

lignoso; caulibus fasciculatis, simplicibus, gracilibus, puberulis; foliis oppositis, laxis, linearibus, ad 15 cm. longis, 4 mm. latis, subsessilibus, glabris; pedunculo communi gracili, 5 cm. longo, puberulo; umbellis in axillis solitariis, laxe 6-8-floris; bracteolis parvis, linearibus, deciduis; pedicellis gracillimis, 15 mm. longis, puberulis; floribus conspicuis; sepalis anguste lanceolatis, acutis, 4 mm. longis; petalis per anthesin patentibus, late ovatis, acutis, 1 cm. longis, purpureis, anguste albo-marginatis, cucullis magnis, crasse ovoideis, fulgide aureis, cum petalis patentibus, gynostegio longe superatis; squamis staminum deltoideis, inflexis et apicem planum gynostegii obtegentibus; polliniis pendulis, anguste ovoideis.

MEXICO: NUEVO LEON: Sierra Madre Oriental, about 15 km. southwest of Pueblo Galeana, C. H. & M. T. Mueller 371; 514; 816 (G, TYPE); 1020.

This species differs from all others of the genus in having the distal end of the hood lower than the axial. In all but the form of the hood it appears very close to *A. circinalis* (Dcne.) Fourn.

4. ON THE TYPES OF DESVAUX'S AMERICAN SPECIES OF FERNS.

BY C. A. WEATHERBY.

THE fundamental task of fixing accurately the application of the older names of American plants through examination of type-specimens in European herbaria, though begun by Asa Gray nearly a century ago and more than ever needed as specific lines are more and more closely drawn and critical groups restudied, is yet far from completed. Particularly is this the case with tropical American ferns; and in that field the work of Desvaux has presented especially large lacunae of inadequate knowledge.

Desvaux was not one of the great pioneers in pteridology; his scheme of classification was not profound and had no great influence on his successors. But he set up some genera—*Gymnogramma* and *Cyclophorus*, for instance—which have survived and, what concerns us more, he had access to many of the rich collections—those of Dombey, Commerson, Joseph de Jussieu, de Tussac, etc.—already gathered in French herbaria in his time. Numerous species, now familiar, but then novelties, and some still little known, passed under his eyes; many of them he described. He has a nomenclatural importance, if no other.

In his two major articles relating to ferns¹ and in three short papers in his *Journal de Botanique Appliquée* Desvaux proposed about 180 species attributed to America. It would not be true to say that his work was neglected; but it was difficult to follow. His descriptions, though accurate as far as they go, are brief and, like so many older ones, omit details later deemed essential. His data of locality are frequently very general and by no means always correct. He never cited collectors; authentic material, where it exists, has been, therefore, hard to identify as such. Until 1896, when it was presented to the *Muséum d'Histoire Naturelle* at Paris, his personal herbarium remained in the possession of his family, presumably more or less inaccessible.

Nevertheless, a few of his species were early accepted and their names correctly applied by Kunze and Hooker, partly on the basis of specimens sent by him to Greville. Mettenius seems to have made an earnest attempt at interpretation; he guessed, not always happily, at a good many species and was able to examine authentic material of a few and to place them accurately. In more recent years Hieronymus, Christensen and Maxon have fixed the status of a few more. But none of these investigators saw more than a few types; and an unusually large proportion of Desvaux's species have been misunderstood or left as frankly doubtful. In the general herbarium at the Paris Museum, now conveniently housed in the fine and spacious new botanical building, I was able to find, in 1935, 135 of his types and to determine most of those seen. A more extended search than I had time to make, especially in the older, segregated herbaria, such as that of Jussieu, would, I believe, bring more of them to light—possibly all, though some of the species may have been founded on literature alone.

The actual type-specimens are often fragmentary; in many cases, however, they can be correlated with others in the Paris herbarium, obviously of the same collections and also named by Desvaux; and from these latter, missing characters can be ascertained. The types are accompanied by rather elaborate labels in Desvaux's handwriting giving bibliography, synonymy when called for and statements of habitat not infrequently more definite than those in his published work. These labels were evidently written at some time subsequent to the publication of the *Prodrome*; they not only cite it, but occasion-

¹ "Observations sur quelques nouvelles Genres de Fougères et sur plusieurs Espèces nouvelles de la même Famille," *Gesellsch. Naturforsch. Freunde Berlin Mag.* v. 297-330, t. VII, figs. 4-7 (1811) and "Prodrome de la Famille des Fougères," *Mém. Soc. Linn. Paris*, vi. 171-337 (1827).

ally give references not included in it. Such characteristic labels make it relatively easy to detect the type sheets.

The results I reached are summarized in the following list. As will readily be seen, I have not solved all the questions arising from Desvaux's work. But it has seemed worth while to publish a report now and to set down everything, both success and failure. Accordingly, all of Desvaux's names for American species, arranged alphabetically for convenience of reference, are included, whether or not I have seen the types. All determinations of types are likewise given, even if they merely repeat (and, I hope, confirm) ascriptions already made. To save space, only dates of publication are given, except where new combinations are required; full data are, of course, readily accessible in the Index Filicum. In each case, Desvaux's name is placed first, followed by needful synonymy and discussion. The name to be accepted for the species concerned, whether Desvaux's or another's, is printed in small capitals, except for new combinations which are, as is customary, in bold-face type.

As in all such investigations, some regrettable changes of name have resulted; happily, their number is not large. It may be regarded as unfortunate for Desvaux, but from the point of view of stability of nomenclature it is a welcome circumstance, that in 1811 he described a considerable number of species already proposed by Willdenow the year before and again in 1827 a number put forward by Kaulfuss in 1824. The mortality is greatest among the names of Hooker and Kunze; even there, it is not disturbingly great.

I am much indebted to the authorities of the Paris Museum for the privilege of examining the specimens here reported upon and to various members of its staff, especially M. R. Metman, for numerous courtesies and for aid; and to Dr. William R. Maxon of the United States National Herbarium for the use of certain critically determined specimens there and for generously given suggestion and information.

Acrostichum aculeatum Desv. (1811). PITYROGRAMMA CHRYSOPHYLLA (Sw.) Link. *A. chrysophyllum* Sw. (1801). *A. chrysophyllum* β *pumilum* Desv. (1827).—The type specimen, mounted on the same sheet with several other fronds of varying leaf-form, but readily identifiable from the description and the placing of the label, is a single dwarfed frond with lamina about 9 cm. long. The "aculeae" are short, blunt projections on the stipe, appearing like stumps of pinnae broken off with healed tissue over the fracture. Just what their nature may be is not apparent, but they are plainly abnormal growths.

Acrostichum chrysoconium Desv. (1827). PITYROGRAMMA CHRYSOCONIA (Desv.) Maxon. *P. flexilis* (Klotzsch) Domin?—Apparently a good species, similar in habit and in its pale rachis and costae to *P. Ornithopteris*, but with yellow indument.

Acrostichum dicksonioides Desv. (1827). POLYBOTRYA OSMUNDACEA H. & B. (1810).—A rather finely dissected form. Desvaux's epithet was printed as "*diksonioides*" but in view of the fact that there are a good many obvious misprints in the "Prodrome" and that the label reads "*dicksonioides*," I feel justified in restoring the more correct spelling.

Acrostichum luteum Desv. (1827). *Notholaena lutea* (Desv.) Moore.—The type consists of 3 detached, badly pressed and withered fronds, with the stipes broken off. To Desvaux's description may be added that the lamina is linear in outline, 7.5–9 cm. long, with 5–8 pairs of distant, pinnatifid pinnae, the longest less than 1 cm., with 2–5 pairs of rounded obovate segments. The veins are visible above and stop a little short of the margin which is modified into a very narrow cartilaginous band. The pinnae are decurrent in a narrow, reddish line along the black rachis. Moore was no doubt correct in transferring the species to *Notholaena*; I am, however, unable to place it more definitely.

Acrostichum martinicense Desv. (1811). *Elaphoglossum martinicense* (Desv.) Moore.—A glabrous-fronded species of *Elaphoglossum* with thick, short-repent rhizome covered with narrowly linear, long-attenuate, soft, bright-brown scales, entire or with a few narrow teeth or fimbriae. The stipe bears similar but narrower and more fimbriate scales. The lamina is acute at base and apex, 7.5–11.5 cm. long by 2–4 cm. wide, about as long as the stipe or in fertile fronds considerably shorter.

Maxon¹ suggested that *A. martinicense* might be the same as his *Elaphoglossum Underwoodianum* and, following this clue, Christensen² has reduced *E. Underwoodianum* to *E. martinicense*. This is not correct; the two differ markedly in characters of rhizome and scales and in size and shape of lamina. *E. martinicense* belongs in the general group of *E. pteropus*; a definite determination of its status must await the much-needed monographic study of the genus.

Acrostichum petiolosum Desv. (1811). ELAPHOGLOSSUM PETIOLOSUM (Desv.) Moore.—Correctly applied to the Andean plant represented by Lehmann 4481.

Acrostichum Plumieri Desv. (1827). ELAPHOGLOSSUM PETIOLATUM (Sw.) Urban. *A. petiolatum* Sw. (1788).—Desvaux's original de-

¹ Sci. Surv. Porto Rico and Virgin Isl. vi. 398 (1926).

² Ind. Fil. Suppl. III. 104 (1934).

scription, as published, gives no locality, merely citing a plate of Plumier; the type specimen, however, is labelled "habitat in Caribaeis."

Acrostichum tenellum Desv. (1827). ELAPHOGLOSSUM HORRIDULUM (Kaulf.) J. Sm. *A. horridulum* Kaulf. (1824).

Acrostichum tereticaulon Desv. (1811).—Type not seen.

Adiantum acuminatum Desv. (1811).—Type not seen.

Adiantum cassioides Desv. (1827).—Type not seen. According to Kunze quoted by Hooker¹ and followed by Christensen in the Index Filicum, this is *A. serrato-dentatum* Willd. with larger and thinner pinnules than usual—probably at least approaching the typical form of Willdenow's species. Desvaux himself suggests this relationship by his comparison with his *A. obtusum* (which see).

Adiantum elatum Desv. (1811). *A. LATIFOLIUM* Lam. (1788).

Adiantum falcinellum Desv. (1811).—Type not seen.

Adiantum obtusum Desv. (1811). *A. SERRATO-DENTATUM* Willd. (1810).—Desvaux's plant is the common form of the species; Willdenow's type a rather extreme state. Desvaux's original description gives no locality; his label reads "Habitat in Gujane?"

ADIANTUM PETIOLATUM Desv. (1811).—Type not seen, but the name probably applied correctly in the sense of *A. Kaulfussii* Kze. (1848).

Adiantum rotundatum Desv. (1827).—Type not seen.

Allantodia costalis Desv. (1827).—In the Prodrôme Desvaux apparently published this as a new species, with a description and no synonymy. On his label, however, he cites *Asplenium costale* Sw. as a synonym. It therefore becomes doubtful whether *Allantodia costalis* was intended as anything more than a transfer of Swartz's species. Desvaux's specimen is, as suspected by Christensen,² *Diplazium pectinatum* (Fée) C. Chr., from Jamaica. His name, if a transfer, was incorrectly applied to this species; if independent, it cannot be used under *Diplazium* because of *D. costale* (Sw.) Presl (1836).

Alsophila Dombeyi Desv. (1827).—Type not seen.

Alsophila millefolium Desv. (1827).—Type not seen.

Anemia obtusa Desv. (1811).—Type not seen. From the description, the plant must have been either *A. flexuosa* (Sav.) Sw. or *A. imbricata* Sturm. In the Prodrôme Desvaux cites *A. hirsuta* sensu Raddi, Syn. Fil. Bras. 4 (1819), not Sw., as a synonym. Raddi's description and citations, however, seem to apply to the true *A. hirsuta*.

¹ Sp. Fil. ii. 19 (1858).

² In Urban, Symb. Ant. ix. 324 (1925) and Ind. Fil. Suppl. III. 75 (1934).

Aspidium continuum Desv. (1811). DRYOPTERIS GONGYLODES (Schk.) O. Ktze. *A. gongylodes* Schk. (1809).—Desvaux's plant is the pubescent form.

Aspidium cuspidatum Desv. (1827).—Type not seen. The description might have been taken from Plumier.

Aspidium lepidotrichum Desv. (1811). DRYOPTERIS NEMOROSA (Willd.) Urban. *A. nemorosum* Willd. (1810).—Desvaux himself, Prod. 261, made this reduction. His label gives the locality Santo Domingo.

Aspidium longifolium Desv. (1811). TECTARIA MARTINICENSIS (Spreng.) Copel. *A. martinicense* Spreng. (1804).—A form with enlarged terminal pinna having two pairs of long lobes at the base and smaller, narrow, irregular lobes on the margins of the main division. The label gives the locality Hispaniola.

Aspidium macrolepidum Desv. (1827).—A rather large plant of the group of *Polystichum aculeatum*. The rhizome-scales are about 1 cm. long, lance-linear, entire, with narrow brown margins and dark, sclerotic center. They pass, on the stipe, into brown, thin scales of like shape and size and on the rachis into smaller ones which may be either all brown or with a dark center. The rachis also bears narrow, pale-brown scales lacerate at base which pass into fibrils on the pale lower surface of the pinnules. The auricles of the pinnules are blunt and short. The serrations are also short, cartilaginous-tipped but not spinescent. The veins are 2-3-forked, pale and evident on the upper surface but not beneath. The indusia are large, entire, brown with a dark central spot.

These details may aid in placing the plant; its status, however, can be finally determined only by critical study of the difficult group to which it belongs.

Aspidium melanopodon Desv. (1811). TECTARIA LATIFOLIA (Forst.) Copel. *Polypodium latifolium* Forst. (1786).—The locality, Straits of Magellan, given by Desvaux is erroneous; his specimen, collected by Commerson, must have come from that explorer's Polynesian material.

Aspidium melanorhizum Desv. (1827).—Type not seen. Possibly based on the citation from Plumier given.

Aspidium multisorum Desv. (1827). TECTARIA MARTINICENSIS (Spreng.) Copel. *A. martinicense* Spreng. (1804).—The type is a small, but otherwise quite representative, individual.

Aspidium orbiculatum Desv. (1811). POLYSTICHUM ORBICULATUM (Desv.) Gay.—On his label Desvaux cites *Polypodium rigidum* Hook.

& Grev. as a synonym and I am inclined to think him right. Certainly his specimen (a small one, best matched in the material I have seen by Pennell 9808 from Colombia) belongs with an Andean group, not with the plant of southern Chile and Patagonia to which Christ¹ applied the name *P. orbiculatum*. Christensen² suspected as much, but had not seen Desvaux's type.

Aspidium parallelum Desv. (1827). TECTARIA TRIFOLIATA (L.) Cav. *Polypodium trifoliatum* L. (1753).

Aspidium pedatum Desv. (1827). CAMPTODIUM PEDATUM (Desv.) Fée.—Correctly interpreted. The label gives Jamaica as the place of collection.

Asplenium angustatum Desv. (1827).—Type not seen. Very probably only a renaming of *A. laxum* Raddi, not R. Br., cited in synonymy. The description is Raddi's, slightly paraphrased, and the locality is that given by him.

Asplenium anomalum Desv. (1827).—Type not seen. Possibly only a new name for *A. ambiguum* Raddi, not Schk.

Asplenium auriculare Desv. (1827). A. SEMICORDATUM Raddi (1825).—Not at all the Andine plant of the immediate group of *A. lunulatum* to which the name was applied by Mettenius.

Asplenium brasiliense Desv. (1827). A. REGULARE Sw. (1817).—Here again Desvaux's species was misunderstood by Mettenius, who placed it under *A. semicordatum*.

Asplenium concisum Desv. (1827).—A renaming, for no apparent reason, of *A. dareoides* Desv. (which see).

Asplenium coriaceum Desv. (1827).—The type is a small and poorly developed specimen of *A. falx* Desv. (which see).

ASPENIUM DAREOIDES Desv. (1811). *A. magellanicum* Kaulf. (1824). *A. concisum* Desv. (1827).—The type is a rather large specimen with oblong-lanceolate lamina, at first sight appearing unlike most herbarium material of the species, but identical in all technical characters. Christensen and Skottsberg (and Bertero before them) had the same form from Juan Fernandez. They remark that it resembles *A. Adiantum-nigrum* and that the more common, smaller and broader-fronded form looks more like *A. Ruta-muraria*. I have not seen Kaulfuss's type; but since he compares it to *A. Ruta-muraria*, it probably belongs with the second of the above forms, as Christensen and Skottsberg also suppose. The two, however, are not specifically distinct; Desvaux's earlier name must be

¹ Ark. för Bot. iv. no. 12, 3 (1905).

² Ark. för Bot. x. no. 2, 19 (1910).

taken up. He himself cites *A. magellanicum* in synonymy on his label.

Asplenium denticulosum Desv. (1811).—Type not seen by me; Alston, however, has seen what he believes to be the type in the herbarium of Jussieu, and refers it to *DIPLAZIUM CRISTATUM* (Desrouss.) Alston (*D. arboreum* (Willd.) Presl; *D. Shepherdii* (Spreng.) Link).¹

Asplenium falx Desv. (1827). *A. EROSUM* L. (1759).—The Linnaean species is here taken in the sense of Mettenius,² not in that of Christensen³ and Hieronymus⁴ (= *A. dimidiatum* Sw.). As in several other cases,⁵ it was actually founded, not on the plate of Sloane cited in the *Systema*, ed. 10, but on specimens collected by Patrick Browne in Jamaica and duly referred to in the second edition of the *Species Plantarum*. The type sheet in the herbarium of Linnaeus, labelled "*Aspl. erosum*" by him and bearing the symbol "C" which indicates a species inserted in the *Systema*, is a mixture. It contains a well-developed, fruiting frond of *A. falx* and a juvenile plant of *A. dimidiatum* Sw. with a bit of rootstock and four young and very small, sterile fronds. Christensen did not see this sheet and he was mistaken in supposing that both specimens on the duplicate sheet which he studied in the Swartz herbarium were *A. dimidiatum*. An excellent full-size photograph of the Swartzian material (lent me through the kindness of Dr. Maxon, who arrived long ago at the conclusion here set forth) shows that, as in Linnaeus's own sheet, one is *A. dimidiatum*, one *A. falx*. The former is a better specimen than that of Linnaeus, but still small and little cut for the species; the latter much poorer and, as Christensen notes, badly pressed.

Linnaeus's description seems to have been drawn to include both elements. It would seem that, having only juvenile or stunted material of *A. dimidiatum*, he regarded *A. falx* as the mature and fully developed condition of the same species. The fact that he cited Sloane's plate 33, figure 2, would indicate that he had *A. falx* mainly in mind, for, though it actually represents a form of *A. auritum*, it resembles *A. falx* far more than *A. dimidiatum*.

A. erosum, then, was, like many Linnaean species, a mixture, in which the plant later named *A. falx* by Desvaux was a predominating ele-

¹ Journ. Bot. lxxxiv. 173 (1936).

² Abh. Senckenb. Naturf. Ges. iii. 157 (1859).

³ Ark. för Bot. ix. no. 11, 14 (1910).

⁴ Hedwigia lxi. 35 (1919).

⁵ E.g. *Asplenium radicans*, discussed by Christensen, Vidensk. Selsk. Skrift. ser. 7, x. 218 (1913).

ment. Mettenius applied the Linnaean name to that element. In so doing (whether consciously or not makes no difference), he avoided disturbing the generally accepted name, *A. dimidiatum* Sw. There was no occasion whatever for changing his perfectly correct typification, accepted in later standard works; Christensen would probably not have changed it had he seen the type sheet. Hieronymus merely followed Christensen as to *A. erosum*; what he accomplished was to point out, on the basis of manuscript notes by Mettenius made subsequent to the publication of the monograph of *Asplenium*, the correct identity of *A. falx* and *A. coriaceum* Desv.

Asplenium macrocarpum Desv. (1827). *A. MONANTHES* L. (1767).

Asplenium obtusilobum Desv. (1811). *A. CUNEATUM* Lam. (1786).—Desvaux's plant is a form with broad segments only shallowly crenate-dentate above. The habitat given, with doubt, in the original publication was the Isle of Bourbon, but on the label this is changed to tropical America.

ASPLENIUM PERUVIANUM Desv. (1827).—The type is a wretched scrap; it is, however, associable with a good specimen collected by Dombey. This shows a small, pinnate-fronded, cespitose fern, not (in this individual) proliferous, with relatively large (up to 4 mm. long), red-brown rhizome-scales, composed of thick-walled, oblong to linear cells with narrow lumina. The petiolules are thick and pale; the nerves apparently flabellately branched, the branches simple for some distance below the apex, not reaching the margin. The sori are broad-oblong; the indusia pale brownish, thin and entire.

This is probably a good species, but in a critical group and as yet imperfectly known.

Asplenium rhomboidale Desv. (1827).—Type not seen; perhaps based wholly on the cited synonyms of Lamarck and Plumier. The description could have been drawn from the latter's plate.

ASPLENIUM SESSILIFOLIUM Desv. (1811).—The type is sheet no. 1265 in herb. Jussieu. The name is at present correctly applied.

Asplenium virens Desv. (1827). *A. LAETUM* Sw. (1806).

Athyrium Dombeyi Desv. (1827).—Type not seen.

Azolla arbuscula Desv. (1827).

Azolla densa Desv. (1827).—No specimens bearing this name or the preceding are to be found in the Desvaux herbarium. The two specimens of *Azolla* therein are named by Desvaux *A. caroliniana* and *A. filiculoides*; the sheets bear an annotation by Kuhn affirming these determinations.

BLECHNUM BRASILIENSE Desv. (1811).—Type missed by me,

though probably to be found in the herbarium of Jussieu. In all probability the current application of the name is correct.

Blechnum pubescens Desv. (1827).—Type not seen.

Botrychium cuneatum Desv. (1827).—Type not seen. The plate of Schkuhr cited is *B. dissectum* Spreng., f. *obliquum* (Muhl.) Fern., *B. obliquum* Muhl. (1810). Desvaux gave no habitat; Schkuhr's plant came from Pennsylvania.

Cheilanthes elegans Desv. (1811). *C. MYRIOPHYLLA* Desv. (1811).—The type is the merest scrap, the end of a very young pinna with six pairs of pinnules. It is mounted with the lower side glued to the sheet; as seen from above, with the scales forming a background to the segments, it looks quite like Desvaux's illustration.¹ The young scales are "rufescent" as described; in the older type of *C. myriophylla* they are bleached whitish.

A frond in the herbarium of Joseph de Jussieu, two pinnae of which are missing, is probably of the same collection, though not labelled by Desvaux.

CHEILANTHES MYRIOPHYLLA Desv. (1811).—Correctly understood. The type is a good specimen; its label gives the habitat as Peru.

Cincinalis ferruginea Desv. (1811). *NOTHOLAENA TRICHOMANOIDES* (L.) R. Br. *Pteris trichomanoides* L. (1753).—The type is a large specimen so densely hairy on the lower surface that the white indument is concealed. It is far from being *N. bonariensis*, with which Desvaux's name was so long associated.

Cincinalis tomentosa Desv. (1811). *NOTHOLAENA TOMENTOSA* Desv. (1813). *N. hypoleuca* Kze. (1834).—The type agrees with a sheet of Dombey's labelled "Concepcion, 1782."

CYATHEA TUSSACH Desv. (1827).—Correctly interpreted by Maxon.²

Cystopteris jamaicensis Desv. (1827). *DRYOPTERIS NOTHOCHLAENA* Maxon (1922). Not *Dryopteris jamaicensis* (Bak.) C. Chr. (1905).—It is easy to see how Desvaux mistook the scale at the side of the sorus in this species for a cystopteroid indusium; it is much less easy to understand how anyone who had read Desvaux's description, calling, among other things, for paleaceous rachis and costae, could have referred his plant to *C. fragilis*. Yet Hooker³ did this and has been followed by everyone since.

Desvaux gave the habitat of his species as Cuba and Jamaica. The Cuban element would presumably be *Dryopteris hemiptera*

¹ In Journ. Bot. Appl. ii. t. xiii, fig. 1 (1813).

² N. Am. Fl. xvi. 73 (1909).

³ Sp. Fil. i. 198 (1846).

Maxon, but in view of Desvaux's choice of name, the Jamaican would naturally be taken as the type and his two specimens actually are the Jamaican plant. His specific epithet cannot be used under *Dryopteris*, but must be taken up under *Stigmatopteris*.

Cystopteris translucens Desv. (1827).—The luxuriant, finely dissected phase of the *Cystopteris fragilis* complex which occurs in the Andes of Peru, Ecuador and perhaps Colombia and which will probably receive some taxonomic recognition when the South American members of the group are monographed. *Macbride* 3638 from Chaglia, Peru, and part of Mille's material distributed as from "locis umbrosis altiplanis ad Riobamba, Ecuador," 1921, match Desvaux's type fairly well. His specimen (a single lamina) has the lowest pinnae unusually long, so that superficially it resembles a frond of *C. sudetica*. A frond of some *Athyrium* is mounted on the same sheet, but Desvaux's description is obviously drawn from the *Cystopteris*.

Danaea longifolia Desv. (1811). *D. NODOSA* (L.) Sm. *Acrostichum nodosum* L. (1753).—The Linnaean name was long applied to what we now know as *D. elliptica*.

Darea triloba Desv. (1813). *ASPENIUM CRISTATUM* Lam. (1786).

Davallia magellanica Desv. (1811).—Type not seen. Very likely not American.

Dicksonia domingensis Desv. (1827).—Type not seen.

Didymoglossum decipiens Desv. (1827). *TRICHOMANES BIPUNCTATUM* Poir. (1808).—The American localities cited by Desvaux are no doubt erroneous.

Didymoglossum magellanicum Desv. (1827). *HYMENOPHYLLUM MAGELLANICUM* Willd. ex Kze. (1847).—Type seen and species correctly placed by van den Bosch. So far as can be made out from the citations of Kunze and Klotzsch,¹ Desvaux and Willdenow independently applied the same specific epithet to the same plant; but the latter's herbarium name may have been a transfer of Desvaux's.

Diplazium curvatum Desv. (1827). *D. UNILOBUM* (Poir.) Hieron. *Asplenium unilobum* Poir. (1811).

DIPLAZIUM MACROPHYLLUM Desv. (1827). *Asplenium Desvauxii* Mett. (1859), as to name-bringing synonym. *A. procerum* Sod. (1908).—Kunze² took up Desvaux's name, with doubt, for a plant collected by Poeppig and Mettenius (followed by Hieronymus) applied it positively to *Lechler* 2158. I have seen neither of these collections; Mettenius's illustration, however, shows unequal, obtuse or merely acute basal segments, of a type which seems not to occur in

¹ *Linnaea* xviii. 533 (1844).

² *Linnaea*, ix. 93 (1834).

true *D. macrophyllum*, and a simpler venation. Desvaux's type is excellently matched by *Couthouy* 43 from Ecuador; this represents the plant to which his name should be applied.

DIPLAZIUM OBTUSUM Desv. (1827).—Probably correctly applied by Hieronymus in Engler, Bot. Jahrb. xxxiv. 457 (1901). The type, however, a single glabrous pinnule with oblong-falcate, obtuse segments, 2-forked veins and long sori reaching close to both costa and margin, does not agree in all details with *Eggers* 14881, cited by Hieronymus as representative.

Diplazium tenue Desv. (1827).—Type not seen.

Doodia blechnoides Desv.—Type not seen.

Grammitis angustata Desv. (1827).—Type not seen; only doubtfully ascribed to America by Desvaux.

Grammitis magellanica Desv. (1811). *POLYPODIUM BILLARDIERI* (Willd.) C. Chr. *G. Billardieri* Willd. (1810).—Desvaux cites *P. gramineum* sensu Poir., not Sw., as a synonym, but his description is original.

Gymnogramma aspidioides Desv. (1827). *DRYOPTERIS ASPIDIOIDES* (Willd.) C. Chr. *Ceterach aspidioides* Willd. (1810).—Desvaux does not cite Willdenow and gives an original description. This appears to be another case where two authors have independently chosen the same epithet for the same species. The habitat "Brazil" is apparently erroneous; it may have misled Dr. Christensen when, in the *Index Filicum*, he assigned Desvaux's species to the synonymy of *D. polypodioides*. It may be noted in this connection that the original data of collection accompanying Desvaux's specimens are often on small detached slips which are now glued to the sheets but which might easily have become misplaced before mounting.

Gymnogramma chaerophylla Desv. (1811). *ANOGRAMMA CHAEROPHYLLA* (Desv.) Link.—Type not seen, but the current application of the name almost certainly correct.

Gymnogramma diplazioides Desv. (1827). *DRYOPTERIS LINKIANA* (Presl) Maxon. Not *D. diplazioides* (Moritz) Ktze. (1891).—The species was correctly interpreted by Christensen¹ but, as pointed out by Maxon,² Desvaux's epithet cannot be used under *Dryopteris*.

Gymnogramma peruviana Desv. (1811). *PITYROGRAMMA TARTAREA* (Cav.) Maxon. *Acrostichum tartareum* Cav. (1802).—Desvaux's own specimen consists of a single pinna, but on the label of another sheet from the Vaillant herbarium, determined by him as "Peruviana Desv." he wrote: "le type est dans l'herbier de M. Jussieu." The

¹ Dansk. Vidensk. Selsk. Skrift. ser. 7, iv. 312 (1907).

² Journ. Wash. Acad. Sci. xiv. 199 (1924).

type thus indicated is sheet no. 1009 in the Jussieu herbarium. It is a not uncommon phase of *P. tartarea* with the lowest pinnae considerably elongated, giving the lamina a deltoid outline, and with their larger pinnules pinnatifid. It may be noted that Desvaux misunderstood *P. tartarea*, applying that epithet, as his labels show, to a phase of *P. calomelanos*.

The correct name for the species to which Kunze¹ and subsequent authors have applied Desvaux's epithet, appears to be *PITYROGRAMMA Schaffneri* (Fée), n. comb. *Ceropteris Schaffneri* Fée, Mém. Fam. Foug. viii. 80 (1857).

Hemionitis brasiliiana Desv. (1827). *ANTROPHYUM BRASILIANUM* (Desv.) C. Chr.—Type not seen. Desvaux, however, in proposing this name, was redescribing *H. reticulata* sensu Raddi, not Forst.; his diagnosis fits accurately enough the plant later described as *A. subsessile* Kze. (1837).

Hemionitis cajanensis Desv. (1811). *ANTROPHYUM CAJANENSE* (Desv.) Spreng.

Hemionitis gigantea Desv. (1827).—Type not seen. Although its habitat is given as the island of St. Thomas in the West Indies, this is probably not American.

HEMITELIA CRUCIATA Desv. (1827).—Examination of the type confirms Maxon's conclusion² that it belongs with the group to which he applied the name *H. spectabilis* Kze. (1848); but I am not altogether clear as to specific limits therein. Desvaux's specimen—a portion showing eight sterile pinnae, perhaps taken from near the tip of a frond—has very small and narrow pinnae for the group. Their venation, however (well represented in Hooker, Sp. Pl. i. t. 14A), is more complicated than in many larger fronds referred to *H. spectabilis*. In this respect and in its close-set, almost imbricate, segments, the specimen matches well a fragment of *Poiteau* 139, the type of *H. Leprieurii* Kze. (1844), preserved in the United States National Herbarium. Desvaux's name must apparently displace *H. Leprieurii* and also *H. spectabilis* if, as seems likely, that is conspecific with it.

Hemitelia cyatheoides Desv. (1827).—A glabrous plant (except for stiff, incurved hairs on the costae above) of the section *Euhemitelia*, which, so far, I have been unable to correlate with any material I have seen. Very likely a good, but neglected, species.

HEMITELIA STIGMOSA Desv. (1827). *H. guianensis* Hook: (1844).

Humata scandens Desv. (1827). *Odontosoria scandens* (Desv.) C. Chr.—This appears inseparable from *O. uncinella* (Kze.) Fée. That

¹ Farrnkr. i, t. 32 (1841–42).

² Contr. U. S. Nat. Herb. xvi. 47 (1912).

species, however, is not known except in the West Indies; Desvaux's plant is said to come from Peru and his references to that country, generally based on Dombey's collections, are for the most part correct. The chances are that there is an error here and that Desvaux's name will have to replace Fée's; but in view of the ambiguous origin of his plant, I hesitate to make the reduction.

HYMENOPHYLLUM ENDIVIAEFOLIUM Desv. (1827). *H. multiflorum* Rosenst. (1913).—So referred by Mr. C. V. Morton, who has made a study of the South American species of *Hymenophyllum*.

HYMENOPHYLLUM MICROCARPUM Desv. (1827).—This has been correctly interpreted.

Hymenophyllum pyramidatum Desv. (1827).—The type is a sterile plant of the group of *H. sericeum*, scarcely to be placed without special and critical study.

Hymenophyllum venustum Desv. (1827). *H. hirsutum* (L.) Sw. *Trichomanes hirsutum* L. (1753).

LINDSAEA BRASILIENSIS Desv. (1811). *L. dentata* Fée (1872-73).—The Brazilian plant often referred to *L. guianensis*.

Lindsaea elata Desv. (1811). *L. STRICTA* (Sw.) Dryand. *Adiantum strictum* Sw. (1788).

Lindsaea imbricata Desv. (1811). *L. STRICTA* (Sw.) Dryand.

LINDSAEA PORTORICENSIS Desv. (1811).—Apparently correctly interpreted in current literature, as by Maxon, Sci. Surv. Porto Rico and Virgin Isl. vi. 489 (1926).

Lomaria acuta Desv. (1827). *BLECHNUM ACUTUM* (Desv.) Mett.—There is no specimen in the Desvaux herbarium, but one of the Dombey collection, labelled by Desvaux, may stand as the type. Without seeing the Poeppig specimen on which *Lomaria cuspidata* Kze. (1834) was based, I cannot be sure whether or not Mettenius was right in considering it the same as Desvaux's plant, but it seems dubious. In any case, Desvaux's species will stand and is well represented by *Buchtien* nos. 5128 and 2222 in the United States National Herbarium.

Lomaria magellanica Desv. (1811).—Type not seen.

Lomaria Plumieri Desv. (1811).—Type not seen.

Lomaria serrulosa Desv. (1827).—No specimen was found in the Desvaux herbarium. There is a specimen in the Dombey collection labelled *L. serrulosa*; but its scales are entire and it can hardly be taken as the type.

Lomaria squamulosa Desv. (1827). *BLECHNUM LOXENSE* (HBK.) Hieron. *Lomaria loxensis* HBK. (1815).—Again, no type was found

in the Desvaux herbarium, but two sheets in the Dombey collection, both fertile only, as described, represent the species. Hieronymus¹ correctly placed it in the synonymy of *B. loxense*.

Meniscium acrostichoides Desv. (1827).—Type not seen; perhaps not American.

Meniscium longifolium Desv. (1827). DRYOPTERIS LONGIFOLIA (Fée) Hieron. *Meniscium longifolium* Fée (1872–73).—Fée does not mention Desvaux and apparently described the same species under the same name. Since Hieronymus, in transferring the species to *Dryopteris*, based his new combination on Fée's name, his action must apparently stand and Fée remain as the parenthetical author-citation. To transfer Desvaux's earlier, but identical, epithet to *Dryopteris* would create a technical homonym.

At least, that is the easiest way. The case, like that of *Lathyrus maritimus*,² furnishes an amusing instance of the homonym rule lost among the accidents of name-making and going about in circles. Fée's combination was both a later homonym and a later synonym and quite illegitimate. Hieronymus ought not to have taken it up. But he did; and by doing the wrong thing effectually prevented anyone else from doing the right one—unless, as might be argued, his own combination is illegitimate, and the right thing is to coin a wholly new one. So far, I have resisted the temptation to do so.

Mertensia brasiliensis Desv. (1813). GLEICHENIA PECTINATA (Willd.) Presl. *Mertensia pectinata* Willd. (1804).—Desvaux's type is the short-pinnuled form of the species common in South America and presumably true *G. pectinata*, since the type came from Caracas.

Mertensia elata Desv. (1827). GLEICHENIA PECTINATA (Willd.) Presl.—The West Indian form with long pinnules.

Mertensia ferruginea Desv. (1811). GLEICHENIA BIFIDA (Willd.) Spreng. *Mertensia bifida* Willd. (1804).

Mertensia fulva Desv. (1827).—Type not seen.

Mertensia simplex Desv. (1827). GLEICHENIA SIMPLEX (Desv.) Hook.—Correctly interpreted.

Mertensia squamulosa Desv. (1813). *Gleichenia squamulosa* (Desv.) Moore.—The type is apparently part of a large specimen of *G. pedalis* (Kaulf.) Spreng.; at least, I know of nothing else which it can be. Desvaux's label gives the habitat as: "America australi (Termae Chili)." Since, however, there may be doubt of the determination, I hesitate to displace the well-established *G. pedalis* without further examination of authentic material.

¹ Hedwigia xlvii. 240 (1908).

² See Fernald in Rhodora xxiv. 177 ff. (1932).

Monogramma furcata Desv. (1811).—No specimen seen. Probably only a renaming of *Grammitis graminoides* Sw. because of the very similar epithet already used by Desvaux in *Monogramma graminea*. The brief diagnosis is apparently original, but could have been drawn wholly from the plate of Swartz cited.

Monogramma linearifolia Desv. (1811). COCHLIDIUM LINEARIFOLIUM (Desv.) Maxon—Correctly interpreted.

Nephrodium albescens Desv. (1827). DRYOPTERIS PATENS (Sw.) O. Ktze. *Polypodium patens* Sw. (1788).—Type seen and referred as above by Christensen. It has glabrescent indusia, in that respect approaching *D. patens*, var. *dependens* C. Chr.

Nephrodium chaerophylloides Desv. (1827). DRYOPTERIS SPINULOSA var. DILATATA (Hoffm.) Watt. *Polypodium dilatatum* Hoffm. (1796).—Desvaux's specimen is a foliose and very badly dried frond; he seems to have been misled by its peculiar appearance. However, he gave the habitat "Porto Rico" with doubt.

Nephrodium clypeolutatum Desv. Mém. Soc. Linn. Paris vi. 258 (1827). DRYOPTERIS **clypeolutata** (Desv.), n. comb. *Aspidium L'Herminieri* Kze. ex Mett. Phleg. u. Asp. 85 (1858).—Mettenius's later note in the Berlin Herbarium, mentioned by Christensen,¹ to the effect that Desvaux's and Kunze's species are the same, was quite correct. Desvaux's epithet must be taken up. His specimen belongs to the form of the species without long hairs—*Aspidium Capitainei* Fée according to Christensen.

Desvaux's published description gives the habitat Jamaica. According to Maxon, the species is not now known from that island, though Mettenius l. c. assigns to it a Jamaican collection by Breutel. On Desvaux's label the habitat appears as "in Antillis"—a change which may be a correction.

Nephrodium crenatum Desv. (1827). NEPHROLEPIS RIVULARIS (Vahl) Mett. *Polypodium rivulare* Vahl (1807).

Nephrodium guianense Desv. (1827). NEPHROLEPIS BISERRATA (Sw.) Schott. *Aspidium biserratum* Sw. (1801).—Desvaux's specimen is of the pubescent form and has unusually narrow pinnae.

Nephrodium Kunthii Desv. (1827).—Based wholly on *Aspidium patens* Kunth "excl. syn." Desvaux's specimen is a single pinna, obviously from a plant of the group of *Dryopteris patens*, but hardly to be accurately determined.

Nephrodium plumiferum Desv. (1827). DRYOPTERIS UNITA (L.) O. Ktze.—The South American locality is no doubt erroneous.

¹ Vid. Selsk. Skrift. ser. 7, x. 165 (1912).

Nephrodium Poiretii (1827).—Based on *Polypodium pubescens* sensu Poir., not L., but with an original description. Desvaux's specimen consists of part of a damaged pinna only and is not identifiable. It is not improbable that by search in the herbaria of Humboldt and of Poiret this fragment and that of *N. Kunthii* could be traced to the specimens from which they came and their identity determined. When that is done, Desvaux may prove to have anticipated some of the more recent segregates in the group of *D. patens*.

Nephrodium Raddii Desv. (1827). DRYOPTERIS FALCICULATA (Raddi) O. Ktze. *Aspidium falciculatum* Raddi (1819).—Desvaux's epithet was published as "raddi" but is spelled on the label as here given. *A. invisum* sensu Raddi, not Sw. is cited as a synonym, but Desvaux gives an original description with which his specimen agrees.

Neuropteris elegans Desv. (1827). SACCOLOMA ELEGANS Kaulf. (1820).—No specimen seen, but Desvaux's illustration leaves no doubt as to the identity of his plant. He does not cite Kaulfuss and gives an apparently original description, but may possibly have been transferring the latter's species.

NOTHOLAENA PERUVIANA Desv. (1827). *N. Brackenridgei* Baker (1868, in synonym.); Maxon, Smithson. Misc. Coll. 65, no. 8. 7 (1915).

Notholaena Tectaria Desv. (1827). N. SINUATA (Lag.) Kaulf. *Acrostichum sinuatum* Lag. (1806).—A form with the lower pinnae distinctly petiolulate, the older rhizome-scales very dark brown and subsclerotic and those of the lamina with fewer and shorter cilia than usual.

Ophioglossum pedunculatum Desv. (1811).—Certainly not the Old World relative of *O. reticulatum* to which Prantl applied the name. The specimens appear to represent a broad-leaved form of the group of *O. ellipticum*; for its certain placing, critical study with more material than is at present available in America, or perhaps anywhere, is needed.

Phorolobus domingensis Desv. (1827).—Type not seen. The description might have been drawn from Plumier's plate.

Polypodium abruptum Desv. (1827). DRYOPTERIS PYRAMIDATA (Fée) Maxon. *Goniopteris pyramidata* Fée (1866). Not *Dryopteris abrupta* (Kze.) O. Ktze. (1891).

Polypodium ambiguum Desv. (1827).—Type not seen.

POLYPODIUM ARTICULATUM Desv. (1827). *P. Caceresii* Sod. (1893).—A good species of the group of *P. fraxinifolium*, characterized by its few, relatively broad pinnae and its lanceolate, entire, long-acuminate,

clathrate, somewhat iridescent, grayish-brown rhizome scales, which are 8 mm. long.

Polypodium avenium Desv. (1814). *P. PERCUSSUM* Cav. (1802).—Reduced by Desvaux himself in the Prodrôme.

Polypodium barbatum Desv. (1827). *DRYOPTERIS PULVERULENTA* (Poir.) C. Chr. *P. pulverulentum* Poir. (1804). *D. Karsteniana* (Klotzsch) Hieron.

Polypodium cajanense Desv. (1811). *P. CILIATUM* Willd. (1810).

POLYPODIUM CAPILLARE Desv. (1811). *P. graveolens* Baker (1877).—Desvaux's label gives the habitat as Jamaica. Maxon's suggestion¹ that *P. capillare* might be the same as *P. graveolens* proves entirely correct.

Polypodium caribaeum Desv. (1811). *DRYOPTERIS SUBINCISA* (Willd.) Urban. *Polypodium subincisum* Willd. (1810).—The scales in Desvaux's specimen are definitely not toothed; otherwise it is good *D. subincisa*.

Polypodium contractum Desv. (1827). *DRYOPTERIS SPECTABILIS* (Kaulf.) C. Chr. *Polypodium spectabile* Kaulf. (1824).—Desvaux's label gives the habitat as "in regno chilense," not Peru, as in the Prodrôme.

Polypodium cordatum Desv. (1827). *P. TECTUM* Kaulf. (1824).

Polypodium elongatum Desv. (1827). *P. PERCUSSUM* Cav. (1802).—A narrow-fronded form, the lamina 26 cm. long by 2 cm. wide.

Polypodium excelsum Desv. (1827). *DRYOPTERIS EXCELSA* (Desv.) C. Chr., as defined in Dansk. Vidensk. Selsk. Skrift. ser. 8, vi. 54 (1920).

Polypodium funiculosum Desv. (1827). *P. LYCOPODIODES* L. (1753).—The label gives Porto Rico as habitat. Desvaux applied the name *P. lycopodioides* to *P. vacciniifolium* L. & F.

Polypodium giganteum Desv. (1827).—Type not seen.

Polypodium glandulosum Desv. (1811). *Dryopteris glandulosa* (Desv.) C. Chr. (1913), not O. Ktze. (1891).—Christensen's combination is, of course, quite untenable; but I am not, at present, able to select a certain substitute. According to Christensen's synonymy, *Phegopteris Plumieri* J. Sm. (1854) would be the earliest available name; it was, however, very sketchily published and seems to have been based wholly on Plumier's plate 21, of dubious identity. Until it can be ascertained whether there exists anything to fix the application of Smith's name, it had best be left in abeyance. Much more authentic is *Goniopteris rostrata* Fée (1866) from Guadeloupe. This is adequately

¹ Contr. U. S. Nat. Herb. xvii. 600 (1916).

described, well illustrated and based on a cited specimen; and, though Desvaux gave no locality for his type except "Antilles," it is likely to have come, like Fée's, from the French islands. Fée's name should probably be taken up; but the group is somewhat critical and actual comparison of authentic material is desirable.

Polypodium heteroclitum Desv. (1811). DRYOPTERIS HETEROCLITA (Desv.) C. Chr.—The label gives Jamaica as habitat. The type sheet contains two fronds, the larger and more pubescent of which is, from the description, the type of *P. heteroclitum*; the other, though not directly so labelled, almost certainly represents *P. involutum* Desv. Desvaux himself (Prod. 239) reduced the latter to *P. heteroclitum*.

Polypodium hirsutum Desv. Gesell. Naturf. Freunde Berlin Mag. v. 317 (1811). HEMITELIA **hirsuta** (Desv.), n. comb. *H. Parkeri* Hook. (1844).

Polypodium hirtisorum Desv. (1811). *P. PILOSELLOIDES* L. (1753).

Polypodium involutum Desv. (1811). DRYOPTERIS HETEROCLITA (Desv.) C. Chr., which see.

Polypodium jamaicense Desv. (1811). DRYOPTERIS CONCINNA (Willd.) O. Ktze. *Polypodium concinnum* Willd. (1810).

Polypodium Kunthii Desv. (1827).—The type consists of a bit of rather stout repent rhizome and two fertile fronds. The former is densely covered with linear-attenuate, hair-tipped, remotely serrulate scales, brown at base, whitish above, with narrow, elongate cells. The lamina is not glabrous, as described, but bears on the lower surface scattered, whitish scales with deeply lacerate-fimbriate, broad, peltate base abruptly contracted into a long, filiform tip. There are filiform scales among the sporangia. The plant is not *P. rosmarinifolium* HBK., to which species it is referred in the Index Filicum; it appears to be nearer to *P. ciliatum*, but I cannot, at present, place it definitely.

Polypodium lanigerum Desv. (1811).—This also I am unable to place exactly. It belongs in the group of *P. sericeo-lanatum* and is very likely a good species, as Mettenius supposed. I have not seen the material which he referred to it, but his description calls for a lanceolate or oblong-lanceolate lamina 3–8 inches long and for sparsely setose sporangia. Desvaux correctly describes his plant as having a linear lamina 18 inches long; and the sporangia are not setose. It seems, therefore, doubtful if Mettenius interpreted the species correctly. It certainly is not his *P. concinnum*, which is given as a synonym in the Index Filicum.

Neither Desvaux's specimen nor the much more ample sheet of Dombey has a rhizome. Among the specimens I have seen, one in the United States National Herbarium collected by Sodiro at Pichincha in August, 1901, and distributed as *P. dependens*, best matches Desvaux's type.

POLYPODIUM MEGALOPHYLLUM Desv. (1827).—Desvaux's sheet contains only a drawing and a manuscript diagnosis; another sheet labelled by him, which should serve as type, contains a good specimen, said to have come from Rio Negro, Brazil. The current application of the name (= *P. Schomburgkianum* Kze. (1842)) is correct.

Polypodium microdontum Desv. (1811). *ALSOPHILA MICRODONTA* Desv.—Correctly interpreted as the equivalent of *A. ferox* Presl. The type is labelled as from Cayenne.

Polypodium microlepidum Desv. (1827). *P. PERCUSSUM* Cav. (1802).—A luxuriant state.

POLYPODIUM MONOSORUM Desv. (1811).—Correctly interpreted in the Index Filicum as equivalent to *P. onustum* Hook. (1845). Desvaux's specimen is a single well-developed pinna; he refers on the label to another specimen in the herbarium of Jussieu.

Polypodium nitens Desv. (1827). *DRYOPTERIS NITENS* (Desv.) C. Chr. Dansk. Vidensk. Selsk. Skrift. ser. 7, x. 142 (1913) (which see).

POLYPODIUM PERUVIANUM Desv. (1827).—Correctly interpreted by Hooker & Greville (to whom Desvaux sent a specimen) and by subsequent authors.

Polypodium Plumieri Desv. (1811). *DRYOPTERIS OPPOSITA* (Vahl) Urban. *P. oppositum* Vahl (1807).

POLYPODIUM REMOTUM Desv. (1827). *P. leucosticton* Kze. sens. strict. (1847).—*P. leucosticton* has been treated in rather a broad sense¹ and several segregates from it may well be recognized. Desvaux's specimen, however, is typical *P. leucosticton*, at least as that is now understood by Maxon.

Polypodium resiniferum Desv. Gesell. Naturf. Freunde Berlin Mag. v. 317 (1811). *DRYOPTERIS resinifera* (Desv.) n. comb. *Nephrodium panamense* Presl, Rel. Haenk. i. 35 (1825). *D. panamensis* (Presl) C. Chr. Dansk. Vidensk. Selsk. Skrift. ser. 7, iv. 292 (1907).

Polypodium retrofractum Desv. (1827). *P. CHNOODES* Spreng. (1822).

Polypodium runcinatum Desv. (1827).—Type not seen.

POLYPODIUM SESSILIFOLIUM Desv. (1827). *P. surucuchense* Hook. (1837).—Desvaux's name has been applied in this sense, quite

¹ See Maxon, Contr. U. S. Nat. Herb. xvii. 572 (1916).

correctly, by Hieronymus.¹ The epithet was published as "sessifolium," but was corrected on the label of the type specimen.

Polypodium Sloani Desv. (1827). DRYOPTERIS REPTANS (Gmel.) C. Chr. *Polypodium reptans* Gmel. (1791).

Polypodium sparsisorum Desv. (1811).—Type not seen. Perhaps not American; the habitat is queried in the original publication.

Polypodium venosum Desv. (1811). P. LYCOPODIODES L. (1753).—Of the three specimens on the type sheet, only one has the venation obvious; the others are indistinguishable from the type of *P. funiculosum*. In view of the description, the specimen first mentioned should be taken as the type of *P. venosum*. It is the continental form of *P. lycopodioides*, once segregated by Maxon as *P. prominulum*, but later reduced by him. Even if the species be revived, Desvaux's name cannot be used because of *P. venosum* Lour. (1790).

Polypodium venustum Desv. (1811).—A plant of the section *Eupolypodium* which I cannot definitely place. The type consists of an apparently young plant with short, erect rhizome and 3 cespitose fronds. The rhizome-scales are linear-attenuate, filiform-tipped, entire, blackish or dark brown, without pale margins; their cells are narrow and elongate. The lamina is decurrent as a narrow wing or line nearly or quite to the base of the stipe; it is villous with soft, articulate, many-celled hairs. Stipe, rachis and costae are fuscous-castaneous beneath, at least in the older fronds. The veins are once forked. There are hairs among the sporangia, but these are apparently not setose. Johnston 167 from Margarita Island, distributed as *P. elasticum*, is apparently the same. The type is accompanied by a slip reading "Antilles."

Pteris acuminata Desv. (1811).—Type not seen. Referred by Maxon² to *P. pungens* Willd. (1810), with which Desvaux compared it.

PTERIS CHILENSIS Desv. (1811).—Type not seen, but the species seems to have been correctly interpreted by Hooker and subsequent authors.

PTERIS CORIACEA Desv. (1827).—Correctly interpreted.

Pteris latiuscula Desv. (1827). PTERIDIUM LATIUSCULUM (Desv.) Hieron.—Correctly applied to the common bracken of northeastern North America. The type specimen is accompanied by a ticket, perhaps in La Pylaie's hand, bearing an unpublished varietal name and the habitat "T[erre] N[euve] et St. Pierre."

Pteris lonchitoides Desv. (1827). LONCHITIS HIRSUTA L. (1753).—A glabrate form.

¹ Hedwigia, xlviii. 263 (1914).

² Sci. Surv. Porto Rico and Virgin Isl. vi. 434 (1926).

Pteris notholaenoides Desv. Mém. Soc. Linn. Paris vi. 298 (1827). CHEILANTHES **notholaenoides** (Desv.) Maxon, n. comb. *Cheilanthes micromera* Link, Hort. Berol. ii. 36 (1833).—Dr. Maxon, who had already worked out the identity of Desvaux's species, kindly allows me to publish his new combination.

Pteris ovata Desv. Mém. Soc. Linn. Paris vi. 301 (1827). PELLAEA **ovata** (Desv.), n. comb. *Pteris flexuosa* Kaulf. ex Schlecht. & Cham. Linnaea, v. 614 (1830). *Pellaea flexuosa* (Kaulf.) Link, Fil. Sp. 60 (1841).—An unfortunate, but unavoidable, change of name. Desvaux's type is a young, but unmistakable, specimen.

Pteris pectinata Desv. (1811).—Type not seen.

Pteris pilosiuscula Desv. (1827). *P. DECURRENS* Presl (1822).

Pteris reticulata Desv. (1811).—Type not seen.

Pteris siliculosa Desv. (1811).—Type not seen. It may be remarked, however, that although Hooker¹ referred Desvaux's species to the Asiatic *Onychium auratum* Kaulf. and has been generally followed, the habitat "America australis" may possibly be correct. There is in northern Chile a species of *Cryptogramma*, not known to Hooker and little known even now, described by Philippi as *Pellaea fumariaefolia*, which Desvaux may conceivably have had.

Pteropsis elongata Desv. (1827).—Type not seen.

Pteropsis vittarioides Desv. Mém. Soc. Linn. Paris vi. 219 (1827). VITTARIA **vittarioides** (Desv.), n. comb. *V. Ruiziana* Fée, Mém. Fam. Foug. iii. 16, t. 3, fig. 3 (1851-52).

Salvinia affinis Desv. (1827).—Type not seen. Probably correctly referred to *S. auriculata* Aubl.

TRICHOMANES ARBUSCULA Desv. (1827). *T. Bancroftii* Hook & Grev.—Correctly applied in current literature.

Trichomanes brasiliense Desv. (1827).—The type sheet contains specimens of two species, both of the general habit of *T. pyxidiferum*. One has a bit of rhizome with short and inconspicuous trichomes, bearing two fronds with spreading pinnae. The leaf-tissue is rather thick and dark-olivaceous; the rachis and costae are fuscous. The cells are nearly isodiametric and thick-walled. The indusia are sub-cylindric, about 1.8 mm. long by 0.5 mm. wide at the base of the spreading limb, which is about 0.3 mm. wide.

The other specimen consists of a bit of rhizome with abundant blackish trichomes and one frond. This has a stipe 2 cm. long and a lamina 6.5 cm. long, with the pinnae ascending. The leaf-tissue is pale-olivaceous, rather thin, with isodiametric to short-oblong,

¹ Sp. Fil. ii. 121 (1858).

rather thin-walled cells; the rachis and costae are concolorous. The indusia are shorter and proportionately broader than in the other specimen, about 1.2 mm. long by 0.4 mm. wide, with a spreading limb about 0.4 mm. wide.

There is nothing in Desvaux's description to show from which of his specimens it was taken; his figure, however, (Mém. Soc. Linn. Paris vi. t. VII, fig. 4) was clearly drawn from the first mentioned. That specimen should be taken as the type. This was van den Bosch's conception of the species; he determined as *T. brasiliense* a like specimen from Trinidad, coll. *Crueger*, now at Kew. Further comparison of authentic material will probably show Desvaux's species to be identical with *T. eximium* Kze. (1847), treated by Hieronymus¹ as a variety of *T. diaphanum* HBK. (1825).

The second specimen agrees well with one from the Serra do Mar, Paraná, coll. *Dusén*, Nov. 7, 1914, no. 665a, and determined by Christensen as *T. emarginatum* Presl.

Trichomanes compressum Desv. (1811). *T. RIGIDUM* Sw. (1788).—According to its label, the type came from Hispaniola.

Trichomanes elatum Desv. (1827). *T. DACTYLITES* Sod. (1893). Not *T. elatum* Forst. (1786).

Trichomanes longifolium Desv. (1811).—Type not seen.

Trichomanes millefolium Desv. (1827). *T. ELEGANS* Rich. (1792).—The type is a small specimen; Desvaux himself, on a later label, referred it to *T. elegans*.

TRICHOMANES PEDICELLATUM Desv. (1811).—Correctly interpreted in current literature as equivalent to *T. brachypus* Kze. (1834).

Trichomanes quercifolium Desv. (1811). *T. POLYPODIOIDES* L. (1753).—The type sheet contains three specimens, labelled as from Cayennne, St. Thomas and Porto Rico respectively. All are *T. polypodioides*.

Trichomanes spicisorum Desv. (1811). *T. OSMUNDOIDES* DC. ex Poir. (1808).—So reduced by Desvaux himself in the Prodrôme.

TRICHOMANES TRIGONUM Desv. (1811).—Correctly interpreted as equalling *T. Kaulfussii* Hook. & Grev.

Trichomanes venustum Desv. (1827). *T. RUPESTRE* (Raddi) v. d. B. *Hymenophyllum rupestre* Raddi (1825).—The type represents a form with rather narrow segments.

¹ Engler, Bot. Jahrb. xxxiv. 424 (1904).



Weatherby, Charles Alfred. 1936. "On the types of Desvaux's American species of Ferns." *Contributions from the Gray Herbarium of Harvard University* (114), 13–35. <https://doi.org/10.5962/p.336179>.

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