



Research Note

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## Notes on a Bioculturally Associated, Endemic and Critically Endangered *Raphanus* Species of Jaunpur (UP), India

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### Abstract

The paper throws light on a bio-culturally associated species of *Raphanus* which is being described here as a new species viz., *Raphanus jaunpurensis* Masood *et al.*

### Article Info

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### Keywords

Critically endangered  
*Raphanus jaunpurensis*

### Introduction

In Jaunpur district of Uttar Pradesh of Indian Union, an endemic radish has been associated with the culture of the people of the district, since remote epoch. There is a system of sending gifts by the parents/brothers to the married daughters on the occasion of Khichdi (Makar- Sankranti) festival. One of the most important Khichdi gift items has been the typical giant radish which is available in the markets of Jaunpur City and its suburbs only. This radish has been growing only in Jamaitha village of the Jaunpur district. A scrutiny of the relevant literature (Sharma and Balakrishnan, 1993; Hooker and Thompson, 1872; Srivastava, 2006), and websites, scrutiny of the CAL, LBW, BSA, DUTHIE, K, E revealed it to be an undescribed taxon. Hence the same is being described here as under as a new species:

*Raphanus jaunpurensis* Masood Akhtar, S.V. Singh & R. C. Srivast., *Sp. Nova* (Figs. 1-5)

**Holotype:** S.V. Singh & R.C.Srivast. 19, dated 15<sup>th</sup> January 2007 (CAL).

Allied to *Raphanus sativus* but significantly differs in size, weight and taste of the roots. All aerial parts like leaves, inflorescence, fruits and stems are also significantly larger than *R sativus*. But seeds are smaller (than *R sativus*) and dull in colour.

Plants erect, stout, herbaceous, turning ligneous on maturity, up to 180 cm (or more) high above ground (Figs. 1-2). Tap roots white, stout, up to 56 kg in weight; cylindrical, up to 210 cm or more in length, up to 75 cm in circumference, rarely sub-globose (Fig. 3). Leaves roughly pilose, c. 90×9 cm, lyrate-pinnatifid, with

sinuate-dentate segments, variable, 3-11 jugate, upper ones entire or dentate, sessile or sub-sessile, dark green, turning yellow on maturity, rough (pilose); uppermost lobe obovate, broadest. Racemes white, pedicels up to

25cm long. Flowers white; sepals greenish yellow. Petals 4, obovate, white; stamens yellow; pods up to 1×7cm, long-beaked; seeds subglobose, uniseriate, dull gray in colour, smaller than *R. sativus*.



Fig. 1



Fig. 2



Fig. 3



Fig. 4

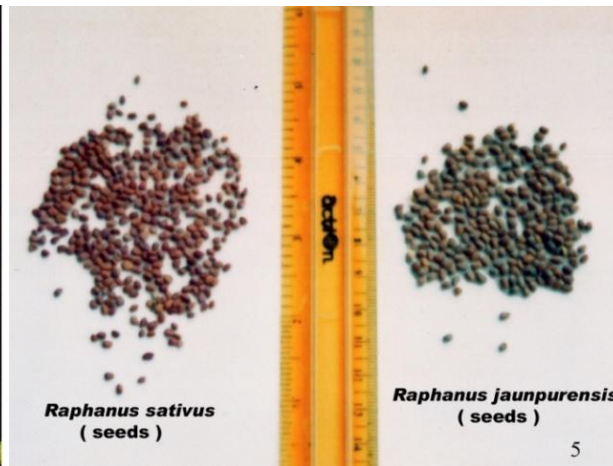


Fig. 5



Fig. 6

**Figs. 1-6:** (1) *R. jaunpurensis*: Habit; (2) Uprooted plant showing size of normal root; (3) *R. sativus* and *R. jaunpurensis* (sub-globose root); (4) *R. jaunpurensis*: flowering branch; (5) Seeds of *R. sativus* and *R. jaunpurensis*; (6) Diakon, Indian Radish (*R. sativus*).

**Flowering / Fruiting:** February-March.

**Habitat:** Along banks of Gomti River.

**Vernacular names:** Newar Murai, Newar Mooli (Hindi), Giant Radish (Eng.)

**Etymology:** The specific epithet is based on the district (Jaunpur) of the 'Type Locality'.

**Uses:** The giant roots weighing up to 56 kg, are sent as one of the important gift items of "Khichdi Gift" from parents family to their married daughters. Root's taste is watery sweetish; eaten as salad; also pickled in various ways by the local women.

**Distribution:** India: Uttar Pradesh; Jaunpur District (village Jamaitha). **Endemic and critically threatened (CR).** Earlier found at Khasanpur, Baluaghat, Tadtala,

Pandariba, Muftimohalla, Mulla tola localities; also recorded from Naupedva locality -cult.).

**Notes:** Natural populations are getting depleted at an alarming rate, from its type locality (Jamaitha locality near Jaunpur in Uttar Pradesh, India).

**Conservation:** No attempt has been made so far.

#### Conflict of interest statement

Authors declare that they have no conflict of interest.

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