

CLARIFICATION OF SOME NOMENCLATURE  
IN THE GENUS STANHOPEA  
(ORCHIDACEAE)

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Members of the genus *Stanhopea* are of sufficient horticultural importance that species names are significant to orchid growers. Most orchid growers have at least one or two *stanhopea* plants in their collections because of their bizarre flowers. Unfortunately, many of them are misidentified or are carrying names which are invalid. Some of these result from errors made by early taxonomists and others are of horticultural origin. Names known in horticulture which need clarification are discussed below.

***Stanhopea bucephalus* Lindl. = *S. jenishiana* Kramer ex Rchb. f.**

The name *S. bucephalus* was applied by Lindley in 1832 to a species which occurs in southwestern Colombia and southwestern Ecuador (Plate I). The illustration published in the Botanical Register, plate 24, in 1845 is clearly the species in question. It was made from a specimen collected near Paccha in southwestern Ecuador by Hartweg. This is also the plant named *Epidendrum grandiflorum* by Humboldt and Bonpland in 1805 which originated near Cuenca in Ecuador. Reichenbach, in 1856, transferred the above name to *Stanhopea*. Unfortunately, there was already a different species, *Stanhopea grandiflora* (Lodd.) Lindl., carrying the name.

*Stanhopea bucephalus* Lindl. would be the appropriate name for the Colombia and Ecuador species (and it has long been known in horticulture by that name) but, unfortunately, Lindley chose as the type a specimen of *Stanhopea oculata* (Lodd. ex Lindl.) Lindl., collected by Galeotti near Orizaba in Mexico. This specimen was erroneously attributed to Ruiz and Pavon, Peruvian collectors, as having been collected in Peru. It was part of the Lambert Herbarium, now housed at the British Museum, and is clearly labeled "Maxillaria de Mexico." It has been traced to Galeotti who collected in Mexico at about the same time that Ruiz and Pavon worked in Peru. The specimens of both important collections were received by the herbarium in Madrid and distributed from there. Lindley attempted to correct the error in the Botanical Register (sub Table 44) in 1843 and even put a Hartweg specimen, along with the illustration from the Botanical Register (Table 24) in 1845, in his herbarium as the type of *Stanhopea bucephalus*.

According to the International Rules of Botanical Nomenclature this makes the name *S. bucephalus* Lindl. invalid. The next available name for this species is *Stanhopea jenishiana* Kramer ex Rchb.f. described in 1852. The type specimen of *Stanhopea jenishiana* is located in the Reichenbach collection at the Herbarium in Vienna.

*Stanhopea jenishiana* Kramer ex Rchb.f. must now replace the name *S. bucephalus* Lindl.

*Stanhopea jenishiana* Kramer ex Rchb. f., Bot. Zeitung (Berlin) 10:934. 1852.  
Syn.: *Epidendrum grandiflorum* Humb. & Bonpl., Pl. Aequinoct. 94. 1805.

*Anguloa grandiflora* (Humb. & Bonpl.) HBK, Nov. Gen. Sp. 1:345.  
1815.

\*The Marie Selby Botanical Gardens.

A.

B.

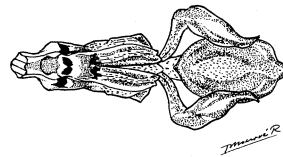
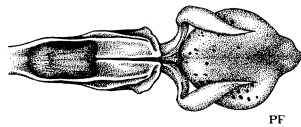
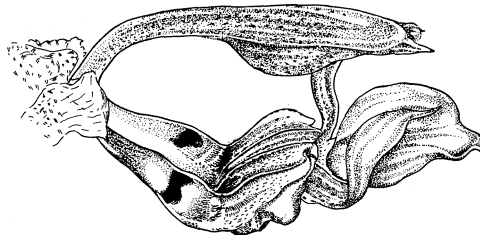
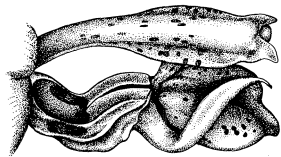
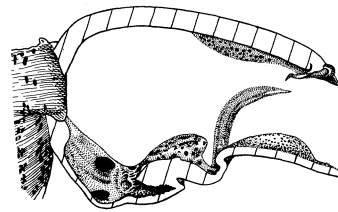
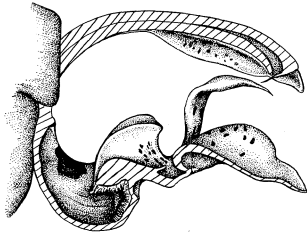
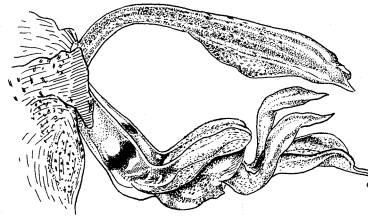
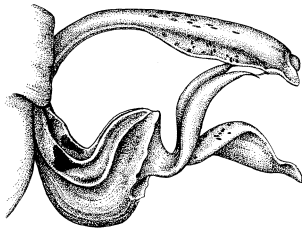


PLATE I

Views of the floral column and lip of  
A. *Stanhopea jenishiana*      B. *S. oculata*

*Stanhopea grandiflora* (Humb. & Bonpl.) Rchb. f., Walpers Annales 6:587. 1856, non *Stanhopea grandiflora* (Lodd.) Lindl., Gen. Sp. Orchid. Pl. 158. 1832.

non *Stanhopea bucephalus* Lindl., Gen. Sp. Orchid. Pl. 157. 1832 (cf. Lindl., Edward's Bot. Reg. sub. t. 44. 1843; l. c. t. 24. 1845.). = *S. oculata* (Lodd. ex Lindl.) Lindl., Gen. Sp. Orchid. Pl. 158. 1832.

*Stanhopea hoppii* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 27:82. 1924.

***Stanhopea graveolens* Lindl.**, a misapplied name.

When Lindley described *Stanhopea graveolens* in 1840 in the Botanical Register (Misc. 125), he attributed its origin to Peru. He did make a point of mentioning the foul odor produced by the flowers. Lindley made a type specimen accompanied by an excellent illustration which has never been published. Years passed and Lindley did not see additional fresh specimens of the plant. He did cite an illustration of a plant from Brazil which has the same obnoxious odor (3-methyl indole) and similar morphological characters as being of the same plant in 1852. Henceforth, the name *S. graveolens* Lindl. has been associated with the Brazilian species. The type specimen of *Stanhopea graveolens* Lindl. is a species which commonly occurs in Mexico and Guatemala and which has been called *Stanhopea wardii* Lindl. due to its general morphological similarity and color. *Stanhopea wardii* does not occur north of Nicaragua and *S. graveolens* does not occur south of Honduras. The Brazilian species must, therefore, be called *S. lietzi* Schltr., the next available name. Plate II shows the differences between *S. lietzi* Schltr., *S. graveolens* and *S. wardii*. *Stanhopea graveolens* is pollinated by *Euplusia mexicana*, *S. wardii* by *Euplusia concava* and the pollinator of *S. lietzi* is unknown.

***Stanhopea devoniensis* Lindl. = *S. hernandezii* (Kunth) Schltr.**

This species described by Lindley in 1838 occurs in the pine-oak forests of western Mexico from near Tepic to Chilpancingo. L. O. Williams (1951) reduced *S. tigrina* Batem to a synonym of *S. devoniensis*, apparently based on whim. It is clearly distinct from *S. tigrina*, a species which occurs along the eastern slope of the Meseta Central of Mexico from near Ciudad Maiz, not far south of the Texas border, to southern Vera Cruz State. The flowers of *S. tigrina* are among the most massive of any orchid and are more than twice the size of those of *S. devoniensis* and differ in numerous characters (Plate III).

Teuscher (1965) confused this species with *Stanhopea martiana* Lindl., a species with a more southern distribution in the States of Guerrero and Oaxaca. *Stanhopea martiana* has bent cirrhae at the tips of the horns of the mesochile and generally has very pale colored flowers.

Hernandez (1661) described and illustrated an orchid grown by the Aztec Indians. Kunth described Hernandez' concept as *Anguloa hernandezii* in 1822. This legitimate name was based on the illustration published by Hernandez. Unfortunately, this illustration was a view looking upward into the pendant flower. Schlechter, when he transferred the name to *Stanhopea* in 1918, interpreted Hernandez' illustration to be of *S. tigrina*. However, Planchon had previously cited it correctly as being the same as *S. devoniensis*. Careful comparison (Plate IV) of the Hernandez illustration, and

A.

B.

C.

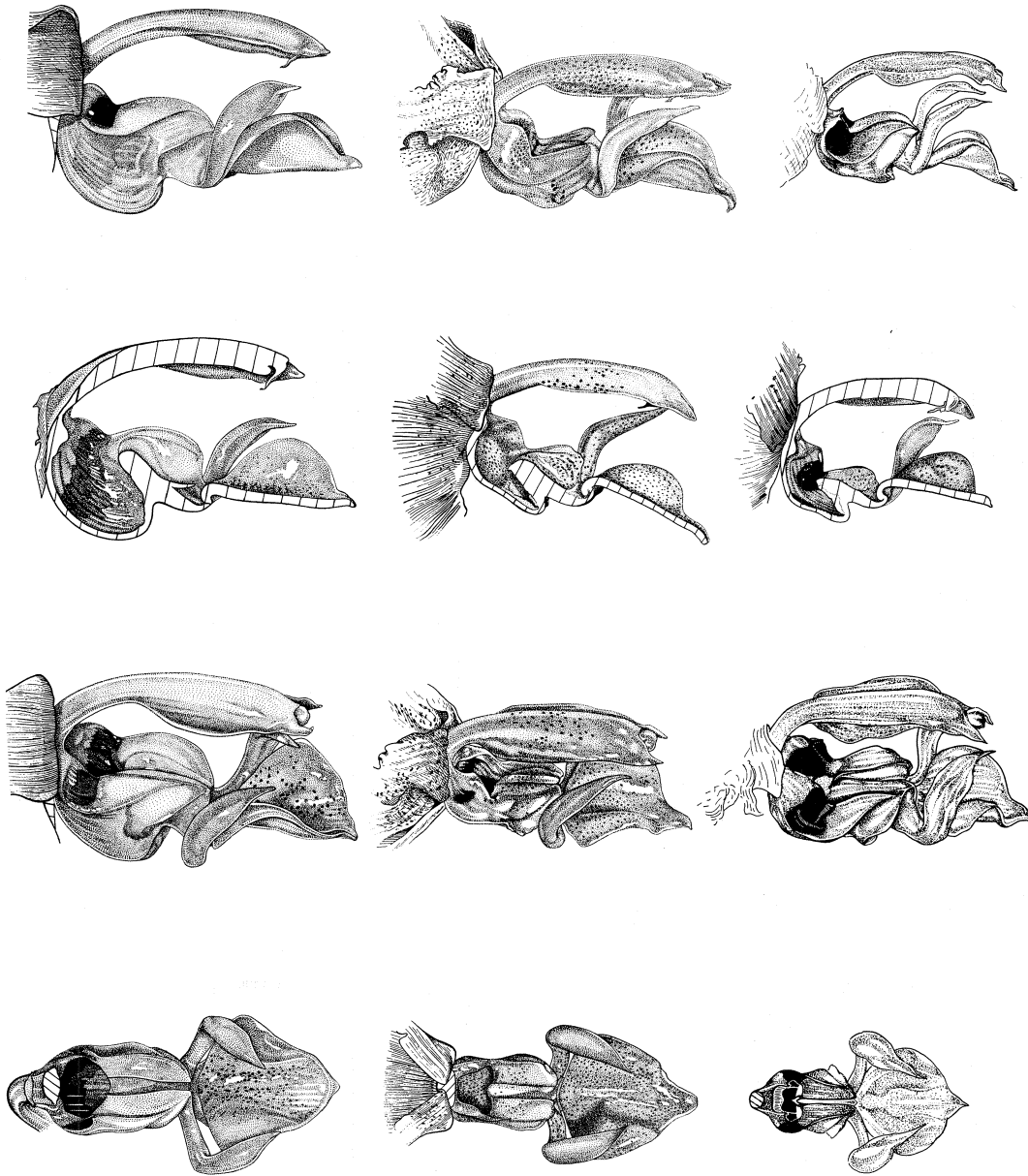


PLATE II

Views of the floral column and lip of

A. *Stanhopea lietzi*

B. *S. graveolens*

C. *S. wardii*

A.

B.

C.

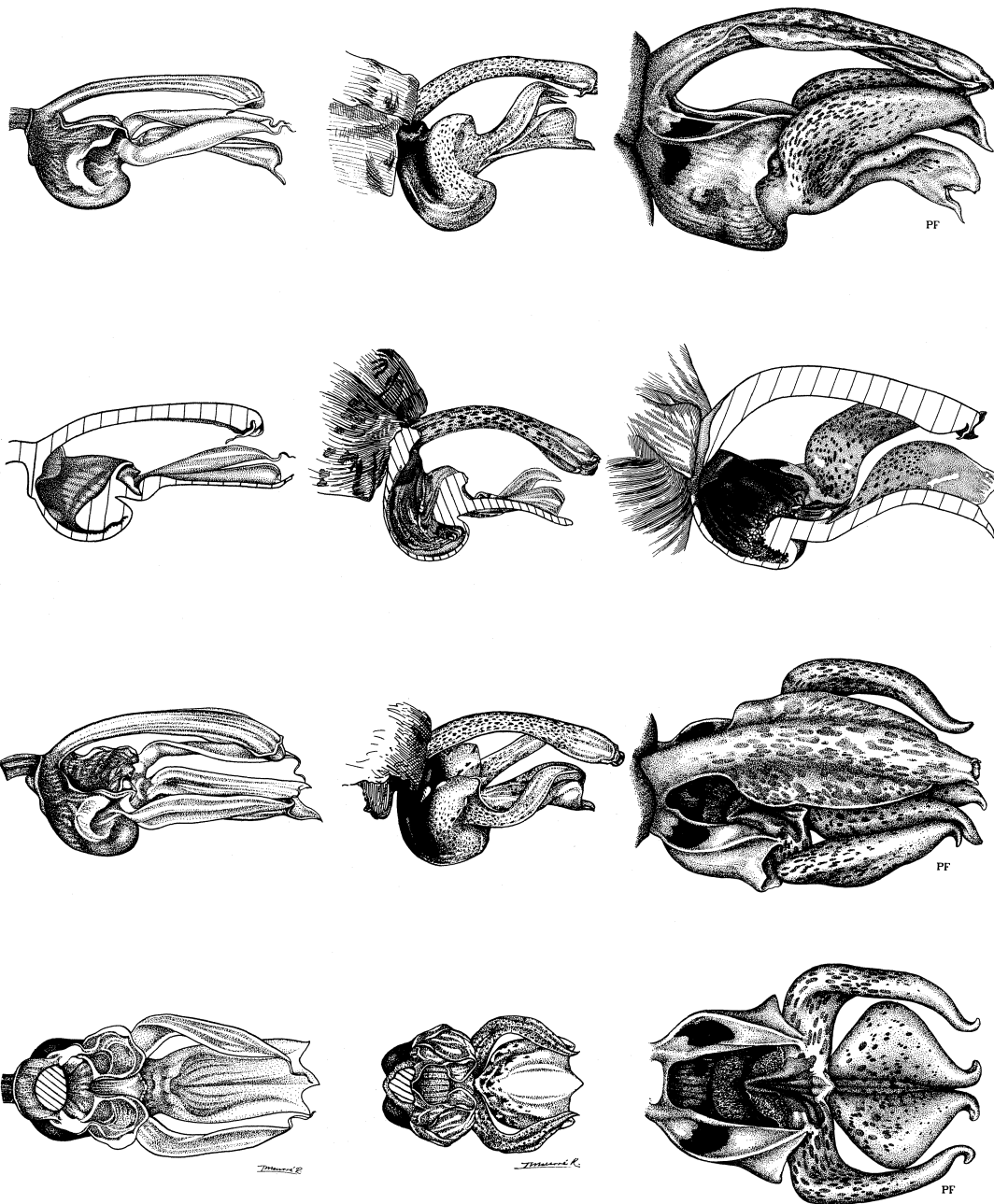


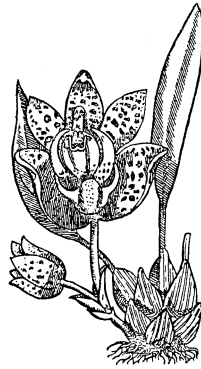
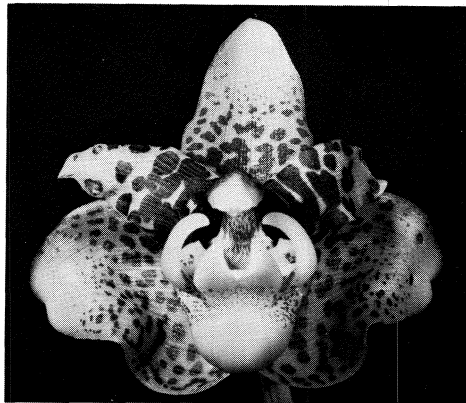
PLATE III

Views of the floral column and lip of

A. *Stanhopea martiana*

B. *S. hernandezii*

C. *S. tigrina*

*Coatzontecoxochitl**Stanhopea herandezii**Stanhopea tigrina*

## PLATE IV

A comparison of photographs of *Stanhopea herandezii* and *S. tigrina*, and the illustration by Hernandez of *Coatzontecoxochitl* upon which Kunth based the name *Anguloa herandezii*. Photographs by George Kennedy.

the flowers of *S. devoniensis* and *S. tigrina*, from the same view reveals that the Hernandez illustration matches *S. devoniensis* rather than *S. tigrina*. According to the International Rules of Botanical Nomenclature, *Stanhopea herandezii* (Kunth) Schltr. is the first valid name for this species and must replace the name *S. devoniensis* Batem. ex Lindl.

*Stanhopea herandezii* (Kunth) Schltr., Beih. Bot. Centralbl. 2:490. 1918.

Bas.: *Anguloa herandezii* Kunth, Syn. 1:332. 1822.

Syn.: *Stanhopea devonensis* Lindl., Sertum Orchid. t. 1. 1838.

non *Stanhopea martiana* Batem. ex Lindl., Edward's Bot. Reg. 26: misc. 109. 1840; cf. H. Teuscher, Amer. Orchid Soc. Bull. 34:522. 1965.

**Stanhopea eburnea** Lindl. = **S. grandiflora** (Lodd.) Lindl.

Loddiges described this handsome species (Plate V) as *Ceratochilus grandiflorus* in 1828. He then found that Blume had already used the generic name for an Asian orchid. Lindley then transferred *C. grandiflorus* to the genus *Stanhopea*, proposed by Frost and Hooker in 1829 and based on the Brazilian species *S. insignis*. *Stanhopea insignis* was attributed to Ecuador by Lindley in 1832 but is known only from the eastern slopes of the Serro do Mar in eastern Brazil. Lindley corrected this error in 1843, but several persons including Schlechter (1921) still cited *S. insignis* as coming from Ecuador.

Lindley described *S. eburnea* in 1832. He later (1853, p. 8) maintained *S. grandiflora* (Lodd.) Lindl. and *S. eburnea* Lindl. as separate species, but there is no question that the two are synonymous. The name *S. grandiflora* (Humb. & Bonpl.) Rchb.f. is a synonym of *S. jenishiana* Kramer ex Rchb. as discussed above.

Though many botanists including Dunsterville and Garay (1959) and Teuscher (1973) have attempted to wish away the name *S. grandiflora* (Lodd.) Lindl. for this species, the International Rules are quite clear in this case and the name *S. eburnea* Lindl. must be relegated to a synonym of *S. grandiflora* (Lodd.) Lindl.

*Stanhopea grandiflora* (Lodd.) Lindl., Gen. Sp. Orchid. Pl. 158. 1832, non *Stanhopea grandiflora* (Humb. & Bonpl.) Rchb. f., Walpers Annales 6:587. 1856.

Bas.: *Ceratochilus grandiflorus* Lodd., Bot. Cab. 15: t. 1414. 1828.

Syn.: *Stanhopea eburnea* Lindl., Edward's Bot. Reg. 18: t. 1529. 1832.

cf. Lindl., Folia Orchid. 1852.

cf. Dunsterville & Garay, Venezuelan Orchids Illustrated 1:409. 1959.

cf. H. Teuscher, Amer. Orchid Soc. Bull. 42:510. 1973.

*Stanhopea calceolata* Drap., Hort. Universel 2:264. 1841.

**Stanhopea fregeana** Rchb. f. = **S. maculosa** Knowles & Westcott

This distinctive species occurs in the mountains of western Mexico near Uruapan (where collectors have often collected it growing near the waterfall) to near Alamos in western Sonora where Dr. George Kennedy (1974) has recently reported its collection. The species is known in collections as *S. fregeana*, a name applied by Reichenbach in 1855, but Knowles and Westcott in 1839 had described the species as *S. maculosa*. I had not had the opportunity of seeing Knowles and Westcott's plate when I discussed the Mexican stanhopeas (Dodson, 1963).

Another name, *S. schilleriana* Rchb.f., described from horticultural material without known origin, is also a synonym of *S. maculosa* Knowles and Westc. It has been erroneously considered to be a valid species from Colombia by Garay (1970).

The name *S. marshii* Rchb. f. is based on a specimen in the Reichenbach Herbarium in Vienna. It was incorrectly placed in synonymy with *S. saccata* Batem. by Ames and Correll (1953).

*Stanhopea maculosa* Knowles & Westcott, Flor. Cab. 3: t. 121. 1839.

Syn.: *Stanhopea fregeana* Rchb. f., Allg. Gartenzeitung 23: 313. 1855.

*Stanhopea schilleriana* Rchb. f., Xenia Orch. 2: 158. 1874.

*Stanhopea marshii* Rchb. f., Xenia Orch. 1: 120. 1858.

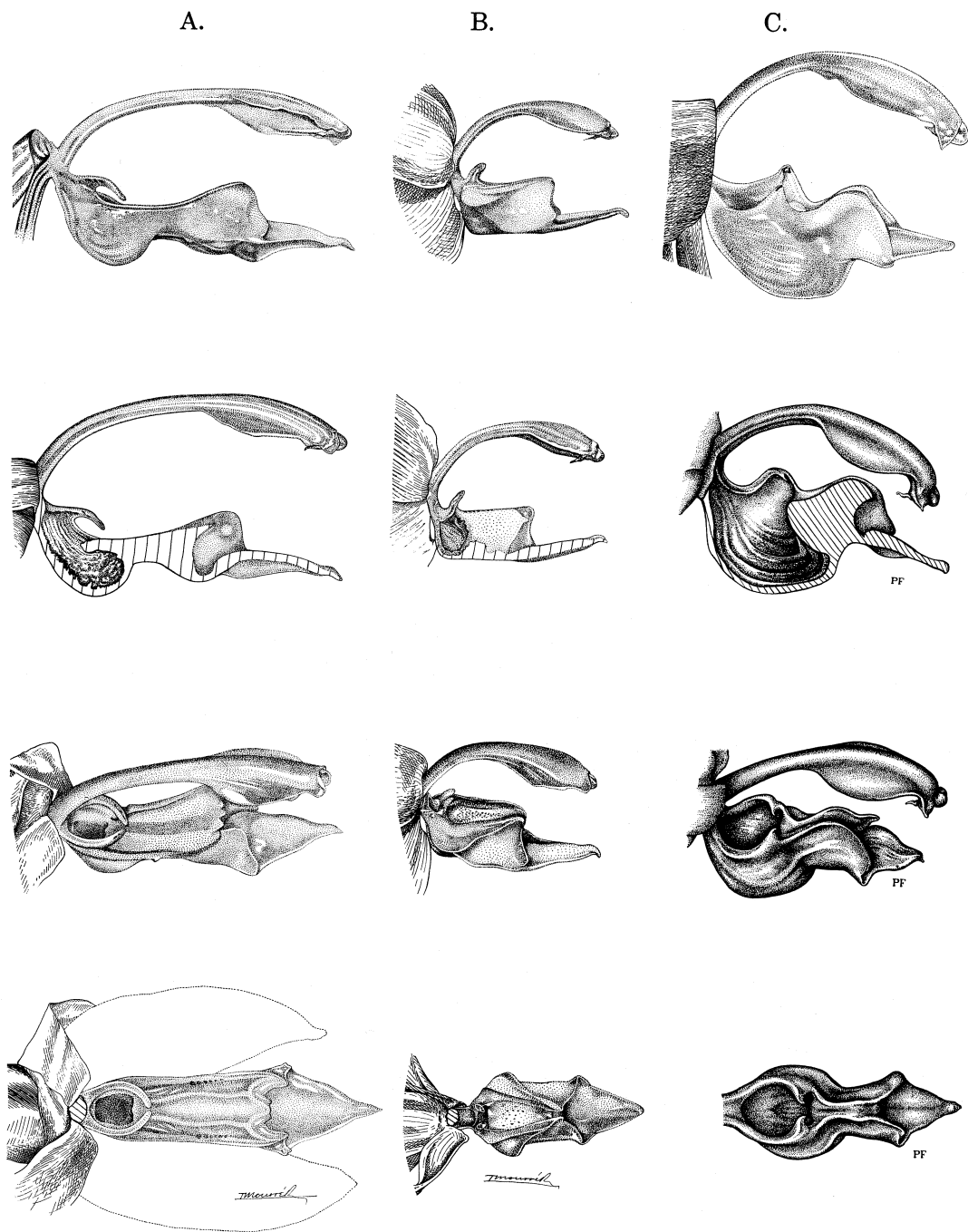


PLATE V

Views of the floral column and lip of

A. *Stanhopea grandiflora*

B. *S. candida*

C. *S. reichenbachiana*



A.

B.

C.

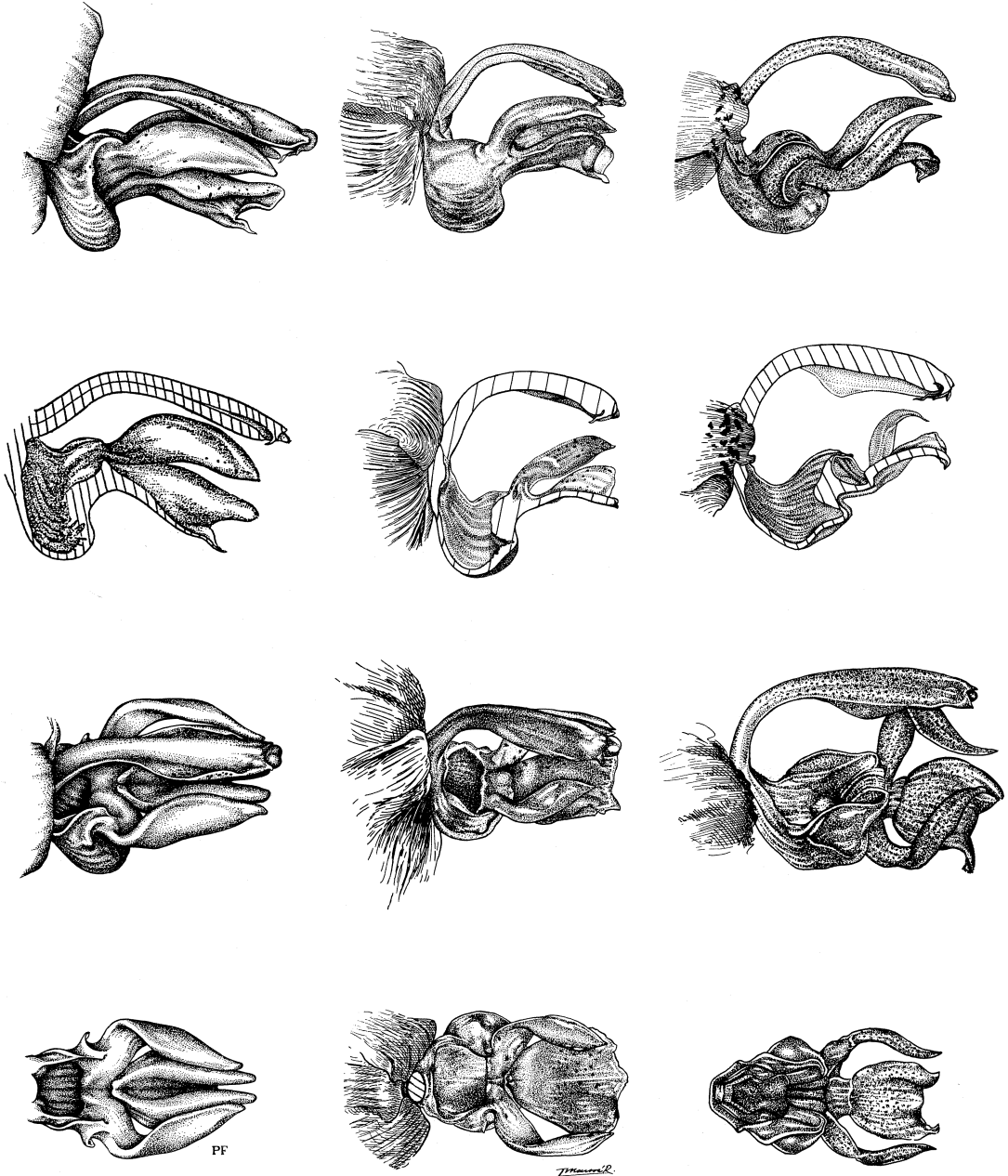


PLATE VI

Views of the floral column and lip of

A. *Stanhopea saccata*

B. *S. radiosa*

C. *S. maculosa*

The *Stanhopea saccata* alliance:

*Stanhopea saccata* Batem., Orch. Mex. & Guatem. t. 15. 1839.

*Stanhopea radiosa* Lem., Ill. Hort. 6:misc. 72. 1859.

The first species occurs in the state of Chiapas in Mexico and southward along the Pacific slope of Guatemala, El Salvador, Honduras, and Nicaragua. A very similar species, often confused with *S. saccata*, is *S. radiosa* Lem. which occurs north of the Isthmus of Tehuantepec in Mexico to the state of Sonora along the lowland slopes of the Meseta Central. The two species are very similar (Plate VI) but can be distinguished by the narrower horns of *S. radiosa* and the much less folded nature of the epichile, which in *S. saccata* makes the apex of that organ three-lobed with the lateral lobes extending beyond the mid-lobe. In addition *S. radiosa* has an obvious triangular tooth which projects from under the base of the horns of the mesochile where the epichile is attached while *S. saccata* does not have the tooth.

*Stanhopea radiosa* is pollinated by *Euglossa viridissima* while *S. saccata* is pollinated by *Euplusia caerulescens*. The two species produce distinctive fragrances. Another form which occurs south of the Valle del General in Costa Rica may represent a form of *S. saccata* or an additional species—see Teuscher, 1973, for an illustration of this form.

This is a confusing group in which the forms are difficult to distinguish. *Stanhopea radiosa* may be merely a subspecies of *S. saccata* and the Costa Rican form may be the same. I have been unable to determine if *S. radiosa* and *S. saccata* are sympatric in the State of Chiapas in southern Mexico.

Other identity problems occur in the genus *Stanhopea* but most of them are simply results of misidentifications rather than incorrect nomenclature.

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