



ADDITION TO THE FLORA OF RAJASTHAN

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ABSTRACT

This paper provides information about six species viz., *Strychnos potatorum*, *Tylophora macrantha*, *Eulophia herbacea*, *Geodorum densiflorum*, *Borassus flabellifer* and *Dioscorea oppositifolia* which are new to flora of Rajasthan.

Key Words: Flora of Rajasthan, Phulwari ki Nal and Sitamata Wildlife sanctuaries

INTRODUCTION

Southern Rajasthan is rich in flora and forest types. According to Champion and Seth (1968), 5- Tropical Dry Deciduous Forests, 6- Tropical Thorn Forests and 8- Sub-Tropical Broad-leaved Hill Forests are major forest types confined to southern Rajasthan having rain fall varying from 600 mm to 1500 mm. Canopy density of the forests is also varying from 0.2 to 0.8 and even reaching more at certain places like Phulwari ki Nal, Kumbhalgarh and Sitamata Wildlife sanctuaries. Thick forests comprising of broad leaved and semi- evergreen elements can be seen in sanctuaries like Mt. Abu, Phulwari ki Nal, Kumbhalgarh and Sitamata. Many non-sanctuary reserve forest blocks like Khokhariya ki Nal, Ramkunda, Samoli, Tinsara, Kamalnath, Kheela etc. have dense, three-storied forests where biodiversity is also rich. The narrow valleys in these forest blocks, which are locally called “nals”, are relatively richer in the floral diversity.

While wandering in the forest areas of southern Rajasthan for studying the biota of the state, we come across to six plant species, which are not included in any flora of the state. A brief description of these new records is as following:

(1) *Strychnos potatorum* L. (Family Longaniaceae):

Locality: Near Bhagagarh, Block Daiya in Pulwari ki Nal Wildlife Sanctuary, district Udaipur, southern Rajasthan.

Local status: Rare

This tree species was seen along the Gujarat border in the Phulwari ki Nal Wildlife Sanctuary. It is an evergreen small tree locally called *Makroda*. It is dotted here and there on the lower slopes and foot hill areas. While moving further towards south, this species can be traced in Polo forests of

the Vijai Nagar forest range and forests of Gyangarh forest range of Gujarat state.

(2) *Tylophora macrantha* Hook. f. (Family Asclepiadaceae)

Locality: Pulwari ki Nal Wildlife Sanctuary, Udaipur.

Local status: Rare

It's an herbaceous plant which can be seen during rainy season in the ground flora. It is a weak-stemmed plant which spreads on the ground. Several stems of varying lengths arise from the root system, which are seen trailing in different directions. It is an endemic plant to India, which has a distinct distribution in Madhya Pradesh, Tamil Nadu, Andhra Pradesh and Kerala (Dr. Ravi Kumar, FHLHT, Bangalore, per.com. 2014).

(3) *Eulophia herbacea* Lindl (Family Orchidaceae)

Locality: Phulwari-Ki-Nal Reserve Forest Block of Phulwari ki Nal Sanctuary, district Udaipur, southern Rajasthan.

Local status: Less common, but at places fairly common.

It has conical pseudo-bulbs having prominent transverse rings, which are actually scars of the fallen old leaves. Stem 10-15 cm long, sheathed. Leaves 15-30 cm long, many-nerved, erect, linear-lanceolate. Scape 0.60-0.80 cm high, with large acuminate sheaths. Flowers large, in rather lax racemes. Sepals green, petals white with numerous branched purple nerves. Lip white with many fringed yellow nerves. Spur 4 mm long, slender, terete with obtuse tip.

It is a terrestrial orchid which appears during rainy season as under growth in bamboo brakes. It grows on hill slopes where soil is thick and rich in humus and litter. Sometimes big patches are seen on the slopes. Either it grows alone or

found growing mixed with *Eulophea ochreatea*. Regular annual flowering is not seen in the patches. After lapse of few years, massive flowering is seen in them.

(4) *Geodorum densiflorum* (Lam.) Schltr. (Family Orchidaceae)

Locality: Near Valmiki Ashrama in Sitamata Wildlife Sanctuary, district Chittorgarh, southern Rajasthan (N24° 15' 34.3", E74° 30' 26.8")

Local status: Rare

It is a stout terrestrial orchid (Fig.1), which has greenish-brown tuberous pseudo-bulbs of regular shape which are ovoid-conical in appearance. Transverse circular rings are prominent on the tubers. Pseudo-stem is short, stout, arise laterally from underground pseudo-bulbs. Leaves 1-3, elliptical-lanceolate, sub-plicate, many nerved, entire, acute with tip curving down. Leaves appear first while flowering scapes develop few days later. A single scape arises from the side, which is thick and bends at tip. The inflorescence is compact, many flowered, facing downwards. Flowers bracteate, shortly pedicellate, 1.5 cm long, whitish with very little opening. Flowering starts during pre-monsoon rains. To observe the plants closely, a plant was shifted in a pot. Flowering was seen during June 2014 and June 2015 continuously in the same plant.

(5) *Borassus flabellifer* L. (Family Arecaceae)

Locality: Bansi (dist. Chittorgarh), Velaniya, Rishbhdeo, Salumber (dist. Udaipur)

Local status: Rare

It is a tall palm, with straight trunk. Prominent annular scars of fallen leaves are present on the stem. Leaves are fan-shaped and coriaceous. It is rare in the wild. Also seen near Isarda and Shyodaspura railway stations in eastern Rajasthan where it grows in the wild.

(6) *Dioscorea oppositifolia* L. (Family Dioscoreaceae)

Locality: Bhagi Baori area in Sitamata Wildlife Sanctuary

Local status: Rare

It is a slender twiner having simple leaves in alternate and opposite arrangement pattern on the stem. Leaves are elliptic-lanceolate or elliptic-obovate having yellow cartilaginous appearance along the margin. This species appears during rainy season.

The perusal of taxonomic literature on Rajasthan reveals that above listed 6 species are new to flora of the state (Sharma & Tiagi 1979, Shetty & Pandey 1983, Shetty & Singh 1987-1993, Singh 1983, Bhandri 1990, Prasad et al. 1996, Sharma 2002, Singh & Shrivastava 2007, Tiagi & Aery 2007, Yadav & Meena 2011). Since these species are seen



Fig.1. *Geodorum densiflorum* in fruiting stage at Sitamata Wildlife Sanctuary. A single fruit is present on the hook like inflorescence scape.

for the first time in the geographical limits of Rajasthan, hence they are worth placing on records.

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