

A NEW GENUS AND SPECIES (*QASIMELLA INDICA*) OF DEMOSPONGIAE FROM INDIAN SEAS

ABSTRACT

A new genus and species of demospongiae, *Qasimella indica* from the Gulf of Mannar is described and illustrated in this account.

Genus *Qasimella* gen. nov.

OPHILITASPONGHIDAE with tubular body, possessing a central cavity communicating to the exterior by a small oscule situated at the tip ; and attached to the substratum by a short, constricted peduncle. Megascleres, tylostyles of two sets, both with microspined heads ; and microscleres, toxas and arcuate isochelas.

This name is given to this genus in respect of Dr. S. Z. Qasim, Director, Central Marine Fisheries Research Institute, and the type of the genus is *Qasimella indica* Gen et Sp. nov.

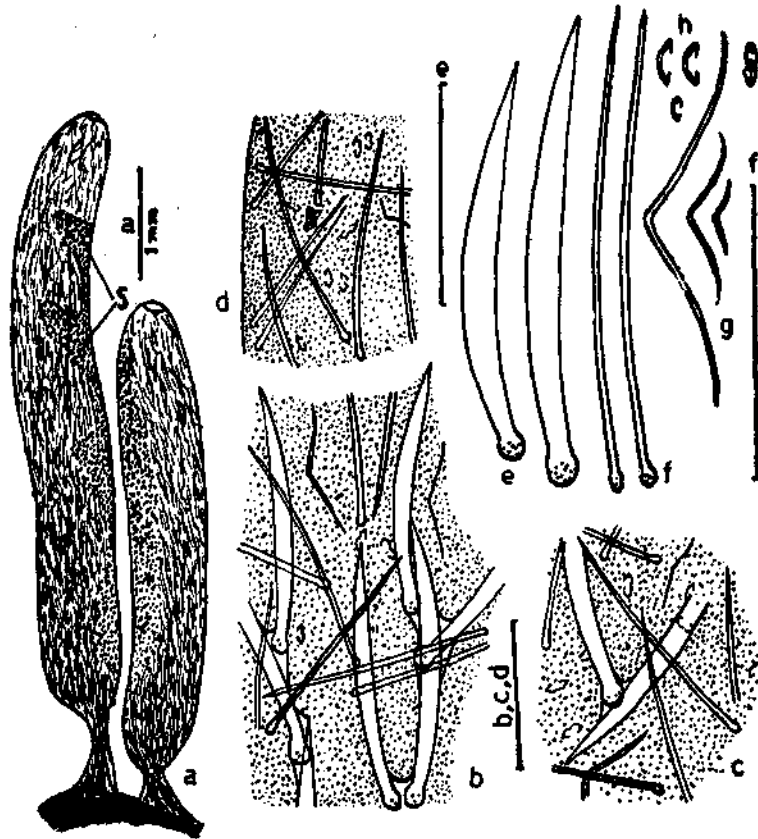


Fig. 1. *Qasimella indica* gen. et. sp. nov., a. entire view (s—silt settled inside); b. skeletal arrangement seen in the basal part, both dermal and endosomal skeleton are well developed; c. skeletal arrangement seen at middle part of the specimen, endosomal skeleton feebly developed; d. skeletal arrangement seen at the oscular vicinity, only dermal skeleton is developed (scale is same for b, c and d); spicules—e. main tylostyes (scale—e); f. dermal tylostyles (scale—e); g. toxas (scale—f), and h. isochelas (scale—f).

Material: Ten specimens from the Gulf of Mannar (Holotype CMFRI No. T. 84/1 and Paratypes CMFRI No. T. 84/2) are deposited in the reference collections of CMFRI Regional Centre at Mandapam Camp.

Description: Body tubular; attached to the substratum by a short constricted stalk, and at the other end opening to the outside by a small opening (osculum). The diameter of the body varies from 0.5-1.5 mm; height of the body from 10-20 mm. They usually grow singly or in groups on hard objects. Body may or may not divide; when dividing, often dichotomous.

Colour: Pale white when alive.

Consistency: Papery when fresh, and slightly friable on drying.

The cavity inside the sponge is continuous and always lodges irregular patches of silt inside. Oscule provided with a rim which is highly contractile ; terminal and single.

The wall is very thin, and a sharp demarcation between the ectosome and endosome is wanting. The surface is smooth, devoid of pores ; and there is a continuous felt work of small tylostyles and microscleres. Sand grains are rarely incorporated.

Skeleton : The main skeleton composed of large tylostyles forming ill defined bands running towards the distal end along the interior. In the stalk and also in the basal portion of the body these bundles are well developed. Towards the oscular extremity, these bundles may get replaced by spicules scattered singly beneath the dermal skeleton. In some specimens these main tracts may be quite ill-defined or even wanting. Spongin is rarely seen binding together the spicules at their nodes. Oscular rim is reinforced by extension of dermal skeleton.

Spicules : (1) Main tylostyles. Slightly curved and sharply pointed. Head oval and minutely spined. Size, 0.142-0.211 (0.180) \times 0.008-0.012 (0.007 mm).

(2) Dermal tylostyles shape as in the former, but more slender. Head spined and sometimes irregular in outline. Tip, in some case, abruptly pointed. Size, 0.197-0.226 (0.21mm) \times 0.004 mm.

(3) Toxas. Slender and angulated at the centre. Width uniform, and without ornamentations at the extremities. Size, when well developed, 0.126 mm.

(4) Isochelas. Arcuate, chord length 0.012-0.016 mm. Palms slightly incurved in younger forms.

The author is thankful to the Director, Central Marine Fisheries Research Institute, Cochin for permitting him to publish this account. He is also indebted to Dr. Willard D. Hartman, Peabody Museum of Natural History, U. S. A. for going through the description and giving valuable suggestions.

Central Marine Fisheries Research Centre,
Goa.

P. A. THOMAS

REFERENCES

- BOWERBANK, J. S. 1864. *A monograph of British Spongiadae*, 1 : London, 1-xx ; 1-290, Pls. 1-37.
 ———. 1866. *A monograph of British Spongiadae*, 2 : London, 1-388.
 ———. 1874. *A monograph of British Spongiadae*, 3 : London, 1-376, Pls. 1-92.
 ———. 1882 *A monograph of British Spongiadae*, 4 : 1-250.
 DE LAUBENFELS, M. W. 1936. *Pap. Tortugas Lab.*, 30 : 1-225.
 ———. 1954. *Ore St. Monogr. Stud. Zool.*, 7 : 1-306.
 TOPSENT, E. 1928. *Result. Camp. scient. Prince Albert I*, 74 : 1-367.