

OCCURRENCE OF *SPONGILLA LACUSTRIS* AND *EUNAPIUS CARTERI* (DEMOSPONGIAE : SPONGILLIDAE) FROM TRIPURA, INDIA

J. G. PATTANAYAK

Zoological Survey of India, 27, J. L. Nehru Road, Kolkata-700 016, India

INTRODUCTION

In order to make an update account of the freshwater sponge fauna of Tripura, India a number of faunistic surveys were undertaken during 1992-93 to cover different areas of the state. During the course of these surveys only two species of freshwater sponges were collected from three localities. There is no such earlier record from those areas. Hence these are the first records of the species from the state of Tripura.

SYSTEMATIC ACCOUNT

Phylum	PORIFERA
Class	DEMOSPONGIAE
Subclass	CERACTINOMORPHA
Order	HAPLOSCLERIDA
Family	SPONGILLIDAE Gray, 1867

Spongilla lacustris (Linnaeus, 1758)

(Text figs. 1-3)

1758. *Spongia lacustris* Linnaeus, *Systema Naturae*. 10th ed., 1 *Animalia* : 1348.
1842. *Spongilla lacustris*, Johnston, *History of the British Zoophytes*, 2nd ed., London : 110.
1968. *Spongilla lacustris*, Penney and Racek, *Bull. U.S. natn. Mus.*, No. 272 : 9 (Synonymy).
1982. *Spongilla lacustris*, Soota and Pattanayak, *Rec. zool. Surv. India*, 80 : 224.
1991. *Spongilla lacustris*, Soota, *Rec. zool. Surv. India, Occ. paper* No. 138 : 27.

Material : 3 exs., Panitila, Pecharthal, North Tripura, 23.iv.1992, P 3428/1, Coll. B. P. Haldar and Party.

Description : *Shape*. Sponge 2 mm thick encrusting on aquatic weed, cylindrical, 32 mm long and 8 mm in diameter.

Colour : Grey white in spirit.

Oscules : Small and inconspicuous.

Texture and surface : Texture soft, compressible and fragile, surface hispid.

Ectosome and subectosome : Ectosome microscopically very hispid with longer amphioxeas protruding through surface.

Choanosome : Choanosomal skeletal architecture well developed, consisting of polyspicular longitudinal fibers, coated together in thick sheaths of spongin and of a varying number of secondary transverse fibers.

Megascleres : Smooth, slight to moderately curved amphioxea; length 0.212–(0.278)–0.335 mm, width 0.009–(0.011)–0.012 mm.

Microscleres : Slightly curved amphioxea with small spines equally distributed throughout the spicule, abundance in choanosome; length 0.063–(0.072)–0.083 mm, width 0.003–(0.0032)–0.0036 mm.

Gemmoscleres : Like that of microscleres but stouter, slightly to strongly curved amphioxea, curved spines throughout the spicules, length 0.070–(0.075)–0.084 mm, width 0.003–(0.0034)–0.004 mm.

Gemmules : Abundant, scattered throughout the body, large, spherical; pneumatic layer well developed with gemmoscleres embedded in an irregular manner, foramen simple, diameter of gemmule 0.66–(0.69)–0.70 mm.

Distribution In India : Assam, Bihar, Himachal Pradesh, Jammu and Kashmir, Karnataka, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Tripura and West Bengal. Elsewhere : Widely distributed in the Northern hemisphere with its greatest expansion in cold-temperate regions.

Remarks : This species is widely distributed in India but this is the first record of occurrence from the state of Tripura.

***Eunapius carteri* (Bowerbank, 1863)**

(Text figs. 4 & 5)

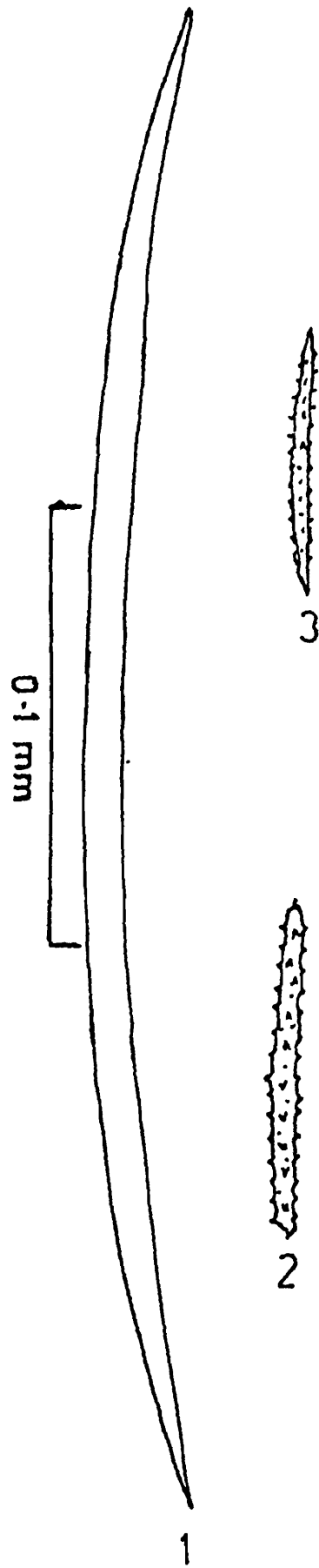
1863. *Spongilla carteri* Bowerbank, *Proc. zool. Soc. London*, 1863 : 469.

1867. *Eunapius carteri*, Gray, *Proc. zool. Soc. London* 1867 : 552.

1968. *Eunapius carteri*, Penney and Racek, *Bull. U.S. natn. Mus.* No. 272 : 23.

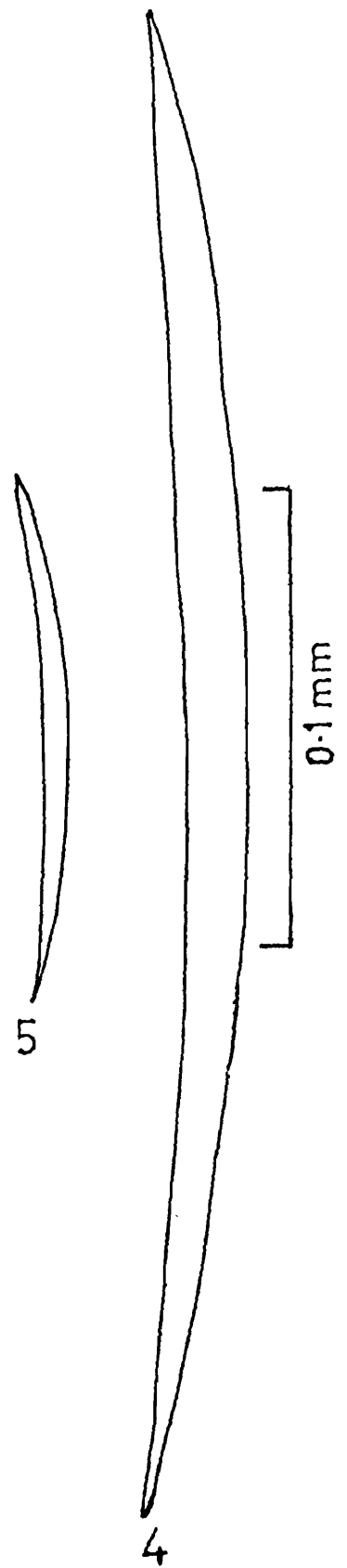
1991. *Eunapius carteri*. Soota, *Rec. zool. Surv. India Occ. paper* No. 138 : 34.

Material : One ex., Nayapara, Dharmanagar, North Tripura, 14.iv.1992, P 3429/1, Coll. B.P. Haldar and Party; one ex., Champanagar, Taliamura, West Tripura, 27.iv.1992, P 3430/1, Coll. B.P. Haldar and Party.



Spongilla lacustris

1. Megasclere 2. Gemmosclere 3. Microsclere



Eunapius carteri

4. Megasclere 5. Gemmosclere

Description : Shape : Lobate, spherical bulbous, forming irregular masses of varying dimension, 10-15 mm highest length.

Colour : Grey in spirit.

Oscules : Large, conspicuous but not raised above the surface.

Texture and surface : Texture moderately soft and fragile. Surface hispid.

Ectosome : Microscopically hispid.

Choanosome : Choanosomal skeleton well developed, consisting of definite vertical spicule fibers, interconnected by irregular transverse fibers and held together by spongin.

Megascleres : Smooth, stout, fusiform and slightly curved amphioxea; length 0.306–(0.336)–0.359 mm, width 0.010–(0.012)–0.015 mm.

Microscleres : Absent.

Gemoscleres : Like that of megascleres but smaller, more curved and sharply pointed; length 0.146–(0.173)–0.226 mm, width 0.006–(0.0077)–0.008 mm.

Gemmules : Less in number, scattered singly throughout the skeletal meshes, comparatively large, spherical; pneumatic layer very thick, gemmoscleres embedded in the layer; foramen tubular; diameter range 0.573–(0.626)–0.666 mm.

Distribution : Cosmopolitan.

Remarks : This species is widely distributed in India but this is the first record of occurrence from the state of Tripura.

SUMMARY

The paper deals with two species of freshwater sponges *Spongilla lacustris* (Linnaeus, 1758) and *Eunapius carteri* (Bowerbank, 1863), which are the first report of freshwater sponges and new records of the species from the state of Tripura, India.

ACKNOWLEDGEMENTS

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