



## What's new in *Chamaecrista* (Fabaceae, Caesalpinioideae) from the Brazilian Cerrado?

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### Abstract

During the taxonomic treatment of *Chamaecrista* sect. *Absus* ser. *Rigidulae* as the object of the master's dissertation of the first author, the analyses of our own collections and specimens from several Brazilian herbaria led us to establish a new species, *Chamaecrista sparsifolia*, and propose a new status and a new combination for *Chamaecrista chaetostegia* var. *obolaria*. The geographical distribution, phenology, conservation status, as well as images and illustrations of both taxa are given.

**Key words:** *Cassia*, Chapada dos Veadeiros, *Chamaecrista* ser. *Rigidulae*, novelties

### Introduction

The most recent treatment of *Chamaecrista* Moench (1794: 272) was performed by Irwin & Barneby (1982). The authors provided a more comprehensive taxonomic history of the genus recognized in its six sections, among which *Absus* (Colladon 1816: 116) H.S. Irwin & Barneby (1982: 644) stands out as the largest one, encompassing approximately 270 species, distributed mainly in the Brazilian Plateau. In this region, in addition to *Chamaecrista*, other genera of Leguminosae [e.g. *Aeschynomene* Linnaeus (1753: 713), *Galactia* Browne (1756: 298), *Mimosa* Linnaeus (1753: 516), *Senna* Mill. (1735: 3), and *Stylosanthes* Swartz (1788: 108)] are also present and represented by endemic taxa (Irwin & Barneby 1982, Barneby 1991).

Irwin & Barneby (1982) affirmed that *Chamaecrista* sect. *Absus* subsect. *Absus* (Colladon 1816: 116) encompasses 31 series differentiated mainly by characters related to the presence and type of trichomes on stems, branches, and inflorescences, number and shape of leaflets, and type of inflorescence. But, it can be morphologically diagnosed by having glandular trichomes, at least in the inflorescences and ovary, alternate spiral leaves, and flowers with an asymmetric inner petal interposing the androecium, and absence of extrafloral nectary.

Since the revision carried out by Irwin & Barneby (1982), the taxonomy of several infrageneric taxa of *Chamaecrista* has never been revisited. Therefore some of them, such as *Chamaecrista* sect. *Absus* ser. *Rigidulae* (Bentham 1870: 142) H.S. Irwin & Barneby (1982: 654), a taxon with 26 species, predominantly distributed in Central Brazil, require further studies, because the species exhibit morphologically homogeneous flowers, an interesting diversity of leaves with differentiated orientation of leaflets, and a peculiar growth habit. This taxon also encompasses some species with difficult delimitation such as *C. feliciana* (Irwin & Barneby 1978: 135) Irwin & Barneby (1982: 654), *C. macedoi* (Irwin & Barneby 1978: 136) Irwin & Barneby (1982: 654), and *C. nummulariifolia* (Bentham 1870: 144) Irwin & Barneby (1982: 654), as well as others that possess varieties [e.g. *C. chaetostegia* (Irwin & Barneby 1978: 137) Irwin & Barneby (1982: 654), and *C. ciliolata* (Bentham 1870: 146) Irwin & Barneby (1982: 654)], for which the concept of variety should be reassessed.

As part of an ongoing study which focuses on the taxonomy and phylogeny of *Chamaecrista* ser. *Rigidulae*, we analyzed all collection types of the species recognized by Irwin & Barneby (1982) in this taxon. Based on morphological evidence and geographical distribution, we discovered a new species, *Chamaecrista sparsifolia*, and herein propose a