Precious Persistence

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Centre fo

Clear evidence for **long-term shifts in global climate patterns** requires community action to mitigate environmental, social and economic consequences. **Shetland botanical writing** is rich in scientific, environmental and cultural detail, giving vivid insight into how flora is experienced and the flourishing transfer of local plant knowledge into the wider community. This SGSAH funded PhD project will synthesise botanical writings from original **historical plant records** to **current ecological research**, with implications for **rare plant stewardship** in other geographical areas facing increasing habitat fragility and biodiversity loss.

UHI UHI Institute for Northern Studies

Research question:

Botanic Garden

Edinburgh

What is the ecological legacy of historical Shetland botanical writing for our modern understanding and experience of rare plants in the face of climate change?

Historic records of threatened plants are notoriously **difficult to obtain** and **often disregarded** despite potentially providing **important evidence** on species' historic range distributions in Scotland, as well as distribution changes over time.

Historical Records

Ecological Legacy

The chronic issue of **shifting baseline syndrome** (Pauly 1995) where knowledge is lost between generations, leads to incomplete understanding of how nature is changing. Inclusion of wider forms of evidence can give a more complete picture of environmental degradation. Knowledge of past environments is essential for understanding contemporary ecological communities, offering valuable insights into changing relationships between people and plants, informing conservation activities and public awareness of rare species.

Lived Experience

I am collecting information on Shetland wild and rare plants from a variety of sources including **books**, archives, databases, herbaria, interviews and community stories.

During 2024 fieldwork in Shetland, I visited plant habitats from Sumburgh to Unst, studied texts and displays in local heritage centres, interviewed **local historians, authors, naturalists** and **representatives from organisations** including Shetland Museum and Archives, Shetland Amenity Trust, NatureScot, the RSPB, Species on the Edge, the Botanical Society of Britain and Ireland, and the National Trust for Scotland. The community was invited to **share their stories** of their experience of Shetland wild and rare plants through a project launch on BBC Radio Shetland's 'Beyond the Briggistanes', and in the local media.

Interviews explored plant records and gaps, important botanists, and current knowledge of **Shetland rare plant species** (Scott *et al* 2002) including the endemic Edmondston's chickweed (first recorded by Thomas Edmondston, 1837, found only on the Keen of Hamar, Unst), curved sedge (Shetland's first plant record), endemic hawkweeds and dandelions, oysterplant, eelgrass (first recorded by James Roberston, 1769), and wild apples and montane willows of interest to the RBGE **conservation genetics** programmes.

Participants talked about wider concerns about, and changes to the environment, and threats to wild and rare plants.

Emerging findings

Stories sent in included childhood memories; personal recollections of seeing, finding, and looking after Shetland plants; copies of published articles, scientific papers, and reports; photos of Shetland plants; herbarium information; plant records, and notes of concerns for specific plants.

- Climate change is a factor threatening Shetland wild and rare plants, but factors including **grazing** and agricultural policy are also urgent.
- The concept of the ethics of care (Puig de la Bellacasa 2017) may help explore human-plant relations, recognising care for wild plants in different forms, including into the 'technosphere' of the twenty-first century plant recording, and mitigate against shifting baseline syndrome (Soga and Gaston 2018).
- Shifting baseline syndrome can explore how past and present generations care for wild and rare plants, and how they share their knowledge from the **'far past'** into the **'far future'** (Rost 2018).

References

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- Plants of Shetland. Lerwick: Shetland Amenity Trust. Soga, M. and Gaston, K.J., (2018) 'Shifting baseline syndrome: causes, consequences, and implications'. Frontiers in Ecology and the Environment, 16 (4), 222-230.



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