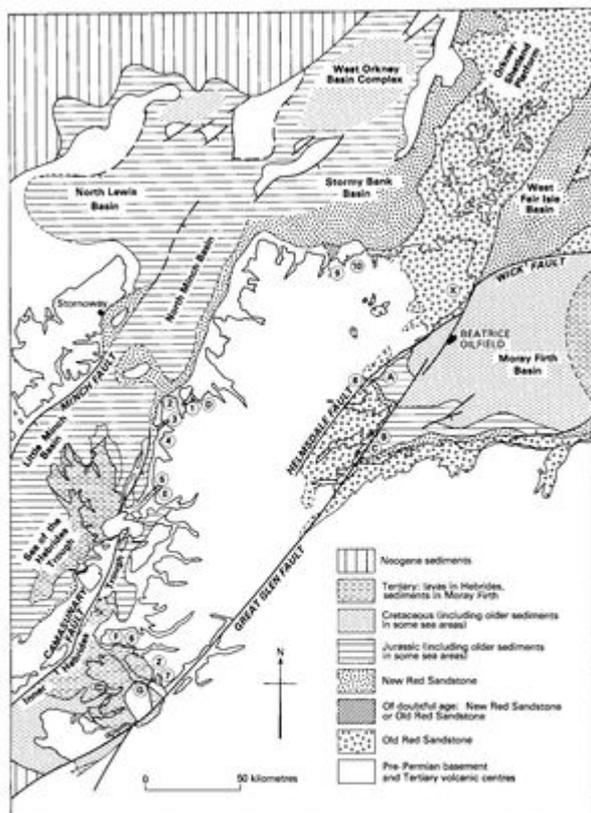


Mesozoic, introduction, Northern Highlands of Scotland

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[Jump to navigation](#) [Jump to search](#)

Johnstone, G S and Mykura, W. 1989. British regional geology: Northern Highlands of Scotland. Fourth edition. Keyworth, Nottingham: British Geological Survey.



New Red Sandstone outliers: 1 Gruinard Bay-Isle of Ewe 2 Cama Mor, Rubha Reidh peninsula 3 Big Sand, Gairloch 4 Red Point 5 Applecross 6 Ardnamurchan 7 Morvern 8 Dunrobin, Golspie 9 Outliers around Tongue 10 Kirtomy Outliers
 Jurassic outliers: A Golspie-Helmsdale B Balintore C Ethie D Gruinard Bay E Applecross F Ardnamurchan G Morvern
 Cretaceous outliers: Z Loch Aline and Morvern Cretaceous erratic: X Lezard (Caithness)

Mesozoic basins in the seas around Northern Scotland. P915496.

Since the discovery of North Sea Oil the small outcrops of Mesozoic rocks along the coast of Northern Scotland have taken on an importance quite disproportionate to the land area which they occupy. They, and the more extensive outcrops in the Inner Hebrides (Richey, 1961), are the only readily accessible representatives of the thick sedimentary sequences which occupy the large Mesozoic basins and grabens in the Moray Firth, the North Sea, the Hebridean seas, and parts of the eastern margin of the Atlantic west of Orkney and Shetland.

The most important Mesozoic outcrops on the Scottish mainland are the fault- bounded strips along the north-west and south-east coasts of the Moray Firth ([P915496](#)) which provide onshore sections of the thick (up to more than 5 km) sequence in the Moray Firth Basin (Chesher and Lawson, 1983). The coastal strip between Golspie and the Ord of Caithness is bounded on the north-west by the Helmsdale Fault, which was active as a normal fault with large downthrow to the south-east in both late- and post-Jurassic times. This strip contains a broken sequence ranging from Trias to topmost Kimmeridgian (or even basal Portlandian). The small foreshore outcrops further south at Balintore

and Ethie lie along the Great Glen Fault and contain strata of respectively Bathonian to Oxfordian and Kimmeridgian age.

In the north-west of Scotland, by far the largest and most complete Mesozoic outcrops are in the Inner Hebrides, where they have been preserved by a cover of Tertiary lava (Richey, 1961). The only outcrops along the west coast of the mainland are small outliers of New Red Sandstone (and, more rarely, Lower Lias) between Gairloch and Applecross, and thin sequences, mainly preserved beneath Tertiary lavas, at Morvern and Ardnamurchan. The thin sequences include Triassic, Liassic and Upper Cretaceous sediments.

The small outcrops of conglomerate and bright red sandstone close to the north coast around Tongue and Kirtomy, which have in the past been regarded as Old Red Sandstone, may be of New Red Sandstone age. In the Outer Hebrides, the thick sequence of conglomerates and subordinate sandstones around Stornoway is now generally believed to be New Red Sandstone (Steel and Wilson, 1975).

[Selected bibliography](#)

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Category:

- [Northern Highlands of Scotland](#)

Navigation menu

Personal tools

- Not logged in
- [Talk](#)
- [Contributions](#)
- [Log in](#)
- [Request account](#)

Namespaces

- [Page](#)
- [Discussion](#)

Variants

Views

- [Read](#)
- [Edit](#)
- [View history](#)

- [PDF Export](#)

□

More

Search

Navigation

- [Main page](#)
- [Recent changes](#)
- [Random page](#)
- [Help about MediaWiki](#)

Tools

- [What links here](#)
- [Related changes](#)
- [Special pages](#)
- [Permanent link](#)
- [Page information](#)
- [Cite this page](#)
- [Browse properties](#)

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