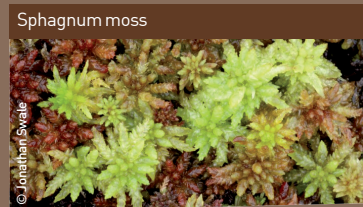


Trail 2: Norwick / Hermaness / Keen of Hamar

This trail explores the difference between the oceanic and continental rocks of Unst. At Norwick Beach, on-site interpretation will help you see the continental and oceanic rocks side by side at the point of contact. Go on to explore the Keen of Hamar and Hermaness, Unst's National Nature Reserves.

Hermaness

The continental rocks of western Unst were originally sediments on the fringe of an ancient continent. They were metamorphosed (changed) by high temperatures and pressures during continental collision, producing silica-rich quartz gneisses. In this continental area you can find outcrops of quartz muscovite schist with red garnets. The rocks are acidic and weather to produce soils with low natural fertility. In a wet climate, and with no deep-rooted plants like trees and



Sphagnum moss

shrubs to bring nutrients back to the surface, the soils become leached and waterlogged. These are ideal conditions for sphagnum mosses to grow, making the soils even wetter and more acidic. In the saturated, acidic and airless conditions beneath the surface, the dead remains of sphagnum and other plants will not rot but instead build up into a layer of peat. Eventually this grows thick enough to prevent roots reaching the soil beneath. From now on the plants must rely on the small amounts of nutrients provided by the rain. This is a blanket bog. Shetland's bogs provide a breeding ground for Arctic and Great Skuas, Red-Throated Divers and a variety of waders. For centuries they have also provided peat for fuel.

In global terms, blanket bog is a very rare habitat and it is also an important carbon sink, locking up carbon dioxide from the atmosphere.

The Keen of Hamar

The Shetland ophiolite is a sequence of igneous rocks, some of which have been altered due to warm fluids circulating within them.



Serpentine debris

The main mineral that forms the rocks in the lower layers of the ophiolite (harzburgite, dunite and wehrlite) is olivine. During metamorphism the olivine has been changed to serpentine, which forms the rock serpentinite. The Keen of Hamar is an extensive area of serpentine debris - gravelly

soil made of weathered fragments of partially serpentinised dunite. It is one of the largest areas of serpentine debris in Europe, little altered since the end of the last glaciation 10,000 years ago. Water drains quickly through the soil and shattered bedrock beneath so that drought-like conditions are common. The debris is home to several arctic-alpine plants adapted to these unusual conditions. They include a species endemic to Unst known as Edmondston's Chickweed. In parts of the reserve, the serpentine debris is covered by a layer of sandy, serpentine soil that was transported to the site by glacial ice. This soil supports a heathland rich in flowers, grasses and sedges.



Edmondston's Chickweed



Directions from Unst Heritage Centre Allow 1 day for all sites

By car / bike: Turn left out of the Heritage Centre car park (1) and follow the road north east until you reach the end. Norwick Beach (2) is on your right. (Allow 1 hour). Head back past the Heritage Centre and turn right at the end of the road. Follow signs to Hermaness (3). Park in the car park and follow the waymarked route to the cliffs. (Allow 4 hours). Head south back to the A968 and turn left after Hagdale Industrial Estate. Park at the end of the road and follow the waymarked path onto the Keen of Hamar (4). (Allow 2 hours).

Interpretation

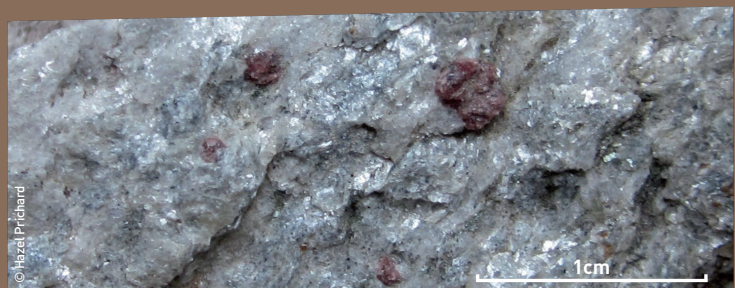
- Information panel at Norwick.
- Information leaflets available at Hermaness and Keen of Hamar.

Access

- The routes include a number of two step and ladder stiles.

Facilities

Available at Hermaness shore station and Hagdale. (NB food not available at Hermaness).



Quartz muscovite (white mica) schist with red garnets