

THE WEST INDIAN TAXA IN SOLANDER'S
"FLORULA INDIAE OCCIDENTALIS"

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DANIEL SOLANDER was the first of three famous botanists to serve as librarian and curator for the collections of Sir Joseph Banks. Born in Sweden and a pupil of Linnaeus, Solander was sent to England in 1760. As "a friend and a guest," he accompanied Banks on Cook's first voyage (1768-1771) to the Pacific aboard the *Endeavour* and the following year went with Banks to Iceland (Smith, 1911, p. 16). On the expeditions Solander contributed to the collecting, wrote descriptions of the plants, and aided in the preparation of drawings. Upon returning to London, Solander was employed by Banks to continue work on the specimens and to care for his library. According to Smith (1911, pp. 62, 63),

Banks had taken the large house in Soho Square . . . in the autumn of 1777. Everyone was welcome who, by improvements in the Arts or by further unravelling the secrets of Nature, had any scheme for the benefit of his fellow men. . . . Foreigners and strangers were welcome; and although suitable introductions were rigidly exacted, these helped to swell the crowd of inquiring visitors. The house was a vast museum; in which books, pictures, rarities from all parts of the world, and innumerable botanical specimens, delighted the varied company. . . . Over all these things, Dr. Solander reigned as Librarian and Curator.

In his role as curator, Solander compiled florulas of the various areas of the world well represented in the Banks herbarium. Most of these remain unpublished. The most famous was "Illustrations of Australian Plants, collected in 1770 during Captain Cook's voyage round the world in the *Endeavour*." The manuscript is credited to Banks and Solander, and only now are plans underway to publish it. A manuscript entitled "Flora of South Africa," also attributed to Solander, is in the hand of Sigismund Baestrom, an assistant in the Banks library (Britten, 1905). Oliver (1951) told of the preparation of text and illustrations for a "Primitiae Florae Novae Zelandiae" by Solander and commented: "Had the manuscript been published, we would now be using Solander's names for over 340 kinds of our native plants, instead of names proposed by other botanists at later dates. Many of these botanists, however, adopted names suggested by Solander."

Less well known is Solander's "Florula Indiae Occidentalis, Being a systematic list of the plants of the West Indies, Central America and Guiana with records of the localities where the plants have been found and of the persons who collected them, and notes on the species." The present paper will consider the West Indian specimens cited in the *Florula*.

The manuscript is undated, and although it was started by Solander (curator from 1772 to 1782), additions were made after his death by his successor, Jonas Dryander. The binomial names are arranged in the Linnaean system. Many are followed by the abbreviation "mss" and a brief diagnosis in Latin, suggesting they are new species. The area of origin is given, and the collector is designated by an abbreviation consisting of one or more letters; not all of the abbreviations have been identified. During Solander's curatorship the Banks herbarium may have contained specimens from the West Indies collected by Browne, Catesby, Greg, Houston, Jacquin, Ryan, Shakespear, and William Wright. Collections of Alexander Anderson, Masson, and Ponthieu were probably added during Dryander's administration. In 1939 Harold Box placed a note in the manuscript stating, "Solander cites Masson's plants from the West Indian islands. According to the British Museum Catalogue these were received in 1778, therefore the date of the present work may be considered as circa 1780." The manuscript does refer to Masson's plants from the West Indies, but the particular catalog entry of the British Museum refers to Masson's collections from the Azores, the Canary Islands, and Madeira. Dryander's additions to the Florula are clearly recognizable and were made after 1782. The manuscript was an active catalog until at least 1788, since there are frequent references to Swartz's *Prodromus* (1788) but none to the first volume of his *Flora Indiae Occidentalis* (1797).

The contents of the Banks herbarium have been described by Britten (1905) and Maiden (1909). The West Indian collections in it were studied by Olof Swartz in 1786 in the preparation of his *Nova Genera & Species Plantarum seu Prodromus* and were cited there as well as in the *Flora Indiae Occidentalis* (1797-1804). William Stearn (1980, p. 5) writes that Swartz was in Jamaica and that he sailed in 1786

to London, where Sir Joseph Banks and his Swedish librarian Jonas Dryander welcomed him. Banks' house at Soho Square, with its rich library and collections, was then the scientific centre of London and, as G. R. Crome remarks, "almost the nucleus of a learned society, frequented by scientists, British and foreign." Banks possessed many West Indian specimens. . . . His former librarian Daniel Solander had already classified this material according to the Linnaean system and had listed it in a manuscript "Florula Indiae occidentalis." It thus provided Swartz with a valuable reference collection for the naming of his material. Aided by Dryander, he set this in order and drafted the prodromus of a large work on West Indian botany, incorporating descriptions of plants in the Banksian herbarium not represented among his own gatherings. These Banks permitted him to publish. In return Swartz gave Banks numerous specimens of plants which the latter did not already possess. Hence the majority of the species published in Swartz's prodromus can be typified by specimens in the Banksian herbarium now incorporated in the general herbarium of the Department of Botany, British Museum, Natural History, London.

There is no direct evidence of the use Swartz made of the Solander manuscript. His handwriting was not recognized in the Florula, but it was on some of the specimens cited. The entries in the Florula do bear the names that Swartz either adopted or published in his *Prodromus*, and references to the

Prodromus are frequent. It is possible that some clerk added the references to the listing after its publication. Rydberg (1907, p. 14) noted that "Solander has contributed the descriptions of many new plants from America as well as elsewhere. Six of the new genera published in Swartz's West Indian flora are really from Solander's hand, as Swartz found the descriptions as well as the names in Solander's manuscript in the Banksian herbarium." In fact, the *Florula* contains a total of sixty-five binomials for West Indian plants with the abbreviation "mss" and a complete or partial Latin diagnosis prepared by Solander or Dryander. Fourteen of these also appear in Swartz's *Prodromus*, where they are cited with an asterisk indicating that Swartz did not have material in addition to that of the Banks herbarium. Forty of the manuscript names were used without change by Swartz, and for an additional eight manuscript names Swartz changed either the generic or the specific name in his *Prodromus*. Another eight manuscript names can not be associated with taxa recognized by Swartz. Only by chance would these be found in the herbarium today.

There is a problem, then, of determining the type of Swartz species and the location of a holotype. In his *Prodromus* Swartz rarely cited collectors, but he did record areas of collection. Many new genera and species are marked with an asterisk ("an asterisk against a diagnosis indicates that this was based on a specimen in Banks' possession not collected by Swartz himself" —Stearn, 1961, p. cvii). In his later *Flora Indiae Occidentalis*, Swartz cited locations and the collectors, but not his own collections, and he did not use the asterisk to help determine locations of type material. The holotypes of *Cephaëlis axillaris* Sw. (= *Psychotria aubletiana* Steyermark), *Melastoma ramiflora* Sw. (= *Henriettea ramiflora* (Sw.) DC.), and *Paullinia vespertilio* Sw. were all specifically stated by Swartz to be in the Banks herbarium. The holotypes of all three species are Masson collections. They are among many others mentioned in the *Flora* for which additional data may be obtained from the *Florula*. In the *Prodromus* Swartz may have cited one or two specific islands, while for the same entry in the *Flora* he might have indicated the collectors as well as the islands. In such cases it is possible to determine which specimen or specimens Swartz consulted for the *Prodromus* and which ones might have been added to his resources later, while he was compiling the *Flora*. The lectotypes for such Swartz species should be selected from the choices in the *Prodromus* and can be corroborated by referring to Solander's *Florula*.

Still unresolved is the question of the possible role of Swartz's own collections that he did not cite in typifying the species he described. Although it has been stated that Swartz gave to Banks specimens that Banks did not possess, it seems that Banks (or perhaps Dryander) shared his collections with Swartz, for the same collection may today be present both in the British Museum and in the herbarium at Stockholm. We know, for example, that Masson collected on islands that Swartz did not visit, but that both men collected on Jamaica. Swartz might have cited the Masson collection but not his own; the latter is still preserved in the British Museum and the Stockholm

herbaria. Thus, a lectotype must be chosen after collections have been compared. When no collector was cited by Swartz, a Swartz specimen in the herbarium at Stockholm is a better choice; however, when Masson or another collector was cited by Swartz, the better quality specimen is usually that of the Banks herbarium in the British Museum.

The following notes concern the collectors represented in the Solander Florula whose specimens were in the Banks collection.

ANDERSON

In describing the Banks herbarium, James Britten (1905, p. 124) listed among the collections "Alexander Anderson (d. 1815), plants from Demerara in 1791 and later from the St. Vincent Garden, of which he was curator." Unpublished documents written by Anderson are in the library of the Linnean Society, and some of his letters are in the archives at Kew; these are presently being studied. From these sources we have determined that the place and date of Anderson's birth are unknown, but that he was collecting plants in the areas of New York and Philadelphia in 1775 and 1776 and shortly thereafter sailed for South America to avoid the war in North America. He was captured by the French and later exchanged as a prisoner of war in the West Indies. There he served the British forces as a hospital assistant in Dominica, St. Lucia, and Grenada before being appointed the second director of the botanical garden in St. Vincent in 1785. He collected in Trinidad and Tobago and made a trip to the interior of Guiana via the Essequibo River in 1791. He corresponded with Banks, William Forsythe, and the staff at Kew. Swartz cited Anderson specimens in the first two volumes of his *Flora* (1797, 1800), and these by cross-reference apply to taxa described in the *Prodromus*. The following taxa are typified by Anderson specimens in the Banks herbarium:

Grammadenia parasitica (Sw.) Griseb. BASIONYM: *Ardisia parasitica* Sw. Prodr. 48 (with an asterisk), Montserrat. In the *Flora* (1: 474) Swartz cited an Anderson collection from Dominica (BM), now designated the lectotype. The species is not known today from Montserrat.

Quararibea turbinata (Sw.) Poir. BASIONYM: *Myrodia turbinata* Sw. Prodr. 102. 1788 (with an asterisk), Montserrat, St. Lucia, and St. Kitts. In the *Flora* (2: 1227) Swartz noted collections of Ryan (Montserrat), Masson (St. Kitts), and Anderson (St. Lucia). The Anderson specimen from St. Lucia (BM) has been marked "type specimen."

Styrax glaber Sw. Prodr. 74. 1788 (with an asterisk), St. Vincent. In the *Flora* (2: 848) a collection by Anderson (BM) is cited, and this is the holotype (Howard, 1974; Nicolson & Steyskal, 1976).

Ormosia monosperma (Sw.) Urban. BASIONYM: *Sophora monosperma* Sw. Prodr. 66 (with an asterisk). "Browne jam. 298" and *India occidentalis* are cited by Swartz. In the *Flora* (2: 722) Swartz cited "Jamaica (Browne) in *India occidentalis* (Anderson)." Rudd (1968, p. 356) noted that Browne

stated, "I have seen this tree pretty often in Montserrat, where it grows naturally." She apparently was unable to find a specimen collected by Browne and chose *Anderson s.n.* (BM) as the lectotype. Another specimen by Anderson without number (G) bears the data, "India occidentalis, St. Vincent." Still another specimen by Anderson at Geneva proved to be "a mirror image of table 20 which illustrated Jackson's original description of *Ormosia dasycarpa* Jacks" (Rudd, *loc. cit.*).

Anderson's collections are also found in other herbaria. The type specimen of *Freziera hirsuta* Smith from St. Vincent is in the Lamarck herbarium (P), and the type of *Eugenia dussii* Krug & Urban from St. Lucia is at Kew.

One unusual note appears in the Florula following the manuscript name "*Telopia nitida* mss" for a plant from Grenada. It states the species "does not belong to this genus if the fruit really belongs to it which is pasted with the specimen from Anderson, but this fruit was not sticking to the plant, only laying in the same paper, so that it is very uncertain if it belongs to it." The specimen was not located; however, it probably is not *Telopea* R. Br. (Proteaceae) since the genus is not in Anderson's notes on plants of the St. Vincent Botanical Garden. It may be *Telopea* Solander ex Baillon, now a synonym of *Aleurites* J. R. & G. Forster (Euphorbiaceae), which was cultivated in the West Indies in Anderson's time, having been brought by Captain Bligh in 1793 along with the breadfruit.

GREG

Urban (1902) said of this man only that he collected before 1786 in Dominica, Barbados, and Tobago, and that his collections are in Banks's herbarium. "*Eugenia gregii*" is listed in Solander's Florula as a manuscript name with the annotation "*Myrtus gregii* Sw. Prodr. 78." Swartz used an asterisk with the species and stated, "India occidentalis, Antigua." In the *Flora* (2: 896) Swartz noted the synonym "*Gregia* Gaert. fruct. 33" and credited J. Greg with a specimen from Dominica. The type (BM), from Dominica, is dated 1777. The combination in the genus *Eugenia* was made by Poirlet in Lamarck (Encycl. Suppl. 3: 126. 1813) as "*E. greggii* from Saint Dominique."

The genus *Greggia* is attributed to Solander in Gaertner (1788, p. 168, t. 33). The species *Greggia aromatica* Gaertner is supplied with a common name, Bastard Gloves (spalm cloves), "Angl. barbadens.," which some workers have interpreted to represent the occurrence of the taxon in Barbados. Miller (Gard. Dict. *Myrtus gregii* (#25) 1807) stated that it is a native of Antigua, Barbados, and Dominica. The plant was introduced to cultivation in 1776 from Dominica (Aiton, 1789). No collections have been seen from either Antigua or Barbados.

Smith (in Rees, 1811) stated, "*Greggia*, in botany, so named by the late Dr. Solander, in compliment to Mr. John Greg, a gentleman long resident in Dominica, the correspondent of Ellis, Garden, and other naturalists of his day."

JACQUIN

Britten (1905, p. 123) reported that "Jacquin's herbarium, consisting largely of plants cultivated by him in the Vienna and Schönbrunn Gardens and containing some of his West Indian plants, was purchased by Banks and is incorporated with his collections. . . ." The purchase was made in May, 1777, and "on 5 March 1778 Jacquin wrote that he was glad to hear of the safe arrival of the herbarium" (Stafleu, 1967, p. iii).

Jacquin's collections are listed in Solander's *Florula*. The entries attribute sixty-one taxa to Cartagena, twenty-three to Martinique, thirteen to Cuba, eight to Hispaniola, six to Jamaica, and one to Tobago. Twenty-four give no location, and three are listed as "ex Herb. Mygind." Only one is attributed to "Hort. Vindob." Of the few that have been located in the general herbarium, most are fragments or only a single leaf.

There has been speculation concerning what Jacquin plants the Banks herbarium might have contained, and Solander's records in the *Florula* offer the most comprehensive list (Howard, 1973). The names in the following list have been given modern equivalents as far as possible, and specimens that have been reported in the literature are cited as (BM). A deliberate search for others may be useful.

Acanthaceae

- Justicia carthaginensis*** Jacq., Cartagena
Justicia hexangularis L. (ined.), Cuba

Anacardiaceae

- Comocladia dentata*** Jacq., Cuba

Apocynaceae

- Echites agglutinata* Jacq., no loc., = ***Prestonia agglutinata*** (Jacq.) Woodson
Echites repens Jacq., "Jamaica," = ***Mesechites repens*** (Jacq.) Miers
Echites spicata Jacq., no loc., = ***Forsteronia spicata*** (Jacq.) Meyer
Echites trifida Jacq., no loc., = ***Mesechites trifida*** (Jacq.) Mueller-Arg.
Rauvolfia tomentosa Jacq., Cartagena, = ***Rauvolfia tetraphylla*** L.

Aristolochiaceae

- Aristolochia anguicida*** Jacq., Cartagena
Aristolochia bilobata L., no loc.
Aristolochia caudata Jacq., Haiti
Aristolochia maxima Jacq., Cartagena, = ***Aristolochia pentandra*** Jacq.
Aristolochia peltata L., no loc.
Aristolochia pentandra Jacq., Cuba

Asclepiadaceae

- Cynanchum clausum* Jacq., Cartagena, = ***Sarcostemma clausum*** (Jacq.) Roemer & Schultes
Cynanchum maritimum Jacq., Cartagena, = ***Matelea maritima*** (Jacq.) Woodson

Bataceae

Batis maritima L., Santo Domingo

Bignoniaceae

Bignonia dichotoma Jacq., Cartagena, = **Arrabidea obliqua** (H.B.K.) Bur.

Bignonia echinata Jacq., Cartagena, = **Pithecoctenium echinatum** (Jacq.) K. Schum.

Bignonia orbiculata Jacq., Cartagena, = **Anemopaegma orbiculatum** (Jacq.) DC.

Boraginaceae

Ehretia exsucca L., Cartagena, = **Bourreria exsucca** Jacq.

Varronia alba L., no loc., = **Cordia alba** (Jacq.) Roemer & Schultes

Capparaceae

Capparis frondosa L., Cartagena, = **Capparis baducca** L.

Capparis hastata Jacq., Cartagena

Capparis jamaicensis Jacq., Jamaica, = **Capparis cynophallophora** L. (BM)

Capparis linearis Jacq., Cartagena

Capparis nemorosa Jacq., Cartagena, = **Belencita nemorosa** (Jacq.) Dugand

Capparis tenuisiliqua Jacq., Cartagena

Cleome procumbens Jacq., Santo Domingo

Cleome serrata Jacq., Cartagena

Celastraceae

Myginda uragoga Jacq., Cartagena

Combretaceae

Combretum laxum Jacq., Hispaniola (BM)

Combretum secundum Jacq., Cartagena, = **Combretum fruticosum** (Loefl.) Stuntz (BM)

Compositae

Calacia ruderalis Jacq., Martinique, = **Porophyllum ruderale** (Jacq.) Cass.

Pectis punctata Jacq., Cartagena, = **Pectis linifolia** L.

Convolvulaceae

Convolvulus martinicensis Jacq., Martinique, = **Aniseia martinicensis** (Jacq.) Choisy

Convolvulus pentaphyllus L., Martinique, = **Merremia aegyptia** (L.) Urban

Cuscuta americana L., Cartagena

Ipomoea carnea Jacq., Cartagena

Cucurbitaceae

Anguria trilobata L., Cartagena, = **Psiguria trilobata** (L.) Howard

Elaterium carthagenense Jacq., Cartagena, = **Rytidostylis carthagenensis** (Jacq.) Kuntze

Sicyos edulis Jacq., Cuba, = **Sechium edule** (Jacq.) Sw.

Euphorbiaceae

Croton balsamiferus Jacq., Martinique

Croton niveus Jacq., Cartagena

Euphorbia graminea Jacq., Cartagena

Euphorbia obliterated Jacq., Cartagena

Hippomane mancinella L., Martinique

Tragia hexandra Jacq., Cuba, = **Platygyne hexandra** (Jacq.) Mueller-Arg.

Flacourtiaceae

Laetia apetala L., Cartagena, = **Laetia americana** L.

Laetia completa Jacq., Cartagena, = **Hecatostemon completus** (Jacq.) Sleumer (BM)

Samyda nitida L., Cartagena, = **Casearia nitida** (L.) Jacq.

Samyda parviflora L., Martinique, = **Casearia sylvestris** Sw.

Gesneriaceae

Columnnea scandens L., Martinique (Hort. Vindob.)

Leguminosae

Clitoria virginiana L., Cartagena, = **Centrosema virginianum** (L.) Benth

Copaifera officinalis L., Cartagena

Cytisus cajan L., Jamaica and Martinique, = **Cajanus cajan** (L.) Millsp.

Diphysa carthagenensis Jacq., Cartagena

Dolichos luteolus Jacq., Cartagena, = **Vigna luteola** (Jacq.) Benth

Dolichos minimus L., Cartagena, = **Rhynchosia minima** (L.) DC.

Dolichos pruriens L., Cartagena, = **Mucuna pruriens** (L.) DC.

Dolichos urens L., Cartagena, = **Mucuna sloanei** Fawcett & Rendle

Galega littoralis L., Cartagena, = **Tephrosia cinerea** (L.) Pers.

Glycine striata Jacq., Cartagena, = **Galactia striata** (Jacq.) Urban

Mimosa mangensis Jacq., Cartagena, = **Pithecellobium mangense** (Jacq.) Macbr.

Mimosa retusa Jacq., Cartagena, = **Acacia retusa** (Jacq.) Howard

Nissolia arborea Jacq., Cartagena, = **Machaerium arboreum** (Jacq.) Vogel

Phaseolus jacquinii mss., no loc.

Piscidia carthagenensis Jacq., Cartagena (BM)

Psoralea enneaphylla L., Cartagena, = **Dalea domingensis** P. DC.

Lentibulariaceae

Utricularia foliosa L., Cartagena

Lythraceae

Ginoria americana Jacq., Cuba

Malpighiaceae

Hiraea reclinata Jacq., Cartagena

Malvaceae

Malachra angulata mss., Martinique

Sida abutiloides Jacq., no loc., = **Abutilon abutiloides** (Jacq.) Garcke

Sida multiflora Jacq., Cartagena, = **Sida paniculata** L.

Sida triquetra L., no loc., = **Abutilon trisulcatum** (Jacq.) Urban

Melastomataceae

Melastoma discolor L., Martinique, = **Tetrazygia discolor** (L.) DC. (BM)

Meliaceae

Trichilia glabra L., Cuba

Myrtaceae

Eugenia acris mss., no loc.

Pedaliaceae

Craniolaria annua L., Cartagena

Polygalaceae

Polygala trichosperma L. "Gr."(?)

Securidaca erecta L., Martinique, = **Securidaca diversifolia** (L.) Blake

Securidaca scandens Jacq., Cartagena, = **Dalbergia monetaria** L. f.

Polygonaceae

Coccoloba barbadensis Jacq., no loc.

Coccoloba emarginata Jacq., no loc., = **Neomillspaughia emarginata**
(Gross) Blake

Coccoloba leoganensis Jacq., no loc. (BM)

Coccoloba nivea Jacq., "Jamaica," = **Coccoloba venosa** L.

Coccoloba pubescens L., no loc.

Rhamnaceae

Gouania tomentosa Jacq., no loc., = **Gouania polygama** (Jacq.) Urban

Rhamnus colubrinus Jacq., Cartagena = **Colubrina arborescens** (Miller)
Sarg.

Rhamnus cubensis Jacq., Cuba, = **Colubrina cubensis** (Jacq.) Brongn.

Rubiaceae

Gardenia armata mss., Martinique, = **Randia armata** (Sw.) DC.

Portlandia hexandra Jacq., Cartagena, = **Coutarea hexandra** (Jacq.)
Schum.

Rondeletia odorata Jacq., Cuba

Rondeletia trifoliata mss., Jamaica, = **Rondeletia stipularis** (L.) Druce
(BM)

Rutaceae

Amyris sylvatica Jacq., Cartagena

Sapindaceae

Paullinia barbadensis Jacq., no loc. (ex Herb. Mygind.) (BM)

Paullinia canboea L. (ined.), no loc.

Paullinia carthaginensis Jacq., Tobago, = **Serjania curassavica** (L.) Radlk. (BM)

Paullinia carthaginensis Jacq., Tobago, = **Serjania curassavica** (L.) **ersifolia** (Jacq.) Radlk. (BM)

Paullinia nodosa Jacq., no loc. (ex Herb. Mygind.), = **Serjania nodosa** (Jacq.) Radlk. (BM)

Paullinia pinnata L., Cartagena

Sapotaceae

Chrysophyllum microphyllum Jacq., Cuba, = **Chrysophyllum oliviforme** L.

Scrophulariaceae

Russelia sarmentosa Jacq., Cuba

Scutellaria havanensis Jacq., Cuba

Solanaceae

Cestrum vespertinum L., Martinique, = **Cestrum alternifolium** (Jacq.) Schulz

Sterculiaceae

Helicteres apetala Jacq., no loc., = **Sterculia apetala** (Jacq.) Kunth

Helicteres bahamensis L. (ined.), no loc.

Helicteres barbadensis L., no loc., = **Helicteres barbadensis** Jacq.

Helicteres carthaginensis Jacq., Cartagena

Triumfetta rhombea mss., Cartagena, = **Triumfetta rhomboidea** Jacq.

Triumfetta semitriloba Jacq., Cartagena

Umbelliferae

Astronium graveolens Jacq., Cartagena

Urticaceae

Catuna ramiflorus L., no loc., = **Boehmeria ramiflora** Jacq.

Parietaria microphylla L., Martinique, = **Pilea microphylla** (L.) Liebm.

Verbenaceae

Avicennia tomentosa L., Cartagena, = **Avicennia germinans** (L.) L.

Lippia hemisphaerica Jacq., Cartagena, = **Lippia americana** L.

Citharexylum cinereum L., no loc., = **Citharexylum fruticosum** L.

Citharexylum quadrangulare Jacq., no loc.

Petitia domingensis Jacq., Hispaniola

Zygophyllaceae

Zygodphyllum arboreum Jacq., Cartagena, = **Bulnesia arborea** (Jacq.) Engler

Agavaceae

Agave cubensis Jacq., Cuba, = **Furcraea hexapetala** (Jacq.) Urban

Araceae

Arum hederaceum L., Cartagena, = **Philodendron hederaceum** (Jacq.) Schott

Commelinaceae

Callisia repens L., Martinique

Orchidaceae

Epidendrum altissimum Jacq., Martinique, = **Oncidium altissimum** (Jacq.) Sw. (BM)

Epidendrum anceps Jacq., Martinique, = **Epidendrum secundum** Jacq. (BM)

Epidendrum ciliare L., Martinique

Epidendrum coccineum Jacq., Cartagena, = **Maxillaria coccinea** (Jacq.) L. Williams

Epidendrum globosum Jacq., Martinique, = **Jacquiiniella globosa** (Jacq.) Salisb.

Epidendrum rigidum Jacq., Martinique (BM)

Epidendrum secundum Jacq., Martinique

Epidendrum tetrapetalum Jacq., Jamaica, = **Oncidium tetrapetalum** (Jacq.) Willd.

Epidendrum trigoniflorum Jacq., Martinique, = **Stelis scabrida** Lindley (BM)

Satyrium plantagineum L., Martinique, = **Spiranthes lanceolata** (Aublet) León

Palmae

Bactris minor Jacq., no loc.

Smilacaceae

Smilax hastata Jacq., Santo Domingo

Smilax havanensis Jacq., Cuba

MASSON

Francis Masson is best known for his several collecting trips to South Africa, since these led to the introduction of many Cape Province plants into cultivation in England. Masson's contributions to the knowledge of West Indian plants can be appreciated through the records in Solander's Florula. Solander met Masson on at least one occasion, for Maiden (1909, p. 90) noted on August 28, 1775, that "Dr. Solander was last Saturday at Kew where he saw Mr. Masson, who is lately come back from the Cape of Good Hope, with a great cargo of new plants, all in perfect health." The following year Masson was commissioned by Banks to make a trip to the Azores, Madeira, and the Canary Islands en route to the West Indies and the Spanish Main. Little is known of this trip beyond what was learned from the records and accounts supplied by Banks and published by Britten (1884). Masson left England May 19, 1776, and was in the Azores that year, in the Canary Islands in 1777, and in Madeira in 1778. Solander, who worked with Aiton

in the preparation of *Hortus Kewensis*, credited Masson with introducing *Cassia multiglandulosa* into cultivation from Teneriffe in 1779 (Aiton, 1789). In 1781 Masson sent *Cassia diphylla* from the West Indies (Aiton, 1789). Herbarium specimens acquired from this first portion of the voyage were sent to Banks and to Linnaeus filius, and it is this shipment to Banks that Box referred to as having been received at the British Museum in 1778. In the *Supplementum Plantarum* Linnaeus filius described from Masson collections twenty-three new species from Teneriffe, eight from Madeira, and one from the Azores.

Masson arrived in the West Indies in 1779. Britten (1884, p. 116) wrote,

When Mr. Masson arriv'd in the West Indian Islands, the war, then somewhat advanced, made it necessary for him entirely to drop his plan of visiting the Spanish Main, to which it was in vain for him to apply for a passport. The Islands themselves he found in so unsettled a state that it was with the utmost difficulty he found means to send home what he collected, parts of which were frequently lost by capture or waiting for Convoy.

Masson arrived in Grenada in August, 1779, at which time the French attacked the colony and Masson "was called upon to bear arms in its defence, which he did and was taken prisoner fighting in the trenches" (*ibid.*). Masson was thought to have been in Antigua in November, 1779, and back in St. Lucia during the hurricane of October 14, 1780. "He lost there all the collections at that time in his possession, and great part of his clothes and papers" (*ibid.*). Masson's route in the Antilles was described by Britten (1894) as from Madeira to Barbados, Grenada, St. Eustatius, Antigua, St. Kitts, and then to St. Lucia, Nevis (November, 1780), and Jamaica (March, 1781). He returned to England in 1782. Since Solander died in May, 1782, it seems probable that Masson's West Indian collections were handled by Solander's successor, Jonas Dryander. The *Florula* attributes to Masson a total of 601 species, of which 48 bear manuscript names as new taxa. The collections listed were 270 from Jamaica, 147 from St. Kitts, 39 from St. Lucia, 36 from Grenada, 33 from St. Eustatius, 29 from Nevis, 24 from "Carib.," and 1 each from Barbados, Dominica, Guadeloupe, and Haiti.

The following taxa have been based on Masson collections, or where a lectotype has not been designated, a Masson specimen is in consideration.

Araliaceae

Didymopanax attenuatum (Sw.) March. BASIONYM: *Panax attenuata* Sw. Prodr. 54. 1788 (with an asterisk), "India occidentalis." In the *Flora* (1: 562) Swartz stated, "Habitat in monte la Souffriere Guadeloupe insulae Indiae occidentalis, nec non in ins. St. Christophori." In spite of Swartz's comment, the only material of that period in the Banks herbarium is a Masson specimen from St. Kitts (BM), which should be considered the lectotype. A new combination for the species in *Schefflera* is given on an annotation label of D. G. Frodin dated 1970 but has not been published.

Caprifoliaceae

Viburnum villosum Sw. Prodr. 54. 1788 (without an asterisk); Fl. Ind.

Occ. **1**: 564. A Masson specimen from Jamaica (BM) has been marked "type specimen."

Compositae

Gnaphalium albescens Sw. Prodr. 112. 1788 (without an asterisk), Jamaica; Fl. Ind. Occ. **3**: 1334. 1804. No material of this taxon was found in Stockholm, and the Masson specimen (BM) is probably the holotype. Although Volume 3 of Swartz's *Flora Indiae Occidentalis* is dated 1806, Garay (1974) has shown that the probable date of publication is 1804.

Spilanthes uliginosa Sw. Prodr. 110. 1788 (without an asterisk), Jamaica; Fl. Ind. Occ. **3**: 1291. 1804. There are four Swartz specimens at Stockholm to be considered for lectotypification. A Masson collection (BM) was listed in the Solander Florula with "*Verbesina decumbens* mss.," a name not used by Swartz.

Elaeocarpaceae

Sloanea massonii Sw. Prodr. 82. 1788 (without an asterisk), "Insulae caribaeae, Christoph. etc.;" Fl. Ind. Occ. **2**: 938. 1800, "Ins. St. Christophori (Masson)." This name appears in the Solander Florula with the notation that the material differs from *Sloanea* of Plumier, and the lectotype is a Masson specimen (BM).

Gentianaceae

Lisianthus exsertus Sw. Prodr. 40. 1788 (without an asterisk), Jamaica; Fl. Ind. Occ. **1**: 346. 1797. A Swartz specimen (s) has been designated as the lectotype. A Masson specimen (BM) bears the manuscript name of Solander's Florula, "*Lisianthus arboreum*," an epithet not adopted by Swartz.

Guttiferae

Marila racemosa Sw. Prodr. 84. 1788 (with an asterisk and as a new genus), "India occidentalis, Montserrat, Christophor." In the *Flora* (**2**: 965) Swartz used the name *Bonnetia racemosa* (Sw.) Sw. and cited a Ponthieu specimen without specific location, a Masson specimen from St. Kitts, and a Ryan specimen from Montserrat. The name "*Marila racemosa* mss." appears in Solander's Florula. The Masson collection (BM) has been marked "type specimen" and is a better specimen than the one in Stockholm, which indicates that Banks shared his material with Swartz.

Leguminosae

Inga laurina (Sw.) Willd. BASIONYM: *Mimosa laurina* Sw. Prodr. 85. 1788 (without an asterisk); Fl. Ind. Occ. **2**: 978. 1800, "St. Christopher (Masson)." Although Masson material from St. Kitts is in Stockholm and London, "holotype" is marked on the sheet at the British Museum.

Melastomataceae

Clidemia strigillosa (Sw.) DC. BASIONYM: *Melastoma strigillosa* Sw. Prodr. 71. 1788 (without an asterisk), "India occidentalis." The location of Jamaica is given in the *Flora* (**2**: 793) but not the collector. A Masson specimen (BM) is regarded as the holotype.

Clidemia umbrosa (Sw.) Cogn. BASIONYM: *Melastoma umbrosa* Sw. Prodr. 72. 1788 (without an asterisk), "St. Christopher." Although several locations and collectors are cited by Swartz (Fl. Ind. Occ. 2: 817), the single location of St. Kitts in the *Prodromus* can be associated with the Masson specimen (BM), which should be considered as the holotype.

Henriettea ramiflora (Sw.) DC. BASIONYM: *Melastoma ramiflora* Sw. Prodr. 69. 1788 (without an asterisk), Jamaica. In the *Flora* (2: 775) Swartz stated, "Habitat in Jamaica in Paroeciae St. Thomae in valle locis paludosis. (Masson) Mus. Banks." (BM).

Miconia elata (Sw.) DC. BASIONYM: *Melastoma elata* Sw. Prodr. 70. 1788 (without an asterisk); Fl. Ind. Occ. 2: 781. 1798. No collectors are cited in either work, and the location is given as Jamaica. There is no appropriate material at Stockholm, and a collection by Masson (BM) is listed under the name *Melastoma elata* in the *Florula*.

Ossea microphylla (Sw.) Triana. BASIONYM: *Melastoma microphylla* Sw. Prodr. 72. 1788 (with an asterisk). A Masson specimen (BM) is cited by Swartz (Fl. Ind. Occ. 2: 813), and the name is listed as "mss." in Solander's *Florula*.

Oleaceae

Chionanthus compacta Sw. Prodr. 13. 1788 (with an asterisk), "Insulae caribae." In the *Flora* (1: 22) Swartz cited specimens of von Rohr from St. Croix and of Masson from Nevis. Masson's (BM) should be considered the lectotype.

Phytolaccaceae

Microtea debilis Sw. Prodr. 53. 1788 (with an asterisk and as a new genus), "St. Christopher." In the *Flora* (1: 543) Swartz stated, "Habitat in India occidentali, Insulisque Caribaeis: Grenada (de Ponthieu), St. Eustathii (Masson), Guadaloupe (v. Rohr)." The entry as a mss. name in Solander's *Florula* cited the location with the abbreviation for Caribaeis. The Masson specimen (BM) should be considered the lectotype.

Rubiaceae

Psychotria aubletiana Steyerl. BASIONYM: *Cephaelis axillaris* Sw. Prodr. 45. 1788 (with an asterisk), "St. Christopher," not *Psychotria axillaris* Willd., 1798. In the *Flora* (1: 441) Swartz stated, "Provenit in Insula St. Christophori. Herb. Banks. (Masson)." Steyerl (1972, p. 694), when transferring *Cephaelis axillaris* Sw. to *Psychotria*, proposed the new name *Psychotria aubletiana*. He attributed the type to Swartz incorrectly, for the Masson specimen (BM) is the holotype.

Chomelia fasciculata (Sw.) Sw. BASIONYM: *Ixora fasciculata* Sw. Prodr. 30. 1788 (with an asterisk), "Jamaica." In the *Flora* (1: 238) Swartz cited a Masson specimen from "Granada." The entry "*Ixora fasciculata*" appears as a "mss." name in Solander's catalogue as a collection of Masson from Grenada. The holotype is in the British Museum.

Psychotria grandis Sw. Prodr. 43. 1788 (without an asterisk), "Jamaica, Domingo." In the *Flora* (1: 417) Jamaica is the only location given. Al-

though there is a Swartz specimen in Stockholm, a Masson collection (BM) has been marked "type specimen." An entry with this binomial appears in Solander's *Florula* for a Masson collection from Jamaica.

Rondeletia hirta Sw. Prodr. 41. 1788 (with an asterisk), "Jamaica." No collector is cited by Swartz in the *Flora* (1: 373). The entry "*Rondeletia hirta* mss." appears in Solander's *Florula* for a Masson specimen from Jamaica. The Masson specimen (BM) is the holotype.

Sabicea hirta Sw. Prodr. 46. 1788 (without an asterisk), "Jamaica." In the *Flora* (1: 450) Swartz accepted the genus *Schwenkfelda*, listing *Sabicea* as a synonym, and made the combination *Schwenkfelda hirta* (Sw.) Sw. without citing a collector. In Solander's *Florula* the entry "*Sabicea hirta* mss." appears with a diagnosis for a Masson collection from Jamaica. This should be considered the holotype (BM).

Sapindaceae

Paullinia vespertilio Sw. Prodr. 64. 1788 (with an asterisk), "India occidentalis." In the *Flora* (2: 695) Swartz stated, "Habitat in Insula St. Christophori Indiae occidentalis. (Masson) E Museo Banksiano." Although a Masson collection from St. Kitts is in Stockholm, the holotype is clearly the specimen at the British Museum.

Theaceae

Freziera undulata (Sw.) Willd. BASONYM: *Eroteum undulatum* Sw. Prodr. 85. 1788 (with an asterisk), "India occidentalis; Christopher, Montserrat, Guadeloupe etc." In the *Flora* (2: 974) Swartz made the combination *Freziera undulata* (Sw.) Sw., but this is antedated by Willdenow (*Sp. Pl.* 2: 1179. 1799). Swartz cited several specimens: *Masson*, from St. Kitts; *Ryan*, from Montserrat; *Ponthieu* and *Fahlberg*, from Guadeloupe; and *Anderson*, from St. Vincent. Kobuski (1941, p. 464) cited a Masson specimen in the Gray Herbarium as a "probable isotype," but the origin of this specimen cannot be determined. A Masson specimen (BM) is marked "type specimen," while similar sheets (s) are marked "holotypus" and "isotypus." Since Swartz indicated by the asterisk that he did not have material himself, the specimen in the British Museum is the true holotype. The entry "*Eroteum undulatum*" appears as a "mss." name in Solander's *Florula*, suggesting where Swartz obtained the name.

Verbenaceae

Vitex divaricata Sw. Prodr. 93. 1788 (with an asterisk), "St. Crux, Christopher." In the *Flora* (2: 1078) Swartz altered the distribution to St. Luciae (Masson) and St. Crucis (Ryan). The binomial appears as a "mss." name in Solander's *Florula* for a Masson specimen from St. Lucia. Such a specimen (BM) should be considered the lectotype.

Violaceae

Viola stipularis Sw. Prodr. 117. 1788 (with an asterisk), "India occidentalis, Guadeloupe." In the *Flora* (3: 1956) Swartz wrote, "Lecta in monte excelso (Misery dicto) Insulae St. Christophori (Mus. Banks)." The entry

in Solander's *Florula* is for a collection of Masson from Mt. Misery, St. Kitts. Such a specimen (BM) is the holotype.

Orchidaceae

Malaxis massonii (Ridley) Kuntze. BASIONYM: *Microstylis massonii* Ridley, Jour. Linn. Soc. Bot. **24**: 323. 1888. Ridley cited three collections in the original description: *Masson*, from St. Kitts; *Imray*, from Dominica; and *Crueger*, from Trinidad. Garay and Sweet (1974, p. 118) designated the Masson collection (BM) as the lectotype and noted, "Specimens referable to this species often have been reported in the literature under *Malaxis spicata* Sw., a species limited in distribution to the Greater Antilles." In Solander's *Florula* a Masson specimen called "*Malaxis spicata*" is indicated from St. Kitts; although Swartz probably saw this specimen the only location he gave for *M. spicata* in the *Prodromus* (p. 119) and the *Flora* (**3**: 1441) is Jamaica.

The value of Francis Masson's collections from the West Indies has never been fully appreciated. This is partly due to the fact that Britten stated that Masson's collections were destroyed in a hurricane in St. Lucia.

PONTHIEU

According to Urban (1902), Ponthieu collected in Jamaica, Antigua, Barbuda, Montserrat, Guadeloupe, Grenada, and Tobago in 1786. His collections are reported to be in the Banks (BM), Delessert (G), and Swartz (S) herbaria. A number of references in Swartz's *Flora* indicate that Ponthieu also collected in Dominica. The following species have been typified by material in the Banks herbarium:

Charianthus alpinus (Sw.) Howard. BASIONYM: *Melastoma alpina* Sw. Prodr. 71. 1788 (without an asterisk); Fl. Ind. Occ. **2**: 800. 1798 (*Ponthieu*, Mus. Banks cited). Lectotype designated by Howard (1972, p. 402); *Ponthieu s.n.*, Guadeloupe (BM).

Guettarda rugosa Sw. Prodr. 59. 1788 (with an asterisk), India occidentalis; Fl. Ind. Occ. **1**: 632. 1797, Antigua, Dominica (*Ponthieu*, Mus. Banks). A lectotype might be chosen, but the taxon is a synonym of *G. scabra* (L.) Lam.

Rudgea citrifolia (Sw.) Schum. BASIONYM: *Psychotria citrifolia* Sw. Prodr. 43. 1788 (with an asterisk); Fl. Ind. Occ. **1**: 398. 1797. Swartz did not cite a collector and gave only the general location of "India occidentalis" in both references. A Ponthieu collection (BM) is indicated as "Insulae Caribaeae" and is considered the lectotype. A second sheet "Ex montibus Dominicae. De Ponthieu" is in the British Museum herbarium.

Tibouchina ornata (Sw.) Baillon. BASIONYM: *Melastoma ornata* Sw. Prodr. 69. 1788 (with an asterisk); *Osbeckia ornata* (Sw.) Sw. Fl. Ind. Occ. **2**: 647. 1800. Lectotype designated by Howard (1972, p. 399); *Ponthieu s.n.*, Guadeloupe (BM).

Swartz cited the following species with an asterisk in his *Prodromus* and in the *Flora* indicated only collections of Ponthieu, thus suggesting that the type might be in the Banks herbarium:

Calolisianthus frigidus (Sw.) Gilg. BASIONYM: *Lisianthus frigidus* Sw. Prodr. 40. 1788; Fl. Ind. Occ. 1: 352. 1797. Dominica.

Lobelia stricta Sw. Prodr. 117. 1788; Fl. Ind. Occ. 3: 1952. 1804, Guadeloupe.

Phyllanthus mimosoides Sw. Prodr. 27. 1788, Antigua. In the *Flora* (2: 1101) Swartz cited Caribacis, Antigua, and Dominica. Webster (1958) attributed the lectotype (G) to Antigua. This species is common on Dominica and has not been re-collected on Antigua. No likely location for this wet-forest species exists on Antigua today, and the location of Dominica is probably correct.

Scutellaria purpurascens Sw. Prodr. 89. 1788; Fl. Ind. Occ. 2: 1013. 1800, Guadeloupe.

There are several species for which Swartz cited more than one collection in his treatment in the *Flora*. The designation of a lectotype remains to be made.

Ilex sideroxyloides (Sw.) Griseb. BASIONYM: *Prinos sideroxyloides* Sw. Prodr. 58. 1788 (with an asterisk), Montserrat. A Ponthieu collection from Montserrat and a Fahlberg collection from St. Kitts are cited in the *Flora* (1: 624). The Ponthieu collection, when located, should be chosen the lectotype.

Lantana radula Sw. Prodr. 92. 1788 (without an asterisk), India occidentalis. Although Swartz had a specimen, in the *Flora* (2: 1057) he cited an Anderson collection from St. Vincent and a Ponthieu collection from Dominica.

Pisonia subcordata Sw. Prodr. 60. 1788 (with an asterisk), India occidentalis, Antigua. In the *Flora* (2: 641) Swartz cited Antigua (*Ponthieu*), and St. Kitts and St. Barts (*Fahlberg*). The Ponthieu collection, when located, should be the lectotype.

Ternstroemia elliptica Sw. Prodr. 81. 1788 (with an asterisk), "India occidentalis, Guadeloupe, Vincentii." In the *Flora* (2: 929) collections by Ryan from Montserrat, Ponthieu from Guadeloupe, and Anderson from St. Vincent are cited. The lectotype would be chosen from the Ponthieu or Anderson collections.

RYAN

Little is known of Dr. John Ryan, who collected on Montserrat, St. John, and St. Jan at the end of the eighteenth century. Although his collections were sent to Vahl in Copenhagen, a few are in the Solander catalog and the

Banks herbarium. Swartz used an asterisk in describing two species, indicating that specimens should be in the Banks collection.

Gesneria ventricosa Sw. Prodr. 90. 1788 (with an asterisk); Fl. Ind. Occ. 2: 1028. 1800. Swartz indicated "Jamaica, Montserrat, Dominica" in the *Prodromus* and Jamaica, Montserrat (*Ryan*), Martinique (*Fahlberg*), and Dominica (*Ponthieu*) in the *Flora*. Skog (1976) has designated the Ryan collection (BM) as the lectotype.

Tetrazygia angustifolia (Sw.) DC. BASIONYM: *Melastoma angustifolia* Sw. Prodr. 71. 1788 (without an asterisk), "India occidentalis." In the *Flora* (2: 796) the species is attributed to Jamaica, Insulis Caribaeis (*Ponthieu*), and St. John (*Ryan*). No lectotype has been chosen.

Tetrazygia eleagnoides (Sw.) DC. BASIONYM: *Melastoma Aeleagnoides* Sw. Prodr. 72. 1788 (with an asterisk), "India occidentalis." In the *Flora* (2: 815) the only collection cited is *Ryan* from St. John, but this specimen has not been cited by subsequent workers on the Melastomataceae.

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