

An unusual boulder spit at Dennes Point on Bruny Island

I'm collaborating with expert coastal geologist/geomorphologist Chris Sharples to report on an unusual occurrence of boulders at the extreme northern tip of Bruny Island in southern Tasmania. The rounded, moderately-graded, mostly dolerite boulders (and cobbles) up to half a metre or so in size form an arcuate foreshore several metres high and extending a few hundred metres east past Kellys and Dennes Points.

Conservatively, some 15,000t of loose boulders are in this narrow tidal zone. About 10% of the material is siltstone and sandstone cobbles and boulders, eroded from coastal cliffs and shore platforms to the east.

Recent coastal erosion has exposed dolerite boulders and cobbles present under sand on neighbouring beaches to the south.

Some say the boulder deposit is man-made – possibly ballast left by ships. A moment's reflection shows this can't be true: on the world stage, dolerite is a rare rock and is hardly likely to have been carried from overseas in large amounts by arriving ships; furthermore, departing vessels would either be in cargo or ballast, and if the latter, would hardly have dumped it just after leaving Hobart for the open sea. In any case, rounded boulders are scarcely a safe cargo in a rolling ship.

Dolerite boulders occur elsewhere on foreshores on the western side of the Derwent Estuary – notably from Taroona north to near Blinking Bill Point at Sandy Bay – where they are being winnowed out of Tertiary-age boulder beds. On the northern tip of Bruny Island, Chris thinks the arcuate form of the boulders wrapping around Kellys and Dennes Points is a rare recurve boulder spit. The material appears to be actively eroding from local boulder beds, of which only a tiny portion remains.

Captions for photos still to come (the second one shows actively eroding, weakly cemented older boulder beds (are these Tertiary remnants?))





