

NOTES FROM THE OIC

The Selbyana Editorial Staff announces a new column to report on taxonomic work being conducted at the Orchid Identification Center. Established at the Marie Selby Botanical Gardens in 1975, the OIC studies and curates wild-collected and conservatory-grown species orchids and serves as a center for their identification. Recognized for identifying species to confirm identities of orchids that win American Orchid Society awards, the Center also provides determinations to institutions and individuals from around the world. The OIC has amassed a collection of more than 20,000 taxonomic reference files, a collection of photographs, and 26,000 spirit-preserved specimens, with strengths in collections from Mexico, Central America, Andean South America, and Venezuela.

ENCYCLIA FLAVA AND ITS MULTIPLE IDENTITIES

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Recently an *Encyclia* labeled “pauciflora” (FIGURE 1) was submitted to the Orchid Identification Center (OIC) at the Marie Selby Botanical Gardens for a confirmative or alternative identification. The plant had been purchased from a Brazilian nursery and apparently was wild collected, or originated from a wild collected plant. When compared with the original description of *Encyclia pauciflora* (Barb.Rodr.) Porto & Brade, the submitted plant clearly represented something else. The number of taxa that could be considered as the correct name soon narrowed down to a complex with the enigmatic *Encyclia flava* (Lindl.) Porto & Brade at its center.

John Lindley originally described this species in Hooker Journ. Bot., 3: 83 (1841), as *Epidendrum flavum*. The description is based on a Martius specimen without number, originating from “decaying vegetable matter near the Caza Pintada in the Province of St. Paul’s in Brazil.” Lindley refers to the Martius herbarium in the original description but apparently never saw this specimen, and rather based his description on a drawing (FIGURE 2), which is found in his herbarium at Kew. On the drawing is written “St. Paulo Martius,” suggesting that the drawing was made in Brazil (São Paulo?) by Martius himself and sent to Lindley. The original description correlates well with the drawing, particularly the branching pattern, which Lindley describes as: “. . . only paniced at the base, and is probably very often simple.” Lindley (1853) in *Folia Orchidacea*, also cites another collection, *Gardner 3456*, also the same species, and states that he has seen this specimen in a dried

state (“v.s.sp.”). This specimen (FIGURE 3) actually consists of two plants, each with an inflorescence with two and three widespread branches respectively. Not only at the base, in other words. The Martius specimen (wherever it is), on which the drawing in the Lindley herbarium is based, hence is separate from the Gardner collection, and they may or may not represent the same species.

The drawing is also a source of confusion for later botanists who want to analyze and understand the true identity of the plant. Lindley originally described *Epidendrum flavum* as belonging to “III. *Encyclium*; *floribus paniculatis*,” referring to the branched inflorescence. He listed it as belonging to subgenus *Encyclium*, section *Hymenochila*, in *Folia Orchidacea* (1853). Porto and Brade transferred this species to *Encyclia* in *Rodriguézia* 1(2): 29 (1935). The “confusion” regarding the true identity of this species is illustrated by Withner (2000) in Vol. 6 of *The Cattleyas and Their Relatives*, where the collection of *Gardner 3456* erroneously is referred to as the type specimen, and that it came from “near the Caza Pintada . . .” etc., which in fact relates to the Martius collection. This becomes evident when we look at the treatment of the Orchidaceae by Cogniaux (1898) in *Flora Brasiliensis*, Martius, where the type information of “Caza Pintada . . .” etc., refers to *Martius n. 510* (which then can be confirmed as the true type for the species since Lindley referred to a specimen in the Martius herbarium). Cogniaux (1898) then lists several other collections including “in prov. Goyaz supra arbores ad Mission de Douro: *Gardner n. 3456*” (thus repre-

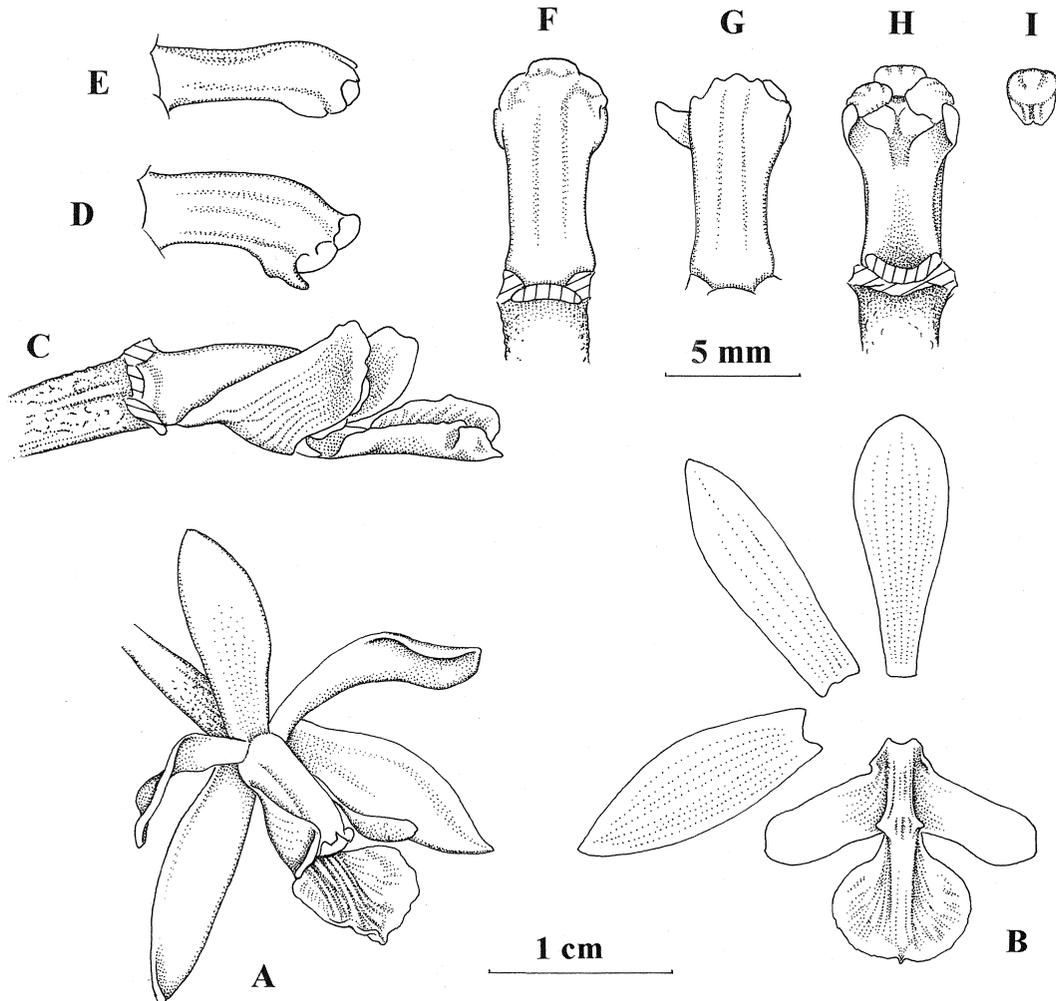


FIGURE 1. *Encyclia flava* (OIC 14708). **A.** Flower, front-side view. **B.** Floral diagram. **C.** Lip and column, lateral view. **D.** Column of second flower (in good condition), lateral view. **E.** Column of first flower (in poor condition), lateral view. **F.** Column of second flower, dorsal view. **G.** Column of first flower, dorsal view. **H.** Column of second flower, ventral view. **I.** Anther cap of second flower.

senting a separate specimen). Withner (2000: 71) includes a drawing by Toscano de Brito of a dissected flower from the Gardner specimen showing the dorsal sepal, a lateral sepal, a petal, the lip, and the column (three views). The column is drawn as if not having any apical wings, and this has led several authors to synonymize other species of *Encyclia* without column wings, with *E. flava* (e.g., Withner 2000, Castro Neto & Chiron 2002), despite the fact that Lindley clearly describes the column as having auricles (wings). The drawing in the Lindley herbarium also shows distinct column wings. The question is then what the type really looks like, and why does the Toscano drawing lacks column wings?

There may be several answers to this. The Gardner specimen may be a different species from the *Martius 510* specimen (which represents the real type and is the voucher for the illustration in the Lindley herbarium). Another possibility is that Toscano simply missed the column wings. This is actually easily done, particularly on an old and dried flower, where small and rather inconspicuous wings are pressed underneath the column and stuck in a position where it looks like they were not there at all. The Toscano drawing is rather inconclusive in regards to finer details and my impression is that the column did not rehydrate completely. In any case, it does not really matter since the Gardner specimen



FIGURE 2. Drawn from the illustration of *Encyclia flava* in the Lindley herbarium, with kind permission of The Director, Royal Botanic Gardens, Kew. **A.** Plant habit. **B.** Lip and column, dorsal view.

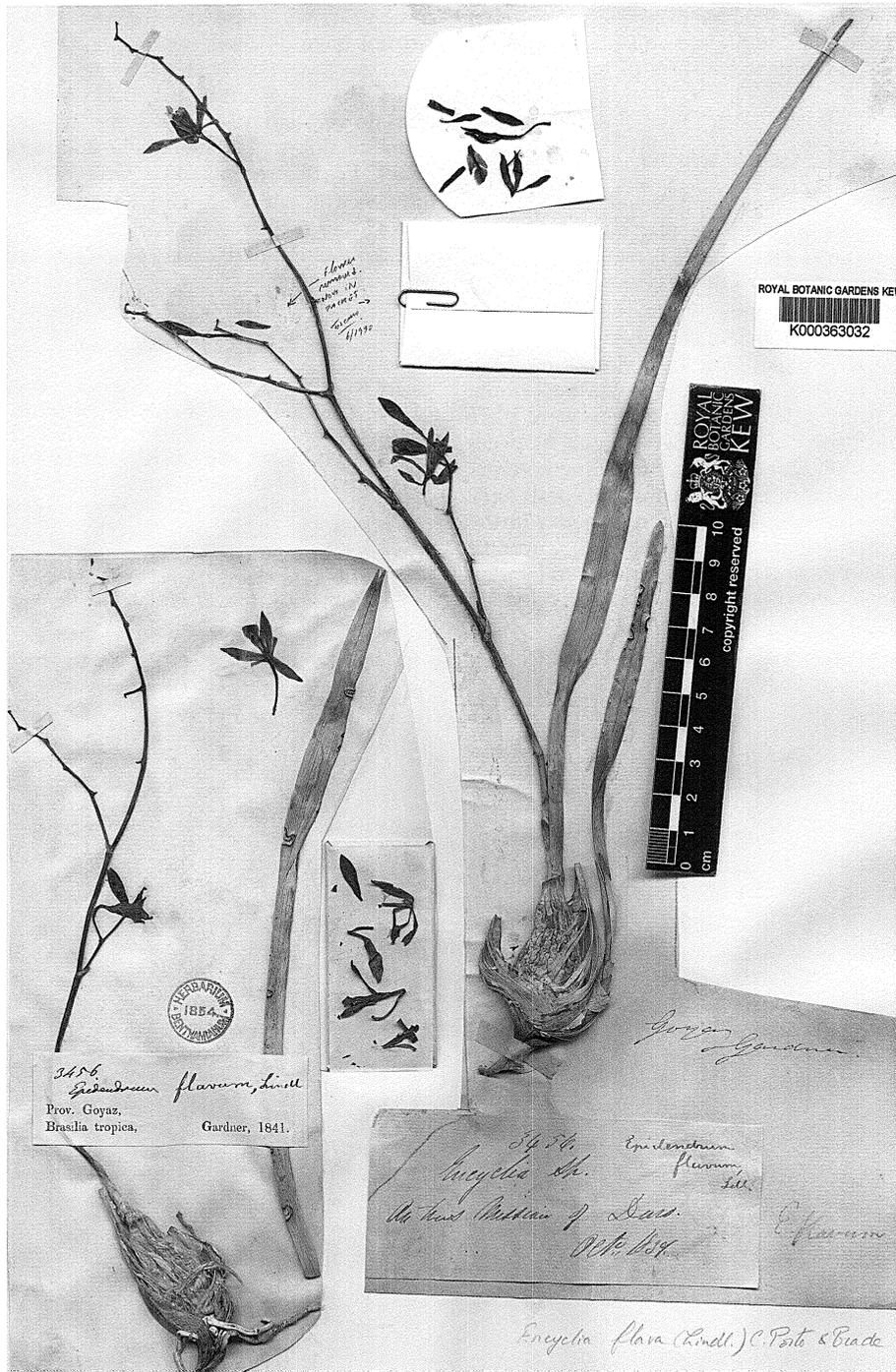


FIGURE 3. Image of the specimen Gardner 3456, RBG, Kew sheet #K000363032, printed with kind permission of The Director, Royal Botanic Gardens, Kew. Image scanning by Clare Drinkell, Orchid Herbarium Kew.

does not represent the type of *Encyclia flava*, but rather a possible "additional collection" (which, however, also may represent a different species altogether).

CONCLUSIONS

Analysis of the submitted flower (*OIC 14708*) allowed some conclusions that may shed light on the mystery. The sepals, petals, and lip correspond very well with the Toscano drawing, but the column has definite wings, which are narrow, falcate and truncate, and project forward in a fresh state (FIGURE 1D). They do not protrude sideways at all, so that when dried, they would not be visible unless you knew they were there and could "fish" them out with a pair of tweezers. If you do that and then flatten the column, you end up with a profile that corresponds very well with the drawing of *Encyclia flava* in the Lindley herbarium. Indeed, the first flower of *OIC 14708* that was submitted arrived in a rather poor shape, and the column had shriveled up

somewhat. My immediate impression was that it did not have any wings (FIGURE 1E). Not until a second flower arrived (on request) was I able to see the wings clearly. I then returned to the first flower and discovered the wings, forced them out sideways, flattened the column and was struck by the resemblance with the real type drawing (FIGURE 1G). This led me to conclude that *OIC 14708* represents *Encyclia flava* and that the column really has wings, just as Lindley described them.

LITERATURE CITED

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