

Rolling corals in the Mediterranean Sea

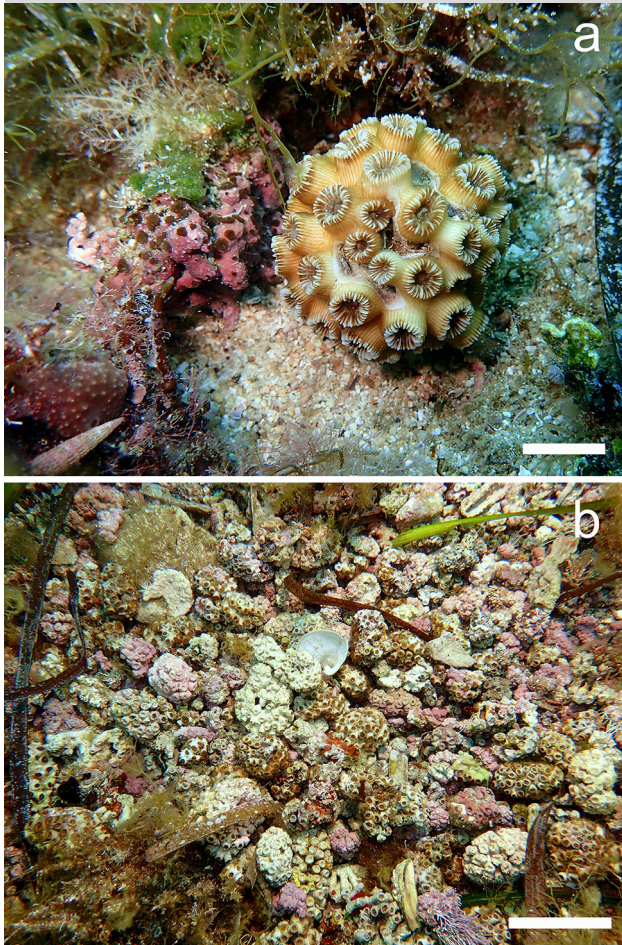


Fig. 1 **a** Coral nodule or corallith (*Cladocora caespitosa*). Scale bar 1 cm. **b** Mixed accumulation of coral and coralline algae nodules in a rocky depression. Scale bar 10 cm

Nodular morphology is typical of free-living coralline algae (Rhodophyta), which form extensive rhodolith beds worldwide over broad latitudinal and depth ranges (Foster 2001). Strikingly, under certain environmental conditions, coral colonies may also be able to live unattached to the substratum, as has been reported in the Atlantic, Indian and Pacific oceans (Glynn 1974; Roff 2008; Capel et al. 2012). Here, we report the occurrence of nodules of the Mediterranean endemic reef-building coral *Cladocora caespitosa* in Formentera (Balearic Islands, Mediterranean Sea). *Cladocora caespitosa* builds globose to hemispherical colonies that form banks and beds (Peirano et al. 1998). On the islet of Espardelló (Formentera), *C. caespitosa* colonies make unique beds composed mainly of small colonies (under 10 cm in diameter) that occur in high densities on a rocky bottom dominated by erect macroalgae (mainly *Cystoseira spinosa*) between 6 and 14 m depth. Many of the coral colonies are unattached and display a nodular morphology characterized by spherical growth (i.e., polyps growing in all directions) (Fig. 1a). These coral nodules or coralliths occur among algae on mixed rock and coarse sand bottoms and accumulate in high numbers in depressions, together with coralline algal rhodoliths (*Lithophyllum racemus*, *L. coralloides* and other species) (Fig. 1b). We hypothesize that this unusual coral morphology may be the result of periodical wave-induced turnover of small coral colony fragments inside the algal forest. Coralliths are found alive inside the algal forest, while living and totally or partially dead coralliths are found together in the rocky depressions where frondose macroalgae are absent (Fig. 1b). This is the first report of high abundances of free-living nodular corals in the Mediterranean Sea.

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