

vogeliaefolia als sehr zutreffend illustriert, denn die Laubblätter dieses Exemplars sind tatsächlich eine Miniaturausgabe der Laubblätter von *Vogelia africana* Lam., damit haben aber die Laubblätter der *P. suffruticosa* nichts gemein.

II.

Filices neocaledoniae.

Carl Christensen (Kopenhagen).

Hymenophyllum piliferum C. Chr. n. sp.

Leptocionium rhizomate filiformi, pilis rufis vestito, denique nudo. Foliis lanceolatis ad 6 cm longis, 2 cm latis, siccis olivaceis, bipinnatifidis, stipitibus ca. 1 cm longis, superne alatis, cum rachi pilis rufis onustis. Pinnulis ad 10 utroque latere, subimbricatis, dimidiatis, postice decurrente, latere superiore profunde pinnatifidis, inferioribus saepe paulo abbreviatis, rachi superne alata. Laciniis 2—4, 1—1,5 mm latis, integris vel profunde furcatis, obtusis et saepe emarginatis, marginibus dentatis. Soris in parte superiore frondis 1—2 pro pinna lacinias inferiores terminantibus; indusii valvis ovalibus, irregulariter dentatis. Receptaculo incluso.

NOVA CALEDONIA: Baie du sud, J. Franc nr. 1450 (1913).

An *H. tunbridgense* L. var. Fourn. Ann. sc. nat. V. 18: 264?

In habit similar to *H. tunbridgense* L.; it differs in its shorter stipes, which like the rachis is pilose with rufous, deciduous hairs, and in the less divided pinnules with broader lobes. *H. Humboldtianum* Fourn. loc. cit. 265 is another allied species, but its lobes are described as entire. The specimen nr. 1450 was distributed under the name *H. dimidiatum* Mett., but according to the original description of this (*Linnaea* 35: 393) it is much larger and glabrous. I possess a specimen from Somoa, leg. Betché, which probably is *H. piliferum*.

Saccoloma firmum (Kuhn) C. Chr. sp. nov.

Syn.: *S. moluccanum* var. *firma* Kuhn, Verhdl. zool. bot. Ges. Wien

1869: 13; Chætopterides t. 2 f. 15—16. *Davallia campylura*

Fourn. Ann. sc. nat. V. 18: 339 cum syn. (non Kze.).

A *S. moluccano* Mett. (non *Davallia moluccana* Bl. t. Rosenstock in litt.) differt: lamina robustiore, coriacea, glabra, venis validis inferne elevatis, stramineis, marginibus incrassatis, indusio postice cuneato, antice in lobum triangularem obtusum producto.

An *Microlepia tenuis* Brack., ut Kuhn censuit, „t. spec. orig.“?, sed descriptio Brackenridgæi specimina nostra non bene quadrat.

NOVÆ HEBRIDÆ: Aneiteum, Erromango (*Mac Gillivray*, t. Kuhn). LIZARD ISLAND, *Mac Gillivray* (Herb. C. Chr.). — NOVA CALEDONIA, verisimiliter frequens (conf. Fournier), Mt. Koghi, Franc nr. 477 (Herb. Zürich).

Dryopteris Francii (Ros.) C. Chr. sp. n.

Microlepia Francii Ros. in sched.

Parapolystichum rhizomate repente, 0,5 cm crasso piloso, squamis duris, obscure brunneis, adpressis, ovato lanceolatis, integris onusto. Stipitibus erectis, brunneis, ad 40 cm longis, pilis ad 1 cm longis albidis patentibus dense hirtis. Lamina deltoidea, 30 cm longa et lata, quadri-pinnatifida, herbacea, sicca nigrescente, ad rachin, costas, costulas venasque pilis longis setiformibus pluricellularibus utrinque sparse onusta praeterea ad costas pilis brevioribus setosa et hinc inde pilis glanduliferis cylindricis crassis sulphureis adspersa. Pinnis oppositis, acuminatis, basalibus postice producto, medialibus breviter petiolatis catadromicis. Costa marginata versus apicem alata. Pinnulis obliquis, basi latere anteriore producto inaequalibus, 3 cm longis basi 1 cm latis, pinnulis tertiariis oblongis, ala confluentibus, basi cuneatis, lobatis, lobis obliquis, obtusis vel subacutis. Venis in lobis ultimis simplicibus vel furcatis; soris uno pro lobo, apicem rami anterioris venarum furcatarum in-sedente. Indusio brunneo, membranaceo, basi puncto affixo, subreniformi vel semiorbiculari, integro, basi pilo longo saepe instructo. Sporangii pilis glanduliferis cylindricis sulphureis et paraphysisibus (sporangii abortivis) immixtis, pedicello saepe pilo onusto; sporis grosse et dense muricato-verruculosis.

NOVA CALEDONIA: Mt. Koghis, 300 m. Franc nr. 1475 (Herb. Zürich), Vieillard (Herb. Mus. Paris).

The systematic position of this very distinct fern has been misunderstood. Fournier (Ann. sc. nat. V. 18: 314) referred the specimen l. VIEILLARD to *Leucostegia subsericea* (not at all *Aspidium subsericeum* Mett.) and Prof. ROSENSTOCK named the specimens l. FRANC *Microlepia Francii*. It is also a very puzzling fern. In soral characters it can scarcely be distinguished from *Leptolepia*, and it may be doubted whether *Leptolepia* is generically different from *Microlepia*. Both genera belong to the *Chatopterides* of KUHN, characterized by the absence of true scales. The species in question is, however, furnished with several adpressed scales on the rhizome. According to structure of lamina and in pubescence *D. Francii* belongs to the subgenus *Poly-stichopsis*, which is represented in tropical America by the well-known *D. effusa* (Sw.) (v. C. Chr. Mon. Dryopteris II), in Madagascar other

species occur, and in Polynesia we have *D. davallioides* (Brack.), which in most characters agrees with *D. Francii*. This differs however from it by the more obtuse ultimate lobes, and especially in pubescence, *D. davallioides* is provided with similar cylindrical glandular hairs, as are most species of the subgenus, but the long setaceous hairs of *D. Francii* are totally absent.

Lindsaya anogrammoides C. Chr. sp. nov.

Species parva, *L. microphylla* Sw. affinis sed multo minor minus divisa, rhizomate parvo subgloboso apice pilis articulatis luteo-aureis dense vestito. Foliis caespitosis, paucis (4—5), glabris, lutescenti-virescentibus, carnosulis, dimorphis: 1) brevioribus plerumque *sterilibus* rosulatis, prostratis, cum stipite 1—1,5 cm longo ad 3—4 cm longis 0,5—0,8 cm latis, pinnatis; pinnis paucis (4—5-jugis), petiolatis, cuneato-flabellatis, rotundato-crenatis, plus minusve profunde lobatis vel raro subpinnatis. 2) longioribus *fertilibus* erectis, linearibus, stipitibus usque ad 7 cm longis, stramineis, superne ut rachi late sulcata, marginata; lamina pinnata, 3—6 cm longa; pinnis ad 10-jugis, subalternis, distantibus, minimis, 2—4 mm longis, distincte petiolatis (petiolis decurrentibus), subdimidiato-flabellatis, integris vel profunde bi-trilobatis, lobis spathulatis. Venis paucis, 2—4, flabellatis. Soris magnis, saepe lunatis, fere paginam totam inferiorem pinnarum tegentibus; indusiis latis, lacerato-crenatis. Sporis tetraëdrico-globosis.

NOVA-CALEDONIA: Conception, 10 Juillet 1918, Franc nr. 1308 (Herb. Zürich).

A small species, in cutting somewhat resembling small forms of *L. linearis*, but evidently more closely related to *L. microphylla*. It differs from the former, but agrees with the latter, in its stramineous stipe and rachis, yellowish green colour, distinctly petiolate, cuneate-flabellate, often subdimidiate pinnae. Still it is much smaller than both and resembles in size and general habit *Anogramma leptophylla*; as this it has a rosette of small, mostly sterile leaves and much longer stiffly erect fertile, long-stalked but very narrow fertile leaves. This dimorphism is apparently no fixed character; in one specimen one of the short, broad leaves is fertile, and in another a leaf is to be found that is intermediate in size and shape.

Blechnum flocculosum Rosenstock in sched., n. sp.

Lomaria rhizomate?, stipitibus validis, castaneis, ad auriculas infimas ca. 15 cm longis; versus basin squamis linearibus subulatis rigidis nigrescentibus 1—2 cm longis subdense obtectis, et squamis

pallide-brunneis mollibus flexuoso-crispatis longissimis linearibus (pili-formibus) subdense villosa, denique denudatis. *Lamina* versus basin longe et sensim decrescente, sterili late-lanceolata 80—90 cm longa, 30 cm lata, inferne pallide viridi, pinnata, praeter costas pinnarum subtus squamis pallide rufis linearibus sparse vestitas glabra (lamina visa denudata, cf. lam. fert.). Pinnis numerosis sessilibus, basi utrinque vel postice solum subito dilatatis, contiguis, linearibus, acuminatis, integerrimis, ad 16 cm longis 1,5 cm latis, inferioribus sensim ad aurículas reductis, costis rufescentibus; venis infra distinctis, plerumque furcatis, basalibus basicopicis e rachi egredientibus recurvatis. *Lamina fertili* paulo minore, stipite rachique squamis rufis piliformibus mollibus dense flocculosis, pinnis ad 12 cm longis, 4 mm latis, acuminatis, basi decurrentibus. Indusiis? (sporangiiis paginam inferiorem pinnarum in specimine omnino tegentibus).

NOVA CALEDONIA: Forêt de Mt. Koghis 600 m, l. Francn. 1447. (Herb. Zürich).

A most distinct species; it belongs to the group of *B. attenuatum*, differing from all other species in its dense vestiture of soft, linear, rufous scales. From *B. gibbum* it differs moreover in colour and much larger fertile pinnae.

Schizaea fistulosa Lab. var. **neocaledonica** C. Chr. n. var.

A typo australiensi differt: major, robustior, folia ad 40 cm longa ad 1 mm lata versus apicem *levia* (non muriculato), plana vel in siccitate praesertim versus apicem superne late canaliculata, inferne costa crassa paulo prominente bisulcata: sorophora usque ad 4 cm longa, laciniis 12—25-jugis, obliquis, 5 mm vel ultra longis, margine grosse laceratis (in typo potius lacerato-ciliatis).

NOVA CALEDONIA: Mt. Koghis: Landes élevées, 500 m.

Franc n. 474 (Herb. Zürich). — Mt. Koghis: Buissons lisières de forêt, 700 m. Franc n. 474 (Herb. Hafn. ex Herb. Rol. Bonaparte).

This is probably specifically different from *S. fistulosa* and the same as *S. propinqua* Fourn. Ann. sc. nat. V. 18: 353 (vix A. Cunn.) and comes very near to the Hawaiian *S. robusta* Bak., which Prantl (Schiz. 136) referred to *S. fistulosa* as a variety. The two specimens examined were distributed under the same number but are from different localities and they are not entirely identical. The leaves of the specimen in Herb. Hafn. has larger spikes and have a single deep furrow only, while the specimen in Herb. Zurich has the leaves often bisulcate just as in *S. robusta*.