

Short Note

First Record of the Poecilosclerid Sponge, *Rhaphidophlus schoenus* (De Laubenfels, 1936) (Poecilosclerida: Clathridae) from Taiwan

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Yung-Hui Chen and Hin-Kiu Mok (1993) First record of the poecilosclerid sponge, *Rhaphidophlus schoenus* (De Laubenfels, 1936) (Poecilosclerida: Clathridae) from Taiwan. Bull. Inst. Zool., Academia Sinica 32(4): 278-280. On December 13, 1990 a poecilosclerid *Rhaphidophlus schoenus* (De Laubenfels 1936) specimen was collected from a depth of 40 meters in Nan-wan Bay (N21° 56' E120° 45') at Kenting National Park, Taiwan. This is the first record of *R. schoenus* in Taiwan. This Note provides a species description according to the captured specimen.

Key word: *Rhaphidophlus schoenus*.

Most sponge species in Taiwan have been collected from intertidal areas or from artificial oyster beds (Sollas 1888, Takahashi 1933, Chen 1987, Shew 1989). No sublittoral area species from Taiwan has previously been reported and described. This note is the first description of a *R. schoenus* specimen collected from a sublittoral area in Taiwan. The specimen was removed from the sandy bottom with a remotely operated vehicle (Minirover MK II, Benthos, Inc. U.S.A.) articular.

Preservation and description of the specimen were done according to Rützler (1978) with minor modifications; the specimen was then placed in the Institute of Marine Biology, National Sun Yat-sen University, Kaohsiung 804, Taiwan, Republic of China (NSYSU POR 1).

***Rhaphidophlus schoenus* (De Laubenfels, 1936)**
(Fig. 1k)

Aulospongos schoenus De Laubenfels, 1936: 100, Pl. 13, fig. 3.

Microciona microchela Hechtel, 1965: 41, fig. 7.

Thalysias schoenus Simpson, 1968: 56, Pls. 13-14, text-fig. 5.

Rhaphidophlus schoenus Van Soest, 1984: 112, Pls. 13, text-fig. 44.

Diagnosis:

Shape, size, and color: The specimen is orange and branched, with a tough and spongy consistency. The surface was smooth, fleshy and microscopically hispid (Fig. 1a).

Ectosome: Distinct brushes of thin styles are closely packed to form a cortex-like ectosomal skeleton (Figs. 1a, 2b).

Choanosome: Enveloped in the spongin are irregularly anastomosing spicule tracts (Fig. 1a). The tracts ending at the surface are crowned with a brush of thin styles. Choanosomal spicule tracts are composed of thick styles. Echination of tracts and fiber by short acanthostyles is rare.

Spiculation (Max-Avg-Min): Thick styles: 280-220-164 by 12-9.4-8 μm ($n=30$) (Fig. 1c); thin styles: 308-259-168 by 4-4-4 μm ($n=30$) (Fig. 1d); large thin styles with microspined head: 312-234-100 by 8-4.6-3.2 μm ($n=30$) (Fig. 1e); short spined acanthostyles: 76-65.1-44 by 8-7.6-4 μm ($n=34$) (Fig. 1f). Catagorization of toxa: long sinuous raphidiform toxa: 200-134-72 μm ($n=30$) (Fig. 1g); short normal toxa: 60-31.2-12 μm ($n=16$) (Fig. 1h). Size catagorization of palmate

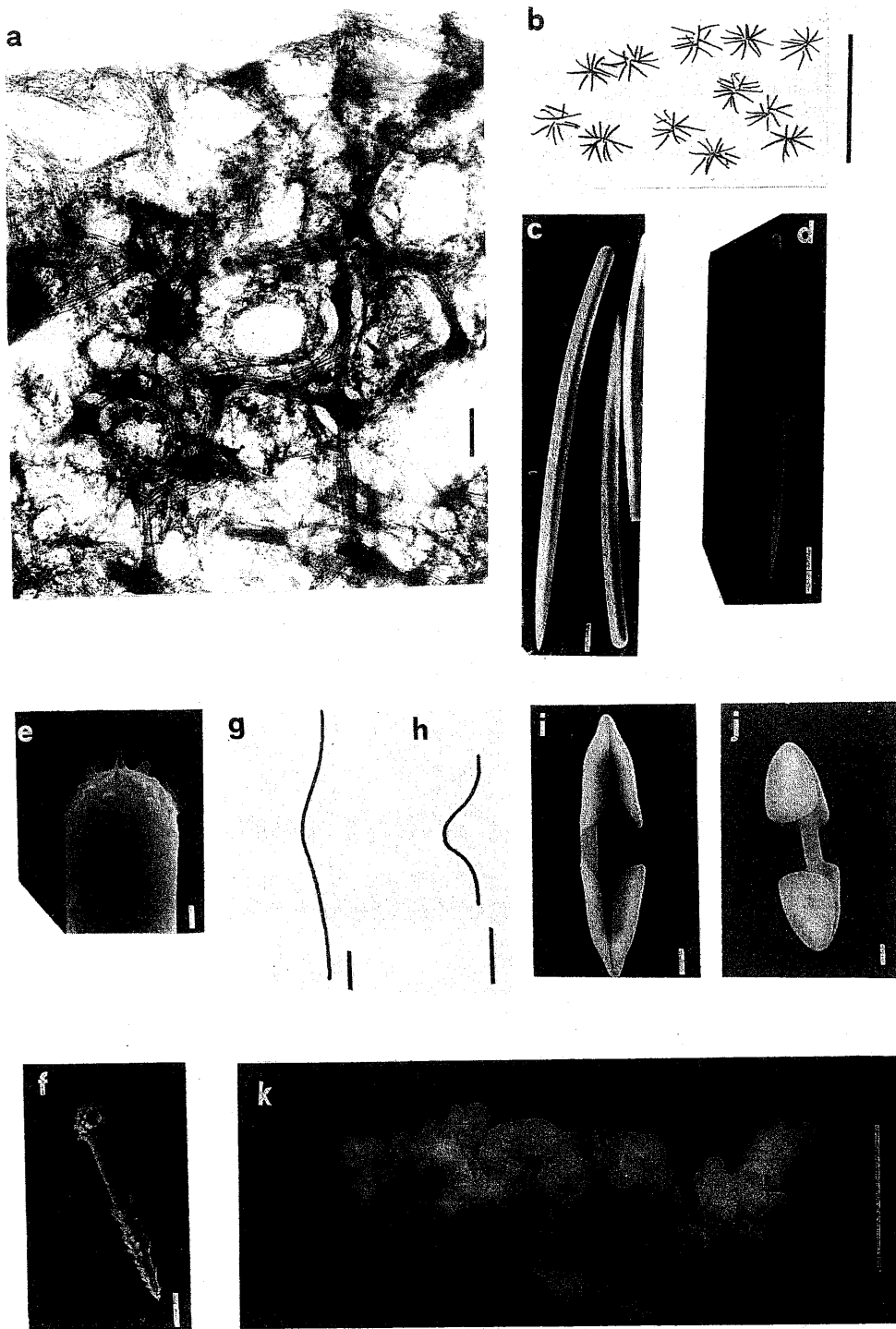


Fig. 1. Tissue section and spiculation of *Rhaphidophlus schoenus*. a. transverse section, bar=200 μ m; b. tangential view of ectosome, bar=0.5 cm; c. thick styles, bar=20 μ m; d. thin styles, bar=20 μ m; e. microspined head of thin styles, bar=1 μ m; f. echinating acanthostyles, bar=1 μ m; g. rhabdiform toxa, bar=20 μ m; h. normal toxa, bar=10 μ m; i. large isochelae, bar=1 μ m; j. small isochelae, bar=1 μ m; k. specimen of *R. schoenus*, bar=1 cm.

isochelae: 20-18-12 μm ($n=30$) (Fig. 1i) and 12-10.4-8 μm ($n=30$) (Fig. 1j).

Distribution:

First collection of this species was east of Loggerhead Key, Dry Tortugas, at a depth of 17 meters (De Laubenfels 1936); it was later found near North Bimini Island, Bahamas (Simpson 1968).

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台灣新記錄之多骨海綿類

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民國七十九年十二月十三日，在墾丁國家公園，南灣水域中水深40米砂質海底中，以水中遙控潛航器(Minirover MK II, Benthos, Inc. USA)的機械手臂，所採集的多骨海綿類標本，經鑑定為 *Rhaphidophlus schoenus* (De Laubenfels, 1936)，是台灣新紀錄的海綿種類。