New Combinations and Nomenclatural Notes on the Genera Salacia and Tontelea (Celastraceae, Sensu Lato) in the Neotropics. V.

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Abstract. The increase in collections of Hippocrateaceae, in particular from Andean regions, has led to several taxonomic and nomenclatural changes in the genera Salacia and Tontelea. Miers’s Thermophila cordata is reestablished as Salacia cordata; S. acreana and S. megistophylla are considered to be synonyms. Salacia pittieriana is treated as a subspecies of S. multiflora. Salacia mucronata is treated as a subspecies of S. multiflora. Tontelea richardii is considered as a subspecies of T. ovalifolia, and T. fluminensis placed in synonymy with the latter species. Other changes in Tontelea concern the transfer of T. ulei to Salacia ulei. Krukoff 5141, the type of Smith’s Salacia petiolata, later transferred by him to Tontelea ulei, is treated here as T. petiolata.


In 1872, Miers came across a Pavón collection in the British Museum which, despite the lack of flowers on the inflorescence, he recognized as belonging to the Hippocrateaceae. He placed it in the genus Thermophila and named it T. cordata Miers, which he considered closely related to T. macrophylla Miers (= Salacia miqueliana Loes.).

I studied additional material of the Pavón collection in the herbarium at Geneva. These sheets also lack flowers, but they have the same characteristic large leaves with a more or less cordate base and a rather short, several-branched inflorescence. I support Miers’ opinion that the Pavón material represents a good species, despite the absence of flowers. Because Thermophila is now placed in synonymy with Salacia, this species is here named Salacia cordata (Miers) A. M. Mennega.


In his treatment of Salacia, Smith (1940) recognized a number of species groups, two of which are closely related: Multiflorae, with the single species S. multiflora, and Mucronatae, with two species (S. mucronata and S. pittieriana). The differentiating characters between these groups are slight variations in the form of the disk and the mode of dehiscence of the anthers.

After studying a large number of specimens belonging to this alliance I found it hard to distinguish S. pittieriana from S. multiflora. The coriaceous leaves of S. pittieriana were also occasionally found in S. multiflora, and the disk characters were not clearly distinctive. Salacia mucronata, though closely related to S. multiflora, can be distinguished from the latter by a strictly dichotomously branched inflorescence with smaller-sized flowers. I consider it to be a subspecies of S. multiflora.

Salacia and Tontelea


According to Smith’s (1940) classification, the three species cited above belong in the species group Attenuatae, together with several other species; in his key to this group, the three are placed close together. The main differences between the taxa occur in the shape of the leaves and the more or less immersed or prominulous venation. In his discussion on T. ovalifolia, Smith pointed out the great variation in leaf size, but he concluded that there was sufficient agreement in leaf shape and texture. Furthermore, he stated that species referred to this species and the following (T. richardii and T. fluminensis) are grouped only with difficulty. With the numerous collections received for identification from Central America and northern South America over a number of years, it became increasingly difficult to distinguish among the three species. Consequently, T. richardii and T. fluminensis are now placed under synonymy of T. ovalifolia. However, because the fruits show a remarkable difference in size and structure, two subspecies are recognized. Fruits of T. ovalifolia subsp. ovalifolia are of moderate size, 3–5 × 5 cm, and the pericarp is thin and leathery, whereas the fruits of T. ovalifolia subsp. richardii are very large and more or less globose, 8 × 10 cm, and the pericarp is woody, ca. 10 mm thick.

The holotype of T. richardii from French Guiana is a flowering specimen without fruits. Specimens with big woody fruits were collected in Panama, in the Canal Zone on Barro Colorado Island by several collectors, e.g., Wetmore, Abbe & Shattuck 92, Shattuck 658. Smith identified these collections as T. richardii, notwithstanding the distributional gap. Fruits of T. fluminensis were described by Riedel (ex Peyrutsch, 1878) as “maximus, magnitudine capitis infantis,” which agrees well with the T. richardii material. Among the scarce flowering specimens recently collected is M. Monsalve R 762 from Colombia, Valle del Cauca. This material has flowers and big, thick-walled fruits. It was first determined as T. fluminensis, but is now considered to be T. ovalifolia subsp. richardii.


When Loesener (1907) described Salacia ulei, based on Ule 5050, he noted the unusual form of the disk. This disk consists of two parts: a low, thin outer ring, and an inner part that is higher and thicker. Such a disk had not yet been described in Brazilian species of Salacia, and Loesener doubted if Salacia was the correct genus.

In his treatment of New World Hippocrateaceae, Smith (1940) transferred Salacia ulei to Tontelea. He did not see the specimen, but based his decision on a photograph of the type and on Loesener’s description. He regarded the double disk as “traumatic.” If the double disk is not taken into account, the plant might indeed be accommodated in Tontelea, a genus with a cup-shaped disk. In Tontelea, however, the stigmas are usually well developed, whereas Ule 5050 was described by Loesener as having a style with only minute stigmatic points. In Smith’s (1940) treatment of Tontelea, there are five species that lack prominent stigmas. These were placed in the species group Nectandrifoliae. The Ule specimen was treated as T. ulei in this rather aberrant group. Smith also assigned several other collections to T. ulei: Cardenas 1763 from Bolivia, and Krukoff 4755 and 5141 from Amazonas, Brazil.

I studied the type specimen, as well as the other specimens cited above. The flowers of Ule 5050, in accordance with Loesener’s (1907) ample description, show a disk consisting of two parts. At the time of Loesener’s paper, such a disk was unknown in Salacia. In later collections, however, Smith noticed in three more species of Salacia a disk with a flat basal part and a conical inner part, very similar to the disk in Ule 5050; this was found each time combined with a branched inflorescence. He placed these species in his group Arboreae of Salacia. One of the species in this group, which includes five species in total, is S. cuspidata A. C. Smith. The type specimen of S. cuspidata, Krukoff 8145, resembles Ule 5050 in several respects. In addition
to the identical disks, both collections share the absence of stigmas, the short-branched inflorescences, and the characteristic narrowly cuspidate leaf apex. Therefore, I consider the two collections as conspecific and belonging in Salacia, species group Amplectentes (Mennega, 1984).

Recent collections of Salacia ulei include: PERU, LORETO: Iquitos, Asplund 14305 (S), Vásquez 3373 (MO, U); Rio Ucayali, Vásquez et al. 7027 (MO, U).

As stated above, Smith also included a fruiting specimen, Cárdenas 1763 (US), in Tontelea ulei. The leaves of this plant, however, lack the characteristic cuspidate apex of Tontelea ulei, and they much better resemble the leaves of T. ovalifolia. Therefore, I exclude this collection from T. ulei.

Krukoff 4755 (NY), a fruiting specimen, does not belong in T. ulei either. It has large concolorous leaves with an obtuse apex that in venation and texture suggests Salacia cordata (Miers) A. M. Mennega. The globose brownish fruits also agree with this species. The third collection, Krukoff 5141 (A, NY), is a vine that is the type of Salacia petiolata A. C. Smith. This species was included in the synonymy of Tontelea ulei by Smith in 1940. From Smith’s description and from my own observations of the only flower present on the sheet, it is clear that this plant truly belongs in Tontelea and in the species group Nectandrifoliae, necessitating the new combination below.


**Acknowledgments.** I thank the curators of A, BM, F, G, MO, NY, P, S, US for loan of specimens. I am much indebted to A. B. A. Gorts-van Rijn for her cooperation, and to L. Y. Th. Westra for his critical reading of the English text.

**Literature Cited**


