

This is additional information and not a challenge to BSI's existing reports. As explorations continue we acquire more knowledge with regard to habitats/species which are threatened. Moreover, this may result in enlisting or delisting of threatened species depending upon their threatened status.

Many governments, including India, have acknowledged the existence of a 'taxonomic impediment' to the sound management of biodiversity after the ratification of the Convention on Biological Diversity. The Global Taxonomic Initiative has come into existence with a purpose to remove/reduce this taxonomic impediment, the knowledge gaps in our taxonomic data, including genetic data, the dearth of trained taxonomists and the impact these deficiencies has on our biological diversity. In order to enhance capacity building in taxonomy, a long-term project on 'Capacity Building in Taxonomy: All India Coordinated Project and Related Programmes' was for-

mulated. Specialist groups were drawn from universities, BSI and Zoological Survey of India to take up taxonomic work on viruses, bacteria and archaea, algae, fungi, lichens, bryophytes, pteridophytes, gymnosperms, palms, grasses, bamboos, orchids, helminthes and nematodes, microlepidoptera and molluscs. This programme proposed centres for research and training in biosystematics. The programme prioritized these areas after a careful study. In total, 40 centres were created, 14 of them for microbes, five for plant groups, 19 for animal groups and two for research in biosystematics. The efforts which are being carried out on sustained basis will contribute significantly to boost the documentation of our floral wealth in the coming years.

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M. SANJAPPA*
P. VENU
P. V. PRASANNA

*Botanical Survey of India,
CGO Complex, 3rd MSO Building,
5th Floor, F Wing, DF Block,
Sector I, Salt Lake City,
Kolkata 700 064, India
e-mail: m_sanjappa@yahoo.co.in

Urophyssa rockii Ulbr., a rare and endangered plant needs urgent conservation

The genus *Urophyssa* (Ranunculaceae) consists of two species, *Urophyssa rockii* Ulbr. and *Urophyssa henryi* (Oliv.) Ulbr. The former, a perennial and summer dry-type herb, with robust rhizomes and sparsely puberulous three-foliolate palmately compound leaves, grows only along the middle and upper reaches of the Fujiang river in China. Its leaf blade is ovate to broadly ovate, lateral leaflets sessile or having 1–2 mm petiolule, unequally two-parted; central leaflet petiolulate, broadly rhombic to flabellate-rhombic, margin sparsely obtusely toothed; puberulous petioles about 10.3–24 cm long¹; inflorescences with 7–12 cm capes, usually one-flowered, 1–2 bracts; navicular petals with spur ca. 2 mm; glabrous stamens 8–10 mm; lanceolate staminodes as long as petals; five pistils; follicles ca. 4 mm, transversely veined, sparsely puberulous; seeds ellipsoid, ca. 1.5 mm; flowering from January to April and fruiting during April².

In 1925, J. F. Rock, an American plant collector, found this species for the first

time. Since then it has not been seen until Li Chunyu found it again in 2005 near the Fujiang river. Unfortunately, there are only about 400 individuals surviving in the cracks of rocks^{1,3} (Figure 1 a) and their habitats will be completely

submerged when the Wudu Reservoir project is finished in 2011.

The species has spurs on the back of its petal base (Figure 1 b), which is important to reveal the phylogenetic relationship among the family of Isopyreae



Figure 1. a, *Urophyssa rockii* Ulbr. in the cracks of rocks; b, Flower with spurs on the back of petal base; c, Fruit.

CORRESPONDENCE

(Ranunculaceae). Furthermore, the colour of their leaves and flowers changes with ambient temperature, from light green to dark violet and from sky blue to mauve respectively. The flowers have aroma, and thus could be used as ornamental plants in the future^{3,4}. Their possible extinction will be a loss to the local biodiversity.

In view of the threats, urgent efforts are needed to protect this endangered species through *ex situ* conservation measures. They typically grow in the cracks of rocks; individuals were found only rarely in other types of habitats nearby. When their fruits (Figure 1 c) are

ripe, their stalks curl naturally into the rock cracks where most of their seeds are scattered. Thus, a study of the reproductive ecology, special habitat requirements and distribution of genetic variation among and within populations is necessary.

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DU BAOGUO^{1,*}
YANG FENGLI²

¹*College of Life Science and Biotechnology,*

²*College of Urban and Rural Development and Planning,*

Mianyang Normal University,

Mianyang 621000, P.R. China

**e-mail: dubaoguo1978@yahoo.com.cn*

Some additional aspects of gender asymmetry

Singh and Pathak¹ have presented gender asymmetry analysing the performance of girl students in the highly competitive pre-college tests in the backdrop of the CBSE results. While appreciating the analysis, I would like to add some more aspects to this. First, a significant number of students (girls or boys) who secure more than 90% marks in CBSE actually do not appear in the Board examination with such a combination of subjects that would make them eligible to take the IIT-JEE or any other entrance test to the engineering colleges. There is commerce or 'eco, stat, maths' combination and others that students take being fully aware that they will not be eligible for the engineering entrance tests. In fact, quite a few of them target courses like B Com, Law, BBA, BCA, etc. apart from the conventional undergraduate (UG) degree courses. A section of students do secure more than 90% marks with this type of combination. Is it possible to find out the percentage of girl students securing more than 90% in CBSE with the valid science combinations to appear for IIT-JEE or Olympiad? That may give a more comprehensive picture of the girl students' performance in the tests discussed. Secondly, I feel we should also take into account the entrance tests to some of the premiere medical institutions into consideration. Entrance tests like PMT, or those for AIIMS, JIPMER, etc. are some of the high standard competi-

tive examinations that attract a number of good students who have secured high marks in the Board examinations. Some students (girls and boys) are interested in a career in medicine and there is a section among them who have secured more than 90%. There are several coaching classes, spread all over the country, for imparting coaching for medical entrance tests as well. The performance of the girls students should be seen against this backdrop. But there are some additional factors as well.

In India, the social perception about the professional career of an engineer plays a role in the reduced interest of girl students for engineering courses. Even after the emergence of IT, people are aware that a significant number of engineering jobs involves floor shop and shift duties, official travel, long working hours and field work at odd places. Parents usually prefer the professional career of a doctor for their daughters, as it offers flexible working hours, independent work through private practice, social prestige and good earning. The preference of girl students for taking entrance tests to the premiere medical institutions corroborates this. However, I do agree with the authors that girl students show lesser interest in the Olympiads and IIT-JEE. Participation in the Olympiad examinations has apparently got nothing to do with engineering, but it has been observed over the years that students

selected for representing India in the International physics and chemistry Olympiads are among the high rankers in IIT-JEE and have received training in different coaching classes. Hence the girl students are also lacking in the Olympiads.

In this context, I would also like to point out to a slightly different but related issue. The number of girl students in the UG science classes is also dwindling. The serious concern about the lesser number of women in science actually stems from here. Even after doing science in the high school and performing well, girls are not joining UG science courses, because of several other better options that have emerged in the last two decades or so leading to attractive career prospects. Thus, there is a serious shortage of women role models in science. This may lead to a domino effect. And it appears that the highly competitive examinations like IIT-JEE or the Olympiads selection tests will not have increased number of girl students in the near future.

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BHUPATI CHAKRABARTI

Department of Physics,

City College,

Kolkata 700 009, India

e-mail: bhupati2005@yahoo.co.in