Scottish Wildlife Trust

Policy

Geodiversity

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Scope of this Policy

1. The Trust will promote the conservation of Geodiversity through its work on its reserves and its support for Scotland's Geodiversity Charter and Local Geodiversity Sites (LGS).

Policy Headlines
The Trust recognises Geodiversity as an essential component of our natural heritage.
The Trust believes that the land management practices should recognise conservation of geodiversity as a major aim and attribute high value and importance to this.
The Trust will promote education about Geodiversity by raising awareness by means of interpretation on appropriate Reserves and through the promotion of Wildlife Watch clubs.
The Trust will promote the conservation of Geodiversity through its work on its reserves and its support for Scotland's Geodiversity Charter and Local Geodiversity Sites (LGS).

Context

2. The geological story of Scotland is all around us in our rocks, soils, landforms, landscapes and active processes. These physical components of the natural heritage, Geodiversity, are closely linked to biological components of the natural heritage, biodiversity, through the relationship between rocks, soils, habitats and species. The relationship is fundamental- most habitats cannot exist without the supporting medium of soils, and soil cannot form without weathering processes acting on the underlying subsoils and rocks.

3. Rock, soils and landforms are resources that provide essentials for life. These include water, raw materials for manufacturing and construction, soil for agriculture, land for recreation, and coal, oil and gas for energy. And the variety of rocks and landscapes in Scotland creates the mosaic of habitats that supports a wide variety of biodiversity..

4. Geodiversity is a dynamic subject- not just old rocks. Animals and plants that are growing today, plants decaying to form peat bogs and soil washed off the fields during storms are parts of the processes of creating rocks of the future. These processes of rocks first supporting soil development then plant and animal growth, which then decay and become part of the soil and rock formation cycle, are parts of the biodiversity cycle of life. Habitats and species (both now and in the future) cannot exist without this cycle.

5. Maintaining Geodiversity is as important as maintaining biodiversity, since both are fundamentally linked.

6. Local Geodiversity Sites (LGS), are the most important places for geology, geomorphology and soils outside statutorily protected nature reserves and Sites of Special Scientific Interest (SSSI). The designation of Local Geodiversity Sites is one way of recognising and protecting important earth science and landscape features for future generations to enjoy.

7. Survey of LGS is usually done by local GeoConservation groups, who are members of the Scottish Geology Trust and the national network, GeoConservation UK (GCUK). These groups work with local authorities to designate Local Geodiversity Sites, and work to raise awareness of sites and geodiversity through publicity such as leaflets, booklets, posters, interpretation boards and websites, and by developing access and educational usage of sites and trails. Local Geodiversity Sites were previously known as RIGS, Regionally Important Geological and Geomorphological Sites.

Strengths and priorities for action

8. The Trust's Memorandum of Association states that an object of the Trust is "take account of other aspects of the natural heritage, which wildlife is dependent on or contributes to, such as geology, landforms, wild places and landscapes…". Although there are no specific targets relating to it within the Corporate Strategy, Geodiversity and its maintenance have to be considered when implementing a number of other Trust Policies.

Geodiversity and Scottish Wildlife Trust Reserves

9. At least 17 current Scottish Wildlife Trust reserves have major Geological or Geomorphological special interest within them (see appendix 2), alongside their Biological interest. It is desirable that greater effort is made on such reserves to highlight this geodiversity interest. Reserves staff and volunteers should take full account of the way geodiversity affects the landscape and wildlife of the Trust's reserves, particularly during the completion of management plans. Management plans should fully consider whether geodiversity conservation techniques are appropriate for use on a particular reserve.

10. It is recognised that some Geological Conservation Review sites are of Site of Special Scientific Interest (SSSI) status but have not been designated as SSSIs. The Trust recognises the importance of these sites and as a responsible land manager will endeavour approach the management of these sites as if they had SSSI status.

11. In order that staff and volunteers can take better account of geodiversity concerns, action is desirable in two areas – awareness raising and training. Awareness of geodiversity techniques and principles should be raised throughout the Trust and this can be achieved in a variety of ways. Similarly, reserves staff and volunteers should be trained in geodiversity management techniques such as specialised training from an external provider, site visits to appropriate geological/geomorphological sites and through receiving relevant publications.

Geodiversity and Local Biodiversity Sites

12. Many Local Biodiversity Sites have Geodiversity interest, and for some the wildlife interest is a direct result of the underlying geology. The designation of Local Geodiversity Sites (LGS) is undertaken by Local Authorities through the Local Nature Conservation Site system, co-ordinated by the Local Nature

Conservation Site (LNCS) Working Group. A coalition of the following organisations: British Geological Survey, COSLA, Link, SNH, GCUK (formerly) UKRIGS, Scottish Wildlife Trust and RTPI (Guidance document). The Trust will operate within the LNCS guidance to recognise important geodiversity and its contribution to biodiversity.

Geodiversity and Education and Lifelong learning

13. As geodiversity and biodiversity are fundamentally linked, Education and Life Long Learning (ELLL) plays a key role within the Scottish Wildlife Trust in raising awareness accordingly. This can be achieved through articles on geodiversity in Trust magazines and the production of information sheets on geological and geomorphological conservation, through lectures and workshop at Trust conferences and seminars, through organising appropriate training events and through the promotion of a geodiversity theme at events.

14. As a number of Trust reserves have geological or geomorphological special interest, then any interpretation implemented should recognise this interest. Geodiversity demonstration sites can be established and promoted widely using appropriate reserves and a catalogue of reserves with geological and geomorphological importance should be created.

15. Our ELLL programmes at reserves, Visitor Centres and at events should where appropriate, have a geodiversity element to them. Geodiversity is already well promoted to our junior membership, Wildlife Watchers. This can also be adapted for use by school groups, through People & Wildlife activities.

Appendix 1 – A Review of Geological interest of Scottish Wildlife Trust Reserves

17 Trust reserves have SSSI on them with geological importance, of which 10 are Geological Conservation Review Sites.

Name	Designation	Features
Southwick	SSSI GCR	Mineral deposits
Grey Hill	SSSI	Part of a larger SSSI of Ordovician igneous pillow lavas and associated sediments
Bawsinch Duddingston	SSSI	Includes part of the volcanic rocks of Arthur's Seat Volcano SSSI
Isle of Eigg-An Sgùrr and Cleann Charadail	SSSI GCR	Columnar pitchstone of the Scurr
Kilminning Coast	SSSI	Part of a SSSI with Lower Carboniferous Strathclyde Group with fossil molluscs and plants
Ballagan Glen	SSSI	Classic section of Lower Carboniferous Ballagan Formation
Petershill	SSSI	Lower Carboniferous limestone with fossils including colonial corals
Rahoy Hills	SSSI GCR	Complete Upper Cretaceous succession
Isle of Eigg-Laig to Kildonnan	SSSI GCR	Cretaceous reptile deposits (best British site)- Bathonian delta deposits with fossiliferous shales
Longhaven cliffs	SSSI	Part of SSSI of granite cliffs showing coastal erosion features
Seaton Cliffs	SSSI GCR	Upper and Lower Devonian sandstones with excellent coastal features
East Lammermuir Deans	SSSI	Physiographic-steep walled glacial gorges in Lower Devonian conglomerates, 'badland' geomorphology
Hoselaw Loch	SSSI GCR	Part of the Quaternary peat site (Din Moss) with a well-studied and complete pollen stratigraphy
Montrose Basin	SSSI GCR	Stratigraphy of post-glacial deposits including tsunami bed
Spey Bay	SSSI GCR	Part of a GCR site with active shingle ridges, delta and fossil coastal ridges
Ben More Assynt	SSSI GCR	Moine and Caledonian Igneous features crucial to understanding the complex Caledonian mountain-building event which occurred in northwest Scotland 460-430 million years ago. Also, landforms, deposits of sediment and mammal bones from the Quaternary period (the last 2 million years).
Falls of Clyde	SSSI GCR	Lower Devonian sandstones with waterfalls, gorge Fand glaciofluvial deposits and landsforms.

Appendix 2 – Further Sources of Information concerning Geodiversity in Scotland

Scotland's Geodiversity Charter 2018-2023 –
https://scotlandsgeodiversitycharter.org/
Local Geodiversity Action Plans –
https://www.nature.scot/landforms-and-geology/protecting-our-geodiversity/places-and-plans-safeguard-geodiversity/local-geodiversity-action-plans

Biodiversity and Geodiversity sites under Local Nature Conservation Site (chapters 3 & 4) –
https://www.nature.scot/sites/default/files/2017-07/Publication%202006%20-%20Guidance%20on%20Establishing%20and%20Managing%20Local%20Nature%20Conservation%20Site%20Systems%20in%20Scotland.pdf

Geoconservation Groups –
www.scottishgeology.com/find-out-more/geoconservation/

British Geological Survey (BGS) website –
www.bgs.ac.uk/research/ukgeology/scotland/scottishGeodiversity.html