

The genus *Metasocratea* (*Palmae*)

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Summary. A study of the holotype of *Metasocratea hecatonandra* Dugand shows that this monotypic genus is not different from *Socratea* H. Karsten, having been based on a misinterpretation of the position of the embryo. The new combination *Socratea hecatonandra* (Dugand) R. Bernal is made. This article is offered as a precursory contribution to the *Genera Palmarum* of Moore, Dransfield & Uhl, currently in press.

The iriarteoid genus *Metasocratea* was established by Dugand (1951) with a single species, *M. hecatonandra*, based on specimens collected by J. Cuatrecasas in 1944 on río Calima, Departamento del Valle, in western Colombia. Dugand considered the genus to be closely related to *Socratea* H. Karsten, from which it was distinguished by the basal rather than apical position of the embryo, and by the high number of stamens (108–145). He apparently overlooked that a very high number of stamens (ca. 100) had been previously reported by Burret (1940) for *Socratea rostrata*, a species from eastern Ecuador. Thus, the position of the embryo remained as the only reliable character to separate *Metasocratea* from *Socratea*.

The genus has been accepted by other botanists, e.g. Burret and Potztl (1956) and Moore (1963, 1973), and the number of stamens has been repeatedly used, along with the position of the embryo, to distinguish it from *Socratea* and *Iriartea*.

I have studied the holotype of *Metasocratea hecatonandra* at COL, and have found that Dugand misinterpreted the position of the embryo, describing as basal what actually is an obviously apical embryo. Within a pocket containing loose material, there are some fertilized pistillate flowers, dissected by Dugand himself; one of these has a conspicuous ovule inserted at the very base of the ovary. Another pistillate flower that I dissected, probably at anthesis, shows 3 basal orthotropous ovules, like those found in species of *Socratea*. The seeds, which are loose and are enclosed in another pocket, have the embryo cavity at the end opposite the hilum, i.e. at the apical end. They have all shed the operculum that initially covers the cavity, and only two seeds still have an embryo; the latter is conical, some 3 mm long, and looks like that of other iriarteoid palms.

In the comments to the new genus Dugand wrote, alluding to the embryo: “Este es voluminoso, de figura obovóideo-alargada y se puede ver fácilmente aún en los carpelos recién fecundados que han principiado a hincharse”. It is evident from the study of the type material, that the structure he was referring to as the embryo is actually the fertilized ovule, which in the swollen ovary mentioned by him is some 4 mm long, i.e. larger than the embryo in the ripe seed. Thus, the misinterpretation of the position of the embryo was due to his mistaking the basal fertilized ovule for the embryo.

With both generic characters proven to have no standing, *Metasocratea* can

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no longer be maintained as a separate genus, and a name under *Socratea* must be given to *M. hecatonandra*, which remains a recognisable species.

Socratea hecatonandra (*Dugand*) *R. Bernal* comb. nov.

Metasocratea hecatonandra Dugand in Rev. Acad. Colomb. Cienc. Ex. 8: 389 (1951). Type: Colombia, *Cuatrecasas* 16719 (holotype COL; isotype VALLE).

Dugand himself initially assigned his new species to *Socratea*; the data labels on the type bear the name "*Socratea hecatonandra* Dugand", a combination he never published. Annotation labels were added later with the name *Metasocratea hecatonandra* Dugand.

REFERENCES

- Burret, M. (1940). *Palmae in L. Diels, Neue Arten aus Ecuador III*. Notizbl. Bot. Gart. Berlin 15: 23–38.
- & E. Potzta (1956). Systematische Uebersicht über die Gruppen der Palmen (Forsetzung). *Willdenowia* 1: 350–385.
- Dugand, A. (1951). Palmas nuevas o notables de Colombia. Rev. Acad. Colomb. Cienc. Ex. 8: 385–396.
- Moore, H. E. (1963). *Iriartella* H. Wendland emended. *Gentes Herb.* 9 (3): 275–285.
- (1973). The major groups of palms and their distribution. *Gentes Herb.* 11 (2): 27–141.