Corallith beds at the edge of the tropical South Atlantic

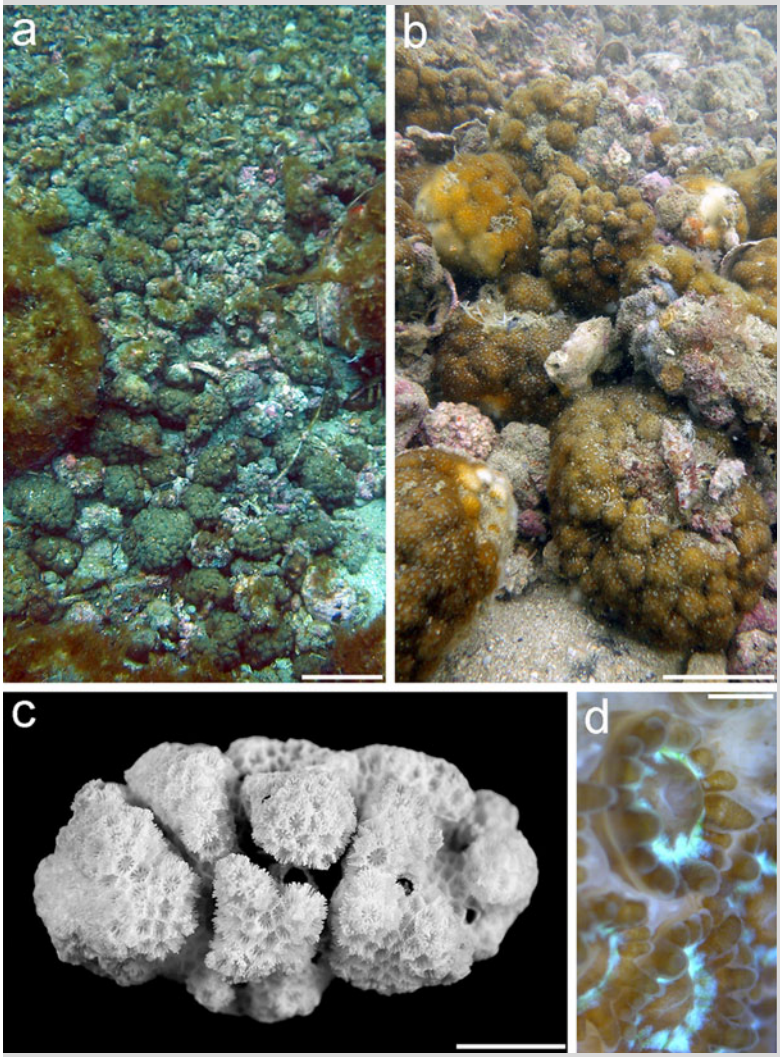

Fig. 1 *Madracis decactis* coralliths off southern Brazil (Galé Island). **a** Corallith bed at 10-m depth (photograph under natural sunlight). **b** Detail of corallith bed. **c** Dry corallith. **d** Detail of living polyps. *Scale bars* **a** 15 cm, **b** 5 cm, **c** 1 cm, **d** 0.5 mm

Free-living scleractinian colonies of spheroid shape, known as circumrotatory colonies or coralliths, have been reported for the Atlantic, Indian, and Pacific Oceans (e.g., Kissling 1973; Glynn 1974; Roff 2008). Herein, we report the first corallith site discovered in the subtropical South Atlantic, a unique formation of free-living colonies of *Madracis decactis* (Lyman, 1859) (Scleractinia: Pocilloporidae) at Galé Island off southern Brazil (Fig. 1). The coralliths spread over 3400 m^2 of flat sand and ruble at 6–15 m depth, adjacent to a rocky shore on the westward side of Galé Island (27°10′846S; 48°24′548W). Most colonies are subspheroid with tissue on their entire surface (Fig. 1d) and reach up to 15 cm in width (Fig. 1a–c). Within the site, coralliths are patchily distributed and reach densities of up to 80 colonies m^{-2} among boulders that may limit their rotatory movement, resulting in aggregations designated ''corallith beds'' herein (Fig. 1a). It was recently observed (February 2011) that coralliths are displaced by individuals of the sand dollar *Clypeaster subdepressus* (Gray, 1825). Thus, bioturbation may be an important source of rotatory movement and growth of *M. decactis* coralliths, as previously reported for other species (e.g., Glynn 1974). In addition to coralliths of *M. decactis*, the site also contains to a lesser extent rhodoliths and bryoliths (*Schizoporella* sp.). At 27° latitude, this community represents the southernmost reef coral site discovered thus far in the Atlantic Ocean and indicates that communities dominated by free-living corals may be more common than previously thought.

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