

NOMENCLATORIAL NOTES ON PLATYCKERIUM (FILICES)

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In *Am. Fern Journ.* 60 (1970) 7—12 the late Mr. C. V. Morton published 'A further note on the type of *Platycterium alaicorne*' in which he contests the lecto-typification of *Acrostichum alaicorne* Sw. (*nom. ill.*) = *Platycterium alaicorne* Desv., as established previously by De Joncheere in *Blumea* 15 (1967) 443—445, i.e. on Plukenet, *Amaltheum* t. 429 = *Herb. Sloane* vol. 102 fol. 194 from Johanna Isl., Comores (BM).

Instead, Morton advocated to lectotypify *Acrostichum alaicorne* Sw. by some sheets in the Afzelius Herbarium at Uppsala from Sierra Leone, representing the West African taxon now properly called *Platycterium stemaria* (Beauv.) Desv.

Morton's arguments to change the lecto-typification of *Acrostichum alaicorne* Sw. are basically the same, and show the same discrepancies, as reported in his article in *Am. Fern Journal* (1968) on the in his opinion necessary change of the lecto-typification of *Aspidium articulatum* Sw. = *Oleandra articulata* (Sw.) Presl, as established previously by Maxon. The present author (1969) endeavoured to show that such a change should be rejected.

The present author apologises for having to repeat some facts that are already mentioned in the publications of Morton (l.c.) or De Joncheere (l.c.), but this is necessary for a clear understanding as to why Morton's proposal for a change in the lecto-typification of *Acrostichum alaicorne* Sw. is equally unwarranted.

To begin with, both De Joncheere (l.c.) and Morton (l.c.) agreed that in the case of Swartz's original description of *Acrostichum alaicorne* (1802) more elements are present than can be derived from Plukenet's plate. This shows a barren foliage-frond only, whereas Swartz also mentioned nest- and fertile foliage-fronds, so he must have had access to other material. In full recognition of Christensen's ideas on the typification of Swartz's species (1910), this 'hidden' element should be taken fully into account when designating a proper lectotype for *Acrostichum alaicorne* Sw.

Morton, in cooperation with Dr. Wurdack in Uppsala, discovered in the Afzelius Herbarium specimens of *Acrostichum alaicorne* with nest- and fertile foliage-fronds annotated by Swartz. He concluded that one of these must be the proper lectotype of Swartz's species. As these specimens belong to the West African taxon now generally known as *Acrostichum stemaria* (Beauv.) Desv., however, Morton chose as type an element that is definitely different from the one represented by Plukenet's plate which, as De Joncheere reported, is a Madagascar taxon.

It is extremely doubtful whether such an automatic procedure may be accepted. After all, it is not certain that Swartz saw these Afzelius specimens before he wrote his original description in *Schrader's Journal* (1802). What we do know is that he saw Plukenet's plate and that in his *Synopsis Filicum*, published a few years later (1806), the concept of his *Acrostichum alaicorne* is indeed widened. There Swartz not only referred to Madagascar and West African material, but also to collections from Java and Australia now generally assigned to *Platycterium willinckii* Moore and *Platycterium bifurcatum*. (Cav.) C.Chr. respectively.

The 'hidden' element could therefore be amongst any of these four taxa, now recognized as species, if it could be proved that Swartz saw such specimens when making his original description and unless no other considerations have to be taken into account. Though Christensen's original recommendation (1910) to look for specimens in the Swartz Herbarium or those herbaria Swartz had access to was indeed given to clarify the typification of Swartz's species, the plates referred to by him being in some cases inaccurate and unidentifiable, in the present case it seems hardly appropriate to confuse the issue by choosing a specimen as lectotype and giving this precedence over the only definite and moreover unequivocally identified element that Swartz gave in his original protologue, even though this is only a plate.

Be that as it may, there is an even more pressing reason for criticizing Morton's choice. Although Morton first mentioned the specimens in the Afzelius Herbarium in connection with the subject in question, it was omitted by him to draw attention to the fact that De Joncheere (l.c.) did report (through Dr. Schelpe) on specimens of *Platynerium* being present in the Thunberg Herbarium, another source for typification of Swartz's species. The Nos. 24391 and 24392 were left out of consideration when looking for a lectotype, as they represent West African material, although no. 24391 is an Afzelius collection with nest- and fertile foliage fronds, probably belonging to the same set as Morton found in the Afzelius Herbarium. Only No. 24393, originating from Madagascar (Oldenburg), was briefly discussed by De Joncheere as possibly eligible as a lectotype, but was rejected as being incomplete, having no nest fronds. That the West African material was not further considered had its reason, viz. the recommendation as laid down in par. 4e of the 'Guide for the Determination of Types' in the Code, here cited for ready reference*):

„In cases when two or more elements were included in or cited with the original description, the reviewer should use his best judgment in the selection of a lectotype, but if another author has already segregated one or two elements as other taxa, the residue or part of it should be designated as the lectotype if its essential characters correspond with the original descriptions. If it can be shown that the element best fitting the protologue has been removed, it should be restored and treated as the lectotype. Whenever the original material of a taxon is heterogeneous, the lectotype should be selected so as to preserve current usage unless another element agrees better with the protologue”.

Considering that as early as 1827 Desvaux had already sorted out the the various specific elements in Swartz's conception of *A. alpicorne* and that he unequivocally regarded Plukenet's plate as the 'residue' (see De Joncheere l.c. where a full citation of Desvaux's publication is given), the lectotype must be chosen amongst that element which represents Plukenet's plate, unless this plate would be discordant with Swartz's protologue. As already shown by De Joncheere (l.c.), Swartz's original description mentions three features pointing to the Madagascar species, viz. erect apically fertile foliage fronds, obtuse ultimate lobes, and reniform nestleaves. These characteristics are hardly applicable to the West African species with its (drooping) foliage frond with pointed ultimate lobes, sporangia round the sinus, and oblong cuneiform nest fronds, as also shown in Morton's illustrations of the Afzelius specimens. Desvaux's conception of the 'residue' is therefore correct and certainly not discordant, whereas Morton's type is. However, the latter considered it 'to agree well enough with Swartz's brief diagnosis, at least as well as that diagnosis agrees with *P. vassei*' (the name Morton adopted for the Madagascar taxon).

Apart from the above consideration the Code also clearly mentions that a specimen

*) The citation is from the Code's 1966 edition as valid at the time of Morton's (1970) and De Joncheere's (1967) publications. In the new 1972 edition this same paragraph of the 'Guide for the Determination of Types' shows an improved text, but its meaning remains the same.

should be given preference over a plate only if 'other things are equal' which is clearly not so in Morton's proposed lectotype; also that lectotypes once established must not be changed and should be followed by subsequent authors, unless there are very good reasons for not doing so.

Morton's last comment, viz. that it is fortunate that the name *Platycerium alcorni* should be sunk into synonymy, is not only irrelevant, but also questionable. The only name for the Madagascar species that would remain available is *P. vassei* Poisson, poorly described in 1910 in *Revue Horticole* without a type. That *P. alcorni* is a name that would give confusion and has had several interpretations in the past, is only partially true: since the general recognition of the specific status of the Madagascar/East African taxon as against the West African and the Australian taxa, most recent authors agreed in assigning the name *Platycerium alcorni* to the first mentioned plant.

Concluding one may say that Morton's change in the typification of *Acrostichum alcorni* Sw. has nothing in its favour and should not be followed. It is at variance with all the Code's recommendations applicable to this case. Morton's reasoning — as in the case of *Oleandra articulata* (see above) — is influenced by a too strict adherence to Christensen's recommendations on the typification of Swartz's species, irrespective of further circumstantial evidence.

The lectotype of *Acrostichum alcorni* is thus maintained as being Plukenet's plate 429 of the *Amaltheum*, based on Sloane's *Herbarium* vol. 102 fol. 194. The proper name of the East African/Madagascar species must consequently remain *Platycerium alcorni* Desv., and *Platycerium vassei* Poisson is a later synonym.

Morton treated another controversial subject in the same paper, viz. the proper naming of the Central and West African taxon called by him *Platycerium angolense* Welw. ex Hooker & Baker (1868).

Although as a whole one can fully sympathise with Morton's comment, it is overlooked by him that in the index of the *Synopsis* it is clearly stated: 'accepted species in italics; synonyms and varieties in Roman text'. As *P. angolense* is given in Roman text, there can be no doubt that (Hooker &) Baker did not regard it as a distinct species, but as synonymous with *Platycerium aethiopicum* Hook., itself now a synonym of *P. stemaria* (Beauv.) Desv. *Platycerium angolense* must therefore be rejected in accordance with the rulings of the Code and the subsequent earliest name *Platycerium elephantotis* Schweinf. (1871) becomes the legitimate name for this taxon.

REFERENCES

- CHRISTENSEN, C. 1910. Ueber einige Farne in O. Swartz' Herbarium. *Ark. f. Bot.* 9, 11: 1—46, pl. 1—5.
 DESVAUX, A.N. 1827. *Prodr. Fam. Fougères. Mém. Soc. Linn. Paris* 6: 213.
 HOOKER, W. J., & J. G. BAKER. 1868. *Syn. Fil.*: 425.
 JONCHEERE, G. J. DE. 1967. Notes on *Platycerium* Desv. 1. *Blumea* 15: 441—451.
 ———. 1969. The typification of *Oleandra articulata* (Filic.). *Taxon* 18: 538—541.
 MAXON, W. R. 1914. Studies of tropical American Ferns 5. *Contr. U. S. Nat. Herb.* 17: 391—425.
 MORTON, C. V. 1968. The correct name of a common American *Oleandra*. *Am. Fern Journ.* 58: 105—107.
 ———. 1970. A further note on the type of *Platycerium alcorni*. *Am. Fern Journ.* 60: 7—12, pl. 3—4.
 PLUKENET, L. 1705. *Amalth. Bot.*: 151, t. 429.
 POISSON, H. 1910. Le genre *Platycerium*. *Rev. Hort., nouv. sér.* 10: 530.
 SCHWEINFURTH, G. 1871. Bericht über die botanischen Ergebnisse der ersten Niam-Niam Reise. *Bot. Zeit.* 1871: 351—366.
 SWARTZ, O. 1802. *Genera et Species Filicum ordine systematico redactarum. Schrader Journ. Bot.* 1800, 2: 11.
 ———. 1806. *Syn. Fil.*: 196—197.