

ONOSMA DICHROANTHUM BOISS.- AN ADDITION TO THE FLORA OF JAMMU AND KASHMIR STATE

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The paper reports *Onosma dichroanthum* Boiss. of Boraginaceae Juss. from Machail, Doda district of the Jammu and Kashmir State. The report is very first for the state and as such it represents an addition.

Keywords: J & K State, New record.

Clarke¹ has described 7 species of *Onosma* Lin. (Boraginaceae Juss.), namely *O. bicolor* Wall., *O. bracteata* Wall., *O. echioides* Linn., *O. emodi* Wall., *O. hookeri* Clarke, *O. thomsoni* Clarke and *O. wallichianum* Benth. in Hooker's Flora of British India. The first report of *O. dichroanthum* Boiss. from Indian subcontinent was made by Johnston² on the basis of specimens collected from Kurram Valley in Afghanistan. Recently, Uniyal and Balodi³ have reported *O. dichroanthum* Boiss. from Garhwal Himalayas (India). For Jammu and Kashmir State, the present report is the very first. It represents an addition to the flora of the state (Fig.1). Voucher specimens have been deposited in the herbarium section of the Department of Biosciences of the University of Jammu, under voucher nos JUH 2199; JUH 2200.

Onosma dichroanthum Boiss., Diagn. Pl. Or. Nov. 1, 11 : 107. 1849, Riedl. in Rech. f., Fl. Iran 48 : 180. 1967; Kazmi in J. Arn. Arb. 52 : 512. 1971; Stewart, Ann. Cata. Vasc. Pl. W. Pak. & Kashm. 598. 1972; Uniyal and Balodi in J.Econ. Tax. Bot. 12 (2) : 396. 1988; *O. setosa* Ledeb var. *dichroanthum* (Boiss.) Boiss., Fl. Or. 4 : 181. 1875.

Annual or perennial hispid herbs; root-stock thick; stem 20-45 cms in height, hairs setose, soft and short intermixed, arising from tubercled base; basal leaves spatulate, linear to linear-lanceolate, densely clothed with spreading hairs, margin recurved; cauline leaves similar, alternate, smaller, sessile and hairy; inflorescence terminal or lateral, forked cymes; lax when in fruiting, upto 15 cms long; bracts 8-12 mm long, densely hairy; flowers actinomorphic, bisexual, yellow or pale-yellow; calyx 5-lobed, lobes acute, hairy; corolla campanulate, 2.4-3.0 mm long, slightly lobed, lobes deflexed, sparsely hairy towards the mouth; stamens 5, filaments inserted on corolla tube; anthers with coherent bases; nector scales annular, lobulate, ciliate; style slender exerted from corolla; stigma capitate; nutlets smooth, shining.

Fls. & Frs. August - October

Occurrence : Rare, growing along stony and gravelly soil.

Specimens examined: Collected from Machail (4,100m), Doda district (J&K state), 12.8.93 Bhellum JUH 2199; Mangotra JUH 2200.



Fig. 1. A photograph of *Onosma dichroanthum* Boiss. in its natural habitat.

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References

1. Clarke CB 1883, *Hooker's Flora of British India* Vol. III Reeve & Co. Ltd. London.
2. Johnston (1951) *J. Econ. Tax. Bot.* 12 (2) 396
3. Uniyal B P and Balodi B 1988, *J. Econ. Tax. Bot.* 12(2) 396