NOTES ON NATURAL HISTORY

Reidentify of *Epipactis veratrifolia* Boiss. & Hohen. (Orchidaceae) from Rajasthan: a Rare Sighting

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Study Area/ Coordination: Chittaurgarh, Rajasthan, Indian N 25°05'39.15" E 75°10'18.87" Elevation 1626ft

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Introduction:

Rajasthan, the largest state in India, is geographically categorized into two bio-geographic zones namely arid and semi-arid regions. Due to extremely dry and hot climate, no orchid has been reported from the arid region whereas around 17 different orchid species have been reported from the semi-arid parts of Rajasthan (Shetty *et al.*, 1991; Misra, 2007; Sharma & Kotia, 2008; Govaerts, 2011; Meena & Yadav, 2011). India is an arbour of around 1256 orchid species that are distributed in Himalayas, North-Eastern parts of India, and the Western Ghats. The highest number of orchid species is recorded from Arunachal Pradesh followed by Sikkim and West Bengal. The Western Ghats are recognized for endemic orchid species (Singh *et al.*, 2019). Among these, only 17 species are found in Rajasthan *i.e.* *Acampe praemorsa*, *Aerides crispum*, *A. maculosum*, *A. multiflora*, *Epipactis veratrifolia*, *Eulophia ochreatea*, *Geodorum recurvum*, *Habenaria digitata*, *H. marginata*, *H. longicorniculata*, *H. furcifera*, *H. plantaginea*, *Nervilia aragoana*, *Peristylus stocksii*, *Vanda tessellata*, *V. testacea* and *Zeuxine strateumatica*.

Only two different orchid species have been reported from Bhilwara District viz. *Epipactis veratrifolia* Boiss. & Hohen. and *Zeuxine strateumatica* (L.) Schltr. The *Zeuxine strateumatica* (L.) Schltr. is a common plant of marshy habitat and has been collected from various parts of Rajasthan viz. Jaipur, Udaipur, Kota, Bhilwara etc. (Sharma & Tiagi, 1979, Kotia *et al.*, 2013).

Epipactis veratrifolia Boiss. & Hohen. was recorded on 14.04.1980 (Accession number BSJO: 7278) by Dr P J Parmar, former Director Arid Zone Circle, Jodhpur BSI, Rajasthan. The specimen was collected from Menal waterfall which is situated 5 kms from Mandalgarh town of Bhilwara District. This plant has been collected only once from Rajasthan and there is no other distribution site recorded in Rajasthan. Thereafter no record or collection has been done.

During present investigation, attempts were made to characterize orchids of Rajasthan for their conservation. Sampling and data collection by extensive survey throughout Rajasthan has been done to achieve this goal.

While sampling in different parts of Rajasthan, *Epipactis veratrifolia* Boiss. & Hohen. was also collected for the second time after an interval of 40 years in this region.

Our observations:

Epipactis veratrifolia Boiss. & Hohen.

Erect herbs, lithophyte grow in moist rock cliff, autotrophic, up to 90 cm -120 cm. Stem is compactly covered with leaves. Leaves papery, 5-20 X 1.2-4.5 cm, lanceolate-oblong, entire, acuminate, long-pointed, upper one smaller, passing into bracts. Inflorescence is long terminal racemes up to 10-60 cm covered with white hairs, lower bracts are leaf-like, the uppermost equal to ovary. Flowers are pale greenish, tinged or veined with reddish-purple or purple. Sepals clothed with white hairs outside, unequal, up to 2 cm long, ovate-lanceolate. Petals ovate, acute, densely pubescent on the back along the mid. Lip shorter than sepals, triangular side-lobes near the base with purplish tinge. Anther sessile; pollinia 4, granular-farinaceous, without caudicles. Stigmas large, with two glands on the lower margins. Capsules around 2.5cm long, enlarged and distinctly stalked pubescent on the ribs.

References:

- Govaerts, R., Pfahl, J., Campacci, M.A., Baptista, D.H., Tigges, H., Shaw, J., Cribb, P., George, A., Kreuz, K. & Wood, J. (2011): **134 World Checklist of Orchidaceae. The Board of Trustees 135 of the Royal Botanic Gardens, Kew.** Online Pub. by: KeyScience (Kew.org).
- Kotia, A., Kumar, P. & Dookia, S. (2013): A note on rediscovery of *Zeuxine strateumatica* (L.) Schltr. (Orchidaceae). *Indian Forester*, 139(2):180-181.
- Meena, K.L. & Yadav, B.L. (2011): **Flora of South Central Rajasthan.** Pub. by: Scientific Publishers, Rajasthan, India.
- Misra, S. (2007): **Orchids of India, a glimpse.** Pub. by: Bishen Singh Mahendra Pal Singh Co. Dehradun, India.
- Sharma S. & Tiagi B. (1979): **Flora of North-East Rajasthan.** Pub. by: Kalyani Publishers, New Delhi, India.
- Sharma, S.K. & Kotia, A. (2008). Orchids of Rajasthan, pp. 432-438. In: Verma, A (ed.) **Conservation of Biodiversity of Rajasthan.** Pub. by: Himanshu Publications, New Delhi,

Plate-1: *Epipactis veratrifolia* Boiss. & Hohen.
Fl. & Fr. : March-July.

Specimens examined: Dr Amit Kotiya (RUBL- 211745, Date: 15/03/2020), collected by Jai Singh from Menal waterfall Bhilwara District, Rajasthan, India.

India.

Shetty, B.V., Singh, V, Parmar, P.J. & Pandey, R.P. (1991). **Flora of Rajasthan. Vol II.** Pub. by: Botanical Survey of India, Calcutta, India.

Singh, S.K., Agarwala, D.K., Jalal, J.S., Dash, S.S. & Mao, A.A. (2019). **Orchids of India: Pictorial Guide.** Pub. by: Botanical Survey of India, Calcutta, India.