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## **NWHG Ref. 020 — Stoer**

### **Location, grid reference and photograph**

The site includes three localities in the Clachtoll, Stoer and Culkein areas of Assynt, close to the west coast of the NWHG, Grid Ref. [NC 041 283]–[NC 027 291], [NC 041 266]–[NC 039 281], [NC 045 328].

(Figure 21) Stoer Group sandstone at Clachtoll. BGS Photo P661222 — M Krabbendam.

(Figure 22) Well-preserved 1200 million year old ripple marks in Stoer group siltstone, Bay of Stoer. BGS Photo P518651 — K M Goodenough.

### **GCR site reference/volume and notified feature of SSSI?**

GCR Ref. 1604, Torridonian Block, Vol. 34. Confirmed GCR site, not SSSI notified feature.

### **Description and geological significance**

The site areas are representative of the internationally important Stoer Group of the Torridonian Sandstone deposits. These include the only unmetamorphosed Mesoproterozoic stratigraphical group in Britain and an exceptional example of a sedimentary and volcanic sequence formed in a Proterozoic rift environment. Various sedimentary features are very well exposed. It also contains the Stac Fada rocks, interpreted alternatively as a volcanic mudflow deposit or as a putative meteorite ejecta blanket deposit.

### **Accessibility**

The area is accessed from the B 869 Lochinver–Drumbeg road but nearly all the sites require lengthy walks over rough and locally steep or boggy terrain in order to reach them. There is, therefore, effectively no all abilities access apart from distant viewing of the coastal features from a few roadside locations.

### **Conservation**

Low conservation requirement due to the scale and location of the site localities.

### **Visibility and “clarity”**

The general features are quite easily seen. Many sedimentary features can be seen from the various beaches or the coastal path. The coastal cliffs (and Clach Toll itself!) and beaches are visually attractive.

### **Interpretation and interpretation potential**

There are currently no on-site interpretation facilities serving the three localities but interpretation panels could be erected at judicious locations for the general public. The site areas have considerable potential for development as a teaching resource for geology students and should certainly be included in a future Geopark guide. The site features as a walk in the “Exploring the Landscape of Assynt” guide book. Some individual locations are presently included in guided walks undertaken by the Highland Council Countryside Rangers.

### **Key references**

AMOR, K., HESSELBO, S.P., PORCELLI, D., THACKREY, S. & PARNELL, J. 2008. A Precambrian proximal ejecta blanket from Scotland. *Geology*, 36, 303–306.

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

SANDERS, I.S. & JOHNSTON, J.D. 1989. The Torridonian Stac Fada Member: an extrusion of fluidized peperite? *Transactions of the Royal Society of Edinburgh, Earth Sciences*, 80, 1–4.

STEWART, A.D. 2009. Stoer. 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, 187–193.



(Figure 21) *Stoer Group sandstone at Clachtoll. BGS Photo P661222 — M Krabbendam.*



*(Figure 22) Well-preserved 1200 million year old ripple marks in Stoer group siltstone, Bay of Stoer. BGS Photo P518651 — K M Goodenough.*