

Geological and geomorphological features of SSSIs contributing to the MPA network in Scotland's seas





Scottish Natural Heritage
Dualchas Nàdair na h-Alba

All of nature for all of Scotland
Nàdar air fad airson Alba air fad

COMMISSIONED REPORT

Commissioned Report No. 892

Geological and geomorphological features of SSSIs contributing to the MPA network in Scotland's seas

For further information on this report please contact:

Sarah Cunningham
Scottish Natural Heritage
Battleby
PERTH
PH1 3EW
Telephone: 01738 458634
E-mail: sarah.cunningham@snh.gov.uk

This report should be quoted as:

Gordon, J.E. 2016. Geological and geomorphological features of SSSIs contributing to the MPA network in Scotland's seas. *Scottish Natural Heritage Commissioned Report No. 892*.

This report, or any part of it, should not be reproduced without the permission of Scottish Natural Heritage. This permission will not be withheld unreasonably. The views expressed by the author(s) of this report should not be taken as the views and policies of Scottish Natural Heritage.



COMMISSIONED REPORT

Summary

Geological and geomorphological features of SSSIs contributing to the MPA network in Scotland's seas

Commissioned Report No. 892

Project No: 16088

Contractor: Dr John E. Gordon

Year of publication: 2016

Keywords

SSSI; MPA; network; GCR; geological; geomorphological.

Background

Legislative provisions in the Marine (Scotland) Act 2010 enable the identification of existing Sites of Special Scientific Interest (SSSIs) that may be formally recognised as contributing to the Scottish and wider UK Marine Protected Area (MPA) network. It is recognised that the MPA network should include not only relevant conservation sites for habitats and species, but also sites for geological and geomorphological features. However, to date there has been no evaluation of the potential contribution to such interests within existing SSSIs around the Scottish coast.

The main objectives of this desk-based study were therefore to identify the marine geological and geomorphological features of relevance to coastal SSSIs in Scotland and to compile a list of the SSSIs that contain and protect these features.

Main findings

1. The coast of Scotland contains a rich geodiversity with significant geoheritage value. Forty-six of the 49 Geological Conservation Review (GCR) blocks, or features, in Scotland are represented in coastal SSSIs. Of these, 43 have confirmed intertidal interests. These blocks provide the basis for the geoscience network of essential sites that represent the interests, events and processes that are fundamental to understanding the geological history and geoheritage of Great Britain.
2. As a working definition, it is proposed that geoheritage SSSIs be considered to support features that could contribute to the MPA network either where the main or critical part of the interest occurs below MHWS within the SSSI boundary, and/or one that is dependent on intertidal or subtidal processes within the SSSI boundary for its formation and maintenance. In the former case, the interest should be of international importance, include unique or exceptional features, or be representative of key stages, events or processes in the geological evolution of Britain.
3. A total of 174 SSSIs around the Scottish coastline include confirmed marine geological and geomorphological GCR interests below MHWS and could therefore be considered as contributing to the MPA network.

4. All SSSIs with Coastal Geomorphology GCR interests may be regarded as contributing in a process or sediment supply role to the MPA network.

For further information on this project contact:

Sarah Cunningham, Scottish Natural Heritage, Battleby, Perth, PH1 3EW.

Tel: 01738 458634 or sarah.cunningham@snh.gov.uk

For further information on the SNH Research & Technical Support Programme contact:

Knowledge & Information Unit, Scottish Natural Heritage, Great Glen House, Inverness, IV3 8NW.

Tel: 01463 725000 or research@snh.gov.uk

Table of Contents	Page
1. INTRODUCTION	1
2. OBJECTIVES	1
3. DATA SOURCES AND METHODS	2
4. THE GEOLOGICAL CONSERVATION REVIEW PROCESS AND ASSESSMENT OF KEY SITES	2
5. IDENTIFICATION AND ASSESSMENT OF GEOHERITAGE FEATURES AND INTERESTS BELOW MHWS IN SCOTLAND	3
6. CONCLUSIONS AND RECOMMENDATIONS	6
7. REFERENCES	8
8. APPENDIX	12

Acknowledgements

I thank the following SNH staff: Alistair Rennie and colleagues for providing GIS overlays of the SSSI and GCR networks with MHWS; Ness Kirkbride, Colin MacFadyen, Alistair Rennie and Rachel Wignall from the Earth Science Group for their contributions at a workshop in January 2015 to help evaluate whether notified GCR interests of each SSSI are present below MHWS; and Graham Epstein, Sarah Cunningham, Flora Kent, Alistair Rennie and Rachel Wignall for comments on the draft report.

1. INTRODUCTION

Under legislative provisions in the Marine (Scotland) Act 2010 (Clause 79(4c)), some Sites of Special Scientific Interest (SSSIs) in Scotland can be formally recognised as contributing to the Scottish and wider UK Marine Protected Area (MPA) network.

As part of their advice to Scottish Government, SNH identified the SSSIs containing marine and coastal habitats and species which contribute to the Scottish MPA network (SNH & JNCC, 2012). They also provided an assessment of the degree to which these SSSIs contribute to the protection of MPA search features, EUNIS Level 3 habitats and OSPAR Threatened and/or Declining habitats and species in Scotland's seas.

It is recognised that the MPA network should include not only sites for marine habitats and species, but also sites for marine geological and geomorphological features (Marine Scotland, 2011; JNCC, 2015). There is provision within each of the Marine Acts across the UK for the identification of MPAs for such features, and geodiversity¹ is included in the Scottish guidelines on the selection of MPAs and development of the MPA network (Marine Scotland, 2011). Brooks *et al.* (2013) developed criteria and a methodology to identify key geodiversity areas away from the coast, in line with the scientific framework of the Geological Conservation Review (GCR) which provides the rationale and methods for selecting terrestrial geological and geomorphological SSSIs above low-water (Ellis *et al.*, 1996). They identified eight categories (thematic 'blocks' - the geodiversity equivalent of the MPA search features for biodiversity) of nationally and internationally important geodiversity interests to represent the geological and geomorphological processes that have had a key influence on the evolution and present-day morphology of the Scottish seabed. Their results were used to inform the site selection process for new Nature Conservation MPAs (SNH and JNCC, 2012; Gordon *et al.*, 2013; SNH, 2014). Of the eight thematic blocks, two (Quaternary of Scotland and Coastal Geomorphology of Scotland) correspond with terrestrial GCR blocks; the others represent interests on the Scottish seabed that have formed through processes that are unique to the marine environment. The focus was on features at the seabed because they are likely to be more vulnerable to human impacts than those located beneath the seabed.

However, there has been no evaluation, either within the individual countryside agencies or at a wider UK level, addressing the potential contribution to the MPA network of geological and geomorphological features in existing SSSIs. It is not clear at present which features of these sites should be recognised as marine or coastal and the distribution of relevant features within the coastal SSSI series.

2. OBJECTIVES

The specific objectives for this desk-based study are to prepare:

1. a list of marine geological and/or geomorphological features or themes of relevance to coastal SSSIs in Scotland with an explanation of the reasoning for their inclusion;
2. a list of the SSSIs in Scotland which contain and protect these marine geological/geomorphological features; this should only include coastal SSSIs which have the features present within the site below the MHWS mark.

¹ Geodiversity includes the variety of rocks, minerals, fossils, landforms, sediments, soils, hydrological features and topography in an area, together with the natural processes which form and alter them (Gray, 2013). Geoheritage comprises those features of geodiversity that have significant scientific, educational, cultural or aesthetic value (Crofts & Gordon, 2015).

Mean high water springs (MHWS) has been used as a defining landward limit of the features and SSSIs that can be included in the study². The results of the work will be fed into an ongoing UK-wide MPA stocktake exercise being led by the Joint Nature Conservation Committee (JNCC). Initial work exploring the potential contribution of SSSIs to the UK MPA network is set out in JNCC (2015).

3. DATA SOURCES AND METHODS

The GCR is the principal source of information on the conservation value and scientific interests of the geoheritage of Great Britain. The online JNCC database (www.jncc.defra.gov.uk/page-4171) and published GCR volumes (Ellis, 2011) provide the principal sources of information on geological and geomorphological features, sites and interests. However, the GCR is a live process; sites may be added or deleted to the GCR network. Hence the current numbers of GCR sites may differ from those in the published volumes because the latter represent the listings at the time of publication. As the JNCC database is only updated periodically, an internal SNH Earth Science database that is updated regularly was also consulted for this study. It is important to note that the numbers of GCR sites do not directly relate to SSSIs, since an individual SSSI may include one or more GCR features or interests. Also, not all GCR sites have been notified as SSSIs, and some are only partly notified, for example where the GCR interest extends beyond the boundaries of an existing SSSI. Information on SSSIs was obtained from SNH's SiteLink website (<http://gateway.snh.gov.uk/sitelink/>).

From these data sources, all the GCR sites that occur at the coast within each GCR block were identified and matched with their corresponding SSSIs. There have been many competing attempts to define the edge of land and sea and the intervening intertidal area. Whilst Highest Astronomical Tide (HAT) and Lowest Astronomical Tide (LAT), for example, may have a clearer definition and/or a more obvious presence on the coast, MHWS and MLWS are the legal boundaries which have been adopted and used through recent history and form the basis of national terrestrial mapping in Scotland. For these reasons of practicality, MHWS and MLWS are used in this report. Using these working definitions, a geographical information system (GIS) analysis was provided by SNH, which overlaid the distribution and extent of the SSSI and GCR networks with MHWS. Those SSSIs and GCR sites which intersected with MHWS were selected from the broader networks and used to support the analysis of those sites which extend seawards of MHWS. This analysis allowed identification of the geoheritage features or themes of relevance to coastal SSSIs and the specific features within each coastal SSSI. Qualifying features for SSSIs with a geoheritage marine component were then identified, based on the presence of GCR scientific interests.

4. THE GEOLOGICAL CONSERVATION REVIEW PROCESS AND ASSESSMENT OF KEY SITES

The starting point for any assessment of the geoheritage interests of SSSIs is the GCR which provides the scientific framework and process for the identification of nationally and internationally important sites in the terrestrial environment in Great Britain (Ellis *et al.*, 1996; Ellis, 2011). Sites were selected through a process of expert judgement of their scientific importance. They must meet one or more of three criteria: (i) be of international importance; (ii) include exceptional features; or (iii) represent fundamental features, events and processes in the geological history of Britain. Sites were assessed under seven broad categories of geological interest: stratigraphy, palaeontology, Quaternary geology, geomorphology, igneous petrology, structural and metamorphic geology, and mineralogy. To

² Only protected areas or parts of such areas that are below MHWS are recognised as contributing to the MPA network.

ensure systematic coverage and inclusiveness, these categories were subdivided into c.100 thematic subject 'blocks' according to stratigraphic age, type of formation, geographical area or different geological and geomorphological processes (e.g. British Tertiary Volcanic Province, Quaternary of Scotland, Mass Movement). As far possible, representative sites form part of integrated networks covering the major geological characteristics within each block; for example, the Coastal Geomorphology block includes networks of sites representing beach complexes, rock coast geomorphology and saltmarshes. In the subsequent assessment of marine geodiversity in Scotland's seas, the subject blocks were equated with geodiversity 'features' in the terminology of the MPA Selection Guidelines (Marine Scotland, 2011; Brooks *et al.*, 2013). Component 'interests' of the features are specific rock types, landforms, fossils or other phenomena.

Geoheritage value is often determined not only by the presence or absence of particular interests, but also the scientific interpretation(s) placed upon them. Hence the GCR is an ongoing process and new sites may be added to the register as geoscience understanding progresses or as new scientific discoveries are made. Similarly, sites that no longer meet GCR standards (e.g. through damage, discovery of new or better localities, or fundamental advances of the science leading to reinterpretation of the interest) are deleted. Some sites may also contain multiple interests and it is often the assemblage of these interests and the geomorphological processes that link them (e.g. in an interlinked beach, dune and machair system) that determines the overall scientific importance rather than the presence of a single phenomenon (e.g. a sand dune).

The GCR process has resulted in the selection of 904 GCR sites in Scotland (Appendix: Table 1). The interests of approximately 660 of these sites have been notified entirely within SSSIs (R. Wignall, SNH, pers. comm.). Because of multiple or overlapping interests, more than one GCR site may be incorporated within an SSSI. The seaward boundaries of GCR sites and SSSIs on the coast in Scotland are fixed at Mean Low Water of Spring tides. But elsewhere in the UK, they are generally located at 'Low Water Mark', although occasionally interests on shore platforms extending down to Low Water Springs were identified.

5. IDENTIFICATION AND ASSESSMENT OF GEOHERITAGE FEATURES AND INTERESTS BELOW MHWS IN SCOTLAND

Scotland's coastal zone includes considerable geoheritage interest given the presence of extensive rock exposures, both in coastal cliffs and in the intertidal area, and the presence of active geomorphological processes and landforms. The intertidal area of many SSSIs is therefore an integral component of Scotland's geoheritage. Using the GCR as the scientific benchmark, all the GCR blocks (features) and corresponding GCR sites represented at the coast were identified, together with the numbers of sites and corresponding SSSIs (Appendix: Tables 1 and 2). Of the 49 GCR blocks represented in Scotland, 46 include GCR sites at the coast intersecting MHWS (Appendix: Table 1)³. In total, 389 (43%) out of the current 904 GCR sites in Scotland occur at the coast and extend below MHWS. This emphasises the considerable importance of Scotland's coast as a national and international asset for geoheritage.

The justification for the consideration of the 46 marine geological and geomorphological features of relevance to coastal SSSIs in Scotland (Appendix: Table 1) is that they correspond with the established GCR framework for the assessment of nationally and

³ This includes all GCR sites that extend below MHWS. It includes sites where the GCR boundary extends below MHWS but where the geoheritage interest is not actually present in the intertidal (see below). This applies in the case of the Palaeoentomology, Tertiary Palaeobotany and Permian-Triassic Reptilia GCR features.

internationally important terrestrial sites. Together they provide the essential scientific basis for the networks of "sites representative of features, events and processes that are fundamental to our understanding of the geological history of Britain" (Ellis *et al.*, 1996). In addition, JNCC and the country agencies also wished to identify where a geological SSSI at the coast could contribute to an MPA network in a process or sediment supply way and where there is an interaction between coastal geomorphology and the marine environment. Therefore, as a working definition, it is proposed that SSSIs with a geoheritage marine component can be defined by the presence of one or more of the following GCR features:

1. a feature with a component interest that forms a key part of the notified interest and occurs below MHWS within the SSSI boundary, including the presence of:
 - a. interests of international importance (e.g. geological type sites);
 - b. interests that are unique or exceptional (e.g. fossil localities);
 - c. interests that are representative of key stages, events or processes in the geological evolution of Britain (e.g. particular rock types or landforms);
2. a feature with a component interest below MHWS that depends essentially on intertidal or subtidal processes within the SSSI boundary for its formation and maintenance (e.g. beach complexes, saltmarshes).

In terms of simple spatial overlaps, a total of 203 SSSIs include all or part of such marine geological and geomorphological GCR interests as existing notified features (listed in Appendix: Table 3). However, this simple spatial filter, involving the analysis of the intersection of GCR sites, SSSIs and MHWS, does not identify whether the component interests of the geoheritage features are actually present below MHWS or largely occur above within the remainder of the SSSI. Therefore, further assessment was undertaken to identify whether key parts of the notified GCR interests of each SSSI are actually present below MHWS. This was carried out through appraisal of the individual site reports in the published GCR volumes and from the internal SNH Site Documentation Reports for each GCR site/SSSI, as well as being informed by the expert judgement of SNH Earth scientists familiar with the sites. For each of the initial 203 SSSIs, the presence or absence of confirmed key intertidal geoheritage features and their component interests was identified (Appendix: Table 3). This resulted in a total of 174 SSSIs that have confirmed intertidal features and interests and could therefore be considered as contributing to the MPA network through the presence of these features and interests. The GCR sites within these SSSIs include features from 43 out of the 49 GCR blocks represented in Scotland. Indicative examples of SSSIs under the different categories above are given in Box 1.

It is also important to note that 70 coastal GCR sites remain un-notified in SSSIs (Table 2). Of these, 63 have key intertidal geoheritage features/interests present (Table 4). If notified as SSSIs, these sites could also be considered as contributing to the MPA suite for geoheritage interests; for example, both Lub Score and An Corran on Skye have important but vulnerable fossil (Jurassic-Cretaceous Reptilia) interests (Clark *et al.*, 2004, 2005). In addition, a further 15 coastal GCR sites are only part-notified (Appendix: Table 2), of which 12 have confirmed intertidal geoheritage interests (Appendix: Table 3).

If considered appropriate, further analysis could be carried out to identify where geoheritage features overlap and support important biodiversity features, and to assess the sensitivity of the component interests, where sensitivity is defined in terms of resistance and resilience to external pressures (Brooks, 2013).

Box 1. Indicative examples of existing SSSIs that could be considered to be contributing to the MPA suite for geoheritage interests

Category 1a: interests of international importance

Examples include several SSSIs on Skye that are internationally recognised type sites. These are sites that geologists worldwide use as global reference standards or markers for particular events or time periods represented in the rocks. They include: Rigg-Bile SSSI where Bearreraig Bay is the internationally ratified Auxiliary Stratotype Section and Point for the Aalenian-Bajocian Stage boundary, Trotternish Ridge (Storr to Quiraing) SSSI where Kildorais/Flodigarry Shore is a candidate Global Stratotype Section and Point (GSSP) for the base of the Kimmeridgian Stage (Upper Jurassic) and Staffin Bay which is the international stratotype for much of the Boreal Oxfordian.

Category 1b: interests that are unique or exceptional

Examples include SSSIs with rocks containing fossils that provide evidence for key stages in the evolution of the plant and animal kingdoms: Eigg - Laig to Kildonnan SSSI (Bathonian and Jurassic-Cretaceous Reptilia acclaimed as the best location in Britain for fossils of Middle Jurassic marine reptiles, including the 'reptile bed' discovered by the eminent 19th century stonemason, geologist and writer, Hugh Miller, that contains the bones of marine turtles, crocodiles and plesiosaurs, as well as abundant gastropods and rare bivalves); Helmsdale Coast SSSI (Kimmeridgian and Mesozoic Palaeobotany noted for an outstanding example of Kimmeridgian (Late Jurassic) rock exposures with a near-complete zonal succession of ammonite fossils and the most important assemblage of Kimmeridgian fossil flora in Britain and possibly Europe); Rosemarkie to Shandwick Coast SSSI (Mesozoic Palaeobotany) noted for its exceptionally well preserved fossilised remains of Mesozoic plants and marine shell-fish); and Firth of Forth SSSI (including Wardie (Fish/Amphibia), Granton Shore (Arthropoda), Pettycur (Palaeozoic Palaeobotany) and Oxroad Bay (Palaeozoic Palaeobotany) GCR sites). All of these sites contribute significantly to Scotland's exceptionally rich and internationally important fossil record and have played a notable part in our understanding of the evolution of life on Earth. All are key localities of the highest scientific importance.

Category 1c: interests that are representative of key stages, events or processes in the geological evolution of Britain

Examples include SSSIs with landforms and deposits representing key elements of the Quaternary or Ice Age period: Rubh' a' Mhail to Uamhannan Donna Coast SSSI (Quaternary of Scotland) and West Coast of Jura SSSI (Quaternary of Scotland). Both of these sites have intertidal shore platforms that are an integral part of an internationally important assemblage of landforms and deposits representing Quaternary palaeoshorelines that also include emergent (raised) shore platforms and suites of Lateglacial and Holocene emergent (raised) shingle beach ridges formed since the melting of the last ice sheet ~15,000 years ago. Together these sites provide a striking visual demonstration in the landscape and an outstanding record of the dramatic changes in land and sea level during the Ice Age.

Category 2: interests that depend essentially on intertidal or subtidal processes within the SSSI boundary for their formation and maintenance

Examples include SSSIs with Coastal Geomorphology of Scotland GCR interests: Loch Bee Machair SSSI and Loch Druidibeg SSSI which incorporate Ardivachar to Stoneybridge GCR site (a beach-dune-machair complex noted for its range of machair landforms underpinned by offshore supply of shell-sand and regarded as a 'type area' (classic example) for machair development and geomorphology); Morrich More SSSI (an actively prograding strandplain related to a shallow offshore zone and abundant sand supply transferred onshore through the intertidal area); and Spey Bay SSSI (an active shingle bar, spit and saltmarsh dependent on intertidal processes for their maintenance and dynamic evolution). All of these sites are scientifically important as outstanding examples both of dynamic coastal landforms and processes and as archives of coastal evolution contained in their landforms and sediments.

The most sensitive interests are those that are irreplaceable or not duplicated elsewhere (e.g. fossil beds, footprints or trackways), those with soft sediment interests (e.g. intertidal peat beds) and coastal geomorphology processes where the scale or permanence of the pressure would result in recovery only over a very long time period, or not at all (e.g. interruption of sediment supply by hard coast defences). Sensitivity is already implicit to some extent to the criteria already applied above, but a separate analysis could help to inform the prioritisation of geoheritage proposals.

JNCC and the countryside agencies also wished to identify where a geological SSSI at the coast could contribute to an MPA network in a process or sediment supply way and where there is an interactive component between coastal geomorphology and the marine environment. In effect, that will apply in the case of all SSSIs that include coastal geomorphology GCR sites. Such interactions are most clearly evident in the case of soft-coast sites where there is interchange of sediment within interlinked nearshore, intertidal, beach, dune and machair systems and shingle complexes, for example. They are perhaps less evident, but nevertheless also significant, in the case of hard-coast sites, for example in the contemporary movement of boulders across intertidal shore platforms during storms (Hall *et al.*, 2008; Hall, 2011) and on cliffed-coast sites where intertidal rock ramps affect wave impacts on the adjacent cliffs. Moreover, the physical processes and characteristics of rock coasts also influence habitat availability, with consequent effects on abundance, composition and diversity of intertidal organisms (Jackson and McIlvenny, 2011).

For most SSSIs with active soft-coast geomorphology interests, although intertidal processes are a key part of the interest (e.g. through sediment transfers), the intertidal area represents only a small (although important) component of spatially much wider linked landform-process systems that extend both onshore and further offshore. MPA recognition of the intertidal parts of coastal SSSIs is important in considering the coastal processes that impact on subtidal areas of the MPA. However, it will not help protect subtidal areas and processes, adjacent to coastal SSSIs, which do not occur in MPA areas but may be vitally important for maintaining the coastal SSSI features. Further consideration should be given as to how this anomaly might be resolved.

6. CONCLUSIONS AND RECOMMENDATIONS

The coast of Scotland contains a rich geodiversity with significant geoheritage value: 46 of the 49 GCR blocks in Scotland are represented in coastal SSSIs. Of these, 43 have confirmed intertidal interests. Of the current 904 GCR sites in Scotland, 389 (43%) include a spatial overlap extending into the intertidal zone. The GCR blocks listed (Appendix: Table 1) represent the marine geological and geomorphological features relevant to coastal SSSIs in Scotland. These provide the basis for the geoheritage network of sites that represent the essential features, events and processes that are fundamental to understanding the geological history of Britain.

As a working definition, it is proposed that SSSIs with a geoheritage marine component should include either a feature with a key part of the interest occurring below MHWS within the SSSI boundary, and/or one that is dependent on intertidal or subtidal processes within the SSSI boundary for its formation and maintenance. In the former case, the interest should be of international importance, include unique or exceptional features, or be representative of key stages, events or processes in the geological evolution of Britain.

In total, 174 SSSIs include confirmed marine geological or geomorphological GCR interests below MHWS (Appendix: Table 3) and could therefore be considered as contributing to the MPA network. The GCR sites within these SSSIs include features from 43 out of the 49 GCR blocks represented in Scotland.

In addition, 63 un-notified GCR sites and 12 part-notified GCR sites have confirmed intertidal geoheritage interests (Appendix: Tables 2, 3 and 4). If the features were notified or fully notified, these sites could also be considered as contributing to the MPA suite for geoheritage interests.

If required, prioritisation of sites with geoheritage interests could be based on the identification of features or interests that overlap and support important biodiversity features and/or an assessment of the sensitivity of component interests within each site.

All the SSSIs with Coastal Geomorphology GCR interests may be regarded as contributing in a process or sediment supply way to the MPA network.

While the inclusion of intertidal SSSIs within the MPA network should enhance the recognition of both geodiversity and biodiversity interests that depend on intertidal geomorphological processes, it leaves unresolved the wider question of coastal SSSIs (both geological and biological) that are dependent on geomorphological processes operating subtidally below MLWS and their functional role in maintaining these SSSIs. Further consideration should be given as to how this anomaly might be resolved.

7. REFERENCES

- Aldridge, R.J., Siveter, D.J., Siveter, D.J., Lane, P.D., Palmer, D. & Woodcock, N.H. 2000. *British Silurian Stratigraphy*. Geological Conservation Review Series No. 19. Joint Nature Conservation Committee, Peterborough.
- Barclay, W.J., Browne, M.A.E., McMillan, A.A., Pickett, E.A., Stone, P. & Wilby, P.R. 2005. *The Old Red Sandstone of Great Britain*. Geological Conservation Review Series No. 31. Joint Nature Conservation Committee, Peterborough.
- Benton, M.J. & Spencer, P.S. 1995. *Fossil Reptiles of Great Britain*. Geological Conservation Review Series No. 10. Chapman & Hall, London.
- Benton, M.J., Cook, E. & Turner, P. 2002. *Permian and Triassic Red Beds and the Penarth Group of Great Britain*. Geological Conservation Review Series No. 24. Joint Nature Conservation Committee, Peterborough.
- Benton, M.J., Cook, E. & Hooker, J.J. 2005. *Mesozoic and Tertiary Fossil Mammals and Birds of Great Britain*. Geological Conservation Review Series No. 32. Joint Nature Conservation Committee, Peterborough.
- Brooks, A.J. 2013. Assessing the sensitivity of geodiversity features in Scotland's seas to pressures associated with human activities. *Scottish Natural Heritage Commissioned Report No. 590*. Available from:
<http://www.snh.org.uk/pdfs/publications/commissioned_reports/590.pdf>
- Brooks, A.J. Kenyon, N.H. Leslie, A., Long, D. & Gordon, J.E. 2013. Characterising Scotland's marine environment to define search locations for new Marine Protected Areas. Part 2: The identification of key geodiversity areas in Scottish waters. *Scottish Natural Heritage Commissioned Report No. 432*. Available from:
<http://www.snh.org.uk/pdfs/publications/commissioned_reports/432.pdf>
- Clark, N.D.L., Booth, C., Booth, P. & Ross, D.A. 2004. Dinosaur footprints from the Duntulm Formation (Bathonian, Jurassic) of the Isle of Skye, Scotland, UK. *Scottish Journal of Geology* 40: 13-21.
- Clark, N.D.L., Ross, D.A. & Booth, P. 2005. Dinosaur tracks from the Kilmaluag Formation (Bathonian, Middle Jurassic) of Score Bay, Isle of Skye, Scotland, UK. *Ichnos* 12: 93-104.
- Cleal, C.J. & Thomas, B.A. 1995. *Palaeozoic Palaeobotany of Great Britain*. Geological Conservation Review Series Series No. 9. Joint Nature Conservation Committee, Peterborough.
- Cleal, C.J. & Thomas, B.A. 1996. *British Upper Carboniferous Stratigraphy*. Geological Conservation Review Series No. 11. Chapman & Hall, London.
- Cleal, C.J., Thomas, B.A., Batten, D.J. & Collinson, M.E. 2001. *Mesozoic and Tertiary Palaeobotany of Great Britain*. Geological Conservation Review Series No. 22. Joint Nature Conservation Committee, Peterborough.
- Cooper, R.G. 2007. *Mass Movements in Great Britain*. Geological Conservation Review Series No. 26. Joint Nature Conservation Committee, Peterborough.

Cossey, P.J., Adams, A.E., Purnell, M.A., Whiteley, M.J., Whyte, M.A. & Wright, V.P. 2004. *British Lower Carboniferous Stratigraphy*. Geological Conservation Review Series No. 33. Joint Nature Conservation Committee, Peterborough.

Cox, B.M. & Sumblar, M.G. 2002. *British Middle Jurassic Stratigraphy*. Geological Conservation Review Series No. 26. Joint Nature Conservation Committee, Peterborough.

Crofts, R. & Gordon, J.E. 2015. Geoconservation in protected areas. In: Worboys, G.L., Lockwood, M., Kothari, A., Feary, S. and Pulsford, I. (Eds), *Protected Area Governance and Management*. ANU Press, Canberra, 531-568.

Dineley, D.L. & Metcalf, S.J. 1999. *Fossil Fishes of Great Britain*. Geological Conservation Review Series, No. 16. Joint Nature Conservation Committee, Peterborough.

Ellis, N. 2011. The Geological Conservation Review (GCR) in Great Britain - rationale and methods. *Proceedings of the Geologists' Association* 122: 353-362.

Ellis, N.V., Bowen, D.Q., Campbell, S., Knill, J.L., McKirdy, A.P., Prosser, C.D., Vincent, M.A. & Wilson, R.C.L. 1996. *An Introduction to the Geological Conservation Review*. Geological Conservation Review Series No.1, Joint Nature Conservation Committee, Peterborough.

Emeleus, C.H. & Gyopari, M.C. 1992. *British Tertiary Volcanic Province*. Geological Conservation Review Series No. 4. Chapman & Hall, London.

Gordon, J.E. & Sutherland, D.G. 1993. *Quaternary of Scotland*. Geological Conservation Review Series No. 6. Chapman & Hall, London.

Gordon, J.E., Brooks, A.J., Rennie, A.G., James, B.D., Chaniotis, P.D., Kenyon, N.H., Leslie, A.B. & Long, D. 2013. The selection of Nature Conservation Marine Protected Areas (MPAs) in Scotland - assessment of geodiversity interests. *Scottish Natural Heritage Commissioned Report, No. 633*. Available from: http://www.snh.org.uk/pdfs/publications/commissioned_reports/633.pdf

Gray, M. 2013. *Geodiversity: Valuing and Conserving Abiotic Nature*. (2nd edition). Wiley - Blackwell, Chichester.

Gregory, K.J. 1997. *Fluvial Geomorphology of Great Britain*. Geological Conservation Review Series No. 13. Chapman & Hall, London.

Hall, A.M. 2011. Storm wave currents, boulder movement and shore platform development: A case study from East Lothian, Scotland. *Marine Geology* 283: 98-105.

Hall, A.M., Hansom, J.D. & Jarvis, J. 2008. Patterns and rates of erosion produced by high energy wave processes on hard rock headlands: The Grind of the Navir, Shetland, Scotland. *Marine Geology* 248: 28-46.

Jackson, A.C. & McIlvenny, J. 2011. Coastal impacts on rocky shores in northern Scotland and some possible ecological impacts. *Journal of Experimental Marine Biology and Ecology* 400: 314-321.

Jarzemkowski, E.A., Siveter, D.J., Palmer, D. & Selden, P.A. 2010. *Fossil Arthropods of Great Britain*. Geological Conservation Review Series No. 35. Joint Nature Conservation Committee, Peterborough.

JNCC. 2015. *Defining ASSI/SSSIs with 'marine biological components' and setting out a process for determining their contribution to the UK MPA network*. Joint Nature Conservation Committee, Peterborough.

Marine Scotland. 2011. *Marine Protected Areas in Scotland's Seas. Guidelines on the selection of MPAs and development of the MPA network*. Marine Scotland, Edinburgh. Available from: <<http://www.scotland.gov.uk/Resource/Doc/295194/0114024.pdf>>

May, V.J. & Hansom, J.D. 2003. *Coastal Geomorphology of Great Britain*. Geological Conservation Review Series No. 28. Joint Nature Conservation Committee, Peterborough.

Mendum, J.R., Barber, A.J., Butler, R.W.H., Flinn, D., Goodenough, K.M., Krabbendam, M., Park, R.G. & Stewart, A.D. 2009. *Lewisian, Torridonian and Moine Rocks of Scotland*. Geological Conservation Review Series No. 34. Joint Nature Conservation Committee, Peterborough.

Mortimore, R.N., Wood, C.J. & Gallois, R.W. 2001. *British Upper Cretaceous Stratigraphy*. Geological Conservation Review Series No. 23. Joint Nature Conservation Committee, Peterborough.

Rushton, A.W.A., Owen, A.W., Owens, R.M. & Prigmore, J.K. 1999. *British Cambrian to Ordovician Stratigraphy*. Geological Conservation Review Series No. 18. Joint Nature Conservation Committee, Peterborough.

SNH (Scottish Natural Heritage). 2014. Further advice to Scottish Government on the selection of Nature Conservation Marine Protected Areas for the development of the Scottish MPA network. *Scottish Natural Heritage Commissioned Report No. 780*. Available from: <http://www.snh.org.uk/pdfs/publications/commissioned_reports/780.pdf>

SNH (Scottish Natural Heritage) & JNCC (the Joint Nature Conservation Committee). 2012. Advice to the Scottish Government on the selection of Nature Conservation Marine Protected Areas (MPAs) for the development of the Scottish MPA Network. *Scottish Natural Heritage Commissioned Report No. 547*. Available from: <http://www.snh.org.uk/pdfs/publications/commissioned_reports/547.pdf>

Simms, M.J., Chidlaw, N., Morton, N. & Page, K.N. 2004. *British Lower Jurassic Stratigraphy*. Geological Conservation Review Series No. 30. Joint Nature Conservation Committee, Peterborough.

Smith, G. & Livingstone, A. in prep. *Mineralogy of Scotland*. Geological Conservation Review Series.

Stephenson, D., Bevins, R.E., Millward, D., Highton, A.J., Parsons, I., Stone, P. & Wadsworth, W.J. 1999. *Caledonian Igneous Rocks of Great Britain*. Geological Conservation Review Series No. 17. Joint Nature Conservation Committee, Peterborough.

Stephenson, D., Loughlin, S.C., Millward, D., Waters, C.N. & Williamson, I.T. 2003. *Carboniferous and Permian Igneous Rocks of Great Britain*. Geological Conservation Review Series No. 27. Joint Nature Conservation Committee, Peterborough.

Stephenson, D., Leslie, A.G., Mendum, J.R., Tanner, P.W.G. & Treagus, J.E. 2013. The Dalradian rocks of Scotland. *Proceedings of the Geologists' Association* 124, 1-410.

Treagus, J.E. 1992. *Caledonian Structures in Britain*. Geological Conservation Review Series No. 3. Chapman & Hall, London.

Waltham, A.C., Simms, M.J., Farrant, A.R. & Goldie, H.S. 1997. *Karst and Caves of Great Britain*. Geological Conservation Review Series No. 12. Chapman & Hall, London.

Wright, J.K. & Cox, B.M. 2001. *British Upper Jurassic Stratigraphy*. Geological Conservation Review Series No. 21. Joint Nature Conservation Committee, Peterborough.

8. APPENDIX

Table 1: Numbers of Geological Conservation Review (GCR) sites and SSSIs represented on the coastline of Scotland

GCR block	Total number of confirmed GCR sites in Scotland	Number of GCR sites at the coast	Number of corresponding SSSIs at the coast	Number of GCR sites at the coast not in SSSIs or not part of notified interest	GCR publication
Precambrian, structural and metamorphic geology					
Lewisian	24	15	1	12	Mendum <i>et al.</i> 2009
Torridonian	11	10	5	5	Mendum <i>et al.</i> 2009
Moine	86	39	26	12	Mendum <i>et al.</i> 2009
Dalradian	84	38	23	20	Stephenson <i>et al.</i> 2013
Caledonian Structures	2	2	2	0	Unpublished
Caledonian Structures of the Southern Uplands	8	8	8	0	Treagus 1992
Igneous petrology and mineralogy					
Caledonian Igneous	53	8	5	3	Stephenson <i>et al.</i> 1999
Old Red Sandstone Igneous	11	12	10	1	Stephenson <i>et al.</i> 1999
Ordovician Igneous	23	13	10	0	Stephenson <i>et al.</i> 1999
Tertiary Igneous	50	30	26	0	Emeleus & Gyopari 1992
Carboniferous-Permian Igneous	31	8	4	1	Stephenson <i>et al.</i> 2003
Mineralogy of Scotland	47	9	8	1	Smith & Livingstone in prep.
Palaeozoic stratigraphy					
Arenig-Llanvirn	4	2	2	0	Rushton <i>et al.</i> 1999
Cambrian	4	1	1	0	Rushton <i>et al.</i> 1999
Cambrian-Tremadoc	2	2	2	0	Rushton <i>et al.</i> 1999
Caradoc Ashgill	6	2	2	0	Rushton <i>et al.</i> 1999
Dinantian of Scotland	33	12	9	0	Cossey <i>et al.</i> 2004
Llandeilo	3	1	1	0	Rushton <i>et al.</i> 1999
Llandovery	10	1	1	0	Aldridge <i>et al.</i> 2000

GCR block	Total number of confirmed GCR sites in Scotland	Number of GCR sites at the coast	Number of corresponding SSSIs at the coast	Number of GCR sites at the coast not in SSSIs or not part of notified interest	GCR publication
Non-Marine Devonian ¹	38	26	21	5	Barclay <i>et al.</i> 2005
Permian-Triassic	10	7	6	1	Benton <i>et al.</i> 2002
Wenlock	5	2	2	0	Aldridge <i>et al.</i> 2000
Westphalian - Namurian	9	4	3	0	Cleal & Thomas 1996
Mesozoic-Tertiary stratigraphy					
Aalenian-Bajocian	2	2	2	0	Cox & Sumbler 2002
Bathonian	7	7	6	1	Cox & Sumbler 2002
Calloviaian	4	4	4	0	Cox & Sumbler 2002
Cenomanian-Maastrichtian	2	1 ²	2	0	Mortimore <i>et al.</i> 2001
Hettangian, Sinemurian and Pliensbachian	8	7	5	0	Simms <i>et al.</i> 2004
Kimmeridgian	2	2	2	0	Wright & Cox 2001
Oxfordian	3	3	3	0	Wright & Cox 2001
Toarcian	1	1	1	0	Simms <i>et al.</i> 2004
Palaeontology					
Arthropoda	9	1	1	0	Jarzembowski <i>et al.</i> 2010
Permian-Carboniferous Fish/Amphibia	9	5	1	1	Dinely & Metcalfe 1999
Jurassic-Cretaceous Reptilia	3	3	1	2	Benton & Spencer 1995
Mesozoic Mammalia	1	1	1	0	Benton <i>et al.</i> 2005
Palaeozoic Palaeobotany	20	5	4	0	Cleal & Thomas 1995
Permian-Triassic Reptilia ³	6	2	0	0	Benton & Spencer 1995
Mesozoic Palaeobotany	5	5	4	0	Cleal <i>et al.</i> 2001
Palaeoentomology ³	2	1	1	0	Jarzembowski <i>et al.</i> 2010
Pleistocene Vertebrata	2	0	0	0	Unpublished
Silurian-Devonian Chordata	33	10	10	0	Dinely & Metcalfe 1999
Tertiary Palaeobotany ³	1	1	1	0	Cleal <i>et al.</i> 2001
Quaternary geology and geomorphology					
Quaternary of Scotland	142	30	25	4	Gordon & Sutherland 1993

GCR block	Total number of confirmed GCR sites in Scotland	Number of GCR sites at the coast	Number of corresponding SSSIs at the coast	Number of GCR sites at the coast not in SSSIs or not part of notified interest	GCR publication
Geomorphology					
Caves	2	0	0	0	Waltham <i>et al.</i> 1997
Coastal Geomorphology of Scotland	38	38	43	1	May & Hansom 2003
Coastal Geomorphology of Scotland (Saltmarshes)	5	5	5	0	May & Hansom 2003
Fluvial Geomorphology of Scotland	28	1	1	0	Gregory 1997
Karst	1	0	0	0	Waltham <i>et al.</i> 1997
Mass Movement	14	2	2	0	Cooper 2007
Totals⁴	904	389		69	

Notes:

¹ 38 confirmed sites include 16 potential sites in the published GCR volume.

² Overlaps 2 SSSIs.

³ Although the feature is present in GCR sites at the coast, it does not occur in the intertidal area.

⁴ The number of SSSIs is not summed since multiple GCR sites may occur within a single SSSI and single GCR sites may overlap more than one SSSI.

Sources:

JNCC GCR database (www.jncc.defra.gov.uk/page-4171), updated from the SNH Earth Science database; includes published potential GCR sites where confirmed.

SNH SiteLink (<http://gateway.snh.gov.uk/sitelink/>)

Table 2: Geological Conservation Review (GCR) sites and corresponding SSSIs on the coastline of Scotland

GCR blocks in Scotland	SNH site code	GCR sites at the coast	Corresponding coastal SSSIs where the GCR interest is a notified feature	
Structural and metamorphic geology				
Lewisian	9404	Borve (Borve Lodge Coast Section, Harris)	Not in SSSI ¹	
	9463	Cnoca Breac	Not in SSSI	
	9292	An Ard	Not in SSSI	
	9295	An Fharaid Mor - Clachtholl	Not in SSSI	
	9327	Badcall	SCOURIE COAST	
	9610	Garry-a-siar to Balivanich	Not in SSSI	
	9728	Leanish	Not in SSSI	
	9753	Loch Drumbeg	Not in SSSI	
	9842	North Pabbay	Not in SSSI	
	9845	North Uist Coast	Not in SSSI	
	9903	Rhughasinish	Not in SSSI	
	9940	Scourie Bay	SCOURIE COAST	
	9941	Scourie Mor	SCOURIE COAST	
	10013	Tarbet - Ruabha Ruadh	Not in SSSI	
	10151	Diabaig	Not in SSSI	
	Torridonian	9424	Cailleach Head	CAILLEACH HEAD
		9259	Achduart	Not in SSSI
9324		Aultbea	AULTBEA	
9522		Diabaig	Not in SSSI	
9571		Enard Bay	Not in SSSI	
9756		Loch Eishort	CEANN LOCH EISHORT	
9768		Loch na Dal	KINLOCH AND KYLEAKIN HILLS (MONADH CHAOL ACAINN IS CHEANN LOCH)	
9778		[Upper] Loch Torridon	Not in SSSI	
9929		Rubha Dunan	RUBHA DUNAN	
9998		Stoer	Not in SSSI	

GCR blocks in Scotland	SNH site code	GCR sites at the coast	Corresponding coastal SSSIs where the GCR interest is a notified feature
Moine	9452	Cleit an t-Seabhaig	BEN HUTIG
	9469	Coldbackie Bay	Not in SSSI
	9266	Aird Torrisdale	AIRD TORRISDALE
	9271	Allt Cracaig Coast	ALLT CRACAIG COAST
	9301	Ard Ghunel	Not in SSSI
	9302	Ard Hill	ARD HILL
	9303	Ard Mor, Bettyhill	Part in INVERNAVER but not a notified feature
	9304	Ard Thurinish to Port na Long	AIRD THUIRINIS - PORT NA LONG
	9305	Ardalanish Bay	ARDALANISH BAY
	9325	Avernish	AVERNISH
	9503	Cromarty & Rosemarkie Inliers	ROSEMARKIE TO SHANDWICK COAST
	9513	Cullivoe	NESS OF CULLIVOE
	9534	Dornie - Inverinate Road Section (A87)	Not in SSSI
	9535	Drumindarroch	DRUIMINDARROCH
	9566	Eilean Chlamail - Camas nan Ceann	EILEAN CHLAMAIL - CAMAS NAN CEANN
	9567	Eilean Mor and Camus Choire Mhuilinn	SUNART
	9573	Eriboll	ERIBOLL, INVERHOPE
	9579	Faraid Head	DURNESS
	9580	Farr Bay, Bettyhill	Not in SSSI
	9620	Glaisgeo to Farr Point	Not in SSSI
	9638	Glencoul	LOCH GLENCOUL
	9650	Gutcher	GUTCHER
	9662	Hascosay	HASCOSAY
	9703	Kinloch Hourn	Not in SSSI
	9766	Loch Moidart Road Cuttings	LOCH MOIDART
	9812	Melness	Not in SSSI
	9840	North Morar	Not in SSSI
	9844	North Sandwick	NORTH SANDWICK
	9855	Ord	Part in COILLE THOGABHAIG

GCR blocks in Scotland	SNH site code	GCR sites at the coast	Corresponding coastal SSSIs where the GCR interest is a notified feature
	9927	Rubha Camas na Cailinn	RUBHA CAMAS NA CAILINN
	9935	Sango Bay	Not in SSSI
	9946	Sgeir Ruadh, Portskerra	STRATHY COAST
	9968	Slumbay Point, Loch Carron	SLUMBAY ISLAND
	10000	Strathan Skerry - Skerry Bay	Not in SSSI
	10015	Tarskavaig	BAGH THARSGABHAIG
	10047	Totaig	Not in SSSI
	10065	Uyea - North Roe Coast	UYEA - NORTH ROE COAST
	10067	Vasgo - Strathan Bay	Part in BEN HUTIG
	10071	Voxter Voe & Valayre Quarry	VOXTER VOE & VALAYRE QUARRY
Dalradian	9394	Black Mill Bay	Not in SSSI
	9415	Bun-an-Uillt, Islay	GRUINART FLATS
	9426	Cairnbulg to St Combs	CAIRNBULG TO ST COMBS COAST
	9432	Camas Nathais	Not in SSSI
	9434	Caol Ila, Islay	Not in SSSI
	9470	Collieston - Whinnyfold	COLLIESTON TO WHINNYFOLD COAST
	9481	Cove Bay to Kilcreggan	Not in SSSI
	9489	Craignish Point	Not in SSSI
	9306	Ardbeg, Islay	Not in SSSI
	9308	Ardilistry Bay, Islay	ARDMORE, KILDALTON AND CALLUMKILL WOODLANDS
	9314	Ardscalpsie Point, Bute	Not in SSSI
	9316	Ardsheal Peninsula	Part in ARDSHEAL PENINSULA
	9512	Cullen - Troup Head, Banffshire Coast	Part in CULLEN TO STAKENESS COAST, GAMRIE AND PENNAN COAST, WHITEHILLS TO MELROSE COAST
	9515	Cunningsburgh	Not in SSSI
	9582	Fearnach Bay, Loch Melfort	Not in SSSI
	9596	Fraserburgh to Rosehearty	ROSEHEARTY TO FRASERBURGH COAST
	9608	Garron Point	GARRON POINT
	9615	Garvellach Isles	GARVELLACHS

GCR blocks in Scotland	SNH site code	GCR sites at the coast	Corresponding coastal SSSIs where the GCR interest is a notified feature
	9664	Hawks Ness	Not in SSSI
	9690	Kilchiaran to Ardnave Point, Islay	Part in GLAC NA CRICHE, GRUINART FLATS, RINNS OF ISLAY
	9696	Kilmory Bay	Part in ELLARY WOODS but <u>not</u> a notified feature
	9697	Kilnaughton Bay, Islay	Not in SSSI
	9706	Kinuachdrach, Jura	Part in KINUACHDRACH
	9795	Lussa Bay	Not in SSSI
	9828	Nathrach	Not in SSSI
	9854	Onich Shore Section	ONICH TO NORTH BALLACHULISH WOODS AND SHORE
	9880	Port Cill Maluaig	KILBERRY COAST
	9884	Port Selma, Ardmucknish	Not in SSSI
	9885	Portincaple, Dumbarton	Not in SSSI
	9926	Rubha a' Mhail, Islay	RUBHA A MHAIL TO UAMHANNAN DONNA COAST
	9928	Rubha Cladaich	Not in SSSI
	9937	Scalloway	Not in SSSI
	9970	South Bay, Barmore Island	Not in SSSI
	9972	South Coast, Lismore Island	Not in SSSI
	9988	St Johns Church, Loch Leven	ST JOHN'S CHURCH
	10004	Strone Point, North Loch Fyne	STRONE POINT, NORTH LOCH FYNE
	10008	Surnaig Farm, Islay	Not in SSSI
	10081	West Tayvallich Peninsula	WEST TAYVALLICH PENINSULA
Caledonian Structures	9599	Funzie	FUNZIE
	9847	Norwick	NORWICK
Caledonian Structures of the Southern Uplands	9344	Barlocco	BORGUE COAST
	9326	Back Bay, Monreith	BACK BAY TO CARGHIDOWN
	10172	Siccar Point	SICCAR POINT
	9507	Cruggleton Bay	CRUGGLETON BAY
	9644	Grennan Bay	GRENNAN BAY

GCR blocks in Scotland	SNH site code	GCR sites at the coast	Corresponding coastal SSSIs where the GCR interest is a notified feature
	9680	Isle of Whithorn Bay	ISLE OF WHITHORN BAY
	9682	Johns Road to Agate Point	BURNMOUTH COAST
	10077	West Burrow Head	WEST BURROW HEAD
Igneous petrology and mineralogy			
Caledonian Igneous	9429	Camas Eilean Ghlais	Not in SSSI
	9461	Cnoc Mor to Rubh Ardalanish	Part in ARDALANISH BAY
	9294	An Fharaid Mhor	Not in SSSI
	9315	Ardsheal Hill & Peninsula	Part in ARDSHEAL PENINSULA
	9715	Knockvologan to Eilean Achalmain	Not in SSSI
	9777	Loch Sunart	SUNART
	9954	Shoulder O Craig	SHOULDER O'CRAIG
	9687	Kentallen	KENTALLEN
Old Red Sandstone Igneous	9395	Black Rock to East Comb	WHITING NESS - ETHIE HAVEN COAST
	9337	Balmerino-Wormit	BALMERINO - WORMIT SHORE
	9514	Culzean Harbour	MAIDENS TO DOONFOOT
	9870	Pettico Wick to St Abbs Harbour	ST ABBS HEAD TO FAST CASTLE
	9877	Point of Ayre	Not in SSSI
	9883	Port Schuchan to Dunure Castle	MAIDENS TO DOONFOOT
	9943	Scurdie Ness to Usan Harbour	RICKLE CRAIG TO SCURDIE NESS
	9975	South Kerrera	SOUTH KERRERA AND GALLANACH
	10044	Too of the Head	HOY
	9574	Eshaness Coast	ESHANESS COAST
	10060	Turnberry Lighthouse to Port Murray	TURNBERRY LIGHTHOUSE TO PORT MURRAY
	10149	Crawton Bay	CRAWTON BAY
Ordovician Igneous	9384	Bennan Lea	GIRVAN TO BALLANTRAE COAST SECTION
	9330	Balcreuchan Port to Port Vad	GIRVAN TO BALLANTRAE COAST SECTION
	9603	Games Loup	GIRVAN TO BALLANTRAE COAST SECTION
	9609	Garron Point to Slug Head	GARRON POINT

GCR blocks in Scotland	SNH site code	GCR sites at the coast	Corresponding coastal SSSIs where the GCR interest is a notified feature
	9656	Ham Ness	HAM NESS
	9829	Ness of Clousta - The Brigs	NESS OF CLOUSTA - THE BRIGS
	9890	Qui Ness to Pund Stacks	QUI NESS TO PUND STACKS
	9945	Sgavoch Rock	SGAVOCH
	9959	Skeo Taing to Clugan	SKEO TAING TO CLUGAN
	9966	Stockenray Coast	GIRVAN TO BALLANTRAE COAST SECTION
	10028	The Punds to Wick of Hagdale	PUNDS TO WICK OF HAGDALE
	10057	Tressa Ness to Colbinstoff	TRESSA NESS TO COLBINSTOFT
	10070	Virva	VIRVA
Tertiary Igneous	9353	Bearraich	ARDMEANACH
	9360	Beinn an Dubhaich	STRATH
	9365	Beinn na Seilg to Beinn nam Ord	ARDNAMURCHAN
	9373	Ben Hiant	SUNART
	9430	Camas Mor, Isle of Muck	CAMAS MOR, MUCK
	9442	Carsaig Bay	SOUTH MULL COAST
	9477	Corrygills Shore	CLAUCHLANDS POINT - CORRYGILLS
	9264	Ailsa Craig	AILSA CRAIG
	9311	Ardnamurchan Point to Sanna	ARDNAMURCHAN
	9317	Ardtun	ARDTUN LEAF BEDS
	9508	Cuillin Hills	CUILLINS
	9523	Dibidil to Southern Mountains	RUM
	9526	Dippin Head	DIPPIN HEAD
	9537	Drumadoon - Tormore	DRUMADOON - TORMORE
	9557	East Canna & Sanday	CANNA AND SANDAY
	9587	Fionchra	RUM
	9588	Fiurnean to Rubha na h-Airde	RIGG-BILE
	9622	Glas Eilean to Mingary Pier	ARDNAMURCHAN
	9661	Harris Bay	RUM
	9721	Laggan Bay	LAGGANULVA WOOD

GCR blocks in Scotland	SNH site code	GCR sites at the coast	Corresponding coastal SSSIs where the GCR interest is a notified feature
	9747	Loch Ba and Ben More	BEN MORE - SCARISDALE
	9776	Loch Spelvie to Auchnacraig	ARDURA - AUCHNACRAIG
	9801	Maol na Gainmhich	MEALL A' MHAOIL
	9924	Rubh an Eireannaich	RUBH AN EIREANNAICH
	9930	Rubha Hunish	RUBHA HUNISH
	9951	Shiant Islands	SHIANT ISLANDS
	9971	South Coast of Arran	SOUTH COAST OF ARRAN
	9981	South West Eigg	EIGG, AN SGURR AND GLEANN CHARADAIL
	9989	St Kilda	ST KILDA
	10009	Talisker	TALISKER
Carboniferous-Permian Igneous	9419	Burntisland to Kinghorn Coast	FIRTH OF FORTH
	9313	Ardrossan to Saltcoats Coast	ARDROSSAN TO SALTCOATS COAST
	9542	Dumbarton Rock	DUMBARTON ROCK
	9558	East Fife Coast	FIRTH OF FORTH
	9665	Heads of Ayr	MAIDENS TO DOONFOOT
	9799	Machrihanish Coast and South Kintyre	Not in SSSI
	9833	North Berwick Coast	FIRTH OF FORTH
	9977	South Queensferry to Hound Point	FIRTH OF FORTH
Mineralogy of Scotland	9431	Camas nam Buth	SCOURIE COAST
	9569	Elie Ness	FIRTH OF FORTH
	9793	Lunda Wick	LUNDA WICK
	9848	Nuns Pass	SOUTH MULL COAST
	9879	Port Bheathain	Not in SSSI
	9942	Scurdie Ness	RICKLE CRAIG TO SCURDIE NESS
	9958	Skelda Ness	SKELDA NESS
	10043	Tonga-Greff Coast	HERMANESS and VALLA FIELD
	10089	Wick of Hagdale	KEEN OF HAMAR
Palaeozoic stratigraphy			

GCR blocks in Scotland	SNH site code	GCR sites at the coast	Corresponding coastal SSSIs where the GCR interest is a notified feature	
Arenig-Llanvirn	9339	Balnakeil	DURNESS	
	9331	Balcreuchan Port-Bennane	GIRVAN TO BALLANTRAE COAST SECTION	
Cambrian	9298	An t-Sron	ERIBOLL	
Cambrian-Tremadoc	10169	Ord	COILLE THOGABHAIG	
	9554	Durness	DURNESS	
Caradoc Ashgill	9478	Corsewall Point	CORSEWALL POINT TO MILLEUR POINT	
	9619	Girvan Foreshore	GIRVAN TO BALLANTRAE COAST SECTION	
Dinantian of Scotland	9345	Barns Ness Coast	BARNS NESS COAST	
	9407	Bracken Bay-Longhill Point	MAIDENS TO DOONFOOT	
	9418	Burnmouth	BURNMOUTH COAST	
	9480	Cove	PEASE BAY COAST	
	9561	East Sands - Buddo Ness	ST ANDREWS - CRAIG HARTLE	
	9570	Elie to Anstruther Coast	FIRTH OF FORTH	
	9683	Joppa Shore	FIRTH OF FORTH	
	9699	Kinghorn Coast	FIRTH OF FORTH	
	9708	Kirkbean	UPPER SOLWAY FLATS AND MARSHES	
	9888	Queensferry Shore	FIRTH OF FORTH	
	9895	Randerston Coast	FIFE NESS COAST	
	10148	Corrie Shore	CORRIE BURN	
	Llandeilo	9820	Morroch Bay	MORROCH BAY
	Llandoverly	10093	Woodland Point	GIRVAN TO BALLANTRAE COAST SECTION
Non-Marine Devonian	9491	Crawton Bay	CRAWTON BAY	
	10178	The Cletts, Exnaboe	THE CLETTS, EXNABOE	
	10383	Bay of Berstane	Not in SSSI	
	10387	The Toutties	GARRON POINT	
	10392	Melby: Matta Taing to Lang Rigg	Part in MELBY	
	10393	John O' Groats	Part in JOHN O' GROATS	
	10394	Sarclet	CRAIG HAMMEL TO SGAPS GEO	
10395	Den of Findon, Gamrie Bay and New Aberdour	Part in GAMRIE AND PENNAN COAST ²		

GCR blocks in Scotland	SNH site code	GCR sites at the coast	Corresponding coastal SSSIs where the GCR interest is a notified feature
	10396	Dunnottar Coast Section	Not in SSSI
	10397	Milton Ness	MILTON NESS
	9563	Easter Rova Head	EASTER ROVA HEAD
	9583	Footabrough to Wick of Watsness	FIDLAR GEO TO WATSNESS
	9642	Greenan Nev Coast	Not in SSSI
	9725	Largs	LARGS COAST SECTION
	9841	North Newton Shore	NORTH NEWTON SHORE
	9851	Old Man of Hoy Coast, Orkney	HOY
	9866	Pennylands to Castlehill	PENNYLANDS
	9899	Red Point	RED POINT COAST
	9955	Siccar Point	SICCAR POINT
	9973	South Fersness Bay	Not in SSSI
	9979	South Stromness Coast Section	STROMNESS HEATHS AND COAST
	10012	Tarbat Ness	Part in TARBAT NESS
	10014	Tarracliff Bay to Newark Bay	Not in SSSI
	10088	Whiting Ness	WHITING NESS - ETHIE HAVEN COAST
	10090	Wick Quarries	LONG BERRY COAST
	10094	Yesnaby and Gaulton Coast Section	STROMNESS HEATHS AND COAST
Permian-Triassic	9449	Clashach - Covesea	CLASHACH - COVESEA
	9475	Corrie Shore	CORRIE FORESHORE AND LIMESTONE MINES
	10162	Gribun	GRIBUN SHORE AND CRAGS
	9648	Gruinard Bay	Not in SSSI
	9700	Kings Cave - Drumadoon	DRUMADOON - TORMORE
	9785	Lossiemouth Shore	LOSSIEMOUTH SHORE
	9804	Masonhaugh (Masonshaugh Quarries & Burghead)	MASONSHAUGH
Wenlock	9334	Balmae Coast	TORRS TO MASON'S WALK
	9810	Meikle Ross	BORGUE COAST
Westphalian - Namurian	9474	Corrie Foreshore	CORRIE FORESHORE AND LIMESTONE MINES

GCR blocks in Scotland	SNH site code	GCR sites at the coast	Corresponding coastal SSSIs where the GCR interest is a notified feature
	10165	Joppa Shore	FIRTH OF FORTH
	9562	East Wemyss to Buckhaven Coast	FIRTH OF FORTH
	9677	Inninmore Bay	INNINMORE BAY
Mesozoic-Tertiary stratigraphy			
Aalenian-Bajocian	9354	Bearreraig Bay	RIGG - BILE
	9364	Beinn na Leac	RAASAY
Bathonian	9543	Dun Skudiburgh	Not in SSSI
	9553	Duntulm (Cairidh Ghluimaig and Lon Ostatoin)	Part in RUBHA HUNISH
	9565	Eigg	EIGG - LAIG TO KILDONNAN
	9568	Elgol-Glen Scaladal	ELGOL COAST
	9993	Staffin Bay	TROTTERNISH RIDGE (STORR TO QUIRANG)
	10066	Valtos	VALTOS
	10145	Brora	INVERBRORA
Callovian	9423	Cadh-an-Righ	ROSEMARKIE TO SHANDWICK COAST
	10173	Staffin	TROTTERNISH RIDGE (STORR TO QUIRANG)
	9834	North Elgol Coast	ELGOL COAST
	10147	Brora	INVERBRORA
Cenomanian-Maastrichtian	9646	Gribun	GRIBUN SHORE AND CRAGS; ARDMEANACH
Hettangian, Sinemurian and Pliensbachian	9402	Boreraig - Carn Dearg	BOIREARAIG - CARN DEARG
	9422	Cadha Carnach	RAASAY
	9265	Aird na h-Iolaire	ARDMEANACH
	9550	Dunrobin Coast Section	DUNROBIN COAST
	9654	Hallaig Shore	RAASAY
	9849	Ob Lusa to Ardnish Coast	OB LUSA - ARD NIS COAST
	9931	Rubha na Leac	RAASAY
Kimmeridgian	9666	Helmsdale ³	HELMSDALE COAST
	9694	Kildorais	TROTTERNISH RIDGE (STORR TO QUIRANG)

GCR blocks in Scotland	SNH site code	GCR sites at the coast	Corresponding coastal SSSIs where the GCR interest is a notified feature
Oxfordian	9411	Brora	INVERBRORA
	10168	North Elgol Coast	ELGOL COAST
	9992	Staffin	TROTTERNISH RIDGE (STORR TO QUIRANG)
Toarcian	9886	Prince Charles Cave to Holm	RIGG - BILE
Palaeontology			
Arthropoda	9641	Granton Shore	FIRTH OF FORTH
Permian-Carboniferous Fish/Amphibia	9448	Cheese Bay	FIRTH OF FORTH
	9252	Abden	FIRTH OF FORTH
	9312	Ardross Castle	FIRTH OF FORTH
	9676	Inchkeith	Not in SSSI
	10073	Wardie	FIRTH OF FORTH
Jurassic-Cretaceous Reptilia	10381	An Corran	Not in SSSI
	9693	Kildonnan & Eilean Thuilm	EIGG - LAIG TO KILDONNAN
	10116	Lub Score	Not in SSSI
Mesozoic Mammalia	9771	Loch Scavaig	ELGOL COAST
Palaeozoic Palaeobotany	9349	Bay of Skail	BAY OF SKAILL
	9720	Laggan	LAGGAN
	9858	Oxroad Bay	FIRTH OF FORTH
	9871	Pettycur	FIRTH OF FORTH
	9965	Sloagar	FAIR ISLE
Permian-Triassic Reptilia	10443	Clashach Quarry	CLASHACH - COVESEA
	9805	Masonshaugh (Masonshaugh Quarry)	MASONSHAUGH
Mesozoic Palaeobotany	10146	Brora	INVERBRORA
	9355	Bearreraig River	RIGG - BILE
	10246	Lothbeg Point	HELMSDALE COAST
	9511	Culgower Bay	HELMSDALE COAST

GCR blocks in Scotland	SNH site code	GCR sites at the coast	Corresponding coastal SSSIs where the GCR interest is a notified feature
	9564	Eathie Fishing Station	ROSEMARKIE TO SHANDWICK COAST
Palaeoentomology	10141	Ardtun	ARDTUN LEAF BEDS
Silurian-Devonian Chordata	9310	Ardmore - Gallanach	SOUTH KERRERA AND GALLANACH
	9663	Hawks Heugh	PEASE BAY COAST
	9673	Holborn Head Quarry	HOLBORN HEAD
	9681	John O Groats	JOHN O' GROATS
	9811	Melby	MELBY
	9863	Papa Stour	PAPA STOUR
	9865	Pennylands	PENNYLANDS
	10007	Sumburgh Head	SUMBURGH HEAD
	10023	The Cletts, Exnaboe	THE CLETTS, EXNABOE
	10033	The Toutties	GARRON POINT
Tertiary Palaeobotany	10142	Ardtun	ARDTUN LEAF BEDS
Quaternary geology and geomorphology			
Quaternary of Scotland	9348	Bay of Nigg	NIGG BAY
	9403	Borve	Not in SSSI
	9406	Boyne Quarry	CULLEN TO STAKENESS COAST
	9416	Burn of Aith	AITH MEADOWS AND BURN OF AITH
	9444	Castle Hill	GAMRIE AND PENNAN COAST
	9260	Achnaba - Moss of Achnacree	Not in SSSI
	10176	Dunbar	Part in FIRTH OF FORTH
	9520	Den Wick	DEN WICK
	9538	Drumhollistan	RED POINT COAST
	9598	Fugla Ness	FUGLA NESS - NORTH ROE
	9635	Glenacardoch Point	GLENACARDOCH POINT
	9679	Isle of Lismore, The Dog Stone & Clach Tholl	Part in CLACH THOLL
	9698	Kincraig Point	FIRTH OF FORTH
	9803	Maryton	MONTROSE BASIN

GCR blocks in Scotland	SNH site code	GCR sites at the coast	Corresponding coastal SSSIs where the GCR interest is a notified feature
	9813	Mill Bay	MILL BAY
	9816	Milton Ness	MILTON NESS
	9825	Muckle Head & Selwick	MUCKLE HEAD & SELWICK
	9827	Munlochy Valley	Not in SSSI
	9830	Newbie	UPPER SOLWAY FLATS AND MARSHES
	9839	North Hoy	HOY
	9846	North West Coast of Lewis	Not in SSSI
	9881	Port Logan	PORT LOGAN
	9882	Port of Ness	PORT OF NESS
	9900	Redkirk Point	UPPER SOLWAY FLATS AND MARSHES
	9902	Rhu Point	RHU POINT
	9925	Rubha a' Mhail to Rhubha Bholosa Coast (Northern Islay)	RUBHA A MHAIL TO UAMHANNAN DONNA COAST
	9938	Scarisdale	BEN MORE - SCARISDALE
	9978	South Shian and Balure	SOUTH SHIAN AND BALURE
	10079	West Coast of Jura (Bagh Gleann Speireig - Carragh)	WEST COAST OF JURA
	10150	Cuillin Hills	CUILLINS
Geomorphology			
Coastal Geomorphology of Scotland	9340	Balta Island	BALTA
	9347	Barry Links	BARRY LINKS
	9414	Bullers of Buchan	BULLERS OF BUCHAN COAST
	9445	Central Sanday	CENTRAL SANDAY
	9309	Ardivachar to Stoneybridge ⁴	LOCH BEE; LOCH BEE MACHAIR; LOCH DRUIDIBEG
	10170	Papa Stour	PAPA STOUR
	10174	Tarbat Ness	TARBAT NESS
	10245	Northern Islay	RUBHA A MHAIL TO UAMHANNAN DONNA COAST
	9509	Culbin	CULBIN SANDS, CULBIN FOREST AND FINDHORN BAY
	9545	Dunbar	FIRTH OF FORTH

GCR blocks in Scotland	SNH site code	GCR sites at the coast	Corresponding coastal SSSIs where the GCR interest is a notified feature
	9546	Duncansby to Skirza Head	DUNCANSBY HEAD
	9549	Dunnet Bay	DUNNET LINKS
	9572	Eoligarry	EOLIGARRY
	9593	Forvie	SANDS OF FORVIE AND YTHAN ESTUARY; FOVERAN LINKS
	9594	Foula	FOULA COAST
	9762	Loch Maddy - Sound of Harris Coastline	LOCH AN DUIN; LOCH NAM MADADH
	9790	Luce Sands	TORRS WARREN - LUCE SANDS
	9794	Luskentyre to Carron Seilebost	LUSKENTYRE BANKS AND SALTINGS
	9797	Machairs Robach and Newton (Hornish and Lingay Strands)	MACHAIRS ROBACH AND NEWTON
	9798	Machir Bay	RINNS OF ISLAY
	9800	Mangesta Sands, Lewis	MANGERSTA SANDS
	9819	Morrish More	MORRICH MORE
	9860	Pabbay	PABBAY
	9934	Sandwood	SOUTHERN PARPHE
	9983	Spey Bay	SPEY BAY
	9987	St Abbs Head	ST ABBS HEAD TO FAST CASTLE
	9990	St Kilda Archipelago	ST KILDA
	9991	St Ninians Tombolo	ST NINIAN'S TOMBOLO
	10001	Strathbeg	LOCH OF STRATHBEG
	10019	Tentsmuir	TAYPORT - TENTSMUIR COAST
	10021	The Ayres of Swinister	THE AYRES OF SWINISTER
	10045	Torrisdale Bay and Invernaver	INVERNAVER
	10051	Traigh na Berie	Not in SSSI
	10069	Villians of Hamnavoe	VILLIANS OF HAMNAVOE
	10078	West Coast of Jura	WEST COAST OF JURA
	10080	West Coast of Orkney	HOY; MUCKLE HEAD & SELWICK; STROMNESS HEATHS AND COAST
	10087	Whiteness Head	WHITENESS HEAD

GCR blocks in Scotland	SNH site code	GCR sites at the coast	Corresponding coastal SSSIs where the GCR interest is a notified feature
	10143	Balnakeil	DURNESS
Coastal Geomorphology of Scotland [Saltmarsh]	9500	Cree, Dumfriesshire	CREE ESTUARY
	9510	Culbin	CULBIN SANDS, CULBIN FOREST AND FINDHORN BAY
	10167	Morrish More	MORRICH MORE
	9758	Loch Gruinart, Islay	GRUINART FLATS
	9969	Solway Firth (North Shore)	UPPER SOLWAY FLATS AND MARSHES
Fluvial Geomorphology of Scotland	9788	Lower River Spey	SPEY BAY
Mass Movement	9653	Hallaig	RAASAY
	9891	Quiraing/Trotternish Escarpment	TROTTERNISH RIDGE (STORR TO QUIRAING)

Notes:

¹ Tiny overlap with Balranald Bog and Loch nan Feithean SSSI is excluded.

² Part in Geordie Craigs SSSI is not coastal.

³ Overlaps 3 SSSIs: Ballinreach Coastal Gorges SSSI is not intertidal; and tiny overlap with Berriedale Cliffs SSSI is also excluded.

⁴ Partly falls within Howmore Estuary, Lochs Roag and Fada SSSI but is not a notified feature.

Table 3: List of geoheritage features and Geological Conservation Review (GCR) sites present in coastal SSSIs in Scotland

SNH site code	SSSI	SSSI type	Geoheritage features	GCR sites	Presence of key intertidal geoheritage features / interests
22	Ailsa Craig	Mixed	Tertiary Igneous	Ailsa Craig	No
23	Aird Thuirinis - Port na Long	Geological	Moine	Ard Thurinish to Port na Long	Yes
24	Aird Torrisdale	Geological	Moine	Aird Torrisdale	Yes
40	Allt Cracaig Coast	Geological	Moine	Allt Cracaig Coast	Yes
66	Ard Hill	Geological	Moine	Ard Hill	Yes
68	Ardalanish Bay	Geological	Moine; Caledonian Igneous	Ardalanish Bay ; Cnoc Mor to Rubh Ardalanish	Yes
74	Ardmeanach	Mixed	Hettangian, Sinemurian, Pliensbachian; Cenomanian - Maastrichtian; Tertiary Igneous	Aird na h-Iolaire; Gribun; Bearraich	Yes
77	Ardnamurchan	Geological	Tertiary Igneous	Beinn na Seilg to Beinn nam Ord; Ardnamurchan Point to Sanna; Glas Eilean to Mingary Pier	Yes
79	Ardrossan to Saltcoats Coast	Geological	Carboniferous - Permian Igneous	Ardrossan to Saltcoats Coast	Yes
81	Ardtun Leaf Beds	Geological	Tertiary Igneous; Palaeoentomology; Tertiary Palaeobotany	Ardtun; Ardtun; Ardtun	No
82	Ardura - Auchnacraig	Mixed	Tertiary Igneous	Loch Spelvie to Auchnacraig	No
104	Aultbea	Geological	Torridonian	Aultbea	No
107	Avernish	Geological	Moine	Avernish	No
110	Back Bay to Carghidown	Mixed	Caledonian Structures	Back Bay, Monreith	Yes
117	Bagh Tharsgabhaig	Geological	Moine	Tarskavaig	Yes
136	Balmerino - Wormit Shore	Geological	Old Red Sandstone Igneous	Balmerino-Wormit	Yes

SNH site code	SSSI	SSSI type	Geoheritage features	GCR sites	Presence of key intertidal geoheritage features / interests
144	Balta	Geological	Coastal Geomorphology of Scotland	Balta Island	Yes
153	Barns Ness Coast	Mixed	Lower Carboniferous [Dinantian - Namurian (part)]	Barns Ness Coast	Yes
154	Barry Links	Mixed	Coastal Geomorphology of Scotland	Barry Links	Yes
156	Bay of Skail	Geological	Palaeozoic Palaeobotany	Bay of Skail	Yes
183	Ben Hutig	Mixed	Moine	Cleit an t-Seabhaig; Vasgo - Strathan Bay	Yes
189	Ben More - Scarisdale	Mixed	Tertiary Igneous; Quaternary of Scotland	Loch Ba and Ben More; Scarisdale	Yes
241	Boirearaig to Carn Dearg	Geological	Hettangian, Sinemurian, Pliensbachian	Boreraig - Carn Dearg	Yes
245	Borgue Coast	Mixed	Wenlock; Caledonian Structures	Meikle Ross; Barlocco	Yes
271	Bullers of Buchan Coast	Mixed	Coastal Geomorphology of Scotland	Bullers of Buchan	Yes
278	Burnmouth Coast	Mixed	Lower Carboniferous [Dinantian - Namurian (part)]; Caledonian Structures	Burnmouth; Johns Road to Agate Point	Yes
284	Cailleach Head	Geological	Torridonian	Cailleach Head	No
287	Cairnbulg to St Combs Coast	Geological	Dalradian	Cairnbulg to St Combs	Yes
303	Camas Mor, Muck	Geological	Tertiary Igneous	Camas Mor, Isle of Muck	Yes
310	Canna and Sanday	Mixed	Tertiary Igneous	East Canna & Sanday	Yes

SNH site code	SSSI	SSSI type	Geoheritage features	GCR sites	Presence of key intertidal geoheritage features / interests
351	Ceann Loch Eishort	Geological	Torridonian	Loch Eishort	Yes
354	Central Sanday	Mixed	Coastal Geomorphology of Scotland	Central Sanday	Yes
356	Clach Tholl	Geological	Quaternary of Scotland	Isle of Lismore, The Dog Stone & Clach Tholl	No
361	Clashach - Covesea	Geological	Permian Triassic (red beds); Permian - Triassic Reptilia	Clashach - Covesea; Clashach Quarry	No
363	Clauchlands Point - Corrygills	Mixed	Tertiary Igneous	Corrygills Shore	No
384	Coille Thogabhaig	Mixed	Moine; Cambrian - Tremadoc	Ord; Ord	Yes
392	Collieston to Whinnyfold Coast	Mixed	Dalradian	Collieston - Whinnyfold	Yes
404	Corrie Foreshore and Limestone Mines	Geological	Lower Carboniferous [Dinantian - Namurian (part)]; Upper Carboniferous [Namurian (part) - Westphalian]; Permian Triassic (red beds)	Corrie Shore; Corrie Foreshore; Corrie Shore	Yes
407	Corsewall Point to Milleur Point	Geological	Caradoc - Ashgill	Corsewall Point	Yes
453	Crawton Bay	Geological	Non-marine Devonian; Old Red Sandstone Igneous	Crawton Bay; Crawton Bay	Yes
461	Cree Estuary	Mixed	Coastal Geomorphology of Scotland [Saltmarsh]	Cree, Dumfriesshire	Yes
474	Cruggleton Bay	Geological	Caledonian Structures	Cruggleton Bay	Yes
476	Cuillins	Mixed	Tertiary Igneous; Quaternary of Scotland	Cuillin Hills; Cuillin Hills	No

SNH site code	SSSI	SSSI type	Geoheritage features	GCR sites	Presence of key intertidal geoheritage features / interests
478	Culbin Sands, Culbin Forest and Findhorn Bay	Mixed	Coastal Geomorphology of Scotland	Culbin; Culbin [Saltmarsh]	Yes
480	Cullen to Stake Ness Coast	Mixed	Dalradian; Quaternary of Scotland	Cullen - Troup Head, Banffshire Coast; Boyne Quarry	Yes
507	Den Wick	Geological	Quaternary of Scotland	Den Wick	Yes
515	Dippin Head	Geological	Tertiary Igneous	Dippin Head	No
536	Druimindarroch	Geological	Moine	Driumindarroch	Yes
537	Drumadoon - Tormore	Geological	Permian Triassic (red beds); Tertiary Igneous	Kings Cave - Drumadoon; Drumadoon-Tormore	Yes
551	Dumbarton Rock	Geological	Carboniferous - Permian Igneous	Dumbarton Rock	Yes
564	Duncansby Head	Mixed	Coastal Geomorphology of Scotland	Duncansby to Skirza Head	Yes
572	Dunnet Links	Mixed	Coastal Geomorphology of Scotland	Dunnet Bay	Yes
573	Dunrobin Coast	Geological	Hettangian, Sinemurian, Pliensbachian	Dunrobin Coast Section	Yes
580	Durness	Mixed	Moine; Arenig - Llanvirn; Cambrian - Tremadoc; Coastal Geomorphology of Scotland	Faraid Head; Balnakeil; Durness; Balnakeil	Yes
592	Easter Rova Head	Geological	Non-marine Devonian	Easter Rova Head	Yes
600	Eigg - An Sgurr and Gleann Charadail	Mixed	Tertiary Igneous	South West Eigg	No

SNH site code	SSSI	SSSI type	Geoheritage features	GCR sites	Presence of key intertidal geoheritage features / interests
602	Eigg - Laig to Kildonnan	Mixed	Bathonian; Jurassic - Cretaceous Reptilia	Eigg; Kildonnan & Eilean Thuilm	Yes
603	Eilean Chlamail - Camas nan Ceann	Geological	Moine	Eilean Chlamail - Camas nan Ceann	Yes
606	Elgol Coast	Geological	Bathonian; Callovian; Oxfordian; Mesozoic Mammalia	Elgol-Glen Scaladal; North Elgol Coast; North Elgol Coast; Loch Scavaig	Yes
611	Eoligarry	Mixed	Coastal Geomorphology of Scotland	Eoligarry	Yes
612	Eriboll	Mixed	Moine; Cambrian	Eriboll; An t-Sron	Yes
615	Eshaness Coast	Geological	Old Red Sandstone Igneous	Eshaness Coast	Yes
620	Fair Isle	Mixed	Palaeozoic Palaeobotany	Sloagar	No
633	Fidlar Geo to Watsness	Geological	Non-marine Devonian	Footabrough to Wick of Watsness	Yes
634	Fife Ness Coast	Mixed	Lower Carboniferous [Dinantian - Namurian (part)]	Randerston Coast	Yes
656	Foula Coast	Geological	Coastal Geomorphology of Scotland	Foula	Yes
659	Foveran Links	Mixed	Coastal Geomorphology of Scotland	Forvie	Yes
661	Fugla Ness-North Roe	Geological	Quaternary of Scotland	Fugla Ness	No
663	Funzie	Geological	Caledonian Structures	Funzie	Yes

SNH site code	SSSI	SSSI type	Geoheritage features	GCR sites	Presence of key intertidal geoheritage features / interests
666	Gamrie and Pennan Coast	Mixed	Dalradian; Non-marine Devonian; Quaternary of Scotland	Cullen - Troup Head, Banffshire Coast; Den of Findon, Gamrie Bay and New Aberdour; Castle Hill	Yes
674	Garron Point	Mixed	Dalradian; Ordovician Igneous; Silurian - Devonian Chordata	Garron Point; Garron Point to Slug Head; The Toutties	Yes
681	Garvellachs	Mixed	Dalradian	Garvellach Isles	Yes
690	Girvan to Ballantrae Coast Section	Geological	Arenig - Llanvirn; Caradoc - Ashgill; Llandovery; Ordovician Igneous	Balcreuchan Port-Bennane; Girvan Foreshore; Woodland Point; Bennan Lea	Yes
691	Glac na Criche	Mixed	Dalradian	Kilchiaran to Ardnave Point, Islay	Yes
728	Glenacardoch Point	Geological	Quaternary of Scotland	Glenacardoch Point	Yes
745	Grennan Bay	Geological	Caledonian Structures	Grennan Bay	Yes
747	Gribun Shore and Crag	Mixed	Cenomanian - Maastrichtian; Permian Triassic (red beds)	Gribun; Gribun	Yes
751	Gruinart Flats	Mixed	Dalradian; Coastal Geomorphology of Scotland [Saltmarsh]	Bun-an-uillt, Islay; Loch Gruinart, Islay	Yes
755	Gutcher	Geological	Moine	Gutcher	Yes
759	Ham Ness	Geological	Ordovician Igneous	Ham Ness	Yes
767	Hascosay	Mixed	Moine	Hascosay	Yes
772	Helmsdale Coast	Geological	Kimmeridgian; Mesozoic Palaeobotany	Helmsdale [K]; Lothbeg Point [MP]; Culgower Bay [MP]	Yes
776	Hermaness	Mixed	Mineralogy of Scotland	Tonga-Greff Coast	No

SNH site code	SSSI	SSSI type	Geoheritage features	GCR sites	Presence of key intertidal geoheritage features / interests
789	Holborn Head	Mixed	Silurian - Devonian Chordata	Holborn Head Quarry	No
798	Hoy	Mixed	Non-marine Devonian; Old Red Sandstone Igneous; Quaternary of Scotland; Coastal Geomorphology of Scotland	Old Man of Hoy Coast, Orkney; Too of the Head; North Hoy; West Coast of Orkney	Yes
810	Inninmore Bay	Mixed	Upper Carboniferous [Namurian (part) - Westphalian]	Inninmore Bay	Yes
812	Inverbrora	Geological	Bathonian; Callovian; Oxfordian; Mesozoic Palaeobotany	Brora; Brora; Brora; Brora	Yes
814	Inverhope	Mixed	Moine	Eriboll	No
815	Invernaver	Mixed	Coastal Geomorphology of Scotland	Torrisdale Bay and Invernaver	Yes
821	Isle of Whithorn Bay	Geological	Caledonian Structures	Isle of Whithorn Bay	Yes
824	John o' Groats	Geological	Non-marine Devonian; Silurian - Devonian Chordata	John O' Groats [NMD]; John O' Groats [S-DC]	Yes
827	Keen of Hamar	Mixed	Mineralogy of Scotland	Wick of Hagdale	No
841	Kilberry Coast	Mixed	Dalradian	Port Cill Maluaig	Yes
863	Kinuachdrach	Mixed	Dalradian	Kinuachdrach, Jura	Yes
893	Laggan	Geological	Palaeozoic Palaeobotany	Laggan	Yes
897	Lagganulva Wood	Mixed	Tertiary Igneous	Laggan Bay	No
909	Largs Coast Section	Geological	Non-marine Devonian	Largs	Yes

SNH site code	SSSI	SSSI type	Geoheritage features	GCR sites	Presence of key intertidal geoheritage features / interests
956	Loch an Duin	Mixed	Coastal Geomorphology of Scotland	Loch Maddy - Sound of Harris Coastline	Yes
965	Loch Bee	Mixed	Coastal Geomorphology of Scotland	Ardivachar to Stoneybridge	Yes
966	Loch Bee Machair	Mixed	Coastal Geomorphology of Scotland	Ardivachar to Stoneybridge	Yes
977	Loch Druidibeg	Mixed	Coastal Geomorphology of Scotland	Ardivachar to Stoneybridge	Yes
986	Loch Glencoul	Mixed	Moine	Glencoul	No
1013	Loch Moidart	Mixed	Moine	Loch Moidart Road Cuttings	Yes
1040	Loch of Strathbeg	Mixed	Coastal Geomorphology of Scotland	Strathbeg	Yes
1093	Long Berry Coast	Geological	Non-marine Devonian	Wick Quarries	Yes
1101	Lossiemouth Shore	Geological	Permian Triassic (red beds)	Lossiemouth Shore	Yes
1111	Lunda Wick	Geological	Mineralogy of Scotland	Lunda Wick	Yes
1114	Luskentyre Banks and Saltings	Mixed	Coastal Geomorphology of Scotland	Luskentyre to Carron Seilebost	Yes
1119	Machairs Robach and Newton	Mixed	Coastal Geomorphology of Scotland	Machairs Robach and Newton (Hornish and Lingay Strands)	Yes

SNH site code	SSSI	SSSI type	Geoheritage features	GCR sites	Presence of key intertidal geoheritage features / interests
1121	Maidens to Doonfoot	Mixed	Lower Carboniferous [Dinantian - Namurian (part)]; Carboniferous - Permian Igneous; Old Red Sandstone Igneous	Bracken Bay-Longhill Point; Heads of Ayr; Culzean Harbour [ORSI]; Port Schuchan to Dunure Castle [ORSI]	Yes
1126	Mangersta Sands	Geological	Coastal Geomorphology of Scotland	Mangesta Sands, Lewis	Yes
1132	Masonshaugh	Geological	Permian Triassic (red beds); Permian - Triassic Reptilia	Masonhaugh (Masonshaugh Quarries & Burghead); Masonshaugh (Masonshaugh Quarry)	No
1134	Meall a' Mhaoil	Geological	Tertiary Igneous	Maol na Gainmhich	Yes
1146	Melby	Geological	Non-Marine Devonian; Silurian - Devonian Chordata	Melby: Matta Taing to Lang Rigg; Melby	No
1152	Mill Bay	Geological	Quaternary of Scotland	Mill Bay	Yes
1162	Milton Ness	Geological	Non-Marine Devonian; Quaternary of Scotland	Milton Ness; Milton Ness	Yes
1184	Montrose Basin	Mixed	Quaternary of Scotland	Maryton	Yes
1188	Morrich More	Mixed	Coastal Geomorphology of Scotland; Coastal Geomorphology of Scotland [Saltmarsh]	Morrich More; Morrich More	Yes
1189	Morroch Bay	Geological	Llandeilo	Morroch Bay	Yes

SNH site code	SSSI	SSSI type	Geoheritage features	GCR sites	Presence of key intertidal geoheritage features / interests
1207	Muckle Head and Selwick	Geological	Quaternary of Scotland; Coastal Geomorphology of Scotland (part)	Muckle Head & Selwick; West Coast of Orkney	Yes
1216	Ness of Clousta - The Brigs	Geological	Ordovician Igneous	Ness of Clousta - The Brigs	Yes
1217	Ness of Cullivoe	Geological	Moine	Cullivoe	Yes
1224	Nigg Bay	Geological	Quaternary of Scotland	Bay of Nigg	Yes
1238	North Newton Shore	Geological	Non-marine Devonian	North Newton Shore	No
1242	North Sandwick	Geological	Moine	North Sandwick	Yes
1247	Norwick	Geological	Caledonian Structures	Norwick	Yes
1251	Ob Lusa to Ardnish	Geological	Hettangian, Sinemurian, Pliensbachian	Ob Lusa to Ardnish Coast	Yes
1265	Pabbay	Mixed	Coastal Geomorphology of Scotland	Pabbay	Yes
1267	Papa Stour	Mixed	Silurian - Devonian Chordata; Coastal Geomorphology of Scotland	Papa Stour; Papa Stour	Yes
1276	Pease Bay Coast	Mixed	Lower Carboniferous [Dinantian - Namurian (part)]; Silurian - Devonian Chordata	Cove; Hawks Heugh	Yes
1278	Pennylands	Geological	Non-marine Devonian; Silurian - Devonian Chordata	Pennylands to Castlehill; Pennylands	Yes
1303	Port Logan	Geological	Quaternary of Scotland	Port Logan	No

SNH site code	SSSI	SSSI type	Geoheritage features	GCR sites	Presence of key intertidal geoheritage features / interests
1306	Port of Ness	Geological	Quaternary of Scotland	Port of Ness	No
1315	The Punds to Wick of Hagdale	Geological	Ordovician Igneous	The Punds to Wick of Hagdale	Yes
1319	Qui Ness to Pund Stacks	Geological	Ordovician Igneous	Qui Ness to Pund Stacks	Yes
1324	Raasay	Mixed	Aalenian - Bajocian; Hettangian, Sinemurian, Pliensbachian; Mass Movement	Beinn na Leac; Cadha Carnach [HSP]; Hallaig Shore [HSP]; Rubha na Leac [HSP]; Hallaig	Yes
1338	Red Point Coast	Mixed	Non-marine Devonian; Quaternary of Scotland	Red Point; Drumholliston	Yes
1348	Rhu Point	Geological	Quaternary of Scotland	Rhu Point	Yes
1351	Rickle Craig - Scurdie Ness	Mixed	Old Red Sandstone Igneous; Mineralogy of Scotland	Scurdie Ness to Usan Harbour; Scurdie Ness	Yes
1352	Rigg - Bile	Mixed	Aalenian - Bajocian; Toarcian; Tertiary Igneous; Mesozoic Palaeobotany	Barreraig Bay; Prince Charles Cave to Holm; Fiurnean to Rubha na h-Airde; Barreraig River	Yes
1354	Rinns of Islay	Mixed	Dalradian; Coastal Geomorphology of Scotland	Kilchiaran to Ardnave Point, Islay; Machir Bay	Yes
1375	Roseheartly to Fraserburgh Coast	Mixed	Dalradian	Fraserburgh to Roseheartly	Yes
1376	Rosemarkie to Shandwick Coast	Mixed	Moine; Callovian; Mesozoic Palaeobotany	Cromarty & Rosemarkie Inliers; Cadh-an-Righ; Eathie Fishing Station	Yes
1389	Rubh' an Eireannaich	Geological	Tertiary Igneous	Rubh an Eireannaich	Yes

SNH site code	SSSI	SSSI type	Geoheritage features	GCR sites	Presence of key intertidal geoheritage features / interests
1390	Rubh' a' Mhail to Uamhannan Donna Coast	Geological	Dalradian; Quaternary of Scotland; Coastal Geomorphology of Scotland	Rubha a' Mhail, Islay; Rubha a' Mhail to Rhubha Bholsa Coast (Northern Islay); Northern Islay	Yes
1391	Rubha Camas na Cailinn	Geological	Moine	Rubha Camas na Cailinn	Yes
1392	Rubha Dunan	Mixed	Torridonian	Rubha Dunan	Yes
1393	Rubha Hunish	Mixed	Tertiary Igneous; Bathonian	Rubha Hunish; part Duntulm (Cairidh Gh'lumaig and Lon Ostatoin)	No
1396	Rum	Mixed	Tertiary Igneous	Dibidil to Southern Mountains; Fionchra; Harris Bay;	Yes
1404	Sands of Forvie and Ythan Estuary	Mixed	Coastal Geomorphology of Scotland	Forvie	Yes
1413	Scourie Coast	Geological	Lewisian; Mineralogy of Scotland	Badcall; Scourie Bay; Scourie Mor; Camas nam Buth [M]	Yes
1417	Sgavoch	Geological	Ordovician Igneous	Sgavoch Rock	Yes
1420	Shiant Islands	Mixed	Tertiary Igneous	Shiant Islands	Yes
1430	Shoulder o' Craig	Geological	Caledonian Igneous	Shoulder O Craig	Yes
1432	Siccar Point	Geological	Non-marine Devonian; Caledonian Structures	Siccar Point [NMD]; Siccar Point	Yes
1434	Skelda Ness	Geological	Mineralogy of Scotland	Skelda Ness	Yes
1437	Skeo Taing to Clugan	Geological	Ordovician Igneous	Skeo Taing to Clugan	Yes
1445	Slumbay Island	Geological	Moine	Slumbay Point, Loch Carron	Yes
1451	South Coast of Arran	Mixed	Tertiary Igneous	South Coast of Arran	Yes
1453	South Kerrera and Gallanach	Geological	Old Red Sandstone Igneous; Silurian - Devonian Chordata	South Kerrera; Ardmore - Gallanach	Yes

SNH site code	SSSI	SSSI type	Geoheritage features	GCR sites	Presence of key intertidal geoheritage features / interests
1455	South Mull Coast	Mixed	Tertiary Igneous; Mineralogy of Scotland	Carsaig Bay; Nuns Pass	Yes
1456	South Shian and Balure	Geological	Quaternary of Scotland	South Shian and Balure	Yes
1459	Southern Parphe	Mixed	Coastal Geomorphology of Scotland	Sandwood	Yes
1461	Spey Bay	Mixed	Coastal Geomorphology of Scotland; Fluvial Geomorphology	Spey Bay; Lower River Spey	Yes
1466	St Abb's Head to Fast Castle	Mixed	Old Red Sandstone Igneous; Coastal Geomorphology of Scotland	Pettico Wick to St Abbs Harbour; St Abbs Head	Yes
1467	St Andrews - Craig Hartle	Mixed	Lower Carboniferous [Dinantian - Namurian (part)]	East Sands - Buddo Ness	Yes
1470	St John's Church	Geological	Dalradian	St Johns Church, Loch Leven	Yes
1471	St Kilda	Mixed	Tertiary Igneous; Coastal Geomorphology of Scotland	St Kilda; St Kilda Archipelago	Yes
1475	St Ninian's Tombolo	Geological	Coastal Geomorphology of Scotland	St Ninians Tombolo	Yes
1486	Strath	Mixed	Tertiary Igneous	Beinn an Dubhaich	Yes
1499	Stromness Heaths and Coast	Mixed	Non-marine Devonian; Coastal Geomorphology of Scotland	South Stromness Coast Section [NMD]; Yesnaby and Gaulton Coast Section [NMD]; West Coast of Orkney	Yes
1500	Strone Point, North Loch Fyne	Geological	Dalradian	Strone Point, North Loch Fyne	Yes

SNH site code	SSSI	SSSI type	Geoheritage features	GCR sites	Presence of key intertidal geoheritage features / interests
1508	Sumburgh Head	Mixed	Silurian - Devonian Chordata	Sumburgh Head	No
1515	Talisker	Mixed	Tertiary Igneous	Talisker	Yes
1519	Tarbat Ness	Mixed	Non-marine Devonian; Coastal Geomorphology of Scotland	Tarbat Ness [NMD]; Tarbat Ness [CG]	Yes
1523	Tayport - Tentsmuir Coast	Mixed	Coastal Geomorphology of Scotland	Tentsmuir	Yes
1528	The Ayres of Swinister	Geological	Coastal Geomorphology of Scotland	The Ayres of Swinister	Yes
1530	The Cletts, Exnaboe	Geological	Non-marine Devonian; Silurian - Devonian Chordata	The Cletts, Exnaboe; The Cletts, Exnaboe	Yes
1553	Torrs to Mason's Walk	Mixed	Wenlock	Balmae Coast	Yes
1554	Torrs Warren - Luce Sands	Mixed	Coastal Geomorphology of Scotland	Luce Sands	Yes
1563	Tressa Ness to Colbinstoff	Geological	Ordovician Igneous	Tressa Ness to Colbinstoff	Yes
1566	Trotternish Ridge	Mixed	Bathonian; Callovian; Kimmeridgian; Oxfordian; Mass Movement	Staffin Bay; Staffin; Kildorais; Staffin; Quiraing/Trotternish Escarpment	Yes
1572	Turnberry Lighthouse to Port Murray	Geological	Old Red Sandstone Igneous	Turnberry Lighthouse to Port Murray	Yes

SNH site code	SSSI	SSSI type	Geoheritage features	GCR sites	Presence of key intertidal geoheritage features / interests
1583	Upper Solway Flats and Marshes	Mixed	Lower Carboniferous [Dinantian - Namurian (part)]; Quaternary of Scotland; Coastal Geomorphology of Scotland [Saltmarsh]	Kirkbean; Newbie [QS]; Redkirk Point [QS]; Solway Firth (North Shore)	Yes
1586	Uyea - North Roe Coast	Geological	Moine	Uyea - North Roe Coast	Yes
1589	Villians of Hamnavoe	Geological	Coastal Geomorphology of Scotland	Villians of Hamnavoe	Yes
1590	Virva	Geological	Ordovician Igneous	Virva	Yes
1591	Voxter Voe and Valayre Quarry	Geological	Moine	Voxter Voe & Valayre Quarry	Yes
1604	West Burrow Head	Geological	Caledonian Structures	West Burrow Head	Yes
1605	West Coast of Jura	Geological	Quaternary of Scotland; Coastal Geomorphology of Scotland	West Coast of Jura (Bagh Gleann Speireig - Carragh); West Coast of Jura	Yes
1612	West Tayvallich Peninsula	Geological	Dalradian	West Tayvallich Peninsula	Yes
1631	Whitehills to Melrose Coast	Geological	Dalradian	Cullen - Troup Head, Banffshire Coast	Yes
1633	Whiteness Head	Mixed	Coastal Geomorphology of Scotland	Whiteness Head	Yes
1634	Whiting Ness - Ethie Haven	Mixed	Old Red Sandstone Igneous; Non-marine Devonian	Black Rock to East Comb; Whiting Ness	Yes
1651	Ardsheal Peninsula	Geological	Dalradian; Caledonian Igneous	Ardsheal Peninsula; Ardsheal Hill & Peninsula	Yes
1652	Kentallen	Geological	Caledonian Igneous	Kentallen	No
1666	Valtos	Geological	Bathonian	Valtos	No

SNH site code	SSSI	SSSI type	Geoheritage features	GCR sites	Presence of key intertidal geoheritage features / interests
1674	Loch nam Madadh	Mixed	Coastal Geomorphology of Scotland	Loch Maddy - Sound of Harris Coastline	Yes
1689	Strathy Coast	Mixed	Moine	Sgeir Ruadh, Portskerra	Yes
8163	Firth of Forth	Mixed	Lower Carboniferous [Dinantian - Namurian (part)]; Upper Carboniferous [Namurian (part) - Westphalian]; Mineralogy of Scotland; Arthropoda (excluding insects and trilobites); Palaeozoic Palaeobotany; Permian - Carboniferous Fish/Amphibia; Carboniferous - Permian Igneous; Quaternary of Scotland; Coastal Geomorphology of Scotland	Elie to Anstruther Coast [D]; Joppa Shore [D]; Kinghorn Coast [D]; Queensferry Shore [D]; Joppa Shore [W-N]; East Wemyss to Buckhaven Coast [W-N]; Elie Ness [MIN]; Granton Shore [A]; Oxroad Bay [PP]; Pettycur [PP]; Cheese Bay [F/A]; Abden [F/A]; Ardross Castle [F/A]; Inchkeith [F/A]; Wardie [F/A]; Burntisland to Kinghorn Coast [C-PI]; North Berwick Coast [C-PI]; South Queensferry to Hound Point [C-PI]; Dunbar [QS]; KinCraig Point [QS]; Dunbar [CG]	Yes
8173	Kinloch and Kyleakin Hills (Monadh Chaol Acainn is Cheann Loch)	Mixed	Torridonian	Loch na Dal	Yes
8174	Sunart	Mixed	Moine; Caledonian Igneous; Tertiary Igneous	Eilean Mor and Camus Choire Mhuilinn; Loch Sunart; Ben Hiant	Yes
10104	Onich to North Ballachulish Woods and Shore	Mixed	Dalradian	Onich Shore Section	Yes

Note:

Treshnish Isles SSSI includes notified geomorphological interests, but is currently not a GCR site and is excluded from the list.

Table 4: Presence of key intertidal geoheritage features/interests in un-notified Geological Conservation Review (GCR) sites on the coastline of Scotland

GCR blocks in Scotland	SNH site code	Un-notified GCR sites at the coast ¹	Presence of key intertidal geoheritage features / interests	
Lewisian	9404	Na Buirgh (Borve)	Yes	
	9463	Croca Breac	Yes	
	9292	An Ard	Yes	
	9295	An Fharaid Mor - Clachtholl	Yes	
	9610	Gearraidh Siar and Baile a' Mhanaich	Yes	
	9728	Leinis (Leanish)	Yes	
	9753	Loch Drumbeg	No	
	9842	North Pabbay	Yes	
	9845	North Uist Coast	Yes	
	9903	Rhughasinish	Yes	
	10013	Tarbet - Ruabha Ruadh	Yes	
	10151	Diabaig	Yes	
	Torridonian	9259	Achduart	Yes
		9522	Diabaig	Yes
9571		Enard Bay	Yes	
9778		[Upper] Loch Torridon	Yes	
9998		Stoer	Yes	
Moine	9469	Coldbackie Bay	Yes	
	9301	Ard Ghunel	Yes	
	9303	Ard Mor, Bettyhill ²	Yes	
	9534	Dornie - Inverinate Road Section (A87)	Yes	
	9580	Farr Bay, Bettyhill	Yes	
	9620	Glaisgeo to Farr Point	Yes	
	9703	Kinloch Hourn	Yes	
	9812	Melness	Yes	
	9840	North Morar	Yes	
	9935	Sango Bay	Yes	
10000	Strathan Skerray - Skerray Bay	Yes		
10047	Totaig	Yes		

GCR blocks in Scotland	SNH site code	Un-notified GCR sites at the coast¹	Presence of key intertidal geoheritage features / interests
Dalradian	9394	Black Mill Bay	Yes
	9432	Camas Nathais	Yes
	9434	Caol Ila, Islay	Yes
	9481	Cove Bay to Kilcreggan	Yes
	9489	Craignish Point	Yes
	9306	Ardbeg, Islay	Yes
	9314	Ardscalpsie Point, Bute	Yes
	9515	Cunningsburgh	Yes
	9582	Fearnach Bay, Loch Melfort	Yes
	9664	Hawks Ness	Yes
	9696	Kilmory Bay ³	Yes
	9697	Kilnaughton Bay, Islay	Yes
	9795	Lussa Bay	Yes
	9828	Nathrach	No
	9884	Port Selma, Ardmucknish	Yes
	9885	Portincaple, Dumbarton	Yes
	9928	Rubha Cladaich	Yes
	9937	Scalloway	Yes
	9970	South Bay, Barmore Island	Yes
	9972	South Coast, Lismore Island	Yes
	10008	Surnaig Farm, Islay	Yes
Caledonian Igneous	9429	Camas Eilean Ghlais	Yes
	9294	An Fharaid Mhor	Yes
	9715	Knockvologan to Eilean Achalmain	Yes
Old Red Sandstone Igneous	9877	Point of Ayre	Yes
Carboniferous-Permian Igneous	9799	Machrihanish Coast and South Kintyre	Yes
Mineralogy of Scotland	9879	Port Bheathain	No
Non-Marine Devonian	10383	Bay of Berstane	Yes
	10396	Dunnottar Coast Section	Yes
	9642	Greenan Nev Coast	Yes
	9973	South Fersness Bay	Yes
	10014	Tarracliff Bay to Newark Bay	Yes

GCR blocks in Scotland	SNH site code	Un-notified GCR sites at the coast¹	Presence of key intertidal geoheritage features / interests
Permian-Triassic	9648	Gruinard Bay	Yes
Bathonian	9543	Dun Skudiburgh	Yes
Jurassic-Cretaceous Reptilia	10381	An Corran	Yes
	10116	Lub Score	Yes
Quaternary of Scotland	9403	Borve	Yes
	9260	Achnaba - Moss of Achnacree	No
	9827	Munlochy Valley	No
	9846	North West Coast of Lewis	No
Coastal Geomorphology of Scotland	10051	Traigh na Berie	Yes

Notes:

¹ The list does not include part notified sites.

² Part in Invernaver SSSI but not a notified feature.

³ Part in Ellary Woods but not a notified feature.

www.snh.gov.uk

© Scottish Natural Heritage 2016
ISBN: 978-1-78391-352-7

Policy and Advice Directorate, Great Glen House,
Leachkin Road, Inverness IV3 8NW
T: 01463 725000

You can download a copy of this publication from the SNH website.



Scottish Natural Heritage
Dualchas Nàdair na h-Alba

All of nature for all of Scotland
Nàdar air fad airson Alba air fad