

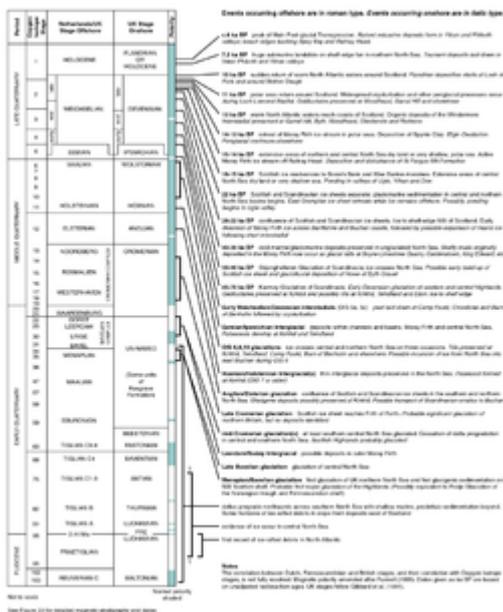
Cainozoic of north-east Scotland, introduction

From Earthwise

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

From: Merritt, J W, Auton, C A, Connell, E R, Hall, A M, and Peacock, J D. 2003. [Cainozoic geology and landscape evolution of north-east Scotland](#). Memoir of the British Geological Survey, sheets 66E, 67, 76E, 77, 86E, 87W, 87E, 95, 96W, 96E and 97 (Scotland).

Introduction



Summary of events preserved in the marine and onshore records. P915341.

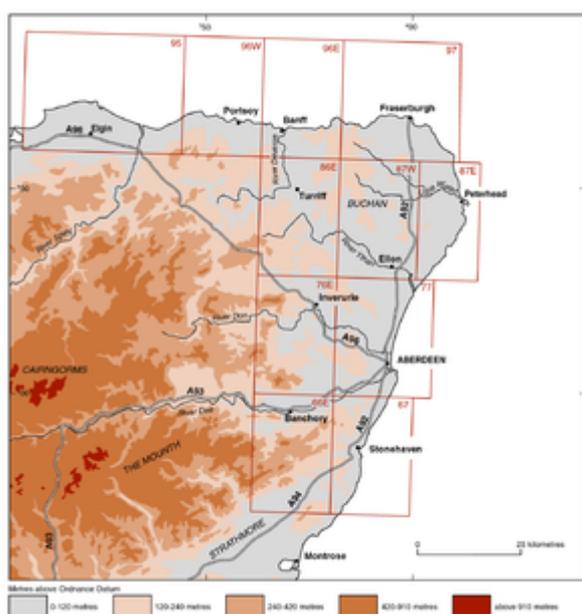
The region described here (and referred henceforth as 'the district') spans the coastal hinterland and Buchan Plateau of north-east Scotland stretching from Elgin, on the southern coast of the Moray Firth, to Inverbervie, on the North Sea coast ([P915248](#)). This account summarises the Quaternary geology ([P915341](#)) presented on the Drift (or Solid-and-Drift) editions of the 1:50 000 Series sheets 66 Banchory, 67 Stonehaven, 76E Inverurie, 86E Turriff, 87W Ellon, 87E Peterhead, 96W Portsoy, 96E Banff and 97 Fraserburgh. It also encompasses sheets 77 Aberdeen and 95 Elgin, for which modern memoirs including full descriptive accounts on the Quaternary are available. Details of the coverage and availability of maps, memoirs, sheet explanations and other publications are given in Information Sources.

Division of the Cainozoic

Era Period (System) Epoch (Series) Age (of base Ma)

QUATERNARY	Holocene	0.01
	Pleistocene	2.4
	Pliocene	5.3
CAINAZOIC NEOGENE	Miocene	23.8
	Oligocene	33.7
PALAEOGENE	Eocene	54.8
	Paleocene	65.0

The aim of this memoir is to consider landscape evolution throughout the Cainozoic era (table above), as well providing a description of the Quaternary deposits shown on the maps mentioned below. Many elements of the landscape were created prior to the Quaternary, and furthermore, important deposits of Palaeogene to Neogene age have been shown as drift deposits on some maps. Place names mentioned in the text and a selection of geomorphological features, deposits and other Cainozoic phenomena are shown on the following maps:



Topography and geological sheet boundaries. P915248.

[Elgin district. P915371.](#)

[Sheet 96W Portsoy. P915372.](#)

[Sheet 96E Banff. P915373.](#)

[Sheet 97 Fraserburgh. P915374.](#)

[Sheet 86E Turriff. P915375.](#)

[Sheet 87W Ellon. P915376.](#)

[Sheet 87E Peterhead. P915377.](#)

[Sheet 76E Inverurie. P915378.](#)

[Sheet 77 Aberdeen. P915379.](#)

[Sheet 66E Banchory. P915380.](#)

[Sheet 67 Stonehaven. P915381.](#)



View of Bennachie taken from the north-east. P220387.

The Buchan Plateau is overlooked on its south-western margin by Bennachie (528 m OD) (Sheet 76E), a local granite landmark that has become part of the folklore of the region ([P220387](#)). Farther south, other large hills of granite also dominate the scenery inland from Aberdeen, including the Hill of Fare (471 m OD), Brimmond Hill (266 m OD) and Kerloch (534 m OD). Many of the rocks of the district have been deeply weathered and these weakened strata have been eroded into wide basins, for example the basic igneous rocks around Maud and Inch ([P915249](#)). However, some basic rocks are relatively fresh and form isolated hills, such as the broad ridge that extends from Pitgavenny Hill (236 m OD) towards Belhelvie. Another belt of high ground largely underlain by granite forms the eastern continuation of The Mounth. It is bounded to the south by the Highland Boundary Fault and to the north by the Dee valley, which is a major topographic corridor descending from the Gaick Plateau and the Cairngorm Mountains to the west of the district. The extreme south of the district falls within the gently undulating vale of Strathmore, which is underlain mainly by Old Red Sandstone lithologies and associated late Silurian to Devonian volcanic rocks. Although Strathmore is generally low lying, conglomerates near the Highland Boundary Fault form ridges parallel to the fault and volcanic rocks form hills such as Hill of Bruxie (216 m), south-west of Stonehaven.

The coastal communities of the district owe their existence mainly to the fishing industry, whereas those inland have relied on farming. Both industries have been in decline in recent years. Beef production was once prevalent, but arable farming has become increasingly important following the application of modern methods of land drainage to the notoriously poorly drained and stony soils of the region. Indeed, much of the Buchan Plateau now resembles parts of East Anglia following the widespread removal of boulders and stone walls. The production of aggregates makes an important contribution to the local economy, but the large stone quarrying industries formerly centred on the granites of Aberdeen and Peterhead have gone. Peat is still worked commercially around Strichen, but all of the clay-based brick and tile works in the district have closed. Forestry has become increasingly important, especially in the west of the area, but provides relatively little employment. Tourism is a steady, albeit mainly seasonal industry.

Without doubt, the North Sea oil- and gas-related industries are the mainstays of the present economy of northeast Scotland. However, while they have provided much-needed employment and wealth, they have brought about, or speeded up, irrevocable demographic and other changes across the region. This is especially so in the vicinities of Aberdeen and Peterhead where there has been a significant increase in population during the past 25 years or so. Large numbers of people have moved in from farther south. House prices have risen substantially and the increased demand for housing has placed pressures on local authorities to release land for building, some of which is not entirely suitable for such purposes (e.g. prone to flooding). Wage inflation has occurred causing the

declining traditional activities to become uneconomic, especially the more marginal areas of agriculture where many hill farms have been bought to become residences and 'hobby' farms. There has been a dramatic increase in commuting across the entire region placing pressure on the infrastructure and leading to new road building and widespread road improvement projects.

References

[Full reference list](#)

Retrieved from

'http://earthwise.bgs.ac.uk/index.php?title=Cainozoic_of_north-east_Scotland,_introduction&oldid=21727'

[Category](#):

- [Grampian Highlands](#)

Navigation menu

Personal tools

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

Namespaces

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

Variants

Views

- [Read](#)
- [Pending changes](#)
- [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](#)

• This page was last modified on 16 September 2015, at 12:01.

- [Privacy policy](#)
- [About Earthwise](#)
- [Disclaimers](#)

