

GENERA ET SPECIES ORCHIDALIUM. 4

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Abstract: The new South American genus *Jouyella* of the subfamily Thelymitroideae (Orchidaceae) is described and illustrated. New combinations on the species level are proposed. Two species are transferred from *Chloraea* to *Geoblasta*.

Key words: Orchidaceae, Thelymitroideae, *Jouyella*, *Chloraea*, *Geoblasta*, South America

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While preparing the first volume of *Genera et species Orchidaliium* we had the opportunity to examine various materials belonging to the subtribe Chloraeinae, among others the genus *Bipinnula* Comm. ex Juss. That genus had been revised by Kraenzlin (1904), who did not propose any subdivisions in it. About 90 years later, Nieuwenhuizen (1993) published a synopsis of *Bipinnula* and established three sections, based mainly on the number of flowers per inflorescence and on lip morphology. Detailed studies of the flowers of *Bipinnula* led us to the conclusion that the genus is polyphyletic and consists of two apparently unrelated groups. The first, corresponding to *B.* sect. *Multiflorae* Nieuwenhuizen, comprises *B. fimbriata* (Poepp.) I. M. Johnst., *B. philipporum* Kraenzl., *B. plumosa* Lindl. and *B. taltalensis* I. M. Johnst. It is characterized by basal, rosulate leaves which are present at flowering time, a multi-flowered inflorescence, shortly pedicellate, arched flowers, a thin lip covered by numerous clavate thickenings, and thin tepals (Figs 1 & 2). Plants of the second group, with *B. biplumata* (L. f.) Rchb. f. (which provides the type of the generic name), *B. gibertii* Rchb. f., *B. polysyka* Kraenzl. and others, are leafless or have leaves withered at flowering time, a usually single-flowered inflorescence, horizontal flowers borne on an elongate pedicel which is longer than the ovary, a lip

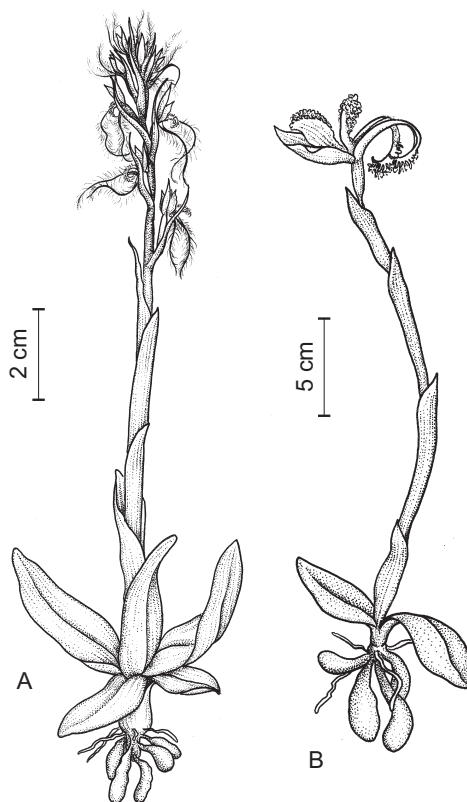


Fig. 1. Comparison of plant habit. A – *Jouyella plumosa* (Lindl.) Szlach. & Marg., B – *Bipinnula giberti* Reichenb. f. (A – drawn from *Philippi s.n.*, W-R 43177; B – drawn from *Gibert 487*, W-R 43180).

that is always strongly thickened and insectiform, and relatively thick tepals (Figs 1 & 3).

These differences suffice to recognize two genera: *Bipinnula* s. str. and a new genus, which we describe as follows:

***Jouyella* Szlach., gen. nov.**

Folia rosulata, synanthia. Inflorescentiae multiflorae, floribus patentibus. Pedicellus ovario brevior vel nullus. Labellum tenue, verrucis claviformibus numerosis obtectum. Tepala tenuia.

Roots thick, tuberous, clustered. Leaves oblong to lanceolate, rosulate at the stem base, present at flowering time. Inflorescence many-flowered.

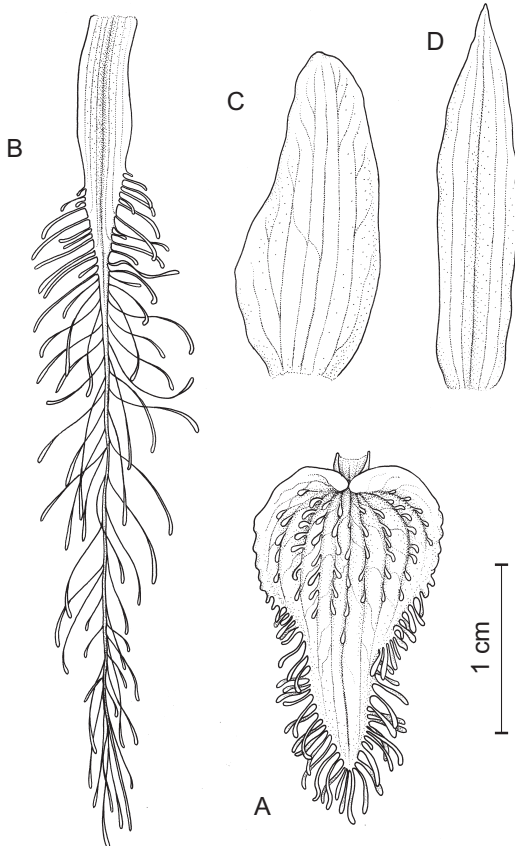


Fig. 2. Flower parts of *Jouyella plumosa* (Lindl.) Szlach. & Marg. A – lip, B – lateral sepal, C – petal, D – dorsal sepal (drawn from *Philippi s.n.*, W-R 43177).

Flowers resupinate, arched, borne on a short pedicel, sometimes subsessile. Lip thin, delicate, usually ovate to cordate in outline, covered on the upper surface and along its margins by numerous clavate thickenings of various sizes. Tepals thin, delicate.

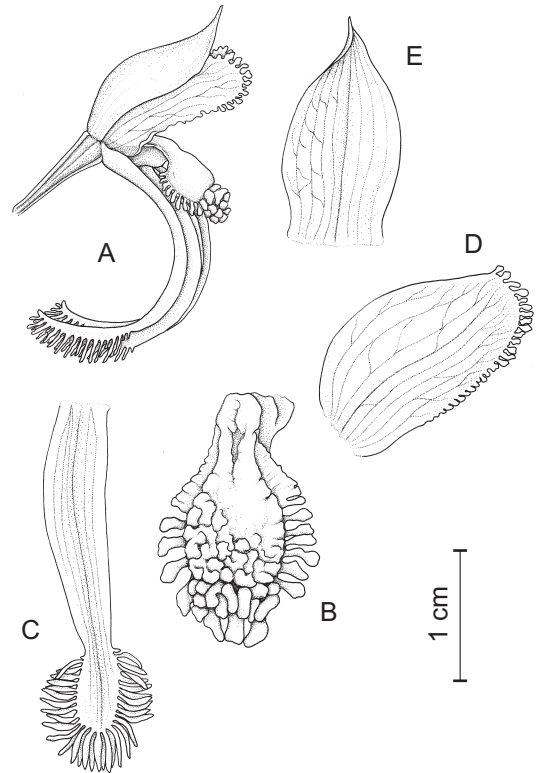


Fig. 3. Flower parts of *Bipinnula polysyca* Kraenzl. A – flower, B – lip, C – lateral sepal, D – petal, E – dorsal sepal (drawn from *Osten 4702*, W 24558).

GENERITYPE: *Jouyella fimbriata* (Poepp.) Szlach. & Marg. (*Chloraea fimbriata* Poepp.).

ETYMOLOGY. We dedicate the generic name to Alain Jouy, Editor of *l'Orchidophile*, the journal of the French Orchid Society, and author of numerous excellent photographs of Orchidaceae.

The genus comprises four species:

Jouyella fimbriata (Poepp.) Szlach. & Marg., *comb. nov.*

Basionym: *Chloraea fimbriata* Poepp., *Fragm. Syn. Pl. Chil.*: 15. 1833.

Jouyella philipporum (Kraenzl.) Szlach. & Marg., *comb. nov.*

Basionym: *Bipinnula philipporum* Kraenzl., *Orchid. Gen. Sp.* 2(1): 21. 1904.

Jouyella plumosa (Lindl.) Szlach. & Marg., *comb. nov.*

Basionym: *Bipinnula plumosa* Lindl., *Quart. J. Roy. Inst.*, ser. 2, 1: 51. 1827.

Jouyella taltalensis (I. M. Johnst.) Szlach. & Marg., *comb. nov.*

Basionym: *Bipinnula taltalensis* Johnst., *Contr. Gray Herb.*, ser. 2, 85: 27. 1929.

During the course of this study it became obvious that the following two species belong to the genus *Geoblasta* Barb. Rodr. and should be transferred to it:

Geoblasta arechavaletae (Kraenzl.) Szlach. & Marg., *comb. nov.*

Basionym: *Chloraea arechavaletae* Kraenzl., *Bot. Jahrb. Syst.* 9: 316. 1888.

Geoblasta bergii (Hieron.) Szlach. & Marg., *comb. nov.*

Basionym: *Chloraea bergii* Hieron., *Bol. Acad. Nac. Ci.* 3: 380. 1879.

ACKNOWLEDGMENTS. We are grateful to Professor Ryszard Ochya for latinizing the diagnosis, to Professor Werner Greuter for critical comments and suggestions, and to the curators of BM, K, P and W for their hospitality during visits. This article was prepared at the Herbarium Hamburgense, thanks to a grant from the Alexander von Humboldt-Stiftung (IV POL 1067782 STP).

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Received 14 June 2001