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# First Record of *Campylocentrum fasciola* and *Campylocentrum pachyrrhizum* (Orchidaceae) in Alagoas State, Northeastern Brazil

*Primeiro Registro de* Campylocentrum fasciola *e* Campylocentrum pachyrrhizum *(Orchidaceae) no Estado de Alagoas, Nordeste do Brasil*

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***Palavras-chave***
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## Abstract

We report here for the first time the occurrence of *Campylocentrum fasciola* and *Campylocentrum pachyrrhizum* (Orchidaceae) in the State of Alagoas, based on the analysis of fresh materials and dried specimens deposited in herbaria. The two leafless species were found in humid areas, close to streams, forming populations with 10–20 individuals each, in a fragment of the Atlantic Forest in the municipality of São Sebastião. *Campylocentrum pachyrrhizum* was also found in two other municipalities of Alagoas. *Campylocentrum fasciola* is distinguished from *C. pachyrrhizum* mainly by the shape of its roots, floral bracts, sepals and petals, and spur position. Our results contribute to expanding knowledge about the orchid flora of Alagoas, where the intensification of field efforts has led to new discoveries.

## *Resumo*

*Relatamos, pela primeira vez, a ocorrência de* Campylocentrum fasciola *e* Campylocentrum pachyrrhizum *(Orchidaceae) no Estado de Alagoas, com base na análise de materiais frescos e espécimes secos depositados em herbários. As duas espécies áfilas foram encontradas em áreas úmidas, próximas a córregos, formando populações de 10 a 20 indivíduos cada, em um fragmento da Mata Atlântica no município de São Sebastião.* Campylocentrum pachyrrhizum *também foi encontrada em outros dois municípios de Alagoas.* Campylocentrum fasciola *se distingue de* C. pachyrrhizum *principalmente pela forma de suas raízes, brácteas florais, sépalas e pétalas e pela posição do calcar. Nossos resultados contribuem para ampliar o conhecimento sobre a flora de orquídeas de Alagoas, onde a intensificação dos esforços de campo tem levado a novas descobertas.*

## Introduction

The orchid genus *Campylocentrum* Benth. has about 80 species and occurs from the southern United States (Florida) to Argentina (Plants of the World Online [POWO], 2025). *Campylocentrum* species are epiphytic, have prominent roots; an inconspicuous or developed (elongated, cylindrical) stem; absent, inconspicuous, or developed (cylindrical or flat) leaves; racemose inflorescence, arising from the top of the stem or distributed along the stem, generally opposite the leaves; generally whitish or creamy flowers; entire or trilobed lip, and a striking spur (Pessoa, 2025; Pridgeon et al., 2014). The infrageneric relationships of *Campylocentrum* have been elucidated recently, and now the genus is organized into five monophyletic sections: *C.* sect. *Dendrophylopsis* (leafless species), *C.* sect. *Campylocentrum* (species with conduplicate leaf blades and 6-ribbed capsules), *C.* sect. *Laevigatum* (species with

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conduplicate leaf blades and unribbed capsules), *C.* sect. *Pseudocampylocentrum* (species with leaf blades reduced to small, fleshy, and cylindrical projections), and *C.* sect. *Teretifolium* (species with cylindrical leaf blades) (Pessoa et al., 2018).

In Brazil, of the 39 native species of *Campylocentrum*, 24 are endemic (Pessoa, 2025; POWO, 2025), evidencing high biogeographic relevance and species richness in the country. Nine leafless species occur in Brazil: *C. amazonicum* Cogn., *C. benelliae* E.Pessoa & M.Alves, *C. fasciola* (Lindl.) Cogn, *C. grisebachii* Cogn., *C. insulare* C.E.Siqueira & E.Pessoa, *C. pachyrrhizum* (Rchb.f.) Rolfe, *C. paludosum* E.Pessoa & M.R.Miranda, *C. pubirhachis* Schltr., and *C. tenue* (Lindl.) Rolfe, being distinguished by a set of combined morphological characters, which include primarily shape of the floral bracts and anther cap apex (Pessoa, 2025; Pessoa et al., 2016; Siqueira et al., 2015). Pessoa (2025) has published an updated key to the Brazilian species of leafless *Campylocentrum*, however, none of these leafless species had been recorded in the State of Alagoas, Northeastern Brazil, until now. We report here for the first time the occurrence of *C. fasciola* and *C. pachyrrhizum* in Alagoas based on the analysis of fresh materials and dried specimens deposited in herbaria.

## Materials and Methods

The first author (JISS) carried out expeditions twice a month, from April 2024 to March 2025, in the municipality of São Sebastião, Alagoas, within the phytogeographic domain of the Atlantic Forest, where he photographed and collected two specimens of *Campylocentrum*, following standard taxonomic procedures (Peixoto & Maia, 2013). These specimens were identified as *C. fasciola* and *C. pachyrrhizum* based on Pessoa (2025). A record search on the digital botanical platforms Global Biodiversity Information Facility (2025), JABOT (2025), Reflora (2025), and speciesLink network (2025) was performed, and two additional records of *C. pachyrrhyzum* from two other municipalities of Alagoas, also in the Atlantic Forest were located. The acronyms for herbaria follow Thiers (2025, continuously updated).

## Results and Discussion

***Campylocentrum fasciola* (Lindl.) Cogn.**, Fl. Bras. 3(6): 520 (1906). Figure 1a, b.

This species is characterized by its flat roots; reduced, leafless stem; congested, ascending inflorescence; elliptical to ovate dorsal sepal, elliptical to oblong lateral sepals; elliptical to obovate petals; trilobed lip with oblanceolate lateral lobes and deltoid median lobe; clavate to obovoid, straight to slightly curved spur; and fusiform, ribbed capsules (Pessoa, 2025; Pessoa et al., 2016).

**New record**: BRASIL, Alagoas: São Sebastião, Sítio Sapé, 10°00'23" S; 36°31'53" W, 15/03/2025, *J.I.S. Silva* 218 (HURB).

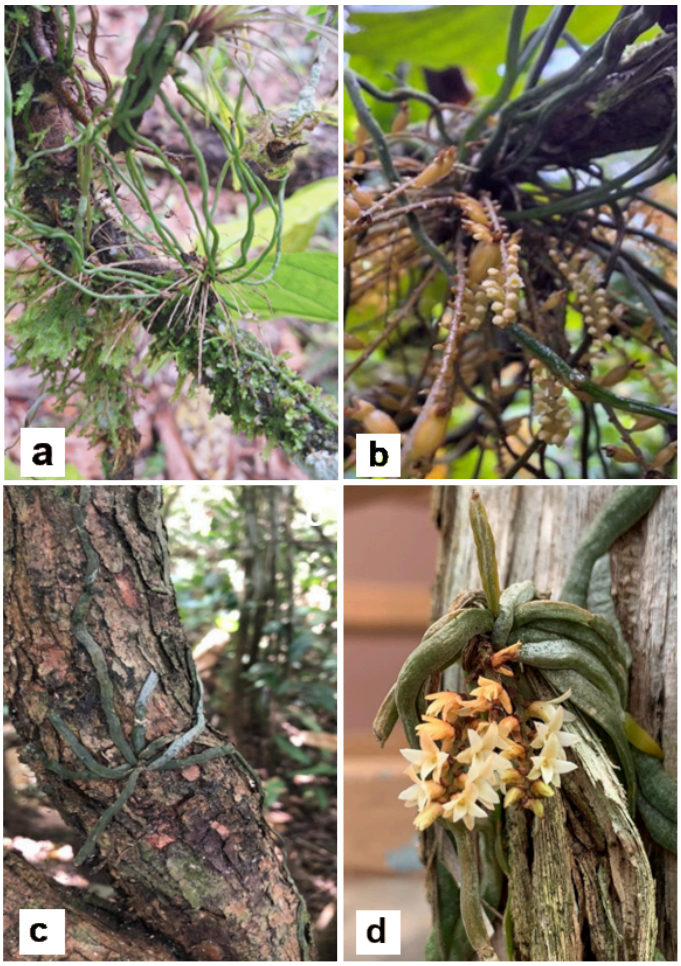
It is distributed from southeastern Mexico to Brazil, where it occurs in the States of Amazonas, Mato Grosso, Pará, Roraima (Amazon phytogeographic domain), and Pernambuco (Atlantic Forest phytogeographic domain) (Pessoa, 2025; POWO, 2025).

***Campylocentrum pachyrrhizum* (Rchb.f.) Rolfe**, Orchid Rev. 11: 246 (1903). Figure 1c, d.

This species is characterized by its cylindrical roots; reduced, leafless stem; congested, ascending inflorescence; oblong to lanceolate sepals and petals; trilobed lip with oblanceolate lateral lobes and deltoid median lobe; cylindrical, curved spur; and fusiform, ribbed capsules (Pessoa et al., 2016; Pessoa, 2025).

**Figura 1**

Campylocentrum fasciola *(Lindl.) Cogn. (a, b) and* Campylocentrum pachyrrhizum *(Rchb.f.) Rolfe (c,d) in a Fragment of the Atlantic Forest in the Municipality of São Sebastião, State of Alagoas, Brazil*




**New records**: BRASIL, Alagoas: Murici, Fazendas Jitituba e Cachoeira, 19/12/2010, *R.C. Pinto et al.* 76 (MAC). Penedo, Palmeira Alta, 19/02/2022, *V. Brito & F.R. Noa* s.n. (MAC 65706). São Sebastião, Sítio Sapé, 10°00'11" S; 36°31'20" W, 25/06/2024, *J.I.S. Silva* 215 (HURB).

It is distributed from the United States (Florida) to Brazil, occurring in the States of Amazônia, Mato Grosso, Pará (Amazon), Goiás (Cerrado phytogeographic domain), and Pernambuco and Sergipe (Atlantic Forest) (Pessoa, 2025; POWO, 2025).

Until now, there were records of only three species of *Campylocentrum* for the State of Alagoas: *C. crassirhizum* Hoehne (sect. *Laevigatum*), *C. micranthum* (Lindl.) Rolfe (sect. *Campylocentrum*) and C. *pernambucense* Hoehne (sect. *Teretifolium*) (Pessoa, 2025). *Campylocentrum fasciola* and *C. pachyrrhizum* are therefore the only two leafless species recorded in the state and also for Northeastern Brazil. *Campylocentrum fasciola* is distinguished from *C. pachyrrhizum* mainly by its cylindrical roots (*vs.* flat in *C. pachyrrhizum*), deltoid floral bracts, covering only the base of the pedicellate ovary (*vs.* ovate, completely covering the pedicellate ovary in *C. pachyrrhizum*), elliptical to ovate dorsal sepal, elliptical to oblong lateral sepals, and elliptical to obovate petals (*vs.* oblong to lanceolate sepals and petals in *C. pachyrrhizum*), and straight to slightly curved spur (*vs.* curved in *C. pachyrrhizum*) (Pessoa, 2025).

The two species were found in humid areas, close to streams, forming populations with 10-20 individuals each, in a fragment of the Atlantic Forest in the municipality of São Sebastião, Alagoas. Field recognition of *C. fasciola* and *C. pachyrrhizum* is difficult, as the individuals are small and leafless, therefore their population size may be underestimated. The forest fragment studied is located in a private area and

is not protected by specific environmental legislation, which highlights the importance of monitoring these species in their natural environment. Information on the habitat or population size in the municipalities of Murici and Penedo (Alagoas), where *C. pachyrrihzum* also occurs, is unavailable. Neither of the two species has yet been assessed for conservation status (Pessoa, 2025), but it is assumed that they are not at risk of extinction, considering their wide distribution. Our results contribute to expanding knowledge about the orchid flora of Northeast Brazil, particularly in Alagoas, where new records have been revealed with the intensification of field efforts (Silva et al., 2024).

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### Authorship Contribution

Conceptualization: JISS, FFVAB. Data curation: JISS, FFVAB. Formal analysis: JISS, LYSA, FFVAB. Investigation: JISS. Writing - original draft: JISS, FFVAB. Writing - review and editing: JISS, LYSA, FFVAB.

### Conflict of Interest

The authors declare that there are no conflicts of interest to report.

### Data Availability

The full data analyzed during the current study are presented in the manuscript.

### Ethical Compliance

Not applicable.

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