

VANDA FURVA: THREE CENTURIES OF CONFUSION

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GEORGIUS EVERHARDUS RUMPHIUS, a German botanist working for the Dutch East India Co., described the earliest species of *Vanda* known to Western science in his *Amboinsche Kruidboek (Amboinese Herbal)*. This volume, based on discoveries on the Southeastern Indonesian island of Amboina and nearby Moluccas, was written in the late 17th Century but not published until the early 18th Century. The species that he called *Angraecum Furvum* has been obscure and problematic ever since. Linnaeus, in his comprehensive attempt to list all species known up to his time, included it in his *Species Plantarum* in 1753 as *Epidendrum furvum*. With Sir William Jones having erected the genus *Vanda* in 1795, Lindley included Rumphius's species as *Vanda furva* in his treatment of the genus in 1833 with the following comment:

"This obscure species was originally taken up by Linnaeus, apparently from the figure... referred to by Rumphius:... There is nothing in either the figure or description of Rumphius' *A. furvum* that would not apply well enough to *Vanda Roxburghi*; but... without some Amboyna specimen,... I leave it as a mark to which future botanists may direct their attention."

(Lindley, 1833)

Interestingly, no 18th or 19th Century botanist had ever seen an actual plant of Rumphius' *Angraecum Furvum*, yet his description was sufficiently detailed to satisfy all students that this species was, like almost all his others, based on accurate but pre-Linnean observations.

"The roots of *Angraecum octavum sive Furvum* are more spread out than the former {Rumphius' seventh *Angrek* is a *Dendrobium* species of the section *Spathulata*}, and hang loosely from the trees; the leaves grow in the same manner in two rows, but they are eight and nine inches long, scarcely one wide, also split in two at the tips, without sinews, except for the central groove, with the same taste as the foregoing. The flower-bearing stem shoots up as well as to the side, and the latter sends some roots or fibers down, which also attach themselves to the bark of the tree.

The Central or main stem is also bellied, in such a way that it is always thinner between its place of origin and the belly, which is the case with all the *Angreks* that have bellied stems.

The flowers appear on an expansive cluster, on rather longish dirty-white stems, fashioned from five leaflets, opened wide, curved like half moons; some are also curled, the size of *Angraecum tertium* or *Rubrum*, yellowish on the outside, dark inside, russet or a smoky color, yellow

at the edges, with a sweet though faint odor, that has a hint of dog in it, like the *Satyria*. In the center is a leaflet like a tooth, pale yellow, with two white little flaps below, ending at the bottom in a short purse; in front of these is a little pillar or anvil, also yellow, and between them two white leaflets. One can keep cut stems and flowers for a long time.

The fruits of *Angraecum furvum* are hexagonal pods, a hand wide, and long, easily a finger thick, divided into six ridges, inside with the same kind



Vanda furva



Closeup of *Vanda furva* showing lobules on the lip midlobe.

of yellow and hairy marrow, that has yellow, fine sand hanging from it. It creeps through everything, and it has long, curved roots behind the leaves, like strings, round, two feet long, the thickness of a quill, tough and breakable, with two or three divisions in front.

Name. In Latin *Angraecum octavum* or *Furvum*; in Malay *Angreck kitsjil glap*.

Place. It grows on the aforementioned Wakkat trees, on both living and dead trucks, and on half-rotted branches. It does not transplant easily due to its expansive roots, as was the case with *Angraecum album*."

(Rumphius 32-33)

The most distinctive character of *V. furva* in the description relative to the other *Vanda* species is the pale yellow lip, a rare feature in a genus notable for colorful labellums. Linnaeus did not include this character in his description in *Species Plantarum*.

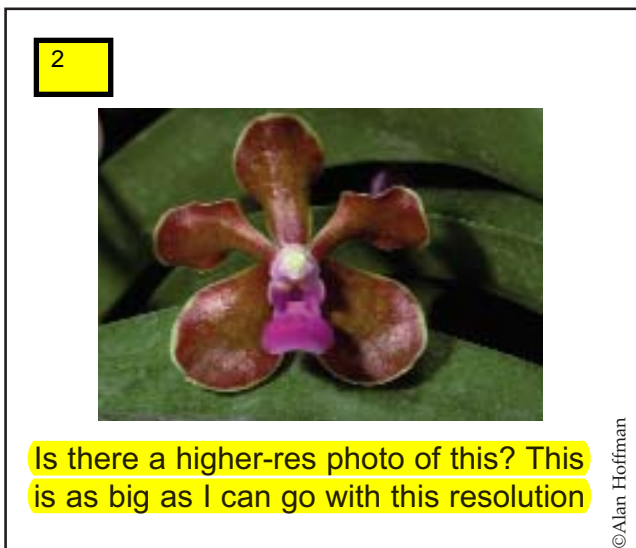
"Furvum 5. Epidendrum caulescens, foliis imbricatis lanceolatis, racemis axilliaribus. Angraecum octavum s. furvum Rumph. Amb. 6. p. 104 t. 105. s. 1."

(Linné, 1763)

Nonetheless, Rumphius' yellow-lipped *Vanda* was in the consciousness of the early 19th Century botanists and horticulturists who were excitedly discovering new species of *Vanda*. Once brought to Europe, they were among the few tropical orchids capable of long surviving the abominable conditions in the overheated early 19th century "Stove Houses" that mistakenly attempted to reproduce tropical conditions in temperate climates. In the mid-1830s, a yellow-lipped species was introduced from China, which Joseph Hooker described in 1835 as *V. roxburghii* var. *unicolor* Hook. However, William Loddiges suggested to John Lindley that this newly discovered yellow-lipped species was in fact from China and Rumphius' long lost "*V. furva*" (Lindley, 1844).

In 1848, when Karl Ludwig Blume published his redaction of Rumphius' work into Linnean form, *Rumphia*, he pointed out that Lindley's *V. furva* was not Rumphius's *V. furva*. Blume described Hooker's and Lindley's plant as *V. concolor* Bl., the first valid description of this plant as a new species. Blume published an illustration of what he reckoned was the real "*V. furva*" of Rumphius. This distinctive glossy brown species with a prominent violet lip is clearly closely related to both *V. limbata* Bl. and *V. insignis* Bl. Two plants have received AOS recognition as "*V. furva*": *V. furva* 'Bates Orchids' is *V. limbata* Bl. And *V. furva* 'J. and M's Pride' is *V. insignis* Bl.

Blume's accurate observations had created an opportunity for others to create confusion. *Vanda furva sensu* Lindley was reduced to synonymy with his *V. concolor*, but in the popular and less accurate literature this reference to *V. furva sensu* Lindley would be confused with Rumphius's *V. furva*, which was incorrectly reduced to a synonymy with *V. concolor*. Lindley is largely to blame for this confusion. About the same time as Blume was publishing *Rumphia*, Lindley in 1848 described the valid and distinct species, *V. fuscovirides*. This Chinese species, like Rumphius' *V. furva*, has a yellow-green lip. To give Lindley the benefit of the doubt, this publication took place before he had the opportunity to be enlightened by Blume's observations. But three years later, still rightly convinced that Rumphius' *V. furva* was a yellow-lipped species, Lindley and Paxton published in *Paxton's Flower Garden* an article accepting Blume's concept of *V. concolor* for Hooker's *V. roxburghii* var. *unicolor* and illustrating it. He also



Vanda limbata from Java.



Possibly *Vanda limbata* from Singapore.

described and illustrated "*V. furva*", but the illustration was the very same one he used when describing *V. fuscovirides* Lind. Lindley's commitment to the error that he and Loddiges had made a decade previously—that Rumphius' *V. furva* was a Chinese species—was now firmly cemented into the literature where it would remain for 150 years. Lindley did realize his error and in his 1853 *Folia Orchidacea* described Blume's plant as *V. furva* and observed that it is distinct from both *V. fuscovirides* and *V. concolor*. Lindley may well have by this time been in contact with Blume as he stated that Blume's figure of *V. furva* was copied from "an original in Professor Reinhardt's collection named *Aerides bicolor*..."

While Blume can hardly be blamed for the sins of Dr. Lindley, he too had jumped to an erroneous conclusion: the species that Blume illustrated is not Rumphius' *V. furva*. The plant that Blume illustrated is a separate species which, because of Blume's illustration and identification, has gone undescribed until present. Blume's plant has been known in cultivation for some time.* A specimen of this species has been in cultivation at Motes Orchids for 20 years and has scarcely managed to attain a height of 50 cm; this clearly is not Rumphius' plant, which "creeps through everything". The same is true of the short stature of the specimen labeled *V. furva* in the Lieden Herbarium (L 0533564). The same stature prevails in the specimen photographed by Dr. Charles Wilson *in situ* on Rinca, a small island near Flores. The authors will therefore be describing Blume's *V. furva* as a new species, *V. perplexa*.

The problem abides: what was Rumphius' yellow-lipped *Vanda*? In addition to the distinctive lip color,

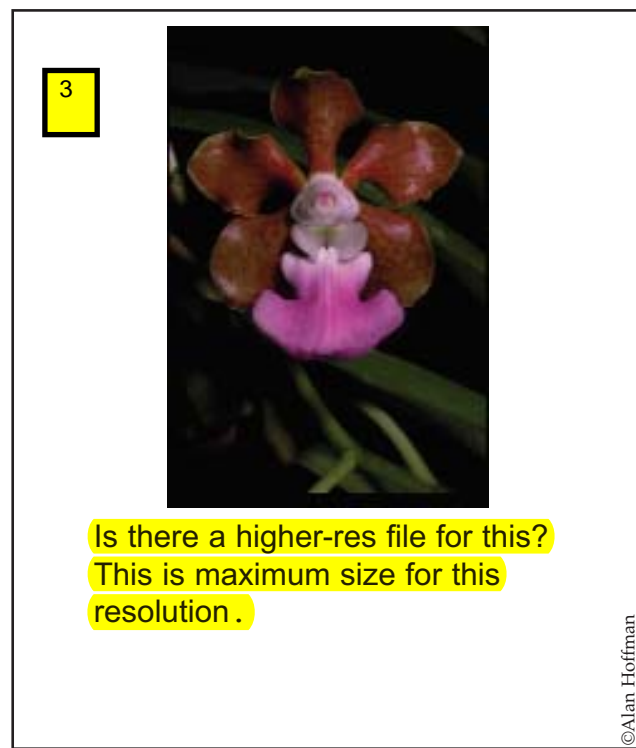
Rumphius' description offers three other clues to the identity of the species he had in hand. The first is his detailed description of the lip: "In the center is a leaflet like a tooth, Pale yellow, with two little flaps below, ending at the bottom in a short purse...". In our emphasized text, Rumphius seems to be describing the lobules characteristic of the lips in *Vanda* species of the section *Hastifera*. This section of *Vanda* is characterized by ornate lips that in addition to side lobes display lobules on the midlobe. Second, Rumphius describes in detail the floral segments: "Yellowish on the outside, dark inside, russet or smoky color, yellow at the edges". His plant had yellow flowers whose sepals and petals were dark in the center but yellow on the edges, another distinctive character. Finally, he gives a somewhat precise description of the plant habit: Rumphius' plant was large, "The leaves grow in the same manner, in two rows but they are eight and nine inches long..." and scrambling "It creeps through everything and has long curved roots behind the leaves..."

If one searches for a large scrambling *Vanda* with a yellow lip adorned with lobules, one might seek no further than *V. lindenii* Rchb.f. This wide-ranging species was first discovered in New Guinea just across from Rumphius' base in Amboina by collectors for John Linden. Reichenbach's *V. lindenii* also has the sepal and petal color that Rumphius describes: dark central markings (not spots) on the tepals, which are also edged with yellow. Rumphius' illustration of *V. furva* also clearly shows the incurved lateral sepals characteristic of *V. lindenii*.

Vanda lindenii Rchb.f. has been reported from Mindanao in the southern Philippines as well as from the Moluccas in a collection by E. F. Vogel in 1974 (L



Vanda insignis 'Mary Motes' AM/AOS



Vanda insignis

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Martin Motes is a native Floridian who has grown orchids for over fifty years. He is author of *Vandas: Their History, Botany and Culture* and *Florida Orchid Growing Month by Month*, as well as numerous articles on the culture, breeding and taxonomy of Aeridinae. His hybrids have won many awards in national and international competition. In collaboration with David Roberts he is currently working on a monograph of the genus *Vanda*.

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