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New taxa in the subtribe Oncidiinae (Orchidaceae)

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Abstract: A new genus – *Brassiopsis* Szlach. & Górniak *gen. nov.* – of the subtribe Oncidiinae (Vandoideae, Orchidaceae) is described. New combinations on the species level in the genera *Brassiopsis* and *Collare-stuartense* Senghas & Bockemuhl are proposed.

Key words: Orchidaceae, Vandoideae, Oncidiinae, *Brassiopsis, Collare-stuartense*, Neotropics

1. Introduction

The tribe Oncidieae is one of the most interesting groups among the Neotropical orchids. It is widespread from Florida in the North, through Mesoamerica and the Antilles, to the northern part of Argentina in the South. It embraces about 70 genera, although the taxonomic status of many of them is unclear. During scientific expeditions to Peru and Ecuador, one of us (D. L. Szlachetko) had the opportunity to examine in detail the broadly defined genera *Brassia* R. Br. and *Ada* Lindl.

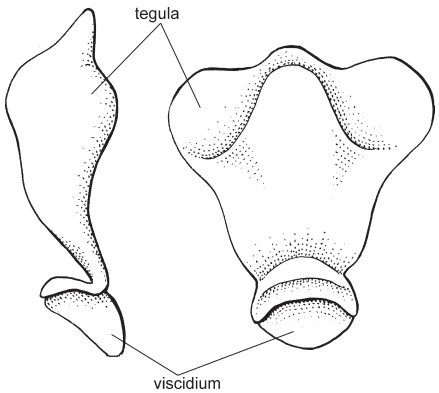

Fig. 1. *Ada aurantiaca* Lindl.: tegula and viscidium, various views (Heidelberg BG O-14517, HEID)

Pollinarium organization, especially tegula morphology, appears to be a good distinguishing character in Oncidieae. A good example is the new genus *Brassiopsis,* which we propose below. Its species have so far been included in *Brassia* R. Br. (Senghas 1998) or in *Ada* Lindl. (Dodson & Bennett 1989; Bennett & Christenson 1994). It occupies an intermediate position between those two genera. *Brassiopsis* and *Ada* have a similar tegula, which is flat, large and obtriangular (Fig. 1). In *Brassia*, the tegula is obovate or elliptic, strongly convex in the centre (Fig. 2). *Brassia* and *Brassiopsis* are similar in general flower and lip morphology. Prominent, persistent, large floral bracts are a unique feature of *Brassiopsis*. The bright orange colour of the flowers of *Ada* and field observations indicate hummingbird pollination. Both *Brassia* and *Brassiopsis* flowers are a composition of green, yellow and white colours, and are pollinated by wasps.

Molecular studies (Górniak *et al*., in prep.) seem to confirm the necessity to distinguish the genus *Brassiopsis* from *Ada* and *Brassia*. Besides, we assigned to the genus *Collare-stuartense* Senghas & Bockemuhl two species which were earlier included in the genera *Oncidium* and *Odontoglossum* (see below).

2. Material and methods

We examined gynostemium structure on specimens preserved in liquid and stored in the Botanical Garden of the University of Heidelberg (HEID) and Royal Botanic Gardens in Kew (K). All gynostemia and their parts have been depicted and/or photographed, measured and described. Their detailed descriptions will appear soon in the 4th volume of *Gynostemia Orchidalium* (Szlachetko *et al*. 2007).

3. Results

Subtribe **Oncidiinae** Benth.
J. Linn. Soc., Bot. **18**: 288. 1881.

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1. *Brassiopsis* Szlach. & Górniak, *gen. nov*. (Fig. 3).

Brassia R. Br. subgen. *Glumacea* (Lindl.) Senghas Genus novum generi *Adae* simile in tegulam magnam obtriangularem et generic *Brassiae* in structura et colore florum sed stipulis magnis persistentibusque differt.

GENERITYPE. *Brassiopsis keiliana* (Rchb.f. *ex* Lindl.) Szlach. & Górniak (= *Brassia keiliana* Rchb.f. *ex* Lindl.)
ETYMOLOGY. An allusion to the similarity to the genus *Brassia*.

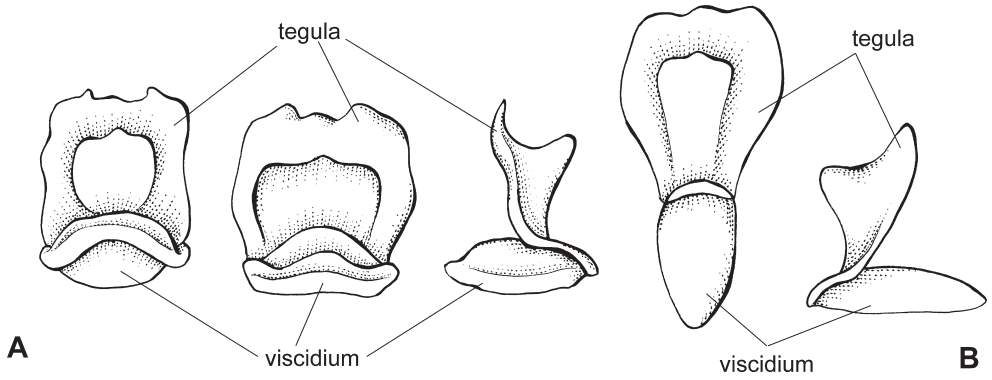

Fig. 2. *Brassia antherotes* Rchb.f.: (A) tegula and viscidium, various views (Heidelberg BG O-2727, HEID). *B. caudata* (L.) Lindl.: (B) tegula and viscidium, various views (Heidelberg BG O-205, HEID)

The genus includes about 13-15 species:
Brassiopsis alleni (L.O.Wms. *ex* C. Schweinf.) Szlach. & Górniak, *comb. nov*.
Basionym: *Brassia alleni* L. O. Wms. *ex* C. Schweinf., Bot. Mus. Leafl. **13**(6): 145. 1948.
Brassiopsis andreettae (Dodson) Szlach. & Górniak, *comb. nov*.
Basionym: *Ada andreettae* Dodson, Orquideologia **19**: 77. 1993.
Brassiopsis bennettorum (Dodson) Szlach. & Górniak, *comb. nov*.
Basionym: *Ada bennettorum* Dodson, Icon. Pl. Trop. **2**: t. 1. 1989.
Brassiopsis brachypus (Rchb.f.) Szlach. & Górniak, *comb. nov*.
Basionym: *Brassia brachypus* Rchb.f, Gard. Chron. **1**: 136. 1875.
Brassiopsis chlorops (Endr. & Rchb.f.) Szlach. & Górniak, *comb. nov*.
Basionym: *Brassia chlorops* Endr. & Rchb.f., Gard. Chron.: 542. 1873.
Brassiopsis elegantula (Rchb.f.) Szlach. & Górniak, *comb. nov*.
Basionym: *Brassia elegantula* Rchb.f., Gard. Chron. **24**: 616. 1885.
Brassiopsis farinifera (Lind. & Rchb.f.) Szlach. & Górniak, *comb. nov*.
Basionym: *Brassia farinifera* Lind. & Rchb.f., Gard. Chron.: 923. 1870.
Brassiopsis glumacea (Lindl.) Szlach. & Górniak, *comb. nov*.
Basionym: *Brassia glumacea* Lindl., Orchid. Linden. 17. 1846.
Brassiopsis keiliana (Rchb.f. ex Lindl.) Szlach. & Górniak, *comb. nov*.
Basionym: *Brassia keiliana* Rchb.f. *ex* Lindl., Paxton's Fl. Gard. **3**: 114. 1852-53.
Brassiopsis mendozae (Dodson) Szlach. & Górniak, *comb. nov*.
Basionym: *Ada mendozae* Dodson, Orquideologia **19**(1): 78. 1993.

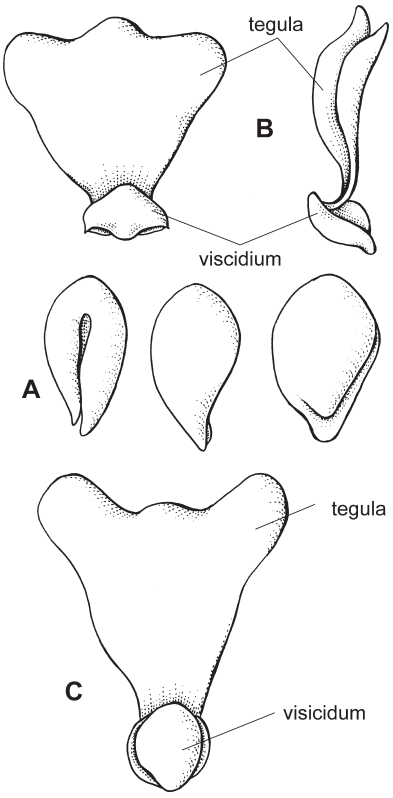

Fig. 3. *Brassiopsis keiliana* (Rchb.f. *ex* Lindl.) Szlach. & Gorn.: (A) pollinia, various views; (B) tegula and viscidium, various views (Heidelberg BG O-19075, HEID). *B. elegantula* (Rchb.f.) Szlach. & Gorn.: (C) tegula and viscidium (Heidelberg BG O-15592, HEID)

Brassiopsis ocanensis (Lindl.) Szlach. & Górniak, *comb. nov*.
Basionym: *Brassia ocanensis* Lindl., Fol. Orchid., *Brassia* 5. 1854.
Brassiopsis pozoi (Dodson & N. H. Williams) Szlach. & Górniak, *comb. nov*.
Basionym: *Ada pozoi* Dodson & N. H. Williams, Icon. Pl. Trop. **10**: t. 904. 1984.
Brassiopsis rolandoi (Benn. & E. A. Christ.) Szlach. & Górniak, *comb. nov*.
Basionym: *Ada rolandoi* Benn. & E. A. Christ., Brittonia **46**(3): 228-230. 1994.

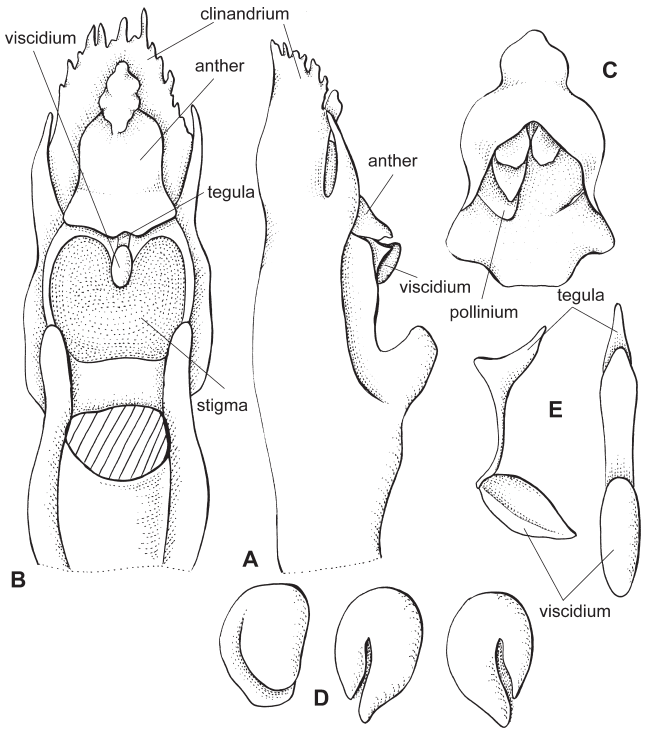

Fig. 4. *Collare-stuartense multistellare* (Rchb.f.) Senghas & Bockemühl: A – gynostemium, side view; B – gynostemium, bottom view; C – anther; D – pollinia, various views; E – tegula and viscidium, various views (Heidelberg BG O-22202, HEID)

2. *Collare-stuartense* Senghas & Bockemühl (Fig. 4).

J. Orchideenfreund. **4**(2): 73.1997.
GENERITYPE: *Collare-Stuartense multistellare* (Rchb.f.) Senghas & Bockemühl
Collare-stuartense aurarium (Rchb.f.) Szlach. & Górniak, *comb. nov*.
Basionym: *Oncidium aurarium* Rchb.f., Gard. Chron. **2**: 394. 1884.
Collare-stuartense povedanum (P. Ortiz) Szlach. & Górniak, *comb. nov*.
Basionym: *Odontoglossum povedanum* P. Ortiz, Orquideologia **20**(3): 321. 1997.

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