

Polygala furcata, Royle, and its Allies.

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ALTHOUGH Hasskarl * had pointed out that the name *Polygala triphylla* was already occupied for a S. African plant,† Bennett ‡ in elaborating the species of *Polygala* from India retained Don's name *P. triphylla* for an Indian plant. Unfortunately Hasskarl in suggesting the new specific name *Hamiltonii* for Don's species followed Royle, and described under that name a totally different plant from Don's *P. triphylla*. Succeeding authors have more or less perpetuated Hasskarl's mistake.

Hamilton named a Narainhetty plant collected by himself *Polygala triphylla*, but did not publish the species. Don § published the species later under Hamilton's manuscript name, and quoted a Wallichian plant in addition to that collected by Hamilton. Presumably the Wallichian plant quoted is the one which Wallich quoted in his catalogue as *P. glaucescens*. For present purposes we may reduce the main features claimed by Don for his species to: stem 2-3 inches high, trichotomous at the apex, flowers small, yellow.

Fourteen years later Royle || enumerated and figured two species of *Polygala*: *P. triphylla* and *P. furcata*. A glance at Royle's figure of *P. triphylla* shows that it disagrees with Don's description, in that the flowers are not yellow and that the stem branches from the base. Royle's figure of his *P. furcata* agrees, however, with the main features of Don's species as quoted above, viz. the stem branches only at the apex and the flowers are yellow.

In 1863 Hasskarl * described three Indian species under the genus *Semeiocardium*: *S. Hamiltonii*, *S. hyalinum*, and *S. glaucescens*. According to his synonymy Hasskarl intended

* Hasskarl in Miq. Ann. Mus. Bot. Lugd. Bat., i, p. 151 (1863).

† *Polygala triphylla*, Burm. f.

‡ Bennett in Hook. f., Fl. Brit. Ind., i, p. 201 (1872).

§ D. Don, Prodr. Fl. Nepal., p. 200 (1825).

|| Royle, Ill., t. 19, B. et D. (1839).

his *S. Hamiltonii* to be the *P. triphylla*, Don non Burm. f., but in his description he says flowers "albidi apicem versus rubentes (flavi ex D. Don l.c.)," i.e. his *S. Hamiltonii* agrees in the colour of the flowers with Royle's *P. triphylla* and is not Don's plant. *S. glaucescens* is based on the Wallichian *P. glaucescens* from Nepaul, which is, as noted above, probably the true *P. triphylla*, D. Don. In the case of his *S. hyalinum* Hasskarl again derived his specific name from a Wallichian plant (*P. hyalina* from Burma), but he quotes in addition a plant collected by Zippelius from New Guinea.

In 1872* Kurz published a new species of this group from Parish's Tenasserim collections under the name *P. cardiocarpa*.

In the same year Bennett's† elaboration of the Indian species was published, so that Kurz's species is not included. Bennett's treatment of *P. triphylla*, D. Don, follows on the whole that of Royle and Hasskarl. Excluding his quotations of synonyms, we may say that his var. 1 *Triphylla proper* is for the most part Royle's and not Don's *P. triphylla*, and that his var. 2 *Glaucescens* agrees for the most part with *P. furcata*, Royle, i.e. with *P. triphylla*, D. Don.

Kurz in his later contributions to the flora of Burma enumerates two species, viz. his own *P. cardiocarpa* and *P. glaucescens*. While he quotes *P. furcata*, Royle, as a synonym of the latter, he makes no mention of *P. triphylla*.

From this date onwards until a few years ago the nomenclature published in the Flora of British India was more or less adhered to, i.e. Don's original description notwithstanding, the true *P. triphylla*, D. Don, was regarded as the plant with red or red-tipped flowers, and *P. triphylla* var. *glaucescens* as the yellow-flowered form. The comparatively recent monograph by Chodat practically follows accepted usage.

The unsatisfactory condition of the nomenclature was fully realised when I was working with the late Mr J. H. Lace on his Burmese collections. Our work then resulted in the publication of two new species—*P. palustris* and *P. pellucida*—which, however, are but remotely connected with this group.

Further work had, however, to be suspended until we had examined authentic material of *P. cardiocarpa*, Kurz, of which species there was no material in this country. I am indebted to Major A. T. Gage, Superintendent of the Royal Botanic Gardens, Calcutta, for an opportunity of examining Kurz's original plant. Examination of Kurz's plant enabled the work to be completed by the publication of two more new species—*P. Lacei* and *P. umbonata*.

* Kurz in Journ. As. Soc. Beng., 1872, p. 293.

† Bennett in Hook f., Fl. Brit. India, i, p. 200 (1872).

KEY TO THE SPECIES.

- Flowers purple or pink or white and pink-tipped :
seed distinctly pubescent but not
tubercled 1. *P. Tatarinowii*.
- Flowers yellow : seed glabrous or pubescent, distinctly
tubercled.
- Seed glabrous.
- Seed (without aril) 1.25 mm. long with comparatively few large tubercles : capsule
3.5 mm. long, wing less than one-fourth
breadth of capsule 2. *P. Lacei*.
- Seed (without aril) 0.75 mm. long with many
small tubercles : capsule (excluding
wing) 1.5 mm. long, wing one half-
breadth of capsule 3. *P. cardiocarpa*.
- Seed pubescent.
- Seed with large black shining development
at chalaza equal in length to about
one-half the seed 4. *P. umbonata*.
- Seed with scarcely prominent black shining
umbo at chalaza or with a pale-coloured
production.
- Capsule suborbicular 5. *P. furcata*.
- Capsule oblong 6. *P. hyalina*.

SYNONYMY AND DISTRIBUTION OF THE SPECIES.

1. *P. Tatarinowii*, Regel in Bull. Soc. Nat. Mosc., xxxiv, pt. ii,
p. 523 (1861); Forbes et Hemsl. in Journ. Linn. Soc.,
xxiii, p. 62.
- P. triphylla*, Royle, Ill., t. 19D non D. Don nec Burm. f.;
Forbes et Hemsl., l.c., pro parte.
- P. triphylla*, var. 1 *Triphylla proper*, Benn. in Hook. f., Fl.
Brit. Ind., i, p. 201, excl. syn. *P. hyalina*.
- Semeiocardium Hamiltonii*, Hassk. in Miq. Ann. Mus. Bot.
Lugd. Bat., i, p. 151, quoad descr. sed syn. *Polygala*
triphylla excl.
- China. Pekin, Carles, 23! Shantung, Clemens, 1427! Yun-
nan, Forrest, 901! Maire, 2688! 732! Henry, 9343! Delavay,
259! Delavay! Hupeh, Wilson, 2533! Henry, 2486!
- N.W. India, Stewart! Reid! Simla, Lady Dalhousie! Watt,
9377! Crookshank! Bashahr, Lace, 1058! Chamba, Lace, 1753!
1846!
2. *P. Lacei*, Craib in Kew Bull., 1916, p. 260.
- Siam. Doi Chieng Dao, 5500-5900 ft., on rocks, Kerr,
2889 (Herb. Kew!).
- Upper Burma. Ruby Mines, Lace (Herb. Edin.!).
- Yunnan. Puerh cliffs, 4500 ft., Henry, 9303A (Herb. Edin.!).

3. *P. cardiocarpa*, Kurz in Journ. As. Soc. Beng., 1872, p. 293.
Lower Burma. Tenasserim, Parish, 307 (Herb. Calc.!).
4. *P. umbonata*, Craib in Kew Bull., 1916, p. 260.
Siam. Prê, Hue Tuam, Vanpruk, 328 (Herb. Kew!).
Upper Burma, Lace, 5477 (Herb. Edin.!).
5. *P. furcata*, Royle, Ill., t. 19B (1839).
P. triphylla, Ham. ex D. Don Prodr. Fl. Nepal., p. 200 (1825),
non Burm. f.
P. glaucescens, Wall. Cat.—nomen tantum.
P. triphylla, var. 2 *glaucescens*, Benn. in Hook. f., Fl. Brit.
Ind., i, p. 201, syn. *Semeiocardium hyalinum* excl.
Semeiocardium glaucescens, Hassk. in Miq. Ann. Mus. Bot.
Lugd. Bat., i, p. 151 (1863).
N.W. India. Dry hillside above Narainbagur, c. 5000 ft.,
Reid (Herb. Edin.!).
Upper Burma. N. Shan States, Gokteik Gorge, 2100 ft.,
Lace, 4143 (Herb. Edin.!).
6. *P. hyalina*, Wall. ex Hassk. in Miq. Ann. Mus. Bot. Lugd.
Bat., i, p. 151 (1863), in syn.
P. triphylla, var. 1 *Triphylla proper*, Benn. in Hook. f., Fl. Brit.
Ind., i, p. 201, quoad syn. *P. hyalina*.
P. triphylla, var. *glaucescens*, Benn. in Hook. f., Fl. Brit. Ind.,
i, p. 201, quoad syn. *Semeiocardium hyalinum*.
Siam. Doi Sutep, Kerr, 777, 886 (Herb. Kew!). Wang
Djao, Hosseus, 55 (Herb. Edin. ! Kew!).
Burma, Wallich (Herb. Kew!).