NID

POLYPODIACEAE

Acrostichium speciosum
Willd.

Adiantum

2. **A. capillus-veneris,** *Linn.; Hook. Spec. Filic.* ii. 36, *Syn. Filic.* 123.—Rhizome creeping. Fronds bipinnate, broadly ovate in outline, 6 in. to 1 ft. long and sometimes nearly as broad, the rhachis capillary. Pinnules on short capillary petioles, broadly obovate or obliquely fan-shaped, 4 to 8 lines broad, more or less divided into cuneate obtuse or truncate lobes, thin, of a bright green. Sori at the end of most of the lobes usually occupying their whole breadth.—Hook. Brit. Ferns, t. 41 ; Bedd. Ferns S. Ind. t. 4.

Queensland. Wet rocks near Northampton, *O'Shanesy.*

Common in the temperate and subtropical regions of the globe especially in the northern hemisphere, less abundant within the tropics.

7. **A. hispidulum,** *Swartz; Hook. Spec. Filic.* ii. 31, *Syn. Filic.* 126.—Rhizome tufted or rarely creeping. Fronds when perfect once or twice forked at the base, each branch ending in a long pinna or pinnately divided at the base or higher up into secondary pinnæ. Pinnules numerous, very shortly petiolate, obliquely ovate-rhomboid, 3 to 8 lines long or broad, rather rigid, prominently veined, the under surface as well as the rhachis more or less hispid. Sori usually almost contiguous though not confluent. Indusia much recurved, orbicular, slightly reniform.—Bedd. Ferns S. Ind. t. 3; F. Muell. Fragm. v. 120.

Queensland. Shoalwater Bay, *R. Brown;* very numerous stations from York Peninsula, *N. Taylor*, and Rockingham Bay, *Dallachy* and others, to Brisbane River, *F. Mueller* and others; and in the interior on the Maranoa, *Mitchell.*

N. S. Wales. Port Jackson to the Blue Mountains, *R. Brown* and others; northward to the Queensland frontier from numerous collectors; southward to Twofold Bay, *F. Mueller;* Lord Howe's Island, *C. Moore, Fullagar.*

Victoria. Genoa River, *F. Mueller.*

Extends over tropical Asia and Africa, the Pacific Islands and New Zealand.

1. **A. lunulatum,** *Burm.; Hook. Spec. Filic.* ii. 11, *Syn. Filic.* 114.—Rhizome short. Fronds tufted, simply pinnate, 6 in. to near 1 ft. long, the rhachis wiry, very slender. Pinnules articulate on slender petioles of 1 to 4 lines, obliquely fan-shaped, ½ to 1 in. broad. Sori elongated, sometimes continuous along the whole outer margin, but often more or less interrupted.—Hook. and Grev. Ic. Filic. t. 104.

N. Australia. Port Darwin, *Schultz, n.* 152, 212.
Queensland. Rockingham Bay, *Dallachy.*

Spread over the tropical regions of the New and the Old World.

NSD

POLYPODIACEAE

Adiantum philippense
L.

NIB

POLYPODIACEAE

Ampelopteris
prolifera

Blechnum.

4. **B. orientale**, *Linn.*; *Hook. Spec. Filic.* iii. 52, *Syn. Filic.* 186, *Filic. Exot. t.* 77.—Rhizome thick rising to a short erect trunk. Fronds 2 to 3 ft. long. Pinnæ distinct, 6 in. 1 ft. long, ½ to 1 in. broad near the base, tapering to a long point, mostly cuneate at the base and attached by the midrib only, the numerous veins very fine as in *B. serrulatum*, but the margins quite entire. Sori close to the midrib and soon covering it. A few of the uppermost pinnæ occasionally adnate and decurrent on the rhachis.—F. Muell. Fragm. v. 120; Bedd. Ferns S. Ind. t. 29.

N. Australia. Adelaide River, *M'Douall Stuart*,
Queensland. Rockingham Bay, *Dallachy*; Islands off the Coast, *Leefe*, *Walter*; Daintree River, *Fitzalan*; Gilbert River, *Daintree*.

Also in East tropical Asia and in the South Pacific Islands.

Blechnum

3. **B. serrulatum**, *Rich.; Hook. Spec. Filic.* iii. 54, *Syn. Filic.* 186.—Rhizome short and thick or longer and creeping. Fronds 1 to 2 ft. long, Pinnæ distinct, linear or lanceolate, mostly 2 to 4 lines long and nearly 3 lines broad or 4 lines when barren, obliquely truncate at the base but attached by the midrib only, serrulate, smooth and shining, the veins oblique very numerous and fine, mostly forked. Sori close to the midrib, the indusium soon concealed under them.—*B. striatum*, R. Br. Prod. 152; Hook. Spec. Filic. iii. 55, t. 159; Sieb. Syn. Filic. n. 125, Fl. Mixt. n. 242; F. Muell. Fragm. v. 120.

N. Australia. Providence Hill and M'Adam Range, *F. Mueller;* Port Darwin, *Schultz, n.* 487; Port Essington, *Armstrong.*
Queensland. Cape York, *Daemel;* Rockingham Bay, *Dallachy;* Rockhampton, *Thozet;* Moreton Bay, *C. Stuart.*
N. S. Wales. Port Jackson, *R. Brown, A. Cunningham;* Richmond River, *Mrs. Hodgkinson.*

Dispersed over tropical America, the Malayan Archipelago and New Caledonia.

Ceratopteris .

1. **C. thalictroides,** *Brongn.; Hook. Spec. Filic.* ii. 235, *Syn. Filic.* 174.—An aquatic or semiaquatic annual fern. Fronds twice or thrice pinnate, the fertile ones 6 in. to 1 ft. high, the secondary or tertiary pinnæ short, with few distinct linear segments ¾ to above 1 in. long, the revolute margins enclosing the fructification the whole length. Barren fronds distinct, shorter and more spreading, with fewer short broad variously shaped segments, flat and of a soft half succulent texture. Spore-cases in the Australian specimens with a broad nearly complete ring as figured by Beddome, Ferns S. Ind. t. 75.—*Parkeria pteridioides*, Hook. Exot. Fl. t. 147; Hook. and Grev. Ic. Filic. t. 97.

N. Australia. South Goulburn Island, *A. Cunningham;* Arnhem Land, *F. Mueller;* Gulf of Carpentaria, *Landsborough.*

Queensland. Cape York, *Daemel;* Cape York Peninsula, *N. Taylor;* Rockingham Bay, *Dallachy;* Rockingham and neighbouring districts, *Bowman, O'Shanesy;* Moreton Bay, *F. Mueller.*

NSB

POLYPODIACEAE

Cheilanthes lasiophyll

Cheilanthes.

1. **C. tenuifolia,** *Swartz; Hook. Spec. Filic.* ii. 82, t. 87, *Syn. Filic.* 138.—Rhizome horizontal or shortly creeping often knotty. Fronds from 2 or 3 in. to nearly 1 ft. high, from narrow lanceolate to broadly ovate-triangular in outline, the stipes and main rhachis glabrous or scaly-hairy. Primary pinnæ nearly opposite in distinct pairs, exceeding variable in form and division, from under ½ in. long with few entire ovate segments, to above 2 in. long and broad, elegantly pinnate a second and a third time, the tertiary pinnules deeply pinnatifid, the ultimate segments in all cases ovate or oblong obtuse 1 to 2 lines long, with every intermediate between these extremes, or rarely the primary segments ovate-lanceolate obtuse ½ in. long and scarcely lobed, the whole pinnæ quite flat or with a very crisped aspect from the recurved or revolute margins. Sori usually numerous round the margins, nearly contiguous, with the small rounded teeth or lobes bent over them.—R. Br. Prod. 155; Sieb. Filic. Exs. 116, Fl. Mixt. n. 250; Kunze in Pl. Preiss. ii. 111; Hook. f. Fl. Tasm. ii. 138; F. Muell. Fragm. v. 122; Bedd. Ferns S. Ind. t. 188; *C. Sieberi*, Kunze in Pl. Preiss. ii. 112; Hook. Spec. Filic. ii. 83, t. 97; *C. Preissiana*, Kunze l. c.; *C. contigua*, Bak. Syn. Filic. 476; *Pteris nudiuscula*, R. Br. Prod. 155; *Pellæa nudiuscula*, Hook. Spec. Filic. ii. 151.

N. Australia. Islands off the North Coast, *R. Brown;* Victoria River and Sea Range, *F. Mueller;* Escape Cliffs, *Hullse;* Port Darwin, *Schultz, n.* 35, 207, 307, some specimens above 1 ft. long,

Queensland, N. S. Wales (including Lord Howe's Island), **Victoria, Tasmania, S. and Central Australia, W. Australia.** Evidently very abundant especially in stony rocky situations throughout these colonies, the stations indicated far too numerous to particularise, the western ones including *Drummond's n.* 498, and *Preiss's n.* 1304, 1305, 1307, and collected in all except Tasmania by *R. Brown.*

The species extends over East India chiefly in hilly districts, Eastern Asia and the Malayan Archipelago. Some specimens, including *Cheilanthes hirsuta*, Metten., come very near to some of *Notholæna villea*, especially when the fructification is advanced and the indusium opened out.

2. **N. vellea,** *R. Br. Prod.* 146.—Fronds tufted, mostly under 6 in. long but in a few specimens 9 or 10 in., oblong-lanceolate in outline, pinnate or bipinnate, the rhachis hirsute. Pinnæ ½ to 1 in. long, deeply pinnatifid or pinnate, rather thick, green and hispid above, very densely woolly hirsute and often ferruginous underneath, the lobes or segments ovate or rounded, very obtuse. Sori at the ends of the forked veins forming an almost continuous narrow line round the margin.—*Acrostichum velleum*, Ait.; *A. lanuginosum*, Desf. Fl. Atl. ii. 400, t. 256; *Notholæna lanuginosa*, Poir. Dict.-Suppl. iv. 110; Hook. Spec. Filic. v. 119, Syn. Filic. 370; *N. Brownei*, Desv. in Mem. Soc. Linn. Par. vi. 220; *Gymnogramme Brownei*, Kuhn in Bot. Zeit. 1869, 458; *Notholæna lasiopteris*, F. Muell. in Hook. Kew Journ. v. 106; *Cheilanthes vellea*, F. Muell. Fragm. v. 123.

N. Australia. Arnhem S. Bay, *R. Brown*; Upper Victoria River and Sea Range, *F. Mueller*; Arnhem Land, *M'Kinlay*; Port Darwin, *Schultz*, n. 952.
Queensland. Cape York, *Daemel*; Cleveland and Rockingham Bays, *W. Hill, Dallachy, Gulliver*; Gilbert River, *Daintree*; Suttor River, *Bowman*.
N. S. Wales. In the interior from the Lachlan and Darling to the Barrier Range, *Victorian Expedition* and many others.
S. Australia. Lake Torrens, *F. Mueller*; Gawler Range, *Sullivan*; Lake Eyre, *Andrews*; Macdonnell Range, *Giles*.
W. Australia. Fraser's Range, *Dempster*.

Also in the West Mediterranean region. The distinctions pointed out by Kuhn between the Mediterranean and Australian plant do not hold good in all the Australian specimens.

NSM

POLYPODIACEAE

Culcita dentata

NIB

POLYPODIACEAE

Cyclosorus gongylod
(willd) ching

NID

POLYPODIACEAE

Dicranopteris linearis
(Burm. f.) Un

NSB

POLYPODIACEAE

Drynaria concolor

Drynaria.

24. **P. quercifolium,** *Linn.; Hook. Spec. Filic.* v. 96, *Syn. Filic.* 367.—Fronds of two kinds. Fertile ones 2 to 3 ft. long, deeply pinnatifid; segments lanceolate, 6 to 9 in. long, ¾ to 1½ in. broad, decurrent on the rhachis and usually confluent into a broad wing but sometimes interrupted between the lower segments, thin but usually rigid, very prominently and copiously reticulate, but the free veinlets within the areoles small and rare. Sori small, scattered, few or numerous. Barren fronds sessile, short broad and shortly pinnatifid as in *P. rigidulum.*—*P. Linnæi,* Bory, Hook. and Bak. Syn. Filic. 368; Bedd. Ferns Brit. Ind. t. 315; *Drynaria quercifolia,* J. Sm.; Bedd. Ferns, S. Ind. t. 187; *D. Linnæi,* Bail. Queensl. Ferns, 46.

N. Australia. Coen River and islands of the Gulf of Carpentaria, *R. Brown;* Port Darwin, *Schultz, n.* 2, 17, 674; North Coast, *Gulliver.*

Queensland. Keppel Bay, *R. Brown;* Albany Island, *F. Mueller;* Cape York, *Daemel;* Endeavour River, *A. Cunningham;* York Peninsula, *N. Taylor;* Rockingham Bay, *Dallachy;* Rockhampton, *Bowman;* Fitzroy Island, *Walter.*

Spread over East India the Malayan Peninsula and Pacific Islands.

P. aureum, Linn.; Hook. Spec. Filic, v. 16, Syn. Filic. 347, a tropical American species unknown in the Old World, has been included by F. Mueller, Fragm. v. 128, on the authority of a specimen from Hastings River, *Beckler;* but there is probably here some mistake, the plant has been long in general cultivation in plant-houses. The species has deeply pinnatifid fronds not unlike the fertile ones of *P. quercifolium,* but less rigid and the venation is simply reticulate without singly free veinlets in the areoles, the sori in one or 2 irregular rows on each side of the midrib are inserted at the junction of 2 veinlets in the areoles, and the receptacles are not prominent on the upper surface as in *P. phymatodes* which it also resembles in some respects.

NIB

POLYPODIACEAE

Gymnogramma
reynoldsii

10. **L. ensifolia,** *Swartz; Hook. Spec. Filic.* i. 220, *Syn. Filic.* 112. —Rhizome creeping. Fronds simply pinnate, 6 in. to above 1 ft. high. Pinnules exceedingly variable in number size and shape, the barren ones at the base often small, irregularly ovate or obovate but sometimes lanceolate like the fertile ones, serrulate, rarely lobed; fertile ones in the middle sometimes only 2 or 3, sometimes nearly 20, lanceolate, 1 to 4 in. long, the frond ending in a long lanceolate lobe occasionally broken up into small obovate segments. Veins more or less anastomosing. Sori continued along the whole margin except the short equally cuneate base.—Hook. and Grev. Ic. Filic. t. 111; F. Muell. Fragm. v. 118; *L. lanceolata,* Labill. Pl. Nov. Holl. ii. 98, t. 248; R. Br. Prod. 156; *L. pentaphylla,* Hook. Spec. Filic i. 219, t. 67; *Schizoloma ensifolium,* J. Sm.; Bedd. Ferns S. Ind. t. 25.

N. Australia. North-coast Islands, *R. Brown;* Hunter's River, York Sound, *A. Cunningham;* Fitzmaurice River, *F. Mueller;* Port Darwin, *Schultz, n.* 36, 209.

Queensland. Shoalwater Bay and Port Bowen, *R. Brown;* Cape York, *Daemel;* Albany Island, *F. Mueller;* Daintree River, *Fitzalan;* Gilbert River, *Daintree;* Mount Wheeler, *Thozet;* Moreton Bay, *W. Hill, F. Mueller.*

Also in the Mascarene Islands, East India, the Malayan Archipelago and South Pacific Islands. Labillardière gives Cape Van Dieman (Tasmania) as the station for his plant. No other collector however has found it there, and it is omitted in J. D. Hooker's Flora. In Hook. Sp. Filic. Labillardière's station is given as North Coast, which Labillardière did not visit. There is no doubt however of the identity of his plant with the common tropical species.

Var. *heterophylla.* A few or many or all the pinnæ elongated and wholly or partially divided into small pinnules or segments.—Carpentaria Islands, *R. Brown;* York Peninsula, *N. Taylor;* Cape York, *Daemel;* Rockingham Bay, *Dallachy, W. Hill;* Daintree River, *Fitzalan.*

Baker is disposed to identify this variety with the Asiatic *L. heterophylla,* Dryand., which is certainly very near it, but with the pinnules usually longer and of a firmer texture.

NIB

POLYPODIACEAE

microlepia speluncа

(Linn.) Bake.

NIB

POLYPODIACEAE

Microsorium scolopendri

Nephrolepis obliterata Hook.

3. **A. ramosum,** *Beauv. Fl. Ow. et Ben.* ii. 53, *t.* 91.—Rhizome slender, scaly, creeping up the stems of trees to a great length. Fronds weak, varying from a few inches to above 1 ft. long. Pinnæ numerous, obliquely oblong, obtuse, crenate, very oblique at the base, articulate on the rhachis, the lower side narrowed the upper broadly truncate and often auriculate, 1 in. long and 3 to 4 lines broad in the larger fronds, ¼ in. long and 1 to 1½ lines broad in the smaller ones, with every intermediate size. Veins diverging from the midrib once or twice forked. Sori in a regular row between the midrib and the margin. Indusium orbicular, usually attached in a deep sinus, but sometimes peltate.—*Nephrolepis ramosa,* T. Moore; Hook. and Bak. Syn. Filic. 301; *Nephrodium obliteratum,* R. Br. Prod. 148; *Aspidium obliteratum,* Spreng. Syst. iv. 99; F. Muell. Fragm. v. 135; *Nephrolepis obliterata,* Hook. Spec. Filic. iv. 154; Bedd. Ferns S. Ind, t. 251; *Polypodium? Beckleri,* Hook. Spec. Filic. iv. 224; *N. repens,* Brackenr.; Bail. Queensl. Ferns, 50; *N. altescandens,* Bail. l. c. 51, not of Baker.

Queensland. Endeavour River, *Banks and Solander, A. Cunningham;* Cape York Peninsula, *Hahn's Expedition, N. Taylor;* Rockingham Bay, *Dallachy;* Daintree River, *Fitzalan;* Dalrymple Creek, *Hartmann.*

N. S. Wales. Cape Byron, Tweed, Bellinger and Richmond Rivers, *C. Moore;* New England, *C. Stuart;* Macleay River, *Beckler;* Berrima and Illawarra, *Macarthur, C. Moore* and others.

Spread over tropical Africa and Asia and the Pacific Islands.

NIB

POLYPODIACEAE

Nephrolepis hirsutula

Platyzoma

1. **P. microphyllum,** *R. Br. Prod.* 160.—Rhizome short, thick, densely covered with long brown setaceous scales. Fronds 6 in. to above 1 ft. high, the rhachis smooth and shining. Pinnæ exceedingly numerous, scarcely above 1 line long and broad, the revolute margins almost closed over the midrib so as to give them a globular or ovoid bullate form, glabrous outside, powdery inside especially on the midrib. Soriferous veins 2 or 3 on each side of the midrib.—Hook. and Bak. Syn. Filic. 11, t. 1, f. 1; Guillem. Ic. Pl. Austral. t. 13; *Gleichenia platyzoma*, F. Muell. Fragm. v. 114.

N. Australia. Gulf of Carpentaria, *R. Brown*, *Gulliver;* Arnhem Land, Fitzmaurice River and Providence Hill, *F. Mueller;* Glenelg River, N. W. Coast, *Martin.*

Queensland. Facing Island, *R. Brown*, *W. Hill;* York Peninsula, *Taylor;* Rockingham Bay, *Dallachy;* Downs of the interior, *Mitchell*, *Woolls*, *Birch*, *Bowman* and others.

It is not easy in dried specimens to find the perfect sori in situ, for when ripe they are generally seen loose in the pinnule, and the inner membrane which confined them broken up or withered away.

NSB

POLYPODIACEAE

Pteris vittata L.

NSO

POLYPODIACEAE

Stenochlaena palustris