

Addition of two species of *Utricularia* L. (Lentibulariaceae) for the state of Maharashtra

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The family Lentibulariaceae accounts for 3 genera and 280 species (Fischer et al., 2004). However, genera *Utricularia* L., and *Pinguicula* L., popularly termed as, 'bladderworts' and 'butterworts' respectively are the representatives of the Family Lentibulariaceae in India. These insectivorous genera have attracted an attention due to its attractive flowers and insect capturing bladders. Peter Taylor (1989) did the taxonomic monograph of the genus *Utricularia* and reported 214 species. The genus is widely distributed mostly in tropics and subtropics and a few are temperate. In India, the genus is represented by about 35 species (Janarthanam and Henry, 1992). Later on three novelties were added by Yadav et al. (2000, 2005) increasing the count to 38 species.

Almeida (2001) reported 15 species and a variety; whereas Londhe (2001) reported 14 species for Maharashtra State. Later on Sardesai and others reported 23 species of *Utricularia* for the state of Maharashtra (Sardesai et al. 2001, 2002), including three novelties (Yadav, et al. 2000, 2005).

Our field survey of bladderworts of Maharashtra resulted in collection of 2 more species of *Utricularia*, both terrestrial, one from Gadchiroli district and other from Sindhudurg district. On critical examination they were identified as *Utricularia hirta* and *U. lazulina* respectively. Thus present paper reports the two as additions of *Utricularia* for the State of Maharashtra.

The present paper also reports range extension of these two species viz. *U. hirta* and *U. lazulina* for the State of Maharashtra and provides short descriptions, distribution, ecological notes and herbarium specimens collected for each species. The voucher specimens are deposited in Herbarium of Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (BAMU).

Utricularia hirta Klein ex Link, Jahrb. 1(3): 55. 1820; Joseph & Ramamurthy in J. Bombay nat. Hist Soc. 58: 701. 1961; Taylor in Kew Bull. Add. Ser. 14: 174. F. 38. 1989; Janarthanam & Henry, Bladderworts of India, 61-65. 1992; Cook, C.D.K. Aquatic and Wetland Plants of India. 240. 1996. Herbs; rhizoids branched; stolons branched, glandular. Leaves linear-obovate, 1 or 2 at the base of



Utricularia hirta Klein ex Link

peduncle and also scattered along stolons, 1-nerved. Traps subglobose; mouth basal. Racemes 1-6 flowered; densely hairy throughout, scales basifixed, 1-nerved; bracts basifixed, 1-nerved; pedicels erect at anthesis and deflexed in fruit. Pedicels erect at anthesis and recurved in fruit. Calyx lobes subequal, hooded. Corolla pink to violet coloured, papillose, hairy; upper lip oblong, constricted at middle; lower lip broadly ovate, yellow in throat, unigibbous at base; spur longer than lower lip, horizontally projected often curved upwards. Capsule globose, dehisce vertically. Seeds subglobose; testa reticulate, elongated.

Fls. & Frts.: Aug. – Dec.
Maharashtra state, Gadchiroli District, Kanchanpur, Lagam Lake, R.S. Govekar 435 2nd November 2010, Sardesai 2560 27th November 2010.

Distribution: *World:* India to Malaysia. *India:* Bihar, Karnataka,

Meghalaya, Madhya Pradesh, Orissa, Tamil Nadu, Uttar Pradesh and West Bengal.

Ecological Note: It grows along ditches and streams along with *U. bifida* L. and *U. minutissima* Vahl and *Xyris indica* L. in sandy and lateritic soil.

Taxonomic Note: It is very similar to *U. minutissima*, but can be easily identified on the basis of its unique hairiness.

Utricularia lazulina Taylor in Proc. Indian Acad. Sci. (Plant Sci.) 93B: 101. 1984 & Kew Bull. Add. Ser. 14: 325. F. 89. 1989; Janarthanam & Henry, Bladderworts of India, 67-69. 1992; Cook, C.D.K. Aquatic and Wetland Plants of India. 240-241. 1996.

Herb; rhizoids numerous, branched. Stolons profusely branched, papillose. Leaves linear-spathulate, 1 or 2 at the

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Utricularia lazulina Taylor

base of peduncle and also scattered along stolons, 3-nerved. Traps subglobose, subdimorphic; sessile on leaves and stalked elsewhere; mouth basal with two simple, subulate, glandular appendages. Racemes erect; scales and bracts basifixed, 1-nerved; peduncles angular, grooved and winged. Pedicels slightly winged, erect at anthesis as well as in fruit. Calyx lobes ovate to lanceolate. Corolla blue to violet, constricted at center; lower lip obovate, hairy in throat, bigibbous at base; spur conical, curved, acute at apex. Capsule ovoid, dorsiventrally compressed, thickened along dehiscent margin; seeds subglobose; testa reticulate and verrucose within.

Fls. & Frts.: Aug. - Dec.

Maharashtra state, Sindhudurg District, Vaibhavwadi, Sardesai 2522, 20th September 2010.

Distribution: *World:* Endemic to Western India. *India:* Goa, Karnataka, Kerala and Maharashtra.

Ecological Note: A common species growing in soil cover on lateritic plateaus of Konkan along with grasses. Common associates include *Utricularia caerulea*, *U. malabarica*, *U. minutissima*, *U. praeterita*, and *U. reticulata*. Other associates include *Trithuria konkanensis* and *Eriocaulon* species. So far this species was known to occur throughout the coastal plains of Konkan, Goa, Kanara and Kerala.

Taxonomic Note: Erect and stout peduncles, blue to violet corolla and the uniformly membranous capsule wall are the unique characters in the species.

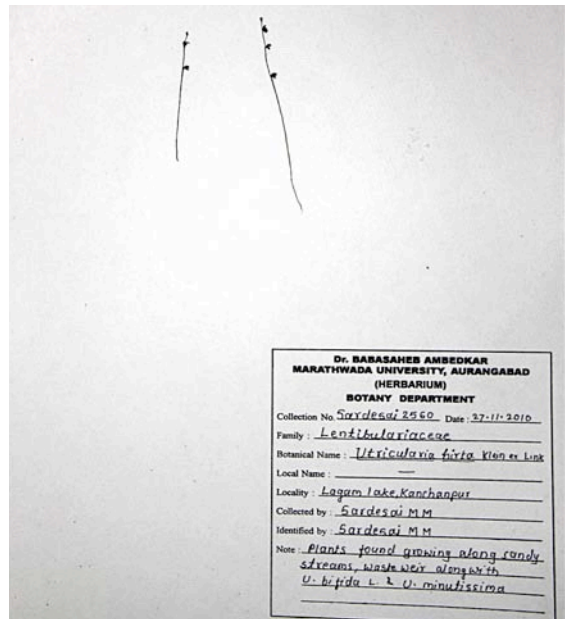
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Collection No. Sardesai 2550 Date: 27-11-2010

Family: Lentibulariaceae

Botanical Name: *Utricularia firta* Kluge & Lux

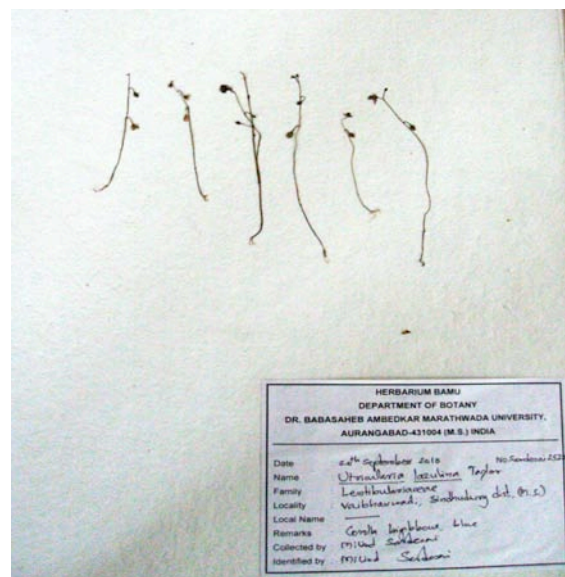
Local Name: _____

Locality: Lagun lake, Kancharpur

Collected by: Sardesai M M

Identified by: Sardesai M M

Note: Plants found growing along sandy streams, waste near along with *U. bifida* L. & *U. minutissima*



HERBARIUM BAMU
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AURANGABAD-431004 (M.S.) INDIA

Date: 24th September 2010 No. Sardesai 2522

Name: *Utricularia lazulina* Taylor

Family: Lentibulariaceae

Locality: Vaibhavwadi, Sindhudurg dist. (M.S.)

Local Name: _____

Remarks: Gravelly highland blue

Collected by: (M) M M Sardesai

Identified by: (M) M M Sardesai

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