

New record of the red alga, *Endosiphonia horrida*, in Singapore

Jenny Fong & Lawrence M. Liao

jenny.jenny@u.nus.edu (Fong)

Subjects: Red alga, *Endosiphonia horrida* (Rhodophyta: Florideophyceae: Hapalidiales: Hapalidiaceae).

Subjects identified by: Jenny Fong & Lawrence M. Liao.

Location and date: Singapore Strait, around Pulau Hantu and Pulau Semakau Landfill; 30 April 2018.

Habitat: Marine. Coral reefs, at 1.5 m to 3 m depth.

Observer: Jenny Fong.

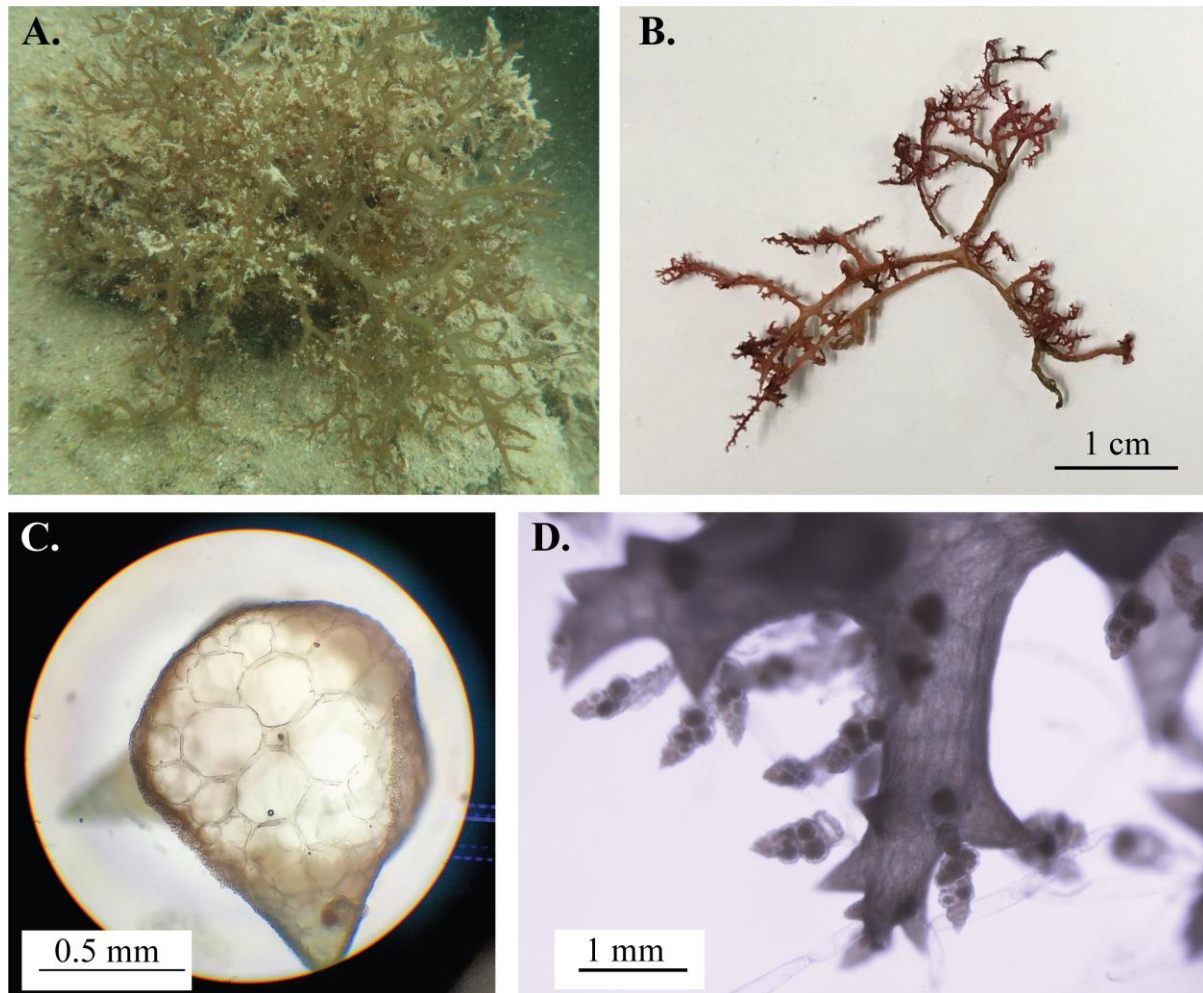


Fig. A-D. *Endosiphonia horrida*. A. Habit of the alga *in situ*, B. Dried alga sample. C. Transverse section of the main axes, D. Tetrasporangial stichidia developing on ultimate branchlets. Photographs by Jenny Fong.

Observation: The red alga, *Endosiphonia horrida* (C. Agardh) P. Silva, was found to be common at the reefs in the Singapore Strait around Pulau Hantu and Semakau Landfill (Fig. A). Examples have been collected and pressed, and deposited as voucher specimens (Fig. B) at the SINU Herbarium (sinu_algae 1061) in the Lee Kong Chian Natural History Museum, at the National University of Singapore.

Remarks: The branches of the red algae, *Endosiphonia horrida*, are terete and cartilaginous, anastomosing frequently to form large clumps (15–20 cm in diameter, 3–5 cm in height). Short spine-like branchlets are present throughout the axes of the alga. In transverse section of the main axis (Fig. C), a central axial cell is surrounded by four larger periaxial cells (Masuda et al., 2006). In fertile individuals, tetrasporangial stichidia that are spirally arranged can be found on short ultimate branchlets (Fig. D).

The spine-like branchlets of *Endosiphonia horrida* may lead to its misidentification as a species of *Acanthophora*. However, *Acanthophora* is composed of five periaxial cells instead of four (Masuda et al., 2006).

While *Endosiphonia horrida* has been widely reported across the Indian Ocean (Silva et al., 1996), its presence in Singapore is new and appears to be the eastern-most record of its range thus far, and possibly the first in the South China Sea region (see Phang et al., 2016).

References:

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- Phang, S.-M., H.-Y. Yeong, E. T. Ganzon-Fortes, K. Lewmanomont, A. Prathep, L. N. Hau, G. S. Gerung & K. S. Tan, 2016. Marine algae of the South China Sea bordered by Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam. *Raffles Bulletin of Zoology*. Supplement 34: 13–59.
- Silva, P. C., P. W. Basson & R. L. Moe, 1996. Catalogue of the benthic marine algae of the Indian Ocean. *University of California Publications in Botany*. 79: 1–1259.

Note: This sighting was recorded as part of the project funded by the National Research Foundation, Prime Minister's Office, Singapore under the Marine Science Research and Development Programme (MSRDP- P03).