

---

# A geological excursion guide to Rum

## Contents

[Title page and preliminaries](#)

Image Credits

Acknowledgements

Introduction

[Summary of the geology of Rum](#)

Pre-Paleocene geology

Paleocene

[Excursions on Rum](#)

[Excursion 1: Kinloch and surroundings](#)

[Excursion 2: The Northern Marginal Zone \(NMZ\)](#)

[Excursion 3: Hallival and Askival](#)

[Excursion 4: The Central Intrusion](#)

[Excursion 5: The Canna Lava Formation in north-west Rum](#)

[Excursion 6: Minishal and north-west Rum](#)

[Excursions 7, 8 and 9. The southern mountains and Dibidil](#)

[Excursion 7: Kinloch — Allt nam Bà — Beinn nan Stac](#)

[Excursion 8: Lower Glen Dibidil — Nameless and Forgotten corries — Upper Glen Dibidil — Sandy Corrie Sgurr nan Gillean](#)

[Excursion 9: Lower Glen Dibidil — southern shoulder of Sgurr nan Gillean — Papadil](#)

[References](#)

(Key)

# Key

(Key for figures 6, 10, 12, 19, 26, 33, 44, 45, 51, 58, 62 and 71. For scale, see kilometre grid. All heights are in feet.)

## PALEOCENE

**Canna Lava Formation (Post Rum Central Complex)**

- AW\*** Orval Member: hawaiite, basaltic hawaiite, commonly feldsparphyric
- A<sup>1</sup>** Guirdi Member: tholeiitic andesite
- A<sup>2</sup>** Upper Fionnra Member: basaltic andesite (with feldsparphyric basaltic andesite)
- UB** Lower Fionnra Member: olivine-basalt, olivine-basaltic hawaiite
- CG** Fluvialite conglomerate (interbedded with above)

**Eigg Lava Formation (Pre-Rum Central Complex)**

- BF** Basalt (commonly crushed)

## RUM CENTRAL COMPLEX

**Stage 2: (Layered Centre)**

- E<sup>1</sup>** Gabbro and olivine-gabbro
- E<sup>2</sup>** Dytonite-gabbro (Eucrite)
- E<sup>3</sup>** Dytonite-troctolite (Allivaltite, E<sup>3</sup>, where intrusive (includes gabbroic facies))
- U** Peridotite and feldspathic peridotite
- U<sup>1</sup>** Feldspathic peridotite breccias (ultrabasic inclusions in a feldspathic peridotite matrix)
- U<sup>2</sup>** Peridotite breccias (ultrabasic inclusions in a peridotite matrix)

Subscript letters and numbers against rocks in the Layered Centre:

**Central Intrusion:** L, Long Loch member; R, Ruimsival member; D, Domnabac member

**Western Layered Intrusion:** A, Ard Mheall member; T, Transitional member; H, Harris Bay member

**Eastern Layered Intrusion:** 1-16, units of the layered sequence, numbered from 1 at the base.

## Stage 1: Pre-Layered Centre: Intrusive rocks

- G** Microgranite, commonly granophyric (FG where fine grained)
- R<sup>A</sup>** Porphyritic rhyodacite, commonly flow-banded
- X** Tuffite, intrusive breccia
- F<sup>M</sup>** Microgranodiorite, quartz-microdiorite
- I** Intrusion breccia (gabbro, dolerite and rare peridotite blocks in an intrusive microgranitic matrix)
- A + M** Am Mhà Breccias (gneiss, gabbro and sandstone blocks in an intrusive microgranodioritic matrix)

## Stage 1: Pre-Layered Centre: extrusive and sedimentary rocks

- R<sup>2</sup>** Porphyritic rhyodacite, commonly with eulastic texture
- WZ** Megabreccia (Torridon Group rock fragments up to 500m diameter)
- Z** Coarse breccia, weakly bedded (subscript letters indicate the dominant clast type: L, Lewisian gneiss; T, Torridon Group sandstone; J, pale coloured Jurassic sandstone, sandstones commonly found at top of sequence (Epiostasic Sandstone); Z<sup>1</sup>)

## Other intrusive rocks of Paleocene age

- U\*** Peridotite and feldspathic peridotite of plugs and dykes (U<sup>1</sup> dunite)
- B** Basalt and dolerite (D) dykes, sills and inclined sheets (FB, FD, feldsparphyric basalt or dolerite, BF, DF, picrite basalt or dolerite)
- K** Unclassified basic sheets and dykes
- hX** Fissure breccias
- UB** Pitchstone dykes

## MESOZOIC

**LOWER JURASSIC**

- BFB<sup>1</sup>** Sandstone
- BFB<sup>2</sup>** Limestone
- BFB<sup>3</sup>** Mudstone
- S** Calc-silicate rocks. Formed by thermal metamorphism of Lower Jurassic limestone during the Paleocene

**Broadford Beds**

**TRIASSIC**

**Monadh Dubh Sandstone Formation**

- IMDS** Sandstone, conglomerate and sedimentary breccia
- IMDS** Cornstone

## PRECAMBRIAN

**PROTEROZOIC (Torridon Group)**

**Aultbea Formation**

- TCSM** Spór Mhòr Member: fine-grained sandstone, siltstone

**Applecross Formation**

- TCAS** Screort Sandstone Member: medium- and fine-grained sandstone with exotic pebbles
- TCAM** All Mhòr na h-Uamha Member: interbedded fine-grained sandstone and siltstone

**Diabalg Formation**

- TCDL** Laimhig Shale Member: intercalated mudstone-siltstone and fine-grained sandstone
- TCDF** Fiachais Gritty Sandstone Member: coarse-grained sandstone, local sedimentary breccias

**ARCHEAN (Lewisian Gneiss Complex)**

- F** Feldspathic gneiss with amphibolite layers (commonly with Paleocene thermal metamorphic overprint)

## Topographical Symbols

- Road
- Track
- Path
- Old wall
- Fence
- Pipeline
- Cliff, flat rock and shingle
- Contour interval (25 ft)
- Loch
- River

## OTHER FEATURES

**Geological Symbols**

- $\delta$  Dip of strata, (in degrees)
- $\delta$  Vertical strata
- $\delta$  Dip of layering or flow-structures in intrusive igneous rocks and of welding foliation in extrusive igneous rocks, (in degrees)
- $\delta$  Vertical layering, flow structures and welding foliation
- $\delta$  Dip of foliation in gneiss, (in degrees)
- $\delta$  Vertical foliation in gneiss
- $\delta$  Dip of inclined basic sheets, (in degrees)
- Geological boundary
- Geological boundary where uncertain or gradual
- Fault
- Line of structural weakness
- Benches and escarpments

(Key) Key for (Figure 6), (Figure 10), (Figure 12), (Figure 19), (Figure 26), (Figure 33), (Figure 44), (Figure 45), (Figure 51), (Figure 58), (Figure 62) and (Figure 71). For scale, see kilometre grid. All heights are in feet.) Key based on RUM – Solid Geology (© Scottish Natural Heritage 1992). Reproduced with the permission of the Scottish Natural Heritage. All rights reserved.