MARINE ALGAE FROM ST. MARTIN'S ISLAND, BANGLADESH. V. ANTITHAMNIONELLA FLOCCOSA (MÜLLER) WHITTICK (RHODOPHYCEAE), A NEW RECORD

ABDUL AZIZ¹ AND A.K.M. NURUL ISLAM

Department of Botany, University of Dhaka, Dhaka 1000, Bangladesh

Keywords: Antithamnionella floccosa, Red alga, Rhodophyceae, Marine algae, Bangladesh

A large number of marine red algae have so far been reported from the St. Martin's Island, Bangladesh by Islam and coworkers (Islam 1976, Islam and Aziz 1982, 1987, Aziz 1997, Aziz et al. 2002a, b, Islam et al. 2002). Among these works, Antithamnion divergens J. Ag. was reported by Islam et al. (2002). Besides, Islam (1976) provisionally placed a specimen of filamentous red alga in tetrasporic stage under the genus Antithamnion and mentioned its superficial resemblance with A. elegance Berth. and A. cruciatum (Ag.) Näg. fa. tenuissima.

Recently, Whittick (1980) made a new combination of *Antithamnion floccosum* (Müller) Kleen as *Antithamnionella floccosa* (Müller) Whittick. In the genus *Antithamnionella*, the branches are irregularly alternate to indefinite ramifications, in contrast to opposite branching in the genus *Antithamnion*. In this paper, a material collected from the St. Martin's Island, Bangladesh is described and illustrated as *Antithamnionella floccosa* (Müller) Whittick, as a new record for Bangladesh.

Order: Ceramiales; Family: Ceramiaceae; Genus: Antithamnionella Whittick

Antithamnionella floccosa (Müller) Whittick

(Figs 1-4)

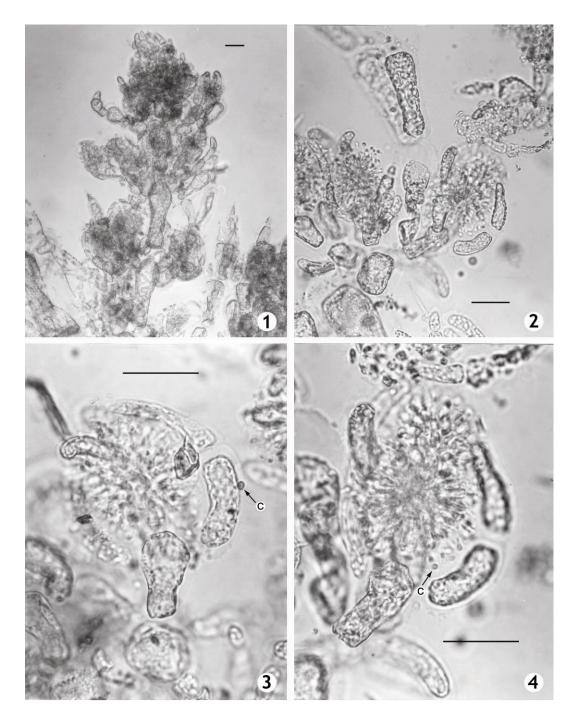
(Whittick 1980)

(Syn: Callithamnion floccosum CA Ag., Conferva floccosa Müller, Newton 1931, 390; Taylor 1957, 293 as Antithamnion floccosum (Müller) Kleen)

Plants brownish-red, densely tufted, soft and delicate throughout, 5-10 cm tall, uniaxial; branches beset with branched and short branchlets whose tip cells are conical to strongly pointed; segments of the main axis 30-50 µm broad, 2-5 times as long as broad; branchlet cells 15-18 µm broad, 2-3 times as long as broad. Cells with numerous rounded chromatophores. Carpogenic branches developed from the lowest cell of a branchlet; cystocarps consisted of a huge mass of carposporangia, partially covered with three two-celled involucres, appearing terminal on branchlets. Tetrasporic plants not found in the collection.

¹Corresponding author. E-mail: botany@univdhaka.edu; duregstr@bangla.net

64 AZIZ AND ISLAM



Figs 1-4. Antithamnionella floccosa (Müller) Whittick. 1. Terminal part of the alga at a low magnification, 2. A branch enlarged showing branching type and cell structure, 3-4. Enlarged cystocarps, partially covered with involucres. c, Carpospore. (Bars = $10~\mu m$)

Specimen examined: The specimen was collected from the north-west coast of the St. Martin's Island, Bangladesh, growing on rocks in rock pools as a common form, on March 27, 1997 by A.K.M. Nurul Islam.

Distribution: Northern Massachusetts to Maine, Nova Scotia, growing upon coarse algae and sometimes in tide pools in spring season (Taylor 1957); N. Scotland, growing on rocks, near low-water mark, very rare (Newton 1931).

Acknowledgements

Late National Professor A.K.M. Nurul Islam left some materials, which need to be worked out and published. The present Short Communication is first of its kind.

References

- Aziz, A. 1997. *Peyssonnelia polymorpha* (Zonars.) Schmitz (Rhodophyta) newly recorded from St. Martin's Island, Bangladesh. Bangladesh J. Plant Taxon. **4**(1): 81-83.
- Aziz, A., Islam, A.K.M. Nurul and Jahan A. 2002a. Marine algae of St. Martin's Island, Bangladesh. III. Red algae. J. Asiatic Soc. Bangladesh **28**(1): 63-70.
- Aziz, A., Islam, A.K.M. Nurul and Jahan A. 2002b. Marine algae of St. Martin's Island, Bangladesh. IV. New records of red algae. Bangladesh J. Bot. **31**(2): 113-116.
- Islam, A.K.M. Nurul 1976. Contribution to the study of Marine algae of Bangladesh. Bibliotheca Phycologica 19: 1-253.
- Islam, A.K.M. Nurul and Aziz, A. 1982. Addition to the list of marine algae of St. Martin's Island, Bangladesh. II. Brown, red and blue-green algae. Nova Hedwigia **36**: 643-657.
- Islam, A.K.M. Nurul and Aziz, A. 1987. Addition to the list of marine algae of St. Martin's Island, Bangladesh. III. Red algae. Nova Hedwigia **45**(1-2): 211-221.
- Islam, A.K.M. Nurul, Aziz, A. and Jahan, A. 2002. Marine algae of St. Martin's Island, Bangladesh. II. New records of red algae. Bangladesh J. Bot. 31(1): 23-29.
- Newton, L. 1931. A Handbook of the British Seaweeds. British Museum, London, pp. 1-478.
- Taylor, W.R. 1957. Marine Algae of the Northeastern Coast of North America. Univ. Michigan Press, Ann Arbor, pp. 1-509.
- Whittick, A. 1980. Antithamnionella floccosa (O.F. Müll.) nov. comb.: a taxonomic re-appraisal of Antithamnion floccosum (O.F. Müll.) Kleen (Rhodophyta: Ceramiaceae). Phycologia 19: 74-79.

(Manuscript received on 13 May 2007; revised on 13 November 2007)