

Encyclia replicata (Lindl. & Paxt.) Schltr. - The Proper Name For A Colombian *Encyclia* Hooker.

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ABSTRACT

A study of the types of *Encyclia expansa* (Rchb. f.) P. Ortiz, *Encyclia maderoi* Schltr. and *Encyclia magdalenae* Withner combined with examination of live Colombian material leads to the conclusion that they are synonyms of *Encyclia replicata* (Lindl. & Paxt.) Schltr.

In the literature several species of *Encyclia* Hooker based on types from Colombia have been a source of confusion. Three names *Encyclia expansa* (Rchb. f.) P. Ortiz, *Encyclia maderoi* Schltr. and *Encyclia magdalenae* Withner have been applied to a large variable population of *Encyclia* in Colombia. *Encyclia oncidoides* (Lindl.) Schltr. has also been applied to this population (Withner, 2000).

Another name *Encyclia replicata* (Lindl. & Paxt.) Schltr. has also been mentioned but has not been formally applied to the population until recently (Bastos *et. al.*, 2015) possibly due to a distinctive character described in the protolog and shown in the type illustration which is rare in the population. This character of *E. replicata* described in the protolog is: “The lip is white, streaked with pink, is remarkable for the manner in which the two sides are turned downwards, so that their backs actually touch.” This curving downwards of the edges of the disc of the labellum is rare in the population and has accounted for not considering *E. replicata* as the name for the population (Withner, 2000). In addition, Lindley in the description states that *E. replicatum* is “Most nearly allied to *Epidendrum diotum*, a native of the same country.” This reference to *E. diotum* Lindl. and its similarity to *E. oncidoides* has probably led to the use of the name *E. oncidoides* for the population. However, both *Encyclia diota* (Lindl.) Schltr. and *Encyclia oncidoides* are Brazilian species that have not been reported for Colombia.

Withner (2000) expressed doubts that *E. replicata* was actually from Colombia. He states that “No Colombian specimen I have seen in any herbarium looks like the portrait in Paxton” referring to plants with the edges of the disc of the labellum curving downward. He implies that *Encyclia selligera* (Batem. ex Lindl.) Schltr., a Central American species, may be *E. replicata*. This curving downward of the edges of the disc of the labellum does exist in the Colombian population. In addition, Withner (2000) was not certain of the identity of *E. maderoi* and published a new name for the population, *E. magdalenae*. He also was uncertain as to the identity of *E. expansa* all due to the lack of live material to examine.



Encyclia oncidiodioides. Type illustration.

Encyclia diota (Lindl.) Schltr.

Photo Courtesy of Andy's Orchids.

Bastos *et. al.* (2015) was the first to realize that *E. replicata* was the earliest name for this population and synonymized *E. maderoi* under *E. replicata* stating that “Both types are morphologically similar and come from Colombia. By observing several plants in cultivation, produced by self-pollination, we observed a broad range of morphological variation in this taxon, especially in the shape and position of the lateral lobes of the lip, which poses problems for recognition of two species based on minor morphological differences.” However, Bastos *et. al.* (2015) did not mention that *E. expansa* and *E. magdalenae* were also names applied to the population. The broad range of morphological variation that Bastos *et. al.* (2015) mentions accounts for the different names applied to this population. Plants sent to Reichenbach, Lindley and seen by Withner were different enough for each to describe them as new species although all came from the same population. The publication of the three names for the same population was due to the minimal amount of live material available to properly evaluate the range of natural variation.

Hybridization is common in the genus *Encyclia* (Sauleda & Adams 1984, 1990) and several distinct outcomes (Abbott, 2013) are possible. Only a single isolated individual resulting from hybridization is usually found without further reproduction occurring (Sauleda and Adams, 1990). In rare cases a stable persistent population may result which outcrosses and operates as a species (Sauleda and Adams, 1984). In most cases a hybrid results with introgression in only one direction (Sauleda, 2016). This is what appears to have occurred with *E. replicata*.

The earliest name for this population is *E. replicata*. *Encyclia replicata* appears to have hybridized with *Encyclia cerastites* (Lindl.) Schltr. and introgression has occurred back to *E. replicata*. This accounts for the variation in lip shape and color observed in individuals of the population.

Encyclia replicata (Lindl. & Paxt.) Schltr, Repert. Spec. Nov. Regni Veg. Beih. 7: 255. 1920.

Basionym: *Epidendrum replicatum* Lindl. & Paxt. Fl. Gard. 2: 167. 1851.

Holotype: COLOMBIA (New Grenada). Without locality, July 1851, Rucker s.n..

Synonyms: *Encyclia maderoi* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 7: 155. 1920.

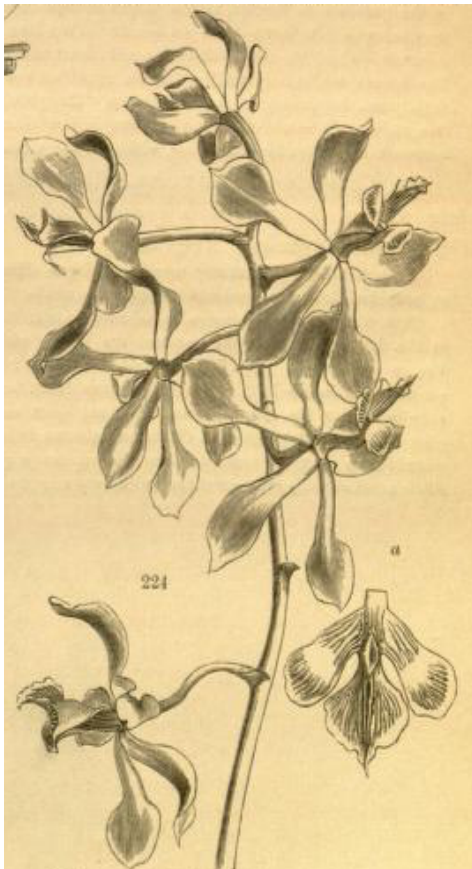
Type: COLOMBIA. Antioquia: without specific locality, 1000 m, no date, Madero s.n.; type B (destroyed); lectotype designated by Bastos *et. al.* (2015): Illustration of Schlechter in Mansfeld (1929: t. 55, n. 212).

Encyclia magdalenae Withner, The Cattleyas and Their Relatives. Vol. VI. The South American Encyclia Species, p. 91. 2000.

Holotype: (Colombia): Withner, ex hort. Without a number, collected by Withner at Miami International Orchid Show. Deposited at the Oakes Ames Orchid Herbarium (AMES).

Encyclia expansa Rchb. f., Linnaea 41: 115. 1877.

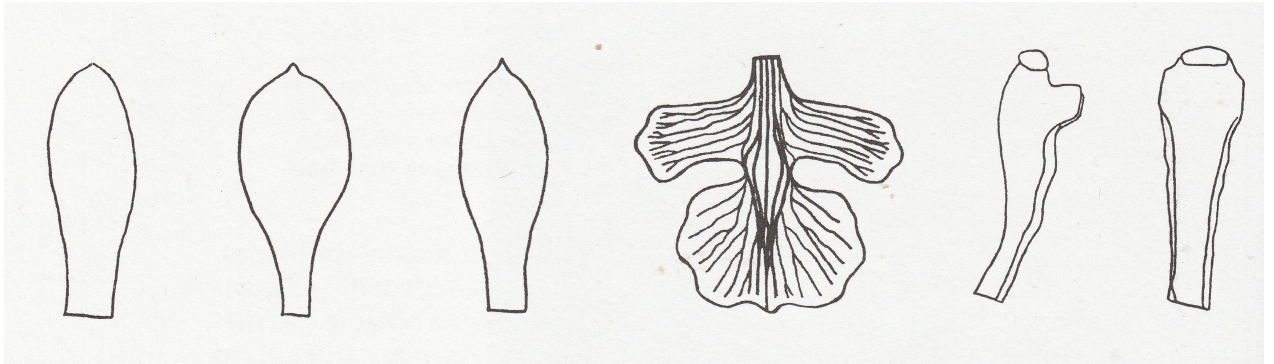
Type: COLOMBIA, New Granada. G. Wallis, *sn.* In Reichenbach herbarium (W).



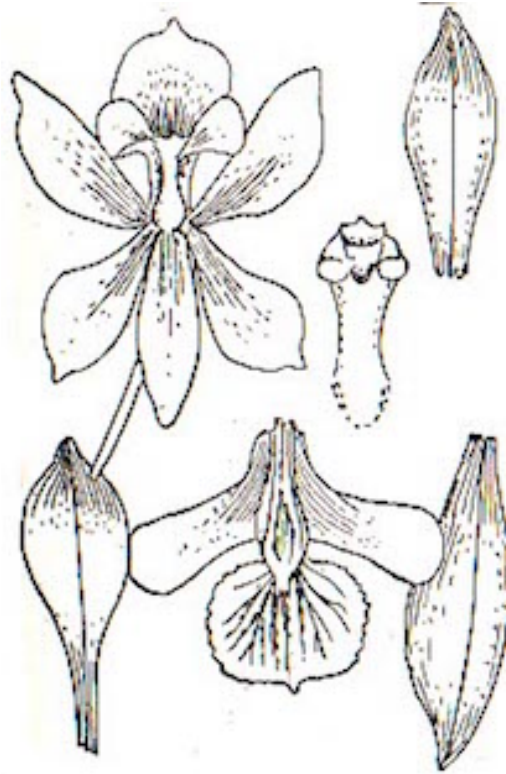
Epidendrum replicatum. Illustration with the original publication.



Drawing on holotype at K-L.



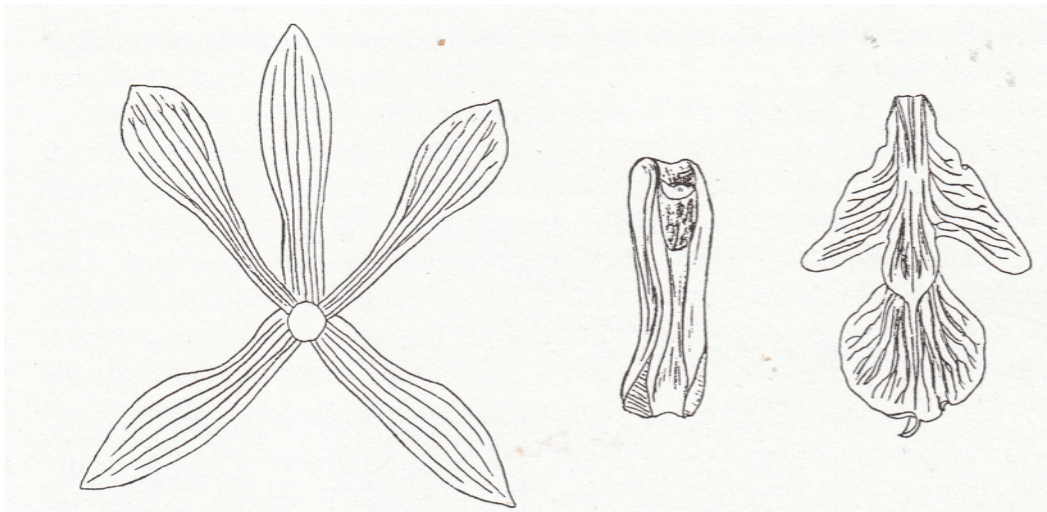
Type illustration of *Encyclia magdalenae* Withner.



Encyclia maderoi Schltr. Lectotype (Bastos *et. al.*, 2015).



Epidendrum expansum. Type in Reichenbach herbarium.



Encyclia expansa. A flower from the type specimen of *Epidendrum expansum*. Camera lucida drawing by Leslie Garay (Withner, 2000).



Encyclia cerastites.



A morph of *Encyclia replicata* with flat lip.



Morphs of *Encyclia replicata* demonstrating various degrees of introgression from *Encyclia cerastites*.



Encyclia cerastites.



Morph of *Encyclia replicata* demonstrating introgression with *Encyclia cerastites*.



Morphs of *Encyclia replicata* with the sides of the disc turned downward as described by Lindley in protolog.



Morphs of *Encyclia replicata*.



Morphs of *Encyclia replicata*.



Morph of *Encyclia replicata*.

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