

(948) Proposal to conserve 4662a *Tontelea* (Celastraceae) with a conserved type.

Tontelea Miers, Trans. Linn. Soc. London 28: 384. 1872, *nom. cons. prop.* T.: *T. attenuata* Miers, *typ. cons. prop.*

(H) *Tontelea* Aublet, Hist. pl. Guiane 1: 31. 1775. [Celastr.] T.: *T. scandens* Aublet.

Aublet based *Tontelea* and its only named species, *T. scandens*, on material he collected in French Guiana, illustrated as pl. 10 in the original publication. Aublet's specimens are incorporated in the herbarium of J. J. Rousseau (now located in the Paris Herbarium in herbier Denaiffe) and also in the Herbarium of the British Museum.

The sheet in herbier Denaiffe was identified by Lanjouw and Uittien (1940) as the original for Aublet's pl. 10, which shows a flowering twig, analysis of a flower, and a detached leaf much larger than the leaves on the twig. From a photograph of this sheet it appears that the inflorescence is reproduced only in fragmentary form in the drawing. In the latter the inflorescence is represented as a rather short, few-branched, flowering twig, whereas in the specimen the inflorescence is strictly dichotomously branched many times with occasional supernumerary branches in the leaf axils. The sheet also has four detached leaves.

Aublet's description is rather detailed. Subsequent authors accepted Aublet's generic name although some of them, as listed in Pfeiffer (1874), changed the spelling to *Tonsella*. Presumably none of these authors had access to Aublet's specimens. Miers (1872) investigated the material in the British Museum and described the sheets as follows:

"One sheet a specimen corresponding with the upper figure [of Aublet's plate] and below it a detached leaf, as shown in the drawing. Another sheet with two specimens collected by Shakespeare, similar to Aublet's upper specimen in size and shape of the leaves, in the inflorescence and in general character

leaving no doubt as to their specific identity. Upon still another sheet there is a very distinct species also collected by Aublet, with leaves of a very different texture, being much longer, more lanceolate, more coriaceous, corresponding with the loose leaf in Plate 10 of Aublet, evidently showing that Aublet had confounded the two species."

Miers continues in stating that the upper part of Plate 10 unquestionably represents the true type of *Tontelea scandens*, reduced to half its size. This constitutes the lectotypification (Miers, 1872: 383).

In my opinion, lectotypification of *T. scandens* on the sterile twig called *T. aubletiana* by Miers is neither desirable nor possible. According to Art. 9.2, in a case of mixture on a type herbarium sheet, "the name must remain attached to that part which corresponds most nearly with the original description." In this case it was the flowering twig on which Aublet based his *T. scandens*.

Actually the material from the British Museum, which I had the opportunity to study, consists of three sheets in accordance with Miers' statement, but the plant parts on the sheets are arranged in a slightly different way. One sheet has a flowering twig in the upper part with one detached leaf belonging to this flowering twig, and two sterile twigs with leaves of a different texture. Miers noted in pencil on this sheet "2 very distinct plants lower one agrees with Aublet's drawing, Plate 10, as far as the larger leaf but the upper plant agrees with the published plate 10 except larger leaf. The lower is *Tontelea aubletiana*." The photograph of the sheet in herbier Denaille (P) corresponds to this description.

A second sheet contains an envelope with a dissected flower and one leaf, both undoubtedly belonging to the flowering twig on the first sheet and accordingly labelled by Miers "*Tontelea scandens* Aublet (type)." On the third sheet we find two flowering twigs, identical to the flowering twig on sheet 1, labelled *Tontelea scandens* Aubl. collected by Shakespeare Ind. Occ.

Apart from these two species, Miers accommodated eight more species in *Tontelea*. As a consequence Aublet's generic diagnosis had to be amended. Most relevant and in disagreement with the original description, is Miers' description of the style as being short with three acute—seldom obtuse—divaricate stigmas as long as the style. In Aublet's diagnosis the style was described as oblong and the stigma obtuse. Aublet described the fruit as a very small, unilocular, round berry, whereas, according to Miers, the fruit is a 3-locular, round, rather small drupe. The fruit mentioned by Aublet is not present on any of the original specimens seen by me nor is it visible in the photograph of the Paris sheet. In any case, such a fruit would not fit in the subfamily Hippocrateoideae. Probably it was picked up incidentally with the twigs and has nothing to do with the flowering specimens.

A. C. Smith, in his 1940 revision of the Hippocrateaceae of the New World, recognized 20 species in *Tontelea*. His generic description, although more elaborate, is essentially similar to Miers' except for the statement that the obvious and divaricate stigmas are sometimes obscure and neglectable on the truncate style. This addition is important as such a style resembles the style of Aublet's *Tontelea scandens*. However, in Smith's treatment of *Tontelea*, *T. scandens* is not among the five species without stigmas. This is particularly remarkable in view of the importance he attached to characters of style and stigmas in his key to species groups in the genus. Smith did not see the Aublet specimens but he mentioned the description and illustration of *T. scandens*, apparently without paying much attention to the shape of style in this special case and basing his description of the species on additional material presumed to represent *T. scandens*.

Dissection of a flower from the flowering twig on sheet nr. 1 showed that Aublet's description and his figures are correct. In particular the short tubular disk, and the ovary terminated by a short subulate style crowned by three minute stigmatic knobs are important features which are not in accord with Miers' generic description nor with Smith's diagnosis of *T. scandens*. Also, the character of an inflorescence with supernumerary branches in the leaf axil is a feature not encountered in any species as currently understood as *Tontelea*. Another important difference between the type specimen and *Tontelea*, as currently understood, is the wood structure of the twig. In *Tontelea*, as in all members of the Salacaceae, the wood is characterized by narrow wood rays. In the Hippocrateaceae the wood rays are wide and conspicuous structures easily seen with a hand lens even in small twigs (Mennega, 1972). Inspection of the twigs of Aublet's material revealed wood with wide rays in the flowering specimens and wood with narrow rays in the sterile twigs. Consequently the flowering twigs belong to the Hippocrateaceae.

Among the eight genera that Smith recognized in the group with capsular fruits (Hippocrateaceae) a short tubular disk, as present in the flowers on the type sheet, occurs in one species of *Pristimera* and in *Elachyptera* (A. C. Smith, 1940). Aublet's type specimen matches exactly with *Elachyptera floribunda* (Benth.) A. C. Smith in other characters of the flower, in the presence of supernumerary, axillary,

dichotomously, many-branched inflorescences, and in the hardly visible tertiary venation on the upperside of the leaves. As a consequence, the name *Elachyptera* would have to be replaced by *Tontelea* and a new name should be found or coined for all species presently known as *Tontelea*.

Tontelea, with 20 species, is restricted to South America. *Elachyptera*, with seven species, occurs in Central and South America, and also in tropical Africa (Hallé, 1962, 1986).

In view of the desirability of avoiding a transfer of generic names that certainly would be a serious source of error and upset the current custom, conservation of the generic name, *Tontelea*, is proposed with a new type.

As mentioned before, Miers treated the sterile twigs on the type sheet of *T. scandens* as a new species, *T. aubletiana*. In his description of the species, Miers (1872: 383) mentioned the presence of a short-corymbose panicle, dichotomously-branched, without flowers. Today no inflorescence is present on the specimen.

Although, in my opinion, the leaves strongly resemble a species of *Tontelea* in their texture and venation with intersecondary veins, it seems safer not to recognize these sterile twigs as a new type. In the subfamily Hippocrateoideae, the resemblance of leaves of various genera is so great that it is never possible to assign a detached leaf to a genus with complete certainty. In the past Lanjouw and Uittien (1940) interpreted the leaves on the herbar Denaiiffe sheet as a species of *Casearia* (Flacourtiaceae), whereas Smith considered the same leaves (on the photograph available to him) as *Cheilochlinium cognatum* (Miers) A. C. Smith. Smith's opinion was also cited by Howard (1983) in his treatment of Aublet's plates. Considering these different interpretations of the sterile leaves it seems better to propose another element to typify the generic name. I propose *Tontelea attenuata* Miers (Trans. Linn. Soc. 28: 384. 1872). Miers based this name on two specimens from Brazil: *Spruce 1927* from the Rio Negro inter Barcellos et San Isabel, and *Spruce 2709*, from Rio Uaupes. I designate *Spruce 1927* as the lectotype.

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