



# Index Pteridophytorum Guadalupensium or a revised checklist to the ferns and club mosses of Guadeloupe (French West Indies)

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Recent revision of the fern diversity of the French Caribbean island of Guadeloupe and its dependencies (Marie Galante, Les Saintes and La Désirade) resulted in the listing of 292 native ferns and club mosses in 28 families and 88 genera, of which eight ferns are endemic to Guadeloupe and 20 taxa are only recorded from the Lesser Antilles. Additionally, 21 species have recently been found to be naturalized. Nineteen new combinations are made and a new hybrid is described. Many types from the Fée collection have been reassessed and a number of names are lecto- or neotypified. Studied specimens are cited and localities are provided. © 2009 The Linnean Society of London, *Botanical Journal of the Linnean Society*, 2009, 161, 213–277.

**ADDITIONAL KEYWORDS:** endemic plants – floristics – island biology – lectotypification – pteridophytes – typification.

## INTRODUCTION

### FERN DIVERSITY AND ITS ORIGIN

Nine years ago the Antillean islands were identified as a hotspot of biodiversity (Myers *et al.*, 2000) and the diversity of ferns in this region illustrates how varied the biological diversity actually is. The fragmented habitats, because of isolation by sea, elevation or precipitation, developed a high degree of local endemism over time, even for wind-dispersed organisms like ferns. The rugged topography, soil heterogeneity and local differences in precipitation on the islands have resulted in varied vegetation types over short distances, providing various microclimatic conditions for many different species of ferns to grow.

Because fern spores are generally easily dispersed over great distances by wind, on islands ferns constitute a larger percentage of the total flora than on the nearby continents with comparable climatic conditions and the variety of habitats on these islands provide means for isolation and diversification (Moran, 2004). Although it has been suggested that the age of islands

is reflected in the diversity, meaning that older islands have a larger diversity than younger islands, this appears not to be the case in the Antilles. For instance, the island of Jamaica rose above the sea some 140 million years ago and is home to just over 600 species of pteridophytes (Proctor, 1985). Puerto Rico is 26% smaller than Jamaica, approximately 35 million years old and has some 400 fern species (Proctor, 1989). The much younger and smaller island of Guadeloupe (with a land area of 1628 km<sup>2</sup>) rose above the sea c. 4 million years ago and has just under 300 native fern species. The main differences in diversity between the Greater and Lesser Antilles lie in the fact that the Greater Antilles were once connected to the American continents and thus have a lower diversity than the adjacent mainland because of the phenomenon of ecosystem decay (Lovejoy *et al.*, 1984). The Lesser Antilles are of volcanic origin and thus there was no vegetation present when they rose above the sea. This makes Guadeloupe comparable to an oceanic island, where all species have originated from elsewhere (Quammen, 1996).

With a total of 313 native and naturalized pteridophyte species, Guadeloupe has a large fern diversity

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in comparison with, for instance, Europe (c. 145 fern species) or the USA excluding Hawaii (with only 280 fern species). Even although this wealth of ferns in Guadeloupe has been previously reported (Proctor, 1977; Lazare, Vivant & Sastre, 1991; Vivant, 1996), the ferns were excluded in a recent flora of Martinique and Guadeloupe (Fournet, 2002). Ferns were, however, included in the checklist of Fournet & Hoff (1999), which was the basis of Fournet's (2002) flora, but their checklist of the ferns was not exhaustive and the nomenclature and typification of the ferns remained in need of revision.

Field surveys in 2003 and 2005 (Christenhusz, 2006) and herbarium studies in BM, GUAD, IJ, K, P, RB and TUR have resulted in the review presented here of the pteridophyte diversity of the islands of Guadeloupe, listing all ferns and club mosses found in the archipelago. The total count is 313 pteridophyte taxa, comprising 303 species, two subspecies and eight varieties. Seven taxa are endemic to Guadeloupe [*Blechnum rufum* (Spreng.) C.Chr., *Grammitis stipitata* Proctor, *Lindsaea lherminieri* Fée, *Megalastrium macrothecum* (Fée) A.R.Sm. & R.C.Moran, *Polystichopsis villosa* (Fée) Christenh., *Polystichum guadalupense* Fée and *Terpsichore × victorhugoensis* Christenh.] and an additional 21 taxa are only known from the Lesser Antilles. Twenty-one exotic species have established themselves in Guadeloupe, mostly escaped garden plants, although the introduction of others, especially species of Pteridaceae and Thelypteridaceae was less intentional.

Some native species are seriously endangered in Guadeloupe. *Metaxya rostrata* (Kunth) C.Presl is a good example of a species that was abundant in historical times, but has not been collected during the last century. This species is common in South America, but Guadeloupe was the only Caribbean island where it occurred. It most probably became extinct as a result of forest clearing at lower elevations for banana and pineapple plantations. Other species that have not been found during the last 50 years are *Elaphoglossum decoratum* (Kunze) T.Moore, *Ophioglossum palmatum* L., *Polybotrya cyathifolia* Fée & l'Herm., *Polystichum rhizophyllum* (Sw.) C.Presl and *Schizaea pennula* Sw., and the endemics *Polystichopsis villosa* and *Polystichum guadalupense*. Additionally, *Diplazium apollinaris* l'Herm. ex Fée, *D. godmanii* (Baker) C.Chr., *D. unilobum* (Poir.) Hieron. and *Polytaenium dussianum* (Benedict) Benedict have not been found in recent times. This is undoubtedly because of habitat destruction as a result of hurricanes (such as cyclone Hugo in 1989) and perhaps also because of volcanic eruptions. After the last volcanic eruption of La Soufrière in 1976–1977, Sastre, Baudoin & Portecop (1983) listed *Huperzia intermedia* Trevis., *Odontosoria flexuosa* (Spreng. ex

Kunze) Maxon and *Selaginella serpens* (Desv.) Spring among the species that disappeared. The first two species were, however, recorded again by Vivant (1996), so some species appear to be able to survive these destructive forces of nature. Further research on the causes of rarity of some Guadeloupean species is necessary and the extinct species are included in the checklist because they may be found again in thus far unexplored areas of Guadeloupe.

This checklist is a prerequisite to ongoing floristic research of the Lesser Antillean islands. The taxonomic revision will be a valuable aid to other researchers of neotropical ferns.

#### HISTORY OF FERN STUDIES IN GUADELOUPE

The first known plant specimens from Guadeloupe were collected by the Austrian naturalist N. J. F. Jacquin in 1759, followed by the French botanist L. C. Richard in 1786–1786 and the Italian naturalist C. G. Bertero in 1816–1818 (Proctor, 1977). The Swedish botanist J. E. Wikström (1826) published a floristic overview of the island of St Barthélemy, which was then in Swedish possession. This publication was soon followed by a discussion of the vegetation of Guadeloupe (Wikström, 1828). Wikström undoubtedly based his work on collections by J. E. Forrström, who collected there between 1805 and 1812.

In 1798, pharmacist Félix Louis l'Herminier (1779–1833) moved to Guadeloupe, where he became interested in the natural history of the island. His son Ferdinand Joseph l'Herminier (1802–1866) followed in his father's footsteps and made a vast number of collections. The l'Herminier collections were sent to the herbarium in Strasbourg (STR; now incorporated in P), from where many duplicates have since been distributed to various other herbaria around the world, most notably to BM, IJ and RB. The work of the l'Herminiers inspired many other botanists to visit the island, e.g. A. Plée (collections 1820), G. S. Perrotet (collections 1824 and 1841), Beaupertuis (collections 1839), J. J. Linden (collections 1845), E. Germain (collections 1853), H. P. Mazé (collections between 1851 and 1892; Mazé, 1892) and C. Thiébaud (collections from 1867 to 1877). While the interest in ferns increased in Europe and the demand for exotic ferns grew, more and more ferns were collected and described from Guadeloupe.

French botanist Antoine Laurent Apollinaire Fée, Professor of Botany in the University of Strasbourg and director of the Botanical Society of France, published the *Mémoires sur la famille des fougères*, a series of volumes dealing with the taxonomy of ferns, in which he described many new species based on collections sent to him. In volume 11 of the *Mémoires* he gave an elaborate dissertation on the ferns of the

Antilles, mostly based on the collections of J. F. l'Herminier (Fée, 1866). After his death, part of the Fée collections was sold to the Jardim Botânico in Rio de Janeiro, Brazil (RB), where many types from Guadeloupe are still held (Windisch, 1982; M. J. M. Christenhusz, pers. observ.). Even although Fée cited specimens when describing new species, l'Herminier did not use a numbering system and multiple specimens of the same species from the same collecting year exist but should not be considered duplicates. Because many collections of l'Herminier are widely distributed, most types of species described by Fée need to be lectotypified. Generally, I have chosen type specimens which are annotated by Fée, but if these specimens are incomplete or difficult to interpret, I sometimes opted to lectotypify other original material or an illustration from the original work.

In 1868, T. Husnot collected pteridophytes in the French Antilles and he published his findings in a catalogue a few years later (Husnot, 1870). Father A. Duss visited Guadeloupe and Marie Galante several times (1873–1874, 1883–1884, 1890–1899, 1902, 1904, 1907) and he published his data as part of his *Flore Cryptogamique des Antilles Françaises* (Duss, 1903).

Adrien Questel, a resident of St Barthélemy collected in Guadeloupe between 1932 and 1942. He described the flora of both islands extensively (Questel, 1941, 1951). During the 1930s, various other botanists visited the Guadeloupe archipelago and made extensive collections of ferns. From 1928 to 1938 Father L. Quentin, a resident of Martinique, collected in Guadeloupe, often together with Swiss botanist H. Stehlé who collected in Guadeloupe and Martinique from 1935 to 1960. In 1936 there was an increase of collection activity at the hands of V. and P. Allorge, J. Feldman and Rodriguez (1934 to 1938).

In the 1950s to 1970s, botanists from the USA showed an increased interest in the Lesser Antilles, to prepare collections for the *Flora of the Lesser Antilles* project. In 1950, the general editor of this series, R. A. Howard, collected on Guadeloupe and in 1973 on St Maarten. George R. Proctor, who wrote the fern volume for the *Flora of the Lesser Antilles* (Proctor, 1977), made elaborate fern collections on Guadeloupe, St Maarten, Marie Galante and Les Saintes in 1959 and on La Désirade and Marie Galante in 1960. On Guadeloupe, Proctor collected ferns together with moss specialist C. J. Le Gallo (collections from 1959 to 1965), for whom he named a species of *Diplazium*. Proctor (1977) listed 272 pteridophyte species for Guadeloupe.

Floristic studies on Guadeloupe continued in the 1980s, notably by Serge Barrier, who collected ferns there between 1980 and 1982, and more extensively by Guadeloupe resident J. Vivant, who published several articles describing his new findings on fern

floristics of Guadeloupe (Vivant, 1987a, b, 1988, 1989a, b, 1990, 1996). This was followed by an index to the plants of the French Antilles (Fournet & Hoff, 1999), in preparation for a flora. Unfortunately this list included various species several times, because the same species were listed under various genera. Fournet collected many fern specimens, mostly between 1987 and 1992, but in the end the ferns were not included in his flora (Fournet, 2002).

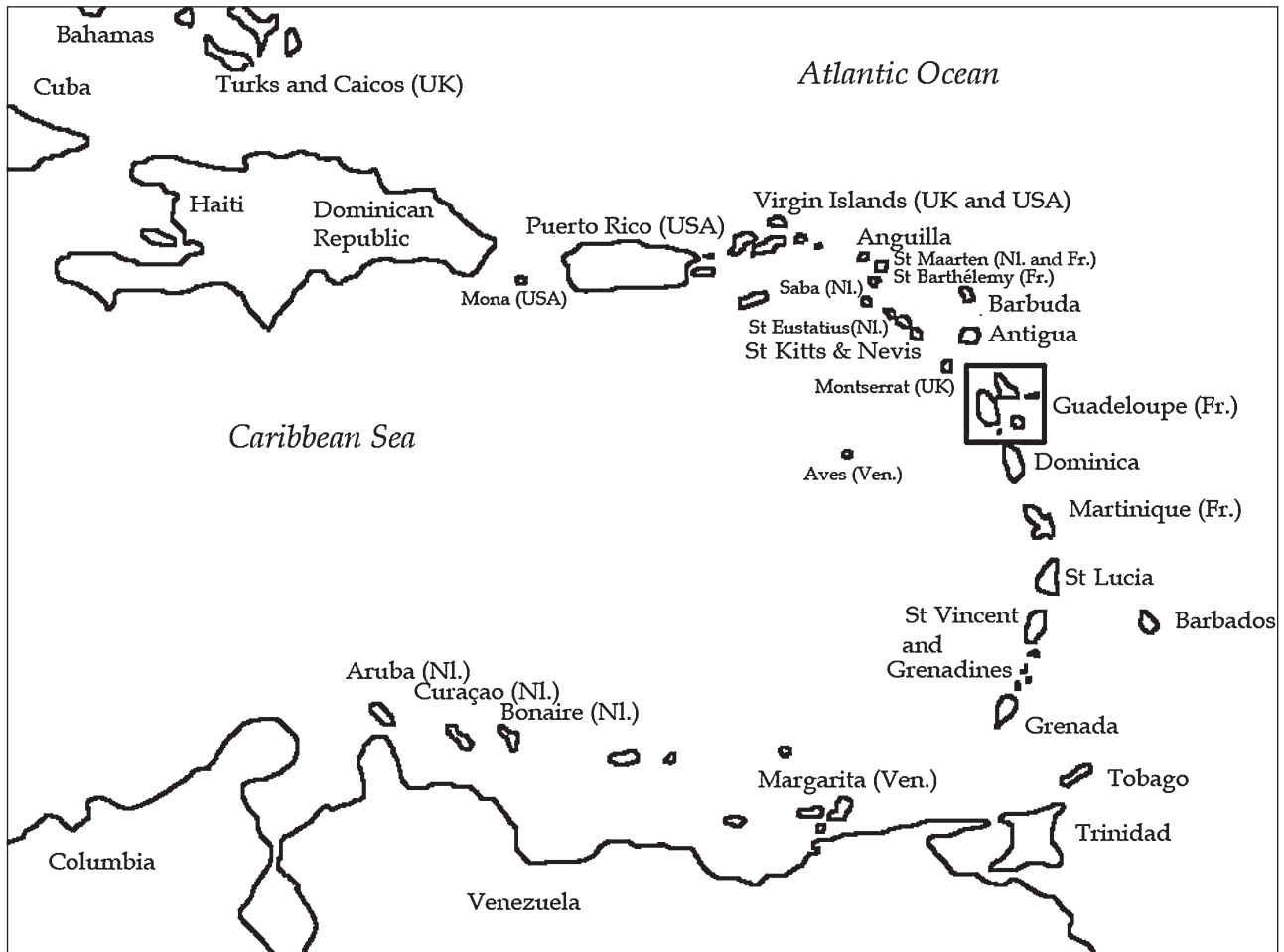
For my studies on neotropical Marattiaceae (Christenhusz, 2007a), I collected ferns on Martinique, Guadeloupe and Dominica in 2003, together with Mikko Paaanen from Turku University, Finland. After this first brief visit I realized that the diversity of Guadeloupe was much greater than I had previously thought and I therefore returned to the island in 2005 accompanied by Frank Katzer (British Pteridological Society, Edinburgh). We made a large collection of pteridophytes (deposited at TUR) and made additional observations of common ferns when they were not collected. For most species, material in silica was collected, some of which has been used in molecular phylogenetic studies of ferns (e.g. Schuettpelz, Korall & Pryer, 2006; Schuettpelz & Pryer, 2007).

#### SITE DESCRIPTION

The Guadeloupe archipelago lies between 15°50'W and 16°30'N, in the northern part of the Lesser Antilles (the eastern arc of the West Indies). The islands are positioned between Montserrat and Dominica (Fig. 1). The archipelago consists of the largely volcanic islands of Basse Terre and Les Saintes and the mostly calcareous islands of Grand Terre, Marie Galante, La Désirade and Petit Terre. Between Basse Terre and Grand Terre there are vast mangrove forests and the islands are separated by a narrow strait. These two islands are connected by a bridge and together form the main island of Guadeloupe (Fig. 2).

The Guadeloupe archipelago has a tropical maritime climate, tempered by the north-east trade winds. The temperature on the coast varies between 25 and 28 °C, with extremes of 20 and 34 °C. In the mountains above 600 m the temperature may drop to 16 °C and at the summit of La Soufrière to 4 °C. There are two distinct seasons, the 'creole lent', or dry season (December to April), and 'winter', or rainy season (July to October). Precipitation varies with elevation and orientation. The montane parts of Basse Terre receive > 2540 mm, whereas Grand Terre, La Désirade and Marie Galante are considerably drier and receive c. 990 mm of rain annually.

Situated on Basse Terre, the volcano La Soufrière, at 1467 m, is the highest mountain in the Lesser Antilles. This elevation range creates large topographic and climatic variability on a very local scale,



**Figure 1.** Map of the Lesser Antilles, showing the position of the Guadeloupe archipelago.

allowing Guadeloupe to harbour a great diversity of vegetation types. Figure 3 shows that the fern diversity in Guadeloupe is most diverse at the mid elevations between 300 and 600 m. This mid-elevation effect has been shown in many mountainous areas. It is obvious in the Lesser Antilles, because the higher elevations are wet, but cool and often more disturbed by strong winds, whereas the lower elevations are often too dry. The optimal area for plants is thus found at mid elevations, where the climate is warm and humid and the forests are well developed.

Guadeloupe is positioned at the margin of the Caribbean tectonic plate on the subduction zone with the Atlantic plate. It lies at the point where two island arcs are merging. The older (Eocene) arc stretches from Marie Galante and Grand Terre, north-westward to St Barthélemy and Sombrero Island, where the underlying volcanic base rock is covered by uplifted Pleistocene limestone. The second (younger) arc started taking shape during the Miocene (c. 5 million years ago) and is still volcanically active. In

the southern arc, south of Dominica, these island arcs have merged and have subsequently gone through two phases of volcanic orogenesis (Bouysse, Westercamp & Andreieff, 1990).

The island of Basse Terre consists of seven main eruptive fields, each with a volcanic centre. The Grande Découverte–La Soufrière volcanic complex is the only centre to have been active in the last 10 000 years. The last magmatic eruption occurred c. 560 years ago and culminated in the formation of the current dome of La Soufrière. All historical hydrothermal activity and the explosive eruptions of 1690, 1797–1798, 1812, 1836–1837, 1956 and 1976 have taken place from fractures and vents on this dome (Komorowski *et al.*, 2004).

Marie Galante, Petite Terre and Grand Terre are all covered by Pleistocene limestone. La Désirade is formed of Mesozoic and Tertiary rocks and is consequently the oldest island of the archipelago.

Lazare *et al.* (1991) provided an overview of the vegetation types of Guadeloupe and he listed the

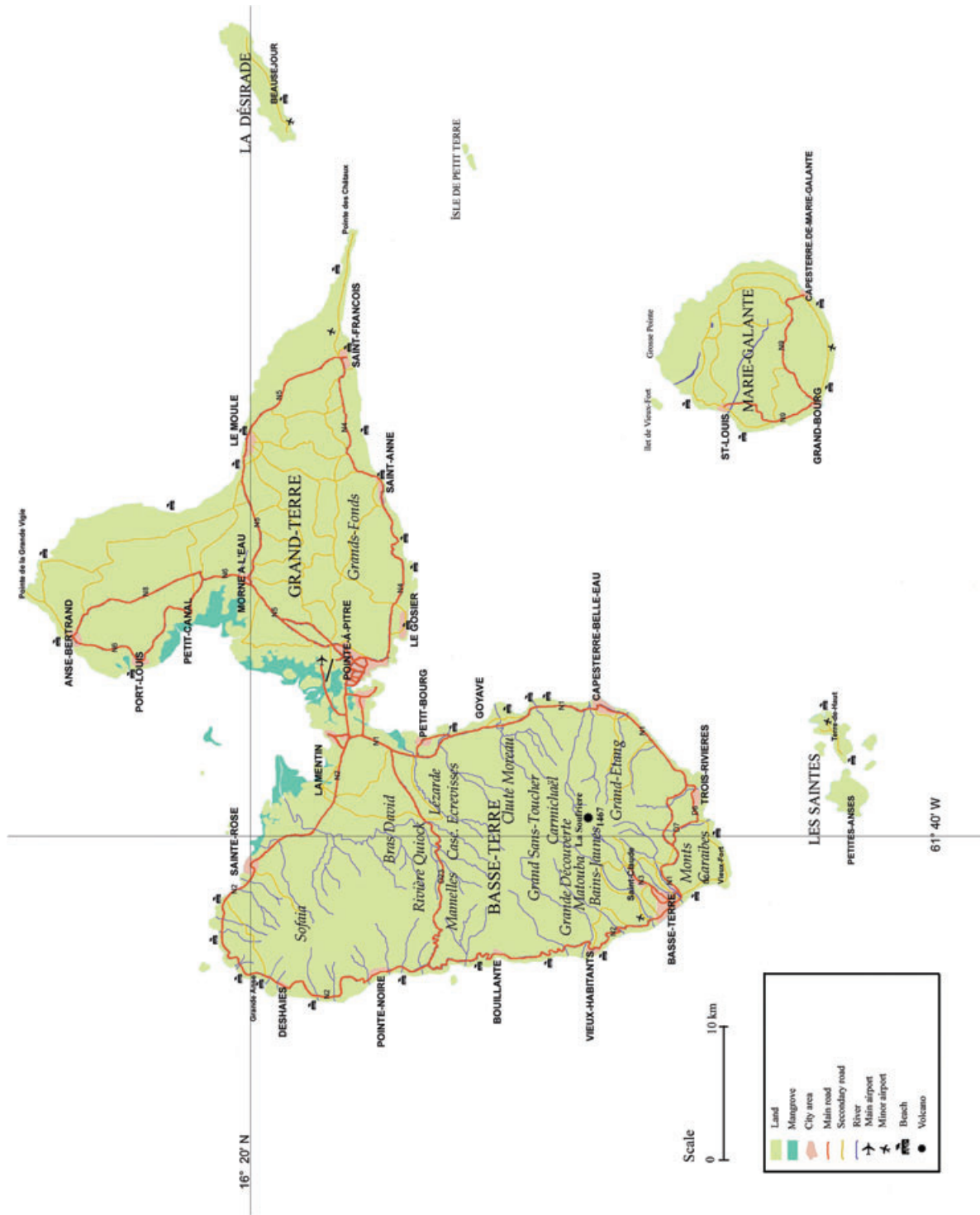
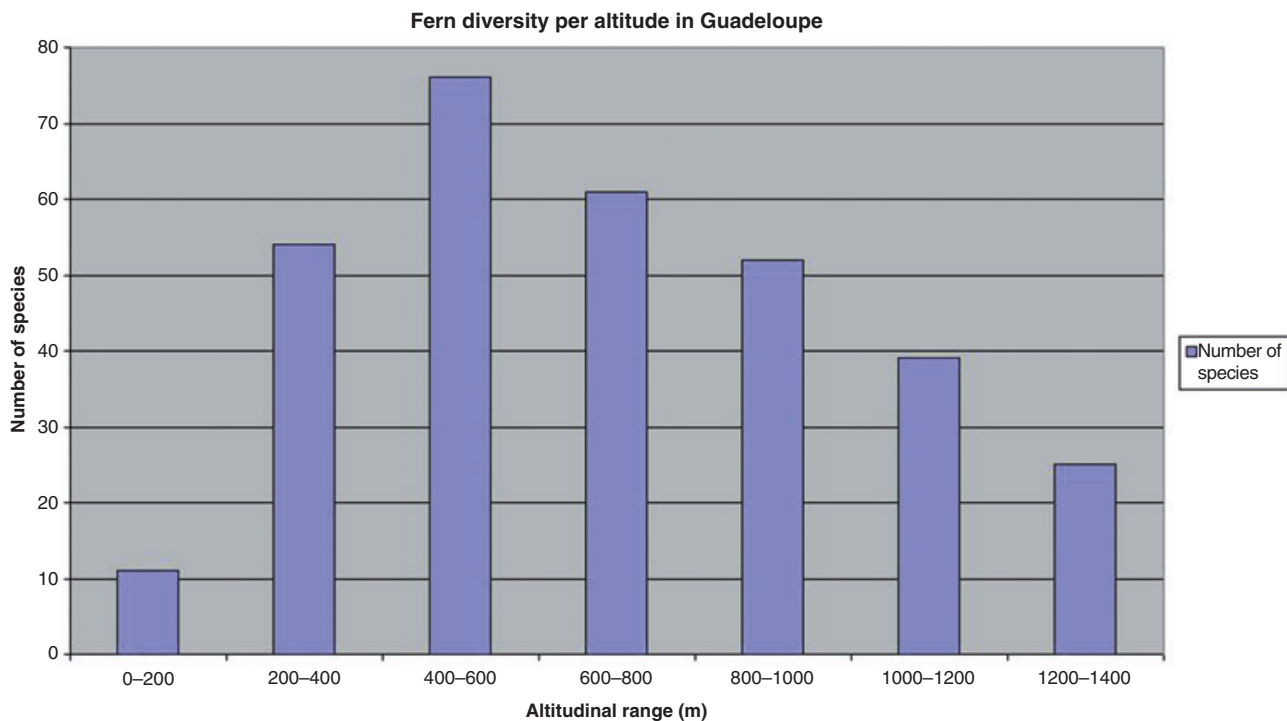


Figure 2. Map of the Guadeloupe archipelago with towns and important collection localities (Wikipedia Commons, GNU-free documentation licence).



**Figure 3.** Graph of species diversity per elevational range, based on collections and observations by the author in 2003 and 2005.

ferns that can be found there. He divided Guadeloupe into six bioclimatic zones (Figs 4, 5): swamps, xerophile forests, mesophile forests, rainforests, montane forests and montane savannas.

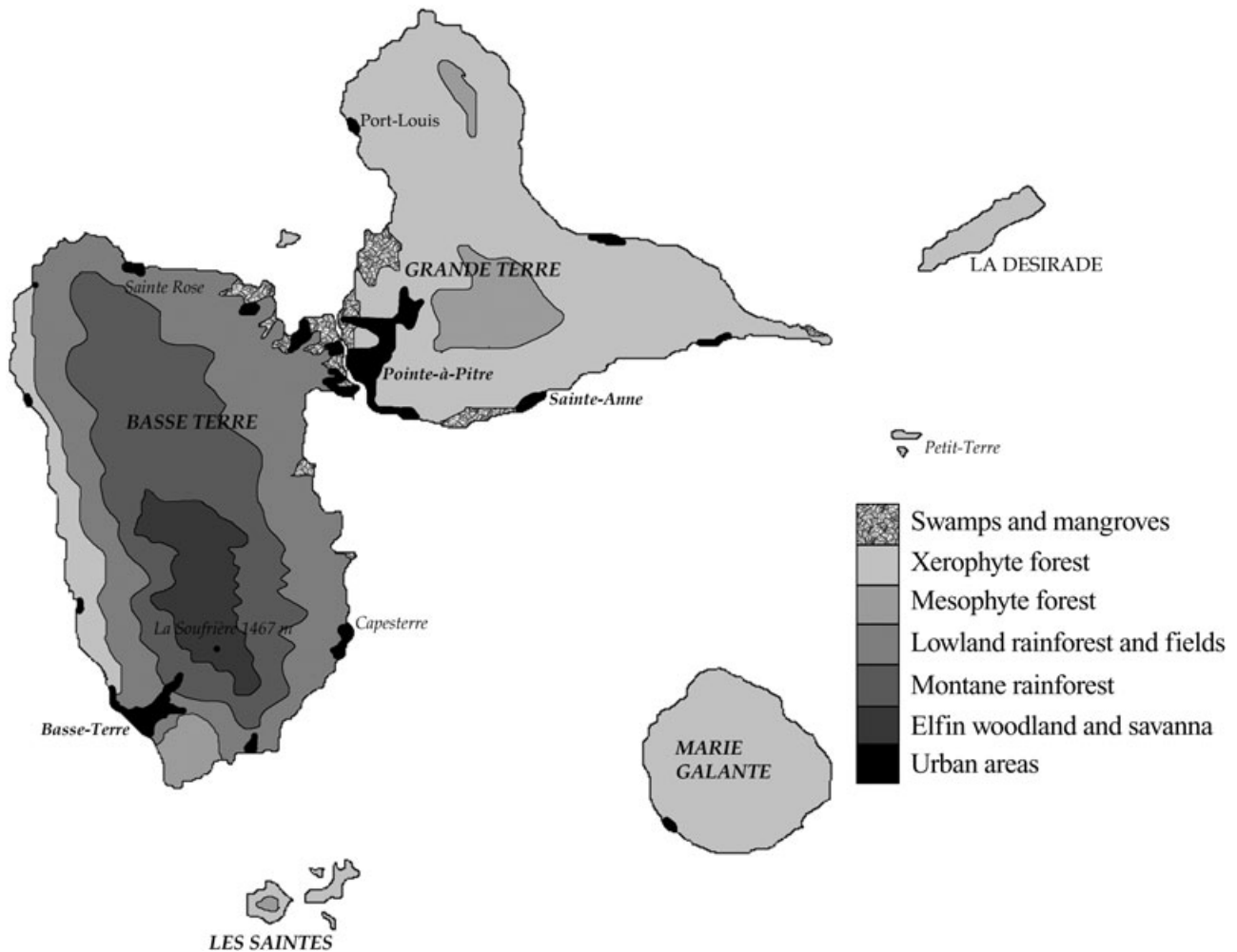
Mangrove swamps are found along the coast, especially between the islands of Basse Terre and Grand Terre and along the west coast of Grand Terre. Freshwater swamps are often found near lakes inland. Generally, mangrove swamps are not rich in ferns, but those around Les Abymes house a variety of species. Most common are *Acrostichum aureum* L. and *A. danaefolium* Langsd. & Fisch., which tolerate inundation by saltwater. Inland ferns such as *Thelypteris hydrophila* (Fée) Proctor can be commonly found in freshwater swamps at mid elevations. *Dacryodes* Vahl (Burseraceae) dominated swamp forests (found around Étang Madère and Étang Zombis, Fig. 5A) are often rich in epiphytic ferns.

Xerophile forest (dry forest, Fig. 5B) is characterized by trees that have developed adaptations to periods of drought. It mostly consists of scrub with spiny branches and succulent leaves, such as *Euphorbia articulata* Aubl., *Guaiacum officinale* L., *Capparis flexuosa* (L.) L. and *Pithecellobium unguis-cati* (L.) Benth. Locally, cacti and agaves (especially *Furcraea foetida* (L.) Haw.) are abundant. This area is not naturally rich in ferns, but comprises a large part of the general biodiversity of the Caribbean. The rapid

expansion of human inhabitation and the accompanying infrastructure places this type of vegetation under great threat. In sheltered places, such as shaded ravines, one can find fern species such as *Adiantopsis radiata* (L.) Fée, *Adiantum tenerum* Sw., *Doryopteris pedata* (L.) Fée, *Hemionitis palmata* L., *Pteris vittata* L. and *Tectaria heracleifolia* (Willd.) Underw.

Mesophile forest is semi-deciduous (Fig. 5C) and can often be found on karst limestone where rainwater drains away quickly. On the steep ravines and sink holes one can find a variety of ferns that often show adaptations to drought. Typical species of mesophile forests are *Adiantum fragile* Sw., *Asplenium dentatum* L. subsp. *barbadense* (Jenm.) Christenh., *Cyclopeltis semicordata* (Sw.) J.Sm. and *Cyclosorus guadalupensis* (Wikstr.) Ching. This vegetation type is rare on Guadeloupe and is found in the southwestern part of Basse Terre, especially in the Monts Caraïbes, on Les Saintes and in the Grands-Fonds on Grand Terre.

Hygrophile forests or rainforests can be classified into lowland and mid-elevation rainforests. In Guadeloupe, the lowland rainforests are sparse and fragmented because of agricultural activities on its rich volcanic soils. Lowland rainforest is best preserved in the vicinity of waterfalls and gorges, along creeks and on hilltops. In many places the forest is dominated by



**Figure 4.** Bioclimatic zones of Guadeloupe.

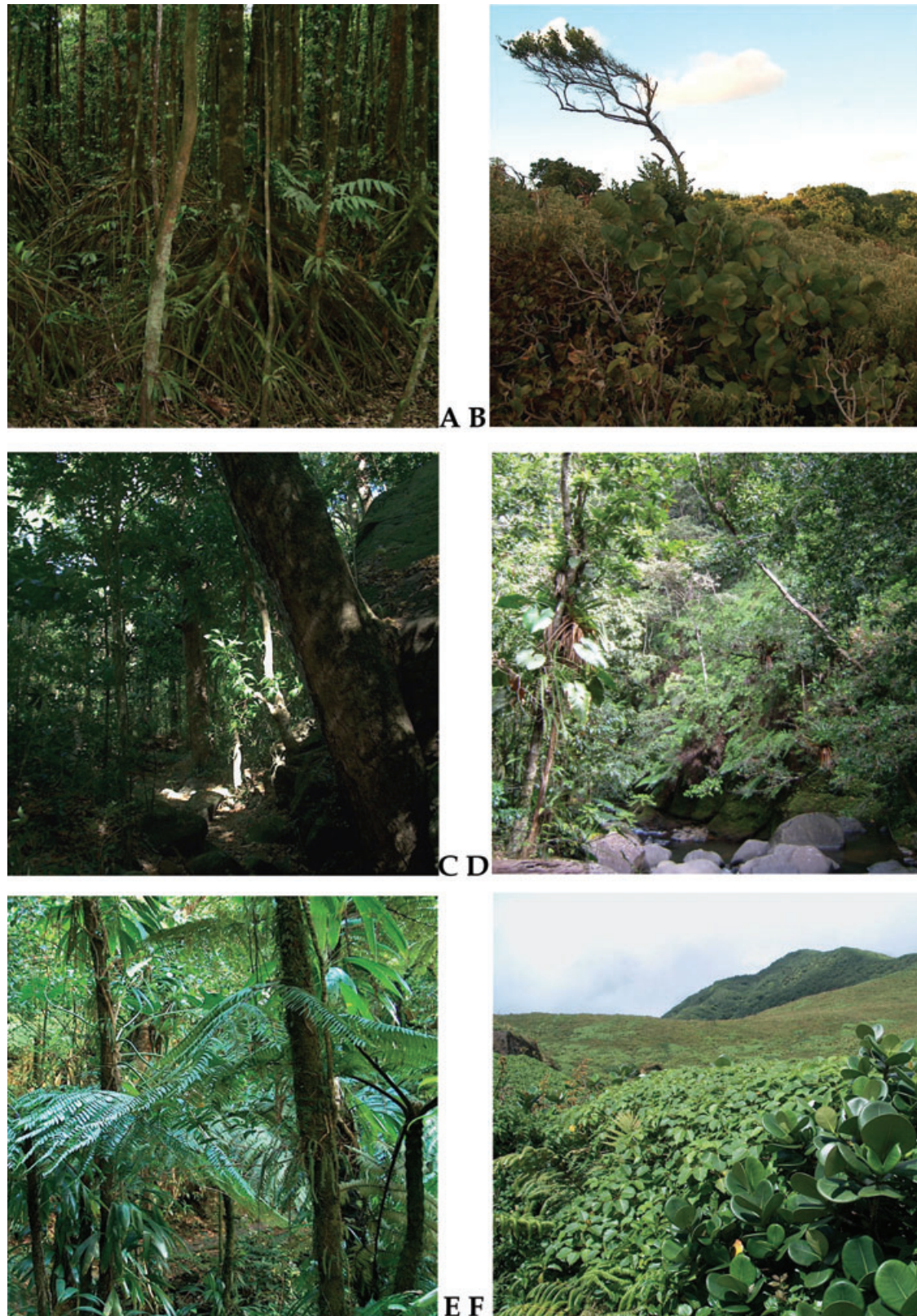
*Sloanea* L. spp. (Elaeocarpaceae). Mid-elevation rainforests (Fig. 5D) can be found on Basse Terre between 300 to 600 m and it is the vegetation type that is most diverse in fern species. Notably, the forests surrounding Grand Étang and Sofaïa harbour a spectacular diversity of ferns.

Above 600 m, the mid-elevation rainforests slowly change into montane forest (Fig. 5E), which is characterized by the occurrence of many tree ferns (especially *Alsophila imrayana* (Hook.) D.S.Conant) and an abundance of epiphytic ferns, bromeliads and orchids. These cloud forests are most easily accessible at Bains Jaunes on the ascent of La Soufrière, a place that has been frequently visited by plant collectors historically. These old-growth forests have a large fern diversity with *Danaea arbuscula* Christenh., *D. mazeana* Underw., *Neurocallis praestantissima* Bory ex Fée, *Serpocaulon levigatum* (Cav.) A.R.Sm. and the large epiphytic *Terpsichore aspleniifolia* (L.) A.R.Sm. being among the most remarkable. Even richer in

ferns are the slopes of Grande Découverte, where several unusual species such as *Diplazium legalloi* Proctor, *Elaphoglossum feei* (Bory ex Fée) T.Moore and *Megalastrum macrothecum* are common.

Above c. 1000 m, the montane forest changes gradually into elfin woodland dominated by *Clusia mangle* Rich. ex Planch. & Triana (Clusiaceae), *Podocarpus coriacea* Rich. (Podocarpaceae) and *Pres-toea acuminata* (Willd.) H.E.Moore (Arecaceae) with their trunks and branches clothed in epiphytes. Among the mosses and lichens one can find the epiphytic carnivorous plant *Utricularia alpina* Jacq. (Lentibulariaceae) and various epiphytic pteridophytes, such as *Huperzia* spp., filmy ferns and a diversity of grammitid ferns.

On more exposed slopes, the elfin woodland is replaced by montane fern savanna (Fig. 5F), especially on the summits of La Soufrière, La Citerne, Grande Découverte and Grand Sans-Toucher. This is open vegetation dominated by bromeliads, ferns and



**Figure 5.** Vegetation types. A, swampforest (Étang Zombis). B, xerophile forest (Pointe de la Grande Virgie). C, mesophile forest (Houëlmont). D, mid-elevation rainforest (Rivière Quiock). E, montane forest (Bains Jaunes). F, upland savanna (Carmichaël).



lycopods. Species common in these upland savannas are *Pitcairnia angustifolia* (Sw.) Aiton (Bromeliaceae), which grows commonly around sulphur springs, *Charianthus nodosus* (Desr.) Triana, *Tibouchina ornata* (Sw.) Baill. (Melastomataceae), *Viola stipularis* Sw. (Violaceae), *Palhinaea torta* (Sieber ex Underw. & F.E.Lloyd) Christenh. (Fig. 6A), *Lycopodium clavatum* L., *Histiopteris incisa* (Thunb.) J.Sm., *Diplopterygium bancroftii* (Hook.) A.R.Sm. and the dominant *Blechnum ryanii* (Kaulf.) Hieron. Locally, the rare *Blechnum rufum* (Spreng.) C.Chr. and *Pseudolycopodiella meridionalis* (Underw. & F.E.Lloyd) Holub can also be encountered.

Other vegetation types that may include some fern species are riparian forests, meadows and agricultural land (pastures, fields and plantations) and urban areas (walls and gardens). Many vegetation types are more or less influenced by human activity and severely altered vegetation can be found throughout the archipelago. This often results in a dramatic decrease in biodiversity as a result of deforestation. In rare cases, the diversity of ferns has, however, increased because of the availability of new habitats and naturalization of ornamental species. Along roads and in towns, for instance, ferns have found new habitats in which to grow. Species like *Anemia adiantifolia* (L.) Sw., *Pleopeltis polypodioides* (L.) E.G.Andrews & Windham, *Phlebodium pseudoaureum* (Cav.) Lell., *Psilotum nudum* (L.) P.Beauv., *Cyclosorus dentatus* (Forrsk.) Ching, *Macrothelypteris torresiana* (Gaudich.) Ching and a few species of *Nephrolepis* Schott have made old masonry, pavements, roadsides and even concrete structures their new home.

#### LIST OF SPECIES

In this checklist, genera are placed in their families following the classification of Smith *et al.* (2006), with the exception of *Hemidictyum marginatum* (L.) C.Presl which is placed in Aspleniaceae following phylogenetic studies by Schuettpelz & Pryer (2007), and *Lonchitis* L. (see note there) that is here treated as a separate family. The generic classification of Hymenophyllaceae follows that of Ebihara *et al.* (2006). Within families the species are sorted alphabetically.

This checklist is primarily based on collections in BM, GUAD, IJ, K, P, RB and TUR and on personal observations in the field. Records from previously published floristic studies (Fée, 1866; Husnot, 1870; Duss, 1903; Questel, 1951; Proctor, 1977; Vivant, 1987a, b, 1988, 1989a, b, 1990, 1996; Fournet & Hoff, 1999; Lazare *et al.*, 1991) have been evaluated and included when appropriate. All species are accompanied by their basionyms and types. Synonyms are

only provided when a name was listed for Guadeloupe in previous references. Types have been assessed and are provided for all basionyms and for other names that have a type specimen from Guadeloupe. Additionally, habitat information, distribution within Guadeloupe and a selection of studied specimens is given. Naturalized species are in square brackets.

#### LYCOPODIACEAE

1. *Huperzia acerosa* (Sw.) Holub., Folia Geobot. Phytotax. 20: 70. 1985.

*Lycopodium acerosum* Sw., Fl. Ind. Occid. 3: 1575. 1806. Lectotype (designated by Proctor, 1977): Plumier, Traité Foug. Amér. tab. 166. fig. B. 1705. Epitype (designated here): *Herbarium Surian 635* (P!).

*Lycopodium verticillatum sensu* Proctor (1977, 1985, 1989), non L.f., Suppl. 448. 1782.

*Habitat*: rare epiphyte on tree trunks.

*Material examined*: BASSE TERRE: *l'Herminier s.n.* (BR, MO); Bains Jaunes, *Duss 906* (P); *Stehlé 1186* (US); *Questel 2720* (US); Bains Jaunes, Chemin de la Regrette, *Rodriguez 3267* (AAU); La Soufrière, *l'Herminier s.n.* (K, US); Plateau du Palmiste, *Rodriguez 6681* (AAU).

2. *Huperzia aqualupiana* (Spring) Rothm., Feddes Rept. Spec. Nov. Regni Veg. 54: 62. 1944.

*Lycopodium aqualupianum* Spring, Bull. Acad. Roy. Sci. Bruxelles 8: 518. 1841. Type: Guadeloupe, anno 1844. *l'Herminier s.n.* (holotype BR; isotypes: F, K!, P!).

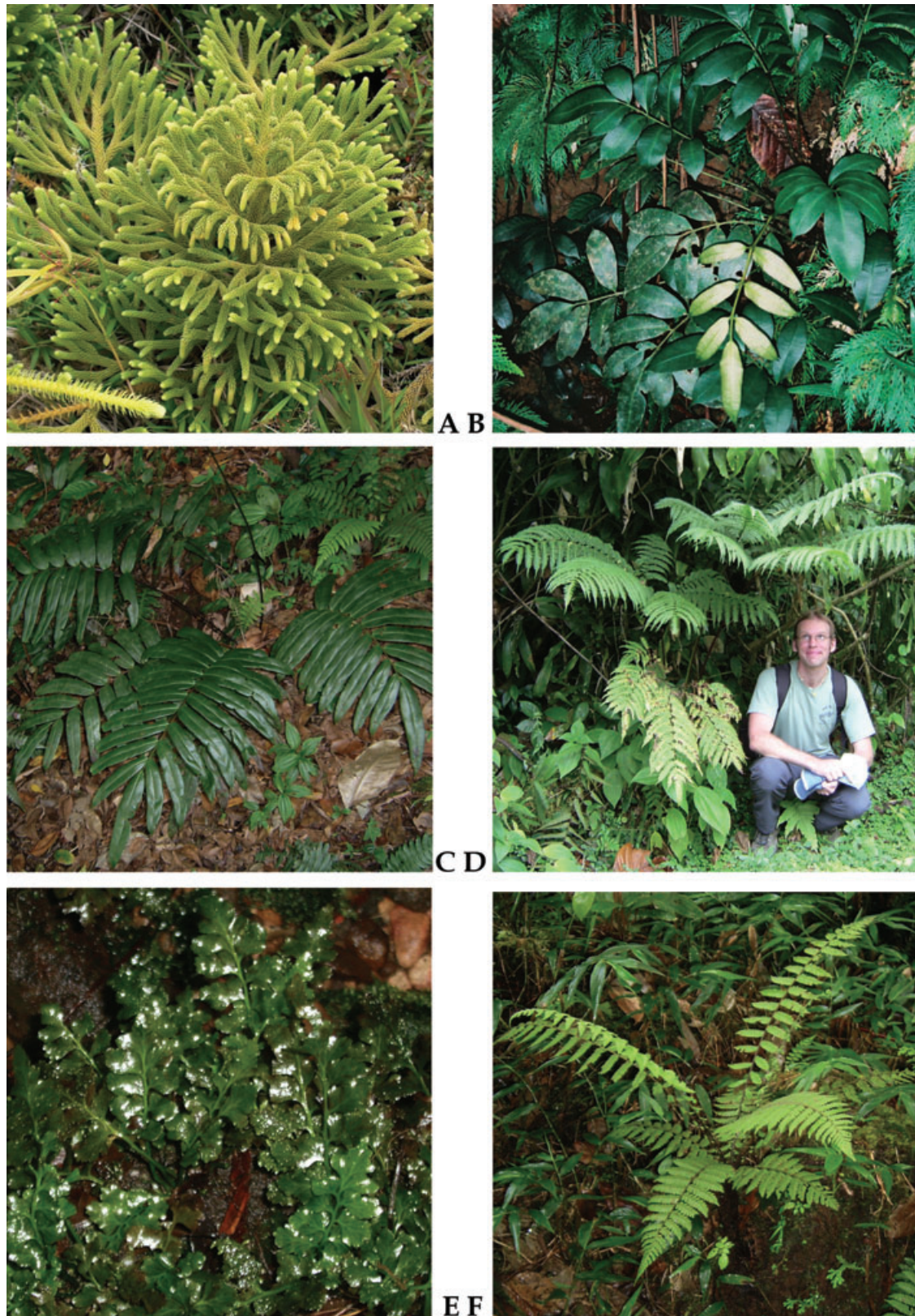
*Lycopodium guadalupianum* [Spring] Fée, Mém. Fam. Foug. 11: 131, tab. 33, fig. 1. 1866, epithet correction, based on the same type.

*Habitat*: rare epiphyte.

*Material examined*: BASSE TERRE: *Husnot 563* (BR, K, P); *Beauperts s.n.* (P); Matouba, *Duss 3742* (P); *Richard s.n.* (P); La Soufrière, *Funck & Schlim 201* (P); *Hespenheide & Wiseman s.n.* (GH); Camp Jacob, *Duss s.n. anno 1893* (M, P); Bains Jaunes, *Questel 3298* (P); *Stehlé 1783* (US); *Stehlé 2409* (P, US); *l'Hermitage, Anon. 2774, anno 1941* (P).

3. *Huperzia dichotoma* (Jacq.) Trevis., Atti Soc. Ital. Sci. Nat. 17: 248. 1874.

*Lycopodium dichotomum* Jacq., Enum. Stirp. Vindob. 314. 1762. Lectotype (designated by Proctor, 1977): Jacquin, Hort. Bot. Vind. 3: tab. 45. 1776, illustrating a plant from Martinique.



**Figure 6.** Selected species. A, *Palhinhaea torta* (La Soufrière). B, *Danaea polymorpha* (Sofaia). C, *Neurocallis praestantissima* (Grand-Étang). D, *Pteris arborea* (Étang Zombis). E, *Asplenium obtusifolium* (Trace des Étangs). F, *Thelypteris consanguinea* (Étang l'As de Pique).

*Lycopodium chamaepeuce* Herter, Bot. Jahrb. Syst. 43 (Beibl. 98): 50. 1909. Type: Guadeloupe or French Guiana; not assigned.

*Habitat*: occasional epiphyte.

*Material examined*: BASSE TERRE: Matouba and Baillif, *Rodriguez 3948* (P); Moscou, *Questel 1089* (P); St Claude, *Quentin 1122* (P); St Claude road to Parnasse, *Questel 1058* (US); *Rodriguez 2953* (P); *Stehlé 1977* (P); Matouba, *Questel 3163* (US); Bains Jaunes, *Stehlé 339* (P, US); Dugommier, *Stehlé 1226* (P, US); Hermitage, Trois Rivières, *Stehlé 1184* (P); *Stehlé 1185* (US); Rivière du Gallion, *l'Herminier 89* (P); Savane à Mulets, *Brousemiche s.n.anno 1879* (P).

4. *Huperzia funiformis* (Cham. ex Spring) Trevis., Atti Soc. Ital. Sci. Nat. 17: 248. 1874.

*Lycopodium funiforme* Cham. ex Spring, Bull. Acad. Roy. Sci. Bruxelles 8: 516. 1841. Lectotype (designated by Proctor, 1989): Guadeloupe, *l'Herminier s.n.*, *Herbarium Bory* (P!; duplicate GH).

*Habitat*: epiphyte at mid elevations, often near rivers.

*Material examined*: BASSE TERRE: *l'Herminier s.n.* (BR, GH, K, NY, P, UC); Gourbeyre, Chemin de la Regrette, *Rodriguez 3269* (P); Rivière Quiock, *Christenhusz 4116* (AAU, TUR); Matouba, *Duss 3744* (P); Matouba, Vallée de Saint Louis, *Duss s.n. anno 1874* (P); Vernou, *Questel 3095* (US); Heights of Montebello, *Vivant s.n.* (AAU).

5. *Huperzia intermedia* Trevis., Atti Soc. Ital. Sci. Nat. 17: 248. 1874.

*Lycopodium intermedium* Spring, Fl. Bras. (Martius) 1(2): 111. 1840, *nom. illeg. hom.*, non *L. intermedium* Blume. Syntypes: Brazil, Rio de Janeiro, *Freyreiss s.n.*, *Sello s.n.*, not located.

*Lycopodium reflexum* Lam. var. *intermedium* (Trevis.) Baker, Fern Allies 11. 1887. *Huperzia intermedia* (Trevis.) Rothm., Feddes Repert. Spec. Nov. Regni Veg. 54: 60. 1944.

*Habitat*: rare terrestrial in high-elevation savannas.

*Locality*: La Soufrière, Ravine Amic, 1200 m (Vivant, 1996).

6. *Huperzia linifolia* (L.) Trevis., Atti Soc. Ital. Sci. Nat. 17: 248. 1874.

*Lycopodium linifolium* L., Sp. Pl. 1100. 1753. Lectotype (designated by Proctor, 1977): Plumier, *Traité Foug. Amér. tab. 166, fig. C. 1705.*

*Lycopodium linifolium* L. var. *gracile* l'Herm. ex Fée, Mém. Fam. Foug. 11: 129. 1866. Type: Guadeloupe, *l'Herminier s.n.* (P!, *pro parte*). This specimen is a mixed collection of *Huperzia linifolia* and *H. tenuicaulis*.

*Habitat*: common epiphyte in forests and in trees in cow meadows at lower or mid elevations.

*Material examined*: BASSE TERRE: Sofaïa, *Christenhusz 3959* (TUR); Étang Zombis, *Christenhusz 4046* (AAU, P, TUR), Cascade Vauchelet, *Christenhusz 4091* (TUR); Matouba, *Duss 907* (P); Bains-Jaunes, Morne Gommier, *Duss 3746* (P); Saut d'Eau de Matouba, *Stehlé 810* (P, US); Bras David, *l'Herminier 9* (P); *s.n.*, *anno 1845* (P); Grand Étang, *Stehlé s.n.*, *anno 1935* (P); Plateau du Palmiste, *Rodriguez 6671* (P); Rivière Rouge, *Rodriguez 6688* (P); Vernou, La Glacière, *Fournet 4410* (P).

7. *Huperzia reflexa* (Lam.) Trevis., Atti Soc. Ital. Sci. Nat. 17: 248. 1874.

*Lycopodium reflexum* Lam., Encycl. 3: 653. 1789. Type: Martinique, *Martin s.n.* (holotype P-Lam. 442).

*Habitat*: common terrestrial on slopes and steep banks at mid to high elevation.

*Material examined*: BASSE TERRE: *l'Herminier s.n.* (BR, P); *Husnot 565 d* (GH, K, P); Bains Jaunes, *Stehlé 2414* (P, US); La Citerne, *Christenhusz 2782* (AAU, TUR); Basse Terre, *Proctor 20337* (A).

8. *Huperzia sieberiana* (Spring) Rothm., Feddes Repert. Spec. Nov. Regni Veg. 54: 60. 1944.

*Lycopodium sieberianum* Spring, Flora 21, pt. 1: 153. 1838. Type: Martinique, *Kohaut, Sieber Exsicc. 56* (holotype B).

*Lycopodium rigidum* J.F.Gmel., Syst. Nat. ed. 13, 2: 1289. 1791. Lectotype (designated by Proctor, 1977): Dillenius, *Historia Muscorum tab. 57, fig. 4. 1741.* The figure was attributed to Hispaniola, but is more likely based on material from Guadeloupe (Proctor, 1985).

*Lycopodium reflexum* Lam. var. *rigidum* (J.F.Gmel.) Proctor, *Rhodora* 68: 464. 1966.

*Habitat*: terrestrial at high elevations in humid open fern savannas.

*Material examined*: BASSE TERRE: La Soufrière, *Christenhusz 3906* (AAU, P, TUR); 3929 (AAU, P, TUR); *Feldmann s.n.*, *anno 1936* (P); *l'Herminier s.n.*, *anno 1843* (P); *s.n.*, *anno 1845* (P); *Linden 196* (P); *Questel 1105* (US); *Stehlé 330* (P); *1801* (US); *2410* (P,

US); *Thiébaud* 75 (P); Piste du Carbet, *Feldmann s.n. anno 1936* (P).

9. *Huperzia taxifolia* (Sw.) Trevis., Atti Soc. Ital. Sci. Nat. 17: 248. 1874.

*Lycopodium taxifolium* Sw., Prodr. 138. 1788. Type: Jamaica, *Swartz s.n.* (holotype S!; isotype UPS-Thunb. 25335B, *pro parte*).

*Lycopodium herminieri* Spring, Bull. Acad. Roy. Sci. Bruxelles 8: 514. 1841. Lectotype (designated by Spring, 1842): Guadeloupe, Colitur in Horto Parisiensi, *l'Herminier s.n.* (P!, duplicate LG).

*Habitat*: relatively common epiphyte at mid elevations.

*Material examined*: BASSE TERRE: La Soufrière, above Bains Jaunes, *Degelius s.n.* (GB); *Linden 200* (P); Bains Jaunes, *Allorge s.n., anno 1936* (P); *Duss 3745* (P); *908* (P); *Questel 2719* (US); *3919* (P); *Thiébaud 67* (P); Savane aux Ananas, *Allorge s.n., anno 1936* (P); *Feldmann s.n., anno 1936* (P); *Rodriguez 4825* (P); Hauteurs de la Regrette, *Stehlé 2062* (P, US); Matouba, *l'Herminier 10* (P); Matéliane, *Stehlé 661* (US); Camp Jacob, *Duss 3745* (P); Gommier, *l'Herminier 140* (P); Rivière Rouge, *Feldmann s.n., anno 1936* (P); Sainte Claude, *Quentin 1024* (P); Trace Étang Roche to Étang de l'As de Pique, *Christenhusz 4074* (TUR); Grande Découverte, *Christenhusz 4155* (AAU, TUR); Mamelle Pigeon, *Christenhusz 4204* (TUR).

10. *Huperzia tenuicaulis* (Underw. & F.E.Lloyd) B.Øllg., Opera Bot. 92: 169. 1987.

*Lycopodium tenuicaule* Underw. & F.E.Lloyd, Bull. Torrey Bot. Club 33: 113. 1906. Type: Dominica, Morne Diablotin, *Lloyd 878* (holotype NY!).

*Lycopodium linifolium* L. var. *gracile* l'Herm. ex Fée, Mém. Fam. Foug. 11: 129. 1866. Type: Guadeloupe, *l'Herminier s.n.* (P!, *pro parte*). This specimen is a mixed collection of *Huperzia tenuicaulis* and *H. linifolia*.

*Habitat*: rare epiphyte on mossy tree trunks in hygrophile forests.

*Material examined*: BASSE TERRE: Bains Jaunes, *Allorge s.n., anno 1936* (P); *Feldmann s.n., anno 1936* (P); Forêt de Fumée, near Rivière St Louis, *Stehlé 548* (P).

11. *Huperzia wilsonii* (Underw. & F.E.Lloyd) B.Øllg., Opera Bot. 92: 170. 1987.

*Lycopodium wilsonii* Underw. & F.E.Lloyd, Bull. Torrey Bot. Club 33: 111. 1906. Type: Puerto Rico, Luquillo Mountains, *Wilson 271* (holotype NY!).

*Lycopodium trichodendron* Herter, Bot. Jahrb. Syst. 43 (Beibl. 98): 49. 1909. Lectotype (designated by Herter, 1923): Guadeloupe, *l'Herminier s.n. ex Herbarium Bory 103* (P!).

*Habitat*: pendent epiphyte of wet montane forests.

*Material examined*: BASSE TERRE: Grande Découverte, *Christenhusz 4167* (TUR).

12. *Lycopodium clavatum* L., Sp. Pl. 2: 1101. 1753. Type: 'In Europae sylvis muscosis'. Lectotype (designated by Jonsell & Jarvis in Jarvis *et al.*, 1993): *Herb. Burser XX: 49* (UPS). The specimen LINN 1257.2, which was designated as the lectotype by Proctor (1977) was added to LINN after 1755 (Jackson, 1912).

*Habitat*: terrestrial in high-elevation savannas.

*Material examined*: BASSE TERRE: La Soufrière, *Christenhusz 3907* (P, TUR); *Duss 910* (P); *Duss 3741* (P); *l'Herminier 86* (P); *l'Herminier s.n. anno 1845* (P).

13. *Palhinhaea cernua* (L.) Vasc. & Franco, Bol. Soc. Brot. ser. 2, 41: 25. 1967.

*Lycopodium cernuum* L., Sp. Pl. 1103. 1753. Lectotype (designated by Proctor, 1977): 'Habitat in Indiis', *Anon.* (LINN 1257.13; duplicate NY fragment).

*Lycopodiella cernua* (L.) Pic.Serm., Webbia 23: 166. 1968.

*Habitat*: common terrestrial scrambling species of roadside clearings, meadows and forest edges, 0–250 m.

*Material examined*: BASSE TERRE: Sofaïa, *Christenhusz 3987* (P, TUR); at the base of La Soufrière, *Beaupertius s.n., anno 1839* (P); Bains Jaunes, *Allorge s.n., anno 1936* (P); Gourbeyre, Grande Savane, *Duss 909* (P); *3749* (P); Matouba, *Duchassaing 26* (P); *Thiébaud 550* (P).

14. *Palhinhaea torta* (Sieber ex Underw. & F.E.Lloyd) Christenh., **comb. nov.** (Fig. 6A).

*Lycopodium tortum* Sieber ex Underw. & F.E.Lloyd, Bull. Torrey Bot. Club 33: 118. 1906. Lectotype (designated by Øllgaard, 1989: Martinique, *Sieber, Fl. Mixta 328* (BM!, duplicates HBG, K!)).

*Lycopodiella torta* (Sieber ex Underw. & F.E.Lloyd) B.Øllg., Biol. Skr. 34: 75. 1989.

*Lycopodium cernuum* L. var. *dussii* Christ, Bot. Jahrb. Syst. 24: 147. 1897. Type: Guadeloupe, *Duss 3739* (holotype B!).

*Habitat*: high-elevation savannas, endemic to the Lesser Antilles.

*Material examined*: BASSE TERRE: La Soufrière, *Christenhusz* 3926 (P, TUR); *Rodriguez* 2748 (P); *Stehlé* 333 (P); Bains Jaunes, *Allorge s.n., anno 1936* (P); La Citerne, Lac Flammarion, *Allorge s.n., anno 1936* (P); *Le Gallo* 3075 (P); Savane aux Ananas, *Allorge s.n., anno 1936* (P).

15. *Pseudolycopodiella meridionalis* (Underw. & F.E.Lloyd) Holub, *Folia Geobot. Phytotax.* 18: 442. 1983.

*Lycopodium meridionale* Underw. & F.E.Lloyd, *Bull. Torrey Bot. Club* 33: 121. 1906. Type: Puerto Rico, Luquillo Mountains, *Wilson* 94 (holotype NY).

*Lycopodium carolinianum* L., *Sp. Pl.* 1104. 1753. var. *meridionale* (Underw. & F.E.Lloyd) Nessel & Hoehne, *Arch. Bot. Sao Paulo* 1: 431. 1927.

*Lycopodiella caroliniana* (L.) Pic.Serm. var. *meridionale* (Underw. & F.E.Lloyd) B.Øllg. & P.G.Windisch, *Bradea* 5: 27. 1987.

*Habitat*: rare species of high-elevation savannas.

*Material examined*: BASSE TERRE: La Citerne, *Christenhusz* 2774 (AAU, TUR); La Soufrière, *Duss* 3740 (P); *Feldmann s.n., anno 1936* (P); *Rodriguez* 4780 (P); Savane aux Ananas, *Allorge s.n., anno 1936* (P); *Quentin* 1120 (P); *Rodriguez* 4831 (P). Vivant (1989a) also found this rare species at Étang Zombis.

#### SELAGINELLACEAE

16. *Selaginella flabellata* (L.) Spring, *Flora (Regensburg)* 21: 198. 1838.

*Lycopodium flabellatum* L., *Sp. Pl.* 2: 1105. 1753. Lectotype (designated by Proctor, 1977): Martinique, Fort Saint Pierre, Plumier, *Descr. Pl. Amér.* tab. 24, fig. a. 1693.

*Habitat*: common epiphyte in rainforests.

*Material examined*: BASSE TERRE: Cascade aux Écrevisses, *Christenhusz* 2736 (AAU, NY, TUR); Ste Rose, *Anon., Herbarium Bory* 183 (P); Sofaïa, *Christenhusz* 2748 (AAU, TUR, UC); 3948 (P, S, TUR); Trace Étang Madère to Étang Roche, *Christenhusz* 2791 (AAU, TUR); Bains Jaunes, *Duss s.n., anno 1894* (P); *Stehlé* 353 (P); Bron du Sable, *l'Herminier s.n., anno 1843* (P); Cascade Vauchélet, *Allorge s.n., anno 1936* (P); *Feldmann s.n., anno 1936* (P); Ravine de Grand Anse, *Allorge B25* (P); Trois Rivières, l'Hermitage, *Stehlé* 1182 (P); Forêt de Fumée, *Stehlé* 343 (P);

Gourbeyre, Bois Hironnelle, *Duss* 913 (P); Gourbeyre, Le Palmiste, *Quentin* 619 (P); Grand Étang, *Barrier* 2401 (P); 2408a (P); Monts Caraïbes, *Barrier* 2893 (P); Rivière Rouge, *Allorge s.n., anno 1936* (P); *Feldmann s.n., anno 1936* (P); Saut du Constantin, *Thiébaud* 436 (P); La Soufrière, *Duchassaing* 28 (P); *Stehlé* 337 (P); Gorge de la Lézarde, Vernou, *Fournet* 5219 (P).

[*Selaginella plana* (Desv.) Hieron. in Engl. & Prantl, *Nat. Pflanzenfam.* 1(4): 703. 1901. *Lycopodium planum* Desv. in Lamarck, *Encycl. Suppl.* 3: 554. 1813. Type: 'India orientalis', *Anon. ex Herb. Desvoux* (holotype P!).

*Habitat*: a native of Indonesia, widely cultivated throughout the tropics and recently found naturalized in 'Parc botanique et zoologique des Mamelles' (Boudrie & Bizot, 2006).]

17. *Selaginella rotundifolia* Spring, *Bull. Acad. Roy. Sci. Bruxelles* 10: 139. 1843. Type: Falaises des rivières de la Guadeloupe, *Beaupertuis s.n.* (holotype P!-00252736).

*Habitat*: locally common, minute plant growing on rocks in waterfalls.

*Material examined*: BASSE TERRE: Grand Étang, *Stehlé* 541 (P); Bains Jaunes, *Stehlé* 2859 (P); Deuxième Chute du Carbet, *Christenhusz* 4094 (NY, S, TUR); Camp Jacob, *Duss* 3975 (P); Cascade Vauchélet, *Allorge s.n., anno 1936* (P); Houëlmon, *Quentin* 1109 (P); Hauteurs de la Regrette, *Stehlé* 2064 (P); Matouba and La Soufrière, *Duchassaing* 27 (P).

18. *Selaginella substipitata* Spring, *Bull. Acad. Roy. Sci. Bruxelles* 10: 227. 1843. Type: Guadeloupe, *Beaupertuis s.n.* (holotype BR!; isotype P!-00044875).

*Habitat*: common on mid- to high-elevation rainforests, covering forest floor.

*Material examined*: BASSE TERRE: Bains Jaunes, *Christenhusz* 2768 (TUR); 4005 (S, TUR); *Duss* 914 (P); 3752 (P); 4084 (P); 4085 (P); 4086 (P); Bois du Gommier, *Duss* 4078 (P); Forêt de la Fumée, *Allorge s.n., anno 1936* (P); La Soufrière, *Christenhusz* 3911 (TUR); 3923 (NY, P, TUR); *Kuntze* 75 (P); *Thiébaud* 92 (P); *Feldmann s.n., anno 1936* (P); Trace des Contrebandiers, *Fournet* 5137 (P); Mamelles, Trace des Crêtes, *Fournet* 4956 (P); Savane à Mulets, *Duss* 3969 (P); Sofaïa, *Christenhusz* 3981 (P, TUR); Grande Découverte, *Christenhusz* 4130 (P, TUR).

**19.** *Selaginella tenella* (Beauvais) Spring, Bull. Acad. Roy. Sci. Bruxelles 10: 234. 1843.

*Diplostachyum tenellum* Beauvais, Mag. Encycl. 9: 481. 1804. Neotype (designated by Proctor, 1985): Puerto Rico, *Ventenat s.n. ex Herb. Desvaux* (P!).

*Lycopodium tenellum* (Beauvais) Desv. ex Poir. in Lam., Encycl. 3: 553. 1814.

*Selaginella mollis* Fée, Mém. Fam. Foug. 11: 133, tab. 34, fig. 1. 1866, *nom illeg. hom.* not A. Braun (1865).

*Habitat:* quite common, terrestrially on rocky stream banks and in gullies at lower to mid elevations.

*Material examined:* BASSE TERRE: Saut d'Eau du Matouba, *Christenhusz 4102* (S, TUR); Cascade Vauchelet, *Allorge s.n., anno 1936* (P); Houëlont, *Allorge s.n., anno 1936* (P).

[*Selaginella willdenowii* (Desv.) Baker, Gard. Chron. 1867: 783, 950. 1867.

*Lycopodium willdenowii* Desv. in Lamarck, Encycl. suppl. 3: 540, 552. 1814. Type: 'India orientalis', *Anon. ex Herb. Desvaux* (holotype P!).

*Locality:* cultivated and naturalizing near Domaine de Valombreuse (M. J. M. Christenhusz, pers. observ.).]

#### OPHIOGLOSSACEAE

**20.** *Ophioglossum palmatum* L., Sp. Pl. 2: 1063. 1753. Lectotype (designated by Proctor, 1977): Haiti, Léogane, Plumier, *Traité Foug. Amér.* tab. 163. 1705.

*Cheiroglossa palmata* (L.) C.Presl, *Suppl. Tent. Pterid.* 57. 1845.

*Ophioderma palmata* (L.) Nakai, *Bot. Mag. (Tokyo)* 39: 193. 1925.

*Habitat:* rare epiphyte on mossy tree trunks, humus-filled forks of large trees or among bromeliad roots at mid elevations.

*Material examined:* BASSE TERRE: *Damour s.n., anno 1859* (P); *Delacour 73-9* (P); Parnasse, *Duss 4308* (P); Caféière, *l'Herminier 2* (P); Camp Jacob, *Duss 2* (P); *Duss 898* (P); Gourbeyre, propriété Valot, *Quentin 841* (P); Matouba, *l'Herminier s.n., anno 1843* (P); Sainte Claude, *Allorge s.n., anno 1936* (P).

**21.** *Ophioglossum reticulatum* L., Sp. Pl. 2: 1063. 1753. Lectotype (designated by Tardieu-Blot in Aubréville, 1964): Haiti, Léogane, Plumier, *Traité Foug. Amér.* tab. 164. 1705.

*Habitat:* rare terrestrial fern in open forests, grassy places, roadsides and sugar-cane fields.

*Material examined:* BASSE TERRE: Grand Sans-Toucher, *l'Herminier s.n., anno 1849* (P); Basse Terre, *Duss 899* (P); Houëlont, *Thiébaud 549* (P); Pigeon, propriété Hasolly, *Stehlé 476* (P); Sainte Claude, *Beaupertuis s.n., anno 1839* (P); *Quentin 1101* (P); GRAND TERRE: Caféière, *l'Herminier 1* (P); Sainte Marie, *l'Herminier s.n., anno 1844* (P); MARIE GALANTE: *Hautessier s.n.* (P).

#### PSILOACEAE

**22.** *Psilotum nudum* (L.) P.Beauv., *Prodr. Aethéogam.* 106, 112. 1805.

*Lycopodium nudum* L., Sp. Pl. 1100. 1753. Lectotype (designated by Proctor, 1977): 'Habitat in Indiis', *Anon.* (LINN 1257.1).

*Habitat:* usually epiphytic on trunks or old logs, occasionally on old masonry, in plant pots or in rock crevices.

*Material examined:* BASSE TERRE. Saut d'Eau du Matouba, *Christenhusz 4099* (TUR); Bains Jaunes, *Duss 915* (P); *3750* (P); *Rodriguez 4506* (P); *Stehlé 338* (P); *7405* (P); Cascade Vauchelet, *Quentin 622* (P); *Rodriguez 2654* (P); Morne Cézanne, *Fournet 4372* (GUAD, P); Houëlont, *Allorge s.n., anno 1936* (P); Morne à l'Eau, *Barrier 3124* (P); Sainte Claude, *Fournet 4779* (GUAD, P); *Rodriguez 2825* (P); *6664* (P); *Stehlé 3007* (P); GRAND TERRE: Pointe à Pitre, *Rodriguez 4264* (P); MARIE GALANTE: Bois de Folle Anse, *Stehlé 663* (P); *Anon., Herbarium Bory 70,36* (P); *Thierville s.n., anno 1844* (P); St Lelande, *Questel 48* (P). LA DÉSIRADE; ST. BARTHÉLEMY (Proctor, 1977).

#### MARATTIACEAE

**23.** *Danaea alata* Sm., Mém. Acad. Roy. Sci. (Turin) 5: 420. 1793. Lectotype (designated by Proctor, 1977): Martinique, Morne de la Calebasse. Plumier, *Traité Foug. Amér.* tab. 109. 1705. Epitype (designated by Christenhusz, 2008): *Surian 648, Herbiere Vaillant 56* (P-00307149!).

*Danaea stenophylla* Kunze, *Farrnkr.* (Schkuhr's *Farrnkr. Suppl.*) 1: 55. 1840; *Farrnkr.* 2: tab. 28. Leipzig. 1843. Lectotype (designated by Proctor, 1977): Guadeloupe, Basse Terre, Capesterre, *l'Herminier 213, ex Herb. Bory de St Vincent, Fougères catal no. 39.* (K!; duplicates P!, 3 sheets, NY!, fragment of K).

*Heterodanaea stenophylla* (Kunze) C.Presl, *Suppl. Tent. Pterid.* 38. 1845.

*Danaea fendleri* Underw., Bull. Torrey Bot. Club 29(12): 673. 1902.

*Habitat*: rare terrestrial in shaded forest ravines of lowland and mid-elevation rainforests.

*Material examined*: BASSE TERRE: l'Herminier 213 (K, W); Grande Étang, Christenhusz 2731 (TUR); 3889 (GUAD, TUR); Trace Étang Madère to Étang Roche, Christenhusz 2788 (TUR); Deuxième Chute du Carbet, Christenhusz 3891 (GUAD, TUR); Capesterre-Belle-Eau, Kunze 37/39 (P); Bassin Bleu, Christenhusz 4188 (TUR).

**24.** *Danaea antillensis* Christenh., Ann. Bot. Fennici 43: 212. 2006. Type: Guadeloupe, Sofaïa, Saut des Trois Cornes, Christenhusz 2747 (holotype TUR!; isotypes BM!, P!, UC!).

*Danaea elliptica* auct., non Sm.

*Habitat*: common terrestrial fern in lowland rainforests.

*Material examined*: BASSE TERRE: Linden s.n. (BR); Sofaïa, Christenhusz 2753 (TUR); 3880 (GUAD, TUR); St Rose, Kunze 38 (P); Grand Étang, Christenhusz 2730 (TUR); 2789 (TUR); Saut de la Lézarde, Christenhusz 2787 (TUR); Mazé 1067 (K); Cascade aux Écrevisses, Christenhusz 2732 (TUR), Grand Étang, Christenhusz 3888 (GUAD, TUR, UC); Rivière Quiock, Christenhusz 3894 (GUAD, TUR); 3897 (GUAD, TUR); Chutes Moreau, Christenhusz 3899 (GUAD, TUR); Trace des Crêtes, Fournet 5028 (GUAD, P); Matouba, Mazé 490.91.94 (K); Hauteurs Petit-Bourg, habitation Bois Joli, Mazé 935bis.940.1080 (K, UCWI); 492.939 (K, NY); Domaine de Valombreuse (M. J. M. Christenhusz, pers. observ.).

*Notes*: this species is endemic to the Lesser Antilles. Phylogenetic research of the genus *Danaea* (Christenhusz *et al.*, 2008) resolved this species as sister to the Guianan species *D. trifoliata* Reichenb. Even although this species may superficially resemble *D. polymorpha* and *D. geniculata* (previously all have been referred to as 'D. elliptica', they are not closely related and will have arrived to the island independently (Christenhusz, 2007a).

**25.** *Danaea arbuscula* Christenh. & Tuomisto, Kew Bull. 61: 18. 2006. Type: Peru, San Martín, Cerro Escalera, path up to telephone antenna near Tarapoto (Alto Ahuashiyacu), Christenhusz *et al.* 2074 (holotype USM!; isotypes AAU!, AMAZ!, B!, BM!, K!, L!, NY!, TUR!, P!, UC!).

*Danaea elliptica* auct., non Sm.

*Habitat*: occasional terrestrial in high-elevation rain and cloud forests.

*Material examined*: BASSE TERRE: Bains Jaunes, Christenhusz 2760 (TUR); 3883 (GUAD, TUR); Duss 901 (P); Duss 4316 (P); Plateau Dimba, Christenhusz 3886 (GUAD, TUR); Étang Madère, Christenhusz 3887 (GUAD, TUR); Grande Découverte, Christenhusz 3901 (GUAD, TUR); along trail between Plateau de Papaye and Ravine Chaude, above Matouba, Proctor 20146 (A, IJ).

**26.** *Danaea geniculata* Raddi, Pl. Brasil. Nov. Gen. Sp. Nov. 1: 75, tab. 5. fig. 1. 1825. Lectotype (designated by Pichi Sermolli & Bizzarri, 2005): Brazil, Estado Rio de Janeiro, Mandioca, Raddi s.n. (PI!; duplicates FI, PRC!).

*Danaea elliptica* auct., non Sm.

*Habitat*: rare terrestrial along streams in lowland rainforests.

*Material examined*: BASSE TERRE: Rivière Quiock, Christenhusz 3898 (GUAD, TUR); Hauteurs du Petit-Bourg, Questel 2659 (P).

*Note*: This species represents a complex that could not be solved based on the available material.

**27.** *Danaea kalevala* Christenh., Ann. Bot. Fennici 43: 215. 2006. Type: Martinique, Fonds–St-Denis, Trace des Jésuites, Forêt du Morne du Lorrain, Forêt Départementale–Dominiale des Pitons du Carbet, c. 1–1.5 km north of D1, in the valley of the Lorrain River, 6 km east of Fonds–St-Denis, Christenhusz & Bollendorff 2696 (holotype TUR!; isotypes BM!, P!, NY!, UC!).

*Danaea nodosa* of Proctor (1977), non (L.) Sm.

*Habitat*: rare terrestrial on clay slopes in mid-elevation rainforests and along clayey stream banks.

*Material examined*: BASSE TERRE: Plateau Dimba, Christenhusz 3884 (GUAD, TUR); Questel 2904 (P); Cascade Vauchet, Allorge s.n. anno 1936 (P); Christenhusz 3890 (GUAD, TUR); Rodriguez 4733 (P); Deuxième Chute du Carbet, Christenhusz 3892 (GUAD, TUR); Saut d'Eau du Matouba, Christenhusz 3893 (GUAD, TUR); Mazé 64 (K, P); Bassin Bleu, Christenhusz 4189 (TUR); Vernou, Questel 1980 (P, UC).

*Note*: This species is endemic to the Lesser Antilles.

**28.** *Danaea mazeana* Underw., Bull. Torrey Bot. Club 29: 676. 1902. Type: Guadeloupe, Basse Terre,

Matouba, Ravines Flore Malenga, Chemin d'Hugues des Baine Chaude, Ravine Roche, Choissy Madame, Goyavier, Capesterre l'Étang Carbet, Bouillante, Petit-Bourg, Lamentin, Sofaïa, *Mazé 11.143.485*. (holotype K!, 2 sheets; isotypes NY!, fragment of K; *Mazé 11* (P!); *Mazé 485* (P!).

*Danaea stenophylla* of Proctor (1977), non Kunze.

*Habitat*: common terrestrial fern in higher-elevation rain and cloud forests.

*Material examined*: BASSE TERRE: Bains Jaunes, *Allorge s.n. anno 1936* (P); *Bernard 4692* (GUAD); *Christenhusz 2759* (TUR); *3941* (TUR); *3882* (GUAD, TUR); *Duss 903* (P); *Duss 4317* (NY, P, US); *Duss 4465* (F, NY, P); *Le Gallo 2737* (P); Plateau Dimba, *Christenhusz 3885* (GUAD, TUR); *Questel 2978* (P); Grande Découverte, *Christenhusz 3900* (GUAD, TUR); *4179* (TUR); Along trail between Plateau de Papaye and Ravine Chaude, above Matouba, *Proctor 20145* (A, IJ, U); Matouba, *Duss 4319* (US); Bois du Gommier, *Thiébaud 431* (A, K, P); Dugommier, Ravine Chaude, *Stehlé s.n. anno 1936* (P).

**29.** *Danaea polymorpha* Lepr. ex Baker, Ann. Bot. (London) 5: 499. 1891. (Fig. 6B). Lectotype (designated by Underwood, 1902): Guadeloupe, Basse Terre, Petit Bourg, houterons hab. l'Espérance, Sainte Rose (Sofaïa), *Mazé 483.1028* (K!; duplicates P, NY).

*Danaea elliptica* auct., non Sm.

*Habitat*: occasional terrestrial fern in rainforests at lower elevations, mainly in the northern half of Basse Terre, endemic to Guadeloupe.

*Material examined*: BASSE TERRE: Sofaïa, *Christenhusz 2746* (TUR); *3879* (GUAD, TUR); *3881* (GUAD, TUR); *Duss 900* (P); Cascade aux Écrevisses, *Christenhusz 2956* (TUR); Rivière Quiock, *Christenhusz 3895* (GUAD, TUR); *3896* (GUAD, TUR); Morne Léger, *Christenhusz 3905* (GUAD, TUR); Trace des Contrebandiers au depart de Pointe Noire, *Barrier 3273a* (P); Lamentin, bois de Ravine Chaude, *Duss 905* (P); Domaine de Valombreuse (M. J. M. Christenhusz, pers. observ.).

#### HYMENOPHYLLACEAE

**30.** *Abrodictyum rigidum* (Sw.) Ebihara & Dubuisson, Blumea 51: 243. 2006.

*Trichomanes rigidum* Sw., Prodr. 137. 1788. Type: Jamaica, *Swartz s.n.* (holotype S!, isotypes B-Willd.-20202-1, SBT).

*Selenodesmium rigidum* (Sw.) Copel., Philipp. J. Sci. 67: 81. 1938.

*Habitat*: common terrestrial in rich humus or on clayey stream banks and ledges at mid or higher elevations.

*Material examined*: BASSE TERRE: Bains Jaunes, *Christenhusz 2767* (TUR); *4006* (P, TUR); Étang Zombis, *Christenhusz 4036* (P, TUR); Grande Découverte, *Christenhusz 4135* (P, TUR).

**31.** *Didymoglossum angustifrons* Fée, Mém. Fam. Foug. 11: 113, tab. 28, fig. 5. 1866. Type: Guadeloupe, *l'Herminier s.n.*, no longer extant. Lectotype (designated by Proctor, 1977): Fée, Mém. Fam. Foug. 11, tab. 28, fig. 5. 1866.

*Trichomanes angustifrons* (Fée) Wess. Boer in Kramer, Fl. Neth. Antill. 1 (Pterid.): 17. 1962.

*Habitat*: rare and local epiphytic fern, mainly on tree trunks or lithophytic, at mid to higher elevations.

*Material examined*: BASSE TERRE: without locality, *Husnot 417* (BM); *417a* (BM). Locality: BASSE TERRE: Vernou, Gorges de la Lézarde (Vivant, 1988).

**32.** *Didymoglossum hymenoides* (Hedw.) Desv., Mém. Soc. Linn. Paris 6: 330. 1827.

*Trichomanes hymenoides* Hedw., Fil. Gen. & Sp. tab. 3, fig. 3. 1799. Lectotype (designated by Wessels Boer, 1962): Hedwig, Fil. Gen. & Sp. tab. 3, fig. 3. 1799.

*Habitat*: epiphytic fern near waterfalls or streams.

*Material examined*: BASSE TERRE: Cascade Vauchellet, *Christenhusz 4089* (TUR); Bains Jaunes (M. J. M. Christenhusz, pers. observ.).

**33.** *Didymoglossum kapplerianum* (Sturm) Ebihara & Dubuisson, Blumea 51: 236. 2006.

*Trichomanes kapplerianum* Sturm in Martius, Fl. Bras. 1(2): 276. 1859; nom. nov. for *Trichomanes punctatum* Kunze mss., non Poiret (1808). Lectotype (designated by Wessels Boer, 1962): Suriname, Suriname Rivier, near Victoria Station, anno 1844, *Kappler 1760* (W!; duplicates B, L!, P!).

*Microgonium kapplerianum* (Sturm) Pic.Serm., Webbia 31: 250. 1977.

*Didymoglossum cordifolium* Fée, Mém. Fam. Foug. 11: 113, tab. 28, fig. 4. 1866. Type: Martinique, *Mlle. Rivoire s.n.*, not located. Lectotype (designated here): Fée, Mém. Fam. Foug. 11, tab. 28, fig. 4.

*Trichomanes hookeri* C.Presl var. *cordifolium* (Fée) Domin, Rozpr. Kral. Ceske Spolecn. Nauk, Tr. Mat.-Prir. 2: 46. 1929.

*Trichomanes cordifolium* (Fée) Alston, Kew. Bull. 1932: 306. 1932.



*Habitat*: rare epiphytic fern on tree trunks or litho-  
phytic on wet rocks in mid-elevation forests.

*Material examined*: BASSE TERRE: without locality, *l'Herminier s.n. ex herb. Strassbourg* (BM). *Locality*: BASSE TERRE: Bouillante, Trou du Diable at the waterfall of Rivière Bourceau (Vivant, 1996).

**34.** *Didymoglossum krausii* (Hook. & Grev.) C.Presl, *Hymen.* 23. 1844.

*Trichomanes krausii* Hook. & Grev., *Icon. Fil.* 2: tab. 149. 1830 (as '*kraussii*'). Type: Dominica, *Kraus s.n.* (holotype E).

*Didymoglossum fructuosum* Fée, *Mém. Fam. Foug.* 11: 112, tab. 28, fig. 3. 1866. Type: Guadeloupe, *l'Herminier s.n. anno 1861*, not located. Lectotype (designated here): Fée, *Mém. Fam. Foug.* 11, tab. 28, fig. 3.

*Habitat*: common epiphyte on tree trunks or litho-  
phytic on wet rocks.

*Material examined*: BASSE TERRE: Sofaïa, *Christenhusz 3958* (P, TUR); Mamelle Pigeon, hab. Négresse (M. J. M. Christenhusz, pers. observ.); Cascade aux Écrevisses (M. J. M. Christenhusz, pers. observ.).

**35.** *Didymoglossum lineolatum* Bosch, *Ned. Kruidk. Arch.* 5: 136. 1863. Lectotype (designated by Wessels Boer, 1962): Jamaica, *March 133* (L; duplicate K?).

*Trichomanes lineolatum* (Bosch) Hook. in Hooker & Baker, *Syn. Fil.* 73. 1867.

*Habitat*: elfin woodland; found once, not collected recently and possibly extinct on Guadeloupe.

*Material examined*: BASSE TERRE: La Soufrière, *Duss s.n. anno 1892* (P!).

**36.** *Didymoglossum membranaceum* (L.) Vareschi, *Fl. Venez.* 1: 222. 1969.

*Trichomanes membranaceum* L., *Sp. Pl.* 1097. 1753. Lectotype (designated by Proctor, 1977): 'Habitat in America', *Anon.* (LINN 1253.1).

*Habitat*: common epiphytic at the base of trees or litho-  
phytic on clay banks, often near streams.

*Material examined*: BASSE TERRE: Sofaïa, *Christenhusz 3972* (TUR); Grand Étang, *Christenhusz 4080* (P, TUR); Chutes Moreau, *Christenhusz 4126* (P, TUR); Saut d'Eau du Matouba (M. J. M. Christenhusz, pers. observ.); Cascade aux Écrevisses (M. J. M. Christenhusz, pers. observ.).

**37.** *Didymoglossum punctatum* (Poir.) Desv., *Mém. Soc. Linn. Paris* 6: 330. 1827.

*Trichomanes punctatum* Poir. in Lamarck, *Encycl.* 8: 64. 1808. Type: Martinique, *Anon.* (holotype P-Lam.).

*Habitat*: locally common epiphyte on tree trunks and buttresses or litho-  
phytic on moist rocks in shade.

*Material examined*: BASSE TERRE: Sofaïa, *Christenhusz 3957* (P, TUR); *3963* (TUR); Cascade Vauchélet, *Christenhusz 3904* (TUR); Saut d'Eau du Matouba (M. J. M. Christenhusz, pers. observ.).

**38.** *Hymenophyllum decurrens* (Jacq.) Sw., *J. Bot. (Schrader)* 1800(2): 99. 1801.

*Adiantum decurrens* Jacq., *Collect.* 2: 103. 1789. Lectotype (designated by Proctor, 1985): Martinique, Jacquin, *Collectanea* 2: tab. 2, figs 1 and 2. 1789.

*Hymenophyllum protrusum* Hook., *Sp. Fil.* 1: 104, tab. 37-b. 1844. Lectotype (designated by Proctor, 1985): Jamaica, *Purdie s.n.* (K).

*Hymenophyllum polyanthos* (Sw.) Sw. var. *protrusum* (Hook.) Farwell, *Amer. Midl. Naturalist* 12: 249. 1931.

*Mecodium protrusum* (Hook.) Copel., *Philipp. J. Sci.* 67: 25. 1938.

*Habitat*: epiphyte on tree trunks and tree ferns in rainforests.

*Material examined*: BASSE TERRE: Sofaïa, *Christenhusz 3967* (P, TUR); Étang Zombis, *Christenhusz 4047* (P, TUR); Morne Léger, *Christenhusz 4197* (TUR).

**39.** *Hymenophyllum ectocarpon* Fée, *Mém. Fam. Foug.* 11: 115, tab. 31, fig. 1. 1866. Syntype: Guadeloupe, Habitat arboricola in Guadalupa, locis vulgo dictis Matouba, Ravine Flore, Rivière Goyave,

*l'Herminier s.n. anno 1861* (P?, not found).

*Hymenophyllum fucoides* auct., non Sw. (1801).

*Habitat*: uncommon epiphyte on mossy trees and logs in mid- to higher-elevation forests (900–1000 m).

*Localities*: BASSE TERRE: Bains Jaunes (M. J. M. Christenhusz, pers. observ.); Matouba, along the trail to Refuge des Montagnards (Vivant, 1989a).

**40.** *Hymenophyllum elegans* Spreng., *Syst. Veg.* 4: 133. 1827. Type: Brazil, *Sellow s.n.* (isotype G).

*Sphaerocionium elegans* (Spreng.) Copel., *Philipp. J. Sci.* 67: 32. 1938.

*Hymenophyllum caudatellum* Christ, *Bull. Herb. Boissier ser. 2*, 4: 939. 1904. Type: Costa Rica, *Wercklé s.n.* (holotype P, isotype US!-00575223).

*Habitat*: local epiphyte on tree trunks and small trees or terrestrial on shady banks.

*Material examined*: BASSE TERRE: Grande Découverte, *Christenhusz* 4166, p.p. (TUR); La Soufrière, *Christenhusz* 3912 (P, TUR).

**41.** *Hymenophyllum hirsutum* (L.) Sw., J. Bot. (Schrader) 1800(2): 99. 1801.

*Trichomanes hirsutum* L., Sp. Pl. 1098. 1753. Lectotype (designated by Morton, 1947): Plumier, *Traité Foug. Amér. tab. 50, fig. B.* 1705.

*Sphaerocionium hirsutum* (L.) C.Presl, *Hymen.* 34. 1844.

*Habitat*: common epiphyte on tree trunks, branches buttresses and rotten logs.

*Material examined*: BASSE TERRE: without locality, *l'Herminier s.n. anno 1862* (BM); Bains Jaunes, *Christenhusz* 3943 (TUR); 4000 (P, TUR); Sofaïa, *Christenhusz* 3966 (P, TUR); Mamelle Pigeon, *Christenhusz* 4207 (TUR).

**42.** *Hymenophyllum hirtellum* Sw., J. Bot. (Schrader) 1800(2): 101. 1802. var. *gratum* (Fée) Proctor, *Rhodora* 68: 465. 1966.

*Hymenophyllum gratum* Fée, *Mém. Fam. Foug.* 11: 118, tab. 30, fig. 1. 1866. Lectotype (designated here): Guadeloupe, *l'Herminier s.n. ex Herbarium Strassbourg* (P!, possible duplicate MO).

*Habitat*: common epiphyte in moist rainforests.

*Material examined*: BASSE TERRE: Bains Jaunes, *Christenhusz* 2764 (TUR); 4008 (TUR); La Soufrière, *Christenhusz* 3915 (TUR); Grand Étang, *Christenhusz* 4057 (P, TUR), Rivière Quiock, *Christenhusz* 4111 (P, TUR); Grande Découverte, *Christenhusz* 4143 (TUR); 4166, p.p. (TUR); Mamelle Pigeon, *Christenhusz* 4209 (P, TUR).

**43.** *Hymenophyllum lanatum* Fée, *Mém. Fam. Foug.* 11: 116. 1866. Lectotype (designated by Proctor, 1985): Guadeloupe, Sainte-Rose, *l'Herminier s.n. anno 1861* (P!; duplicates BM!, MO, U!, US).

*Sphaerocionium lanatum* (Fée) Copel., *Philipp. J. Sci.* 67: 31. 1938.

*Habitat*: epiphyte on mossy trunks in montane forest at mid elevations.

*Material examined*: BASSE TERRE: Morne Léger, *Christenhusz* 4196 (P, TUR).

**44.** *Hymenophyllum latifrons* Bosch, *Ned. Kruidk. Arch.* 4: 407. 1859. Lectotype (designated here): Guadeloupe, *l'Herminier s.n.* (L!; duplicate P!). The material of *Perottet* cited by Proctor (1977) is lost and presumably no longer extant. Therefore a specimen still in existence of the two syntypes is proposed here as a new lectotype.

*Habitat*: rare epiphyte on mossy branches in elfin woodland.

*Material examined*: BASSE TERRE: without locality, *l'Herminier s.n. anno 1862* (BM). *Locality*: BASSE TERRE: Grande Découverte (Vivant, 1989b)

**45.** *Hymenophyllum lherminieri* Mett. in Kuhn, *Linnaea* 35: 392. 1868. Type: Guadeloupe, *l'Herminier s.n.* (holotype B?, isotype US fragment). No specimens seen, little is known about this species.

**46.** *Hymenophyllum lineare* (Sw.) Sw., J. Bot. (Schrader) 1800(2):100. 1801.

*Trichomanes lineare* Sw., *Prodr.* 137. 1788. Type: Jamaica, *Swartz s.n.* (holotype S!).

*Sphaerocionium lineare* (Sw.) C.Presl, *Hymen.* 34. 1844.

*Hymenophyllum elegantissimum* Fée, *Mém. Fam. Foug.* 11: 118., tab. 29, fig. 2. 1866. Lectotype (designated by Proctor, 1985): Guadeloupe, *l'Herminier s.n.* (P).

*Hymenophyllum atrovirens* Fée & l'Herm. in Fée, *Mém. Fam. Foug.* 11: 120, tab. 30, fig. 4. 1866, nom. illeg. hom. Type: Guadeloupe, Piton Caraïbe, *Germain s.n. anno 1864* (P?, not located).

*Hymenophyllum lineare* (Sw.) Sw. var. *dussii* Christ ex Duss, *Foug. & Lyc. Antill. Franc.* 9. 1903. Type: Guadeloupe, alt. 1115–1350 m, anno 1901, *Duss* 4387 (isotype US!-1232859 fragment).

*Habitat*: rare, delicate epiphyte of high-elevation *Clusia mangle* forests.

*Localities*: Nez Cassé and along the trail of Refuge des Montagnards (Vivant, 1989a).

**47.** *Hymenophyllum macrothecum* Fée, *Mém. Fam. Foug.* 11: 115, tab. 31, fig. 2. 1866, as '*macrothecium*'. Type: Guadeloupe, *l'Herminier s.n., anno 1861*, not located. Lectotype (designated here): Fée, *Mém. Fam. Foug.* 11, tab. 31, fig. 2.

*Mecodium macrothecum* (Fée) Copel., *Philipp. J. Sci.* 67: 25. 1938.

*Habitat*: rare epiphyte in hygrophile forest at mid elevation.

*Material examined*: BASSE TERRE: without locality, *Duss s.n. ex herb. Christensen no 2921* (BM). *Localities*: BASSE TERRE: along Trace des Contrabandiers (Vivant, 1989b); Mamelle Pigeon (M. J. M. Christenhusz, pers. observ.).

**48.** *Hymenophyllum microcarpum* Desv., Mém. Soc. Linn. Paris 6: 333. 1827. Type: Hispaniola, *Anon. Herb. Desvoux* (holotype P!).

*Habitat*: species of transitional forest.

*Material examined*: BASSE TERRE: without locality, *l'Herminier s.n.* (BM); St Claude (GUAD). Proctor (1977) did not list this species for Guadeloupe.

**49.** *Hymenophyllum polyanthos* (Sw.) Sw., J. Bot. (Schrader) 1800(2): 102. 1801.

*Trichomanes polyanthos* Sw., Prodr. 137. 1788. Type: Jamaica, *Swartz s.n.* (holotype S!; isotypes: B-Willd. 20235, 20237, BM!-000936765).

*Mecodium polyanthos* (Sw.) Copel., Philipp. J. Sci. 67: 19. 1938.

*Hymenophyllum mazei* E.Fourn. ex Christ in Urban, Bot. Jahrb. Syst. 24: 85. 1897. Lectotype (designated here): Guadeloupe, Matouba, Habitation Baille, Bernard, Ravine à Figaro, alt 630 m, Dec. 1890, *Mazé 461, 690, 919* (K!).

*Habitat*: common rainforest epiphyte, on mossy tree trunks, branches, tree ferns or lithophytic on rocks.

*Material examined*: BASSE TERRE: Mamelle de Petit-Bourg, *Christenhusz 2744* (TUR); Mamelle Pigeon, *Christenhusz 4215* (P, TUR); La Soufrière, *Christenhusz 3914* (TUR); Morne à Louis, *Christenhusz 4187* (TUR); Cascade aux Écrevisses (M. J. M. Christenhusz, pers. observ.).

**50.** *Hymenophyllum sericeum* (Sw.) Sw., J. Bot. (Schrader) 1800(2): 99. 1801.

*Trichomanes sericeum* Sw., Prodr. 136. 1788. Type: Jamaica, *Swartz s.n.* (holotype S; isotypes B-Willd. 20220, BM!-000936782).

*Sphaerocionium sericeum* (Sw.) C.Presl, Hymen. 34. 1844.

*Hymenophyllum sieberi* of Proctor (1977) and Vivant (1988), non Bosch.

*Habitat*: epiphyte of montane forests.

*Material examined*: BASSE TERRE: without locality, *l'Herminier s.n.* (BM!). *Localities*: BASSE TERRE: Trace Victor Hugues at Grande Découverte (M. J. M.

Christenhusz, pers. observ.); Saut d'Eau du Matouba (obs.).

**51.** *Hymenophyllum undulatum* (Sw.) Sw., J. Bot. (Schrader) 1800(2): 101. 1801.

*Trichomanes undulatum* Sw., Prodr. 137. 1788. Type: Jamaica, *Swartz s.n.* (holotype S; isotypes: B-Willd. 20238, BM!, L, P).

*Mecodium undulatum* (Sw.) Copel., Philipp. J. Sci. 67: 26. 1938.

*Habitat*: very rare epiphyte of humid forests at high elevation (1200 m).

*Material examined*: BASSE TERRE: *Duss 4273* (GH), Grand Sans Toucher, in the ravine Séguine (Vivant, 1990).

**52.** *Hymenophyllum valvatum* Hook. & Grev., Icon. Fil. 2: 219, tab. 219. 1831. Type: Peru, Esmeraldas, *Jameson s.n.* (holotype K!).

*Sphaerocionium valvatum* (Hook. & Grev.) Copel., Philipp. J. Sci. 67: 31. 1938.

*Hymenophyllum francavillei* Bosch, Ned. Kruidk. Arch. 4: 411. 1859. Type: Guadeloupe, (L?, not located).

*Habitat*: rare epiphyte of high-elevation elfin woodland.

*Material examined*: BASSE TERRE: without locality, *l'Herminier s.n.* (BM); *Hancock anno 1892* (BM); trail between La Soufrière and Carmichaël (GUAD); Première Chute du Carbet (GUAD).

**53.** *Polyphlebium hymenophylloides* (Bosch) Ebihara & Dubuisson, Blumea 51: 240. 2006.

*Trichomanes hymenophylloides* Bosch, Ned. Kruidk. Arch. 5: 209. 1863. Type: St Vincent, *Guilding s.n.* (isotype GH).

*Vandenboschia hymenophylloides* (Bosch) Copel., Philipp. J. Sci. 67: 53. 1938.

*Habitat*: epiphytic fern in mid-elevation rainforests and montane forests.

*Material examined*: BASSE TERRE: Bains Jaunes, *Christenhusz 2766* (TUR); Plateau Dimba, *Christenhusz 4028* (TUR); Étang Zombis, *Christenhusz 4038* (TUR); Bassin Bleu, *Christenhusz 4190* (P, TUR); Saut d'Eau du Matouba (M. J. M. Christenhusz, pers. observ.).

**54.** *Trichomanes alatum* Sw., J. Bot. (Schader) 1800(2): 97. 1802. Type: Jamaica, *Swartz s.n.* (holotype S; isotype B-Willd. 20196).

*Trichomanes ptilodes* Bosch, Ned. Kruidk. Arch. 4: 357. 1859, nom. superfl. Syntypes from Jamaica, Venezuela and Guadeloupe, none located.

*Habitat:* common epiphyte on tree trunks and tree ferns in rainforests.

*Material examined:* BASSE TERRE: Bains Jaunes, *Christenhusz 2763* (TUR); *3942* (TUR); *3995* (BM, P, TUR); Grand Étang, *Christenhusz 2798* (TUR); *4056* (TUR); Sofaïa, *Christenhusz 3983* (P, TUR); Plateau Dimba, *Christenhusz 4014* (P, TUR); Étang Zombis, *Christenhusz 4037* (P, TUR); *4039* (P, TUR); Rivière Quiock, *Christenhusz 4113* (NY, P, TUR); *4122* (TUR); Grande Découverte, *Christenhusz 4141* (P, TUR); Cascade aux Écrevisses (M. J. M. Christenhusz, pers. observ.); Domaine de Valombreuse (M. J. M. Christenhusz, pers. observ.).

**55.** *Trichomanes crinitum* Sw., Prodr. 136. 1788. Type: Jamaica, *Swartz s.n.* (holotype SBT; isotypes B-Willd.-20198, BM!-000936808, S!).

*Trichomanes lherminieri* Fée, Mém. Fam. Foug. 11: 107, tab. 29, fig. 1. 1866. Type: Guadeloupe, *l'Herminier s.n. anno 1861*, not found. Lectotype: (designated here): Guadeloupe, *l'Herminier s.n. ex herb. Strassbourg* (BM!). Note: there is an original *l'Herminier* specimen annotated by Fée in BR, but this was collected in 1862 and can therefore not be the type.

*Trichomanes holopterum* Kunze var. *lherminieri* (Fée) Domin, Rozpr. Kral. Ceske Spolecn. Nauk, Tr. Mat.-Prir. 2: 49. 1929.

*Habitat:* epiphyte on large mossy logs or branches in mid-elevation rainforests or most montane forests.

*Material examined:* BASSE TERRE: without locality, *Husnot 407* (BM); *l'Herminier s.n. ex herb. Hance* (BM); *l'Herminier s.n. anno 1862* (BR); Morne Léger, *Christenhusz 4198* (P, TUR).

**56.** *Trichomanes crispum* L., Sp. Pl. 2: 1097. 1753. Lectotype (designated by Proctor, 1977): Morne de la Calebasse, Martinique, Plumier, *Traité Foug. Amér.* tab. 86. 1705.

*Ptilophyllum crispum* (L.) Prantl, Unters. Morph. Gefasskrypt. 1: 47. 1875.

*Trichomanes crispum* L. var. *remotum* Fée, Mém. Fam. Foug. 11: 106. 1866. Type: Guadeloupe, *l'Herminier s.n. anno 1861*, not located.

*Trichomanes badium* E.Fourn., Bull. Soc. Bot. France 15: 147. 1868.

Lectotype (designated by Proctor, 1985): Cuba, *Wright 900* (P; duplicates GH, US). Other syntypes from Guadeloupe and Venezuela.

*Trichomanes molle* E.Fourn., Bull. Soc. Bot. France 15: 147. 1868. Type: Guadeloupe, *anon. ex Herb. Fournier*, not located.

*Habitat:* common terrestrial fern on shaded banks or lithophytic on mossy rocks or rotten logs.

*Material examined:* BASSE TERRE: Sofaïa, *Christenhusz 3970* (TUR); *3982* (P, TUR); Étang Zombis, *Christenhusz 4043* (TUR); Grand Étang, *Christenhusz 4055* (TUR); Grande Découverte, *Christenhusz 4142* (TUR); Morne Léger, *Christenhusz 4199* (P, TUR).

**57.** *Trichomanes elegans* Rich., Actes Soc. Hist. Nat. Paris 1: 114. 1792. Type: French Guiana, *Leblond s.n.* (holotype P!).

*Davalliopsis elegans* (Rich.) Copel., Philipp. J. Sci. 67: 82, tab. 11. 1938.

*Habitat:* locally common terrestrial fern in rainforest shade or near streams.

*Material examined:* BASSE TERRE: Grand Étang, *Christenhusz 2801* (TUR); *4052* (TUR); Plateau Dimba, *Christenhusz 4020* (P, TUR); Chutes Moreau, *Christenhusz 4127* (P, TUR).

**58.** *Trichomanes holopterum* Kunze, Farrnkr. 1: 185, tab. 77, fig. 2. 1845. Type: Guadeloupe *Bory, ex Herbarium Kunze* (isotype B!-200104661). Proctor (1977) designated the plate in Kunze as lectotype, but original material is present in Berlin.

*Habitat:* local epiphyte on tree-fern trunks.

*Material examined:* BASSE TERRE: Sofaïa, *Christenhusz 3969* (TUR); *3986* (TUR); Rivière Quiock, *Christenhusz 4114* (TUR); Domaine de Valombreuse (M. J. M. Christenhusz, pers. observ.).

**59.** *Trichomanes osmundoides* DC. ex Poir. in Lamarck, Encycl. 8: 65. 1808. Type: 'Amérique meridionale' (French Guiana?), *Anon.* (holotype P-Lam.; isotype B-Willd. 20192, FI).

*Feea osmundoides* (DC. ex Poir.) Copel., Philipp. J. Sci. 67: 74. 1938.

*Trichomanes spicatum* Hedw. ex Hook., Sp. Fil. 1: 114. 1846. Lectotype (designated by Proctor, 1985): Jamaica, Portland, *Purdie s.n.* (K), syntypes from Guadeloupe, St Vincent, Trinidad and Guyana.

*Habitat*: uncommon terrestrial species on clayey banks along streams in rainforests.

*Material examined*: BASSE TERRE: Grand Étang, *Christenhusz* 2799 (TUR); 4053 (P, TUR); Étang Zombis, *Christenhusz* 4042 (P, TUR); Domaine de Valombreuse (M. J. M. Christenhusz, pers. observ.).

**60.** *Trichomanes pedicellatum* Desv., Ges. Naturf. Freunde Berlin Mag. Neuesten Entdeck. Gesamten Naturk. 5: 328. 1811.

Type: French Guiana, Cayenne, *Anon.*, *Herbarium Desvieux* (holotype P!).

*Habitat*: rare climbing epiphyte in lowland rainforests.

*Material examined*: BASSE TERRE: without locality, *l'Herminier s.n.* (BM, P).

**61.** *Trichomanes pinnatum* Hedw., Fil. Gen. & Sp. tab. 4, fig. 1. 1799. Neotype: (designated here): Guadeloupe, Basse Terre, Cascade aux Écrevisses, *Christenhusz* 3968 (BM!, duplicates P!, TUR!). The protologue (Hedwig, 1799) mentioned that the material studied for this illustration came from Jamaica, perhaps based on material sent by Swartz; however, no specimen of this species is known to have ever been collected in Jamaica. The figure in Hedwig (1799: tab. 4, fig. 1), selected as lectotype by Proctor (1977) has insufficient detail to be able to apply the name with certainty to any actual specimens. *Trichomanes pinnatum* hence became a broadly applied species name, but specimens identified with this name appear polymorphic and most likely belong to different species. Further studies on this species complex are necessary, which will greatly benefit from this neotypification.

*Neurophyllum pinnatum* (Hedw.) C.Presl, Hymen. 19. 1843.

*Neuromanes pinnatum* (Hedw.) Trevis. Herb. Crypt. Trevis. 4. 1851.

*Ptilophyllum pinnatum* (Hedw.) Prantl, Unters. Morph. Gefasskrypt. 1: 49. 1875.

*Habitat*: abundant fern terrestrially in rainforests.

*Material examined*: BASSE TERRE: Cascade aux Écrevisses, *Christenhusz* 2738 (TUR); Sofaïa, *Christenhusz* 2752 (TUR); Rivière Quiock, *Christenhusz* 4115 (P, TUR); Domaine de Valombreuse (M. J. M. Christenhusz, pers. observ.).

**62.** *Trichomanes polypodioides* L., Sp. Pl. 1098. 1753. Neotype (designated by Proctor, 1977): Montserrat, *Proctor* 19068 (A; isoneotype US).

*Trichomanes sinuosum* Rich ex Willd., Sp. Pl. 5: 502. 1810. Type: Guadeloupe, *Richard s.n.* (holotype B-Willd. 20191).

*Habitat*: relatively common epiphyte on tree ferns and tree trunks.

*Material examined*: BASSE TERRE: Sofaïa, *Christenhusz* 3984 (TUR); Maison de la Forêt (M. J. M. Christenhusz, pers. observ.).

**63.** *Trichomanes robustum* E.Fourn., Bull. Soc. Bot. France 15: 147. 1868. Lectotype (designated here): Guadeloupe, *l'Herminier s.n.* (P!). Fournier did not designate a particular specimen and, because there are several candidates, I selected the P specimen here as lectotype.

*Habitat*: rare fern of montane forests at high elevation (1100–1200 m), on rotten logs and mossy branches.

*Localities*: BASSE TERRE: Grand Sans Toucher, Grande Découverte (Vivant, 1990).

**64.** *Trichomanes trigonum* Desv., Ges. Naturf. Freunde Berlin Mag. Neuesten Entdeck. Gesamten Naturk. 5:328. 1811. Type: 'Gallia aequinoctial' (French Guiana), *Anon.* *Herbarium Desvieux* (holotype P!).

*Habitat*: locally common terrestrial fern on humus, boulders, rocks and decaying logs.

*Material examined*: BASSE TERRE: Trace de l'Armistice, *Christenhusz* 2772 (TUR); Grand Étang, *Christenhusz* 4054 (P, TUR).

**65.** *Vandenboschia radicans* (Sw.) Copel., Philipp. J. Sci. 67: 51, 54. 1938.

*Trichomanes radicans* Sw., J. Bot. (Schrader) 1800(2): 97. 1801. Type: Jamaica, *Swartz s.n.* (holotype S; isotype SBT).

*Habitat*: rare lithophytic fern, found on a basalt block in montane rainforest at 650 m.

*Material examined*: BASSE TERRE, without locality, *l'Herminier s.n. ex herb. Strassbourg* (BM). Locality: BASSE TERRE: Rivière du Plessis (Vivant, 1989b).

#### GLEICHENIACEAE

**66.** *Diplopterygium bancroftii* (Hook.) A.R.Sm., Amer. Fern J. 70: 26. 1980.

*Gleichenia bancroftii* Hook., Sp. Fil. 1: 5. 1844. Lectotype (designated here): Guadeloupe, *l'Herminier s.n.* (P!; duplicates IJ!, US!).

*Dicranopteris bancroftii* (Hook.) Underw., Bull. Torrey Bot. Club 34: 252. 1907.

*Mertensia grandis* Fée, Mém. Fam. Foug. 11: 120. 1866.

*Dicranopteris grandis* (Fée) Nakai, Bull. Natl. Sci. Mus. Tokyo 29: 60. 1950.

*Habitat*: common species of high-elevation savannas.

*Material examined*: BASSE TERRE: Bains Jaunes, *Allorge s.n. anno 1936* (P); *Stehlé 2424* (P); La Soufrière, *Christenhusz 3908* (BM, NY, P, TUR, U); *Duss 956* (P); *Duss 3705* (P); *l'Herminier s.n. 1861* (P); *Rodriguez 4777* (P); Source du Gallion, *Duss s.n.* (P); La Citerne, *l'Herminier s.n. anno 1840* (P); *l'Herminier s.n. anno 1844* (P); Grande Découverte, *Christenhusz 4154* (TUR).

**67.** *Gleichenella pectinata* (Willd.) Ching, Sunyatsenia 5: 276. 1940.

*Mertensia pectinata* Willd., Kongl. Vetensk. Acad. Nya Handl. 25: 168. 1804. Type: Venezuela, Caracas, *Bredemeyer s.n.* (holotype B-Willd. 19465).

*Dicranopteris pectinata* (Willd.) Underw., Bull. Torrey Bot. Club. 34: 260. 1907.

*Habitat*: common terrestrial fern along roadsides, forest margins, land slides and clayey stream banks.

*Material examined*: BASSE TERRE: Bains Jaunes, *Allorge s.n. anno 1936* (P); Pointe Noire, *Duss 945* (P); Sainte Rose, *Duss 953* (P); Sofaïa, *Christenhusz 2757* (TUR); Petit-Bourg, Vernou, *Fournet 5046* (P); Ravine Malanga, *Allorge B20* (P); *Feldmann s.n. 1936* (P); Rivière Rouge, *Feldmann s.n. 1936* (P); Saut d'Eau du Matouba, *Thiébaud 87* (P); Gourbeyre, *Duss s.n.* (P).

**68.** *Sticherus bifidus* (Willd.) Ching, Sunyatsenia 5: 282. 1940.

*Mertensia bifida* Willd., Kongl. Vetensk. Acad. Nya Handl. 25: 168, tab. 5, fig. B. 1804. Type: Venezuela, Caracas, *Bredemeyer s.n.* (holotype B-Willd. 19468).

*Gleichenia bifida* (Willd.) Spreng., Syst. Veg. 4: 24. 1827.

*Mertensia ferruginea* Desv., Ges. Naturf. Freunde Berlin Mag. Neuesten Entdeck. Gesammten Naturk. 5: 307. 1811. Type: 'Gallia aequinoctiali' (French Guiana), *Anon. ex Herbarium Desvaux* (holotype P!)

*Mertensia fulva* Desv., Mém. Soc. Linn. Paris 6: 201. 1827. Type: Jamaica, Blue Mountains, *Anon. ex Herbarium Desvaux* (holotype P!).

*Habitat*: locally common terrestrial on open disturbed ground and in forest edges at mid elevations.

*Material examined*: BASSE TERRE: Sofaïa, *Christenhusz 2754* (TUR, U, UC); 3989 (NY, P, TUR); Camp Jacob, *Faron s.n., anno 1879* (P); Cascade Vauchelet, *Allorge s.n., anno 1936* (P); *Feldmann s.n., anno 1936* (P); *Quentin 474* (P); *Rodriguez 2642* (P); La Soufrière, *Quentin 848* (P); Route Dole, *Allorge B23* (P); Bains Jaunes, *Rodriguez 4624* (P); 4751 (P); 4771 (P); Gourbeyre, *Duss 951* (P); Route de Traversée, *Fournet 4136* (P); Matouba, *Thiébaud 548* (P); Petit-Bourg, Vernou, *Fournet 5291* (P); *Stehlé 601bis* (P); Pont du Soldat, *Le Gallo 2789* (P); near the bridge over Rivière Rouge, *Allorge s.n., anno 1936* (P); Ravine Rouge, *Rodriguez 4493* (P); *Allorge s.n., anno 1936* (P); Vieux Habitants (Grande Rivière), *Duss 955* (P); Domaine de Valombreuse (M. J. M. Christenhusz, pers. observ.).

**69.** *Sticherus farinosus* (Kaulf.) Ching, Sunyatsenia 5: 283. 1940.

*Mertensia farinosa* Kaulf., Wesen Farrenkr. 37. 1827. Type: none cited. Neotype (designated here): Guadeloupe, Basse Terre, La Soufrière, *Christenhusz 3937* (K!, duplicates NY!, P!, TUR!).

*Dicranopteris farinosa* (Kaulf.) Underw., Bull. Torrey Bot. Club 34: 254. 1907.

*Gleichenia farinosa* (Kaulf.) Hook., Sp. Fil. 1: 9. 1844, *pro parte*.

*Mertensia subtrisperma* Fée, Mém. Fam. Foug. 11: 122, tab. 32, fig. 2. 1866. Type: 'ad solfataram Guadalupae', *l'Herminier s.n. anno 1861*, not located. Lectotype (designated here): Fée, Mém. Fam. Foug. 11, tab. 32, fig. 2. In the absence of an actual specimen, the figure by Fée provides sufficient detail to interpret this taxon.

*Habitat*: rare fern of high-elevation savannas, endemic to the Lesser Antilles.

*Material examined*: BASSE TERRE: *Balbis s.n. anno 1824* (P); La Soufrière, *Duss 952* (P); Sources du Gallion, *Stehlé 653* (P).

**70.** *Sticherus furcatus* (L.) Ching, Sunyatsenia 5: 283. 1940. *Acrostichum furcatum* L., Syst. Nat. ed. 10, 2: 1321. 1759. Type (designated by Proctor, 1977): Martinique, Morne de la Calebasse, Plumier, Descr. Pl. Amér. tab. 20. 1693.

*Gleichenia furcata* (L.) Spreng., Syst. Veg. 4: 25. 1827. *Dicranopteris furcata* (L.) Underw., Bull. Torrey Bot. Club 34: 257. 1907.

*Habitat*: rare fern of high-elevation savannas, endemic to the Lesser Antilles.

*Material examined*: BASSE TERRE: Bains Jaunes, *Allorge s.n.*, anno 1936 (P); La Citerne, *Allorge s.n.*, anno 1936 (GUAD, P); Nez Cassé, *Barrier 3366* (P).

*Localities*: Petit Morne de Carmichaël (Vivant, 1989a), Grand Étang (Vivant, 1987b).

## LYGODIACEAE

- 71.** *Lygodium venustum* Sw., J. Bot. (Schrader) 1801(2): 303. 1803. Lectotype (designated by Tryon & Stolze, 1989): Brazil, Breyne, Exot. Pl. Cent. tab. 96. 1678. Typotype: Suriname, *Rolander s.n.* (S!).

*Habitat*: rare terrestrial, scrambling fern in woodland thickets.

*Material examined*: BASSE TERRE: La Trinité, *Germain s.n.*, ex herb *l'Herminier* (P).

## ANEMIIACEAE

- 72.** *Anemia adiantifolia* (L.) Sw., Syn. Fil. 157. 1806. *Osmunda adiantifolia* L., Sp. Pl. 1065. 1753. Lectotype (designated by Duek, 1976): Haiti, Petit Goave, Plumier, *Traité. Foug. Amér.* tab. 158. 1705.

*Habitat*: common fern of roadsides, walls, masonry and cliffs in humid and mesophile forests or on shaded slopes in xerophile scrub.

*Material examined*: BASSE TERRE: *Linden 13* (P); on walls in the surroundings of Basse Terre, *Quentin 890* (P); Sainte Claude, *Allorge s.n. anno 1936* (P); Cap-esterre, *Stehlé 192* (P); Deshaies, *Stehlé 2534* (P); Matouba, Rivière Rouge, *Allorge C48* (P); *Feldmann s.n. anno 1936* (P); on a wall in the Canal de Matouba, *Thiébaud 40* (P); Hoëlmont, *Stehlé 540* (P); Petit-Bourg, Mercier, Caféière, Le Gallo 2795 (P); Sofaïa (M. J. M. Christenhusz, pers. observ.); GRAND TERRE: Pointe-à-Pitre, *Stehlé 2016* (P); Dunoyer, *Christenhusz 4194* (NY, P, TUR, UC); Les Mangles, *Feldmann s.n. anno 1936* (P); MARIE GALANTE: Route des Sources, *Barrier 3235* (P); Ravine Montagne, *Barrier 3245* (P); LA DÉSIKRADE: *Stehlé s.n. anno 1935* (P); Rivière, *Barrier 3001* (P). LES SAINTES (Proctor, 1977).

- 73.** *Anemia hirta* (L.) Sw., Syn. Fil. 155. 1806. *Osmunda hirta* L., Sp. Pl. 1064. 1753. Lectotype (designated by Proctor, 1977): Martinique, Plumier, *Descr. Pl. Amér.* tab. 26. 1693.

*Habitat*: rare terrestrial species.

*Localities*: BASSE TERRE: Crête de Village (Vivant, 1990), Vieux Fort (M. J. M. Christenhusz, pers. observ.), Grand Ravine (M. J. M. Christenhusz, pers. observ.).

## SCHIZAEACEAE

- 74.** *Actinostachys pennula* (Sw.) Hook. in Hooker & Bauer, Gen. Fil. tab. 111a. 1842.

*Schizaea pennula* Sw., Syn. Fil. 150, 379. 1806. Type: 'Habitat in America calidiore', *Anon.*, in *Herbarium Swartz* (holotype S!).

*Actinostachys germanii* Fée, Mém. Fam. Foug. 11: 123, tab. 29, fig. 3. 1866. Lectotype (designated here): Guadeloupe, Sainte Rose, l'habitations Leboyer, *Germain s.n. anno 1853* (P!, duplicate MO?).

*Schizaea germanii* (Fée) Prantl, *Schiz.* 132. 1881.

*Habitat*: rare terrestrial fern in undisturbed deep litter and humus, usually laced with tree roots, and on rotten wood in thickets and forest.

*Material examined*: GRAND TERRE: *Husnot 263* (P); Basse Terre: Sainte Rose, Petit Bourg, Deshaies, *l'Herminier s.n. anno 1862* (P); Bois des Hauteurs de Petit Bourg, *Duss 4349* (P).

## CYATHEACEAE

- 75.** *Alsophila imrayana* (Hook.) D.S. Conant, J. Arnold Arb. 64: 371. 1983.

*Cyathea imrayana* Hook., Sp. Fil. 1: 18, tab. 9B, figs 1–4. 1844. Lectotype (designated by Gastony, 1973): Dominica, Couliaban Mt, *Imray s.n.* (K!).

*Nephelea imrayana* (Hook.) R. Tryon, *Contr. Gray Herb.* 200: 40. 1970.

*Habitat*: terrestrial tree fern in montane mossy forests, cloud forests and elfin woodland at higher elevations.

*Material examined*: BASSE TERRE: Bains Jaunes, *Allorge s.n. anno 1936* (P); *Christenhusz 2761* (TUR); 3996 (GOET, S, TUR); *Fournet 5146* (P); *Quentin 550* (P); *Rodriguez 4793* (P); La Soufrière, *Christenhusz 3935* (GOET, S, TUR); Cascade Vauchet, *Feldmann s.n. anno 1936* (P); Forêt de Fumée, *Feldmann s.n. anno 1936* (P); Savane aux Ananas, *Allorge s.n. anno 1936* (P); Grande Découverte, *Christenhusz 4137* (GOET, TUR).

- 76.** *Cyathea arborea* (L.) Sm., Mém. Acad. Roy. Sci. (Turin) 5: 417. 1793.

*Polypodium arboreum* L., Sp. Pl. 2: 1092. 1753. Lectotype (designated by Proctor, 1977): Martinique, Morne de la Calebasse, Plumier, *Traité Foug. Amér.*, tab. 1 p.p., tab. 2. Typotype: *Herbarium Surian* 562 (P!).

*Hemitelia arborea* (L.) Fée, *Mém. Fam. Foug.* 5: 350. 1852.

*Cyathea barbata* Bory ex Kuhn, *Linnaea* 36: 164. 1869. Type: Guadeloupe, without collector, ex *Herbarium Bory* (holotype B, isotype NY!-127046 fragment).

*Cyathea guadeloupensis* Spreng., *Nova Acta Phys.-Med. Acad. Caes. Leop.-Carol. Nat. Cur.* 10: 233. 1821. Type: Guadeloupe, not located.

*Habitat*: common fern in disturbed habitats, roadsides and forest margins.

*Material examined*: BASSE TERRE: Sofaïa, *Christenhusz* 2750 (GOET, TUR); Houëlmont, *Christenhusz* 3902 (GOET, P, S, TUR, U, UC); Bains Jaunes, *Stehlé* 322 (P); Camp Jacob, *Delacour s.n. anno 1876* (P); Forêt du Matouba, *Rodriguez* 6845 (P); Gourbeyre, *Duss* 4454 (P); Rivière Rouge, *Feldmann s.n. anno 1936* (P).

**77.** *Cyathea aspera* (L.) Sw., *J. Bot. (Schrader)* 1800(2): 93. 1801.

*Polypodium asperum* L., Sp. Pl. 2: 1093. 1753. Lectotype (designated by Proctor, 1985): Haiti, Léogane, Grand Cul-de-Sac, Petiver, *Pter. Amer.* 47, tab. 4, fig. 7. 1712.

*Cyathea muricata* Willd., Sp. Pl. 5: 497. 1810. Lectotype (designated by Proctor, 1977): Martinique, Capesterre, Plumier, *Traité Foug. Amér.* tab. 4. 1705.

*Alsophila muricata* (Willd.) Desv., *Mém. Soc. Linn. Paris* 6: 319. 1827.

*Hemitelia muricata* (Willd.) Fée, *Mém. Fam. Foug.* 5: 350. 1852.

*Habitat*: common tree fern in rainforests, montane forests and humid fern savannas.

*Material examined*: BASSE TERRE: between Étang Madère and Étang Roche, *Christenhusz* 2796 (GOET, TUR); Bains Jaunes, *Allorge s.n. anno 1936* (P); *Christenhusz* 2897 (TUR); 4002 (GOET, S, TUR); *Questel* 1113 (P); *Rodriguez* 4790 (P); *Stehlé* 329 (P); 595 (P); Sofaïa, *Christenhusz* 3954 (GOET, P, TUR); 3973; Rivière Quiock, *Christenhusz* 4108 (GOET, TUR); 4118 (GOET, S, TUR, UC); Grande Découverte, *Christenhusz* 4149 (TUR); Cascade Vauchelet, *Allorge s.n. anno 1936* (P); *Feldmann s.n. anno 1936* (P); *Rodriguez* 4727 (P); Morne Léger, *Fournet* 5064 (P); Clairière de l'Ajoupa, *Stehlé* 321 (P); Grand Étang,

*Stehlé* 527 (P); 827 (P); Matouba, Morne Papaye, *Duss* 894 (P); Vernou, *Fournet* 5082 (P); Rivière Noire, near Camp Jacob, *Faron s.n. anno 1879* (P); Rivière Rouge, *Feldmann s.n. anno 1936* (P); Barbotteau, along Route de la Taversée, *Fournet* 4954 (P).

**78.** *Cyathea grandifolia* Willd., Sp. Pl. 5: 490. 1810. Type: Martinique, *Anon.* (holotype B-Willd. 20167).

*Hemitelia grandifolia* (Willd.) Spreng., *Syst. Veg.* 4: 125. 1827.

*Cnemidaria grandifolia* (Willd.) Proctor, *Rhodora* 63: 32. 1961.

*Cnemidaria kohautiana* C.Presl, *Tent. Pter.* 57. 1836. Lectotype (designated here): Martinique, *Sieber, Fl. Mart.* 375 (PRC!; duplicate P!).

*Hemistegia insignis* Fée, *Mém. Fam. Foug.* 11: 99. 1866. Lectotype (designated here): Guadeloupe, l'Herminier *s.n. anno 1861* (RB!, duplicate P!).

*Habitat*: common terrestrial fern on shaded banks, gullies, stream banks and mountain sides.

*Material examined*: BASSE TERRE: Bains Jaunes, *Christenhusz* 2762 (GOET, TUR); 4004; *Duss* 64 (P); *Linden* 10 (P); *Rodriguez* 4762 (P); *Stehlé* 599 (P); La Soufrière, *Christenhusz* 3925 (GOET, P, S, TUR); *Quentin s.n. anno 1935* (P); Grande Découverte, *Christenhusz* 4134 (P, TUR); *Duss* 893 (P); Morne Madeleine, *Duss* 892 (P);

**79.** *Cyathea pungens* (Willd.) Domin, *Pterid. Isl. Dominica* 263. 1929. *Polypodium pungens* Willd., Sp. Pl. ed. 4. vol. 5: 206. 1810. Type: Brazil, *Hoffmannsegg s.n.* (holotype B-Willd. 19716-1).

*Habitat*: known on Guadeloupe only from a single population in a freshwater mangrove forest near Lamentin, where it is endangered by agricultural practices (Fournet & Hoff, 1999; Vivant, 1996), it was not listed by Proctor (1977).

**80.** *Cyathea tenera* (J.Sm. ex Hook.) T.Moore, *Ind. Fil.* 274. 1861. *Alsophila tenera* J. Sm. ex Hook., Sp. Fil. 1: 49. 1844. Type: St Vincent, *Caley s.n.* (holotype K!; isotype BM!-000937604).

*Habitat*: rare tree fern, terrestrial in forests at high elevations of La Soufrière and Carmichaël (Vivant, 1996).

*Material examined*: BASSE TERRE: Grande Découverte, *Christenhusz* 4149 (TUR); Ravine Malanga,



*Feldmann s.n. anno 1936* (P); Col des Mamelles, *Fournet 5199* (P).

## METAXYACEAE

**81.** *Metaxya rostrata* (Kunth) C.Presl, Tent. Pterid.: 60. tab. 1, fig. 5. 1836.

*Aspidium rostratum* Kunth in Humboldt, Bonpland & Kunth, Nov. Gen. & Sp. 1: 12. 1816. Type: Venezuela, 'prope Javita in sylvis Orinocensibus', *Humboldt & Bonpland 966* (holotype B-Willd. 19691).

*Habitat*: this terrestrial fern used to grow on steep banks and gullies at low elevations. This species has not been recently found on Guadeloupe and it is most probably extinct there. The species is widespread in mainland tropical America, but it is not known to occur anywhere else in the Lesser Antilles.

*Material examined*: BASSE TERRE: without locality, *l'Herminier s.n.* (BM, P); without locality, *Anon. ex herb. Baudouin no. 182* (P).

## LINDSAEACEAE

**82.** *Lindsaea guianensis* (Aubl.) Dryand., Trans. Linn. Soc. London 3: 42. 1797.

*Adiantum guianense* Aubl., Hist. Pl. Guiane 2: 963. 1775. Type: French Guiana, *Aublet s.n.* (holotype BM!-000937659).

*Habitat*: rare terrestrial fern in forests, the continued existence of this species on the island needs to be confirmed. Listed by Vivant (1988) for Mamelle du Petit-Bourg, Forêt de Sarcelle (Trace Victor Hugues) and Mamelle Pigeon.

*Material examined*: BASSE TERRE: Lamentin, Ravine Chaude, *Duss 827* (P); La Citerne, *Rodriguez 4796* (P); Matouba, Morne Guimbal, *Duss 4239* (P); Petit Bourg, *Kuntze 28* (P).

**83.** *Lindsaea imrayana* (Hook.) Perez, Bot. Abh. 14: 55. fig. 33 (a–e, g). 1928. *Saccoloma imrayanum* Hook. in Kunze, Farnkr. 1: 86. 1842. Type: Dominica, Mount Couliaban (= Morne Anglais), *Imray 84* (holotype K!).

*Ormoloma imrayanum* (Hook.) Maxon, Proc. Biol. Soc. Wash. 46: 144. 1933.

*Habitat*: rare, terrestrial fern in wet forests at mid or higher elevations.

*Material examined*: BASSE TERRE: Grande Découverte, *Duss 4176* (P); Sources of Rivière St Louis at Grande Icaques, above Matouba, *l'Herminier s.n.*,

*anno 1854* (P); Rivière St Louis, *Anon., Herbarium Leprieur 117* (P); Morne l'Échelle, *l'Herminier 1* (P); Plateau Bains Chaudes, *Duss 59* (P); *Duss 822* (P).

*Note*: Preliminary molecular data suggests that *Ormoloma* is nested within *Lindsaea* (S. Lehtonen, pers. comm.).

**84.** *Lindsaea lancea* (L.) Bedd., Suppl. Ferns S. Ind. 6. 1876.

*Adiantum lanceum* L., Sp. Pl. ed. 2, 2: 1557. 1763, as 'lancea'. Lectotype (designated by Kramer, 1957): Suriname, Seba, Thes. 2: 65, tab. 64, figs 7, 8. 1735. *Lindsaea consanguinea* Fée, Mém. Fam. Foug. 11: 16. 1866. Lectotype (designated here), Guadeloupe, *l'Herminier s.n. ex Herbarium Fée* (RB!). *Note*: the specimen of *l'Herminier s.n. anno 1862* in B is not a type because it has not been annotated by Fée. *Lindsaea falcata* Dryand. var. *lancea* (L.) Jenman, Ferns Br. W. Indies and Guiana 74. 1899.

*Habitat*: uncommon terrestrial species on clay.

*Material examined*: BASSE TERRE: Sofaïa, *Christenhusz 2751* (TUR); 3971 (NY, P, TUR, UC); *Duss 828* (P); Case Pilote, plateau militaire, *Duss 1701* (P); above Petit-Bourg, *Beaupertuis s.n.* (P); Vernou, *Questel 1978* (P); Morne Bois-d'Inde, *Barrier 3056* (P); Trace des Contrebandiers, near Pointe Noire, *Barrier 3275* (P).

**85.** *Lindsaea lherminieri* Fée, Mém. Fam. Foug. 11: 15, tab. 6, fig. 1. 1866. Lectotype (designated here): Guadeloupe, *l'Herminier s.n.* (RB!; duplicates B, P!).

*Lindsaea trapeziformis* Dryand. var. *lherminieri* (Fée) Krug, Bot. Jahrb. Syst. 24: 91. 1897.

*Habitat*: rare, endangered terrestrial fern of ravines along streams in mesophile forest. Only known from a few collections, the continued existence of this endemic species needs to be confirmed.

*Material examined*: BASSE TERRE: Sofaïa, *Bernard 4775* (GUAD, P); *Duss 4237* (P); Habitation Choisy, above Petit-Bourg, *Duss 830* (P); *Localities*: Hauteurs Goyave, Gorge de la Rivière Rose (Vivant, 1989a).

**86.** *Lindsaea quadrangularis* Raddi subsp. *antillensis* Kramer, Acta Bot. Neerl. 6: 194. 1957. Type: Dominica, Roseau lagoon, *Eggers 647* (holotype B!).

*Lindsaea montana* Fée, Mem. Fam. Foug. 11: 17. 1866. Lectotype (designated by Proctor, 1989): Guadeloupe, *l'Herminier s.n.* (RB!; duplicates NY!

fragment, P! p.p., mixed collection with *L. guianensis*).

*Lindsaea lancea* (L.) Bedd. var. *montana* (Fée) Bonaparte, Notes Pter. 7: 343. 1918.

*Habitat*: common understory fern of rain and montane forests usually at medium elevations.

*Material examined*: BASSE TERRE: Petit-Bourg, *Beaupertuis s.n.* (P); Mamelle de Petit-Bourg, *Christenhusz 2745* (TUR); Trace de l'Armistice, *Christenhusz 2773* (TUR); Bains Jaunes, *Christenhusz 4007* (TUR); *Duss 825* (P); *Linden 7* (P); *Duss 4243* (P); Plateau Dimba, *Christenhusz 4018* (P, TUR, UC); Grand Étang, *Christenhusz 4079* (P, TUR); Matouba, Ravine Flore, *Duss 829* (P); Grande Découverte, Trace Victor Hugues, *Barrier 2969* (P); *Christenhusz 4147* (P, TUR, UC); *4172* (TUR, UC); Mamelle Pigeon, *Christenhusz 4200* (P, TUR, U, UC); Mamelles, Trace des Crêtes, *Fournet 4957* (P); Savane aux Ananas, *Allorge s.n., anno 1935* (P); *s.n., anno 1936* (P); La Citerne, Lac Flammarion, *Stehlé, s.n., anno 1935* (P); *Stehlé 2419* (P); *Feldmann s.n., anno 1936* (P); Forêt de la Fumée, *Feldmann s.n., anno 1936* (P); *Stehlé 521* (P); Ravine à Déjeuner, *Duss 826* (P); Ravine Chaude du Gommier, *Stehlé 1219* (P).

*Note*: The species is morphologically variable and its species complex is little understood.

**87.** *Odontosoria flexuosa* (Spreng. ex Kunze) Maxon, Contr. U.S. Nat. Herb. 17: 163. 1913. *Davallia flexuosa* Spreng. ex Kunze, Bot. Zeit. 8: 213. 1850. Lectotype (designated here): Martinique, *Kohaut, Herbarium Sieber, Fl. Mart. suppl. 23* (US!-00691121).

*Habitat*: rare terrestrial scrambling fern. The species was collected in Mamelle Pigeon (GUAD!) and Mamelle de Petit Bourg (Vivant, 1996), but is not present at these localities any more; however, Vivant (1996) mentions to have located specimens near Chute du Gallion on the lower flanks of the Citerne mountain. I have not found this species there. This endemic species of the Lesser Antilles is endangered in its entire range.

*Material examined*: BASSE TERRE: without locality, *Duss 4238* (NY); Dugommier and Goyaves, *Anon., ex Herbarium Leprieur no. 23* (P).

#### SACCOLOMATACEAE

**88.** *Saccoloma domingense* (Spreng.) C.Chr., Index Filic. 612. 1906.

*Davallia domingensis* Spreng., Anleit. Kenntn. Gew. 3: 149, tab. 4, fig. 33. 1804. Lectotype (designated by Proctor, 1977): Hispaniola, Plumier, *Traité Foug. Amér. tab. 7. 1705.*

*Davallia adiantoides* Sw., Syn. Fil. 131. 1806, based on the same type.

*Dicksonia plumieri* Hook., Sp. Fil. 1: 72. 1844, based on the same type.

*Habitat*: terrestrial fern in montane rainforests at higher elevations.

*Material examined*: BASSE TERRE: Bains Jaunes, *Allorge s.n., anno 1936* (P); *Christenhusz 2769* (GOET, TUR); *3940* (P, TUR, U); *3994* (P, TUR); *Duss 931* (P); *4183* (P); *Rodriguez 4802* (P); *4964* (P); *Thiébaud 100* (P); *Funck s.n. ex Herbarium Linden 5bis* (P); Plateau Dimba, *Christenhusz 4016* (BM, P, TUR, U, UC); Grande Découverte, *Christenhusz 4138* (TUR, U); Cascade Vauchelet, *Allorge s.n., anno 1936* (P); *Feldmann s.n., anno 1936* (P); Nez Cassé, *Le Gallo 2943* (P); *2947* (P); Matouba, *Duss 833* (P); *4342* (P); Ravine Chaude du Gommier, *Stehlé 1216* (P).

**89.** *Saccoloma inaequale* (Kunze) Mett., Ann. Sci. Nat. Bot. sér. 4, 15: 80. 1861.

*Davallia inaequalis* Kunze, Linnaea 9: 87. 1834. Lectotype (designated by Proctor, 1977): Peru, Loreto, Yurimaguas, *Poeppig 2113* (B!; duplicates GH, US!-01146948 fragment; the original holotype in LZ was destroyed).

*Orthiopteris inaequalis* (Kunze) Copel., Gen. Fil. 50. 1947.

*Davallia lherminieri* Kunze, Bot. Zeitung (Berlin) 1850: 132. 1850. Type: Guadeloupe, *l'Herminier s.n.* (LZ, destroyed).

*Saccoloma lherminieri* (Kunze) R.Knuth, Repert. Spec. Nov. Regni Veg. Beih. 43: 30. 1926.

*Microlepia galeottii* Fée, Mem. Fam. Foug. 5: 327. 1850. Fée annotated a specimen from Guadeloupe: *l'Herminier s.n.* (P!), with this name.

*Habitat*: uncommon terrestrial fern in rainforests.

*Material examined*: BASSE TERRE: Grand Étang, *Christenhusz 3903* (TUR, UC); Deuxième Chute du Carbet, *Christenhusz 4097* (P, TUR); Que Malanga (Camp Jacob), *Duss 835* (P); Matouba, Matéliane, *Duss 4177* (P).

#### LONCHITIDACEAE

*Note*: The genus *Lonchitis* was placed tentatively in Lindsaeaceae by Smith *et al.* (2006), but the genus disagrees with the synapomorphies of that family (e.g. different root anatomy and introrse indusia that

are covered by a reflexed margin). As Saccolomataceae are closer to Lindsaeaceae than *Lonchitis*, and because Dennstaedtiaceae are the sister genus to Pteridaceae, the genus *Lonchitis* is placed here in its own family, Lonchitidaceae, consisting of the Neotropical *L. hirsuta* L. and the Palaeotropical *L. occidentalis* Baker.

**90.** *Lonchitis hirsuta* L., Sp. Pl. 2: 1078. 1753. Lectotype (designated by Tryon, 1962): Martinique, Morne Rouge, Plumier, *Traité Foug. Amér.*: 16, tab. 20.

*Anisosorus hirsutus* (L.) Underw. & Maxon ex Maxon, Sci. Surv. Porto Rico & Virgin Isl. 6: 429. (Maxon, 1926).

*Pteris laciniata* Willd., Sp. Pl. 5: 397. 1810. Type: Without locality, *Anon.* (holotype B-Willd. 20013).

*Habitat*: locally common, terrestrial fern along streams in rainforests.

*Material examined*: BASSE TERRE: Plateau Dimba, *Christenhusz* 4021 (TUR); *Questel* 1155 (P); Camp Jacob, Rivière Noire, *Duss* 816 (P); Cascade Vauchetlet, *Allorge* E64 (P); *Feldmann s.n.*, anno 1936 (P); *Rodriguez* 2650 (P); Gourbeyre, Forêt des Palmistes, *Le Gallo* 3116 (P); Ravine aux Écrevisses, *Duss* 815 (P); *Thiébaud* 29 (P).

#### DENNSTAEDTIACEAE

**91.** *Dennstaedtia bipinnata* (Cav.) Maxon, Proc. Biol. Soc. Wash. 51: 39. 1938.

*Dicksonia bipinnata* Cav., Descr. Pl. 147. 1802. Type: Puerto Rico, *Ventenat s.n.* (holotype MA; isotype B-Willd. 20165-A; US).

*Microlepia incisa* Fée, Mém. Fam. Foug. 5: 328. 1852. Lectotype (designated here): Guadeloupe, *l'Herminier s.n.* (P!, duplicate RB!).

*Dicksonia incisa* (Fée) Fée, Mém. Fam. Foug. 11: 95, tab. 25, fig. 2. 1866.

*Habitat*: very rare terrestrial fern in very humid forested ravines.

*Localities*: BASSE TERRE: Matouba (ravine Cacador, ravine Flora); Saint Claude (Cascade Vauchetlet); Trois-Rivières (Chute du Petit-Carbet); Baillif (Bois de Fumée, Bois de Boucan-Audet, Rivière Duplessis), according to Vivant (1990).

**92.** *Dennstaedtia obtusifolia* (Willd.) T.Moore, Ind. Fil. 306. 1861.

*Dicksonia obtusifolia* Willd., Sp. Pl. 5: 483. 1810. Type: Venezuela, Caracas, *Bredemeyer s.n.* (holotype B-Willd. 20163!; isotype LE fragment).

*Dicksonia cicutarioides* Fée, Mém. Fam. Foug. 11: 95, tab. 25, fig. 2. 1866. Type: Guadeloupe, Ravine Flore au Matouba, *l'Herminier s.n. anno 1864*, not located. Lectotype (designated here because no herbarium material is in existence): Fée, Mém. Fam. Foug. 11, tab. 25, fig. 2.

*Dennstaedtia cicutarioides* (Fée) Hieron., Bot. Jahrb. Syst. 34: 454. 1904.

*Habitat*: rare, terrestrial fern in forested ravines.

*Localities*: BASSE TERRE: Gorges de la Rivière Noire near Sainte Claude, Chute Vauchetlet, Western side of the dome of La Madeleine (Vivant, 1989a), Ravine Chaude de Matouba (Vivant, 1990), Rivière du Baillif (M. J. M. Christenhusz, pers. observ.).

**93.** *Histiopteris incisa* (Thunb.) J.Sm., Hist. Fil. 295. 1875.

*Pteris incisa* Thunb., Prodr. Pl. Cap. 171. 1800. Type: South Africa, Cape of Good Hope, *Thunberg s.n. anno 1774* (holotype UPS; isotype S!).

*Habitat*: rare fern of montane savannas at high elevations.

*Material examined*: BASSE TERRE: La Soufrière, *Christenhusz* 3920 (P, TUR), La Soufrière, Chemin des Dames, Refuge des Montagnards (Vivant, 1989a).

**94.** *Hypolepis repens* (L.) C.Presl, Tent. Pterid.: 162. 1836.

*Lonchitis repens* L., Sp. Pl. 1078. 1753. Lectotype (designated by Underwood, 1906): Martinique, Morne de la Calebasse, Plumier, *Traité Foug. Amér.* tab. 12. 1705.

*Hypolepis delicatula* Fée, Mém. Fam. Foug. 11: 28, tab. 21, fig. 1. 1866. Type: Guadeloupe, *l'Herminier s.n.*, anno 1864, not located. Lectotype (designated here because no herbarium material is in existence): Fée, Mém. Fam. Foug. 11, tab. 21, fig. 1.

*Habitat*: frequent terrestrial fern with long runners, creating thickets along roadsides and secondary forests.

*Locality*: BASSE TERRE: Grand Étang (Vivant, 1987b).

#### PTERIDACEAE

**95.** *Acrostichum aureum* L., Sp. Pl. 1069. 1753. Lectotype (designated by Schelpe, 1969): 'Habitat in Jamaicae, Dominicae humentibus', *Herb. Clifford: 475, Acrostichum 1* (BM-000647610). The specimen LINN 1245.5, as cited by Proctor (1977) was not in

LINN prior to 1756 (Jackson, 1912). A plate in Plumier (1705) was treated as lectotype by Proctor (1985), but the Schelpe choice is the earliest explicit lectotypification of this species (Jarvis, 2007).

*Habitat*: rare in margins of mangrove swamps, sometimes cultivated (Domaine de Valombreuse; M. J. M. Christenhusz, pers. observ.).

*Localities*: GRAND TERRE: Pointe-à-Pitre (Vivant, 1987b), MARIE GALANTE (Vivant, 1990).

**96.** *Acrostichum danaeifolium* Langsd. & Fisch., Pl. Voy. Russes Monde [Ic. Fil.] 1: 5, tab. 1. 1810. Type: Brazil, Santa Catarina Island, *Krusenstern s.n.*, ex *Herbarium Langsdorff* (holotype LE).

*Habitat*: locally common fern of swamps, coastal mangroves and wet roadsides.

*Localities*: GRAND TERRE: Gosier (M. J. M. Christenhusz, pers. observ.), Pointe-à-Pitre (Vivant, 1987b). LA DÉsirADE, MARIE GALANTE (Proctor, 1977).

**97.** *Adiantopsis radiata* (L.) Fée, Mém. Fam. Foug. 5: 145. 1852.

*Adiantum radiatum* L., Sp. Pl. 1094. 1753. Lectotype (designated by Lellinger, 1972a): Jamaica, *Sloane 1248* (BM-SL 000589448!). The specimen LINN 1252.1 was not present in the Linnaean herbarium before 1755 (Jackson, 1912).

*Habitat*: terrestrial fern on stony ground in thickets, on paths and in dry forests.

*Material examined*: BASSE TERRE: Houëlmon, *Christenhusz 4033* (P, TUR).

[*Adiantum caudatum* L., Mant. Pl. Altera 308. 1771. Lectotype (designated here): 'Habitat in India orientali', *Anon.* (LINN 1252.6!).

*Habitat*: cultivated fern from East Asia (Fournet & Hoff, 1999), perhaps naturalizing.]

**98.** *Adiantum concinnum* Humb. & Bonpl. ex Willd., Sp. Pl. 5: 451. 1810. Lectotype (designated by Tryon 1964b): Venezuela, Cumana, *Humboldt & Bonpland s.n.* (B-Willd. 20099-2, duplicate NY fragment).

*Material examined*: BASSE TERRE: Cascade aux Écrevisses (M. J. M. Christenhusz, pers. observ.)

**99.** *Adiantum fragile* Sw., Prodr. 135. 1788.

Type: Jamaica, *Swartz, s.n.* (holotype S!; isotypes B-Willd. 20098, SBT).

*Habitat*: rare fern on limestone walls and cliffs.

*Localities*: BASSE TERRE: Monts Caraïbes, Ravin Blondeau (Vivant, 1987b); GRAND TERRE: Gosier, near Mathurin (Vivant, 1987b).

**100.** *Adiantum latifolium* Lam., Encycl. 1: 43. 1783.

Neotype (designated by Proctor, 1977): Guadeloupe, *Proctor 20110* (A, isoneotype US). No specimen exists in the Lamarck herbarium and cited illustrations are other species. Proctor (1977) designated the neotype to pertain to the traditional application of the name.

*Habitat*: common terrestrial fern on banks, thickets, pasture borders, in moist shade, often on slightly disturbed soil. The species is also cultivated as a garden plant and may naturalize.

*Material examined*: BASSE TERRE: Cascade aux Écrevisses (Vivant, 1987b; M. J. M. Christenhusz, pers. observ.); Domaine de Valombreuse (M. J. M. Christenhusz, pers. observ.).

**101.** *Adiantum lucidum* (Cav.) Sw., Syn. Fil. 121. 1806.

*Pteris lucida* Cav., Descr. Pl. 266. 1802. Type: Ecuador, Guaranda, *Née s.n.* (holotype MA).

*Habitat*: rare terrestrial fern along forested river banks and old plantations.

*Material examined*: BASSE TERRE: *l'Herminier s.n.* (P).

*Localities*: BASSE TERRE: Montebello in mesophile forest behind the distillery and in the Gorges de la Lézarde at Vernou (Vivant, 1988).

**102.** *Adiantum macrophyllum* Sw., Prodr. 135. 1788.

Type: Jamaica, *Swartz s.n.* (holotype S!; isotype SBT).

*Habitat*: uncommon species terrestrial in ravines and on rocky banks.

*Material examined*: BASSE TERRE: Saut d'Eau du Matouba, *Christenhusz 4098* (TUR).

**103.** *Adiantum obliquum* Willd., Sp. Pl. 5: 429. 1810.

Lectotype (designated by Lellinger, 1972a): Venezuela, Caracas, *Bredemeyer s.n.* (B-Willd. 20067-1).

*Habitat*: locally common terrestrial fern on steep wooded slopes.

*Material examined*: BASSE TERRE: Sofaïa, *Christenhusz* 2758 (TUR, UC); 3978 (P, TUR, UC).

**104.** *Adiantum petiolatum* Desv., Ges. Naturf. Freunde Berlin Mag. Neuesten Entdeck. Gesammten Naturk. 5: 326. 1811. Type: 'Gallia aequinoctiali Brasiliaque', Anon., *Herbarium Desvieux* (holotype P!).

*Habitat*: rare terrestrial on stony banks.

*Locality*: only known from a single locality south from Matouba (Vivant, 1996).

**105.** *Adiantum pulverulentum* L., Sp. Pl. 1096. 1753. Lectotype (designated by Lellinger, 1972a): Plumier, Descr. Pl. Amér.: 32, tab. 47. 1693.

*Habitat*: rare terrestrial fern of shaded banks and wooded slopes.

*Material examined*: BASSE TERRE: Saut d'Eau du Matouba (M. J. M. Christenhusz, pers. observ.).

**106.** *Adiantum pyramidale* (L.) Willd., Sp. Pl. 5: 442. 1810.

*Polypodium pyramidale* L., Sp. Pl. 2: 1093. 1753. Lectotype (designated by Proctor, 1977): Haiti, Léogane, Grand Cul-de-Sac, Petiver, Pter. Amer.: 40, tab. 4, fig. 2. 1712.

*Adiantum cristatum* L., Syst. Nat. ed. 10, 2: 1328. 1759. Lectotype (designated by Proctor, 1989): Hispaniola, Plumier, Descr. Pl. Amér. tab. 46. 1693.

*Habitat*: uncommon, variable, terrestrial species of rainforests.

*Localities*: Cascade aux Écrevisses (M. J. M. Christenhusz, pers. observ.).

[*Adiantum raddianum* C.Presl, Tent. Pterid.: 158. 1836.

Type: Brazil, Santa Catarina Island, *Langsdorff* 19 (holotype LE; isotypes B-Willd. 20096, BM!). The epithet '*raddianum*' is a new name for *Adiantum cuneatum* Langsd. & Fisch., Icon. Fil. 23, tab. 26. 1810, non G.Forst. (1786).

*Adiantum capillus-veneris sensu* Fournet & Hoff (1999), non L. The true maidenhair fern is often confused with *A. raddianum*. It may be cultivated in Guadeloupe, but has never been found in the

wild. The nearest known population of *A. capillus-veneris* grows on a fortress wall in San Juan, Puerto Rico.

*Habitat*: commonly cultivated and recently naturalized, especially in the regions of Sainte Claude, Matouba (Vivant, 1996), Domaine de Valombreuse and Dunoyer (Grand Terre).

*Material examined*: BASSE TERRE: Cascade Vauchetlet, *Christenhusz* 4092 (TUR, UC).]

**107.** *Adiantum tenerum* Sw., Prodr. 135. 1788. Type: Jamaica, *Swartz s.n.* (holotype S; isotype B-Willd. 20097).

*Habitat*: Common fern terrestrial on shaded limestone cliffs and lithophytic on old masonry.

*Localities*: GRAND TERRE: Cocoyer (M. J. M. Christenhusz, pers. observ.); Raffinerie Darbousier in Pointe-à-Pitre (Vivant, 1987b); St Martin, St Barthélemy, La Désirade, Marie-Galante (Proctor, 1977).

**108.** *Adiantum tetraphyllum* Humb. & Bonpl. ex Willd., Sp. Pl. 5: 441. 1810. Lectotype (designated by Lellinger, 1977): Venezuela, Caripe, *Humboldt & Bonpland s.n.* (B-Willd. 20082-2).

*Habitat*: terrestrial fern of wooded slopes and ravines.

*Material examined*: BASSE TERRE: Cascade Vauchetlet, *Christenhusz* 4087 (P,TUR, UC); Gorge de la Lézarde (GUAD). MARIE GALANTE (Proctor, 1977).

**109.** *Adiantum villosum* L., Syst. Nat. ed. 10, 2: 1328. 1759. Type: not designated (see discussion in Jarvis, 2007).

*Adiantum oblique-truncatum* Fée, Mém. Fam. Foug. 11: 18, tab. 7, fig. 3. 1866. Lectotype (designated here): Guadeloupe, *l'Herminier s.n. anno 1861* (RB!, duplicate MO).

*Habitat*: terrestrial fern on rocky banks and wooded slopes.

*Material examined*: BASSE TERRE: Sofaïa, *Christenhusz* 2755 (TUR).

**110.** *Anetium citrifolium* (L.) Splitg., Tijdschr. Natuurl. Gesch. Physiol. 7: 395. 1840.

*Acrostichum citrifolium* L., Sp. Pl. 1067. 1753. Lectotype (designated by Tryon, 1964a): Cabesterre, Martinique, Plumier, *Traité Foug.*

Amér. tab. 116. 1705. Typotype: *Herbarium Jussieu* 991 (P-JUSS!).

*Hemionitis parasitica* L. Syst. Nat., ed. 10, 2: 1322. 1759.

*Habitat*: common epiphytic fern on tree trunks in forest.

*Material examined*: BASSE TERRE: Trace Étang Roche to Étang de l'As de Pique, *Christenhusz* 4076 (P, TUR); Cascade aux Écrevisses (M. J. M. Christenhusz, pers. observ.); Domaine de Valombreuse (M. J. M. Christenhusz, pers. observ.).

**111.** *Cheilanthes microphylla* (Sw.) Sw., Syn. Fil. 127. 1806.

*Adiantum microphyllum* Sw., Prodr. 135. 1788. Type: Jamaica, *Swartz s.n.* (holotype S!; isotypes BM!, SBT).

*Notholaena microphylla* (Sw.) Keyserl., Polyp. Herb. Bunge 28. 1873.

*Habitat*: rare terrestrial or lithophytic fern of mesophile forest on limestone.

*Localities*: LES SAINTES: Terre de Haut, Morne du Chameau (Proctor, 1977; Vivant, 1988); Terre de Bas, Petite Anse (GUAD). ST. BARTHÉLEMY (Proctor, 1977).

**112.** *Doryopteris pedata* (L.) Fée, Mém. Fam. Foug. 5: 133. 1852.

*Pteris pedata* L., Sp. Pl. 2: 1075. 1753. Lectotype (designated by Tryon, 1942): Antilles, *Anon.* (LINN 1246.11!).

*Habitat*: rare terrestrial fern of xerophile forests on steep slopes.

*Localities*: BASSE TERRE: Vieux-Habitants, Habitation Beausoleil, along road D17 to Grand' Rivière (Vivant, 1989b).

**113.** *Eriosorus hispidulus* (Kunze) Vareschi var. *dominicensis* A. Tryon, Contr. Gray Herb. 200: 115. fig. 16-B. 1970. Type: Dominica, Morne Trois Pitons, *Chambers* 2596 (holotype GH).

*Habitat*: very rare, pendent, lithophytic fern, previously only known from the type locality in Dominica (Proctor, 1977; Vivant, 1990).

*Material examined*: BASSE TERRE: Nez Cassé, *Lazare s.n.* (GUAD!; Vivant, 1990).

**114.** *Hecistopteris pumila* (Spreng.) J.Sm., London J. Bot. 1: 193. 1842.

*Gymnogramma pumila* Spreng., Tent. Suppl. 31. 1828. Type: Suriname, *Weigelt s.n.* (holotype GOET; isotypes B, BM!, BR, P, UC).

*Habitat*: local epiphyte on mossy tree trunks and in forks of branches, especially on palms and rotten logs.

*Material examined*: BASSE TERRE: Sofaia, *Christenhusz* 3976 (TUR, UC).

**115.** *Hemionitis palmata* L., Sp. Pl. 1077. 1753. Lectotype (designated by Tryon, 1964b): 'Habitat in America meridionali', *Anon.* (LINN-1248.3).

*Habitat*: rare terrestrial fern on grassy banks and ledges, often on rather acidic soils in mesophile forest.

*Material examined*: BASSE TERRE: Ravine de Belost, *Quentin* 614 (P); *Stehlé* 600 (P); Vieux Habitants, Laventure, *Duss* 871 (P); Vieux Habitants, Ravine Paradis, *Duss* 871 (P). *Localities*: Ravin Blondeau, Monts Caraïbes, Basse Terre village (prop. Boulogne), Rivière des Pères (Vivant, 1987b); LES SAINTES: Morne du Chameau (Vivant, 1988). ST. MARTIN (Proctor, 1977).

**116.** *Neurocallis praestantissima* Bory ex Fée, Mém. Fam. Foug. 2: 89. 1845. (Fig. 6C). Lectotype (designated here): Guadeloupe, *l'Herminier s.n. ex Herbarium Fée* (P!); duplicate: *l'Heminier s.n. ex Herbarium Bory* (P!). Note: Arbeláez (1996) cited two P specimens: 'ex herb. Mougeot y Bory' as type, which is not a valid lectotypification.

*Habitat*: terrestrial fern of montane rainforests at mid to higher elevations.

*Material examined*: BASSE TERRE: Bains Jaunes, *Christenhusz* 2771 (TUR); 3997 (P, TUR, UC); *Feldmann s.n., anno 1936* (P); Bassin Bleu, *Duss* 868 (P); Gommier, *Thiébaud s.n., anno 1877* (P); Forêt de Fumée, *Feldmann s.n., anno 1936* (P); *Stehlé* 520 (P); La Citerne, *Feldmann, s.n., anno 1936* (P); Trail between Étang Madère and Étang Roche, *Christenhusz* 4064 (P, TUR, UC).

**117.** *Pityrogramma calomelanos* (L.) Link, Handb. Gewächs. 3: 20. 1833.

*Acrostichum calomelanos* L., Sp. Pl. 1072. 1753. Lectotype (designated by Schelpe, 1969): 'America meridionali', *Anon.* (LINN 1245.19!).

*Habitat*: common, rather weedy fern of wet places, roadsides, gardens and other disturbed places.

*Material examined:* BASSE TERRE: La Soufrière, *Christenhusz* 3917 (P, TUR); Étang Zombis, *Christenhusz* 4051 (TUR); Saut d'Eau du Matouba (M. J. M. Christenhusz, pers. observ.); Cascade aux Écrevisses (M. J. M. Christenhusz, pers. observ.); Domaine de Valombreuse (M. J. M. Christenhusz, pers. observ.). GRAND TERRE: Gosier (M. J. M. Christenhusz, pers. observ.). ST. MARTIN, ST. BARTHÉLEMY, MARIE GALANTE (Proctor, 1977).

**118.** *Pityrogramma chrysophylla* (Sw.) Link, Handb. Gewächs. 3: 19. 1833.

*Acrostichum chrysophyllum* Sw., J. Bot. (Schrader) 1800(2): 14. 1802. Type: 'in submontosis Antillarum', *Swartz s.n.* (holotype S!).

*Ceropteris intermedia* Fée, Mém. Fam. Foug. 11: 30. 1866. Lectotype (designated here): Guadeloupe, *l'Herminier s.n. ex Herbarium Cosson* (P!, duplicates K!, NY! fragment).

*Habitat:* local species on rocky places, coastal cliffs and masonry.

*Material examined:* BASSE TERRE: La Soufrière, *Christenhusz* 3918 (TUR); Vieux Fort (Vivant 1987b; and M. J. M. Christenhusz, pers. observ.); GRAND TERRE: St François (M. J. M. Christenhusz, pers. observ.). ST. BARTHÉLEMY (Proctor, 1977).

**119.** *Polytaenium dussianum* (Benedict) Benedict, Bull. Torrey Bot. Club 38: 169. 1911.

*Antrophyum dussianum* Benedict, Bull. Torrey Bot. Club 34: 453. 1907. Type: Guadeloupe, 'sur arbres, bois sulfureux des Bains Jaunes', alt. 200–1000 m, anno 1896, *Duss 4226* (holotype NY!; isotypes P!, US!-00429498).

*Habitat:* very rare epiphyte on tree trunks and lithophytic on boulders in moist forests at chiefly mid elevations. The continued existence of this species on Guadeloupe needs to be confirmed.

**120.** *Polytaenium feei* (W.Schaffn. ex Fée) Maxon, Sci. Surv. Porto Rico & Virgin Is. 6: 405. (Maxon, 1926).

*Antrophyum feei* W.Schaffn. ex Fée, Mém. Fam. Foug. 7: 42, tab. 22, fig. 1. 1857. Type: Mexico, Veracruz, Huatusco, *Schaffner 133* (holotype P, isotype K).

*Hemionitis lanceolata* L., Sp. Pl. 1077. 1753.

*Antrophyum lanceolatum* (L.) Kaulf., Enum. Fil. 198. 1824.

*Habitat:* rather common epiphyte on tree trunks in rainforests.

*Material examined:* BASSE TERRE: Sofaïa, *Christenhusz* 3951 (TUR); 3979 (NY, P, TUR); Monts Caraïbes (Vivant, 1987b); Cascade aux Écrevisses (M. J. M. Christenhusz, pers. observ.); Domaine de Valombreuse (M. J. M. Christenhusz, pers. observ.).

**121.** *Pteris altissima* Poir. in Lamarck, Encycl. 5: 722. 1804.

Type: Puerto Rico, *Ledru s.n.* (holotype P-Lam!).

*Habitat:* large terrestrial fern of moist shaded ravines and wooded slopes of mid to higher elevation.

*Material examined:* BASSE TERRE: Grand Étang, *Christenhusz* 4077 (TUR, UC); Saut d'Eau du Matouba (M. J. M. Christenhusz, pers. observ.).

**122.** *Pteris arborea* L., Sp. Pl. 2: 1073. 1753. (Fig. 6D). Lectotype (designated by Proctor, 1977): Morne de la Calebasse, Martinique, Plumier, *Traité Foug. Amér.* tab. 5. 1705.

*Pteris lactuca* Poir. in Lamarck, Encycl. 5: 717. 1804. Type: Guadeloupe, *Badir s.n.* (holotype P-Lam!).

*Litobrochia brevinervis* Fée, Mém. Fam. Foug. 11: 27, tab. 8, fig. 2. 1866. Type: Guadeloupe, *l'Herminier s.n. anno 1864* (holotype RB!).

*Pteris brevinervis* (Fée) Jenman, Ferns and Fern Allies of the British West Indies and Guiana 125. 1900.

*Habitat:* common fern of roadsides, along streams and in wooded slopes.

*Material examined:* BASSE TERRE: Deuxième Chute du Carbet, *Christenhusz* 2806 (TUR); Étang Zombis, *Christenhusz* 4050 (GOET, TUR); Grande Découverte, *Christenhusz* 4178 (TUR).

[*Pteris argyraea* T.Moore, Gard. Chron. 1859: 671. 1859. Type: South India, cultivated by Veitch and son, not located. A specimen in BM: 'cult in Kew', ex herbarium John Smith 1860 is in existence and may well be what the species was based on, but it is dated post-publication. There are no specimens of this species in the Thomas Moore herbarium at K. When no other material is found, the specimen from the John Smith herbarium can be considered the neotype (designated here).

*Habitat:* this species from tropical Asia is commonly offered in supermarkets on Guadeloupe and may easily naturalize.]

[*Pteris cretica* L., Mant. Pl. 130. 1767. Lectotype (designated by Tryon, 1964b): 'Habitat in Creta, Ilva insula', *Arduino s.n.* (LINN 1246.7!).

*Habitat:* various cultivars of this species are offered in supermarkets on Guadeloupe and may naturalize after establishing themselves in gardens.]

**123.** *Pteris grandifolia* L., Sp. Pl. 1073. 1753. Lectotype: (designated by Tryon, 1964b): 'Habitat in Dominicae, Martinicae uliginosis', *Anon.* (LINN 1246.1!).

*Habitat:* rare fern of moist thickets, along water-courses and in ravines at lower to mid elevations, often on limestone.

*Locality:* GRAND TERRE: northern part of Grands-Fonds, in abandoned chalk mines near David-Chazeau (Vivant, 1989b).

[*Pteris multifida* Poir. in Lamarck, *Encycl.* 5: 714. 1804. Type: cultivated at Muséum d'Histoire Naturelle, Paris, *Anon.* (holotype P-Lam.).]

*Habitat:* cultivated fern, originally from East Asia, locally naturalized on masonry, pavement and in gardens.

*Locality:* along a trail near the police station in Sainte Claude (Vivant, 1989a).]

**124.** *Pteris pungens* Willd., Sp. Pl. 5: 387. 1810. Lectotype (designated by Proctor, 1977): Léogane, Haiti, Plumier, *Traité Foug. Amér. tab.* 14. 1705.

*Pteris biaurita* L. var. *pungens* (Willd.) Christ, *Bot. Jahrb. Syst.* 24: 99. 1897.

*Pteris quadriaurita* Retz. var. *pungens* (Willd.) Bommer & Christ, *Bull. Soc. Roy. Bot. Belgique* 35: 190. 1896.

*Habitat:* local, usually terrestrial near streams in forest.

*Material examined:* BASSE TERRE: Cascade Vauchet, *Christenhusz* 4093 (TUR).

**125.** *Pteris quadriaurita* Retz., *Observ. Bot.* 6: 38. 1791. Type: Sri Lanka (Ceylon), *König s.n.* (holotype LD).

*Habitat:* rare fern of ravines in mesophile forests.

*Localities:* BASSE TERRE: Monts Caraïbes (Vivant, 1987b).

[*Pteris tripartita* Sw., *J. Bot. (Schrader)* 1800(2): 67. 1801. Lectotype (designated here): Indonesia, Java, *Thunberg s.n.* (UPS-Thunb. 24968; duplicate UPS-Thunb. 24969).

*Habitat:* cultivated fern originally from the Old World tropics. It was planted in a garden in Sainte Claude, where it did not persist (Vivant, 1989b, 1996). The species is commonly naturalized on Saint Lucia (M. J. M. Christenhusz, pers. observ.).]

[*Pteris vittata* L., Sp. Pl. 1074. 1753. Lectotype (designated by Tryon, 1964b): China, *Osbeck s.n.* (LINN 1246.3!).]

*Habitat:* common fern on masonry and limestone cliffs, especially in open chalk mines; originally from the Old World tropics, but commonly naturalized in the New World.

*Material examined:* BASSE TERRE: Chalk mines at Trois-Rivières and Vieux Fort (Vivant, 1987b). GRAND TERRE: Dunoyer, *Christenhusz* 4195 (P, TUR); Pointe-à-Pitre City centre (M. J. M. Christenhusz, pers. observ.), Raffinerie Darbousier (Vivant, 1987b); Cocoyer (M. J. M. Christenhusz, pers. observ.); Domaine de Valombreuse (M. J. M. Christenhusz, pers. observ.). LES SAINTES: Terre de Haut (Vivant, 1989b). MARIE GALANTE (Proctor, 1977).]

**126.** *Vittaria costata* Kunze, *Linnaea* 9: 77. 1834.

Type: Peru, Tocache, Huallaga, *Poeppig s.n.* (W!). *Pteris angustifolia* Sw., *Prodr.* 129. 1788. Type: Jamaica, *Swartz s.n.* (holotype S!).

*Vittaria angustifolia* (Sw.) Baker, *Fl. Bras. (Martius)* 1(2): 544. 1870.

*Ananthacorus angustifolius* (Sw.) Underw. & Maxon, *Contr. U. S. Natl. Herb.* 10: 487. 1908.

*Habitat:* epiphyte on trunks of forest trees, rarely lithophytic.

*Localities:* Gorges de la Lézarde (Vernou) on cultivated mango trees (Vivant, 1988).

**127.** *Vittaria graminifolia* Kaulf., *Enum. Filic.* 192.

1824. Type: Brazil *Otto s.n.* (isotype E!, LE?). The holotype in LZ is no longer extant. Tryon (1964a) selected a neotype: *Sellow s.n.* (B), but original material exists superseding this neotypification.

*Vittaria filifolia* Fée, *Mém. Foug.* 3: 20, t. 3, fig. 6. 1852. Lectotype (designated by Tryon, 1964a): Guadeloupe, *l'Herminier s.n., ex herb. Cosson* (P).

*Habitat:* delicate epiphyte, common on tree trunks in forest.

*Material examined:* BASSE TERRE: Sofaiã, *Christenhusz* 3975 (TUR); Bras David (M. J. M. Christenhusz, pers. observ.); Saut d'Eau du Matouba (M. J. M.



Christenhusz, pers. observ.). GRAND TERRE: mangroves near Abymes; mesophile forest near Gosier (Vivant, 1987b).

**128.** *Vittaria lineata* (L.) Sm., Mém. Acad. Roy. Sci. (Turin) 5: 421, tab. 9, fig. 5. 1793.

*Pteris lineata* L., Sp. Pl. 1073. 1753. Lectotype (designated by Tryon, 1964a): Port de Paix, Haiti, Plumier, Traité Foug. Amér.: 123, tab. 143. 1705.

*Habitat*: common epiphyte on tree trunks, especially on palms and bamboos or mossy rotten logs.

*Localities*: BASSE TERRE: Routhiers (Vivant, 1987b); Bras David (M. J. M. Christenhusz, pers. observ.).

#### ASPLENIACEAE

**129.** *Asplenium abscissum* Willd., Sp. Pl. 5: 321. 1810. Lectotype (designated by Morton & Lellinger, 1966): Venezuela, Caracas, *Bredemeyer s.n.* (B-Willd. 19893-1).

*Habitat*: rare, terrestrial fern in leaf litter or lithophytic on mossy rocks, in mesophile forest.

*Locality*: BASSE TERRE: Monts Caraïbes, Pic Giono (Vivant, 1987b).

**130.** *Asplenium auriculatum* Sw., Kongl. Vetensk. Acad. Handl. 38: 68. 1817, not Kuhn (1868). Type: Brazil, Minas Gerais, Rio de San Francisco, *Freyreis s.n.* (holotype S!, isotype BR!).

*Asplenium salicifolium* L. var. *auriculatum* (Sw.) Proctor, Fl. Lesser Antilles 2: 321. 1977.

*Habitat*: rare epiphyte of mossy tree trunks, sometimes lithophytic near streams.

*Material examined*: BASSE TERRE: Mazé (IJ), Proctor 20162 (A, IJ).

**131.** *Asplenium cirrhatum* Rich. ex Willd., Sp. Pl. 5: 321. 1810. Type: Guadeloupe, *Richard s.n.* (holotype B-Willd.-19894; isotypes NY! fragment, P!).

*Asplenium radicans* L. var. *cirrhatum* (Rich. ex Willd.) Rosenst., Hedwigia 46:102. 1906.

*Asplenium mastigophyllum* Fée, Mém. Fam. Foug. 8: 83. 1857. Lectotype (designated here): Guadeloupe, 'boix humides et élevées', *l'Herminier s.n.* (RB!).

*Habitat*: occasional fern, usually terrestrial or lithophytic on rocks in forest, rarely epiphytic.

*Material examined*: BASSE TERRE: Trail from Étang Roche to Étang de l'As de Pique, *Christenhusz 4071* (GOET, TUR).

**132.** *Asplenium cristatum* Lam., Encycl. 2: 310. 1786. Type: Puerto Rico, *Le Dru s.n.* (holotype P-JU-1276!).

*Habitat*: local terrestrial or epiphytic fern on trees or lithophytic on boulders in forest.

*Material examined*: BASE TERRE: Saut d'Eau du Matouba, *Christenhusz 4105* (TUR). ST. MARTIN (Proctor, 1977).

**133.** *Asplenium cuneatum* Lam., Encycl. 2: 309. 1786. Type: Locality unknown, *Anon.* (holotype P-JU-1255!).

*Habitat*: rare epiphyte on tree trunks in forest, sometimes lithophytic.

*Material examined*: BASSE TERRE: Cascade Vauchellet, *Christenhusz 4090* (TUR).

**134.** *Asplenium dentatum* L. subsp. *barbadense* (Jenman) Christenh., **stat. nov.**

*Asplenium barbadense* Jenman, Gard. Chron. ser. 3, 15: 134. 1894. Type: Barbados, *Anon. s.n., anno 1890* (holotype US!-00428904, isotype NY!-00127307 fragment).

*Asplenium dentatum* L. var. *barbadense* (Jenman) C.D.Adams & Baksh-Comeau, Fern Gaz. 16: 98. 2000.

*Habitat*: a rare lithophytic species, usually on humid wet limestone boulders and cliffs in forest.

*Localities*: GRAND TERRE: near Gosier (Vivant, 1987b); Cocoyer (M. J. M. Christenhusz, pers. observ.). MARIE GALANTE (Baksh-Comeau, 2000).

*Note*: This taxon is treated here at a subspecific level, because it is geographically isolated (Barbados, Trinidad, Marie Galante and Guadeloupe); the typical variety occurs in the Greater Antilles (type from Haiti), Central America and northern South America.

**135.** *Asplenium formosum* Willd., Sp. Pl. 5: 329. 1810. Type: Venezuela, Caracas, *Bredemeyer s.n.* (holotype B-Willd. 19908).

*Habitat*: rare species in maritime ravines in mesophile forest.

*Locality:* Monts Caraïbes and in the Parc archéologique aux roches gravées (Vivant, 1987b).

**136.** *Asplenium laetum* Sw., Syn. Fil. 79, 271. 1806, not Schkuhr (1809) nor Wallich (1828). Type: 'Ind. Occ.', Swartz *s.n.* (holotype S!). The neotype designated by Proctor (1985) is superfluous, because original material is in existence.

*Asplenium inaequalidens* Fée, Mém. Fam. Foug. 11: 34, tab. 9, fig. 3. 1866. Lectotype (designated here): Guadeloupe, l'Herminier *s.n.* (RB!).

*Habitat:* rare epiphyte or lithophytic on rock along streams and in waterfalls.

*Locality:* Chute Moreau (Vivant, 1988).

**137.** *Asplenium obtusifolium* L., Sp. Pl. 1080. 1753. (Fig. 6E). Lectotype (designated by Morton & Lellinger, 1966):

Morne de la Calebasse, Martinique, Petiver, Pter. Amer. tab. 2, fig. 14. 1712.

*Habitat:* locally common, lithophytic on rocks in streams.

*Material examined:* BASSE TERRE: Trail from Étang Roche to Étang de l'As de Pique, Christenhusz 4072 (P, TUR).

**138.** *Asplenium pteropus* Kaulf., Enum. Filic. 170. 1824. Type: Brazil, Chamisso *s.n.* (holotype LE; isotype B!)

*Asplenium harpeodes* auct., non Kunze (1845).

*Habitat:* clump-forming, terrestrial fern of hygrophile forests.

*Locality:* BASSE TERRE: Matouba, Refuge des Montagnards; Rivière Rouge; Rivière St Louis; Forêt de Fumée; Bois de Boucan-Audet at Crête des Icaques; Rivière du Plessis (Vivant, 1989b).

**139.** *Asplenium pumilum* Sw., Prodr. 129. 1788, non Davenport (1888). Type: Jamaica, Swartz *s.n.* (holotype S!; isotype UPS-Thunb. 24835).

*Habitat:* rare, seasonal fern, growing terrestrial on rocky or sheltered non-calcareous rocks.

*Material examined:* BASSE TERRE: ravine between Vieux Fort and Basse Terre and along the left shore of Rivière des Pères, near Sainte Claude (Vivant, 1987b). SAINT MARTIN (Proctor, 1977).

**140.** *Asplenium salicifolium*, Sp. Pl. 1080. 1753. Lectotype (designated by Morton & Lellinger, 1966): Plumier, Traité Foug. Amér.: 46, tab. 60. 1705.

*Asplenium gibbosum* Fée, Mém. Fam. Foug. 5: 195. 1852. Type: Guadeloupe, Perrotet *s.n.*, not located and probably lost. Neotype (designated here): Martinique, Montagne Pelée, Hahn 21 (RB!).

*Habitat:* relatively common, lithophytic or more often epiphytic on tree trunks in forest.

*Material examined:* BASSE TERRE: Plateau Dimba, Christenhusz 4031 (GOET, TUR); Grande Découverte, Christenhusz 4165 (TUR); Cascade aux Écrevisses (M. J. M. Christenhusz, pers. observ.).

**141.** *Asplenium serra* Langsd. & Fisch., Pl. Voy. Russes Monde [Icon. Fil.] 16, tab. 19. 1810. Type: Brazil, Santa Catarina, Krusenstern *s.n.*, ex herb. Langsdorff (holotype LE; isotype: B-Willd. 19880).

*Habitat:* rare fern, terrestrial in humus rich soil or epiphytic on mossy tree trunks at mid elevations.

*Material examined:* BASSE TERRE: Plateau Dimba, Christenhusz 4030 (GOET, TUR).

**142.** *Asplenium serratum* L., Sp. Pl. 1079. 1753. Lectotype (designated by Proctor, 1977): Plumier, Descr. Pl. Amér. tab. 39. 1693.

*Asplenium lanciforme* Fée, Mém. Fam. Foug. 5: 192. 1852, *nomen*.

*Asplenium integrum* Fée, Mém. Fam. Foug. 5: 193. 1852. Lectotype (designated here): Guadeloupe, l'Herminier *s.n.* (RB!).

*Habitat:* local fern often epiphytic in canopy of trees, rarely lithophytic in rainforests or freshwater mangroves.

*Material examined:* BASSE TERRE: Domaine de Valombreuse (M. J. M. Christenhusz, pers. observ.). GRAND TERRE: Abymes (Vivant, 1987b).

**143.** *Hemidictyum marginatum* (L.) C.Presl, Tent. Pterid. 111., tab. 3, fig. 24. 1836.

*Asplenium marginatum* L., Sp. Pl. 1082. 1753. Lectotype (designated by Proctor, 1985): 'Habitat in America', Petiver, Pter. Amer.: 108, tab. 12, fig. 2. 1712.

*Diplazium marginatum* (L.) Diels in Engl. & Prantl, Nat. Pflanzenfam. 1(4): 229. 1899, not Blume (1828).

*Asplenium limbatum* Willd., Sp. Pl., ed. 4. 5: 310. 1810. Lectotype (designated by Proctor, 1977):

Martinique, Morne de la Calebasse, Plumier, *Traité Foug. Amér.* tab. 106.

*Diplazium limbatum* (Willd.) Proctor, *Rhodora* 68: 467. 1966.

*Hemidictyum limbatum* (Willd.) C.Presl, *Epim. Bot.* 74. 1852.

*Habitat*: locally common, terrestrial or lithophytic species of wet, shaded ravines in rainforests, often near streams or along rivers, at low to mid elevation.

*Material examined*: BASSE TERRE: Bassin Bleu (M. J. M. Christenhusz, pers. observ.). *Localities*: BASSE TERRE: Deuxième Chute du Carbet (Vivant, 1987b; Fournet & Hoff, 1999).

*Note*: *Hemidictyum* was previously placed in Woodsiaceae and Athyriaceae, but the molecular study by Schuettpelz & Pryer (2007) suggests that it is better placed here.

#### THELYPTERIDACEAE

*Note*: This family is mostly treated as consisting of 5–30 genera. The placement of species strongly depends on the generic classification, which need revision. In this treatment I have followed Smith *et al.* (2006), with a limited number of genera.

#### 144. *Cyclosorus abruptus* (Desv.) Christenh., **comb. nov.**

*Polypodium abruptum* Desv., *Mém. Soc. Linn. Paris* 6: 293. 1827. Type: Antilles, *Anon. s.n. ex herb. Desvaux* (holotype P!).

*Thelypteris abrupta* (Desv.) Proctor, *Rhodora* 61: 306. 1959. 1960.

*Goniopteris pyramidata* Fée, *Mém. Fam. Foug.* 11: 61, tab. 16, fig. 2. 1866. Lectotype (designated here): Guadeloupe, Grand Terre, *l'Herminier s.n.* (RB!).

*Habitat*: occasional terrestrial fern in moist disturbed forests.

*Material examined*: BASSE TERRE: Sofaïa, *Christenhusz* 3985 (P, TUR, UC); Basse Pointe. *Lazare s.n.* (GUAD).

#### 145. *Cyclosorus affinis* (Fée) Christenh., **comb. nov.**

*Goniopteris affinis* Fée, *Mém. Fam. Foug.* 5: 250. 1852, not *Thelypteris affine* (Blume) Presley. Lectotype (designated here): Guadeloupe, *Perottet s.n.* (P!).

*Aspidium scolopendrioides* (L.) Mett. f. *incisum* Duss, *Div. Foug. Antill. Franc.* 96. 1903. Type: Guadeloupe, Grand Terre, Grands-Fonds, near Morne à l'Eau, *Duss* 4389 (holotype P!).

*Note*: This taxon is intermediate between *Thelypteris guadalupensis* and *T. tenera* and may be of hybrid origin.

#### 146. *Cyclosorus clypeolutatus* (Desv.) Christenh., **comb. nov.**

*Nephrodium clypeolutatum* Desv., *Mém. Soc. Linn. Paris* 6: 258. 1827. Type: Antilles, *Anon. ex herb. Desvaux* (holotype P!).

*Thelypteris clypeolutata* (Desv.) Proctor, *Rhodora* 61: 306. 1959. 1960.

*Steiropteris clypeolutata* (Desv.) Pic.Serm., *Webbia* 28: 451. 1973.

*Aspidium lherminieri* Kunze ex Mett., *Abh. Senckenberg. Naturf. Ges.* 2: 85, no. 285. 1858. Type: Guadeloupe, *l'Herminier s.n.* (holotype LZ, destroyed, no isotypes located).

*Aspidium capitainei* Fée & l'Herm. in Fée, *Mém. Fam. Foug.* 11: 80, tab. 22, fig. 3. 1866. Lectotype (designated here): Guadeloupe, *l'Herminier s.n. anno 1861* (RB!).

*Aspidium asperulum* Fée, *Mém. Fam. Foug.* 11: 80, tab. 23, fig. 1. 1866. Lectotype (designated here): Guadeloupe, *l'Herminier s.n. anno 1861* (RB!).

*Aspidium trichophorum* Fée, *Mém. Fam. Foug.* 11: 81, tab. 23, fig. 2. 1866. Lectotype (designated here): 'grand bois a la Guadeloupe', *l'Herminier s.n. anno 1861* (RB!, duplicate RB!).

*Habitat*: common terrestrial fern of moist forests at mid elevations, endemic to the Lesser Antilles.

*Material examined*: BASSE TERRE: Grand Étang, *Christenhusz* 2795 (TUR, UC); Sofaïa, *Christenhusz* 3947 (P, TUR, U, UC); Plateau Dimba, *Christenhusz* 4017 (P, TUR, UC); Rivière Quiock, *Christenhusz* 4109 (P, TUR, UC), 4117 (P, TUR, UC); Grande Découverte, *Christenhusz* 4133 (P, TUR, UC); Morne à Louis, *Christenhusz* 4186 (TUR).

#### 147. *Cyclosorus cocoslyrus* Christenh., **nom. nov.**

*Meniscium serratum* Cav., *Descr. Pl.* 548. 1802. not *Cyclosorus serratus* Copel. Type: Cuba, Havana, *Guio s.n.* (holotype MA).

*Thelypteris serrata* (Cav.) Alston, *Bull. Misc. Inform.* 1932: 309. 1932.

*Habitat*: rare terrestrial fern of bogs, marches and ditches.

*Localities*: BASSE TERRE: Baillif, Forêt de Fumée and at Bois de Boucan-Audet (Vivant, 1990). GRAND TERRE: Le Raizet (GUAD).

*Note*: The epithet is an anagram of *Cyclosorus*.

**148. *Cyclosorus decussatus* (L.) Christenh., comb. nov.**

*Polypodium decussatum* L., Sp. Pl. 1093. 1753. Lectotype (designated by Proctor, 1977): Petiver, Pter. Amer.: 61, tab. 2, fig. 5. 1712.

*Thelypteris decussata* (L.) Proctor, Bull. Inst. Jamaica, Sci. Ser. 5: 59. 1953.

*Habitat*: locally common terrestrial species, growing on banks, slopes and ravines at mid to higher elevations.

*Localities*: BASSE TERRE: Monts Caraïbes at Ravin Blondeau; rainforest near Routhiers (Vivant, 1987b).

[*Cyclosorus dentatus* (Forssk.) Ching, Bull. Fan Mem. Inst. Biol. 8: 206. 1938. *Polypodium dentatum* Forssk., Flora Aegypt.-Arab. 185. 1775. Type: Yemen, *Forsskål 809* (holotype C).

*Thelypteris dentata* (Forssk.) E.P.St.John, Amer. Fern J. 26: 44. 1936.

*Christella dentata* (Forssk.) Brownsey & Jermy, Brit. Fern Gaz. 10: 338. 1973.

*Habitat*: common terrestrial fern in forests, native of the Old World tropics, commonly introduced and naturalized.

*Material examined*: BASSE TERRE: Bains Jaunes, Christenhusz 3938 (P, TUR, UC). MARIE GALANTE (Proctor, 1977).]

**149. *Cyclosorus guadalupensis* (Wikstr.) Ching, Bull. Fan Mem. Inst. Biol. Bot. 10: 245. 1941.**

*Polypodium guadalupense* Wikstr., Kongl. Vetensk. Acad. Handl. 1825: 435. 1826. Type: Guadeloupe, *Forsström s.n.* (holotype S!).

*Thelypteris guadalupensis* (Wikstr.) Proctor, Bull. Inst. Jamaica, Sci. Ser. 5: 60. 1953. non: *Goniopteris guadalupensis* Fée.

*Habitat*: very rare fern of mesophile forest on limestone. This species is more commonly found in the Greater Antilles.

*Material examined*: GRAND TERRE: Grands Fonds, near Boivin, *Allorge s.n., anno 1936* (P); *Rodriguez 4190* (P); Moule, *Duss 741* (P); Grippon, *Duss 4059* (P); Morne à l'Eau, Chazeau (GUAD). MARIE

GALANTE, *Beaupertuis s.n., anno 1839* (P); LA DÉSIRADE (Proctor, 1977).

**150. *Cyclosorus hastatus* (Fée) Christenh., comb. nov.**

*Goniopteris hastata* Fée, Mém. Fam. Foug. 11: 65, tab. 18, fig. 1. 1866. Lectotype (designated here): Guadeloupe, *l'Herminier s.n. anno 1861* (P!; duplicates B, RB!).

*Thelypteris hastata* (Fée) Proctor, Bull. Inst. Jamaica, Sci. Ser. 5: 60. 1953.

*Habitat*: rare species of mesophile forest on limestone.

*Localities*: GRAND TERRE: Gosier, near Mathurin (Vivant, 1987b).

**151. *Cyclosorus hispidulus* (Decne.) Ching, Bull. Fan Mem. Inst. Biol. 10: 245. 1941.**

*Aspidium hispidulum* Decne., Nouv. Ann. Mus. Hist. Nat. 3: 346. 1834. Type: Indonesia, Timor, *Guichenot s.n.* (holotype P!).

*Thelypteris hispidula* (Decne.) C.F.Reed, Phytologia 17: 283. 1968.

*Nephrodium quadrangulare* Fée, Mém. Fam. Foug. 5: 308. 1852. Type: French Guiana, Mont Tigre, anno 1837, *Leprieur 182* (holotype P!; isotype NY).

*Thelypteris quadrangularis* (Fée) Schelpe, J. South Afr. Bot. 30: 196. 1964.

*Cyclosorus quadrangularis* (Fée) Tardieu-Blot, Notul. Syst. Paris 14: 345. 1953.

*Dryopteris dentata* (Forssk.) C.Chr. var. *inconstans* C.Chr., Kongl. Svenska Vetenskapsakad. Handl. 16(2): 27. 1936. Type: Haiti, Dame Marie, *Ekman 10524* (holotype S!; isotype US).

*Thelypteris hispidula* (Decne.) C.F.Reed var. *inconstans* (C.Chr.) Proctor, Amer. Fern J. 70: 89. 1980.

*Thelypteris quadrangularis* (Fée) Schelpe var. *inconstans* (C.Chr.) A.R.Sm., Univ. Calif. Publ. Bot. 59: 66. 1971.

*Habitat*: common terrestrial fern in forests, gullies and marshes.

*Material examined*: BASSE TERRE: Houëlmont, Christenhusz 4032 (P, S, TUR, UC); Monts Caraïbes (Vivant, 1987b).

**152. *Cyclosorus interruptus* (Willd.) H.Ito, Bot. Mag. Tokyo 51: 714. 1937.**

*Pteris interrupta* Willd., Phytogr. 13., tab. 10, fig. 1. 1794. Type: India, *Klein s.n.* (holotype B-Willd. 19770).

*Thelypteris interrupta* (Willd.) K.Iwats., Jap. J. Bot. 38: 314. 1963.

*Habitat*: locally common, terrestrial fern of bogs and in fresh- and saltwater swamps.

*Material examined*: BASSE TERRE: Étang Zombis, *Christenhusz 4045* (TUR, UC). MARIE GALANTE (Proctor, 1977).

**153. *Cyclosorus kunthii*** (Desv.) Christenh., **comb. nov.**

*Nephrodium kunthii* Desv., Mém. Soc. Linn. Paris 6: 258. 1827. Lectotype (designated by Smith, 1981): Venezuela, Caripe, Cumanacoa, *Humboldt & Bonpland s.n.* (P-Humb.).

*Thelypteris kunthii* (Desv.) C.V.Morton, Contr. U.S. Natl. Herb. 38: 53. 1967.

*Dryopteris normalis* C.Chr., Ark. Bot. 9: 31. 1910. Lectotype (designated by Smith, 1971): Jamaica, *Jenman s.n. anno 1898* (NY).

*Thelypteris normalis* (C.Chr.) Moxley, Bull. S. Calif. Acad. Sci. 19: 57. 1920.

*Habitat*: terrestrial fern in mesophile forest.

*Material examined*: BASSE TERRE: *Allorge B22* (IJ, P), *l'Herminier anno 1861* (P); Goyave, along the road to Douville near the ravine Bouteiller (Vivant, 1988). MARIE GALANTE (Vivant, 1990).

**154. *Cyclosorus leptocladus*** (Fée) Christenh., **comb. nov.**

*Goniopteris leptocladia* Fée, Mém. Fam. Foug. 11: 60, tab. 16, fig. 1. 1866. Lectotype (designated here): Guadeloupe, *l'Herminier s.n. anno 1861* (BM!). The material in the Fée collection at RB is collected in 1862 and is therefore not the type (Proctor, 1989). There are no original Fée specimens of this species in P and the BM specimen is thus selected here as lectotype.

*Thelypteris leptocladia* (Fée) Proctor, Bull. Inst. Jamaica, Sci. Ser. 5: 61. 1953.

*Habitat*: rare fern of forested ravines on limestone. This species is more abundant in the Greater Antilles.

*Material examined*: BASSE TERRE: Pasnasse, Grande Rivière, *Duss 4146* (P); GRAND TERRE: Morne à l'Eau, *Richard s.n.* (P); Locality: MARIE GALANTE: Ravin de Guignès (Proctor, 1977; Vivant, 1990).

**155. *Cyclosorus nephrodioides*** (Klotzsch) Ching, Bull. Fan Mem. Inst. Biol. Bot. 10: 247. 1941.

*Aspidium nephrodioides* Klotzsch, Linnaea 20: 370. 1847. Type: Venezuela, Caripe, *Moritz 206* (holotype B; isotype BM).

*Thelypteris nephrodioides* (Klotzsch) Proctor, Bull. Inst. Jamaica, Sci. Ser. 5: 61. 1953.

*Goniopteris nephrodioides* (Klotzsch) Vareschi, Fl. Venez. 1: 453. 1969.

*Nephrodium guadalupense* Fée, Mém. Fam. Foug. 11: 89, tab. 24, fig. 3. 1866. Lectotype (designated here): Guadeloupe, 'locis vulgo dictis Pamoye et Rivière des Habitants', *l'Herminier s.n., anno 1861* (RB!)

*Habitat*: rare, terrestrial fern on wooded slopes on limestone.

*Note*: A hybrid of this species with *Thelypteris pennata* was reported by Vivant (1990).

[*Cyclosorus opulentus* (Kaulf.) Nakaike, Enum. Pterid. Jap.: Filic. 277. 1975. *Aspidium opulentum* Kaulf., Enum. Fil. 238. 1824. Type: Guam, *Chamisso s.n.* (holotype LE).

*Amphineuron opulentum* (Kaulf.) Holttum, Blumea 19: 45. 1971.

*Thelypteris opulenta* (Kaulf.) Fosberg, Smithsonian Contr. Bot. 8: 3. 1972.

*Aspidium extensum* Blume, Enum. Pl. Jav. 2: 156. 1828. Type: Malaysia, Penang Island, *Anon.* (holotype L).

*Thelypteris extensa* (Blume) C.V.Morton, Amer. Fern J. 49: 113. 1959.

*Habitat*: terrestrial species from the Old World tropics commonly naturalized in disturbed forest and along forestry roads (Vivant, 1988).

*Material examined*: BASSE TERRE: Sofaïa, *Christenhusz 3991* (TUR, UC). GRAND TERRE: commonly naturalized near 'mares' and near Gosier and Pointe-à-Pitre (Vivant, 1987b). MARIE GALANTE (Vivant, 1990).]

**156. *Cyclosorus patens*** (Sw.) Vareschi, Fl. Venezuel. 1: 444. 1969.

*Polypodium patens* Sw., Prodr. 133. 1788. Lectotype (designated by Smith, 1971): Jamaica, *Swartz s.n.* (S!; duplicate B-Willd. 19773).

*Thelypteris patens* (Sw.) Small, Ferns S.E. United States 243. 1938.

*Christella patens* (Sw.) Holttum, Webbia 30: 193. 1976.

*Habitat*: common terrestrial fern on banks, ditches, stream beds and in clearings.

*Material examined*: BASSE TERRE: Sofaïa, *Christenhusz 3990* (TUR, UC); Morne à Louis (GUAD).

**157. *Cyclosorus pennatus* (Poir.) Christenh., comb. nov.**

*Polypodium pennatum* Poir. in Lamarck, Encycl. 5: 535. 1804. Type: 'America Meridionalis', *Anon.* (holotype P-Lam.).

*Thelypteris pennata* (Poir.) C.V.Morton, Contr. U.S. Natl. Herb. 38: 64. 1967.

*Goniopteris pennata* (Poir.) Pic.Serm., Webbia 31: 252. 1977.

*Goniopteris guadalupensis* Fée, Mém. Fam. Foug. 11: 64, tab. 17, fig. 2. 1866. Lectotype (designated by Proctor, 1989): Guadeloupe, Grand Terre, *l'Herminier s.n. anno 1861* (RB!).

*Thelypteris tetragona* (Sw.) Small var. *guadalupensis* (Fée) Kramer in Stoffers, Fl. Neth. Ant. 1: 57. 1962.

*Habitat*: local fern, terrestrial on forest banks.

*Locality*: BASSE TERRE: Monts Caraïbes, Ravin Blondeau; Pic Giono; Ravine du Carbet (Vivant, 1987b).

*Note*: A hybrid with this species and *T. nephrodioides* was reported by Vivant (1990).

**158. *Cyclosorus poiteanus* (Bory) Christenh., comb. nov.**

*Lastrea poiteana* Bory, Dict. Class. Hist. Nat. 9: 233. 1825. Type: French Guiana, *Herbarium Poiteau* (holotype P!).

*Goniopteris poiteana* (Bory) Ching, Sunyatsenia 5: 239. 1940.

*Thelypteris poiteana* (Bory) Proctor, Bull. Inst. Jamaica, Sci. Ser. 5: 63. 1953.

*Habitat*: terrestrial fern in forests.

*Material examined*: Monts Caraïbes, Ravin Blondeau; Pic Giono (Vivant, 1987b).

**159. *Cyclosorus reticulatus* (L.) Christenh., comb. nov.**

*Polypodium reticulatum* L., Syst. Nat. ed. 10, 2: 1325. 1759. Lectotype (designated by Underwood, 1906): Plumier, Descr. Pl. Amér.: 6, tab. 9. 1693.

*Meniscium reticulatum* (L.) Sw., J. Bot. (Schrader) 1801(2): 274. 1803.

*Thelypteris reticulata* (L.) Proctor, Bull. Inst. Jamaica, Sci. Ser. 5: 63. 1953.

*Habitat*: common terrestrial fern on wet ground.

*Material examined*: BASSE TERRE: Grand Étang, *Christenhusz 2804* (TUR); Rivière Quiock, *Christenhusz 4112* (TUR, UC); Saut d'Eau du Matouba (M. J.

M. Christenhusz, pers. observ.); Cascade aux Écrevisse (M. J. M. Christenhusz, pers. observ.); Domaine de Valombreuse (M. J. M. Christenhusz, pers. observ.).

**160. *Cyclosorus × rolandii* (C.Chr.) Christenh., comb. nov.**

*Dryopteris rolandii* C.Chr., Kongel. Danske Vidensk. Selsk. Skr., Naturvidensk. Math. Afh. ser. 7, 10: 258. 1913. Type: Ecuador, *Spruce 5718* (holotype P!).

*Thelypteris × rolandii* (C.Chr.) R.M.Tryon, Rhodora 69: 8. 1967.

*Thelypteris tetragona* (Sw.) Small var. *guadalupensis* of Proctor (1977), not *Goniopteris guadalupensis* Fée.

*Habitat*: occasional terrestrial fern in rocky, forested ravines.

*Note*: A hybrid between *Cyclosorus poiteanus* and *C. tetragonus*.

**161. *Cyclosorus rostratus* (Fée) Christenh., comb. nov.**

*Goniopteris rostrata* Fée, Mém. Fam. Foug. 11: 64, tab. 17, fig. 3. 1866. Type: Guadeloupe, *l'Herminier s.n. anno 1861*, not located. Lectotype (designated here): Fée, Mém. Fam. Foug. 11, tab. 17, fig. 3.

*Polypodium glandulosum* Desv., Ges. Naturf. Freunde Berlin Mag. Neuesten Entdeck. Gesamten Naturk. 5: 317. 1811 Type: Antilles, *Anon. ex herb. Desvaux* (holotype P!). Note: this name has priority, but it cannot be placed in the genus *Cyclosorus* because of the existence of *Cyclosorus glandulosus* (Blume) Ching in Asia.

*Thelypteris glandulosa* (Desv.) Proctor, Rhodora 61: 306. 1960.

*Steiropteris glandulosa* (Desv.) Pic.Serm., Webbia 28: 451. 1973.

*Aspidium strigosum* Fée, Mém. Fam. Foug. 11: 78, tab. 22, fig. 2. 1866. Type: Guadeloupe, *l'Herminier s.n., anno 1863*, not located. Lectotype (designated here): Fée, Mém. Fam. Foug. 11, tab. 22, fig. 2.

*Habitat*: common terrestrial fern in forests, often along streams.

*Material examined*: BASSE TERRE: Trace Étang Madère to Étang Roche, *Christenhusz 2794* (TUR, UC); Plateau Dimba, *Christenhusz 4026* (TUR, UC); Cascade Vauchelet, *Christenhusz 4083* (P, TUR, UC).

**162. *Cyclosorus tenerus* (Fée) Christenh., comb. nov.**

*Goniopteris tenera* Fée, Mém. Fam. Foug. 11: 60, tab. 15, fig. 3. 1866. Lectotype (designated here): Guadeloupe, *l'Herminier s.n. anno 1861* (RB!, duplicates IJ!, SJ!).

*Thelypteris reptans* (J.F.Gmel.) C.V.Morton var. *tenera* (Fée) Proctor, Rhodora 61: 306. 1959.

*Habitat*: rare lithophytic fern on sheltered, shaded ledges at mid or higher elevation (c. 350–500 m).

**163. *Cyclosorus tetragonus*** (Fée) Christenh., **comb. nov.**

*Polypodium tetragonum* Sw., Prodr. 132. 1788. Prodr. 132. 1788.

Type: Jamaica, *Swartz s.n.* (holotype S!; isotypes B-Willd. 19708-3, SBT).

*Goniopteris tetragona* (Sw.) C.Presl, Tent. Pterid. 183. 1836.

*Thelypteris tetragona* (Sw.) Small, Ferns S.E. United States 256. 1938.

*Goniopteris feei* l'Herm. ex Fée, Mém. Fam. Foug. 11: 61, tab. 17, fig. 1. 1866. Lectotype (designated here): Guadeloupe, *l'Herminier s.n. anno 1861* (RB!).

*Habitat*: common terrestrial fern of rocky ravines, thickets and dry forests.

*Material examined*: BASSE TERRE: Houëlmont, *Christenhusz 4034* (TUR, UC). St Martin, St Barthélemy, Marie Galante (Proctor, 1977).

[*Macrothelypteris torresiana* (Gaudich.) Ching, Acta Phytotax. Sin. 8: 310. 1963.

*Polystichum torresianum* Gaudich. in Freycinet, Voy. Uranie 333. 1828. Type: Guam, *Gaudichaud s.n.* (holotype G, isotype P!).

*Thelypteris torresiana* (Gaudich.) Alston, Lilloa 30: 111. 1960.

*Habitat*: invasive species which recently reached Guadeloupe and will slowly become more abundant; terrestrial on banks along streams, roadsides and gardens and on other disturbed wet places at mid elevations.

*Material examined*: BASSE TERRE: Rivière Noire, *Christenhusz 4106* (P, TUR, UC).]

**164. *Thelypteris antillana*** Proctor, Rhodora 63: 33. 1961.

Type: St Kitts, Verchild's Mountain below Dodans, *Proctor 19587* (holotype A; isotype IJ!).

*Habitat*: rare fern endemic to the Lesser Antilles (Guadeloupe, St Kitts and Dominica), which has been recorded from Grande Découverte and Nez Cassé (Vivant, 1990). The continued existence of this species on Guadeloupe needs to be confirmed.

**165. *Thelypteris balbisii*** (Spreng.) Ching, Bull. Fan Mem. Inst. Biol. 10: 250. 1941.

*Polypodium balbisii* Spreng., Nova Acta Phys.-Med. Acad. Caes. Leop.-Carol. Nat. Cur. 10: 228. 1821. Neotype (designated by Proctor, 1977): Dominica, *Hodge & Hodge 1203* (GH).

*Aspidium berterioanum* Fée, Mém. Fam. Foug. 11: 77. 1866. Syntypes: Guadeloupe, *l'Herminier s.n. anno 1864*; Puerto Rico, *Bertero s.n.*, none located. Lectotype (designated here): Fée, Mém. Fam. Foug. 11, tab. 22, fig. 1.

*Habitat*: rare terrestrial fern of thickets, pastures and along streams.

*Localities*: BASSE TERRE: Deuxieme Chute du Carbet (Vivant, 1987b); Vieux Habitants (GUAD).

**166. *Thelypteris cheilanthoides*** (Kunze) Proctor, Bull. Inst. Jamaica, Sci. Ser. 5: 58. 1953.

*Aspidium cheilanthoides* Kunze, Linnaea 22: 578. 1849. Lectotype (designated here): Brazil, Minas Gerais, Caldas, *Regnell II326* (S!).

*Amauropelta cheilanthoides* (Kunze) Á.Löve & D.Löve, Taxon 26: 325. 1977.

*Habitat*: rare species on Guadeloupe only known from a single locality, at the base of a small waterfall along a forest trail.

*Locality*: BASSE TERRE: Forêt de Bains Jaunes, along the path from Savanes à Mulets up to the summit of La Soufrière (Vivant, 1996).

**167. *Thelypteris concinna*** (Willd.) Ching, Bull. Fan Mem. Inst. Biol. 10: 251. 1941.

*Polypodium concinnum* Willd., Sp. Pl. 5: 201. 1810. Type: Venezuela, Caracas, *Bredemeyer s.n.* (holotype B-Willd. 19698).

*Amauropelta concinna* (Willd.) Pic.Serm., Webbia 31: 251. 1977.

Cited for Guadeloupe by Proctor (1977), no specimens seen.

**168. *Thelypteris consanguinea*** (C.Chr.) Proctor, Rhodora 61: 306. 1959. (Fig. 6F).

*Dryopteris consanguinea* C.Chr., Kongel. Dansk Vidensk.-Selsk. Skr. VII, 4: 297, fig. 21. 1907. Lectotype (designated here): Guadeloupe, *l'Herminier s.n. ex herb. Fée* (P!).

*Habitat*: local terrestrial fern in and along creeks in rainforests and at waterfalls, on boulders, ledges and cliffs, endemic to the Lesser Antilles.

*Material examined*: BASSE TERRE: Grand Étang, *Christenhusz 4060* (TUR, UC); Deuxième Chute du Carbet, *Christenhusz 4095* (TUR, UC).

**169.** *Thelypteris germaniana* (Fée) Proctor, *Rhodora* 61: 306. 1959.

*Phegopteris germaniana* Fée, *Mém. Fam. Foug.* 11: 55. 1866. Lectotype (designated by Proctor, 1989): Guadeloupe, *l'Herminier s.n. anno 1861* (RB!; duplicates BM, P!).

*Localities*: BASSE TERRE: Chute Moreau, trail between l'Étang de l'As de Pique and Grand Étang, Première and Deuxième Chute du Carbet (Vivant, 1988).

**170.** *Thelypteris gracilis* (Heward) Proctor, *Bull. Inst. Jamaica, Sci. Ser.* 5: 60. 1953.

*Gymnogramme gracilis* Heward, *Mag. Nat. Hist.* 2: 457. 1838. Type: Jamaica, Manchester, *Heward s.n.* (holotype IJ!).

*Habitat*: terrestrial fern of montane forests.

*Material examined*: BASSE TERRE: Bains Jaunes, *Christenhusz 4001* (TUR); Plateau Dimba, *Christenhusz 4024* (TUR, UC); Trace Étang Roche to Étang de l'As de Pique, *Christenhusz 4073* (P, TUR, UC); Grande Découverte, *Christenhusz 4182* (TUR, UC).

**171.** *Thelypteris hydrophila* (Fée) Proctor, *Rhodora* 61: 306. 1959. 1960.

*Phegopteris hydrophila* Fée, *Mém. Fam. Foug.* 11: 56, tab. 13, fig. 3. 1866. Lectotype: Guadeloupe, *l'Herminier s.n. anno 1861* (RB!).

*Habitat*: terrestrial or lithophytic fern of higher elevation woodlands and wet savannas, endemic to the Lesser Antilles.

*Material examined*: BASSE TERRE: La Soufrière, *Christenhusz 3913* (TUR, UC); Chutes Moreau, *Christenhusz 4129* (TUR, UC); Grande Découverte, *Christenhusz 4183* (TUR, UC); *4184* (TUR, UC).

**172.** *Thelypteris limbata* (Sw.) Proctor, *Rhodora* 61: 306. 1959. 1960.

*Aspidium limbatum* Sw., *J. Bot. (Schrader)* 1800(2): 35. 1801. Type: Guadeloupe, *Fahlberg s.n.* (holotype S!, US photo).

*Amauropelta limbata* (Sw.) Pic.Serm., *Webbia* 31: 251. 1977.

*Habitat*: rare fern of mountain summits, endemic to the Lesser Antilles.

*Localities*: BASSE TERRE: Capesterre, Routhiers, l'Habituée (Vivant, 1987b).

**173.** *Thelypteris linkiana* (C.Presl) R.M.Tryon, *Rhodora* 69: 6. 1967.

*Grammitis linkiana* C.Presl, *Tent. Pterid.*: 209. 1836., nom. nov. for *Gymnogramma polypodioides* Link, *Fil. Spec.* 2: 50. 1833, *nom. illeg. hom.*, not Sprengel (1827). Type: Cultivated at the Berlin Botanic Garden, originally collected in Brazil (holotype B!). *Amauropelta linkiana* (C.Presl) Pic.Serm., *Webbia* 60: 73. 2005.

*Phegopteris duchassaingiana* Fée, *Mém. Fam. Foug.* 11: 57, tab. 14, fig. 3. 1866. Lectotype (designated here): Guadeloupe, *l'Herminier s.n.* (P!).

*Habitat*: rare terrestrial ferns in rocky elfin woodland.

*Material examined*: BASSE TERRE: Grande Découverte, *Christenhusz 4185* (TUR, UC).

**174.** *Thelypteris muscicola* Proctor, *Rhodora* 63: 33. 1961. Type: St Kitts and Nevis, Nevis Peak, *Proctor 19354* (holotype A; isotype IJ!).

*Habitat*: this rare terrestrial fern of montane woodland at high elevations was thought to be endemic to Nevis, but was discovered on Guadeloupe in mesophyllous forest near Piton de Bouillante by Vivant (1996). This record is still to be confirmed.

**175.** *Thelypteris opposita* (Vahl) Ching, *Bull. Fan Mem. Inst. Biol.* 10: 251. 1941.

*Polypodium oppositum* Vahl, *Eclog. Amer.* 3: 53. 1807. Type: Montserrat, *Ryan s.n.* (holotype C; isotype BM).

*Amauropelta opposita* (Vahl) Pic.Serm., *Webbia* 31: 251. 1977.

*Phegopteris delicatula* Fée, *Mém. Fam. Foug.* 11: 51, tab. 20, fig. 1. 1866. Lectotype (designated by Proctor, 1989): Guadeloupe, *l'Herminier s.n. anno 1864* (RB!).

*Thelypteris delicatula* (Fée) Proctor, *Rhodora* 61: 306. 1959.

*Aspidium pachyklamys* Fée, *Mém. Fam. Foug.* 11: 77, tab. 21, fig. 2. 1866. Lectotype (designated here): Guadeloupe, *l'Herminier s.n. anno 1861* (RB!).

*Habitat*: terrestrial in thickets and roadsides.



*Localities:* BASSE TERRE: between Saint Claude and Savane aux Mulets (Vivant, 1987b); Matouba, at the bridge over Rivière Rouge (Vivant, 1989b).

**176.** *Thelypteris rustica* (Fée) Proctor, *Rhodora* 61: 306. 1959. 1960.

*Phegopteris rustica* Fée, *Mém. Fam. Foug.* 11: 55, tab. 13, fig. 1. 1866. Lectotype (designated here): Guadeloupe, Rivière la Rose de la Matélie, *l'Herminier s.n., anno 1861* (RB!).

*Habitat:* rare terrestrial fern of wooded ravines at higher elevations.

*Material examined:* BASSE TERRE: La Soufrière, *Christenhusz 3936* (NY, P, TUR, UC); Grande Découverte, *Christenhusz 4180* (P, TUR, U, UC).

**177.** *Thelypteris sancta* (L.) Ching, *Bull. Fan Mem. Inst. Biol.*: 10: 254. 1941.

*Acrostichum sanctum* L., *Syst. Nat.* ed. 10, 2: 1320. 1759. Lectotype (designated by Proctor, 1977): Jamaica, Sloane, *Voy. Jam.* 1: 91, tab. 49, fig. 2. 1707. Typotype: Jamaica, *Herb. Sloane 1:115* (BM-SL).

*Amauropelta sancta* (L.) Pic.Serm., *Webbia* 31(1): 251. 1977.

*Lastrea linnaeana* Copel., *Gen. Fil.* 139. 1947, based on same type.

*Habitat:* rare fern lithophytic on rocks in streams.

*Localities:* BASSE TERRE: Vieux-Habitants, near the confluence of Rivière Paradis with Grand' Rivière (Vivant, 1989b); Rivière Grande de Goyave (GUAD).

#### WOODSIACEAE

**178.** *Diplazium apollinaris* l'Herm. ex Fée, *Mém. Fam. Foug.* 11: 40, tab. 10, fig. 1. 1866. Lectotype (designated here): Guadeloupe, Matouba, *Germain s.n. anno 1861 ex Strassbourg* (P!).

*Asplenium callipteris* var. *pinnatisectum* Christ, *Bot. Jahrb. Syst.* 24: 107. 1897. Lectotype (designated here): Guadeloupe, *l'Herminier s.n. anno 1862* (RB!). The original material was most likely in LZ but that collection was unfortunately destroyed during WO-II.

*Habitat:* rare species of wet glades in rainforests at mid to higher elevation.

*Localities:* the species is only known from Guadeloupe and Martinique. Proctor (1977) wrote that the species was not recently collected, but in 1992, Vivant (1996)

found the species on a slope of Morne Boudoute, south of a swampy depression between Étang Madère and Étang Roche, in a rarely visited forest.

**179.** *Diplazium centripetale* (Baker) Maxon, *Sci. Surv. Porto Rico & Virgin Is.* 6: 441. 1926.

*Asplenium centripetale* Baker in Hooker & Baker, *Syn. Fil.* ed. 2, 490. 1874. Lectotype (designated by Proctor, 1985): Jamaica, *Macfadyen s.n.* (K!).

*Habitat:* locally common, terrestrial fern of forested slopes and ravines.

*Material examined:* BASSE TERRE: Grande Découverte, *Christenhusz 4175* (TUR).

**180.** *Diplazium cristatum* (Desr.) Alston, *J. Bot.* 74: 173. 1936.

*Meniscium cristatum* Desr. in Lamarck, *Encycl.* 4: 94. 1797. Type: Martinique, *Martin s.n.* (holotype P-Lam!).

*Habitat:* relatively common terrestrial fern of rocky banks and along streams in forests.

*Material examined:* BASSE TERRE: Plateau Dimba, *Christenhusz 4029* (TUR, UC); Saut d'Eau du Matouba, *Christenhusz 4100* (NY, P, TUR); *4104* (NY, TUR); Prêcheur, Grande Rivière (M. J. M. Christenhusz, pers. observ.).

**181.** *Diplazium expansum* Willd., *Sp. Pl.* 5: 354. 1810. Type: Venezuela, Caracas, *Bredemeyer s.n.* (holotype B-Willd. 19948).

*Habitat:* rare terrestrial fern. This species is cited by Fournet & Hoff (1999), but no specimens from Guadeloupe were examined. I cannot evaluate this record.

**182.** *Diplazium flavescens* (Mett.) Christ, *Farnkr.* 217. 1897.

*Asplenium flavescens* Mett., *Ann. Sci. Nat. Bot. sér.* 5, 2: 234. 1864. Type: Cultivated at the Royal Botanic Gardens, Kew, originally from Venezuela, *Wagener s.n.* (holotype K).

*Habitat:* rare terrestrial fern in wooded rocky hillsides at mid elevations, but there are no specimens of this species from Guadeloupe in P or RB, so this record cannot be confirmed.

**183.** *Diplazium godmanii* (Baker) C.Chr., *Ind. Fil.* 233. 1905.

*Asplenium godmanii* Baker, *Ann. Bot.* 5: 166, tab. 11. 1891. Type: Saint Vincent, Morne à Garou Mountain, *H. H. & G. W. Smith 1019* (not found).

*Habitat*: rare terrestrial fern of woodland glades at high elevations.

*Material examined*: BASSE TERRE: Mazé (IJ, K).

**184.** *Diplazium grandifolium* (Sw.) Sw., J. Bot. (Schrader) 1800(2): 62. 1801.

*Asplenium grandifolium* Sw., Prodr.: 130. 1788. Type: Jamaica, Swartz *s.n.* (holotype S!, isotype B-Willd. 19946).

*Habitat*: very rare terrestrial fern of rainforest and rocky ravines.

*Locality*: BASSE TERRE: western slope of Grande Découverte (Vivant, 1996; Fournet & Hoff, 1999).

**185.** *Diplazium legalloi* Proctor, Rhodora 68: 466. 1966. (Fig. 7A). Type: Guadeloupe, Matouba, Ravine Chaude, Proctor 20164 (holotype A; isotype IJ!).

*Habitat*: rare terrestrial fern of rainforests at mid elevations.

*Material examined*: BASSE TERRE: between Étang Madère and Étang Roche, Christenhusz 4063 (P, TUR); Grande Découverte, Christenhusz 4174 (BM, P, TUR, U, UC); Savane aux Ananas, Feldmann *s.n. anno 1936* (P); Deuxième Chute du Carbet (Vivant, 1988).

**186.** *Diplazium lherminieri* Hieron. in Urban, Symb. Antill. 4: 648. 1911. nom. nov. for *D. grammitoides* Fée, Mém. Fam. Foug. 11: 43, tab. 11. 1866, nom. illeg. hom. (as 'grammatoides'), not *D. grammitoides* C.Presl (1849). Lectotype (designated here): Guadeloupe, l'Herminier *s.n. anno 1861*, ex *Herbarium Strassbourg* (P!, duplicate K!).

*Habitat*: terrestrial on wooded banks in wet montane forest.

*Material examined*: BASSE TERRE: between Étang Roche and Étang de l'As de Pique, Christenhusz 4066 (NY, TUR); Grande Découverte, Christenhusz 4136 (P, TUR, UC); 4176 (P, TUR); Matouba, Duss 167 (P).

**187.** *Diplazium plantaginifolium* (L.) Urban, Symb. Antill. 4: 31. 1903.

*Asplenium plantaginifolium* L., Syst. Nat. ed. 10, 2: 1323. 1759. Neotype (designated by Proctor, 1985): Jamaica, St Catherine Parish, Hollymount, Mount Diablo, Maxon 1949 (US-428301!; isoneotypes BM!, NY).

*Asplenium plantagineum* L., Sp. Pl. ed. 2, 2: 1537. 1763, nom. superfl. Based on *A. plantaginifolium* L. (1759).

*Diplazium plantagineum* Sw., J. Bot. (Schrader) 1800(2): 62. 1801, nom superfl.

*Habitat*: local terrestrial fern on slopes and along creeks in primary rainforests.

*Material examined*: BASSE TERRE: Plateau Dimba, Christenhusz 4019 (P, TUR); Cascade Vauchelet, Christenhusz 4088 (NY, TUR).

**188.** *Diplazium striatum* (L.) C.Presl, Tent. Pterid.: 114. 1836.

*Asplenium striatum* L., Sp. Pl. 1082. 1753. Lectotype (designated by Proctor, 1977): Martinique, Capesterre, Petiver, Pter. Amer.: 113, 114, tab. 3, fig. 3, 4. 1712.

*Habitat*: rare terrestrial fern in wet forests.

*Material examined*: BASSE TERRE: Plateau Dimba, Christenhusz 4022 (TUR); Saut d'Eau du Matouba, Christenhusz 4103 (TUR).

**189.** *Diplazium unilobum* (Poir.) Hieron., Hedwigia 59: 332. 1917.

*Asplenium unilobum* Poir., in Lamarck, Encycl. Suppl. 2: 505. 1811. Type: 'Santo Domingo', Nectoux *s.n.* (holotype FI).

*Habitat*: rare fern of rocky river banks.

*Material examined*: l'Herminier *s.n.* (P), also cited by Proctor (1977) and Fournet & Hoff (1999).

*Note*: This is a species from the Greater Antilles. The continued occurrence in Guadeloupe needs confirmation. It is only known from a single old collection.

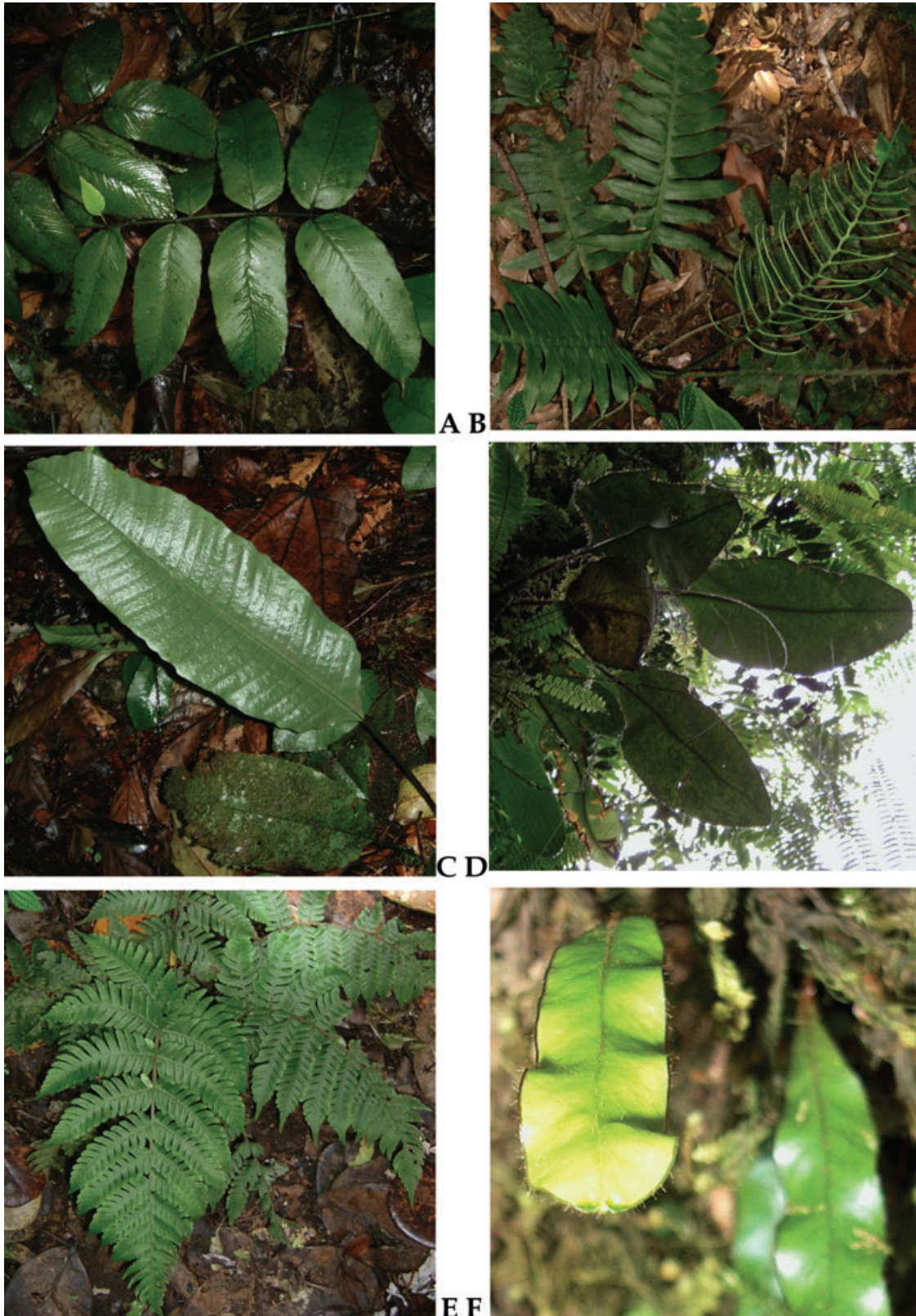
**190.** *Diplazium vincentis* (Christ) C.Ch., Ind. Fil. 241. 1905.

*Asplenium vincentis* Christ, Bot. Jahrb. Syst. 24: 109. 1879. Type: St Vincent, H.H. & G.W. Smith 1346 (holotype K!, isotype B!).

*Asplenium guildingii* Jenman, Gard. Chron. III, 15: 70. 1894, nom. superfl., based on the same type as *A. vincentis*.

*Diplazium guildingii* Hieron., Hedwigia 59: 332. 1917.

*Diplazium caracasenum* auct., non (Willd.) Kunze in T. Moore (1861).



**Figure 7.** Selected species. A, *Diplazium legalloi* (Étang Madère). B, *Blechnum lherminieri* (Bains Jaunes). C, *Dracoglossum plantagineum* (Grand-Étang). D, *Elaphoglossum crinitum* (Chute Moreau). E, *Megalastrum macrothecum* (Grande Découverte). F, *Grammitis stipitata* (Carmichaël).

*Habitat*: rare and local fern and not recently collected, endemic to the Lesser Antilles.

*Material examined*: BASSE TERRE: Rivière Saint Louis, habitations Rivière Noire, *l'Herminier 14* (P).

*Note*: This species resembles *D. cristatum* and *D. caracasenum*, but the specimens found on Guadeloupe and St Vincent differ in pinna shape and size and constitute a distinct taxon.

## BLECHNACEAE

**191.** *Blechnum* × *antillanum* Proctor, Brit. Fern Gaz. 9: 214. 1965. Type: Jamaica, *Anon. J.P. 282* (holotype IJ!).

*Localities*: BASSE TERRE: Ravine Karukéra (GUAD), Dieuxième Chute du Carbet, on an enormous isolated rock (Vivant, 1987b).

*Note*: Reportedly a hybrid between *Blechnum occidentale* L and *B. fraxineum* Willd., the latter species does not occur on Guadeloupe.

**192.** *Blechnum binervatum* (Poir.) C.V.Morton & Lelling, Amer. Fern J. 57: 67. 1967.

*Polypodium binervatum* Poir. in Lamarck, Encycl. 5: 521. 1804. Type: Locality unknown, *Anon.* (holotype P-JU!-1365).

*Lomaria martinicensis* Spreng., Neue Entd. Pflanzenk. 3: 5. 1822. Type: Martinique, *Sieber Fl. Martinic. no. 359* (isotype P!).

*Lomaria plumieri* Desv., Ges. Naturf. Freunde Berlin Mag Neuesten Entdeck. Gesammten Naturk. 5: 325. 1811. Lectotype (designated here): *Herbarium Vaillant 14* (P!).

*Habitat*: rare hemi-epiphyte on tree fern trunks.

*Material examined*: BASSE TERRE: Bains Jaunes, *Allorge s.n. anno 1936* (P); Savane aux Ananas, *Allorge s.n. anno 1936* (P); Rivière Rouge, *Allorge s.n. anno 1936* (P). *Localities*: Trace Karukéra and near Première Chute du Carbet (Vivant, 1988).

**193.** *Blechnum divergens* (Kunze) Mett., Ann. Sci. Nat. Bot. sér. 5, 2: 255. 1864.

*Lomaria divergens* Kunze, Linnaea 9: 57. 1834. Type: Peru, Pampayaco, *Poeppig s.n. [Diar. 1141]* (holotype LZ, destroyed). Neotype (designated here): Guadeloupe, Bains Jaunes, *Christenhusz 3992* (TUR!, isoneotypes NY!, P!).

*Lomaria exaltata* Fée & l'Herm., Mém. Fam. Foug. 11: 10, tab. 3. 1866. Lectotype (designated by Mickel &

Beitel, 1988): Guadeloupe, *l'Herminier s.n. anno 1861* (P!; duplicates P!, NY!; the BM specimen is not a type).

*Habitat*: terrestrial fern of wet glades and slopes in montane rainforest.

*Material examined*: BASSE TERRE: Grande Découverte, *Christenhusz 4173* (TUR); *4213* (P, TUR).

**194.** *Blechnum insularum* C.V.Mort. & Lell., Amer. Fern J. 57: 70. 1967. Type: Saint Vincent, Cumberland Mountain, 750–1000 m, 14 May 1947, *Morton 5822* (holotype US!-02358423).

*Habitat*: very rare plants of high-elevation elfin woodland, listed for Guadeloupe by Fournet & Hoff (1999).

**195.** *Blechnum lherminieri* (Bory) C.Chr., Index Filic. 156. 1905. (Fig. 7B).

*Lomaria lherminieri* Bory in Kunze, Farnkr. 173. 1845. Type: Guadeloupe, Bois de La Soufrière, *Anon. Herbarium Bory 201* (holotype P!).

*Habitat*: terrestrial fern of wet glades and slopes in montane rainforest.

*Material examined*: BASSE TERRE: Bains Jaunes, *Christenhusz 2765* (TUR); *Duss 4166* (P); *Questel 1124* (P); Beausoleil, Route de La Soufrière, *Barrier 2345A* (P); Camp Jacob, *Duss 859* (P); Matouba, Morne Papaye, *Duss 4167* (P); Grande Découverte, *Christenhusz 4131* (P, TUR); Plateau Dimba, *Christenhusz 4012* (P, TUR).

**196.** *Blechnum occidentale* L., Sp. Pl. 1077. 1753 [as *B. orientale*, a transposition of names, corrected in L., Sp. Pl. ed. 2. 1763]. Lectotype (designated by Proctor, 1977): 'Habitat in America meridionali', *Anon.* (LINN 1247.1).

*Blechnum confluens* Schldl. et Cham., Linnaea 5: 613. 1830. Type: Mexico, Hacienda Laguna, *Schiede 779* (holotype B; isotype NY). This name was cited by Fournet & Hoff (1999), but according to Mickel & Beitel (1988), this may be a hybrid between *B. occidentale* and *B. polypodioides* Raddi.

*Habitat*: common, terrestrial rather weedy fern of disturbed rainforests, roadsides, field edges and gardens, sometimes lithophytic on wet rocks.

*Material examined*: BASSE TERRE: Sofaïa, *Christenhusz 2749* (NY, TUR); Saut d'Eau du Matouba (M. J. M. Christenhusz, pers. observ.); Cascade aux Écrevisse (M. J. M. Christenhusz, pers. observ.); Domaine de

Valombreuse (M. J. M. Christenhusz, pers. observ.).  
ST. MARTIN (Proctor, 1977).

**197.** *Blechnum rufum* (Spreng.) C.Ch., Ind. Fil. Suppl. 17. 1913.

*Lomaria rufa* Spreng., Nova Acta Phys.-Med. Acad. Caes. Leop.-Carol. Nat. Cur. 10: 230. 1821.

Syntypes: Puerto Rico, *Bertier*; Guadeloupe, *Perrin*. Neither of these specimens could be traced and the species is not known from Puerto Rico. To prevent further confusion a neotype is selected here: Guadeloupe, Basse Terre, La Soufrière, trail to Carmichael, *Christenhusz 3933* (TUR!, duplicates NY!, P!).

*Lomaria robusta* Fée, Mém. Fam. Foug. 5: 69. 1852. Lectotype (designated here): Guadeloupe, *l'Herminier s.n. ex herb. Fée* (P!, duplicates NY!, US!-02703208).

*Habitat*: local and rare terrestrial fern on mossy slopes in humid mountain savannas and elfin woodland, endemic to the higher elevations of Guadeloupe.

**198.** *Blechnum ryanii* (Kaulf.) Hieron., Hedwigia 47: 245. 1908.

*Lomaria ryanii* Kaulf., Enum. Fil. 155. 1824. Type: Montserrat, *Forsström s.n.* (holotype S!).

*Habitat*: common fern on mossy banks and thickets at high elevations.

*Material examined*: BASSE TERRE: *l'Herminier s.n.* (BM; La Soufrière, *Christenhusz 3927* (P, TUR); *3928* (TUR); *3932* (TUR); *3934* (P, TUR); Grande Découverte, *Christenhusz 4153* (TUR).

**199.** *Blechnum serrulatum* Rich., Act. Soc. Hist. Nat. Paris 1: 114. 1792. Type: French Guiana, *Le Blond s.n. ex Herbarium Richard* (holotype P!).

*Habitat*: swamps and coastal savannas, sometimes along roads on sandy soil.

*Material examined*: BASSE TERRE: Baie-Mahault, *l'Herminier 2* (P); Lamentin, *Duss 884* (P); Lamentin, Maréage Icaques, *Fournet* (GUAD); Sofãia, *Rodriguez 3133* (P); Sainte Rose, Morne du Porteil, *Questel 965* (P).

**200.** *Blechnum violaceum* (Fée) C.Ch., Ind. Fil. 161. 1905.

*Lomaria violacea* Fée, Mém. Fam. Foug. 11: 11, tab. 5. 1866. Lectotype (designated here): Guadeloupe, *l'Herminier s.n. ex Herbarium Fée* (P!, duplicate US!-02019932).

*Habitat*: rare terrestrial fern of high-elevation fern savannas.

*Material examined*: BASSE TERRE: La Soufrière, *Duss 861* (P); *Quentin 851* (P); *Rodriguez 4807* (P); Morne l'Échelle, *Beaupertuis 1344* (P); Bains Jaunes, *Allorge s.n. anno 1936* (P); La Citerne, *Allorge s.n. anno 1936* (P).

**201.** *Salpichlaena volubilis* (Kaulf.) J.Sm. in Hook. & Bauer, Gen. Fil. tab. 93. 1841. (as '*Salpichlaena*'). *Blechnum volubile* Kaulf., Enum. Fil. 159. 1824. Neotype (selected by Proctor, 1977): Brazil, Hooker & Bauer, Gen. Fil. tab. 93. 1841.

*Habitat*: common, terrestrial, scandent rainforest species, often along streams or in forest margins and roadside thickets.

*Material examined*: Grand Étang, *Christenhusz 2729* (TUR); Cascade aux Écrevisses, *Christenhusz 2734* (TUR); Sofãia, *Christenhusz 2756* (TUR); *3949* (P, TUR); *3988* (BM, NY, P, TUR, U, US); Trace Étang Madère to Étang Roche, *Christenhusz 2800* (TUR); Bains Jaunes, *Christenhusz 3999* (P, TUR); *Allorge s.n., anno 1936* (P); Rivière Quiock, *Christenhusz 4120* (P, TUR); Grande Découverte, *Christenhusz 4139* (P, TUR); Rivière Rouge, *Feldmann s.n., anno 1936* (P).

*Notes*: *Salpichlaena* is often treated as consisting of a single polymorphic species *S. volubilis*. A revision of this Neotropical genus (which I expect to count five species) will probably result in the naming of the Caribbean material as a new species, because the specimens from Guadeloupe do not appear to be conspecific with those from Southern Brazil. *Salpichlaena* may not be separable from *Blechnum s.l.*; a global revision of Blechnaceae is necessary to reassess the borders between the genera.

#### DRYOPTERIDACEAE

[*Arachniodes aristata* (G.Forst.) Tindale, Contr. New South Wales Natl. Herb. 3: 89. 1961.

*Polypodium aristatum* G.Forst., Fl. Ins. Austr. 82. 1786. Type: 'In insulae Maris Pacifici', *Forster 326* (holotype GOET).

*Locality*: BASSE TERRE: cultivated at INRA (M. J. M. Christenhusz, pers. observ.)]

**202.** *Bolbitis aliena* (Sw.) Alston, Kew Bull. 1932: 310. 1932.

*Acrostichum alienum* Sw., J. Bot. (Schrader) 1800(2): 13. 1801. Type: Jamaica, *Anon.* (holotype S!, isotype S!).

*Bolbitis portoricensis* auct., non (Spreng.) Hennipm.

*Habitat*: very rare, lithophytic fern on boulders in gullies and small streams in forest.

*Material examined*: BASSE TERRE: *l'Herminier 21* (CAL), Talain de Constantin, *Herbarium Bory s.n. anno 1847* (P).

*Locality*: BASSE TERRE: valley of Beaugendre, near Marigot, comm. Bouillante (Vivant, 1989a).

**203.** *Bolbitis nicotianifolia* (Sw.) Alston, Bull. Misc. Inform. 1932: 310. 1932.

*Acrostichum nicotianifolium* Sw., Syn. Fil. 13: 199. 1806. Type: Saint Thomas, Virgin Islands, *Ventenat s.n.* (holotype S!).

*Habitat*: rare terrestrial fern on wet soil in low and mid-elevation rainforests.

*Material examined*: BASSE TERRE: between Trace Étang Madère and Étang Roche, *Christenhusz 4062* (NY, P, TUR); Hauteurs Petit-Bourg, *Duss 870* (P); Cascade aux Écrevisses, *Duss 4145* (P).

**204.** *Dracoglossum plantagineum* (Jacq.) Christenh., *Thaiszia* J. Bot. 17: 7. 2007. (Fig. 7C).

*Polypodium plantagineum* Jacq., Collect. 2: 104, tab. 3, fig. 1. 1788. Lectotype (designated by Proctor, 1977; the nomenclature is discussed in detail by Christenhusz, 2007b): Jacquin, Collect. 2, tab. 3, fig. 1. 1788.

*Tectaria plantaginea* (Jacq.) Maxon, Contr. US Natl. Herb. 10: 494. 1908.

*Tectaria plantaginea* (Jacq.) Maxon var. *confluens* C.V.Morton, Amer. Fern J. 56: 123. 1966. Type: Trinidad, Laudat, Fresh Water Lake, *L. H. & E. Z. Bailey T-15* (holotype US!).

*Habitat*: locally common, terrestrial or lithophytic fern on rocks in mid-elevation rainforest.

*Material examined*: BASSE TERRE: Grand Étang, *Allorge J40* (P); *Christenhusz 2793* (TUR, U); *Feldman s.n. anno 1936* (P); *l'Herminier 4* (P); *l'Herminier s.n. anno 1861* (RB); *l'Herminier s.n. anno 1864* (RB); *Questel 1834* (P); Trace Étang Madère to Étang Roche, *Christenhusz 4065* (TUR, UC); Bains Jaunes, *Duss 767* (P); Forêt de Fumée, *Feldman s.n. anno 1936* (P); Gourbeyre, Forêt des Palmistes, *Le Gallo 3074* (P); *3115* (P); Ravine chaude du Gommier, *Stehlé 1218* (P); *Thiébaud 406* (P).

**205.** *Elaphoglossum apodum* (Kaulf.) Schott ex J. Sm., J. Bot. (Hooker) 4: 148. 1841.

*Acrostichum apodum* Kaulf., Enum. Filic. 59. 1824. Type: Montserrat, *Ryan s.n. ex Herbarium Vahl* (holotype C).

*Habitat*: epiphyte on mossy tree trunks at mid to higher elevations.

*Note*: Listed for Guadeloupe by Proctor (1977), but all specimens in P are collected in Martinique. The existence of this species on Guadeloupe needs to be confirmed.

**206.** *Elaphoglossum boryanum* (Fée) T. Moore, Ind. Fil. 7. 1857.

*Acrostichum boryanum* Fée, Mém. Fam. Foug. 2: 40, tab. 1. 1845. Lectotype (designated here): Guadeloupe, *l'Herminier s.n. ex herb. Fée* (P!-00249844, duplicate MPU). Note: two specimens were mentioned in the original publication, the P specimen from Guadeloupe, annotated by Fée is selected here as lectotype.

*Habitat*: Common epiphyte in montane rainforest.

*Material examined*: BASSE TERRE: Bains Jaunes, *Christenhusz 3993* (NY, P, TUR); Trace Étang Roche to Étang de l'As de Pique, *Christenhusz 4067* (NY, TUR); Grande Découverte, *Christenhusz 4140* (NY, P, TUR); *4169* (NY, TUR); *4170* (NY, TUR).

**207.** *Elaphoglossum brachyneuron* (Fée) J. Sm., Cat. Cult. Ferns: 26. 1857.

*Acrostichum brachyneuron* Fée, Mém. Fam. Foug. 2: 49, tab. 22, fig. 1. 1845. Lectotype (designated by Alston, 1958): Brazil, Minas Gerais, *Gardner 5927* (BM!). Fée (1845) cited *Gardner 5928*, a misprint.

*Habitat*: rare epiphytic fern on mossy tree trunks in elfin woodland at high elevations (Vivant 1990, 1996).

*Material examined*: BASSE TERRE: *l'Herminier, s.n.* (P!-00249857); Nez Cassé, *Proctor 20315* (A, IJ!).

**208.** *Elaphoglossum chartaceum* (Baker ex Jenman) C. Chr., Ind. Fil. 304. 1905.

*Acrostichum chartaceum* Baker ex Jenman, J. Bot. 20: 325. 1882. Type: Jamaica, John Crow Peak, *Jenman s.n.* (holotype K!).

*Habitat*: this rare species of the Greater Antilles is only known from one locality in Guadeloupe, where it grows in a tree at 1000 m elevation.

*Locality:* Nez Cassé (Vivant, 1996).

**209.** *Elaphoglossum crinitum* (L.) Christ, Neue Denkschr. Allg. Schweiz. Ges. Gesamten Naturwiss. 36 [Monogr. Elaph.]: 102. 1899. (Fig. 7D).

*Acrostichum crinitum* L., Sp. Pl. 1068. 1753. Lectotype (designated by Proctor, 1977): Morne de la Calebasse, Martinique, Petiver, Pter. Amér. tab. 13, fig. 14. 1712.

*Hymenodium crinitum* (L.) Fée., Mém. Fam. Foug. 2: 90. 1845.

*Habitat:* locally common epiphyte on mossy tree and tree fern trunks in forests at mid elevations.

*Material examined:* BASSE TERRE: Bains Jaunes, *Duss* 185 (P); Grand Étang, *Christenhusz* 4061 (TUR); Chutes Moreau, *Christenhusz* 4125 (NY, P, TUR); Matouba, Morne Matéliane, *Duss* 836 (P); Sainte Marie du Gallion, *l'Herminier* 1 (P).

**210.** *Elaphoglossum decoratum* (Kunze) T.Moore, Index Fil. 8. 1857.

*Acrostichum decoratum* Kunze, Linnaea 9: 25. 1834. Lectotype (designated here): Peru, Pampayaco, *Poeppig* 1134. (W!, duplicate MO!). The original material was in LZ, but is no longer extant.

*Habitat:* rare epiphyte in montane forest, not recently collected.

*Material examined:* BASSE TERRE: *Mazé* 779 (IJ, K); Matouba, between Ravine Flore and Grandes Icaques, *l'Herminier* 13 (P); Ravine Flore, *Duss* 843 (P); Morne des Grandes Icaques, *Duss* 4153 (P).

**211.** *Elaphoglossum erinaceum* (Fée) T.Moore, Index Fil. 9. 1857.

*Acrostichum erinaceum* Fée, Mém. Fam. Foug. 2: 41. 1845. Lectotype (designated by Proctor, 1977): Guadeloupe, Rivière de St Louis, *De Thiouville* s.n. (P!; duplicate L!).

*Habitat:* rare and local epiphyte in valley in montane forest.

*Material examined:* BASSE TERRE: Bains Jaunes, *Duss* 4149 (P); *Feldmann* s.n. anno 1936 (P); Deuxième Chute du Carbet, *Christenhusz* 4096 (TUR); Forêt de la Fumée, *Feldmann* s.n. anno 1936 (P); Plateau du Palmiste, *Stehlé* 594 (P); Rivière Rouge, *Feldmann* s.n. anno 1936 (P).

**212.** *Elaphoglossum feei* (Bory ex Fée) T.Moore, Ind. Fil. 16. 1857.

*Acrostichum feei* Bory ex Fée, Mém. Fam. Foug. 2: 48, tab. 18, fig. 2. 1845. Type: Guadeloupe, Bains Chaudes de Matouba, *De Thiouville* 122, anno 1844 (holotype P-00249725!).

*Habitat:* rare epiphyte on *Clusia mangle*, or lithophytic on rocks in montane rainforest, endemic to the Lesser Antilles.

*Material examined:* BASSE TERRE: Matouba, *Duss* 4135 (P); Bains Jaunes, *Allorge* s.n. anno 1936 (P); *Feldmann* s.n. anno 1936 (P); *Le Gallo* 3095 (P); 3106 (P); *Rodriguez* 4554 (P); *Stehlé* 2406 (P); Savane aux Ananas, *Feldmann* s.n. anno 1936 (P); La Citerne, Lac Flammariou, *Stehlé* 552 (P); *Stehlé* 1211 (P); La Soufrière, *Feldmann* s.n. anno 1936 (P); Echelle, *Stehlé* 652 (P); Grande Découverte, Trace Victor Hugues, *Christenhusz* 4171 (NY, TUR); *Rodriguez* 4838 (P); Gourbeyre, Forêt des Palmistes, *Le Gallo* 3112 (P). *Localities:* Nez Cassé, Refuge des Montagnards (Vivant, 1989a).

**213.** *Elaphoglossum flaccidum* (Fée) T.Moore, Index Fil. 356. 1862.

*Acrostichum flaccidum* Fée, Mém. Fam. Foug. 2: 35, tab. 7, fig. 2. 1845. Lectotype (designated here): Guadeloupe, 'ad ripas fluminis Lézarde', *l'Herminier* s.n. (P!, duplicates MPU, MO). Several syntypes from various localities are in existence, the Guadeloupe material is lectotypified here.

*Habitat:* common epiphyte in rainforests.

*Material examined:* BASSE TERRE: Cascade aux Écrevisses, *Christenhusz* 2739 (NY, TUR).

*Note:* This species was confused with *E. rigidum* by Proctor (1977, 1989).

**214.** *Elaphoglossum glabellum* J.Sm., London J. Bot. 1: 197. 1842. Type: Guyana, Berbice River, *Robert Schomburgk* 447 (holotype BM!, isotypes B, E, G, K!, OXF, P!, US!).

*Acrostichum glabellum* (J.Sm.) Klotzsch, Linnaea 20: 421. 1847.

*Habitat:* rare epiphyte in dense mid-elevation rainforest.

*Localities:* BASSE TERRE: along Trace Victor Hugues, near Maison Forestière de Matouba (Vivant, 1989a).

**215.** *Elaphoglossum herminieri* (Bory & Fée) T.Moore, Index Fil. 16. 1857.

*Acrostichum herminieri* Bory & Fée in Fée, Mém. Fam. Foug. 2: 43. tab. 11. 1845. Lectotype (designated by Mickel & Smith, 2004): Guadeloupe, *l'Herminier s.n. ex herb. Bory* (P!; duplicates: GH, P! (*ex herb. Fée*), RB!).

*Habitat*: occasional epiphyte on tree trunks in forest.

*Material examined*: BASSE TERRE: *l'Herminier s.n. ex herb. Glaziou* (P); *l'Herminier s.n. ex herb. Leprieur* (P). Rivière Lézarde, *Duss 846* (P). *Localities*: Rivière Moreau, near the waterfalls, Gorges de la Lézarde, Sofaïa, and along Trace Victor Hugues at Sarcelle (Vivant, 1988).

**216.** *Elaphoglossum impressum* (Fée) T.Moore, Ind. Fil. 10. 1857.

*Acrostichum impressum* Fée, Mém. Fam. Foug. 2: 33, tab. 5, fig. 3. 1845. Lectotype (designated here): Martinique, *Richard s.n.* (P!).

*Habitat*: rare epiphyte in forest.

*Material examined*: BASSE TERRE: Forêt de la Fumée, *Feldmann s.n. anno 1936* (P); Lézarde, *Kuntze 15* (P); Matouba, habitation Raynaud, *Duss 851* (P); Parc Zoologique near the Route de la Traversée (Vivant, 1988).

**217.** *Elaphoglossum longifolium* J.Sm., Bot. Mag. 72: 17. 1846. Type: Martinique, *Jacquin s.n.* (holotype BM?, not found).

*Habitat*: rare epiphyte on mossy tree trunks in hygrophile forest.

*Material examined*: BASSE TERRE: Bains Jaunes, *Duss 4432* (P); Sainte Marie, *l'Herminier 3* (P); Gorge de la rivière Moreau (Vivant, 1988).

**218.** *Elaphoglossum martinicense* (Desv.) T.Moore, Index Fil. 11. 1857.

*Acrostichum martinicense* Desv., Ges. Naturf. Freunde Berlin Mag. Neuesten Entdeck. Gesamten Naturk. 5: 309. 1811. Type: Martinique, *Anon. ex herb. Desvaux* (holotype P-00249874!).

*Habitat*: rare epiphyte in rainforests at mid elevation, endemic of the Caribbean Islands.

*Material examined*: BASSE TERRE: Bains Jaunes, *Le Gallo 2808* (P); *Stehlé 1036*; *s.n. anno 1937* (P); Trace Merwart near Vernou, Morne Grand Vent Soufflé (Vivant, 1989a).

**219.** *Elaphoglossum peltatum* (Sw.) Urban, Symb. Antill. 4: 60. 1903.

*Osmunda peltata* Sw., Prodr. 127. 1788. Type: Jamaica, *Swartz s.n.* (holotype S!, isotype SBT).

*Peltapteris peltata* (Sw.) C.V.Morton, Amer. Fern. J. 45: 13. 1955.

*Habitat*: very rare, epiphytic, lithophytic or on fallen logs in rainforest at higher elevations, rarely collected, because it often grows in the canopy.

*Localities*: BASSE TERRE: Rivière Rouge along the trail to Refuge des Montagnards; Rivière Saint Louis (Vivant, 1996); Grande Découverte (M. J. M. Christenhusz, pers. observ.); Saut d'Eau du Matouba (M. J. M. Christenhusz, pers. observ.).

**220.** *Elaphoglossum perelegans* (Fée) T.Moore, Ind. Fil. 16. 1857.

*Acrostichum perelegans* Fée, Mém. Fam. Foug. 2: 55, tab. 23. 1845. Syntypes: Brazil, Sabera, *Vauthier s.n. anno 1833, ex Herbarium Bory*; Brazil, Goias, *Pohl s.n., anno 1844*; Peru, Pampayaco, *Poeppig s.n., anno 1829*, none located. Lectotype (designated here in absence of original material): Fée, Mém. Fam. Foug. 2, tab. 23.

*Habitat*: rare epiphyte of dense rainforests between 700 and 1000 m elevation.

*Material examined*: BASSE TERRE: Grande Découverte, *Christenhusz 4148* (NY, TUR).

**221.** *Elaphoglossum petiolatum* (Sw.) Urban var. *dussii* (Underw. ex Maxon) Proctor, Rhodora 68: 467. 1966.

*Elaphoglossum dussii* Underw. & Maxon, Sci. Surv. Porto Rico & Virgin Is. 6: 398. 1926. Type: Martinique, *Duss 4688* (holotype NY!).

*Acrostichum plumieri* Desv., Mém. Soc. Linn. Paris 6: 209. 1827; not Fée (1845).

*Habitat*: rare epiphyte in rainforests.

*Localities*: BASSE TERRE: Saint Claude in the valley of Grand Carbet; Monts Caraïbes near Champfleury (Vivant, 1987b).

**222.** *Elaphoglossum plumieri* T.Moore, Ind. Fil. 13. 1857. Lectotype (designated by Proctor, 1977): Plumier, *Traité Foug. Amér. tab. 127. 1705.*

*Acrostichum plumieri* Fée, Mém. Fam. Foug. 2: 50. 1845, *nom. illeg. hom.*, non Desv. (1827). Type: Martinique, *Anon. ex herb. Desvaux* (holotype P).

*Habitat*: local epiphyte in montane rainforests.



*Material examined:* BASSE TERRE: Trail between Étang Roche and Étang de l'As de Pique, *Christenhusz* 4075 (NY, TUR); Grande Découverte, *Christenhusz* 4144 (NY, TUR).

**223.** *Elaphoglossum rigidum* (Aubl.) Urban, Symb. Antill. 9: 374. 1925.

*Polypodium rigidum* Aubl., Hist. Pl. Guiane 2: 963. 1775. Type: French Guiana, *Aublet s.n.* (holotype BM!).

*Habitat:* common epiphyte on mossy tree trunks in lower and mid-elevation rainforest.

*Material examined:* BASSE TERRE: Sofaïa, *Christenhusz* 3960 (NY, TUR); La Rose, *l'Herminier s.n.* (P); Rivière Quiock, *Christenhusz* 4123 (NY, TUR); Haut Matouba, *Duss* 189; Mamelle de Petit-Bourg, *l'Herminier s.n.* (P); Lamentin, Grande Rivière à Goyaves, *Duss* 845 (P).

**224.** *Elaphoglossum scandens* T.Moore, Ind. Fil. 14. 1857.

*Acrostichum scandens* Bory ex Fée, Mém. Fam. Foug. 2: 33. 1845, *nom. illeg. hom., non* Raddi (1819). Lectotype (designated by Proctor, 1977): Guadeloupe, Matouba, Bains Chaudes de La Soufrière, *De Thiouville* anno 1844, *ex Bory* 3071 (P!).

*Habitat:* rare epiphyte of dense montane forest at higher elevations.

*Material examined:* BASSE TERRE: Bains Jaunes, *Allorge s.n. anno* 1936 (P); *Duss* 4128B (P); *Quentin* 921 (P); Bains Chaudes du Matouba, *Duss* 838 (P); Nez Cassé (Vivant, 1989a).

**225.** *Elaphoglossum smithii* (Baker) Christ, Monogr. Elaph.: 106. 1899.

*Acrostichum smithii* Baker, Ann. Bot. 5: 169. 1891. Type: Saint Vincent, *H. H. & G. W. Smith* 1135 (holotype K!; isotype IJ!).

*Habitat:* rare epiphyte on tree trunks in montane forest.

*Localities:* BASSE TERRE: Grande Découverte, Bains Jaunes, Étang de l'As de Pique, Morne Amic near Rivière Noire, Nez Cassé (Vivant, 1996).

**226.** *Elaphoglossum spathulatum* (Bory) T.Moore, Index Fil., 14. 1857.

*Acrostichum spathulatum* Bory, Voy. Iles Afrique 1: 363, tab. 20, fig. 1. 1804, as '*spatulatum*'. Lectotype (designated here): La Réunion ('Ile Bourbon'), *Anon. ex Herbarium Bory* (RB!).

*Habitat:* rare epiphyte on mossy trees or terrestrial on banks and cliffs in montane forest. No material examined; cited for Guadeloupe by Proctor (1977).

**227.** *Megalastrum macrothecum* (Fée) A.R.Sm. & R.C.Moran, Amer. Fern J. 77: 128. 1987. (Fig. 7E).

*Phegopteris macrotheca* Fée, Mém. Fam. Foug. 11: 56. 1866. Type: Guadeloupe, *l'Herminier* anno 1864 (holotype P!).

*Ctenitis macrotheca* (Fée) Ching, Sunyatsenia 5: 250. 1940.

*Polypodium mazei* E.Fourn. ex Baker, Ann. Bot. 5: 457. 1891. Lectotype (designated here): Guadeloupe, *Mazé* 643.786 (K!-000512175, duplicates K!-000512174, K!-000512176).

*Habitat:* endemic, locally common terrestrial fern of wooded slopes, 1000–1200 m.

*Material examined:* BASSE TERRE: Grande Découverte, Trace Victor Hugues, *Christenhusz* 4181 (TUR, UC); Savane aux Ananas, *Feldmann s.n., anno* 1936 (P); Ravine à Déjeuner, *Duss* 732 (P). Also recorded from Bains Jaunes, Morne Bontemps and Grand Sans-Toucher (Vivant, 1990).

**228.** *Megalastrum subincisum* (Willd.) A.R.Sm. & R.C.Moran, Amer. Fern J. 77(4): 129. 1987.

*Polypodium subincisum* Willd., Sp. Pl. 5: 202. 1810. Type: Venezuela, Caracas, *Bredemeyer s.n.* (holotype B-Willd.! 19701).

*Ctenitis subincisa* (Willd.) Ching, Sunyatsenia 5: 250. 1940.

*Phegopteris dilatata* Fée, Mém. Fam. Foug. 11: 52, tab. 14, fig. 1. 1866. Lectotype (designated by Proctor, 1989): Guadeloupe, forêts humides élevées, *l'Herminier s.n.* (RB!).

*Habitat:* common terrestrial fern in rainforests near streams, in ravines and on slopes.

*Material examined:* BASSE TERRE: Plateau Dimba, *Christenhusz* 4025 (TUR, UC); Grand Étang, *Christenhusz* 4078 (TUR, UC); Chutes Moreau, *Christenhusz* 4124 (TUR, UC).

**229.** *Megalastrum villosum* (L.) Holttum, Gard. Bull. Straits Settle. 39: 161. 1986.

*Polypodium villosum* L., Sp. Pl. 1093. 1753. Lectotype (designated by Proctor, 1977): Port de Paix, Haiti, Plumier, Descr. Pl. Amér.: 15, tab. 23. 1693.

*Ctenitis villosa* (L.) Copel., Gen. Fil. 125. 1947.

*Habitat:* rare and local species of moist ravines and slopes in mid-elevation rainforests.

*Localities:* Trace Victor Hugues, Rivière Rouge near Matouba, Refuge des Montagnards on Grande Découverte (Vivant, 1996).

**230.** *Olfersia cervina* (L.) Kunze, Flora (Regensburg) 7: 312. 1824.

*Osmunda cervina* L., Sp. Pl. 1065. 1753. Lectotype (designated by Proctor, 1977): Martinique, Morne Rouge, Plumier, *Traité Foug. Amér.*: 132, tab. 154. 1705.

*Polybotrya cervina* (L.) Kaulf., Enum. Fil. 55. 1824.

*Habitat:* common terrestrial, epiphytic and scandent or lithophytic rainforest fern.

*Material examined:* BASSE TERRE: Trace Étang Madère to Étang Roche, *Christenhusz 2792* (NY, TUR, U); Cascade Vauchet, *Christenhusz 4082* (P, TUR); Cascade aux Écrevisses (M. J. M. Christenhusz, pers. observ.); Saut d'Eau du Matouba (M. J. M. Christenhusz, pers. observ.); Domaine de Valombreuse (M. J. M. Christenhusz, pers. observ.).

**231.** *Polybotrya cyathifolia* Fée & l'Herm., Mém. Fam. Foug. 11: 6, tab. 2. 1866. Lectotype (designated by Moran, 1987): Guadeloupe, *l'Herminier s.n. anno 1864* (P!; duplicates GH, L, NY! fragment, RB!).

*Polybotrya osmundacea* sensu Proctor (1977), non Willd. (1810).

*Habitat:* rare terrestrial fern, climbing in trees in mid-elevation rainforests.

**232.** *Polystichopsis villosa* (Fée) Christenh., **comb. nov.**

*Phegopteris villosa* Fée, Mém. Fam. Foug. 11: 53. 1866. Lectotype (designated here): Guadeloupe, *l'Herminier s.n. ex Herbarium Fée* (IJ!; duplicates P!, RB!; photographs TUR).

*Habitat:* very rare, endemic fern of wooded slopes and mossy ledges in mid-elevation rainforests.

*Material examined:* BASSE TERRE: Saut d'Eau du Matouba, *Thiébaud 16* (P); Matouba, Rivière St Louis, *Duss 734* (P). *Localities:* path of Cascade Vauchet near Sainte Claude (Vivant, 1989a).

*Note:* As Proctor (1977) also stated, this species differs from *Polystichopsis muscosa* (Vahl) Proctor, in its much smaller stature, more delicate blade texture and more elongated blade apices, giving this species a different general appearance.

**233.** *Polystichum guadalupense* Fée, Mém. Fam. Foug. 11: 74, tab. 19, fig. 2. 1866. Lectotype (designated here): Guadeloupe, *l'Herminier anno 1861* (P!-00467616; duplicates IJ!, P!-00467615, P!-00467617, RB!-109506).

*Habitat:* rare terrestrial endemic species, growing in shaded rocky ravines near waterfalls at mid elevations. The species has not been recently collected.

*Material examined:* BASSE TERRE: Matouba, Rivière Saint Louis, *Duss 236* (P); *787* (P).

*Note:* This species closely resembles *P. echinatum* of the Greater Antilles and may be conspecific.

**234.** *Polystichum rhizophyllum* (Sw.) C.Presl, Tent. Pterid.: 82. 1836.

*Polypodium rhizophyllum* Sw., Prodr.: 132. 1788. Type: Jamaica, *Swartz s.n.* (holotype S!; isotypes B-Willd. 19739, SBT, UPS-Thunb. 24708).

*Note:* No specimens from Guadeloupe are present in P, but it was cited for Guadeloupe by Proctor (1977, 1989). Continued occurrence on Guadeloupe needs to be verified.

[*Rumohra adiantiformis* (G.Forst.) Ching, *Sinensia* 5: 70. 1934. *Polypodium adiantiforme* G.Forst., Prodr. Fl. Ins. Austr. 82. 1786. Type: New Zealand, *Forster s.n.* (holotype BM, not seen).

*Polystichum adiantiforme* (G.Forst.) J.Sm., Hist. Fil. 220. 1857.

*Habitat:* cultivated and sometimes naturalized, e.g. at Domaine de Valombreuse (M. J. M. Christenhusz, pers. observ.), no specimens collected.]

**235.** *Stigmatopteris rotundata* (Willd.) C.Chr., Bot. Tidsskr. 29: 297, fig. 2. 1909.

*Aspidium rotundatum* Willd., Sp. Pl. 5: 247. 1810. Lectotype (designated by Proctor, 1977): Martinique, Capesterre, Plumier, *Traité Foug. Amér.* 29, tab. 38. 1705.

*Habitat:* locally common, terrestrial fern in rainforests at mid elevations.

*Material examined:* BASSE TERRE: Trace Étang Madère to Étang Roche, *Christenhusz 2805* (TUR); Trace Étang Roche to Étang de l'As de Pique, *Christenhusz 4068* (NY, TUR).

#### LOMARIOPSIDACEAE

**236.** *Cyclopeltis semicordata* (Sw.) J.Sm., Bot. Mag. 72: 36. 1846.

*Polypodium semicordatum* Sw., Prodr. 132. 1788.  
Type: Jamaica, Swartz *s.n.* (holotype S;! isotypes B-Willd. 19742, UPS-Thunb. 24710).

*Aspidium semicordatum* (Sw.) Sw., J. Bot. (Schrader) 1800(2): 31. 1801.

*Hemicardion nephrolepis* Fée, Mém. Fam. Foug. 5: 282. 1852, nom. superfl., based on *Aspidium semicordatum* (Sw.) Sw.

*Habitat*: rare, terrestrial fern in rocky places in mesophile forest.

*Material examined*: BASSE TERRE: Bains Jaunes, *Le Gallo 3105* (P); Vallée Turlet, *Le Gallo 3108* (P); coastal ravine near the Monts Caraïbes (Vivant, 1987b).

**237.** *Lomariopsis sorbifolia* (L.) Fée, Mém. Fam. Foug. 2: 69. 1845.

*Acrostichum sorbifolium* L., Sp. Pl. 2: 1069. 1753.  
Lectotype (designated by Proctor, 1977): Martinique, Morne de la Calebasse, Petiver, Pter. Amér.: 153, tab. 9, fig. 8. 1712.

*Lomariopsis sorbifolia* (L.) Fée var. *caudata* Fée, Mém. Fam. Foug. 2: 70. 1845. Lectotype (designated by Proctor, 1989): Guadeloupe, *Anon.* (RB), not located, not present in RB.

*Habitat*: lithophytic or climbing on trees in rainforests.

*Material examined*: BASSE TERRE: Trace Étang Roche to Étang de l'As de Pique, *Christenhusz 4070* (TUR); Domaine de Valombreuse (M. J. M. Christenhusz, pers. observ.).

**238.** *Nephrolepis biserrata* (Sw.) Schott, Gen. Fil. tab. 3. 1834.

*Aspidium biserratum* Sw., J. Bot. (Schrader) 1800(2): 32. 1801. Type: Mauritius, *Gröndal s.n.* (holotype S!).

*Habitat*: pantropical, terrestrial or epiphytic fern, often on tree trunks, palm crowns and in the canopy.

[*Nephrolepis brownii* (Desv.) Hovenkamp & Miyam., Blumea 50: 293. 2005. *Nephrodium brownii* Desv., Prodr. 252. 1827. Lectotype (designated here): Australia, Park II, East Coast, *R. Brown 20* (K!, duplicate BM).

*Nephrolepis multiflora* sensu Proctor (1977).

*Habitat*: commonly cultivated species of tropical Asia, widely naturalized on Guadeloupe, growing terrestrially in natural habitats such as mountain savannas

(La Soufrière), thickets, open ground, gardens (Domaine de Valombreuse) and walls (Pointe-à-Pitre).

*Material examined*: BASSE TERRE: La Soufrière, *Christenhusz 3916* (L, TUR); Chalk mine at Vieux Fort (Vivant, 1987b). GRAND TERRE: Chalk mines at Gosier (Vivant, 1987b). MARIE GALANTE (Proctor, 1977).]

[*Nephrolepis exaltata* (L.) Schott, Gen. Fil. tab. 3. 1834. *Polypodium exaltatum* L., Syst. Nat. ed. 10, 2: 1326. 1759. Lectotype (designated by Alston, 1933): Jamaica, Sloane, Voy. Jamaica 1: 77, tab. 31. 1707. Epitype (designated here): *Harlow s.n.*, Herb. Sloane 1: 55 (BM-SL).

*Habitat*: a single population of this terrestrial species is known from Matouba, at 'La Marguerite' (Vivant, 1990), where it is a remnant of former cultivation.]

**239.** *Nephrolepis rivularis* (Vahl) Mett. ex Krug, Bot. Jahrb. Syst. 24: 122. 1897.

*Polypodium rivulare* Vahl, Eclog. Amer. 3: 51. 1807.  
Type: Montserrat, *Ryan s.n.* [11] (holotype C).

*Aspidium eminens* Wikstr., Kongl. Svenska Vetensk. Akad. Handl. 1825: 436. 1826. Type: Guadeloupe, *Forsström s.n.* (holotype S!).

*Habitat*: common epiphytic, lithophytic or terrestrial fern in rainforests, often near streams.

*Material examined*: BASSE TERRE: Cascade aux Écrevisses, *Christenhusz 2733* (L, NY, TUR); Trace Étang Madère to Étang Roche, *Christenhusz 2790* (L, TUR); Sofaïa, *Christenhusz 3953* (L, TUR); Cascade Vauchelet, *Christenhusz 4085* (L, NY, P, TUR); Rivière Quiock, *Christenhusz 4110* (L, TUR); *4121* (L, TUR); Saut d'Eau du Matouba (M. J. M. Christenhusz, pers. observ.). MARIE GALANTE (Proctor, 1977).

Several *Nephrolepis* species are cultivated on Guadeloupe and may persist or escape from gardens (Proctor, 1977, Vivant 1988, 1989a, 1996):

1. *Nephrolepis* cv. 'Bostoniensis' (near Gosier).
2. *N.* 'Duffii' (cemetery of Port Louis and near Montebello).
3. *N. biserrata* 'Furcans' (at Montebello).
4. *N. hirsutula* 'Superba'. (Vallon de Poucel, near Gosier).

#### TECTARIACEAE

**240.** *Ctenitis excelsa* (Desv.) Proctor, Rhodora 63: 34. 1961.

*Polypodium excelsum* Desv., Mém. Soc. Linn. Paris 6: 243. 1827. Type: Antilles, *Anon. ex herb. Desvoux* (holotype P!; isotype B).

*Habitat*: uncommon terrestrial fern of mid-elevation rainforests, endemic to the Lesser Antilles.

*Material examined*: BASSE TERRE: Matouba, Morne-à-l'Eau, *Duss 730* (P); Saut d'Eau du Matouba, *Christenhusz 4101* (TUR, UC); *Thiébaud 15* (P); Morne de la Madeleine, *Duss 4034* (P).

**241.** *Ctenitis meridionalis* (Poir.) Ching, *Sunyatsenia* 5: 250. 1940.

*Polypodium meridionale* Poir. in Lamarck, *Encycl.* 5: 553. 1804. Type: Guadeloupe, *Badier s.n.* (holotype P-Lam!; isotype B-Willd.-19807).

*Aspidium consobrinum* Bory ex Fée, Mém. Fam. Foug. 11: 85. 1866. Type: Guadeloupe, *l'Herminier s.n. anno 1835* (holotype RB!, isotype RB!).

*Habitat*: uncommon endemic of the Lesser Antilles, terrestrial at low to mid elevations in mesophile forest.

*Localities*: BASSE TERRE: gorges de la Rivière Noire near Sainte Claude and in the Monts Caraïbes (Ravine Salée) and at the foot of the large rock of Morne Grande Voûte (Vivant, 1989a). In P a few historical collections from Guadeloupe without locality are preserved. The continued existence of this species on Guadeloupe has to be confirmed.

**242.** *Tectaria heracleifolia* (Willd.) Underw., *Bull. Torrey Bot. Club* 33: 200. 1906.

*Aspidium heracleifolium* Willd., *Sp. Pl.* 5: 217. 1810, excl. ref. Philippines. Lectotype (designated by Morton, 1966): Hispaniola, Plumier, *Traité Foug. Amér. tab.* 126. 1705.

*Habitat*: common on limestone cliff sides and roadside banks, especially in mesophile forests.

*Material examined*: BASSE TERRE: Monts Caraïbes (Vivant, 1987b); Domaine de Valombreuse (M. J. M. Christenhusz, pers. observ.); GRAND TERRE: Cocoyer (M. J. M. Christenhusz, pers. observ.), Usine Darbousier in Pointe-à-Pitre (Vivant, 1987b). LA DÉSIRADE, MARIE GALANTE (Proctor, 1977).

**243.** *Tectaria incisa* Cav., *Descr. Pl.* 249. 1802. Type: Puerto Rico, *Ventenat s.n.* (holotype MA).

*Cardiochlaena ampla* Fée, Mém. Fam. Foug. 5: 315. 1852, nomen.

*Cardiochlaena confluens* Fée, Mém. Fam. Foug. 5: 316. 1852. Lectotype (designated by Proctor, 1989): Guadeloupe, *l'Herminier s.n.* (RB!).

*Habitat*: common fern of disturbed habitats, along paths, streams and in fields and plantations, sometimes in mesophile forests.

*Material examined*: BASSE TERRE: *l'Herminier s.n.* (P!, RB!), Étang Zombis, *Christenhusz 4049* (TUR); Monts Caraïbes (Vivant, 1987b); Cascade aux Écrevisses (M. J. M. Christenhusz, pers. observ.); Domaine de Valombreuse (M. J. M. Christenhusz, pers. observ.); GRAND TERRE: Cocoyer (M. J. M. Christenhusz, pers. observ.). MARIE GALANTE (Proctor, 1977).

**244.** *Tectaria trifoliata* (L.) Cav., *Descr. Pl.* 249. 1802. *Polypodium trifoliatum* L., *Sp. Pl.* 2: 1087. 1753, excl. ref. Sloane. Lectotype (designated by Underwood, 1906): Martinique, Plumier, *Traité Foug. Amér. tab.* 148. 1705.

*Cardiochlaena trilobata* Fée, Mém. Fam. Foug. 5: 316. 1852. Type: 'Antillis Gallicis', not located.

*Habitat*: common fern in rainforested ravines and on primary forest slopes.

*Material examined*: BASSE TERRE: Grand Étang, *Christenhusz 2802* (TUR); Cascade Vauchélet, *Christenhusz 4084* (P, TUR); Plateau Dimba, *Christenhusz 4013* (P, TUR, UC); Saut d'Eau du Matouba (M. J. M. Christenhusz, pers. observ.); Cascade aux Écrevisses (M. J. M. Christenhusz, pers. observ.).

**245.** *Triplophyllum funestum* (Kunze) Holttum, *Kew Bull.* 41: 255. 1986.

*Aspidium funestum* Kunze, *Linnaea* 9: 96. 1834. Type: Brazil, Amazonas, 'ad Ega' [Tefé], *Poeppig s.n., anno 1832* (holotype LZ, destroyed). Because no isotypes are known and the original material is not in existence, a neotype is designated here: Guadeloupe, Rivière Quiock, *Christenhusz 4107* (NY!, duplicates P!, TUR!, UC!).

*Nephrodium funestum* (Kunze) Hook., *Sp. Filic.* 4: 129, pl. 259. 1862.

*Dryopteris protensa* Afzel. ex Sw. var. *funesta* (Kunze) C.Chr., *Kongel. Danske Vidensk. Selsk. Skr., Naturvidensk. Math. Afd.* 8, 6: 91. 1920.

*Ctenitis protensa* (Afzel. ex Sw.) Ching var. *funesta* (Kunze) Proctor, *Rhodora* 63: 34. 1961.

*Habitat*: rare terrestrial fern of rainforests.

*Material examined:* BASSE TERRE: Sofaïa, *Christenhusz 3974* (TUR).

## OLEANDRACEAE

**246.** *Oleandra articulata* (Sw.) C.Presl, Tent. Pterid. 78. 1836.

*Aspidium articulatum* Sw., J. Bot. (Schrader) 1800(2): 30. 1801. Lectotype (designated by Maxon, 1914): Morne Rouge, Martinique, Plumier, *Traité Foug. Amér. tab. 136.* 1705.

*Aspidium nodosum* Willd., Sp. Pl. 5: 211. 1810, nom. superfl., based on the same type.

*Oleandra nodosa* C.Presl., Tent. Pter. 78. 1836, nom. superfl.

*Habitat:* locally common, scandent epiphyte on mossy tree trunks and logs, often near creeks, sometimes lithophytic on mossy boulders.

*Material examined:* BASSE TERRE: Trace Étang Madère to Étang Roche, *Christenhusz 2803* (L, TUR); Sofaïa, *Christenhusz 3980* (L, P, TUR); Mamelle Pigeon, *Christenhusz 4203* (TUR).

## DAVALLIACEAE

[*Davallia solida* (G.Forst.) Sw., J. Bot. (Schrader) 1800(2): 87. 1801. var. *fejeensis* (Hook.) Noot., Blumea 39: 204. 1994.

*Davallia fejeensis* Hook., Sp. Fil. 1: 166, tab. 55. 1846. Lectotype (designated here): Fiji, Nukalau Island, *Barclay s.n.* (K!, duplicate BM!).

*Habitat:* cultivated fern from the Pacific, once found naturalized on a tree fern trunk (Vivant, 1996).]

## POLYPODIACEAE

**247.** *Campyloneurum angustifolium* (Sw.) Fée, Mém. Fam. Foug. 5: 257. 1852.

*Polypodium angustifolium* Sw., Prodr. 130. 1788. Type: Jamaica, *Swartz s.n.* (holotype S!; isotypes B-Willd. 19611-2, BM!, UPS-Thunb. 24458).

*Habitat:* very rare epiphytic and lithophytic fern in wet montane forests.

*Material examined:* BASSE TERRE: Mazé 601.869 (IJ), *Duss 4103* (after Proctor, 1977).

**248.** *Campyloneurum brevifolium* (Lodd. ex Link) Link, Fil. Spec. 124. 1841.

*Polypodium brevifolium* Lodd. ex Link, Hort. Berol. 90. 1833. Type: Cultivated in Berlin, *Anon.* (holotype B!).

*Campyloneurum latum* T.Moore, Ind. Fil. 225. 1861. Lectotype (designated by Proctor, 1977): St Vincent, *Guilding s.n.* (K).

*Polypodium latum* (T.Moore) T.Moore ex Sodiro, Crypt. Vasc. Quit. 371. 1894.

*Habitat:* common epiphyte on tree trunks or epiphytic on shaded rocks.

*Material examined:* BASSE TERRE: Sofaïa, *Christenhusz 3950* (NY, TUR).

[*Campyloneurum costatum* (Kunze) C.Presl, Tent. Pter. 190. 1836. *Polypodium costatum* Kunze, Linnaea 9: 38. 1834; not Wallich (1857). Type: Cuba, Limonar, *Poeppig s.n. Aug. 1822* (holotype LZ destroyed, isotypes B, BM!, C, K!, P). The isotype specimen in L is in fact *Pyrrosia costata* (Presley) Tagawa & K.Iwats., as also stated by Proctor (1989).

*Habitat:* A species from the Greater Antilles, sometimes cultivated as ‘fougère laitue’.

*Material examined:* BASSE TERRE: *l’Herminier s.n.* (P).]

**249.** *Campyloneurum phyllitidis* (L.) C.Presl, Tent. Pterid. 190, tab. f, figs 18–20. 1836.

*Polypodium phyllitidis* L., Sp. Pl. 1083. 1753. Lectotype (designated by Proctor, 1977): ‘Antilles’, Plumier, *Traité Foug. Amér. tab. 130.* 1705. Typotype: *Herb. Surian 273* (P!).

*Habitat:* common epiphyte on tree trunks and branches or lithophytic on rocky banks and boulders.

*Material examined:* BASSE TERRE: Cascade Vauchetlet, *Christenhusz 4086* (NY, P, TUR); Saut d’Eau du Matouba (M. J. M. Christenhusz, pers. observ.); Cascade aux Écrevisses (M. J. M. Christenhusz, pers. observ.); Domaine de Valombreuse (M. J. M. Christenhusz, pers. observ.). GRAND TERRE: Gosier (Vivant, 1987b). ST MARTIN, MARIE GALANTE (Proctor, 1977).

**250.** *Campyloneurum repens* (Aubl.) C.Presl, Tent. Pterid. 190. 1836.

*Polypodium repens* Aubl., Hist. Pl. Guiane 2: 962. 1775. Lectotype (designated by Proctor, 1985): Martinique, Plumier, *Traité Foug. Amér. tab. 134.* 1705.

*Habitat:* rare and local epiphyte, scandent on tree trunks. No material from Guadeloupe studied.

**251.** *Ceradenia curvata* (Sw.) L.E.Bishop, Amer. Fern J. 78: 4. 1988.

- Polypodium curvatum* Sw., J. Bot. (Schrader) 1800(2): 24. 1801. Type: Jamaica, *Swartz s.n.* (holotype B-Willd. 19652-010!).
- Grammitis curvata* (Sw.) Ching, Bull. Fan Mem. Inst. Biol. 10: 240. 1941.
- Polypodium inaequale* Fée, Mém. Fam. Foug. 11: 47, tab. 12, fig. 3. 1866. *nom. illeg. hom.* Lectotype (designated here): Guadeloupe, *l'Herminier s.n.* (RB!).
- Habitat:* rare epiphyte in mossy forest at mid or high elevations.
- Locality:* BASSE TERRE: forests near Routhiers (Vivant, 1987b).
- 252.** *Cochlidium furcatum* (Hook. & Grev.) C.Chr., Dansk Bot. Ark. 6: 20. 1929.
- Grammitis furcata* Hook. & Grev., Ic. Fil. 1: tab. 62. 1828. Type: Guyana, *Parker s.n.* (holotype K).
- Habitat:* rare epiphyte on mossy tree trunks in forest. Cited by Fournet & Hoff (1999).
- 253.** *Cochlidium jungens* L.E.Bishop, Amer. Fern J. 68: 84. 1978. Type: Dominica, St George, Summit of Morne Micotrin, *Nicolson 1975* (holotype US!-02419031).
- Grammitis jungens* (L.E.Bishop) Proctor, Mem. New York Bot. Gard. 53: 327. 1989.
- Habitat:* rare minute epiphyte on *Clusia mangle* at high elevations (above 1100 m).
- Localities:* BASSE TERRE: Grande Découverte, Nez Cassé and Grand Sans Toucher (Vivant, 1990).
- 254.** *Cochlidium linearifolium* (Desv.) Maxon ex C.Chr., Dansk Bot. Ark. 6: 23, tab. 1. 1929.
- Monogramma linearifolia* Desv., Ges. Naturf. Freunde Berlin Mag. Neuesten Entdeck. Gesamten Naturk. 5: 302, tab. 7, fig. 5. 1811. Lectotype (designated here): French Guiana, 'Habitat in Gallia aequinoxialia', *Anon. ex herb. Desvaux* (P!).
- Grammitis linearifolia* (Desv.) Steud., Nomencl. 2: 187. 1824.
- Habitat:* rare epiphyte in trees at higher elevations.
- Material examined:* BASSE TERRE: *l'Herminier s.n.* (P); *Mazé 858* (K).
- 255.** *Cochlidium seminudum* (Willd.) Maxon, Sci. Surv. Porto Rico & Virgin Is. 6: 407. 1926.
- Blechnum seminudum* Willd., Phytogr. 13, tab. 8, fig. 2. 1794. Type: Martinique, *Isert s.n. anno 1787* (holotype B-Willd. 19587).
- Grammitis seminuda* (Willd.) Willd., Sp. Pl. 5: 140. 1810.
- Monogramma rostrata* Hook., Sp. Fil. 5: 122. 1864. Type: Nicaragua, Omotepec, *Wright s.n.* (holotype K; isotype US!).
- Cochlidium rostratum* (Hook.) Maxon ex C.Chr., Dansk Bot. Ark. 6: 23. 1929.
- Grammitis rostrata* (Hook.) R.M.Tryon & A.F.Tryon, Rhodora 84: 129. 1982.
- Taenitis linearis* Kaulf., Enum. Fil. 132. 1824. Type: Guadeloupe, collector not stated.
- Habitat:* Locally frequent epiphyte on tree trunks and mossy branches or rotting logs or mid or high elevations.
- Material examined:* BASSE TERRE: Sofaïa, *Christenhusz 3961* (TUR); Bains Jaunes, *Christenhusz 4009* (TUR, UC); Étang Zombis, *Christenhusz 4048* (TUR, UC); Mamelle Pigeon, *Christenhusz 4205* (TUR, UC).
- 256.** *Cochlidium serrulatum* (Sw.) L.E.Bishop, Amer. Fern J. 68: 80. 1978.
- Acrostichum serrulatum* Sw., Prodr. 128. 1788. Type: Jamaica, *Swartz s.n.* (holotype S; isotypes B-Willd. 19585-1, 19589-3, SBT, US).
- Xiphopteris serrulata* (Sw.) Kaulf., Enum. Fil. 85, 300. 1824.
- Grammitis serrulata* (Sw.) Sw., J. Bot. (Schrader) 1800(2): 18. 1801.
- Xiphopteris extensa* Fée, Mém. Fam. Foug. 11: 14, tab. 19, fig. 3. 1866. Type: Guadeloupe, *l'Herminier s.n. anno 1864*, not found. Lectotype (designated here because of the lack of original material): Fée, Mém. Fam. Foug. 11, tab. 19, fig. 3.
- Habitat:* common epiphyte on mossy trees, logs or terrestrial on boulders, ledges and cliffs, in moss-covered ground.
- Material examined:* BASSE TERRE: La Soufrière, *Christenhusz 3909* (NY, TUR); Sofaïa, *Christenhusz 3962* (TUR, UC); Mamelle Pigeon, *Christenhusz 4201* (TUR, UC); Cascade aux Écrevisses (M. J. M. Christenhusz, pers. observ.).
- Drynaria quercifolia* (L.) J.Sm., J. Bot. (Hooker) 3: 398. 1841.
- Polypodium quercifolium* L., Sp. Pl. 2: 1087. 1753. Lectotype (designated by Sledge, 1960): *Herb. Hermann 1: 39, No. 382* (BM-000621366!).
- Habitat:* Asian epiphytic fern often planted in gardens (Domaine de Valombreuse, Parc Animalier de Traversée) and locally naturalizing (M. J. M. Christenhusz, pers. observ.; Vivant, 1996).]

- 257.** *Enterosora trifurcata* (L.) L.E.Bishop, Syst. Bot. 17: 353. 1992.  
*Polypodium trifurcatum* L., Sp. Pl. 1084. 1753. Lectotype (designated by Morton, 1967): Martinique, Morne de la Calebasse, Plumier, *Traité Foug. Amér.* tab. 138. 1705. This illustration is based on an abnormal specimen; this species usually has simple blades, which are not trifurcate at the apex.  
*Grammitis trifurcata* (L.) Copel., Gen. Fil. 211. 1947.  
*Habitat:* epiphyte on mossy trees at higher elevations.  
*Material examined:* BASSE TERRE: Grande Découverte, *Christenhusz 4159* (TUR).
- 258.** *Grammitis limbata* Fée, *Mém. Fam. Foug.* 5: 233. 1852. Lectotype (designated here): Guadeloupe, *Perrottet s.n. anno 1824* (RB!, duplicate P?).  
*Polypodium limbatum* (Fée) Maxon, Bull. Torrey Bot. Club 42: 222. 1915.  
*Habitat:* rare epiphyte on mossy trees at higher elevations.  
*Material examined:* BASSE TERRE: Mamelle Pigeon, *Christenhusz 4202* (TUR, UC). *Localities:* Nez Cassé, Grande Découverte (Vivant, 1989b).
- 259.** *Grammitis stipitata* Proctor, *Rhodora* 68: 467. 1966. (Fig. 7F). Type: Guadeloupe, *Marie 6* (holotype P!; isotypes BM!, IJ!, NY! fragment).  
*Habitat:* rare, endemic epiphyte of high-elevation elfin woodlands.  
*Material examined:* BASSE TERRE: La Soufrière, *Christenhusz 3924* (TUR, UC).
- 260.** *Lellingeria antillensis* (Proctor) A.R.Sm. & R.C.Moran, *Amer. Fern J.* 81: 83. 1991.  
*Grammitis phlegmaria* (J.Sm.) Proctor var. *antillensis* Proctor, *Rhodora* 68: 467. 1966. Type: Guadeloupe, Grande Découverte, Trace Victor Hugues, *Proctor 20307* (holotype IJ!).  
*Habitat:* rare epiphyte of mossy forest at high elevations, a Lesser Antillean endemic.  
*Localities:* BASSE TERRE: Deuxième Chute du Carbet (Vivant, 1987b); Trace Victor Hugues at Grande Découverte (Vivant, 1989b).
- 261.** *Lellingeria hartii* (Jenman) A.R.Sm. & R.C.Moran, *Amer. Fern J.* 81: 84. 1991.  
*Polypodium hartii* Jenman, *J. Bot.* 24: 272. 1886. Type: Jamaica, *Hart s.n.* (holotype K!).  
*Grammitis hartii* (Jenman) Proctor, Bull. Inst. Jamaica, Sci. Ser. 5: 33. 1953.  
*Xiphopteris hartii* (Jenman) Copel., *Amer. Fern J.* 42: 93. 1952.  
*Habitat:* rare clump-forming epiphyte of montane rainforest.  
*Material examined:* BASSE TERRE: Mamelle Pigeon, *Christenhusz 4206* (TUR, UC). *Localities:* La Madeleine; Refuge des Montagnards; Trace Karukéra; Grande Découverte (Vivant, 1989b).
- 262.** *Lellingeria pendula* (Sw.) A.R.Sm. & R.C.Moran, *Amer. Fern J.* 81: 86. 1991.  
*Polypodium pendulum* Sw., *Prodr.* 313. 1788. Type: Jamaica, *Swartz s.n.* (holotype S!, isotype B!-Willd. 19666-01, UPS-Thunb. 24532).  
*Grammitis pendula* (Sw.) Proctor, *Rhodora* 63: 35. 1961.  
*Habitat:* rare epiphyte of mossy forest at high elevations.  
*Material examined:* BASSE TERRE: Grande Découverte, *Proctor 20310* (A, IJ!).
- 263.** *Lellingeria suspensa* (L.) A.R.Sm. & R.C.Moran, *Amer. Fern J.* 81: 87. 1991.  
*Polypodium suspensum* L., Sp. Pl. 1084. 1753. Lectotype (designated by Proctor, 1962): Morne de la Calebasse, Martinique, Plumier, *Traité Foug. Amér.* tab. 87, right-hand figure. 1705.  
*Grammitis suspensa* (L.) Proctor, *Brit. Fern Gaz.* 9: 77. 1962.  
*Polypodium saccatum* Fée, *Mém. Fam. Foug.* 5: 239. 1852. Syntypes: Guadeloupe, *Perrottet s.n.*; Martinique, *Rivoire s.n.*, not located, possibly in P.  
*Habitat:* common epiphyte of mossy trees in evergreen forest and cloud forests, chiefly at higher elevations.  
*Material examined:* BASSE TERRE: Étang Zombis, *Christenhusz 4044* (TUR, UC); Grande Découverte, *Christenhusz 4161* (TUR, UC); Mamelle Pigeon, *Christenhusz 4210* (TUR, UC); *4212* (TUR, UC); La Soufrière, *Christenhusz 3946* (TUR).
- 264.** *Lellingeria tenuicula* (Fée) A.R.Sm. & R.C.Moran, *Amer. Fern J.* 81: 87. 1991.  
*Polypodium tenuiculum* Fée, *Mém. Fam. Foug.* 5: 239. 1852. Lectotype (designated here): Guadeloupe,

*l'Herminier s.n.* (RB!; duplicates B!-200142678, IJ!, MO!, P!).

*Grammitis tenuicula* (Fée) Proctor, *Rhodora* 63: 35. 1961.

*Habitat*: rare epiphyte on mossy tree trunks in mid-elevation forests.

*Material examined*: BASSE TERRE: Grand Étang, *Christenhusz* 4059 (TUR).

**265.** *Microgramma lycopodioides* (L.) Copel., Gen. Fil.: 185. 1947.

*Polypodium lycopodioides* L., Sp. Pl. 1082. 1753. Lectotype (designated by Proctor, 1977): 'Antilles', *Anon.* (LINN 1251.2!).

*Phymatodes prominula* Maxon, Contr. U.S. Natl. Herb. 10: 501. 1908. Type: Venezuela, Margarita Island, *Johnston* 155 (holotype US!).

*Habitat*: common epiphyte in dry or semi-dry forest.

*Material examined*: BASSE TERRE: Houélmont, *Christenhusz* 4035 (P, TUR); Saut d'Eau du Matouba (M. J. M. Christenhusz, pers. observ.); Cascade aux Écrevisses (M. J. M. Christenhusz, pers. observ.); Domaine de Valombreuse (M. J. M. Christenhusz, pers. observ.). ST MARTIN, MARIE GALANTE (Proctor, 1977).

**266.** *Microgramma piloselloides* (L.) Copel., Gen. Fil.: 185. 1947.

*Polypodium piloselloides* L., Sp. Pl. 1083. 1753. Lectotype (designated by Proctor, 1977): 'America meridionali', *Anon.* (LINN 1251.3!).

*Habitat*: common and variable epiphyte.

*Material examined*: BASSE TERRE: Bassin Bleu, *Christenhusz* 4191 (TUR, UC); Maison de la Forêt (M. J. M. Christenhusz, pers. observ.); Cascade aux Écrevisses (M. J. M. Christenhusz, pers. observ.). ST MARTIN, MARIE GALANTE (Proctor, 1977).

**267.** *Micropolypodium grisebachii* (Underw. ex C.Chr.) A.R.Sm., *Novon* 2: 422. 1992.

*Polypodium grisebachii* Underw. ex C.Chr., Ind. Fil. 531. 1906, a renaming of *P. exiguum* Grisebach (1864), not Heward (1838).

*Polypodium exiguum* Griseb., Fl. Br. W. Ind. 701. 1864. Type: Jamaica, Blue Mountain Peak, *Purdie s.n.* (holotype K!).

*Xiphopteris grisebachii* (Underw. ex C.Chr.) Copel., *Amer. Fern J.* 42: 95. 1952.

*Grammitis grisebachii* (Underw. ex C.Chr.) Proctor, *Bull. Inst. Jamaica, Sci. Ser.* 5: 33. 1953.

*Habitat*: rare epiphyte of mossy tree trunks in elfin woodland.

Cited for Guadeloupe by Proctor (1977). This is the smallest grammitid fern of the Lesser Antilles and is easily overlooked.

**268.** *Micropolypodium knowltoniorum* (Hodge) A.R.Sm., *Novon* 2: 422. 1992.

*Polypodium knowltoniorum* Hodge, *Amer. Fern J.* 31: 105, tab. 1, figs 4–6. 1941. Type: Dominica, Morne Trois Pitons, *Hodge* 54 (holotype GH).

*Xiphopteris knowltoniorum* (Hodge) Copel., *Amer. Fern J.* 42: 108. 1952.

*Grammitis knowltoniorum* (Hodge) Proctor, *Rhodora* 63: 35. 1961.

*Habitat*: rare epiphyte on mossy trees or shrubs at high elevations. This Lesser Antillean endemic is only known from Guadeloupe and Dominica.

*Material examined*: BASSE TERRE: Mamelles Pigeon, *Christenhusz* 4208 (TUR, UC).

**269.** *Micropolypodium serricula* (Fée) A.R.Sm., *Novon* 2: 422. 1992.

*Polypodium serricula* Fée, *Mém. Fam. Foug.* 5: 238. 1852. Type: Guadeloupe, aux deux Mamelles, *l'Herminier & Perrottet s.n.* (holotype RB!).

*Xiphopteris serricula* (Fée) Copel., *Amer. Fern J.* 42: 101. 1952.

*Grammitis serricula* (Fée) Proctor, *Rhodora* 63: 35. 1961.

*Habitat*: rare epiphyte on mossy trees in elfin woodland, endemic to the Lesser Antilles.

*Material examined*: BASSE TERRE: La Soufrière, *Christenhusz* 3930 (TUR, UC).

**270.** *Micropolypodium taenifolium* (Jenman) A.R.Sm., *Novon* 2: 423. 1992.

*Polypodium taenifolium* Jenman, *Bull. Bot. Dept. Jamaica n.s.* 4: 114. 1897. Type: Jamaica, near Mt Moses, *Syme (J.P. 197), pro parte* (IJ, not seen).

*Grammitis taenifolia* (Jenman) Proctor, *Bull. Inst. Jamaica, Sci. Ser.* 5: 35. 1953.

*Xiphopteris taenifolia* (Jenman) Copel., *Amer. Fern J.* 42: 109. 1952.

*Habitat*: locally abundant epiphyte in montane forests.



*Material examined:* BASSE TERRE: Mamelle Pigeon, Christenhusz 4214 (TUR, UC).

**271.** *Neurodium lanceolatum* (L.) Fée, Mém. Fam. Foug. 3: 28. 1852.

*Pteris lanceolata* L., Sp. Pl. 1073. 1753. Lectotype (designated by Proctor, 1977): Hispaniola, Plumier, Descr. Pl. Amer.: 28, tab. 41. 1693.

*Habitat:* rare epiphyte on coconut tree trunks.

*Material examined:* BASSE TERRE: Camp Jacob, Duss 4244 (P); Matouba, Gourbeyre, Duss 79 (P).

*Localities:* ravine near Petit-Bourg (Vivant, 1987b). ST MARTIN (Proctor, 1977).

**272.** *Niphidium crassifolium* (L.) Lell., Amer. Fern. J. 62: 106, fig. 1. 1972.

*Polypodium crassifolium* L., Sp. Pl. 1083. 1753. Lectotype (designated by Lellinger, 1972b): Martinique, Morne de la Calebasse, Petiver, Pterid. Amer.:2, tab. 6, fig. 1. 1712.

*Habitat:* common epiphyte on tree trunks or lithophytic on boulders or rocky banks, often in agricultural land or plantations on fences or on cultivated trees.

*Localities:* Monts Caraïbes; Trois Rivières; Moscou; Plateau du Palmiste; Dugommier; Boucan-Audet, etc. (Vivant, 1989b).

**273.** *Pecluma pectinata* (L.) M.G.Price, Amer. Fern J. 73: 115. 1983.

*Polypodium pectinatum* L., Sp. Pl. 1085. 1753. Lectotype (designated by Evans, 1968): Martinique, Plumier, Descr. Pl. Amér.: 26, tab. 37. 1693. Type: *Surian* 434 (P!).

*Goniophlebium pectinatum* (L.) J.Sm., J. Bot. (Hooker) 4: 57. 1841.

*Habitat:* epiphyte on mossy banks, logs and tree trunks, in mid elevation rainforest.

*Material examined:* BASSE TERRE: Sofaïa, Christenhusz 3955 (TUR, UC); 3956 (TUR, UC).

**274.** *Pecluma plumula* (Humb. & Bonpl. ex Willd.) M.G.Price, Amer. Fern J. 73: 115. 1983.

*Polypodium plumula* Humb. & Bonpl. ex Willd., Sp. Pl. 5: 178. 1810. Lectotype (designated by Evans, 1968): Venezuela, Caracas, *Bredemeyer s.n.* (B-Willd. 19655-1; duplicates NY, P-Humb.).

*Habitat:* rare epiphyte on tree trunks mostly in the canopy, sometimes lithophytic on rocks.

*Localities:* Crête de Village along the route leaving the valley of Baugendre (Vivant, 1990).

**275.** *Phlebodium aureum* (L.) J.Sm., J. Bot. (Hooker) 4: 59. 1841.

*Polypodium aureum* L., Sp. Pl. 2: 1087. 1753. Lectotype (designated by Proctor, 1977): 'America', *Anon.* (LINN 1251.10!).

*Habitat:* common epiphyte on trees and palms or in root masses or other epiphytes, often in open disturbed habitats, forest edges and gardens.

*Material examined:* BASSE TERRE: Sofaïa, Christenhusz 3965 (TUR). ST MARTIN, ST BARTHÉLEMY, MARIE GALANTE (Proctor, 1977).

**276.** *Phlebodium decumanum* (Willd.) J.Sm., J. Bot. (Hooker) 4: 59. 1841.

*Polypodium decumanum* Willd., Sp. Pl. 5: 170. 1810. Type: Brazil, *Hoffmannsegg s.n.* (holotype B-Willd. 19640; isotype NY, fragment).

*Habitat:* common epiphyte on trees in open habitats and forest edges or terrestrial in humus in shade.

*Material examined:* BASSE TERRE: Plateau Dimba, Christenhusz 4027 (TUR); Domaine de Valombreuse (M. J. M. Christenhusz, pers. observ.).

**277.** *Phlebodium pseudoaureum* (Cav.) Lell., Amer. Fern J. 77: 101. 1987.

*Polypodium pseudoaureum* Cav., Descr. Pl. 247. 1802. Type: Locality unknown, *Née s.n.* (holotype MA).

*Polypodium areolatum* Humb. & Bonpl. ex Willd., Sp. Pl. 5: 172. 1810. Type: Venezuela, Cumaná, *Humboldt & Bonpland s.n.* (holotype B-Willd. 19656).

*Phlebodium areolatum* (Humb. & Bonpl. ex Willd.) J.Sm., J. Bot. (Hooker) 4: 59. 1841.

*Polypodium aureum* L. var. *areolatum* (Humb. & Bonpl. ex Willd.) Baker in Hooker & Baker, Syn. Fil. 347. 1867.

*Habitat:* epiphyte on tree trunks in humid but open forest, or terrestrial.

*Material examined:* BASSE TERRE: Plateau Dimba, Christenhusz 4023 (TUR).

[*Microsorium scolopendria* (Burm. f.) Copel., Univ. Calif. Publ. Bot. 16: 112. 1929. *Polypodium scolopendrium* Burm. f., Fl. Indica 232. 1768. Lectotype (designated by Verdcourt, 2001): Indonesia, Java, *Pryon s.n.* (G).

*Phymatosorus scolopendria* (Burm. f.) Pic.Serm., Webbia 28: 457, 460. 1973.

*Habitat*: Asian epiphytic fern often planted in gardens (Domaine de Valombreuse, Parc Animalier de Traversée) and locally naturalizing (Vivant, 1996).]

[*Platyserium alvicorne* Desv., Mém. Soc. Linn. Paris 6: 213. 1827. Type: *Anon. Herbarium Desvaux* (holotype P!).

*Habitat*: cultivated fern in Parc Zoologique de Route de la Traversée (Vivant, 1988) and Domaine de Valombreuse (M. J. M. Christenhusz, pers. observ.), locally naturalized.]

**278.** *Pleopeltis astrolepis* (Liebm.) E.Fourn. in Besch. & Nyl., Mexic. Pl. 1: 87. 1872.

*Polypodium astrolepis* Liebm., Kongel. Danske Vidensk. Selsk. Skr. Naturvidensk. Math. Afd. ser. 5, 1: 185. 1849. Lectotype (designated by Smith, 1981): Mexico, Oaxaca, Trapiche de la Concepción, *Liebmann s.n.*, Fl. Mex. 87 (C; duplicate GH, fragment).

*Habitat*: common epiphyte, especially on cultivated trees.

*Material examined*: BASSE TERRE: Bassin Bleu, *Christenhusz 4192* (TUR, UC).

**279.** *Pleopeltis polypodioides* (L.) E.G.Andrews & Windham, Contr. Univ. Michigan Herb. 19: 46. 1993.

*Acrostichum polypodioides* L., Sp. Pl. 1068. 1753. Lectotype (designated by Verdcourt, 2001): Jamaica, Plukenet, Phytographia: tab. 289, fig. 1. 1694. Epitype (designated here): *Herb. Sloane 129: 29* (BM-SL).

*Polypodium polypodioides* (L.) Watt, Canad. Naturalist & Quart. J. Sci. n.s. 3(2): 158. 1867 [1866].

*Habitat*: common epiphytic or lithophytic fern on tree trunks, branches, rocks or concrete, often in disturbed places.

*Material examined*: BASSE TERRE: On concrete walls along Route de la Traversée, near Col des Mamelles, *Christenhusz 4216* (TUR); Cascade aux Écrevisses (M. J. M. Christenhusz, pers. observ.); Domaine de Valombreuse (M. J. M. Christenhusz, pers. observ.). GRAND TERRE: Gosier (Vivant, 1987b). ST MARTIN; ST BARTHÉLEMY (Proctor, 1977).

**280.** *Serpocaulon acuminatum* (l'Herm. ex Fée) Christenhusz, **comb. nov.**

*Goniophlebium acuminatum* l'Herm. ex Fée, Mém. Fam. Foug. 11: 68, tab. 19, fig. 1. 1866. Lectotype

(designated here): Guadeloupe, Rivière St Louis au Matouba, *l'Herminier anno 1861* (RB!; duplicate B). *Polypodium antillense* Maxon, Proc. Biol. Soc. Wash. 43: 83. 1930, based on *Goniophlebium acuminatum* l'Herm. ex Fée, non *Polypodium acuminatum* Houtt. (1786), neither Roxb. (1825), nor Sodiro (1893).

*Serpocaulon antillense* (Maxon) A.R.Sm., Taxon 55: 927. 2006, *nom. superfl.*

*Habitat*: rare epiphyte on large trees in montane rainforests.

**281.** *Serpocaulon dissimile* (L.) A.R.Sm., Taxon 55: 928. 2006.

*Polypodium dissimile* L., Syst. Nat. ed. 10, 2: 1325. 1759. Lectotype (designated by Proctor, 1977): Jamaica, *Browne s.n.* (LINN 1251.24).

*Goniophlebium dissimile* (L.) J.Sm., J. Bot. (Hooker) 4: 57. 1841.

*Polypodium chnoodes* Spreng., Neue Entd. Pflanzenk. 3: 6. 1822. Type: Martinique, *Kohaut s.n.* in *Herbarium Sieber s.n.* (holotype LZ, destroyed; isotype PRC?).

*Goniophlebium chnoodes* (Spreng.) Fée, Mém. Fam. Foug. 5: 255. 1852.

*Habitat*: frequent epiphyte on mossy trunks in rainforest, rarely lithophytic.

*Material examined*: BASSE TERRE: Trace Étang Roche to Étang de l'As de Pique, *Christenhusz 4069* (TUR, P); Bassin Bleu, *Christenhusz 4193* (TUR).

**282.** *Serpocaulon levigatum* (Cav.) A.R.Sm., Taxon 55: 928. 2006.

*Polypodium levigatum* Cav., Descr. Pl. 224. 1802. Type: Ecuador, *Nee s.n.*, *Herb. Cavanilles* (holotype MA, isotype S!).

*Polypodium glaucophyllum* Kunze ex Klotzsch, Linnaea 20: 393. 1847. Lectotype (selected by Tryon & Stolze, 1989): Colombia, Merida, *Moritz 305* (B!, duplicates BM, BR, K).

*Goniophlebium glaucophyllum* (Kunze ex Klotzsch) Fée, Mém. Fam. Foug. 5: 255. 1852.

*Habitat*: uncommon epiphyte in montane rainforest.

*Material examined*: BASSE TERRE: Bains Jaunes, *Christenhusz 4010* (P, TUR, UC).

**283.** *Serpocaulon loriceum* (L.) A.R.Sm., Taxon 55: 928. 2006.

*Polypodium loriceum* L., Sp. Pl. 1086. 1743. Lectotype (designated by Proctor, 1977): Martinique, Morne de la Calebasse, Petiver, Pter. Amér.: 27, tab. 7,

fig. 10. 1712. Typotype: Martinique, *Surian* 281 (P-JUSS-1085).

*Goniophlebium loriceum* (L.) J.Sm. ex Hook., Gen. Fil. sub. tab. 51. 1840.

*Habitat*: common rainforest epiphyte, scandent on tree trunks or terrestrial on mossy rocks.

*Material examined*: BASSE TERRE: Bains Jaunes, *Christenhusz* 3939 (K, P, TUR); 4003 (P, TUR); Sofaïa, *Christenhusz* 3952; Rivière Quiock, *Christenhusz* 4119 (P, TUR); Grande Découverte, *Christenhusz* 4146 (TUR); Cascade aux Écrevisses (M. J. M. Christenhusz, pers. observ.); Routhiers (Vivant, 1987b).

**284.** *Serpocaulon triseriale* (Sw.) A.R.Sm., Taxon 55: 929. 2006.

*Polypodium triseriale* Sw., J. Bot. (Schrader) 1800(2): 26. 1801. Type: 'India orientalis', *Anon.* (holotype UPS-Thunb.).

*Goniophlebium triseriale* (Sw.) Pic.Serm., *Webbia* 31: 248. 1977.

*Goniophlebium intermedium* Fée, Mém. Fam. Foug. 11: 69, tab. 18, fig. 3. 1866. Lectotype (designated here): Guadeloupe, *l'Herminier s.n.* (RB!).

*Habitat*: epiphyte on trees or lithophytic on shaded rocks in mesophile forest.

*Locality*: Monts Caraïbes (Vivant, 1987b).

**285.** *Terpsichore anfractuosa* (Kunze ex Klotzsch) B.León & A.R.Sm., *Amer. Fern J.* 93: 86. 2003.

*Polypodium anfractuosum* Kunze ex Klotzsch, *Linnaea* 20: 375. 1847. Type: Venezuela, Mérida, *Moritz* 330 (holotype B!; isotype US).

*Grammitis anfractuosa* (Kunze ex Klotzsch) Proctor, *Rhodora* 63: 35. 1961.

*Melpomene anfractuosa* (Kunze ex Klotzsch) A.R.Sm. et R.C.Moran, *Novon* 2: 429. 1992.

*Habitat*: rare epiphyte on *Clusia mangle* at high elevations.

*Material examined*: BASSE TERRE: Grande Découverte, *Stehlé* 1468 (US).

**286.** *Terpsichore aspleniifolia* (L.) A.R.Sm., *Novon* 3: 485. 1993.

*Polypodium aspleniifolium* L., Sp. Pl. 1084. 1753, excl. var. b. Lectotype (designated by Proctor, 1962): Morne de la Calebasse, Martinique, Plumier, *Traité Foug. Amér.* tab. 102, fig. A. 1705.

*Grammitis aspleniifolia* (L.) Proctor, *Brit. Fern. Gaz.* 9: 76. 1962.

*Habitat*: common epiphyte on mossy trees at mid to high elevations.

*Material examined*: BASSE TERRE: Grand Étang, *Christenhusz* 2797 (TUR, UC); Bains Jaunes, *Christenhusz* 3944 (TUR, UC); 3998 (TUR, UC).

**287.** *Terpsichore* × *victorhugoensis* Christenh. **hybr. nov.** (Fig. 8).

*Diagnosis*: *Terpsichore anfractuosa* (quae parens unus certe est) similis, sed radicum proliferationibus et fungi *Acrospermi* fructificationibus nullis, in rhizomatibus squamis majoribus attenuatis, laminis glabris (marginibus exceptis) et soris setosis differt.

*Type*: Guadeloupe: Trace Victor Hugues at Grande Découverte, *Christenhusz* 4158 (holotype TUR!, isotype UC!; paratype *Christenhusz* 4162, TUR!).

This remarkable hybrid resembles *T. anfractuosa*, which is certainly one of the parental species, but it differs in having larger attenuate rhizome scales and in having setae only along the blade margins and among the sori. It also lacks root proliferations and black fruiting bodies of the fungal genus *Acrospermum*, which are typically found in *T. anfractuosa*. It has collapsed spores, which is the reason for describing this taxon as a hybrid. The new hybrid is named from the locality where the type was collected.

**288.** *Terpsichore eggersii* (Baker ex Hook.) A.R.Sm., *Novon* 3: 486. 1993.

*Polypodium eggersii* Baker ex Hook., *Ic. Pl.* tab. 1671. 1886. Type: Dominica, *Eggers* 937 (holotype K!).

*Grammitis eggersii* (Baker ex Hook.) Proctor, *Brit. Fern. Gaz.* 9: 77. 1962.

*Polypodium tenuiculum* Fée var. *husnotii* E.Fourn. & Mazé ex Duss, *Foug. & Lycop. Antill. Franc.* 44. 1903. Type: Guadeloupe and Martinique, *Husnot* (P?, not located).

*Habitat*: common epiphyte in rainforest.

*Material examined*: BASSE TERRE: Bains Jaunes, *Christenhusz* 2770 (TUR); Grand Étang, *Christenhusz* 4058 (TUR, UC); Grande Découverte, *Christenhusz* 4145 (TUR, UC); 4157 (TUR, UC); 4160 (TUR, UC); 4164 (TUR, UC); Mamelles Pigeon, *Christenhusz* 4211 (TUR, UC).

**289.** *Terpsichore lanigera* (Desv.) A.R.Sm., *Novon* 3: 487. 1993.

*Polypodium lanigerum* Desv., *Ges. Naturf. Freunde Berlin Mag. Neuesten Entdeck. Gesamnten*

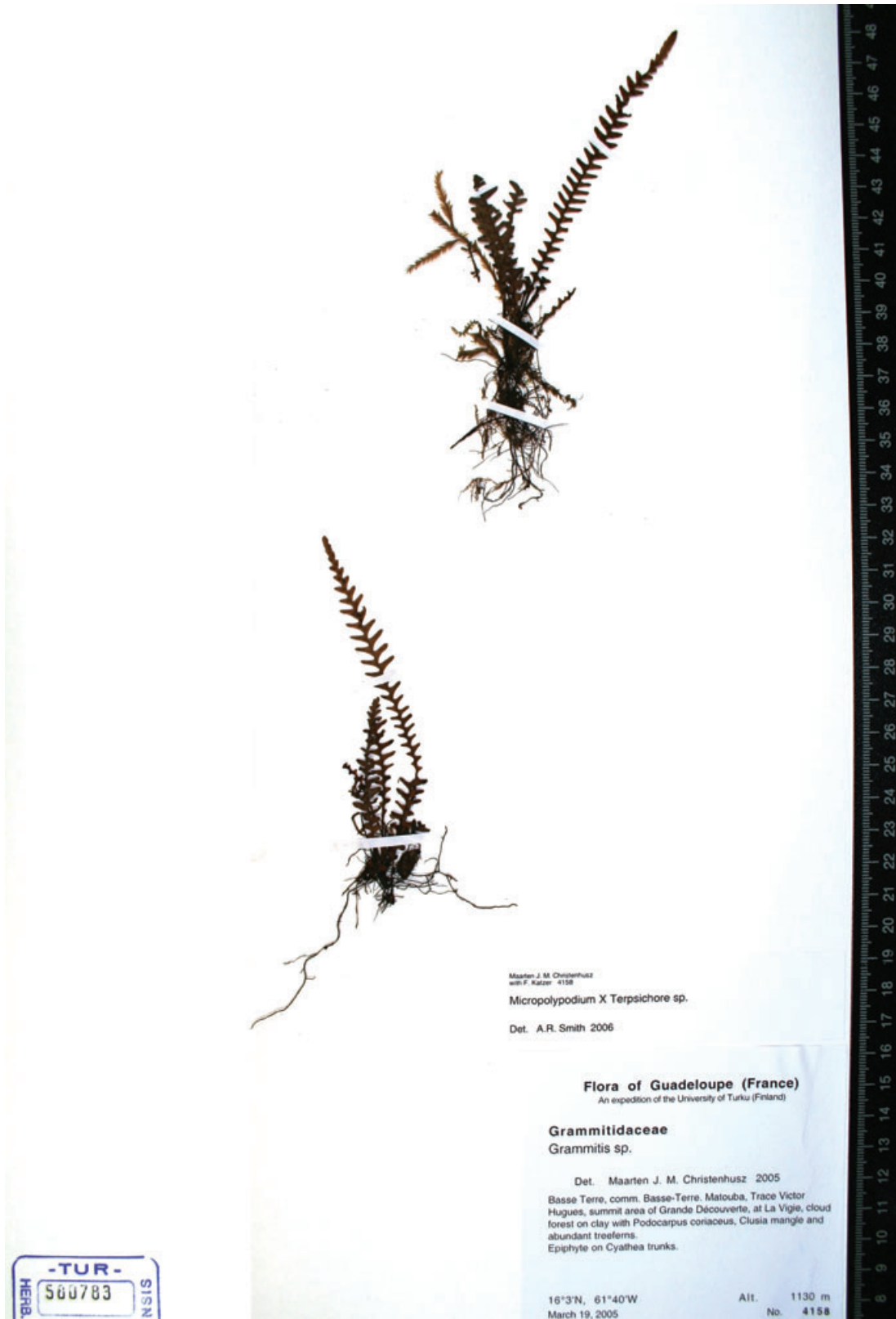


Figure 8. Holotype of *Terpsichore* × *victorhugoensis*, Christenhusz 4158 (TUR).

Naturk. 5: 316. 1811. Type: Peru, *Dombey s.n.* (holotype P!).  
*Grammitis lanigera* (Desv.) C.V.Morton, Contr. U. S. Nat. Herb. 38: 105. 1967.

*Habitat*: rare epiphyte on trees at higher elevations.

*Material examined*: BASSE TERRE: Duss 4403 (NY).

**290.** *Terpsichore mollissima* (Fée) A.R.Sm., Novon 3: 487. 1993.

*Polypodium mollissimum* Fée, Mém. Fam. Foug. 11: 47, tab. 12, fig. 2. 1866. Lectotype (designated by Mickel & Beitel, 1988): Guadeloupe, *l'Herminier s.n. anno 1861* (P!; duplicates K, MO?, NY, US!).

*Grammitis mollissima* (Fée) Proctor, Rhodora 63: 35. 1961.

*Habitat*: local epiphyte, mainly on tree trunks and logs in evergreen forest.

*Material examined*: BASSE TERRE: Grande Découverte, *Christenhusz 4163* (TUR, UC).

**291.** *Terpsichore taxifolia* (L.) A.R.Sm., Novon 3: 488. 1993.

*Polypodium taxifolium* L., Sp. Pl. 1086. 1753. Lectotype (designated by Morton, 1967): Morne de la Calebasse, Martinique, Plumier, *Traité Foug. Amér.*: 69, tab. 89. 1705.

*Grammitis taxifolia* (L.) Proctor, Rhodora 63: 35. 1961.

*Polypodium lherminieri* Fée, Mém. Fam. Foug. 5: 238. 1852. Lectotype (designated here): Guadeloupe, *l'Herminier s.n.* (P!, duplicates B, NY! fragment).

*Habitat*: rare epiphyte of mossy trees in forest.

*Locality*: BASSE TERRE: Saint Claude on the road up La Soufrière (Vivant, 1987b).

**292.** *Zygophlebia sectifrons* (Kunze ex Mett.) L.E.Bishop, Amer. Fern J. 79: 110. 1989.

*Polypodium sectifrons* Kunze ex Mett., Abh. Senckenberg. Naturf. Ges. 2: 99. 1856. Lectotype (designated by Proctor, 1985): Puerto Rico, *Swanecke s.n.* (GH).

*Grammitis sectifrons* (Kunze ex Mett.) F.Seym., Phytologia 31: 180. 1975.

*Drynaria elastica* Fée, Mém. Fam. Foug. 11: 72, tab. 20, fig. 2. 1866. Lectotype (designated by Proctor, 1989): Guadeloupe, 'habitat in littore occidentali Guadalupae (Matouba, rade de Saint Louis, Bois-David, etc.)', *l'Herminier s.n.* (P, duplicate NY! fragment).

*Habitat*: rare epiphyte on mossy trunks and branches in mid and higher elevation forests, probably overlooked because it grows in the tree canopy.

*Locality*: Grande Découverte, 1100 m (Vivant, 1996).

#### DOUBTFUL AND EXCLUDED TAXA

*Asplenium auritum* Sw. does not occur on Guadeloupe and was confused by Vivant (1996) with *Diplazium cristatum* (Desr.) Alston, a similar species.

*Culcita coniifolia* (Hook.) Maxon is of uncertain occurrence in Guadeloupe and the continued existence of this species on the island needs to be confirmed. Proctor (1977), listed this species as a doubtful record. It was based on an account by Grisebach (1864) and it is possible that this is based on a confusion with another tree fern and that this species never occurred on the island.

*Dicranoglossum desvauxii* (Klotzsch) Proctor was listed by Fournet & Hoff (1999), but no specimens were seen.

*Dicranopteris flexuosa* (Schrad.) Underw. is listed for Guadeloupe as very rare by Proctor (1977). No specimens of this common and widespread species are known from Guadeloupe.

*Diplazium grandifolium* (Sw.) Sw. was reported by Fée (1866), but the occurrence of this species in Guadeloupe needs confirmation. No specimens seen.

*Doryopteris concolor* (Langsd. & Fisher) Kuhn was listed for Guadeloupe by Proctor (1977), but no actual specimens could be located. The species may be in cultivation.

*Elaphoglossum hirtum* (Sw.) C.Chr. was listed for Guadeloupe by Duss (1903), but may have been based on a misidentification. There are specimens in P from Martinique, but none are known from Guadeloupe.

*Elaphoglossum schomburgkii* (Fée) T.Moore was cited Fournet & Hoff (1999), but no specimens from Guadeloupe were found and the species was not cited for Guadeloupe by Proctor (1977).

*Elaphoglossum simplex* (Sw.) Schott was listed for Guadeloupe by Vivant (1996), but this species is only known from the Greater Antilles. The sterile specimen found by Vivant on Guadeloupe may be misidentified. No specimens seen.

*Hymenophyllum sieberi* Bosch was cited for Guadeloupe by Proctor (1977) and Vivant (1988), but this species has been confused with *H. sericeum*.

*Lastreopsis effusa* (Sw.) Tindale subsp. *divergens* (Willd. ex Schkuhr) Tindale was listed by Fournet & Hoff (1999), but no specimens have been found confirming this record.

*Lindsaea divaricata* Klotzsch was listed by Proctor (1977), but no specimens of this species from Guadeloupe were located. The species may have been confused with another *Lindsaea* species.

*Melpomene flabelliformis* (Poir.) A.R.Sm. & R.C.Moran was cited for Guadeloupe by Grisebach (1864), Vivant (1996) and Fournet & Hoff (1999), but this was based on confusion with *Lellingeria antillensis*.

*Pecluma recurvata* (Kaulf.) Price, a species mostly known from Brazil, was recorded by Duss (1903) on the basis of his collection *Duss 4093*. I have not been able to locate this material to evaluate this report.

*Pteris biaurita* L. was cited for Guadeloupe by Proctor (1977), but this may have been based on confusion with *P. pungens*. No specimens are known from Guadeloupe.

*Selaginella serpens* (Desv.) Spring was listed for Guadeloupe by Proctor (1977), but no specimens from Guadeloupe were found. Sastre *et al.* (1983) listed the species as extinct as a result of the last volcanic eruption of La Soufrière, which seems unlikely to me.

*Thelypteris deltoidea* (Sw.) Proctor was listed as doubtful by Proctor (1977). Its occurrence on Guadeloupe remains questionable. The species is common in the Greater Antilles.

*Thelypteris pachyrachis* (Kunze ex Mett.) Ching was cited by Fournet & Hoff (1999), but this was most likely because of confusion with *T. balbisii*.

*Thelypteris scolopendrioides* (L.) Proctor may possibly occur on Guadeloupe, even although further investigation has not resulted in any localities where the species is present. Fée (1866) listed this species for Guadeloupe based on a *l'Herminier* collection, as the type for *Goniopteris ferax* Fée, a synonym of this species. Intensive searches in P and RB have not retrieved this material.

#### NEW NAMES

In this checklist the following 20 new combinations, names and taxa are proposed:

**134. *Asplenium dentatum*** L. subsp. *barbadense* (Jenman) Christenh., **stat. nov.**

**144. *Cyclosorus abruptus*** (Desv.) Christenh., **comb. nov.**

**145. *Cyclosorus affinis*** (Fée) Christenh., **comb. nov.**

**146. *Cyclosorus clypeolutatus*** (Desv.) Christenh., **comb. nov.**

**147. *Cyclosorus cocoslyrus*** Christenh., **nom. nov.**

**148. *Cyclosorus decussatus*** (L.) Christenh., **comb. nov.**

**150. *Cyclosorus hastatus*** (Fée) Christenh., **comb. nov.**

**153. *Cyclosorus kunthii*** (Desv.) Christenh., **comb. nov.**

**154. *Cyclosorus leptocladus*** (Fée) Christenh., **comb. nov.**

**157. *Cyclosorus pennatus*** (Poir.) Christenh., **comb. nov.**

**158. *Cyclosorus poiteanus*** (Bory) Christenh., **comb. nov.**

**159. *Cyclosorus reticulatus*** (L.) Christenh., **comb. nov.**

**160. *Cyclosorus* × *rolandii*** (C.Chr.) Christenh., **comb. nov.**

**161. *Cyclosorus rostratus*** (Fée) Christenh., **comb. nov.**

**162. *Cyclosorus tenerus*** (Fée) Christenh., **comb. nov.**

**163. *Cyclosorus tetragonus*** (Fée) Christenh., **comb. nov.**

**14. *Palhinhaea torta*** (Sieber ex Underw. & F.E.Lloyd) Christenh., **comb. nov.**

**232. *Polystichopsis villosa*** (Fée) Christenh., **comb. nov.**

**280. *Serpocaulon acuminatum*** (l'Herm. ex Fée) Christenh., **comb. nov.**

**287. *Terpsichore* × *victorhugoensis*** Christenh., **hybr. nov.**

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