



First record of *Plectrophora schmidtii* (Orchidaceae, Oncidiinae) for Northern Brazil

Amauri H. Krahl^{1*}, Dianne R. T. Cavalcanti² & Guy R. Chiron³

-
1. Programa de Pós-Graduação em Botânica, Departamento de Botânica, Instituto Nacional de Pesquisas da Amazônia, Av. André Araújo, 2936, CEP: 69.060-001, Manaus, Amazonas (Brazil)
 2. Graduação em Engenharia Florestal, Universidade Federal do Amazonas, Av. Gal. Rodrigo Otávio Jordão Ramos, Japiim II, 3000, CEP: 69.077-000, Manaus, Amazonas, Brazil.
 3. Herbiers, Université Claude Bernard Lyon I, Villeurbanne (France)
- * Corresponding author amaurikrahl@hotmail.com
-

Abstract

For the first time, *Plectrophora schmidtii* is here reported from the Northern region of Brazil, in the state of Amazonas. A detailed morphological description is provided together with information on phenology, habitat and distribution. A photograph plate completes the presentation.

Résumé

L'occurrence de *Plectrophora schmidtii* dans la région nord du Brésil, état d'Amazonas, est ici enregistrée pour la première fois. Sur la base du spécimen collecté, une description morphologique détaillée, accompagnée d'une planche photographique, est proposée. Des informations sur la phénologie, l'habitat et la distribution géographique sont également fournies.

Resumo

Este trabalho teve como objetivo relatar o primeiro registro de *Plectrophora schmidtii* para a região norte do Brasil, no Estado do Amazonas. É

apresentada uma descrição para a espécie em questão, bem como informações referente a floração, habitat e distribuição são apresentadas. É apresentada também uma prancha fotográfica detalhada da espécie aqui abordada.

Key words: Amazonas, igapó, new occurrence, orchids, taxonomy.

Mots clés : Amazonas, igapó, nouvelle occurrence, orchidées, taxinomie.

Palavras-chave: Amazonas, igapó, nova ocorrência, orquídeas, taxonomia.

Introduction

Plectrophora Focke (1848: 212) is a small (by the species number) genus belonging to the subtribe Oncidiinae Bentham (1881: 288). Its ten species are present from Mexico to the Brazilian Midwest (Govaerts *et al.*, 2021). It is principally characterized by small-sized plants producing rather big spurred flowers with a funnel-shaped lip (Neubig *et al.*, 2012). The plants are pollinated by Euglossinae bees (Damon *et al.*, 2012) or by other groups of insects with a long tongue to collect nectar (Neubig *et al.*, 2012). They are usually known as “twig epiphytes” because they grow on small branches (less than 2.5 cm diam.), in places exposed to high luminosity; they ripen in one season (Neubig *et al.*, 2012). In Brazil five species have been recorded, distributed from the Southeast up to the Northern region. Three of them are known as endemic to Brazil (Meneguzzo, 2020). *P. schmidtii* Jenny & Pupulin (1997: 79) is one of them, hitherto reported as endemic to Brazilian Midwest (Jenny & Pupulin, 1997; Meneguzzo, 2020). The goal of the present work is thus to report the first record of *P. schmidtii* for the Brazilian Northern region, and more precisely for the Manaus *município* (Amazonas).

Material and methods

The species was found during random expeditions in the state of Amazonas (around Manaus), as part of the long-term project known as “*Flora do Amazonas: Orchidaceae*”. It was collected and prepared according to the usual process described by Mori *et al.* (1989) in view to include it in the collections of the INPA herbarium (acronym according to Thiers, 2021). The taxon was identified based on its original description by Jenny & Pupulin (1997). The description proposed below is based on the collected specimen. The terminology follows Harris & Harris (2001).

Results

Plectrophora schmidtii Jenny & Pupulin. [Fig. 1A-M]

Epiphytic caespitose plant; pseudobulb 0.5-0.7 × 0.2-0.3 cm, conical, apically unifoliate, covered by lateral foliate bracts; leaf 5.1-7.3 × 0.3-0.4 cm, narrowly elliptic, arched, thick, acute; inflorescence lateral, a 1.5-2 cm long raceme with 1-3 flowers; floral bract ca. 0.3 × 0.15 cm, lanceolate, acute; flowers yellow with pale orange tinges on the lip, pedicellate, spurred; pedicel and ovary ca. 0.9 cm long; spur ca. 0.8 cm long; sepals ca. 0.5-0.6 × 0.3 cm, oblong-lanceolate, acute to acuminate; petals ca. 0.5 × 0.2 cm, oblong, acute to acuminate; lip ca. 0.6 × 0.5 cm, entire, ovate, with two keels at base, apically acute; keels ca. 0.15 cm long, curved; gynostemium ca. 0.3 cm long; pollinia 2, waxy, yellow, narrowly ovate, laterally flattened; fruit not seen.

Phenology. Flowering in April.

Habitat. The species has been observed on thin branches fully exposed to sun in an *igapó* forest (litterally root-forest, i.e. blackwater-flooded forest – always flooded habitat) of the Rio Puraquequara.

Distribution. Hitherto endemic to Mato Grosso (Brazil) (Jenny & Pupulin, 1997; Meneguzzo, 2020). Now its distribution is expanded to the Northern region (Amazonas).

Material examined. Brazil, Amazonas, Manaus, Puraquequara, *igapó*, 01/IV/2021, A.H. Krahl 1568 (INPA).

References

- Benthams, G., 1881. Oncidiinae. *Journal of the Linnean Society, Botany* 18: 288.
- Damon, A., F. Hernández-Ramírez, L. Riggi, R. Verspoor, V. Bertolini, M. Lennartz-Walker, A. Wiles & A. Burns, 2012. Pollination of euglossinophylic epiphytic orchids in agroecosystems and forest fragments in southeast Mexico. *European Journal of Environmental Sciences* 2: 5-14.
- Focke, H.C., 1848. *Plectrophora*. *Tijdschrift voor de Wisen Natuurkundige Wetenschappen, uitgegeven door de Eerste Klasse van het Kon. Ned. Instituut van Wetenschappen, Letteren en Schoone Kunsten* 1: 212.
- Govaerts, R., P. Bernet, K. Kratochvil, G. Gerlach, G. Carr, P. Alrich, A.M. Pridgeon, J. Pfahl, M.A. Campacci, D.H. Baptista, H. Tigges, J. Shaw, P. Cribb, A. George, K. Kreuz & J. Wood, 2021. World Checklist of Orchidaceae. Facilitated by the Royal Botanic Gardens,

Kew, <http://apps.kew.org/wcsp/>, retrieved 26/04/2021.

Harris, J. & M. Harris, 2001. *Plant identification terminology - An illustrated glossary*. Payson, Spring Lake Publishing.

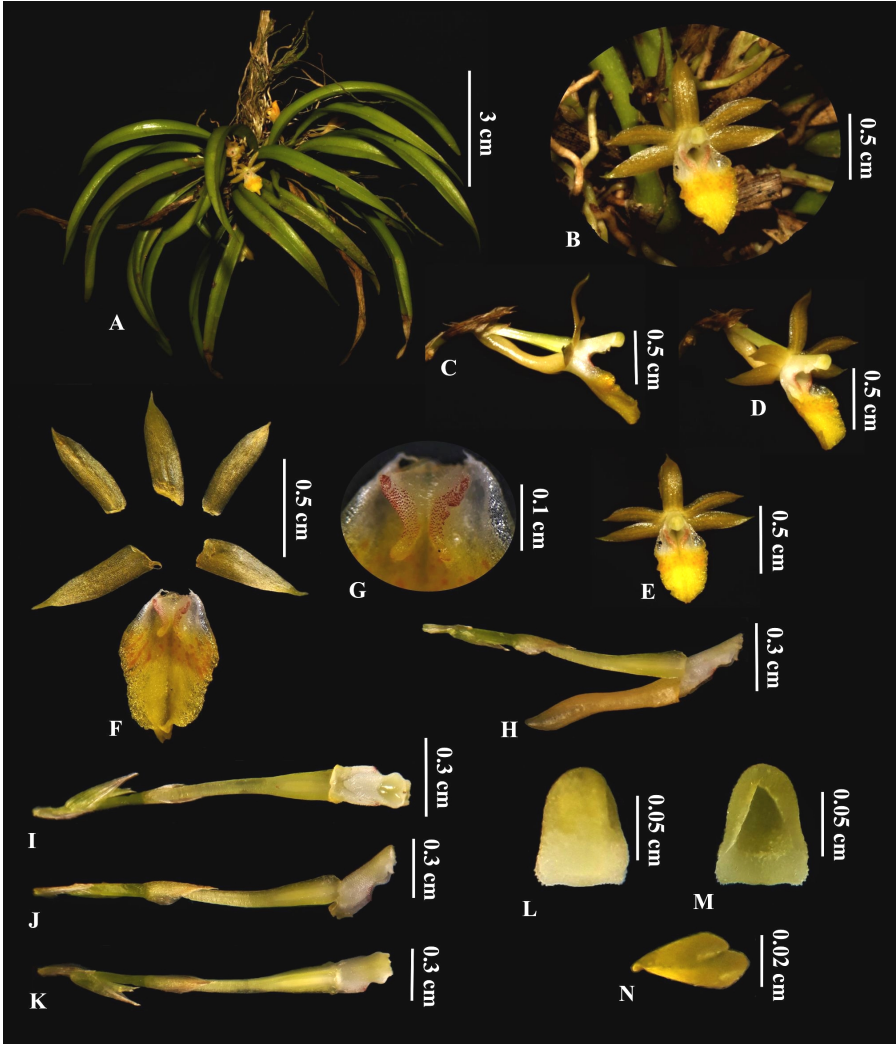


Fig. 1. *Plectrophora schmidtii*

A. Habit. B-E. Flowers. F. Flower segments. G. Lip keels. H. Gynostemium and spur, side view. I-K. Gynostemium, respectively ventral view, side view, dorsal view. L-M. Anther cap. N. Pollinia – Ph. A.H. Krahl

- Jenny, R. & F. Pupulin, 1997. *Plectrophora schmidtii* Jenny & Pupulin spec. nov. Uma nova espécie do Brasil. *Orquidário* 11: 77-83
- Meneguzzo, T.E.C., 2020. *Plectrophora*, in Flora do Brasil 2020. Jardim Botânico do Rio de Janeiro, Brasil, <http://floradobrasil.jbrj.gov.br/>, retrieved 26/04/2021.
- Mori, S.A., L.A. Silva, G. Lisboa & L. Coradin, 1989. *Manual de Manejo do Herbário Fanerogâmico*. Ilhéus, Ceplac.
- Neubig, K.M., W.M. Whitten, N.H. Williams, M.A. Blanco, L. Endara, J.G. Burleigh, K. Silvera, J.C. Cushman & M.W. Chase, 2012. Generic recircumscriptions of Oncidiinae (Orchidaceae: Cymbidieae) based on maximum likelihood analysis of combined DNA datasets. *Botanical Journal of the Linnean Society* 168: 117-146.
- Thiers, B.M. (ed.), 2021 [continuously updated]. *Index Herbariorum: A global directory of public herbaria and associated staff*. New York Botanical Garden's Virtual Herbarium, <http://sweetgum.nybg.org/ih/>, retrieved 26/04/2021