

## ALLT NA CAILLICHE

OS Grid Reference: NC320102

### Description

The Allt na Cailliche (Figure 7.2) flows into the SE corner of Loch Ailsh and can be reached easily using forestry roads. The first exposures, just above the gravel fan, are of mylonitized, almost flinty Moine rocks. Upstream from this point pink 'nordmarkite' can be seen, forming a waterfall. In the gorge above, exposures in the stream bed are of foliated and sheared 'nordmarkite' with conspicuous pink feldspars. The rock is quite mafic. The Geological Survey mapped three sills near the Moine Thrust in the Allt na Cailliche, and also at several points near the thrust plane between there and the A837.

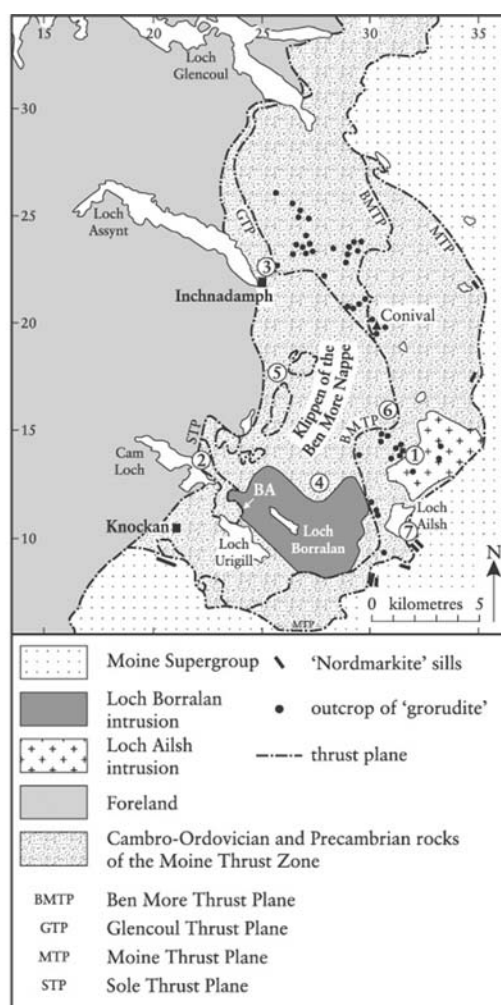


Figure 7.2: Map of the Assynt district showing the major thrusts, the two major alkaline intrusions, and the distribution of two of the six types of minor intrusive rocks. BA is the critical locality, at Bad na h-Achlaise, where nepheline-syenites and pyroxenites of the Loch Borralan intrusion are intruded into one of the klippen (the Cam Loch Klippe) of the Ben More Nappe. GCR sites in the thrust zone related to minor intrusive rocks are shown by circled numbers. 'Grorudite': 1, Glen Oykel South; 2, Creag na h-Innse Ruaidhe. 'Hornblende porphyrite': 3, Cnoc an Droighinn; 4, Luban Croma. 'Vogesite': 5, Allt nan Uamh; 6, Glen Oykel North (diatreme). 'Nordmarkite': 7, Allt na Cailliche. (After Sabine, 1953 and Johnson and Parsons, 1979, fig. 3.)

### Interpretation and conclusions

This moderately deformed and unusual alkaline rock type was clearly emplaced as a sill just above the plane of the Moine Thrust, which must lie just below the lowest exposures in the Allt

na Cailliche. This close proximity to the thrust characterizes all of the known exposures of deformed 'nordmarkites', and it seems highly unlikely that the association is fortuitous. One can conclude that the emplacement of the 'nordmarkites' was controlled by the thrust plane, occurred late in the evolution of the thrust zone, and that the moderate deformation and recrystallization of the 'nordmarkites' was caused by late movements on the Moine thrust plane.