Asexual reproduction by marginal budding in the tropical corallimorpharian, *Ricordea yuma* (Corallimorpharia; Ricordeidae)

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Corallimorpharians are a group of anthozoans that can rapidly monopolise patches of shallow water substrate on tropical coral reefs and persist as the dominant benthos after frequent disturbances (Chadwick-Furman and Spiegel 2000). One factor contributing to the ability to rapidly colonize available substrate is the diverse range of asexual reproductive strategies displayed by various corallimorphs, including pedal laceration, longitudinal fission and inverse or marginal budding (den Hartog 1980; Chen et al. 1995; Chadwick-Furman and Spiegel 2000). Of these, marginal budding, a process whereby one or more sections of the margin, including part of the oral disk with a mouth and tentacles, column, and pedal

Fig. 1 Marginal budding of *Ricordea yuma* in aquaria. A) A mature individual with a developing polyp, generated by marginal buddings, still attached to the parent. B) Days later the new polyp is fully detached, has increased in size and developed more tentacles. C) A large *R. yuma* individual that had been maintained in the dark, with two new marginal buds

disk, detach from the mother poly, has so far only been described in the Red Sea corallimorpharian, *Rhodactis rhodostoma*, although Chadwick-Furman and Spiegel (2000) speculated that it may occur in other common corallimorpharians.

In December, 2012, marginal budding was observed for four *Ricordea yuma* specimens in a wide range of sizes (3.7–9.0 cm diameter) of a total of 17 individuals that had been collected from the Great Barrier Reef (18°25'35.20"S, 146°41'10.91"E) and maintained in aquaria for 20–28 days under ambient conditions (Fig. 1A). Within 20 days, the scarred area around the new bud had healed, and the mouth and tentacles of the budded individual were fully developed (Fig. 1B). Marginal budding was also observed in 2 of 3 *R. yuma* polyps that had been maintained in darkness for 49 days (Fig. 1C). These observations of marginal budding in a common Indo-Pacific corallimorpharian confirm that this reproductive strategy is not restricted to the Red Sea species, and suggest that it may occur more generally.

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