NOTÍCIAS SOBRE O 1º ENCONTRO NACIONAL DE ORQUIDÔFILOS E ORQUIDÓLOGOS

Coordenação da Sociedade Brasileira de Orquidófilos
Rio de Janeiro, Brasil

INTRODUÇÃO

Em outubro de 1980, realizou-se o 1º Encontro Nacional de Orquidôfilos e Orquidólogos, reunindo durante vários dias pessoas de todo o Brasil. Esse Encontro já se fazia necessário há muito tempo.

Nosso Professor, G. F. J. Pabst, falecido em abril de 1980, formava um elo de ligação entre todas as pessoas que aqui estudavam orquídeas, e a quebra deste elo causou esse Encontro. Ainda em vida, Guido Pabst esperava reunir a todos com o fim de formar um "grande grupo" com a meta única de estudar as orquídeas brasileiras, contando com a colaboração de grandes expoentes da orqueiodologia nacional como os Professores Brieger e Hamilton Dias Bicalho, de São Paulo, e o Professor Pedro Ivo Braga, do Instituto Nacional de Pesquisas da Amazônia entre outros. Infelizmente, Guido Pabst faleceu antes de ver este seu sonho concretizado. Entretanto, tendo-o como patrono, esse Encontro ocorreu.

Houve palestras, mostras de slides, exposição de trabalhos inéditos e, o mais importante, uma grande confraternização de todos os interessados em orquídeas. Esse Encontro foi coroado por uma espetacular exposição de plantas provenientes de todo Brasil.

Todos os trabalhos apresentados estão sendo reunidos em um livro que será editado brevemente, e que conterá os textos e as fotografias apresentadas.

Aqui expomos sucintamente um dos trabalhos apresentados, "Resssabelecimento do gênero Anoabelliam Hoffm. e Revisão do gênero Normidián Lindl. ex Haynh.", bem como a descrição de duas espécies inéditas e novas ocorrências para o Brasil, de autoria do Professor Pedro Ivo Braga, referente ao seu trabalho "Orquídeas das Campanhas da Amazônia Brasileira", Ambos os trabalhos serão publicados integralmente nos Anais desse 1º Encontro Nacional de Orquidôfilos e Orquidólogos.

LISTA DOS TRABALHOS APRESENTADOS

Braga, P. I. - "Estudos da flora orqueidológica do Estado do Amazonas IV - Ultra estrutura da polínea de Schoenburghtia gloriosa Lindl. (Orchidaceae) com auxílio da microscopia eletrônica de transmissão".

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Braga, P. I. & Vilhena, R. - "Estudos sobre a vegetação das campinas Amazônicas VIII - Anatomia ecológica de Eptámeron kuersmii Schltr. (Orchidaceae) e Phthiepusa micrantha Eichl. (Loranthaceae)."


Manso, J. G. - "Flor Branca no gênero Cattleya."

Wiesenberg, L. H. G. - "Isótopo de carbono 13 como indicador do tipo de metabolismo na fixação de CO2 por orquídeas."

Urpiá, H. - "Breve comentário sobre as conferências mundiais de orquídófilos."

Braga, P. I. - "Orquídeas das campinas da Amazônia Brasileira."

Kerbauy, G. B. & Handro, W. - "Estudo do desenvolvimento "in vitro" de embriões de orquídea em meio líquido e gelificado."

Machado, E. F. - "Trinta anos como "mateiro" no paraíso das orquídeas (orquídeas ornamentais nativas no Estado do Espírito Santo)."

Bicalho, H. D. - "Contribuição do Departamento de Genética, ESALQ, USP, à orquídofília e orquidologia nacionais."

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ORQUÍDEAS DAS CAMPINAS DA AMAZÔNIA BRASILEIRA

NOVAS OCCORRÊNCIAS PARA O BRASIL E TAXA NOVAS PARA A CIÊNCIA

Pedro Ivo Soares Braga
INPA, Manaus

(As respectivas figuras serão apresentadas nos anais do 19 encontro).


Material estudado - Col.: Madison, P.I.S. Braga & H. Kennedy (PPE 610) (INPA 85631) em 25/10/1978; orca terrestre em solo arenoso, umbrófila; AM, Rio Curicuriari em vegetação de "Catinga"; altitude 1 100m. a.m. NOVA PARA O BRASIL.


Material estudado - Col.: Madison, P.I.S. Braga & H. Kennedy (PPE 552) (INPA 85659) em 20/10/1978; arvá epífitas, umbrófila, sépalas amarelo claro no ápice, róseas na base, labelo creme; AM, São Gabriel da Cachoeira em vegetação de "Catinga" perto do aeroporto (S). NOVA PARA O BRASIL.


Esta espécie assemelha-se a Neoleômania porpax (Rchb.f.) Garay & Dunsterv, e Neoleômania peperomia (Rchb.f.) Garay & Dunsterv., diferindo destas, entretanto, na parte da planta, com folhas falciformes e na morfologia floral, apresentando apenas duas calosidades no labelo.
Dedicamos a espécie ao Dr. Guido Pabst, pelo seu inestimável trabalho na catalogação das orquídeas brasileiras e a quem devemos a primeira orientação no estudo desta família.

- *Pleurothallium kerrii* Braga n. sp.
  Sect. *Longirostrascensae*

Species nova *Pleurothallium spirito-sanctensis* Pabst affinis, labelurn forma facilis recognoscenda.

Epiphytica, purparva, in cortece arborum decumbens. Radices filiformes, flexuosae, glabrae, albescentes. Rhizoma repente, flexuosum, radicans, ca. 3-7mm longo, 1mm crassum. Caulis brevissimus, ca.1-2mm longus, 0,5mm crassus. Folia inter orbiculare et elliptica ludentia, nitida, substrato adherentia, ca. 3,5-6mm longa, 1,5-3,5mm lata. Pedunculus erectus, filiformis, ca. 1,6-4cm longus, 0,3mm latus. Bractea tabulata, laxa, apice oblique-truncate, ca. 1mm lata. Flores unicos, parvis, membranaceae. Ovarium pedicellatum, teres, succulentum. Sepala membranacea, purpurea; sepulum intermedium oblongum, ad apicem apiculatum, ca. 2,5-3mm longum, 1,5-2mm latum; sepala lateralia base conata in calcar, ad apicem acuta, ca. 3-3,5mm longa, 2-2,5mm lata. Petala membranacea, linearia, leviter falciformia, purpurea, ca. 2,5-3mm longa, 0,5mm lata. Labelum trilobatum, bicallosum, luteum ad apicem purpureum, ca. 3mm longum, 2mm latum. Columna inferior pedata superior auriculata, luteo-virens, ca. 3-3,5mm longa. Anthera globosa. Polinia 2. Capsula trigono-globosa, succata, viridis, ca. 3mm longa, 1,5mm crassa.

Epífitas, diminutas, decumbentes no córte de árvores. Raízes filiformes, flexuosas, glabras, esbranquiçadas. Rizoma, flexuosum, provido de raízes, 0,5mm de espessura. Folha variando entre as formas orbicular e elíptica, nitidamente aderente ao substrato, ca. 3,5-6mm de comprimento, 1,5-3,5mm de largura. Pedúnculo erecto, filiforme, ca. 1,6-4cm de comprimento, 0,3mm de largura. Brácteas tubulosas, laxas, no ápice oblíquo-truncate, ca. 1mm de comprimento. Flor solitária, diminuta, membranacea. Ovário pedicelado, cilíndrico, sulcado. Sépalas membranáceas, purpuráceas; sépalo intermediário oblongo, apiculado, ca. 2,5-3mm de comprimento, 1,5-2mm de largura; sépalos laterais conados na base formando um calcar, no ápice agudos. Petalas membranáceas, lineares, levemente falciformes, purpuráceas, ca. 2,5-3mm de comprimento, 0,5mm de largura. Labelo trilobado, bicaloso, amarelo com o ápice purpúreo, ca. 3mm de comprimento, 2mm de largura. Coluna provida de pê na base, no ápice auriculada, amarela-esverdeada, ca. 3-3,5mm de comprimento. Antera globosa. Polinéia 2. Cápsula trigono-globosa, succata, verde, ca. 3mm de comprimento, 1,5mm de espessura.


Este "taxon" assemelha-se a *Pleurothallium spirito-sanctensis* Pabst diferindo desse no tamanho da flor, na coloração e no formato do labelo, profundamente trilobado.

Dedicamos a espécie ao Dr. Warwick Estevan Kerr, ex-Diretor do INPA e nosso amigo, pelo muito que ele fez pelo INPA e pelo apoio dado em nossas pesquisas.
Material estudado – Col.: Coelho (INPA 49930) em 3/6/1975; com flores amarelas; AM, alto rio Negro entre lauritê e Parrâ-Cachoeira, próximo à Serra do Trovão a lilm.a.m. em vegetação de "Castiça baixa". Col.: L. Coelho (INPA 49928) em 3/16/1975; botões amarelos bem desenvolvidos, folhas com a parte superior de cor verde e a inferior roxa; AM, alto rio Negro no rio lauritê, entre lauritê e Parrâ-Cachoeira, próximo à Serra do Trovão a lilm.a.m., em vegetação de "Castiça baixa." (NOVA PARA O BRASIL).

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AN ATTEMPT TO ESTABLISH THE CORRECT STATEMENT FOR GENUS ANACHELLUM HOFFMAG AND REVISION OF THE GENUS HORMITIDUM LINDL. EX HEYNH.

G.F. Fabret & J.L.Moutinho
Herbarium Bradeanum

A.V. Pinto

Many arguments have been established with the genus Epidendrum, since Linnaeus in 1793. This genus seems to represent an agglomerate of plants that differ in their morphology though that has been proved afterwards. Therefore, botanists began to divide the genus and to transfer certain groups of plants to other genera. Szarzcz separated the genera Stanis, Varilla and Hormidiun; up to now at least 15 genera were created for plants which, at the beginning had been placed in Epidendrum L. Some of these genera have been upheld, others were soon put aside, due to the difficulty in separating the distinct groups of plants included in the Epidendrum alliance; Encyclia Hook, Hormidiun Lindl. ex Heynh. and Anacheilium Hoffmg were among those. Encyclia Hook, based upon Encyclia virguliflora Hook, having a completely free tri-lobed labellum, four anthers like Cattleya and oval pseudobulb and other distinct traits, was transformed into the sub-genus Encyclia (belonging to Epidendrum).

The genus Hormidiun proposed by Lindley and first used by Heynhold, held only one species Hormidiun uniflorum. Shortly afterwards (Lindley, 1853) same authors considered it to be synonymous with Epidendrum, but while others considered it as a proper genus (Cogniaux, 1892).

The genus Anacheilium Hoffmg was based upon Epidendrum cohilaetum and it is named "labellum turned upwards" shows one of the more prominent characteristics of this group, the superior labellum. Unlike the two previously mentioned genera, the genus Anacheilium was considered synonymous of the sub-genus Camphiyrum, Lindl.

* Dr. Guido João Frederico Fabet passed away suddenly on April, 27, 1980. This Work is a part of the one presented at the 1st National Meeting of Orchidologists and Orchidists, at Rio de Janeiro – Brazil, October, 3, 1980. For more details on Brazilian Orchids see the published Annals: (English and Portuguese text): Sociedade Brasileira de Orquidófilos, Caixa Postal nº 4714 – Rio de Janeiro – Brasil.

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When Lindley, working on the matter resuming the already existing studies, prepared his monograph "Folia Orchidaceae" (1853), dividing the genus Epidendrum into 12 sub-genera: Epidendrum, Encyclia, Nymphidium, Palaria, Angraecum, Campanulina, Catleya, Spatulina, Ampelopsis, Sur- pendrum, and Pleurothallis.

Cogniaux slightly altered some of Lindley's subdivisions of the genus Epidendrum, L., writing a monograph of the orchid family for "Flora Brasiliensis" by Martius (1892).

Although attempts were made to reorganize the genus Epidendrum, it still held too a great number of distinct plants. Schlechter (1914) proposed to revaluate the genus Encyclia Hook transferring to it plants with an entirely or partially free, trilobed labellum adhering to the column and clinandrium not well developed, as for instance, Epidendrum cordifolium Lindl. and E. odoratissimum Lindl. This first step led to a better understanding of other distinct small groups of plants that still placed under the genus Epidendrum.

Latter appeared conflicting opinions about Schlechter's work. Some authors continued to accept the genus Epidendrum in its original delimitation, making only some minor changes (under generic levels), creating, re-establishing and altering taxa in sub genera and sections. (Ames, Hubbard e Schuinfurth, 1936; Williams, 1952; Ames & Correl, 1952, among others). Yet, others quickly approved of Schlechter's ideas and completed his work substituting new generic names, (Hohene, 1952; Lemée, 1955). Lemée (1955) was the first to place plants formerly included in the section Anthesis - as for instance Epidendrum fragrans - in the genus Encyclia, thus enlarging the concept of Encyclia as proposed by Schlechter. Acma (Catalogo des. Org. embraas, 86, 1939) surprised him and accepted the genus Anacheilium proposed by Hoffmansegge, transferring Epidendrum fragrans Sw. to it. Unfortunately, the idea of re-evaluating this genus was soon forgotten.

The genus Encyclia now delimited, included plants of two morphologically distinct groups, one with entirely, or almost entirely free labellum generally with three lobes and enfolding the column as in Encyclia odoratissima (Lindl.) Schl. and another group, generally with a rounded labellum, adnate to half of the column and flowers which were not resupinate, as for instance Encyclia fragrans (Sw) Lemée.

Dressler (1961) and later on Dressler & Pollard (1971) still increased this wider concept of orchids in an excellent work, where they transfer Catleya citrina, Epidendrum martias, Epidendrum polybulbon, Epidendrum pygmaeum (Hormidium trinatum (Brogni) Cogn.) and other plants to Encyclia. Then, due to a great morphological difference in these plants, they created two sections with the prominent characteristics quoted in the previous paragraph and also included smaller groups of plants with we mentioned before. Pabst (1967) carried out the necessary transfer of Brazilian plants to the new taxonomic order.

Preparing the 3rd edition of Schlechter's "Die Orchidee", Briege et al. used another approach, limiting Encyclia - as originally proposed by Schlechter - leaving in this genus only plants with a free labellum and similar to Encyclia odoratissima. The sub-genus Campanulina was placed under Hormidium and Dressler added to this the group of Encyclia citrina (Llave & Lex) Dressler.
Following this point of view, Brieger restricted the genus Encyclia and placed plants related to Encyclia fragrans and to Encyclia pygmaea in an autonomous genus (Hormidium). Separated Encyclia pseudobon in the genus Dineme. Finally, he excluded the entire group of Encyclia nitida from Encyclia and Cattleya including it in the genus Hormidium.

The genus Epidendrum has been thoroughly studied in the last decades, but there are still conflicting opinions, as some authors would rather keep this whole group of plants in one genus, namely Epidendrum, dividing it in several sub-genera, while others would prefer to separate them to distinct genera.

In the present study we shall opt for the second point of view, considering the great difference between the two, quite well delimited groups, - even though we must admit, that we will find plants, which show intermediate characteristics of both groups.

As the morphology of this group of plants has been extremely studied, we shall now look the problem of classifying them from another point of view. Handling flowers preserved in alcohol we noticed, that the flowers of some species belonging to the subgenus Camphorphytum, were covered with crystals after decolorized by this solvent. An examination of herbarium material confirmed the presence of crystals occurring in the whole plant, pseudobulbs, leaves, stem and fruits (Fig. 1).

Histological sections of the column of Encyclia fragrans, E. colanaria, E. innexua, E. bulbocha and E. vespa, showed dense types crystals. At first we thought them to be composed of calcium oxalate commonly found in orchids (Fig. 2). However histochemical tests proved that it was wrong. The abundant presence or the complete absence of these crystals in the plants we were working on, became therefore the most important feature to separating them. Dreseler (1971) who first reported these crystals, considered them only as a minor characteristic to the propose new sub-genera. He mentioned also their more frequent occurrence in the sub-genus Camphorphytum.

The crystals were extracted and their chemical structure analysed in order to understand their importance as taxonomic factor.

The extraction was carried on by treating flowers of Encyclia vespa, E. colanaria, E. innexua and E. Campo-portoi with a dilute solution of NaOH in ethanol. Acidification of the final product of extraction produced an amorphous solid substance with a melting point between 225-236°C which decomposes. The crystals are not easily dissolved and their solubility is only achieved by dimethylsulfoxide, pyridine and an aqueous solution.

Spectrometric analysis such as infrared and ultraviolet indicated characteristic absorptions of sugars and fenolate aromatic nucleus. Acid Hydrolysis (C$\text{F}_4\text{COOH}, 6\%$) products of this glycoside (rhamnose-glucose (1:1) and diosmetine) and methylation according Hakamore method and further analysis of the partially methylated sugars allowed to conclude that the glycoside is of flavonoid aglycone structure with a residue of glucorhamnose linked to it (Lomgren, 1976). The precise linkage point and the final structure of the glycoside is still being studied and will
Fig. 1: *Anachelium allemanoides*; flower fixed in ethanol.
Fig. 2: Column section of *Anacheilium vespa*, showing the druse-type pattern (16x).
later be reported. Even though flavonoid structure studies are not very well known it seems to be a very good departing point to clarify the relationship between orchids and others families of monocotyledons (Williams, 1979). The presence of this druse-type glucoside, highly evolved phylogenetically which O-methylation and O-glucosidation linkages in a few member of species of the genus Encyclia, made us to reconsider the systematic of this group, for they are biochemically distinct from the others not showing the druse-type pattern, placed in this same group.

The crystals seem to have an influence on the floral biology of this group of plants, as they can become fluorescent under ultraviolet light and should make the flowers more visible in a dense forest. This is an easy way for the insects which perceive a significant part of the ultraviolet light. A literature survey in the subject indicated that similar crystals can also be highly toxic for mammals and insects and may therefore be a protective device for plants (Harborne, 1972).

Much has been written about the importance of definite morphological characteristics in a group of plants, in order to justify its elevation to autonomous genera - but now we notice, that scientists follow new methods and also attribute importance to biological concepts, such as genetic informations, physiology, ecology and phytochemistry - considering them fundamental for the creation of new taxons, instead of strictly relying only on morphological characteristics. Several groups of plants and also animals have been studied following this point of view, mainly when it was difficult to delimitate a group and also the morphological characteristics were diffused among many species, such as the case of the genus Epidendrum. Thus, with the help of genetic and or phytochemical information we can establish a pattern and afterwards add the morphological characteristics to each previously separated groups of plants (look up Mayr, 1963 for more information).

Similar crystals to those found in the flowers of Epidendrum also occur in Oncidium and labellum of Brazyia. Within the Epidendrum alliance we restricted our research to the genera Epidendrum and Enyelia and mainly studied Brazilian plants preserved in alcohol - even though we had the opportunity to examine foreign plants from the Herbarium Brasileum and from the Rio de Janeiro Botanic Garden, always comparing the histological similarity with crystals of phytochemically analysed species.

Crystals (in genus Enyelia) occur exclusively in plants belonging to the sub-genus Camphorun. Enyelia odoratissima, E. oncidiioides and other related species do not present the mentioned crystals, the abundant presence of crystal are plentiful in the sub-genus Camphorun (E. fragrans) and related species, as they also are found in Enyelia granulosa, Enyelia triptera of this same section and others such as the Enyelia citrina and Enyelia martae don't show any trace of crystals.

In the genus Epidendrum we find histologically similar crystals in some species of plants. They are not plentiful and don't occur in the whole plant, as in the previously cited examples, but are rather diffused at the base of leaves, occasionally in the stem, the pedicel or in the base of petals or sepals, the distribution of crystals in this genus seems to be spread out, yet appears more frequently in the sub-
genus *Aulizium*. So far, we have only studied a few plants of the vast member of species included in *Epidendrum* and therefore cannot affirm any concrete definition - more so - because the same species may or may not present crystals. The exception is the group of *Encyclia fragrans* where crystals occur always and are a physical characteristic of the plants (flowers). *Epidendrum octonis* has small crystals regularly dispersed through all the plant and the flowers.

Based upon the presence or absence of crystals and with the help of such morphological characteristics as the morphology of the column, the degree the labellum is adnated to it, a typical inflorescence or the morphology of the fruit, we propose a new systematic position for this group.

Restricting *Encyclia* to its exact concept, the following essential characteristics are necessary: plants without druses crystals, with free or almost free labellum, generally a winged column, not gibbous, with shallow clinandrium and undivided rostellum, inflorescence with stem, generally without spathe and fusiform fruit.

Therefore, we placed in *Encyclia* only plants transferred to it by Schlechter or by authors showing his point of view and considering *Encyclia odoratissima* and *Encyclia ornitioda* as prototypes of this genus.

The genus *Epidendrum* would then include plants occasionally with crystals, but not through all the plant, labellum completely adnated to the column, column gibbous with deep clinandrium, cleft rostellum, inflorescence with scape with or without a spathe and a fusiform fruit.

*Epidendrum* is undoubtedly a large genus, agrouping numerous species and spread out through the neotropical Countries of Central and South America. It is morphologically heterogeneous and will probably be sub-divided into several genera, when thoroughly studied.

The group of *Encyclia fragrans* shows crystals in all the plant tissues, the labellum is adnated up to half of the column, which is gibbous with a shallow clinandrium and undivided rostellum the inflorescence with a scape is usually provided with a spathe and the fruit is strongly tri-winged.

This is a well delimited group of plants with the previously mentioned typical characteristics and should rightfully be elevated to the level of genus, separated for consequence from *Encyclia* and *Epidendrum*.

In 1842 Hoffmannsegg created the genus *Anochilium*, based upon *Epidendrum cochleanum* L., which belongs to the group of *Encyclia fragrans*. Therefore *Anochilium* would be the oldest name given to this genus - and we believe the concept of the genus *Anochilium* should be revaluated. This homogenous group of plants has generally fusiform pseudobulbs with 1-4 leaves, the strongly perfumed flowers are generally white - sometimes slightly colored thin streaks on the labellum and the later is superior in all species, exception for *Encyclia brassavolae*.
We would like to call attention for two plants, one belonging to the sub-genus Enayotala, the order one to the sub-genus Camophyton. They both have no trace of crystals and a careful morphological examination revealed a great similarity. The plants are *Enayalta triptera* (Brogni.) Dressler and *E. sessiliflora* (Edwall) Pabst. Both have a labellum adnated up to half of the column, which is shallow, an undivided rostellum and a tri-winged fruit, similar to the group of *Enayalta fragrans*. The structure of the column is the same, although variations exist. A more elaborate study of these plants, might well lead to the establishment of new infra-specific groups. They are different in so far, as no crystals occur in the vegetative part of the plant, while a few crystals may be found in the flowers, inflorescence subfasciculate, sessile, with small yellow flowers and frequent autogamy. We believe that this small group should be separated from *Epidendrum* as well as from *Enayalta* and *Anacastelium* and should be gathered into a small independent genus which — contrary to the opinion of Briege et al. — was initially proposed by Lindley: *Normdlidum* Lindl. ex Meyn.

As a matter of fact, it is evident, that the group of *Epidendrum* should be carefully studied and compared to the groups of *Enayalta citrina*, *E. naricosa* and *Epidendrum ottonis*. We believe that the present classification of these species is not strictly correct and other small groups are still totally ambiguous. The difficulty to obtain the necessary material, prevented us from amplifying this work, but we hope, that our colleagues studying these plants in their native countries, will be able to solve the problem.

It will be difficult to establish a phylogenetic order among these autonomous genera, even so we believe that the genera *Normdlidum* and *Anacastelium* are closer to *Epidendrum* than to *Enayalta*. This applies particularly to the genus *Anacastelium* where druse-type pattern are always plentiful, while they only occur occasionally in *Epidendrum*.

The following chart shows the typical characteristic of each genus and a list of proposed taxonomic alterations, confirming our point of view on the subject.
### CHARACTERISTICS OF EACH GENUS "PER SE"

<table>
<thead>
<tr>
<th>Genus</th>
<th>Characteristic</th>
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<tr>
<td>Enycola Hook.</td>
<td>Complete absence of crystals</td>
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<tr>
<td>Epidendrum L.</td>
<td>Occasionally some scarce crystals</td>
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<tr>
<td>Aeschynanthus</td>
<td>Plenty of crystals in all plant tissues</td>
</tr>
<tr>
<td>Hofmannii</td>
<td>Absence of crystals in the plant, sometimes scattered in the flower</td>
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<tr>
<td>Hormidium Lindl.</td>
<td>Labellum free or partially free</td>
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<td></td>
<td>Labellum strongly welded to half of the column</td>
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<td></td>
<td>Column not gibbous</td>
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<td></td>
<td>Individed rostellum</td>
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<td></td>
<td>Fusiform capsule</td>
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<td></td>
<td>Oval pseudobulbs</td>
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<td></td>
<td>Inflorescence without spathe and with scape</td>
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<td></td>
<td>Resupinate flowers</td>
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<td></td>
<td>Rarely autogamous</td>
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### TAXONOMIC ALTERATIONS

Genus *Hormidium* Lindl. ex Heynh.

Type: *Hormidium uniflorum* (Lindl.) Heynh. (=*Hormidium tripterum*)

### ENUMERATION OF SPECIES


- 181 -
Epidendrum uniflorum Lindl., Bot. Reg. XXV Misc. 15 (1839)
Hormidium uniflorum (Lindl.) Heynh., Nomecl. 1 880 (1840)
Enyaliolgia pygmaea (Hook) Dressler, Brittonia 13(3):266(1961)

- Hormidium sessiliflorum (Edwall) Pabst, Moutinho & Pinto nov. comb.


Genus Anacheilium Hoffmagg,

Type: Anacheilium octoleatum (L.) Hoffmagg.

ENUMERATION OF SPECIES

1. Anacheilium octoleatum (L.) Hoffmagg., Verz. Orch. 21 (1842).
Sinonym: Epidendrum octoleatum L.
           Enyaliolgia octoleata (L.) Lemée
           Hormidium octoleatum (L.) Brieg.

2. Anacheilium fragrans (Sw.) Acuña, Cat. Org. Cubanas 86(1939)
Sinonym: Epidendrum fragrans Sw.
           Enyaliolgia fragrans (Sw.) Lemée

3. Anacheilium alagoense (Fabst) Pabst, Moutinho & Pinto, nov. comb.
Sinonym: Enyaliolgia alagoensis (Fabst) Pabst.

4. Anacheilium allamandii (Barb. Rodr.) Pabst, Moutinho & Pinto, nov. comb.
           Hormidium allamandii (Barb. Rodr.) Brieg.

5. Anacheilium allemanoides (Hoehne) Pabst, Moutinho & Pinto, nov. comb.
Sinonym: Enyaliolgia allemanoides (Hoehne) Pabst.
Hormidium allmannoides (Hoehne) Brieg.

6. Anacheilium caestense (Bicalho) Pabst, Moutinho & Pinto, nov. comb.
   Synonym: Enayolla caestense (Bicalho) Pabst.

7. Anacheilium calamarium (Lindl.) Pabst, Moutinho & Pinto, nov. comb.
   Synonym: Enayolla calamaria (Lindl.) Pabst.
   Hormidium calamarium (Lindl.) Brieg.

8. Anacheilium campos-portoi (Pabst) Pabst, Moutinho & Pinto, nov. comb.
   Basionym: Enayolla campos-portoi Pabst.
   Synonym: Hormidium campos-portoi (Pabst) Brieg.

9. Anacheilium faesiana (Bicalho) Pabst, Moutinho & Pinto, nov. comb.
   Synonym: Enayolla faesiana (Bicalho) Pabst.

10. Anacheilium faustum (Rchb. F. ex Cogn.) Pabst, Moutinho & Pinto, nov. comb.
    Enayolla fausta (Rchb. F. ex Cogn.) Pabst.

11. Anacheilium glumaecum (Lindl.) Pabst, Moutinho & Pinto, nov. comb.
    Synonym: Enayolla glumacea (Lindl.) Pabst.
    Hormidium glumaecum (Lindl.) Brieg.

12. Anacheilium grammatoglossum (Rchb. F.) Pabst, Moutinho & Pinto, nov. comb.
    Synonym: Hormidium grammatoglossum (Rchb. F.) Brieg.

13. Anacheilium hartwegii (Lindl.) Pabst, Moutinho & Pinto, nov. comb.
14. Anacheilium inversum (Lindl.) Pabst, Moutinho & Pinto, nov. comb.
   Basionym: Epidendrum inversum Lindl.
   Sinonym: Epidendrum bulbosum Vell.
   Epidendrum latro Rchb. F.
   Enyaliola inversa (Lindl.) Pabst.
   Hormidium inversum (Lindl.) Brieg.

15. Anacheilium kaustkyi Pabst, Moutinho & Pinto, nov. comb.
   Basionym: Enyaliola kaustkyi Pabst.

16. Anacheilium lividum (Lindl.) Pabst, Moutinho & Pinto, nov. comb.
   Sinonym: Enyaliola livida (Lindl.) Dressler
   Hormidium lividum (Lindl.) Brieg.

17. Anacheilium moojenii (Pabst) Pabst, Moutinho & Pinto, nov. comb.

18. Anacheilium papilio (Vell.) Pabst, Moutinho & Pinto, nov. comb.
   Basionym: Epidendrum papilio Vell., Fl. Flum. 1: 9 tab. 28 (1835).
   Sinonym: Enyaliola papilio (Vell.) Pabst.
   Hormidium papilio (Vell.) Brieg.

19. Anacheilium radiatum (Lindl.) Pabst, Moutinho & Pinto, nov. comb.
   Sinonym: Enyaliola radiata (Lindl.) Pabst.
   Hormidium radiatum (Lindl.) Brieg.

20. Anacheilium suzannense (Hoehne) Pabst, Moutinho & Pinto, nov. comb.
   Sinonym: Enyaliola suzannensis (Hoehne) Pabst.

21. Anacheilium vespa (Vell) Pabst, Moutinho & Pinto, nov. comb.
   Basionym: Epidendrum vespa Vell., Fl. Flum. 1: 9 tab. 27 (1835).
   Sinonym: Epidendrum variegatum Hook.
Epidendrum arassilabium Poepp. & Endl.
Encyclia vespa (Vell.) Pabst
Encyclia arassilabta (Poepp. & Endl.) Dressler
Hormidium arassilabium (Poepp. & Endl.) Brieg.

22. Anacheilium widgrenii (Lindl.) Pabst, Moutinho & Pinto, nov. comb.

Basionym: Epidendrum widgrenii Lindl.

Synonym: Encyclia widgrenii (Lindl.) Pabst.
Hormidium widgrenii (Lindl.) Brieg.

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