera rotundifolia	III (1–3)	III (2–3)	III (1–3)
Rhynchospora alba	V (1–8)		II (1–8)
Andromeda polifolia	IV (1–4)	II (1–2)	II (1–4)
Drosera anglica	II (2–4)		I (2–4)
Sphagnum pulchrum	II (1–10)		I (1–10)
Myrica gale	II (1–7)		I (1–7)
Menyanthes trifoliata	I (3)		I (3)
Drosera intermedia	I (2)		I (2)
Sphagnum magellanicum	I (3)		I (3)

Floristic table M18

	a	b	18
Calluna vulgaris	V (1–8)	V (1–9)	V (1–9)
Erica tetralix	V (1–7)	V (1–4)	V (1–7)
Eriophorum angustifolium	V (1–6)	V (1–8)	V (1–8)
Sphagnum papillosum	IV (1–8)	V (1–9)	V (1–9)
Eriophorum vaginatum	IV (1–7)	V (1–8)	IV (1–8)
Sphagnum capillifolium	IV (1–6)	V (1–8)	IV (1–8)
Sphagnum tenellum	IV (1–3)	IV (1–5)	IV (1–5)
Odontoschisma sphagni	IV (1–4)	IV (1–3)	IV (1–4)
Sphagnum magellanicum	IV (1–8)	II (1–4)	III (1–8)
Narthecium ossifragum	IV (1–7)	II (1–3)	III (1–7)
Drosera rotundifolia	IV (1–3)	I (1–3)	II (1–3)
Vaccinium oxycoccos	III (1–4)	II (1–3)	II (1–4)
Andromeda polifolia	III (1–3)		I (1–3)
Rhynchospora alba	I (1–4)		I (1–4)
Myrica gale	I (1–4)		I (1–4)
Drosera anglica	I (1–2)		I (1–2)
	[illegible]	IV (1–6)	III (1–6)

Case Study: Risley Moss SSSI

Limitations

- Not all target species are listed associates of mire communities.

- Suitability assessment should consider species associates and ecological niche

Case Study: Risley Moss SSSI

Assessment and liaisons led to formal consent for re-introduction of:

- **Great Sundew** (*Drosera anglica*)
- **Lesser Bladderwort** (*Utricularia minor*)
- **Oblong-leaved Sundew** (*Drosera intermedia*)
- **White Beak-sedge** (*Rhynchospora alba*)

Case Study: Risley Moss SSSI

Lesser Bladderwort

- Introduced to the margins of two *Sphagnum* pools at Risley during August 2018.

- By October, all strands had grown by 150%+ and all were well established amidst marginal Sphagna.

Case Study: Risley Moss SSSI

White Beak-sedge

- Three 5cm diameter cores translocated from Abbot's Moss SSSI onto Risley Moss in July 2018.
- By September, all were noted to have increased in size.
- Large number of fruits (nutlets) produced.

Case Study: Risley Moss SSSI

<u>Oblong-leaved Sundew</u>

- 5 plants from Sound Common SSSI planted amongst Round-leaved Sundew (*D. rotundifolia*), September 2018.

- Supplementation planned for 2019.

Achievements

- *Ex situ* populations of 42 of 49 target species.
- Suitability assessments for 50+ sites.
- Introduction and monitoring of 16 of 49 target species.
- No failed/declining introduced population so far.
- Marked success with peatland specialists.
- Collaboration with a wide range of conservation bodies and land owners.