Cloddymoss, Culbin Forest

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The distal facies of the Ardersier Silts Formation is exposed in a face within a disused working at Cloddymoss [NH 980 599] within the Culbin Forest Nature Reserve, west of Forres (Fig. 47). Nearby parking is available at the entrance to the Nature Reserve, but the floor of the pit itself is often boggy and waterlogged and should not be used for parking vehicles. The pit face exposes the sequence that underlies the 'Main Postglacial Cliff Line' in this area. Farther west, towards Nairn, parts of the cliff line are also cut into Upper Devonian Kingsteps Sandstone bedrock.

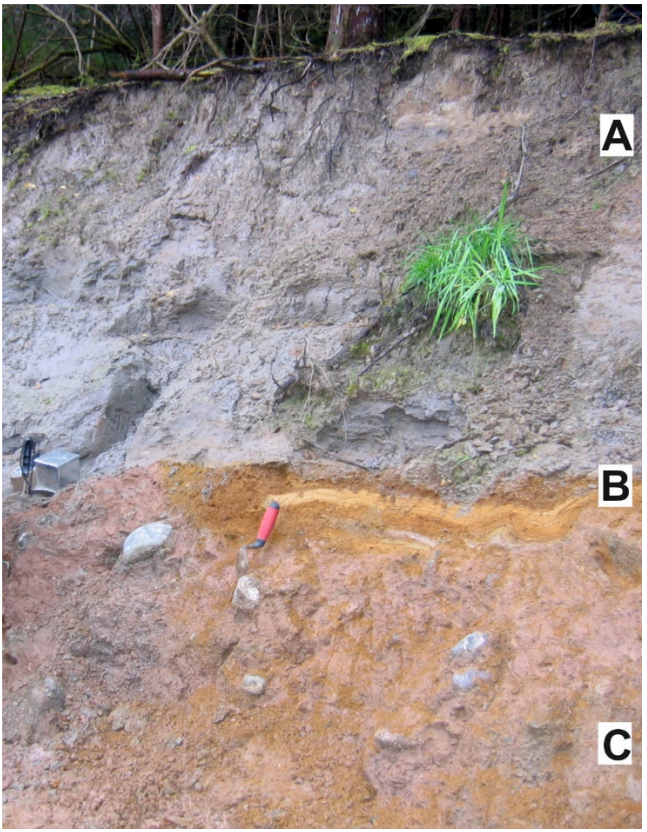

Figure 47. The sequence at Cloddymoss. (A) Distal facies of the Arderiser Silts Fm, (B) Discontinuous bed of contorted orange sand, (C) Easterton Till Mb of the Finglack Till Fm.

The exposed sequence comprises typically up to c. 1.5 m of compact, dark grey, sandy and clayey, thinly bedded to thickly laminated silt (Fig. 47 A). The silt contains thin discontinuous interbeds and partings of fine sand, some of which show fine horizontal lamination; traces of small-scale ripple lamination are also present. Possible primary current lineation (NNW-SSE) are present on the upper bedding planes of some of the thicker (2-3 cm thick) sand interbeds (Fig. 48). The silts are weathered to olive grey to a depth of c. 0.6 m beneath the top of the cliff.

Figure 48. Possible primary current lineation on the bedding plane of an interbed of fine-grained sand within the Ardersier Silts Fm.

The base of the silt (Ardersier Silt Fm) rests with a sharp, gently undulating, erosional contact, on reddish brown to orange brown sandy clayey diamict along most of the exposed face, but an irregular discontinuous bed of orange sand (Fig. 47 B) up to 10 cm thick, is present between the silts and the diamict in the western part of the section. The lamination within the sand shows irregular contortions and possible flame structures indicative of soft sediment deformation.

The underlying diamict, named as the Easterton Mb of the Finglack Till Fm, shows only weakly developed internal stratification, picked out by discontinuous layers of scattered metasandstone cobbles (Fig. 47 C). Smaller clasts include gneissose metasiltstone, quartzite, granite and sandstone. The layered distribution of the clasts is confirmed by cone penetrometer test results from the site (see **Easterton**).The section at Cloddymoss represents the most accessible good exposure of the distal facies of the Ardersier Silts Fm and the underlying diamict known in the area. It is typical of the sequence recorded from boreholes in the Forres area, which record grey or greenish grey silts and silty sands overlying red-brown till. The silt component is somewhat different from that seen farther west, e.g. at the Contorted Silts and Balnaglack Pit localities (see **Ardersier Peninsula**), where much of the sediment is pale yellow to white, silt and sand grade rock flour, indicating deposition close to the readvancing ice front. Similar pale silty sands form the gently dipping thickly bedded sand-silt sequences underlying the 'Main Postglacial Cliff Line' at the Ardersier Race Track site (Table 3). At this site, ball and pillow soft-sediment deformation is present in the sandier beds, but planar lamination, similar to that seen at Cloddymoss predominates in the silty units.

The most easterly exposure of the Ardersier Silts encountered during recent BGS surveying was in shallow temporary excavations in the vicinity of Sueno's Stone [NJ 047 595], at the eastern end of the Forres bypass. Up to 2.5 m of finely laminated sand overlying 'very sandy clay' was recorded in an old working, not now visible, at [NJ 051 603], and in railway cuttings along the Forres-Elgin railway line c. 350 m south-east of Milton of Grange, by J. Linn, during the primary geological survey of the area in 1879. The more recent survey shows that the cuttings were excavated into the face of the' Main Postglacial Cliffline', which becomes a progressively fragmentary and more subdued feature to the east of Forres.