

# Indo-Pacific mushroom corals found on Jamaican reefs

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**Fig. 1** Underwater photograph of the Indo-Pacific species *Fungia scutaria* placed on the surface of a dead colony of *Montastraea annularis* at Discovery Bay, Jamaica. The coral is ~14 cm in diameter along its longest axis. Note an actively budding, asexual polyp on the upper-right surface of the parent colony

The impact of non-native, or “exotic” species, is considered to be a leading cause of native species extinction and overall habitat degradation. This threat is well documented in many ecosystems, but the presence and effects of exotic species on tropical coral reefs are rarely considered. Here we report the reappearance of an exotic coral on a Caribbean reef, 37 years after it was originally introduced (Fig. 1).

While diving on the fore-reef of Discovery Bay, Jamaica (15 m depth) in February 2003, we discovered two individuals of the mushroom coral *Fungia scutaria*. These free-living corals, which comprise a single large polyp, are naturally distributed across the western Indo-Pacific (Veron 2000). Our specimens were 11 and 14 cm in length and each contained an extratentacular bud. The smaller of the two specimens had three distinct mouths.

Thomas F. Goreau, founder of the Discovery Bay Marine Laboratory, first brought *F. scutaria* to Jamaica from Eilat, Israel in 1966. He used the fore-reef at Discovery Bay as a “holding tank” for specimens that were eventually used in laboratory experiments (Goreau et al. 1970). However, he died unexpectedly in 1970 and some experimental subjects must have remained on the reef. In 1980, one of us (JDW) found and removed a group of 12 individuals. Now we find that

this removal did not eradicate this species from Discovery Bay. Amazingly, it has survived two of the most damaging hurricanes in Jamaican history, the collapse of the native coral population, and subsequent domination of the reef by macroalgae.

It is also interesting to note that these specimens have been overlooked for more than 20 years on one of the best-studied coral reefs in the world. Although the impact of *F. scutaria* on native species has probably been minimal, the fact that it has survived in this new environment should be viewed as an ominous warning of potential future invasions by other tropical marine species.

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