

Reef sites

Caribbean free-living coral species co-occurring deep off the windward coast of Curaçao

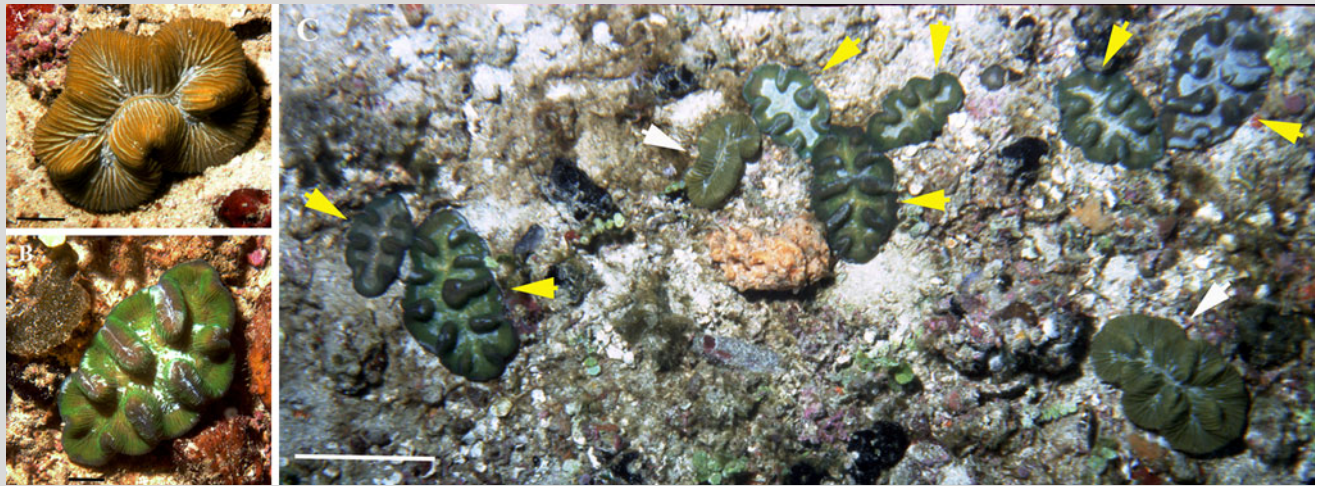


Fig. 1 Free-living corals off Curaçao. **a** *Meandrina danae*. **b** *Manicina areolata*. **c** Area with high coral densities (white arrows *M. danae*, yellow arrows *M. areolata*). Depth = 40–45 m. Scale bars **a**, **b** 1 cm, **c** 5 cm

We document the co-occurrence of two Caribbean species of free-living zooxanthellate corals, *Meandrina danae* (Milne-Edwards and Haime 1848) (Fig. 1a) and *Manicina areolata* (Linnaeus 1758) (Fig. 1b), in a previously not well-documented environment. The two species were encountered at three locations (ranging from 30 to 50 m depth) on the windward side of the island of Curaçao, southern Caribbean. Corals are present beyond the reef base on substrate consisting of coarse coral sand, small rubble, and fragments of shells and calcareous algae (Fig. 1c). Colony sizes (mean length) were 58 mm (SD 18, $n = 133$) for *M. areolata* and 67 mm (SD 19, $n = 32$) for *M. danae*. Maximum colony density of both species together was 30 individuals per m^2 with *M. areolata* colonies being 9 times as abundant.

None of these species has been reported from such a deep habitat. *M. danae* has never previously been recorded on the island while *M. areolata* has been described in shallow sandy areas in Curaçao by Roos (1971). It was reported in seagrass beds and on sandy and rubble areas on the reef down to 20 m in Jamaica (Goreau and Goreau 1960) and in seagrass flats and mangrove-associated communities in the San Blas Archipelago, northern Panama (Johnson 1992). Furthermore, free-living scleractinian corals can form dense and species-rich assemblages on sandy habitats of Indo-Pacific reef systems (Hoeksema 2012). To our knowledge, this is the first documented multi-species assemblage of free-living zooxanthellate corals in the Caribbean.

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