# **Excursion 1: Laig and the Singing Sands (Route map 4, Route map 5)**

This is an easy walk across the island and along the west coast, taking in two beautiful sandy bays, cliffs of Jurassic sandstone with remarkable concretions and intruded dykes, and spectacular views of the mountains of Rum.

From the pier or the Glebe Barn, follow the island road northwards past the Church of Scotland and the school to the Old Island Shop [NM 47898 86565], which houses an exhibition about the island's natural history, including geology, and memorabilia concerning its more-recent history. It is well worth visiting. A short distance past the house, a small quarry [NM 4781 8668] shows the red-weathered, amygdaloidal top of a basalt lava flow, with more-massive basalt above and below, thus illustrating the reason that trap topography forms.

# The Forestry Path, basalts and a kettle-hole lochan

Turn off the main road onto the path into the forestry plantation, through a gate [NM 47718 86854], and then follow the rougher path that turns right (dark blue dots). After traversing the forestry, the path emerges on to open hillside and then bears right down a defile, following a dyke. There is a superb view of the mountains of Rum, and in the middle distance the basalt cliffs behind Cleadale. Nearby, to the right, a distinctive pale mugearite lava flow is prominent among the basalts. It is the same extensive flow that is seen on the east coast (page 55). In spring, the primroses are superb too.

Descend the bluff along the path, admiring the kettle-hole lochan to your right. It was formed in post-glacial time when a mass of ice was trapped within morainic debris after the surface ice had melted. Eventually the trapped ice melted too, leaving a depression in the land surface, now occupied by an isolated lochan, which is gradually silting up. Continue along the path, crossing a footbridge across the burn at Laig Farm and join the Laig road. Before reaching the bridge over the next burn, descend to the sands of Laig Bay, shortly crossing the burn by stepping stones or splashing through it at low tide (alternatively, follow the road to Cuagach and the path past the Catholic church to resume the shore walk).

#### Laig Bay

Laig Bay displays a magnificent expanse of white sand, backed by low, grassy dunes that cap a raised storm-beach. The sand contains a high proportion of shell fragments as well as some quartz grains.

## The Valtos Sandstone and dykes

On the north side of Laig Bay the cliffs of the Valtos Sandstone start, and continue with varied height and ruggedness all the way to the Singing Sands. The sandstones and the concretions in them (page 11) are well seen at their southern termination [NM 47214 88532], where there is also a small sea-eroded cave above the present tide- mark, demonstrating a former high stand of relative sea level. Small-scale cross-bedding gives an indication of the direction of transport of the sand. Some of the bedding planes in the sandstone are covered with the shells of the small bivalve *Neomiodon*. Above the low sandstone cliff is a grassy ledge. Behind this there are exposures of a shell- limestone, which forms the topmost part of the Valtos Sandstone Formation, and of a basalt sill about 1 m thick, intruded into the Jurassic sedimentary rocks. Traversing the shore northwards gives the opportunity to study several dykes and their baked margins (page 20); the cemented margins are composed of tiny coalescent concretions, contrasting with the earlier-formed 'cannon ball' concretions. There is also a small fault that displaces the sandstone, with a few metres downthrow to the south.

It is possible, on a low and falling tide, to follow the shore all the way to the Singing Sands bay (Camas Sgiotaig), seeing some fine cliff scenery, including a natural arch and a waterfall, on the way, as well as many more dykes and concretions. The going is alternately rough and slippery, and for most people it will be preferable to follow the cliff top northwards, taking advantageofaneasygrassyslope before the higher cliffs begin [NM 4717 8880]. This gives fine views of dykes intersecting the sandstones on the shore below, mostly trending north- west towards Rum. The cliff top path eventually reaches the marked path (blue dots) that descends [NM 47245 89847] to Camas Sgiotaig.

## Camas Sgiotaig—the Singing Sands

The Singing Sands can be made to 'sing' by scuffing one's feet through them where they are dry or nearly so. Squeaking is perhaps a more accurate description of the sound produced. The sand is composed of quartz, derived from the sandstone cliffs behind; it is well sorted and the grains are somewhat angular in shape. Much louder sounds are produced by some desert sands, as described by Hugh Miller in his enthusiastic account of the phenomenon; this is perhaps because they are even better sorted and with more- rounded grains. The 'singing' has created a literature in geological and geographical journals that may seem out of proportion to its importance. However that may be, the view of Rum across the white sands is one of the most beautiful in the Hebrides. Many visitors will be content to stop here. Geologists' companions will find it a great place for beach activities.

#### Excursion 1 extension: the base of the Valtos Sandstone

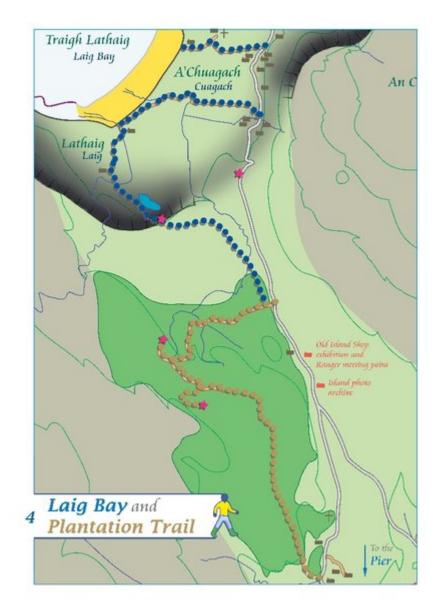
Those with a greater interest in geology can examine further examples of dykes and concretions, and, a little to the north of the sands, fossil driftwood in the sandstone (some branches a few centimetres across, some twigs, and poorly defined leaves). Much of it is in the form of charcoal, testifying to wildfires of Jurassic times. Northwards again, lower and lower beds of the Valtos Sandstone, which has a gentle dip to the south- west, crop out. At the extreme north-west tip of the island the base of the sandstone is exposed. Beneath the sandstone is a dark fissile mudstone, the Lealt Shale Formation, containing small fossil bivalves. Eastwards round the corner, numerous thin basalt sills have been intruded into the mudstones, forming a series of westward-sloping steps; the eroded edges of the hard sills form the tops of the risers with mudstone beneath, and the treads are composed of the top of the next-lowest sill. Return to the Singing Sands and re-join your companions. By this time it will be mid to late afternoon, and the sun will be lighting up the basalt cliffs behind Cleadale. They are cut by several dykes. To return, follow the blue dots across the pasture fields to the lower Cleadale road, and thence to Cuagach Brae and back across the island.

(Figure 29) Sketch map showing Jurassic rocks, dykes, sills and beach sands, north-west Eigg. By permission IPR/25-11C – British Geological Survey.

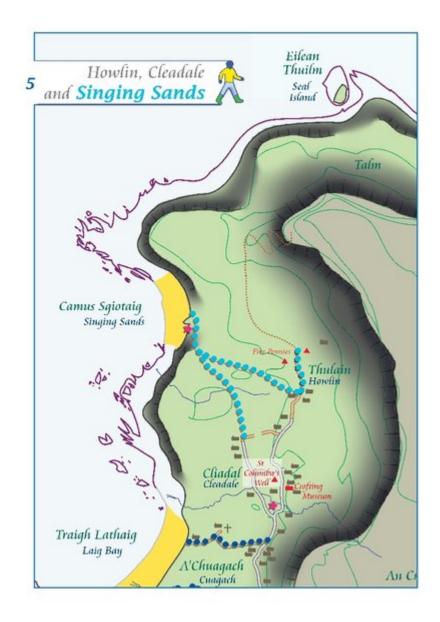
#### **Figures**

(Figure 30) Rum from inside a cave, Laig Bay.

(Figure 31) Natural arch in sandstone, north of Laig Bay.



Laig Bay and Plantation Trail postcard walk 4



Howlin, Cleadale and Singing Sands postcard walk 5

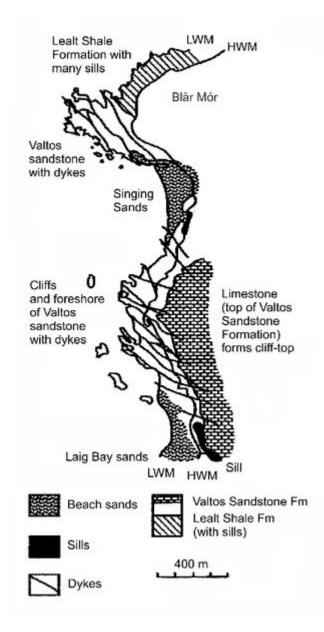


Figure 29 Sketch map showing Jurassic rocks, dykes, sills and beach sands, north-west Eigg. By permission IPR/25-11C – British Geological Survey.



Figure 30 Rum from inside a cave, Laig Bay.



Figure 31 Natural arch in sandstone, north of Laig Bay.