

Bifrenaria Lindley
Lindleyella Schlechter

Lindleyella, a genus founded by Schlechter (Die Orchideen (1914) 414), is a segregate from *Bifrenaria* Lindl., based on *B. aurantiaca* Lindl. The reason for separating this generic concept from the variable genus *Bifrenaria* was claimed to be the presence of an elongate claw to the lip of this species, and the fact that the lateral lobes were abrupt and separated by a conspicuous callus.

It is a fact, however, that at least one species of true *Bifrenaria* (*B. sabulosa* Rodr.) has an equally elongate lip-claw and lateral lobes nearly as abrupt as those in the concept *Lindleyella*. Furthermore, *Lindleyella aurantiaca* is the only species of that genus to conform with Schlechter's requirements. All of the other species so far referred to *Lindleyella* (*L. bicornaria* (Reichb.f.) Schltr., *L. floribunda* Schltr., *L. picta* Schltr. and *L. saxicola* Schltr.) have a short or very short claw to the lip, less abrupt lateral lobes and an additional callus near the claw. Finally, the concept *Lindleyella* shows the same short mentum exemplified by the type species of *Bifrenaria* (*B. atropurpurea* (Lodd.) Lindl.).

Therefore, since there is such a close vegetative similarity, as well as a general morphological agreement of the floral segments and even of pollinia, between these concepts and species of the genus *Bifrenaria*, I find it impossible to accept *Lindleyella* as a valid segregate.

In conformity with these views, the following transfers become necessary:

Lindleyella floribunda Schltr. (in Fedde Repert. Beih. 27 (1924) 84) = ***Bifrenaria floribunda*** (Schltr.) C. Schweinfurth comb. nov.

Lindleyella picta Schltr. (in Fedde Repert. Beih. 27 (1924) 173; ex Mansfeld in Fedde Repert. Beih. 58 (1930) t. 50, nr. 200) = ***Bifrenaria picta*** (Schltr.) C. Schweinfurth comb. nov.

Lindleyella saxicola Schltr. (in Fedde Repert. Beih. 27 (1924) 143) = ***Bifrenaria saxicola*** (Schltr.) C. Schweinfurth comb. nov.

In the Ames Herbarium (No. 26939), there is a specimen labelled *Lindleyella picta* Schltr. from near Buenaventura, Colombia, sent by C. W. Powell and determined by Dr. Schlechter. Since these data are cited under the type description, this collection may reasonably be considered to be an isotype. The flower is a close approxi-

mation to that of the type, as described and illustrated, except that the callus at the base of the lip is scarcely bilobulate as figured but appears to be a convex irregularly verrucose thickening. The lamina of the leaf is about 26 cm. long and 5.5 cm. wide, whereas the description postulates a leaf-blade 15 cm. long and almost 5 cm. wide.

A collection from Panama represents a closely similar but even larger plant than described for *Lindleyella picta*, being 45–60 cm. high according to the collectors' notes. The pseudobulb is only about 4 cm. high, instead of 5 cm. as specified. The lamina of the leaf is about 27 cm. long (nearly twice as long as the one typified) and is about 6.8 cm. wide; the petiole also is somewhat longer than described. The slightly larger flowers differ only in having a somewhat longer subquadrate lower portion of the lip and little narrower lateral lobes.

PANAMA: Province of Darien, Chepigana District, Cana-Cuasi Trail (Camp 1), at 800 feet altitude, March 18, 1940, *M.E. and R.A. Terry 1616* (Herb. Field Mus. No. 1034503).

Lindleyella saxicola was based on a Colombian specimen (Cundinamarca *A. Schultze 20*), but I have recently seen a collection from Peru (Loreto, *G. Klug 0.3*). The plants forming this latter collection, while showing some variability, have generally much larger vegetative dimensions than those attributed to the type, but the floral measurements are very similar. The roots are very stout (about 2–3 mm. thick), rather than "filiform"; the pseudobulbs are about 4 cm. high, as contrasted with 2–2.7 cm. high; the leaves, which are acute and not "acuminate," range from 18 to 30 cm. long, instead of "15–20 cm.," and reach a width of 6.6 cm., as contrasted with a maximum width of "6 cm.;" the petiole is elongate, ranging from 8 to 18 cm. long, instead of "3–3.5 cm.;" the inflorescence reaches about 55 cm. in length, contrasted with "up to 30 cm.;" and the raceme is 19- to 22-flowered, instead of "8- to 12-flowered."

In another collection (Santander der Sur, Colombia, *Lawrance 850*) the vegetative portions are lacking, but the flowers are slightly smaller than typical, with narrower segments, rhombic-lanceolate petals and narrower lip with more cuneate claw.