

STUDIES IN AMERICAN ORCHIDS III¹

A NEW GENUS FROM THE COLOMBIAN AMAZONIA

BY

LESLIE A. GARAY²

TIME and again, the interpretation of orchid genera has caused grave problems, since we often find that many of the species which are assigned to a particular genus are either atypical or obviously do not belong to the concept in question. Recently, I encountered a problem of this nature, which I wish to discuss here.

In 1934, Mansfeld described *Hybochilus Huebneri*, which he based on a collection sent in by Mr. Huebner from the Amazon region of Colombia. At first, it appeared to him that this collection might represent a new generic concept, but for some unknown reason he finally decided to include it in the genus *Hybochilus*. This species has subsequently been all but unknown, and its nomenclatorial type was destroyed during the Second World War.

While studying a number of collections from Colombia in the Ames Herbarium, I found two undetermined specimens which appeared to be quite peculiar in their

¹ Previous numbers of this series were published in the Canadian Journal of Botany, vol. 34: (1956), pp. 241-260, 721-743.

² Assistant Curator of the Herbarium, Department of Botany, University of Toronto, Toronto, Canada; at present, a Guggenheim Fellow at the Orchid Herbarium of Oakes Ames, Harvard University.

general habit and which immediately suggested *Quekettia*, another genus of the subtribe *Capanemieae* and known only from the Guianas. I consequently investigated all of the genera and species of the *Capanemieae*, and I am now convinced of the identity of my material with that of the concept *Hybochilus Huebneri*.

According to Schlechter's system, such features as an incumbent anther and auricles which are a continuation of the clinandrium characterize the *Capanemieae*. A completely dorsal anther and the presence of auricles on the column which enfold the stigmatic cavity are characters of the monogeneric subtribe *Papperitziae*; these characters are clearly observable in *Hybochilus Huebneri*. The structure of the column, however, is much more complicated than in *Papperitzia*. There are two pairs of lobes: one pair is located in front of the column, with their parallel sides enclosing the stigma, the lower margins being completely connate to form a shallow, cup-like cavity immediately beneath the stigmatic surface; the other pair of lobes terminate the column. At first, these are parallel and enclose the lower portion of the anther. When the anther is removed they open up slightly and become spirally twisted. It is hard to state the real function of these lobes, since we have no field observations. It appears, however, that so long as the flowers are not visited by pollinating insects they remain fairly connivent, but after the removal of pollinia they open up slightly. I believe that these auricles protect the viscosity of the stigma and pollen-gland from rapid desiccation.

In view of these dissimilarities, which I consider to be of basic importance in the differentiation of subtribes as well as of genera within the subtribes, I believe that *Hybochilus Huebneri* represents a distinct genus which should be placed in the *Papperitziae*.

Polyotidium *Garay gen. nov.*³

Sepalum posticum a sepalis lateralibus omnino liberum, valde concavum; sepala lateralibus usque ad medium connata, basi leviter saccata. Petala plana, sepalo postico subsimilia. Labellum basi columnae adnatum, non articulatum; hypochilum late excavatum, epichilum cuneato-flabellatum, planum. Columna apoda, brevis, paulo arcuata, apicem versus leviter dilatata, alis quaternis ornata; alae duae inferiores in facie columnae juxta orificium stigmaticum patentes, superiores duae in apice columnae erectae. Orificium stigmae ellipticum, valde concavum. Rostellum valde conspicuum, alte bifidum. Clinandrium posticum, vix rite evolutum, integerrimum. Anthera dorsalis, dehiscens, in medio columnae inserta, erecta, ovato-oblonga, unilocularis. Pollinia 2, subglobosa, stipites longi angustissimi, glandula obovato-triangularis. Herbae epiphyticae, habitu *Quekettiam microscopica* in mentem revocans. Pseudobulbi parvi, unifoliati. Folia lineari-subulata, cornoso-coriacea. Inflorescentiae laterales, simplices vel pauciramosae. Flores parvi, distincte pedicellati.

Genus monotypica e regione Amazonicae Colombiana.

Polyotidium Huebneri (*Mansf.*) *Garay comb. nov.*

Hybochilus Huebneri Mansf. in Fedde Repert 36: (1934) 61.

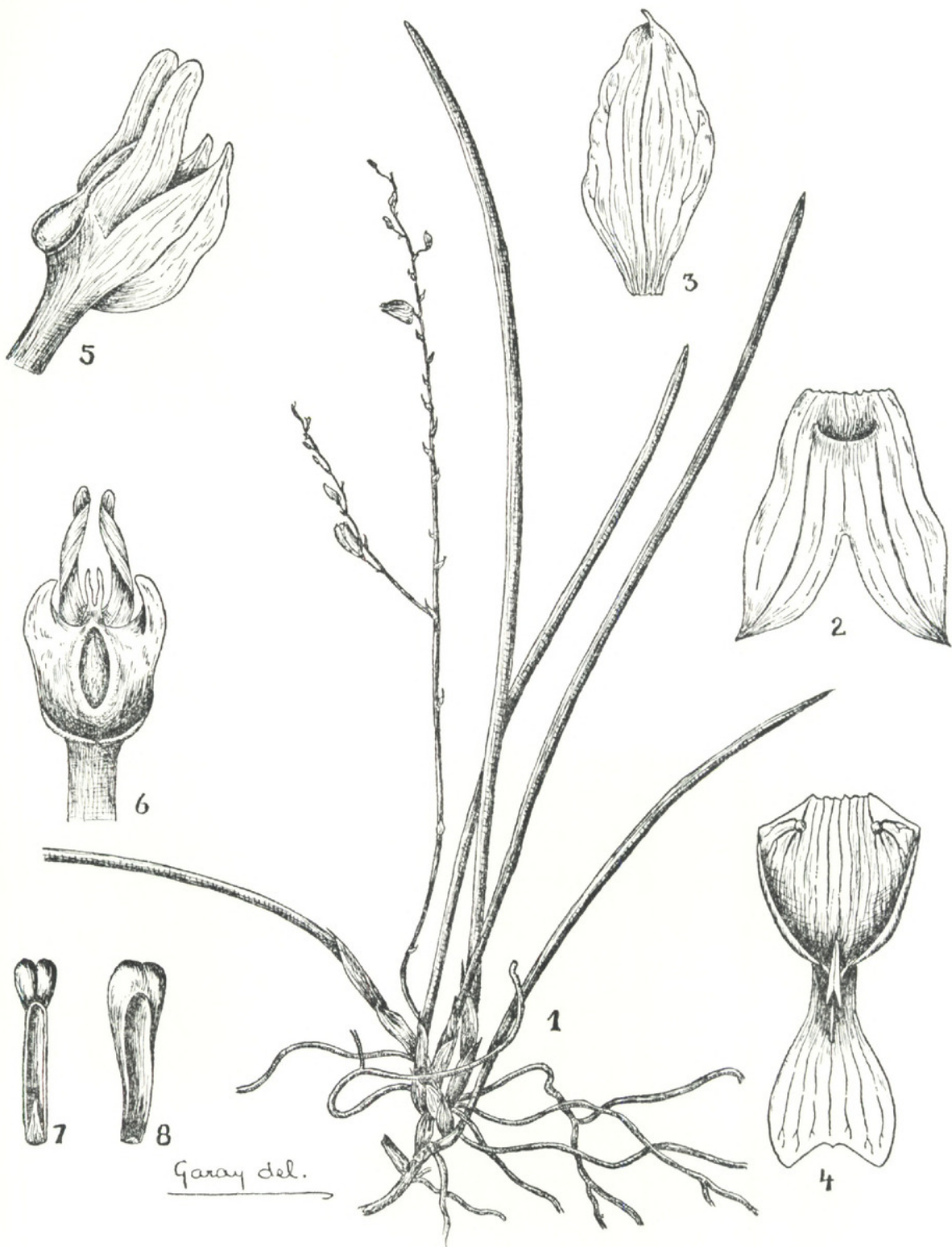
Epiphytica, caespitosa, usque ad 20 cm. alta; radicibus filiformibus, leviter flexuosis, glabris; pseudobulbis anguste cylindratis, unifoliatis vaginis 3, scariosis, acutis vel brevissime acuminatis omnino vestitis; folio subuliformi, carnosocoriaceo, erecto vel leviter arcuato, 12–19 cm. longo, 2–3 mm. in diametro; inflorescentia e basi

³ **Polyotidium:** *poly* = many; *otion* = small ear, in allusion to the several auricles present on the column.

EXPLANATION OF THE ILLUSTRATION

PLATE XVI. *Polyotidium huebneri* (*Mansf.*) Garay.
1, plant, three quarters natural size. 2, lateral sepals,
four times natural size. 3, petal, five times natural
size. 4, lip, five times natural size. 5, column, lateral
view, nine times natural size. 6, column, front view,
eight times natural size. 7, pollinia, greatly enlarged.
8, anther, greatly enlarged.

PLATE XVI



pseudobulborum simplici vel pauciramosa, laxe pluriflora, 9–16 cm. longa; bracteis lanceolatis, ovariis pedicellatis multoties brevioribus, 2 mm. longis; sepalo postico elliptico, valde concavo, 3-nervio, apice acuto, 6–8 mm. longo, 2.5–3 mm. lato; sepalis lateralibus usque ad medium connatis, lanceolato-ellipticis, apice acutis et inter se divergentibus, basi leviter saccatis, 3-nerviis, ca. 7–8 mm. longis, supra basin 3.5–4 mm. latis; petalis late ellipticis, acutis, 5-nerviis, 7–8 mm. longis, 3–4 mm. latis; labello sessili, basi columnae adnato, in medio constricto, 9–10 mm. longo; parte basilari (i.e. hypochilo) subglobosa, valde concava, ad basin utrinque callo minuto, globoso ornata, epichilo plano, cuneato-flabellato, antice emarginato cum apiculo; disco in medio ad constructionem callis 2 approximatis donato; columna apoda, 4-auriculata, 5–6 mm. alta; ovario cylindraceo, pedicello incluso 4–6 mm. longo.

Huebner 226 was originally designated as the type of *Hybochilus Huebneri*, but it was destroyed during the Second World War. To the best of my knowledge, the two collections in the Ames Herbarium cited below constitute our only representation of this concept. Since this species is the basis of a distinct genus, it is essential to select a new nomenclatorial type, for which I hereby designate the excellent collection *Schultes & López 9300* (TYPE in Ames Herbarium No. 68524).

COLOMBIA: Comisaría del Vaupés, Río Negro basin, El Castillo, near confluence of Guainía and Casiquiare. Dec. 12, 1947. *Richard Evans Schultes & Francisco López 9300*. NEOTYPE: (Ames Herbarium No. 68524).—Comisarias del Amazonas y Vaupés: Río Apaporis, Raudal Jirijirimo (below mouth of Kananarí). Quartzite base, 900 ft. alt. Flowers vermilion. Jan. 21, 1952. *Richard Evans Schultes & Isidoro Cabrera 14960* (Ames Herbarium No. 68495).—Comisaría del Amazonas: La Pedrera. Feb. 1926. *G. Huebner 226* (ex Mansfeld).



Garay, Leslie A. 1958. "Studies in American Orchids III: A New Genus from the Colombian Amazonia." *Botanical Museum leaflets, Harvard University* 18(3), 103–108. <https://doi.org/10.5962/p.168510>.

View This Item Online: <https://www.biodiversitylibrary.org/item/31905>

DOI: <https://doi.org/10.5962/p.168510>

Permalink: <https://www.biodiversitylibrary.org/partpdf/168510>

Holding Institution

Missouri Botanical Garden, Peter H. Raven Library

Sponsored by

Missouri Botanical Garden

Copyright & Reuse

Copyright Status: Public domain. The BHL considers that this work is no longer under copyright protection.

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.