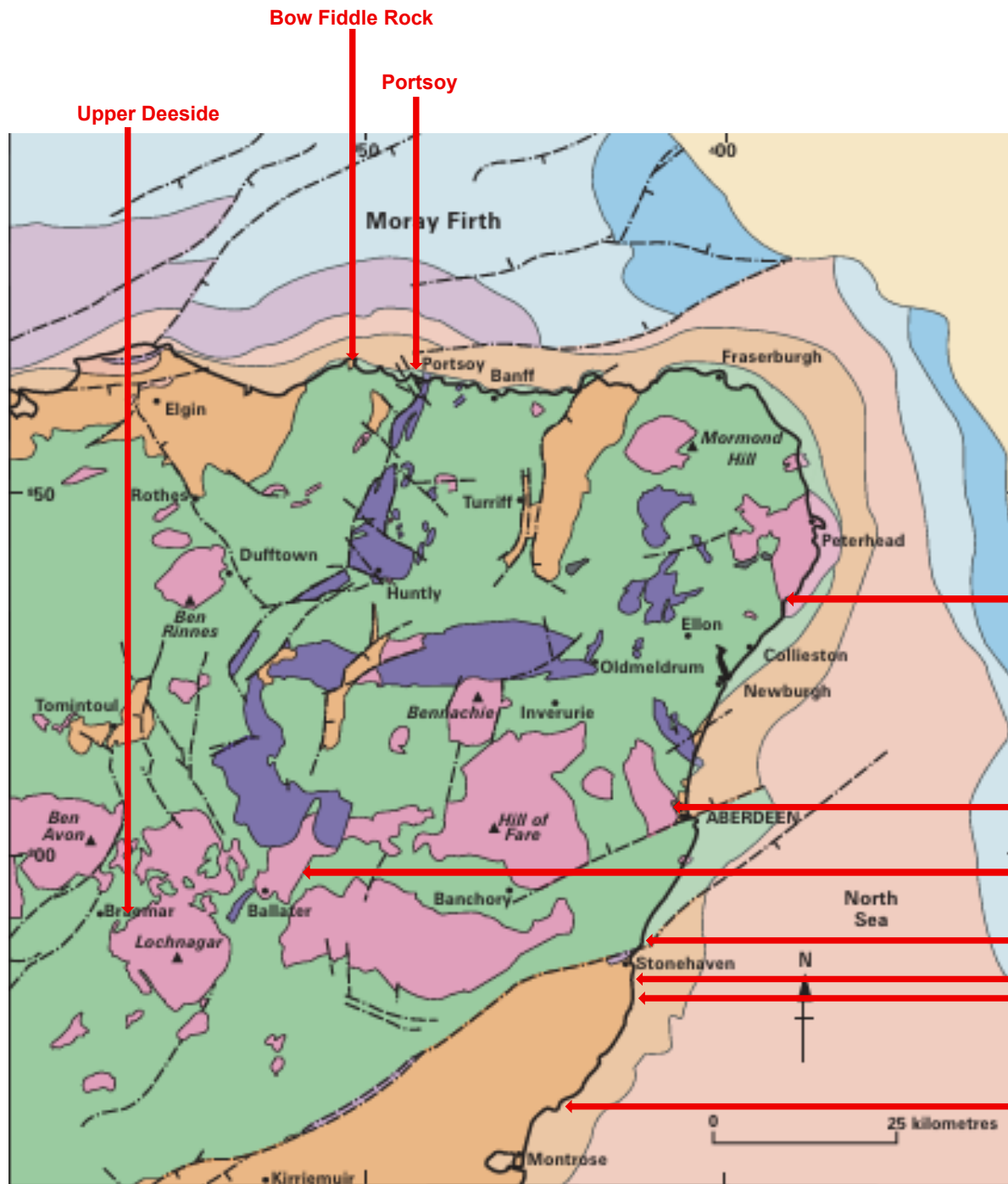


## Geology in Aberdeenshire – 10 Iconic Sites to Visit

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| <b>Bow Fiddle Rock</b> NJ 495 689<br>Bow Fiddle Rock is a natural sea arch near Portnockie, so called because its shape resembles the tip of a fiddler's bow. The metamorphic quartzite, from the Neoproterozoic era is part of the Cullen Formation, which is some 2.4km thick and was formed during the Caledonian orogeny.                                                                                                                                                                                                                                                                                                                                                                                     | <b>Bullers of Buchan</b> NK 110 382<br>Bullers of Buchan is a collapsed sea cave, some 30m deep, with the waves rushing through a natural archway. Bullers – is it derived from an old Scot's word meaning rushing water or a corruption of boullir (French to boil)? The sea appears to boil in this pot during rough weather.                                   | <b>Burn o' Vat</b> NO 429 997<br>Enter through a narrow cleft in the rocks to find an open roofed 18m wide circular chamber where the granite walls have been ground smooth some 16,000 years ago by whirlpool action. Red granite gravel forms the floor of this impressive pothole.                                                                                                     | <b>Crawton Lava Flows</b> NO 879 796<br>A 30m high cliff, formed of ORS conglomerate is located on the west side of Crawton Bay. Eastward, along the shore, are 4 distinct lava flows; the promontories with vesicular slaggy tops are well exposed at low water. Just north is a small inlet with vertical sides where east-west faults may be seen.      | <b>Dunnotter Castle ORS Conglomerates</b> NO 881 839<br>The castle sits on an ORS conglomerate promontory. This "pudding stone" rock has been likened to a fruit cake with the sediments and pebbles cementing strongly together to resist erosion from the sea. By contrast, weathering has taken its toll on the castle walls.                                                    |
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| <b>Highland Boundary Fault</b> NO 875 888<br>During the Caledonian orogeny, a great tear was formed, stretching from Isle of Bute on west coast to Stonehaven's Craigeven Bay on the east coast. The Highland Boundary Fault marks a line between Highland and Central Scotland. The view is from Garron Point at low water.                                                                                                                                                                                                                                                                                                                                                                                      | <b>Portsoy</b> NJ 585 664<br>This rocky coastline west of Portsoy's old harbour has a great variety of Dalradian geological features: a major fault, igneous intrusions, quartzites with rod-like structures, serpentine pebbles in a wide range of colours and textures as well as meta-limestones with intricate folds with pale and dark carbon-rich mudstone. | <b>Rubislaw Quarry</b> NJ 912 055<br>Rubislaw was the most famous quarry in NE Scotland. Its silvery grey granite was used to build a high proportion of the houses and impressive buildings in the city as well as for polished monumental work. When it closed in 1971, after 200 years, it was 142m deep but is now completely flooded. It is closed to the public for safety reasons. | <b>St Cyrus Beach</b> NO747 642<br>The cliffs at St Cyrus show how this landscape was formed in the early Devonian period through successive lava flows and energetic rivers carving channels in the basalt and dumping sediments between the layers. Traces of anthropods may be seen in the sedimentary rocks. The view is looking north to Milton Ness. | <b>Upper Deeside</b> NO 161 920<br>The view is from Creag Choinnich just beside Braemar, where the Clunie Water meets the River Dee. Here, it is easy to see the U-shaped valleys which were carved out of the bedrock by vast quantities of meltwater as the glaciers receded during the last ice age. Glen Clunie heads south from here while the Dee valley comes from the west. |
| <p>Further information about these and many more geological sites may be downloaded from our <i>Field Guides</i> page. Also, "<a href="#">Northeast Scotland; a Landscape fashioned by geology</a>" by JW Merritt and AG Leslie, published by Scottish National Heritage in 2009 is a very good overview of the region. Regrettably, it is no longer in print, but can be downloaded free from our page. A similar version of the book titled "<a href="#">North-East Scotland – Landscapes in Stone</a>" by A McKirdy and published in 2025 by Birlinn is available in bookshops.</p> <p style="text-align: right;">All images (apart from Rubislaw and St Cyrus) by K London. St Cyrus image by D, Stewart.</p> |                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                     |



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|----------------------------------------------------------------------------|----------------------------------------|
| Ordovician to Devonian Granite                                             | Ordovician Gabbro                      |
| Devonian ORS Conglomerate                                                  | Permian /Triassic sandstone, siltstone |
| Late Cambrian to Early Cambrian Dalradian altered sediments plus volcanics |                                        |