Agrostis lenis (Poaceae: Pooideae: Poeae): rediscovery of a rare and presumably extinct species in São Paulo state, Brazil

Rodrigo S. Rodrigues* and Tarciso S. Filgueiras

Instituto de Botânica, Núcleo de Pesquisa Curadoria do Herbário, Caixa Postal 68041, São Paulo, SP, Brazil
* Corresponding author. E-mail: rosraro_3588@yahoo.com.br

Abstract: The grass Agrostis lenis Roseng., Arrill. & Izag., a presumably extinct species in São Paulo state, was recollected in that state after a gap of 89 years. This species is considered rare and threatened in São Paulo. Notes on its distribution in Southeastern Brazil, images and a short description are given.

Key words: conservation, grasses, montane grasslands, red list, Southeastern Brazil

Agrostis L. includes ca. 220 species (Longhi-Wagner 2001), most of them from temperate montane grasslands of both hemispheres, and with few species occurring in low altitude grasslands. In Brazil, there occur six species (Longhi-Wagner 2014), three of which are included in the Brazilian Flora Red List (Filgueiras et al. 2013).

Agrostis lenis Roseng., Arrill. & Izag. (Figures 1 and 2) is a South American endemic and threatened species recorded for Argentina, Bolivia, Brazil, Chile, and Uruguay (Soreng et al. 2003). Morphologically it can be described as delicate, annual, with semi-decumbent to decumbent culms, 15–50 cm long; nodes glabrous, the lower ones usually rooting; sheath glabrous; ligule membranous, erose; blades linear, 4–10(–15) × 0.2–0.6(–1) cm, and glabrous; panicle open with pedicels glabrous to minutely scabrous; spikelets 1.5–2 mm long, 1-flowered, bisexual; callus of the anthecium glabrous; glumes 2, sub-equal, muticus, 1-nerved, lower glume nerve scabrous, upper glume nerve smooth to minutely scabrous; lemma glabrous, 5-nerved, muticus; palea reduced.


Itatiaia National Park is located at the southernmost portion of the states of Rio de Janeiro and Minas Gerais, near the border of São Paulo state, along the Mantiqueira mountain range, in altitudes varying from 600–2,791 m above sea level (a.s.l.) (ICMBIO 2014), which seems to be the northernmost limit of the species in Brazil.
We found two records of *A. lenis* from Minas Gerais (cf. selected materials examined), one from Camanducaia and the other from Delfim Moreira, both in high altitude grassy fields, near the border of the state of São Paulo.

In São Paulo state, *A. lenis* was known only from two collections gathered in the environs of Campos do Jordão, in the same year, by the same collector (1925, A. Chase). This is probably the reason why this species was classified as presumably extinct in the state of São Paulo by Mamede et al. (2007). However, recent fieldwork in the Serra da Bocaina State Park revealed that the species still occurs in São Paulo. This park extends from the south of Rio de Janeiro to the eastern portion of São Paulo, in altitudes varying from sea level to 2,000 m (ICMBIO 2014).

The Mantiqueira and Bocaina mountain ranges probably represent the entire distribution range of the species in Southeastern Brazil (Figure 3). Based on this recent rediscovery at Serra da Bocaina State Park, the reevaluation of the conservation status of *A. lenis* in São Paulo state is necessary; therefore, we suggest it to be classified as vulnerable (VU), following the IUCN criteria applied for this species by Filgueiras et al. (2013).

**Examined Material:** Brazil. São Paulo: Campos do Jordão, Serra da Mantiqueira, May 1925, A. Chase 9828 (NY, SP); same locality, same date, A. Chase 9915 (NY). Serra da Bocaina, Parque Estadual da Serra da Bocaina, April 2014, S.A. Nicolau s.n. (SP454554).


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**LITERATURE CITED**


**Authors’ contribution statement:** RSR and TSF identified the new cited specimen for São Paulo state, reviewed the collections and the distribution range of the species, wrote and reviewed the manuscript; RSR prepared the figures, except the map.

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