

## REVISION OF THE GENUS *BAPTISTONIA* (ORCHIDACEAE) 3: THE “*BAPTISTONIA BRIENIANA*” COMPLEX

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**ABSTRACT.** Continuing our revision of the genus *Baptistonia*, we consider in this article the taxa belonging to the “*Baptistonia brieniana*” complex. The validity of the various published concepts is critically reviewed. The valid species are described and a key for the identification of the taxa belonging to this group is proposed.

**RÉSUMÉ.** Poursuivant la révision du genre *Baptistonia*, nous étudions dans cet article les taxons appartenant au complexe “*Baptistonia brieniana*”: discussion des divers concepts publiés dans ce groupe, description des espèces retenues, clé d’identification.

**Key words:** Brazil, Orchidaceae, *Baptistonia*, *B. albini*, *B. brieniana*, *B. riograndensis*

### INTRODUCTION

In the wake of our revival of the genus *Baptistonia* Barbosa Rodrigues (Chiron & Castro Neto 2004), we are now revising this genus, which is endemic to the Mata Atlantica, where it is found from the Brazilian State of Bahia to the north, to the Argentine State of Misiones in the south. In our first two articles on the subject (Chiron & Castro Neto 2005a, 2005b), we delimited the generic characteristics of the genus *Baptistonia* and discussed the taxa that belong to the “*Baptistonia pubes*,” “*Baptistonia cornigera*,” “*Baptistonia truncata*,” and “*Baptistonia silvana*” complexes. In this article, we consider the plants belonging to the “*Baptistonia brieniana*” complex.

This complex is primarily characterized by bifoliate plants that generate an inflorescence longer than the leaves, with flowers that open wider than those of other groups in the genus. The labellum is more or less flat and distinctly wider at the level of the lateral lobes as compared to its width at the level of the median lobe. The lateral lobes are distinctly spread but are more or less clearly directed to the front. The mid-lobe is sub-orbicular, sometimes wider than long, sometimes longer than wide. Within this complex, we place the following six species: *Oncidium brienianum* Reichenbach f., *Oncidium verrucosissimum* Cogniaux, *Oncidium riograndense* Cogniaux, *Leochilus* (“*Leiochilus*”) *spiegazzianus* Kraenzlin, *Oncidium albini*

Schlechter, and *Oncidium*  $\times$  *cassolanum* V.P.Castro & Campacci.

### TAXONOMIC BACKGROUND

When working with this complex, several questions arise: Is *Oncidium brienianum* really synonymous with *O. widgrenii* Lindley as stated by G. Pabst? What exactly is *O. riograndense*? What relation does it have to *O. verrucosissimum* and to *O. albini*? Before we move to the description of the species that we accept as belonging in this complex, we need to find answers to these questions.

#### *Oncidium brienianum* and *O. widgrenii*

*Oncidium widgrenii* was published with a rather short description by Lindley in 1855. The type (K!) includes drawings of the flowers and allows a clear view of the identity of this species. It is characterized primarily by pseudobulbs that are more ovoid than fusiform, by a labellum with well-developed side lobes that are inserted very close to the main lobe (and thus do not form a distinct isthmus), and by a callus that is made up of two parallel rows of scales that reach the center of the main lobe. The type specimen originates from Minas Gerais (without further detail). Cogniaux also places it in the state of Rio de Janeiro. According to Cogniaux, the plants flower in April and May. We have observed this species near Bocaina (São Paulo), where it flowers February–March.

Reichenbach f. described *Oncidium brienianum* on the basis of a plant imported to England

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TABLE 1. Comparison of *Baptistonia widgrenii*, *B. brieniana*, and *B. verrucosissima*.

Plant/flower part	<i>B. widgrenii</i>	<i>B. brieniana</i>	<i>B. verrucosissima</i>
Pseudobulb	Ovoid	Fusiform	Fusiform
No. leaves	1	2	2
Inflorescence	Simple	Branched	Branched
Flower color	Mainly brown with a bit of yellow	Bright sulphur-yellow with brown bands	Yellow spotted brown
Pedicelled ovary	13 mm	~7 mm	7–8 mm
Petals	Panduriform	Broadly cuneiform	Triangular-obovate
Lateral lobes of lip	Linear, curved inward	Ligulate, semilunate	Oblong-ligulate
Median lobe of lip	Cuneate, bilobed	Small, trapezoid	Transversely oblong
Isthmus	None	Quite long	Quite long
Sinus	Rounded	Square, back hidden by callus	Square, undulate and crisped at back
Callus	Not wider than isthmus, teeth in two dense rows on median lobe	Projecting beyond isthmus, partly transversely draped onto claw, bifid at height of lateral lobes, a granulose mass at base of median lobe	Long granulose mass, claviform, with small two-lobed plaque just below lateral lobes
Anther	Not divided, or very indistinctly divided into two lobes	Divided into two lobes	Divided into two lobes

from Paraguay (again without further information about the original locations). The description is relatively detailed and the herbarium specimens of the type (W!, no. 16453 and no. 7031) are completed by several drawings (no. 25704 and no. 25705) that confirm the description. We therefore can find no reason to doubt the validity of this taxon (see the description below).

Pabst (1972) claims that *Oncidium brienianum* also lacks the characteristic isthmus and places the species in the synonymy of *O. widgrenii*. This view also is taken by Garay and Stacy (1974) and Senghas (1997), but neither Garay and Stacy nor Senghas present any further arguments (not surprising in the case of Garay and Stacy, because their work is nothing more than a list of species). The type specimen of *O. brienianum* and the drawing of the flowers, however, do not agree with this interpretation and show a more or less long, but distinct, isthmus. Furthermore, the form of the pseudobulbs, the number of leaves, the color of the flowers (clear light bright sulfur), the size of the median lobe (very small), as well as the callus are dissimilar to the analogous structures of *O. widgrenii* (see TABLE 1.) The sketch presented by Kraenzlin (1922) shows, likewise, a long isthmus and a callus that can in no way be described as consisting of "two dense rows of teeth." In our opinion, the two taxa are not conspecific.

Whereas *Baptistonia brieniana* originates from Paraguay, and *B. widgrenii* finds its native habitat in Minas Gerais, additional support is

presented for this viewpoint. We have found plants that can be considered as belonging to the *B. brieniana* concept in Paraguay and further south in the northwestern part of the Brazilian state of Rio Grande do Sul, not far from the Argentine border. Plants answering to the description of *B. widgrenii* have been found by us in Minas Gerais and in the northern part of São Paulo. In between those two areas that are more than 1000 km apart, we have not found any plants that answer to the description of either one.

### *Oncidium brienianum* and *O. verrucosissimum*

Cogniaux also described *Oncidium verrucosissimum* on the basis of a plant from Paraguay (the type specimen was collected at Villa Rica where the plant flowered in April). According to his description, it is clear that this taxon is closely related to *Baptistonia brieniana*, and the two have some common characteristics. Our examination of the type (P!) allowed us to positively identify the numerous specimens that we observed in the country of origin of the type. We also received flowers originating from Tapirendi (Brasil, Rio Grande do Sul, not far from the Argentine border) that undoubtedly can be linked to this concept, as can flowers received from Argentina (Misiones). The most distinctive characteristics are the sinus with its crenulate bottom (the callus is larger than the isthmus), the irregular margin of the median lobe, and the strange

construction of the callus without any distinct teeth. Because the concepts of *B. brieniana* and *B. verrucosissima* are closely related and show no incontestable differences (see TABLE 1), we find the two species sympatric; and since we are unable to identify two distinct populations in nature, we consider these two taxa to be conspecific. Our transfer of *Oncidium verrucosissimum* to the genus *Baptistonia* (Chiron & Castro Neto 2004), therefore, was wrong.

***Oncidium brienianum*, *O. riograndense*,  
*O. albini***

The type specimen of *Oncidium riograndense*, originally conserved in Berlin, can no longer be found and probably was lost by act of war (C. Oberprieler pers. comm.). Cogniaux wrote in his original description that he based his new species on a herbarium specimen conserved in the Herbarium of Hieronymus—part of the botanical material destroyed during World War II. Since no related material could be found in any other herbarium familiar to Cogniaux, we thus relied on the detailed description and illustration published by Cogniaux. The type originates in Rio Grande do Sul, from a place referred to as Ferromecco; the only place that we could find with this toponym is in the Cai valley, not far from Bom Principe, to the north of Porto Alegre, on the southwestern elevations of the Serra do Mar. The live specimens that we were able to examine originated either from this valley or from the region of Santo Angelo and Tuparendi (the western part of Rio Grande do Sul).

Kraenzlin (1922) refers to a specimen that came from a site “in the vicinity of Laguna,” which is a coastal town in Santa Catarina (Brazil). We suppose that the exact site of origin was in the very nearby Serra do Mar. We were not able to confirm the presence of this taxon in that area, but we assume that, in reality, the plant belongs to the concept of *Baptistonia albini* (which is based on *Oncidium albini* described in 1926), as *B. riograndense* does not occur in this part of Serra do Mar.

Cogniaux described *Oncidium riograndense*, in *Flora Brasiliensis* by Martius, one year after *O. verrucosissimum*, discussed above. He included *O. riograndense* in his “species addendae” numbered “42bis,” whereas *O. verrucosissimum* was given the number 42. Some may conclude that Cogniaux considered the latter to be closely related to his new species. The numbering proves, however, that when describing *O. riograndense*, he had not forgotten his *O. verrucosissimum*. There is thus no reason to believe that Cogniaux described the same species twice under different names. Furthermore, the draw-

ings that accompany both descriptions show two clearly distinct plants; and we have no reason to consider *O. riograndense* and *O. verrucosissimum* to be synonymous. Another argument supporting this hypothesis is the geographic distribution: the first taxon comes from the Cai Valley, more than 700 km from Vila Rica (Paraguay), home of the last one. As we have placed *O. verrucosissimum* within the synonymy of *Baptistonia brieniana*, it is therefore evident that this latter taxon cannot be synonymous with *O. riograndense*. TABLE 2 shows the main characteristics by which these taxa can be differentiated.

The type specimen of *Leiochilus spegazzinianus* Kraenzlin also was conserved in Berlin and remains lost, most probably destroyed by act of war. According to Christenson (1994), this specimen is not part of the remnants of the Berlin Herbarium that are now kept in Hamburg (HBG). Our interpretation is founded on the original description and illustration by Kraenzlin. Neither shows any significant difference from *Oncidium riograndense*. With no evidence to the contrary, we thus consider both taxa to be conspecific—despite the listing of *O. spegazzinianum* as a good species by Garay and Stacy (1974) and by Pabst and Dungs (1977). In the case of the latter authors, this is hardly surprising, as their interpretation of *O. riograndense* was erroneous, as we will see later. Furthermore, this taxon has its origins in Argentina (Misiones).

The type specimen (B) of *Oncidium albini* originates in Parana, from the area near Curytiba, on the eastern slopes of in the Serra do Mar, possibly at 700–1300 m. As all other collections of Albino Hatschbach originate from these elevations, we also assume these to be applicable to the plant under discussion. Only a few collections fail to indicate site elevation. Unfortunately, the type specimen could not be found, probably for the same reasons given above (and the search of the HBG had the same result). Schlechter, in his original description, does not indicate the date of flowering. This taxon was considered a valid species by Garay and Stacy (1974) and Pabst and Dungs (1977), but these two works were simple listings without commentary. We observed plants answering to the Schlechter description as far north as the state of São Paulo, southward to the Serra do Mar in the north of Rio Grande do Sul, invariably at 600–1000 m. This species is closely related to *Baptistonia riograndensis*.

According to the original description, all vegetative parts of *Baptistonia riograndensis* are distinctly smaller than the analogous parts of *B. albini*, but this may simply lie in the nature of

TABLE 2. Comparison of *Baptistonia riograndensis*, *B. brieniana*, and *B. albini*.

Plant/flower part	<i>B. riograndensis</i>	<i>B. brieniana</i>	<i>B. albini</i>
Inflorescence	Somewhat longer than leaves	Somewhat longer than leaves	3 times as long as leaves
Pedicel	10–14 mm	~7 mm	7–8 mm
Labellum	7–8 × 9 mm	8–10 × 8–10 mm	10 × 11 mm
Pedicel/labellum ratio	1.5	0.7–0.9	0.75
Lateral sepals/labellum ratio	~1.4	~1.2	~1
Petals	Obovate 12–13 × 7 mm	Obovate-spatulate 12 × 10 mm	Obovate 12 mm long
Lip lateral lobes	Elliptic 4 × 1.5 mm at 90° to axis	Ligulate 3.5 × 0.5 mm at 90° to axis	Elongate-quadrangular 4.5 mm long at 120° to axis
Inferior margin of lip lateral lobes	Smooth	Smooth	Irregular
Median lobe of lip	Nearly circular 2.5–3 × 2–2.5 mm	Trapezoid 2.6 × 3.1 mm	Elliptical 4.5 × 2.5 mm
Sinus	Rounded, truncate	Square, back hidden behind callus	Triangular
Callus	Linear from base to apex, extremely verrucose, two fine teeth at front of basal part, divided near apex	Projecting beyond isthmus, partly transversely draped onto claw, bifid at height of lateral lobes, a granulose mass at base of median lobe	Draped basal part terminated by 4 teeth, middle part depressed and with two teeth, two rows of wart-like structures on base of median lobe
Stigmatic cavity	Broadly elliptic	Elliptic	Narrowly elliptic

the type specimen. The petals and the sepals are similar in form and dimensions. The main differences are listed in TABLE 2. In comparison with *B. albini*, *B. riograndensis* shows an ovary which, together with the pedicel, is distinctly longer than the labellum, longer lateral sepals, lateral labellum lobes that are more elliptic with regular lower margins, and a larger stigmatic cavity. Furthermore, although the calli of these two species are most certainly very similar, the callus of *B. riograndensis* shows an intermediary plaque that stands distinctly higher in comparison to the apical part, than does the callus in *B. albini*. We have examined a large number of flowers and find it remarkable that the color scheme is constant. The main color is a brownish-red. The yellow covers only the bottom one-third of the tepals and the side lobes of the labellum with the exception of a brownish-red spot on the lower margin. In *B. riograndense*, to the contrary, yellow is the main color on the tepals, and the brownish-red appears only as more or less large spots on the apical two-thirds.

We conclude that the three concepts, although very closely related, present enough particular characteristics to warrant their treatment as separate species, probably derived from a common ancestor. This evolution into three distinct species became possible by the reduction of the Mata Atlantica into isolated forest islands at the

end of the last ice age (see Castro Neto & Chiron 2005c). Considering natural distribution, we conclude that it is also possible that *Baptistonia riograndensis* originated as a natural hybrid between the other two species.

### TAXONOMIC TREATMENT

Nomenclature is presented for the “*Baptistonia brieniana*” complex: *B. brieniana*, *B. riograndensis*, *B. albini*, and the natural hybrid *B. ×cassolana*. Descriptions are based, as much as possible, on information from the original publications to eliminate interpretation errors arising from examination of live materials. In this way, we take original publications as basis and complete them with our own observations.

***Baptistonia brieniana*** (Reichenbach f.) V.P.Castro & Chiron in Richardiana 4(3): 117 (2004). Basionym: *Oncidium brienianum* Reichenbach f. in The Gardener's Chronicle 1: 40. 1881. Synonyms: *Oncidium brienianum* Reichenbach f. in The Gardener's Chronicle 1: 40. 1881. *Oncidium verrucosissimum* Cogniaux in Martius, Flora Brasiliensis III (6): 342. 1905. *Baptistonia verrucosissima* (Cogniaux) V.P.Castro & Chiron in Richardiana 4(3): 119 2004. *On-*

*cidium riograndense* Cogniaux sensu Johnson (2001): Drawing p. 153.

**Pseudobulbs** fusiform, short, bifoliate. **Leaves** lanceolate, pointed. **Inflorescence** somewhat longer than leaves, with 1–2 short bracts on the peduncle; raceme ramified and densely multifloral; floral bracts ovate, obtuse, somewhat shorter than the ovary. **Ovary** with pedicel very short, 8 mm long. **Flowers** small to medium in size, 20–24 mm in diam., yellow spotted brown, the median lobe mainly brown. **Sepals** of similar size. **Dorsal sepal** narrowly ovate, 8 mm long, round, more or less truncate at the apex. **Lateral sepals** ligulate, obtuse, united over more than half their length. **Petals** widely spatulate-obcordate, emarginate at the apex; margins slightly undulate, as long or somewhat longer than the dorsal sepal, about  $9 \times 6.5$  mm. **Lip** about the same length as the lateral sepals, 7.6 mm long, and equally wide when spread, long unguiculate, thereafter deeply trilobate, the lateral lobes oblong-ligulate, obtuse, perpendicular to the axis of the lip and slightly bent upward, the rather small median lobe transversely oblong to sub-circular, slightly emarginate at the apex and barely apiculate, with irregular or crisped margins; sinus between lobes large, undulate-crisped at the back; callus transversely rugose on the claw ending with two minuscule auriculae, extending to the base of the median lobe, linear claviform with a rounded apex, nearly uniformly verrucose, often with an inverted “V” directly behind the center. **Column** short, thick, slightly puberulate; column wings narrowly triangular to semi-lunate, projected to the front in an arc. **Anther** bilobed at front. See FIGURE 1.

Hitherto, *Baptistonia brieniana* has been collected in Paraguay, near Villa Rica, at 150–200 m. It flowers in April. Two specimens now have been collected in the northwestern part of the Brazilian State of Rio Grande do Sul, near Santo Angelo. Kraenzlin (1922) cites this species for “southwestern Brazil,” without giving any precise location. One flower, conserved in alcohol, sent to us from Argentina (Misiones) labeled as *Oncidium riograndense*, is a flower of *Baptistonia brieniana*. All these plants originate from the hydrographic basin between the Rio Paraguay, to the west, and the Rio Uruguay, to the southeast.

**Baptistonia riograndensis** (Cogniaux) V.P. Castro & Chiron in Richardiana 4(3): 118 (2004). Basionym: *Oncidium riograndense* Cogniaux in Martius, Flora Brasiliensis III, 6: 446 (1906). Neotype (here designated according to article 8.1 of the International Code of Botanical Nomenclature, Saint Louis Code 2000) drawing by J. Pohl (Ber-

lin) published in Martius, Flora Brasiliensis III, 6 (1906), fig. 89 II. Synonyms: *Oncidium riograndense* Cogniaux in Martius, Flora Brasiliensis III(6): 446 (1906). *Leiochilus spegazzinianus* Kraenzlin in Orchis. Monatsschrift der Deutschen Gesellschaft für Orchideenkunde 2: 112–113 (1908). *Oncidium spegazzinianum* (Kraenzlin) Schlechter in Repertorium Specierum Novarum Regni Vegetabilis 15: 215 (1918).

**Pseudobulbs** bifoliate. **Inflorescence** arcuate, overall 20 cm long, sometimes longer, 2 mm in diam., with a peduncle generating several rather long bracts; bracts 12–13 mm long, pointed; raceme ramified and rather densely multifloral. **Flowers** of medium size, 20–24 mm in diam., with a rather long pedicel, yellowish with bold dark brown spots; trigonal ovary with pedicel 10–14 mm long; floral bracts 2–3 mm long. **Dorsal sepal** oblong-obovate, 10–11  $\times$  4–5 mm, rounded or slightly retuse at the apex. **Lateral sepals** united to a similar blade but with a bifid apex. **Petals** with the same form but slightly larger, 10–12  $\times$  5–6 mm, somewhat oblique with slightly undulate margins. **Lip** clearly shorter than the lateral sepals, 7–8 mm long, flat, long unguiculate with a trilobate apex, forming a cross; lateral lobes ligulate, 3.5–4  $\times$  1.5 mm, rounded at the apex, the extremities curved backwards, the margins entire; median lobe small, obovate to sub-orbicular, 2.5–3  $\times$  2–2.5 mm, pointed, the margins somewhat undulate; side lobes sub-rounded at the back and separated from the median lobe by a very large sinus. **Callus** with 3 parts: claw with a slightly verrucose callosity ending in 2 very short teeth; base of median lobe with a slightly indented, irregular pentagonal plaque; and between the two, a plaque in the form of an inverted “V” with irregular margins. **Column** short, slightly claviform, 4–5 mm long, very slightly pubescent; margins of clinandrium well-developed, sub-entire; column wings 2.5–3 mm long, linear. **Anther** shortly trilobulate at the apex (see FIGURE 2).

*Baptistonia riograndensis* is probably a rare species. We studied a few plants that originated from the Brazilian State of Rio Grande do Sul, from the Cai valley and near the Argentine border. This species grows at relatively low elevations and seems to flower January–April.

Pabst and Dungs (1977) indicate this species to be present as far as the State of Sao Paulo, but the drawings they present are labeled as *Oncidium riograndense*; according to the preceding discussion, instead they represent *Baptistonia albini*.

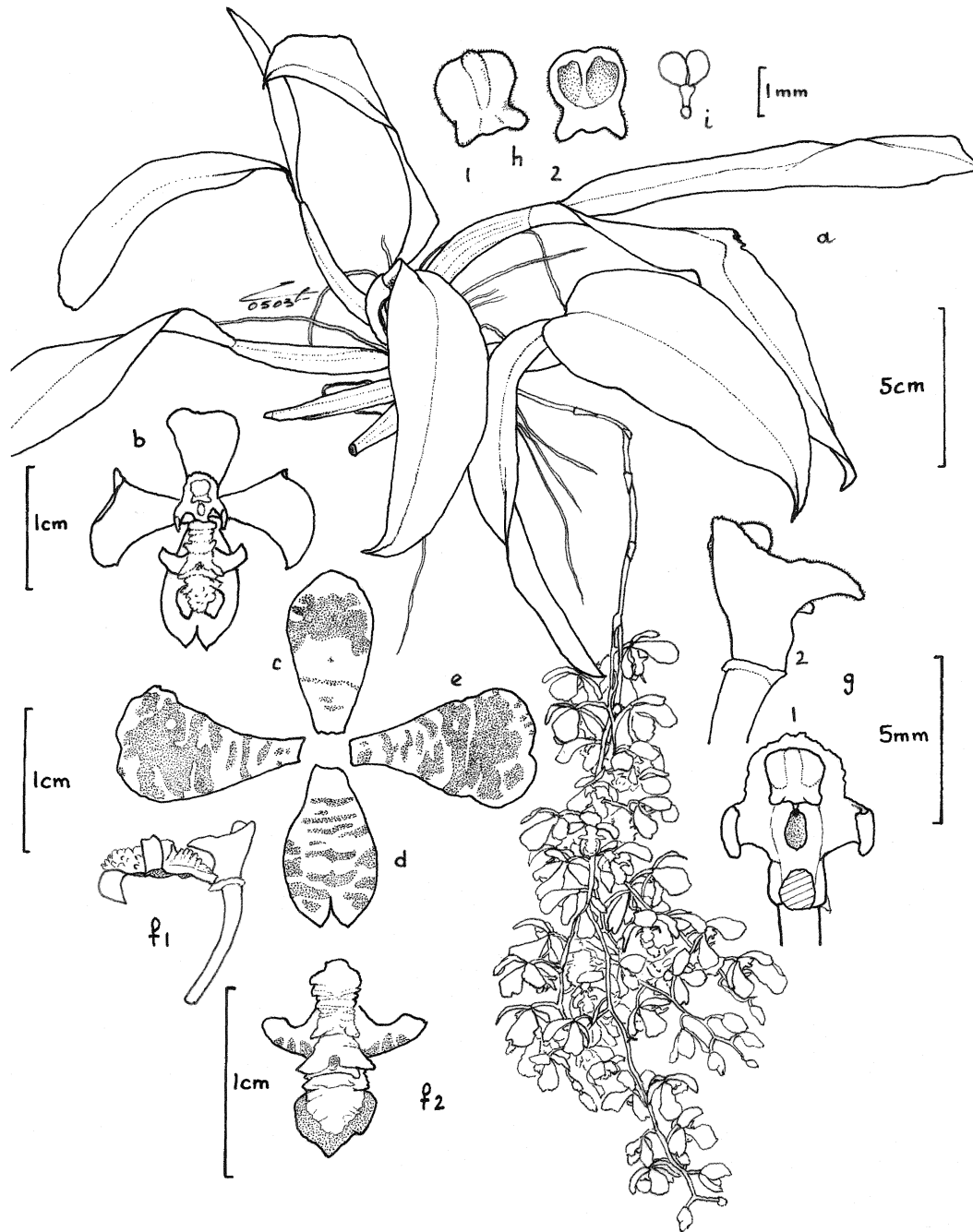


FIGURE 1. *Baptistonia brieniana*. **A.** Plant. **B.** Flower. **C.** Dorsal sepal. **D.** Lateral sepals. **E.** Petals. **F1.** Lip, natural position with column. **F2.** Lip, spread. **G1.** Column, side view. **G2.** Column, bottom view. **H.** Anther cap, interior and exterior. **I.** Pollinia. Drawing by Guy Chiron, March 2005, after a living plant (Paraguay, Villa Rica, Castro Neto sn).

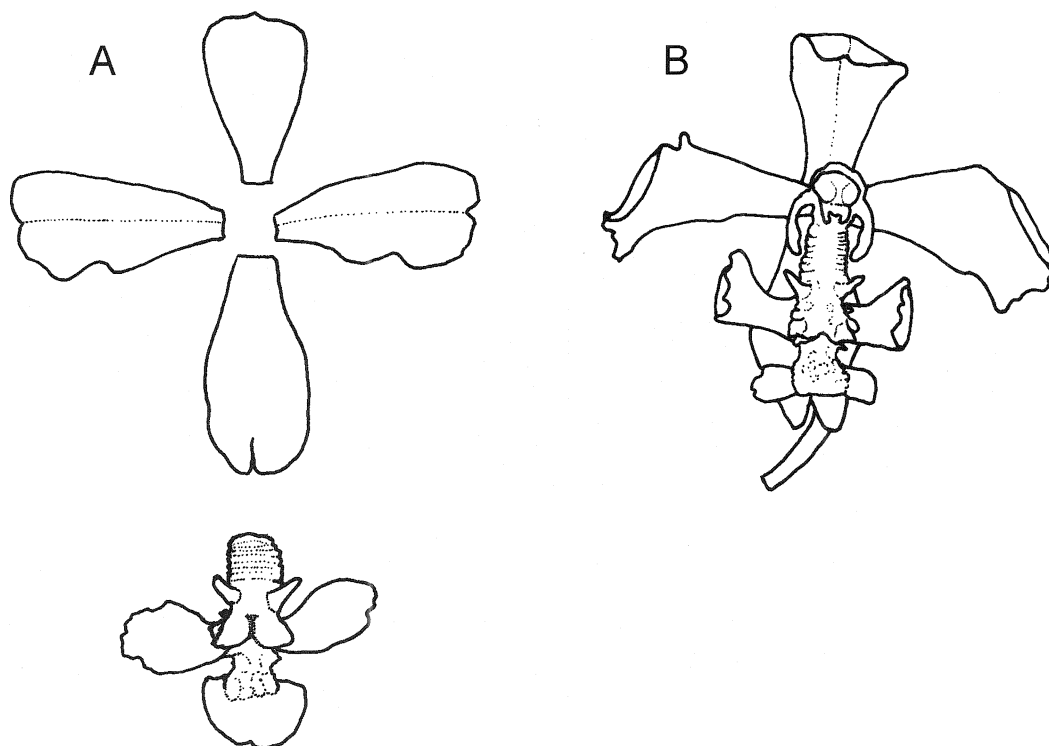


FIGURE 2. *Baptistonia riograndensis*. **A.** Dissected flower with sepals, petals, and lip below. **B.** Intact flower. Drawing by Guy Chiron, March 2005, after a flower preserved in alcohol (Brazil, Tapirendi, Castro Neto sn).

***Baptistonia albinii*** (Schlechter) Chiron & V.P. Castro in *Richardiana* 4(3): 117 (2004). Basionym: *Oncidium albinii* Schlechter in *Repertorium Specierum Novarum Regni Vegetabilis* 23: 63 (1926). Neotype (here designated): Brazil—Parana, Bugre-Município de Balsa Nova, ca. 40 km from Curitiba, near the road to Ponta Grossa, 1100 m; *Erwin Bohnke* 1220 (SP). Synonyms: *Oncidium albinii* Schlechter in *Repertorium Specierum Novarum Regni Vegetabilis* 23: 63 (1926). *Oncidium riograndense* Cogniaux sensu Pabst & Dungs (1977: 192, 303).

***Pseudobulbs*** erect, sub-fusiform-cylindric, 3.5–4 × 0.5–0.6 cm, bifoliate. ***Leaves*** ligulate, more or less pointed, somewhat contracted at the base, 6–7.5 × 1.2–1.5 cm. ***Inflorescence*** arching, 12–13 cm long, up to 3 times the length of the leaves, with 5–7 short bracts, peduncle gracile; raceme with few, densely set flowers (10 flowers over a distance of ca. 7 cm); floral bracts small, recurved, oblong-ovate, apiculate, much shorter than the pedicelled ovary. ***Flowers*** medium size (for the genus), 21–24 mm in diam.; pedicelled ovary gracile, ca. 8 mm long. ***Dorsal sepal*** concave, narrowly oblong-ovate, obtusely

apiculate, 11 mm long. ***Lateral sepals*** united to an oblong blade, 10 mm long, obtuse, shortly bifid at the apex. ***Petals*** cuneiform-obovate, barely apiculate, the margins slightly undulate, 12 mm long. ***Labellum*** cruciform, unguiculate, claw oblong, deeply trilobate toward the apex, 10 × 11 mm between the extremities of the long-quadrangular, obtuse lateral lobes; isthmus fan-shaped, median lobe elliptic, 4.5 × 2.5 mm, the margins crenulate-undulate. ***Callus*** with 3 parts: the first part verrucose-wrinkled on the claw, terminated by 4 teeth, the lateral two larger and divergent in the form of a scythe; the median part shortly bidentate, depressed; the third part with 2 rows of warts running across the median lobe. ***Column*** straight, ca. 5.5 mm high, barely puberulent; clinandrium with well-developed margins; column wings linear-ligulate, obtuse, incurved to form a scythe. ***Anther*** puberulent, bilobed in the front (according to the original description, see FIGURE 3).

The type specimen originates from the Serra do Mar in the State of Parana. We have observed that plants answering quite well to the Schlechter description are very abundant in the Serra do Mar (locally those plants are designated as *On-*

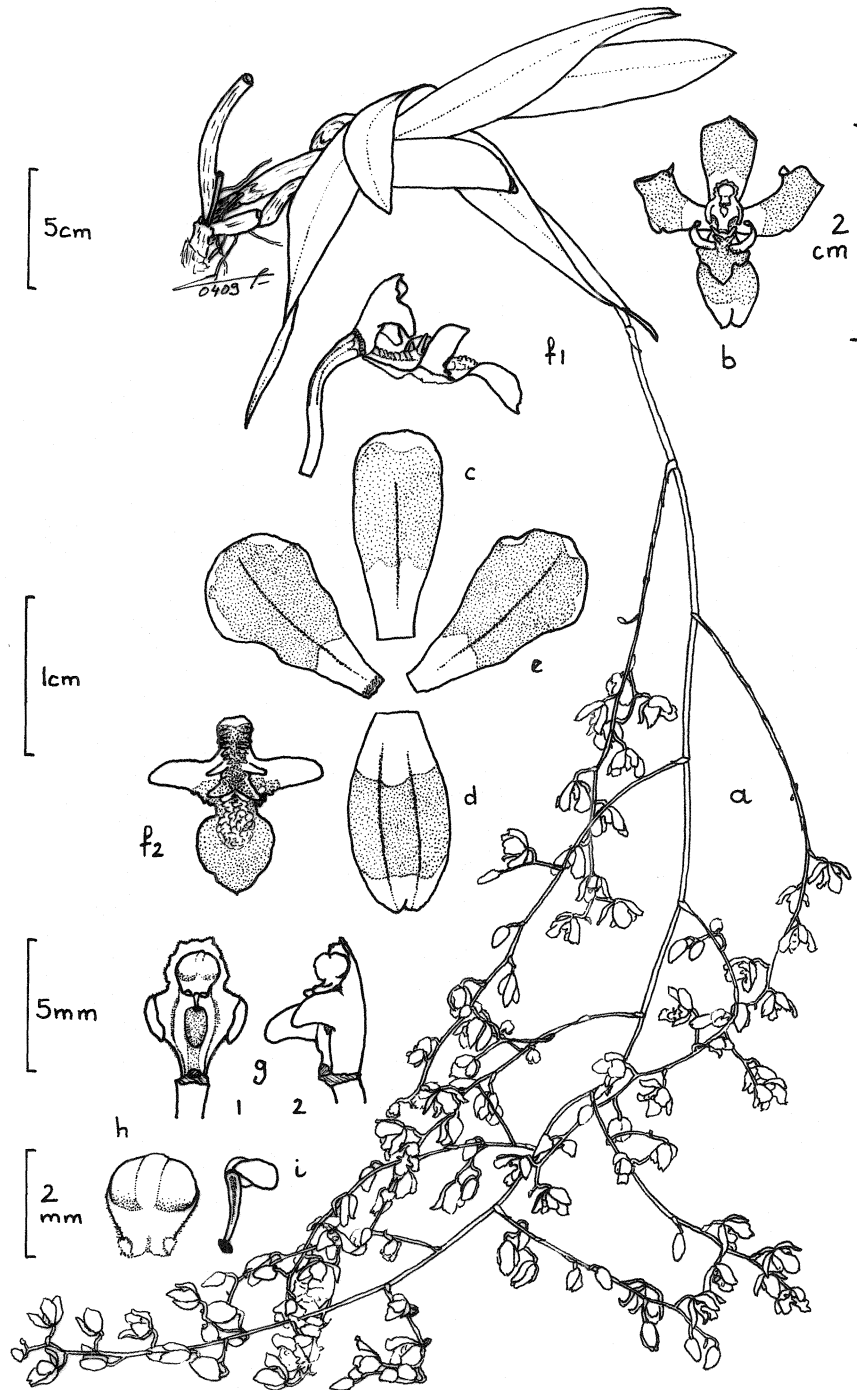


FIGURE 3. *Baptistonia albinii*. A. Plant. B. Flower. C. Dorsal sepal. D. Lateral sepal. E. Petals. F1. Lip, natural position with column. F2. Lip, spread. G1. Column, side view. G2. Column, bottom view. H. Anther. I. Pollinia. Drawing by Guy Chiron, September 2004, after a living plant (Brésil, near Cotaes, Chiron 03410).



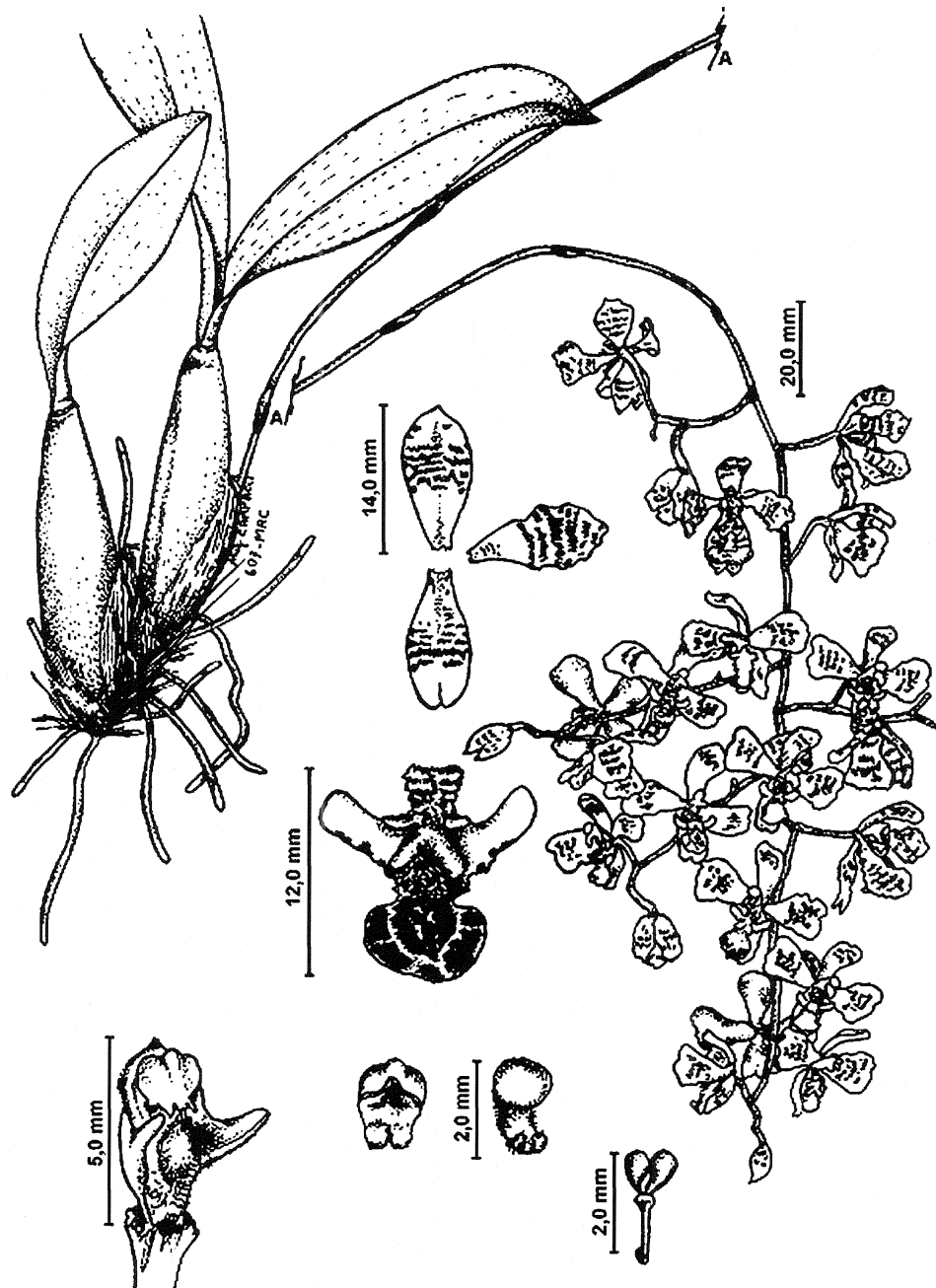


FIGURE 4. *Baptistonia*  $\times$  *cassolana*. Drawing by Marcos Campacci, after the type specimen, with permission of *Richardiana*.

*cidium riograndense*), from the State of Sao Paulo, all the way to the northern part of the State of Rio Grande do Sul. This seems to be a species that grows above 700 m. It flowers in April.

The last name published in this complex is *Oncidium*  $\times$  *cassolanum*, a natural hybrid described as the result of the cross between *O. cornigerum* and *O. riograndense* (Castro Neto & Campacci 2001). The plant was collected in Bra-

zil, in the states of Rio Grande do Sul (near Novo Hamburgo) and Santa Catarina, as well as in Argentina (Misiones).

**Baptistonia**  $\times$  **cassolana** (V.P. Castro & Campacci) V.P. Castro & Chiron in *Richardiana* 4(3): 117 (2004). Basionym: *Oncidium*  $\times$  *cassolanum* V.P. Castro & Campacci in *Richardiana* 1(3): 114 (2001).

**Plant** epiphytic, growing in small tufts. **Inflorescence** and **flowers** similar to those of the parent species; sepals, petals and labellum yellow spotted brown, with considerable color variation between specimens. **Dorsal sepal** elliptic-lanceolate,  $14 \times 6$  mm. **Lateral sepals**  $14 \times 6$  mm, at their base united into a synsepal. **Petals** oblong-lanceolate,  $15 \times 7$  mm. **Labellum** divided into 3 lobes, overall 12 mm long and wide when spread. **Callus** complex and intermediate compared to the analogous part of the parental flowers. **Column** with auricles, hairs on base and wings, 5 mm long, yellow, the wings spotted brown. **Anther** yellow, 2 mm long. **Pollinia** 2 yellow, with a 2 mm long caudicle (according to the original description, see FIGURE 4).

The callus of the type specimen consists of, beginning at the base, a series of plates that are covered in brown, followed by two small, yellow horns that are bent toward the apex; then, between the lateral lobes of the labellum, two protruding masses diverge; and finally, between these masses and in the direction of the median lobe, is a group of small, distinct verrucose callosities. There is no callosity on the median lobe (a characteristic of *Baptistonia cornigera*).

#### IDENTIFICATION KEY OF THE "BAPTISTONIA BRIENIANA" COMPLEX

The following key will help in differentiating among the following four taxa:

1. Inferior margins of the lateral labellum lobes smooth, median lobe ca. as long as wide . . . . 2
- 1'. Pedicelled ovary shorter than the labellum, inferior margins of the lateral lobes of the labellum irregular . . . . . 3
2. Pedicelled ovary and lateral sepals distinctly longer than the labellum, median callus plate protruding in comparison to the apical part, the plate on the claw terminated by two well-developed teeth . . . . . *B. riograndensis*
- 2'. Pedicelled ovary more or less as long as the labellum, median callus plate not protruding

above the rest of the callus, the plate on the claw with or without two poorly-developed teeth . . . . . *B. brieniana*

3. Median labellum lobe longer than wide, stigmatic cavity narrowly elliptic . . . . .

. . . . . *B. albini*

3'. Median labellum lobe wider than long, stigmatic cavity broadly elliptic . . . . .

. . . . . *B.  $\times$  cassolana*

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