

THE ORCHIDACEAE OF “PARQUE MUNICIPAL DE MUCUGÊ”, BAHIA, BRAZIL

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Introduction

The Orchidaceae are one of the largest families of flowering plants, with around 20.000 species in approximately 850 genera (Atwood 1986, Dressler 1993). It is well represented in Brazil, with about 2.350 species and 200 genera (Pabst & Dungs 1975, 1977). In Bahia were registered 285 species (Pabst & Dungs 1975, 1977, Harley & Mayo 1980, Harley & Simmons 1986, Toscano-de-Brito 1995, 1998, Toscano-de-Brito & Queiroz 2003).

The Espinhaço chain is composed by two main regions, one in Minas Gerais and the other in Bahia. The last is known as Chapada Diamantina. In its southern portion, the Chapada Diamantina splits into two separate chains, with the Serra do Rio de Contas and the Serra das Almas in the west, and the Serra do Sincorá in the east (Harley 1995). The Chapada Diamantina survey registered the presence of 139 species of Orchidaceae in this region (Harley & Simmons 1986, Toscano-de-Brito 1995, 1998, Toscano-de-Brito & Queiroz 2003).

The Parque Municipal de Mucugê (PMM) is located at the municipality of Mucugê, at Serra do Sincorá, around 4 km of the Mucugê town, at 12° 59'02"-13°00'18"S and 41°19'40"-41°21'33"W, at an altitude of 1.000 m above sea level, and occupies an area of 4.5 km². The predominant vegetation is the “campos rupestres”, which is an important center of diversity of the Brazilian flora, with a large number of endemic species (Harley & Simmons 1986, Harley 1995). Orchidaceae presents a high floristic importance, being always between the ten largest families in species richness (Harley & Simmons 1986,

Giulietti et al. 1987, Stannard 1995, Guedes & Orge 1998, Pirani et al. 2003, Zappi et al. 2003).

The present work aimed at providing a detailed survey of the Orchidaceae in the Parque Municipal de Mucugê, as well as descriptions, illustrations and identification key.

Materials and Methods

Specimen was carried out trough monthly sampling during 12 months, between June 2002 and May 2003. The specimens were deposited at the Universidade Estadual de Feira de Santana herbarium (HUEFS). The ALCB, CEPEC, HRB, HUEFS, K, SPF and W collection were consulted.

Results and Discussion

Currently, 22 genera and 35 species of orchids were found at the Parque Municipal de Mucugê (Tab. 1), of which one is a natural hybrid (Azevedo *et al.*, 2006). The most representative genera are *Bulbophyllum* Thou. (3 spp. e 1 nothosp.), *Epidendrum* L. (4 spp.), *Octomeria* R.Br. (3 spp.) and *Prescottia* Lindl. (3 spp.). Of the remaining, 68 % of the genera present only one species.

Some of the orchid species found at the PMM present wide geographical distribution, being found in other countries, and well distributed in Brazil. From the 35 species collected at PMM, four are new records for the Bahia State, mainly known previously from Southern and Southeastern Brazil. Eight are new records for the Chapada Diamantina region and another 18 are new records for the municipality of Mucugê. The area presents some species endemic to

TABLE 1. List of Orchidaceae at the Parque Municipal de Mucugê.

Species	Species
<i>Acianthera hamosa</i> (Barb.Rodr.) Pridgeon & M.W.Chase	<i>Epidendrum secundum</i> Jacq.
<i>Acianthera ochreatea</i> (Lindl.) Pridgeon & M.W.Chase	<i>Epidendrum warasii</i> Pabst
subsp. <i>ochreatea</i>	<i>Epistephium lucidum</i> Cogn.
<i>Anathallis microphyta</i> (Barb.Rodr.) C.O.Azevedo & Van den Berg	<i>Habenaria fluminensis</i> Hoehne
<i>Anathallis montipelladensis</i> (Hoehne) F.Barros	<i>Maxillaria notyloglossa</i> Rchb.f.
<i>Brassavola tuberculata</i> Hook.	<i>Octomeria alexandrii</i> Schltr.
<i>Bulbophyllum cribbianum</i> Toscano	<i>Octomeria flabellifera</i> Pabst
<i>Bulbophyllum involutum</i> Borba, Semir & F.Barros	<i>Octomeria sagittata</i> (Rchb.f.) Garay
<i>Bulbophyllum weddellii</i> (Lindl.) Rchb.f.	<i>Oncidium blanchetii</i> Rchb.f.
<i>Bulbophyllum ?cipoense</i> Borba & Semir	<i>Polystachya micrantha</i> Schltr.
<i>Campylocentrum micranthum</i> (Lindl.) Rolfe	<i>Prescottia leptostachya</i> Lindl.
<i>Cattleya elongata</i> Barb.Rodr.	<i>Prescottia montana</i> Barb.Rodr.
<i>Cleistes exilis</i> Hoehne	<i>Prescottia stachyodes</i> (Sw.) Lindl.
<i>Cyrtopodium aliciae</i> L.Linden & Rolfe	<i>Prosthechea moojenii</i> (Pabst) W.E.Higgins
<i>Cyrtopodium polyphyllum</i> (Vell.) Pabst ex F.Barros	<i>Scaphyglottis modesta</i> Schltr.
<i>Encyclia alboxanthina</i> Fowlie	<i>Sobralia sessilis</i> Lindl.
<i>Epidendrum cristatum</i> Ruiz & Pav.	<i>Sophronitis bahiensis</i> (Schltr.) Van den Berg & M.W.Chase
<i>Epidendrum orchidiflorum</i> Salzm. ex Lindl.	<i>Thelyschista ghillanyi</i> (Pabst) Garay

the Chapada Diamantina such as *Encyclia alboxanthina* Fowlie, *Sophronitis bahiensis* (Schltr.) Van den Berg & M.W.Chase and *Thelyschista ghillanyi* (Pabst) Garay.

LITERATURE CITED

- Atwood, J. 1986. The size of the Orchidaceae and the systematic distribution of epiphytic orchids. *Selbyana* 9: 171-186.
- Azevedo, C.O., E.L.Borba & C. van den Berg. 2006. Evidence from allozyme markers for natural hybridization and introgression in *Bulbophyllum involutum* and *B. weddellii* (Orchidaceae). *Revista Brasileira de Botânica; Publicação Oficial da Sociedade Botânica do Brasil, Regional de São Paulo*.
- Cribb, P. & A.L.V. Toscano-de-Brito. 1996. Histórico. In: S. Sprunger, P. Cribb & A.L.V. Toscano-de-Brito (eds.) *Iconographie des Orchidées du Brésil*. vol. 1. Reinhardt, Basle, pp. 42-47.
- Dressler, L.R. 1993. *Phylogeny and classification of the orchid Family*. Dioscorides Press, Portland, 314 p.
- Giulietti, A.M., N.L. Menezes; J.R. Pirani; M. Meguro & M.G.L. Wanderley. 1987. *Flora da Serra do Cipó, Minas Gerais: caracterização e lista de espécies*. Boletim de Botânica. Departamento de Botânica. Instituto de Biociências. Universidade de São Paulo 9: 1-151.
- Guedes, M.L.S. & M.D. Orge (eds.). 1998. Checklist das espécies vasculares do Morro do Pai Inácio (Palmeiras) e Serra da Chapadinha (Lençóis), Chapada Diamantina, Bahia, Brasil. UFBA, Salvador, 68 p.
- Harley, R.M. 1995. Introdução. In: B.L. Stannard (ed.) *Flora of the Pico das Almas: Chapada Diamantina, Bahia, Brazil*. Royal Botanic Gardens, London, pp. 43-76.
- Harley, R.M. & S.J. Mayo. 1980. *Towards a Checklist of the Flora of Bahia*. Royal Botanic Gardens, London, 245 p.
- Harley, R.M. & N.A. Simmons. 1986. *Florula of Mucugê: Chapada Diamantina - Bahia, Brazil*. Royal Botanic Gardens, London, 228 p.
- Pabst, G.F.J. & F. Dungs. 1975. *Orchidaceae Brasilienses*. vol. 1. Kurt Schmiersow, Hildesheim, 408 p.
- Pabst, G.F.J. & F. Dungs. 1977. *Orchidaceae Brasilienses*. vol. 2. Kurt Schmiersow, Hildesheim, 418 p.
- Pirani, J.R., R. Mello-Silva & A.M. Giulietti. 2003. *Flora de Grão-Mogol, Minas Gerais, Brasil*. Boletim de Botânica. Departamento de Botânica. Instituto de

- Biociências. Universidade de São Paulo 21(1): 1-24.
- Sprunger, S., P. Cribb & A.L.V. Toscano-de-Brito (eds.) 1996. Iconographie des Orchidées du Brésil. vol. 1. Reinhardt, Basle. 540 p. il.
- Stannard, B.L. (ed.) 1995. Flora of the Pico das Almas: Chapada Diamantina, Bahia, Brazil. Royal Botanic Gardens, London. 853 p.
- Toscano-de-Brito, A.L.V. 1995. Orchidaceae. In: B. L. Stannard (ed.) Flora of the Pico das Almas: Chapada Diamantina, Bahia, Brazil. Royal Botanic Gardens, London, pp. 725-767.
- Toscano-de-Brito, A.L.V. 1998. Orchidaceae. In: M.L.S. Guedes & M.D. Orge (eds.) Checklist das Espécies Vasculares do Morro do Pai Inácio (Palmeiras) e Serra da Chapadinha (Lençóis), Chapada Diamantina, Bahia, Brasil. UFBA, Salvador, pp. 53-54.
- Toscano-de-Brito, A.L.V. & L.P. Queiroz. 2003. Orchidaceae. In: D.C. Zappi, E. Lucas, B.L. Stannard, E.N. Lughadha, J.R. Pirani, L.P. Queiroz, S. Atkins, D.J.N. Hind, A.M. Giuliatti, R.M. Harley & A.M. Carvalho. Lista das plantas vasculares de Catolés, Chapada Diamantina, Bahia, Brasil. Boletim de Botânica. Departamento de Botânica. Instituto de Biociências. Universidade de São Paulo 21(2): 396-397.
- E. Lucas, B.L. Stannard, E.N. Lughadha, J.R. Pirani, L.P. Queiroz, S. Atkins, D.J.N. Hind, A.M. Giuliatti, R.M. Harley & A.M. Carvalho. 2003. Lista das plantas vasculares de Catolés, Chapada Diamantina, Bahia, Brasil. Boletim de Botânica. Departamento de Botânica. Instituto de Biociências. Universidade de São Paulo 21(2): 345-398.

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