

A note on *Yamazakia pusilla* (Willd.) from Jamtara Forest Division, Jamtara, Jharkhand, India

Abstract

Yamazakia pusilla has been collected from Jamtara Forest Division, Jamtara, Jharkhand. Earlier, it was known as *Lindernia pusilla*. Very less studies and reports are available on it from Jharkhand state. First it seems that it could be new species of genus *Lindernia* from Jharkhand state but its synonyms are mentioned in e-flora of Botanical Survey of India (BSI). It is an unexplored plant of Jharkhand state and less or no idea about its identification, habitat, ecological significance and uses. Therefore, keeping this in mind, a taxonomic note, habitat and uses are presented here along with photographs for easy identification in the field. Plant is identified using flowers and published literature. The communication highlights the importance of exploration works for highlighting the unexplored species of Jharkhand from Jamtara Forest Division, Jamtara.

Keywords: *Lindernia*, taxonomic note, traditional uses, unexplored plants, wetland

Introduction

Jharkhand state is separated from Bihar in the year 2000. Before separation, few works have done on floral diversity of undivided Jharkhand state. After formation of Jharkhand state, two books are written on Flora of Hazaribagh district by Botanical Survey of India (BSI), India along with some other books and papers by different organisation. Still, very less work has done on floral wealth of Jharkhand and many plants are unexplored. Among the unexplored taxa of Jharkhand, genus *Lindernia* All., has very less documentation. It is a group of flowering plants from the family Linderniaceae, traditionally belonging to the family Scrophulariaceae, comprises about 160 species distributed almost throughout the tropical and temperate regions throughout the world (Lewis 2000; Patel et al. 2021; Devi et al. 2021; Mety et al. 2022; Devi and Kumar 2022). A preliminary study on the genus *Lindernia* shows that there are 31 taxa reported from India (Prajapati et al. 2021) and Hains (1921) reported 3 species of *Lindernia* and species from the same. Keeping the importance on documentation of unexplored plants, team of Ambika Prasad Research Foundation started work in colobration with Jamtara Forest Division, Jharkhand. During the survey on the floristic studies at Jamtara Range, Jamtara Forest division, Jharkhand on 24th May 2023, authors collected a species from the genus *Lindernia* All. (24° 0' 1" N, 86° 52' 20" E, 106.01 m elevation). The authors came across a good population of this interesting *Lindernia* species growing along with several other herbaceous angiosperms along the banks of occasional

ponds and water bodies. Critical comparison with allied taxa has confirmed this is *Yamazakia pusilla* (Willd.) W.R.Barker, Y.S.Liang & Wannan. Earlier it was known as *Lindernia pusilla* (Willd.) Merr. (Linderniaceae). Field observations are noted down using the Field Data Book. This species' name was first published in Australian Systematic Botany (2018). No further more information regarding this genus has been reported yet. At the time of this classification snapshot, this species name was unplaced by WFO (a taxonomist hasn't yet placed the name in the taxonomy). It is unexplored plant in Jharkhand state. Therefore, a note is presented here on its taxonomy, habitat, associated species and uses.

Methodology

The collected specimen is identified by Dr. Sanjeet Kumar through the critical analysis of morphological characters and intensive comparison with other *Lindernia* species from different literatures (Haines 1921; Devi et al. 2021; Mety et al. 2022; Devi and Kumar 2022). The brief description of the taxonomical note, photographs, phenology, and associated flora are recorded from the field. One herbarium (APRFH-075) was made and deposited in the Biodiversity and Conservation Lab., Ambika Prasad Research Foundation, Odisha. The uses of collected specimen was collected from Pahadia community through interview and cross checked the answers with others.

Results and discussion

It is a suberect, annual plant, growing 6-30 cm tall. Stem prostrate, branches often widely spreading from the root-stock, or prostrate at the base, with long internodes. Leaves ovate to orbicular-ovate, 0.5-2.0 x 0.5- 1.5 cm, truncate at base, obtuse at apex, crenate-serrate, with prominent nerves beneath; petioles 1-3 mm long. Flowers 1-4 in axils of leaves. Pedicels 3-20 mm long, slender, glandular-pubescent, longer Calyx, tube 1 mm long, smooth, lobes lanceolate, glandular without pilose. Corolla white to purple in color; upper lip erect, 3 mm long, 2-lobed at apex, dirty pale brown or mauvish-brown with purplish lines or pale mauve or pale blue; tube 4 mm long; lower lip 4-6 mm across, mid lobe broadly ovate, slightly larger than lateral ones, with a yellow blotch at the base. Posterior filament 2 mm long, anterior ones longer, all glabrous, Hypogynous disc white, style glabrous; lamellae of stigma ciliolate at margins. Capsule globose, 3-4 mm in diameter, glabrous; seeds oblong- cuniform, 0.5 mm long, truncate at both ends, longitudinally alveolate and tawny (Plate 1).

Type specimen: India, Jharkhand, Jamara Forest Division, Jamtara Range, Rugdih (24° 0' 1" N, 86° 52' 20" E, 106.01 m elevation), 24th May 2023, Sweta Mishra & Sanjeet Kumar 075.

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Plate 1: Habitat and habit of *Yamazakia pusilla*

Phenology: *Flowering & Fruiting:* May to December

Ecology: Found in grassy bunds of paddy fields and along grassy borders of ponds or tanks in the wet and dry lowlands.

Associated species: *Drosera burmanni* Vahl., *Bacopa monnieri* (L.) Wettst., *Mitrasacme indica* Wight., *Evolvulus alsinoides* (L.) L., *Evolvulus nummularius* (L.) L.

Distribution: In India, it is commonly distributed in Assam, Bihar, Chhattisgarh, Goa, Kerala, Karnataka, Maharashtra, Madhya Pradesh, Nagaland, Odisha, Sikkim, Tamil Nadu, Tripura, West Bengal, and Jharkhand.

Uses: Pahadia community consume it as a leafy vegetable and known as Pani aala

Conclusion

The report emphasizes the need of exploration activity for highlighting the unknown species of Jharkhand from Jamtara Forest Division, Jamtara. A note on *Yamazakia pusilla* (Willd.) from Jamtara Forest Division well presented.

COMPETING INTERESTS

Authors have declared that they have no known competing financial interests OR non-financial interests OR personal relationships that could have appeared to influence the work reported in this paper.

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