

Sexual dimorphism in shortnose boxfish sold for food

Subjects: Shortnose boxfish, *Ostracion nasus* (Teleostei: Tetraodontiformes: Ostraciidae).

Subjects identified by: Contributor.

Location, date and time: Singapore Island, Choa Chu Kang, Yew Tee wet market, subjects being sold as food fish and purportedly caught with fish trap (bubu) in the Singapore Straits around the southern islands; purchased on 24 September 2016.

Habitat: Marine.

Observer: Contributor.

Observation: The shortnose boxfish was encountered being sold openly for food at a wet market. Two specimens were purchased and found to be distinct from each other in body proportions. Both were dissected and the stouter one is a female with ripe ova (Fig. 1). The body width of this 183 mm standard length specimen (Fig. 2) was 3.1 times its standard length. The other fish of 195 mm standard length (Fig. 3) was more slender, its body width 4.0 times its standard length, and appears to be male. The specimens have been deposited under catalogue number ZRC 55402 in the Lee Kong Chian Natural History Museum at the National University of Singapore.

Remarks: The shortnose boxfish occurs in Singapore's coastal waters (Lim & Low, 2002 as *Rhyncostracion nasus*). The present observation suggests that mature individuals of the species are sexually dimorphic in body proportions, with the female having a wider and deeper body. It also shows that *Ostracion nasus* is edible. In fact, several species of ostraciid boxfishes are considered excellent eating in southern Japan, despite the knowledge that some species bear toxic flesh and are capable of secreting a poisonous substance when stressed (Matsuura, 2001: 3948).

References:

- Lim, K. K. P. & J. K. Y. Low, 2002. *A Guide to Common Marine Fishes of Singapore*. Revised edition. Singapore Science Centre. 163 pp.
- Matsuura, K., 2001. Ostraciidae. Boxfishes. In: Carpenter, K. E. & V. H. Niem (eds.). *FAO Species Identification Guide for Fishery Purposes. The Living Marine Resources of the Western Central Pacific. Volume 6. Bony fishes part 4 (Labridae to Latimeriidae), estuarine crocodiles, sea turtles, sea snakes and marine mammals*. FAO, Rome. p. 3949-3951.



Fig. 1. Ventral part of dissected *Ostracion nasus* specimen showing the ovary (yellow mass with tiny white dots). Photograph by Tan Heok Hui



Fig. 2. Dorsal (top) and lateral views of female *Ostracion nasus* of 183 mm standard length.



Fig. 3. Dorsal (top) and lateral views of male *Ostracion nasus* of 195 mm standard length.

Photographs by Tan Heok Hui

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