## Relict *Siderastrea savignyana* (Scleractinia: Siderastreidae) in the Kiunga Marine National Reserve, Kenya

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*Siderastrea savignyana* (Scleractinia: Siderastreidae) is the only species of genus *Siderastrea* assumed to be distributed across the entire Indo-West Pacific (Veron 2000). However, its validity as a species remains highly equivocal. In the course of efforts to establish the biogeographic distribution and phylogenetic validity of *S. savignyana*, we discovered 2 small populations in the Kiunga Marine National Reserve (KMNR; 1°49.730'S, 41°26.685'E), northern Kenya. Both populations are located on sheltered shallow patch reefs in channels leading into extensive mangrove systems, and at 0-3 m depth at mean low water. The colony size varied from < 10 cm mounds to large healthy, massive, micro-atoll colonies of up to 2 m in diameter (Fig. 1).



Fig. 1. *Siderastrea savignyana* microatoll measuring 2 m in diameter in the Kiunga Marine National Reserve (KMNR), Kenya.

The former might represent a relict population on the East African coast after the closure of the Tethys Sea during the Miocene that separated the Atlantic and Indian Ocean provinces. This provides a framework for investigating their evolutionary history using molecular phylogenetic approaches. http://zoolstud.sinica.edu.tw/Journals/46.4/427.pdf

Some colonies showed partial mortality with multiple fission products scattered over the surface of the original colony skeleton and separated by bare skeleton, turf algae, or crustose coralline algae (Fig. 2). The gross morphology and corallite structures (Fig. 2) of *S. savignyana* in the KMNR strongly resemble those of *S. radians* and greatly differ from those of *S. savignyana* in the Pacific (Chuang 2006), suggesting a phylogenetic affinity between *S. savignyana* in the KMNR and the Atlantic *Siderastrea* species.



Fig. 2. Close-up of *Siderastrea savignyana* corallite detail and turf algae.

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