

NOTES ON PLATYCIERIUM DESV. I.  
NOMENCLATURE AND TYPIFICATION OF THE GENUS AND  
SPECIES IN DESVAUX'S ORIGINAL PUBLICATION OF 1827

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SUMMARY

Because of their size *Platycterium*s are in herbaria represented mostly by fragmentary specimens; often only nest-fronds or foliage fronds are represented in a mostly mutilated form. This, and the difficulty of placing Plukenet's pre-Linnean protologue and plate, the independent description of *Platycterium alaicorne* by both Willemet and Swartz, and the various interpretations of three of Desvaux's four species, have led to great confusion on identity and typification.

*P. alaicorne* Desv. (new name, 1827) is accepted as the correct name for the Madagascar and East African species. It is lectotypified by Plukenet's phrase-name *Neuroplatyceros*, etc. of which the type specimen after which the plate was drawn is in the Sloane Herbarium, London.

*P. stemaria* (Beauv.) Desv. is a species from West Africa; type material is in the De Jussieu Herbarium at Paris.

*P. angustatum* Desv. is an Australian species of which the type is in the Paris Herbarium; its correct name is *P. bifurcatum* (Cav.) C. Chr.

INTRODUCTION

Several efforts have been made in recent years to clear up the confusion on the typification, and its effect on nomenclature of the genus and species of *Platycterium*, and the identity of the latter, notably by Pichi-Sermolli (35), Tardieu-Blot (36), Morton (37), and Joe (38).

An examination of certain type specimens have brought to light new points of view which have induced me to contribute an assumedly better understanding of the situation.

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THE VALIDITY OF THE GENERIC NAME PLATYCIERIUM

When Desvaux (1) defined the genus *Platycterium* in 1827 he included 4 species in it, 3 of which were originally described in *Acrostichum*; the fourth was originally assigned to *Osmunda*, as *O. coronaria* O. F. Müll. (2), in 1785, but 15 years later transferred to *Acrostichum*, as *A. bifforme* by Swartz (3), who disregarded Müller's epithet.

Though the generic status of this first segregate from *Acrostichum* was never challenged,

according to Bower (4) due to the 'very distinctive vegetative characters which it presents', its name has been subject to two dissensions, both futile. In 1845 Fée (5) accepted the name *Neuroplatyceros*, taken from a phrase-name used by Plukenet (6) in a pre-Linnean work.

In 1899, and 1905, Underwood (7, 8) advocated the use of the name *Alcicornium* which Gaudichaud (9) had used in passing in his report on the Voyage of the 'Uranie', published 1826, p. 48 as follows: "... une fougère très-remarquable qui abonde sur les rameaux de tous les tamariniers: c'est l'*acrostichum alcicorne*, ou du moins une espèce ou variété du genre (*alcicornium*) qu'on ne manquera pas de faire de ces plantes dès qu'elles seront mieux examinées". The name *Alcicornium*, being used in a provisional sense, without description, and not definitely accepted by Gaudichaud, is clearly invalidly published. Moreover, Gaudichaud, in the same work withdrew the name *Alcicornium* in favour of *Platycerium* (9, p. 307) in 1828, one year after Desvaux's work was published.

Christensen (10), and of course Copeland (11) correctly adopted *Platycerium*; Ching (12) left it undecided pending decision by the Committee. In 1954 the Subcommittee for Generic Names of Pteridophyta unanimously voted against its conservation, as being unnecessary (13).

It was then not considered that there exists a literatim, post-Linnean reprint of Plukenet's 'Amaltheum botanicum', edited by Davies, Payne & Reimers, issued at London, 1769, antedating Desvaux. This makes, however, little difference as Plukenet's phrase-name cannot be considered to establish a genus in the sense of the Code.

In 1809 Schkuhr (14) published a replica of Plukenet's plate which he referred, with Plukenet's phrase-name, to the synonymy of *Acrostichum alcicorne* Sw.

#### THE TYPIFICATION OF PLATYCERIUM

As said above Desvaux referred four species to his new genus, literatim as follows:

PLATYCERIUM N. *Neuroplatyceros* Pluk., Schk. Frondes biformis; fertilibus apici partim dense sporangiferis, partim nudis.

1. *P. alcicorne* N. *Acrostichum alcicorne* (SW., *Fil.*, WILLD., *Excl. syn.*, SCHK., *Fil.*, t. 2 (PLUK., *Am.*, t. 429, f. 2).
2. *P. stemmaria* N. *Acrostichum stemmaria* P. BEAUV., *Flor. Ow. et Ben.*, t. 2. *Acrost. bifurcatum*? CAV., *Prael.*, 1801, no. 587.
3. *P. angustatum* N. *Acrostichum alcicorne* R. BROW., *Prod. Fl. Nov. Hol.*, p. 145, *Excl. syn.*
4. *P. coronarium* N. *Osmunda coronaria* MULL., in *Nat. st.* 21, p. 107, t. 3. *Biforme* SW. *Syn. Fil.*, p. 12.

J. Smith (17) was the first to typify the genus in 1875 and he indicated *Acrostichum alcicorne* Sw. as the type species. His choice must be followed although this name is nomenclaturally illegitimate.

Christensen in 1906 (10, p. liii), followed by Copeland (11, p. 179) and some later authors, however, accepted *Acrostichum alcicorne* Willemet as the name of the type species. This name is an earlier homonym of *A. alcicorne* Sw. and based on a different type. As the type species must be selected from the original material, and Desvaux did not refer to Willemet's name, Christensen's typification is adverse to the Code and is to be rejected.

Pichi-Sermolli (35, p. 435) assumed that both *A. alcicorne* Sw. and *A. alcicorne* Willemet could not be properly identified and were for that reason, in his opinion, not eligible to be accepted as the type species. He thought it advisable to select Desvaux's second species, *A. stemmaria* Beauv. for the purpose. As this is adverse to J. Smith's much earlier typification, and moreover, as will be shown later, *A. alcicorne* Sw. is well identifiable, Pichi-Sermolli's choice must also be rejected.

THE TYPIIFICATION, IDENTITY, AND CORRECT NAME OF  
*PLATYCERIUM ALCICORNE* (SW.) DESV.

Desvaux, whose four species are all good species, based *P. alcicorne* Desv. on *Acrostichum alcicorne* Sw. Fil. [= Syn. Fil. (15)], Willd. [= Sp. Pl. (16)], *Excl. syn.*, adding Schk. Fil. t. 2, the latter being Plukenet's plate.

Swartz's excluded synonyms were *Acrostichum stemaria* Beauv., *A. bifurcatum* Cav., leaving *Neuroplatyceros aethiopicus* Pluk. as the only reference attached to the name *A. alcicorne* Sw. As Desvaux based his second species, *P. stemaria*, on the first excluded synonym, adding to it, with a question mark *A. bifurcatum* Cav., it cannot be questioned that Desvaux very intentionally based *P. alcicorne* on Plukenet's description and plate; this is also shown by his adding the reference to Schkuhr's reproduction of it. As to the exclusion of the synonyms mentioned by Willdenow: the latter gave an almost literatim version of Swartz's treatment, and is thus irrelevant.

It follows indubitably that whereas Desvaux took the epithet '*alcicorne*' from Swartz, that the type of *P. alcicorne* (Sw.) Desv. is bound up with the type of *A. alcicorne* Sw.; it will appear significant that Desvaux emphatically excluded all synonyms, except the reference to Plukenet's description and plate.

Though Desvaux referred to *Acrostichum alcicorne* Sw. "Fil." [= Synopsis Filicum, 1806] Swartz's first description appeared five years earlier, namely in Schrader's Journal of 1801 (3) which reads as follows (literatim):

\**A. alcicorne*, frondibus palmatis erectis, laciniis dichotomis lanceolatis obtusis versus apices fructiferis: primordialis lobis reniformibus lobatis venosis. \*

*Neuroplatyceron*. Pluk. am. phyt. t. 429. f. 2.

This fully confirms the typification given above. In his later Synopsis Filicum Swartz widened the circumscription, but Desvaux restricted it to Swartz's initial concept.

Now the question arises whether Swartz based his description only on Plukenet's plate, or whether he had also characters of herbarium material incorporated. In comparing his description with Plukenet's plate, which depicts a poor, sterile *Platycerium*-like foliage frond, it appears that Swartz must have had also other material, as he refers in his description also to fertile apices and to nest-fronds. It may be added here that Plukenet's phrase contains no additional information and no reference to the country of origin of his material.

Fortunately, it was already pointed out by Carruthers (18) in 1900 that the actual specimen after which Plukenet's plate was drawn, is preserved in the Sloane Herbarium in the Botany Department of the British Museum, in volume 102, fol. 194. It bears a label of Plukenet reading "*Hemionitis platyceros ex Insula Johanna*"; the latter island is one of the Comores, formerly frequented by sailing ships going east for victualing. The sheet bears also an annotation "Tab. 429. f. 2. RHS 54" which is the reference to Plukenet's *Amaltheum*. The late Dr. Alston studied the specimen and indicated it as the type specimen of "*Acrostichum alcicorne* Sw. in Schrad. Journ. Bot. 1800, pt 2, p. 11 (1801) non Willem. 1796"; furthermore there is a label of his identification '*Platycerium alcicorne* (Sw.) Desv.', and in pencil a reference to Carruthers' observation.

The specimen is without the slightest doubt a slightly deformed sterile foliage frond of the Madagascanian—E. African species.

In the Sloane Herbarium there is another (beautiful, but also sterile) sheet of the same species in volume 92, fol. 70, which Plukenet described in his *Mantissa* (1700) 82 as "*Filix sive Hemionitis multifida platyceros, etc.*"; also this originated from Johanna I.

Swartz's description of 1801 leaves also no doubt about the identity of *A. alcicorne*,

in mentioning characteristic characters of the Madagascarian species, viz: *erect*, apically fertile fronds with *obtusely* ultimate lobes and *reniform* nest-fronds.

From his mention of the nest-fronds, which are, as said above, neither depicted by Plukenet nor present in the British Museum specimen, it must be deduced that Swartz must have had also for his 1801 description access to other material. It was of interest to find this out.

In Swartz's own herbarium at Uppsala there are apparently no specimens of *Platyserium*. Dr. Schelpe after a visit to Uppsala confirmed this.

Another Uppsala herbarium from which Swartz might have obtained his additional information is that of Thunberg. At my request Dr. Schelpe kindly also investigated whether this contains *Platyserium* material. Thanks to his kind collaboration it appeared that in the Thunberg Herbarium three numbers are preserved, viz:

- No. 24391 — A small plant with oblong nest-fronds and a small fertile frond. Sierra Leone; 'Afzelius' written on the reverse.  
 No. 24392 — Plant with no data on collector or locality. According to Schelpe certainly the West African species.  
 No. 24393 — A mature fertile frond; e Madagascar; 'Oldenburg' written on the reverse.

Thunberg's material belongs to two species, numbers 24391 and 24392 to *P. stemaria* (Beauv.) Desv., the last numbered 24393 to *P. alcornae* (Sw.) Desv.

However, as nest-fronds are lacking in this specimen 24393 Swartz cannot have used this exclusively for his description in 1801.

Summarizing the above given facts and their discussion, it is clear, as Alston found out long ago, that the specimen in the Sloane herbarium, derived from Johanna I. in the Comores and depicted in Plukenet's *Amaltheum* must be designated as the lectotype specimen of *Acrostichum alcornae* Sw.

After having thus straightened out the typification and identity of the species, we must decide on its correct name and its synonymy.

On this there has been a much varied discussion by Underwood (8), Copeland (11), Pichi-Sermolli (35), Tardieu-Blot (36), and Morton (37). The lack of unanimity of opinion is partly due to the fact that these authors were not aware of many of the above given facts. Mostly, however, conflicting opinions were due to the uncertainty of the identity of the type and the fact that the name *Acrostichum alcornae* Sw. 1801 is nomenclaturally illegitimate, being a later homonym of *Acrostichum alcornae* Willemet (19), published in 1796, (*literatim*) as follows:

*Acrostichum (alcornae)* frondibus cuneiformibus lobatis: lobis dichotomis. N.  
 Habitat in Madagascar.  
 Stadtmannus plantam siccam dabat.  
 Fructificatio non adest in meo specimine. In altero loborum aversam partem occupabat.

The type specimen is not traced and the identity cannot be established beyond doubt. This is regrettable but otherwise irrelevant for our reasoning. The only thing which counts is that it is anyway an earlier homonym, preventing the legitimate use of Swartz's epithet *alcornae* in *Acrostichum*.

Copeland (11) obviously assumed that Desvaux must have known of Willemet's publication, though Desvaux omitted any reference to Willemet's paper. Copeland proposed as authority for *Platyserium alcornae*: '(Will.) Desv.', but this solution, though very practical, cannot be accepted, being at variance with Desvaux typification.

Mme Tardieu-Blot (36, p. 417) advocated to name the species in question *P. alcornae*

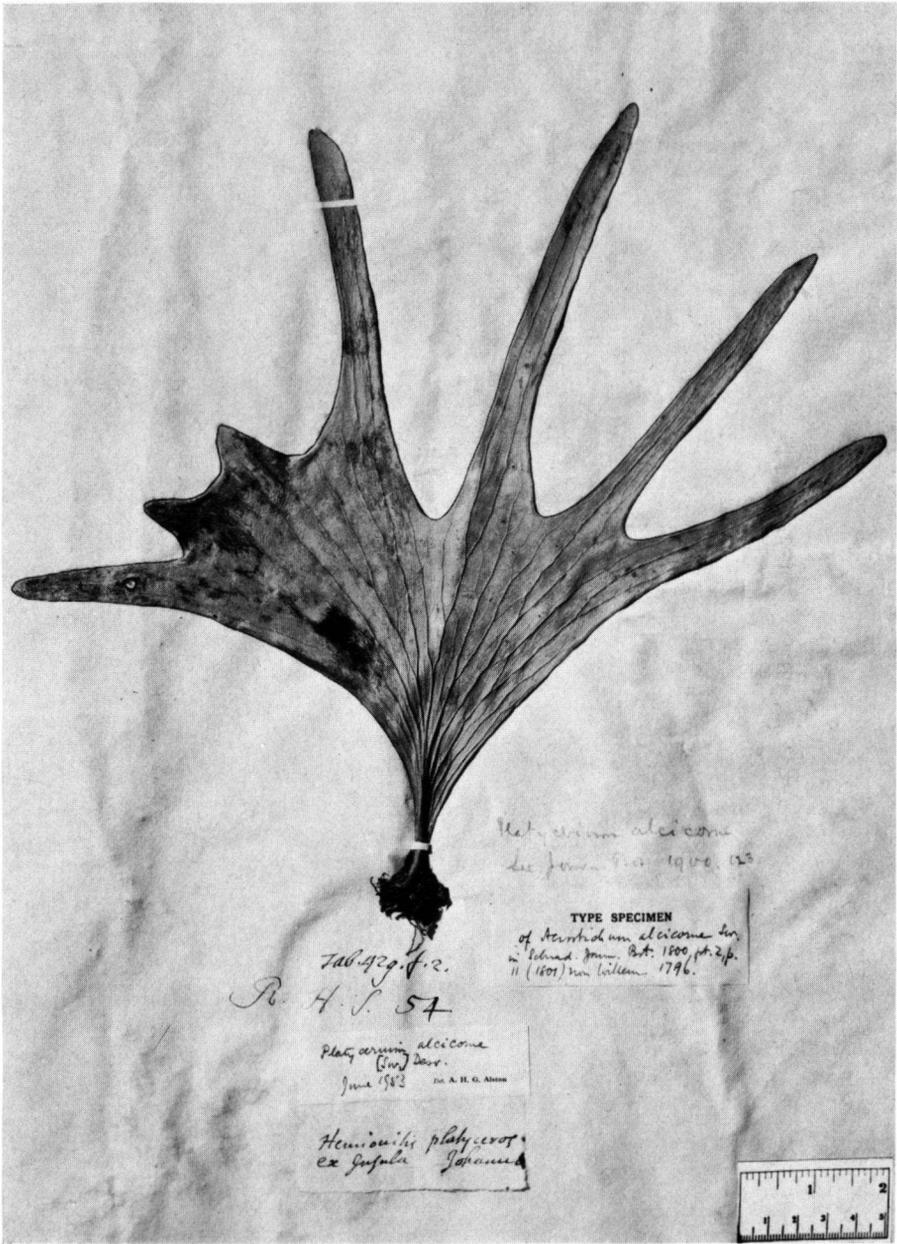


Plate 1. *Acrostichum alicorne* Desv. Type specimen in BM.

'(Will.) Tardieu', but this again must be discarded as this is a later homonym of *P. alcornice* (Sw.) Desv.

The Note to Art. 72 of the 1966 Code provides the escape possibility for maintaining the illegitimate epithet *alcornice* of Desvaux in the genus *Platyserium* as follows: *Platyserium alcornice* Desv. must be considered a new name, dating from 1827.

There is one later heterotypic name for *P. alcornice* Desv., viz *P. vassei* Poisson, 1910 (23). Poisson was curator of the Jardin des Plantes at Paris; his description is rather meagre but the details of the nest-fronds: "Frondes stériles lisses, étroitement appliqué sur le support et qui les rend convexes en avant, à nervures peu saillant, pas laciniées, mais ovulaires . . ." leave no doubt about the identity. He described the species from living material, "recu par Vassé a Moçambique", which he distributed to various botanical gardens; it could still be followed up at that at Hamburg where I could verify the identity of the specimens named so. There seems to be no dried type material.

#### THE TYPIFICATION, IDENTITY, AND CORRECT NAME OF *PLATYSERIUM STEMARIA* (BEAUV.) DESV.

The basionym of this is *Acrostichum stemaria* Beauv. 1804, based on a West African plant. In accommodating it in *Platyserium*, Desvaux included in it with a question mark *Acrostichum bifurcatum* Cav. 1799; this reference is here irrelevant and Cavanilles' name will be treated in the next chapter.

It is fortunate, that Beauvois (20) provided a good illustration and ample comments so that the identity leaves no alternative. He compared it with Plukenet's description and plate of *Neuroplatyceros* which he assumed to be a different species. On the other hand he assumed that a drawing of Commerson, in the possession of De Jussieu, of a plant from Madagascar provided with the MS name 'Stemaria' by Commerson represented his West African plant. Beauvois then had the courtesy to use Commerson's name for his new species: ". . . la plante n'ayant pas été publiée, j'ai pensé qu'on me saurait gré de la donner aujourd'hui, en lui conservant le nom que lui avait assigné Commerson."

This courtesy necessarily started confusion. It prompted Underwood (8) to typify *Acrostichum stemaria* Beauv., and thereby *Alcornium stemaria* (Beauv.) Underw. by the plate of the Madagascar plant: 'Madagascar, Commerson'.

This is of course unwarranted. *Acrostichum stemaria* Beauv. is based on the West African plant and the two sheets he used for his illustration are preserved in the De Jussieu Herbarium at Paris.

As could be expected the Commerson plate, and the pertaining Commerson material, both also preserved in De Jussieu Herbarium, belong to *P. alcornice* Desv.

A homotypic synonym of *P. stemaria* was created by Fée (5) who, in 'reviving' *Neuroplatyceros* as a generic name to replace *Platyserium*, took *Neuroplatyceros aethiopicus*, of which the epithet is derived from Plukenet's publication, as conspecific with *P. stemaria*. His description, references, his beautiful plate, and his material which derived from West Africa, refer all to *P. stemaria*. As he cited: "*V.S. in herb. Juss. et Bory, ex Palis.-Beauv.*" his type material is based on Beauvois' collection.

Fée misconstrued Plukenet's plate, and although in elaborate notes he seems to have had some doubt about the conspecificity of Plukenet's plate and his own material, the mistaken idea that Plukenet's plant came from Guinea induced him to decide the wrong way.

Hooker (24) did not accept Fée's *Neuroplatyceros* but transferred the epithet 'aethiopicum' to *Platyserium*; a decade later Hooker & Baker had this still in their Synopsis (25) but added a note: "*A. stemmaria*, Beauv. oldest name".

Morton (37) correctly explained the typification of *A. stemaria* Beauv., but regarded the earlier *A. alcicorne* Sw. as an 'unequivocal' synonym of Beauvois' name! I have therefore repeated the situation in full, also because all pteridologists of the last century and early part of this century have confused the names and identity of these two different species.

THE TYPIIFICATION, IDENTITY, AND CORRECT NAME OF  
*PLATYCIERIUM ANGUSTATUM* DESV.

This third species of Desvaux was a new one, for a species from Australia which R. Brown (21) had identified with '*Acrostichum alcicorne* Sw. Fil. p. 12 cum syn.'. Desvaux who had himself an Australian specimen — preserved in the Paris Herbarium (marked 'Desvaux N. Hollandii'), his holotype specimen of *P. angustatum* Desv. — was clearly of opinion that R. Brown had erred in his identification and consequently described it as a new species, adding a reference to Brown's description expressing that he had the same species, but found it different from *P. alcicorne*.

From which provenance Desvaux got his specimen is not stated; he could have received a duplicate from Brown.

Brown's material in the British Museum, which he collected at Port Jackson, is typical for the Australian species.

Regardless of the clearness of the case, the Australian species has, obviously for reason of Brown's great authority, for nearly a century figured under the name *P. alcicorne* (Sw.) Desv., until almost simultaneously Underwood (8) (under *Alicornium*) and Christensen (10) (under *Platynerium*) pointed out that the oldest name for the Australian plant was a species described by Cavanilles (22) in 1799 as *Acrostichum bifurcatum* Cav., antedating both names mentioned above.

I have seen photographs of the type specimen which is preserved in the Madrid Herbarium and is mentioned in Cavanilles' text ('Puerto Jackson Née). Since Christensen's Index of 1906 the name *Platynerium bifurcatum* (Cav.) C. Chr. has universally been accepted.

Another heterotypic synonym is already mentioned before under the genus, viz. *Acrostichum alcicorne* Gaud., nomen nudum, invalid. 1826, l.c. p. 48. In the same work, one year after Desvaux's book had appeared, Gaudichaud correctly adopted (l.c. p. 307) *P. angustatum* Desv. for his Australian and — when taken in a broad sense — Timor material, but also added references to practically all other earlier references to *Platynerium*, Swartz, Willdenow, R. Brown, Beauvois, Plukenet, Schkuhr, and Cavanilles, concluding with '*Alicornium vulgare* Gaudichaud MSS' (sic), lumping all into one species.

THE TYPIIFICATION, IDENTITY, AND CORRECT NAME OF  
*PLATYCIERIUM CORONARIUM* (MÜLL.) DESV.

This fourth name of Desvaux would seem to require no discussion. Müller (2) described and figured it as *Osmunda coronaria*, based on a letter and material sent to him by Dr. König from Tranquebar (S. of Pondichery). It has not given rise to serious confusion in the past. König's descriptive notes and the drawing are sufficiently clear, though it must be admitted that the picture of the nest-frond is far from the actual shape and margin, and also the insertion of the fertile foliage fronds is certainly reconstructed from the herbarium in a way not found on a living specimen.

CONCLUSION

In Table 1 I have enumerated the various names applied by various authors in the past, and my own, of the three *Platynerium* species described by Desvaux which have

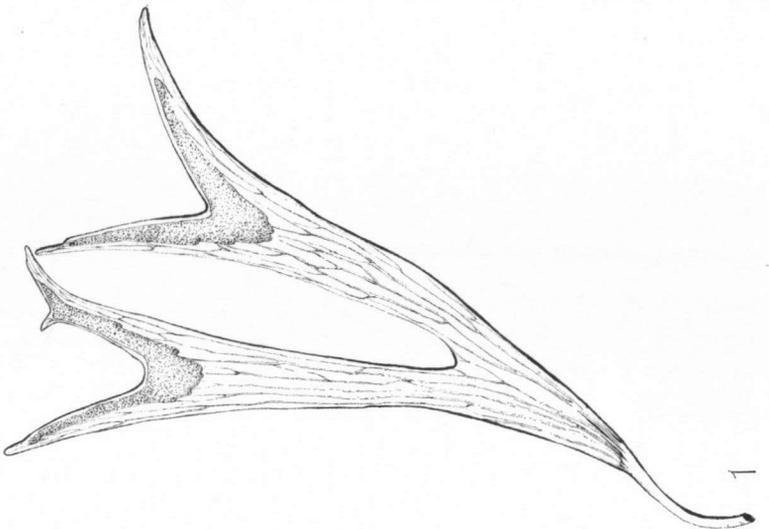
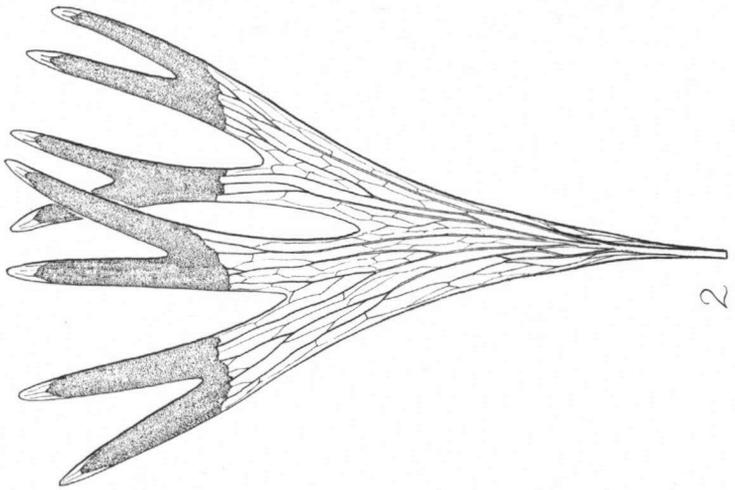
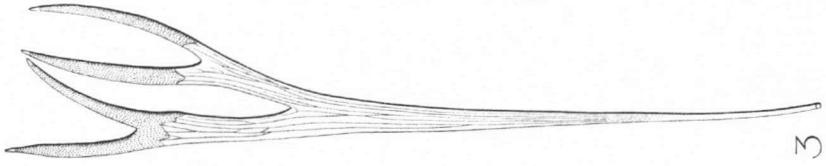
TABLE I.	Madagascar & East African species	West and Central African species	Australian species	Conception of Plukenet's plate
A C R O S T I C H U M				
Willemet (1796) 19)	alc. W.	-	-	-
Cavanilles (1799) 22)	-	-	bif.	-
O. Swartz (1801) 3)	alc. S.	-	-	alc. S.
Beauvois (1804) 20)	stem.	stem.	-	?
O. Swartz (1806) 15)	alc. S.	alc. S.	alc. S.	alc. S.
Willdenow (1810) 16)	alc. S.	alc. S.	alc. S.	alc. S.
B. Brown (1810) 21)	alc. S.	alc. S.	alc. S.	alc. S.
P L A T Y C E R I U M				
Desvaux (1827) 1)	alc. S.	stem.	ang.	alc. S.
Gaudichaud (1828) 9)	ang.	ang.	ang.	-
Fée (1845) 5)	alc. W. (B)	aeth.(B)	alc. W. (B)	aeth. (= stem.)
Fresl (1849) 26)	alc. W.	stem.	alc. W.	stem.
W.J. Hooker (1864) 27)	alc. S.	aeth.	alc. S.	aeth. (= stem.)
Hooker & Baker (1874) 25)	alc. S.	aeth.	alc. S.	-
J. Smith (1875) 17)	alc. S.	stem.	alc. S.	-
Bentham (1878) 28)	alc. S.	-	alc. S.	-
Christ (1897) 30)	-	stem.	alc. S.	-
Diels (1899) 31)	-	stem.	alc. S.	-
Carruthers (1900) 18)	alc. W.	stem.	alc. W.	alc. W.
Bailey (1902) 29)	alc. S.	-	alc. S.	-
Underwood (1905) 8)	stem. (A)	stem.(A)	bif.(A)	stem.
Christensen (1906) 10)	stem.	stem.	bif.	-
Exell (1944) 33)	stem.	stem.	-	-
Copeland (1947) 11)	alc. W. ?	stem.	bif.	-
P. Sermolli (1953) 35)	stem.	stem.	-	stem.
Tardieu-Blot (1953) 32)	stem.	stem.	-	-
Tardieu-Blot (1959) 36)	alc. W.	stem.	-	stem.
Tindale (1961) 34)	alc. W.	stem.	bif.	-
Morton (1964) 37)	vass.	stem.	-	stem.
Joe (1964) 38)	vass.	stem.	bif.	-
Present paper	alc. D.	stem.	bif.	alc. S.

Generic names:

(A) = *Alcicornium* Underwood  
 (B) = *Neuroplatyceros* Fée

Epithets:

alc. W. = *alcicorne* Willemet  
 alc. S. = *alcicorne* Swartz  
 alc. D. = *alcicorne* Desvaux.  
 stem. = *stemaria* Beauvois  
 ang. = *angustatum* Desvaux  
 bif. = *bifurcatum* Cavanilles  
 aeth. = *aethiopicum* Fée  
 vass. = *vassei* Poisson



given rise to confusion in the past. To cite this all in a formal way as references, indicating all misapplications (with including or excluding material, citations, or synonyms), seems to be too lengthy and elaborate and adding little value. The data in the table show more clearly the confusion of the past and must suffice for the purpose.

The essential results may then briefly be summarized as follows:

#### PLATYCERIUM

Desvaux, in Mém. Soc. Linn. Paris 6 (1827) 213; Gaudichaud, in Freyc. Voy. Uranie, Bot. (1828) 307. — Type species: *Acrostichum alaicorne* Swartz, 1801, non Willemet 1796, nom. illeg. = *P. alaicorne* Desv. 1827, new name.

*Neuroplatyceros* Fée, 2me Mém. Hist. Acr. (1845) 25, nom. illeg. — Type: *Neuroplatyceros aethiopicus*, *nervosus folius*, *cornu cervinum referentibus*, Plukenet, Amalth. Bot. (1705) 151, t. 429; repr. by Davies, Payne, & Reymers, London 1769 (Pritzel 8086).

*Alicornium* Gaudichaud, in Freyc. Voy. Uranie, Bot. (1826) 48, nomen prov., nudum et inval.; Underwood, Bull. Torr. Bot. Club 6 (1899) 275, sine descr.; ibid. 32 (1905) 587, sine descr.

***Platycerium alaicorne*** Desv., Mém. Soc. Linn. Paris 6 (1827) 213, new name. — *Acrostichum alaicorne* Sw., in Schrader's Journ. 1800/2 (1801) 11; Syn. Fil. (1806) 12 & 196, pro part. min., excl. syn. Cav. et Beauv.; non Willemet 1796. — Type: Plukenet vide supra, 151, t. 429 = Herb. Sloane vol. 102, fol. 194, in BM, from Johanna I., Comores.

**Plate I. — Fig. 1.**

*Acrostichum alaicorne* Willemet, in Usteri, Ann. 18 (1796) 61. — *Neuroplatyceros alaicornis* Fée, 2me Mém. Hist. Acr. (1845) 102, excl. syn. *P. angustatum*. — Type: Willemet, descr. l.c., ex Madagascar, Stadtman specimen, if any exists, unlocalized.

*P. vassei* Poisson, Rev. Hort. (1910) 530. — Type specimen: not extant, descr. after living material, latter seen in Hamburg under that name. Coll. Vasse, in Mozambique.

*Nest-fronds* round to reniform, *never forming a bracket*; in fully grown plants forming semi-globose mass applied to substratum. *Foliage fronds stiffly erect*, longer than nest-fronds, 2–3 (–4) times dichotomously divided; broad-cuneate base *not more than half* the length of total frond; very regular and  $\pm$  equal loriform segments; ultimate lobes with bluntish tips, *forming flabellate pattern*. *Sporangial areas* several; initially median on the ultimate lobes; areas in mature leaves reach down to the ultimate sinus and can join opposite fertile patch round sinus, *reaching from margin to margin however never covering apex*.

*Distribution*: Madagascar, Comores and tropical East Africa (Mozambique, Tanzania).

***Platycerium stemaria*** (Beauv.) Desv., Mém. Soc. Linn. Paris 6 (1827) 213. — *Acrostichum stemaria* Beauv., Fl. Oware & Benin (1804) 2, t. 2. — *Neuroplatyceros aethiopicus* Fée, 2me Mém. Hist. Acr. (1845) 103, t. 64. — *P. aethiopicum* Hook., Garden Ferns (1862) t. 9. — *Alicornium stemmaria* Underwood, Bull. Torr. Bot. Club 32 (1905) 595, pro parte. — Type specimen: coll. Beauvois, Oware, in herb. De Jussieu, in P. — **Fig. 2.**

*P. stemaria* var. *laurentii* De Wildeman, Miss. E. Laurent 1 (1905) 12, 2 (1905) t. 3. — Type specimen: Laurent, Eala, 25-1-04, in BR.

Fig. 1. *Platycerium stemaria* (Beauv.) Desv. — Fig. 2. *P. alaicorne* Desv. — Fig. 3. *P. bifurcatum* (Cav.) C. Chr. — All  $\times \frac{1}{4}$  (1. after Herb. De Joncheere B. C. 067, Oubangi, Belg. Congo; 2. after W. Hutton s.n. Johanna I. (Comores), L. 908.316–380; KD 1188; 3. after Hines & Walford s.n., Paluma Ra., Townsville, Queensland, herb. Townsville University College).

*Nest-fronds* clearly elongated, forming *bracket*, distally rounded to truncate, repand or sinuate, never deeply lobed. *Foliage fronds pendent*,  $\pm$  as long as nest-fronds, (1—)2—3 times dichotomously divided; cuneate base broad  $\pm$  half total length of frond; ultimate lobes, especially the outer ones clearly *divaricating* and  $\pm$  triangular with subacute apex; division sometimes becoming irregular by random lacinations. *Sporangial areas* several; round the ultimate sinuses and extending up the inner edge of ultimate lobes, *never reaching apex or outer margin*.

*Distribution*: Tropical West and Central Africa.

**Platyserium bifurcatum** (Cav.) C. Chr., Ind. Fil. (1906) 496. — *Acrostichum bifurcatum* Cav., Ann. Hist. Nat. Madrid (1799) 105. — *Alcicornium bifurcatum* Underwood, Bull. Torr. Bot. Club 32 (1905) 587. — Type specimen: Puerto Jackson, coll. Née, in M. — **Fig. 3.**

*P. angustatum* Desv., Mém. Soc. Linn. Paris 6 (1827) 213. — Type specimen: Nov. Hollandii, in Desvaux herb., in P.

*Nest-fronds* slightly elongated, forming *small bracket* when fully grown, distally distinctly lobed. *Foliage fronds nutant to pendent*, much longer than nest-fronds, once or twice dichotomously divided; cuneate base long and narrow,  $\pm$  three quarters of total length of leaf; ultimate lobes loriform, to long rhomboid with subacute apex, *not divaricating or forming flabellate pattern*. *Sporangial areas* several; median on ultimate lobes, from outer to inner margin, reaching downwards and upwards when fully mature and then covering  $\pm$  entire ultimate lobe including apex.

*Distribution*: Eastern Australia and New Caledonia; if taken in a broad sense extending to Java and New Guinea.

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