
NWHG Ref. 049 — Knockan Crag — Moine Thrust Exposure

Location, grid reference and photograph

The site is located on the east side of the A 835 at Knockan Crag National Nature Reserve (owned and managed by SNH), about 2.5 km south of Elphin and 21 km north of Ullapool, Grid Ref. [NC 186 083]–[NC 221 093].

(Figure 43) A geologist from Mauritania at the Moine Thrust locality at Knockan Crag NNR. BGS Photo P512002 — R M Key.

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

GCR Ref. 890, Moine Block, Vol. 34. Notified feature of Knockan Cliff SSSI.

Description and geological significance

The site is one of the most important localities at which the Moine Thrust and the Moine mylonites can be viewed. Here, mylonites derived from the Moine Supergroup directly overlie much younger carbonate rocks of the Durness Group and the two rock-types are separated by the near-horizontal surface of the Moine Thrust plane which daylights at the base of the upper cliff. The locality is of international geological significance and importance as it is one of the first locations at which the Moine Thrust was observed and as a world-famous locality for the study of thrust structures. It is also one of the best places at which to view the Moine Thrust and make detailed examinations of the structure.

Accessibility

The Knockan Crag NNR visitor centre (with good car parking and toilet facilities) and well-signposted trails permit easy access to the exposures. All abilities access is, however, restricted to the areas closer to the car park and is not available on the main trail leading along and up the steep slopes to the actual Moine Thrust exposures.

Conservation

In view of the high importance of the site and the significant numbers of visitors it attracts each year, whilst the fragility of the site is low, management for safety requirements are very high with biennial cliff face inspections and rock scaling where and when necessary. SNH staff undertake weekly path checks and 6 monthly cliff face inspections.

Visibility and “clarity”

The Moine Thrust plane is very easily seen and visitors to the Knockan Crag NNR facility can examine the structure in very close detail, as a viewing facility has been constructed by SNH for this purpose. The visual impact is very high and the site is inspirational for specialists and lay-public alike.

Interpretation and interpretation potential

The standard of existing interpretation of the Moine Thrust is already very high at Knockan Crag NNR and illustrative/interpretative panels and inscribed rock slabs are used extensively, especially at the Rock Room located close to the main car park facility. Numerous guided walks are held annually, and the site is often used for educational visits. The site is featured as part of a walk in the guidebook “Exploring the landscape of Assynt”. Of course, the site must be included in a future Geopark guide and perhaps it could be further developed as an educational resource for schools, students of geology and landscape, and the general public. This is a key site of the highest importance and significance

within the Geopark.

Key references

BUTLER, R.W.H. 2009. Knockan Crag. 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, 292–295.

COWARD, M.P. 1985. The thrust structures of southern Assynt, Moine thrust zone. *Geological Magazine*, 122, 596–607.



(Figure 43) A geologist from Mauritania at the Moine Thrust locality at Knockan Crag NNR. BGS Photo P512002 — R M Key.