NOTE ON POUTERIA (SAPOTACEAE)

by

H. J. LAM

(Rijksherbarium, Leiden)

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In recent years Baehni has provided us with some elaborate studies on the Sapotaceae (1, 2) and we understand that it is his intention to continue the series of generic monographs.

As I pointed out in a criticism (8) concerning the first of his papers, this seemed not a very successful beginning, be it only because one usually does not start a series of generic monographs by giving a survey of the whole family with the nature of a conclusion, without risking the judgment of prematurity. As might have been expected this paper contains a number of incorrectnesses, which may largely be ascribed to an insufficient knowledge of this intricate and difficult family.

Now, the most recent of Baehni's papers deals with the large genus *Pouteria* (2), in Baehni's sense doubtless the largest genus of the family and in many respects the one with the largest number of primitive characters. In this elaboration the author has combined a large number of previously independent genera.

Every systematist knows that, if ever, in taxonomical work the rule holds true that the proof of the pudding is in the eating. Only a repeated and intensive, critical and practical use of a monographical elaboration of a group of plants can provide us with sufficient arguments to decide whether the work is reliable or not. And, not being familiar with the greater part of the *Pouteria* species, namely with those from America and from Africa, I will, for the time being, refrain from giving such critical remarks as present themselves even at a cursory glance through the work in question, restricting myself to the following points:

1. The scientific responsibility of a monographer is very great — being proportional with the difficulty and the size of the group of organisms concerned —, as another investigator is not likely to attempt a second revision of the same group, however unsatisfactory the monograph may be, as long as other important groups of the same family are left waiting;

2. It is may personal experience that the system of the Sapotaceae I am familiar with (Asiatic and Polynesian), only clearly shows its particular structure by a procedure of moderate generic splitting: e. g. the Malaysian *Madhuceae* only became understandable after Pierre unraveled

them by splitting them up into four smaller genera with seemingly insignificant, yet very distinct morphological and geographical differences. Similar conditions are paramount in the *Mimusopoideae*. This does, of course, not imply that the same is necessarily true regarding the other groups of the family but it may serve as an admonition to use the utmost care and scrutiny in their elaboration;

3. In my opinion every systematist is morally obliged (as well as *nolens volens* scientifically compelled) to follow the monographer as long as the incorrectness of his statements is not proved.

I want to repeat emphatically that these remarks do not particularly allude to Baehni's monograph although they were, of course, inspired by it. Therefore, in spite of a certain hesitation, based upon the unsatisfactory nature of his previous work, and in spite of the fact that Baehni's subdivision of *Pouteria* ominously reminds us of Engler's elaborate but not lasting subdivision of *Sideroxylon* (3, p. 143), I am, in accordance with the above-mentioned point 3, provisionally prepared to accept his conclusions.

The above might have remained unwritten until a later date, if I had not presented to the Editor of "Boissiera", to be published in the volume in honour of Prof. B. P. G. Hochreutiner of Geneva, a small paper, containing the description of three new *Planchonella* species (9). After the MS. of this paper had been despatched, Baehni's monograph was issued, in which *Planchonella* is combined with *Pouteria*. A corrected version of my paper was, unfortunately, received too late to be inserted in the "Boissiera" volume mentioned.

I will, therefore, rename my three new species here and avail myself of the opportunity to add a few remarks of an additional nature.

1. **Pouteria** (§ *Oligotheca* A. DC.) **Hochreutineri** (H. J. Lam) H. J. Lam, nov. comb. — *Planchonella Hochreutineri* H. J. Lam, Boissiera VII, 1943, 92, fig. 5 — New Guinea (*Carr 13023, type: Id. 15404*).

2. **Pouteria** (§ *Oligotheca* A. DC.) **sarcospermoides** (H. J. Lam) H. J. Lam, nov. comb. — *Planchonella sarcospermoides* H. J. Lam, l. c. 94, fig. 5 — New Guinea (*Carr 12933, type*).

3. **Pouteria** (§ *Oligotheca* A. DC.) **Clementis** (H. J. Lam) H. J. Lam, nov. comb. — *Planchonella Clementis* H. J. Lam, l. c. 97, fig. 6 — New Guinea (*Clemens 1155, type*).

4. **Pouteria** (§ ?) **monticola** (Krause) H. J. Lam, nov. comb. — *Sideroxylon monticolum* Krause, Engl. Bot. Jahrb. 58, 1923, 481 — *Planchonella monticola* (Krause) H. J. Lam, Nova Guinea XIV, Bot., Livr. 4, 1932, 561, Tab. CXII — New Guinea.

This species was apparently overlooked by Baehni and not mentioned in his monograph.

5. *"Racemose" inflorescences.* In the discussion accompanying the description of *Planchonella sarcospermoides* the inflorescences of this and some other species were called racemose. The same term is repeatedly used in Baehni's monograph ("véritables racèmes", l. c., p. 157 and he even bases partial subdivisions upon it (l. c., pp. 194, 198, 219, 269, 283). However, this interpretation is, I think, not correct. The fundamental arrangement of the flowers in the Sapotaceae is fasciculate. This is, of

course, morphologically speaking, a racemose inflorescence, and the fascicle (Baehni prefers the term "umbels") might be considered a contracted raceme. In those cases in the Sapotaceae, however, in which the axis of the inflorescence is elongated, the arrangement is never, as far as I am aware, genuinely racemose; there is always some trace of fascicles. It seems, therefore, that this condition of pseudo-racemose inflorescences is not on the primitive side of the alleged evolutionary process of these inflorescences (the contraction from true racemes into fascicles), but rather represents an advanced phase. Within the Sapotaceae the following examples may then illustrate the trend of the supposed evolution of this organ (according to Baehni these pseudo-racemose inflorescences are particularly frequent in New World species):

a. *Pouteria duclitan* (Blanco) Baehni (formerly *Planchonella nitida* Dub.) from Malaysia: fascicles many-florous, often along leafless shoots, however, with many transitions into the normal sapotaceous type (axillary fascicles; 4, tab. 607). The same condition, although less pronounced, is sometimes also found in some other species such as *P. kaniensis* (Krause) Baehni (6, tab. 124) and very rarely in *P. firma* (Miq.) Baehni. The last-named fact shows that the systematic place given to this species in Baehni's monograph, is unnatural.

b. *Pouteria pedunculata* (Hemsl.) Baehni from China: short axillary pseudo-racemes with 1- to 3-florous fascicles (10, p. 259, fig. 3).

c. *Pouteria sarcospermoides* H. J. Lam from New Guinea: almost the same condition as mentioned sub b, only the fascicles more crowded (9, p. 93, fig. 5).

d. *Aulandra* (*Madhucoideae-Palaquieae*), 2 species from Borneo: cauliflorous, racemes divaricate, densely covered with flowers; the fascicles are probably all 1-florous (5, p. 416, fig. 6; and 7, tab. 3360).

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