Moine geology of East Glenelg and Loch Duich - an excursion

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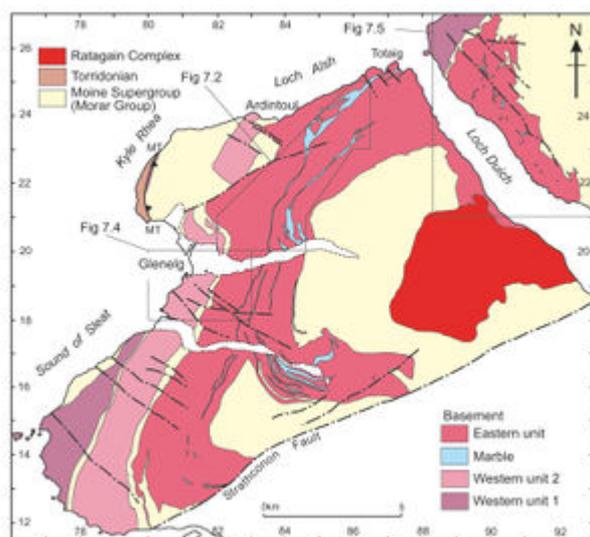
Craig Storey

Fig. 7.1 Geological map of Glenelg and Loch Duich, showing the locations of (Fig. 7.2), (Fig. 7.4) and (Fig. 7.5).

Excursion 7 East Glenelg and Loch Duich is composed of the following articles:

- Excursion 7 East Glenelg and Loch Duich - introduction
- [East Glenelg. Localities 7.1 - 7.2](#)
- [Loch Duich. Localities 7.3 -7.7](#)

Excursion 7 East Glenelg and Loch Duich

Purpose:	*T*o investigate the distinctive Grenvillian eclogite facies rocks of the eastern Glenelg basement inlier, the exhumation history of the inlier and its relationship with adjacent Moine units.
Aspects covered:	Lewisianoid orthoand paragneisses with eclogite facies mineral assemblages; mylonites; Moine metasediments; polyphase folds and fabrics; granite and pegmatite intrusions.
Useful information:	Hotel, B&B, hostel and campsite facilities are available in the Shiel Bridge-Dornie area; accommodation is also available in Glenelg village.
Maps:	OS: 1:25,000 sheet 413 Knoydart, Loch Hourn and Loch Duich; BGS: 1:50,000 sheets 71E Kyle of Lochalsh and 72W Kintail.
Type of terrain:	Roadside, rocky coastline and moorland exposures.

Distance and time:	The excursion could be followed from either Glenelg or the Dornie-Shiel Bridge area, taking 2 days. See each locality for suggested times.
Short itinerary:	Locality 7.2 for a traverse across the shear zone contact between the western and eastern Glenelg inliers, incorporating intervening Moine rocks; Locality 7.3 for a similar roadside traverse across the sheared contact between the eastern and western Glenelg inliers, without intervening Moine rocks.

The eastern Glenelg basement inlier [(Fig. 7.1)](#) contains eclogites formed during the *c.*1.1-1.0 Ga Grenvillian orogeny, enclosed within orthogneisses that resemble those found within the Lewisian Gneiss Complex of the Caledonian foreland. The inlier also contains abundant metasediments and there are some important lithological and metamorphic differences between the eastern inlier and the Lewisian, and also the adjacent western Glenelg inlier described in Excursion 6. This area is unique in the Scottish Caledonides in preserving evidence for high-grade metamorphism during the Grenvillian orogeny. The aims of this excursion are to: (1) investigate the nature and evolution of the pre-eclogite crust; (2) observe a variety of lithologies and structures that formed at eclogite facies and therefore provide insights into deep crustal processes; (3) examine the ductile shear zones that border the eastern Glenelg inlier and provide evidence for its exhumation history; and (4) understand the relationships of the inlier to structurally underlying and overlying Moine rocks.

References

At all times follow: [The Scottish Access Code](#)and [Code of conduct for geological field work](#)

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