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Trichoglottis philippinensis

Text by Franco Pupulin/Watercolor by Sylvia Strigari

Tribe VANDEAE
Sutribe AERIDINAE
Genus TRICHOGLOTTIS *Blume*

Trichoglottis philippinensis Lindl., Ann. Mag. Nat. Hist. 15:386. 1845. Type: Philippines. Without exact locality, *H. Cuming s.n.* (holotype, K).

Synonyms: *Stauropsis philippinensis* (Lindl.) Rchb.f., Hamburger Garten-Blumenzeitung 16:117. 1860. *Arachnis philippinensis* (Lindl.) Schltr., Die Orchidee 7:90. 1938. *Stauorchilus philippinensis* (Lindl.) Backer, Bekn. Fl. Java 12(3):424. 1952.

A climbing, erect, monopodial epiphytic herb to 90 cm tall. *Roots* stout, circa (ca.) 4–5 mm in diameter, produced from the base of the stem and laterally from the upper nodes. *Stem* erect-climbing, with elongate internodes, to 70 or more centimeters long, frequently branching from lateral buds, becoming shrubby with age, covered with distichous leaf sheaths, leafy in the upper portion, the lower portion with dried, brown sheath remnants. *Leaves* elongate, distichously arranged, coriaceous, oblong-elliptic, the apex unequally bilobed, mucronate, 3–6 × 1.2–1.8 cm, articulated to a sheathing base, grass green. *Inflorescences* axillary, several produced simultaneously opposite the leaves, one-flowered; *peduncle* terete, obsolete, less than 5 mm long. *Floral bract* triangular, acute, hyaline, ca. 3.0 × 3.5 mm. *Pedicellate ovary* terete, to 3.5 cm long. *Flowers* opening widely, resupinate, fleshy, fragrant, the sepals and petals yellowish with light to dark brown markings, rarely solid maroon with yellow margins, the lip white, sometimes faintly marked with purple on the midlobe, the basal callus bright yellow, the column pale yellow. *Sepals* and *petals* free, the petals distinctly smaller than sepals; *dorsal sepal* elliptic, acute, 2.3–2.7 × 0.9–1.1 cm; *lateral sepals* obliquely lanceolate to ovate, acute, slightly reflexed, 2.5–3.0 × 1.1–1.3 cm; *petals* linear-oblong to narrowly elliptic, subacute, reflexed 2.3–2.5 × 0.6–0.8 cm. *Lip* firmly fused to the column at the base, cruciform, subsaccate, villose on the upper surface, 2.8–3.2 × 1.7–1.9 cm across the midlobe; the lateral lobes subquadrate, small, erect, ca. 4 × 3 mm; the midlobe trilobed, the lateral lobules inserted obliquely,

triangular-subtrapezoidal, thin, glabrous, 7–8 × 5 mm; the central lobe thick, linear, ending in an irregularly truncate apex, 8–9 × 4 mm, bilaterally flattened to form a high, densely tomentose keel, strongly angled ventrally; disc with a tuberoso-ligulate callus in the shallow saccate base, rounded in front. *Column* short, stout, semicylindric, ca. 3.0 × 2.5 mm, broadened at the base, laterally fused with the lip, provided at the apex with short, hairy stielidia; the anther incumbent; the stigma, round, ventral. *Anther cap* transversely elliptic, cucullate, two-celled. *Pollinia* four, arranged in two subequal, dorsiventrally superposed pairs, attached by a linear-oblong stipe to an ovate viscidium.

The German–Dutch botanist Karl (Carl) Ludwig von Blume (1796–1862) described the genus *Trichoglottis* in the eighth part of his *Contributions to the Flora of Netherland Indies* (Blume 1825), largely based on the collections he made during his travels in Java in 1823–1824. He compared *Trichoglottis* with *Cleisostoma*, from which it basically differs by the column adnate to the base of the lip, creating the generic name from the Greek words “thix,” “trichos,” hair, and “glotta,” tongue, in reference to the pubescent appendage on the back wall of the spur, which can be observed in *Trichoglottis retusa* (type of the genus) and *Trichoglottis lanceolaria*, two of the species on which Blume based the description of his new genus. However, not all the species of *Trichoglottis* have a distinct spur or saclike structure at the base of the lip, and this caused an almost endless debate about which group of species should be included in *Trichoglottis* (see Seidenfaden 1988). Currently, the genus, in its strictest meaning, includes more than 100 names, which probably correspond to some 60 good species. When merged with *Ceratochilus*, *Stauorchilus* and *Ventricularia*, as suggested by molecular analyses (Topik et al. 2005, Carlsward et al. 2006, Kocyan and Schuiteman 2013), it expands to some 85 species, distributed from India to New Guinea and Australia to the east, and to China, Thailand and the Ryukyu Islands to the north, with a center of diversity in northern Indonesia and the Philippines.

John Lindley (1845) published *Trgl.*

philippinensis in 1845 from a plant discovered by the great Hugh Cuming (1791–1865), a British naturalist described as the “Prince of Collectors,” who traveled extensively through Chile, Mexico, the South Pacific, the Philippines, Singapore and the Moluccas. Particularly fond of conchology (the science of shells) and botany, he managed to amass a herbarium of over 130,000 dried plants, probably the largest gathered by a single collector during his time. Most of his collections are now housed at the Natural History Museum of London. The species is found in most major islands of the Philippines, south to the island of Tawi-Tawi (an island province in the Philippines located in the Autonomous Region in Muslim Mindanao) and Borneo, where it has been recorded growing in the warm lowland forests and mangrove swamps at elevations of 100–300 m.

Trichoglottis philippinensis belong to a group of species characterized by the erect, climbing habit, which also includes *Trichoglottis atropurpurea*, *Trichoglottis fasciata*, *Trichoglottis ionosma*, *Trichoglottis loheriana*, *Trgl. retusa*, *Trichoglottis seidenfadenii*, *Trichoglottis smithii* and *Trichoglottis tomentosa*, among others. Other species in the genus have distinctly pendent habit, such as *Trichoglottis amesiana*, *Trichoglottis bataanensis*, *Trichoglottis cirrhifera*, *Trichoglottis hexkuelliana*, *Trichoglottis lanceolaria*, *Trichoglottis latisejala*, *Trichoglottis rosea*, *Trichoglottis subviolacea* and *Trichoglottis triflora*.

In both taxonomic and horticultural literature, the species has been historically obscured by its prodigious sister provided with larger, dark burgundy-maroon flowers, originally described as *Trichoglottis brachiata* by Oakes Ames in 1922 and later treated as a variety of *Trgl.* (as *Stauropsis philippinensis* by the same author and his Philippine colleague Eduardo Quisumbing (Oakes and Quisumbing 1933). Louis O. Williams (1938) made the formal transfer of *Trgl. brachiata* to the varietal rank of *Trgl. philippinensis* in his account on the Philippine species of *Trichoglottis*, and he was subsequently followed by most authors in his interpretation. Today, the *brachiata* form is considered by botanists to be a good species on its own and referred to the opportune name *Trgl.*

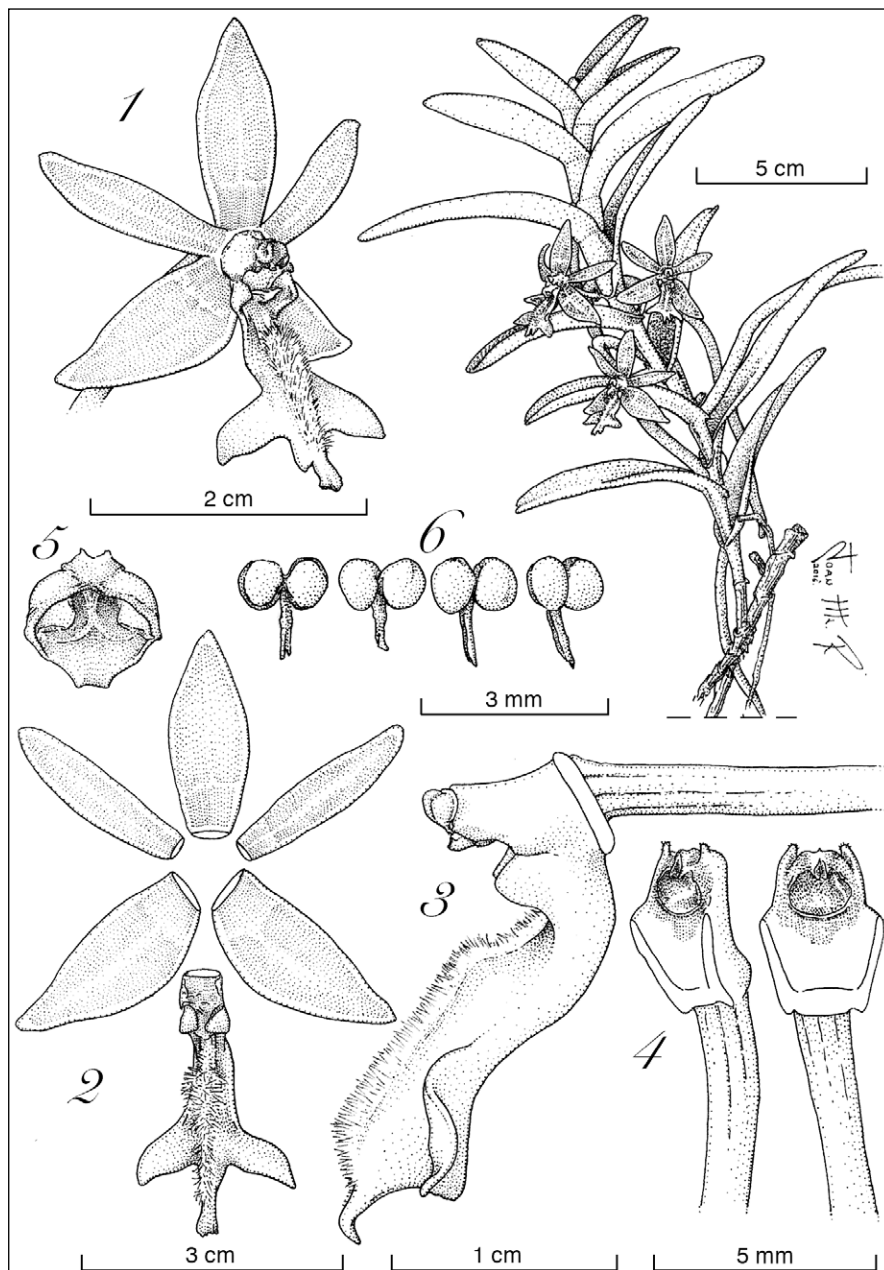
atropurpurea, (dark purple *Trichoglottis*) published for it by H.G. Reichenbach filius (Reichenbach 1877), but you will still find a lot of uncertainties in the use of the correct name for the purple-maroon-flowered *Trichoglottis* from the Philippines, and it is not usual to see *Trgl. philippinensis* treated as “the pale yellow and brown” form of *Trgl. brachiata* (= *Trgl. atropurpurea*). Actually, the two species are not difficult to be told apart. The plants of *Trgl. philippinensis* are usually slender, with longer internodes and much narrower, almost ligulate, leaves, while *Trgl. atropurpurea* has stouter plants with shorter internodes and elliptic to broadly lanceolate leaves. While the sepals and petals of the latter species are uniformly dark purple-maroon, in *Trgl. philippinensis* they vary from yellowish brown to chestnut to dark red on a greenish yellow background. Even when the flowers are particularly dark in coloration (approaching those of *Trgl. atropurpurea*), the sepals and petals always have a distinct yellow to green edge. Furthermore, the petals of *Trgl. philippinensis* are distinctly narrower, and the lateral lobes of the cruciform midlobe of the lip are usually less pronounced.

The long-lasting flowers of *Trgl. philippinensis*, produced at almost every internode during the spring and summer, may remain in perfect condition on the plant for more than two weeks. They are strongly scented during the warmer hours of the day. Roman Kaiser (1993) identified the major components of the floral fragrance of *Trgl. philippinensis* as (E,E)- α -farnesene (green apple scent) and linalool, a floral and slightly spicy compound.

Trichoglottis philippinensis is a hot growing species thriving in diffuse light, even though mature specimens may also be grown in direct sun. As other *Trichoglottis* species with erect habit, it can be successfully grown in clay pots with even moisture.

References

- Ames, O. 1922. New or Noteworthy Orchids from Different Parts of the World. p. 83–137. In: O. Ames, author. *Orchidaceae: Illustrations and Studies of the Family Orchidaceae*. Volume 7. Merrymount Press, Boston.
- Ames, O., and E. Quisumbing. 1933. New or Noteworthy Philippine Orchids IV. *Philippine Journal of Science* 52:443–473.
- Blume, C.L. 1825. *Bijdragen tot de Flora van Nederlandsch Indië, Synoptische Beschrijving van eenige planten, behoorende tot de familie der Orchideen, op eene, in de jaren 1823–1824 gedane reis over Java, waargenomen en beschreven*. Ter Lands Drukkerij, Batavia, Dutch East Indies.
- Carlsward, B.S., W.M. Whitten, N.H. Williams, and B. Bytbiier. 2006. Molecular Phylogeny of Vandaeae (Or-



- chidaceae) and the Evolution of Leaflessness. *American Journal of Botany* 93:770–786.
- Kaiser, R. 1993. *The Scent of Orchids: Olfactory and Chemical Investigations*. Givaudan Roure, Dübendorf, Switzerland, and Elsevier, Amsterdam.
- Koecyan, A., and A. Schuiteman. 2013. New Combinations in Aeridinae (Orchidaceae). *Phytotaxa* 161(1):61–85.
- Lindley, J. 1845. A Century of New Genera and Species of Orchidaceous Plants. Characterized by Professor Lindley, Decades 5 and 6. *Annals and Magazine of Natural History* 15:383–386.
- Reichenbach, H. G. 1877. *Orchidographische Beiträge, Linnaea* 41:17–98.
- Seidenfaden, G. 1988. Orchid Genera in Thailand XIV: Fifty-Nine Vandoid Genera. *Opera Botanica* 95:1–398.
- Topik, H., T. Yukawa, and M. Ito. 2005. Molecular Phylogenetics of Subtribe Aeridinae (Orchidaceae): Insights from Plastid *matK* and Nuclear Ribosomal ITS Sequences. *Journal of Plant Research* 118:271–284.
- Williams, L. O. 1938. The Genus *Trichoglottis* in the Philippine Islands. *Philippine Journal of Science* 65:385–397.

Trichoglottis philippinensis. The plant.

1. Flower.
2. Dissected perianth.
3. Column and lip, lateral view.
4. Column, $\frac{3}{4}$ and abaxial views.
5. Anther cap.
6. Pollinarium, four views.

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