

THREE NEW REDUCTIONS IN THE ANACARDIACEAE

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(received October, 18th, 1960)

PENTASPADON

A few botanists seem to have had difficulties in placing species of *Anacardiaceae* under the proper genus, even after HOOKER gave an excellent key to 21 genera in the *Fl. Br. Ind.* 2: 7. 1876. When Mr F. H. HILDEBRAND, engaged in identification of Papuan trees at the Rijksherbarium, Leyden, expressed his doubts of the generic identity of *Rhus novo-guineensis* Laut., and suggested that it might be a *Pentaspadon*, an attempt was made to verify this idea.

LAUTERBACH described *Rhus novo-guineensis* in 1910. Both specimens mentioned by him, *Versteeg 1314* and *1802*, are in the Rijksherbarium, and on examination both appeared to belong undoubtedly to *Pentaspadon*. The genera *Rhus* and *Pentaspadon* differ in the styles, 3 in number in *Rhus*, 1 in *Pentaspadon*; furthermore in *Rhus* the stamens are all equal, though sometimes reduced in ♀ flowers, whereas in *Pentaspadon* 5 stamens alternate with 5 staminodes. The fruit in *Rhus* is small, like a currant, in *Pentaspadon* it has the size of an almond.

The genus *Pentaspadon* was described first by HOOKER in 1860, with *P. motleyi* from Borneo as only species. Shortly afterwards this species was described from Sumatra as *Nothoprotium sumatranum* Miquel. In his *Flora of British India* 2: 28. 1876, HOOKER described (with doubt as to the generic identity) *P. velutinus*, the second species in the genus. ENGLER's transfer of this species to *Microstemon*, a new monotypic genus established by him in *Bot. Jahrb.* 1: 376. 1880, was merely founded on a wrong observation, as CORNER rightly pointed out in *Gard. Bull. S.S.* 10: 261. 1939.

The main differences between *P. motleyi* Hook.f. and *P. velutinus* Hook.f. consist of the glabrous appearance and lax inflorescence of the former, whereas the latter is densely velvety fulvous-hairy on all parts and its inflorescence is dense.

It is to *P. motleyi* Hook.f. that *Rhus novo-guineensis* Laut. has to be reduced. The species is widely distributed in Sumatra, Borneo, Ceram, and New Guinea. *Pentaspadon velutinus* occurs in central and northern Malaya and in eastern Sumatra.

Another species described by LAUTERBACH in 1920 is *P. moszkowskii*. The type specimen, *Moszkowski 283*, was probably destroyed with the Berlin Herbarium. From LAUTERBACH's description and the fine drawing he gives, it is justified, I think, to reduce also this species to *Pentaspadon motleyi*, the variability of which well covers the characters given for *P. moszkowskii*.

The essential synonymy is as follows:

Pentaspadon motleyi Hook.f., Trans. Linn. Soc. **24**: 168, t. 24. 1860. — *Nothoprotium sumatranum* Miq., Sumatra 527. 1862. — *Rhus novo-guineensis* Laut., Nova Guinea **8**: 298. 1910; Bot. Jahrb. **56**: 363. 1920. — *P. moszkowskii* Laut., Bot. Jahrb. **56**: 358, f. 2. 1920.

It is possible that more reductions in *Pentaspadon* must follow, when type material is brought together. According to CORNER, *P. officinalis* Holmes ex King and *P. velutinus* are exceedingly similar. The generic identity of *P. curtisii* (King) Corner is, according to CORNER himself, not quite certain. The description of *P. minutiflora* Burt., Kew Bull. 305. 1935, from the Solomons, tallies well with that of *P. motleyi*. The next paragraph deals with the reduction of *P. teleianthera* Ridl.

SOLENOCARPUS

The examination of *Pentaspadon teleianthera* Ridl. showed that it belongs to *Solenocarpus*. *Pentaspadon* and *Solenocarpus* are closely related genera. Both of them have pinnate leaves, paniculate inflorescences, bisexual 5-merous flowers, while the pistil consists of 1 carpel with an oblique style and stigma, oddly shaped. *Solenocarpus* has 10 fertile stamens and a long clavate style with elongate stigma and a fruit $\pm \frac{3}{4}$ cm long, whereas *Pentaspadon* has 5 fertile stamens and 5 staminodes, a short style with bilobed stigma, and a fruit of $\pm 2\frac{1}{2}$ –3 cm long.

Solenocarpus was described with one species, *S. indica*, by WIGHT & ARNOTT, Prod. 171. 1834; it occurs in the SW. part of the Indian Peninsula. The second species, *S. philippinensis* (Elm.) Kosterm., was transferred to it from *Pegia* by KOSTERMANS in 1955, who at the same time incorporated in this species the monotypic *Skoliostigma defolians* Laut. from New Guinea. Judging from the plate that LAUTERBACH gave, this is undoubtedly correct.

The type specimen of *Pentaspadon teleianthera* Ridl. from Borneo, Sarawak, *Haviland* 2871, has only very young leaves, while it is in full flower. From this and other material it can be concluded that the plant is deciduous, and bare when flowering. According to KOSTERMANS it is distributed in Sumatra, Borneo, the Philippines, Celebes, and New Guinea. The essential synonymy is as follows:

Solenocarpus philippinensis (Elm.) Kosterm., New and Crit. Malays. Pl. **3**: 1. 1955. — *Pegia philippinensis* Elm., Leaf. Philip. Bot. **8**: 3100. 1919. — *Skoliostigma defolians* Laut., Bot. Jahrb. **56**: 356, f. 2. 1920. — *Phlebochiton philippinensis* (Elm.) Merr., En. Philip. **2**: 472. 1923. — *Pentaspadon teleianthera* Ridl., Kew Bull. 199. 1933.