

Reef sites

First record of *Acropora gemmifera* in the main Hawaiian Islands

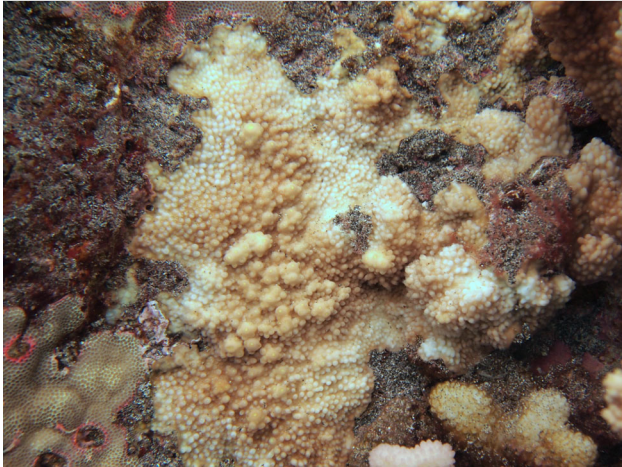


Fig. 1 *Acropora gemmifera* encrusting form

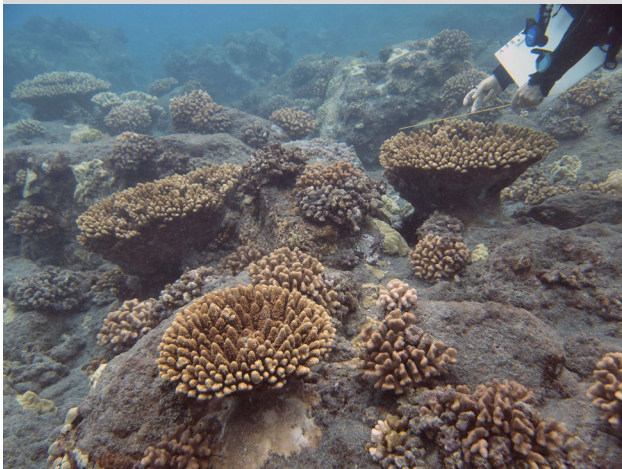


Fig. 2 Multiple colonies of *Acropora gemmifera*



Fig. 3 Large colony of *Acropora gemmifera* with white tumor (growth anomaly) just below center of image

Seven species of *Acropora* stony corals have been recorded in the Hawaiian Archipelago. All species but the table coral *Acropora cytherea* are currently restricted to the central Northwestern Hawaiian Islands, from Necker Island to Pearl and Hermes Atoll (Asher et al. 2012). In the Main Hawaiian Islands, several small colonies of *A. cytherea* have been reported from Kaua'i and a single large colony (100 × 60 cm) was recently sighted off O'ahu (Kosaki et al. 2013). There have been no historical reports of any *Acropora* species occurring around the Island of Hawai'i, the southernmost island in the archipelago, nor were any observed in over 4,300 coral reef monitoring/research dives over the past 14 years.

In April 2013 during the course of a reconnaissance dive utilizing diver propulsion vehicles, we came across a large number of *Acropora gemmifera* colonies in South Kona on the West Coast of the Island of Hawai'i. Visual identification was subsequently confirmed by Narrissa Spies (personal communication) based on sequencing of the Pax-C 46/47 nuclear intron.

A total of 75 *A. gemmifera* colonies occurred in an approximately 50-m stretch of reef in depths ranging from 3 to 9.8 m (mean = 5.9 m, median = 5.8 m). Colonies ranged in size from small encrusting forms (Fig. 1) to large upright digitate colonies (Fig. 2), the largest of which (Fig. 3) was 71 × 68 × 75.5 cm (LWH). Based on linear growth rates for a morphologically similar species, *Acropora humilis*, in the Red Sea (Attalla et al. 2011), we can speculate that *A. gemmifera* has been present in this area for at least 80 years.

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References

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W. J. Walsh (✉) · S. Cotton · L. Jackson · M. Lamson · R. Martin · K. Osada-D'Avella · L. Preskitt
Hawai'i Division of Aquatic Resources, Kailua-Kona, HI 96740, USA
e-mail: darkona@hawaiiintel.net