



Lectotypification of *Selaginella tenuissima* and *S. papagaiensis* (Selaginellaceae) with the description of *S. monticola*

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Abstract

My revisionary work on the genus *Selaginella* demonstrates that many earlier species names are not properly typified. One of these concerns *Selaginella tenuissima*, an endemic species from Brazil, and its synonym *S. papagaiensis*. Therefore, I undertook a critical analysis of original material used to describe those species, along with pertinent literature. As a result, I propose a lectotypification of *Selaginella tenuissima* and of *S. papagaiensis* based on a Glaziou's specimen at P and a Silveira's gathering at R, respectively, and discuss the reasons for doing so. In addition, a new pseudo-criptic species, *Selaginella monticola*, is segregated from the previously broadly circumscribed *S. tenuissima*. *Selaginella monticola* is illustrated with scanning electron micrograph images of diagnostic characters that serve to separate it from *S. tenuissima*, which also allow its classification within subg. *Stachygynandrum*. Additionally, according to a preliminary assessment based on the Categories and Criteria of IUCN, I consider the conservation status of *Selaginella monticola* as of Least Concern (LC).

Key words: Atlantic Rainforest, Cerrado, morphotype, protologue, Serra do Carapaó, Serra do Mar, stomata

Resumen

Mis estudios tendientes a la revisión de *Selaginella* indican que muchos de los nombres de taxa propuestos anteriormente no están apropiadamente tipificados. Uno de estos es el de *Selaginella tenuissima*, una especie endémica de Brasil, y el de su sinónimo *S. papagaiensis*. Por lo tanto, realicé un análisis crítico del material original utilizado para sus descripciones, así como de literatura pertinente. Como resultado propongo la lectotipificación de *Selaginella tenuissima* y de *S. papagaiensis* basada en especímenes de Glaziou en P y de Silveira en R, respectivamente, y discuto las razones para tal propuesta. Adicionalmente, segrego una nueva especie pseudocriptica denominada *S. monticola* de la variablemente definida *S. tenuissima*. *Selaginella monticola* es ilustrada mediante imágenes al microscopio electrónico de barrido de caracteres diagnósticos que sirven para separarla de *S. tenuissima* y, además, clasificarla en el subg. *Stachygynandrum*. Finalmente, conforme a un análisis preliminar basado en las Categorías y Criterios de la UICN, considero que el estado de conservación de *Selaginella monticola* es de "Least Concern (LC)".

Palabras clave: Bosques Lluviosos del Atlántico, Cerrado (sabana tropical), morfotipo, protólogo, Sierra de Carapaó, Sierra del Mar, estomas

Introduction

Selaginella tenuissima Fée (1873: 98) is a species characterized by its creeping to prostrate habit, cordiform and long-aristate median leaves, monomorphic sporophylls, and quadrangular strobili. The latter two characters along with its heteromorphic vegetative leaves serve to classify it within subg. *Stachygynandrum*. Alston (1936), Reed (1965–1966), and Alston *et al.* (1981) considered *S. tenuissima* as "perhaps a slender form of *S. muscosa* Spring (1840: 120)". This was most likely due to their inclusion of *S. cunninghami* Baker (1884: 110) as a synonym under *S. tenuissima* (Alston 1936, Alston *et al.* 1981). *Selaginella cunninghami*, however, is not a synonym of the latter but is instead conspecific with *S. muscosa*, a species classified in subg. *Heterostachys* because of its dimorphic sporophylls (Valdespino 1995), and is not closely related to *S. tenuissima*. Hirai & Prado (2000) elaborated on some differences between *S. tenuissima* and