

IS *PAVETTA WIGHTII* HOOK F. (RUBIACEAE) POSSIBLY EXTINCT?

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ABSTRACT

Pavetta wightii Hook.f. (Rubiaceae) has been rediscovered recently from the type locality viz. Burliyar, Tamil Nadu, India. It is under safe in the Nilgiri Biosphere Reserve, India. A short description is provided and its status discussed.

Key words: Rubiaceae, *Pavetta*, India, Tamil Nadu, Nilgiri Biosphere Reserve

INTRODUCTION

Pavetta L. is a largest genus containing ca 400 species (Mabberley, 2005) and distributed in tropical and subtropical regions of Africa, Asia and Australia. Among these, 16 are found in India while 9 were found in Sri Lanka (Rout & Deb, 1999). Bremekamp (1934; 1939a, b), Bridson (1978), Kok & Grobbelaar (1984), Deb & Rout (1992) and Rout & Deb (1999) were studied it in detail.

While studying the angiosperm flora of Nilgiri Hills, we came across an interesting species *Pavetta* L. On the critical studies and perusal of literature, we identified and confirmed as *Pavetta wightii* Hook.f. It was described as a new species by Hook f. (1880) based on Robert Wight's collection (1848) from Coonoor, Nilgiri district, Tamil Nadu. Later Brandis (1906), Gamble (1921), Swaminathan (1987) included the species in their works, but all were based on the same earlier collections. Hence, Nayar & Sastry (1990) included it under the category of "possibly extinct". For the easy identification and further collection in field, a short description with colour photo, relevant notes, etc. is given. ***Pavetta wightii*** (Hooker, 1880; Brandis, 1906; Gamble, 1921; Bremekamp, 1934; Fischer, 1936; Swaminathan, 1987; Nayar & Sastry, 1990; Rout & Deb, 1999. *Ixora wightii* (Hooker) Kuntze, Rev. Gen. Pl. 1: 287. 1891 (Plate-1).

Shrub, to 3 m high; branches grey; internode 1.5-10 cm; branchlets green, terete, puberulous, later glabrescent. Stipules ovate-oblong, 6-10 x 4-5 mm, acute at apex. Petiole 1-2 cm long, flat above, rounded below. Lamina

elliptic-oblong or oblanceolate, attenuate at abase, entire at margins, acuminate at apex, 8 -17 x 3 - 5.5 cm, membranous, glossy above, glabrous except glandular sacs with pubescent; nerves ca 10 pairs, ca 1.5 cm apart. Inflorescence terminal corymb, to 7 cm diameter, puberulous; peduncle 1-2 cm long, puberulous. Bracts 2, foliaceous, oblanceolate, 3-5 x 0.8-1.5 cm, nerves 4-6 pairs. Pedicels filiform, 5-10 mm long, puberulous. Calyx-tube cupular, ca 1 mm diameter, puberulous without; lobes 4, linear, ca 1.5 mm long, longer than broad. Corolla white; tube ca 1.7 cm long, narrow tubular, hairy within; lobes 4, oblong, ca 7 x 2 mm, valvate. Stamens 4, exerted; filaments filiform, ca 2 mm long; anthers linear, ca 5 mm long, twisted after dehiscence, subversatile. Ovary globose, ca 1 mm diameter, 2-celled; ovule 1 in each locule, axile placentation; style slender, ca 3 cm long, much exerted; stigma fusiform, ca 5 mm long, puberulous.

Flowering & Fruiting : January – March.

Distribution: Endemic to Nilgiri Hills, Tamil Nadu, India.

Specimens examined: India: Tamil Nadu, Nilgiri Distr., Deva(r) shola, Feb. 1886, M.A. Lawson s.n. (MH Acc. No. 26085); Coonoor-Marappalam, 01 Mar. 1972, ca 1300 M, B.D. Sharma 40360 (MH Acc. nos. 78769-78770); Burliyar, ca 900 M, 22 Jan. 2006, C. Murugan 119157(MH).

TAXONOMIC NOTES

On the Nilgiri Biosphere Reserve, it was collected by Wight (1848), M.A. Lawson (1886), C.E.C. Fisher (1910),

B.D. Sharma (1972) and C. Murugan (2006). Hence, the recent collection is after a lapse of 34 years from the type locality and the species is under safe than possible extinct category.

During an exploration, we searched 2 km long lengthwise along the Burliyar riverbed, Nilgiri District, Tamil Nadu state and noticed 10 individual in the proximity of 1 km long stretch. During the second visit to the same

locality, the authors found that three plants are in flowering condition. While counting the number of flowers were developed into fruits and found that most of them were found as defective (54%) than fertile one with 46% (Table 1). It could be the reason for shrinkage of population in the habitat. Hence, the authors recommend that the pollination biology and micropropagation should be under taken in urgent.

Table.1: Fertility status on *Pavetta wightii* Hook. f. (Rubiaceae)

Plant	No. of twig	No. of immature fruits / twig	No. of immature fertile fruits/ twig		No. of immature dried off fruits / twig	
			Nos.	%	Nos.	%
A	1	27	9	33.33	18	66.67
	2	44	22	50.00	22	50.00
	3	62	41	66.13	21	33.87
	4	18	18	100.00	-	100.00
Total	4	151	90	59.60	61	40.40
B	1	39	30	76.92	9	23.08
	2	39	5	12.82	34	87.18
	3	46	2	4.35	44	95.65
	4	42	15	35.71	27	64.29
	5	24	18	-	6	25.00
Total	5	190	70	36.84	120	63.16
C	1	38	11	28.98	27	71.02
	2	52	14	26.92	38	73.08
	3	32	28	87.5	4	12.50
Total	3	122	53	43.44	69	56.56
Grand Total	12	463	213	46.00	250	54.00



Fig. 1: *Pavetta wightii* Hook.f. (Rubiaceae)- Flowering twig

Mohanan & Shaju (2004) published an article on rediscovery of *Pavetta wightii* Hook. f. from the Agasthiyamala (i), Thiruvanthapuram District, Kerala. On the perusal of description and line diagram (Mohanan & Shaju, *l.c.*), we found that the identity of *Pavetta wightii* Hook.f. is doubtful. Because the calyx lobes are seem to be keeled on the line diagram but the description shows toothed.

Associated taxa

It is found among the evergreen forests between 800-900 m. and interspersed with following species *Antiaris toxicaria* (Pers.) Lesch. (Moraceae), *Artocarpus heterophyllus* Lam. (Moraceae), *Asystasia crispata* Benth (Acanthaceae), *Caryota urens* L. (Arecaceae), *Celtis tetrandra* Roxb. (Ulmaceae), *Clematis smilacifolia* Wall. (Ranunculataceae), *Clerodendron viscosum* Vent. (Verbenaceae), *Erythrina subumbrans* (Hassk.) Merr. (Fabaceae), *Eupatorium odoratum* L. (Asteraceae), *Ficus hispida* L.f.(Moraceae), *Glochidion* sp. (Euphorbiaceae), *Glycosmis pentaphylla* (Retz.) DC. (Rutaceae), *Jasminum azoricum* L. var. *azoricum* (Oleaceae), *Justicia betonica* L. (Acanthaceae), *J. glabra* Rottl. (Acanthaceae), *Mallotus philippensis* (Lam.) Muell.-Arg. (Euphorbiaceae), *Milletia racemosa* (Wight & Arn.) Benth. (Fabaceae), *Murraya paniculata* (L.) Jack (Rutaceae), *Pseudarthria viscida* (L.) Wight & Arn. (Fabaceae), *Putranjiva roxburghii* Wall. (Euphorbiaceae), *Streblus asper* Lour. (Moraceae), *Symphorema involuclratum* Roxb. (Verbenaceae), *Syzygium jambos* (L.) Alston (Myrtaceae), *Todalia asiatica* (L.) Lam.(Rutaceae), *Toona ciliata* M. Roem. (Meliaceae), etc.

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