



SHORT COMMUNICATION

# *Lepidium didymium* L.: A new record (brassicaceae) for Odisha, India

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## Abstract

*Lepidium didymium* L. is recorded here as a new plant for the state of Odisha. Description, nomenclature, phenology and other relevant information for identification of this plant are provided here for its best evidence and easy species identification.

**Keywords:** Brassicaceae, *Lepidium*, New record, Odisha.

## Introduction

In the family Brassicaceae lineage, Brassicales order had more in common with other seven families with Cleomaceae. Brassicaceae is one of the largest plant family of about 300 genera and 1500 species, depending on their different characters, such as shape of fruit and dehiscence, number of rows of seeds in each locule and the position of the radicle relative to the cotyledons. Also mainly importance vegetable crops and medicinal plants. The genus *Lepidium* is a cosmopolitan species that comprises 234 species distributed in Africa, the Americas, Asia, Australia and Europe except Antarctica. (Mabberley 2008). According to the present investigation and review of different literatures, there are listed 14 species throughout India (Al-shebez 2002). The different species included in this group are *L. africanum* (Burman f.) DC., *L. apetalum* Willdenow, *L. aucheri* Boissier, *L. capitatum* Hooker.f. & Thomson, *L. cartilagineum* (J.Mayer) Thellung, *L. draba* L., *L. latifolium* L., *L. obtusum* Basiner, *L. perfoliatum* L., *L. pinnatifidum* Ledebour, *L. ruderale* L., *L.*

*sativum* L. and *L. virginicum* L.. Only a few 10 species of 'Flora of India' have been recorded under the family Brassicaceae made by Botanical Survey of India (Hendry and Janarthana 1993). Only one species *L. sativum* has been recorded in Odisha, the first to be recorded as *L. didymium*. During the floristic diversity of Odisha, we have collected an interesting herbaceous species of *Lepidium* from Nuagaon, Gothopatna, Khurda Dist. (Figure 1). After a critical examination of the relevant species, scrutiny of the relevant taxonomic different literatures and reviews of the flower morphology (Hooker, 1875; Kachroo *et al.*, 1977; Sharma and Kachroo 1981; Singh *et al.*, 1981; Dhar and Kachroo 1983; Kaul 1986; Swami and Gupta 1998; Appel and Al-Shehbaz 2003), the voucher specimen are identified as *Lepidium didymium* L. are deposited in the herbarium of Regional Plant Resource Centre (RPRC). In a review of the published literature India states that this taxon has not been previously recorded from the state of Odisha, India. The present communication provided detailed information on the taxonomy, phenology, ecological notes, associated vegetation components, with *Lepidium didymium*.

*Lepidium didymium* L. Mant. Pl. 92 (1767), Syst. Nat., ed. 12, 2: 433 (1767); *Carara didyma* (L.) Britton Fl. N. U.S. (Britton & Brown) 2, 2: 167 (1913); *Coronopus didymus* (L.) Sm. Fl. Brit. 2: 691 (1800); *Senebiera didyma* (L.) Pers. Syn. Pl. 2: 185. 1807; *Nasturtium castratum* Medik., Pfl. Gatt. 1: 82 (1792); *Senebiera pinnatifida* DC. Mem. Soc. Hist. Nat. Paris 7: 144 (1799).

Spreading annual or biennial rosette herbs, up-to 1.5 m high, with modest trichomes; roots slightly whitish, 15 - 20 cm deeply penetrated. Stems branched from base, foul smelling, decumbent, often somewhat foetid, glabrous or hairy. Leaves two types: radical leaves, short, often 1 or 2-pinnatisect, 1.5 - 3 cm long young leaves, 5-10 cm long

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**Figure 1:** A-Habitat, B-Single twig, C-Flowering twig, D-flowering buds, E-Stigma, F-Flowers, G-leaf lamina, H-Starting flower buds, I-Fruits, J-single locule

mature leaves, with numerous long segments, petioles 0.5 -4.5 cm long, lamina entire; sessile or subsessile, lobes sinuate-toothed, usually only on one side. Racemes elongated in matured plants, dense, ebracteate, 3 -4cm long, 30 -60 flowered. Flowers small, white, slightly greenish below; pedicillate pedicel upto 2mm long, sepals ovate, 1-1.3mm mm long; petals ovate to lanceolate, shorter than the sepals, 0.7-0.8mm long; stamens 2; filaments 0.5 - 0.6 mm; anthers whitish, minute. In short raceme elongating in fruit. Fruiting pedicels short, 3 - 2 mm long, filiform. Fruits didymous, 1 - 2 mm long, 2 - 3 mm broad, looks broader than long, bilobed; valves globose, reticulately rugose; septum narrowly thin, inconspicuous; seeds ovate, 1 - 2 mm long, reddish-brown.

### Phenology

Flowers during March to July; fruiting starts in April and matured in August and matured ones can be seen till the end of October.

### Specimen Examined

India, Odisha, Chandaka, Deras, Nuakua, 20°17'23.1" N 20° 19'47.0" N 85°36' 46.2" E 85°39' 34.5" E 611ft. P.K Das & M. Mallia, RPRC - 8598 dated 01.03.2021.

### Distribution

Native of South America naturalized in Central and North America, Europe, Asia India (J&K, Odisha), Africa, Australia.

### Ecological notes

The species usually grows in the semi-shade and degraded terrestrial in tropical and subtropical regions of the forests between 600 - 2700 m above sea level. Commonly associated plants with *L. didymum* include *Altenenthra* species, *Datura metal*, *Solanum torvum*, *Berberis* species, *Lindera* species, etc.

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