



# **A Note on *Disporum cantoniense* (Lour.) Merr., Collected from Bonai Forest Division, Odisha, India**

**Sanath Kumar N.<sup>a</sup>, Sweta Mishra<sup>b</sup> and Sanjeet Kumar<sup>c\*</sup>**

<sup>a</sup> Office of the Divisional Forest Officer, Bonaigarh, Odisha, India.

<sup>b</sup> Department of Life Sciences, Rama Devi Women's University, Bhubaneswar, Odisha, India.

<sup>c</sup> Biodiversity and Conservation Laboratory, Ambika Prasad Research Foundation, Odisha, India.

## **Authors' contributions**

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

## **Article Information**

DOI: 10.9734/APRJ/2022/v10i3190

## **Open Peer Review History:**

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/94364>

**Short Communication**

**Received: 01/11/2022**

**Accepted: 07/12/2022**

**Published: 13/12/2022**

## **ABSTRACT**

Bonai Forest Division, Odisha is known as rich biodiversity and home of less populated plant species. During the floral exploration works in the year 2022, authors found an interesting plant, *Disporum cantoniense* (Lour.) Merr., growing near streams in Khajurdihi Reserve Forest, Koira Ranga and Phuljhar, Barsuan Range. Literature survey revealed that, it has limited distribution in Odisha state and growing in unique habitat as a high-altitude plant. Therefore, an attempt has been made to document its habitat, associated plants and key characters. The present study provides a base line data to identify the collected species and also will be helpful to make long term conservation plan.

**Keywords:** Streams; high altitude plants; *Disporum*; Odisha.

\*Corresponding author: E-mail: sanjeetaprf@gmail.com;

## 1. INTRODUCTION

Inside our forest, many plants are available yet to be discovered and explored. Floristic and taxonomic studies are hence useful for the correct identification, distribution, growing season, and finding of unexplored species or new taxa. Documentation of the plant species is a very important aspect in the field of taxonomy as well as for further scientific research. During the botanical exploration in Bonai Forest Division, Sundargarh, Odisha, authors collected one unexplored plant species belonging to the genus *Disporum* Salisb., from Khajurdihi RF of Koiria Range with a good population (21° 51' 06" latitude, 85° 16' 35" longitude, 792.57 m elevation; Fig. 1; Plate 1) during August 2022 and also from Phuljhar area of Barsuan Range (679.4 m) during October 2022. Their morphological characters identified it as *Disporum cantoniense* (Lour.) Merr. belonging to the family Colchicaceae. *Disporum* Salisb., (1812) represented by 24 species distributed in Bhutan, China, India, Japan, Korea, Laos, Malaysia, Myanmar, Nepal, Russia, Sikkim, Thailand, and Vietnam [1]. Among these, more than 14 species have been found in China with 8 endemic species, 4 species are recorded in Japan and 4 species are recorded in Taiwan [2]. In Odisha, only one species has been reported that is *Disporum cantoniense* (Lour.) Merr. [3]. Before 1995, *Disporum* members are usually erect, branched herbs with angular stems, and rootstock creeping. Leaves cauline, alternate, or sometimes opposite, sessile or shortly petioled, strongly nerved. Inflorescences terminal or pseudolateral (terminal on a short, lateral branchlet opposite a leaf), umbellate or with flowers paired or solitary, bract absent. Flowers bisexual, often nodding, sometimes horizontal, tubular-campanulate to opening flat. Stamens 6, hypogynous, filaments erect, usually flattened, anthers dorsifixed, extrorse. Ovary 3-celled, ovules 2-6 per cell, style long or short, stigmas 3, short. Fruit a berry. Seeds few, sub-globose; testa brown, albumen horny [3,4]. The distribution of collected species is limited in Odisha. Therefore, the study will be helpful in making its conservation plan in Odisha state.

## 2. TAXONOMIC TREATMENT

*Disporum cantoniense* (Lour.) Merr. Philipp. J. Sci. 15:229. 1919; Jessop in Steenis, Fl. Males. 1.9:218. 1979.

Stout herb, 0.7-1.2 m, dichotomously branched above. Rhizome creeping, thick, without stolon. Leaves alternate and opposite, ovate or ovate-lanceolate, 7-12.5 x 2.5-5 cm, acute or acuminate, stronger nerves about 5-8, petiole very short, decurrent as a raised line on the stem. Flowers white (or dull purple), about 5-6 in short peduncled deflexed umbels, which are terminal, leaf-opposed or from upper leaf-axils, pedicels angled, decurved, 2.5-3.7 cm long. Perianth segments spatulate or lanceolate, 1.8-2 cm long, acute or acuminate, saccate or subsaccate at the base. Fruit black, globose or didymous, ca. 8 mm diam., with 1 seed in each cell. Seeds are light brown, orbicular oblong, and 5 mm long [3,4]; (Plate 1).

### 2.1 Phenology

Flowering & Fruiting: August – October.

### 2.2 Habitat

Along the perennial stream, bamboo thickets and usually associated with *Gnetum edule* in Bonai Forest Division.

### 2.3 Associated Species

*Dictyospermum ovalifolium* Wight., *Gnetum ula* Brongn., *Diospyros malabarica* (Desr.) Kostel., *Globba racemosa* Sm., *Epithema ceylanicum* Gardner etc.

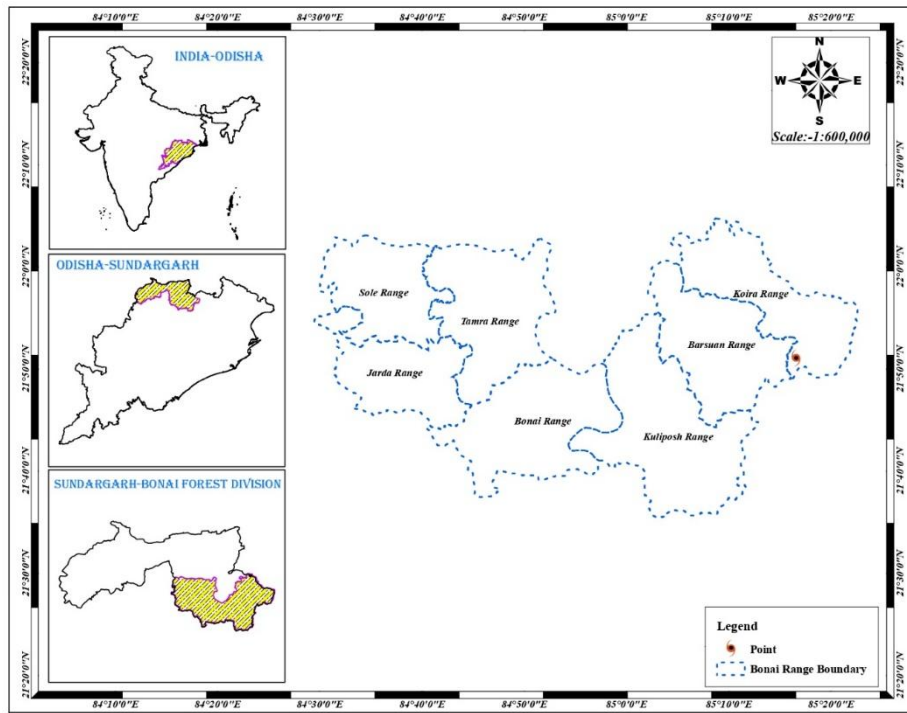
**Distribution in World:** Bhutan, China, India, Laos, Myanmar, Nepal, Thailand, Vietnam, Japan and Malaysia.

**Distribution in India:** Manipur, Meghalaya, Mizoram, Himalayan regions, Odisha, Bihar, Sikkim, Andhra Pradesh and South India.

**Distribution in Odisha:** Sundargarh, Koraput, Similipal and Keonjhar.

**Uses:** The paste of the root is used to cure bone fracture and dislocation [5].

**Note:** As the earlier studies showed that the distribution of the collected specimen is limited in Odisha state, its conservation is needed. Authors also observed that the collected specimen grow near water bodies, so it could be a biological indicator of perennial streams.



**Fig. 1.** Location map of collected specimen in study area  
(Point = location of collected species)



**Plate 1.** Habitat and collected specimen in Bonai Forest Division, Odisha

### 3. CONCLUSION

The documentation of plant species is crucial for taxonomy and future scientific study. The current study provides baseline data for identifying the collected species and will be useful in developing long-term conservation plans. The obtained species grow close to water bodies, and it might be a biological indicator of perennial streams.

### COMPETING INTERESTS

Authors have declared that no competing interests exist.

### REFERENCES

1. Zhu X, Liao S, Yi S. *Disporum nanchuanense* (Colchicaceae), a new species from Chongqing, China. In: Cai J, Yu W-B, Zhang T, Li D-Z (Eds) Revealing of the plant diversity in China's biodiversity hotspots. *PhytoKeys*. 2019; 130:49–57.
2. Chien-Ti C, Yen-Hsueh T. Taxonomic revision of *Disporum* Salisb. (Colchicaceae, Uvularioideae) of Taiwan. *PhytoKeys*. 2019;119:1–22.
3. Saxena HO, Bramham M. The Flora of Orissa, Orissa Forest Development Corporation Ltd & Regional Research laboratory. 1995;I-IV.
4. Songyun L, Tamura MN. *Disporum* Salisbury ex D. Don, Prodr. Fl. Nepal. 50. 1825. Flora of China. 2000;24: 154-158.
5. Regmi S, Binan K, Barakoti H, Singla RK. *Disporum cantoniense* (Lour.) Merr.: An Overview and Study of Traditional Use. *Indo Global J. Pharm. Sci*. 2022;12:258-264.

© 2022 Sanath et al.; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:

The peer review history for this paper can be accessed here:  
<https://www.sdiarticle5.com/review-history/94364>