

I C O N E S F I L I C U M :

AD EAS POTISSIMUM SPECIES ILLUSTRANDAS DESTINATÆ,

QUIE HACTENUS,

VEL IN HERBARIIS DELITUERUNT

PRORSUS" INCOGNITA,

VEL SALTEM

NONDUM PER ICONES BOTANICIS

INNOTUERUNT.



FIGURES AND DESCRIPTIONS OF FERNS,

PRINCIPALLY OF SUCH

AS HAVE BEEN ALTOGETHER UNNOTICED BY BOTANISTS,

OR

AS HAVE NOT YET BEEN CORRECTLY FIGURED.

BY

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AND

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FELLOW OF THE ROYAL AND ANTIQUARIAN SOCIETIES OF EDINBURGH, AND OF THE LINNEAN SOCIETY OF LONDON.

IN TWO VOLUMES.

VOLUME I.

CONTAINING PLATES I.—CXX.

LONDINI:

PROSTANT VENALES APUD TRÉUTTEL ET WUETRICHTER, SO, SOHO-SQUARE
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NATHANIEL WALLICH, M.D.

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D. D. D.

GUL. J. HOOKER.

ROB. K. GREVILLE.





THE present Work on FERNS having been brought to a close, it only remains for the Authors to return their grateful acknowledgements to those Botanists who have, in the most liberal manner, assisted them with specimens and observations. The names of these are, indeed, invariably given under the respective species which they have had the kindness to furnish ; but it behoves the Authors, in an especial manner, to express their thanks to Dr. Wallich, of the Calcutta Botanic Garden ; to the Rev. Lansdowne Guilding, of St. Vincent; to Dr. Bancroft, Mr. Wiles, and Mr. Lunan, of Jamaica; to Professor William Jameson, of Quito; to Charles Telfair, Estj. and Professor Bojer, of the Mauritius; and to Mr. Charles Fraser, of New Holland. To the first of these Gentlemen, in particular, they have been indebted for continued supplies of the Ferns of the vast continent of India; and these have now arrived to so great an extent,—and not from Dr. Wallich alone, but also from Dr. Wight, of Madras,—that it is in contemplation with the Authors, under the sanction and patronage of the Honourable the Board of Directors of the East India Company, to form from them a new and separate publication, under the title of " FILICES ASIATICÆ RARIORES," to appear on the same size and plan as the " PLANTS ASIATICÆ RARIORES" of Dr. Wallich.

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Acrostichum crinitum.



TAB. I.

ACROSTICHUM GRINITUM.

FILICES.—GYRATE. *Br.* POLYPODIACEA. *Kaulf.* FILICES verse. *Willd.*

GEN. CHAR. *ACROSTICHUM*[^] Linn. *Sort* amorphi, seu *Capsula* per totam paginam inferiorem frondis (interdum diverse) vel ad ejus partem sparsae. *Indusium* nullum (nisi squamulae, v. setae in quibusdam capsulis interstinctae). *Br.*

ACROSTICHUM crinitum; paleaeo-villosum, frondibus ellipticis obtusisciliatis, fertilibus minoribus, stipitibus villosissimis..

Acrostichum crinitum, *Linn. Sp. PL p. Ji 523. Swartz. Syn. Fil. p. 11. Willd. Sp. PL v. b. p. 108.*
Lingua jervina villosa amplis foliis subrotundis. Plum. Fil. p. 109. t. 125.

HAB. In Martinicse arborum truncis. *Plumier. Insula Sancti Vincentii. Rev. L. Guilding.*

Radix e fibris ramosis, pubescentibus.

Cortex nullus, nisi reliquiae stipitum vetustorum.

Stipes 6—8-pollicaris, crassitie pennae anserinae, semiteres, densissime villosus, villis longis, purpureo-nigris, basi dilatatis, horizontalibus.

Frondesteriles non raro pedales, elliptic* seu ovals, basi apiceque obtusissimae, paululum undulatae, crassiusculae, luteo-virides, costa prominente percursae, utrinque villis nigris margineque ciliatae. Hi villi insigniter fragiles sunt et sub lente basi dilatatae, reticulatae, marginibus involutis. *Fronde fertiles* plerumque duplo minores, supra margine villosae, subtus fructiferae.

Capsulae totam inferiorem partem, costa excepta, tegentes, intense fuscae, annulo vix completo cinctae, pedicellatae, pedicello capsula subaeque longo.

Semina sphaerica, subreticulata.

Fig. 1. Capsula clausa. f. 2. Eadem dehiscens. f. 3. Pedicellus. f. 4. Semina:—*magn. auct.*

Acrostichum crinitum seems to be a plant of very rare occurrence; the only station, hitherto given, being the Island of Martinique, where indeed the fructification does not appear to have been discovered. Our friend Mr. Guilding has sent us truly magnificent specimens from the Island of St. Vincent, in various states; and from these our figures have been made.



Acrostichum suavisifolium.

Wm. Bullington

TAB. II.

ACROSTICHUM SUCCISIFOLIUM.

FILICES.—GYRATJE. *Br.* POLTPODIACEJE. *Kaulf.* FILICES verse, *miltl.*

GEN. CHAR. *ACROSTICHUM*, Linn. *Sort* amorphi, sen *Capsuia* per totain paginam inferiorem fcondis {interdum diversa?} vcl ad ejus partem sparsse. *Induskan* millum (nisi squamula?, v. setae in (juibusdam capsulh interstinctee). *Dr.*

ACKOSTICBL'M *tmecUffidium*; fronde simplici oblonga toriacea ohtiiaiasima stipitcqtw Ferrugineo-Mjituonii-, *qdaniiii lanccolatis spinuloso-B*rratis.

Acrostichuni «b»ccisa;foliuni. *Pet. Th. ICii/. de la Flwe de Trist. tfAc. p. 31. farm. Descr. of the M. of Tiitt. tfAc. in Linn. Trails, v. 13. p. MO. Jiuulf. Envoi. Fit. p. t>0. Pair, in Entyti. Mth. Sitfyl. v. l.p. ISO.*

H\tt. In sylira insulre Tristan d*Acunlia. *Aubert du Petit Thwuars. Canmthad. Inaulae Mamitii. Aubert du. Petit Thmtars.*

*CmmUx rpen**, hie illic fibroeus, paleis squamosis, subulatis, intense fuscis ubique obsitua.

Stipes C-potliciiris et ultra, erectus, emssinsculus, undiiiue ferrugiueo-paleaoeus.

From (ligilalis, coriacea, oblnngo, Costa medin instructii, basi apiceque valde obtiisn, utrinqlle pnleaceo-stjuamosa, sqnamis lanceolatis, acumiimlk, spUiutosociltutiSj membranaceLS, rutculntis non raro subpeltatis:—*JerliUt* magis angustu biiii apicque obtusissima.

Capsule numLTosissima, tolim inferiorem partem frond is tegentes, costa cseptu, intense fuscne, pedicel] ^itr; *anmtlo* fere completo.

Scmina sub^plisrica, i eoeulata, margiiiata.

Fig. 1. Sfjiuunsa. f. 2. 2. S. 2. Capsuke. f. 3. Semina:—*magn. auet.*

This very distinct species of *Aorosliehum* seema to have been fonnd by M. du Petit Thouars in the Isle of France, as well as in Tristan d' Acunha.. Our specimens arc from the latter island, where they were gathered by Captain Camiichael.

Point bits given this plant upon the authority of Jussieu's Herbarium as the *A. succiaafolium*. of that author; but he probably unly adopted the name of Du Petit Thouars.



Acrostichum glandulosum.

TAB. III.

ACROSTICHUM GLANDULOSUM.

FILICES.—GYRATJE. *Br.* POLYPODIACEAE. *Kaulf.* FILICES verae. *Willd.*

GEN. CHAR. *ACROSTICHUM* Linn. *Son'arnophr'*, seu *Capsula* per totam paginam inferiorem frondis (interdum diverse) vel ad ejus partem sparsae. *Indusium* nullum (nisi squamulae v. setae in quibusdam capsulis interstinctae). *Br.*

ACROSTICHUM glandulosum; fronde simplici oblonga coriacea basi apiceque acutiuscula subnervosa nudiuscula glabra glanduloso-punctata, stipite subsquamoso, caudice dense paleaceo.

Acrostichum glandulosum. *Carmichael MSS.*

Acrostichum oblongum? *Desv. Journ. de Bot. 1813.p. 270*

HAB. In promontorio Bonae Spei. *Carmichael.*

Caudex repens, crassus, lignosus, squamis ferrugineis, membranaceis, ciliato-dentatis, densissime obsitus.

Stipes 2—5 uncias longus, hinc sulcatus, basi praecipue subsquamosus.

Fronde 3—5-pollicares, oblongae, coriaceae, margine parum revolutae, medio costatae, nervis obscuris parallelis, punctis glandulosis pellucidis adpersae, caetero glabrae, nitidae, costa subtus paululum paleacea, basi apiceque acutiusculae —*fertiles* fronde minore angustiore, sed stipite longiore.

Capsulae totam frondem tegentes, fuscae, numerosissimae; longe pedicellatae, annulo magno.

Semina sphaerica, marginata, margine tuberculato.

Fig. 1. Capsulae. f. 2. Capsula magis aucta. f. 3. Semina. —*magn. auct.*

This is very nearly allied to *A. conforme* of Swartz: but our specimens of that plant are perfectly destitute of glandular dots. Still more closely does it approach the *A. oblongum* of Desvaux, which Kaulfuss unites with the *A. conforme*.

TAB. IV.



Acrostichum Raddeanum

TAB. IV.

ACROSTICHUM RADDIANUM.

FILICES.—GYRATJE. *Br.* POLYPODIACEAE. *Kaulf.* FILICES verae. *Willd.*

GEN. CHAR. *ACROSTICHUM*, Linn. *Sort* amorphi, seu *Capsula* per totam paginam inferiorem frondis (interdum diversae) vel ad ejus partem sparsae. *Indusium* nullum (nisi squamulæ v. setae in quibusdam capsulis interstinctae). *Br.*

ACROSTICHUM Raddianum; frondibus stipiteque villosissimis, sterilibus lineari-lanceolatis, fertilibus ellipticis integris.

Acrostichum spathulinurn. *Raddi, Fil Brasil. p. 3. t. \b.f. 2.*

HAB. In udis rupibus torrentium super Montes Estrellenses, Brasiliae. *Raddi.*

Radix dense caespitosa, fibris valde ramosis subpinnatis.

Stipites plurimi ex eadem radice, 2—3 uncias longi, erecti, densissime pilosi, pilis patentibus rufescentibus.

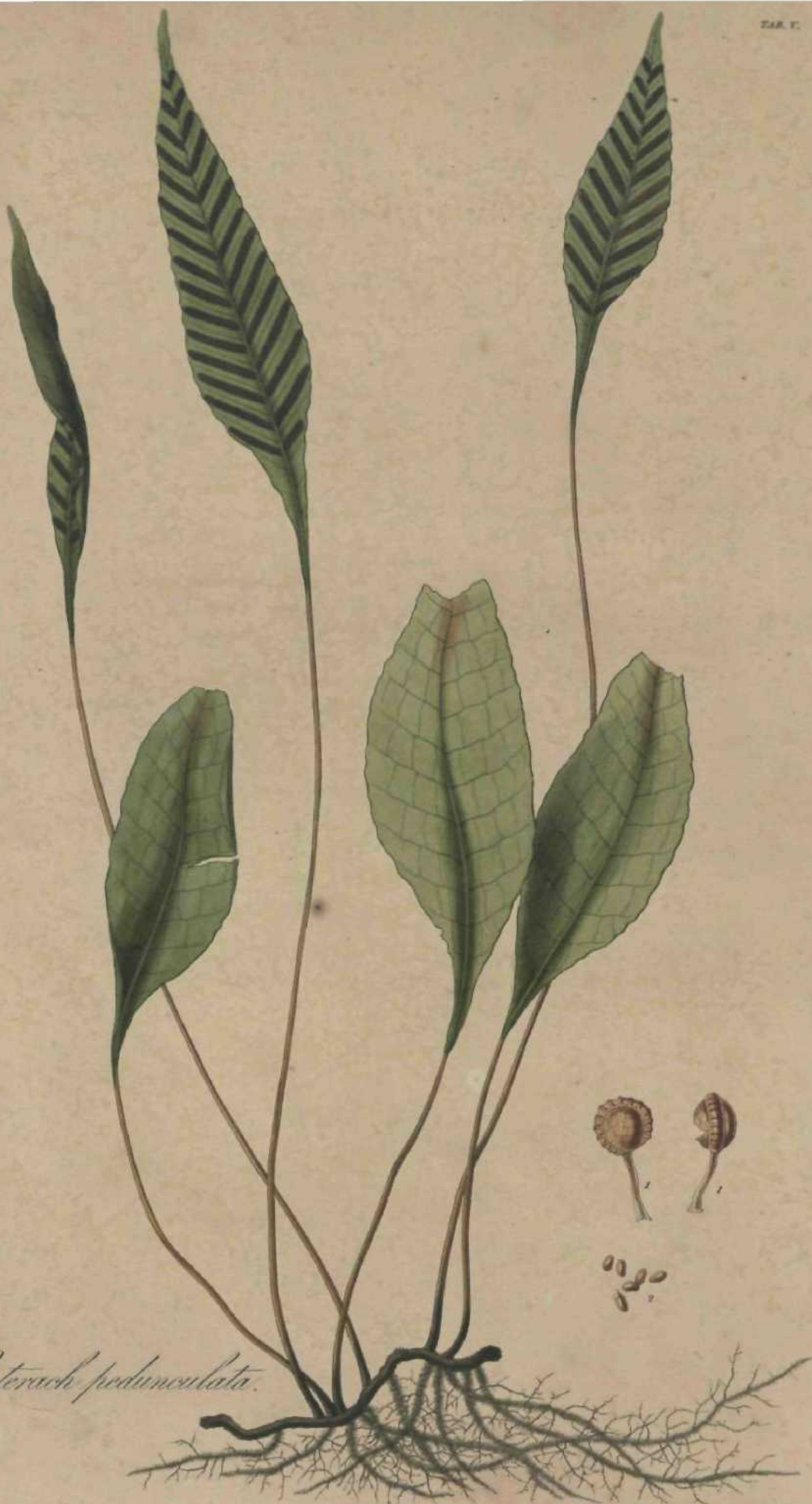
Frondes steriles 3—4? uncias longae, lineari-lanceolatae, obtusae, basi sensim in petiolum attenuatae, utrinque margineque ferrugineo-pilosae. Hi pili sub lente serrulati sunt, basi dilatati, concavi, reticulati, membranacei:—*fertiles* sterilibus multo breviores, ellipticae, acutiusculae, dorso margineque solummodo pilosae.

Capsulco totam frondem dorso tegentes, longe pedicellatae, sphaericae, late annulatae, annulo incompleto.

Semina parva, sphaerica.

Fig. 1. Pilus vel squama, f. 2. Capsulae. f. 3. Semina:—*magn. aucU*

We have changed the name which Professor Raddi applied to this Fern, because of its similarity with that of *spathulatum* given by Bory de St. Vincent to a species of the Isle of France, and which, as far as we can judge from the figure in the Voyage aux Quatres Isles des Mers d'Afrique, we agree with Raddi in considering very nearly indeed allied to the present; differing almost solely in the very obtuse and emarginate extremity of the fertile fronds.



Ceterach pedunculata.

TAB. V.

CETERACH PEDUNCULATA.

FILICES.—GYRATVE. *Br.* POLYPODIACEJE. *Kaulf.* FILICES verae. *Willd.*

GEN. CHAR. *CETERACH.* *Sort* lineares transversales. *Indusia* nulla. *Willd.*

CETERACH pedunculata; fronde simplici lato-lanceolata sinuato-crenata reticulata basi attenuata, fertili l'pnce stipitata, soris e costa ad marginem frondis attingentibus.

HAB. Sylhet Ind. Orientalis, ubi legit *D. Smith.* Misit clariss. *Wallich.*

Caudex repens, lignosus, tortuosus, pennae passerinse crassitie, subtus radiculosa, radiculis e fibris ramosis descendentibus, quorum majoribus hirsutis.

Frondes steriles et fertiles ex eadem caudice, utraque stipitata.

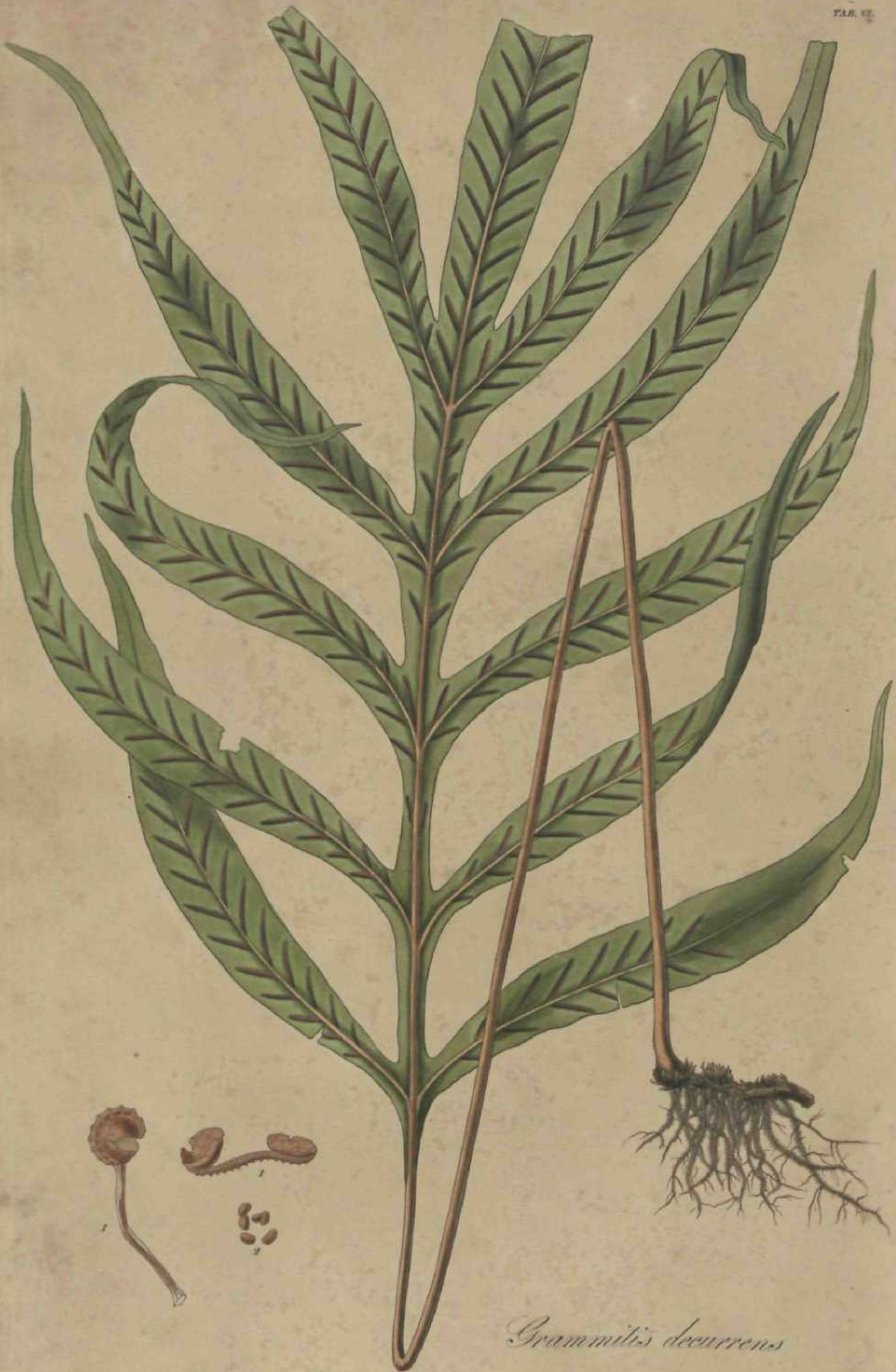
Sterilis: *Stipes* erectus, glaber, gracilis, nitidus, pallide fuscus hinc sulcatus, 3—4-pollicaris, *Frons* 4—6-pollicaris, lato-lanceolata, membranacea, fusco-viridis, apice acuminata, basi attenuata, decurrente, margine sinuato-crenata, costa instructa venisque horizontali-patentibus, venulis anastomosantibus.

Fertilis: *Stipes* ut in sterili, sed triplo longior. *Frons* ut in sterili, sed magis angusta, crenata, substantiaque firmiore. *Indusium* nullum. *Sort* lineares, intense fusci, in venis parallelis et cum iis alternantibus et totam latitudinem e costa ad marginem occupantes. *Capsules* sphaericae, sublonge pedicellatae, reticulatae, annulo fere completo. *Semina* minuta, oblonga vix angulata, fusca.

Fig. 1. Gapsulae. f. 2. Semina:—*magn. aucU*

How far the genus *Ceterach* merits to be distinguished from *Grammitis* must be left to be determined by future observation. Kaulfuss makes one of the characters to depend on the chaffy scales with which the fructification is covered, as in *Ceterach Officinarum*. These scales are totally wanting in our plant; but the *sort* are *transverse*, upon which appears to rest the main character of the genus as distinguishable from *Grammitis*.

Grammitis again, according to Mr. Brown, has the *sort* "venula unica insidentes." In *Ceterach pedunculata* they occupy each a number * of veinlets or reticulations exactly intermediate between the straight lateral veins.



Grammitis decurrens

TAB. VI.

GRAMMITIS DECURRENS.

FILICES.—GYRATE. *Br.* POLYPODIACEA. *Kaulf.* FILICES verae. *Willd.*

GEN. CHAR. *GRAMMITIS.* *Sori* oblongi, lineares, recti, sparsi. *Indusia* nulla. *Willd.*

GRAMMITIS decurrens; fronde pinnatifida, segmentis remotis lanceolatis acuminatis integerrimis, stipite rachique glabris.

Grammitis decurrens. *Wall. MSS.*

HAB. In India Orientali (Nepal?). *Wallich.*

Caudex repens, crassus, valde fibrosus, fibris ramosis non raro hirsutis.

Stipes pedalis et ultra, pennae corvinae crassitie, erectus, glaber, nitidus, fuscus, teres, hinc sulcatus.

From. circumscriptione late ovata, profunde pinnatifida, segmentis 6—8-pollicaribus, patentibus, lanceolatis, acuminatis, coriaceo-membranaceis, apice acuminatis, marginibus integerrimis; rachi laevi superne late, inferne anguste alata.

Sori in medio frondis ut et in segmentis, lineares, obliqui, venulis suppositi, prope costam, sed non ad marginem attingentes.

Capsule; sphaericae, longe pedicellatae, reticulatae, annulo incompleto.

Semina parva, oblongo-subreniformia.

Fig. 1.1. Capsulae. f. 2. Semina:—*magn. auct.*

In the *Grammitis decurrens* of Dr. Wallich we have a species quite unlike any other described plant of the genus, and very similar in habit to many species of *Polypodium*.

We have received specimens from Dr. Wallich in 1820, and again in 1826 from the Honourable the East India Company; but the exact place where the plants were gathered is not mentioned.

TAR. VII.



Fenitis furcata

TAB. VII.

TJENITIS FURCATA.

FILICES.—GYRATE. *Br.* POLYPODIACEÆ, *Kaulf.* FILICES verse. *Willd.*

GEN. CHAR. *TJENITIS.* *Sorus* linearis, continuus, quandoque interruptus, longitudinalis, inter costam et marginem exteriorem frondis situs. *Indusium* nullum. *Willd.*

TJENITIS furcata; frondibus dichotomo-partitis pinnatifidisve, laciniis lineari-lanceolatis acutissimis, subtus squamuloso-punctatis.

Taenitis furcata. *Willd. Sp. PL* v. 5. p. 136. *Smith in Rees Cycl.*

Pteris furcata. *Linn. Sp. PL* p. 1531. *Sw&rtz. Syn. Filp. Qb.*

Lingua cervina furcata. *Plum. Fil* p. 122 et 141.

HAB. In sylvis Hispaniolæ. *Plumier.* Insula Sancti Vincentii. *Rev. L. Guilding.* Insula Trinitatis. *D. Lockhart.*

Caudex repens, ramosus, densissime squamoso-tomentosus, intense fuscus.

Stipes fere nullus.

Frons spithamea ad pedalem, erecta, inferne indivisa, linearis, basi attenuata, superne vel dichotomo-partita vel pinnatifida; laciniis ultimis et nonnunquam lateralibus furcatis; omnibus lineari-lanceolatis vel linearibus, 3—6 vel ad 8 uncias longis, 6 lineas (in specimine Plumieri unciam) latis, coriaceo-membranaceis, integerrimis, acutissimis, costatis et obscure venosis, facie superna viridibus, subnitidis fere nudis, subtus pallidioribus punctato-squamulosis, squamulis minutis, ovatis, reticulatis, peltatis.

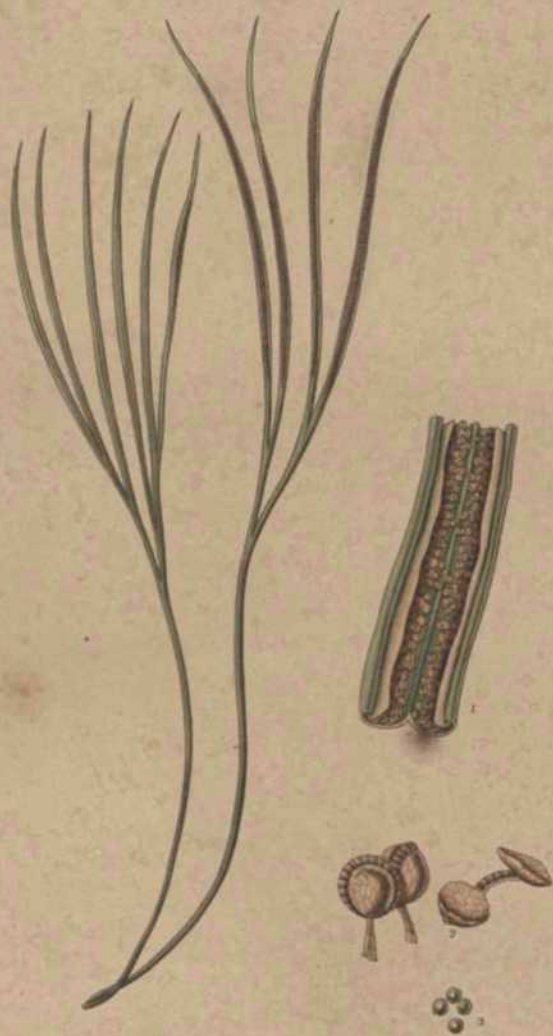
Sori in duas lineas longitudinales prope marginem frondis, et totam fere longitudinem laciniarum plerumque occupantes. *Indusium* omnino nullum.

Capsule pedicellate, annulo completo.

Seniina oblonga vel subreniformia.

Fig. 1. Squamula. f. 2. Portio frondis cum soris. f. 3. Capsulæ. f. 4. Semini:—*magn. auct.*

If we are right in referring this undoubted species of *Tanitis* to the *T. furcata* of Swartz and the *Lingua cervina furcata* of Plumier, it would seem to be a species of very rare occurrence, and only hitherto known to Plumier. The figure in our plate indeed differs from that of Plumier in its much narrower fronds, and in the divisions being rather such as to give the character of pinnatifid than regularly dichotomous: but since the annexed engraving was finished, we have received specimens from His Excellency Sir Ralph Woodford of Trinidad, gathered by Mr. Lockhart, which have the fronds considerably broader, still narrower than Plumier's plant, and with some of the individuals (evidently the younger ones) simply dichotomously divided. The more perfect state of the plant is perhaps constantly pinnatifid with few segments, and the breadth of the frond* is liable to much variation.



Pteris australis

TAB. VIII.

PTERIS AUSTRALIA

FILICES.—GYRATE. *Br.* POLYPODIACEAE, *Kaulf.* FILICES verae. *Willd.*

GEN. CHAR. *PTERIS*, Linn. *Sori* lineares, marginales, continui; capsulis sinu involucri insertis.
Involucrum marginale, continuum, scariosum, intus liberum. *Br.*

PTERIS australis; fronde dichotome radiata, laciniis linearibus acutis subfalcato-secundis, stipite frondem subaequante.

Asplenium australe. *Sivartz. Sijn. Fil. p. 7A et 258. t. 3. / 1. Willd. Sp. PL v. 5. p. 308.*

Acrostichum australe. *Linn. Suppl. p. 444. (non Vahl)*

HAB. Insulis Mauritii et Borboniae.

"*Stipites* plures e caespite squamis lineari-subulatis, membranaceis, ferrugineis, nitentibus congesta, radículas simplices villosiusculas fuscas inferne emittente," erecti, flexuosi, 4—5-pollicares, filiformes, hinc sulcati.

Frondes lineari-filiformes radiatim dichotomae, laciniis 3—4-pollicaribus, acutis, subfalcato-secundis, glabris nitidis, ubique dorso sulcatis, marginibusque introflexis.

Indusia e margine introflexo frondis continua, membranacea, initio fere ad costam attingentia.

Capsulae numerosae, fuscae.

Semina sphaerica, minuta.

Fig. 1. Portio frondis horizontaliter secta, cum indusiis capsulisque. f. 2. Capsulae. f. 3. Semina:—*magn. auct.*

If our figure of the structure of the frond of this plant, and especially of the indusia, be correct, and we have examined it with considerable care,—we trust we shall be considered to have done right in removing it from *Asplenium* to *Pteris*.

Our specimens were gathered by Captain Carmichael in the Mauritius.



Trichomanes floribundum

TAB. IX.

TRICHOMANES FLORIBUNDUM.

FILICES.—GYRATE. *Br.* POLYPODIACEÆ. *Kaulf.* FILICES verae. *Willd.*

GEN. CHAR. *TRICHOMANES*, Sm. *Sor* marginales. *Capsulm* sessiles, receptaculo communi cylindraceo insertae, intra *Involucrum* monophyllum, suburceolatum, ore hiante, textura frondis. *Br.*

TRICHOMANES floribundum; frondibus pinnatis, pinnis lanceolatis spinuloso-serratis, superioribus decurrentibus.

Trichomanes floribundum. *Humb. et Bonpl. MSS. Willd. Sp. PL v. 5. p. 505. Humb. et Kunth Nov. Gen. PL Am. & q. v. 1. p. 25. Kunth Syn. PL v.l.p. 89.*

Trichomanes pinnatum. *Swartz. Syn. Fil. p. 142.*

Trichomanes rhizophylla. *Swartz. Syn. Fil. p. 142. "Cavan. Prod. 1801. n. 696."*

HAB. Ad ripam fluminis Rio Negro, prope San Carlos, in sylva opaca (Misiones del Orinoco). *Humb. et Bonpl.* In sylvis densis prope lacum Asphaltum, Insulae Trinitatis. *De Schach. Jamaica. Masson. Guiana. Herb. De Lessen.*

"*Radix* fusca fibrosa, fibris crassis." *Willd.*

Stipes longitudine variat 2—3 uncias ad 6—8-pollicares, filiformis, gracilis.

Frondes, circumscriptione ovatae, vel ovato-deltaeae, pinnatae, pinnis nunc 3—4?, nunc 16-jugis, cum impari, alternis, patentibus, lanceolatis, 3—6-pollicaribus, spinuloso-serratis, obtusiusculis, basi superiore truncata, inferiore subdecurrente, costatis, venis furcatis vasis transversalibus rete tenerrimum includentibus connexis (f. 2.):—summis confluentibus; terminali elongata;—in fronde sterili, loco pinnae terminalis, *rackis* apice nuda, elongata, radicans.

Sor marginales, numerosissimi, serratiiras terminantes.

Indusia cyathiformia, exserta, compressa, ore sub-bilabiato.

Receptacidum indusio duplo triplove longius.

Capsules ad basin receptaculi, rotundato-compressae sessiles, annulo completo transversali cinctae.

Semina minuta subsphaerica.

Fig. 1. Apex pinnae fertilis. f. 2. Portio pinnae, f. 3. Indusium, cum ejus receptaculo. f. 4. Receptaculi basis, cum capsulis tribus. f. 5. Capsula. f. 6. Semina:—*magn. aucl*

A beautiful and we believe very rare species of *Trichomanes*, remarkable for its numerous marginal fructifications, and, as Kaulfuss well observes, for the nature of its *venation*. The lateral parallel veins resemble those of many monocotyledonous plants; and from the extreme delicacy of the parenchyme between these veins, the pinnae are frequently torn in the direction of them, as we see to be the case in the different species of *Musa*.

The late Baron de Schach favoured us with the specimens here figured, from the shores of the Asphaltum lake in Trinidad.



Trichomanes lucens.

TRICHOMANES LUCENS.

FILICES.—GYRATE. *Br.* POLYPODIACEZE. *Kaulf.* FILICES verae. *Willd.*

GEN. CHAR. *TRICHOMANES*, Sm. *Sort* marginales. *Capsules* sessiles, receptaculo communi cylindraceo insertae, intra *Involucrum* monophyllum, suburceolatum, ore hiante, textura frondis. *Br.*

TRICHOMANES lucens; subhirsutum, frondibus sub-bipinnatifidis pinnis horizontalibus lanceolatis acutis, laciniis brevibus sub-bidentatis, stipite rachique alatis.

Trichomanes lucens. *Swartz. Fl. Ind. Occ. v.3. p. 1734. Syn. Fil. p. 143. Willd. Sp. PL v. 5. p. 506.*

HAB. Ad latera umbrosa cavernarum montium Jamaicae. *Sw.* In monte Sancti Andreae, Insulae Sancti Vincentii. *Rev. L. Guilding.* In Demerara, American Meridionalis. *C. S. Parker.*

Caudex repens, fibrosus, primum paleaceus, demum nudus.

Stipes 3—4-uncialis, basi teres, pilosus, senectute nudus, superne praecipue alatus.

Frons palmaris ad pedalem vel sesquipedalem, anguste oblongo-lanceolata, pellucida apice attenuata, sub-bipinnatifida. *Pinnae* horizontales, approximatae, oblongo-lanceolatae, magis minusve acutae, venosae, reticulatae, venis nunc, et margine, hirsutis, laciniis rotundatis, brevibus, obtusis, bi-tridentatis.

Sort in partem superiorem frondis, et ad apicem pinnarum, in singula lacinia.

Indusium urceolato-cylindraceum, immersum, ore subcompresso truncate

Receptaculum indusio triplo longius, filiforme.

Capsulae ut in *Tr. alato*.

Semina sphaerica.

Fig. 1. Pinnae portio cum soro. f. 2. Pars receptaculi, cum capsulis duabus. f. 3. Capsula. f. 4. Semina:—*magri. auct.*

Trichomanes lucens varies much in size. Our specimens from St. Vincent are generally from six to ten inches in height, while those brought to us from Demerara on the continent of South America, by our valued friend C. S. Parker, Esq., are nearly two feet in length.



Trichomanes alatum

W. H. B. 1842

W. H. B. 1842

TAB. XI.

TRICHOMANES ALATUM.

FILICES.—GYRATE. *Br.* POLYPODIACEÆ. *Kaulf.* FILICES yerae. *Willd.*

GEN. CHAR. *TRICHOMANES*, Sm. . *Sori* marginales. *Capsula* sessiles, receptaculo communi cylindraceo insertae, intra *Involucrum* monophyllum, suburceolatum, ore hiante, textura frondis. *Br.*

TRICHOMANES alatum; pilosiusculum, frondibus bipinnatifidis, pinnis lanceolatis aeuminatis, laciniis lanceolatis inciso-serratis, stipite (superne) rachique alatis.

Trichomanes alatum. Swartz. *FL Ind. Occ.* v. 3. p. 1?32. *Syn. Fil.* p. 143. *Willd. Sp. PL* v. 5. p. 506. (*non Hook, in FL Lond.*)

Filicula tota translucens. *Plum. Fil. t.* 50. f. D. (vix bona*)

HAB. In montibus excelsis Jamaicae australis, alibique in India Occidentali. Swartz. Hispaniola, et in Antillis minoribus. *Willd.* Insula Sanctae Vincentii. *Rev. L. Guilding.*

Caudex repens.

Radix e fibris plurimis longis nigricantibus vix tomentosis.

Stipes 3—4-pollicaris, gracilis superne, e fronde utrinque decurrente, alatus, primum hirsutus, demum glaber.

Frondes translucentes ovato-lanceolatae, apice attenuatae, bipinnatifidae; pinnis vel segmentis primariis lanceolatis attenuatis, laciniis lanceolatis, acutis, inciso-serratis, omnibus nervosis, sub lente pulcherrime reticulatis, nervis margine pilosis, pilis raris nunc furcatis. *Rachis* alatus, plerumque pilosus.

Indusia urceolata, dentibus laciniarum immersa, ore aperto truncato.

Receptaculum indusio triplo quadruplo longius, ad basin capsulis tectum.

Semina globosa.

Fig. 1. Frondis lacinae duae. f. 2. Indusium verticaliter sectum. f. 3. Portio receptaculi cum capsulis duabus. f. 4. Capsula. f. 5. Semina:—*magn. auct.*

Excellent, in almost every respect, as is the description that Dr. Swartz has given us of this plant, yet, probably in consequence of the indifferent figure referred to in Plumier, it has had the misfortune of being little understood; the *Trichomanes lucens* having generally been sent to us by the name of *alatum*,—& larger and much finer plant, as will be seen by our figure.

This must not be confounded with the *Trichomanes alatum* * of Hook, in *Fl. Lond.* (the *Hymeriophyllum alatum* of *JEngl. Bot.*) On referring that species to its proper genus, the old specific name was retained, without recollecting that it was preoccupied. It should now be called, after Smith in Rees's Cyclopaedia, *T. europmim*.

Our finest specimens of the true *T. alatum* are from the Rev. Lansdown Guilding.

* The two species are nevertheless very nearly allied. The European plant is much more divided, so as to be 3—4 pinnatifid, the ultimate segments never serrated.



Trichomanes crispum

W. Marshall del.

W. Marshall sculp.

TAB. XII.

TRICHOMANES CRISPUM.

FILICES CYRATAE. Br. POLYPODIACEAE. Kaulf. FILICES verae. Willd.

TRICHOMANES, Sm. Sort marginales. Capsulae sessiles, receptaculo communi cylindraceo insertae, intra Involucrum monophyllum, subreolatum, ore hiante, textura frondis. Br. _____

TRICHOMANES *crispum*; subhirsutum, frondibus pinnatifidis inferne pinnatis, pinnis horizontalibus oblongis obtusis obscure denticulatis, soris ad apicem pinnarum.

Trichomanes crispum. Linn. Sp. PL p. 1560. » Swartz. Fl. Ind. Occ. v. 3. p. 1731. Syn. Fil. p. 142. Willd. Sp. PL v. 5. p. 504. "Hedw. Fil. t. 4. / 2." Smith in Rees Cycl.

Polypodium crispum calyciferum. Plum. Fil. p. 67. t. 86.

HAB. In Jamaica, Martinica, Demerara, et in Insula Guadeloupe. C. S. Parker. Insula Sancti Vincentii. Rev. L. Guilding.

Caudex longe repens, squamosus.

Radix fibrosa, nigra.

Stipes 3-6 uncias longus, erectus, hirsutus, hinc subcanaliculatus.

Fronds uncialis usque ad sesquipedalem, oblongo-lanceolata, acutiuscula, pinnatifida, inferne pinnata. Pinnae sesquipollicares, horizontales, parallelae, approximatae, pellucidae, crispatae, oblongae, obtusae, nervis dichotomis margineque subhirsutae, brevissime et obscure denticulatae reticulate, areolis minutis.

Sori ad apicem solummodo, pinnarum, venas terminantes.

Indusia ferme omnino immersa, cyathracea, ore aperto, subdilata undulata.

Receptaculum indusio triplo quadruple longius.

Capsulae ut in reliquis hujus familiae.

Semina parva, subsphaerica.

Fig. 1. Apex pinnae, cum soris. f. 2. Eiusdem portio magis aucta. f. 3. Indusium verticaliter sectum. f. 4. Capsulae. f. 5. Semina:—magn. auct. _____

This, like the *Trichomanes lucens*, is liable to vary much in size. Our largest specimens are from Guadeloupe, gathered by Mr. Parker. Those here figured are from St. Vincent, and are intermediate between the largest and the smallest size. We possess some small and apparently young specimens which are thickly clothed with ferruginous hair, but do not seem otherwise to differ from the more common state of the plant.



Trichomanes sinuatum Willd.

TAB. XIII.

TRICHOMANES SINUOSUM.

FILICES.—GYRATE. *Br.* POLYPODIACEA. *Kaulf.* FILICES verae. *Willd.*

GEN. CHAR. *TRICHOMANES*, Sm. *Sort marginales.* *Capsulce* sessiles, receptaculo communi cylindraceo insertae, intra *Involucrum* monophyllum, suburceolatum, ore hiante, textura frondis. *Br.*

TRICHOMANES sinuosum; pilosiusculum, frondibus lanceolatis sinuato-pinnatifidis in stipitem decurrentibus, laciniis ovato-lanceolatis* obtuse sinuato-dentatis, soris ad apicem pinnarum.

Trichomanes sinuosum. "*Richardin litt.*" *Willd. Sp. PL* v. 5. p. 502. *Lam. Illustr. t.* 8/1. *f.* 1.

Trichomanes quercifolium. *Desv. in BerL Mag.* v. 5. p. 328.

HAB. In Guadeloupe. *Willd.* Insula Sancti Vincentii. *Rev. L. Guilding.*

Caudex repens, filiformis, gracilis.

Stipes 2—4-pollicaris, filiformis, compressa, superne e basi decurrente frondis, alata.

*Fronde*s 6—10-pollicares, lanceolatae, sinuato-pinnatifidae, tenerrimae, pellucidae, reticulatae, laciniis ovato-lanceolatis, obtusis, brevissime sinuato-dentatis, simpliciter venosis, venis marginibusque pilosiusculis, pilis prope basin articulatis, simplicibus vel bi-trifurcatis.

Sori ad apicem pinnarum, pauci.

Indusium cyathiforme, immersum, ore aperto.

Receptaculum filiforme, indusio triplo longius.

Semina sphaerica.

Fig. 1. Portio pinnae, cum soris duobus. f. 2. Indusium verticaliter sectum. f. 3. 3. Capsulae. f. 4. Semina:—*magn. aucU*

A very delicate species, however, except in this greater degree of delicacy, smaller size and more obtuse segments, very nearly allied to *T. lucens*. Smaller specimens than those here figured are scarcely more than sinuated at the margin, and bear a single indusium upon each lobe; whilst larger specimens seem almost to have the character of the younger plants of *T. lucens*.



Gleichenia Hermannii

TAB. XIV.

GLEICHENIA HERMANNI

FILICES.—GLEICHENE; E. *Br.*, *Kaulf.* SCHISMATOPTERIDES. *Willd.*

GEN. CHAR. *GLEICHENIA*. *Capsula* annulo completo striato subsessile, in soris rotundis dorsalibus, saepius definitae. *Indusium* nullum.—*Frondes* dichotomy velfurcata.

GLEICHENIA Hermanni; stipitibus dichotomis proliferis, ramis ultimis tantum frondosis, frondibus lanceolatis pinnatifidis glabris subtus glaucis, pinnis linearibus integerrimis obtusis, capsulis numerosis pyriformibus subpedicellatis. *Br.*

Gleichenia Hermanni. *Br. Prodr. Fl. Nov. Holl. p.* 161.

Mertensia dichotoma. *Willd. in Act. Holm. 1804. p.* 167. *Swartz. Syn. Fil. p.* 163. *Willd. Sp. PL v. b.p.* 71.

Polypodium dichotomum. *Thunb. Jap. p.* 338. *t.* 37 ?

Dicranopteris. *Bernh. in Schrad. neu Jour. 1806. p.* 38. {*fide Br.*}

Filix Calmaria. *Humph. Amb. v. 6. p.* 85. *t.* 38.

HAB. In India Oriental[^] Japonia, Zeylona, Amboina, Java, Mauritio, Nepalia. *Wallich*. In Nova Hollandia. *Br.* Insulis Societatis et Sandvicentibus. In India Occidental[^] Dominica, insula Sancti Vincentii. *Rev. L. Guilding*.

Caudex repens, tomentosus, fibrosus.

Stipes 3-pedalis, laevis, fuscus, nitidus, teres, repetitum dichotomus, ex axillis proliferus, foliaceo-bracteatus, ramis ultimis frondosis.

Frondes geminato-furcatae; *singida* lanceolata apice attenuata, infra medium latiore, basi subangustiore, paululum falcata profunde pinnatifida, segmentis horizontalibus, linearibus, subattenuatis, apice obtusis, emarginatis, margine integro (nisi in speciminibus nostris e Nova Hollandia et Insula Mauritii, ubi segmentis inferioribus iterum pinnatifidis). *Color* partis superioris frondium viridis, subtus glaucus. *Rachis* costaque glabræ, statu juniore non raro pubescentes. *Nervi* obliqui, obscuri, dichotomi.

Sori e capsulis 5—10, nervis, intra costam et marginem insertis, rotundato-pyriformibus, pallide flavo-fuscis, indusio destitutis, reticulatis, annulo lato distincto articulado integro cinctis, brevissime pedicellatis, superne hiantibus.

Sernina minuta, oblonga, subreniformia.

Fig. 1. Portio frondis a parte inferiore visa. f. 2. Ejusdem portio cum soris. f. 3. 3. 3. Capsulae. f. 4. Semina: —*viagn* auct.*

This is perhaps the species of this curious genus which is the most generally dispersed, being found in the West as well as the East Indies, in Japan, in the Society and Sandwich Isles, and in New Holland. All these countries, however, are intratropical, except Japan and Nepal. The plant



Gleichenia immersa.

GLEICHENIA IMMERSA.

FILICES.—GLEICHENEJE. *Br.* *Kaulf.* SCHISMATOPTERIDES. *Willd.*

GEN. CHAR. *GLEICHENIA*. *Capsula* annulo completo striato sessilibus in soris rotundatis dorsalibus saepius definitae. *Indusium* nullum. *Fronde*s dichotomae vel furcatae.

GLEICHENIA immersa; fronde dichotoma ramosa, gemma primaria prolifera, pinnis geminatis profunde pinnatifidis, laciniis linearibus subtus costa utrinque ferrugineo-tomentosis, ramis semipinnatifidis, soris minutis tomento immersis. *Kaulf.*

Mertensia immersa. *Kaulf. Enum. Fil. p.* 38.

HAB. In Brasiliae Insula St. Catharinae. *Chamisso*. Insula Sancti Vincentii. *Rev. L. Guilding*.
Ex insula Guadeloupe communicavit *Cl. Torrey*.

Stipes repetitum dichotomus, primum pubescens, demum glaber, nitidus, fuscus, ex axillis proliferus, ramis ultimis (et antepenultimis, hinc) frondosis.

*Fronde*s geminato-furcatae, lanceolatae, basi apiceque subattenuatae, 6-unciales ad sesquipedalem longae, supra glabrae, subtus ferrugineo-tomentosae, profunde fere ad basin pinnatifidae, segmentis linearibus horizontali-subfalcatis, marginibus omnino integerrimis. *RacJiis* demum glabriuscula. *Costa* pubescens.

Sori tomento ferrugineo immersi, e capsulis quatuor radiatim dispositis, sphaericis, fere omnino sessilibus, oblique subverticaliter lato annulatis demum e vertice dehiscentibus.

Semina oblongo-reniformia, parva.

Fig. 1. Portio frondis ab inferiore parte visa. f. 2. Eiusdem portio, cum soris. f. 3. Portio segmenti, tomento abraso, cum **soro** capsulis duabus. f. 4. Capsulae. f. 5. Semina:—*magn. aucU*

This seems to agree so well with the *Mertensia immersa* of Kaulfuss, that we can have little doubt of the two plants being the same. It is possible that it may be the *M. pubescens* of Humboldt and Willdenow; though that is said to be clothed beneath with white down. Again, the *M. bifida* of the same author has many points in common with this; but according to the figure in *Act. Holm*, the branch immediately below the ultimate one is pinnatifid on each side. May not this be the *M. decurrens* of Raddi?



20. 1790. del.

Anemium adiantifolium var. β

W. H. Edwards sculp.

TAB. XVI.

ANEMIA ADIANTIFOLIA 13 ASPLENIFOLIA.

FILICES.—OSMUNDACEAE. *Br., Kaulf.* SCHISMATOPTERIDES. *Willd.*

GEN. CHAR. *ANEMIA*, Sw. *Capsulæ* ovatae, vertice radiatim striatæ, in spicis compositis unilateralibus dispositae, basi adfixae, longitudinaliter dehiscentes. *Indusium* nullum. *Kaulf.*
Div. Spica pedunculate geminata ad basin frondis.

ANEMIA adiantifolia; fronde bi-tripinnatifida triangulari laciniis ovato-cuneatis apice denticulatis, subtus rachique pubescentibus, stipite glabro.

a. fronde tripinnatifida, laciniis acutis.

Anemia adiantifolia. Swartz. *Syn. Fil.* p. 157. Willd. *Sp. PL* v. 5. p. 94.

Osmunda adiantifolia. Linn. *Sp. PL* p. 1520.

Osmunda filiculsefolia major. Plum. *Fil.* p. 135. t. 158.

Lunaria elatior *Adiantum albi folio duplici spica.* Shane *Jam.* v. 1. p. 71.

(3. *asplesifolia* fronde bipinnatifida, laciniis obtusis. Tab. XVI.

Anemia asplenifolia. Sw. *Syn. Fil.* p. 157-

Osmunda asplenifolia. Lam. *Diet.* v. b.p. 652.

HAB. In India Occidentali Insulis Bahamensibus. D. Swainson. /3. In Dominica. Lamarck. Jamaica.

VAR. /3.

Radix caespitosa, fibrosa, fibris ramosis.

Stipes 4—6-uncialis, erectus, glaber, hinc sulcatus, basi nigricans, superne pubescens.

Fronde 3—5 uncias longae, ovato-triangularae, bipinnatifidae, pinnis lanceolatis, pinnulis ovato-cuneatis, coriaceis, tenuissime venosis, nitidis, inferioribus nunc bilobis, apice obtusis denticulatis, superne glabris, subtus rachique breviter pilosis.

Spica composita, bipinnatifidae, pedunculata?, geminata, ad basin frondis insertae, laciniis angustis, pilosis, hinc capsulis tectae. *Pedunculi* magis minusve pubescentes.

Capsulae obliquae, ovatae, sessiles, hinc gibbae, reticulatae, pallide fuscae, paulo infra apicem radiato-annulateae, extis longitudinaliter dehiscentes.

Semina parva, sphaerica, sub summa lente reticulata.

Fig. 1. Portio spicae a dorso visa. f. 2. Eiusdem pars superior, f. 3. Capsula. f. 4. Eadem dehiscens. f. 5. Semina:—*magn. auct.*

We received our specimens of this plant from Jamaica. They entirely accord with the *Anemia asplenifolia* of Swartz; and we are of opinion, with Willdenow, that it can only be considered a variety of the *A. adiantifolia*.



Phisaca dichotoma

J. G. Smith del.

J. G. Smith sculp.

SCHIZIEA DICHOTOMA.

FILICES.—OSMUNDACEE. *Br.* *Katdf.* SCHISMATOPTERIDES. *Willd.*

GEN. CHAR. *SCHIZIEA*, Sm. *Capsula* ovales, sessiles, apice radiatim striato, basi insertae, in appendice divisa terminali frondis dorsales. *Indusium* e marginibus inflexis appendicis continuum, intus liberum. *Br.*

SCHIZIEA dichotoma; frondibus omnibus pluries dichotomis, laciniis linearibus costatis apice attenuatis, appendicibus pinnatis adscendentibus, involucris crinitis. *Br.*

Schizaea dichotoma. *Swartz. Syn. Fil. p.* 150. "*TFilld. Act. Acad. Erford.* 1802. p. 30. / . 3./ .-2."

Willd. Sp. PL v. 5. p. 87. *Smith in Bees Cycl. Brown Prodr. FL Nov. Holl.p.* 162.

"*Ripidium dichotomum. Bernhards in Schrad. Journ.* 1800. 2. p. 127. t. 2. f. 3."

Acrostichum dichotomum. Linn. Sp. PL p. 1525.

"*Filix cochine. Petiv. Gazoph. t. 70.f.* 12."

HAB. In India Orientali China, insula Mauritii, Madagascar, Borbonia. *Carmichael. Nova Hollandia, intra tropicos.* Brown.*

Radix e fibris paucis, nigris, flexuosis, simplicibus, crassiusculis.

Stipites 4—6-unciales, erecti, basi teretes, apice compressi.

Frondes, circumscriptione subflabelliformes, repetitum dichotomae laciniis linearibus, compressis, c6riaceis medio costatis, glabris, plerumque laevibus, nunc, praecipue in speciminibus e Nova Hollandia, marginibus costaque dorso asperis, apicibus obtusis.

Appendices fructificantes recurvae, profunde pinnatifidae, a tria ad decem paria; in tribus ad quinque paribus dispositae, oppositae lineares semiteretes, intus costa margineque pilosae, ultime breviores.

Capsulae duplici serie, costa utrinque, dispositae, sessiles, ovaes, pulcherrime reticulatae, ad verticem radiatae, longitudinaliter, ad latus inferius (i. e. versus basin segmentorum) dehiscentes.

Semina oblonga.

Fig. 1. Appendix fructificans. f. 2. Ejus lacinia cum capsulis. f. 3. Capsulae. f. 4. Semina:—*magn. auct.*

Mr. Brown, in his admirable *Prodrovius Flora NOVCB Hollandia*, mentions that this plant is liable to great variation both in regard to the number of pinnae, of which the fructifying appendage is composed, and to the roughness of the frond. Sir James Smith, too, mentions an Otaheitan variety, or, as he is inclined to think, a distinct species, which he would call *S. fastigiata*, having "the segments of its fertile fronds level-topped and exceedingly numerous, the appendages uniformly four pair, as nearly as possible, in each spike, all of them erect and parallel, not divaricated, nor are the spikes recurved." We have received what we consider to be the same plant, from the East India Company, named by Dr. Wallich *S. dichotoma*: but here the appendages are not one-fourth the size of those we have figured.

The specimens here represented were sent to us from the Mauritius by M. Bojer.



Panax alata

TAB. XVIII.

DANIEA ALATA.

FILICES.—MARATTIEJE. *Bory.* POROPTERIDES. *TVilld.*

GEN. CHAR. *DANIEA*, Sm. *Sori* lineares, dorsales, transversi, paralleli. *Capsulce* in series geminatas arete connatae, superne poro dehiscentes. *Indusium* superficialium soros cingens. (*Asplenii* Sp. *Linn*)

DANIEA alata; fronde pinnata, rachi subnodosa superne alata; pinnis subsessilibus, *sterilibus* elliptico-oblongis acuminatis apice *serratis*, *fertilibus* anguste lanceolatis integerrimis.

Danaea alata. Sm. *Tracts*, p. 261. Sw. *Syn. Fil.* p. 167. *JWilld. Sp. PL* v. 5. p. 68. Sm. in *Rees Cycl.*—*Kaulf. Enum. Fil.* t. 1./3. (*pinnafertilis et sorus.*)

Lingua cervina nodosa minor. *Plum. Fil. Am.* p. 91. t. 109.

HAB. In Martinica. *Plumier.* Jamaica. *Swartz.* Insula Sancti Vincentii, non raro. *Rev. L. Guildifig.*

Caudex longus, repens, carnosus, nigro-fuscus, supra reliquiis stipitum vetustorum tectus, hic illic fibrosus.

Fronde bi-tripediales, simpliciter pinnatae, erectae;

Steriles, circumscriptione oblonga, basi attenuata, apice acuta. *Stipes* subpedalis, tres quatuor lineas longus, squamulis ferrugineis obsitus, basi teres, auriculatus, facie suprema canaliculatus. *Rachis* compressa, ad pinnarum insertionem* nodosa, superne membrana utrinque alata. *Pinnae* subremotae, breviter petiolatae, oppositae, 4—6-pollicares, inferiores multo minores, ovals, reliquae oblongo-ellipticae, apice attenuate, dentato-serratae, basi inaequali subcordata, supra intense virides, glabriusculae, subtus pallidiores, margine incrassato*; costae subtus ferrugineo-squamosae, nervis numerosis parallelis distinctis fere horizontalibus, simplicibus, vel, rarissime, furcatis;

Fertiles, quoad formam, fere omnino ut in *sterilibus*, sed pinnae multoties angustiores, lineari-lanceolatae, acuminatae, margine undulatae potius quam serratae. *Indusium* membranaceum, soros undique cingens.

Capsulce 12—16, ovals, nervo, ut nobis videtur, in series geminatas et arete connatas unitae, massam (vel sorum) unicam linearem formantes, parallelae, et totam fere inferiorem partem pinnarum occupantes, superne poro dehiscentes.

Semina minuta, sphaerica vel subreniformia.

Fig/1. Portio pinnae fertilis. f. 2. *Indusium* a quo sorus removetur. f. 3. Sorus lateraliter visus. f. 4. Sorus a dorso visus. f. 5. Portio frondis, cum duobus soris, longitudinaliter secta. f. 6. Sorus hinc longitudinaliter sectus. f. 7. *Semina*:—*magn. auct.*

We are not aware that any attempt has yet been made to cultivate this handsome and curious species of Fern: but now that we have been so successful with many other individuals of this graceful tribe of plants, we do not yet despair of seeing it flourish in our stoves.

It is probably a native of several of the West India islands, having been found in Martinique by Plumier, in Jamaica by Swartz, and in the fertile island of St. Vincent by our friend the Rev. Lansdown Guilding, whose inestimable botanical communications from that country, particularly of Ferns, have been one of the principal inducements for us to undertake the present publication.

The genus *Danaea* is a very distinctly marked one, having the under side of the pinnae almost wholly covered with closely placed, parallel, immersed sori, formed of a double row (the rows joined by the lateral nerve upon which the sorus is inserted) of closely united capsules, each opening by a pore at the extremity. Upon removing a sorus, a deep cell or cavity remains; as at fig. 2,



Aphioglossum pendulum.

OPHIOGLOSSUM PENDULUM.

FILICES.—OPHIOGLOSSUM/E, JBr., *Kanlf.** STACHYOPTERIDES. *Willd.*

GEN. CHAR. *OPHIOGLOSSUM*. Linn. *Capsula* nudae, in spicam articulata disticham connatae, uniloculares, transverse dehiscentes, bivalves. *JWilld.*

OPHIOGLOSSUM pendulum; fronde pendula lineari dichotoma, spica pedunculata medio frondis inserta.

Ophioglossum pendulum. Linn. *Sp. PL* p. 1518. Swartz. *Syn. Fil.* p. 170. Willd. *Sp. PL* v. 5. p. 60. Smith in Rees *Cycl.* Sieber *Herb. Fil.* n. 16.

Scolopendriâ. Rumph. *Amb.* v. 6. p. 84. t. 37-f- 3.

HAB. In arboribus Amboynae, ubi rarum. Rumphius. Mauritii. Carmichael, Sieber. Et in montibus excelsis insulae Owhyhee. David Nelson.

Parasiticum. Frondes 2—3 ex eadem parva tuberculata radice, pendentes, bi-tripediales, usque ad quinque pedes longae, basi angustae, deinde lineares, tenues, siccitate coriaceo-membranaceae, 6 lineas ad pojlicem latae, simpliciter vel bis dichotomae, virides, reticulatae, areolis elongatis; segmentis apice obtusis, margine undique integerrimo.

Spica pedunculata, nunc basin versus, prope medium, vel infra apicem, frondis sita, digitum ad pedem longa, pendula, linearis, compressa, marginibus utrinque capsulifera. Hae *capsulcc* arete connatae, sphaericae, transversim dehiscentes.

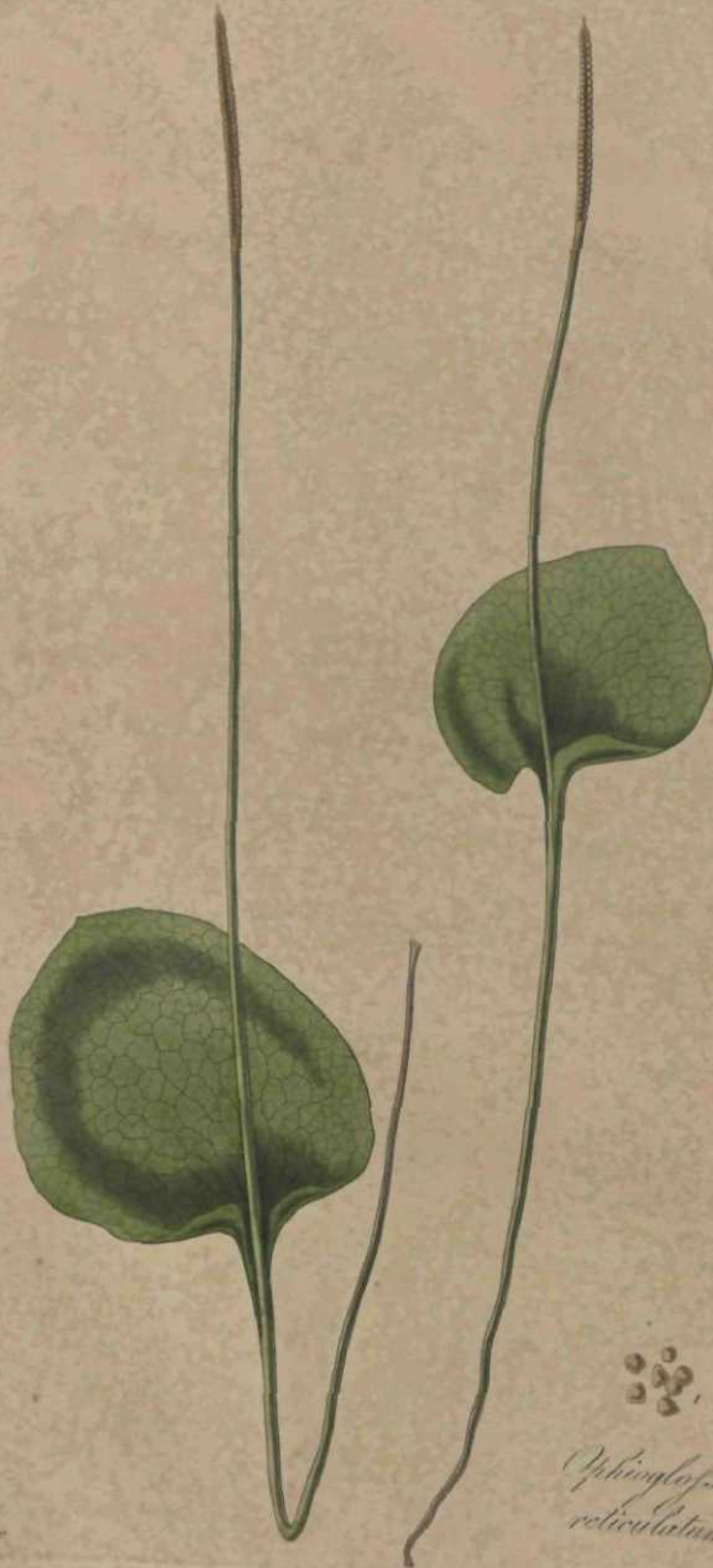
Peduncidus duas uncias longus, teres.

Semina parva sphaerica fusco-lutea.

Fig. 1. Capsula dehiscens. f. 2. Semina :—*magn. auct.*

This noble species of *Ophioglossum*, only perhaps exceeded in size by the South American *Ophioglossum palmatum*, has been sent to us from the Mauritius by Captain Carmichael (from whose specimens the accompanying figure has been drawn) and by Dr. Sieber. It is probably not uncommon there. In Amboyna, Rumphius says, it is exceedingly rare. In the Banksian Herbarium, Sir James Smith tells us, very fine specimens are preserved, gathered by Mr. David Nelson upon the high mountains of Owhyhee.

Leman, in the *Dictionnaire des Sciences Naturelles*, suggests that on more minute examination of the fructification, this species will be found distinct from the genus *Ophioglossum*: but we see no reason for entertaining such an opinion.



OphioGLOSSUM
reticulatum.

W. G. Smith del.

Smith sc.

OPHIOGLOSSUM RETICULATUM.

FILICES. — OPHIOGLOSSIJE. *Br., Kaidf.* STACHYOPTERIDES. *Willd.*

r. EN. CHAR. *OPHIOGLOSSUM*, Linn. *Capsulce* nudae in spicam articulata disticham connatae, uniloculares, transverse dehiscentes, bivalves. *Willd.*

OPHIOGLOSSUM *reticulatum*; spica caulina longissime pedunculata, fronde cordata apiculata reticulata "radice elongata."

Ophioglossum reticulatum. *Linn. Sp. PL p. 1518. Swartz. Syn. Fil p. 170. Willd. Sp. PL v. \$p. 60. Smith in Bees Cycl.—Lam. Illustr. t. 864. / 2. Sieber Herb. Fil n. 19.*

Ophioglossum cordifolium. *Rob. MSS. cum Ic.*

Ophioglossum cordatum et reticulatum. *Plum. Fil p. 141. t. 164.*

HAB. In Insulis Mauriti et Borbonise, Indiae Orientalis. In Hispaniola, Jamaica, et Guiana, Indiae Occidentals.

Radix (fide Plumieri) descendens, elongata, carnosae, 2—3-pollicaris, fibris plurimis albidis simplicibus instructa.

Stipes 4-6-pollicaris, erectus, teres, viridis.

V. rons *SO* *Taria* ad apicem stipitis, lato-cordata, vel cordato-rotundata, carnosae-membranaceae, reticulatae, areolis ano-ulato-rotundatis, margine integerrimo, apice apiculatae, basi profunde emarginatae, marginibus in stipitem decurrentibus.

Pedunculis e sinu frondis, erectus, teres, gracilis, 6-7 uncias longus.

Spica terminate, solitaria, biuncialis, lineari-compressa, mucrone terminata.

Capsulce parvae, arctissime connatae, *seminibus* angulato-sphaericis repletae.

Fig. 1. *Semina:—magn. auct.*

It is the case with this, as with many other tropical Ferns, that it is found equally in the New as in the Old World. Our specimens are all from the Mauritius; but judging from the figures of Plumier above quoted, and the testimony of other writers, there appears to be no difference between them and those that are natives of the West Indies.

The drawing was made from specimens gathered by Captain Carmichael in the Mauritius.



Acrostichum hybridum

ACROSTICHUM HYBRIDUM.

FILICES.—GritATiE. *Br.* POLYPODIACEÆ. *Kaulf.* FILICES verte. *Willd.*

GEN. CHAR. *ACROSTICHUM*, Linn. *Sori* amorphi, seu *Capsule* per totam paginam inferiorem frondis (interdum divers*) vel ad ejus partem spars*. *Involucrum* nullum (nisi squamulae, vel setae in quibusdam capsulis interstinctae). *Br.*

ACROSTICHUM hybridum; frondibus oblongo-lanceolatis subacuminatis, margine costa stipiteque paleaceo-hirsutis, fertilibus multo minoribus glabris.

Acrostichum hybridum. *Bory de St. Fine. Voyage, v.3.p. 95. Swartz.Syn.Filp.il. Willd.*

Sp. PL v. b.p. 107.

Acrostichum ciliare. *Pet. Th. Trist. d'Acugn. p. 32? Carmichael in Descr. of the Island of Tristan da Cunha, in Linn. Trans, v. 12.p. 510. (fide specim. ejus.)*

Acrostichum villosum. *Sieber, Syn. Fil. n. 2?. non Swartzii.*

HAB InsulaBorboni*. *Bory.* Mauritio. *Sieber, Bojer.* Tristan da Cunha. *Carmichael.*
*Caude** repens, brevis, squamis longis, numerosissimis, fuscis, lanceolato-subulatis dense obsitus, inferne fibris pkrimis, ramosis, ferrugineo-tomentosis instructis.

Stipes 6-8-pollicaris, fusco-flavescens, squamis subulatis, fuscis, horizontalibus sparse tectus.

^Loblongo.lanceolata, 6-8uncias longa, duas uncias et ultra lata, submembranacea, ind. tincte marg. nata, medio costata, nervis subhorizontalibus versus eorum basin bis terve dichotomis, costa, superficie raro, marginibusque dense squamoso-hirsuti, Sg*** subulate, pmpureo-fusc, duas vel tres Hneas long., sub lente Lute semulatae atque pulcherrime reticulate, areolis oblongi, *Frons fertilis* sterili tnplo minor, squam,

is.
 C ^ t o t a m inferior partem, costa excepta, tegentes, fuse, vel flavo-fusc, pedicellate, annulo crasso incompleto cinctae.

Semina oblonga, subreniformia.

Fig. 1. Capsule f. 2. Semina. f. 3. Squama, e margine frondis :-*magn. auct.*

This seems in every essential particular to accord with the *A. hybridum* of Bory, who found the plant in the Isle of Bourbon, and whose name we have here adopted. We have received the same plant from Dr. Sieber, under the name of *A. villosum* of Swartz, which, besides being a native of Jamaica, is described as having the sterile fronds on both sides, and the fertile one on the upper surface, clothed with hairs; and so Plumier figures them. It is also the *A. ciliare* of Capt. Carmichael, and probably of Du Petit Thouars.



Acrostichum striatum

J. Deane delin.

ACROSTICHUM OBTUSATUM.

FILICES.—GYRATTE. *Br.* POLYPODIACEA. *Kaulf.* FILICES verae. *Willd.*

GEN. CHAR. *ACROSTICHUM*, Linn. *Sort* amorphi, seu *Capsulte* per totam paginam inferiorem frondis (interdum diversae) vel ad ejus partem sparsae. *Involucrum* nullum (nisi squamulae vel setae in quibusdam capsulis interstinctae). *Br.*

ACROSTICHUM obtusatum; frondibus simplicibus piloso-squamosis, squamulis subulatis sparsis; sterilibus oblongis, fertilibus ovatis, stipitibus hispidis. *Carm.*

Acrostichum obtusatum. *Carm. in JDescr. of the Island of Tristan da Cunha, in Linn. Trans. v. 12. p. 510.*

HAB. In planitiis ad rupes excelsas montis Insulae Tristan da C unite. *D. Carmichael.*

Radix, nobis ignota.

Stipes erectus, flexuosus, triuncialis, inferne glaber, superne plerumque hispidus, pilis vel squamulis lineari-lanceolatis, horizontalibus, obscure reticulatis serrulatis fuscis.

From sterilis vix sesquiunciam longa, ovalis vel etiam elliptica, nunc ovata, subundulata, coriacea, integerrima, apice obtusiuscula, pilis vel squamulis sparsis, plerumque versus basin frondis, obsita: *fertilis* minor, plerumque ovalis, facie superna margineque squamuloso-pilosis.

Capsulce totam paginam inferiorem frondis tegentes, intense fuscae, sublonge stipitatae, annulate, *annulo* lato, incompleto.

Semina numerosa, parva, subsphaerica, margine tuberculato.

Fig. 1. Plantae, *magn. nat.* f. 2. Squamula. f. 3. Capsulae. f. 4. Semina:—*magn. auct.*

Discovered in the Island of Tristan da Cunha by Captain Carmichael of Appin, to whom we are indebted for our specimens. We know not that it has been noticed by any other author.



Stemodia purpurascens

ACROSTICHUM FLAGELLIFERUM.

FILICES.—GYRATE. *Br.* POLYPODIACE.E. *Kaulf.* FILICES verse. *Willd.*

GEN. CHAR. *ACROSTICHUM* Linn. *Sort amorphi*, seu *Capsula* per totam paginam inferiorem frondis (interdum diversae) vel ad ejus partem sparsae. *Involucrum* nullum (nisi squamulae vel setae in quibusdam capsulis interstinctae). *Br.*

ACROSTICHUM Jlagelliferwn; fronde pinnata, pinnis paucis remotis lanceolatis (magis minusve latis) breviter petiolatis, terminali longissima flagellifonni.

Acrostichum flagelliferum. *JVaUich MSS.*

Panna Mara-maravara. *Rheede, Hort. Malab. v. 12. p. 39. t. 19.*

HAB. In India Orientali. *Rheede. Wallich,*

" *Caudex* ab una parte excurrit, curvus, nodosus, exterius fuscus, interius rufus, lignosus, plurimis fibris capillisque nigris, circa inferiorem partem coriaceus, hirsutie, cui se corticibus arborum affigit, obsessus, odoris gravis et ingrati, saporis amari." *Rheede.*

Stipes altitudine variat, non raro pedalis, glaber, fuscus, hinc canaliculatus: *rachis* etiam glaber.

Frons, circumscriptione, lanceolata, pinnata, pinnis remotis, 5—9, nunc oppositis, nunc alternis, *sterilibus* ovali-lanceolatis lanceolatis, basi in petiolum brevem attenuatis, apice magis minusve acuminatis, costatis, simpliciter paralleli nervosis, marginibus undulatis nunc subcrenatis, ubique glabris; *terminali* longissima non raro pedali, attenuata, recurva, et, ut nobis videtur, quandoque prolifera, radicante.

Capsulce nunc totam inferiorem partem omnium pinnarum tegentes, nunc magis minusve interruptae et intra nervos a margine decurrentes, intensas, fuscae, pedicellatae, annulo fere completo.

Semina minutissima, oblonga, glabra.

Fig. 1. Capsulas. f. 2. Semina:—*magn. auct.*

This highly remarkable Fern was communicated to us by Dr. Wallich from the Calcutta Botanic Garden, with the MS. name here adopted, and a reference to the very tolerable figure in the *Hortus Malabaricus*. It is there celebrated as a medicinal plant of no ordinary virtue: " Cum saccharo in syrupum redacta, tussim, morbum endemium, omnia pulmonum vitia, dispnoeam, morbum lunaticum, phthysin curat."



Synnogramma cheilanthoides

W. Smith del.

GYMNOGRAMMA CHEILANTHOIDBS.

FILICES.—GYRATE- *Br.* POLYPODIACETE. *Kaulf.* FILICES verae. *Willd.*

GEN. CHAR. *GYMNOGRAMMA*, Desv. *Sort* oblongi venis frondis simplicibus furcatisve inserti. *Indusium* nullum. *Fronde* pinnatae, bipinnatae decompositaeque; *radices* caespitosae. *Desv.*

GYMNOGRAMMA cheilanthoides; fronde pinnata, pinnis sub-bipinnatifidis, laciniis oblongis obtusis rachique pilosis.

Gymnogramma cheilanthoides. *Kaulf. Enum. Fil. p. 71.*

Gymnogramma filipendulaefolia. *Desv. Journ. de Bot. 1813./?. 25.*

Grammitis cheilanthoides. *Swartz. Syn. Fil. p. 23. 219 et 419. Willd. Sp. Pl. v. 5. p. 143.*

Carmich. in Descr. of the Island of 2Yistan da Cunha, in Linn. Trans, v. 12. p. 510.

Asplenium filipendulapoliurn. *Pet. Th. Trist. d*Acugn. p. 34. t. 4.*

HAB. In Insula Mauritii. *Swartz. Tristan da Cunha. Pet. Thouars. Carmichael.*

Stipes gracilis, laevis, nitidus, hinc sulcatus, nigro-purpurascens, 4—5 uncias longus.

Frons, circumscissifone, lineari-lanceolata, pinnata, pinnis membranaceis, fiavo-viridibus, arete dispositis, ovato-cordatis, vix pollicem longis, profunde pinnatifidis; segmentis superioribus integris vel bifidis, inferioribus iterum pinnatifidis, omnibus oblongis obtusis subincurvis, dorso venisque subtus pilosis,

Rachis superne pilosus, inferne glaber.

Sort oblongi, venis lateralibus simplicibus vel furcatis inserti, indusio omnino destituti.

Capsulce brevissime pedicellate, annulo incomplete

Simina parva, triangularia.

Fig. 1. Pinna cum portione rachidis. f. 2. Portio pinnae cum capsulis. f. 3. Capsula dehiscens. f. 4. Semina:—*magn. auct.*

In those *Grammitides* of Swartz and Willdenow, which have much divided fronds, the nerves are more decidedly furcate than in those with simpler fronds, and the sori have this forked character likewise. These species are removed by Desvaux, and we think with propriety, to the genus *Gymnogramma*. The present is one of the most rare and the most beautiful of the genus. Our specimens were received from Captain Carmichael, who gathered them at a considerable elevation on the face of the Table-land, and on a detached hill "n the middle of the plain, in Tristan da Cunha.



Synnogramma leptophylla

GYMNOGRAMMA LEPTOPHYLLA.

FILICES.—GYRATE. *Br.* POLYPODIACEA. *Kauif.* FILICES verae. *Willd.*

GEN. CHAR. *GYMNOGRAMMA*, Desv. *Sort* oblongi, venis frondis simplicibus furcatisve inserti. *Indusium* nullum. *Fronde*s pinnatae bipinnatae decompositaeque; *radices* caespitosae. *Desv.*

GYMNOGRAMMA leptophylla; frondibus bipinnatis, pinnulis cuneatis decurrentibus subtrilobis, lobis obtusis bifidis bidentatisve.

Gymnogramma leptophylla. *Desv. Journ. de Bot.* 1813. p. 26. *Kaulf. Enum. Fil.* p. 81.

Grammitis leptophylla. *Swartz. Syn. Fil.* p. 23 et 218. / 1. f. 6. *Willd. Sp. Pl.* v. b.p. 143.

Web. et Mohr Fl. Crypt. Germ. p. 26.

Hemionitis leptophylla. " *Lagasca Gen. et Sp.* p. 33."

Polypodium? *leptophyllum*. *Linn. Sp. Pl.* p. 1553. *Schkuhr Fil.* p. 26.

Acrostichum leptophyllum. *DeCand. Fl. Fr.* v. 2. p. 565.

Asplenium leptophyllum. " *Cav. in Annal. Sc. Nat.* v. 5. p. 13. t. A. f. 3. mala."

Osmunda leptophylla. *Lam. Diet.* v. 4. p. 657.

HAB. In Europa australi, locis humidis.

Radix parva, caespitosa, e fibris nigrescentibus arachnoideo-tomentosis.

Stipites erecti, glabri, nitidi, graciles, hinc sulcati, basi castanei, superne virides.

*Fronde*s circumscriptione ovato-lanceolatae, bipinnatae, tenerae, membranaceae > pallide virides, pinnis ovatis, alternis, distantibus, patentibus, pinnulis cuneatis alternis decurrentibus trilobis, lobis nunc bifidis, plerumque emarginatis obtusis, pinnulis frondium sterilium majoribus.

Sort in singulo segmento pinnularum venulis inserti, oblongi, non raro basi uniti, e capsulis numerosis fuscis, brevissime pedicellatis, annulo fere completo cinctis.

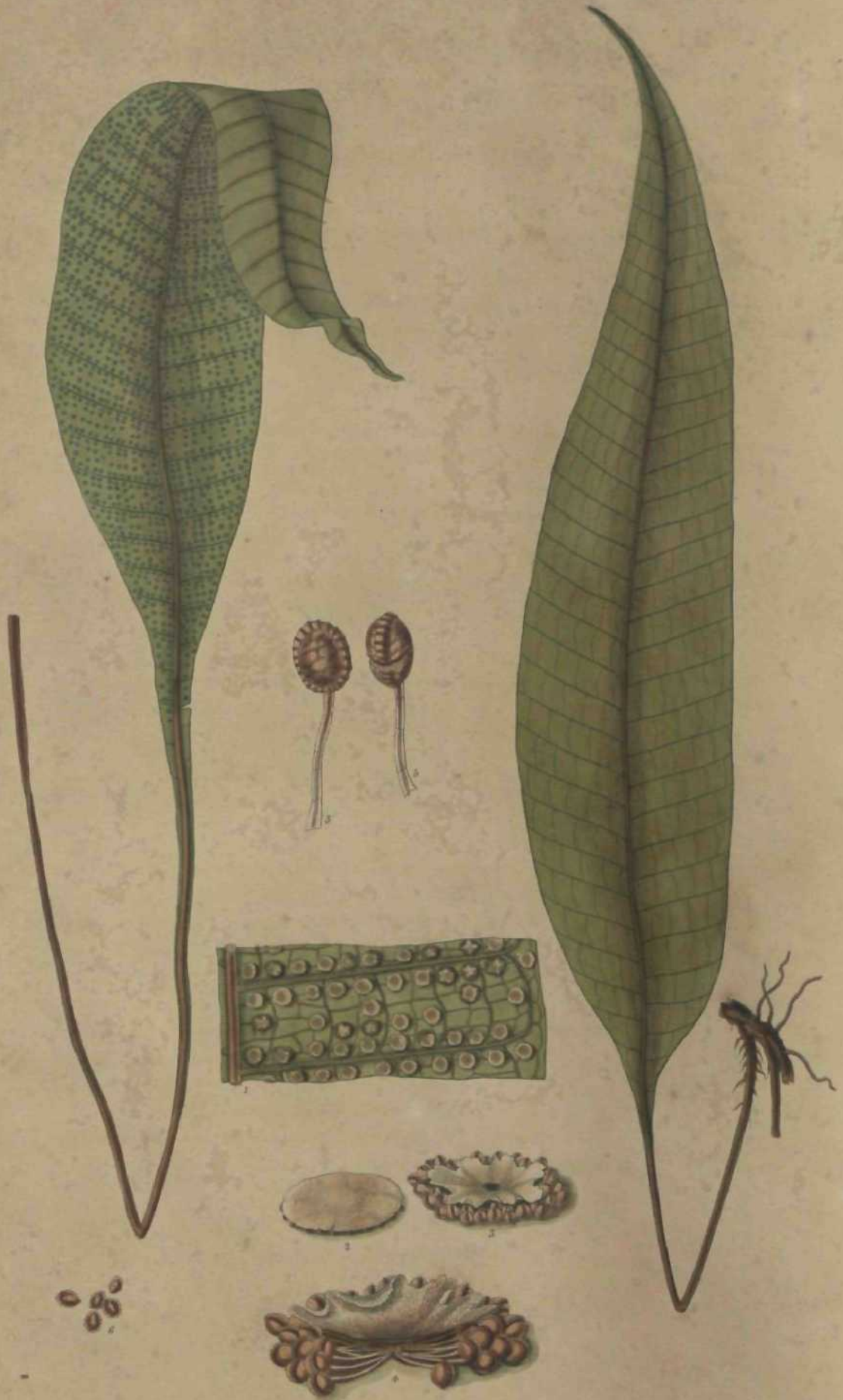
Semina numerosa, triangularia.

Fig. 1. Pinnula ab inferiore parte visa, cum lineolis fructificantibus. f. 2. Sorus, capsulis plurimis abductis.

f. 3. Capsula dehiscens, cum ejus seminibus. f. 4. Semina:—*magn. auct.*

A species confilied, we believe, wholly to the South of Europe.

The specimens from which our figures and description were made, were gathered by M. Thomas, of Bex, in the Pyrenées.



Aspidium Singaporeanum

ASPIDIUM SINGAPORIANUM.

FILICES.—GYRATE. *Br.* POLYPODIACEÆ. *Kaulf.* FILICES verae. *JVittd.*

GEN. CHAR. *ASPIDIUM*, *Br.* *HYPOPELTIS*, Mich. *ASP ID II species*, Sw., Willd.
Sori rotundi, dorsales. *Involucrum* orbiculare, peltatum, stipitatum, in medio sori insertum,
 undique liberum. *Br.*

ASPIDIUM Singaporianum; fronde simplici stipitata late lanceolata acuminata integerrima, basi
 decurrense, sori in venis ternariis, capsulis longe pedicellatis.

Aspidium Singaporianum. *Wallich MSS.*

HAB. In insula, Singapore dicta. *JWallich.*

Caudex repens, sublignosus, hic illic radiculosus.

Stipes erectus, 4—8-pollicaris, teres, glaber, nigro-fuscus, hinc sulcatus, inferne subsquamosus.

Frondis octo uncias longa, late lanceolata, submembranacea, utrinque glabra, margine omnino integerrima, apice
 acuminata, basi decurrens, costata, venisque lateralibus rectis subobliquis instructa. Ex his venis aliae venae,
 venulis fructiferis reticulate, ortae sunt.

Sori numerosi, fusci, venis ternariis siti, parvi.

Involucrum exacte orbiculare, medio depressum, membranaceum, peltatum, vix stipitatum, demum, marginibus
 solutis, subrecurvis, undulatis.

Capsulae sphaerico-compressae, annulo integro cinctae, reticulatae, longe pedicellatae.

Semina subsphaerica, reticulata, limbo subpellucido marginata.

Fig. 1. Portio frondis, cum sori. f. 2. Sorus vix maturus. f. 3. Sorus maturus. f. 4. Ejusdem sectio.
 f. 5. 5. Capsulae. f. 6. Semina.

In the character we have here given of *Aspidium*^ we have in view the adopting Michaux's and
 Mr. Brown's idea of separating the old *Aspidium* of Swartz into three genera, *Aspidium*, *Nephro-*
dium, and *Athyrium*. We have not yet ourselves had sufficient experience to determine how far
 their characters are well defined; but feeling the necessity of grouping into something more than
 divisional characters the overgrown genus *Aspidium*, we willingly follow such able botanists as
 those now quoted.

Of the original *Aspidia*, three only are described by Willdenow with "undivided fronds;" and they
 have all an articulated or jointed stipes. There is a fourth species with a stipes destitute of joint
 given in the Exotic Flora, *Asp. Wallichii*, Hook.: but that would be a *Nephrodium* of Brown, and
 has the sori confined to a line on each side the midrib; whereas here the fructifications are very
 numerous, arising, as in some *Polypodia*^ from the ultimate divisions of the veins: and indeed the
 whole plant has much the appearance of a *Polypodium*.

We are indebted for our specimens to our liberal friend Dr. Wallich.



Kiplenium subseriale

TAB. XXVII.

ASPLENIUM SUBSINUATUM.

FILICES.—GYRATE. *Br.* POLYPODIACEJE. *Kaulf.* FILICES verae. *Willd.*

GEN. CHAR. *ASPLENIUM*, Linn. *Sori* lineares, sparsi, dorsales. *Involucrum* e vena lateraliter ortum ducens, margine superiore libero. *Br.*

ASPLENIUM subsinuatum; fronde simplici longe stipitata lanceolata basi apiceque attenuata obscure nervosa, margine suberoso-sinuata.

Asplenium rigidum. *Wallich MSS.* (non Swartzii.)

HAB. In Nepalia. *Wallich.* In Zeylona (Herb, nostr.).

Caudex repens, sublignosus, rigidus, fibrosus, nigrescens, setosus.

Stipes 4—6-pollicaris, flexuosus, gracilis, basi setaceo-squamosus.

*Fronde*s 6—8-pollicares, coriaceae, lanceolatae, apice acuminatas, basi in stipitem attenuate, margine laeviter reflexae* suberoso-sinuatae, costatae, obscure nervosae, nervis patentibus parallelo-ramosis.

Sori lineares, transversales, fere ad marginem frondis attingentes.

Involucra pleraque superne aperiuntur; raro geminata (ut in *Diplazium*) et tunc alterum ad latus inferum dehiscet.

Capsulae numerosae, longe stipitatae, annulo fere completo,

Semina sphaerica, subangulata.

Fig. 1. Frondis portio cum soris. f. 2. 2. Capsulae. f. 3. Semina.

To the specimens with which we have been favoured by the Honourable the East India Company in 1825, the name, *Asplenium rigidum* of Wallich is attached: and we should have adopted this, had it not been applied by Swartz to a very different species. Again, the name of *Aspidium vrosium*, Wall., which accompanied Dr. Wallich's original specimens in 1820, is given by Linnaeus to a West Indian species.

It is intermediate between *Asplenium* and *Diplazium*; the main central nerve of a fascicle of nerves, as it appears to us, bearing the involucra of a *Diplazium*, while the lateral nerves on branches have those of *Asplenium*.



Pteris denticulata

PTERIS DENTICULATA.

FILICES.—GYRATĒ. *Br.* POLYPODIACEJE. *Kaulf.* FILICES veree. *Willd.*

GEN. CHAR. *Sjori* lineares, marginales, continui; *capsulis* sinu involucri insertis. *Involmrum* marginale, continuum, scariosum, intus liberum. *Br.*

PTERIS *denticulata*; frondibus pinnatis, pinnis decurrentibus suboppositis, duobus vel tribus paribus inferioribus margine exteriori (prsecipue) pinnatifidis raro bipinnatifidis setoso-dentatis; fertilibus ad apicem solummodo denticulatis.

Pteris denticulata. *Siv. Fl. Ind. Occ. v. 3. p. 1600.* *Sw. Syn. Fil. p. 97.* *Kaulf. Enum. Fil. p. 187.*

Pteris brasiliensis. *Raddi Syn. Fil. Brasil. n. 111.* *Raddi Fil. Brasil. p. 4J. t. 68 (bis).*

Pteris quadrifida. *B. Presl. in Del. Prag. I. p. 182. num. 32 (fide Raddi).*

Pteris tristicula. *Raddi Fil. Brasil. p. 46. / 69 ?*

HAB. In lapidosis umbrosis Hispaniolae. *Swartz.* In Brasilia. *Chamisso, Raddi, Burchell, D^a Maria Graham.* CULT. In Hort. Bot. Liverpool.

Caudex non vidimus, sed teste eel. Raddi, "subnullus, radiculis numerosis filiformibus flexuosis rigidis instructus, apice dense squamuloso, squamulis lanceolato-acuminatis,-denticulatis, nigris."

Stipites 6—8-pollicares ad pedalem, graciles, tetragoni, utrinque canaliculati, glabri, superne subalati.

Fronde pedales, nunc, fide Raddi, bipedales, circumscriptione ovatae, vel deltoideae, pinnatae. *Pinnce* plerumque exacte oppositae, lanceolatae, acuminatae, costatae, reticulatae; *superiores* decufrentes, *reliq̄ue* magis minusve petiolatae; *intermedia* ad basin divisae, *infimce* margine exteriori (nunc interiore) pinnatifidae, laciniis rarissime divisae. *Pinna* omnes, planta *sterili*, margine dentatae, dentibus setosis, *fertili*, ad apicem, solummodo, dentato-spinulosi. *Rachis petiolique* alati, superiore parte praecipue.

Sort continui, omnem marginem, praeter apices, occupantes.

Capsulce in sinibus involucri numerosae, sphaericae, annulatae, longissime pedicellatae, pedicello gracili, articulo, celluloso.

Semina triangularia, granulis minutissimis immixta.

Fig. 1. Frons fertilis. f. 2. Frons sterilis. f. 3. Pinnae portio cum soro. f. 4. Sorus, intus visus. f. 5. Capsula. f. 6. Semina cum granulis:—*magn. auct.*

If we are not deceived, this is a plant liable to considerable variation. We know, from specimens received from the author, as well as from the description and figure, that it is Raddi's *Pt. Brasiliensis*: but then we equally believe it to be the *Pt. denticulata* of Swartz and Willdenow. And we have in our own possession such a series of specimens, as almost make us believe that the *Pt. tristicula* of Raddi, and even his *Pt. spinulosa*, are states of the same plant.

The Messrs. Shepherds of the Liverpool Botanic Garden cultivate this plant in the stove: and it is well worthy a place in every collection.



Cryptogramma acrostichoides

CRYPTOGRAMMA ACROSTICHOIDES.

FILICES.—GYRATE. *Br.* POLYPODIACEA. *Kaulf.* FILICES verse. *Willd.*

GEN. CHAR. *CRYPTOGRAMMA*, *Br.* *Sari* lineares (vel subrotundi) venulis costae (pinnulae) obliquis insidentes. *Capsula* pedicellatae, receptaculo communi elevato nullo. *Involucrum* commune (pinnulae) marginale, continuum, disco venoso, margine scarioso libero saepius induplicato; partiale nullum.

Filiculae *glabella*. Frondibus *caespitosis bi-tripinnatifidis: centralibus mutato-contractis fertilibus, exterioribus sterilibus*. *Involucris dorsum totum pinnules tegentibus*. *Capsulis brevipedice/latis, annulo incomplete: sporulis obtuse trigonis, lavibus*. *Br.*

CRYPTOGRAMMA acrostichoides; frondibus bipinnatifidis, sterilium pinnulis ovalibus crenatis; fertilium demum explanatis, soris linearibus discum totum occupantibus. *Br.*

Cryptogramma acrostichoides. *Brown in App. to Franklin's Journ.p. 797.*

HAB. Apud Nootka Sound. *D. Menzies*. Regione subarctica Americae Septentrionalis, in sylvis opacis scopulosis inter lat. Septentr. 60° et 60° . *Richardson*.

"*Filix* 4?—8-uncialis, glabra, laete-virens, frondibus caespitosis, stipitatis, crasso-membranaceis opacis venis vix adversus lucem conspicuis.

"*Fronde*s exteriores caespitis *steriles*, circumscriptione lanceolate, bipinnatifidae apice pinnatae pinnis distinctis alternis brevissime petiolatis; pinnulis confluentibus, ovalibus, obtusis, crenatis, inferioribus passim dentatis, omnium venis e costa vix prominula acutangulis distinctis simplicibus bifidisve intra marginem crenaturae desinentibus. *Stipites* pallidi, subtus semiteretes, antice bisulci, infra medium conspersi, squamulis linearilanceolatis acuminatis, disco fusco-atro, limbo pallido, supra glabri. *Rachis* epaleata, angusta, compressa, colore et fere substantia frondis. Frondes centrales *fertiles* stipite sterilium longiore alioqui simili insidentes bipinnatae: pinnae petiolatae; *pinnulac* omnes fructiferae distinctae inferiores brevissime petiolate; ante explanationem involucri lineares, limbo utrinque recurvo, efformante *involucrum* fornicatum discum totum operiens pallide viride venosum margine scarioso avenio saepius induplicato: demum explanatae angusto-oblongae involucri quasi nullo: costa subtus particulis parvis flavis conspersa, venis costae obliquis, alte bifidis, fere bipartitis distinctis.

"*Sor* ramulos omnes venarum a basi ad apicem occupantes, lineares, distincti sed ita approximati ut discus totus pinnulae explanatae capsulis maturus tectus est et in hoc statio filix species *Grammitidis* vel *Acrostichi* quasi evadit.

"*Capsula*? breve pedicellate, turgide lenticulares annulo incompleto, altero lateri infra annuli terminationem transversim dehiscentes, *receptaculo* communi elevato nullo sed venae parum incrassate insidentes.

"*Spondee* triangulares, laseves, absque striis manifestis vel puncto opaciori, in cumulo dilute flavae separatim hyalinse." *Br.*

Fig. 1. Pinnulae duse fertiles, involucris adhuc involutis. f. 2. Portio pinnulae transversim secta. f. 3. Pinnula, involucris explanatis. f. 4. Portio pinnulae, cum soris. f. 5. Capsulae. f. 6. Semina vel Sporulae;—*magn. auct*

To so admirable a description of this plant as that here copied verbatim from Mr. Brown, we can add nothing. We believe the plant has never been found except in the stations above given. Mr. Brown has drawn up the character of the genus so as to include our *Pteris crispa*; which he, nevertheless, considers a doubtful species of *Cryptogramma*. To us, however, there appears no difference; and the fertile fronds have the closest similarity, in almost every particular, generic except in the shorter sori of capsules. In the sterile fronds the pinnules are much broader and never wedge-shaped, in the plant now before us.



Adiantum cucucatum

L. Swartz. Sculp.

ADIANTUM CUNEATUM.

FILICES.—GYRAT/E. *Br.* POLYPODIACE;E. *Kaulf* FILICES *verse.* *Willd.*

GEN. CHAR. *Sört* marginales, punctiformes vel lineares. *Involucrum* c niargine frondis replicato, disco venoso capsulifero, limbo membranaceo libero. *Br.*

ADIANTUM *cuneatum*; frondibus triplicato-pinnatis, pinnulis petiolatis cuneatis membranaceis apice rotundatis laciniato-bi-trilobatis, lobis profunde emarginatis segmentis falcato-incurvis, sinus soriferis, involucris reniformibus.

Adiantum cuneatum. " *Langsd. et Fisch. Ic. Fil. p. 23. t. 26.*" *Willd. Sp. PL v. 5. p. 450.*
Raddi Fil. Brasil. p. 59. l. 78. / 2. Kaulf. Enum. Fil. p. 206.

HAB. In Brasilia. *Langsdorff et Fischer, Chamisso, D^a M. Graham, Burchell.* Insula Sancti Vincentii. *Rev. L. Guilding.* CULT. In Hort. Bot. Liverpool.

Radix subcaespitosa, fibrosa, fibris ramosis, tomentosis.

Caudex digitalis ad palmarem, erectus, gracilis, atropurpureus, nitidus.

Frons, circumscriptione, ovata vel subdeltoidea, triplicato-pinnata.

JRachis petiolique gracillimi, atro-purpurei, nitidi.

Pinnulæ breviter petiolatæ, duas ad quatuor lineas longæ, membranaceæ, glabræ, dichotomo-nervosæ, cuneatæ, lateribus nunc inæqualibus, apice inciso-lobatæ, lobis duobus vel tribus; in *frondibus sterilibus*, subdentatæ; in *fertilibus*, profunde emarginatis, segmentis falcato-incurvis, sinus fructiferis.

Involucrum exacte reniforme membranaceum, pallide fuscum, majusculum, arete inflexum.

Capsulæ in disco involucri, sphaericæ, fere sessiles, reticulatæ, annulatæ, annulo incompleto.

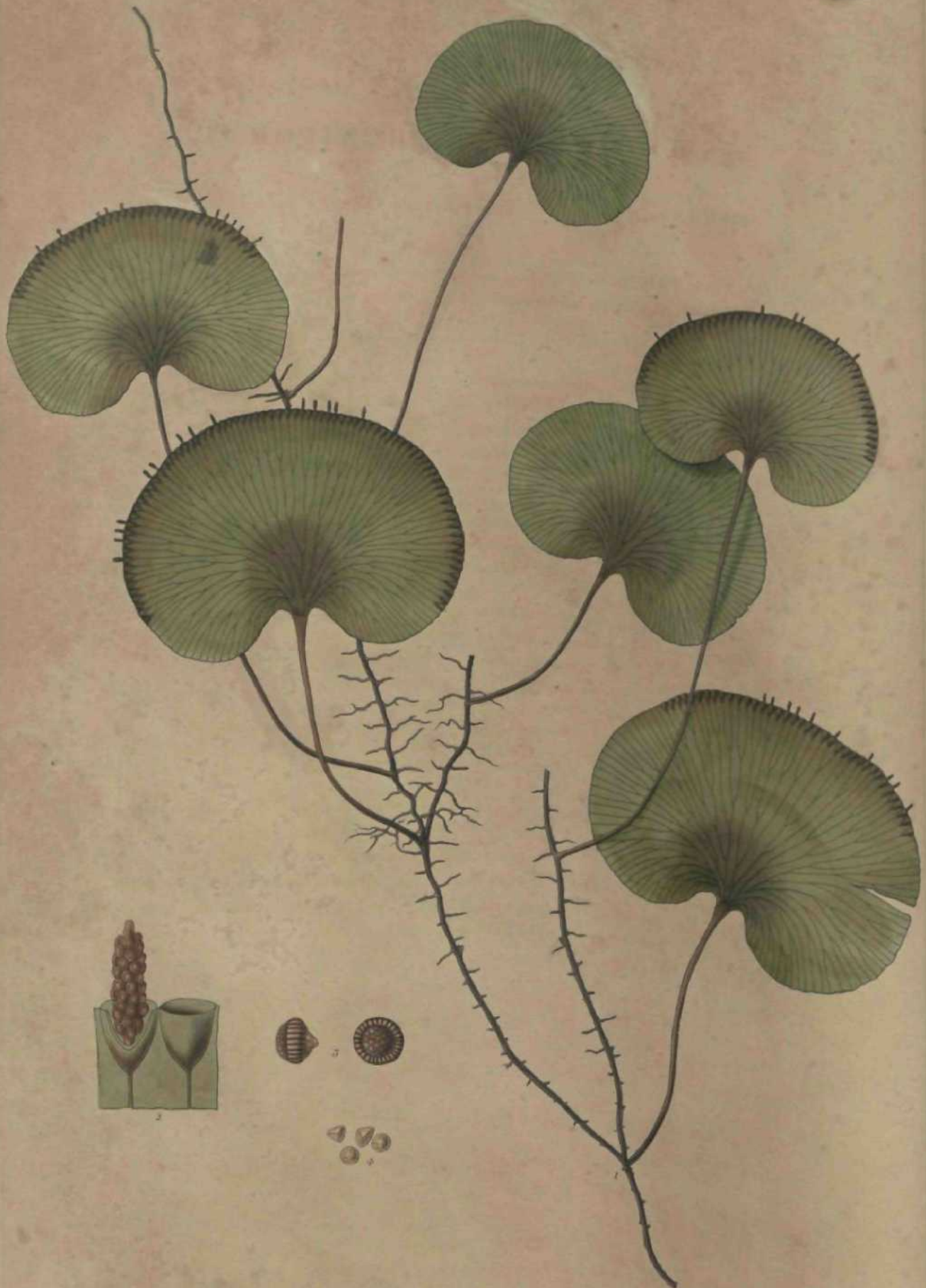
Semina oblongo-rotundata, vel subreniformia.

Fig. 1. Planta juvenis. f. 2. Planta adulta fructifera:—*magn. nat.* f. 3. Pinnula. f. 4. Involucrum, intus visum. f. 5. Capsula. f. 6. Semina:—*magn. auct.*

There appears to us to be great difficulty in determining the species of the genus *Adiantum* without the aid of figures; especially of that division which includes our European *A. Capillus Veneris*, and which division or group is characterized by having petiolated pinnules of a thin membranaceous texture, and more or less regularly cuneate in form.

The present plant is allied in general appearance to the species just mentioned, *A. Capillus Veneris*, but may be distinguished by its more compound frond, smaller pinnules, and, essentially, by the sori being placed in the bottom of the sinus of the notches. Still nearer does it approach to the *A. assimile* of New Holland (the *A. trigonum* of Billardiere, *Nov. Holl. t. 248.*); and I scarcely know how they may be recognized, but by the more decided lobes of the pinnae of our plant, and the much deeper notches, within which the fructification is inserted: add, too, that the segments of these lobes are so incurved and meet together in such a manner as to render the notch itself almost obsolete; so that at first sight the involucre seem to be intramarginal, or upon the disk of the pinnule.

In Brazil, the *A. cuneatum* appears to be not uncommon; and we have received an *Adiantum*, which we can in no way distinguish from it, from St. Vincent, sent by the Rev. L. Guilding. The Messrs. Shepherds received the plant from M. Otto of Berlin, under the name of *A. pendulinum*.



Trichomanes reniforme

TRICHOMANES RENIFORME.

FILICES.—GYRATE. *Br.* POLYPODIACETE. *Kaulf.* FILICES verse. *Willd.*

GEN. CHAR. *TRICHOMANES* m. *Sort* marginales. *Capsula* sessiles, receptaculo communi cylindraceo insertae, intra *Involucrum* monophyllum suburceolatum, ore hiante, textura frondis. *Br.*

TRICHOMANES *reniforme*; frondibus reniformibus integerrimis stipitatis.

Trichomanes reniforme. *Forst.Prodr.* n.462. " *Hedw. FU.fasc.3?* *Swartz. Syn. Fil.* p. 141. *etp.* 369. *Willd. Sp. PL* v.b.p. 499.

HAB. In Nova Zeelandia. *Forster. Menzies.* In sylvis densis ad ripam fluminis "Thames" dicti: parasiticum. *Fraser.*

Caudex longe repens, gracilis, subtortuosus, ramosus, glaber, radiculosus, arboribus adnascens.

Stipites digitales, alterni, plurimi ex eodem caudice, remoti, subcurvati, superne paululum dilatati, omnino glabri.

Frondes simplices, fere exacte reniformes, duas tres ad quatuor uncias longae, quatuor ad quinque uncias latae, integerrimae, coriaceo-membranaeae, diaphanae, nervis pluries dichotomis; e basi divergentibus, seu flabellatim dispositis.

Sori ad marginem frondis, arete dispositi, ad apicem singuli nervi.

Involucrum turbinatum fronde immersum, margine integerrimum.

Receptaculum cylindraceum, in speciminibus exsiccatis sublonge exsertum, et capsulis *undique* tectum.

Capsulce globosae, pulcherrime reticulatae, annulo lato completo cinctae.

Semina globosa vel triangularia, singulo e tribus corpusculis composite

Fig. 1. Planta:—*magn. not.* f. 2. Involucra dua. f. 3. Capsulae. f. 4. Semina:—*nag?i. auct.*

This singular and very beautiful Fern is, we believe, entirely confined to New Zealand, where it climbs over the trunks of trees. We have received it from Mr. Menzies; but our finest specimens were recently sent to us by Mr. Fraser, the colonial botanist in New South Wales.

The substance of the frond is rather thick, and it is pellucid, and of that nature which would lead to the suspicion of its having, in a fresh state, been succulent. In drying, therefore, the specimens may have shrunk considerably, especially at the margins; and to this circumstance, perhaps, may be attributed the exserted state of the capsules.



Trichomanes reptans

W. Smith del.

TRICHOMANES REPTANS.

FILICES.—GYRATE. *Br.* POLYPODIACEA. *Kaulf.* FILICES verse. *Willd.*

GEN. CHAJI. *TRICHOMANES*, Sm. *Sori* marginales. *Capsula* sessiles, receptaculo communi cylindraceo inserte, intra *Involucrum* monophyllum, suburceolatum, ore hiante, textura frondis. *Br.*

TRICHOMANES reptans; frondibus erectis simplicibus cuneato-ovatis incisis pinnatifidisve arete venosis, involucris paucis terminalibus exsertis bilabiatis, receptaculo subincluso.

Trichomanes reptans. *Swartz. Fl. Ind. Occ. v.3. p. 1727. Syn. Fil. p. 142. Willd. Sp. PL v. 5.p. 501. "Hedv. Fil. t. 3. / 4." (mala Willd.)*

Trichomanes minor repens, &c. *Brown Jamaica, p. 86.*

Phyllitis scandens minima &c. *Sloane Jam. v. 1. p. 74. t. 27. / 1 ?*

HAB. In arborum truncis vetustis cortici adnascens Jamaicae. *Swartz. Insula Sancti Vincentii. Rev. L. Guilding.*

Caudex longe repens, gracilis, filiformis, radicibus tomentosis dense obsitus.

Stipites breves, vix semiunciam longi, ferrugineo-tomentosi.

Frondes plurimae, pollicares, ovatae, obovatae nunc rotundatae, basi semper cuneatae, marginibus apiceque varie modo crenatis lobatis incisive, hic illic fasciculatim pilosis, pilis minutissimis reflexis. *Substantia* tenera, membranacea, minutissime reticulata, pulcherrime venosa, vix costata, sed veris e basi versus margines radiatim, vel potius flabellatim ramosis. *Color* laete viridis, nunc fuscescens.

Involucra solitaria vel bina, ad apicem frondis, plerumque in sinu lobulorum, fere omnino exserta, cylindracea, nuda, vel, inferne, marginibus utrinque alatis, apice bilabiate, labiis subrotundatis demum apertis.

Receptaculum filiforme, nostris speciminibus nunquam exsertum, medio capsuliferum.

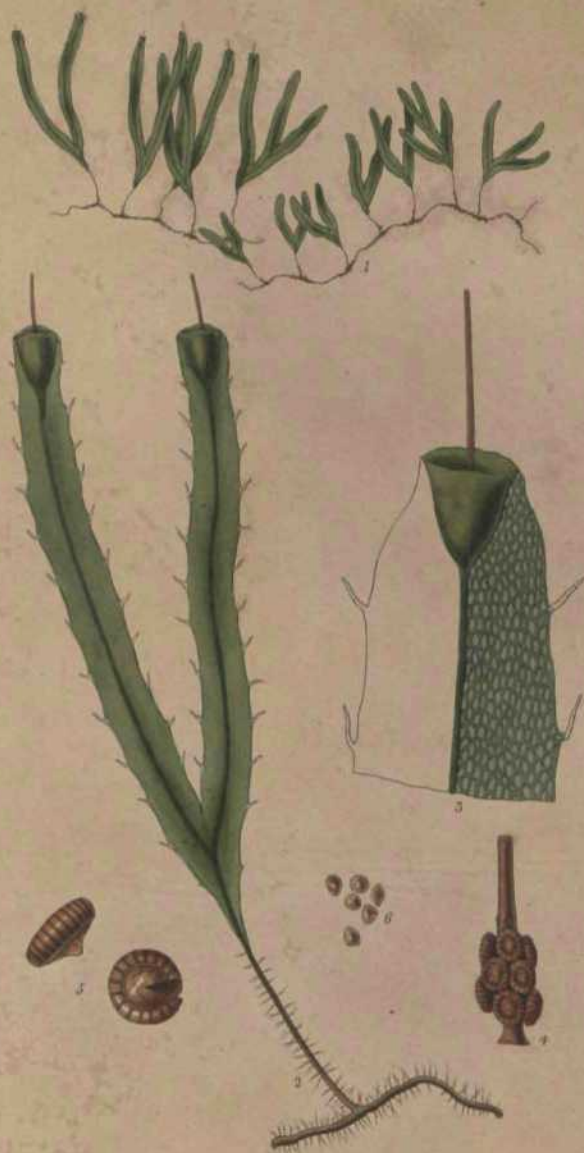
Capsula oblique inserte, sessiles, annulo completo instructa.

Semina subsphaerica.

Fig. 1. Frondes duae cum portione caudicis. f. 2. Involucrum. f. 3. Involucrum, verticaliter sectum. f. 4. Portio columellae, cum capsulis duabus. f. 5. Pili marginis frondis:—*magn. auct.*

Numerous beautiful specimens, received from our friend the Rev. Lansdown Guilding, of this minute Fern, enable us to give what we trust will be found to be satisfactory figures of this little known, though we believe not uncommon, species. The only ones that exist, that we are aware of, are, that of the younger Hedwig, which is acknowledged by Willdenow and Smith to be bad; and that of Sloane, which, though usually (and even by Swartz) quoted under *Tr. muscoides*, we think is better referred to this.

We have reason, indeed, to believe that the *Tr. muscoides* and *reptans* have been confounded by botanists; but the former differs from the latter (as we propose on another occasion to show more clearly by a plate) by its narrower, more beautifully reticulated and less veined frond, in the substance of which the involucre are inserted. We have another nearly allied species from Guiana, gathered by Mr. Parker, in which there is a strong nerve, having only as many divisions as there are lobes to the frond.



Trichomeces lanceum

L. Swartz del.

L. Swartz del.

TRICHOMANES LANCEUM.

FILICES. — GYRATE. *Br.* POLYPODIACEÆ. *Kaidf.* FILICES *verse.* *Willd.*

GEN. CHAR. *TRICHOMANES*, Sm. *Sort marginnes.* *Capsule sessiles, receptaculo rotundum cylindraceo insertae, intra Involucrum monophyllum, suburceolatum, ore hiante, texturu frondis.* *Br.*

TRICHOMANES lanceum; frondibus stipitatis linearibus pinnatifido-digitatis, laciniis linearibus inaequalibus elongatis obtusis setoso-serratis. *WtM.*

Trichomanes lanceum. " *Borrj in LitC Willd. Sp. PL v. 5. p. 501. Sieber, Syn. Fil. n. 81.*

Trichomanes digitatum. *Swam. Syn. Fil. p. 422 et 370.*

HAB. In Insula Borboniae. *Bory de St. Vincent.* Insula Mauritiæ. *Sieber.*

Caudex tenuissimus, filiformis, setosus.

Stipes erectus, 3-4 lineas longus, setis horizontalibus sparsis obsitus.

Frondes bipollicares di-trichotomaj, nunc subpinnatifida pinnis vel laciniis 4, segmentis linearibus costatis pulcherrime reticulatis, marginibus ciliatis, ciliis vel pilis remotis, articulatis.

Sorti solitarii ad apicem segmentotum frondis.

Involucrum substantia frondis immersum, turbinatum, subcompressum, ore aperto.

Eceptaculum involucro duplo longius, filiforme, ad basin capsuliferum.

Capsule rotundate, compressæ, annulo lato complete cincte.

Sm angulatæ granulibus nunc quatuor composita.

, , , , , , , D . f .

FV i. *Plantar-magn. nat.* f. 2. *Frons cum portione caudicis.* f. 3. *Apex fronds fertih.* f. 4. *Pars inferior*

receptaculwumcapsulis. f. 5. *Capsute.* f. 6. *Semina: -. . auct.*

The specimens from which our figure and description of this pretty little Fern were taken are published in the *Scepsis Filikum* of Dr. Sieber, and were gathered by him in the Mauritius.



Pymenophyllum marginatum

L. Swartz

L. Swartz

HYMENOPHYLLUM MARGINATUM.

FILICES.—GYRATE. *Br.* POLYPODIACEÆ. *Kaulf.* FILICES verse. *Willd.*

GEN. CHAR. *HYMENOPHYLLUM*, Sm. *Sari* marginales. *Capsule* sessiles, receptaculo communi cylindræo insertæ, intra *Involucrum* bivalve, texturâ frondis, valvis planis, exterius liberis. *Br.*

HYMENOPHYLLUM marginatum; frondibus crectis di-trichotomis laciniis linearibus obtusissimis subundulatis marginatis integerrimis, involucris terminalibus solitariis rotundatis, marginibus incrassatis integerrimis.

HAB. In Nova Hollandia, prope Port Jackson, inter Muscos. *Fraser.*

Comdex gracillimus, filiformis, pilosus, repens.

Stipes duas tres lineas longus, erectus, filiformis, basi pilosus.

Frondes pollicares, sesquipollicares, di-trichotomas, membranaceæ, pulcherrime reticulatæ, areolis minutis rotundatis, costatæ, basi attenuatæ?, laciniis linearibus, subundulatis marginatis, integerrimis, apice, frondium sterilium, obtusis, *fertilium* emarginatis.

Sori in sinu, ad apicem laciniarum, solitarii.

Involucrum rotundatum, bivalve, valvis subconvexis reticulatis integerrimis, marginibus incrassatis pulcherrime rubris.

Receptaculum filiforme, involucri brevius, apice liberum.

Capsule rotundatæ, compressæ, peltatæ, annulatæ?, annulo integro.

Fig. 1. Plantæ:—*magn. nat.* f. 2. Frons, cum portione caudicis. f. 3. Frondis apex cum soro. f. 4. Capsula : —*magn. auct.*

At first sight, and with the eye unaided by a microscope, this plant has very much the appearance of *Trichomanes lanceum*; but a more careful examination will show it to be very distinct, even as to its genus: the involucri here being completely that of a *Hymenophyllum*, and the margin wants the cilise of that plant,—being furnished instead with a thickened margin.

We have only received specimens from Mr. Fraser, gathered in New Holland, and, we believe, in the neighbourhood of Port Jackson.



W. Crayford del.

Lymnophyllum sibatum

J. Smith sculp.

HYMENOPHYLLUM CILIATUM.

FILICES.—GYRATJE. *Br.* POLYPODIACEA. *Kaulf.* FILICES verse. *Willd.*

GEN. CHAR. *HYMENOPHYLLUM*, Sm. *Sort* marginales. *Capsula* sessiles, receptaculo communi cylindraco inserta intra *Involucrum* bivalve, textura frondis, valvis planis, exterius liberis. *JBp.*

HYMENOPHYLLUM ciliatum; frondibus lanceolatis pinnatis pinnis bipinnatifidis laciniis linearibus obtusis, marginibus costaque ciliatis, ciliis bi-trifurcatis, rachi stipiteque alatis ciliatis.

Hymenophyllum ciliatum. *Swartz. Fl. Ind. Occ. v. 3. p. 1753.* *Syn. Fit. p. 147.* *Willd. Sp. PL v. 5. p. 519.*

Trichomanes ciliatum. " *Hedw. Fil?*

HAÆ- In truncis arborum montium Jamaicae, inque Antillis minoribus et Pennsylvania. *Willd.*

In Insula Sancti Vincentii. *Rev. L. Guilding.*

Caudex longe repens, gracilis, filiformis, hic illic radiculosus, ferrugineo-pilosus.

Stipes unciam ad duas uncias longus, superne alatus.

Frondes, circumscriptione, lanceolate, nunc ovato-lanceolatae, attenuatae, membranaceae, pulcherrime reticulate, pinnate, pinnis ovato-lanceolatis costatis bipinnatifidis, laciniis linearibus, apice plerumque bifidis, marginibus costaque ubique ciliatis, ciliis remotis, simplicibus bifidis trifurcatisve. *Rachis* alata, ciliata.

Involucra ad apicem laciniarum, solitaria, at praecipue pinnis superioribus, orbicularia, bivalvia, valvis concavis marginibus ciliatis.

Receptaculum breve, inclusum, ad ejus apicem capsuliferum.

Capsidæ 10—12 in singulo soro, rotundate, subcompressae, sessiles, obliquae.

Semina minuta, subsphaerica, fusca.

Fig. 1. *Involucrum*. f. 2. *Involucrum*, valva unica desumpta, cum soro. f. 3. *Receptaculum* cum capsulis duabus. f. 4. *Semina*. f. 5. *Ciliae* vel *pili* marginales.

Our specimens of this plant are from the Rev. Lansdown Guilding; and they agree entirely with the descriptions of Swartz and Willdenow.



Angiopteris erecta

W. Marshall del.

J. Smith sculp.

ANGIOPTERIS ERECTA.

FILICES.—OSMUNDACEAE: Div. II. Bory. MARATTIACEAE. Kaulf. SCHISMATOPTERIDES. Willd.

GEN. CHAR. *ANGIOPTERIS*, Hoffm. Sori oblongi, transversi, in lineam submarginalem confluentes. Capsulae discretae, circiter 10—14, duplici serie dispositae, ellipticae, subcompressae, antice poro oblongo hiantes. Indusium nullum. Kaulf.

ANGIOPTERIS erecta.

Angiopteris erecta. "Hoffm. in Comni. Goett. 12. p. 29. t. 5. exclusis syn. praeter Forsteri."

Swartz. Syn. Fil. p. 166 et 395. Willd. Sp. Pl. v. h. p. 69.

Angiopteris indica. Desv. Journ. Bot. t. 1813. ? . 267 ?

Clementea palmiformis. "Cav. Prel. 1802. n. 1164."

Polypodium erectum. Forst. Prodr. n. 438.

HAB. In Insulis Societatis et Marianis. Willd. In insula Otaheite. D. Menzies. Apud Sylhet, Indiae Orientalis. Dr. Wallich.

Caudex, fide Willdenovii, arboreus, quinquepedalis, diametro spithamali; sed, secundum Gaudichaudium, omnino subterraneus.

Frondes "sesquipedales (Willd.), decem ad duodecim pedales (Gaud.), bipinnatae."

Rachis laevis, teres, hinc, facie superna, sulcatus.

Pinnulae 4—6-pollicares, alternae, remotiusculae, oblongo-lanceolatae, subsessiles, basi magis minusve obtusae, apice attenuatae, marginibus serratae, costatae, venis numerosis parallelis simplicibus vel furcatis, supra intense virides, subtus pallidiores, ubique glabrae.

Sori oblongi, ad apicem fere omnium venularum (basi apiceque pinnularum exceptis) et ita arete dispositi, ut lineam longitudinalem prope marginem efformant.

Capsulae majusculae, nudaе, circiter 10—14 in singulo soro; duplici serie dispositae, erecto-patentes, obovatae, obtusissimas, sessiles, reticulatae, dorso sulco depresso longitudinali notatae, intus longitudinaliter dehiscentes.

Inter capsulas pili pauci articulati.

Semina minutissima, sphaerica, fusca.

Fig. 1. Portio pinnularum, cum ejus soris. f. 2. Sorus. f. 3. Sorus verticaliter sectus, interius visus. f. 4. Capsula, facie interiore visa. f. 5. Capsula a dorso visa. f. 6. Semina. f. 7. Pili e basi capsularum:—*magn. auct.*

The *Angiopteris indica* of Desvaux we have quoted as a synonym to the present species with a mark of doubt. All the character given is "*frondibus pinnatis, pinnis lanceolatis* :* and the observation is added, that it is easily distinguished from the already known species—" *rietant point cordiforme-lanckolée* Our specimens are never cordiform at the base of the pinnules, but are generally obtuse, sometimes acute.

From Dr. Wallich again we have a plant marked "*Angiopteris* > *vix ab A. crassipeda*, Wall. *diversar* We are unacquainted with the *crassipeda* of Wallich; but of the plant just mentioned, except in its pinnules being narrower and considerably more attenuated than the figure here given, we do not see how it differs from *A. erecta*. Our Sylhet specimen exactly accords with Mr. Menzies' from Otaheite.

TAB. XXXVII



Lycopodium serratum

LYCOPODIUM SERRATUM.

LYCOPODINEÆ. Swartz., JB⁴, Kaulf. STACHYOPTERIDES. Willd.

GEN. CHAR. *LYCOPODIUM*, Linn. *Capsulce* uniloculares, axillares, sessiles; *alia* bivalves, farina repletæ; *alia* 2—3-valves, corpusculis 1—6, globosis. *Br.*

LYCOPODIUM serratum; foliis undique sparsis patentibus lanceolatis submembranaceis costatis cuspidatis petiolatis sinuato-serratis, caule adscendente dichotomo.

Lycopodium serratum. Thunb. *FL Jap.* p. 341. t. 38. Swartz. *Syn. Fil.* p. 175. Willd. *Sp. Pl.* v. 5. p. 51.

HAB. In Japonia. Thunberg. Insula Borboniae. Swartz. Ex India Orientali misit amiciss. Wallich. 1820.

Caulis 8—10-pollicaris, basi repens, radiculosus, dein adscendens, bis-terve dichotomus.

Folia undique sparsa, subremota, superne sensim majora, omnia horizontaliter patentia, vel subreflexa, fere membranacea, subunciam longa, lanceolata, plana, luteo-viridia, costata, costa excurrente, et inde folia cuspidata, marginibus sinuatis profunde serratis, basi in petiolum brevem alatum attenuata.

Capsulce majuscule, flavae, in axillis foliorum supremorum, reniformes, bivalves.

Semina minutissima, subsphaerica, reticulata, medio linea notata.

Fig. 1. Folium, f. 2. 3. 4. Capsulae magis minusve maturae. 5. Semina vel Granulae:—*magn. auct.*

Thunberg's figure affords a very indifferent representation of this *Lycopodium* which has the largest leaves of any species we are acquainted with. Our specimens are from Dr. Wallich; and coming to us at the same time with a collection of *Nepal* Ferns, although not marked as such, we judge they may be natives of Nepal also. If so, and being found, according to Swartz, in Bourbon as well as in Japan, this *Lycopodium* has a widely extended geographical range.

TAB. XXXVII.



Lycopodium pulcherrimum

LYCOPODIUM PULCHERRIMUM.

LYCOPODINE^A. Swartz., Br., Kaulf. STACHYOPTERIDES. Willd.

GEN. CHAR. *LYCOPODIUM*, Linn. *Capsules*, uniloculares, axillares, sessiles; *alia* bivalves, farina repletae; *alia* 2—3-valves, corpusculis 1—6, globosis. *Br.*

LYCOPODIUM pulcherrimum; caule dichotomo, foliis remotiusculis undique sparsis exacte linearibus acutiusculis integerrimis obscure costatis erecto-patulis, siccitate subflexuosis, capsulis in axillis foliorum supremorum.

Lycopodium pulcherrimum. Wallich MSS.

HAB. In monte Hatouna, Nepaliae, arboribus (?). Wallich.

Radix valde fibrosa, fibris ramosis tomentosis intertextis fuscis.

Caules plurimi ex eadem radice, ut videtur, pendentes, 8—10-pollicares, dichotome divisi, ubique foliosi.

Folia sparsa, subremota, semiuncialia, erecto-patula, exacte linearia, glabra, integerrima, medio obscure costata, apice acutiuscula, *inferior a* plerumque fusciscentia, *superior a* viridia; omnia siccitate flexuosa atque etiam subtortuosa.

Capsula axillares, solitariae, ad basin foliorum versus apicem ramorum, reniformes, flavae, bivalves, granulis minutissimis pallide flavis repletae.

Fig. 1. Folium, . f. 2. Folium cum ejus capsula. f. 3. Capsula aperta cum granulis:—*magn. auct.*

Sent by Dr. Wallich from Nepal in 1820 marked as "*Cosca*" of the natives: and again we received it from the Honourable the East India Company with the MS. name of Dr. Wallich, which we have here adopted. It has the habit of our *Lye. subulifolium*; but that has the leaves decidedly awl-shaped, and erect, and imbricated.



Lycopodium atro-viride

LYCOPODIUM ATRO-VIRIDE.

LYCOPODINEJE. Swartz., JBr., Kaulf. STACHYOPTERIDES. Willd.

GEN. CHAR. *LYCOPODIUM*, Linn. Capsula unilocuferes axillares, sessiles; alia bivalves, farina repletse; alia 2>—3-valves, corpusculis 1—6, globosis. Br.

LYCOPODIUM atro-viride; foliis bifariis horizontalibus acinaciformibus integerrimis vel serrulatis subcostatis striatis, stipnls ovatis costatis serrulatis longe mucronatis, spicis tetragonis sessilibus, squamis ovatis acutissimis carinatis serrulatis.

Lycopodium atro-viride. Wallich MSS.

Lycopodium cuspidatura. Hook. MSS. apud Hort. Soc. Lond.

HAB. In Insula "Prince of Wales Island" dicta, Indiae Orientalis. Wallich.

Caudis, ut videtur, repens, pedalis et ultra, bi-tripinnatim ramosus, pallide fuscus, flexuosus sulcatus, hic illic radicans.

Folia bifaria, horizontalia, facie inferiore caulis inserta, rigida, nitida, arete disposita, acinaciformia, obtusa, lineis tribus longitudinalibus notata, linea centrali e costa obscura, integerrima vel serrulata, intense viridia, subtus pallidiora.

Stipulce foliis quintuplo minores, facie superiore caulis insertae, appressae, liberae, foliis alternantes, pvatae, acutse, tenuissime marginatae, serrulatae, costatae, costa longe producta, cuspidatse.

Spicce ad apices ramorum, solitariae vel binae, vix unciam longae, tetraquetras, e squamis viridibus, rigidis, ovatis, acute carinatis, imbricatis, patentibus, acutissimis, serrulatis, costa ad apicem attingente, dorso serrulata.

Capsula ovato-rotundatae, flavae, squamis breviores, axillares, solitariae.

Semina minutissima, quaterna, flava.

Fig. 1. Portio caulis, facie superna visa. f. 2. Eaclem, a dorso visa. f. 3. Stipula. f. 4. Spica. f. 5. Squama. f. 6. Squama cum capsula. f. 7. Capsula. f. 8. Semina :-[^]magn. auct.

This very handsome species of *Lycopodium* we were first acquainted with by means of a valuable collection of dried specimens which the Horticultural Society of London had received from Prince of Wales Island; and in that collection we named the species *L. cuspidatum*: but having since received the same plant from the Honourable the East India Company under the name of *L. atro-viride* of Wallich (in all probability gathered in the same island by that gentleman), we hasten to adopt this appellation, of our liberal friend.



B. *Arisaema spicatum*.

A. *Arisaema ellipticum*

J. Gussone del.

J. Deane sculp.

OPHIOGLOSSUM ELLIPTICUM.

FILICES.—OpinoglossiE. Br., *Kaulf.* STACHYOPTERIDES. *Willd.*

GEN. CHAR. *OPHIOGLOSSUM*, Linn. *Capsula* nudae in spicam articulatam disticham connatae, uniloculares, transverse dehiscentes, bivalves. *Willd.*

OPHIOGLOSSUM ellipticum; spica caulina longe pedunculata, fronde elliptica obtusa reticulata medio oostata, radice fibrosa.

HAB. In Demerara; Americse meridionalis; legit et communicavit *amiciss.* C. S. Parker.

Radix e fibris numerosis, longiusculis, simplicibus, fusciscentibus.

Stipes unciam ad tres uncias longus, erectus, gracilis, fronde terminatus.

Frons bi-triuncialis, elliptica, membranacea, integerrima, apice obtusiuscula, inferne in stipitem seissim decurrens, reticulata, medio evidenter costata, costa versus apicem obsolete.

Pedunculus e basi frondis et ex apice stipitis, fronde duplo longior, erectus, teres.

Spica sub-biuncialis, lineari-compressa.

Capsula numerosae, arete connatae.

Fig. 1. *Capsula.* f. 2. *Semina*:—*aucU*

This was discovered by our excellent friend C. S. Parker, Esq. of Liverpool, in one of the many herborizing excursions he made during his visit to Demerara. In the shape of the frond it comes nearest to the Cape *Ophioglossum nudicaule*; but that is much smaller in size, and has no appearance of midrib, which is very observable in our plant. It is probably allied to the New Holland *OpL costatum* of Mr. Brown.

OPHIOGLOSSUM OPACUM.

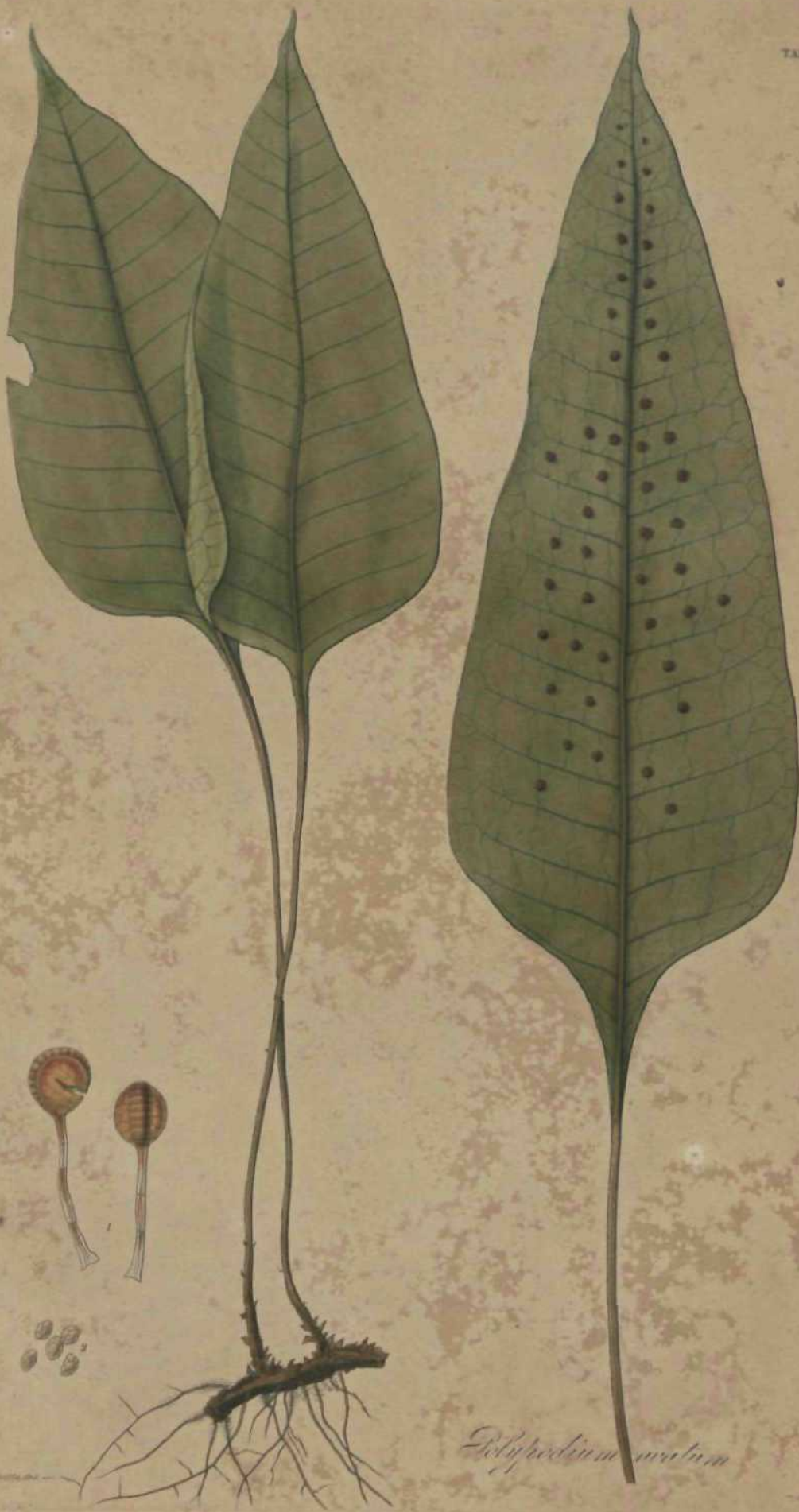
OPHIOGLOSSUM opacum; spica caulina, fronde cordata opaca spica longiore, venis inconspicuis, radice bulbosca.

Ophioglossum opacum. *Carmichael* in *Descr. of the Island of Tristan da Cunha*, in *Linn. Trans.* v. 12. p. 50\$.

HAB. In locis elevatis montis Insulae Tristan da Cunha. *Carmichael.*

Ophioglossum reticulatum valde affine: differt radice bulboso, fronde opaca, spica* fronde brevior, et magnitudine quadruplo minore.

This may be called an alpine plant. Tristan da Cunha is situated in 37° 6' South latitude; and the plant is said to grow "high up on the dome" of that island. This *dome*, Captain Carmichael tells us, in his very interesting account of that island, above quoted, is in itself 5000 feet high, and placed upon the top of a cone itself 3000 feet high. It is certainly very nearly allied to the *O. reticulatum*; and may perhaps prove a variety depending upon place of growth and other circumstances



Distyphedium ovatum

POLYPODIUM OVATUM.

FILICES.—Gymnatiæ. *Br.* Polypodiaceæ. *Kaulf.* FILICES veræ. *Willd[^] Spreng.*

GEN. CHAR. *POLYPODIUM*, Swartz. *Sort* subtrotundi (seriati, sparsi v. conferti). *Involucrum* nullum. *Br.*

POLYPODIUM ovatum; frondibus indivisis stipitatis membranaceis e basi decurrente ovatis acuminatis integerrimis costatis nervis parallelis, soris inter nervos simplici serie.

Polypodium ovatum. *Wall. MSS.*

HAB. In India Orientali. *Wallich.*

Radix e fibris numerosis, fuscis, ramosis, hie et illic ferrugineo-tomentosis.

Caudex teres, repens, nigro-fuscus, squamis membranaceis tectus.

Stipes digitalis ad palmarem, subflexuosus, rigidus, fusco-viridis, glaberrimus, inferne hispido-paleaceus,

Frons stipite subbrevior, e basi decurrente vel in stipitem attenuata, ovata, acuminata, omnino integerrima, membranacea, glabra, costata, venis lateralibus oblique patentibus parallelis, venulisque transversis has connectentibus instructa.

Sori simplici (rarissime duplici) serie dispositi, rotundati, nudi.

Capsulæ longe pedicellatæ, syhaericae, annulo lato incompleto cinctæ.

Semina ovalia, subangulata, reticulata.

Fig. 1. Capsulæ. f. 2. Semina:—*magn. auct.*

We have no means of ascertaining in what part of India this curious and rare Fern was discovered. It approaches the character of *P. scolopendrium* of Hamilton in Don's *Flora Nepalensis*; and this may perhaps be a native of the same country.



Polypodium scolopendrioides

POLYPODIUM SCOLOPENDRIOIDES.

EILICES.—GYRATE. *Br.* POLYPODIACE[^]. *Kaulf.* FILICES verse. *Willd., Spreng.*

GEN. CHAR. *POLYPODIUM*, Swartz. *Sori* subrotundi (seriatim sparsi v. conferti). *Involucrum* nullum. *Br.*

POLYPODIUM scolopendrioides; frondibus sublonge stipitatis subteneris lanceolatis sinuato-pinnatifidis, laciniis ovato-triangularibus obtusiusculis, basi apiceque attenuatis, soris sparsis biserialibus.

Polypodium scolopendrioides. *Linn. Sp. PL p.* 1544. *Swartz. Syn. Fil. p.* 33. *TVilld. Sp. PL v.b.p.* 181. *Spreng. Syst. Veget. v. 4.p.* 50.

Polypodium incisuris Asplenii. *Plum. Fil. t.* 91.

Filix Jamaicensis simpliciter pinnatis Asplenii foliis. *Pluken. Aim. t. ZOO.f.* 1.

HAB. In Insula Martinicae. *Plumier. Jamaica. Plukenet. Swartz. D. Wiles.*

Radix e fibris nigris, ramosis, hie et illic tomentosus.

Caudex repens, squamis lanceolatis membranaceis fuscis dense obsitus.

Stipes digitalis et ultra, nigro-fuscus, nitidissimus, basi subpilosus.

Frons palmaris ad spithamseam sesquiunciam lata, lanceolata, costata, venisque obliquis ramosis, sinuato-pinnatifida, sinubtis acutis, laciniis triangulari-ovatis, obtusiusculis, sub lente remote ciliatis, basi attenuata, apice acuminata, integerrima.

Sori parvi, subrotundi, venulis inserti, in duas lineas, venis primariis paralleli, dispositi.

Capsulæ longe pedicellate, fuscae, globosae, annulo elastico lato fere completo.

Semina minutissima, sphaerica.

Fig. 1. Portio frondis hinc epidermide sublata, ut venae internae in conspectum veniunt. f. 2. Frondis segmentum contra lucem sub lente visum. f. 3. Capsulae. f. 4. Semina:—*magn. and.*

The *Polypodium incisum* of Swartz, appears, as far as we can judge from the description, to be a species very nearly allied to this; and Linnaeus is himself said to have confounded the two; the *P. scolopendrioides* of the first edition of *Sp. PL* being now considered as the *P. incisum*, and that of the last edition our true plant. Swartz tells us that the *P. scolopendrioides* has the smaller, but broader, fronds, and that the lower segments or divisions are remote from each other, so as to be there pinnate, as in Plukenet's figure. But the same author equally refers to Plumier's plant, which exactly, in this respect, resembles our own, having those segments coadunate.

In this Fern the cuticle or epidermis is easily removed by the aid of a dissecting knife; and then the nerves are rendered distinctly visible, with the dots or scars whence the sori have proceeded; as shown at fig. 1. of our plate.

We are indebted to A. B. Lambert, Esq. for our specimens, who received them from Mr. Wiles of Jamaica-



Grammitis lanceolata

GRAMMITIS LANÆOLATA.

FJ U£ ES. G v i; M ,1.; Br. P« t v row riiijB k • K aulf. FJLIC E s vertv. Willd., Spreng.

GEN. CHAtt. ORAMMITtS, Sw. Sori obl: jiyrl/fHMr-J, recti, spai-si. farfusia nulU. Willd.

GRAMMITIS lanceolata; breviter stipitata, fronde simplici submembranacea costata subreticulata lanceolata acuta inferne attenuata, margine integerrima, soris costa: contiguis subparallelisque suprenis confluentibus.

Grammitis lanceolata. Searls, Syn. Fil. p. 22 et 212. t. 1. f. 3. Willd. Sp. Pl. v. 5. p. 139. Spreng. Syst. Veg. v. 4. p. 41. (not Schkuhr.)

Asplenium plantagineum Z. Lam. Dict. p. 303. Illustr. t. 867. 1.

HAB. In Insula Mauriti et Bourbonie: & immersion. Repens, in sylvis umbrosis, ad arborea radices, et in locis siccis inter saxa in monte Ponce, insule Mauriti. Bojer.

Radix fibrosa, nigra, ramosa, dense ferrugineo-tomentosa.

Caudex longe repens, crassitie pennae corvinae, rigrescentibus, ovatis, reticulatis, serratis obtusis.

Stipes subnullus.

Frons spithamam, ubique glabra, submembranacea, indistincte reticulata areolis oblongis, plana, marginibus rima basi in stipulam.

Sori in partem superiorem frondis plenuata, apice acuta, serrata, medio costae u, t^ta Vx pron. da. simplici serie, lineares, nunc duas ad tres dispositi, longi, nunc uniciales, reticulati, obtusi, venulae inserti: suprenis non raro confluentibus.

Capitula numero, nruitiine distobltic, palluie ftiica, ajsonlo incompleto cincta.

We H«? m< \< htiA fit our Wu«ifLi spt*»^jras bi -tliis iwtf^knowa IVm to M. Bqjtf of the ritius. v)io tsofeit for a T<MUK, and mai-ked it jft.wf-v tiiriplbifo&a ofiia; !MSS. , ^T(; thtu^ !.w>e. that iher<vip n> d.mlt of to being the Gnmfo laMMLalaof Svartz :. but it mist !• that tM fmcli)i^j<n, ^pmully in ths upffl p«W of 'the frond, has a good-Aeatfhc a, that of a«fe»VJkí.-.

S<hknbv fit, y-niLstook a West Indian Fern (the Grm/imilLi elongate of Sw. am oit\|v MauriJtui; bat that diffefs &CHU ofe p t e in itsr niScb smaller siztyinp- the prw^nw of namerona stellated ned&h and iijthe sori of fruCtiaUtioii beuu forming u n-gtdur stria or single line between rbe- nwtpn axV thr; midrib.



Nephrolepis bicolor

NIPHOBOLUS BICOLOR.

FILICES.—GYRATE. *Br.* POLYPODIACEÆ. *Kaulf.* FILICES verae. *JVilld.*, *Spreng.*

GEN. CHAR. *NIPHOBOLUS*, *Kaulf.* *Sort* subrotundi, congesti, terminates, pilis stellatis ob-
tecti. *Involucrum* nullum.

NIPHOBOLUS bicolor; fronde lineari-lanceolata obtusa basi in stipitem attenuata, subtus stellulato-
tomentosa incana, costa prominente, soris subdiscretis.

Niphobolus bicolor. *Kaulf. Enum. Fil. p. 128. Spreng. Syst. Veg. v. 4. p. 44.*

Polypodium stellatum. *Vahl. Symb. 3. p. 104. Swartz. Syn. Fil. p. 25. JVilld. Sp. PL v. 3.*

f. 151. Scikuhr, Fil. t. 8.

"*Polypodium serpens.* *Forster, Prodr. n. 435.*"

Polypodium stoloniferum. *Gmel. Linn. v. 2. p. 1305.*

HAB. In Nova Zeelandia. *Forster.*

Caudex repens, flexuosus, pennae corvinae crassitie, squamis nuraei'osis arete appressis tectus, inferne hie et illic
radiculosus.

Stipes duas ad tres uncias longus, pilis minutis radiatis obsitus.

Frons digitalis ad palmarem, coriacea, lineari-lanceolata, basi attenuata, apice obtusa, margine omnino integerrima,
costata, costa subtus prominente, facie superna viridi pilis radiatis sparsa, subtus dense stellato- vel radiatim
pilosa, albo-tomentosa. Hse stellulae e pilis pellucidis 6—10,

Sori in parte superibre frondis numerosi valde convexi fere hemisphaerici, fuscii, approximati, vel discreti.

Capsulce longe pedicellatae, ovato-sphaericae, lato annulatae, pilis radiatis longe stipitatis peltatis immixtae.

Semina reniformia, subangulata, flavo-virescentia.

Fig. 1. Pili stellati e dorso frondis. f. 2. Pili stellati stipitati e soris. f. 3. Capsulae. f. 4. Semina:—*magn. auct.*

Whether or not the genus *Niphobolus*, (so called from the snow-like covering of down which invests several of the species,) be founded in nature, we do not at present pretend to determine. Perhaps it may be better to incorporate its species, as well as those of *Pleopeltis*, as had previously been done, with *Polypodium*. Indeed, with *Pleopeltis* our genus has much affinity; the stellated or radiated hairs in *Niphobolus* being exactly analogous to the little peltate *scales* of that genus.



*Gymnogramma
chorophylla*

GYMNOGRAMMA CHJEROPHYLLA.

FILICES.—GYRATE. *Br.* POLYPODIACEÆ. *Kaulf.* FILICES verae. *Willd., Spreng.*

GEN. CHAR. GYMNOGRAMMA, Desv. *Sort* oblongi, venis frondis simplicibus furcatisve inserti. *Indusium* nullum. *Fronde* pinnatae bipinnatae, decompositaevae; *radices* caespitosae*
Desv.

GYMNOGRAMMA *chaerophylla*; fronde tenera decoinposita nuda, pinnulis fertilibus oblongis, **sterilibus** flabelliformibus pinnatifidis inciso-lobatis, segmentis linearibus acutiusculis, rachi alata.

Gymnogramma chaerophylla. *Desv. Journ. de Bot.* 1813./?. 26. *Spreng. Syst. Veg.* v.4.p. 40.

Hemionitis chaerophylla. *Poir. in Lam. EncycL Suppl.* v.3.p.3Q.

"*Hemionitis cicutaria.* *Herb. Banks.*" (Menzies MSS.)

HAB. In Paraguay. *Desvaux.* Brasilia. *Commerson.* Jamaica. *Menzies.*—CULT. In Hort. Bot. apud Liverpool. *Shepherd.*

Radix caespitosa, fibrosa, fibris nigris ramosis.

Stipites plurimi, ex eadem radice, digitales ad palmares, graciles, nitidi, subtetragoni, flavo-virescentes, basi nigrofusci.

Fronsy circumscriptione, ovata, vel deltoidea, tenera, acuminata, tri-quadripinnata, ubique glabra, nuda. *Pinnce* primarie lemota, ovato-lanceolatae, vel in partem superiorem anguste lanceolatae, bipinnatae, inferioribus tripinnatis, pinnulis pinnatifidis, inciso-lobatis, segmentis linearibus, acutis, rachibus ubique alatis. *Pinnulce steriles* multoties latiores, fere flabelliformes. *Color* pallide viridis.

Sori oblongi, fircati, in omnibus pinnulis dispositi.

Capsidce laxae dispositae, sphaericae, sessiles, pulcherrime reticulatae: annulo incompleto*

Semina triangularia, pallide viridi-flava.

Fig. 1. Pinna cum soris. f. 2. Capsulae. f. 3. Semina:—*magn. auct.*

This delicate and very beautiful Fern has, in a great degree, the habit and general appearance of *Cryptogramma leptophylla*; but it is much larger, more divided, and the pinnules are of a different figure.

The specimens here figured were communicated in 1826 by the Messrs. Shepherds, from the Liverpool Botanic Garden, whence it was received from M. Otto of Berlin. Our friend Mr. Menzies has given us a specimen which he gathered in Jamaica, and which he has marked as the *Hemionitis cicutaria* of the Banksian Herbarium; a name certainly equally applicable with that already published by Poiret and Desvaux.

Professor Raddi has not included this in his *Filices Brasilienses*.



Antrophyum sp. ss; s//ss.

ANTROPHYUM PUMILUM.

FILICES.—GYRATE. *Br.* POLYPODIACEJE. *Kaulf.* FILICES verae. *Willd., Spreng.*

GEN. CHAR. *ANTROPHYUM*, *Kaulf.* *Sort* lineares, continui, venis frondis reticulatis. immersi.
Indusium geminatum, medio dehiscens. *Kaulf.*

ANTROPHYUM pumilum; frondibus lanceolatis obtusiusculis basi in stipitem brevem attenuates, soris longissimis lineari-filiformibus subreticulatim connexis immersis.

Antrophyum pumilum. *Kaulf. Enum. Fil. p. 197. Spreng. Syst. Veget. v. 4. p. 6f.* (excl. syn. *P. coriaceae*, *Don.*)

Hemionitis immersa. *Bory MSS. Willd. Sp. PL v.b. p. 12?.*

HAB. In rupibus Borboniae. *Bory.* Insula Mauriti. *D. Carmichael.*

Radix fibrosa, densissime tomentosa, ramosa.

Stipes brevis, vix unciam longus, compressus.

Frondes subcaespitosae, digitales et ultra, fere coriaceae, ecostatae, siccitate subrugosae, nervis obsolete, margine integerrimo, basi in stipitem attenuatae, apice obtusiusculae.

Sort lineari-filiformes, longissimi, reticulatim ramosi, frondis substantia immersa.

Involucrum duplex e marginibus sulcorum fructificationis ortum.

Capsulae numerosissimae, sphaericae, reticulatae, pedicellatae, annulatae.

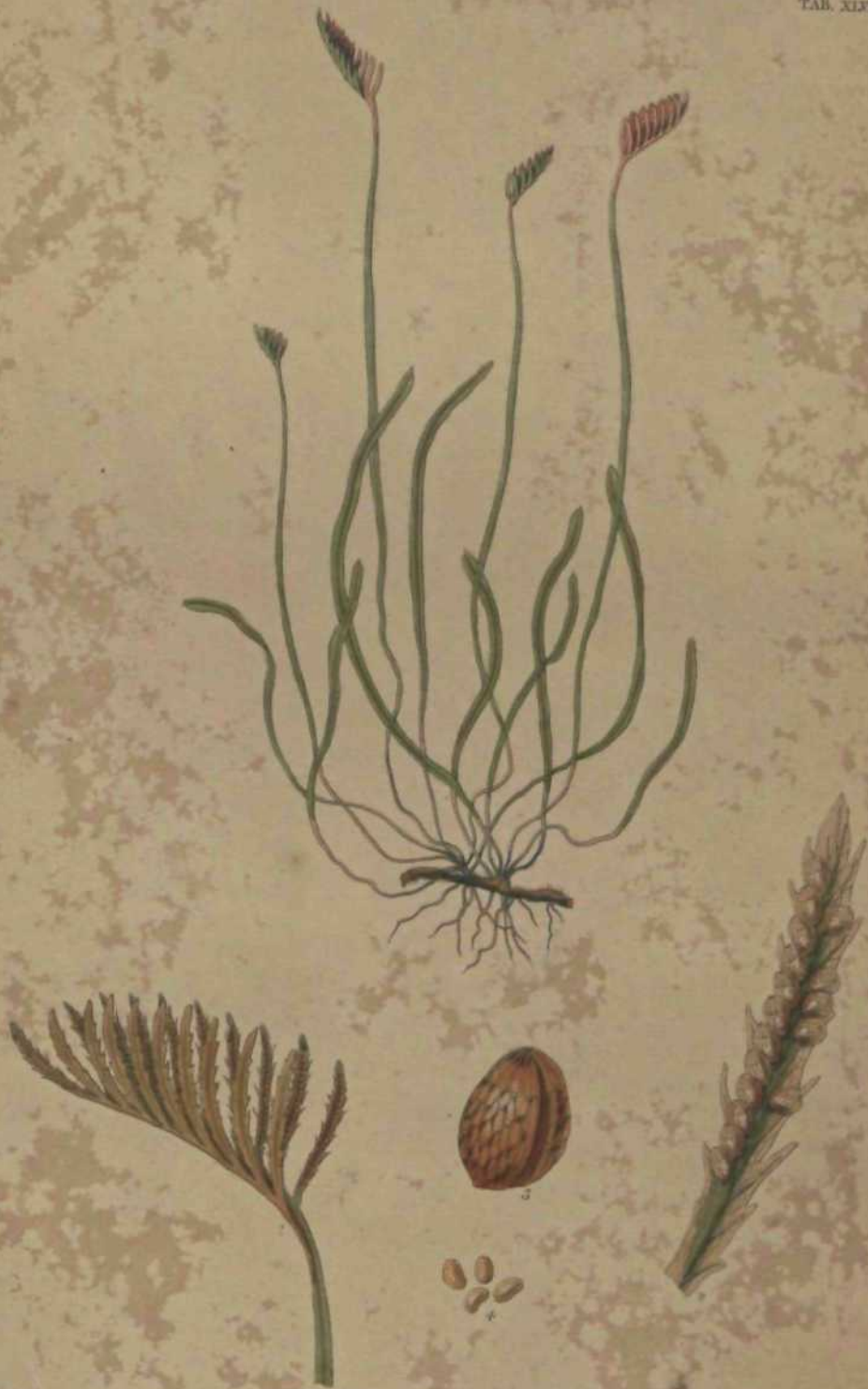
Semina subsphaerica, pallide flava.

Fig. 1. Portio frondis cum soris. f. 2. Portio frondis, cum soro, transversim secta. f. 3. Semina.

The genus *Antrophyum*, established by Kaulfuss in his valuable *Enumeratio Filicum*, is well distinguished from *Hemionitis* by the presence of an involucre, always, we believe, following the lines of the veins, although in some species the veins themselves are scarcely visible when not rendered so by the presence of the fructification.

The present plant, for specimens of which, from the Isle of France, we are indebted both to Captain Carmichael and to A. B. Lambert, Esq., is remarkable in having the lines of fructification immersed in the very substance of the frond.

Our specimens vary in size, but they are all larger than those described by Willdenow.



Schizaea repens

SCHIZIAEA PUSILLA.

FILICES.—OSMUNDACEAE. *B?*, *Kaulf.* SCHISMATOPTERIDES. *Willd.*

GLEICHENIE;E. *Spreng.*

GEN. CHAR. *SCHIZIAEA*, Sm. *Capsula* ovales, sessiles, apicc radiatim striato, basi insertae, in appendice divisa terminali frondis dorsales. *Indusium* e marginibus inflexis appendicis continuum, intus liberum. *Br.*

SCHIZIAEA pusilla; frondibus indivisis lineari-filiformibus sterilibus multo brevioribus siccitate tortuosis integerrimis, appendice pinnata subquinquejuga, laciniis oblongo-linearibus ciliatis.

Schizaea pusilla. *Pursh, FL N. Am. v. 2. p. 657. Nutt. Gen. of N. Am. PL v. 2. p. 249. Eatorty Manual of Botany, p. 446. Spreng. Syst. Veg. v. A. p. 30.*

HAB. Paludosis, inter sphagna, Americae Septentrionalis, rarissime: in uno loco hucusque, ut videtur, lecta, Quaker-Bridge dicto, provincia Novse Caesareae. *Eddy* (fide Nuttallii).

Radix fibrosa, fibris simplicibus fuscis sublonge inter muscos descendentibus.

Caudex omnino nullus.

Frondes caespitosae, subbiformes, lineari-filiformes, glabrae, integerrimae; *steriles* vix dimis uncias longas, basi attenuatae, sursum latiores, falcato-curvatae, rigidiusculae, siccitate tortuosae, glauco-virides, vix costatae; *fertiles* duplo triplove longiores, digitales, erectae, basi apiceque attenuatae.

Appendix fructificans vix semiunciam longa, pinnata, pinnis per paria dispositis subquinquejugis, secundis, oblongo-linearibus, dorso convexis, medio costatis, costa hinc prominente, marginibus seu involucris ciliatis.

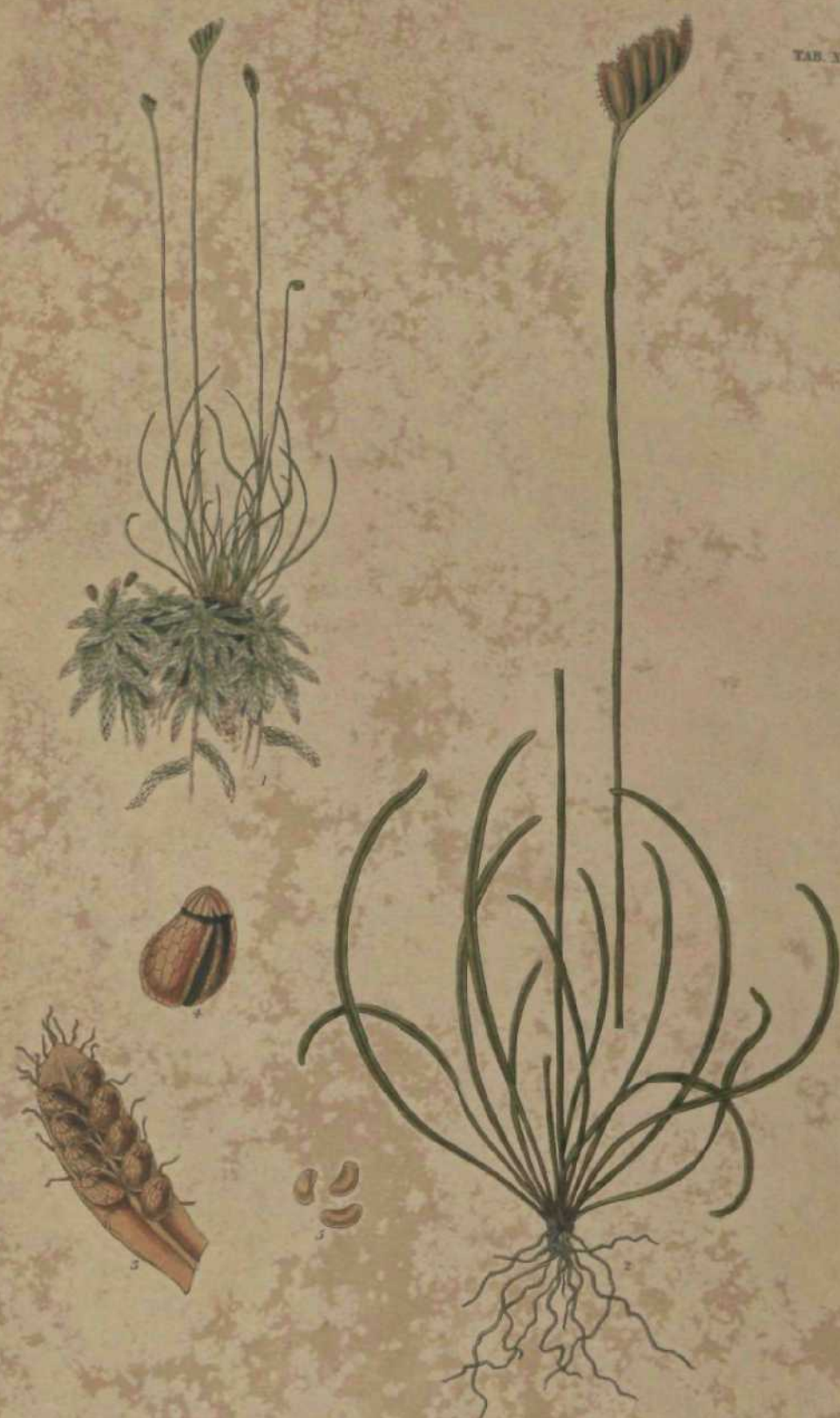
Capsuled in duas lineas dispositae, majusculae, ovatae, hinc gibbosae, reticulatae, apice radiatim striato.

Semina reniformi-cylindracea, opaca, obscure pallide viridia.

Fig. 1. Planta:—*magn. nat.* in sphagna proveniens. f. 2. Eadem:—*magn. auct.* f. 3. Pinna appendicis fructificantis. f. 4. Capsula. f. 5. Semina:—*magn. auct.*

Mr. Pursh seems to consider that the minuteness of this plant may have caused it in many cases to be passed by unobserved: but hitherto we believe no one has detected it except in the spot where it was originally discovered, as we learn from Mr. Nuttall, by Dr. Eddy of New York.

Our specimens were gathered by Dr. Torrey, who informs us that the spot (Quaker-Bridge, in Burlington County, New Jersey) is thirty-one miles N.W. from Philadelphia:—so that it grows further from the tropics than any species of the genus we are yet acquainted with.



Papaver pusilla.

TAB. XLVIII.

SCHIZJEA RUPESTRIS.

FILICES.—OSMUNDACEJE. *Br.*, *Kaulf.* SCHISMATOPTERIDES. *Willd.*

GLEICHENIE^E. *Spreng.*

GEN. CHAR. *SCHIZJEA*, Sm. *Capsules* ovales, sessiles, apice radiatim striato, basi insertae, in appendice divisa terminali. frondis dorsales. *Indttsium* e marginibus inflexis appendicis continuum, intus liberum. *Br.*

SCHIZJEA rupestris; frondibus indivisis planis linearibus margine integerrimis, appendice pinnata 5—8-juga, involucris incis. *Br.*

Schizsea rupestris. *Br. Prodr. FL Nov. Holl v.l.p.* 162. *Spreng. Syst. Veg. v. 4.p.* 30.

HAB. In Nova Hollandia; apud Port Jackson. *Brown.* In saxis udis Montibus Caeruleis (*Blue Mountains*) rarissime. *Fraser.*

Radix e fibris plurimis, rigidis, plerumque simplicibus constans.

Caudex repens, squamosus, squamis nitidissimis, fuscis, subulatis.

*Fronde*s ex eodem puncto caudicis plurimae, subcasspitosae, simplices, lineares, compressae, costat33, integerrimae, omnino glabrae, flexuosae, basi insigniter attenuatae; *steriles* digitales, sursum latiores apice *scuto*; *fertiles* paululum longiores, angustiores versus apicem attenuatae.

Appendices fructificantes terminates, pallide fuscae, subunciam longae, pinnatae, pinnis per pariam approximatis 6_8- vel 9-jugis, magis minusve secundis, linearibus, nervosis, marginibus (seu involucris) incis.

Capsulce duplici serie dispositae, pilis nullis, ovatae, subgibbosae, reticulatae, vertice radiatim striato.

Semina opaca, pallide viridia, oblonga, subreniformia.

Fig. 1. Portio frondis, cum appendice fructifera. f. 2. Pinna seu lacinia appendicis, cum capsulis. f. 3. Capsula. f. 4. Semina:—*magn. auct.*

Four species of the curious and beautiful genus *Schizsea* are enumerated in the *Prodr. FL Nov. T.J. II* of Mr. Brown. The present individual was first discovered by that eminent botanist, and seems to be only known to inhabit the vicinity of Port Jackson and the Blue Mountains.



Lycopodium subulifolium

TAB. XLIX.

LYCOPODIUM SUBULIFOLIUM.

LYCOPODINE[^]. Swartz., Br., Kaulf. STACHYOPTERIDES. Willd.

GEN. CHAR. *LYCOPODIUM*, Linn. *Capsula* uniloculares, axillares, sessiles; *alia* bivalves, farina repletae; *alia* 2—3-valves, corpusculis 1—6, glohDsis. Br.

LYCOPODIUM subulifolium; caule dichotomo, foliis erectis imbricatis subulatis rigidis integerrimis vix nervosis, capsulis in parte superiore caulis axillaribus.

HAB. E Nepalia communicavit Cel. JVallich, anno 1818 lectum.

Radix densissime caespitosa, fibrosa.

Caulis (pendens?) pedalis, dichotome divisus, ramis fructiferis elongatis flexuosis.

Folia undique inserta, sparsa, erecta, imbricata, nitida, viridia, rigida, exacte subulata, paululum curvata, siccitate etiam, medio vix nervosa, margine omnino integerrima.

Capsula: numerosissimae, in partem superiorem caulis, majusculae, axillares, sessiles, solitariae ad basin cujusque folii, flavae, reniformes, basi profunde emarginatae, bivalves. *Granule* vel *Semina* quaternatim conjuncta, demura libera, subangulata, flava.

Fiff. 1. Folium, f. 2. 3. Folia cum capsulis. f. 4. Semina:—*magn. aucU*

We have already stated under *L. pitkerrimum* how the present is to be distinguished from that species. We may here add that this is a much larger plant, and that the capsules have a much deeper sinus beneath.



Lycopodium quidioides.

LYCOPODIUM GNIDIOIDES.

LYCOPODINE/E. Swartz., Br., Kaulf. STACHYOPTERIDES. Willd.

GEN. CHAR. *LYCOPODIUM*, Linn. *Capsuled* uniloculares, axillares, sessiles; *aim* bivalves, farina repletae; *alia* 2—3-valves, corpusculis 1—6, globosis. Br.

LYCOPODIUM *gnidioides*; caule dichotome ramoso foliis subsexfariam imbricatis lineari-oblongis canaliculatis acutis, nervo ad apicem excunente, capsulis in axillis foliorum acutiorum terminalium.

Lycopodium gnidioides. Linn. *Suppl.* p. 148. Swartz. *Syn. Fil.* p. 174. Willd. *Sp. PL* v.5.p.4f. Spreng. *Syst. Veg.* v. 4. p. 20. JSmith in Rees *CycL*

Lycopodium funiculosum. Lam. *Encycl.* v. 3. p. 649.

"*Lycopodium flagelliforme*. Schrad." {fide Spreng.}

Lycopodium pinifolium. Kaulf. *Enum. Fil.* p. 7.

HAB. In Insula Mauriti. Commerson} In Capite Bonae Spei. (Willd) Villet.

Radix densissime caespitosa, fibrosa, fibris ramosis valde intricatis.

Caulis spithamaeus, fere ad pedalem, flexuosus, repetitum dichotomus, ubique foliosus.

Folia subsexfariam disposita, erecta, imbricata, semiunciam longa, vix lineam lata, lineari-oblonga, nitida, canaliculata integerrima acutiuscula, nervo obscuro intus elevato, dorso depresso, ad apicem attingente instructa:—*suprema* (capsulifera) breviora, latiora, acutiora, spicam referentia.

Capsulce in axillis foliorum supremorum sessiles, reniformes; bivalves, flavae, granulis sphaericis replete. Hae *granulco* vel *sporula* nunc videntur ternatim compositae.

Fig. 1. Folium, f. 2. Folium cum capsula. f. 3. Sporulae :—*magn. auct.*

It is difficult to say whether this *Lycopodium* should be arranged among those species which have a spicate fructification, or those whose capsules are simply placed in the axils of the leaves. The uppermost leaves, which mostly contain the capsules, are shorter and broader than the rest, and collectively form a terminal sessile *spike*; but by no means so distinct as in many species of the genus. Some authors have considered the fructification to be spicate, and others axillary; and hence botanists have differed about the species, which in reality is, in other respects, a very distinctly marked one, and very aptly named, from its resemblance to some individuals of the genus *Vnidia* or to *Daphne gnidioides*.

Our specimens were communicated from the Cape of Good Hope by M. Villet, who has sent us many excellent plants from that rich botanical country.



Yanna nodosa

DANHA ELLIPTICA.

FILICES.—MARATTIÆ. *Bovt.* MARATTIACEÆ. *Kailf.* POILOPTERIDES. *JVuld.*

GEN. CHAR* *DANJEA*, Sm. *Sort* lineares, dorsales, transversi, parallels *Capsula* in series geminatas arete connatae, superne poro dehiscentes. *Indusium* superficialium soros cingens. (Asplenii Sp. *Linn.*)

DANÆA *elliptica*; fronde pinnata, raclii nodosa vix alata, pinnis breviter petiolatis elliptico-oblongis acuminatis subintegerrimis basi oblique acutis, fertilibus oblongo-lanceolatis.

Danaea elliptica. *S?nith in Bees' Cycl.*

Filix major, &c. *Shane's Jamaica, t. 41./.* 1.

HAB. India Occidentali. Jamaica. *Sloane. Smith.* Insula Sancti Vincentii. *Rev. L. Guilding.* *Stipes* vix pedalis, dorso convexus, facie superna canaliculatus, infra frondem nodosus, pubescens, demum glaber. *Frondes* pedales et ultra, erectae, circumscriptione ovatae, pinnatae, pinnis inferioribus exacte oppositis, superioribus nunc subalternis: *jplantce sterilis* semipedalibus, duas uncias latis, elliptico-oblongis, acuminatis, subundulato-crenatis, sed vix serratis, basi inaequaliter acutis, in petiolum brevem attenuatis, glabris, opacis, luride viridibus, subtus pallidioribus, costatis, costa subtus hie et illic fasciculato-pubescentibus, parallelo-venosis, venis numerosis transversalibus basi furcatis. *Rachis* ad insertionem pinnarum nodosa. *Plantce fertilis, pinnae* oblongo-lanceolatae, sterilibus minores, basi apiceque acutae.

Fructificatio omnino ut in *D. alata* (Tab. XVIII).

Fig. 1. Sorus. f. 2. Semina:—*magn. auct.*

Our friend Mr. Guilding, who seems to live surrounded by the noblest of the tropical Ferns, marked this fine species of *Dan&a* as distinct both from *D. alata* and *D. nodosa*. With the latter, indeed, there is no danger of its being confounded; and Sir James Smith, who certainly appears to have had the same plant in view, in describing his *D. elliptica*, well observes, that the greater breadth of the pinnae and their being acute, not cordate, at the base, will afford the distinguishing characters. This greater proportionate breadth exists in the fertile as well as the barren pinnae, and even in the fronds, so as to give a character to the plant at first view. Sloane's figure is very characteristic for the barren frond.



Quercus elliptica

TAB. LII.

DANiEA NODOSA.

FILICES. - MABATTIB*. *Bory.* MARATTIACETE. *Kaulf.* • POROPTERIDES. *Willd.*

GEN CHAR DANJEA, Sin. *Son** Hnearcs, dorsales, transversi, paralleli. *Capsuhs* in series
ENⁿ geminates arete connate, superne poro dehiscentes. *Indusium* superficialium soros eingens.
(*Asplenii* Sp. *Linn.*)

DAN^A *nodosa*; fronde pinnata, rachi nuda nodosa, pinnis breviter petiolatis lineari-ellipticis apice
acuminatis subintegerrimis basi acutis, fertilibus lineari-lanceolatis.

Dan^a *nodosa.* *Smith, Tracts, p. ^O. Swarti. Syn. Fil. p. 167. mild. Sp. PL v. 5. p. 68.*
(excl. syn. *Sloanii.*) *Spreng. Syst. Veget. v. 4. p. 24.*

Asplenium nodosum. *Linn. Sp. PL p. 1539-*

Asplenium simplex assurgens, foliis longis oppositis, caule geniculato, lincis fructificationum
serie contigua. *Brotvne Jam. p. 93.*

Lingua cervina nodosa major. *Plum. Fil. p. 9<. '• 108.*

HAB. In locis umbrosis humidis Jamaica, Hispaniolae, Martinics, et ad Caraccas. (*WiUd.*)

In Insula Sancti Vincentii. *Rev. L. Guilding.*

Stipes bipedalis et ultra, 4 - 6 lineas latus, erectus, dorso convexo, facie superna canaliculata, squamulis minutis
fuscis hic et illic tectus.

Frons bi-tripedalis, circumscriptione oblonga, pinnata, rachi ad insertionem pinnarum nodosa, dorso convexa, faae
superna plana, marginata.

P^ n u m e r o s . , 15-pares cum impari, opposite, 8-pollicares, patentes, lineari-elliptic^ supra medium parum
latiores, apice acuminate, subintegerrim^, basi acute, in petiolum brevem attenuate: *Substantia* rigida, sub-
coriacea; *Costa* subtus squamulosa: *Nen** parallels, transversales, numerosissima3, ad basin saepe furcate.
Color pallide viridis, nitidus. *Pinna-* fertiles, sterilibus minores, lineari-lanceolate, basi acute, apice subacu-
m in ate.

Fructificatio ut in *D. elliptica* et *D. alata* jam dudum descripte.

Fig. 1. Apex frondis sterilis. f. 2. Apex frondis fertilis. f. 3. Pinna cum rachi inferiore frondis sterilis. f. 4. Pinna
inferior frondis fertilis. f. 5. Sorus. f. 6. Semina:—*magn. auct.*

Willdenow was only acquainted with the fructified state of the frond: but it is in the sterile fronds that the most striking differences are found to exist between this species and *D. alata* and *D. elliptica*. Some of the fronds which Mr. Guilding has sent us, including the stipes, measure not less than six feet in height, and almost a foot and a half in diameter in the widest part. The pinnae are remarkable for their pale colour, their shining surface, and rigid texture. In drying, the knots at the insertion of the leaves, probably, in a certain degree, disappear, for they are by no means so visible in our specimens as in Plumier's figure.



033

Adiantum involuta

GRAMMITIS INVOLUTA.

FILICES.—GYRATJE. *Br.* POLYPODIACEJE. *Kaulf.* FILICES verae. *Willd.j Spreng.*

GEN. CHAR. *GRAMMITIS*, Sw. *Sort* oblongi, lineares, recti, sparsi. *Indusia* nulla. *Willd.*

GRAMMITIS involuta; breviter stipitata, fronde simplici lanceolata coriacea basi apiceque valde attenuata margine integerrima (siccitate involuta), soris obliquis prominentibus, capsulis pilis articulatis immixtis.

Grammitis involuta. *Don Prodr. FL Nepal*, p. 14. *Spreng. Syst. Veget. v.4.p.41.*

"*Scolopendrium revolutum.* *Hamilton MSS.*"

Grammitis? *plantaginea.* *TWallich MSS. in Herb, nostr.*

Grammitis flavescens. *TWallich MSS. in Herb, nostr.*

HAB. In Nepalia. *Hamilton. Wallich.*

Radix fibrosa, fibris ramosis, nigris, tomento ferrugineo dense obsitis.

Caudex, ut videtur, repens, crassus, squamis majusculis, imbricatis, ovatis, acuminatis, reticulatis, integerrimis tectus.

Stipes vix unciam longus, hinc sulcatus, dorso convexus, duas lineas latus, nudus.

Frons omnino glabra, subpedalis, lanceolata, valde acuminata, inferne in stipitem sensim attenuata, coriacea, costata, costa subtus prominente, enervis, margine tenui integerrimo, siccitate involuto.

Sort numerosi, unciam ad duas aut tres uncias longi, obliqui, paralleli, insigniter prominentes, fere semicylindrici, utrinque obtusi.

Capsules pedicellatae, exacte sphaericae, flavescentes, annulo lato, fusco, fere integro cinctae. Inter has capsulas *pili* numerosi, articulati, pellucidi, iis longiores.

Semina oblonga, subangulata, pellucida.

Fig. 1. Capsulae. f. 2. Semina. f. 3. Pili e soris:—*magn. auct.*

We cannot say whether in a living state the margin of this Fern is involute: to us it appears to be the effect of drying, as we know to be equally the case in the *Polypodium pertusum*. There is too, on the surface of the present plant, as seen in the herbarium, a rugose or wrinkled appearance, the consequence of the drying and shrinking of the parenchymatous substance beneath the epidermis.

Our plants were gathered by Dr. Wallich in Nepal, and were sent to us with the name of *Grammitis? plantaginea*; whilst Dr. Hamilton seems previously to have given the MSS. specific name of *involutum*, which is adopted by Mr. Don. Again, we have received specimens from the Honourable the East India Company, bearing the name "*Grammitis flavescens*. Wall."



Seligeria selaginoides

SCHIZJEA TRILATERALIS.

FILICES.—OSMUNDACEAE. *Br., Kaulf.* SCHISMATOPTERIDES. *Willd.*
GLEICHENIETE. *Spreng.*

GEN. CHAR. *SCHIZJEA*, Sin. *Capsulæ* ovales, sessiles, apice radiatim striato, basi insertae, in appendice divisa terminali frondis dorsales. *Indusium* e marginibus inflexis appendicis continuum, intus liberum. *Br.*

Schizaea trilateralis; frondibus simplicissimis lineari-triquetris, appendicibus (6—10) linearibus digitatis falcato-secundis intus crinitis.

Schizaea trilateralis. *Schkuhr Fil. p. 137. t. 136. Spreng. Syst. Veget. v. 4. p. 30.*

Schizaea incurvata. *Meyer Fl. Esseq. p. 291. (excl. syn. Schkuhrii.)*

HAB. Locis udis American Meridionalis; Essequibo. *Schkuhr. Meyer. Demerara. Parker.*

Radix e fibris plurimis, subsimplicibus, ferrugineo-pilosis.

Caudex, ut videtur, repens, squamis fuscis, subulatis, nitidissimis dense obsitus.

*Fronde*s plurimæ ex eadem caudice, caespitosæ, erectæ, pedales et ultra, basi teretes, fuscae, scabriusculæ, superne compresso-triquetre, angulis acutis, viridi-fuscae, glaberrimæ, lineam latae, versus apicem attenuatæ.

Appendices fructificantes terminales, fasciculato-digitatæ, per pariam approximate, sesquiunciales ad biunciales, sex ad decem, lineares, primum virides, demum ferrugineo-fuscescentes, falcato-secundæ, acutæ, costatæ, dorso convexæ, vel semiteretes, intus canaliculatæ, capsuliferæ, atque medio (marginæque rarissime) paleis lineari-clavatis, flexuosis, intense fulvis, capsulis longioribus, crinitæ.

Capsulæ in series quatuor dispositæ, parvæ, intense fuscae, laxè reticulatæ, vertice striatæ, longitudinaliter dehiscentes.

Sevina minutissima, oblonga, alba.

Fig". 1. Portio frondis cum appendicibus fructificantibus, ex sicco. f. 2. Portio appendicis, cum capsulis paleisque. f. 3. Capsulæ. f. 4. Semina. f. 5* Setae vel paleae:—*magn. auct.*

We are indebted for the superb specimens of this truly elegant Fern to our excellent friend C. S. Parker, Esq. of Liverpool, who gathered them in Demerara in 1824. The same plant had been previously found in the neighbouring district of the Essequibo in Dutch Guiana, and we believe no where else.

It certainly bears a very close affinity with the *Schizæa digitata* of the East Indies (the *Schizma marginata* of Wall. MSS) : but that has broader, more compressed, almost winged fronds, and the capsules are not intermixed with the curious chaffy hairs which are so conspicuous in this species.



Lycopodium dichotomum

LYGODIUM DICHOTOMUM.

FILICES.-OSMUNDACB*. *Br., Kanlf.* SCHISMATOPTERIDES. *Willd.*
GLEICHENIEJE. *Spreng.*

GEN. CHAR *LYGODIUM*, Sw. *HYDROGLOSSUM*, Willd. *Capsula* sessiles, ovatae, mediinserte, apice radiatim striato : in spiculis (simplicibus e margine pime, v. dichotomis in fronde mutata), dorsales, biseriati*. *Involucrum*: *Squama* capsulas distinguentes, e venis spiculffi ortae, supra liberae.

Stipes volubilis. Frondes conjugate, divise v. cmnpositcB. Br.

LYGODIUM dichotomum; frondibus conjugatis dichotomis foliolis bi-tripartitis, laciniis sterilibus lanceolatis, fertilibus linearibus attenuatis, omnibus acutissimis integerrimis.

***Lygodium dichotomum*. Swartz. Syn. MLp. 154. Spreng. Syst. Veget. v. A.p. 29.**

Hydroglossum dichotomum. *Willd. Sp. PL v. 5. p. 82.*

Ugena dichotoma. « *Cav. Ic. v. 6. p. 74. t. bQA.f. 2.* »

HAB. In Insulis Marianis et Philippinis. *Cav. Swartz.* In Insula Pulo Penang, seu « Prince of Wales's Island, » dicta. (*D. Sabine.*)

Stives longissimus, volubilis, teres, flavo-fuscus, subnitidus, glaber, tactu scabriusculus.

Frondes glabrae, geminate seu basi conjugate, petiolate. *Petiolus* duas ad tres uncias longus, basi incrassatus, superne subalatus, dichotomus, et, ita, bi-foliolatus, *foliolis* profunde bi-tripartitis, basi in petiolum brevem, subalatum attenuatis, lobis *sterilium* duas ad tres uncias longis, lineari-lanceolatis, acutissimis, etiam subapiculatis^ apiculo hirsute, fertiliu duplo triplove longioribus, linearibus, valde attenuatis, omnibus integerrimis, costotis, furcato-parallelo-venosis, subnitidis.

Spica numerosa, parva, ad marginem loborum, venas terminantes, e squamis subdecem subtus imbricatis, fide superiore coadunatis, valde concavis, singula capsulam unicam includente.

Capsules ovate, pulcherrime reticulate, vertice radiatim striate.

Semina parva, triangularia, pellucida.

Fig. 1. *Spica*, a dorso visa. f. 2. *Spica* junior subtus visa. f. 3. Eadem magis matura. f. 4. *Capsula* (laesione, ut videtur, rupta). f. 5. *Capsula* Integra: -*magn. auct.*

We regret that our not being able to have access to *Cavanilleis Icones* prevents us from determining by his figure, what we can now only conjecture from his descriptive character; namely, that this is the *Ugena dichotoma* of that author. It is said by Willdenow to be similar to the *Ugena macrostachya* of the same writer (*Lygodium longi/olium* of Swartz); and our plant, we must confess, also comes very near to the *L. circinatum* of Authors, figured in *Rumph. Amb. t. 33*. Indeed, were the pairs of barren leaflets in our figure united by the membranaceous portion at their base (which is almost the case in some of our specimens), we should then have a plant perfectly corresponding with the figure of Rumphius, in which the fertile leaflets are actually compound. May not the three species therefore which we have just mentioned, be considered as mere varieties of each other? They are all inhabitants of the islands of the Indian Ocean; and, on account of their beauty, are employed by the natives of Amboyna for adorning the entrances of their houses on marriage festivals, whilst the larger stems are made into cordage for the purpose of binding different utensils.



Polyodon bealeri

POLYPODIUM SCOULERI.

POLYPODIACEÆ. *Kaulf.* * « « . ver*. WM, Spreng.

GBN.CHAK. *POLYPODIUM*, Swartz. Son subrotundi (seriati, sparsi, v. confer!). *Involu-*
cum nullum. 5r. _____

POLYPODIUM Sco. n; - terminali *majoris sorifera, soris approximati, b^enilibus -*
obscuris crenatis basi sublobulatis, Scouler.

HAB. Prope flumen Columbian, in plaga occi *Septentrionalia*

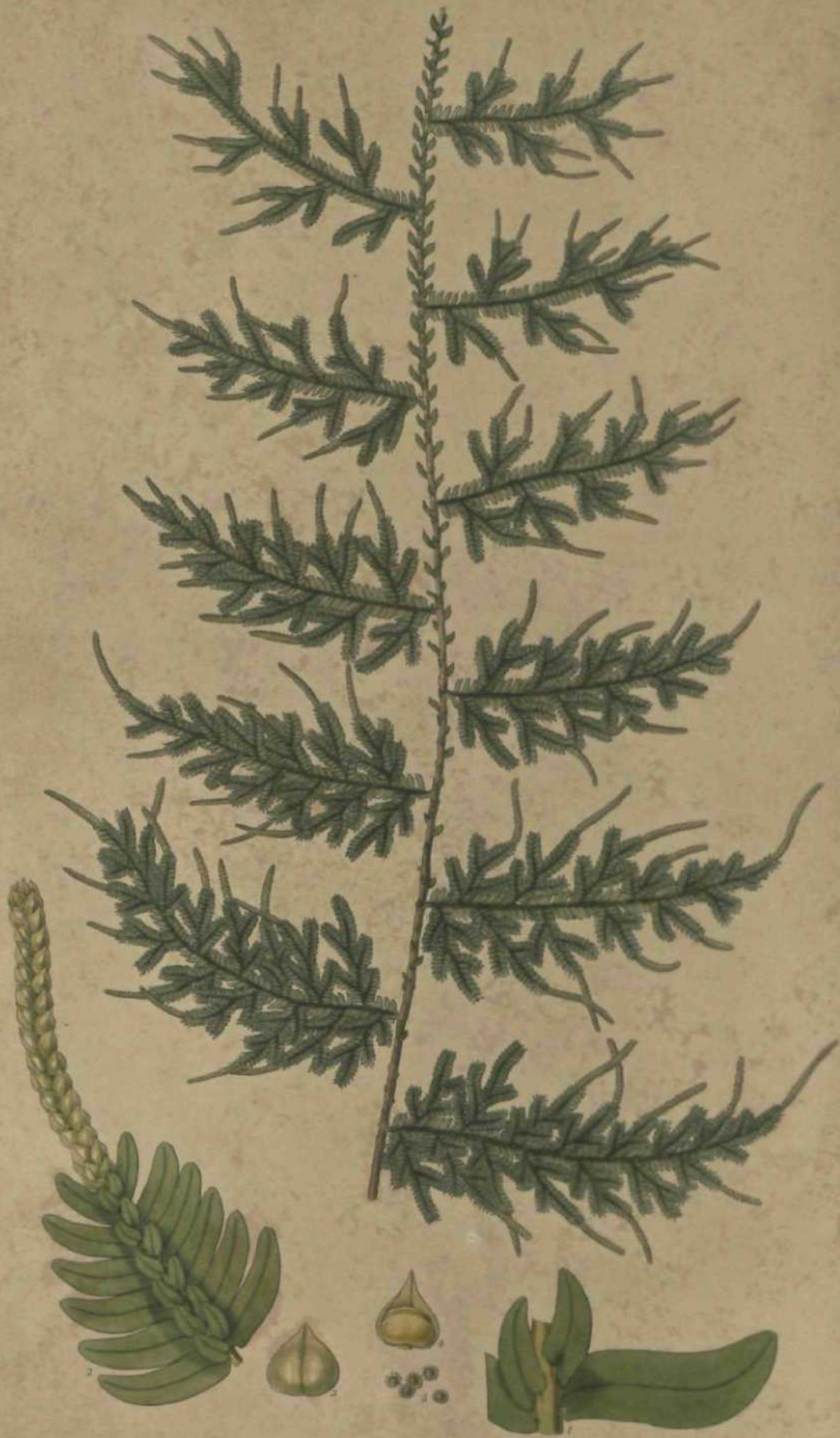
Caudex repens, squamoso- *canaliculatus.*
Stipes unioialb, erectus, n<to> *obtusissimis,*
Frons, drc.msripIK.ne We *ovata, profun pinnatifi* *obtusissimis,*
obscuris creiatis, costitis, subneivra, laberr *basi sublobulatis, kerrita sesquiuncWibus, teminali*
majori, biunciali et ultra, sorifero.

Rachis fusca, glabra. *Sori* in duas lineas arcte di *fusci, rotundati, prope costam vel rachin inserti.*

Capsulae subrotundae, fuscae, longtime sUptats.stipiteart.cubto.

Semina oblonga, vel subreniformia, sub summa lente retic
Fig. 1. *Capsulae* cum stipitibus. f. 2. *Semina*:—*magn. auct.*

interesting collection of plante which Dr. Scouler ha, recen.1, brongh, from the
Among the mtere , g *species* of Fem ft may ^^ rank
NOrib-Westcoa., of Ame ri ca, S J *from* ^ 0(her of the same
next to. * * £ - * 2 *of lobes; their relative breaat and engh, their bluntne., and the*
S^T *one with its distinct and prominent* **fulcab**



Lycopodium Willdenowii

LYCOPODIUM WILLDENOVII

LYCOPODINEAE. Swartz., *Br.*, *Kaif.* STACHYOPTEUIDES. Willd.

GEN. CHAR. *LYCOPODIUM*, Linn. *Capsula* uniloculares, axillares, sessiles; *aim* bivalves, farina replete; *aim* 2—3-valves, corpusculis 1—6, globosis. *Br.*

LYCOPODIUM Willdenovii; foliis bifariis horizontalibus oblongis subfalcatis costatis integerrimis, stipulis multoties minoribus subconformibus, spicis terminalibus elongatis, squamis lato-cordatis integerrimis uninervibus.

Lycopodium Willdenovii. "Desvaux?"

Lycopodium laevigatum. Willd. *Sp. PL* v. 4. p. 45.

HAB. In India Orientali. Willd. Ex insula "Prince of Wales's Island" dicta, communicavit D. Sabine.

Caulis "scandens," filiformis, gracilis, sulcatus, subpaucifolius; *rami* distichi remoti bipinnatim divisi, ramulis subarcte insertis, foliosis.

Folia bifaria, disticha, horizontalia, plana, oblonga, subfalcata, obtusa, integerrima, costa medio percurrente fere ad apicem attingente.

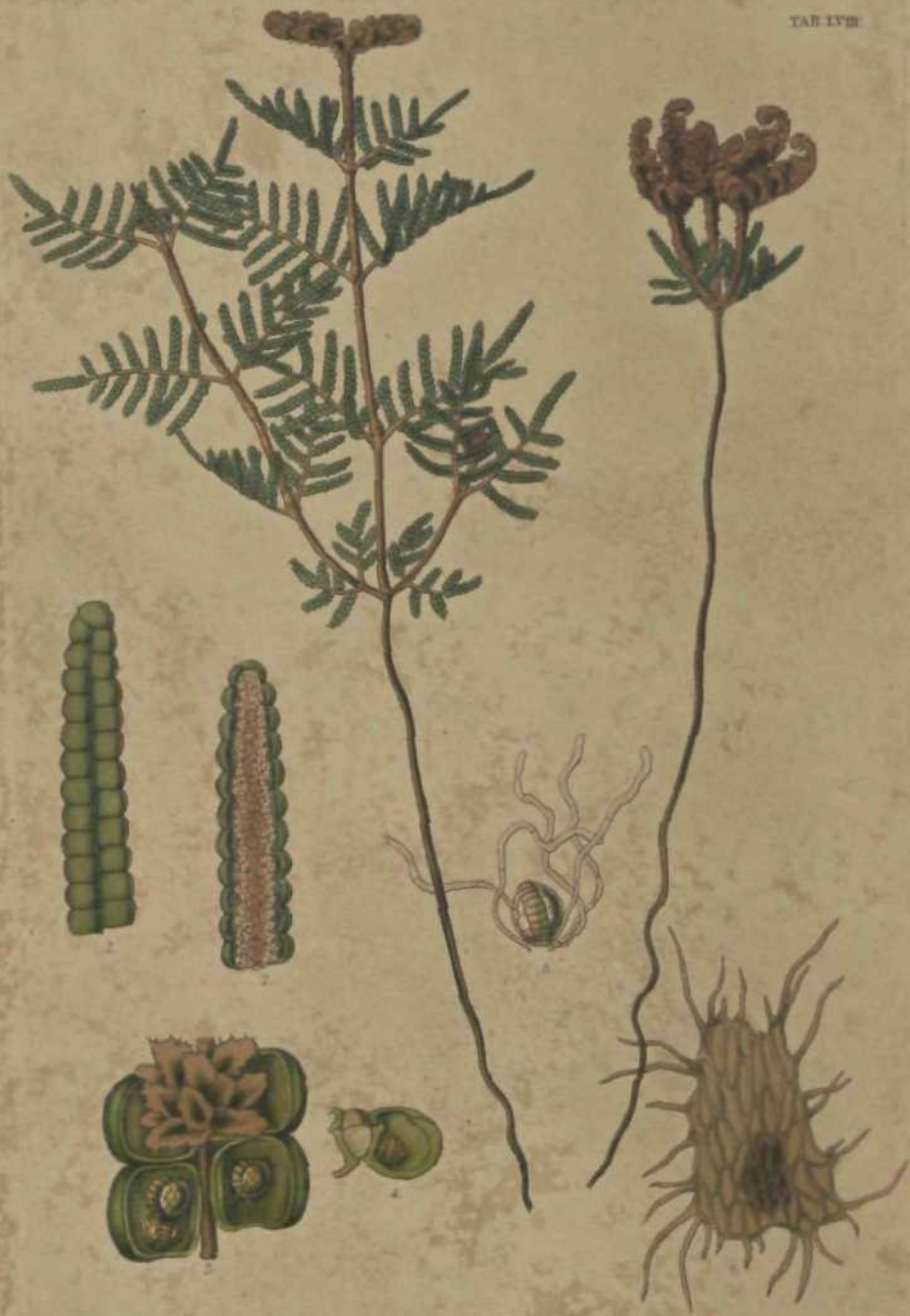
Stipules cum foliis alternantes et iis subconforraes, sed quintuplo minores, erectae, appressae.

Spicæ ad apices ramulorum, solitariae, vix unciam longae, filiformes, flavae. *Squamae* quadrifariam imbricatæ, erecto-patentes, late ovato-cordatae, acutae, integerrimae, concavae.

Capsula axillares, solitariae, majusculae, reniformes, bivalves, granulis vel seminibus minutis, sphaericis, marginatis repletae.

Fig. 1. *Caulis* portio, cum folio stipulisque. f. 2. Apex ramuli spica terminatus. f. 3. *Squama* spicae a dorso visa. f. 4. *Squama* intus visa, cum capsula. f. 5. Granulae vel Semina:—*magn. auct.*

We have no authentic specimen of Willdenow's *L. laevigatum*; but that author's description so well accords with this plant, that we have no hesitation in considering it to be that species. Lamarck had, however, previously given the name of *laevigatum* to a very different *Lycopodium*; and hence Desvaux has changed the name to *L. Willdenovii*. In habit it is nearly allied to the *Stachyogynandrum scandens*, figured by Palisot de Beauvois in his *FL d'Oware et de Benin*; but that plant has serrated leaves, whereas here both the leaves and stipules are quite entire.



Stelechocoma alpina

TAB. LVIII.

GLEICHENIA ALPINA.

FILICES. —GLEICHENIA. *Br.*, *Kaulf.* SCIISMATOPTERIDES. *Willd.*

GEN. CHAR. *J. ZICHENIA*. Capsula annulo completo striato sessilibus, in sensu rotundatis dorsalibus saepe definite. Indusium nullum. Frondes dichotomae vel furcatae.

GLEICHENIA *alpina*; frondibus dichotomis proliferis, ramis pinnatis, pinnis pinnatifidis, lobis orbiculatis subtus fornicatis; adultis denudatis, rachi communi tomentosa, partialibus squamosis. *Br.* Gleichenia alpina. *Br. Prod. p. 16u Spreng. Syst. Veget. v. 4. p. 26.*

HAB. In Insula Van Diemen (*D. R. Brown*); ubi in cacumine montis, "Wellington" dictae, legit *D. Fraser*.

Stipes erectus, semicylindricus, flexuosus, 5- vel 6-pollicaris, inferne nudus, superne magis minusve tomentosus.

Frondes caespitose, circumscriptione subdeltoideae, primum, ut videtur, dichotomae, demum innovationibus e centro dichotomiarum ortis ramis pinnatis compositae. Hi rami iterum pinnati, pinnis pinnatifidis, linearibus, viridibus, glabris, nitidis; lobis orbiculatis, approximatis, subtus insigniter fornicatis. Rachis communis tomentosa, subsquamosa, partialibus ramisque novellis insigniter paleaceo-squamosis, squamis subpeltatis pulcherrime reticulatis fimbriatisque, fuscis.

Capsula perurinae binse, in singulo lobo, pilis articulatis immixtae, orbiculari-hemisphaericae, oblique annulate, annulo dilatato completo.

V. r. 1. Pinna a dorso visa. f. 2. Pinna subtus visa. f. 3. Portio pinnae fructiferae. f. 4. Sectio transversalis lobi & et rachis. f. 5. Capsula pilis immersa. f. 6. Squamula:—*mdgn. auct.*

The dichotomous ramification of this plant is scarcely observable, except in the young shoots; for it is remarkably proliferous; and, the young shoots originating from the centre of the dichotomies, the old branches then become pinnated in an opposite manner. In a young state too, we may observe, the whole plant is covered with a dense tomentum as well as with brown scales; but in age both disappear, except on the under side of the rachis of the ultimate pinna. So closely are the lobes of the pinnae placed, and so remarkably convex on the upper side, that each pinna seems to be formed by two beaded lines. The deep concavity of the under surface is scarcely less remarkable, and can only be accurately seen when the scales of the rachis are removed; and if a transverse section be made through the rachis and lobes, the appearance is as if the lobes were jointed upon that rachis: indeed the whole structure of the plant is highly curious, and quite different from that of any Fern we are acquainted with. The substance of the fronds is remarkably thick, rigid, and coriaceous; and these are said by Mr. Fraser (to whom we are indebted for our specimens) to form large masses or beds on the summit of Mount Wellington.

TAB. LXX.



Aspidium che-aphyllum

W. G. Smith del.

ASPIDIUM RHIZOPHYLLUM.

FILICES.—GYRATE. *Br.* POLYPODIACEA. *Kaulf.* FILICES verae. *Willd.*

GEN. CHAR. *ASPIDIUM*, *Br.* *HYPOPELTIS*, *Mich.* *ASP ID II species*, *Sw.*, *Willd.*
Sori rotundi dorsales. *Involucrum* orbiculare, peltatum, stipitatum., in medio sori insertum,
undique liberum. *Br.*

ASPIDIUM rhizophyllum; frondibus pinnatis hirsutis decumbentibus, pinnis subovalibus terminali
longissime caudata radicante.

Aspidium rhizophyllum. *Sw. Syn. Fit. p. 44.* *Willd. Sp. PL v. 2. p. 219.* *Spreng. Syst. Veget.*
v. 4. p. 100.

Polypodium rhizophyllum. *Sw. Prod. p. 132.* *Sw. Fil. Ind. Occ. p. 65f.*

HAB. In umbrosis montosis Jamaicae australis.

Radix fibrosa, fibris tenuibus, ramosis, fuscis, subtomentosis*

Frondes subcaespitosae, digitales et ultra, lanceolato-acuminatae, pinnatas, pilis brevibus fuscis undique besitee.

Stipes brevis, vix duas uncias longus, gracilis, fuscus, nitidus, paleaceo-squamosus; *rachis* gracilis, hirta.

Pinnae suboppositae, semiunciam longae, parum remotae, oblongae, obtusae, subintegerrimae, basi oblique cuneatae,
terminali longissima, basi pinnatifida, lobis obtusis apice caudato—radicante, prolifera.

Sori sparsi in pinnam terminalem, in serie longitudinali prope costam inserti, rotundati.

Involucrum orbiculare, peltatum, umbilicatum.

Capsulae numerosissimae, in singulo soro pedicellatae, fuscae, annulo latiusculo fere completo cinctas.

Semina fusca, margine tuberculato, pellucida.

Fig. 1. Portio pinnae fructificantis. f. 2. Capsulae. f. 3. Semina:—*magn. anct.*

This interesting and very distinct species of *Aspidium* appears to be confined to the island of Jamaica. The specimens here figured were gathered by Mr. Wiles in that country, and presented to us by A. B. Lambert, Esq.

TABLI



Hymenophyllum dilatatum

HYMENOPHYLLUM DILATATUM.

FILICES.—GYRATJE. *Br.* POLYPODIACEÆ. *Kaulf.* FILICES verse. *Willd.*

GEN. CHAR. *HYMENOPHYLLUM*, Sm. *Sort* marginales. *Capsule* sessiles, receptaculo communi cylindræo insertis, intra *Involucrum* bivalve, textura frondis, valvis planis, exterius liberis. *Br.*

HYMENOPHYLLUM dilatatum; glabrum, frondibus bi-tripinnatifidis, pinnis ovatis dichotome divisis decurrentibus, laciniis linearibus obtusis integerrimis, involucris orbicularibus inflatis, stipite superne rachique alatis.

Hymenophyllum dilatatum. *Sivartz. Syn. Fil. p. 14Q et 3f3. Schuhr. Fil. p. 131. / . 135.*
Willd. Sp. PL v. h.p. 533. Spreng. Syst. Veg. v. 4. p. 132.

Trichomanes dilatatum. "*Forst. ProdrT*

HAB. In Insulis Maris Pacifici. *Forster. In Nova Zealandia. D. Menzies. Brazil ? {Sprengel.}*

Caudex repens, horizontalis, gracilis, fuscus; laevis hic et illic radicans.

Stipes digitalis, erectus, glaber, basi teres, superne subalata.

Frons, circumscriptione oblongo-ovata, omnino glabra, pinnata, pinnis ovatis subattenuatis, basi in rachin alata decurrentibus, bipinnatifidis, laciniis subdichotomis, linearibus, costatis, obtusis, integerrimis, terminali longiore; *Substantia* membranacea, sub summo lente minutissime reticulata, siccitate fusca, costa prominente, pallida.

Sort in laciniis terminales versus apicem frondis.

Involucra orbicularia, pallide fusca, bivalvia, valvis hemisphaericis integerrimis.

Receptaculum inclusum, clavatum.

Capsulæ peltatæ, sessiles, pulcherrime reticulatæ, annulo completo dilatato cinctæ.

Semina subangulata, flavescentia.

Fig. 1. Lacinae cum soro. f. 2. Portio frondis. f. 3. Involucrum apertum cum receptaculo capsularum.

f. 4. Capsulae. f. 5. Semina:—*magn. auct.*

We know not upon what authority Sprengel considers this to be a native of Brazil. The specimens here figured were gathered by Mr. Menzies in New Zealand. It was originally discovered during the first voyage of Captain Cook, by John Reynold Forster.



Acrostichum viscosum.

ACROSTICHUM VISCOSUM.

FILICES. —GYRATE. *Br.* POLYPODIACEJE. *Kaulf.* FILICES verae. *Willd.*

GEN. CHAR. *ACROSTICHUM*, Linn. *Sori*amorphi, seu *Capsules* per totam paginam inferiorem frondis (interdum diversae) vel ad ejus partem sparsae. *Indusium* nullum (nisi squamulae, v. setae in quibusdam capsulis interstinctae). *Br.*

ACROSTICHUM viscosum; squamoso-hirsutum, subviscidum, frondibus lineari-lanceolatis acuminatis, basi in stipitem longiusculum squamosum attenuatis; fertilibus linearibus.

Acrostichum viscosum. *Swartz. Syn. Fil. p. 10 et 193. Willd. Sp. PL v. 5. p. 103. Spreng. Syst. Veget. v. 4. p. 33.*

Acrostichum petiolatum. *Swartz. Fl. Ind. Occ. p. 1588.*

Acrostichum salicifolium. *Willd. Herb. Kaulf. Enum. Fil. p. 58. Sieber. Syn. Fil. n. 28. Spreng. Syst. Veget. v. 4. p. 33.*

HAB. In trancos muscis repletos in montibus altis Jamaicae; et in India Orientali. *Swartz.* Insula Mauritii. *Sieber. Bojer.* Borboniae. *Desfontaines.* Insula Sancti Vincentii Indiae Occidentalis. *Rev. L. Guilding.*

Caudex reynens, crassiusculus, dense fusco-squamosus, fibrosus, fibris numerosis, filiformibus, flexuosis, ramosis.

Stipites plurimi ex eodem caudice, subcongesti, graciles, castanei, hinc sulcati, inferne nigri, nitidi, squamis minutis lanceolatis, membranaceis, reticulatis, spinoso-ciliatis obsiti, demum nudi; *sterilium* duas ad tres uncias longi; *fertilium* duplo triplove longiores.

Frondes sex ad octo uncias long*, erects, nunc subfalcate, coriaceo-membranaceae, lineari-lanceolate, basi apiceque attenuate, integerimae, utrinque, statu juniore praecipue, squamuloso-viscida, squamis minutissimis membranaceis reticulatis, magis minusve profunde ciliatis: *costa* distincta; *venae* parallelae plerumque furcate: *frondes fertiles* lineares, sterilibus plerumque longiores.

Capsulae totam paginam inferiorem frondis tegentes, fuscae, sphaericse, stipitate; annulo subcompleto cincte.

Semina flavo-fusca, limbo tuberculato.

Fig. 1. Capsulae. f. 2. Semina. f. 3. Squama stipitis. f. 4. Squama frondis:—*magn. and.*

We have scarcely less pleasure in figuring a species of Fern which has been involved in obscurity, than in making known one which is altogether new. In the present instance we have, from the Island of St. Vincent, given what we believe to be the true *Acrostichum viscosum* of Swartz and Willdenow, of which no representation has hitherto been published. We think, however, that too much stress must not be laid upon the viscid nature of the plant, nor upon the scales of the frond; both of which are liable to vary: and the latter in particular, we know almost entirely disappear with age, remaining on the midrib, and at the margin, and on the underside of the frond, the longest. The scales, too, vary in size and in the relative length of the ciliae, which sometimes give the appearance of mere stellated hairs to the scales. This kind abounds more on the upper surface of the frond of our specimens from the Mauritius, which can by no fixed character be distinguished from the species of the West Indies



Grammitis furcata

TAB. LXII.

GRAMMITIS FURCATA.

FILICES. — GYRATJE. *Br.* POLYPODIACEJE. *Kaulf.* FILICES verae. *Willd.*

GEN. CHAR. *GRAMMITIS*, Sw. *Sort* oblongi, lineares, recti, sparsi. *Indusia* nulla. *Willd.*

GRAMMITIS furcata; fronde lineari glabra furcata, apice obtusa, stipite nullo, soris oblongis oblique parallelis.

HAB. Guiana. *C. S. Parker.*

Radix parva, caapitosa, e fibris plurimis fuscis descendentibus.

Frondes plurimae ex eadem radice, erectae, lineares, quatuor ad quinque uncias longae, duas lineas latae, medium versus simpliciter furcatae, margine integerrimae, subsinuatae, apicibus obtusis, inferne attenuatae, sed *stipes* nullus. *Substantia* coriacea, medio costata, nervis simplicibus obscuris, oblique parallelis, sorigeris.

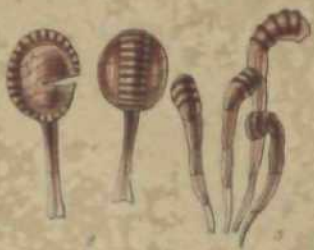
Sort, in laciniis furcarum, oblongi, tumidi, simplici serie, costa utrinque, dispositi.

Capsulae intense fuscae, annulo lato incompleto cinctae, longe stipitatae.

Semina subrotunda, flavescentia.

Fig. 1. Portio frondis, cum soris. f. 2. Sorus. f. 3. Capsulae. f. 4. Semina:—*magn. auct.*

We possess only the single specimen of this distinctly marked species of *Grammitis*, which was brought from Demerara by our valued friend C. S. Parker, Esq. It has the forked habit of some species of *Tenitis*, especially of *T. furcata*, and the divided state of *T. graminifolia*; but the fructification is decidedly that of a *Grammitis*.



Tonitis \neq *intercepta*

L. Sw.

TÆNITIS INTERRUPTA.

FILICES.—GYRATÆ. *Br.* POLYPODIACE*. *Kaulf.* FILICES venè. *Willd.*

GEN. C R. *TÆNITIS* Sw. *Sorus* linearis, continuus, quandoque interruptTM, longitudinalis, intecostam et marginem exteriorem frondis situs. *Indusium* nullum. *JFifltf.*

TÆNITIS *territa* *fc** fronde pinnata, pinnis lineari-ellipticis obtusiusculis, soris interruptis.
Tænitis linearis. *Wall. MSS.* (non *Kaulf.*)

HAB. In India Orientali. *Wall.*

Stipes quatuor ad sex uncias longus, erectus, flavo-fuscus, hinc canaliculatus, basi subsquamosus, intense fuscus.
Frm *stipite* *rev* *hior* circumscriptione late ovata, pinnata, pinnis alternis remotiusculis subpatentibus, linearibus, *m* *ticis* *arum* coriaceis, obscure reticulatim venosis, costatis, integerrimis, apice obtusiusculis, basi acutis, brevissime petiolatis, terminali petiolo sublongiore.

Son. longitudinals interrupti, prope marginem frondis inserti, involucro nuUo.

Capsidce spheric*, annulo lato fere complete cincte, pedicellate. *Capsule* plurimae abortivse (f. 3.).

Fi 1. Portio frondis, cum soro. f. 2. Capsulae. f. 3. Pedicelli cum capsulis abortivis:—*magn. auct. g.*

•R d f om the Honourable the Directors of the East India Company; but from what part of receive mentioned. Its affinity is evidently with *T. blechnoides* Swr. (*T. pteridioides* of Schkuhr); India is no if larwr plant, with the pinnae remarkably attenuated. Of that species Swartz but that is a vastly larger plant, observes that the capsules are mixed with articulated setae, terminated by a torulose rounded club, Th doubtless analogous to what we here consider pedicels with abortive capsules—capsules these are indeed reduced to a portion of the annulus, which is all that is formed of them.



Nemionitis cordata



Polypodium longifolium

POLYPODIUM LONGIFRONS.

n POLYPODrACB*. *Kaulf.* FILICES vera, *Willd., S_Mren_g*

GEN. CHAR. **POLYPODIUM**
 nullum: [^]_____

subnullo frondibus lanceolatis acuminatis integerrimis membrana-
 vivacibus longifrons; stipites brevissimi, basi longe attenuatis, soris ubique sparsis, caudice lon-
 geis reticulatis tenuissimis marginatis,

Polypodium longifrons *Wall.* In *Nepalia?*
 HAB. India Orientali. *Wall.* Indo-squamosus, radiculosus, fibris filiformibus, ramosis,

longissime repens, crassus, fusco-tomentosus, brevissimus, in frondem sensim superne dilatatus.
Stipes subnullus, vel, si mavis, pendentes, sequepedales et ultra, lanceolate, glabre, membra-
 frondibus plures, in areolis uniglandulose (fig. 1.), integerrime, margine subundulato, tenuiter
 naceffi, subpellucide, reticulatis, attenuatis, costate; costa crassa, fusca.
 incrassato, apice acuminato, parte frondis sine ordine sparsi.

Sori numerosi, hemisphaerici, capsulae
Capsule flavo-fuscæ, longe pedicellatae, coloratae
 Sori oblonga, subretortiformi, capsulae Semina magna.

Fig. 1. Portio frondis, cum sors.

Of this fine species of *Polypodium* we are indebted to the Honourable the
 East India Company, from whom, however, probably from Nepal, and is perhaps the same
 any particular habitat being given. the character in the *Prodromus* *Flora Nepalensis* of that
 the P. «^fl^u» *[^] determinie that point satisfactorily,
 as the author is too short to enable



Polypodium crinitum.

POLYPODIUM CRINITUM.

Br. POLYPODIACE*. Kaulf. FILICES ver*. WiUd., Spreng.

FILICES.—GYRATÆ.

GEN. CHAR. *nrVPODWM Sw. . Sari subtrotundi, (seriati, sparsi v. conferti). Involucum*
milinm. Br.

POLYPODIUM crinitum; innata, piunis lanceolatis pinnatifidis, laciniis oblongis obtusis sub-
 inaequilateralibus integerrais **subti** ^{> ^ ^ ^} nervisque subpubescentibus, stipite rachique setosis,
 soris minutis.

Polypodium crinitum. *Poiret* ^{^ ^ ^ ^} *Besv in Berl. Mag. ISU. p. 317.* *Spreng.Syst. Veget. v.4.p.rt.*
 Polypodium thelyptero. ^{des? ^ < W-}

(non Sieberi, ^{^ - ^ - ^ 50 -})
 Polypodium fusco-setaceum. *Bojer. MSS.*

H » Ininsula Mauritii: in montibus excebis, locis umbros. ^{^ yer.}
^{^ - ^ - 6 -} ris erectus, teres, hinc canaliculate, nitidus, insigniter setosus, setis longis membranacis, sub-
Caudex su palma,
 latis, fuscis.
 etiam fusco-setaceus, versus apicem pubescens.

⁷ *edalis* circumscriptione ovato-subpyramidalis, pinnata, pinnis plerumque oppositis, subhorizontalibus
^{ons P} dri a-sex-pollicaribus, lanceolatis, breviter acuminatis, profunde pinnatifidis, fere omnino glabris, costa-
 TeLT) nervisque pubescentibus, laciniis semiunciam longis, paululum fatis, obtusis, oblongis v. lineari-
 oblongis inaequilateralibus, basi subqualibus versus apicem sensim minoribus, penninervis.

Sari biseri nervis ultimis seu venulis prope medium utrinque insertis, parvis

Capsul, splarico-subcompress., annulo crasso cinct*, pedice utat..

Semina subreni [^] *frutescen* **l** **o** **o** **i** *f. 2. Capsulae. f. 3. Semina:—magn. auct.*
 Fig. 1. Pinnæ

ishi — many of the species of Fern by mere descriptions is, it must be
 The difficulty of ^{disti} **J** ^{^ ^ ^ ^} **l** **o** **o** **i** simply at the sho character of *P. thelyptoides* given by
 acknowledged, very great. ^{diffi} of our present plant; but then he describes it after-
 + A it is quite inui ^{tluv} « r *
 Desvau above quoteu, ^{1 ves (p me)} ^{^ ^} inches & hdf in length the frond only five
 wards as having "very/w ea ^{^ ^ ^ ^} **l** **o** **o** **i** length:" in which respects, he tells us, it differs
 inches long, and the stipes ^{eigj or} ^{^ ^ ^ ^} description, again, perfectly agrees with our plant in
 from the *P. crinitum* of ^{Poire} ^{^ ^ ^ ^} extremities of the veing. they are
 every thing except in not having the
 evidently inserted near the ^{im} ^{^ ^ ^} **l** **o** **o** **i** ^{confou}nded with our plant, similar as it is in the structure
 Sieber's *P> thelyptoides* mus ^{^ ^} **l** **o** **o** **i** **des**, and the stipes, rachis, costa and nerves, are simply
 of its pinn*; [^] it is pubescent on
 o ^P depute of set,-
 pubescent, quite



Pleopeltis perouana.

PLEOPELTIS PERCUSSA.

FILICES.—GYRATE. *Br.* POLYPODIACEA. *Kaulf.* FILICES verae. *Willd., Spreng.*

GEN. CHAR. *PLEOPELTIS*, Humb. *Sort* subrotundi, sparsi. *Indusia* numerosa, peltata, squamiformia, subimbricata. *Spreng.*

PLEOPELTIS percussa; frondibus lanceolatis breviter stipitatis cuspidato-acuminatis margine integerrimis revolutis squamulosis, supra foveis a soris adversae paginae ortis instructis, soris solitariis pulvinatis, caudice repenti.

Polypodium percussum. "*Cavan. Prælect.* 1801. n. 594." *Sivartz. Syn. Fil.* p. 27. *Willd. Sp. PL* v. 5. p. 151. *Kaulf. Enum. Fil.* p. 90. *Langsd. et Fisch. Jc. Fil.* p. 8. t. 6. *Spreng. Syst. Veget.* v. 4. p. 4f.

Polypodium avenium. *Desv. in BerL Magaz.* 1811. p. 314. *Desv. in Journ. de Bot.* 1814. /?. 259. £.41.

Polypodium cuspidatum. "*Presl?* (fide *Spr.*)

HAB. In insulis Marianis inque Para et insula Catharina, Brasiliae. *Willd.* Apud Rio Janeiro. *D^a Maria Graham. Haddi.*

Caudex repens, ramosus, flexuosus, arete squamosus, crassitie pennae corvinae, hic illic fibroso-radiculosus[^]
Stipes duas ad tres uncias longus, subsquamosus.

Frondes spithamaeae fere ad pedalem, erectae, lanceolatae, coriaceae, virides, costatae, oculo nudo omnino aveniae, sub lente venis reticulatis notatae, integerrimae, minute squamulosae, marginibus revolutis, apicibus longe cuspidato-acuminatis, basi in stipitem sensim attenuatae: supra foveolatae, foveis a soris in adversa facie positis. *Squamulæ* frondis minutae, peltatae, reticulatae, margine dentatae.

Involucra plurima in eodem soro, e squamulis peltatis dentatis.

Sori, pro ratione plantae, magni, hemisphaerici seriatim dispositi, solitarii.

Capsulæ numerosissimae, longe pedicellatae, sphaericae, annulatae, fasciis annulorum rufis. Cum his capsulis pedicelli abortivi numerosi adsunt.

Semina oblonga, intense flava.

Fig. 1. Portio frondis, cum soris involucrisque. f. 2. Portio frondis cum soris vetustis. f. 3. Squamula. f. 4. Capsulae. f. 5. Pedicelli abortivi. f. 6. Semina:—*magn. auct.*

No author appears to have noticed the scales which cover the younger state of the sori of this plant, constituting that kind of involucre which characterizes the genus *Pleopeltis* of Humboldt. Raddi states it to be an inhabitant of old walls in Brasil.



Woodsia Perriniana

WOODSIA PERRINIANA.

FILICES.—GYRATTE. Br. POLYPODIACE-£. *Kaulf.* FILICES verse. *Willd., Spreng.*

GEN. CHAR. *WOODSIA*, Br. *Sori* dorsales, subrotundi. *Involucrum* calyciforme apertum lacitiatum (marginem crinitum *Br.*): includens *Capsulas* pedicellatas: receptaculo communi elevato nullo. *Br.* (paucis verbis mutatis.)

WOODSIA perriniana; minutissime glanduloso-pilosa, frondibus bipinnatis, pinnis ultimis pinnatifidis segmentis rotundatis bidentatis, soris submarginalibus, involucris subhemisphaericis demum laciniis patentibus dentatis, stipite subpaleaceo.

Alsoptrila perriniana: *Spreng. Syst. Veget. v. 4, p. 125.*

Woodsia sp. ? *Torrey MSS.*

HAB. Insula Sancti Thomse. *Perrin.* In America Septentrionali. *Torrey* (prope Novam Eboracensem). *D. Barratt.*

Radix ?

Stipes digitalis et ultra, glaber, nitidus, paleaceo-squamosus, paleis sparsis non raro deciduis.

Frons, circumscriptione lanceolata, ubique pilis minutissimis glandulosis subtus præcipue obsita, bipinnata, pinnis primariis deltoideo-lanceolatis, oppositis, remotiusculis, secundariis oblongis vel oblongo-lanceolatis, pinnatifidis, laciniis rotundatis bidentatis, vel inferioribus rarissime iterum subpinnatifidis, laciniis ultimis bidentatis.

Color pallide virens, *pinnarum raclii glanduloso* ~~torrey/ww2~~ inferne paleaceo.

Sori submarginales, solitarii, in singula lacinia ad dichotomiam venarum insidentes.

Involucrum infra sorum insertum membranaceum album primum hemisphaericum capsulas involvens, sed vertice aperto, demum in lacinias inaequales, patentes, denticulatas dehiscentes, laciniis subovatis, reticulatis, concavis.

Capsulæ sphaericae, breviter pedicellatae, annulo incompleto.

Receptaculum commune nullum.

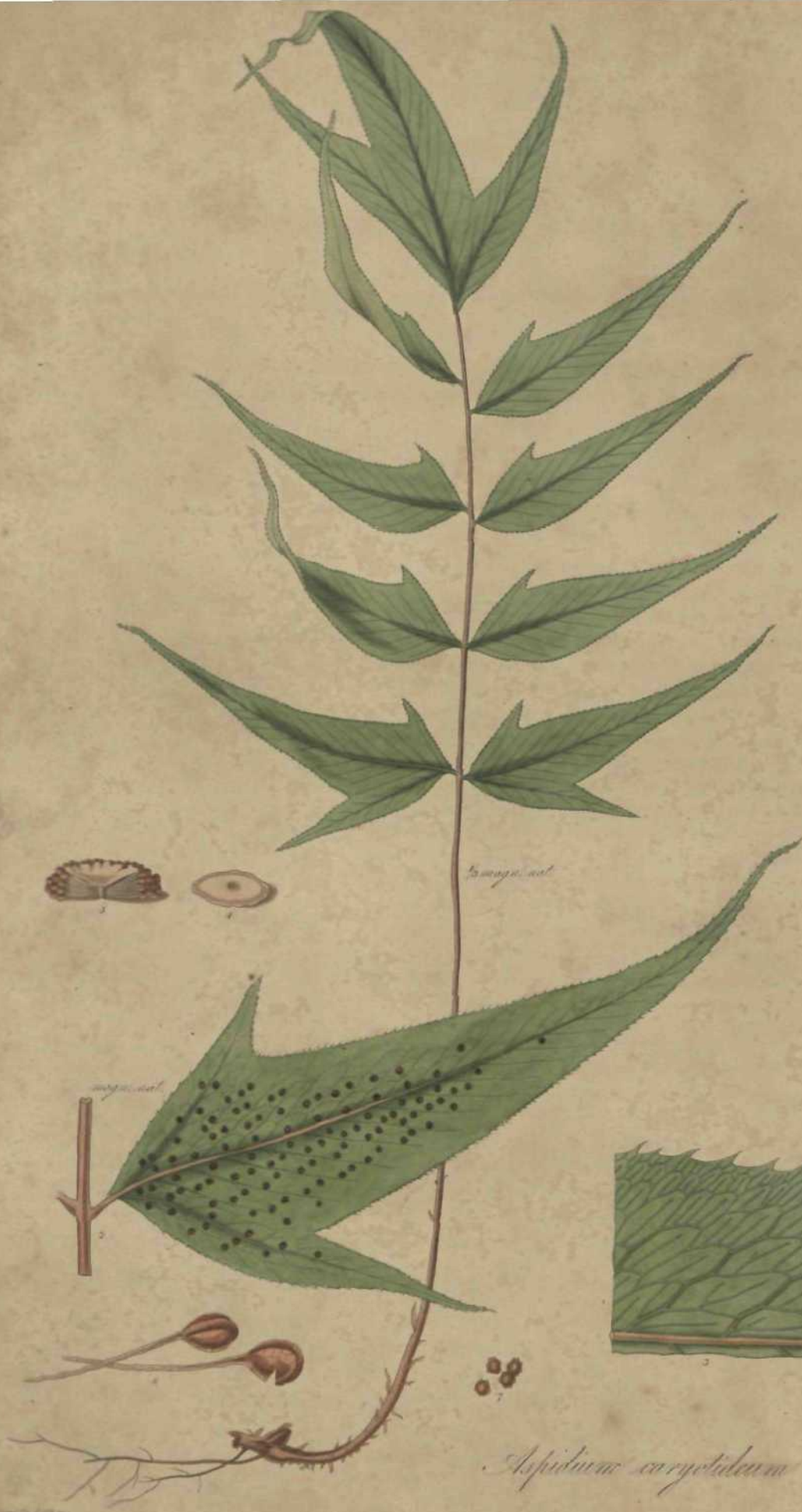
Semina oblongo-rotundata.

Fig. 1. Plantae *D. Torrey.* f. 2. Eadem e *D. Barratt* recepta:—*magn. nat.* f. 3. Portio pinnulae, cum soris. f. 4. Sorus immaturus, involucro nondum expanso. f. 5. Sorus maturus. f. 6. Capsulæ. f. 7. Semina:—*magn. auct.*

We had the good fortune to receive from our valuable correspondent Dr. Torrey, of New York, an authentic specimen of the *Alsophila perriniana* of Sprengel, gathered in the island of St. Thomas, and specimens of a Fern gathered near New York, which upon comparison prove to belong to the same species. Afterwards Dr. Barratt sent it to us also from the United States.

Sprengel has in some degree altered the generic character of Mr. Brown's *Alsophila*, so as to include the present plant: but as the original species of *Alsophila* embrace a tribe of Ferns arborescent and quite different from our plant, as well in aspect as in generic character, we have considered it best to remove *A. perriniana* from that genus altogether.

It would be easy for us, seeing that it does not precisely accord with any described genus of the *Filices*, to have invented a new one. But as our design is rather by a series of well executed figures and descriptions to give a correct idea of the structure of the fructification of Ferns, which may be employed in future for the formation of genera, than too hastily to constitute new ones, we have preferred placing the present plant in the genus *Woodsia*. Its habit, we think, is sufficiently similar; and, except that the involucre is larger in proportion to the sorus, and that, in a young state, it covers more fully the capsules, and is not margined with hairs, there is not a difference even in the character of the fructification. And we are not without an idea, that had the learned Brown himself been acquainted with the present Fern, he might have framed the character so as to have included it also.



Aspidium nat.

Aspidium nat.

Aspidium corymbosum

ASPIDIUM CARYOTIDEUM.

EILICES.—GYRATE. *Br.* POLYPODIACEÆ. *Kaulf.* FILICES verse. *Willd., Spreng.*

GEN. CHAR. *ASPIDIUM*, *Br.* *HYPOPELTIS*, *Mich.* *ASP ID II* species, *Sw.* *Sori* rotundi, dorsales. *Involucrum* orbiculare, peltatum, stipitatum, in medio sori insertum, undique liberum. *Br.*

ASPIDIUM caryotideum; fronde pinnata glabra, pinnis subsessilibus rhombeo-lanceolatis valde acuminatis subfalcatis ciliato-serratis, infimis terminalique subtrilobis, intermediis basi superiore unidentato.

Aspidium caryotideum. *Wall. MSS*>

HAB. In India Orientali (Nepal?). *TFallich.*

Caudex, ut videtur, repens, squamosus, hic illic radiculosus.

Stipes pedalis et ultra, pallide fuscus, subteres, hinc sulcatus, basi parce paleaceo-squamosus, superne nudus, **glaber.**

Frons, stipitis longitudine, circumscriptione oblongo-ovata, pinnata, *pinnis* remotis patentibus, inferioribus oppositis, reliquis alternis, sex pollicaribus, glabris, rhombeo-lanceolatis, inaequalibus, longe acuminatis costatis, oblique venosis, venis, sub lente, reticulatis, marginibus tenuiter ciliato-serratis, basi cuneatis, brevissime petiolatis; *infimis* terminalique trilobis, lobis lateralibus brevioribus acuminatis, *intermediis* margine superiore versus basin dente unico instructo.

Sori in duas lineas, inter venas laterales dispositi, parvi, rotundati.

Involucrum exacte orbiculatum, primum orbiculatum, centro depressum, demum, marginibus recurvis, umbilicatum, peltatum.

Capsulæ subsphaericae, annulate, pedicellate, pedicello longissimo, articulo.

Semina minuta, sphaerica, marginata, margine tuberculato, flavo-viridia.

Fig. 1. *Aspidium caryotideum*, £ diminutum. f. 2. Pinna:—*magn. naU* f. 3. Portio frondis ut venae reticulate videantur, f. 4. Sorus immaturus involucre tectus. f. 5. Sorus maturus, verticaliter sectus. f. 6. Capsulae. f. 7. Semina.

This is a very distinctly marked species of *Aspidium*, for which we are indebted to the Honourable the East India Company. The fronds, when seen through a good magnifying lens, present a very beautiful appearance, from the nature of the reticulation. Each areola has a branch of a vein, sometimes simple, sometimes forked, passing upwards, through the centre, but not reaching to the top. These veinlets, probably, though it is difficult to ascertain the fact, are ^hat terminate in the sori.



Nephrodium fragrans.

NEPHRODIUM FRAGRANS.

FILICES.—GYRATĒ. *Br.* POLYPODIACEĀ. *Kauf.* FILICES verae. *Willd., Spreng.*

GEN. CHAR. *NEPHRODIUM*, Mich. *Sori* rotundi, dbrsales. *Involucrum* reniforme, sinu affixum, marginibus liberis. *Br.*

NEPHRODIUM fragrans; frondibus bipinnatis, pinnulis oblongis obtusis pinnatifidis, segmentis subrotundatis eroso-crenatis, stipite rachique dense ferrugineo-paleaceis.

Nephrodium fragrans. *Richardson in App. to Frankl. Journ. p. 753.*

Aspidium fragrans. *Swartz. Syn. Fil. p. 51. Willd. Sp. PL v. 5. p. 253. Hook, in Parry's Second Voy. App.p. Spreng. Syst. Veget. v. A. p. 105.*

Polypodium fragrans. *Linn. Sp. PL p. 1550. (excl. syn. Hudsoni.)*

"*Dryopteris rubum idæum spirans. Amm. Ruth. 251.*"

HAB. In Sibiria; Dahuria. *Fischer. Kamtschatka. Chamisso.* In regionibus arcticis et subarcticis Americæ Septentrionalis, *Richardson.* In insulis Americæ arcticæ. *Parry.*

Caudex brevis, crassus, lignosus, subrepens, radiculosus, frondes plurimas gerens.

Stipes unciam ad duas vel tres uncias longus, dense paleaceo-squamosus, squamis magnis, imbricatis, rufo-fuscis, membranaceis, pellucidis, integerrimis.

Rachis (universalis partialisque) subtus præcipue ferrugineo-squamosus, squamis densis, imbricatis.

From, circumscriptione lanceolata, palmaris fere ad spithamaeam, bipinnata, pinnis primariis subarcte dispositis, sessilibus, cordato-lanceolatis, obtusis; pinnulis oblongis obtusis[^] pinnatifidis, segmentis subrotundis, eroso-crenatis. *Color* pulcherrime viridis, subtus pallidior.

Sori contigui, in singulo segmento pinnularum solitarii, majusculi.

Involucrum rotundato-reniforme, convexum.

Capsulæ breviter pedicellate, annulatæ.

Semina oblonga, pulcherrime flavo-fusca.

Fig. 1. Pinnula. f. 2. Eadem subtus visa, cum soris. f. 3. Sorus, *Involucrum*que. f. 4. Capsula. f. 5. Semina:

—*magn. auct.*

Of this elegant and rare Northern species of Fern no figure has yet been published. The name is given from the fragrant *scent* of the *species yielding an odour*, even in the dried state, not unlike that of the common Primrose.

It is peculiarly an arctic plant; and our finest specimens[^] from which the accompanying figure is taken, are from the island of Igloodik, where they were gathered by Captain Parry.



Asplenium ensiforme.

ASPLENIUM ENSIFORME.

FILICES.—GYRATJE. *Br.* POLYPODIACEÆ. *Kaulf.* FILICES veræ. *Willd., Spreng.*

GEN. CHAR. *ASPLENIUM*, Linn. ^on lineares, sparsi, dorsales. *Involucrum* e vena lateraliter ortum ducens, margine superiore libero. *Br.*

ASPLENIUM ensiforme; fronde simplici lineari-lanceolata acuminata integerrima, basi in stipitem attenuata, soris costae oblique parallelis, involucro denticulato reflexo.

Asplenium ensiforme. *Wall. MSS.*

Asplenium Phyllitidis. *Don > Prodr. FL Nep. p. 7 ?*

HAB. In arboribus Nepaliæ. *Wallich.*

Radix caespitosa, e fibris numerosissimis, capillaribus, ramosis, nigro-fuscis.

Frondes plurimæ ex eadem radice, erectæ, magnitudine variantes, nunc 6—8 pollicares, nunc pedales sesquipedalesque, lineari-lanceolatae, subcoriaceae, margine integerrimæ, apice valde acuminatæ, inferne in stipitem bi-quadrunciam longum, sensim attenuatæ. *Stipes* fuscus, basi paleaceo-squamosus, squamis lanceolato-subulatis, intense fuscis. *Costa* frondis subtus prominens, nervis oblique parallelis, simplicibus furcatisve, obscuris.

Sori numerosi, frondis totum dorsum occupantes a basi fere ad apicem, costae oblique paralleli, *inferiores* fere omnino paralleli, lineares.

Involucrum membranaceum, pallide fuscum, margine denticulatum, cito reflexum atque persistens.

Capsules numerosissimæ, sublonge pedicellatæ, intense fuscae, annulo lato intense flavo.

Semina flavo-fusca, subovalia, nunc margine granulata.

Fig. 1. Portio frondis cum soris. f. 2. Capsulae. f. 3. Semina:—*magn. auct.*

We have received specimens of this very distinct *Asplenium* both from Dr. Wallich and the Honourable the Directors of the East India Company. It is probably Mr. Don's *A. Phyllitidis*; but we think ourselves bound to preserve the name given to the plant by its estimable discoverer, Dr. Wallich. There are but few species of the genus with entirely simple fronds; and those have all, except the present species, the sori arranged in a much more horizontal direction from the costa. Here they are in the lower part of the frond, at least, almost parallel with the midrib; and the rest form a very acute angle with it. Another remarkable character is, that the involucrum (besides being denticulate), as soon as it opens, is reflected upon the frond, so as to expose the whole cluster of capsules; and it remains there even after the capsules are dispersed.



Asplenium Pollicianum

ASPLENIUM GILLIESIANUM.

FILICES.—GYRATE. *Br.* POLYPODIACEÆ. *Kaulf.* FILICES veræ. *Willd., Spreng.*

GEN. CHAR. *ASPLENIUM* Linn. *Sort* lineares, sparsi, dorsales. *Involucrum* e vena lateraliter ortum ducens, margine superiore libero. *Br.*

ASPLENIUM Gilliesianum; frondibus anguste lanceolatis pinnatis, pinnis flabelliformibus antice laciniatis dentatisque, rachi lævi apice non radicante.

Asplenium Gilliesii. *Hook, in Ex. Flora, p. 209.* (sub descr. *Aspl. flabellifolii*, sine Ic.)

HAB. In fissuris rupium, apud Ceno Grande Uspallata, Andibus. *D. Gillies.*

Radix parva, fibrosa, fibris subsiraplicibus, tortuosis, filiformibus, magis minusve hirsutis.

Stipes uncia ad duas uncias longus, gracilis, glaber, viridis, ad basin squamoso-hispidus.

Frons angusto-lanceolata, pinnata, pinnis remotiusculis, alternis, flabelliformibus, tenuissime membranaceis, pallide viridibus, antice sublobatis, lobis subtribus, inciso-crenatis, pinnis ultimis sensim minoribus. *Rachis* lævis, apice nunquam radicante.

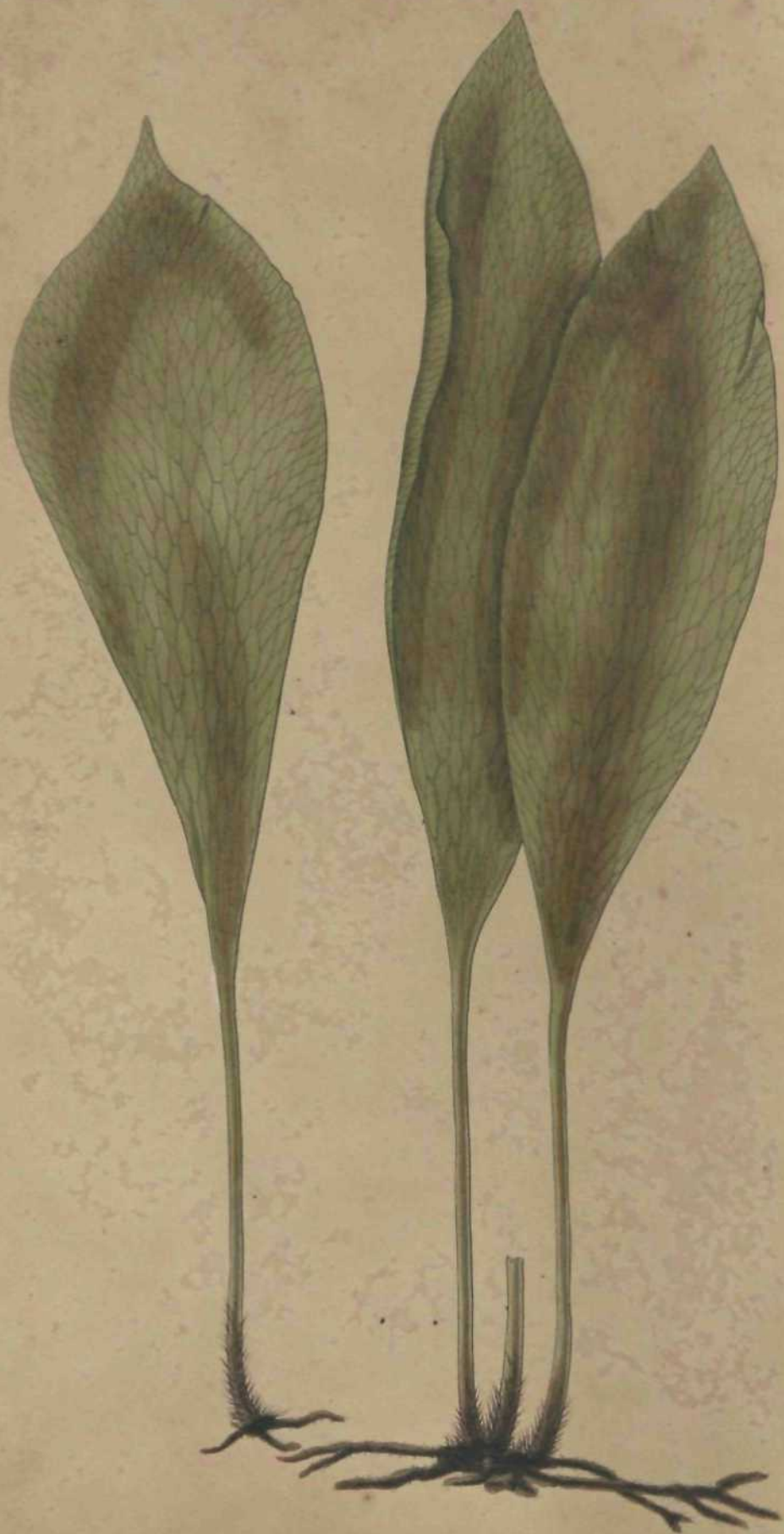
Involucra linearia, membranacea, pallide fusca, fere albida.

Capsulæ sphaericae, articulatae, pedicellatae.

Semina ovalia, fusca.

Fig. 1. Pinna, cum soris. f. 2. Capsulae. f. 3. Semina:—*magn. auct.*

Discovered by our excellent friend Dr. Gillies on the eastern side of the Andes, looking towards Mendoza. The species had been before noticed in Hooker's *Exotic Flora* under the description of *Asplenium flabellifolium*, a native of New Holland, and which has many points in common with the present. *Aspl. Gilliesianum* may, however, always be distinguished by its much smaller size, more slender and delicate habit, never throwing out roots from the extremity of a leafless rachis.



Antrophyum Morganum

ANTROPHYUM BORYANUM.

FILICES.—GYRATE. *Br.* POLYPODIACEJE. *Kaulf.* FILICES verae. *Willd., Spreng.*

GEN. CHAR. *ANTROPHYUM**; *Kaulf.* *Sort* lineares, continui, venis frondis reticulatis immersi. *Indusium* geminatum medio dehiscens. *Kaulf.*

ANTROPHYUM Boryanum; frondibus oblongo-ellipticis obovatisve acutis, basi in stipitem longum attenuates, "venis fructificantibus elevatis."

Antrophyum Boryanum. *Spreng. Syst. Veget. v. 4. p. 6?*

Hemionitis Boryana. *TVilld. Sp. Pl. v. b. p. 128.*

Hemionitis reticulata? *Bory, foy. v. l. p. 214. Sieber, Syn. Fil n. 64.*

HAB. Insula Mauritiⁱ, ad arborum radices[^] (*Bory, Sieber, Carmichael,*) et in campis sylvestribus locis umbrosis in monte *Pouce* dicta. *Bojer.*

Radix fibroso-ramosa, fibris densissime villosis fuscis, longe repentibus descendentibusque.

CaudeXj ut videtur, nullus.

Stipes digitalis ad palmarem, compressus, basi paleaceo-setosus.

From palmaris ad pedalem, coriaceo-membranacea, oblongoelliptica, non raro superne latior, margine ubique integerrimo, apice acuto, basi in stipitem attenuata, ecostata, pulcherrime venis elevatis reticulata, areolis oblongis angulatis 4—5 lineas longis.

"Venae fructificantes prominentes." *Willd.*

We possess specimens of this noble Fern, of which we have only represented here some of the smaller states, from the late Captain Carmichael, from M. Bojer, and Dr. Sieber, all of them destitute of the fructification. In some parts *qf* the frond, indeed, the veins are darker than in others; but on the most careful dissection, they contain no sori. Willdenow describes the fructification as elevated, not immersed, as it is in *Antr. pumilum* and *A. reticulatum*.

All the species seem to possess very thickly downy roots.

* Nomen e Græco *owpov* antrum, et *Qvw* nascor.—*Kaulf.*



Lindsaea polymorpha

J. Smith del.

J. Smith sc.

LINDSJA POLYMORPHA.

FILICES.—GYRATE. *Br.* POLYPODIACEJE. *Kaulf.* FILICES verse. *Willd., Spreng.*

GEN. CHAR. *LINDSJA*, Dryand. *Sori* lineares, margine paralleli saepiusque approximati. *Involucrum* ex apicibus venarum (rima plurium) ortum ducens, exterius liberum. *Br.*

LINDSJA polymorpha; fronde lineari-lanceolata pinnata, pinnis ovato-oblongis basi oblique cuneatis flabelliformibusque margine superiore serratis, infimis nonnunquam pinnulatis, involucris denticulatis.

Lindsaea polymorpha. *Wall. MSS.*

HAB. In India Orientali. *Wallich.*

Caudex repens, squamulosus, pennae corvinae crassitie, radiculoso-fibrosus, fibris flexuosis, subramosis, rigidis, fuscis.

Stipes, exemplaribus fructificantibus, digitalis ad palmarem, *sterilibm* multo brevior, erectus, glaber, nitidus, hinc canaliculatus, inferne atro-fuscus.

Frondes quadri-quinquepollicares, circumscriptione, angusto- vel lineari-lanceolatae, nunc apice attenuate, pinnatae, pinnis inferioribus, statu adultiore, iterum pinnatae. *Pinnce* vel *pinnulce* forma variantes, *sterilium* plerumque ovato-oblongae, margine superiore denticulatae, inferiore truncatae, integerrimae, basi cuneatae; *Jêrtilium* flabelliformes; *omnes* radiato-nervosae, nervis dichotomis, soris terminatis, glabris, nitidis.

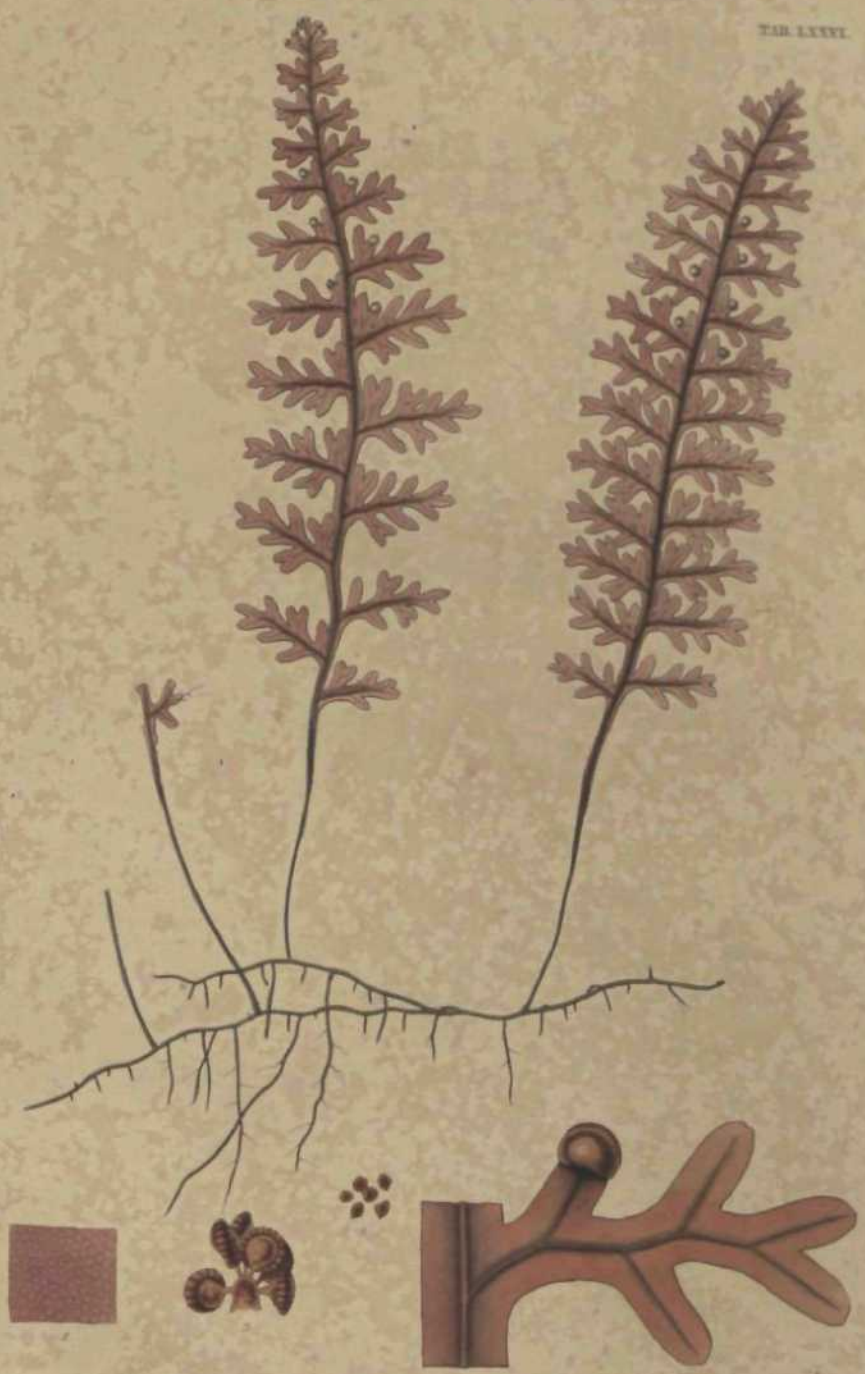
Sori lineares, ad marginem superiorem pinnarum con tin ui, exterius dehiscentes, pallide fusci, membranacei, sub lente reticulati, margine denticulati.

Capmlce sphaericae, annulo fere integro inaequali crasso cinctae, longe pedicellatae.

Semina opaca, subrotundo-angulata, flavescencia.

Fig. 1. Pinna cum soro. f. 2. Portio involucri cum capsulis. f. 3. Ejusdem portio, magis aucta. f. 4. Semina: —*magn. and.*

So sportive, are the forms of the pinnae in many of the species of this genus, that it is difficult to characterize them in words. We have given the present plant under the name by which we received it from the Honourable the East India Company: aff the same time we must observe that it comes very near to the *Lindscea flabellata* of Dryander, in the third volume of the *Transactions of the Linnean Society*, p. 41. t. 8. f. 2. That species, however, differs from ours, in being more decidedly bipinnate, in having most of the pinnae larger, regularly flabelliform, and in the apices of the fronds and compound pinnae being obtuse.



Hymenophyllum bulbosum.

HYMENOPHYLLUM BADIUM.

FILICES.—GYRATE. *Br.* POLYPODIACEJE. *Kaulf.* FILICES verae. *Willd.*

GEN. CHAR. *HYMENOPHYLLUM*, Sm. *Sort* marginales. *Capsula* sessiles, receptaculo communi cylindraceo insertis, intra involucrum bivalve, textura frondis, valvis planis, exterius liberis. *Br.*

HYMENOPHYLLUM badium; fronde lanceolata bipinnatifida, laciniis lineari-oblongis obtusis integerimis glabris, inferioribus bifidis[^] soris raris in lacinia inferior[^] involucri rotundatis.

HAB. In India Orientali. *JWallich.*

Caudex repens, filiformis, gracilis, ramosus[^] intricatus, fibroso-radiculosus.

Stipes etiam filiformis, bi-triuncialis, superne alatus.

Frons, circumscription[^] ovato-lanceolata, 4—5 pollicaris, bipinnatifida, segmentis primariis ovato-lanceolatis, laciniis lineari-oblongis, obtusis vel emarginatis, non raro inferioribus bifidis. *Textura* frondis ex areolis parvis. *Color*, siccitate, fusco-badius. *Costa* fusca.

*Involucre** rara, praecipue versus apicem frondium, in lacinia inferiore ad superiorem partem segmentorum, solitaria, terminalia, rotundata, bivalvia, valvis concavis, integerrimis.

Sort inclusi.

Capsulae paucae, breviter pedicellatae, sphaerico-compressae, columellam brevem terminantes, annulo integro, obliquo.

Semina angulata, et, ut videtur, ternatim congesta.

Fig. 1. Pars frondis cum involucro f. 2. Portio laciniae. f. 3. Sorus. f. 4. Semina:—*magn. auct.*

Presented to us by the Honourable the East India Company, as discovered by Dr. Wallich in the Company's possessions, but sent without any specific name. We have named it from the singular colour of the frond, which is common to all our dried specimens.



Hymenophyllum crispatum

TAB. LXXVII.

HYMENOPHYLLUM CRISPATUM.

FILICES.—GYRATJE. *Br.* POLYPODIACEA[^]. *Kaulf.* FILICES verae. *Willd.*

GEN. CHAR. *HYMENOPHYLLUM*[^] Sm. *Sori* marginales. *Capsula* sessiles[^] receptaculo communi cylindraceo insertae, intra involucrum bivalve, textura frondis, valvis planis exterius liberis. *Br.*

HYMENOPHYLLUM crispatum; fronde ovato-acuminata bi-tripinnatifida integerrima glabra, laciniis lato-linearibus obtusiusculis, involucris ovatis, stipite rachique alatis undulato-crispatis.

HAB. In Nepalia. *Wallich.*

Caudex repens, filiformis, radiculoso-fibrosus, fibris hirsutis.

Stipes biuncialis, basi teres, filiformis, superne alatus, alis insigniter crispatis.

Frons digitalis fere ad palmarem, ovata, acuminata, nunc lato-lanceolata, superne simpliciter pinnatifida, versus medium bipinnatifida, basi tripinnatifida, segmentis primariis circumscriptione lanceolata, ubique integerrima, atro-viridis, glabra, laciniis lato-linearibus, obtusiusculis, raclii late alata, ala undulata.

hvooliwrct) prsecipue versus apicem frondis, ovata, valvis concavis, integerrimis.

Columella (vel receptaculum capsularum) perbrevis, ad apicem capsulas gerens.

Capsulte orbiculares, vix pedicellatae, annulo integro subobliquo cinctae.

Semina angulata, pellucida, subreticulata.

Fig. 1. Portio frondis cum involucris. f. 2. Valva involucri cum soro. f. 3. Semina:—*magn. auct.*

Allied to the West Indian *Hymenophyllum undulatum* of Swartz and WiUdenow; but that has the lacinise undulated, and the stipes destitute of wings.



Trichomanes watsonii

W. Watson

1892

TAB. LXXVIII.

TRICHOMANES VENOSUM.

FILICES.—GYRATE. *Br.* POLYPODIACEÆ. *Kaulf.* FILICES verae. *Willd.*

GEN. CHAR. *TRICHOMANES*, Sm. *Sori* marginales. *Capsula* sessiles, receptaculo communi cylindraceo inserte, intra *Involucrum* monophyllum, suburceolatum, ore hiante, textura frondis. *Br.*

TRICHOMANES venosum; frondibus pinnatis, pinnis linearibus venosis crenato-repandis : inferioribus basi lobatis v. pinnatifidis intusque unifloris. *Br.*

Trichomanes venosum. *Br. Prodr. Fl. Nov. Holl.* p. 15J). *Spreng. Syst. Veget. v.A.p.* 129.

HAB. Apud Port Jackson Novse Hollandiee: et insulam Van Diernan. *Brown.* In Nova Zealandia. *A. Menzies.*

Caudicem non vidimus.

Stipes gracillimus, capillaris, subflexuosus, nudus, compressus, hinc canaliculatus.

Rachis filiformis, superne solummodo alatus.

Fro?is, circumscriptione, ovata vel lanceolata, pinnata, pinnis linearibus obtusis, glabris, pulcherrime reticulatis, crenato-repandis, inferioribus remotis basi superiore auriculatis, superioribus confluentibus, terminali elongata. *Costa* flexuosa, nervis dichotome ramosis.

Involucra solitaria, in singula pinna prope basin marginis superioris inserta, oblonga, margine alata^ ore aperto, subdilatato.

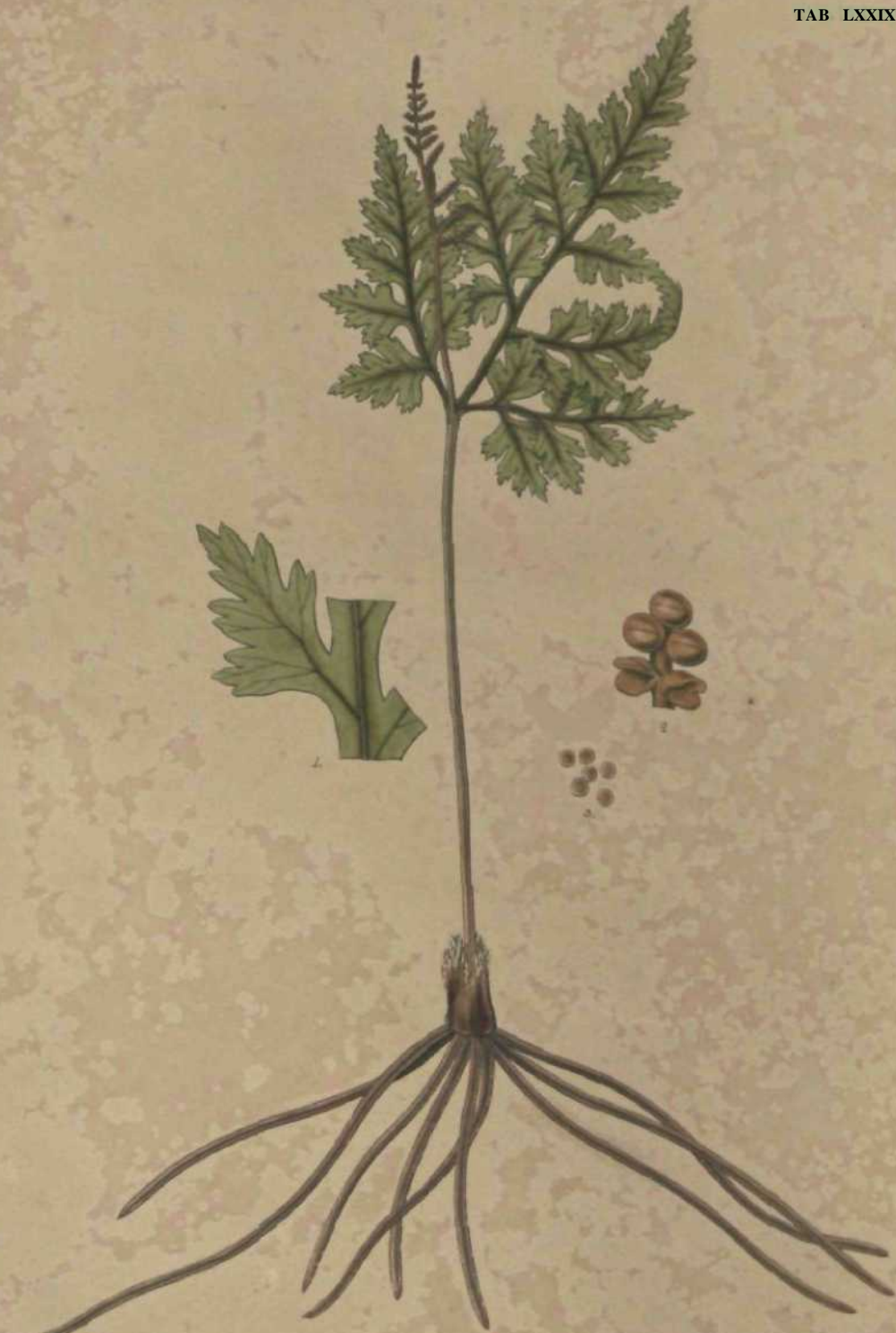
Columella longa, inserta, basi capsulifera.

Capsulce rotundate, compressae, peltatae, annulo crasso integro.

Semina subglobosa, fusca.

Fig. 1. Pinna cum soro. f. 2. Portio frondis. f. 3. Columellae pars inferior cum capsulis. f. 4. Capsulse. f. 5. Semina:—*magn. auct.*

A very distinct species of *Trichomanes*, belonging to a small tribe of the genus, having truly pinnated fronds.



Petrychium lanuginosum

BOTRYCHIUM LANUGINOSUM.

FILICES.—OPHIOGLOSSE[^]. Er., Kaulf., Spreng. STACHYOPTERIDES. Willd.

GEN. CHAR. *BOTRYCHIUM*, Sw. *Capsulæ* distinctæ, in spica disticha composita, respectu cujus transversim quoad insertionem longitudinaliter dehiscens. *Br.*

BOTRYCHIUM lanuginosum; scapo superne unifrondoso, fronde ovato-deltaidea bipinnatifida, pinnis ovatis inciso-pinnatifidis dentatis, bulbo lanigero.

Botrychium lanuginosum. Wall. MSS.

HAB. In India Orientali (Nepalia?). Wallich.

Radix e fibris plurimis, longis, simplicibus, carnosis, crassis, superne bulbifera.

Bulbus ovatus, subsquamosus, apice lanigerus.

Scapus 4—6 uncialis, erectus, teres, flavo-viridis, basi nigro-fuscus, frondem infra apicem gerens.

Frons, circumscriptione, late ovata fere deltaidea, 3—4 uncias longa, bipinnatifida, glabra; pinnis inferioribus remotis segmentis iterum pinnatifidis, superioribus coadunatis, omnibus ovatis inciso-dentatis, dentibus acutis.

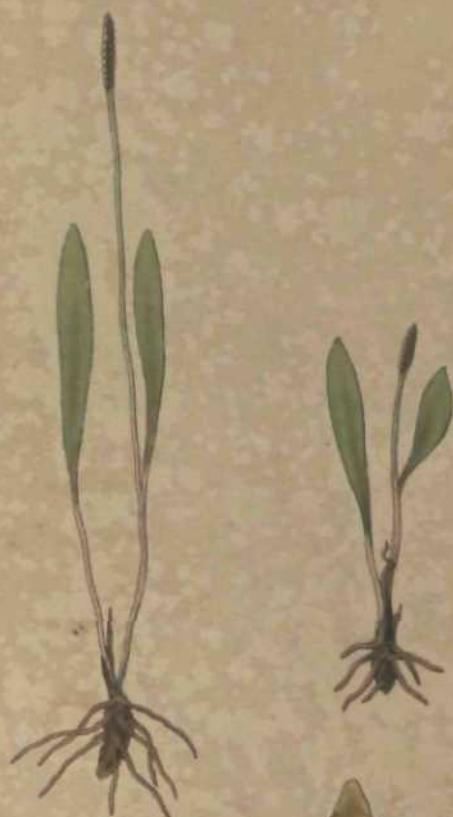
Spica composita, pinnata, pinnis distichis vel secundis.

Capsulæ plurimæ, sessiles, flavo-fuscae, ad unum latus spectantes, sphaericae, glabrae, demum transversim dehiscens.

Semina pallide flavescentia, viridi-punctata.

Fig. 1. Portio frondis. f. 2. Capsulæ. f. 3. Semina:—*magn. anct.*

The name of *lanuginosum* appears to have been given to this species by Dr. Wallich in consequence of a woolly substance which is attached to the upper part of the bulb; but this does not appear very distinctly on our specimens, which have been communicated by the Honourable the East India Company. In general aspect, the plant has much affinity with the North American *B. dissectum*; but there the frond is placed much lower down upon the stem or scape, and the foliage is much more compound or divided.



Aphelandra hastata

OPHIOGLOSSUM LUSITANICUM.

FILICES.—QPHLOGLOSSE.E. *Br.*, *Kaulf.*, *Spreng.* STACHYOPTERIDES. *Willd.*

GEN. CHAR. *OPHIOGLOSSUM*, Linn. *Capsula* nudae in spicam articulata, disticham connatae, uniloculares, transverse dehiscentes, bivalves. *Willd.*

OPHIOGLOSSUM lusitanicum; spica caulina sublonge pedunculata, fronde lanceolata in ~~Pedunculo~~ attenuata.

Ophioglossum lusitanicum. *Linn. Sp. PL* p. 1518. "*Brot. Lusit.* v. 2. p. 401." *Lam. III.* t. 864. / 3. *Willd. Sp. PL* v.5. p. 59. *Swartz. Syn. Fil.* p. 169. *Spreng. Syst. Veget.* v.4.p.22.

Ophioglossum angustifolium minimum. "*Barr. rar.* 1280. t. 2b2.f. 2."

HAB. In Lusitania, Corsica. Circa Neapolim. *D. W. H. F. Talbot.* In agro Tingitano. *Salzman.* In Insula Madeirae. *Rev. R. 7. Lowe.*

Radix, tuber oblongus, solitarius, fibrosus, fibris crassiusculis, simplicibus ramosisque.

Frondes plerumque duae ex eadem radice, unciam vel duas uncias longae, lanceolatae, vel lineari-lanceolatae, integerrimae, virides, enerves, sub lente reticulatas, inferne in stipitem subaeque longum, flexuosum, flavum, ad basin squama membranacea, fusca, lanceolata instructum, attenuatae.

Pedunculis ad basin frondis insertus, fronde plerumque longior, erectus, teres.

Spica parva, liliifera, semiunciam longa, e capsulis sex vel octo arete connatis, flavis, composita.

Semina minuta, flava.

Fig. 1. Plantae:—*magn. nat.* f. 2. Spica. f. 3. Semina:—*magn. auct.*

A small, and we believe very distinct species, which was supposed for a longtime to be an inhabitant of Spain only. We have lately received specimens from Naples (the smaller specimen here figured), gathered near that city by Mr. Talbot; and from Tangiers (the larger specimen represented), collected by M. Salzman. Since our figure was engraved, we have received excellent specimens from the Rev. R. T. Lowe, gathered in the Island of Madeira.



Phytolacca cornuta

POLYBOTRYA CERVINA.

EILICES.—GYRATJE. *Br.* POLYPODIACEA. *Kaulf.* FILICES verse. *Willd., Spreng.*

GEN. CHAR. *POLYBOTRYA*, Humb. *Capsula* pinnulas frondis disparis lineares undique dense tegentes. *Indusium* nullum. *Kaulf.*

POLYBOTRYA cervina; frondibus sterilibus pinnatis, pinnis ovato-lanceolatis inaequalateralibus integerrimis marginatis, fertilibus bipinnatis, pinnis linearibus, pinnulis oblongis planiusculis.

Polybotrya cervina. *Kaulf. Enum. Fil. p. 55. Spreng. Syst. Veg. v. 4. p. 33.*

Olfersia cervina. *Presl. in Reliq. Hank. p. 14.*

Acrostichum cervinum. *Syn. Fil. p. 14. & 200. Willd. Sp. Pl. v. 5. p. 120.*

Osmunda cervina. *Linn. Sp. Pl. p. 1521.*

Osmunda, Linguae Cervinae foliis. *Plum. Fil. p. 132. t. 154.*

/3. Foliis lanceolatis.

HAB. In India Occidental, Jamaica, Martinica, locis umbrosis. *Swartz.* Insula Sancti Vincentii. *Rev. L. Guilding.* /3. In sylvis Jamaicae. *D. Bancroft.*

Caudex repens, brevis, densissime fusco-squamosus, radiculosus, fibris ramosis, hirsutis.

Stipites plurimi ex eodem caudice, pedales vel bipedales erecti, semiteretes, facie anteriore sulcati, inferne squamosi, flavo-fusci.

Frondes sub-bipedales; steriles et fertiles distincta?.

Steriles simpliciter pinnatae (juniores lanceolatae, simplices). *Pinnce*, 11—13, fere sessiles, alternse, spithamae et ultra, ovato-lanceolatae, coriaceae, acuminatae, marginatae, integerrimae; *basi superiore* gibbosae; *inferiore* oblique cuneatae costatae; nervis numerosis parallelis, basi ramosis. *Color* laete viridis.

Fertiles bipinnatae: *Pinnce* lineari-lanceolatae, fere horizontales, alternae, 3 ad 6 uncias longae: *Pinnultz* suboppositae, semiunciam longae, patentes, planiusculae, capsulis undique tectae.

Capsulce numerosae, fuscae, annulo fere completo cinctae, pedicellatae, sphaericae.

Fig. 3. Frons juvenis. f. 2. Frondis adultae sterilis portio. f. 3. Frondis fertilis portio. f. 4. Pinnae cum capsulis. f. 5. Capsulae.

The genus *Polybotrya* was founded by Humboldt and Kunth upon the species *P. osmundacea*: and the character was made to depend upon the capsules occupying the whole circumference of the fertile pinnules. We possess, from Jamaica, a Fern that we can in no point distinguish from this of Humboldt; but in which the young fertile pinnae have the capsules only on one side, while in their more advanced state the capsules appear on all sides of them. This difference in appearance, in all probability, arises from the revolution or reflexion of the margin of these pinnae: and it perfectly accords with what Dr. Swartz says of the present plant, which he has seen in a growing state, and of which he observes, that "in an old state the fructification appears to be on both sides, in consequence of the revolution of the margin of the pinnae." If such be really the case, and if it exists in all the species of *Polybotrya*, then the genus is scarcely distinguishable from *Acrostichum*.

No author, as far as we know, has noticed the *young*, quite simple, fronds of this species. The Rev. Mr. Guilding has sent them to us in that state.

PAR. 22270



Botrychium simplex

TAB. LXXXII.

BOTRYCHIUM SIMPLEX.

FILICES.—OPHIOGIOSSE[^]. *Br.*, *Kaulf.*, *Spreng.* STACHYOPTERIDES. *Willd.*

GEN. CHAR. *BOTRYCHIUM*, Swartz. *Capsula* distinctae, in spica disticha composita, respectu cujus transversim quoad insertionem longitudinaliter dehiscentes. *Br.*

BOTRYCHIUM simplex; scapo unifrondoso, fronde ternata pinnatifidave, segmentis cuneato-obovatis incis.

Botrychium simplex. *Hitchc. in Sillimaris Journ. of Sc. v. 6. p. 103. (Eaton). Eaton's Manual of Botany, p. 237.*

HAB. Prope Deerfield, Massachusetts, America Septentrionali. *Torrey.* In Canada. *Pursh.* (fide specim. in Herb. Lambert.)

"*Radix* e fibris paucis, simplicibus, brevibus, crassiusculis.

Scapus unciam ad tres uncias longus, erectus, subteres, basi subbulbosus, infra medium, vel nonnunquam versus apicem, frondem gerens.

Frons uncialis ad triunciam, exemplaribus *minoribus* ternata vel trifida, *majoribus* pinnatifida, segmentis obovato-cuneatis, ramis integris, plerumque bifidis vel magis minusve incis. *Rachis* compressa, lata.

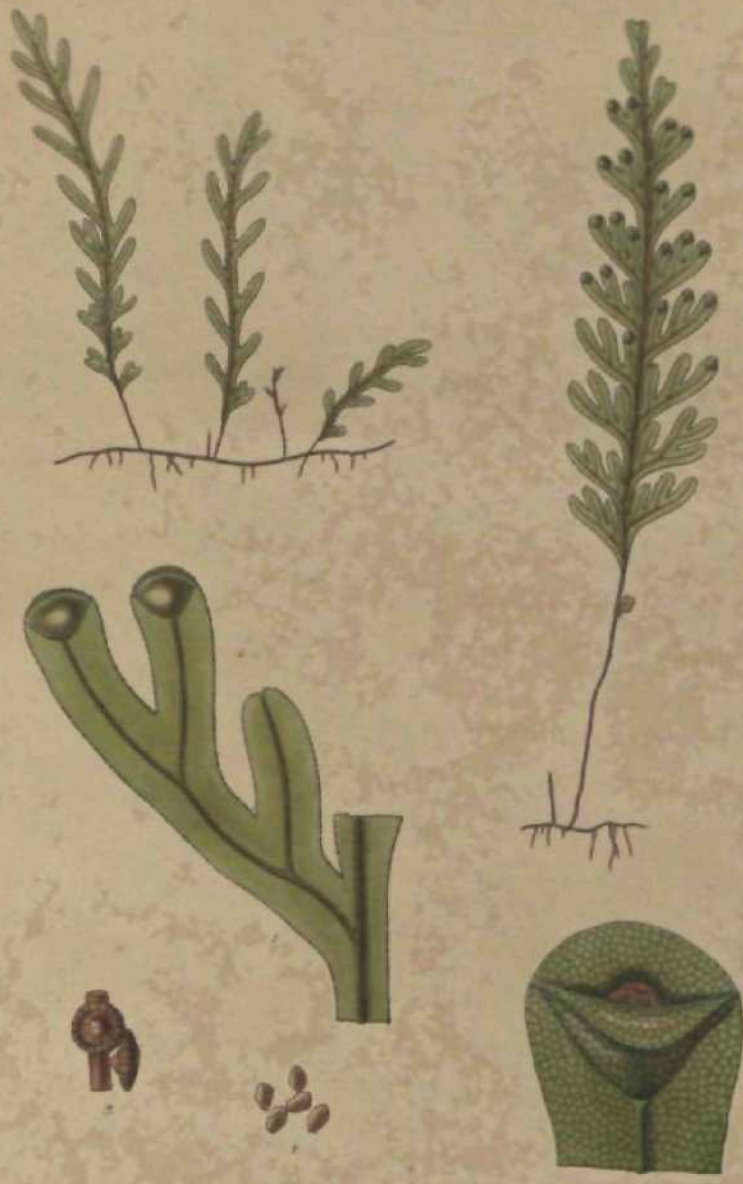
Spica composita, pinnata, pedunculata, pedunculo magis minusve elongata, pinnis distichis vel subsecundis.

Capsulæ secundae, rotundatae, compressae, bifidae, fere bipartitae, flavo-fuscae.

Semina sphaerica, parva, pellucida, flava.

Fig. 1. Capsulae. f. 2. Semina.

Botrychium simplex seems to be a plant liable to much variation in regard to size. The smaller specimen here figured, which we received from our zealous friend Dr. Torrey, seems to be the state which gave rise to the specific name and character in Silliman's Journal:—but we have received a plant through the kindness of Mr. Lambert, gathered by Pursh in Canada, which we can by no means distinguish from that just mentioned, except that it is twice the size, has the frond decidedly pinnatifid, and the segments much cut. This is the larger specimen here represented. Both varieties are abundantly distinguished from any species with which we are acquainted.



Hymenophyllum semibivalve

HYMENOPHYLLUM SEMIBIVALVE.

FILICES.—GYRATE. *Br.* POLYPODIACEA. *Kaulf.* FILICES veree. *Willd.*

GEN. CHAR. *HYMENOPHYLLUM*, *Satth.* *Sori* marginal. *Capsulae* sessiles, receptaculo communi cylindraceo insertis, intra *Involucrum* bivalve, textura frondis, valvis planis, exterius liberis. *Br.*

HYMENOPHYLLUM semibivalve; frondibus bipinnatifidis lanceolatis glabris, laciniis linearibus obtusis glabris immarginatis, involucris rotundato-urceolatis semi-immersis, parte superiore solummodo bivalvi.

HAB. In Insula Novae Zeelandiae. *D. Menzies.*

Planta omnino glabra.

Caudex gracillimus, repens, filiformis, hie illic fibris minutis fuscis radicans.

Stipes longitudine variat, duas vel tres lineas longus ad bipollicarem, filiformis, fuscus.

Frons, circumscriptione, lanceolata, duas ad tres uncias longa, unciam lata, statu *juniore* simpliciter pinnatifida, *adulte* bipinnatifida, laciniis paucis subunilateralibus, linearibus, obtusis, omnino integerrimis. *Costa* distincta. Reticulationis *areolae* parvae, rotundatae. *Color*, siccitate, olivaceo-fuscus.

Sori in laciniis praecipue versus apicem, vix infra medium, frondis, terminales, suburceolati, parte inferiore immersis, superiore solummodo bivalvi, valvis semiorbicularibus.

Capsulae paucae, fuscae, peltatae, rotundatae, compressae, annulo integro cinctae.

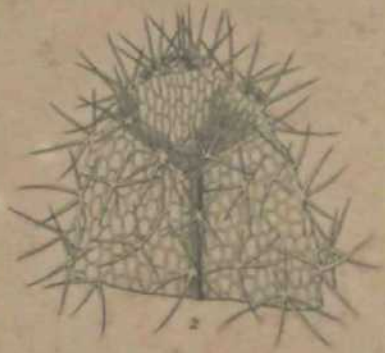
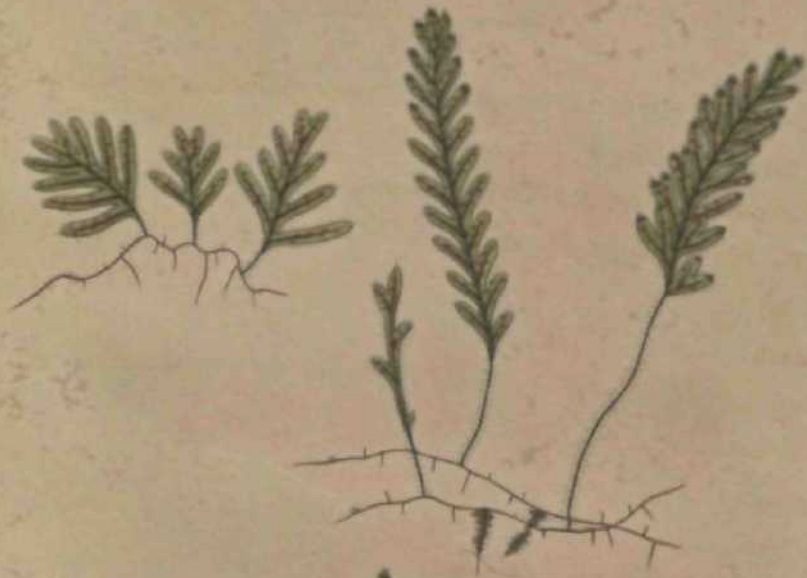
Receptaculum breve, inclusum.

Semina oblonga, subangulata, obscure reticulata, flavescencia, semipellucida.

Fig. 1. Portio frondis cum soris. f. 2. Involucrum. f. 3. Portio receptaculi, cum capsulis duabus, f. 4. Semina:
magn. auct.

We are indebted to Mr. Menzies for specimens of this New Zealand *Hymenophyllum*. The name of "*Hym. asplenoides*" was upon the label which accompanied them, written probably by mistake, since that is a West Indian species, and described amongst those which have *simple* fronds.

The present individual is remarkable for the structure of its involucre, which may be reckoned almost intermediate between that of *Trichomanes* and *Hymenophyllum*; the lower half, or even more being sunk into the extremity of the frond, and the upper portion forming two short almost semi-circular lips or valves.



Hymenophyllum hirsutum

HYMENOPHYLLUM HIRSUTUM.

FILICES.—GYRATE. *Br.* POLYPODIACEA. *Kaulf.* FILICES verae. *Willd.*

GEN. CHAR. *HYMENOPHYLLUM*, Smith. *Sort* marginales. *Capsula* sessiles, receptaculo communi cylindraceo insertis, intra *Involucrum* bivalve, textura frondis, valvis planis, exterius liberis. *Br.*

HYMENOPHYLLUM hirsutum; (stellatim hirsutum); fronde pinnata, pinnis linearibus obtusis nunc bifidis digitatisve, stipite hirsute

Hymenophyllum hirsutum. *Swartz. Fl. Ind. Occ. v. 3. p. 1746. Syn. Fl. p. 146. Willd. Sp. PL v. 5. /?. 517. Spreng. Syst. Veget. v. 4. p. 134. Meliq. Hank. p. 69. Raddi, Fil. Brasil. p. 66. Z. 79. /3.*

Trichomanes hirsutum. *Linn. Sp. Pl. p. 156l.*

Trichomanes rigidum. " *Hediv. Fil. (in icone T. fragile est nuncupatum.)* "

Filicula digitata. *Plum. Fil. p. 73. t. 50. B ?*

HAB. In Hispaniola? *Plumier.* Ad truncos arborum in umbrosis montium altissimorum Jamaicae. *Swartz, y. D. Lunan.* In Insula Trinitatis. *I). Lockhart.* Brasil. *Raddi.* In montanis Peruviae ad Huanocco. *Hatnke.*

Caudex gracillimus, filiformis, repens, radiculis fibrosis pilosis hie illic descendentes.

Stipes quoque gracillimus, duas Kneas etiam ad duas vel tres uncias longus, fuscus, superne subalatus, paululum hirsutus.

Frons forma variat, nunc, circumscriptione, ovata, et unciam vel sesquiunciam longa, nunc bi-tripollicaris, circumscriptione lanceolata, pinnata, pinnis infimis solummodo liberis, reliquis decurrentibus, coadunatis, (et ita pinnatifida est frons.) linearibus, obtusis, inferioribus bifidis, palmatisve (*Swartz**), vel etiam pinnatifidis (*H<jenke*) omnibus costatis, costa tenui aterrita, et undique pulcherrime stellatim villosis.

Son praecipue in pinnis laciniisve superioribus frondis, solitarii, terminales.

Involucrum ad margines praecipue, stellato-pilosum; parte inferiore cuneata, immersa, superiore libera, bivalvi, valvis semiorbicularibus.

Receptaculum parvum, inclusum.

Capsulae parvae, fuscae, peltatae, annulo integro cinctae.

Semina ovalia, subpellucida, pallide fusco-flavescentia.

Fig. 1. Pinniffi vel lacinae frondis. f. 2. Portio apicis pinnae fertilis cum soro. f. 3. Capsulae. f. 4. Semina: magn. auct.

Much as this plant is liable to vary in the length of the stipes and shape of the frond, we can still scarcely satisfy ourselves that the reference of authors to Plumier is correct. His plant is thrice the size of ours, every where deeply bipinnatifid, and having a distinctly winged stipes. Yet that is probably the original authority of Linnaeus. Raddi is disposed to refer it to his *Hymenophyllum Boryanum*.

In our specimens the fronds might rather be called pinnatifid than pinnate; and the segments are never more than bifid, more frequently quite entire.



Trichomanes humile

TRICHOMANES HUMILE.

FILICES.—GYRATE. *Br.* POLYPODIACEÆ. *Kaulf.* FILICES verae, *JWilld., Spreng.*

GEN. CHAR. *TRICHOMANES*, Smith. *Sori* marginales. *Capsulæ* sessiles, receptaculo communi cylindraceo insertae, intra *Involucrum* monophyllum, suburceolatum, ore hiante, textura frondis. *Br.*

TRICHOMANES humile; fronde lanceolata bipinnatifida glabra marginata, laciniis linearibus obtusis integerrimis, involucris oblongo-cylindraceis, ore bilabiato.

Trichomanes humile. " *ForsL Prodr. n. 464. Hedw. Fit. 1c. fasc. 3.*" *Sivartz. Syn. Fit. p. 143. et p. 371. JWilld. Sp. PL v. 5. p. 50.* *Spreng. Syst. Veget. v. 4. p. 129.*

HAB. In Societatis Insulis. *Forster.* Insula Otaheite. *Menzies.*

Caudex repens, gracilis, filiformis, tomentosus, hic illic radiculosus, radicibus capillaribus ramosis.

Stipes duas ad tres uncias longus, glaber, filiformis.

Frondes tri-, rarius quadri-pollicares, circumscriptione, lato-lanceolatae, bipinnatifidae, glabrae, atro-virides, pulcherrime reticulatae (areolis suborbicularibus majusculis), costatae, marginatae, laciniis linearibus obtusis, nunc apice bifidis.

Sori marginales, subaxillares, solitarii.

Involuera oblongo-cylindracea, marginata, ore bilabiato.

Receptaculum filiforme, sublonge exsertum, basi incrassatum.

Capsulæ intra involucrum inclusae, peltate, annulo magno, articulo, subplicato cinctae.

Semina sub summo lente reticulata, subsphaerica, pallide flava, hyalina.

Fig. 1. Portio frondis cum soris. f. 2. Portio frondis ut reticulationes et margo videantur. f. 3. Involucrum verticaliter sectum. f. 4. 4. Capsulae. f. 5. Semina:—*magn. auct.*

Hedwig and Willdenow describe the margin of this rare species of *Trichomanes* as serrated or serrulated. We find no such appearance in our specimens, gathered by Mr. Menzies in Otaheite; nor does its original discoverer Forster, nor Swartz (who seems to have described it from authentic specimens), notice such a peculiarity. The margined appearance of the frond arises not from a thickening of the very edge, but from a nerve running along, parallel with, but at a little distance from, the margin, and which is connected with the margin by means of transverse veins or bars.



Acrostichum Lemmonii

1842

ACROSTICHUM JAMESONI.

EILICES.—GYRATVE. *Br.* POLYPODIACEE. *Kaulf.* FILICES verse. *Willd., Spreng.*

GEN. CHAR. *ACROSTICHUM*, Linn. *Sort amorphi*, seu *Capsulte* per totam paginam inferiorem frondis (interdum diversae) vel ejus partem sparsae. *Involucrum* nullum (nisi squamulae vel setae in quibusdam capsulis interstinctae). *Br.*

ACROSTICHUM *Jamesoni*; piloso-squamosum, frondibus simplicibus costatis, sterilibus oblongo-spathulatis, fertilibus ellipticis marginatis demum conduplicatis.

HAB. Rupibus prope basin montis Pichincha regno Quitensi. />. *Jameson.*

Planta caespitosa.

Stipes duas ad tres uncias longus, erectus, paululum flexuosus, gracilis, squamosus, squamis lanceolatis, membranaceis, serratis, nervoso-reticulatis, fuscis.

*Fronde*s vix unciam longae, costatae, enerves.

Steriles oblongae, obtusae, virides, utrinque margineque squamosae, squamis brevioribus latioribusque quam in stipite.

Fertiles sterili breviores, ellipticse, fuscescentes, pellucido-marginatae, dorso margineque fusco-squamosis: primum explanatae, demum, capsulis maturis, longitudinaliter conduplicatae.

Capsulce numerosissimae, intense fuscae, globosae, annulo lato cinctae, breviter pedicellatae.

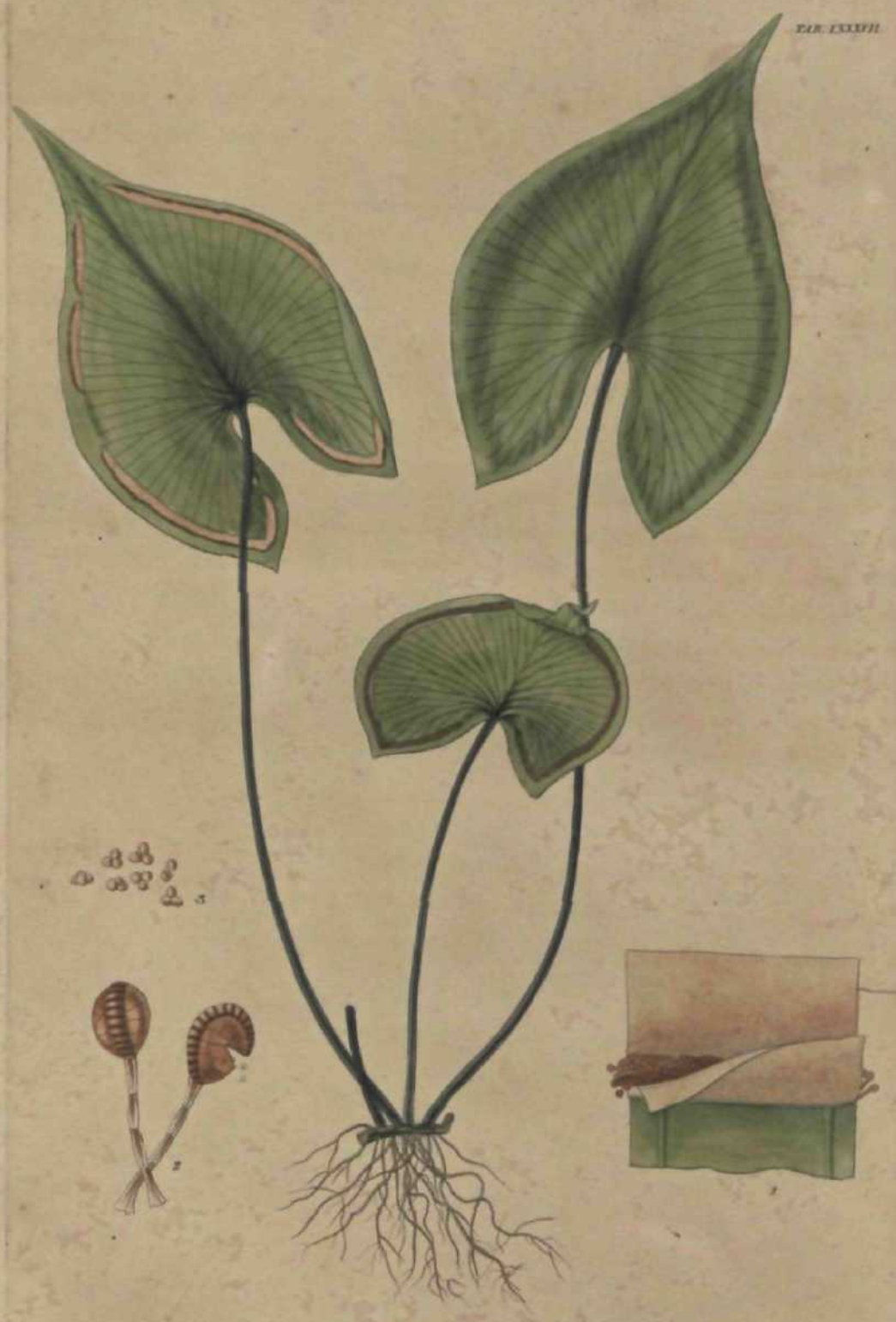
Semina fusca, subrotundata, tuberculata.

Fig. 1. Squama e stipite. f. 2. Squama e fronde. f. 3. Capsulae. f. 4. Semina:—*magn. auct.*

Communicated, with several other rarities of this family, from South America by William Jameson, Esq., resident at Guayaquil. The species is unquestionably very nearly allied to *Acrostichum obtusatum* figured at Tab. 22. of this work: but that, besides its widely different geographical situation (the Island of Tristan da Cunha), has fewer and narrower scales upon the frond and stipes, a longer pedicel to the capsules, and a much less distinct costa or midrib; and it wants the pellucid margin to the fertile fronds, which is so distinct in this.

Mr. Jameson has remarked a curious property in the fertile fronds. "When the plant," he says, "is in a young and tender state, their fronds are invariably *expanded*; but as soon as the seeds begin to ripen, they *collapse*, as in the specimens sent;" and as the generality of those here figured.

The *Acrostichum piloselloides* of Presl. (*Reliq. Hank*), *A. Pilosella*, Spreng., a Peruvian plant, differs from this in its almost sessile and spathulate sterile fronds; and the *Acrostichum spathulatum* of Bory (from the Isle de Bourbon), by its much larger size and differently-shaped fronds. They should, however, all together, with our *Acrost. Raddianum*, rank next to each other in a natural system.



Pinus sagittata.

W. G. Smith del.

LINDS[^]A SAGITTATA.

FILICES.—GYRATJE. *Br.* POLYPODIACE[^]E. *Kaulf.* FILICES verse. *Willd.*

GEN. CHAR. *LINDSMA*, Dryand. *Sort* lineares, margine paralleli saepiusque approximati.
Involucrum ex apicibus venarum (una plurium) ortum ducens, exterius liberum. *Br.*

LINDSÆA *sagittata*; fronde simplici sagittata cordatave acuminata. *Dryand.*

Lindssea sagittata. *Dryand. in Linn. Trans, v. 3. p. 40. Sivartz. Syn. Fil. p. 118. Willd.*

Sp. PL v. 5. p. 520. Spreng. Syst. Veget. v. 4. p. 79.

Adiantum sagittatum. *Aubl. PI. de Guian. p. 964. t. 366.*

HAB. In sylvis Guianae, et in fissuris rupium. *Aubl.* In insula Guadaloupe. (*Sprengel.*)

Caudex repens, inferne radiculosus.

Stipes erectus, semiteres, aterrimus, nitidissimus.

Frondes 3—4 uncias longae, cordatae vel sagittate, apice acuminatae, basi sinu profundo, angulis acutis, submembranaceae, virides, radiato nervosae, nervis dichotome ramosis, infra marginem terminantibus.

Son dorsales, intramarginales, lineares, hic illic interrupti.

Involucrum membranaceum, extus liberum.

Capsulce sphaericae, sublonge pedicellate.

Semina minutissima, flava, semipellucida, ternatim congesta.

Fig. 1. Portio frondis marginis cum soro. f. 2. Capsulae. f. 3. Semina *i—magn. auct.*

The only specimens of this rare Fern that we have seen, were kindly communicated to us by the Baron Delessert, and they were gathered in French Guiana. Sprengel has given Guadaloupe as an additional station for the plant.



Aplenium triphyllum

W. G. Smith del.

ASPENIUM TRIPHYLLUM.

FILICES.—GntATiE. *Br.* POLYPODIACEA. *Kaulf.* FILICES verse. *Willd., Spreng.*

GEN. CHAR. *ASPENIUM*, Linn. *Sort* lineares, dorsales, sparsi. *Involucrum* e vena lateraliter ortum ducens, margine superiore libero. *Br.*

ASPENIUM triphyllum; frondibus (non raro bulbiferis) linearibus bipinnatis, pinnulis binis vel ternis cuneatis obtusis costatis pellucidis integris vel bifidis, rachi discolori, soris subsolitariis.

Asplenium triphyllum. *Presl. in Reliq. Hank. p. 45.* *Spreng. Syst. Veget. v. A. p. 88.*

HAB. In rupibus umbrosis prope verticem montis Pichincha (regno Quitensi). *D. Jameson.*

In Cordilleris Peruviae ? *Presl.*

Plantae subsolitariae.

Stipes brevis, una cum rachi filiformis, nitidus, fuscus.

Frons plerumque simplex, nunc apice dichotome ramosa, nonnunquam bulbifera et prolifera, 4—6 uncias longa, circumscriptione linearis vel lineari-lanceolata, bipinnata, pinnis vix semiunciam longis, inferioribus ternatis, superioribus simplicibus, versus medium binis, pinnulis oblongo-cuneatis obtusis, costatis, pellucidis, teneris, integerrimis, apice emarginato vel bifido.

Sorus in singula pinnula solitarius, majusculus.

Involucrum membranaceum, pallide fuscum, lineari-oblongum.

Capsula minutae, longe pedicellatae, annulo crasso cinctae.

Semina subovalia, rugosa, intense fusca.

Fig. 1. *Plantae*:—*magn. nat.* f. 2. *Planta bulbifera*:—*magn. nat.* f. 3. *Pinna*, cum soro. f. 4. *Capsulae*. f. 5. *Semina*:—*magn. auct.*

In habit the present very delicate species of *Asplenium* is allied to our *AspL Gilliesianum*, to the *AspL stoloniferum*, *tenue* and *ternatum*, of *Presl. in Reliq. Hcenk.*: but besides' the different shape of the pinnae, those species have the stipes and rachis of the same colour with the frond. Here it is dark-brown, almost black.



Cymodactylus Lovers

GYMNOGRAMMA LOVEII.

FILICES.-Gvii.TM. Br. POLYPODIACEÆ. Kaulf. FILICES veræ. Willd., Spreng.

GEN. CHAR. GYMNOGRAMMA, Desv. Sori oblongi, venis frondis simplicibus furcatisve inserti. Indusium nullum.—Fronde pinnate, bipinnate decompositaque. Desv.

Gymnogramma Loveii; frondibus pinnatis, pinnis oblongo-lanceolatis pinnatifidis summis confluentibus undique pilosis, laciniis ovalibus obtusis integerrimis, stipite rachique pubescentibus.

H. B. In rupibus madidis Insule Madeire, montibus, ad al. 5000 ped. legit Rev. R. T. Lowe. Caudex longe repens, ter glaber n fuscus, hic illic fibras ramosas tomento mittens. Stipites plurimi ex caudice amari et ultrates, hinc sulcati, basi dilatati, undique pubescentes, fusci.

Fronde, circumscriptione, ovato-lanceolata, sessilibus, pinnatifidis, utrinque hirsutis, pinnarum nervosis, laciniis ovalibus obtusis integerrimis, ciliatis, pilis ad marginem sæpe basi unitis. Rachis pube fusco oblecta.

& numerosi, lineari-oblongi, in singulo nervo, simplices, omnino nudi.

Opuscula, globose fuse, reticulate annulo articulate lato, fere complete cincte, breviter pedicellate. Bemma subglobosa oblongaque, fœvia, fusca.

Fig. 1. Portio pinna, cum soris. 2. Pili margine lacinarum. 3. Semina:—magn. auct.

In the autumn of last year (1827), together with many other excellent plants we were favoured with specimens of this Fern by the Rev. Mr. Lowe, gathered in the Island of Madeira, "near F. P. ma narrow ravine, and in other places in the interior, growing at an elevation upon the mountain of more than 5000 feet upon rocks, and steep and moist banks, where there is but a thin stratum of vegetable mould:—the root or caudex creeping extensively just beneath the surface" The plant is assuredly not described in any work to which I have had access: but Mr. Lowe suggests that it may probably be the *Acrostichum pilosum* of Von Buch's List of Plants of the Canary Islands; and that the same name (but equally without description or character) likewise exists in the printed catalogue of Madeira Plants, which he has seen in the island, purporting to be taken from the Banksian Library, and probably left there by Masson: but the identity of the two plants we have no means of determining. An *Acrostichum* the plant assuredly is not; and though we have placed it in the genus *Gymnogramma*, it seems to form a connecting link between it and *Grammatidium* having the habit of the former, and the constantly simple sori of the latter.

The species we have named in compliment to the gentleman who sent us such fine specimens and who has accompanied them by some valuable observations: and we feel that he is justly entitled to this honour, not merely because he has brought so interesting a plant under our notice, but because still resident in Madeira, he is furthering the cause of science by collecting materials, which he will soon be enabled to give to the world, for a *Flora* and *Fauna* of the island. Already he possesses many novelties in the different departments of natural history; and perhaps no spot has been pointed out, whether its geographical situation or its geological features and structure be considered which better deserves to have its productions described, than that island.

We have only very recently received Schlechtendal's *Adumbratimes Plantarum*, in which we find a species of *Cryptogramma* from the Cape of Good Hope, represented and described, which has a very near affinity with this, *Gymnogramma totta*, Schlecht. That, however, has very much longer and narrower pinnae, and the lower laciniæ erose; whereas they are quite entire in our plant.

* Since the above was written, we have received more specimens of the same plant, gathered in the Ribeira da Ametade, at an elevation of 3000 feet above the level of the sea. It scarcely descends below 2000 feet.



Symnogramma caulella.

GYMNOGRAMMA RUTiEFOLIA.

FILICES.—GYRATJE. *Br.* POLYPODIACE;E. *Kaulf.* FILICES verse. *TVil/d.*

GEN. CHAR. *GYMNOGRAMMA*, Desv. *Sori* oblongi, venis frondis simplicibus furcatisve inserti. *Indusium* nullum.—Fronde *pinnate*, *bipinnata decompositceque*; radices *ccEspitosas*, Desv.

GYMNOGRAMMA rutaefolia; fronde pinnata pubescente, pinnis cuneiformibus integris incicisve *Br.* *Grammitis rutaefolia*. *Br. Prodr. FL Nov. Holl.p.* 146. *Spreng. Syst. Veget. v. 4. p.* 41.

HAB. Insula Van Dieman. *Brown. D. Frasei*

Radix nigro-fusca, caespitosa, e fibris plurimis ramosis.

Totaplanfa, subtus stipes rachisque psecipue, hirsuto-pubescent, pilis pellucidis, rigidiusculis, acutis.

Stipites breves, vix unciam longi, flexuosi.

Fronde pinnate, Wx duas uncias longae, pinnis 6-9, alternis, remotiusculis, ovato-cuneatis, rigidiusculis, integris vel inciso-lobatis, summis confluentibus.

Sori venis furcatis inserti, demum in unam massam, pinnarum dorsum omnino tegentes, congesti.

Capsula sphaericse, fuscae, sublonge pedicellate.

Semina intense fusca, limbo semipellucido.

Fig. 1. Portio stipitis. f. 2. Pili. f. 3. Capsulae. f. 4. Semina:—*magn. auct.*

As *Grammitis* now stands in the recently published *Systema Vegetabilium* of Professor Sprengel, it contains none but species with simple fronds. At Tab. 6. of our *Icones Filicum* we have, however, given a species which has the fronds pinnatifid; and at Tab. 89. one with the fronds bipinnatifid. In those species which have compound fronds, we find the nerves to be more ramified; and by the union of two sori at the forking of a nerve, the sori themselves appear to be divided. This at least is the character of M. Desvaux's *Gymnogramma*; and hence it may be considered as intermediate between *Grammitis* and *Hemioiitis*, where the nerves are much branched and reticulated, and the sori form a continued series. If the genus should prove permanently distinct from *Grammitis*, we think that this and the following species *Gymn. subglandulosa* will be rightly placed in it.



Gymnogramma subglanululosa

J. Smith del.

J. Smith del.

TAB. XCI.

GYMNOGRAMMA SUBGLANDULOSA.

FILICES.—GYRATTE. *Br.* POLYPODIACETE. *Kaulf.* FILICES verse. *Willd.*

GEN. CHAR. *GYMNOGRAMMA*, Desv. *Sari* oblongi, venis frondis simplicibus furcatisve inserti. *Indusium* nullum.—Fronde *pinnata*, *bipinnata*, *decompositaque*; radices caespitosee.

GYMNOGRAMMA subglandulosa; fronde pinnata pubescenti-subglandulosa, pinnis pinnatifidis, lobis rotundatis integris vel incisis.

HAB. In Nova Hollandia. *D. Fraser*,

Radicem nondum vidimus.

Tota planta pilis succulentis, pellucidis, pallide fuscis ubique tecta. Hi *pili* semper obtusi sunt, et, ad apicem, *glandula* abortiva vel imperfecta terminati: infra apicem, etiam, non raro constricti. (f. 2.)

Stipes unciam vel duas uncias longus.

Frons, circumscription[^] lanceolata, 4, fere ad 6 uncias longa, pinnata, pinnis oppositis remotis submembranaceis, plerisque ovatis (basi apiceque subcuneatis, minus divisis) breviter petiolatis, pinnatifidis, lobis rotundatis subincisis.

Sori pallide fusci, simplices vel furcati.

Capsule sublonge pedicellatae.

Semina parva, obscure limbata.

Fig. 1. Portio stipitis. f. 2. Pili. f. 3. Capsulae. f. 4. Semina:—*magn. auct.*

In what part of New South Wales this curious species of *Gymnogramma* was found we are not informed. We at first took the specimens for very luxuriant states of *Gymn. rutafolia*: but a more careful examination soon convinced us of our error. The plant is more than twice the size of that species, the pinnae are distinctly pinnatifid, of a more membranaceous texture, and (what will afford a still better character,) the nature of the pubescence, although it may appear to the naked eye the same in both, is here not composed of short setiform hairs, but of obtuse linear ones, having what appears an abortive gland at the extremity; that is, irregular in its shape, and not filled with any secreting fluid. Below the apex, too, are not unfrequently a contraction and a brown mark.

T. IK fu



Asplenium feniculaceum

27. 1840. 240

L. 1840. 240

ASPLENIUM FOENICULACEUM.

FILICES.—GYRATE. *Br.* POLYPODIACEAE. *Kaulf.* FILICES verse. *TVilld.; Spreng.*

GEN. CHAR. *ASPLENIUM*, Linn. *Sori* lineares, sparsi, dorsales. *Involucrum* e vena lateraliter ortum ducens, margine superiore libero. *Br.*

ASPLENIUM foeniculaceum; frondibus triplicato-pinnatis, pinnulis anguste linearibus acutissimis, soris solitariis.

Asplenium foeniculaceum. *Humb. et Kunth, Nov. Gen. v.l.p.13. Ejusd. Syn. Pl. & q. p. 80. Spreng. Syst. Veget. v. 4. p. 90.*

Asplenium delicatulum. *Presl. Reliq. Hank. p. 47. t.f.f.3}*

HAB. In umbrosis Novae Andalusiae, locis temperatis. *Humboldt.* In Cordilleris Quitensibus? *Hasnke.* In truncis arborum locis sylvestribus ad declivitatem occidentalem montis Pichincha, regno Quitensi. *D. Jameson.*

Caudex repens, filiformis, pilosus, hic illic radiculosus, fibris capillaribus ramosis hirtis.

Stipites plurimi, ex eodem puncto, digitales et ultra, erecti, graciles, glabri, basi fuscescentes, subteretes, dein virides, hinc canaliculati, superne marginati.

Frondes, circumscriptione ovato-acuminatae, basi truncatae, triplicato-pinnatae, glabrae, pallide virides, segmentis ultimis seu pinnulis angustis, linearibus, acutissimis, superne bipinnatae. *Rachis* universalis partialisque ubique glabrae, margine alatae.

Sori oblongo-lineares, solitarii, et, ob angustatem laciniarum, non raro prope marginem siti, ut in subgenere *Darece*, Sm. (*Cenopteridis*, Swartz.)

Involucrum membranaceum, albidum.

Capsulae sphaericae, longe pedicellatae?

Semina subangulata, intense fusca.

Fig. 1. Portio pinnae cum soris. f. 2. Capsulae. f. 3. Semina:—*magn. auct.*

Sent to us by our valued correspondent Mr. Jameson, who gathered the specimen on the western declivity of the mountain Pichincha, where Humboldt and Bonpland discovered some of their most valuable plants. We find it to agree entirely with the *Aspl. foeniculaceum* of Humboldt and Kunth; and we scarcely know whether to consider the *Aspl. delicatulum* of Presl. in *Reliquiae Hcmkeanae*, to be otherwise than a starved variety of it. It is also nearly allied to *Asplenium fragrans* of Swartz (a Jamaica plant), and to the East Indian *Asplenium concinnum* of Wallich, but has narrower and more distantly placed pinnae. The sori are almost exactly as in the *Darea* of Smith, (*Canopteris* of Swartz).



Nephrolepis rupestris.

NIPHOBOLUS RUPESTRIS.

FILICES.—GYRATE. *Br.* POLYPODIACEJĚ. *Kaulf.* FILICES verse. *Willd., Spreng.*

GEN. CHAR. *NIPHOBOLUS*, *Kaulf.* *Sori* subrotundi, congesti, terminates, pilis stellatis obtecti. *Spreng.*

NIPHOBOLUS rupestris; frondibus integerrimis tomentosus subtus incanis, sterilibus obovatis oblongisve, fertilibus linearibus, soris sparsis parum confluentibus, surculo squamoso radicante ramosissimo. *Br.*

Niphobolus rupestris. *Spreng. Syst. Veget. v. 4. p. 44.*

Polypodium rupestre. *Br. Prodr. Fl. Nov. Holl v. I. p. 146.*

HAB. Apud Port Jackson, Nov. Holl. *Br., D. Fraser.* In Nova Zeelandia. CULT, in Hort. Bot. Glasg.

Radix e fibris numerosis nigro-fuscis ramo&is.

Caudex repens, "ramosissimus," squamis minutis dense obsitus.

Stipes biuncialis, basi squamosus, dein nudus.

*Fronde*s coriaceae, ubique densissime piloso-stellatae, tomentosae, dorso virides, subtus incanas; *steriles*, nostris speciminibus, nunc fere exacte ovales, obovatae vel oblongae, integerrimae, vix sesquiunciam longas; *fertiles* lineares, vel lineari-lanceolatae, sterilibus duplo longiores, integerrimae, basi attenuatae, apice obtusiusculee; omnes costatae, costa subtus prominente.

Sori praecipue versus extremitatem frondis prominentes, fusci, approximati et subconfluentes.

Capsulae, pili stellati stipitati et semina fere omnino ut in *N. bicolor*.

Fig. 1. Pili frondis. f. 2. Pili e soris. f. 3. Capsulae. f. 4. Semina :—*magn. auct.*

Mr. Brown has already observed, that this plant is allied to *Polypodium stellatum* (*N. bicolor* of this work) and to *P. adnascens*; and all are downy with the same curiously stellated pubescence.

We are indebted to Mr. Lindley for some of our specimens of this plant, and which are marked as coming from New Zealand; but we know not by whom gathered.



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Melastomaceae pharocarpoides

NIPHOBOLUS SPH.EROCEPHALUS.

FILICES.—GYRATE. *Br.* POLYPODIACEJE. *Kaulf.* FILICES verae. *Willd., Spreng.*

GEN. CHAR. *NIPHOBOLUS*, *Kaulf.* *Sori* subrotundi, congesti, terminalis, pilis stellatis obtecti. *Spreng.*

NIPHOBOLUS spfuEVocephalus; frondibus simplicibus coriaceis, sterilibus oblongo-lanceolatis acutis, basi subrotundatis petiolatis glabris, fertilibus linearibus acuminatis basi in petiolum attenuatis subtus stellatim tomentosis, soris ovalibus distinctis.

Polypodium spherocephalum. *Wallich MSS.*

HAB. EX India Orientali (e Nepalia ?) raisit *D. Wallich.* In arboribus, ut videtur, crescit *Caudex* longus, flexuosus, ramosus, crassitie pennae corvinae, squamis ovatis, acutis, imbricatis, scariosis tectus, hic illic radiculosus.

Frondes steriles fertilibus dissimiles, coriaceae.

Steriles breviter stipitatae, 4—5 uncias longae, lato- vel oblongo-lanceolatae, integerrimae, utrinque glabrae, siccitate margine revoluta?, costatae, penninervia, nervis obscuris, apice acutae, basi rotundatae.

Fertiles pedales, lineares vel lineari-lanceolatae, integerrimae, margine subrevolutae, superne glabrae, subtus (costa prominente excepta) lana compacta alba e pilis pulcherrime stellatis, ubique tecta?, apice acuminatae, basi in petiolum bi-triunciale sensim attenuatae.

Sori numerosi, magni, convexi, oblongi, lineatim dispositi, primum pilis stellatis pedicellatis albis omnino tecti.

Capsulae longe pedicellatae.

Semina, oblonga, subreniformia, non raro, ad utramque extremitatem, appendiculo aucta, flava.

Fig. 1. Portio frondis cum soro statu juniore, atque pilis stellatis tectae. f. 2. Eadem cum soro, capsulis maturis.

f. 3. Pili stellati e soro. f. 4. Pili stellati e frondis pagina inferiore. f. 5. Capsulae. f. 6. Semina: *magn. auct.*

Whether or not the sterile fronds of this plant are in a young state clothed on the underside, like the fertile frond, with pubescence, I am not able to say. In our specimens they are quite glabrous. The species is, in any case, abundantly distinct from all of the genus with which we are acquainted, and the texture is remarkably thick and coriaceous.



Acrostichum YSM, *cellase* SSS.

ACROSTICHUM VILLOSUM.

FILICES.—GYUAT/E. *Br.* POLYPODIACE*:. *Kaulf.* FILICES verse. *WilUL*

GEN. CHAR. *ACROSTICHUM*, Linn. *Sort amorphi*, seu *Capsule* per totam paginam inferiorem frondis (interdum diversae) vel ad ejus partem sparsae. *Involucrum* nullum (nisi squamulae, vel setae in quibusdam capsulis interstinctae). *Br.*

ACROSTICHUM villosum; ubique ferrugineo-villosis, frondibus simplicibus oblongo-lanceolatis acuminatis membranaceis, fertilibus multo minoribus villosissimis.

Acrostichum villosum. Swartz. *Syn. Fil. p. 10. Fl. Ind. Occ. p. 1592. JVilld. Sp. PI, v. 5, p. 103. Lam. III. t. 865. f. 4. (mala.) Spreng. Syst. T^eget. v. 4. p. 34.*

Lingua cervina villosa minor. *Plum. Fit. p. 110. / 127.* (vix bona quoad marginem et hirsutiem.)

HAB. Ad latera muscosa depressa montium Jamaicae Australis. Swartz. Ex Jamaica etiam I). Bancroft et Wiles communicaverunt. In Hispaniola. *Plum.*

Caudex brevis, subrepens, piloso-squamosus. *Radices* plurimae, filiformes, ramosae, fuscse, hirsute.

Stipites aggregati, 4—6 uncias longi, ferrugineo-villosi, pilis longis horizontalibus.

Frondes oblongo-lanceolatae, membranaceae, acuminate, utrinque margineque pilis numerosis longis patentibus rufo-ferrugineis vestite, costate, penninerviae, nervis ad marginem attingentibus, in nostris exemplaribus omnino integerrimae (margine subcrenulate 1. fere integrae, leviter undulate. Sw.). *PM*, sub lente visis, subulati, membranacei, concavi, reticulati, apice serrulati. *Color* fusco-viridis. *Frondes fertiles* sterilibus duplo minores, utrinque, superne praecipue, pilis numerosis ferrugineis villosissimae.

Capsulce fuscae, pedicellate.

Semina parva, ovalia, reticulata.

Fig. 1. Portio frondis sterilis. f. 2. Capsulae. f. 3. Semina. f. 4. Pilus:— *magn. auct.*

We are the more anxious to figure this species of Fern, because it has, by Dr. Sieber, been confounded with an East Indian species of the same genus, namely *Acrostichum hybridum* (*Ic. Fil. t. 21.*); but from that it is distinguished by its much smaller size, more acuminate apex; and especially by the numerous reddish hairs, which spring not only from the margin, midrib, nerves, and stipes, but also from the whole superficies of the frond, both above and below, giving the entire plant a very singular appearance.

The Plumierian figure, which Dr. Swartz mentions with approbation, is by no means good as to the margin of the fronds and in the glabrous upper sides; nor is the representation given by Lamarck at all more satisfactory.



Aspidium proliferum

J. G. Smith del.

J. G. Smith sc.

ASPIDIUM PKOLIFERUM.

FILICES.—GYRATE. *Br.* POLYPODIACE[^]. *Kaulf.* FILICES verse. *Willd., Spreng.*

GEN. CHAR. ASPIDIUM, Br. HYPOPELTIS, Mich. ASPIDII species, Sw, Willd.
Sori rotundi, dorsales. *Involucrum* orbiculare, peltatum, stipitatum, in medio sori insertum, undique liberum. *Br.*

ASPIDIUM proliferum; frondibus simplicibus, glabris, sterilibus lanceolatis longe acuminatis radican-
 cantibus, fertilibus linearibus obtusis.

HAB. In Insula Jamaicae ?

Radix caespitosa, fibrosa, fibris ramosis hirsutis fuscis.

Stipes perbrevis, vix semiunciam longus, sensim in frondem dilatatus.

Frondes plurimae ex eadem radice, digitales ad spithamaeam, simplices, decumbentes, lanceolate, basi attenuate,
 apice longissime acuminate, radican-tes, proliferae, utrinque glabrae, medio costatae, margine integerrimo:

Fertiles sterilibus angustiores, erectae, lineares, apice obtusae.

Sori serie simplici ad utrumque latus costae dispositi, magni; venis obscuris inserti.

Involucrum orbiculare, peltatum, medio umbilicatum.

Capsulae fuscae, sublonge pedicellatae.

Semina intense fusca, oblonga, rugosa, margine limbo pellucido flavescente cincta.

Fig. 1. Portio frondis fertilis. f. 2. Capsulae. f. 3. Semina:—*magn. auct.*

We regret that we are not able to say what is the native country of this plant. It was given to us some time ago by our friend Mr. Lindley, with several West India Ferns, which had formed part of the Herbarium of the late Mr. Donn, of Cambridge. The Fern to which it is most nearly allied in the mode of growth and prolific habit, and in the structure of the sori and seeds, is the *Aspidium rhizophyllum*, figured at Tab. 59. of this work: but that has, except in the very youngest state of the plant, decidedly pinnated fronds; whereas here, both in the sterile and fertile fronds, there is not the slightest approach to a compound, or even to a divided appearance. The whole plant, too, is quite glabrous.



Parkeria pteridifolia

PARKERIA PTERIDOIDES.

FILICES.-Div. PARKERIACE*. {Capsule spars*, omnino sessiles, annulo lato brevissimo fere obsoleto, nonnunquam distincto subcompleto, notat* Semina magna, trigona, striata.) GLEICHENE;E. Bory, Spreng.

GEN. CHAR. PARKERS, Hook. Capsule irregulariter dehiscent, annulo, vel disco striato, minuto, fere obsoleto.

PARKERIA *pteridoides*; frondibus sterilibus pinnatifidis, laciniis subternis late ovatis, gratia musis, fertilibus tripinnatifidis laciniis linearibus, stipite inferne tumido.

Parkeria pteridoides. Hook, in Exot. Fl. t. 147. (ubi capsute seminaque male representantur.)

HAB. In aquis stagnantibus Guianae, apud Demerara. D. Parker.

Radix e fibris longis, descendentibus, numerosissimis, fiisco-purpureis, villosis.

Stipites plurimi ex eadem radice, crassi, teretes, inferne tumidi, et quasi inflati, venosi fusi, valde cellulosi; frondium sterilium horizontales, breves; fertilium erecti, 4-5-pollicares. Frondes steriles et fertiles dissimiles.

Steriles natantes, stellatim dispositi, tres ad quinque uncias longi, circumscriptioe deltoideo-ovatae membranaceae, palide virides, costatas, costa ramosa, reticulate, pinnatifidae, laciniis linearibus, attenuatis, tereti-compressis, ultimis furcatis, primum viridibus dein utrinque parallelis, capsuliferis, reticulatim connexis. Rachis hinc sulcata.

Involucrum e margine lato frondis, tenui, membranaceo, subdiaphano, reticulatim venoso reniformi, tegens. Capsula venis costae parallelis insidentes, pro ratione plante majusculae, pallide fuses, omnino sessiles, sphaericae quasi tuberculatae (ob seminum pressuram), tenuissime membranaceae, diaplanae, irregulariter dehiscentibus subsummo lente reticulatim venosae, (venis flexuosis,) et hinc, prope basin, obsoletissime annulate, Zuto lato, paululum gibboso, transversim striato, striis subquinque.

Semina pauca (15-20) in singula capsula, magna, trigona, pallide fusco-flavescentia, subpellucida, anulis concentricis pulcherrime notatis; intus materie oleosa repleta.

Fig. 1. Frondes steriles. f. 2. Frons fertilis:—magn. nat. f. 3. Portio laciniis frondis fertilis a dorso visa. f. 4. Eadem, facie anteriore visa. f. 5. Eadem, involucre aperto, ut receptacula capsularum videantur. f. 6. Ejusdem pars:—magis aucta. f. 7. Capsulae cum annulo obsoleto, seu disco striato. f. 8. Pars membrae capsulae cum annulo:—magis aucta. f. 9. Capsula dehiscent. f. 10. Semina. f. 11. Integumentum seminis, cum ejus materie oleosa (f. 13.):—omnes magis minusve magnitudine aucta.

The kindness of our friend C. S. Parker, Esq. (after whom this singular and beautiful genus had previously been named in the *Exotic Flora*), by putting into our possession numerous specimens in all stages of growth, and the opportunity we have enjoyed of seeing the noble individual here figured flourishing in the stove of the Liverpool Botanic Garden under the skilful management of the Messrs. Shepherds,—have enabled us to correct some very important errors which appear in the work just mentioned, and to lay before the public, we trust, a complete analysis of the plant.

The Figure above referred to at Tab. 231. of the *Exotic Flora*, represents the sterile fronds of the plant, of the very existence of which we were not aware, when the first Figure in that work (t. 147.)



Adiantum pentadactylon

ADIANTUM PENTADACTYLON.

FILICES.—GYRATE. *Br.* POLYPODIACE;E. *Kaulf.* FILICES verse. *Willd., Spreng.*

GEN. CHAR. *ADIANTUM*, Linn. *Sori* marginales, punctiformes vel lineares. *Involucrum* e margine frondis replicator disco venoso capsulifero, limbo membranaceo, libero. *Br.*

ADIANTUM pentadactylon; fronde tripinnata, pinnulis petiolatis teneris ovato-rhombeis acuminatis inciso-lobatis, lobis serratis, basi oblique cuneatis, soris oblongis solitariis ad apicem loborum. *Adiantum pentadactylon.* " *Langsd. et Fischer, Ic. Fil. t. 25.*" *Kaulf. Enuvi. Fil.p.* 206. *TVilld. Sp. PL v.b.p.* 448. *Spreng. Syst. Veget. v. 4. p.* 114.

Adiantum, n. 1817. *Burchell Mss.*

HAB. In Insula St. Catherine Brasiliae. *Langsdorf. Chamisso.* Prope Rio de Janeiro. *D. Burchell. D". Maria Graham.*

Stipes spithamseus et ultra, aterrimus, nitidissimus.

Frons fere longitudine stipitis, circumscriptione deltoidea, bipinnata, pinnis inferioribus longis iterum divisus, pinnulis alternis remotiusculis, petiolatis, petiolo gracillimo, sesquiunciam ad duas uncias longis, teneris, opacis, ovato-rhombeis, acuminatis, inciso-lobatis, lobis oblongis serratis, basi inasquali et oblique cuneatis, internis. *Nervi* numerosi, repetitum dichotome divisi, e basi radiatim expansi. *Color* intense viridis. *Rachis* universalis partialisque aterrimae, nitidae.

Sori ad apicem loborum, solitarii.

Involucrum transverse oblongum, subtus capsuliferum.

Capsules fuscae, sphaericae, sublonge pedicellatae.

Semina triangularia, pellucida, pallida.

Fig. 1. Pinna cum soris. f. 2. Apex lobi fertilis. f. 3. Capsulae. f. 4. Seminar—*magn. nuct.*

Our friend Mr. Burchell, as well as Mrs. Graham, have been so obliging as to communicate this very handsome species of Fern to us. Willdenow, correctly enough, compares it with the *Ad. trapeziforme*: but that has shorter, less acuminate *pinnules*, never deeply inciso-lobate at the margin as in our plant, which appears to be truly distinct from that and every other of the genus, and confined to the neighbourhood of Rio, in Brazil.



Acrostichum apodum

ACROSTICHUM APODUM.

FILICES.~GYRATM.Br. POLYPODIACE*. *Kaulf.* FILICES ver*. *Willd^Spreng.*

GEN. CHAR. *ACROSTICHUM*, Linn. *Sari* amorphi, seu *Capsul.* per lotam paginam j ^
norem frondis (interdum divers*) vel ad ejus partem spars*. *Involucrum* nullum (nisi squa-
mulae, vel setae in quibusdam capsulis interstinctae). *Br.*

ACROSTICHUM apodum; frondibus simplicibus oblongo-lanceolatis teneris sessilibus, basi **long**
attenuatis apice acuminatis, utrinque margineque (praecipue) squamuloso-pilosis, fertiHbul
multo minoribus.

Acrostichum apodum. *Kaulf. Enum. Fil. p. 60.* *Spreng. Syst. Veget. v. 4. p. 34.*

HAB. In Insula Montserrat. "Ryan in *Herb. Vahir* Insula Sancti Vincentii. *Rev. L. Guildino-*
Caudex brevis, crassus, horizontalis, superne squamis numerosissimis, fulvis, lineari-lanceolatis, serrat' h " ^#
inferne radiculis filiformibus ramosis pilosis obtectus. **is o. situs,**

Stipes nullus.

*Fronde*s plurimae fere ex eodem puncto caudicis, subpedales, erects, oblongo-lanceolata?, tenerse, membr**anaceae,**
costetae atque furcatim parallelo-nervosae, apice breviter acuminatse, basi longe attenuate, utrinque sed m**ar-**
gine costaque praecipue squamuloso-pilosae, squamulis subulatis fuscis. *Color* laete viridis. *Frons ferti* T ; **sterili**
duplo triplove minor.

Capsulce numerosissimae, dorsum frondis totum tegentes; fuscae, sphaericae, pedicellatae.

Semina pallida, fusca, pellucido-reticulata, ovali-oblonga, vel subreniformia.

Fig. 1. Squamula e caudice. f. 2. Squamula e fronde. f. 3. Capsulae. f. 4. Seminar—*magn. auct.*

This very beautiful and distinct species of *Acrostichum* seems to have been described only **h**
Kaulfuss from specimens gathered at Montserrat. We are indebted for our plants to our **most**
liberal friend the Rev. L. Guilding, who has so sedulously collected the Ferns as well as oth**er**
plants of St. Vincent.

One of our specimens has the upper half contracted, and clothed on the underside with capsul**es** ;
whilst the lower half is of the usual breadth, and sterile.

TAB. C.



Aplenium Menziesii

J. Smith del.

TAB. C.

ASPLENIUM MENZIESII.

FILICES.—GYRATÆ. Br. POLYTPODIACEÆ. Kdllf. FILICES veræ. Willd., Spreng.

GEN. CHAR. PLENIU Linn. & n- lineares; g pars, / n m / n e vena late- rdhter ortum ducens, margine superiore libero. Br.

ASPLENIUM Menziesii; fronde lineari pinnata, pinnis rhombeo-oblongis obtusissim coriaceis glabris, margine supenore dentatis, soris inferioribus solitariis horizontalibus, valde obliquis.

HAB. Insula Owhyhee. D. Menzies.

Caudex brevis, subrepens, basi radicibus panels ramosis donatus, paleaceo-setaceis, setis atro fus... tZfflm^: ""W~* *''_ ^ eyes superms ^ lævi r canaliculatus.

Frondes spitham^, fere ad pedales, erect*, circumscriptione lineares, pinnate, pinnis approxhnatis horizontaliter patentibus, inferioribus rhomboideis, superioribus oblongis vel oblongcquadrangularibus ammllo . f . affixis, basi superiore truncata, «na cum latere inferiore integers, margine superiore, a pLue obtusiZ" crenato-serratis, obscure costatis penninerviis; costa prope marginem inferiorem, ubi nervo solitario ar u! soro unico, gerente, ad latus superius nervi plurimi, obliqui, fere horizontales, soriferi. IO **** u! *

Sori lineari-oblongi.

Involucra albo-fuscescentia, membranacea.

Capsule fuscae, longe pedicellatse, annulo fere completo cinctae.

Semina oblonga angulata sub summo lente subreticulata.

*ig. 1. Pinna, e medio frondis, fertilis. f. 2. Capsula. f. 3. Semina.

Communicated by our good friend Archibald Menzies, Esq., who found it in the Island of Owyhee. It was marked by that gentleman, "Asplenium, nova species;" and we entirely aoT_e with him in its being so. Its near ally is, unquestionably, Asplenium monanthemum of Linn^us and of Smith Icones, Tab. ?3, an inhabitant of the Cape of Good Hope; and as we know from specimens we have received from the Rev. R. T. Lowe, of Madeira also. That plant is always spe- roader in its circumscription near the middle, more attenuated at the base and at the ext much «aving the pinnae of a more delicate texture, much longer and narrower, more disposed to b' remity caniculated in the upper margin at the base, and with fewer sori, and those (mostly indeed solitar) e y, confined to the lower side of the pinna.

kprengel describes the Aspl: monanthemum as an inhabitant of New Spain, Martinique, Peru, &c.; ai*d he makes the Asplenium nanum of Willdenow to be synonymous with it. Now this latter il- is in(ked an inhabitant of Martinique, and is figured in Plumier; but, as that figure shows, it is a different species from A. monanthemum.



Todea Fraseri?

W. Smith del.

J. Smith sc.

TODEA FRASERI.

FILICES.-OSMUNDACE*. *Br., Kaulf.* O. « O « A O M. *Spreng.* SCHRISMA
 PTERIDES. *Willfl.* S M A T O -

GEN. CW *TODEA Wm. OSMUND*, Par., Thunb., Sn., Br. ACROSTICS*
cies, Linn. Capsule globosae pedicellate, reticulatae, gibbere (vel annul ^ A v --- PG,,
lateraliter dehiscens, venulis frondis infer, insidentes. Spreng. O, Orsa,, PeUucido,

TODEA /Wm\ - frondibus bipinnatis membranaceis glabris, pinnulis oblong, B m f ,,
 pinnarum rachi alata. g PrOf,, nde Serratis >

HAB. In rupibus madidis apud "Bougainville Cataract," in montibus cseruleis Nov* H
 landiae. *D. Fraser.* --ol-

*Caudex erectus, brevis? crassus, subsquamosus, vestigiis frondium veterum cicatricatus ad a**
Stipites subquadriplicares, semiteretes, glabri, hinc sulcati, inferne squamis fuscis lath mLi P n o e m f o n d e S U S #
 TX. J membranaceis instruct!
 *rondes, circumscriptione, ovato-lanceolate, bipinnatae, pinnis patentibus lanceolato-acuminof
 pinnatis, pinnulis oblongis, obtusis, pellucido-membranaceis, (siccitate) olivaceo-fuscis, minut
 costatis, parallelo-venosis, venis simplicibus rarissime furcatis. *Rachis vrimarin* A . . o r 6 t i C U t t i S >
 c A - i . ^ . i . , msi extr em itatem
 versus trondis, ubi, *secundana* vel pinnarum, membranaceo-alata.

Capsulae in venas pinnularum', praecipue basin versus, in parte inferiori frondis sparsae miri f
 j. i. p * u i i a e i u s c a e , s p h e r i c a e ,
 pedicellate reticulate, rima verticali a basi ad gibberem dorsalem vel annulum reticulatum, albido-pellucidum
 dehiscens.

Semina parva, subglobosa, pellucida.

% 1. Pinnula cum capsulis. f. 2. Portio pinnulae. f. 3. 4. 4. Capsulae. f. 5. Semina :-*magn. aucl*

We have here followed Swartz, Willdenow, Kaulfuss, and Sprengel, in retaining the genus *Todea*, as distinguished from *Osmunda*, with which Brown, as Thunberg has done, unites it.

There is a difference of habit in the two genera, mainly however arising, we must confess, from the circumstance of the fructifications being placed on the back of the unchanged frond in *Todea*, whilst in *Osmunda* they are situated on the altered and contracted pinnules. In *Osmunda*, however, we find the ring or gibbous portion distinctly striated; in *Todea* it is reticulated.

The very interesting species here represented,—the second only of the genus now described, was communicated to us by Mr. Fraser, who observes, that he found it but in one spot, below the rocks, at Bougainville's Cataract, in the Blue Mountains of New Holland. It differs remarkably from *T. africana*, which is equally a native of New Holland, by the delicate and subpellucid texture of its frond. A third species of *Todea*, but not probably an Australasian plant, is known to Mr. Brown, having a frond of a similar habit with that of *T. Fraseri*, as may be inferred from his observations, under the genus *Osmunda*, Prodr. p. 163: "Quoniam in *Todea* *JFilld.* capsulae vere pedicellatae, et cum porro alia species existit, iisdem pariter dorsalibus, at fronde pellucidissima *Trichomanis* instar donata, consultius duxi ambas ad *Osmundam* amandaro."



Nephrodium Goldianum.

L. Swartz del.

J. Smith sculp.

NEPHRODIUM GOLDIANUM.

FILICES.—GYRATTE. *Br.* POLYPODIACEJE. *Kaulf.* FILICES verae. *Willd., Spreng.*

GEN. CHAR. *NEPHRODIUM*, *Br.* *NEPHRODII* species, *Mich.* *ASPIDIUM* species, *Sw.*
ASOII rotundi, dorsales. *Involucrum* reniforme, sinu affixum, marginibus liberis. *Br.*

NEPHRODIUM Goldianum; frondibus pinnatis, pinnis profunde pinnatifidis breviter petiolatis, laciniis oblongis acutiusculis subfalcatis, mucronato-serratis, soris centralibus intra marginem et costam.

Aspidium Goldianum. *Hooker in Goldiè's Ace. of rare Canad. PL in Edin. Phil. Journ.* v. 6. p. 333.

HAB. America Septentrionali. In Canada praecipue. *D. Goldie. D. Holmes. D^o Percival D. Sheppard.* Prope Novam Eboracensem. *Torrey.*

Stipes pedalis, erectus, semiteres, hinc sulcatus, pallide fuscus, nitidus, squamis deciduis paleaceus.

Frons pedalis ad sesquipedalem et forsitan ultra, circumscriptione ovato-oblonga, pinnata, pinnis remotiusculis breviter petiolatis, inferioribus praecipue, lanceolato-acuminatis, profunde pinnatifidis, laciniis subuncialibus, oblongis, acutiusculis, paululum falcatis, serratis, serraturis obtusis, mucrone vel spinula minutissima terminatis. *Color* totius frondis, statu sicco, flavo-virescens, subtus pallidior. *Sors* in lineis duabus dispositi, singula costam intra et marginem quasi intermedia, disposita. *Involucrum* rotundato-reniforme, sinu profundo affixum.

Capsulae longe pedicellatae, fuscse.

Limba subangulata, reniformi-rotundata, fusco-flavescentia, limbo pallidiore cincta.

Fig. 1. Lacinia pinnae cum soris. f. 2. Capsulae. f. 3. Seminar—*magn. and.*

That this species must have been known to the writers on American Botany, I cannot for a moment doubt: but if it be included in any of their Floras, it is confounded with some other species, perhaps with *Nephrodium cristatum* by Michaux, or with *N. Filix Mas* by Pursh, judging from a specimen sent me by Professor Torrey from New York; and it is very certain that both these authors consider their respective plants to be different from those of the same name in Europe.

The present is indeed a very handsome and a very decidedly marked species, coming, perhaps, nearest to the North American *Nephrodium virginale*, in which, as the name implies, the fructifications are altogether marginal.



Adiantum acrostichum

N. Gussone del.

L. Traversa sc.

TAB. CIII.

ADIANTUM AMCENUM.

EILICES.—GYRATVE. *Br.* POLYPODIACEÆ. *Kaulf.* FILICES verae. *Willd*

GEN. CHAR. *Sori* marginales, punctiformes vel lineares. *Involucrum* e margine frondis replicato, disco venoso capsulifero, limbo membranaceo libero. *Br.*

ADIANTUM *amcenum*; fronde triplicato-pinnata, foliolis rigidis lato-cuneatis breve petiolatis apice serratis (frondium sterilium ovatis obtusis basi oblique cuneatis), stipite rachique glaberrimis hinc solummodo piloso-scabris.

Adiantum amcenum. *JWallich MSS.*

HAB. In India Orientali (e Nepālā?). *Wallich.*

Radix, ut videtur, omnino fibrosa, fibris flexuosis, ramosis, fuscis.

Stipites plurimi ex eadem radice, palmares, erecti, flexuosi, aterriti, nitidi, hinc sulcati et piloso-scabri, pilis fuscis, ad basin paleaceo-squamosi.

Frondes digitales et ultra, circumscriptione suborbiculares, triplicato-pinnatæ, pinnis elongatis, oblongo-lanceolatis, obtusis.

Machis subgracilis, atra, nitida.

Foliola semiunciam longa, brevi-pedicellata, pedicello hinc superne piloso-scabro; frondium *sterilium* ovata, obtusa, basi oblique cuneata, *fertilium* late cuneata, apice lobata, lobis plerumque tribus, dentato-serrata, coriacea, rigida, glabra.

Sori transversim oblongi, in singulo lobo folioli.

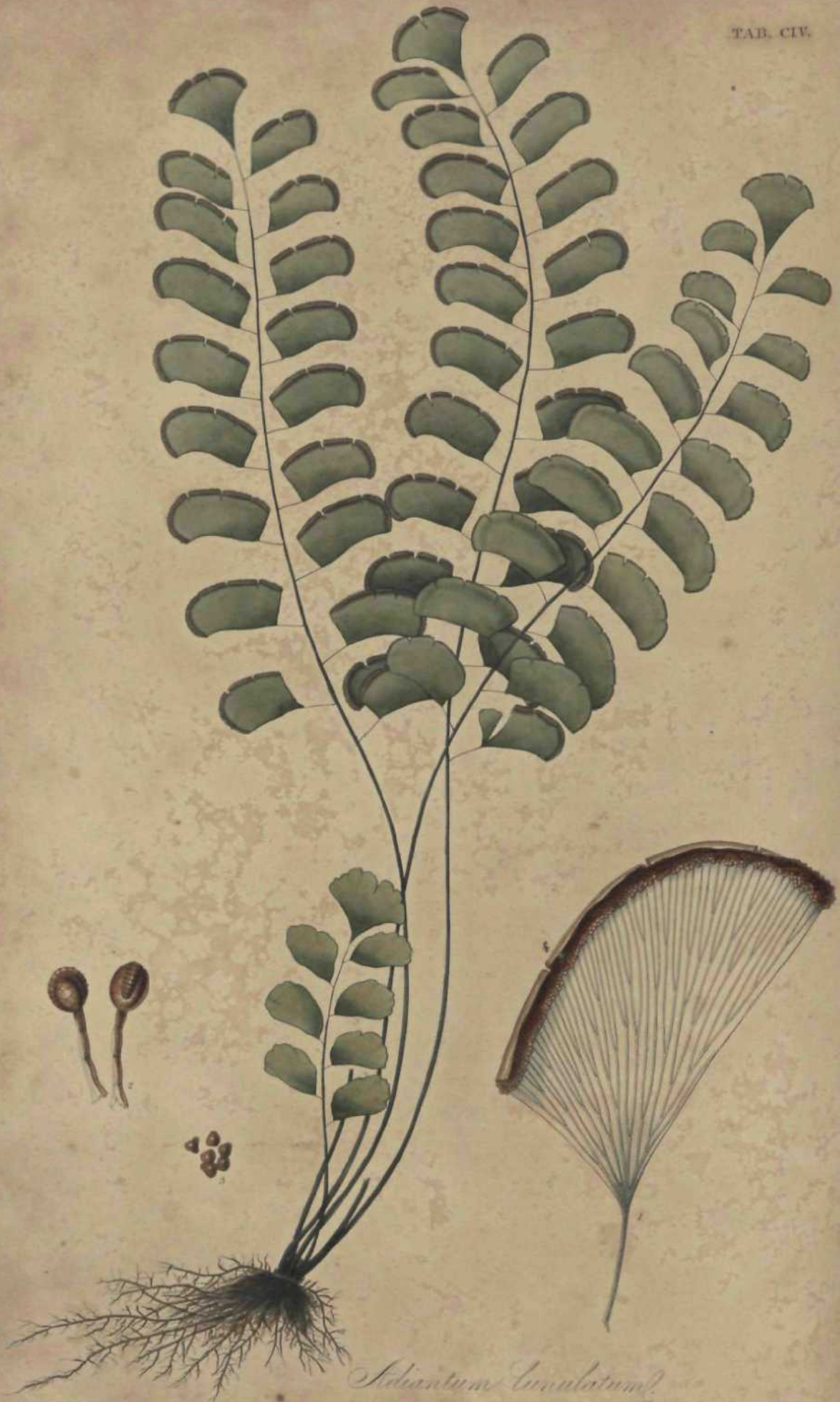
Involucra membranaceo-coriacea, fusca, arete inflexa, raajuscula, approximata.

Capsulæ sublonge pedicellatæ, annulo lato donatæ.

Semina angulata, subreticulata, pellucida, flava.

Fig- 1. Pinna sterilis e fronde fertili. f. 2. Foliolum fertile, subtus visum. f. 3. Involucrum, subtus visum, cum capsulis. f. 4. Capsulæ. f. 5. Semina *i—magn. auct.*

Communicated by the Honourable the East India Company as a native of the East Indies ; but of which particular district of the Indian possessions is not stated.—probably Nepaul. It differs from every species hitherto described, in many points; *jet* in the decidedly cuneate form of the foliola, it approaches the tribe with the membranaceous leaflets, which *A. Capillis Veneris* belongs. Here, however, the foliage is remarkably rigid and coriaceous; and on looking at the upper side of a frond, the stipes, rachis, and pedicels will be found to be rough with short close-set harsh brown hairs, whilst the rest of the plant is quite glabrous.



Adiantum cucullatum?

ADIANTUM LUNULATUM.

FILICES.—GYRATE. *Br.* POLYPODIACEJE. *Kaulf.* FILICES verse. *Willd.*

GEN. CHAR. *Sori* marginales, punctiformes vel lineares. *Involucrum* e margine frondis replicato, disco venoso capsulifero, limbo membranaceo, libero. *Br.*

ADIANTUM *lunulatum*, glabrum; fronde pinnata, pinnis sublonge petiolatis lunulato-oblongis obtusissimis, suprema cuneata, margine superiore lobato.

Adiantum lunulatum. *Burm. FL Irid. p.* 235. *Sw. Syn. Fil. p.* 121. *Willd. Sp. PL v.* 5. *p.* 430. *Bon Prodr. FL Nepal, p.* 16. *Kaulf. Enum. Fil. p.* 205. *Spreng. Syst. Veget. v.* 4. *p.* 110. •*Reliq. Hamk. p.* 62.

Pteris lunata. " *Retz. Obs. 2. p.* 28. *t.* 4."

Adiantum lunatum. *Cavan. Praelect. 1801. n.* 676.

Adiantum arcuatum. *Swartz. Syn. Fil. p.* 122. *Willd. Sp. PL v.* 5. *p.* 431.

Capillaris malabarica non ramosa, folio rotundato dentato. *Petiv. Gazop/i. t.* 54. *l.* 10.

Avenka. *Hort. Malab. v.* 12. *p.* 73. *t.* 40.

HAB. In India Orientali:—arenosis humidis in Malabaria. *Rhcede.* Brasilia. *Swartz.* Insula Java. *Burman.* In Nepalia legerunt *Hamilton et Wallich.* Insulis Philippinis, Marianis, et ad Acapulco. *Cavan. Willd. Chamisso.* In Mexico. *Hamke.*

Radix cespitosa, fibrosa, fibris tenuibus, valde ramosis, flexuosis, tomentosis.

Stipites plurimi ex eadem radice, graciles, paululum, ut videtur, decumbentes, atro-fusci, nitidi, compressi, glabri.

From digitalis ad spithamseam, circumscriptione oblonga, obtusa, simpliciter pinnata, pinnis alternis, remotiusculis, petiolatis, petiolo semiunciam longo, tenui, gracillimo, unciam longis, lunulato-oblongis, obtusissimis, radiato-venosis, basi truncatis membranaceis, pallide viridibus, suprema cuneata, margine superiore semicirculari, lobato, lobis contiguus non raro confluentibus, fructiferis. *Rachis* gracilis, aterrita, nitida, quandoque (fide *Kaulfuss*) apice radicans.

Sori lineares, marginem loborum occupantes, nunc confluentes.

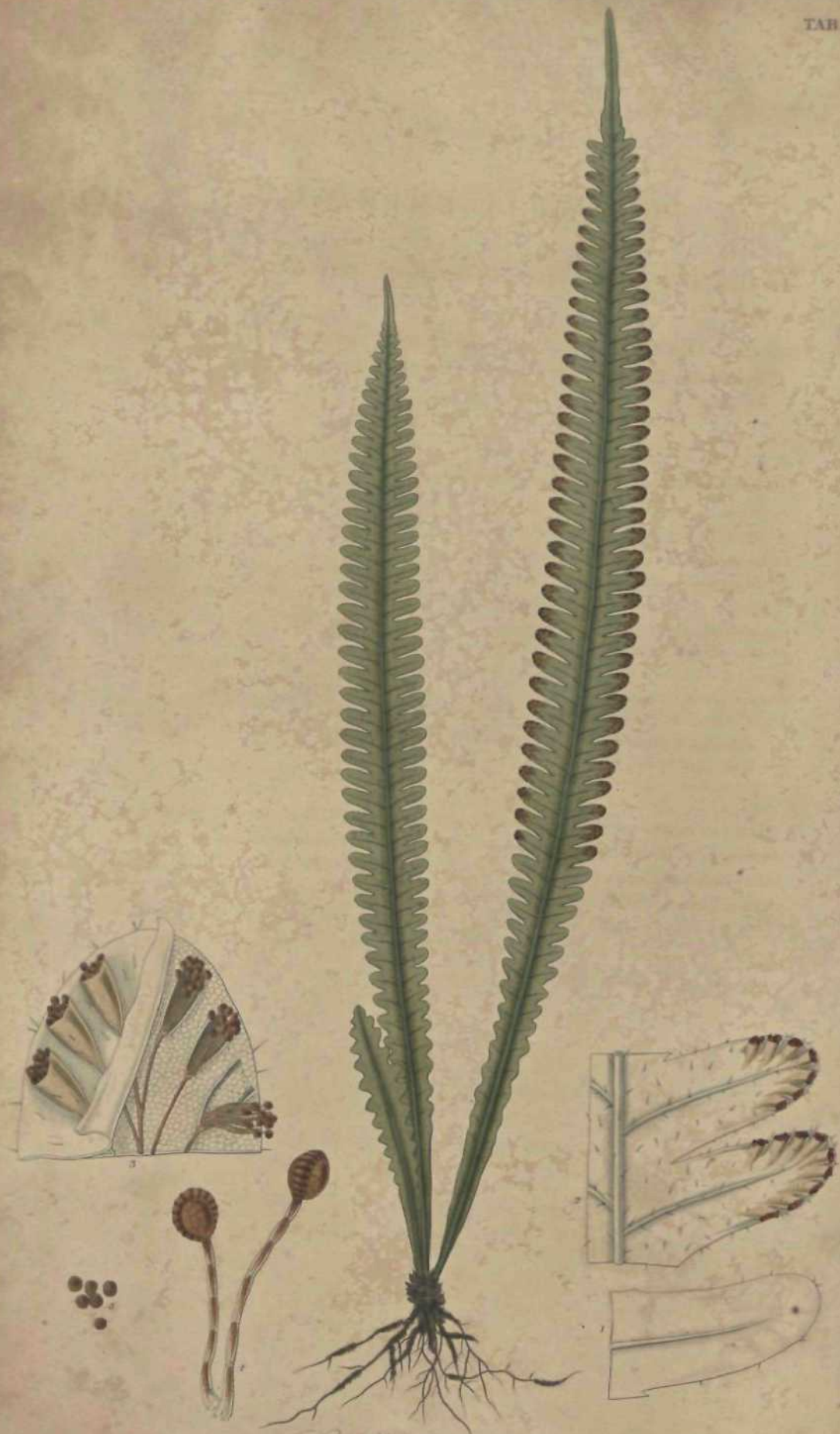
Capsulce numerosa?, longe stipitatae. *Semina* triangularia, pallida.

Rg. 1. Pinna, f. 2. Capsute. f. 3. Semina:—*mag?i. auct.*

Adiantum lunulatum appears to have a very extended geographical range, being found both upon the continent* and the islands of India, as well as in Mexico.

The editor of the *Reliquiæ Hædewegianæ*, on the authority of specimens in Willdenow's herbarium, has referred the *A. arcuatum* of that author and Swartz (the *A. lunatum* of CavaniUes) to our plant, as a very trifling variety with the lobes of the pinnae more deeply cut than usual.

* As far north as Nepaul, where the specimen here figured was gathered by Dr. Wallich,



Davallia Emersonii

TAB. CV.

DAVALLIA EMERSONI.

FILICES.—GYRATE. *Br.* POLYPODIACEJE. *Kaulf.* FILICES verae. *Willd.* [^]*Spreng.*

GEN. CHAR. *DAVALLIA*, Sm, *Sort* subrotundi (vel in lineola verticali) margini plerumque approximati. *Involucrum* superficialium, ex apice venae unice ortum, lateribus vel latâ basi adnatum, exterius et verticaliter liberum. *Br.*

DAVALLIA Emersoni; fronde parce pilosa simplici pinnatifida, segmentis oblongis obtusis integerrimis, soris in apicem loborum.

HAB. In Zeylona. *Emerson, M.D.*

Radix fibrosus, fibris ramosis, nigris, pilosis.

Fronde aggregate, pedales, subcoriaceae, lanceolatae* sessiles, simplices, superficie margineque remote pilosis, **pilis** brevibus rigidis, atro-fuscis, basi apiceque attenuate et integerrimae, reliquae pinnatifidae, pinnatim ramosae, laciniis oblongis obtusis, integerrimis.

Involucra oblongo-cucullata, coriacea, extus dehiscentia.

Capsulce subduodecim in singulo soro, pedicellate, pedicellis longitudine involucri, et in ejus fundo insertis.

Semina sphaerica, reticulata, flavo-fusca.

Fig. 1. Lacinia frondis superne visa. •£ 2. Portio frondis, cum soris. f. 3. Portio laciniae fructificantis, epidermide in partem sublata, ut venae capsularum in conspectum veniant. f. 4. Capsulae. f. 5. Semina:—*magn. auct*

This very curious species of *Davallia* is evidently allied to the *D.pectinata* of Smith, and the *n. contigua* of Hedwi& as far as can be judged from the very imperfect account we have of the latter; both being natives of the islands of the Pacific Ocean, and both differing from ours in the shape and structure of the lacinise of the frond.

The only specimens we have were gathered by Dr. Emerson in Ceylon; an island which, were it properly investigated, would perhaps yield as abundant a harvest of interesting Ferns as any spot of the like extent on the surface of the globe.



Cyathia sinuata?

L. Swartz

CYATHEA SINITATA.

FILICES.—GYRATJE. *Br.* POLYPODIACEJE. *Kaulf.* FILICES verae. *Willd., Spreng.*

GEN. CHAR. *CYATHEA*, Sw. *Son* globosi dorsales distincti, divisura vel medio venae insidentes. *Involucrum* infra sorum insertum, transversim aequaliter vel laceratim dehiscens.

CYATHEA sinuata; frondibus simplicibus lanceolatis sinuatis costatis venosis, soris in medio venarum lateralium.

HAB. In Zeylona, ubi *Pas-dum-Karle* dicta. *Emerson, M.D.*

Caudex——? erectus.

Stipites breves, versus apicem caudicis inserti, sparsi, nigro-fusci, nitidi, glabri, paululum muricati, inferne dilatati.

Fronde plurima?, versus apicem caudicis congests, pedales, sesquipedales, coriaceomembranaceae, glabra, lanceolate, basi apiceque attenuate, margine sinuato-lobate, lobis superioribus obsolete, ad summum apicem serrate, costate, venosae, venis pinnatim ramosis, ramis soriferis.

Sort; semper in venis lateralibus et medium versus, inserti.

Involucrum infra sorum insertum, exacte globosum, membranaceum, reticulatum, transversim sed irregulariter dehiscens, parte inferiore persistente pateriformi, margine magis minusve lacerato.

Receptaculum capsuliferum, hemisphasricum.

Capsula sphaericae, annulo fere complete cincte, pedicellate.

Fig. 1. Portio fructificans frondis. f. 2. Sorus dehiscens. f. 3. Pars inferior persistens pateriformis involucri, cum receptaculo capsulisque. f. 4. Capsulae:—*ntagn. and.*

The old genus *Cyathea* of Sir J. E. Smith has been divided by Mr. Brown ; and the true *Cyathea* are by him considered to be *C. arborea*, *dealbala*, *medullaris*, *affinis*, &c, in all of which, as well as in four other undescribed species, there is a spherical involucre, bursting transversely and equally, in a lacerated manner, inserted upon the forking of a vein ; -but, observes Mr. Brown, in a fifth species from the Molucca Isles, the involucre arises from the *middle of a vein*, «at quoniam h*c a congeneribus differt pinnis integerrimis subsensiformibus sonsque sparsis, legem insertionis haud multum infirmit." To this *Cyathea* from the Molucca Isles, alluded to by Mr. Brown, our *C sinuata* is, in all probability, closely allied, if it be not the same species. It is quite unlike any hitherto described one; and we regret not to have seen more perfect speamens than those „ the height of the caudex, or the thickness to which it may here figured, which give no idea of tne neigm u
be supposed to arrive.



Pteris chrysothymalis

1764-1765-2-11

Linnaeus

TAB. CVII.

PTERIS CHRYSOCARPA.

FILICES.—GYRATE. *Br.* POLYPODIACEÆ. *Kaulf.* FILICES verae. *Willd., Spreng.*

GEN. CHAR. *PTERIS*, Linn. *Sort* lineares, marginales, continue capsulis sinu involucri insertis. *Involucrum* marginale, continuum, scariosum, intus liberum. *Br.*

PTERIS chrysocarpa; fronde tri-quadrupinnata, foliolis linearibus acutis petiolatis, subtus aureo-flavis.

Lomaria aurea. *Wallich MSS.*

HAB. In Nepalia (*Hamilton*); ubi etiam in montibus prope Katmandu legit *Cl. Wallich.*

Nomen vernac. *Mousaga Mounoza* Nepalensibus.

Caudex, ut videtur, repens, radículas fibrosas emittens.

Stipes spithameus ad pedalem, erectus, teres, glaber, fuscus, subnitidus, hinc sulcatus.

From, circumscriptione, ovato-lanceolata, plerumque triplicato-pinnata, pinnis alternis, primariis subremotis, pinnulis subunciam longis, breve petiolatis, linearibus, acutis, superne convexis, medio canaliculatis, viridibus, subtus oranino pulcherrime aureo-flavis, inferioribus pinnarum non raro iterum pinnulatis. *Rachis* universalis partialisque glabrae, pallide flavo-fuscae. *Frondes* steriles nondum vidimus.

Sorti marginales, in sinu involucri inserti, demum pedicellorum elongatione pinnarum totum dorsum tegentes.

Involucrum continuum, marginale, membranaceum, flavum, primum capsulas omnino tegens, interius dehiscens.

Capsulæ numerosissimæ, flavæ, longe stipitatae.

Semina minuta, sphaerica, subreticulata.

Fig. 1. Pinna fertilis. f. 2. Portio ejusdem ut capsularum insertio appareat. f. 3. Capsulæ. f. 4. Semina:___
magn. auct.

Although in many particulars this agrees with the *Lomaria decomposita* of Don, yet I am inclined to think that, were it the same, so close an observer could not have failed to have remarked and described the singular and very beautiful colour of the whole underside of the frond; on which account Dr. Wallich, so long ago as 1816, when he gathered the plant in its native soil, named it *Lomaria aurea*. It is an extremely beautiful species, and no less remarkable in the striking contrast of colour which it exhibits, than in the much divided pinnae. The first aspect of the fructification might have indeed well led Dr. Wallich to consider it as belonging to the genus *Lomaria*: but if the capsules be carefully traced to their insertion, they will be found to be placed in the sinus itself of the involucre, where a longitudinal vein passes, which may be looked upon as the receptacle.

There is a *Pteris aurea* of Poiret from Chili; so that, however unwillingly, we are obliged to change the specific as well as the generic name which Dr. Wallich had given to this plant.



Polypodium heteromephum?

TAB. CIX.



Lycopodium tetragonum

TAB. CIX.

LYCOPODIUM TETRAGONUM.

FILICES.-LYCOPODINEic. Swartz, Br., Kaulf. STACHYOPTERIDES. Willd.

GEN. CHAR. *LYCOPODIUM*, Linn. *Cap**** uniloculares, axillares, sessiles; aliae bivalves, farina repletae; ali* bi-trivalves, corpusculis 1-6, globosis. Br.

LYCOPODIUM tetragonum; foliis quadrifariam arete imbricatis ovatis subacutis concavis carinatis ciliatis, capsulis axillaribus, caule adscendente dichotomo ramoso.

HAB Prope verticem montis Pichincha, Andium Peruvianarum. D. Prof. Gul. Jameson.

Caulis basi decumbens, demum erectus, ramosus, ramis dichotomis, ubique foliosus,

Folia arete quadrifariam imbricata, erecta, ovata, sessiUa, subbrevis acuminata, xntus concava, dorso convexa, carinata, flavo-virescentia, rubedine tine* margine c i l i a t a : / ^ ^ paululum magis aouninata.

Capsule axillares, versus apicem ramorum, reniformes, bivalves, flav^.

Semina nunuta, trigona, semper ternatim in unum corpus congesta, demum hbera.

Fig.1. Folium caulinum. £8. Folium fructiferum. f. 3. Semina --magn. anct.

No less than 140 species of *Lycopodium* are enumerated in Sprengel's edition of the *Species Plcmtarum*, with none of which will the plant here described accord. It inhabits almost the highest summits of Pichincha, and was communicated to us, along with many other rarities from the same mountain, by Professor W. Jameson.



Kerastichum subcrenatum?

J. G. Goussier Del.

J. Swan Sc.

ACROSTICHUM SUBCRENATUM.

FILICES.-GYKAT*. *Br.* POLYPODY**. *Kaulf.* F.UCBS ver*. *Willd., Spreng.*

GB_N. CHAR. *ACROSTICHUM*, *Unn.* Son amorphi, »eu Capsule per ttam paginam infe-
riorem fremdis (interdum divert) vel ad eju, pattern spars*. M n ! nullum (n_s, <,ua-
muls, vel sets in quibusdam capsulis interstincts). *Br.*

Acaosx.HUM **~<*m*, f-dibus pi_{nna}<is, pinnis b_{re}vi-petio.a_{tis} subcrenati, .anceoto ac>-
•ninatis, ste_rUibus (septenis) basi cuneato-aHenuatU, fertilibus (nove>,s) mul.o mmonbu,, bas,,
inferiorī pice, obtusiusculi
HAB. E ubi in rupibus, provenit, communicavit *D. Emerson, M.D.*

Caudex, ut videtur, brevis, subrepens, squamoso-paleaceu,

Stipes erectus, i n .onde sterHi digitalis, fr t f l ^ — g ^ ^ ^ hic illic leaceus, hinc sulcatus.

Frons sterilis palmari, pinnata, pinnis lanceo_{tis} longe at

majori, mar_{ne} su utrinque glabra, venis pinnatis, venulis reticulatim connexis. *Rachis* subalata:—
ferti₁ nt .uadruplo .inoribus, infeHoribus basi apiece « _ obsce crenat,

Capsule JL inferiorem parte. pinnarum tegentes, flavo-fusc, MceUat,.

& » k subovalia, paululum angulata, peUucida.

• t o fansulse £ 3- Semina:—*magn. auct.*

Fig. 1. Portio pinnae sterihs. £ 2. Capsuae.

Communicated by Dr. Emerson, who received it from Ceylon, with the native name «Ak Kowila''
attached to it. We can fi: : : ;



Lindsaea ensifolia!

FRANCIS & CO.

L. 1812

TAB. CXI.

LINDSÆA ENSIFOLIA.

FILICES.-G_VKAT*. * . POLYPOPIAC... Kaulf. FrL. ces verae. JfW., Spreng.

CEN CHAR LINDSMA, Dryand. Son' linear, margine parallel! s*piusque aproximati.
I_mluau, n ex apicibu, venarum (un* ptata.) o_{ru}-n ducen, e x ^ s fcta™.

LINDSÆA *ensifolia*; glabra' frondibu, pinna<is> pinni. (pauci.) petiohtis altemi, Hneari-ensifo,
 mibus obtus^{is} inte-errimis ba,; attenuate, son, marginal.bus con.mu,s.
 Lindsæa *ensifolia*. rtz. *Syn. Fil. p.* 118 & 137. *Willd. Sp. Pl. v.* 5. p. 420. *Kaulf.*
Et. Fil. p. 219. *Spreng.* . *Veget. v.* 4. p. 79.
Pteris stricta. Lam. Encycl. Bot p. 713. *Swartz. Syn. Fil. p.* 96. *Willd. Sp. Pl. v.* 5.

Ad^{ia}d^oen»iMium. P-ir. in *Encycl. Bo., Suppl. v. I., .* 39.
 H T Insua Mauritii e, in Madagascaria. *m*, Neraud; Camnchael.
 mittens.

C>fer bre,IS, .<< P<* ^ striclms> fusc0.vHdis, niudus, inf.rn, badius, Mnc canalicuto.
Sipi, I ^ ^ ^ ^ " Libu * digitalis <d palm. ^, circ ^ rip.io., 0 oblong pinnate, pinms p.<cis (S ad ,),
Frons, -- i, remotis 3 _<-unci.m longU, ji<>>i-ensifo, n, ib<s, cosMis, venisquo obscuris miculati, omnino
 alterni, re , petiolum brevem attenuat.s.
 glabri' ineeg.nin.is, obtusis, b=si in s,ipi<n, v,l

tinuum, membranaceum, pallidum extus dehiscens.

C<P< ^ spherics, pedicellate.

Sefnina obtuse triangularia, subpellucida intense flava.

txmmaw o f 2 Sorus et involucrum. f. 3. Seminar—wwgn. a?/f.

Fig. 1. Portio fructificans pinnas. t. 2. ooius

We are indebted to the fearon de Lessert for the opportunity of figuring this rare Fern, which was gathere d b Mons. Neraud in the Mauritius, the same country in which it was first discovered, we believe, by Commerson.



Lycopodium varium?

Dr. Gouan Del.

J. Gron. Sc.

LYCOPODIUM VABIUM.

FILICES.—LYCOPODINEÆ. Swartz., Br., Kaulf. STACHYOPTERIDES. Willd.

<*, C-« LYCOPODIUM, Un. <** uniloeola.es axiUare, sessile; ate biva.ves,
 ' farina replet* : ate bi-rival.es, eorpuseulis ,_ ^* I « - - *•

LycofODIUM varium; cade ramoso, o us f l's sparsis linearibus decurrentibus integerrimis imbricatis
 licibusve>8<lliam u obtusis integerrimis. Br.
 ve.p—s, spics — * * £ £ . * << / , << . * _ * . * . * ' * * _ * .
 Prodr. .
 arium.
 ula Otah *Menzies.* In insula Van Diemen. *Brown;* ubi in monte Wellington
 legit 2X ^V«w«r et communicavit.

Radix nobis ignota. . ^ dichotome ramosus, basi nudiusculus, dein foliosus.
Caulis subpedalis, erectus vel decumbens repe*f^V obtusiuscula, integerrima obscure costata, basi decurrentia,
Folia numerosa, erecto-patentia, unguiculata, l mearia, ita cos^dorso magis prominente. *Color*, siccitate, luteo-
 coriacea, glabra; suprema infra spicam ovatclanceol ,
 viridis. duas vel tres uncias longse, nunc solitariie, plerumque geminos.
 %V^terminales, sessiles, lineares, acute tetragon*, breves, concavæ, dorso obtuse carinata; (nunc lineari-
Squamæ arete imbricate quatern., cordat., obtus.,
 oblongae).

Capsul, majusculæ reniformes, &bm bivalves.

Semina pellucida, triangularia. i. ^ Scua ma se RaCj cum capsula. f. 4. Squama, a dorso
 Fig. 1. Folium, f. 2. Foliu e summitate caulis. i. ^ Scua ma se RaCj cum capsula. f. 4. Squama, a dorso
 visa. f. 5. Squama, intusvsa. £ 6. Semm a:—magn.

^ 0 ? w ^ /y O m A ' O ^ *Hollandiæ* has cited two varieties of *thk*
 The learned author of the *Pro* ^ ^ . ^ foHa patentia, spica? filiformes, simplices vel divisae,
 plant; the one, «« umbrdsum, cauw ^ J ^ ^ capsulis m^Hottios longiores;" and the other,
 flaccid*, laxiusculae; squamee, o ^ " . ^ ^ opacaj C costata; spicae dichotomy, tctragona,
 «/3 alpinum, caulis erectus: folia arc # i ^ find the plantj in(i ccd, to b ^ very variable in its fructi-
 squamffi ovatae, capsulas vix ' " P ^ ^ ^ gince the pi ate was engraved, have the extremity of the
 fication: some of our specimens, ^ ^ ^ ^ . ^ leayeSj exactiy resembling those of the stem
 spike running out into a shoot, *** J\ ^ fructific ation scarcely forms a spike at all: but the
 and branches; in others, the part earm ^ s ecies ^ ^ ^ ^ ^ ^ ^ ^ gnidoideSi
 fructification appears axillary; and then the p



Lycopodium heterophyllum

W. Smith del.

L. W. Sav. sculp.

TAB. CXIII.

LYCOPODIUM HETEROPHYLLUM.

FILICES.-LYCOPODIN[^]. Swartz., Br., Kaulf. STACHYOPTERIDES. Willd.

G[^] C^f . *LYCOPODIUM*, Linn. Capsules uniloculares, axillares, sessiles; alise bivalves,
 T^r . alia, bi-trivalves, corpusculis 1_6-globosis. Br.
 rii . epleta

LYCOPODIUM heterophyllum; caule erecto dichotomo, foliis quadrifariis subulatis plams patuhs
 incurvis, caulinis integerrimis nudis, in pedunculo denticulato-serratis piliferis, spicis peduncu-
 latis subternis cylindraceis, squamis squarrosis ovatis acuminatis piliferis denfcculato-serratxs.

HAB. In insula Owyhee. A. Menzies.

Cauliserectas, perils et ultra, repetitum dichotome ramosus, ubique foUosus.

Folia quadrifax-iam inserta, patentia, incurva, subulata, plana, obscure costata, omnxno mtegemoa, apxice con-
 colora.

Stem . cylindracea, erects, subrobuste, insigniter squamosae.
 t e r m l i ; fbliosus, foliis quadrifariis, cauUnis simUibus, sed magis distantibus, marginibus spinuloso-
 Ped denticulatis in pilum longum diaphanum flexuosum attenuatis.

*Spam** ovate, acuminata, pOifen* margine spinuloso-denticulate.

Capsulce reniformes, bivalves.

Semina pallido-flava, minutissima, subreticulata.

Fig. 1. Folium caulinum. f. «. Portio peduncuU cum ejus foIn, f. S. Squama cumcapsul, f. 4. Semma:-

magn. auct.

Discovered by A. Menzies, Esq. at Owyhee, during his voyage with Captain Vancouver. It is remarkable for the two fcnds of leaves which it bears, those of the stem being perfectly destitute of a diaphanous hair point; while ^hose of the peduncle, which in fact is but a prolongation of a , , , , , xi A ^mpwhat sninous at the margins, and terminated with a waved branch, are singularly toothed; .omewnat spmuus 6 , hair-like point. It will rank near *L. aristatum* of Humboldt.



Adiantum roseum!

W. G. Smith del.

ASPLENIUM RESECTUM.

FILICES.—GYRATM. *Br.* POLYPODIACEA. *Kaulf.* FILICES verae. *Willd., Spreng.*

GEN. CHAR. *ASPLENIUM*, Linn. *Sort* lineares, sparsi, dorsales. *Involucrum* e venâ lateraliter ortum ducens, margine superiore libero. *Br.*

ASPLENIUM resectum; frondibus pinnatis, pinnis membranaceis oblongo-lanceolatis dentato-serratis, basi superiore truncatis, inferiore abscisso-cuneatis integerrimis, stipite rachique gracilibus glabris nudis.

Asplenium resectum. *Smith Icon. t. 72.* *Swartz. Syn. Fil. p. 80.* *TVilld. Sp. PL v. 5. p. 322.*
Spreng. Syst. Veget. v. 4. p. 84.

Asplenium inaequilaterale. *TVilld. Sp. PI. v. 5. p. 322.*

HAB. In insula Borboniae: *Commerson.* Inter saxos ad marginem rivulorum, in sylvis montosis insulae Mauritiî. *Bojer.*

Caudex repens, squamosus, radículas plures, fibrosas, fuscas, ramosas emittens.

Stipes digitalis, erectus, gracilis, atro-purpureus, nitidus, hinc sulcatus, basi subsquamosus.

Frons palmaris fere ad pedalem, circumscriptione lato-lanceolata, basi truncata, apice argute acuminata, pinnata, pinnis approximatis, plerumque alternis, subhorizontalibus, patentibus, tenuibus, membranaceis, oblongo-lanceolatis, obtuse acuminatis, unciam ad duas uncias longis, inaequaliter dentato-serratis, costatis, furcato-venosis, inaequaliter truncatis, inferiore abscisso-cuneatis, integerrimis.

Sort in venis lateralibus siti, oblongo-lineares.

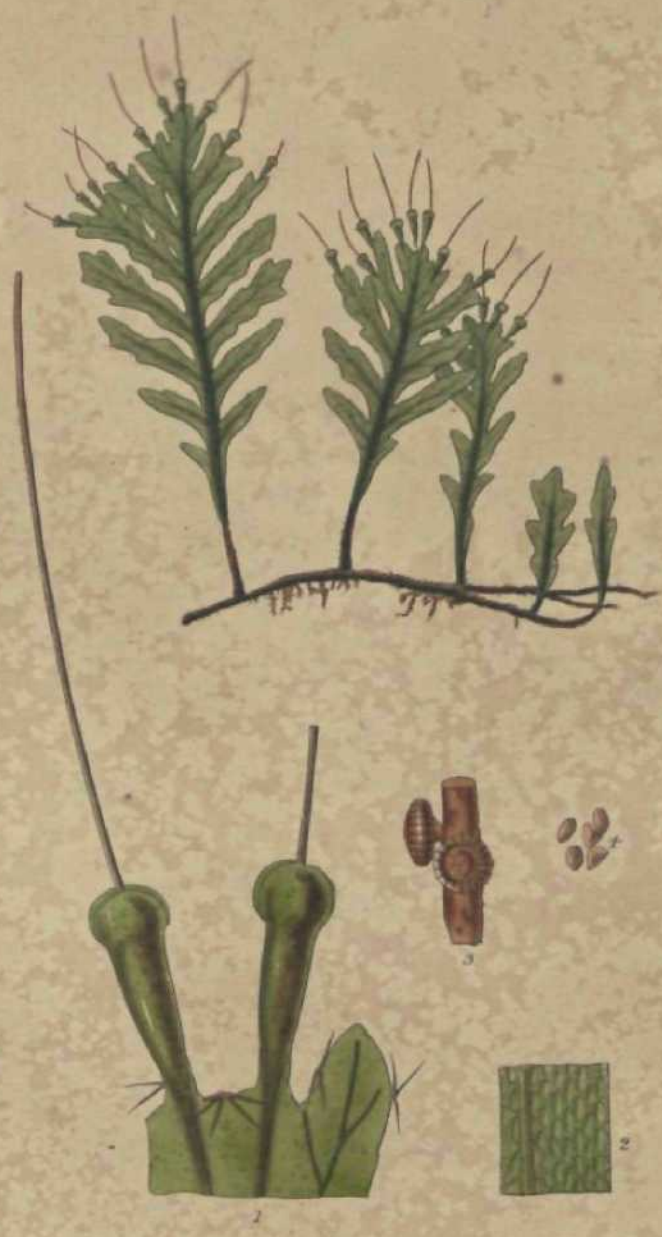
Involucrum membranaceum, fissum, costam versus dehiscens.

Capsulae, annulo lato fere completo, cinctae, pedicellatae.

Semina intense flavo-fusca, subrotunda, 4; tuberculata.

Fig. 1. Pinna fructificans. f. 2. Capsulae. f. 3. Semina:—*magn. auct.*

This, we believe, is certainly the *Aspl resectum* of Smith in the *Icones* above quoted; but it must be confessed that it belongs to a group of the simply pinnated *Asplenias*, which are liable to much variation/ and consequently to be determined with difficulty; on which account we are the more anxious to represent the present plant from perfect specimens, sent us by the excellent Bojer, through the kindness of Charles Telfair, Esq., from the Mauritius. It is indeed very nearly allied to the West Indian *Aspl. abscissum*, the pinnae being almost exactly the same in shape, but that has the rachis winged.



Trichomanes quercifolium?

D^r Greville Del.

J. Smith Sculp.

TRIGHOMANES QUERCIFOLIUM.

FILICES.—GYRATJE. *Br.* POLYPODIACETE. *Kaulf.* FILICES verse. *Willd., Spreng.*

GEN. CHAR. *TRICHOMANES*, Sm., Sw. *Sori* marginales. *Capsula* sessiles, receptaculo communi cylindraceo inserts, intra *Involucrum* monophyllum, suburceolatum, ore hiante, textura frondis. *Br.*

TRICHOMANES quercifolium; frondibus obovato-cuneatis in stipitem brevem attenuatis, profunde pinnatifidis, laciniis lineari-oblongis obtusis sinuatis apice soriferis, involucris exsertis.

HAB. In arboribus, in sylvis apud Esmeraldas, ab urbe Quito iter diei distantem. Amer.

Merid. alt. 8000 ped. *D. Prof. Gul. Jameson.*

Caudex filiformis, repens, hic illic radicans, squamoso-tomentosus, fuscus.

Frondes 3—4? uncias longae, unciam ad duas uncias lata?, obovato-cuneatae, basi in stipitem brevem subtomentosum attenuate, membranaceae, pulcherrime reticulatae, profunde pinnatifida?, laciniis lineari-oblongis, obtusis, sinuatis, penninerviis, superioribus apice soriferis. *Pili* pauci, furcati vel stellati ad marginem laciniarum.

Sori terminales, solitarii vel bini ternive in singula lacinia superiore.

Involucra omnino exserta, libera, subcylindracea, inferne attenuata, superne bilabiata, labiis erectis subrotundis.

Receptaculum longissimum, exsertum, ad basin solummodo, intra involucrum, capsuliferum,

Capsulae orbiculares, compressae, peltatae, transversim complete annulatae.

Semina parva, oblonga vel triangularia, flavo-fusca.

Fig. 1. Portio laciniae cum soris. f. 2. Portio frondis:—*mag?i. auct.* f. 3. Pars inferior receptaculi cum capsulis.

f. 4. Semina:—*magiu auct.*

Allied to *T. repians* of Swartz and Willdenow; but distinguished by its much greater size, and the deeper and narrower segments of the frond.



Pteris auriculata?

PTERIS AURICULATA.

FILICES.—GYRATVE. *Br.* POLYPODIACEA. *Kaulf.* FILICES verse. *WiOd., Spreng.*

GEN. CHAR. *PTERIS*, Linn. *Sort* lineares, marginales, continui; capsulis sinu involucri insertis. *Involucrum* marginale, continuum, scariosum, intus liberum.

PTERIS auriculata; frondibus pinnatis, pinnis brevissime petiolatis triangulari-ovatis subtrilobis, vel basi sursum auriculatis inferioribus subrotundis, stipite rachique laevissimis nitidis.

Pteris auriculata. *Thunb. Fl. Cap. ed. Schultes. v. 2. p. 733. TVilld. Sp. PL v. 5. p. 365.*

Swartz. Syn. Fil. p. 103. Spreng. Syst. Veget. v. 4. p. 71. Sieber Syn. Fil. no. 8. Schlentend. Adumb. PL t. 22.

Adiantum auriculatum. *Thunb. Prodr. Fl. Cap. p. 173.*

HAB. Ad Promontorium Bonae Spei. *Thunberg; Villette; Thoiw; Mund; Carmickael*
JRadix caespitosa, e fibris numerosis ramosis subpilosus.

Stipes brevis, vix duas uncias longus, erectus, flexuosus, atro-purpureus, longissimus, nitidus.

Frons palmaris usque ad spithamaeam, circumscriptione lanceolata, pinnata. *Pinnae* alternae?, plerumque subremotae, forma mire variantes; *inferiores* subrotundae, integerrimae?, obtusissimae, reliquaB magis minusve ovatae vel triangulares, basi utrinque vel sursum solummodo auriculatae, nunc obtusae, nunc acutae; *superiores* magis angustae; *omnes* brevissime petiolatae, subcoriaceae, glabrae, supra intense virides, inferne pallidae?, costatae, nisi oculo bene armato, venosa?. *Rachis* glaberrima, atro-purpurea.

Sort marginales, continui.

Involucrum e margine membranaceo formatum, pallide fuscum, apice inaequaliter crenulatum, subundulatum.

Capsulae numerosae, pedicellatae, annulo lato donatae.

Semina parva, globosa.

Fig. 1. Portio pinnae cum soro. f. 2. Capsulae. f. 3. Semina:—*magn. and.*

At the time that our drawing was made, no figure existed of this species of *Pteris*; but since the engraving was executed, we find it represented in the last number of Schlentendal's excellent *Adumbrationes Plantarum*; of which, however, the descriptions have not yet reached us. The four numbers that we have seen are admirably illustrative of the Ferns of the Cape of Good Hope.



Trichomanes apodum?

H. Greville Del.

J. Smith Sc.

TRICHOMANES APODUM.

HLICES.-GYRAT*. Br. POLYPODIACB*. Kaulf. Filicesver*Willd., Spreng.

GEN. CHAR. *TRICHOMANES*, Sm., Sw. Sori marginales. Capsula sessiles, receptaculo communi cylindraceo insertae, intra *Involucrum* monophyllum, suburceolatum, ore hiante, textura frondis. Br.

TRICHOMANES *apodum*; frondibus minutis (plerumque) sessilibus cordato-rotundatis profunde lobati, minutissime reticulatis patenti-nervos-s, lobis obtusis sinuatis, involucris exsertis submarginatis, caudice longe repente tomentoso

HAB. In insula, Barbadoes dicta. C. S. Parker.

ft. *, repens, longus, ramosus, tomentoso-ramosus.

Stipes vix ullus, plerumque sessilis.

Frondes plurimae, parvae, semiunciam longae, imbricatim decumbentes, cordatae, rotundatae, obtusae, profunde lobatae, sinibus obtusis, lobisque obtusis, sinuatis, submembranaceis, pellucide virentes, minutissime sub lente reticulatae, nervosae, nervis divaricatis in medio singuli lobi (nunquam radiatim vel parallelo-venosae), ad marginem hic illic pilosae, pilis stellatim ramosis.

Involucrum (an semper?) solitarium, in singula fronde, liberum, oblongum, basi attenuatum, utrinque marginatum, apice bilabiato, labiis margine rubris.

Receptaculum longissime exsertum, filiforme, basi ubi capsulae, paululum

Capsula peltatae, annulo completo, ut in omnibus speciebus hujusce generis.

Semina subglobosa, limbo pellucido, circumscripta.

Fig. 1. Frons fertilis. f. 2. Pars inferior receptaculi, cum capsula. Semina:—magn. auct.

Closely as this species may appear at first sight to be allied to *Trich. reptans* (Ic. Fil. ., 32.) and *T. muscoides*, yet a more careful examination will prove it to be abundantly distinct. The fronds are much smaller, has in the fronds almost at the margin. The texture of the frond, too, is very different; here deeply and constantly lobed at the margin. In *Jungermannia*, the reticulation is small, and the nerves much less frequent, the main branches from the midrib or central nerve always following the direction of one of the lobes.

We are not aware that it has been found by any botanist but our friend C. S. Parker, Esq., in the island of Barbadoes.



Sacrostichum tripartitum.

TAB. CXVIII.

ACROSTICHUM TRIPARTITUM.

FILICES.—GYRATE. *Br.* POLYPODIACEJE. *Kaulf.* FILICES verae. *Willd., Spreng.*

GEN. CHAR. *ACROSTICHUM*, Linn. *Sort amofphi*, seu *Capsules* per totam paginam inferiorem frondis (interdum diversae) vel ad ejus partem sparsae. *Involucrum* nullum (nisi squamulae, vel setae in quibusdam capsulis interstinctae). *Br.*

ACROSTICHUM tripartitum; frondibus longe petiolatis, sterilibus reniformibus tripartitis, laciniis cuneatis trilobis, fertili trilobo valde squamoso.

HAB. In sylvis provinciae Esmeraldas, Am. Merid. arborum truncis, legit *D. Prof. GuL Jameson*, ad alt. 5000 ped.

Caudex repens, hic illic radiculosus, undique ferrugineo-squamosus.

Stipites erecti, frondium sterilium vix unciam, fertile duos ad tres uncias longi, flavo-fusci, squamosi, squamis fuscis lanceolato-acuminatis membranaceis spar&is.

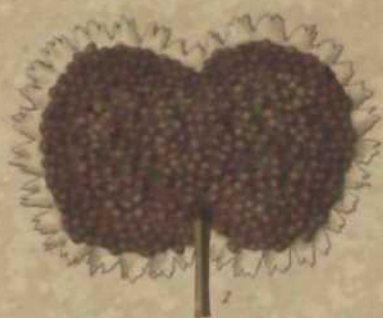
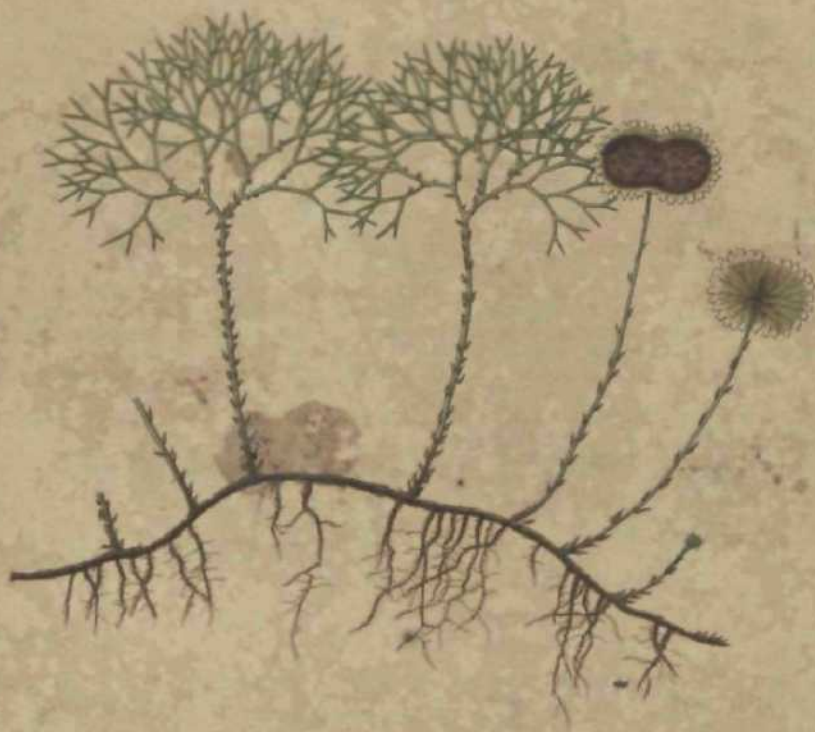
Frondes simplices, steriles, reniformes, subcoriaceae, squamosae, squamis demum deciduis, tripartite; laciniis cimeatis basi attenuatis, trilobis, lobis obtusis plerumque integris: *fertiles* circumscriptione cordatae, primum valde fusco-squamosae, dein nudiusculae, trilobae, lobis rotundatis, integris vel subsinuatis.

Capsulce totam inferiorem partem frondis tegentes, squamis interspersae, sphaericae, intense fuscae, annulo lato fere completo cinctae.

Semina ovalia, vel subrotunda, laevia.

Fig. I. Capsulae. f. 2. Semina:—*magn. auct.*

The nearest affinity with this plant is unquestionably the *A. flabellatum* of Humboldt, a native of rocky places in Venezuela; but that is much larger, has the sterile fronds in the first instance bipartite, the segments multifid; whilst the fertile ones are orbicular and peltate, (according to the figure, but reniform in the description,) quite glabrous, or free from scales, and surrounded by a diaphanous and crenated margin. That species appears, as it were, intermediate between our plant and *A. peltatum* of Swartz.



Saccostichum faniculaceum?

17. 17. 17.

