

## LENTIBULARIACEAE

***Utricularia exoleta*** R. Br. [= *Utricularia diflora* Roxb. ex C.b. Clarke; *U. biflora* Roxb.; *U. diantha* Roxb. ex Roem. & Schult.; *U. roxburghii* Spreng.; *U. pterosperma* Edgew.; *U. saharunporensis* Royle ex Oliv.; *U. elegans* Wall.; *U. gibba* L. subsp. *exoleta* (R. Br.) P. Taylor; *U. khasiana* J. Joseph & Mani]

**Local name:** Chota-Janjee (Bengali).

**Description:** Herbs; rhizoids usually absent, if present up to 5 cm long, c 1 mm thick at base, fusiform, tapering towards apex, branches botryform; stolons up to 20 cm long, c 0.2 mm thick, profusely branched. Foliar organs up to 1 cm long, simple or 1-3 times dichotomously divided from base or at a short distance from base; ultimate leaf segments few, slightly compressed or terete, sparsely setulose along margins.



***Utricularia exoleta*** R. Br.

Courtesy: S.R. Yadav

Traps up to 1.5 mm across, obliquely ovoid, replacing foliar segments or rarely on rhizoids; stalk evenly thickened; mouth lateral, oblique; appendages usually 2- or rarely more. Racemes 4-15 cm long, erect, solitary or fasciculate, glabrous, 1-3-flowered; scales absent or rarely 1-2, c 0.6 x 1 mm, basifixed, obovate to semi-orbicular, truncate or slightly 3-lobed at apex; bracts 0.8-1 x 1-1.3 mm, transversely oblong, 5-nerved, truncate or denticulate at apex; flowers up to 7 mm long; pedicels 2-8

mm long, terete, erect or suberect. Calyx-lobes subequal, obovate to ovate, rounded or truncate at apex; upper lobe c 1.4 x 1.3 mm (c 3 x 3 mm in fruit); lower c 1.3 x 1.3 mm (c 2.5 x 2.5 mm in fruit). Corolla yellow; upper lip c 3 x 3 mm, orbicular to ovate, truncate or rounded at apex; lower lip c 2.7 x 2.5 mm, orbicular to broadly ovate, bigibbous at base, rounded, truncate or rarely 3-lobed at apex; spur as long as lower lip, conical, glandular within, obtuse or notched at apex. Stamens c 1 mm long; filaments flat, curved; anther thecae distinct. Pistil c 1 mm long; ovary globose; style small; stigma 2-lipped, lower lip larger and semi-orbicular, upper lip obsolete or denticulate. Capsules c 3 mm across, globose, bivalvate; placenta c 2 mm across, globose, glabrous, pitted. Seeds c 1 mm wide, lenticular, with a broad, irregular corky wing; hilum prominent; testa cells arranged radially.

**Fl. & Fr:** January-May with a peak in February and March.

**Habitat:** Submerged floating in shallow water and in swamps or rooted in mud; from sea level to 1700 m, often growing with *U. aurea* Lour.

**Pollen:** 11-12 colpate, 40-45 x 30-33  $\mu$  or 28 x 45  $\mu$  (Thanikaimoni, 1989).

**Distribution:** **India** - Distributed throughout the country including Andaman & Nicobar Islands. Tropical Africa, to Japan and Northern Australia.

**Notes:** *Utricularia khasiana* J. Joseph & Mani was described on the basis of vegetative materials collected from Ward lake, Shillong. According to the authors, the plant had never set flowering during their many years of observation. The structure and ramification of foliar organs, and the shape and position of traps as well as their affinity to dry black, suggest that the plant is only a variable form of *U. exoleta* R. Br.

Absence of flowering in these materials may be due to alteration in the photoperiodism by the uneven climate prevailing over the region. *U. khasiana* J. Joseph & Mani is therefore included in *U. exoleta* R. Br. The seeds of *U. exoleta* are unique among Indian Utricularias. The species can be easily identified with the help of its seeds which are lenticular and broadly corky winged. This is the only aquatic bladderwort recorded from Andaman & Nicobar Islands. Taylor (1989), however, includes *U. exoleta* R. Br. in *U. gibba* L. - complex.

**References:**

Janarthanam, M.K. & Henry, A.N. 1992. Bladderworts of India. Pp. 49-53.

Taylor, P. 1989. The genus *Utricularia* – a taxonomic monograph. *Kew Bull. Add. Ser.* 14: 1-724.

Thanikaimoni, G. 1966. Pollen morphology of the genus *Utricularia*. *Pollen et Spores* 8: 265-284.