

CODIUM SAIFULLAHII NIZAM., SP. NOV. FROM THE COAST OF PAKISTAN

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Abstract

Codium saifullahii Nizam., sp. nov., is characterized by flattened thallus and a great variation in shape and size of utricles as well as gametangia.

Introduction

Codium Stackh., is a tropical and subtropical genus. A number of *Codium* spp., have been listed from the coast of Pakistan (Shameel & Tanaka, 1992; Aliya & Shameel, 1996; Shameel *et al.*, 1996). During the survey of algal flora from this coast, the author came across with a large number of *Codium* spp., (Nizamuddin, 1997), among which a new taxon, *Codium saifullahii* is described. This species is named after Prof. Dr. S.M. Saifullah, Director, Institute of Marine Science, University of Karachi, for his contributions in the field of marine algae.

Materials and Methods

The specimens were collected and fixed in 5% formalin-seawater for anatomical study and some mounted on herbarium sheets.

Codium saifullahii Nizamuddin *sp. nov.*

Fig.1 and Fig.2 A,B,C,D

Holdfast discoid up to 1 cm diam., stipe erect up to 5 mm high flat, distally expanded, up to 2 cm broad, expanded, proximally attenuated. Thallus erect up to 9 cm high, throughout flat up to 2 cm broad di-, or subdichotomously branched (4-6 orders) or laterally or irregularly branched. Segments flat and expanded above up to 2 cm broad, cuneate; axils narrowly or broadly rounded at 1-2 cm distance. Tips of the segments smooth, flat up to 1.5 cm broad. Thallus also proliferous, lobule decumbent like and dissecting out into individual utricles. Utricles irregular in shape, clavate to subclavate, constricted at middle (1) from tip of thallus, 204-255 (-306) μm long and (77-) 102-128 μm diam., L/B 1.5-3.3; (2) from middle of thallus 460-893 (-1148) μm long and (102-) 204-300 (-510) μm diam., L/B (1.7-) 2.5-5 (-6); (3) from stipe of thallus, 255-510 (-635) μm long and 51-128 (-153) μm diam., L/B 2-6.5 (-10); apices smooth, flat and narrow or broadly round; utricular wall up to 6 μm thick at apices. Hairs lacking. Medullary filaments 25-35 μm diam., Gametangia 1 per utricule variable in shape, stalked, papillate, cylindrical, obclavate and ampulliform, asymmetrical at base, 250-438 μm below apices of utricles, (150-) 250-350 μm long and 50-125 (-138) μm broad; L/B 1.5-3.5 (-5).

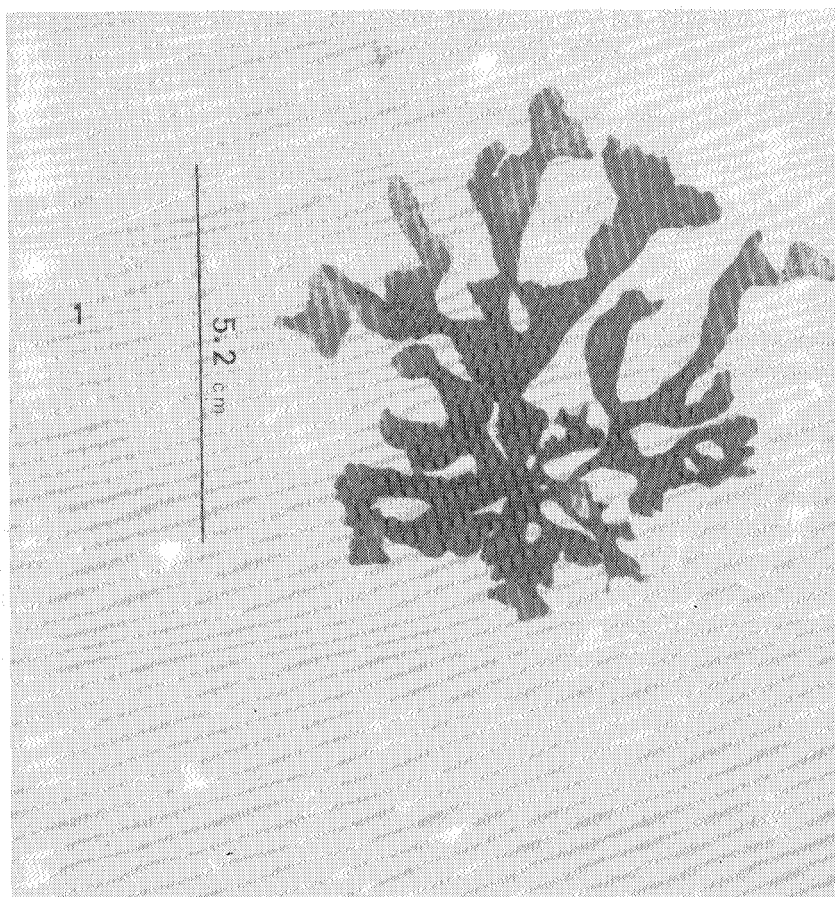


Fig.1. *Codium saifullahii* Nizam.: habit of the thallus. Holotype KUH 1228. Leg. Mrs. Aliya Rehman (Scale 5.2 cm)

Holotype: Nathiagally, west of Paradise Point (Leg. Mrs. Aliya Rehman. 14-11-1989. Drift KUH-SW 1228).

Specimens examined: Manora (Leg. S.M. Saifullah, 19-12-1965 Lower Littoral KUH-SW 1229; Leg. Mrs. Aliya Rehman, 12-12-1989 epilithic KUH-SW 1230).

Discussion

Diagnosis: *Codium saifullahii* Nizam., *sp. nov.*, resembles *C. shameelii* Nizam., in flattened thallus (Nizamuddin, 1997), but differs in absence of coxcomb arrangement of the thallus as well as in shape and size of the utricles and gametangia.

Diagnose: *Codium saifullahii* Nizam., *sp. nov.*, affirmilis *C. shameelii* thalloplano differtes variabilis utricularis et gametangis.

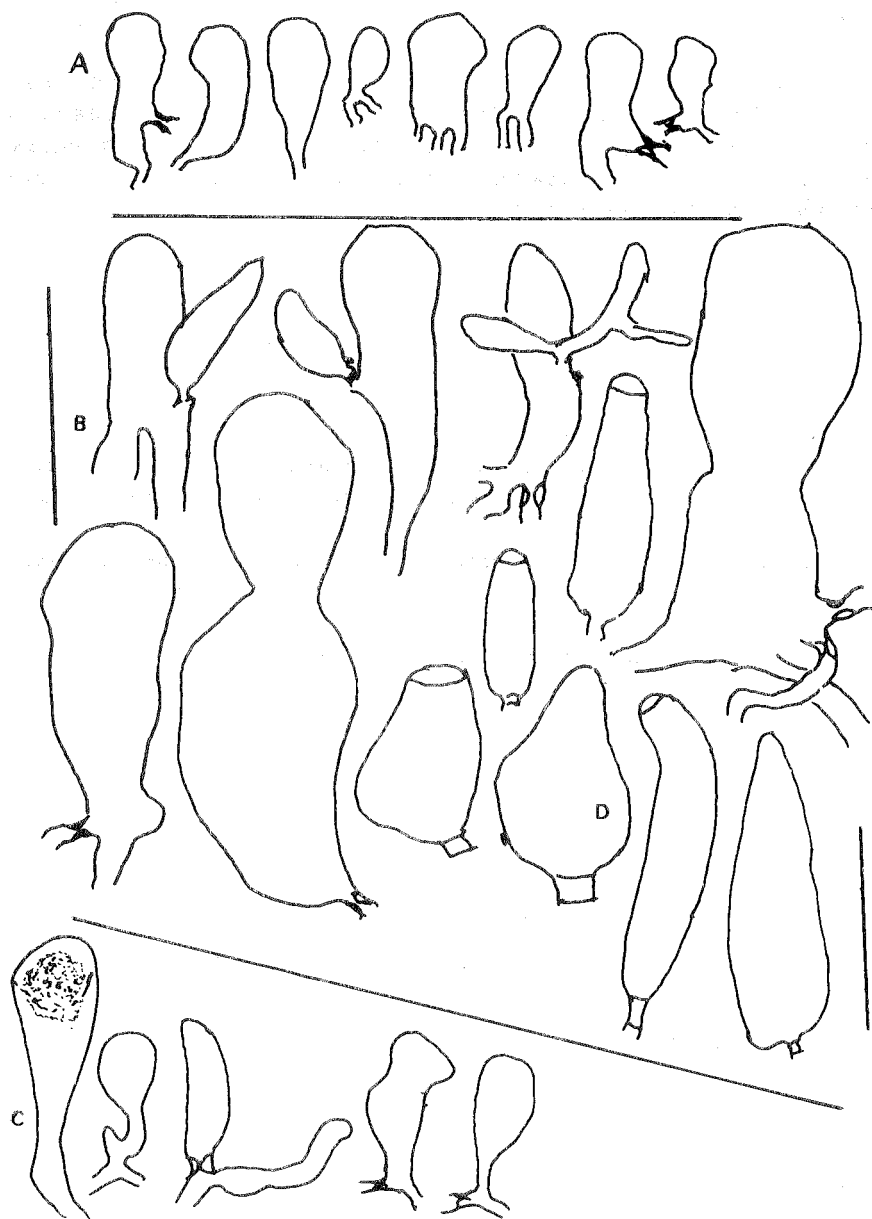


Fig.2. Utricles and gametangia of *Codium saifullahii*: A. utricles from tip of thallus segments, B. utricles from middle of thallus segments, C. utricles from stipe of thallus, D. gametangia, (scale for A-C = 500 μ m, D = 200 μ m).

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