Scottish Natural Heritage

TURNBERRY DUNES
SITE OF SPECIAL SCIENTIFIC INTEREST

SITE MANAGEMENT STATEMENT

Site code: 1571

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Purpose

This is a public statement prepared by SNH for owners and occupiers of the SSSI. It outlines the reasons it is designated as an SSSI and provides guidance on how its special natural features should be conserved or enhanced. This Statement does not affect or form part of the statutory notification and does not remove the need to apply for consent for operations requiring consent.

We welcome your views on this statement.

Description of the site

Turnberry Dunes Site of Special Scientific Interest (SSSI) lies adjacent to Turnberry on the Ayrshire coast. It is of national importance for its rich beetle assemblage, which includes a number of nationally scares species, the weevils *Trichosirocalus dawsoni* and *Oxystoma cerdo* and the rove beetle *Gabrius osseticus*. Two red data book species have also been recorded, the featherwing beetle *Actinopteryx fucicola* and the weevil *Ceutorhynchus cakilis* and a number of species have been recorded for which the site is the most northerly known station in Britain.

Its importance for insect conservation is related to the quality of the beach and dune habitats - which are becoming increasingly scarce habitats - they comprise an extensive, unbroken sandy beach backed by a large foredune ridge running approximately north – south. The dunes become narrower and higher towards the northern extent, rising to over 14 metres in places. The site encompasses rocky coves and cliffs around Turnberry Lighthouse at the northern end of the site.

The beetle assemblage is considered to be in a favourable conservation condition as although not all the target species were found during the monitoring visit, their microhabitats were available, including host plants (e.g. decaying seaweed and the white stonecrop, *Sedum anglicum*). Current management practices pose no threat to these microhabitats. Ninety two species of beetle in 18 families were recorded. However it should be noted that there was some contamination of the beach by alginates waste and this should be monitored to ensure it remains within acceptable limits.

Although not part of the notified feature three Nationally Scarce Diptera (true flies) species are found at this site. Flora of note within the site includes white stonecrop which is present to the north of the site along the cliff-tops along with sea plantain and buck's-horn plantain.

Natural features of Turnberry Dunes SSSI	**Condition of feature** (date monitored)
Beetle assemblage	Favourable, Maintained (June 2003)

Features of overlapping SSSI that are not notified as natural features of Turnberry Dunes SSSI	**Condition of feature** (date monitored)	**Designation**
Old red sandstone igneous	Favourable, maintained (February 2007)	Turnberry Lighthouse to Port Murray SSSI

	
A white stonecrop, a plant species which has been recorded at this site (Photo: Banangaut).	The development of embryo dunes at the site which signifies the dynamic nature of the site.

Past and present management

Turnberry Dunes Golf Course lies on the landward side of the dunes. The dunes within the SSSI, however, have not been developed as part of the course and are relatively undisturbed. The beach has long been used for recreation and within the rocky northern section of the site is Turnberry Lighthouse.

Measures to combat dune erosion have included chestnut fencing which runs along the top of the dunes and across their seaward faces to act as a sand trapping mechanism. However there are still areas of erosion, especially within the southern dune areas. The dune system is dynamic with evidence of embryo dune formation. The dunes and upper shore are well vegetated with a typical maritime plant community.

The southern end of the beach is severely affected by the accumulation of granular seaweed refuse emanating from the alginates factory further down the coast. Very few beetles have been observed within this refuge. Realignment of the Wilson's Burn has caused some disturbance; nonetheless no threats to the notified feature have been identified as a result of this management.

Objectives for Management (and key factors influencing the condition of natural features)

We wish to work with the owners and occupiers to protect the site and to maintain and where necessary enhance its features of special interest. SNH aims to carry out site survey, monitoring and research as appropriate to increase our knowledge and understanding of the site and its natural features.

1. **To maintain, and where possible, enhance the foreshore and dune grassland habitat to ensure robust populations of the various beetle species are maintained.** This can be achieved by avoiding reducing the natural sediment flow of the dune system, encouraging embryo dune formation and ensuring the careful management of beach cleaning activities.

   The main threat to the dune system and its beetle interest is erosion. The siting of the golf course adjacent to the dunes necessitates a certain level of stabilisation measures within the dunes. Forced protection from erosion limits options for coastal management in areas that are naturally eroding. It must be noted; dune stabilisation is far from straightforward and requires careful consideration of various methods.

   There is a good natural strandline which supports a rich invertebrate fauna dependent on decaying seaweed, although towards the south of the site alginate waste poses a potential threat. The extent of this contamination should be monitored to ensure it remains within acceptable levels. Careful management of beach cleaning activities is necessary to ensure strandline materials and pioneer plant communities are not removed unnecessarily – in particular mechanical beach cleaning is not recommended for this site.

   Sand dune habitats are very susceptible to damage through trampling and vehicular disturbance - provided the level of recreational use of the beach does not increase substantially, current management practices are satisfactory. Areas of foredunes can be especially rich in invertebrate species – where such areas are in threat it may be necessary to fence off areas to allow for recovery.

   The natural vegetation and sand banks along the Wilson's Burn and Milton Burn should be maintained where possible as these areas are very important in the invertebrate life-cycle.

Front page photograph: view of Turnberry Dunes SSSI looking north showing the development of the strandline on the sand which provides habitat for species of beetle such as the Red Data Book species, *Actinopteryx fucicola*.

Date last reviewed: 23 February 2010.

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