New Combinations in the Gleicheniaceae
and in Styphelea (Epacridaceae)
Pacific Plant Studies 1

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Gleicheniaceae

The large genus Gleichenia had been subdivided several times, but this partition had not won general acceptance. After long maintaining Gleichenia in the aggregate sense and after renewed investigations, the two authorities, C. Christensen and E. B. Copeland, accepted several segregate genera from the large genus and gave convincing statements of the generic differences. Christensen (Verdoorn, F., Manual of Pteridology, 530, 1938) gave only a generic synopsis; Copeland (Philip. Jour. Sci. 75: 347-359, 1941) gave a brief key and a revision of the species of New Guinea.

The writer has checked the new classification and found it good. While verifying the Polynesian and other Pacific species available at Bishop Museum, it has appeared to the writer that several new combinations are needed. These, together with a modified key and an enumeration of the species of various Pacific archipelagoes, are here presented. The widespread and weedy species Dicranopteris linearis occurs on nearly every high island in the South Pacific, and no attempt has been made to include the myriad of locality records for islands supporting no other species of the Gleicheniaceae.

1 This is the first in a series of papers designed to present descriptions, revisions, and records of Pacific island plants.
Key to Genera of Gleicheniaceae

Segments minute (1-4 mm. long), round or roundish
Frond simple, pinnate; segments 2-4 mm. long; rhizome scaly or scaly
and hairy
Veinlets undivided .................................................. Platyzoma.
Veinlets forked .......................................................... Stromatopteris.
Frond bipinnate or more compound; segments 1.5 mm. long or less,
conceave; sori terminal, superficial or sunken in cavities; rhizome
and axes scaly or scaly and hispid or glabrescent...............Gleichenia.
Segments much longer (5 mm. long or longer), mostly elongate
Fronds 1-pinnate (pecinate) above the highest fork
Veins or at least the lower ones of the segments more than 2-branched;
rhizome and stipes hairy or naked; sporangia more than 6............
.................................................................................. Dicranopteris.
Veins of segments 2-branched; rhizome and stipes scaly or glab-
rescent; sporangia up to 6 in number.................................. Sticherus.
Fronds bipinnate above the last fork; rhizome and stipes scaly or glab-
rescent; sporangia up to 6; veins of segments 2-branched....Hicriopteris.

NEW COMBINATIONS

Dicranopteris caudata (Copeland), comb. nov.
Gleichenia caudata Copeland, B. P. Bishop Mus., Bull. 59 : 9, 32,
pl. 2, 1929.

Hicriopteris pinnata (G. Kunze), comb. nov.
Mertensia glabra Brackenridge, U. S. Expl. Exped. Bot. 16 : 292-
293, 1854.

Gleichenia glabra (Brackenridge) Mann, Am. Acad. Arts Sci.,
Proc. 7 : 211, 1867.

Gleichenia glauca (Thunberg) Hooker var. glabra (Bracken-
ridge) C. Christensen ex Skottsberg, Hort. Gothò., Acta 2 :
200, 1926.

Gleichenia longissima of Hillebrand, Fl. Haw. Ids., 544, 1888,

Gleichenia glauca of C. Christensen, B. P. Bishop Mus., Bull. 25 :
6, 22, 1925, not of Hooker, Spec. Fil. 1 : 4, t. 3B, 1846.

Christensen and others have accepted Gleichenia glauca as one
species ranging from the type locality (Java) to Japan, southern
tropical Asia, and to Polynesia. It is not possible at present to settle
the status of the plants of all these areas, but it is evident that they
are not one uniform species. The Hawaiian plant seems distinct in
its black, lanceolate, cartilaginous scales of the rhizome, stipe, and
parts of the frond. Brackenridge accepted *Mertensia glauca* as well as his new *M. glabra*, which he separated on the basis of a glabrous stipe. The large collections in Bishop Museum do not show two such species, nor is the isotype of Brackenridge’s *M. glabra* lacking in scales. The earliest available name was given by G. Kunze in 1837, when he described as new a specimen from Byron’s Bay, Owyhee [Hilo, Hawaii], collected by Macrae in 1825.

**Hickeyopteris glauca** (Thunberg) comb. nov.


*Gleichenia glauca* Hooker, Spec. Fil. 1: 4, t. 3B, 1846, not of Swartz, 1806.


**Sticherus Brackenridgei** (Fournier), comb. nov.


**Sticherus Cunninghampi** (Heward ex Hooker), comb. nov.

*Gleichenia Cunninghampi* Heward ex Hooker, Spec. Fil. 1: 6, t. 6B, 1844.

**Sticherus flabellatus** (R. Brown), comb. nov.


**Sticherus Kajewskyi** (Copeland), comb. nov.


**Sticherus oceanicus** (Kuhn), comb. nov.


**Sticherus owyihensis** (Hooker), comb. nov.

*Gleichenia Owyihensis* Hooker, Spec. Fil. 1: 9, (1846) = 1844.


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Sticherus pedalis (Kaulfuss), comb. nov.
Mertensia pedalis Kaulfuss, Enum. Fil., 39, 1824.
Gleichenia pedalis (Kaulfuss) Sprengel, in Linnaeus, Syst. Veg.,
ed. 16, 4(1) : 26, 1827.

Sticherus quadripartitus (Poiret), comb. nov.
Mertensia quadripartita Poiret, in Lamarck, Encyc. Méth. Bot.,
Suppl. 3 : 669, 1813.
Gleichenia quadripartita (Poiret) Moore, Ind. Fil., 382, 1862.

Sticherus tahitensis (Copeland), comb. nov.
Gleichenia tahitensis Copeland, B. P. Bishop Mus., Bull. 93 : 28-29,
pl. 4, 1932.

Enumeration of the Gleicheniaceae of the
Eastern and Southern Pacific Islands

Galapagos Islands
Dicranopteris linearis (Burmann) Underwood
Dicranopteris pectinata (Willdenow) Underwood

Juan Fernandez
Sticherus pedalis (Kaulfuss) St. John
Sticherus quadripartitus (Poiret) St. John

Hawaiian Islands
Dicranopteris linearis (Burmann) Underwood
Dicranopteris sandwicensis Degener
Hicriopteris pinnata (G. Kunze) St. John
Sticherus owhyensis (Hooker) St. John

Society Islands
Dicranopteris linearis (Burmann) Underwood
Hicriopteris glauca (Thunberg) St. John
Sticherus Brackenridgei (Fournier) St. John
Sticherus tahitensis (Copeland) St. John

Samoa
Dicranopteris linearis (Burmann) Underwood
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Gleichenia dicarpa R. Brown
Sticherus oceanicus (Kuhn) St.-John

Fiji

Dicranopteris caudata (Copeland) St. John
Dicranopteris linearis (Burmann) Underwood
Hieriopteriis glauca (Thunberg) St.-John
Sticherus Brackenridgei (Fournier) St. John
Sticherus oceanicus (Kuhn) St.-John

New Hebrides

Dicranopteris linearis (Burmann) Underwood
Sticherus Brackenridgei (Fournier) St. John
Sticherus oceanicus (Kuhn) St.-John

New Caledonia

Dicranopteris linearis (Burmann) Underwood
Gleichenia circinnata Swartz
Sticherus Brackenridgei (Fournier) St. John
Sticherus flabellatus (R. Brown) St. John
Stromatopteris moniliformis Mettenius

New Zealand

Dicranopteris linearis (Burmann) Underwood
Gleichenia circinnata Swartz
Gleichenia dicarpa R. Brown
var. alpina Hooker f.
Sticherus Cunninghamhami (Heward ex Hooker) St.-John
Sticherus flabellatus (R. Brown) St. John

Australia

Dicranopteris linearis (Burmann) Underwood
Gleichenia circinnata Swartz
Gleichenia dicarpa R. Brown
Platyroma microphyllum R. Brown
Sticherus flabellatus (R. Brown) St. John
Sticherus leavigatus (Willdenow) Presl
Styphelia Douglasii (Gray) F. von Mueller var. struthioloides (Gray), comb. nov.
Cyathodes Douglasii Gray var. β struthioloides Gray, Am. Acad.

Styphelia Tameiameiæ (Chamisso) F. von Mueller var. Brownii (Gray), comb. nov.
Cyathodes Macraeana A. P. DeCandolle, Prodr. 7: 742, 1838.
Cyathodes Tameiameiæ Chamisso var. β Brownii Gray, Am. Acad.

Var. Brownii Gray was a new name in the varietal category for Cyathodes Macraeana A. P. DeCandolle, and for the doubtful C. Banksii Gaudichaud ex A. P. DeCandolle. Being the earliest name in the varietal category, Gray's varietal name should be adopted. It is not a synonym of the West Australian S. Brownii Sprengel (in Linnaeus, Syst. Veg. ed. 16, 5: 683, index, 1828) which equals Leucopogon reflexus R. Brown (Prodr. Fl. Nov. Holl., 544, 1810).

The author is responsible for all statements in this paper.