SHORT COMMUNICATION

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Alectra chitrakutensis (Orobanchaceae) in Bundi District, Rajasthan, India

While surveying floral diversity of Bundi district in southeastern Rajasthan, we noticed, on 6 March 2008, a parasite on the roots of Vitex negundo L.. The parasitic plant was seen at Rain village (25°38′23.10″N, 75°40′34.09″E; 286 m a.s.l.) in Hindoli tehsil of Bundi District. 22 km north from Bundi, on a field bund. Terrain of the field was quite flattish having a small rainy seasonal nallah on its eastern edge that is close to a government primary school building. Vitex negundo L., Woodfordia fruticosa (L.) Kurz and Mimosa himalayana Gamble were commonly growing along the banks of the nallah and on bunds of the field. The site was continuously checked during winter, summer and rainy seasons to observe the species's growth pattern until 2011. The parasitic plant starts appearing in the root zone of V. negundo at the end of the rainy season, and fruits at the beginning of the summer season. Winter is the best time to see this plant when it flowers massively. This plant is an erect herb, with purple scale-like leaves and yellow, sessile flowers in a terminal raceme (Fig.1). The three purple streaks on each petal are diagnostic. Aerial parts of young plants initially appear greenish-white, but soon turn purple. The stems are rhizomatous with numerous axillary buds. On digging, fresh rhizomes are orange-yellow in colour. After drying, they become black. The species was identified as Alectra chitrakutensis (Rau) R. Prasad & R.D. Dixit, 1993 with the help of flora of Madhya Pradesh (Mudgal et al.,1997). Locally it is known as negad ki bunti.

Sharma (2002) has studied flora of the Hadoti zone of Rajasthan which is composed of four districts *viz.*, Kota, Bundi, Baran and Jhalawar, but he did not reported this plant in his flora. The species was not included in the flora of Rajasthan by Shetty & Singh (1987, 1991, 1993).



Figure 1: The parasitic *Alectra chitrakutensis* on root system of *Vitex negundo*.

Alectra chitrakutensis is a rare medicinal plant, known previously from the Chitrakoot region of India (Rau 1961; Saxena et al., 1969; Mudgal et al.,1997). Various aspects of this plant have been studied by Awasthi et al. (2008), Khanna & Kumar (2007), Prasad & Dixit (1993), Sikarwar (2007; 2009; 2010), Sikarwar et al., (2005) and Sikarwar & Tiwari (2010). According to Sikarwar (2010) this plant is a critically endangered Indian endemic. It was known previously only from the Chitrakoot region of Madhya Pradesh and from Uttar Pradesh (Rau, 1961; Saxena et. al., 1969). Our population represents a range extension of around 550 kilometers to the west. Since it is an obligatory root parasite on Vitex negundo, further exploration of the distribution range of V. negundo in southeastern Rajasthan may reveal additional occurrences.

Our voucher specimen (Satish Kumar Sharma 111893, FRLH) was deposited in the herbarium of the Foundation for Revitalisation of Local Health Traditions, Bangalore (FRLH), for further reference.

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Literature cited

Awasthi, A. K., A. Gupta and A. K. Goel, 2008. *Alectra parasitica* var. *chitrakutensis*: A rare traditional remedy for leucoderma and virility in Chitrakoot region of Uttar Pradesh. *Ethnobotany*, 20: 154–156.

Khanna, K. K. and A. Kumar, 2007. Taxonomic status of *Alectra chitrakutensis* (Rau) R. Prasad & R. D. Dixit (Scrophulariaceae). *Journal of Economic & Taxonomic Botany*, 31: 536–538.

Mudgal, V., K. K. Khanna and P. K. Hajra, 1997. *Flora of Madhya Pradesh*. Botanical Survey of India, Calcatta: 201–202.

Prasad, R. and R. D. Dixit, 1993. An endemic medicinal parasite from Madhya Pradesh under threat of extinction. Pp. 185–187, *In*: S. Pramod (ed.). *Rural Reconstruction, Ecosystem and Forestry*. M.G. Chitrakoot Gramodaya University, Chitrakoot.

Rau, M. A., 1961. Occurrence of *Alectra* parasitica A. Rich in India–A new variety of Banda district, U. P. Bulletin of the Botanical Survey of India, 3: 25–27.

Saxena, H. O., G. S. Shukia and P. S. Indorkar, 1969. Occurrence of *Alectra parasitica* A. Rich var. *chitrakutensis* Rau in Madhya Pradesh. *Indian Forester*, 95: 485–486.

Sharma, N., 2002. *The flora of Rajasthan*. Aavishkar Publishers, Jaipur: 280.

Shetty, B. V. and V. Singh, 1987. *Flora of Rajasthan*. Vol. I. Botanical Survey of India: 1–451.

Shetty, B. V. and V. Singh, 1991. *Flora of Rajasthan*. Vol. II. Botanical Survey of India: 453–860.

Shetty, B. V. and V. Singh, 1993. *Flora of Rajasthan*. Vol. III. Botanical Survey of India: 861-1246.

Sikarwar, R. L. S., 2007. *Exsitu* conservation of *Alectra chitrakutensis* (Rau) R. Prasad & R.D. Dixit. *Current Science*, 92: 1485–1486.

Sikarwar, R. L. S., 2009. Taxonomic status of *Alectra chitrakutensis* (Rau) R. Prasad & R.D. Dixit. *Journal of Economic and Taxonomic Botany*, 33: 814–817.

Sikarwar, R. L. S., 2010. The herbal garden and herbarium of Arogyadham, Deendayal Research Institute, Chitrakoot, Dist. Satana, M.P. *Phytotaxonomy*, 10:139–142.

Sikarwar, R. L. S. and A. K. Tiwari, 2010. Exploitation, utilization and conservation of endemic and critically endangered plant ethnomedicinal species Alectra region. chitrakutensis in the Chitrakoot Ethnobotany, 22: 125-127.

Sikarwar, R. L. S., A. Jaiswal and V. Kumar, 2005. Medicinal uses of *Alectra chitrakutensis*. *Journal of Tropical Medicinal Plants*, 6: 93–97.

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