

## NITELLA STUARTII BRAUN: A NEW RECORD OF CHAROPHYCEAE FOR BANGLADESH

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In Bangladesh, a total of 11 taxa of *Nitella* (C. Agardh) Hooker have been reported so far (Ahmed *et al.* 2009). In this paper, here we are describing *Nitella stuartii* Braun as new record from Bangladesh. *Nitella stuartii* Braun is a species of stonewort in the family Characeae, belonging to the freshwater algae group. This species has a broad distribution, including New Zealand (North and South Islands), South America, Australia, and India (Pal *et al.*, 1962).

The plant sample was collected through a comprehensive research expedition to Mithamoin Haor in the Kishoreganj district of Bangladesh. Geographically, the haor is located between the latitudes of approximately 24°17'30"N and 24°34'30"N, and longitudes of 90°58'40"E and 91°17'20"E. The sampling was conducted during the pre-monsoon season of 2024. The plant specimen, along with a few other aquatic angiosperms, was gathered from the shallow water area of the haor and placed in a large, airtight polyethylene bag mixed with water. It was delivered within six hours of the sample being collected to the Department of Botany in Phycology, Limnology, and Hydrobiology Laboratory at the University of Dhaka. The laboratory maintained voucher specimens and preserved certain fresh materials in 4% formaldehyde.

The specimen has been identified as *Nitella stuartii* Braun by consulting standard literature (Pal *et al.*, 1962; Bourrelly, 1972; Nieuwland, 1973; Prescott, 1982; Ling and Tyler, 2000; Ahmed *et al.*, 2009). No records have been identified in the Encyclopedia of Flora of Bangladesh (Ahmed *et al.*, 2009). Hence, it is reported here as a new record for Bangladesh (Fig. 1).

Division: Charophyta, Class: Charophyceae, Family: Characeae, Genus: *Nitella*, Species: *Nitella stuartii* Braun. Synonym: *N. subglomerata* var. *japonica* Allen T.F.

A submerged aquatic macroalga, *Nitella stuartii* is characterized by its low-growing habit (<0.3 m), often resembling a "bird's nest." It features whorls of forked branchlets, with each whorl producing two levels of branchlets of varying lengths, resulting in a densely branched appearance. The plant is monoecious, with at least four branchlets per node that are bifurcated twice. In the upper whorls, it displays heterochlamy, while fertile branchlets have 5–6 secondary rays that are significantly shortened. The branchlets are tufted, with one-celled dactyls (4–6 in number), equal in length, and acuminate with a narrowed base. Fruiting occurs at both branchlet nodes, with oogonia forming in clusters. The oospores are brown, measuring approximately 250 µm in length and 200 µm in width, with a finely reticulate membrane.

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Fig. 1. *Nitella stuartii* Braun, a new record of aquatic plant for Bangladesh.

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