Scottish Natural Heritage

MARTNAHAM LOCH AND WOOD SITE OF SPECIAL SCIENTIFIC INTEREST

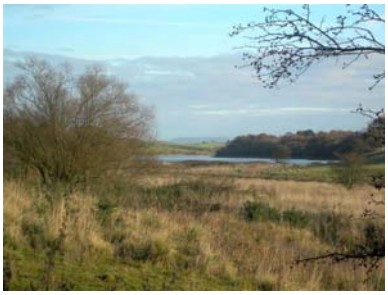
SITE MANAGEMENT STATEMENT

Site code: 1130

19 Wellington Square
Ayr
KA7 1EZ

Tel: 01292 261392
Fax: 01292 269493

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

Martnaham Loch and Wood Site of Special Scientific Interest (SSSI), lying 5km south-west of Ayr, includes a very botanically-rich loch and adjacent woodland, the latter being one of the largest oak woods in Ayrshire.

The loch supports a range of vegetation types, with submerged, floating and emergent plant communities, and some species of flowering plant not commonly seen elsewhere. Around the loch edge are extensive areas of reed-swamp dominated by common reed but emergent vegetation also includes less common species such as branched bur-reed, water-plantain, nodding bur-marigold, trifid bur-marigold, greater spearwort, and the nationally scarce eight-stamened waterwort. The marginal vegetation gives way in deeper water to floating plant communities dominated by white and yellow water-lilies.

The loch feature is considered to be in an unfavourable condition primarily as a result of the abundance of the non-native and invasive water plant Canadian pondweed. This plant favours eutrophic (highly nutrient-rich) conditions, and many other aquatic plants observed also favour such conditions, belying the feature's classification as mesotrophic (moderately nutrient-rich). There is no evidence that the aquatic flora has changed in composition, and it is unclear whether the eutrophic condition reflects the natural character of the loch or some enrichment from agricultural run-off.

Martnaham Wood is an ancient woodland site with a canopy dominated by oak and birch, abundant hazel in the understorey, and a typical woodland flora including sanicle, bluebell and dog's mercury. The woodland supports a wide variety of fungi, mosses and liverworts, including the only Scottish record of the mushroom *Mycena picta*, formerly thought extinct in Great Britain.

The condition of the woodland feature is considered to be unfavourable (no change). This was due to an apparent dearth of recent tree regeneration, as well as to the presence of non-native tree and shrub species, especially rhododendron.

Although not contributing to the SSSI's notified features, a great variety of birds use the loch as a breeding and wintering site. The loch is a key wintering and stopover site for wildfowl including wigeon, teal, pochard, goldeneye, goosander and whooper swan. It is also the main breeding site for great crested grebe and water rail in Ayrshire, while several other breeding species are known, including mallard, tufted duck, little grebe, grasshopper warbler, reed bunting, grey heron and mute swan. Several protected mammals have also been recorded, including otter, badger, red squirrel and bats.

Natural features of Martnaham Loch and Wood SSSI	**Condition of feature** (date monitored)
Mesotrophic loch	Unfavourable – no change (September 2004)
Upland oak woodland	Unfavourable – no change (June 2002)

Nodding bur-marigold


Mycena picta

Past and present management

The site has been subject to several more or less severe historical disturbances. Apart from a few standard oaks, Martnaham wood was clear-felled during the First World War. The wood has since regenerated with little intervening disturbance. Until the early part of the 20th century a railway for transporting coal ran through the southern edge of wood. There was a pig rearing unit on the edge of the loch but this has been discontinued since the early 1990s.

Currently the loch is fished for pike, perch and eels with the owner's consent, but fishing is otherwise discouraged. Fishing now takes place at the eastern end of the loch. Since 1999, new fences have been erected around much of the loch margin under SNH management agreements that have restricted access by anglers and livestock to the shoreline throughout the western half of the loch and much of the eastern half, to reduce damage to the emergent vegetation and minimise disturbance to birds.

Elsewhere, cattle are allowed to access the loch margin from adjacent pasture. Livestock do not access the woodland, and there are few signs of access by anglers or others.

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 and monitor the effectiveness of the management agreements.

1. **To maintain and enhance the open water body and associated plant and animal communities** by reducing the prevalence of Canadian pondweed and protecting the marginal vegetation from damage through uncontrolled access by livestock and anglers.

   The spread of Canadian pondweed may be attributed to an increase in nutrients, although as the current cause of the nutrient enrichment in this site is unknown it is a difficult problem to address. The underlying reason may be off-site diffuse nutrient enrichment or pollution, which could require changes to off-site management practices and therefore be outwith the control of owners and occupiers. The spread of Canadian pondweed may be tackled by physical removal of the plant, via methods such as raking, dredging or the use of chains or weed bucket.

   Development of semi-natural marginal vegetation has been constrained in places due to the effects of trampling by livestock and anglers. Fences have recently been erected around much of the loch margin under SNH management agreements, and will require continued maintenance to ensure their efficacy.

2. **To maintain and enhance the natural species composition of the woodland** by removing non-native scrub and trees, notably rhododendron and beech. Where larger trees are required to be felled, timber should be left on site to rot, where it will provide valuable habitat for fungi and invertebrates.

Other factors affecting the natural features of the site

Although access has been restricted around part of the loch, human disturbance continues to cause problems elsewhere within and surrounding the SSSI, arising through illicit fishing activity and associated littering. These activities can cause disturbance to breeding waterfowl and damage shoreline habitats.

Front page photograph: the south-west end of Martnaham Loch, viewed from the A713 in November.

Date last reviewed: 1 March 2010.