OCCURRENCE OF LIMNOPHILA AQUATICA (ROXB.) ALSTON IN BANGLADESH

MD. ALMUJADDAD ALFASANE*, JESMIN AKHTER JOLLY AND MD. ABUL HASSAN

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

Keywords: Limnophila aquatica (Roxb.) Alston; Scrophulariaceae; New occurrence; Bangladesh.

The genus Limnophila R. Br. is represented in Bangladesh by 13 species (Rahman, 2009) including L. cana Griff. which is endemic to this country (Khan et al., 2001). Rahman (2009) cited L. aquatica (Roxb.) Alston referring to Datta and Mitra (1953), and stated that “this species has not been collected after it was first reported by Datta and Mitra more than 50 years ago”. However, Datta and Mitra did not cite the name L. aquatic a (Roxb.) Alston although they recorded seven species of Limnophila.

The name L. aquatic a was established by Alston in 1929 based on Cyrilla aquatic a Roxb. (1978). Therefore, previous works like Hooker (1884), Prain (1903) did not include the name but the specimens now known as L. aquatic a were treated by them as L. racemosa Benth. Hooker (1884) mentioned Bengal as its occurrence (without any specific locality) whereas Prain (1903) mentioned North Bengal and Central Bengal as the places of occurrence but also without indicating any specific locality. Datta and Mitra (1953) recorded L. racemosa Benth. from the then greater Dacca.

Khan and Halim (1987) recorded only four species of Limnophila, viz. L. cana Griff., L. heterophylla (Roxb.) Benth, L. indica (L.) Druce and L. sessiliflora Blume but not L. aquatic a nor L. racemosa. The record of Khan and Halim (1987) compounded the situation that whether L. aquatic a is at all available in Bangladesh or it was miss identified for L. indica as both the species bear many identifying characters in common. There is no record of herbarium specimen of L. aquatic a or L. racemosa in any of the herbaria of Bangladesh. Others workers like Heinig (1925), Sinclair (1955) did not cite neither L. racemosa nor L. aquatic a. In February 2019, some specimens of L. aquatic a (Roxb.) Alston were collected from the Joydia baor, Safdalpur union of Kotchandpur upazila of Jhenaidah district of Bangladesh for the first time. These specimens have finally been considered as the evidence of specific occurrence of L. aquatic a (Roxb.) Alston in Bangladesh.

The plant materials were collected following Alfasane et al. (2020). The collected plant samples were examined and transported to the Phycology, Limnology and Hydrobiology Laboratory, Department of Botany, University of Dhaka. Some materials were preserved as a herbarium sheet in this laboratory. The rest of the samples were cultured in a concrete house (1 × 0.5 m length, depth 0.40 cm) in the Botanical Garden, Department of Botany, University of Dhaka, for ex-situ conservation. A detailed taxonomic account along with photographs of the species has been furnished based on the fresh specimen (Fig. 1).

*Corresponding author, E-mail: mujaddade@yahoo.com


**English name:** Giant ambulia

![Fig. 1. *Limnophila aquatica* (Roxb.) Alston.](image)


Stem rooting at lower nodes, erect, up to 50 cm high, 7-16 cm width, basal part usually submerged, thick, tumid at nodes. Leaves fine, pine-like, bushy, upper leaves crenulate, opposite or in verticals of 3, ovate-lanceolate to oblong-lanceolate, 2.7-6.8 x 0.7-2.0 cm, rounded and semi-amplexicaul at base, acuminate at apex, finely spinulose-serrate, strongly 3-5-nerved at base,
glabrous on both surfaces, punctate above; lower leaves whorled, in verticals of more or less 10-12, pinnately dissected, up to 6 cm long, frequently deflexed and root-like. Terminal racemes 5-18 cm long, peduncles finely glandular-pubescent on both surfaces, bracteoles linear-lanceolate. Flowers numerous; pedicels up to 5 mm long, finely glandular-pubescent; calyx segments deltoid-ovate, acute, tubes 2-3 mm long, lobes more or less equal, ovate-lanceolate, 1.8-2.8 x 0.75 mm, long acuminate, scarious at margins; corolla tubes pale greenish, white, 8-11 mm long, finely pubescent, limb whitish pale blue, lobes of upper lip broadly orbicular with pale purple blotch at center, lower lips 8-16 mm across, middle lobes broader than lateral ones; stamens 4, posterior filaments 1.5-2.5 mm long, anterior ones longer; anther cells horizontally placed; styles glabrous. Capsules globose, 2.9-3.8 x 2-2.8 mm, enclosed by longer calyx lobes, fruiting calyx not striate.

Flowering and fruiting: June-April. It grows well in very high to medium sun light, preferably in mud soil and water prominent area.

Distribution: Bangladesh, Chinese, Indonesia, Japan, Sri Lanka and Taiwan (Ahmed et al., 2009).

Specimens examined: Jhenaidah: Joydia baor, M.A. Alfasane, 1721(PLHL), 17.07.2019; 1722(PLHL), 22.12.2019; 1723(PLHL), 07.06.2020; 1724(PLHL), 07.04.2021; Dhaka: 1725(PLHL), 09.09.2020; Botanical Garden, Department of Botany University of Dhaka.

References
Roxburgh, W. 1798. Plants of the coast of Coromandel, Pl. Coromandel 2: 47

(Manuscript received on 3 March 2021; revised on 5 November 2021)