

A note on *Yamazakia pusilla* (Willd.) W.R.Barker, Y.S.Liang & Wannan 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*. Few studies and reports are available on it. 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). Still, it is an unexplored plant of Jharkhand state. Therefore, keeping this in mind, a taxonomic note, habitat and uses are presented here along with photographs for easy identification in the field.

Keywords: Linderniaceae, Unexplored, Jamtara, Jharkhand

Introduction

Genus *Lindernia* All., 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. During a 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 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.

Comment [1]: What it mean, the alternative name of a single species or other species? I do not understand it.

Comment [2]: What is your objective? Please incorporate it and write the method that you use to identified the species.....Your abstract should be incorporate all of your paper parts, but it serve as a promotions of your article.

Comment [3]: Key words are not the same word that found in your title. The main use of the key word is increase the searching range of your paper so it should be the same to your title but not exact word.

Comment [4]: I do not know the purpose of your study, is that you record the new species or study about the well known one, I don't know. Please clear it and study about it in deeply. I think the whole you write about the species is not enough. You are sited some references thet mentioned about the species so read and search more and more about it, and write your paper in a good manner.

Comment [5]: For what purpose?

Comment [6]: Ok, you get a book that mention about the species and you identified it. What is your objective? Diversity of species....

Comment [7]: Is that your purpose, recored the species in a scientific data base or what? You get a bot that tells about the species like scientific name, gen, species and so on. Please clear your study and the gap from the previous study.

Comment [8]: What it mean please clear it.



Plate 1: Habitat and habit of *Yamazakia pusilla*

Comment [9]: The only thing that show about the species is one photo. Please how you measer, by what tool, different with in the species growth form.... show it.

Materials and Methods

The collected specimen is identified by Authors through the critical analysis of morphological characters and intensive comparison with other *Lindernia* species from different literatures. The brief description of the taxonomical note, photographs, phenology, and associated flora are presented here. One herbarium (APRFH-075) was made and deposited in the Biodiversity and Conservation Lab., Ambika Prasad Research Foundation, Odisha.

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 ciliate 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.

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, Chattisgarh, 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

Comment [10]: Please show the study area in map.

Comment [11]: The method is short and it is not much clear, please write it deeply and incorporate the field guide book that you mention in the introduction.

Comment [12]: How you measure clear it and identified the tool that you used in the methodology part

Comment [13]: Generally your study is very narrow. Please write it more and more deeply and if it is possible some table, graph is so good. Please write the Discussions, Conclusions and Recommendations for further studies.

References

- Australian Systematic Botany. (2018). *Yamazakia pusilla* (Willd.) W.R.Barker, Y.S.Liang & Wannan. 31(3): 250.
- Devi RS and Kumar S. (2022). *Bonnaya succosa* (Linderniaceae): A new record to the flora of Odisha, India. Species. 23(71): 178-182.
- Devi RS, Sahoo MP, Kumar S. (2021). *Bonnaya veronicifolia* (Retz.) Spreng. (Linderniaceae): A new distributional record from Odisha, India. Species. 22(69): 10-14.
- Haines HH. (1921-1925). The botany of Bihar and Orissa. Adlard & Son and West Newman Ltd., London.
- Lewis DQ. (2000). A revision of the New World species of *Lindernia* (Scrophulariaceae). Castanea. 65(2):93-122.
- Mety SS, Sharma BP, Malhotra C, Dimri R, Manjula BL and Mishra S. (2022). *Lindernia*. APRF Publisher. ISBN: 978-81-955847-3-4.
- Patel S, Nayi T, Punjani B, Chaudhary, Pandey V and Desai P. (2021). *Lindernia tamilnadensis* M.G. Prasad & Sunojk. (Linderniaceae): A new record to the flora of Gujarat state, India. International Journal of Advanced Scientific Research. 6(2): 01-03.
- Prajapati KI, Patel DK and Joshi EP. (2021). *Lindernia dubia* (L.) Pennell (Linderniaceae): A new record for the flora of Gujarat State, India. International Journal of Current Research in Biosciences and Plant Biology. 8(7): 23-28.