



Scottish Natural Heritage

**CRUADAY QUARRY**  
**Site of Special Scientific Interest**

**SITE MANAGEMENT STATEMENT**

Site code: 473

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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.

<b>Natural features of Cruaday Quarry SSSI</b>	<b>Condition of feature (and date monitored)</b>
Silurian-Devonian Chordata	Favourable, maintained (January 2009)

**Description of the site**

Cruaday Quarry site of special scientific interest (SSSI) is in Sandwick to the north west of mainland Orkney. It is noted for its fine fossil specimens exposed in the Sandwick Fish Bed, and includes some of the earliest fish and vascular plants of the fossil record.

The rocks at Cruaday Quarry, as elsewhere in Orkney, belong to the Old Red Sandstone group, and were laid down in a harsh arid climate between 350-390 million years ago (the Devonian Period) when what is now Scotland lay south of the equator in latitudes equivalent to the present Australian and Kalahari deserts. Deposition of sediment was mainly by large rivers into an enormous freshwater lake (the Orcadian Basin).

During the Middle Devonian, the depth of the Orcadian Lake fluctuated and at times of greatest depth, the central portions of the lake became starved of oxygen (anoxic). It was here that fish carcasses were deposited, to become beautifully preserved fossil specimens.

At the last site visit (2009), the quarry was disused but showed evidence of both fossil collecting and fly tipping.

## **Past and present management**

Recent planning consent has been given until January 2011, with certain constraints and suggestions on the re-commencing of quarry works as set out by the local planning authority and following the advice in the Environmental Impact Assessment. These will ensure minimal impact and disturbance to the feature.

Sandwich Community Council have established the existence of extraction rights for an area of one acre 'commonty' in the middle of the site.

The site lies in a quarry excavated into the Sandwich Fish Bed. The rock excavated in the past may have been used as roofing slate or paving slabs. Spoil appears to have been extracted in recent years probably for use as fill material in track construction.

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

We wish to work with the owner and those with mineral rights to protect the site and to maintain and where necessary enhance its features of special interest. SNH aims 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 agreement.

1. To keep the exposures clearly visible by ensuring no dumping or storage of materials on the site obscure or obstruct access to the features.
2. To maintain access to rock outcrop and spoil.

## **Other factors affecting the natural features of the site**

Quarrying: Quarrying within or near the site, for whatever purpose, could have the beneficial effect of providing fresh new rock exposures. However, it is important in any post-quarrying restoration programme, that future quarry faces and fossil-bearing spoil are conserved.

Spoil Removal: The spoil within the quarry yields the fossil remains of fossil fish and plants and is therefore an important scientific resource, it is therefore undesirable for this material to be removed from the site.

Fossil Collecting: The removal of fossil material on a large scale from the site by commercial collectors can be regarded as damaging to the scientific interest. The problem could be addressed through the use of positive interpretative material and anti-collecting signs.

Tourism and Education: Consideration could be given to developing the site for both its local amenity (including formal education) and tourist potential to attract small-scale fossil collecting. A detailed management plan would be required to ensure that there were no adverse impacts on the qualifying interests of the site.

Date last reviewed: 18 December 2009