
NWHG Ref. 051 — Enard Bay

Location, grid reference and photograph

The site extends along a rocky shoreline from Achnahaird Bay in the west to Garvie Bay in the east, Grid Ref. [NC 021 140]–[NC 039 140].

(Figure 45) Large-scale cross-bedding in Stoer Group sandstone, Achnahaird Bay. BGS Photo P668334 — M Krabbendam.

GCR site reference, block, volume and notified feature of SSSI?

GCR Ref. 1612, Torridonian Block, Vol. 34. Confirmed GCR site, not SSSI notified.

Description and geological significance

The site is of prime stratigraphical importance because it is the only place where the unconformable relationship between the Mesoproterozoic Stoer Group (identified by the presence of the Stac Fada Member) and the overlying (younger) Neoproterozoic Torridon Group can be proved unequivocally. Together with the Stoer site, it provides an excellent section through the Stoer Group, containing very well exposed sedimentary structures and the oldest life forms in Europe. It is also representative of the unconformity between the Lewisian Gneiss and the Stoer Group. The site displays evidence of two distinct phases of Precambrian landscape formation and burial by Torridonian sediments. The Enard Bay site is of international significance and importance for continued research into Proterozoic depositional environments.

Accessibility

The coastal exposures lie about 1.5 km to the north of the nearest road across undulating rough terrain, frequently boggy inland. Alternatively, access can be made by walking around the rocky coastline from Achnahaird Bay further to the west. Access is therefore moderately difficult and not suitable for all abilities.

Conservation

The existing coastal exposures are generally robust and require little or no practical conservation measures. However, in view of the significance and importance of this site, it would be prudent to monitor the condition of the exposures every 5 years, especially the stromatolitic limestones which occur near the Salmon Bothy.

Visibility and “clarity”

Exposures are too far away from the existing road to be visible and also cannot be seen from the landward side, requiring to be viewed by walking to the low coastal strip. Key features are easily identified by geological specialists but not by the lay-public without specialist assistance. The site contains a great variety of features. Very inspiring to geologists in view of the significance of the site.

Interpretation and interpretation potential

The site is commonly used by geology students and researchers as it condenses much of the sedimentary history of the Torridonian into a small and accessible area. It is of international importance for teaching purposes and continued research. There is currently no interpretation panel and it would not be considered appropriate to have one, given the specialist geological context of the site. Nonetheless, the site should certainly be included in any future Geopark guide

and it would also form the basis of a guided walk, led by a geologist, for both public and specialists alike. The potential for further interpretation/explanation is considerable.

Key references

DAVISON, S. & HAMBREY, M.J. 1996. Indications of glaciation at the base of the Proterozoic Stoer Group (Torridonian), NW Scotland. *Journal of the Geological Society of London*, 153, 139–149.

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STEWART, A.D. 2002. The later Proterozoic Torridonian rocks of Scotland: their sedimentology, geochemistry and origin. *Geological Society Memoir*, The Geological Society.

STEWART, A.D. 2009. Enard Bay. In Mendum, J. R., Barber, A. J., Butler, R. W. H., Flinn, D., Goodenough, K. M., Krabbendam, M., Park, R. G. & Stewart, A. D. (eds) *Lewisian, Torridonian and Moine rocks of Scotland*. *Geological Conservation Review Series*, 34, Joint Nature Conservation Committee, Peterborough, 211–216.



(Figure 45) Large-scale cross-bedding in Stoer Group sandstone, Achnahaird Bay. BGS Photo P668334 — M Krabbendam.