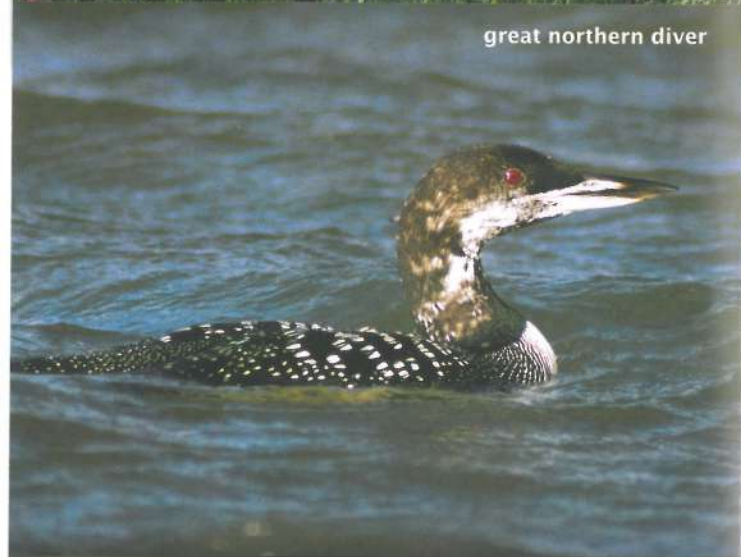




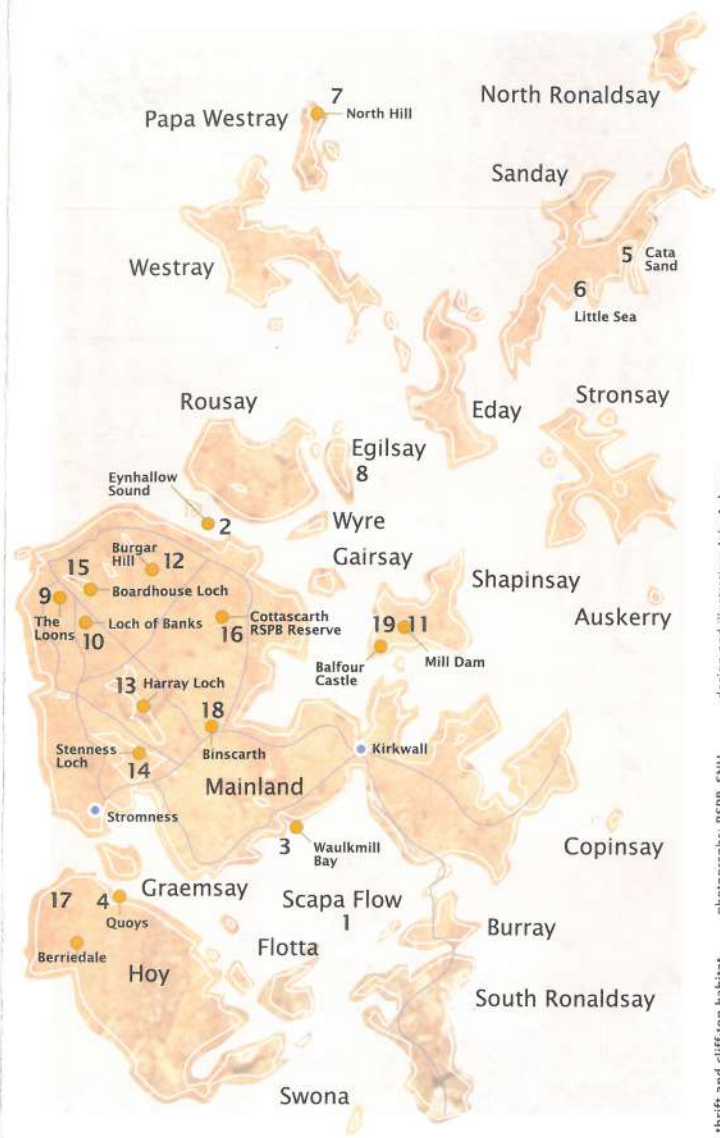
meadow flowers



great northern diver



lady's smock



Habitat explorer's guide

Please remember:

- To avoid disturbing nesting birds
- To not pick wild flowers
- To take care on cliffs as they can be dangerous
- To keep dogs under control at all times
- To respect private property



Orkney's Habitats



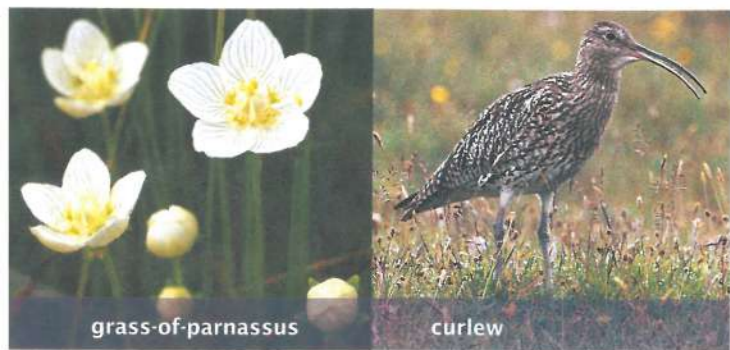
find out more about our rich and varied islands

design and illustration: Iain Ashman
 photographs: RSPB, SNH
 cover images: top female hen harrier bottom thrift and cliff-top habitat

Orkney's habitats

verges

Another artificial habitat of interest to naturalists are the roadside verges. Those of particular wildlife value are left uncut until late in the year to allow the flowers to seed. Some verges may hold as many as twenty species of flowering plant in a 10 metre stretch. Plants such as the beautiful grass-of-parnassus, the insectivorous butterwort and various orchids can be found in this unique habitat, along with vetches such as tufted vetch and meadow vetchling. The verges also provide nesting habitats for birds such as meadow pipit, skylark and even curlew, whilst later in the year young birds shelter in the tall roadside vegetation waiting for parents to return with food. The island of Egilsay 8 has a particularly rich flora in its roadside verges.



grass-of-parnassus

curlew

wetlands

In the lower areas where water gathers, wetlands can form. These are a diverse and rich habitat and are amongst the most beautiful parts of Orkney. Wetlands are a kind of halfway world between terrestrial and aquatic habitats; they have water at or just below the surface for much of the year. Orkney's wetlands are home to a variety of birds, insects, flowers and the elusive otter. Rare bird species such as the black-tailed godwit and pintail make these wetlands their home, along with the more locally common species such as curlews, redshanks and lapwings. Visitors to the islands in spring will be astounded by the colour from the flowers and the profusion of breeding waders displaying vociferously over their territories. Waders such as lapwings, redshanks, snipe and curlews nestle amongst the blooms of ragged robin, marsh marigolds, lady's smock and the magnificent flowers of bogbean that erupt from the open water areas. Some of Orkney's best wetlands can be found at the RSPB reserves at The Loons 9 and Loch of Banks, Birsay 10 and Mill Dam on Shapinsay 11.



wetland plants

black-tailed godwit



red-throated diver

lochs, lochans and burns

Orkney's other freshwater habitats come in the form of lochs, lochans and burns. The small lochans on the hilltops receive water only from rainfall and a small amount of drainage through the surrounding peat. These lochans are very low in nutrients and contain little in the way of fish due to the low oxygen levels in these acidic waters. Any plant life in these pools has to be specially adapted to live in these conditions; plants such as bladderwort cope with the nutrient deficiencies by catching insects in their bladders. In many of these hilltop pools (some of which are known as loomashuns from the Norse word for diver) red-throated divers breed; their haunting calls and spectacular breeding plumage is an unforgettable sight. The divers' stronghold is the island of Hoy but excellent views can be had from the RSPB hide on Burgar Hill 12, near Evie, without disturbing this sensitive bird.

Orkney's larger lochs, such as those of Harray 13, Stenness 14 and Boardhouse 15, contain a wealth of plant and animal life. They are popular with both humans and animals alike for the variety of fish and plant life within them. Brown trout are the main draw for anglers, Orkney has some of the best fishing for this species in the country; this is also a draw for the otter. Large numbers of overwintering ducks gather on these lochs, including wigeon, teal, pochard and tufted duck. The lochs are connected to each other and the sea by a network of burns running from the high hills, through farmland, wetland and eventually emptying into the sea.



moorland

Many of the hilltops of Orkney are still covered with heather moorland. The West Mainland, Hoy, Rousay, Stronsay, Westray and Eday have substantial areas of moorland. Up to around 5000 years ago, much of Orkney was covered with birch and hazel scrub and this sheltered the plants that make up much of today's moorlands. Moorland today is dominated by three species of heather; ling, bell heather and cross-leaved heath; together these three species form a background into which other plants such as woodrush (an indicator of the islands' wooded past), rushes and cotton grass intersperse.

Peat forms in the areas where sphagnum moss collects water and prevents proper decomposition; as the plant matter gets compressed by more growth, peat gradually forms over hundreds of years. In particularly nutrient-poor areas, plants such as sundews and



sundew

butterwort have turned to other sources of nutrients, catching insects in their sticky leaves. Bright splashes of colour come in the form of bog asphodel, tormentil and the purple flowers of the heather later in the season.



bog asphodel

The moorlands of Orkney hold internationally important numbers of great skuas and internationally important numbers of Arctic skuas (bonxies and skootie allans) and the unwary walker may be bombarded if they enter the skua's territory. Other birds of the moorlands include hen harriers (of which Orkney is a stronghold with around 45 breeding females) and merlins. The male hen harriers can be seen in the early spring performing their spectacular 'sky dancing' displays to attract a mate and may have several mates at once. The RSPB hide at Cottascarth 16 can provide stunning views of these birds during the breeding season. On the hilltops, dunlin and golden plover breed and the latter's plaintive cry can be heard on a still summer morning.



Arctic skua

male hen harrier



Berriedale in Hoy

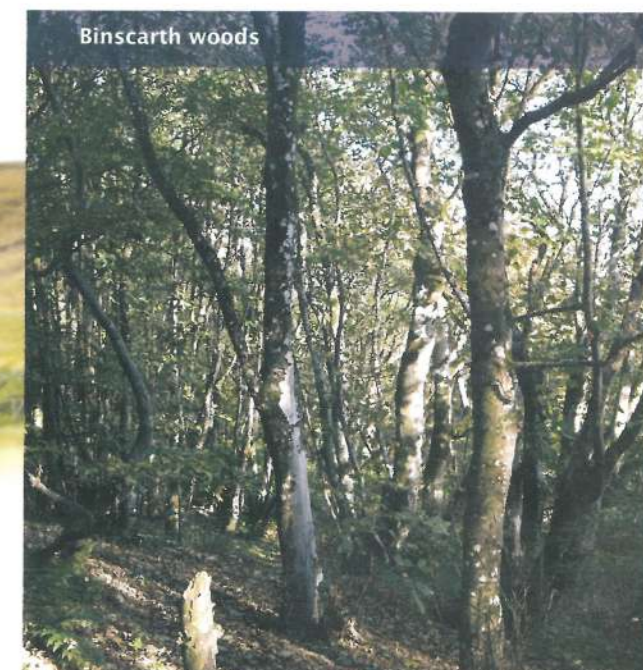
woodlands

Woodland in Orkney comes in two main forms, native (including areas of scrub) and non-native (planted deciduous and coniferous plantations). The native, and arguably most interesting, woodlands contain species such as willows; both eared and creeping willow, aspen, downy birch, hazel and rowan.

The best remaining example (and Britain's most northerly) native woodland in Orkney is at Berriedale 17 in the Rackwick valley on Hoy. In this beautiful, sheltered valley, all of Orkney's native tree species are present.

There are numerous areas of willow scrub throughout the islands, some examples growing to heights of 4-5m. These areas are sculpted by the winds into low-lying mounds. Of the non-native trees in Orkney, there are plantations of various conifer species such as lodgepole pine, Norway and Sitka spruce amongst others; most of these plantations are on Hoy. Deciduous woodlands have been planted in several locations throughout Orkney; the most notable of these are at Binscarth 18, near Finstown and in the grounds of Balfour Castle 19 on Shapinsay. These woods are predominantly sycamore but also include horse chestnut, ash, beech, Swedish whitebeam, wych elm and gean.

There are also smaller areas of both native and non-native trees planted throughout the islands in gardens and on areas of farmland.



Binscarth woods

Orkney's habitats

This leaflet provides a short guide to help you find and learn about the habitats in and around Orkney. A habitat is the area in which a plant or animal lives and the assemblage of other plants, animals, soils, water, rocks within that area on which that species depends. Habitats can be as small as a garden pond or as large as an ocean. This leaflet aims to guide you to and through some of the key habitats in Orkney.



fulmar and thrift

One of the things that makes Orkney special is the considerable number of different habitats in a relatively small area. This allows a unique assemblage of plants, birds and other wildlife to co-exist in the islands.

the sea

We start the exploration of Orkney's habitats with that which dominates life in the islands, the sea. The waters around Orkney are full of life and provide a year-round spectacle. During the summer, the waters provide food for nearly half a million breeding seabirds which nest on the cliffs and moorlands. Many seals and cetaceans (such as harbour porpoise, minke and killer whales) use the waters around the islands throughout the year. During the winter months, the relatively calm waters between the islands (particularly Scapa Flow 1 and Eynhallow Sound 2) provide much needed food and shelter to large numbers of wintering seabirds.

Internationally important numbers of great

northern divers and slavonian grebes gather with large flocks of long-tailed ducks and eiders, as well as smaller numbers of red and black-throated divers and other species.



grey seal

the coast

Moving away from the waters to the shorelines we find a variety of habitats making up the diverse coastlines of Orkney. From the high cliffs found on the west coast and the sandy and rocky shores on the east to sheltered coasts and salt marshes. (See other leaflets in this series for information on cliffs, rocky and sandy shores).

The salt marshes of Orkney are on a small scale but contain a wealth of plant and animal life. Life in a salt marsh is dominated by the degree of inundation by the sea and so plants have to be well adapted to high concentrations of salt. These plants include thrift, sea aster, sea arrowgrass and saltmarsh grass. At high tide, waders may use these areas as roost sites. The largest areas of saltmarsh in Orkney can be found at Waulkmill Bay 3 in Orphir, Quoys on Hoy 4 and at Cata Sand 5 and Little Sea 6 on Sanday.



coastal heathland

maritime heath

Another habitat closely linked to the sea is maritime heath. Although classified as heath the heather component of this habitat is often not very obvious. Maritime heath is mainly located on the west-facing coasts that are exposed to the full force of the Atlantic gales and as such is frequently inundated with sea spray. The heath that develops is therefore well adapted to cope with the exposure and salinity. The vegetation is mostly short and growing close to and often along the ground. In the spring and early summer, the heath can be awash with colour from flowers such as spring squill and grass-of-parnassus and alive with the calls of many species of breeding birds. These can include internationally important numbers of

Arctic terns (pickie terns as they are known in Orkney) and Arctic skuas (skootie allans). Maritime heath is also the home of the Scottish primrose, (*Primula scotica*). Its bright pink flowers appear in May and again in late July. Although there can be thousands of individual plants in some of the colonies on the maritime heath of North Hill, Papa Westray 7 and along the cliffs at Yesnaby, the plant itself is very scarce, occurring only in Orkney and along the north coast of Scotland.

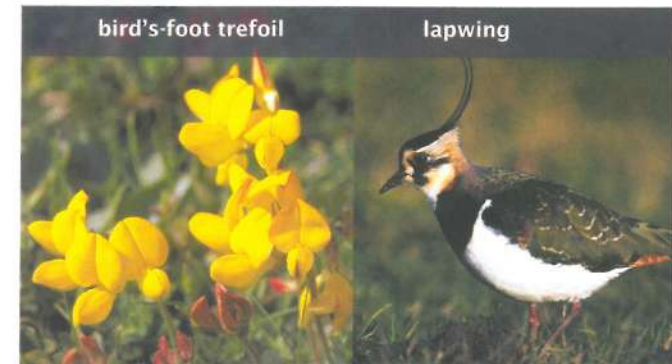


Arctic tern

Scottish primrose

farmland

Moving inland, we encounter an artificial habitat which is much overlooked for its wildlife potential - farmland. Farming has changed the face of the islands, and much of Britain, since Neolithic times, providing grazing and winter feed for stock and crops for human consumption. Although farming may decrease the diversity of wildlife in some areas, its can also provide much-needed food, shelter and nesting sites to many species of bird and in places can be rich in wild flowers. Species-rich grasslands for instance, can hold many plants that are scarce in other habitats e.g. orchids, devil's-bit scabious, yellow rattle and bird's-foot trefoil. Spring-sown fields provide nest sites for breeding waders such as lapwing and ringed plovers, and over-wintered stubbles supply a much-needed source of weed seeds over the crucial winter period.



bird's-foot trefoil

lapwing