

## TAXONOMIC CONTRIBUTIONS TO THE COLLECTION AND CONSERVATION OF *BUTIA* (ARECACEAE) GERMPLASM

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*Butia* (Becc.) Becc. is a South American palm genus occurring predominantly in open vegetation, as grasslands and savannas. The species have economic and cultural importance, mainly as source of food (fruit and seeds), fibers and use in landscaping, and are distributed from south-west of Bahia and Goiás states in Brazil, to north-east Argentina, east Paraguay and north and east Uruguay. The taxonomical history of the genus is complex, with cases of misapplication of scientific names and there is no consensus in recent publications about the total of recognized species, with several descriptions of new species and proposals of new synonyms in the last years. To clarify the number of species accepted in *Butia* for planning germplasm collections and *ex situ* conservation, and to the proposition of *in situ* conservation strategies, we performed a taxonomic survey of species through consulting the databases Global Biodiversity Information Facility, International Plant Names Index, *Lista de espécies da Flora do Brasil*, Species Link, The Plant List and Tropicos®; literature review; visit to the *Butia* collection of Jardim Botânico Plantarum (Nova Odessa, São Paulo, Brazil); consulting the herbaria BHCB, ECT, ESA, HPL, HURG, PEL and SPF, and fieldworks. Since the first specie description, in 1826, 58 names were published (36 species, 3 subspecies, 17 varieties), from which only 19 are currently recognized as accepted species (*B. archeri*, *B. campicola*, *B. capitata*, *B. catarinensis*, *B. eriospatha*, *B. exilata*, *B. exospadix*, *B. lallemantii*, *B. lepidotispatha*, *B. leptospatha*, *B. marmorii*, *B. matogrossensis*, *B. microspadix*, *B. odorata*, *B. paraguayensis*, *B. pubispatha*, *B. purpurascens*, *B. witeckii* and *B. yatay*). It is not possible to determinate which species the name *B. stolonifera* refers to, because of the lack of reference specimens and the vague description in the original work. *Butia leiospatha* is considered as referring to a dubious species, because it was described as an acaulescent plant, though illustrated as arboreous, absence of reference specimens in herbaria, and the fact that the nomenclatural lectotype was not elucidatory. Among the species with recurrent identification problems, stands out *B. capitata*, a species occurring in Bahia, Goiás and Minas Gerais states, whose name was mistakenly applied to populations of *B. catarinensis* from Rio Grande do Sul and Santa Catarina and *B. odorata* from Rio Grande do Sul and Uruguay. Two natural intergeneric hybrids were found between *Butia* and *Syagrus*: × *Butyagrus nabonnandii* (*B. odorata* × *S. romanzoffiana*) and × *Butyagrus alegretensis* (*B. lallemantii* × *S. romanzoffiana*). The results show the necessity of comprehensive nomenclatural review of the publications about *Butia*, of specimens in herbaria and in *ex situ* collections as arboretums and gene banks aiming to know exactly which species are included in the scientific collections and which ones are sampling gaps. Natural intergeneric hybrids occurrence is little studied in the genus, as the interespecific occurrence. Such phenomena should be known, since they have direct implications for management of *ex situ* germplasm collections. Nomenclatural and taxonomic atualização provided by the present study should be applied in the management of collections and conservation of germplasm.

Acknowledgements: CAPES, CNPq, FAPERGS