

Daytime spawning of *Porites rus* on the coral reefs of Chumbe Island in Zanzibar, Western Indian Ocean (WIO)

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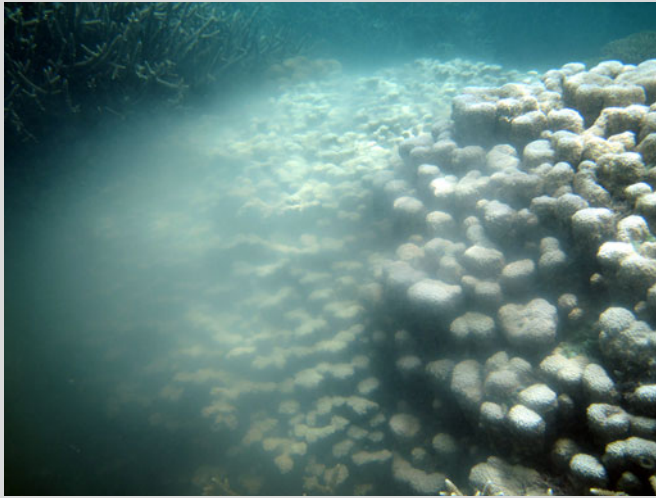


Fig. 1 Sperm ejecting from a colony of *Porites rus*

The majority of scleractinian corals spawn during nighttime (Harrison and Wallace 1990). Daytime spawning is rare, and mostly occurs in early morning or late afternoon with only several species reported to spawn during midday (e.g., *Pavona* sp. and *Fungia danai*; Plathong et al. 2006; Mangubhai et al. 2007). The most common combination of sexuality and mode of reproduction currently known for scleractinian corals is hermaphroditic spawning (63%), while gonochoric brooding is the least common combination (7%) (Baird et al. 2009). However, in the genus *Porites*, the relative abundance of gonochoric brooders is almost five times higher than in the majority of other scleractinia, involving up to 33% of currently known species (Baird et al. 2009).

During a survey of the Chumbe Island Coral Park (06°16.7'S, 039°10.4'E), several colonies of *P. rus*, measuring 1.5–5 m in diameter, were observed spawning in midday on the island's western reef flats (Fig. 1). Thirteen (13) colonies were observed spawning during low tide, at depths of 1–3 m, between 11 and 12 a.m. on November 26, 2010, 5 days after the full moon. Big clouds of sperm were released to the water column in bursts that lasted over 20 min. In the western Pacific, *P. rus* has been identified as a gonochoric spawner (Penland et al. 2004); however, no

reports on *P. rus* sexuality or mode of reproduction in the WIO currently exist in the literature. Here, we present the first documentation of *P. rus* spawning at this part of the WIO and the first midday spawning observation for this species. Furthermore, since egg release was not observed in any of the spawning colonies (as might be expected), our findings suggest *P. rus* in the WIO to be a gonochoric brooder in contrast to its western Pacific conspecific.

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Reef sites

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