

## ADDENDA, CORRIGENDA ET EMENDANDA

As has been done in Series I, Flowering Plants, it seems useful to complete the volume with worthwhile additions and corrections.

Page numbers are provided with either *a* or *b* denoting the left and right columns respectively.

### Gleicheniaceae

- 13b *Gleichenia volubilis* var. *peninsularis*.  
Replace by the following:  
7a. *Gleichenia gigantea* WALL. ex HOOK.  
Spec. Fil. 2 (1844) 5, t. 3A; BEDD. Ferns  
Brit. India (1865) t. 30. — *Diplopterygium*  
*giganteum* (HOOK.) NAKAI, Bull. Nat. Sci.  
Mus. Tokyo n. 29 (1950) 50. — Type:  
WALLICH 157, Nepal (K).  
*G. glauca* auct. non (THUNB.) HOOK.;  
BEDD. Handb. (1883) 2, *quoad pl. Ind.*  
Differs from *G. volubilis* JUNGH. of Java  
and Sumatra as follows: lower surface of  
lamina distinctly glaucous; stipular leaflets  
branched and more deeply lobed; scales on  
lower surface of rachis and costae rusty  
brown like the felt of stellate hairs.  
Distr. N.E. India at c. 1500 m; Vietnam;  
N. Thailand; in *Malesia* still only known  
from the collection cited from the Malay  
Peninsula.  
Note. Apart from the copious scales  
and hairs on rachis and costae this differs  
little from *G. longissima* BL. Further field  
study on the higher mountains of Malaya is  
desirable.
- 14a *Gleichenia clemensiae* (COPEL.) HOLT-  
TUM.  
Add the following: Stipular leaflets lacking  
(thus resembling *G. bullata*, p. 13).
- 20a *Gleichenia reflexipinnula* C. CHR.  
Add the following: BRASS 30382 from Mt  
Wilhelm, 2900 m, has ultimate branches to  
42 by 4.5 cm with costules 5 mm apart and  
veins distinctly prominent.
- 20b *Gleichenia truncata* (WILLD.) SPR. var.  
*truncata*.  
Add the following synonym: *G. bifurcata*  
BL. En. Pl. Jav. (1828) 250.
- 22a *Gleichenia milnei* BAKER.  
Add the following synonym: *Sticherus*  
*kajewskii* ST JOHN, Occ. Pap. Bishop Mus.  
17 (1942) 81.  
Add to Distr.: Mindanao (OLSEN 986).
- 22b Insert the following after *Gleichenia*  
*erecta*:  
25a. *Gleichenia hooglandii* HOLTUM,  
*Blumea* 14 (1967) 327. — Type:  
HOGLAND & SCHODDE 7692, W. High-  
lands of Papua New Guinea (CANB).  
Intermediate between *G. erecta* and *G.*  
*bolanica* (p. 24). Differs from *G. erecta* as  
follows: largest lamina-segments on the  
ultimate branches 8–15 mm long, costules  
3–4 mm apart.
- 34a *Dicranopteris linearis* (BURM. f.) UNDERW.

var. *ferruginea* (BL.) HOLTUM.

Correction for synonymy: The com-  
bination *D. ferruginea* was first published  
by HOSOKAWA, Trans. Nat. Hist. Soc.  
Formosa 25 (1935) 435. Additional  
synonym: *D. tomentosa* COPEL. Univ.  
Cal. Publ. Bot. 18 (1942) 217. — Type:  
CLEMENS 41228, N.E. New Guinea (UC).

34a *Dicranopteris linearis* var. *subferruginea*  
(HIERON.) NAKAI.

Add the following synonym: *Gleichenia*  
*caudata* COPEL. Bishop Mus. Bull. 59  
(1929) 9. — Type: GILLESPIE 4389, Fiji  
(UC).

35a *Dicranopteris linearis* var. *subpectinata*  
(CHRIST) HOLTUM.

Add to Distr.: Palawan.

36 Additional varieties of *Dicranopteris*  
*linearis* which need study:

var. *bidentata* v.A.v.R. Bull. Jard. Bot.  
Btzg III, 5 (1922) 204, Karimon I.

var. *crassifrons* v.A.v.R. *Ibid.*, Ternate.

var. *stipulosa* CHRIST, Bull. Herb. Boiss.  
II, 6 (1906) 1010, Luzon.

### Schizaeaceae

- 37 *Schizaeaceae*: Fossils.  
Add the following: JENNINGS & EGGERT,  
*Amer. J. Bot.* 59 (1972) 66 state that the  
anatomy of *Senftenbergia* is like that of  
*Ankyropteris* and conclude that *Senften-*  
*bergia* is not related to *Schizaeaceae*. But  
the sporangia and spores of *Senftenbergia*  
are very similar to those of some living  
*Schizaeaceae*; the latter are certainly much  
reduced and specialized vegetatively. The  
subject needs a much more comprehensive  
study.
- 39 Cytology of *Lygodium*.  
Add the following: *L. longifolium* from  
Singapore: n = 58, tetraploid; *L. salici-*  
*folium* from Perak: n = 28?, diploid. (In-  
formation from I. MANTON, *in litt.*).
- 40 *Schizaea* SM.  
Add the generic synonym: *Ripidium*  
BERNH. in Schrader, *J. Bot.* 1800, pt 2  
(1801) 127.
- 44b *Schizaea malaccana* BAK. var. *robustior*  
C. CHR.  
Add the synonym: *S. robusta* BAK. Syn.  
Fil. (1868) 429. — Type: HILLEBRAND,  
Hawaii (K).
- 44 *Lygodium* SWARTZ.  
Delete the generic synonym *Ripidium*  
BERNH.

- 53b *Lygodium flexuosum* (L.) SW.  
Add the synonym: *Ugena polymorpha*  
CAV. Icones 6 (1801) 75, t. 595, f. 1.
- 59a *Lygodium longifolium* (WILLD.) SW.  
Add to Distr.: Palawan.
- 61b *Lygodium versteegii* CHRIST.  
Add to Distr.: Philippines: Mindanao,  
Luzon.

## Isoetaceae

- 63 *Isoetes* LINNÉ.  
See revision of the genus in New Guinea  
by J. R. CROFT, Blumea 26 (1980) 177-190,  
with key, description of new species *I.*  
*hopei* and *I. stevensii*, and under *I. neo-*  
*guineensis* BAKER a new variety *rheo-*  
*phila*; also SEM photographs of spores of  
all species and much new information on  
vegetative morphology and distribution.
- 64 *Isoetes* sp. has been found in Central West  
Sumatra, in addition to Mindanao and New  
Guinea the third island where the genus is  
hitherto discovered in Malesia. Cf. Fl.  
Males. Bull. 30 (1977) 2767 and J. R.  
FLENLEY & R. J. MORLEY, J. Biogeogr. 5  
(1978) 57-58. It is assumed to be an un-  
described species, differing from the Philip-  
pine one in the megaspores. The exact local-  
ity is on the westside of Mt Kerintji, midway  
the lakes Sati and Landak Panjang, at c.  
2080 m altitude, in small, shallow, muddy  
depressions in swampy forest, 1°42'S and  
101°11'E.

## Cyatheaceae

- 71 **Conspectus of the family Cyatheaceae: new  
comments:**  
I would now raise the subfamilies to the  
rank of family, but see no reason for other  
changes. PICHl SERMOLLI (Webbia 31,  
1977, 333-334, 423-427) includes all in the  
order *Dicksoniales*, with suborders and  
families thus:  
*Thyrsopteridineae*: *Thyrsopteridaceae*  
(*Thyrsopteris*).  
*Culcitineae*: *Culcitaceae* (*Culcita*).  
*Dicksoniineae*: *Dicksoniaceae* (including  
*Cibotium* and *Cystodium*), *Lophosoriaceae*  
(*Lophosoria*).  
*Cyatheineae*: *Cyatheaceae* (*Sphaeropteris*,  
*Alsophila*, *Nephelea*, *Trichopteris*, *Cyathea*,  
*Cnemidaria*).  
*Metaxyineae*: *Metaxyaceae* (*Metaxya*).
- 76 Subdivision of the genus *Cyathea*: recent  
proposals:  
R. M. TRYON (Contr. Gray Herb. 200, 1970,  
1-53) has recognized *Sphaeropteris*  
BERNH. as a distinct genus, in which he  
includes the tropical American species

mentioned on p. 124 of the present work,  
and also several others which disagree in  
scales and sori from the specification on p.  
65; in my opinion the latter should be  
excluded. TRYON limits the genus *Cyathea*  
to some tropical American species, dis-  
tinguishing them from all Malesian species  
here included in *Cyathea* subg. *Cyathea*  
solely on the lack of a seta at the apex of  
stipe-scales. He has transferred all  
Malesian species of *Cyathea* subg. *Cyathea*  
*sensu* HOLTUM 1963 to the genus *Al-*  
*sophila* (type species *A. australis* R. BR.).

I agree that subg. *Sphaeropteris* as  
defined on p. 76 is clearly distinct from all  
other members of the family, but I cannot  
agree that the remaining species, including  
those of tropical America, are divisible into  
natural groups on such clearly defined  
characters. CONANT has shown that  
hybrids exist between species of different  
genera as recognized by TRYON, and in  
one case such hybrids have good spores  
(*Rhodora* 77, 1975, 441-455).

All species so far examined, of several  
different genera as recognized by TRYON  
(including *Sphaeropteris*) have the  
chromosome number 69. This is a very  
strong indication that *Cyathea* in the broad  
sense adopted in Flora Malesiana is a phy-  
letic unity, and I adhere to my recognition  
of it as a single genus. As *Sphaeropteris* is  
the only sub-group separable on well-  
defined characters, I still place all the rest  
in a subgenus *Cyathea*, the further sub-  
division of which seems to me still un-  
certain. The species *C. australis* (R. BR.)  
DOMIN (type of *Alsophila*) has spores  
which differ considerably from those of the  
majority of Malesian species transferred to  
*Alsophila* by TRYON (see GASTONY,  
*Amer. J. Bot.* 63, 1976, 754, f. 110 and  
compare with figures of Malesian species  
on p. 751).

Taxonomy of Malesian species of *Cyathea*:  
Since 1963 many new collections have been  
made, especially in New Guinea. I have not  
been able to examine all of these. The  
following data are based on specimens  
which have come to my attention; probably  
more new species remain to be recognized,  
and new information about many species  
remains unrecorded.

- 80 In Key to the species, after lead 77, add:  
77a. Pinnules to 22 mm long, bearing free  
tertiary leaflets.
- 69a. *C. nothofagorum*  
77a. Pinnules to at least 50 mm long, lack-  
ing free tertiary leaflets.
- 82b *Cyathea hunsteiniana* BRAUSE.  
Add to description: Scales on pinna-rachis

elongate, thin, dull brown with a few marginal setae (WOMERSLEY & VANDENBERG 37293, Western Highlands, 1500 m).

- 101a *Cyathea oosora* HOLTUM.  
Add to Distr.: Pulau Tioman (KLU 19781). The Celebes specimens here included should probably rank as a distinct species; more material is needed.

- 103b Insert additional species:  
69a. *Cyathea nothofagorum* HOLTUM, Blumea 14 (1966) 327. — Type: PULLEN 5358, N.E. New Guinea, W. Highlands, Kubur Range, in *Nothofagus* forest at 2775 m (K).

Aspect of *C. microphyloides* and *C. perpelvigera* (p. 82), having small fronds and pinnate pinnules, differing in (large) hemitelioid indusia and lack of hairs on lower surface of pinna-rachis and costae, also in scales not bullate.

- 118b *Cyathea biformis* (ROSENST.) COPEL.  
Add the following: PULLEN 7295 from the Upper Fly River at 100 m has 1-2 pairs on small pinnae (the pinnules of which do not have an incised lamina) near the base of stipes, and unusually large pinnules; sterile pinnules to 9 by 2 cm, fertile to 10 by 1.2 cm.

- 121b *Cyathea lurida* (BL.) COPEL.  
Add the following: A sterile specimen from a low altitude on limestone near Kuala Lumpur (J. BOEY 4, KLU) closely resembles this species but differs in pale brown stipe and rachis. Typical *C. lurida* occurs only on high mountain ridges.

- 130b *Cyathea sangirensis* (CHRIST) COPEL.  
Reduce to a synonym of the following:  
*Cyathea felina* (ROXB.) MORTON, Contr. U.S. Nat. Herb. 38 (1974) 344. — *Polypodium felinum* ROXB. Calc. J. Nat. Hist. 4 (1844) 496. — Lectotype: from Amboina (G); others at BR and in Herb. J.E. Smith.

- 135a *Cyathea angiensis* (GEPP) DOMIN.  
Add the following note: Stipes always spiny, length of spines 2-7 mm.

- 138 Key to the species of subsection *Fourniera*: alter as follows:

7. Scales absent from lower surface of veins.

8. Spines on stipe scattered, 1-3 mm long; soral scales many, covering sorus to maturity . . . 150. *C. tripinnata*

8. Spines on stipe copious, to 5 mm long; soral scales not covering sorus at maturity . . . 150a. *C. jacobsii*

- 140b *Cyathea tripinnata* COPEL.  
Delete synonym *C. arachnoidea* (non HOOK.) BACKER & POSTH.

- 140b After *Cyathea tripinnata*, insert the following:

150a. *Cyathea jacobsii* HOLTUM, Reinwardtia 8 (1974) 499. — Type: M. JACOBS

8113, S. Sumatra at 1200-1300 m (L).

This species, occurring in South Sumatra and West Java, differs from *C. tripinnata* in the characters shown in the above modified key; it also has a different distribution. Specimens named *C. arachnoidea* in W. Java by BACKER & POSTHUMUS (see above) belong to *C. jacobsii*. In Key to the species of subsection *Schizocaena*, lead 13: alter the word 'pinnules' at end of line 2 from bottom to 'segments'.

- 141 *Cyathea rosenstockii* BRAUSE.  
Add the following: NAKAIKE 717, Central District, Papua, Wotape, 1500 m, has flat pale scales to 4 mm long and dark glossy thick hairs on lower surface of pinna-rachis; costal scales narrow, pale with dark bullate bases, smaller distally; on costules very few small scales.

- 166a *Cibotium barometz* (L.) J. SM.  
Add to Distr.: N.E. New Guinea (B. S. PARRIS in Fern Gaz. 11, 1979, 428).

- 167 *Culcita* PRESL.  
Correction in Cytol.: *C. macrocarpa* n = 66; *C. villosa* 2n = 232 (tetraploid with base number 58); from unpublished observations by G. VIDA on plants in cultivation at Kew.

#### Lindsaea-group (KRAMER)

- 182a *Sphenomeris biflora* (KAULFUSS) TAGAWA.  
Mapped in Pac. Pl. Areas 3 (1975) 344-345.

- 182b *Sphenomeris chinensis* (L.) MAXON.  
Mapped in Pac. Pl. Areas 3 (1975) 346-347.

- 186a *Tapeinidium denhamii* (HOOKER) C. CHR.  
Mapped in Pac. Pl. Areas 3 (1975) 348-349.

- 204b *Lindsaea bouillodii* CHRIST.

For this species MORTON (Contr. U.S. Nat. Herb. 38, 1974, 385) made the new combination *Lindsaea interrupta* (ROXB.) MORTON, based on *Vittaria interrupta* ROXBURGH, referring *L. cambodgensis* CHRIST to its synonymy (following my earlier misinterpretation of this name: KRAMER, Blumea 15, 1967, 563). In view of the gross incompleteness of ROXBURGH's original description, and of the complete lack of indication of provenance on the label of the specimen regarded as type by MORTON, I think it unwise to adopt ROXBURGH's (and MORTON's) names which I prefer to regard as names of uncertain application. The same holds in my opinion for the interpretation of *Vittaria lunulata* ROXBURGH, despite MORTON's assertions to the contrary (l.c. 386).

- 214a *Lindsaea tetragona* KRAMER.  
This East Malesian-Pacific species, mapped in Pac. Pl. Areas 3 (1975) 340, was

- recently collected as far west as the Nicobar Is. (Great Nicobar), and may thus be expected in western Malesia, too.
- 214b *Lindsaea polyclena* KRAMER.  
Mapped in Pac. Pl. Areas 3 (1975) 340-341.
- 216a *Lindsaea tenuifolia* BLUME.  
Mapped in Pac. Pl. Areas 3 (1975) 340-341.
- 229a *Lindsaea adiantoides* J. SMITH.  
Mapped in Pac. Pl. Areas 3 (1975) 342-343.
- 230a *Lindsaea gueriniana* (GAUD.) DESVAUX.  
Mapped in Pac. Pl. Areas 3 (1975) 332-333.  
For the record from Fiji see BROWNLIE, Pterid. Fl. Fiji (1977) 134.
- 237 *Lindsaea repens* (BORY) THWAITES, with varieties.  
Mapped in Pac. Pl. Areas 3 (1975) 336-337.
- 241b *Lindsaea carvifolia* KRAMER.  
This was placed in *sect. Odontoloma* of subg. *Odontoloma*. Its occurrence in Celebes was reported with a ?. A good series of specimens from that island (HENNIPMAN c.s. 5264, L) confirms its presence; furthermore, it shows that simply pinnate as well as bipinnate leaves occur side by side, and that the species should be transferred to *sect. Lindsaenium*, where it must be placed between *L. rosenstockii* BRAUSE and *L. versteegii* (CHRIST) v.A.v.R. In appearance and width of the pinnule segments it is more like the latter but differs in less divergent and usually spatulately broadened segments. It is undoubtedly distinct from both; the simply pinnate leaves are indistinguishable from specimens previously examined. The distinction between *sect. Odontoloma* and *sect. Lindsaenium* may require reconsideration.
- 245a *Lindsaea rigida* J. SMITH.  
Mapped in Pac. Pl. Areas 3 (1975) 334-335; for the record from Fiji see BROWNLIE, Pterid. Fl. Fiji (1977) 139.
- 245b *Lindsaea sarawakensis* KRAMER.  
This was described from a single, incomplete collection and was only provisionally placed next to *L. rigida*. Two additional collections from Sarawak, NIELSEN 815 (AAU) and JERMY 14334 (BM, Z), both from Mt Mulu, confirm the taxonomic position assigned to it and provide additional data. The rhizome anatomy and morphology agree with that of *Lindsaea* subg. *Odontoloma* *sect. Lindsaenium*, and the difference from *L. rigida*, as given in the key (p. 203), proves to be constant. Further additional data: petiole to c. 35 cm long; rhizome 1-1.5 mm diam., long-creeping, castaneous; scales very much like those of *L. rigida*. Fertile pinnae always with a short apical sorus only.

