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The typification of *Lycium inerme*

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ABSTRACT

As the protologue of *Plectronia ventosa* L., Mant. 1: 52 (1767), was based on discordant Oliniaceous and Rubiaceous elements, and as *P. ventosa* has been typified in an Oliniaceous sense, it is no longer possible to use the name *Canthium ventosum* (L.) Kuntze for a Rubiaceous plant. The correct name for the Rubiaceous plant, previously but incorrectly called *C. ventosum*, is *Canthium inerme* (L.f.) Kuntze, with *Lycium inerme* L.f., Suppl. 150 (1781) as the basionym. The holotype of *Lycium inerme* is housed in the Thunberg Herbarium in Uppsala.

The protologue of *Plectronia ventosa* L., Mant. 1: 52 (1767), was based on two discordant elements: (1) Burm., Rariorum Africanarum Plantarum X: 257, t. 94 (1739), which is what has until now been called *Canthium ventosum* (L.) Kuntze, and (2) a specimen (No. 277.2) in the Linnaean Herbarium in London. As the latter is an *Olinia*, it is clear that the protologue of *P. ventosa* was based on a Rubiaceous element and an Oliniaceous element.

In the International Code of Botanical Nomenclature: 339 (1972), the genus *Olinia* Thunb. is conserved over *Plectronia* L. in an Oliniaceous sense, the specimen in the Linnaean Herbarium referred to above being regarded as the lectotype of *Plectronia* and the genus *Plectronia* as a synonym of *Olinia*. The specimen in the Linnaean Herbarium is not annotated by Linnaeus but it is annotated "Plectronia ventosa" by Linnaeus filius. As it is not possible to date the specimen and therefore establish whether or not Linnaeus definitely saw it, it seems that one must assume that Linnaeus *could have* seen the specimen.

Since it is difficult to be absolutely certain which of the two elements typifies *P. ventosa* it seems advisable to follow the choice of the specimen in the Linnaean Herbarium already made in the Code, and there is every reason to believe that this choice is correct. (It is as well to bear in mind that the specimen in the Linnaean Herbarium is a flowering specimen, while both flowers and fruits are depicted in Burman's t. 94). Analysis of the protologue of *P. ventosa* reveals that there is certain information in it which Linnaeus could not have obtained from Burman's t. 94. For example, Linnaeus mentioned that the stems were tetragonal: this is not apparent from Burman's t. 94 but the stem of the specimen in the Linnaean Herbarium is clearly tetragonal. The generic description of *Plectronia* in Mant. 1: 6 provides even better evidence. In the generic description the perianth is described thus: "*Perianthium* monophyllum, turbinatum, obsolete quinquedentatum, clausum sinubus S, squamis 5 villosis: persistens." This reference to 5 scales seems very significant as Linnaeus could not have obtained this information from Burman's t. 94, and, in any case, the plant depicted (a *Canthium*) does not have 5 scales in the mouth of the perianth. *Olinia*, on the other hand, does have 5 scales and these are present in flowers of the specimen in the Linnaean Herbarium. Analysis of the generic description of *Plectronia* suggests that it was probably based very largely on a specimen with the exception of details of the fruit and seed and for these Linnaeus clearly makes reference to Burman:

"Per. Bacca oblonga, bilocularis. Burm.

Sem. Solitaria, oblonga, compressa. Burm."

De Candolle, Prodr. 4: 475 (1830), typified *Plectronia* in a Rubiaceous sense but his decision need not be followed, particularly as it appears that the decision was *in conflict* with Linnaeus's concept. *Plectronia* could only now be used in a Rubiaceous sense if it was proven that the Burman illustration was actually the type of *P. ventosa*, and, in view of the above facts, this seems unlikely.

Cufodontis, in Osterreich Bot. Zeitschr. 107: 106 (1960), published the new combination *Olinia ventosa* (L.) Cufod., specimen No. 277.2 in the Linnaean Herbarium being regarded as the lectotype of the basionym *Plectronia ventosa* L. The name *Olinia ventosa* must be adopted for the plant that has until now been called *O. cymosa* (L.f.) Thunb.

As *Plectronia ventosa* is typified in an Oliniaceous sense, it is obvious that the name *Canthium ventosum* (L.) Kuntze can no longer be applied to a Rubiaceous plant. The next available name for the Rubiaceous plant hitherto but wrongly called *C. ventosum* is *Canthium inerme* (L.f.) Kuntze, with *Lycium inerme* L.f., Suppl. 150 (1781) as the basionym.

The protologue of *Lycium inerme* is as follows:

"*inerme*. Lycium inerme, glabrum, foliis oblongis glabris, floribus aggregatis pedunculatis, stipulis barbatis. Habitat in Cap. bonae spei. *Thunberg*."

There is no Thunberg specimen named *Lycium inerme* in the Linnaean Herbarium in London or in the Linnaean collections in Stockholm, and the name *Lycium inerme* does not appear in the microfiche index to the Thunberg Herbarium in Uppsala. No specimen named *Canthium inerme* or *Plectronia inerme* appears either. However, in H.O. Juel, Plantae Thunbergianae 430 (1918), there is a cross reference under *Lycium inerme* to *Serissa capensis* Thunb., Gen. Nov. Pl. 9: 131 (1798). There are two specimens named *Serissa capensis* in the Thunberg Herbarium in Uppsala, namely, Nos. 5314 and 5315, and, through the courtesy of the Director, Institute of Systematic Botany of the University, Uppsala, these two specimens were received on loan.

I had hoped to find the name *Lycium inerme* L.f. written somewhere on at least one of the Thunberg specimens named *Serissa capensis* but unfortunately this is not the case. However, it is quite clear that there

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was a name in the bottom right-hand corner of Thunberg 5314 (reproduced here as Fig. 1) at some stage but the name was subsequently erased and *Serissa capensis* written in its stead. Unfortunately the name was so carefully erased that it is impossible to form any idea of what was written there previously. So, there is the following circumstantial evidence that one or both of these Thunberg sheets now named *Serissa capensis* may have been the one(s) on which Linnaeus filius based his description of *Lycium inerme:*

1. Juel's cross reference under *Lycium inerme* to *Serissa capensis* in his Plantae Thunbergianae 430 (1918) and his citation on page 419 of both *L. inerme* and *S. capensis* as synonyms of *Plectronia ventosa* L.

2. The arrangement of the specimens in Thunberg's Herbarium, i.e. *Thunberg* 5314 and 5315 follow consecutively after the specimens of *Lycium.*

3. The fact that *L. inerme* has always been accepted to be Rubiaceous. For example, in Index Kewensis and C. H. Wright in Fl. Cap. 4 (2): 109 (1904).

FIG. 1.—*Thunberg* 5314, one of the specimens named *Serissa capensis* in the Thunberg Herbarium, Uppsala.

Analysis of the protologue of *Lycium inerme* reveals that it was almost certainly based entirely on *Thunberg* 5314. Some of the details in the protologue, for example, "stipulus barbatis", could not have been obtained from *Thunberg* 5315 as the stipules in 5315 are not as described, while the "floribus aggregatis pedunculatis" is unlikely to have been taken from 5315 as the specimen has only a few rather inconspicuous young inflorescences in amongst the leaves. In addition, the petioles in 5315 are clearly pubescent above and there are "pockets" of hairs on the lower surface at the points where the main veins

depart from the midrib. *Thunberg* 5314, on the other hand, agrees well with the protologue in every respect, although it is perhaps odd that there is no mention in the protologue of fruits. As *Thunberg* 5314 clearly agrees with the protologue of *Lycium inerme* I am persuaded to regard this specimen as the holotype. It remains to add that *Thunberg* 5314 matches material of what has until now but wrongly been called *Canthium ventosum*. The correct name for this taxon is therefore *Canthium inerme* (L.f.) Kuntze, Rev. Gen. 3: 545 (1898), with *Thunberg* 5314 (UPS) as the holotype of the basionym, *Lycium inerme*. The specific epithet "inerme" is rather inappropriate as the plant often has spinescent branchlets.

It is clear that *Thunberg* 5314 and 5315 belong to two different taxa and that 5315 is in fact a specimen of *Canthium mundianum* Cham. & Schlechtd. The protologue of *Serissa capensis* Thunb., Gen. Nov. Pl. 9: 131 (1798), seems to have been based very largely, if not entirely, on *Thunberg* 5314 as there is certain information in it that could not have been gleaned from 5315. For example, once again the description of the leaves and stipules matches those of *Thunberg* 5314 rather than those of 5315. In the generic description of *Serissa* there is reference to fruits which quite clearly must have been taken from *Thunberg* 5314 as 5315 lacks fruits. However, *S. capensis* is an illegitimate name because Thunberg cited the earlier *Lycium barbatum* Thunb., Prodr. Fl. Cap. 37 (1794) in synonymy, and because it was based in part at least, if not entirely, on the type specimen *Lycium inerme* L.f. This is stressed because if it was ever argued that *S. capensis* was based entirely on *Thunberg* 5315 the illegitimacy of the name *S. capensis* would prevent the adoption of the specific epithet "capensis" for the taxon to which *Thunberg* 5315 belongs.