

ALATIGLOSSUM BAPTISTA (ORCHIDACEAE) REVISITED

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ABSTRACT. The generic limits of *Alatiglossum* Baptista are redefined and one new combination, *Alatiglossum herzogii*, is proposed.

Key words: generic limits, Orchidaceae, Oncidinae, *Alatiglossum herzogii*

Since 2004 Brazilian taxonomists have been working on the revision of Brazilian species subordinated to genus *Oncidium* Sw. Phylogenetic studies indicate that Brazilian species of *Oncidium* are located in a different clade from core species of this genus and therefore need new classification. In February of 2006, we proposed to divide the Brazilian species into six genera (Docha Neto et al. 2006). Later V. P. Castro & Catharino went further and divided again, creating four more genera to accommodate our species of *Oncidium*. From what we originally proposed as *Alatiglossum* two genera were created, *Neoruschia* Cath. & V.P. Castro and *Kleberella* V.P. Castro & Catharino. *Neoruschia* was proposed to accommodate only the small *Oncidium cogniauxianum* Schltr; and *Kleberella* to accommodate the six species of *Oncidium longipes* Alliance. We are provisionally accepting the four genera Castro proposed; thus we treat *Alatiglossum* Baptista here as it remains after the additional divisions.

Alatiglossum includes the 11 species which formerly belonged to what Pabst referred to as the *Oncidium barbatum* Alliance of *Oncidium* Sw. sect. *Barbata*. Some of the species are morphologically very close to others, and thus have been misidentified for decades. Furthermore, some are incorrectly identified in Pabst and Dungs' *Orchidacea Brasiliensis*, adding to the confusion. Pabst & Dungs cite eight species in *O. barbatum* alliance; from these, two (*O. trichodes* Lindl. and *O. psyche* Schltr.) we consider to be synonyms of *Alatiglossum micropogon*. From the six remaining, *O. barbatum*, *O. fuscopetalum* and *O. macropetalum* are correctly represented; *O. chrysopetrum* Lindl. is just cited but not represented. The other two species they cite, *O. ciliatum* Lindl. and *O. micropogon*

Rchb.f., are confused since their illustrations of these two names encompasses three species. The real *Oncidium ciliatum* is correctly identified and represented on watercolor 1998/II (p. 248) and illustration 1998 (p. 306). According to the original publication article of *O. chrysopetrum*, by E. Lückel., H. Fessel, and J. Röth, we conclude that what Pabst and Dungs show on watercolor 1998/I as another *O. ciliatum* is in fact the real *O. micropogon* Rchb.f.; and, lastly, what they considered to be *O. micropogon* (illustrations 2001, pp. 248 and 306) actually is *O. chrysopetrum* Lueckel. As a final point, the real identity of at least one of them, *Oncidium reductum* Krzl., has not been ascertained until this manuscript.

The Brazilian Central Highlands seem to be the center of distribution of *Alatiglossum*. Most of the species, if not all, live in forests along the river banks in altitudes ranging from 500 to 1000 meters. Three species *O. emilii*, *O. herzogii*, and *O. reductum* are exclusively from neighboring countries: Argentina, Paraguay and Bolivia. So far eight species are known to occur in Brazil, but we think the others eventually will be found. The distribution of species in Brazil includes almost all states but few in the Northeast.

The main characteristics that identify this genus are the minutely fimbriated or denticulated inferior margins of the lip's lateral lobes of its flowers. They are small or medium size plants with mono or bifoliate pseudobulbs; the inflorescence may be a raceme or panicle, ordinarily showing few flowers. The lateral sepals are the same length as the lip or longer, sometimes free or usually varyingly connated at the base but never after the end of its first third. The trilobed lip shows continuous or disconnected multi-tuberculated calli on the disc; dilated and winged

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column on the stigma area, with a terminal helmet-like anther cap and two pollinia.

LIST OF SPECIES

All the species of genus *Alatiglossum* Baptista show flowers of approximately the same size, but they may vary a lot from clone to clone. The flowers measure between half and one inch round. In nature all the species are also vegetatively the same size, about 7 inches, but can grow larger under cultivation. All species grow in very humid forests over the medium upper sections of the trees, generally choosing trees that are not densely foliated, so they can receive large amounts of light and air. They can be divided into two alliances:

Alatiglossum macropetalum Alliance

Large petals, unguiculated, rounded, at times narrower in the middle section and emarginated extremity, sometimes cuspidated, with smooth or slightly undulated margins always completely yellow or pigmented only on the basal portion.

1. *Alatiglossum chrysopteranthum* (Lueckel) Baptista, Colet. Orquídeas Brasil. 3: 87 (2006).

**Oncidium micropogon* var. *chrysopterum* Rchb.f., Allg. Gartenzeitung 23: 274 (1855).

Oncidium macropetalum Klotzsch, Allg. Gartenzeitung 23: 274 (1855). *nom. illeg.*

Oncidium chrysopteranthum Lueckel, Orchidee (Hamburg) 49: 43 (1998).

Ovoid monofoliated pseudobulbs; lateral sepals approximately equal or slightly longer than the lip; lip with three lobes of approximately the same size areas and short isthmus of inverted narrow triangular shape; intermediate lobe reniform. Blooms in the summer, from Brazil, Atlantic Forest, close to the sea, in three southern states of Paraná, Santa Catarina and Rio Grande do Sul.

2. *Alatiglossum chrysopterum* (Lindl.) Baptista, Colet. Orquídeas Brasil. 3: 88 (2006).

**Oncidium macropetalum* var. *chrysopterum* Lindl., Fol. Orchid. 6: 16 (1855).

Oncidium chrysopterum (Lindl.) Kraenzl., Kongl. Svenska Vetenskapsakad. Handl. 46(10): 82 (1911).

Ovoid monofoliated pseudobulbs; lateral sepals approximately equal or slightly shorter than the lip; lip lateral lobes are small and ligular, lip with long wider isthmus, inverted triangular shape; intermediate lobe reniform and emargin-

ated. Blooms in the winter and spring, from Bolivia and Mato Grosso State in Brazil.

3. *Alatiglossum culuenense* Docha Neto & Benelli, Orchidstudium. 5: 55 (2006).

Fusiform bifoliated pseudobulbs; lateral sepals shorter than the lip; lip lateral lobes relatively large, round; lip isthmus is short and wide; intermediate lobe is larger, elliptical orbicular. Blooms in the winter and spring. From Central Brazil in Alto Xingu area of Mato Grosso State.

4. *Alatiglossum macropetalum* (Lindl.) Baptista, Colet. Orquídeas Brasil. 3: 88 (2006).

**Oncidium macropetalum* Lindl., Sert. Orchid.: t. 48 (1841).

Oncidium macropetalum var. *micranthum* Pabst, Bradea 2: 170 (1977).

Ovoid monofoliated pseudobulbs; lateral sepals shorter than the lip; small and ligular lateral lobes on the lip; lip isthmus is long, inverted triangular shape and relatively wide; intermediate lobe is larger, reniform emarginated. Blooms in the winter and spring. From Central Brazil four states and west areas of São Paulo and Minas Gerais.

Alatiglossum micropogon Alliance

Elliptical or spatulated petals, generally with undulated or wrinkled margins, always slightly or strongly maculated brown or showing brown transversal strips.

5. *Alatiglossum barbatum* (Lindl.) Baptista, Colet. Orquídeas Brasil. 3: 87 (2006).

**Oncidium barbatum* Lindl., Coll. Bot.: t. 27 (1821).

Oncidium ciliolatum Hoffmanns., Bot. Zeitung (Berlin) 1: 834 (1843).

Oncidium fimbriatum Hoffmanns., Bot. Zeitung (Berlin) 1: 834 (1843). *nom. illeg.*

Oncidium subciliatum Hoffmanns., Bot. Zeitung (Berlin) 1: 834 (1843).

Oncidium microglossum Klotzsch, Allg. Gartenzeitung 23: 233 (1855).

Oncidium barbatum var. *limbatum* Lindl., Fol. Orchid. 6-7: 16 (1855).

Oncidium barbatum var. *fimbriatum*, Lindl. Folia Orch., Oncid. 16 (1856).

Oncidium suscephalum Barb.Rodr., Gen. Spec. Orchid. 2: 188 (1881).

Oncidium johnianum Schltr., Orchis 1: 4 (1906).

Oncidium blossfeldianum Schltr., Orchis 9: 56 (1915).

Oncidium barbatum var. *johnianum* (Schltr.) Kraenzl., Pflanzenr., IV, 50(80): 194 (1922).

Oncidium barbatum subsp. *limbatum* (Lindl.) W.Zimm., Biblioth. Bot. 109: 16 (1934).

Oncidium barbatum subsp. *microglossum* (Klotzsch) W.Zimm., *Biblioth. Bot.* 109: 16 (1934).

Ovoid monofoliated pseudobulbs; lateral sepals longer than the lip; lip lateral lobes are large, slightly spatulated; lip isthmus is large, semi circular; lip intermediate lobe is tiny. Blooms from mid-Winter to Spring. Brazilian Northeast States down to Northern Minas Gerais.

6. *Alatiglossum ciliatum* (Lindl.) Baptista, *Colet. Orquídeas Brasil.* 3: 88 (2006).

**Oncidium ciliatum* Lindl., *Gen. Sp. Orchid. Pl.*: 200 (1833).

Oncidium barbatum var. *ciliatum* Lindl., *Folia Orch.*, *Oncid.* 16 (1855).

Oncidium micropogon var. *bahiensis* Cogn., in C. F. P. von Martius & auct. suc. (eds.), *Fl. Bras.* 3(6): 301 (1905).

Oncidium bahiense (Cogn.) Schltr., *Repert. Spec. Nov. Regni Veg.* 17: 17 (1921).

Oncidium reissii Hoehne & Schltr., *Arch. Bot. São Paulo* 1: 290 (1926).

Oncidium barbatum var. *labiosum* W.Zimm., *Biblioth. Bot.* 109: 15 (1934).

Ovoid monofoliated pseudobulbs; lateral sepals approximately same length the lip; lip lateral lobes are large, reniform; lip isthmus is wide, slightly triangular, inverted; intermediate lobe is reniform and slightly smaller than the lateral, emarginated. Blooms from Fall to Spring. Occurs in the widest area of Brazil in Northeast and Southeast States, from Ceara to São Paulo.

7. *Alatiglossum emilii* (Schltr.) Baptista, *Colet. Orquídeas Brasil.* 3: 88 (2006).

**Oncidium emilii* Schltr., *Repert. Spec. Nov. Regni Veg.* 16: 449 (1920).

Ovoid monofoliated pseudobulbs; lateral sepals shorter than the lip; lip panduriform with small lateral lobes, semi-orbicular; wide isthmus is slightly inverted, triangular shape; intermediate lobe is reniform and unguiculated. From Paraguay.

8. *Alatiglossum fuscopetalum* (Hoehne) Baptista, *Colet. Orquídeas Brasil.* 3: 88 (2006).

* *Oncidium fuscopetalum* (Hoehne) Garay & Stacy, *Bradea* 1: 407 (1974).

Oncidium macropetalum var. *fuscopetalum* Hoehne, *Com. Lin. Telegr., Bot.* 1: 61 (1910).

Ovoid monofoliated pseudobulbs; lateral sepals shorter than the lip; lip lateral lobes are small and ligular, lip isthmus is wide slightly inverted triangular shape; intermediate lobe is

wide, reniform, unguiculated, with emarginated extremity. Petals are dark brown. Blooms in Winter and Spring, from Brazilian states of Goias, Mato Grosso and Mato Grosso do Sul.

9. *Alatiglossum herzogii* (Schltr.) Docha Neto, *comb. nov.*

*Basionym: *Oncidium herzogii* Schltr., *Repert. Spec. Nov. Regni Veg.* 12: 494 (1913).

Ovoid bifoliated pseudobulbs; lateral sepals much shorter than the lip; lip lateral lobes are small and round-ligular, lip isthmus is semi-circular with densely fimbriated margins; intermediate lobe is panduriform, relatively wide, longly unguiculated, with cuspidated extremity. Blooms in the summer. From Bolivia and Argentina, possibly in Paraguay and Brazil.

10. *Alatiglossum micropogon* (Rchb.f.) Baptista, *Colet. Orquídeas Brasil.* 3: 88 (2006).

Oncidium barbatum Lindl. & Paxton, *Paxton's Fl. Gard.* 2: 30 (1851). *nom. illeg.*

**Oncidium micropogon* Rchb.f., *Bonplandia* 2: 90 (1854).

Oncidium dentatum Klotzsch, *Allg. Gartenzeitung* 23: 234 (1855).

Oncidium trichodes Lindl., *Fol. Orchid.* 6: 15 (1855).

Oncidium psyche Schltr., *Repert. Spec. Nov. Regni Veg.* 17: 16 (1921).

Alatiglossum psyche (Schltr.) Baptista, *Colet. Orquídeas Brasil.* 3: 89 (2006).

Alatiglossum trichodes (Schltr.) Baptista, *Colet. Orquídeas Brasil.* 3: 88 (2006).

Ovoid monofoliated pseudobulbs; lateral sepals much longer than the lip; lip with three lobes of approximately the same size, the lateral are round-spathulated and lip isthmus is semi-circular relatively large; intermediate lobe reniform. Blooms in Fall and Winter, in several states from Bahia to Rio Grande do Sul.

11. *Alatiglossum reductum* (Kraenzl.) Baptista, *Colet. Orquídeas Brasil.* 3: 88 (2006).

**Oncidium reductum* Kraenzl., *Repert. Spec. Nov. Regni Veg.* 26: 344 (1929).

Ovoid monofoliated pseudobulbs. Lateral sepals longer than the lip. Lip with semi-orbicular lateral lobes slightly spatulated, larger than the intermediate lobe. Intermediate lobe very small. Described from Bolivia. (Material not seen; description based on protolog.)

* = basionym

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