

Findhorn Sand Dune Restoration Project

'Star Species' and Scottish Biodiversity List Species found on the Findhorn Dunes

Table 1. Rare species

Species	Common name	Ecology
<i>Ammophila sabulosa</i>	Red-banded sand wasp	Scottish Biodiversity List species, known from only two or three places in Scotland. A solitary hunting or 'digger' wasp, it nests in bare or sparsely vegetated sand. Nests are provisioned with several paralysed caterpillars upon each of which a single egg is laid. Remarkably, the species is known to steal caterpillars from neighbour's nests, removing the egg and laying its own.
<i>Linnaemya comta</i>	Fly	The only Scottish record of this mostly coastal parasitic fly. The adults are pollinators, but lay their eggs on moths, which the larvae then consume.
<i>Metopia tshernovae</i>	Fly	Nationally scarce species, which is very rarely recorded. Restricted to coastal sites
<i>Pamponerus germanicus</i>	Pied-winged robber fly	Restricted to three small coastal areas in Scotland and is a Scottish Biodiversity List species. Robber flies, also called assassin flies, are expert ambush predators. Powerfully built, with strong legs to help with prey capture and stiff bristles for self-defence, they have voracious appetites and help to maintain a healthy balance between insect populations. Living in the sand, their larvae are also predatory, feeding on the eggs and larvae of other insects
<i>Phthiria pulicaria</i>	Flea bee-fly	Restricted to seven small coastal areas in Scotland
<i>Tipula nodicornis</i>	Crane-fly	Restricted to five small areas in the UK, all in Scotland
<i>Scythris empetrella</i>	Moth	Only found at two sites in Scotland, Findhorn Dunes being the most important. Requires crowberry and heather growing in sand to complete its lifecycle
<i>Actebia praecox</i>	Portland Moth	This attractive and rather docile moth is restricted to a small number of coastal sites, its national stronghold being in the Moray Firth. It inhabits sparsely vegetated dunes with loose sand. The larvae emerge from their sandy burrows at night to feed on creeping willow and other sand-dune plants
<i>Longalatedes elymi</i>	Lyme Grass moth	Restricted to coastal sandy habitats
<i>Caryocolum blandelloides</i>	Moth	New to science as recently as 1981. Its UK range is limited to dune systems in the western Moray Firth and it is another of our precious 'unseen beings'. Its caterpillars feed within the flowers of field mouse ear, which grows amongst dry dune grassland and on the edges of patches of sand and shingle
<i>Gravesteiniella boldi</i>	Leafhopper	The first UK record for the leafhopper <i>Gravesteiniella boldi</i> was from the Findhorn Hinterland, in 2022! It is a dweller of coastal sandhills with marram grass

<i>Muirodelphax aubei</i>	Planthopper	Only recorded at one other site in Scotland
<i>Macropsis fuscata</i>	Planthopper	Only been found once before in Scotland, at Gretna Green
<i>Peltigera malacea</i>	Felt lichen	Scottish Biodiversity List, Red Data Book, Endangered and Nationally Rare species. There are significant populations at Findhorn. Found on sand and near moss, often at the edge of tracks. The lichen can appear a vibrant bright green in wet weather.
<i>Scytinium palmatum</i>	Lichen	Nationally Scarce species, found growing on sand
<i>Cladonia mitis</i>	Lichen	Scottish Biodiversity List. Restricted to six coastal locations in Scotland
<i>Polycoccum tryptelioides</i>	Lichenicolous fungus	Classed as Near Threatened. Restricted to six small areas in Scotland. Grows on the pioneer lichen <i>Stereocaulon condensatum</i> often the first lichen to appear on bare sand
<i>Dacampia peltigericola</i>	Lichenicolous fungus	This lichenicolous fungus is only known in Britain from the Findhorn dunes! It has been found here growing on the endangered lichen <i>Peltigera malacea</i> , which is found on sand and near moss, often at the edge of tracks.
<i>Sabuloglossum arenarium</i>	Sandy Earthtongue fungus	Recorded at only two sites in the UK. A sand and dune heath specialist
<i>Phellodon melaleucus</i>	Grey Tooth Fungus	Scottish Biodiversity List. A rare find in Britain, especially on the coast, and even more so growing away from trees, as most records are from Caledonian pine forest. It is a more frequent sight in some parts of southern Europe and is also recorded in North America

Table 2. Scottish Biodiversity List Species

Moths:

Mammals:

- Brown hare
- Brown long-eared bat
- Natterer's bat
- Pipistrelle bat
- Soprano pipistrelle

Reptiles:

- Common lizard

Birds:

- Linnet
- Yellowhammer

Butterflies:

- Small heath

- Cinnabar moth
- Ear moth
- Mouse moth
- Shoulder-striped wainscot moth
- Garden tiger
- Small phoenix
- Galium carpet
- Grass rivulet
- Grey mountain carpet
- Autumnal rustic
- Garden dart
- White line-dart
- Rosy minor moth
- Rosy rustic moth
- Lunar yellow underwing (old records, a target for new survey)

- Shaded broad-bar moth
- White ermine moth
- Anomalous moth

Flowering plants:

Shepherd's cress *Teesdalia nudicaulis*

Lichens:

- *Cladonia mitis*
- *Cladonia unicalis subsp. unicalis*
- Matt felt lichen *Peltigera malacea*
- *Stereocaulon glareosum*
- *Melaspilea interjecta*
- *Rhizocarpon cinereovirens*

