



RESEARCH COMMUNICATION

A new distributional record of bladderwort species *Utricularia janarthanamii* for Gujarat state

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ABSTRACT

We report the first distributional record of *Utricularia janarthanamii* S.R. Yadav, Sardesai & S.P. Gaikwad from Girnar of Saurashtra region, Gujarat state. Saurashtra region comprises a wide variety of biological diversity as it consists of sandy, coastal and rocky habitats. The morphology and ecology of this species are described in this paper. This study adds new information on the flora of Gujarat and extended the distribution of this species in the Girnar mountain region.

Introduction

The bladderwort, genus *Utricularia* L. belongs to the family Lentibulariaceae, that comprises of terrestrial annual carnivorous plants. Taylor (1) in his monograph reported 214 species while Fleischmann (2) reported 228 species in the world. In India, *Utricularia* is represented by 41 species (3 - 8). There are seven taxa of *Utricularia* reported from the Gujarat state, viz., *U. arcuata* Wt., *U. aurea* Lour., *U. caerulea* L., *U. gibba* subsp. *exoleta* (R.Br.) P.Taylor, *U. reticulata* Sm., *U. stellaris* L.f., *U. striatula* Sm. (9-11). Of these, three species *U. stellaris* L.f., *U. reticulata* Sm. and *U. striatula* Sm. have been reported from Saurashtra (12). During the recent field survey in the Girnar hills Junagadh district, which is considered to be one of the richest diversity sites in the state of Gujarat, an uncertain bladderwort was collected from Lal Dhori situated in Girnar hills, Gujarat. Detailed examination of this bladderwort is identified as *Utricularia janarthanamii* S.R.Yadav, Sardesai & S.P. Gaikwad (7), hitherto unrecorded for the state. Hence, a detailed account of the species is presented here with photographs for easy identification. Voucher specimens (BKNMU015) are deposited at Department of Life Sciences, Bhakta Kavi Narsinh Mehta University, Junagadh, Gujarat.

Taxonomic Treatment

Utricularia janarthanamii S.R. Yadav, Sardesai & S.P. Gaikwad in *Rheedea* 10(2): 107. 2000.

Herbs; Stem green, herbaceous, 6 cm high, rhizoids 2.5 cm long, branched, glandular; stolons 10 cm long, profusely branched. Leaves 0.5–2 × 1–5 mm wide, spatulate, rounded at apex, scattered along stolons, 3–nerved, nerves branched. Traps on leaves large and elsewhere small, subglobose; stalk upto 1 mm long; mouth basal with two simple, subulate, glandular appendages; glands on appendages stalked and elsewhere sessile. Flowers in racemes on peduncle and solitary on leaves and stolons; peduncles 10 cm long, angular, grooved on one side, glabrous; scales basifixed, 1–nerved, acute at apex; pedicels 0.4–0.8 cm long. Calyx lobes unequal; upper lobe 2 × 1.2 mm, ovate, acute or minutely dentate at apex; lower lobe 2 × 1.3 mm, ovate-elliptic, obtuse or minutely dentate at apex. Corolla blue to pink; upper lip 3.2 × 1.1 mm, linear-oblong, crested at centre, rounded or notched at apex; lower lip 3–3.2 × 3.8–4.2 mm, obovate, hairy in throat, bigibbous at base, rounded at apex; spur 2–5 mm long; conical, descending, acute or 2–3 dentate at apex. Stamens 2, filaments strap-shaped, slightly curved. Pistil 0.9–1.1 mm long, dorsally compressed; style short, distinct, flat; stigma

2-lipped, truncate at apex. Capsules 1.8×1.3 mm, obliquely ovoid, wall uniformly membranous. Seeds numerous, subglobose, 0.5 mm across; testa cells more or less isodiametric (Fig. 1).

Flowering and Fruiting: August – November.

Habitat: It grows on wet rocks and sloppy wet grass lands from 100 – 800 m altitude. It is found associated with *Utricularia reticulata* Sm., *Eriocaulon cinereum* R. Br., *Desmodium triflorum* (L.) DC. and *Eragrostis ciliaris* (L.) R.Br.

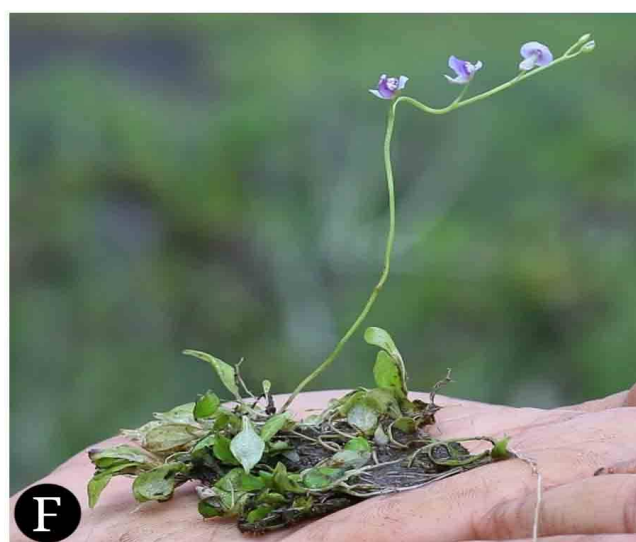
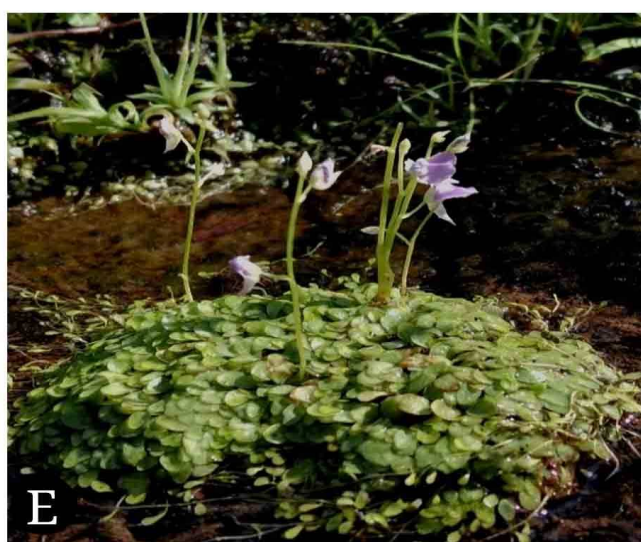
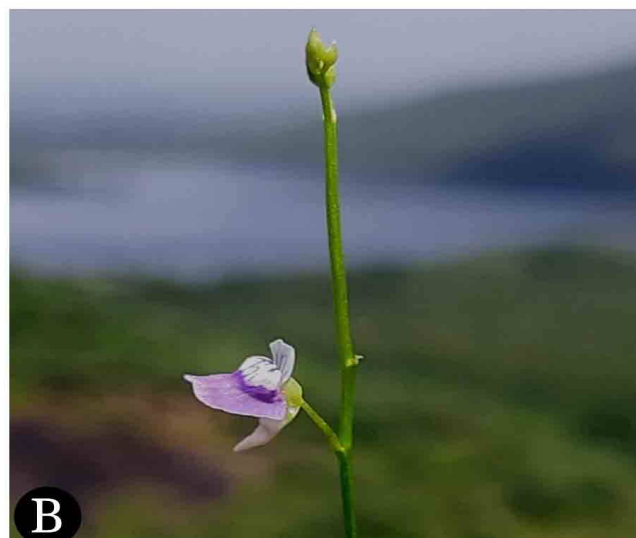
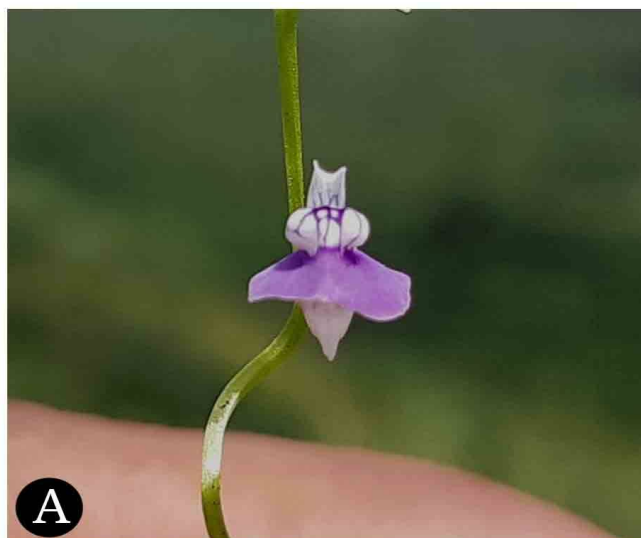


Fig. 1. *Utricularia janarthanamii* S.R. Yadav, Sardesai & S.P. Gaikwad, A–B. Flower, C. Bladder with leaf, D. Seeds, E. Plant with habitat, F. Whole plant.

Distribution: Kolhapur and Satara districts of Maharashtra and Girnar hills, Junagadh district, Gujarat.

Specimen examined: Gujarat, Junagadh district, Girnar, Lal Dhori (21° 53' 83.15" N; 70° 50' 31.89" E). (BKNMU015).

Date of collection: 22/08/2020

Name of Collector: Kamlesh Gadhvi and Sandip Gamit, Herbarium of Department of Life Sciences, Bhakta Kavi Narsinh Mehta University, Junagadh, Gujarat.

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Authors' contributions

KG, SG and RY had collected and identified the plant. SV and DD have prepared the manuscript for correspondence.

Conflict of interests

The authors don't have any competing interests.

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