Zoological Studies

The Westernmost Record of the Coral *Leptoseris kalayaanensis* in the South China Sea

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Three specimens of the coral *Leptoseris kalayaanensis* Licuanan and Aliño, 2009 (Scleractinia: Agariciidae) were discovered (15 m depth) in the Kalaayan Is. (eastern South China Sea) in 1999 (Licuanan and Aliño 2009). One of us (PKH) found an additional specimen in 2007 (13 m depth) on the North Danger Reef, northern Spratly Is. (Fig. 1).

The present specimen (Fig. 2) was photographed at 13 m deep on the side of a large boulder underneath a steep cliff (Hon Noc I., off Nha Trang, 12.190°N, 109.341°E). Despite its small size (39 mm long), the coral was easily detected (June 2008) because of its white-tipped spines and white coral margin, which contrast with the coral's brown upper surface. No other *Leptoseris* species are known to show such spines. In this coral, the spines are relatively short and blunt (up to 4 mm) compared to those of the larger type specimens (~10 cm in diameter and spines up to 1 cm long), probably because it is less fully grown.



Fig. 1. Records of *Leptoseris kalayaanensis*. 1. Northeast Investigator Shoal, Kalayaan Is.; 2. South Reef, North Danger Reef complex; 3. Nha Trang, Vietnam.



Fig. 2. A small specimen (39 mm long) of *Leptoseris kalayaanensis* at Nha Trang, Vietnam.

This specimen represents the 1st record of this species from the western South China Sea, in particular Vietnam (compare e.g., Dautova et al. 2007). It is remarkable that this species has so far only been recorded from the South China Sea basin. Reef coral endemism is known to be scarce here (Hughes et al. 2002). The present findings indicate that we know little about the coral fauna of the South China Sea, which is relevant for the positioning of the northwestern boundary of the center of maximum marine species richness, the Coral Triangle (Hoeksema 2007). http://zoolstud.sinica.edu.tw/Journals/49.3/325.pdf

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REFERENCES

Dautova TN, YY Latypov, OV Savinkin. 2007. Annotated checklist of scleractinian corals, millepores and *Heliopora* of Nhatrang Bay. *In* TA Britayev, DS Pavlov, eds. Benthic fauna of the Bay of Nhatrang, southern Vietnam. Moscow: KMK Scientific Press, pp. 13-80.

Hoeksema BW. 2007. Delineation of the Indo-Malayan centre of maximum marine biodiversity: the Coral Triangle. *In* W Renema, ed. Biogeography, time and place: distributions, barriers and islands. Dordrecht, the Netherlands: Springer, pp. 117-178.

Hughes TP, DR Bellwood, SR Connolly. 2002. Biodiversity hotspots, centres of endemicity, and the conservation of coral reefs. Ecol. Lett. 5: 775-784.

Licuanan WY, PM Aliño. 2009. Leptoseris kalayaanensis (Scleractinia: Agariciidae), a new coral species from the Philippines. Raffles Bull. Zool. 57: 1-4.

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