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The botany of the three voyages of Captain James Cook in Macaronesia: an introduction

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ABSTRACT

The British naval captain James Cook (1728-1779) was one of the most important figures in the history of scientific exploration. During the 18th century he was the only explorer to call on the four Macaronesian archipelagos. His first two visits were part of voyages that circumnavigated the globe and included celebrated naturalists, notably Sir Joseph Banks (1743-1820) and Daniel Solander (1733-1782) (first voyage) and Johann Reinhold Forster (1729-1798) and his son George Forster (1754-1794) (second voyage). Madeira was visited in both the first and second voyages, with the islands of Faial (Azores) and Santiago (Cape Verde) also visited during the second voyage. These two expeditions resulted in (1) extensive herbarium collections that were subsequently studied by European plant taxonomists, (2) an unpublished flora for Madeira (prepared by Solander), (3) the earliest known floristic treatment focusing only on several Atlantic Islands (Ascension, St. Helena and the Macaronesian islands of Faial, Madeira, and Santiago) (published by G. Forster in 1789), (4) the earliest known colored paintings of plants prepared in Madeira (by Sydney Parkinson (1710?-1771), during the first voyage) and in the Cape Verdes (by G.

Forster), and (5) new species descriptions for the Madeira and Cape Verde flora (published by J.R. Forster and G. Forster in 1775 and by G. Forster in 1789). The third voyage had a more limited natural history scope but the plant collector David Nelson (unknown-1789) from the Royal Botanic Gardens, Kew, was part of the expedition. *The Resolution* was the only ship to stop in Macaronesia, calling briefly at Santa Cruz de Tenerife. William Anderson (1750-1778), the ship's surgeon and unofficial naturalist of the third voyage, wrote a short account of the natural history of this island with notes about its flora and main crops. No specimens collected during the visit have been found. Nelson was part of the crew of the second ship (*The Discovery*); and did not visit any of the Macaronesian Islands. Illustrations made by Sydney Parkinson and George Forster are presented and updated taxonomic identifications for the plants recorded in George Forster's works are provided.

Key words: History of botany, plant exploration, oceanic islands, herbaria, natural history museums, oceanic volcanic Atlantic islands

RESUMEN

El capitán británico de navío James Cook (1728-1779) fue uno de los personajes más importantes en la historia de la exploración científica. A lo largo del siglo XVIII fue el único navegante que recaló en los cuatro archipiélagos de la Macaronesia con fines científicos. La visita a estas islas oceánicas formó parte de sus conocidos viajes de circumnavegación del globo, en los cuales participaron importantes naturalistas, entre ellos Sir Joseph Banks y Daniel Solander, ambos en el primer viaje, a bordo del *HMS Endeavour* (1768-1771), y Johann Reinhold Forster y su hijo George Forster, en el segundo, en el *HMS Resolution* (1772-1775). En el primer viaje se realizó una escala en Madeira (septiembre 1768), que se repitió en el segundo (agosto 1772). En este segundo viaje también hubo escalas en la isla de Santiago (Cabo Verde) y en la de Faial (Azores). Ambas expediciones aportaron importantes conocimientos sobre la flora y la vegetación de esos tres archipiélagos macaronésicos, entre ellos: (1) extensas colecciones de herbario que fueron estudiadas posteriormente por diferentes botánicos europeos, (2) una flora inédita de Madeira que fue elaborada por D. Solander, (3) el primer tratado florístico conocido que se refiere exclusivamente a varias islas del océano Atlántico (Faial, Madeira, Santiago, Ascensión y Santa Elena), publicado por G. Forster en 1789, (4) las primeras láminas en color (acuarelas) conocidas de plantas de Madeira (realizadas por Sydney Parkinson durante el primer viaje) y de Cabo Verde (realizadas por G. Forster en el segundo), y (5) nuevas descripciones de especies vegetales para la flora de Madeira y Cabo Verde, publicadas por J.R. Forster y G. Forster en 1775 y por G. Forster en 1789. El tercer y último viaje de James Cook, de nuevo al mando del *HMS Resolution*, tuvo un alcance científico más limitado para la región macaronésica. El veterano navío hizo una breve escala en Tenerife para avituallarse, lo que permitió a su tripulación explorar los alrededores de Santa Cruz y La Laguna. William Anderson, médico de a bordo y naturalista de vocación, escribió un breve relato de esa visita, con notas sobre la flora y los principales cultivos de la isla. No se han encontrado especímenes recolectados durante la escala en Tenerife. A pesar de que en este último viaje también participó David Nelson, un recolector profesional de plantas del Real Jardín Botánico de Kew (Londres), a bordo del otro navío de la expedición, el *HMS Discovery*. Este

buque no hizo escala en Tenerife. En el presente artículo se incluyen ilustraciones de plantas realizadas por Sydney Parkinson y George Forster, y se proporcionan identificaciones taxonómicas actualizadas para las plantas registradas en las obras de George Forster.

Palabras claves: Historia de la botánica, exploración vegetal, islas oceánicas, herbarios, museos de historia natural, islas atlánticas oceánicas volcánicas

1. INTRODUCTION

The British Captain James Cook (1728-1779) is regarded as one of the most important figures in the history of scientific exploration of all times (BEAGLEHOLE, 1974). His three voyages provide text-book examples concerning the importance of large scale expeditions in natural science and geographical discoveries. The first two voyages circumnavigated the globe (1768-1771 and 1772-1775). During the third voyage (started in 1776) Captain Cook died on the island of Hawaii on 14 February 1779. His legacy has been the subject of extensive scholarly articles and books (e.g., BEAGLEHOLE, 1974; FISHER & JOHNSTON, 1979; HOUGH, 1994; DUGARD, 2001; WILLIAMS, 2004, 2008); therefore in here we will not review his achievements as an extraordinary navy officer and explorer. BRITTEN (1905, 1916), GROVES (1962), STEARN (1968, 1969a,b), EDWARDS (1978, 1983), and NICOLSON & FOSBERG (2004) provided extensive accounts concerning the botany of these voyages. Captain Cook's visits to Macaronesia were relatively brief, and these previous accounts paid more attention to other regions (i.e., Antarctic, Australia, Hawaiian Islands) where remarkable geographical and natural sciences discoveries were made.

During the 18th century, Captain Cook was the only explorer who visited the four major Macaronesian archipelagos (Fig. 1) and these trips left a relevant botanical legacy that included published work, unpublished manuscripts, herbarium specimens, and plant illustrations. In this paper we provide an introduction to this material (largely still under study), that is mostly found at the Natural History Museum of London but with relevant components in Australia, Germany, and Russia. Captain Cook's expeditions included botanists and plant illustrators who are widely recognized among the most important ones in the history of botany; therefore, the collected material was gathered, studied, and illustrated by an outstanding team of professional artists and naturalists.

2. THE FIRST VOYAGE

The first of Captain Cook's voyages aimed to calculate the distance from the Earth to the Sun based on observations of the transit of Venus (BEAGLEHOLE, 1974). Only one ship: *The Endeavour* (Fig. 2) was commissioned for this expedition and her first port of call was Funchal (Madeira, 13-18 September, 1768) (BEAGLEHOLE, 1962). Sir Joseph Banks (1743-1820), who would become one of the founding fathers of the Royal Botanic Gardens, Kew and its first unofficial director (DESMOND, 1994) and Daniel Solander (1733-1782), one of Linnaeus's favorite students who would become keeper of the Natural History Department of the British Museum (RAUSCHENBERG, 1968) were the expedition's natu-

ralists (STEARN, 1968) (Fig. 3). During their stay in Madeira they collected herbarium specimens of over 200 species (housed at BM). The study of these specimens is part of a larger botanical history project being undertaken by Dr. A. Santos-Guerra that will be presented in another paper. The Madeira expedition resulted in three plants lists that are accessioned in the archives of the State Library of New South Wales, Australia [one list prepared by Joseph Banks and transcribed by BEAGLEHOLE (1962), Fig. 4] and the Natural History Museum of London [one list prepared by Joseph Banks (nine pages) and a second, originally assembled by Daniel Solander (41 pages) (BANKS, 1762; BRITTEN, 1904; WOODWARD, 1915; DIMENT & WHEELER, 1984; SOLANDER, unknown date)]. Solander's list bears the title *Primitiae Florae Maderensis, sive catalogus Plantarum in Insula Madera* […] and it is part of a 620 page manuscript (in three volumes) entitled *Floras of the Countries visited during Capt. Cook's first Voyage* that was compiled from Solander's manuscript by Sigismund Bacstrom (c. 1750-1805) who was employed by Banks after Cook's first voyage (WOODWARD, 1915) (Fig. 5). MARSHALL (1978) indicated that the handwriting of *Primitiae Florae Maderensis* is that of Bank's secretary Herman Diedrich Spöring (1733-1771) who was also on the voyage. Solander's manuscript can be regarded as the earliest floristic treatment for Madeira. This remarkable unpublished document also includes pre-Linnaean floristic references to the island reported in the works of Leonard Plukenet (1641-1706) and Sir Hans Sloane (1660-1753) whose contributions to the discovery of the Macaronesian flora were reviewed by FRANCISCO-ORTEGA *et al*. (1994) and SEQUEIRA *et al*. (2010b) respectively. In this paper, we use the term "pre-Linnaean" for authors whose contributions to the discovery of Macaronesian flora were available before the publication of the first edition of *Species Plantarum* by Linnaeus in 1753.

Sydney Parkinson (1710?-1771) joined the expedition as scientific illustrator (SAWYER, 1950). He made 22 drawings of Madeiran plants, 16 of which he finished as watercolors (Figs. 6-8). Parkinson died of dysentery on 26 January 1771 shortly after the expedition left Batavia, Java (BLUNT, 1983a). His six remaining drawings of Madeiran plants were eventually watercolored in England by Thomas Burgis (one painting) and unknown artists (five paintings) (BLUNT, 1993b, Table 1). Parkinson's illustrations are the earliest known scientific colored plant paintings made in Madeira. SLOANE'S (1707) drawings for Madeiran plants, based on material collected by him in Madeira (en route to Jamaica) in 1687, preceded Parkinson's watercolors; however, they were published as uncolored engravings. Eleven of Parkinson's paintings resulted in engravings that were prepared by Daniel Mackensie (four), Thomas Scratchley (two), Gerald Sibelius (three), and Gabriel Smith (one). The complete set of watercolors and colored engravings made during Cook's first voyage constitute what is formally known as *Banks' Florilegium*. They are located in the Botany Library of the Natural History Museum of London. Originally, Banks planned to publish these engravings but it was not until the 1980s that they came out in a work encompassing 34 volumes. One of the volumes is devoted to the Madeiran plants and includes all of the engravings made of plants from the island (BANKS *et al*., 1985). Reproductions of several of the watercolors can also be found in EDWARDS (1983, 10 paintings) and ADAMS (1986, one painting) (see Table 1). Several of *Banks' Florilegium* engravings were published by BLUNT & STEARN (1973) and LAW (1976), but they did not include any of the Madeiran illustrations.

The material collected during the first voyage not only enriched the herbarium collections of Banks [they were eventually moved to the Natural History Museum of London (STEARN, 1971)] but provided specimens for subsequent taxonomic studies. For instance several of L'HÉRITIER's (1789) new descriptions for Macaronesian endemics referred to specimens collected by Banks and Solander in Madeira in 1768. Indeed a collection made by these two naturalists was selected as the lectotype of the Madeiran endemic *Bystropogon punctatus* L'Hér. (Lamiaceae) (LA SERNA-RAMOS, 1984).

During this voyage, Cook (WHARTON, 1893), Banks (BEAGLEHOLE, 1962) and Parkinson (PARKINSON, 1784) kept journals describing their observations and major findings. They indicate that *The Endeavour* sailed close to the coasts of Tenerife [according to PARKINSON (1784) they navigated between Gran Canaria and Tenerife) and not far away from the island of Boavista (Cape Verde Islands)] en route from Madeira to Rio de Janeiro. The Madeiran accounts of Cook and Parkinson were brief and did not include observations on the natural history of this island (PARKINSON, 1784; WHARTON, 1893). However, Banks commented on Madeiran botany and agriculture in his journal (BEAGLEHOLE, 1962). Timber from Madeiran trees was exported to England to make furniture, and Banks was particularly eager to know the species that yielded the "Madeira mahogany." Banks ruled out "Vigniatico, *Laurus indicus* Linn." (accepted name *Persea indica*, common name in Madeira: vinhático) as the source for this wood; although traditionally this species has been considered the one to yield Madeira mahogany (HARCOURT, 1851). Banks was disappointed that he could not find flowering material of "Mirmulano" [*Sideroxylon mirmulans* R.Br. (Sapotaceae), common name in Madeira: marmulano] or "Pao branco" [*Picconia excelsa* (Aiton) DC. (Oleaceae), common name in Madeira: pau branco], two species that he considered to have high ornamental value as garden trees.

3. THE SECOND VOYAGE

Two ships undertook the second voyage: *The Resolution* (commanded by Captain Cook, Fig. 9) and *The Adventure* [commanded by Captain Tobias Furneaux (1735-1781)] (COOK, 1777; FORSTER, 1777). Both ships stopped in Madeira and the Cape Verdes, but only *The Resolution* called in Azores (BEAGLEHOLE, 1974). The main aim of the voyage was to find the Antarctic Continent (COOK, 1777). Originally Banks planned to enroll in this expedition, but his demands for a particular ship, designed with an extra deck, were not fulfilled and eventually he did not participate (NICOLSON & FOSBERG, 2004). Instead Johann Reinhold Forster (1729-1798) and his young son George Forster (1754-1794) (Fig. 10) joined *The Resolution* as the main naturalist and scientific illustrator respectively (NICOLSON & FOSBERG, 2004). From previous herbarium and archival research published by NICOLSON & FOSBERG (2004) we know that they collected herbarium specimens [mostly located in BM, GOET, K, LE, LIV; acronyms follow THIERS (continuously updated)] for at least 13 species in Macaronesia (seven in Madeira and six in the Cape Verde Islands) (Table 2). In addition, G. Forster made watercolors for 21 species (ten in Madeira and 11 in the Cape Verde Islands) (Table 3, Figs. 11-14). Eight of these watercolors were subsequently the basis for uncolored engravings that were executed by an unknown engraver. This artwork is housed at BM, LE, and the Gotha Library

at Thuringia, Germany (HERDER, 1885; NICOLSON, 1998; NICOLSON & FOSBERG, 2004). As far as we are aware only four of the watercolors have been previously published (Table 3). The watercolors from the Cape Verde Islands represent the earliest known botanical scientific illustrations made in the islands. Two additional unsigned engravings (apparently of material collected in Macaronesia, see below) were published by FORSTER & FORSTER (1775) for *Epibaterium pendulum* J.R. Forst. & G. Forst. [accepted name *Cocculus pendulus* (J.R. Forst. & G. Forst.) Diels (Menispermaceae) (Fig. 10)] and the hepatic *Aytonia rupestris* J.R. Forst. & G. Forst. [accepted name *Plagiochasma rupestre* (J.R. Forst. & G. Forst.) Stephani (Aytoniaceae) (Fig. 10)].

George Forster also produced a publication listing the plants and fungi that were recorded not only in Macaronesian (for Fayal, Madeira, and Santiago) but also in the South Atlantic islands of Ascension and Saint Helena (FORSTER, 1789). In this work, FORSTER (1789) described four new species based on material collected in Madeira [the Madeiran endemic *Teucrium canescens* G. Forst. (accepted name *T. betonicum* L'Hér.) (Lamiaceae)] and the Cape Verde Islands [the Cape Verde natives *Sida pannosa* G. Forst. (accepted name *Abutilon pannosum* (G. Forst.) Schltdl.) (Malvaceae) and *Borago tristis* G. Forst. (accepted name *Trichodesma africanum* (L.) Sm. (Boraginaceae); and the Cape Verde endemic *Antirrhinum elegans* G. Forst. (accepted name *Kickxia elegans* (G. Forst.) D.A. Sutton (Plantaginaceae), the latter mistakenly reported for Madeira by FORSTER (1789)]. The two further species published earlier by FORSTER & FORSTER (1775) were also apparently based on material collected in Madeira and the Cape Verde Islands: whilst no provenance is given in the protologues of the Cape Verde native *Epibaterium pendulum* or the Madeiran native *Aytonia rupestris* FORSTER (1789) reported the species only for Macaronesia. Therefore it appears that these are the earliest published illustrations associated with post-Linnaean taxonomic descriptions for the Macaronesian flora. In a previous study pertinent to the botanical history of the Cape Verdes ROMEIRAS *et al*. (2014) showed that the botanical contributions made by the Forsters are among the most important ones for these islands during the 18th century.

The work of FORSTER (1789) would appear to represent the earliest published floristic treatment focusing on several volcanic oceanic archipelagos from the Atlantic. A total of 174 plant/fungus entries were recorded by FORSTER (1789) of which 160 were for Macaronesia. Six of the plant entries were recorded both for Madeira and Azores and one for both Cape Verde and Madeira (FORSTER, 1789). Twenty-five records were reported only for the Azores, 39 recorded only for the Cape Verdes (including one fungus), and 90 only for Madeira. It appears that FORSTER (1789) mistakenly assigned two plant entries to Madeira (the Cape Verde native *Commicarpus helenae* [listed as *Boerhavia scandens* by FORSTER (1789)] and the Cape Verde endemic *Kickxia elegans*), and one Madeiran plant to the Cape Verde (the Madeiran native *Kickxia spuria*). For each plant entry FORSTER (1789) provided taxonomic identifications and species descriptions. As a working taxonomy, FORSTER (1789) mostly followed MURRAY (1784). The vast majority of the plant names recorded in Macaronesia by FORSTER (1789) match species known to occur in the island where the species were reported by him. However, several of these plant entries are not easy to interpret taxonomically as their descriptions are brief and the identifications provided by FORSTER (1789) do not correspond to species occurring in the islands where the records were made. Taxonomic identification for the species

reported by FORSTER (1789) were previously provided by MENEZES (1922) for Madeira, by NICOLSON & FOSBERG (2004) for all of the Macaronesian plant entries, and by ROMEIRAS *et al*. (2014) for those found on the Cape Verdes. In this paper we have revisited the names assigned by MENEZES (1922) and NICOLSON & FOSBERG (2004) with an updated taxonomy that mostly follows ARECHAVALETA *et al*. (2005), JARDIM & SEQUEIRA (2008), SEQUEIRA *et al*. (2010a), and SILVA *et al*. (2010) (Table 4).

4. THE THIRD VOYAGE

The last voyage of Captain Cook was undertaken with two ships: *The Resolution* (see above, commanded by Captain Cook) and *The Discovery* (under the command of Captain Charles Clerke). *The Resolution* departed from England earlier, and stopped in Tenerife before reaching Cape Town, where she waited for *The Discovery* to arrive (see below) (COOK & KING, 1784; BEAGLEHOLE, 1967, 1974). *The Resolution* did not call at any other Macaronesian port, although it passed near the islands of Boavista, Maio, and Santiago in the Cape Verdes, sailing close to the harbor of Praia (Santiago) (COOK & KING, 1784).

Captain Cook's relationship with the Forsters was uneasy during and after his second voyage, and it appears that Cook was reluctant to have dedicated naturalists on board his third voyage (STEARN, 1969b). William Anderson (1750-1778), who had already worked as surgeon on the second voyage (BEASLEY, 2012), was the surgeon and unofficial "naturalist" of *The Resolution*. In addition, David Nelson (unknown-1789) from Kew Gardens was appointed to *The Discovery* as plant collector upon the recommendation of Sir Joseph Banks (BRITTEN, 1916; ST. JOHN, 1976; BEASLEY, 2012).

The main aim of this voyage was to travel to the Pacific Ocean to "find out a Northern passage by sea from the Pacific to the Atlantic Oceans" (COOK & KING, 1784) that would allow navigation between northern Europe and Asia/Northwestern North America through the Arctic Ocean. From the journals of David Samwell (surgeon in *The Discovery*) (BEAGLEHOLE, 1967) and James Burney (First Lieutenant in *The Discovery*) (BURNEY, 1776-1779) we know that *The Discovery* did not call at any Macaronesian port en route between England and South Africa. Nelson consequently did not have the opportunity to collect in the region. Unlike the two other voyages of Captain Cook this expedition yielded fewer botanical results (STEARN, 1969b; EDWARDS, 1978; LAMOUREUX, 1978), which was clearly influenced by the lack of naturalists. Both Anderson and Nelson collected specimens that were eventually added to Bank's herbarium (LANKESTER, 1904). However, the former had to devote considerable amount of time to his duties as ship's surgeon (STEARN, 1969b). In addition, before joining *The Resolution*, Anderson was sick with tuberculosis and during large portions of the trip he was very ill (BEAGLEHOLE, 1967). He died during the voyage, in the Bering Sea on 3 August 1778.

The information found in Anderson's journal together with the travel-log of Cook himself were the basis for the three volume book that was published posthumously shortly after the expedition returned to England, without Anderson, Cook or Clerke (COOK & KING, 1784; BRITTEN, 1916). Later BEAGLEHOLE (1967) published as separate accounts the journals of Anderson and Cook. During the voyage Anderson also produced two

unpublished botanical manuscripts that are located in the Botany Library of the Natural History Museum of London (ANDERSON, 1778a,b). However, they focus on species from the Pacific Basin and do not include any reference to the plants of Tenerife.

A critical study of the text in COOK & KING (1784) pertinent to Tenerife was provided by ROMEU PALAZUELOS (1987). Cook's description for Tenerife is brief and lacks any details concerning its natural history or society (BEAGLEHOLE, 1967). In contrast, Anderson wrote about the landscapes, ethnography, and nature of Tenerife. It appears that they were able to visit areas around mostly Santa Cruz and La Laguna; Anderson regretted not having time to climb Mount Teide. Parts of his accounts are limited to the main crops of the island: grapes for wine, market fruits, silk, and a cultivar of lemon locally known as "impregnated Lemon" (in Spanish "limón preñado"). The latter is also mentioned by the Spanish Army Engineer Francisco Gozar during his visit to the Canaries in 1770 (CAPEL, 2001). This variety of *Citrus* x *limon* (Rutaceae) bears fruits similar to navel oranges with a highly developed twin fruit located on the apical extreme where the style was originally attached. Anderson also refers to two succulent plants: the introduced *Aloe* (Xanthorrhoeaceae) (likely *A. vera* (L.) Burm.f.) and the Canary Island endemic *Euphorbia canariensis* L. He records that the latter was used as fuel once dried and commented on the caustic effect of its sap. Finally, Anderson referred to a weed that was used to make tea and appears to have been commonly found in vineyards. No morphological description was provided. BEAGLEHOLE (1967) assigned this plant to a mint, the "so-called 'Canary Tea', *Cedronella triphylla*, endemic to the Canary Islands and Madeira" (accepted name *Cedronella canariensis* (L.) Webb & Berthel.). However, the weedy nature indicated by Anderson suggests that the plant in question is not referable to the Macaronesian endemic genus *Cedronella*. The famous Canary Island naturalist José de Viera y Clavijo (1731-1813) mentioned "Té de Canarias" [= Canarian Tea] "*Sida canariensis* Covanilla [= Cavanilles]"; accepted name *S. rhombifolia* L. (AFRICAN PLANTS DATABASE, 2015)] in his *Diccionario de Historia Natural de las Islas Canarias* (VIERA Y CLAVIJO, 2005). This is a likely native weedy species that grows in Tenerife and might well be the tea-making plant recorded by Anderson on this island. MORRIS (1896 in SANTOS-GUERRA, 2008) also indicated the use of this plant as a tea substitute in Agaete (Gran Canaria).

5. CONCLUDING REMARKS

During the 17th and 18th centuries Macaronesia provided important ports of call for European scientific expeditions that carried out natural history and resource inventories in the New and Old Worlds (reviewed by HERRERA PIQUÉ, 2006 and FRANCISCO-ORTEGA *et al*., 2010). For example, James Robertson, made collections in the Cape Verdes in ca. 1772 during his trip to the Far East (ROMEIRAS *et al*., 2014); Antonio Gonzalez prepared watercolors in Tenerife between 1796 and 1797 during the French expedition of Captain Nicolas Baudin to the West Indies on which Andre Pierre Ledru was one of the assigned botanists (JANGOUX, 2009); George Staunton made observations of the natural history and the traditions of the Canaries, the Cape Verde, and Madeira in 1792 during the first official British diplomatic mission to the Chinese Imperial Court led by George

Macartney (STAUNTON *et al*., 1797). However, among these expeditions, those of Cook's were unique as, in a relatively short period of time (between 1768 and 1776), he visited all of the Macaronesian archipelagos and provided a comprehensive natural history perspective for the whole region that translated into publications, unpublished records, and specimen collections.

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Table 1.- Artwork of Madeiran plants made during Cook's first voyage. Images are also available online at: http://internt.nhm.ac.uk/nature-online/art-nature-imaging/collections/endeavour-botanical/index.dsml.

Taxon / biogeographic status	Watercolor reference at BM	Colored engraving reference at BM	Text on painting	Notes	Publication
Arum italicum Mill. ssp. *canariense* (Webb & Berthel.) P.C. Boyce (Araceae) / Macaronesian endemic	M.0018./.0001		*Arum pictum*. Parkinson pinxt 1769		
Asplenium monanthes L. (Aspleniaceae) / Native	M.0022./.0001	M.0022./.0003	*Asplenium monanthes* Linn.	Original watercolor sketch made by S. Parkinson, but coloring made by an unknown artist. Colored engraving made by Daniel Mackensie	BANKS *et al.* (1985)[a]
Briza minor L. (Poaceae) / Native	M.0019./.0001		*Briza minor* Linn. Sydney Parkinson pinxt 1768		
Christella dentata (Forssk.) Brownsey & Jermy (Thelypteridaceae) / Native	M.0021./.0001		*Polypodium Thelipetris* Linn.	Original watercolor sketch made by S. Parkinson, but coloring made by an unknown artist	
Clethra arborea Aiton (Clethraceae) / Madeiran endemic	M.0008./.0001	M.0008./.0003	*Clethra arborea*. Sydney Parkinson pinxt: 1768	Colored engraving made by Gerald Sibelius	BANKS *et al.* (1985)[a]
Convolvulus althaeoides L. (Convolvulaceae) / Native	M.0011./.0001	M.0011./.0003	*Convolvulus serpens*. Sydney Parkinson pinxt 1768	Colored engraving made by Thomas Scratchley	EDWARDS (1983)[b], BANKS *et al.* (1985)[a]
Diospyros lotus L. (Ebenaceae) / Cultivated	M.0010./.0001		*Diospyros lotus* Linn. Sydney Parkinson pinxt 1768		EDWARDS (1983)
Eugenia jambos L. (Myrtaceae) / Cultivated	M.0004./.0001		*Eugenia jambos* Linn. Sydney Parkinson pinxt 1768		EDWARDS (1983)

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Taxon / biogeographic status	Watercolor reference at BM	Colored engraving reference at BM	Text on painting	Notes	Publication
Eugenia uniflora L. / Cultivated	M.0005./.0002		*Myrtus pulposus*. Sydney Parkinson pinxt: 1768		
Globularia salicina Lam. (Globulariaceae) / Macaronesian endemic	M.0014./.0001	M.0014./.0003	*Alypum angustifolium*. Sydney Parkinson pinxt 1768	Colored engraving made by Thomas Scratchley	EDWARDS (1983)[b], BANKS *et al.* (1985)[a]
Heberdenia bahamensis (Gaertn.) Sprague (Primulaceae) / Macaronesian endemic	M.0009./.0001	M.0009./.0003	*Heberdenia excelsa*. Sydney Parkinson pinxt 1768	Colored engraving made by Daniel Mackensie	EDWARDS (1983)[b], BANKS *et al.* (1985)[a]
Helichrysum obconicum DC. (Asteraceae) / Madeiran endemic	M.0007./.0001	M.0007./.0003	*Gnaphalium crassifolium*. Linn. Sydney Parkinson pinxt 1768	Colored engraving made by Gabriel Smith	EDWARDS (1983)[b], BANKS *et al.* (1985)[a]
Ilex canariensis Poir. (Aquifoliaceae) / Macaronesian endemic	M.0002./.0001		*Ilex Azevinho*. S. Sydney Parkinson pinxt 1768		Fig. 6
Ilex perado Aiton ssp. *perado* / Madeiran endemic	M.0001./.0001		*Ilex Perado*. Sydney Parkinson pinxt 1768		Fig. 7
Kickxia spuria (L.) Dumort. ssp. *integrifolia* (Brot.) R. Fern. (Plantaginaceae) / Native			*Antirrhinum cordatum*. Sydney Parkinson pinxt 1768	Colored engraving made by Gerald Sibelius	BANKS *et al.* (1985)[a]
Lavandula pinnata L.f. (Lamiaceae) / Macaronesian endemic	M.0015./.0001		*Lavandula pinnata*	Original watercolor sketch made by S. Parkinson, but coloring made by an unknown artist	Fig. 8

Taxon / biogeographic status	Watercolor reference at BM	Colored engraving reference at BM	Text on painting	Notes	Publication
Lotus glaucus Aiton (Fabaceae) / Madeiran endemic	M.0003./.0001	M.0003./.0003	*Lotus glaucus*. Sydney Parkinson pinxt 1768	Colored engraving made by Daniel Mackensie	EDWARDS (1983)[b], BANKS *et al.* (1985)[a]
Lythrum junceum Banks & Sol. (Lythraceae) / Native	M.0006./.0002	M.0006./.0004	Thos. Burgis Pinxt. 1776	Original watercolor sketch made by S. Parkinson, but coloring made by Thomas Burgi. Colored engraving made by Daniel Mackensie	EDWARDS (1983)[b], BANKS *et al.* (1985)[a]
Ocotea foetens (Aiton) Baill. (Lauraceae) / Macaronesian endemic	M.0016./.0001	M.0016./.0003	*Laurus foetens*. S. Parkinson pinxt 1768	Colored engraving made by Daniel Mackensie	EDWARDS (1983)[b], BANKS *et al.* (1985)[a]
Pteris incompleta Cav. (Pteridaceae) / Native	M.0020./.0001		*Osmunda maderiensis*	Original watercolor sketch made by S. Parkinson, but coloring made by an unknown artist	
Sibthorpia peregrina L. (Scrophulariaceae) / Madeiran endemic	M.0012./.0001	M.0013./.0003	*Meadia repens*. Sydney Parkinson pinxt 1768	Colored engraving made by Gerald Sibelius	EDWARDS (1983)[b], BANKS *et al.* (1985)[a]
Smilax pendulina Lowe (Smilacaceae) / Madeiran endemic	M.0017./.0001		*Smilax latifolia*	Original watercolor sketch made by S. Parkinson, but coloring made by an unknown artist	ADAMS (1986)

[a] Colored engraving was published.
[b] Watercolor was published.

Table 2.- Herbarium material collected in Macaronesia during Cook's second voyage. Codes for institutions housing specimens follow *Index Herbariorum* acronyms (THIERS, continuously updated).

Taxon[a] / provenance / biogeographic status	Herbarium					
	BM	FR	GOET	K	LIV	UPS-T
Abutilon pannosum (G. Forst.) Schltdl. [*Sida pannosa* G. Forst.] (Malvaceae) / Cape Verde Islands / Native	Yes					
Cocculus pendulus (J.R. Forst. & G. Forst.) Diels [*Epibaterium pendulum* J.R. Forst. & G. Forst.] (Menispermaceae) / Cape Verde Islands / Native	Yes				Yes	
Ipomoea cairica (L.) Sweet [*Convolvulus mucronatus* Benth.] (Convolvulaceae) / Cape Verde Islands / Non-native	Yes					
Kickxia elegans (G. Forst.) D.A. Sutton [*Antirrhinum elegans* G. Forst.) (Plantaginaceae)] / Cape Verde Islands / Endemic				Yes[b]		
Kickxia spuria (L.) Dumort. ssp. *integrifolia* (Brot.) R. Fern. / Madeira / Native				Yes[c]		
Melissa officinalis L. (Lamiaceae) / Madeira / Introduced	Yes					
cf. *Laurus novocanariensis* Rivas Mart., Lousã, Fern. Prieto, E. Días, J.C. Costa & C. Aguiar [*L. nobilis* L.] (Lauraceae) / Madeira / Macaronesian endemic		Yes[d]				
Mentha suaveolens Ehrh. [*Mentha x rotundifolia* (L.) Huds] (Lamiaceae) / Madeira / Native	Yes					
cf. *Persea indica* (L.) Spreng. [*Laurus indica* L.] (Lauraceae) / Madeira / Macaronesian endemic		Yes[e]				
Sida rhombifolia L. (Malvaceae) / Cape Verde Islands / Uncertain (native or non-native)			Yes			
Solanum pseudocapsicum L. (Solanaceae) / Madeira / Cultivated				Yes[f]		
Trichodesma africanum (L.) Sm. [*Borago tristis* G. Forst.] (Boraginaceae) / Cape Verde Islands / Native	Yes					
Veronica anagallis-aquatica L. [*Veronica anagallis* L. auct.] (Plantaginaceae) / Madeira / Native						Yes

[a] Names provided by Forster (1789) are shown inside square parenthesis.

[b] This species was wrongly assigned to Madeira by Forster (1789). *Kickxia elegans* has three subspecies, but only two of them are found in Santiago (ssp. *elegans* and ssp. *dichondrifolia*).

[c] This species was wrongly assigned to the Cape Verde Islands by Forster (1789).

[d] This is a sterile specimen without a locality, but it is assumed that it was collected in Macaronesia by the Forsters. This sheet has material for two species. The two leaves located on the left of this sheet have been tentatively assigned to *L. novocanariensis*. "*Laurus nitida* ?" is one of the two names found on the label of the sheet, and apparently this name refers to this specimen. Forster (1789) used "*Laurus nitida* n. sp. Solandr." for *Apollonias barbujana* (Cav.) A. Braun; however, these two leaves have gland-like projections along the midrib, and this is a diagnostic trait for *L. novocanariensis*. This feature is not known for *A. barbujana*.

[e] This is a sterile specimen without a locality, but it is assumed that was collected in Macaronesia by the Forsters. This sheet has material for two species. The leaf located on the right section of this sheet has been tentatively assigned to *P. indica*. "*Laurus indica* ?" is one of the two names found on the label of this sheet and this name would appear to refer to this specimen.

[f] This specimen was not reported by Nicolson & Fosberg (2004).

Table 3.- Artwork of Macaronesian plants that resulted from the second voyage of Captain Cook. Drawings and watercolors were made by George Forster.

Taxon[a] / provenance / biogeographic status	Location of illustration[b]	Watercolor reference	Uncolored engraving	Text on illustration	Publication
Abutilon pannosum (G. Forst.) Schltdl. [*Sida pannosa* G. Forst.] (Malvaceae) / Cape Verde Islands / Native	Gotha	Chart-A-1212 77r		*Sida pannosa*[c]. G. Forster pinxt.	
Abutilon pannosum / Cape Verde Islands / Native	Gotha	Chart-A-1212 78r		Without label	
Aerva persica (Burm.f.) Merr. [*Illecebrum javanicum* (Burm.f.) L.] (Amaranthaceae) / Cape Verde Islands / Native	Gotha	Chart-A-1212 65r		*Iresine lanata*[c]	
Argemone mexicana L. (Papaveraceae) / Cape Verde Islands / Non-native	Gotha	Chart-A-1212 67r		*Argemone hispida*[c]	
Borreria verticillata (L.) G.Mey [*Spermacoce verticillata* L.] (Rubiaceae) / Cape Verde Islands / Non-native	Gotha	Chart-A-1212 68r		Name assigned on the sheet to this taxon was erased[c]	
Carthamus lanatus L. (Asteraceae) / Madeira / Native	BM	Forster 285-205		*Carthamus lanatus* Linn. Madeira. Sketched Aug. 1 1772. G Forster 1773	Hoare (1982). Black and white reproduction
Cocculus pendulus (J.R. Forst. & G. Forst.) Diels [*Epibaterium pendulum* J.R. Forst. & G. Forst.] (Menispermaceae) / Cape Verde Islands / Native	BM	Forster 363-259		*Epibaterium pendulum*	Forster & Forster (1775); Romeiras *et al*. (2014); Fig. 10
Cocculus pendulus / Cape Verde Islands	BM		Forster 364-105	*Epibaterium pendulum*	
Cocculus pendulus / Cape Verde Islands	LE		Unknown	Unknown	

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Taxon[a] / provenance / biogeographic status	Location of illustration[b]	Watercolor reference	Uncolored engraving	Text on illustration	Publication
Convolvulus althaeoides L. (Convolvulaceae) / Madeira / Non-native	BM	Forster 072-045		*Convolvulus digitatus. althaeoides*? Sketched Aug. 2[d] 1772. Painted March 8th 1773. G. Forster	Cook (1981)
Corchorus trilocularis L. (Malvaceae) / Cape Verde Islands / Uncertain (native or non-native)	Gotha	Chart-A-1212 73r		*Corchorus trilocularis* Linn.[c]	
Cullen americanum (L.) Rydb. [*Psoralea americana* L.] (Fabaceae) / Madeira / Non-native	BM	Forster 279-201		*Psoralea repanda. americana*. GF. Sketched Aug. 3rd 1772. Painted Febr. 25 1773. Ge. Fosrter	Fig. 11
Cullen americanum / Madeira	BM		Forster 279-079	*Psoralea americana*	
Cullen americanum / Madeira	Gotha	Chart-A-1212 54r. Most of the plate is not painted and it is a pencil sketch		*Psoralea repanda*[c]	
Echium plantagineum L. [*E. vulgare* L.] (Boraginaceae) / Madeira / Native	Gotha	Chart-A-1212 66r		*Echium procumbens*[c]. Sketched Aug. 3rd 1772. GF. Painted Feb. 20th 1773	Fig. 12
Holcus cf. *lanatus* L. (Poaceae) / Madeira / Native	BM	Forster 282-274		*Holcus purpureus*	
Ipomoea cairica (L.) Sweet [*Convolvulus mucronatus* Benth.] (Convolvulaceae) / Cape Verde Islands / Non-native	BM	Forster 073-046		*Convolvulus acuminatus. mucronatus*. Ge. Forster	
Ipomoea cairica / Cape Verde Islands	BM		Forster 074-028	*Convolvulus mucronatus*	
Jatropha curcas L. (Euphorbiaceae) / Cape Verde Islands / Non-native	BM	Forster 366-261		*Jatropha gynandra*. Ge. Forster	Fig. 13
Kickxia spuria (L.) Dumort. [*Antirrhinum spurium* L.] (Plantaginaceae) / Madeira / Native	BM	Forster 245-175		*Antirrhinum elegans*. GF. Sketched Aug, 2nd 1772. Painted Feb. 7th 1773[d]	

Taxon[a] / provenance / biogeographic status	Location of illustration[b]	Watercolor reference	Uncolored engraving	Text on illustration	Publication
Mentha suaveolens Ehrh. [*Mentha x rotundifolia* (L.) Huds] (Lamiaceae) / Madeira / Native	Gotha	Chart-A-01212 76r		*Mentha rotundifolia* [c]. G. Forster ad viv. del. 5 Aug. 1772	
Origanum vulgare ssp. *virens* (Hoffmanns. & Link) letsw. [*Origanum creticum* L.] (Lamiaceae) / Madeira / Native	Gotha	Chart-A-1212 64r		*Origanum quadrangulare*[c]. G. Sketched Aug. 1772. Painted March 4th 1773	
Plagiochasma rupestre (J.R. Forst. & G. Forst.) Stephani [*Aytonia rupestris* J.R. Forst. & G. Forst, as "*Aitonia*"] (Aytoniaceae) / Madeira / Native	BM	Forster 422-297		*Aitonia rupestris.* Ge. Forster	Forster & Forster (1775); Fig. 10
Plagiochasma rupestre / Madeira	BM		Forster 422-297	*Aitonia rupestris*	
Plagiochasma rupestre / Madeira	LE		Unknown	Unknown	
Sida rhombifolia L. (Malvaceae) / Cape Verde Islands / Uncertain (native or non-native)	BM	Forster 268-193		*Sida salicifolia*. *rhombifolia*? Ge. Forster	
Sida rhombifolia / Cape Verde Islands / Uncertain (native or non-native)	BM		Forster 268-193	*Sida rhombifolia*	
Sida rhombifolia / Cape Verde Islands	LE		Unknown	Unknown	
Teucrium betonicum L'Hér. [*T. canescens* G. Forst.] (Lamiaceae) / Madeira / Endemic	BM	Forster 241-172		*Teucrium incanum. canescens. betonicum*. Sketched Aug. 1772. Painted Febr. 28th 1773. Ge. Forster	Hoare (1982). Black and white reproduction
Tribulus cistoides L. [*T. terrestris* L.] (Zygophyllaceae) / Cape Verde Islands / Non-native	BM	Forster 285-205		*Zygophyllum tomentosum*. *Tribulus terrestris*	

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Taxon[a] / provenance / biogeographic status	Location of illustration[b]	Watercolor reference	Uncolored engraving	Text on illustration	Publication
Trichodesma africanum (L.) Sm. [*Borago tristis* G. Forst.] (Boraginaceae) / Cape Verde Islands / Native	Gotha	Chart-A-1212 75r		*Borago tristis* F.[c]. G. Forster del.	Fig. 14

[a] Names provided by Forster (1789) are shown inside square parenthesis.
[b] Codes for institutions housing specimens follow *Index Herbariorum* acronyms (THIERS, continuously updated), except Gotha = Gotha Library, Thuringia, Germany.
[c] The painting does not have a locality but it is assumed that was collected in Macaronesia during the second voyage of Captain Cook.
[d] *Antirrhinum elegans* G. Forst. (accepted name *Kickxia elegans* (G. Forst.) D.A. Sutton) is a species endemic in the Cape Verde Islands. It appears that George Forster mixed labels and taxonomic identifications for the species of this genus occurring in the Cape Verdes (*K. elegans*) and Madeira (*K. spuria*).

Table 4.- Plant material from the Azores, Madeira, and Cape Verde Islands recorded by FORSTER (1789) during Cook's second voyage. Taxonomic identifications and biogeographical status are based on MENEZES (1922) and NICOLSON & FOSBERG (2004), but have been revised. The taxonomy follows ARECHAVALETA *et al*. (2005), JARDIM & SEQUEIRA (2008), SEQUEIRA *et al*. (2010a), and SILVA *et al*. (2010).

Taxon[a]	Record provenance based on Forster's (1789) account / Actual biogeographical status of determined species	Notes
Abutilon pannosum (G. Forst.) Schltdl. [*Sida pannosa* G. Forst.] (Malvaceae)	Cape Verde Islands / Native	
Acacia farnesiana (L.) Willd. [*Mimosa farnesiana* L.] (Fabaceae)	Cape Verde Islands / Cultivated	
Achyranthes sicula (L.) All. [*A. aspera* L.] (Amaranthaceae)	Madeira / Native	*Achyranthes sicula* is the only species of the genus found on the island
Adiantum capillus-veneris L. (Pteridaceae)	Madeira / Native	
Adiantum hispidulum Sw. [*A. trapeziforme* L.]	Madeira / Non-native	*Adiantum trapeziforme* does not occur in Madeira. NICOLSON & FOSBERG (2004) assigned this plant entry to *A. hispidulum* and the morphological description provided by FORSTER (1789) matches this species
Aerva persica (Burm.f.) Merr. [*Illecebrum javanicum* (Burm.f.) L.] (Amaranthaceae)	Cape Verde Islands / Native	
Agrimonia eupatoria L. (Rosaceae)	Madeira / Native	
Allium paniculatum L. [*A. pallens* L.] (Liliaceae)	Madeira / Non-native	*Allium pallens* does not occur in Madeira, but the morphological description provided by FORSTER (1789) matches *A. paniculatum*. MENEZES (1922) recorded *A. pallens* as an abundant species near Funchal, but we believe that he mistakenly assigned the plants from the capital of Madeira to this species
Anaphalis margaritacea (L.) Benth. & Hook.f. [*Gnaphalium margaritaceum* L.] (Asteraceae)	Madeira / Cultivated	*Anaphalis margaritacea* is the accepted name for *G. margaritaceum* (HILLIARD & BURTT, 1981). MENEZES (1922) asigned this plant entry to *Antennaria margaritacea* (L.) R.Br., a further synonym of this species, indicating that it was cultivated in Madeiran gardens. NICOLSON & FOSBERG (2004) were uncertain about the identification of this plant record as *A. margaritacea* does not occur in the wild on Madeira

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Taxon[a]	Record provenance based on Forster's (1789) account / Actual biogeographical status of determined species	Notes
Annona squamosa L. (Annonaceae)	Cape Verde Islands / Cultivated	
Anthoceros punctatus L. (Anthocerotaceae)	Madeira / Native	
Apollonias barbujana (Cav.) A. Braun [*Laurus nitida* n. sp. Solandr.] (Lauraceae)	Madeira / Macaronesian endemic	FORSTER (1789) referred to the common name "Barbusano" for this plant entry. We have not found the name *L. nitida* Solander in the taxonomic literature. The latter name as published by FORSTER (1789) does not have a description and is therefore a *nomen nudum*. MENEZES (1922) assigned this plant entry to *A. canariensis* (Willd.) Nees [accepted name *A. babujana* (PRESS & SHORT, 1994)]
Argemone mexicana L. (Papaveraceae)	Cape Verde Islands / Non-native	
Arundo donax L. (Poaceae)	Madeira / Non-native	
Asplenium adiantum-nigrum L. (Aspleniaceae)	Madeira / Native	
Asplenium marinum L.	Azores / Native	
Asplenium monanthes L. [*A. monanthemum* Murray]	Madeira / Native	*Asplenium monanthemum* is a synonym of *A. monanthes* (MURRAY 1784)
Bidens pilosa L. [*Coreopsis leucantha* L.] (Asteraceae)	Madeira / Non-native	NICOLSON & FOSBERG (2004) assigned this plant entry to *B. alba* var. *radiata* (Sch.Bip.) Ballard ex Melchert, a taxon belonging to the *B. pilosa* complex (BALLARD, 1986). In here we follow the classification by SEQUEIRA *et al*. (2010a)
Bituminaria bituminosa (L.) C.H. Stirt. [*Psoralea bituminosa* L.] (Fabaceae)	Madeira / Native	
Borago officinalis L. (Boraginaceae)	Azores / Non-native	
Borreria verticillata (L.) G.Mey [*Spermacoce verticillata* L.] (Rubiaceae)	Cape Verde Islands / Non-native	

Taxon[a]	Record provenance based on Forster's (1789) account / Actual biogeographical status of determined species	Notes
Briza maxima L. or *B. minor* L. [*B. media* L.] (Poaceae)	Madeira / Native	*Briza media* does not occur in Madeira and *B. maxima* and *B. minor* are the only species of genus found on this island. Menezes (1922) indicated that this plant entry might refer to *B. maxima* because it has panicles that are simple or almost simple with large spikelets; however, the short description provided by Foster (1789) does not make reference to either the panicles or spikelets
Caesalpinia pulcherrima (L.) Sw. [*Poinciana pulcherrima* L.] (Fabaceae)	Cape Verde Islands / Cultivated	
Calamintha nepeta (L.) Savi ssp. *nepeta* [*Melissa calamintha* L.] (Lamiaceae)	Madeira / Native	*Calamintha nepeta* is a synonym of *M. calamintha* (Morales, 2010), a species that occurs in Madeira. Nicolson & Fosberg (2004) assigned this plant entry to *Clinopodium ascendens* (Jord.) Samp. under the assumption that *C. nepeta* was not found on this island
Calendula arvensis L. (Asteraceae)	Madeira / Native	
Callitriche stagnalis Scop. [*C. verna* L.] (Plantaginaceae)	Madeira / Native	*Callitriche verna* [accepted name *C. palustris* L. (Bean, 2007)] does not occur in Madeira. *Callitriche stagnalis* is the only species of the genus found in Madeira
Calotropis procera (Aiton) W.T. Aiton [*Asclepias gigantea* L.] (Apocynaceae)	Cape Verde Islands / Native	
Cardiospermum halicacabum L. (Sapindaceae)	Cape Verde Islands / Non-native	
Carduncellus caeruleus (L.) C. Presl [*Carthamus caeruleus* L.] (Asteraceae)	Madeira / Uncertain status (native or non-native)	
Carica papaya L. (Caricaceae)	Cape Verde Islands / Cultivated	
Carthamus lanatus L. (Asteraceae)	Madeira / Uncertain status (native or non-native)	
Carthamus tinctorius L.	Azores / Non-native	

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Taxon[a]	Record provenance based on Forster's (1789) account / Actual biogeographical status of determined species	Notes
Cenchrus ciliaris L. (Poaceae)	Madeira / Uncertain status (native or non-native)	MENEZES (1922) assigned this plant entry to *Pennisetum cenchroides* Rich. ex Pers. [accepted name *C. ciliaris* (DELISLE, 1962)]
Centaurium erythraea ssp. *grandiflorum* or *Centarium maritimum* (L.) Fritsch [*Gentiana centaurium* L.] (Gentianaceae)	Azores / Native	NICOLSON & FOSBERG (2004) assigned this plant entry to *Centaurium maritimum* (L.) Fritsch without any explanation for this taxonomic placement. *Gentiana centarium* is a synonym of *C. erythraea* Rafn (HANELT, 2001), and *C. erythraea* ssp. *grandiflorum* occurs in the Azores where it is more abundant than *C. maritimum*. From the brief morphological description provided by FORSTER (1789) we are not certain to which of this two species this plant entry should be assigned to
Chenopodium ambrosioides L. (Chenopodiaceae)	Madeira / Native	
Cocculus pendulus (J.R. Forst. & G. Forst.) Diels [*Epibaterium pendulum* J.R. Forst. & G. Forst.] (Menispermaceae)	Cape Verde Islands / Native	
Cocos nucifera L. (Arecaceae)	Cape Verde Islands / Cultivated	
Colocasia esculenta (L.) Schott. [*Arum esculentum* L.] (Araceae)	Madeira / Non-native	
Commicarpus helenae (Schult.) Meikle [*Boerhavia scandens* L.] (Nyctaginaceae)	Madeira / Cape Verde Island native	*Boerhavia* does not occur in Madeira and NICOLSON & FOSBERG (2004) suggested that this might well refer to material collected in the Cape Verde Islands. MENEZES (1922) also indicated that *B. scandens* does not occur in Madeira and he tentatively suggested that this plant entry might refer to the cultivated *Bougainvillea spectabilis* Willd. (Nyctaginaceae) or the non-native *Mirabilis divaricata* Lowe (accepted name *M. jalapa* L.) (Nyctaginaceae). The description provided by FORSTER (1789) matches *C. helenae*
Convolvulus althaeoides L. (Convolvulaceae)	Madeira / Non-native	

Taxon[a]	Record provenance based on Forster's (1789) account / Actual biogeographical status of determined species	Notes
Convolvulus arvensis L.	Madeira / Native	
Corchorus trilocularis L. (Malvaceae)	Cape Verde Islands / Uncertain status (native or non-native)	
Crepis capillaris (L.) Wallr. [*C. virens* L.] (Asteraceae)	Azores / Non-native	*Crepis virens* is a synonym of *C. capillaris* (Thompson, 2007)
Cucurbita pepo L. (Cucurbitaceae)	Madeira / Cultivated	
Cullen americanum (L.) Rydb. [*Psoralea americana* L.] (Fabaceae)	Madeira / Non-native	
Cupressus sempervirens L. (Cupressaceae)	Madeira / Cultivated	
Cynodon dactylon (L.) Pers. [*Panicum dactylon* L.] (Poaceae)	Madeira / Native	
Cyperus esculentus L. (Cyperaceae)	Azores / Non-native	
Cyperus longus L. [*C. compressus* L.]	Azores / Non-native	*Cyperus compressus* does not occur in Azores. Nicolson & Fosberg (2004) suggested *C. longus* as a match for this plant record. Based on the short description provided by Forster (1789) we agree with this taxonomic assignment
Digitaria ciliaris (Retz.) Koeler or *D. sanguinalis* (L.) Scop. [*Panicum sanguinale* L.] (Poaceae)	Madeira / Non-native	Both *D. ciliaris* and *D. sanguinalis* occur in Madeira; however, Nicolson & Fosberg (2004) indicated that material collected by Forster in Ascension Island that was labeled as *P. sanguinale* morphologically matches *D. ciliaris*
Echium plantagineum L. [*E. vulgare* L.] (Boraginaceae)	Madeira / Native	Nicolson & Fosberg (2004) assigned this plant record to the Madeiran endemic *E. candicans*; however, the plate found at the Gotha Library is for *E. plantagineum*. *Echium vulgare* does not occur in Madeira. Menezes (1922), suggested that this entry is for *E. plantagineum*

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Taxon[a]	Record provenance based on Forster's (1789) account / Actual biogeographical status of determined species	Notes
Emex spinosa (L.) Campd. [*Rumex spinosus* L.] (Polygonaceae)	Madeira / Native	
Equisetum telmateia Ehrh. [*E. arvense* L.] (Equisetaceae)	Madeira / Native	This is the only species of the genus found in Madeira. MENEZES (1922) assigned this plant record to *E. maximum* auct. non Lam. [accepted name *E. telmateia* (PRADA, 1986)]
Erica azorica Hochst. [*E. scoparia*] (Ericaceae)	Azores / Endemic	This is the only species of the genus found in the Azores
Erica platycodon ssp. *maderenicola* (D.C. McClint.) Rivas Mart., Capelo, J.C. Costa, Lousã, Fontinha, Jardim & Sequeira [*E. scoparia* L.]	Madeira / Endemic	NICOLSON & FOSBERG (2004) assigned this plant entry to *E. scoparia* (Seub.) Franco. We follow the most recent taxonomy and consider that it is referable to *E. platycodon* ssp. *maderenicola* (RIVAS-MARTÍNEZ *et al*., 2002)
Erodium cicutarium (L.) L'Her. [*Geranium cicutarium* L.] (Geraniaceae)	Madeira / Native	
Euphorbia peplus L. [as "*peplis*"] (Euphorbiaceae)	Madeira / Native	MENEZES (1922) assigned *E. peplis* to this plant record; however, the Madeiran native *E. peplis* L. [accepted name *Chamaesyce peplis* (L.) Prokh. (BENEDÍ, 1997)] is an uncommon species found only in Porto Santo and it is unlikely that the entry refers to this species
Euphorbia piscatoria Aiton [*E. characias* L.]	Madeira / Endemic	*Euphorbia characias* does not occur in Madeira but the morphological description provided by FORSTER (1789) matches *E. piscatoria*
Euphorbia prostrata L. [*E. polygonifolia* L.]	Cape Verde Islands / Non-native	*Euphorbia polygonifolia* was reported to the Cape Verde Islands by FORSTER (1789); however, this species does not occur in the archipelago and we believe that it refers to *E. prostrata*
Ficus carica L. (Moraceae)	Madeira / Cultivated	
Fragaria vesca L. (Rosaceae)	Madeira / Native	
Galactites tomentosa Moench [*Centaurea galactites* L.] (Asteraceae)	Madeira / Native	*Centaurea galactites* is a synonym of *G. tomentosa* (JARVIS & TURLAND, 1998)

Taxon[a]	Record provenance based on Forster's (1789) account / Actual biogeographical status of determined species	Notes
Gladiolus italicus Mill. [*G. communis* L.] (Iridaceae)	Madeira / Non-native	*Gladiolus communis* does not occur in Madeira but *G. italicus* is an ornamental that has escaped from cultivation and has a widespread distribution in several parts of the island (Vieira, 2002). Menezes (1922) assigned this plant entry to *G. segetum* Ker Gawl. [accepted name *G. italicus* (Alonso & Crespo, 2013)]
Globularia salicina Lam. [*Alypum longifolium*] (Globulariaceae)	Madeira / Macaronesian endemic	Forster (1789) referred to *Alypum* as a new genus described by Solander; however, this genus was described in 1812 as *Alypum* Fisch. (Globulariaceae). We have not been able to find the name *A. longifolium* in the taxonomic literature. Nicolson & Fosberg (2004) suggested that *Globularia alypum* L. might occur in Madeira. However the latter species is not found on this island
Gomphocarpus fruticosus (L.) W.T. Aiton [*Asclepias fruticosa* L.] (Apocynaceae)	Madeira / Non-native	Nicolson & Fosberg (2004) accepted *A. fruticosa*; however, we follow here the taxonomy of Menezes (1922) and Sequeira *et al*. (2010a) and accept *G. fruticosus*
Gossypium hirsutum L. [*G. arboreum* L.] (Malvaceae)	Cape Verde Islands / Cultivated	
Grewia villosa Willd. [*G. asiatica* L.] (Malvaceae)	Cape Verde Islands / Uncertain status (native or non-native)	
Huperzia dentata (Herter) Holub or *H. suberecta* (Lowe) Tardieu [*Lycopodium plumosum* L.] (Lycopodiaceae)	Azores / Macaronesian endemic	*Lycopodium plumosum* [accepted name *Selaginella plumosa* (L.) Presl (Tryon & Tryon, 1982)] does not occur in the Azores. Nicolson & Fosberg (2004) assigned this plant entry to *Diphasiastrum madeirense* (J.H. Wilce) Holub; however, based on the morphological description by Forster (1789) it appears that this plant entry refers to *H. dentata* or *H. suberecta*
Hyparrhenia hirta (L.) Stapf [*Andropogon hirtus* L., as "hirtum"] (Poaceae)	Madeira / Native	
Hypericum humifusum L. (Clusiaceae)	Azores / Native	

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Taxon[a]	Record provenance based on Forster's (1789) account / Actual biogeographical status of determined species	Notes
Hypericum perforatum L.	Azores / Non-native	
Hypochoeris radicata L. [as "*Hypocharis*"] (Asteraceae)	Azores / Non-native	
Hyptis pectinata (L.) Poit. [*Prunella vulgaris* L.] (Lamiaceae)	Cape Verde Islands / Non-native	*Prunella vulgaris* does not occur in the Cape Verde Islands. It might refer to *H. pectinata*
Indigofera tinctoria L. (Fabaceae)	Cape Verde Islands / Cultivated	
Ipomoea cairica (L.) Sweet [*Convolvulus mucronatus* G. Forst.] (Convolvulaceae)	Cape Verde Islands / Non-native	
Ipomoea pes-caprae (L.) R.Br. ssp. *brasiliensis* (L.) Ooststr. [*Convolvulus brasiliensis* L.]	Cape Verde Islands / Native	
Isatis tinctoria L. (Brassicaceae)	Madeira / Non-native	Menezes (1922) assigned this plant entry to *I. praecox* Kit. ex Tratt.; however, Press & Short (1994) indicated that records of *I. praecox* from Madeira refer to *I. tinctoria*
Jatropha curcas L. (Euphorbiaceae)	Cape Verde Islands / Cultivated	
Juncus articulatus L. (Juncaceae)	Madeira / Native	Menezes (1922) assigned this plant entry to *J. lampocarpus* Hoffm. [accepted name *J. articulatus* (Romero Zarco, 2010)]
Kickxia elegans (G. Forst.) D.A. Sutton [*Antirrhinum spurium* L.] (Plantaginaceae)	Madeira / Cape Verde Island endemic	This species does not occur on Madeira and it is found on the Cape Verde Islands. It is likely that this record refers to *K. elegans* that was mistakenly reported from Madeira by Forster (1789). Sutton (1988) suggested that the material from the Cape Verdes and Madeira was erroneously mixed up when it was processed
Kickxia spuria (L.) Dumort. [*Antirrhinum elegans* G. Forst.]	Cape Verde Islands / Madeiran native	This species does not occur on the Cape Verdes and it is found on Madeira. It is likely that this record refers to *K. spuria*. Sutton (1988) suggested that the material from the Cape Verdes and Madeira was erroneously mixed up by the Forsters when it was processed

Taxon[a]	Record provenance based on Forster's (1789) account / Actual biogeographical status of determined species	Notes
Lagenaria siceraria (Mol.) Standl. [*Cucurbita lagenaria* L.] (Cucurbitaceae)	Madeira / Cultivated	*Cucurbita lagenaria* is a synonym of *L. siceraria* (Teppner, 2004)
Lathyrus sativus L. (Fabaceae)	Madeira / Non-native	
Laurus novocanariensis Rivas Mart., Lousã, Fern. Prieto, E. Días, J.C. Costa & C. Aguiar [*L. nobilis* L.] (Lauraceae)	Madeira / Macaronesian endemic	Nicolson & Fosberg (2004) assigned this plant entry to *L. azorica* (Seub.) Franco. We follow the most recent taxonomy and consider that this species refers to *L. novocanariensis* (Sequeira *et al.*, 2010a). This is the only species of the genus occurring in Madeiran forests. Menezes (1992) suggested that this plant record refers to *L. canariensis* Webb & Berthel. [accepted name *L. novocanariensis* (Rivas-Martínez *et al.*, 2002)]
Lepidium ruderale L. (Brassicaceae)	Madeira / Non-native	Menezes (1922) assigned this plant entry to *L. virginicum* L. However, Forster's (1789) description refers to a plant that has flowers without petals, a feature found in *L. ruderale* that it is not present in *L. virginicum*
Linum bienne Mill. or *L. usitatissimum* L. [*L. perenne* L.] (Linaceae)	Madeira / Native (*L. bienne*) or cultivated (*L. usitatissimum)*	*Linum perenne* does not occur in Madeira and Nicolson & Fosberg (2004) assigned *L. bienne* to this plant entry; however, based on the brief morphological description provided by Forster (1789), this record could also refer to *L. usitatissimum*. Menezes (1922) suggested that this plant record referred to *L. angustifolium* Huds. [accepted name *L. usitatissimum* ssp. *angustifolium* (Huds.) Thell (Diederichsen & Richards, 2003)]
Lotus angustissimus L. [as "*angustissimus*?"] (Fabaceae)	Azores / Non-native	Nicolson & Fosberg (2004) mistakenly assigned this entry to the Cape Verde Islands
Lotus jacobaeus L. [as "*iacobaeus*"]	Cape Verde Islands / Endemic	
Lupinus luteus L. (Fabaceae)	Azores / Non-native	
Lythrum hyssopifolia L. (Lythraceae)	Madeira / Native	
Malva sylvestris L. [*M. mauritiana* L., as "*mauritiana*?"] (Malvaceae)	Azores / Non-native	*Malva mauritiana* is a synonym of *M. sylvestris* (Nogueira & Paiva, 1993)

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Taxon[a]	Record provenance based on Forster's (1789) account / Actual biogeographical status of determined species	Notes
Malvastrum americanum (L.) Torr. [*Malva spicata* L.] (Malvaceae)	Cape Verde Islands / Non-native	
Manihot esculenta Crantz [*Jatropha manihot* L.] (Euphorbiaceae)	Cape Verde Islands / Cultivated	
Medicago polymorpha L. (Fabaceae)	Madeira / Non-native	Menezes (1922) assigned this plant record to *M. hispida* ssp. *pentacycla* (DC.) Urb. [accepted name *M. polymorpha* (Sales & Hedge, 2000)]
Melissa officinalis L. (Lamiaceae)	Madeira / Non-native	
Mentha pulegium L. (Lamiaceae)	Azores / Native	
Mentha pulegium	Madeira / Native	
Mentha suaveolens Ehrh. [*M. rotundifolia* (L.) Huds.]	Azores / Non-native	*Mentha x rotundifolia* does not occur in the Azores
Mentha suaveolens [*M. x rotundifolia*]	Madeira / Native	*Mentha x rotundifolia* does not occur in Madeira
Mercurialis annua L. or *M. ambigua* L.f. [*M. ambigua*] (Euphorbiaceae)	Madeira / Native	Menezes (1922) and Nicolson & Fosberg (2004) assigned this plant entry to *M. ambigua*, a species that is morphologically similar to *M. annua* (Güemes, 1997). Based on the short description provided by Forster (1789) we are not certain to which of these two species this plant entry refers to
Momordica charantia L. (Cucurbitaceae)	Cape Verde Islands / Non-native	
Musa × *paradisiaca* L. (Musaceae)	Cape Verde Islands / Cultivated	
Musa × *paradisiaca*	Madeira / Cultivated	
Myosotis arvensis (L.) Hill. or *M. secunda* Al. Murray [*M. scorpioides* L.] (Boraginaceae)	Madeira / Native	*Myosotis scorpioides* does not occur in Madeira. Press & Short (1994) considered that Forster's (1789) record of this species for Madeira is for *M. secunda*. In contrast, Menezes (1922) assigned this plant entry to *M. intermedia* Link [accepted name *M. arvensis* (Valdés, 2012)]; however, the latter is a rare species in Madeira (Press & Short, 1994)

Taxon[a]	Record provenance based on Forster's (1789) account / Actual biogeographical status of determined species	Notes
Myrtus communis L. [*M. communis* (*lusitanica*)] (Myrtaceae)	Madeira / Native	
Nerium oleander L. (Apocynaceae)	Azores / Non-native	
Nigella damascena L. (Ranunculaceae)	Madeira / Uncertain status (native or non-native)	
Ocimum basilicum L. (Lamiaceae)	Cape Verde Islands / Non-native	
Onagraceae sp. [*Epilobium angustifolium* L.]	Madeira / Unknown	*Epilobium angustifolium* does not occur in Madeira and none of the species of this genus found in Madeira have zygomorphic flowers [as indicated by Forster (1789)]
Onagraceae sp. [*Epilobium montanum* L.]	Madeira / Unknown	Menezes (1922) and Nicolson & Fosberg (2004) assigned this plant record to *Epilobium parviflorum* Schreb.; however, the morphological description provided by Forster (1789) is very short and vague and we are not certain to which taxon he was referring to
Origanum vulgare ssp. *virens* (Hoffmanns. & Link) Ietsw. [*O. creticum* L.] (Lamiaceae)	Madeira / Native	*Origanum vulgare* ssp. *virens* is the only taxon of the genus that occurs in Madeira. *Origanum creticum* is a synonym of *O. vulgare* (Ietswaart, 1980). Menezes (1922) assigned this plant entry to *O. virens* Hoffmanns. & Link
Ornithopus perpusillus L. (Fabaceae)	Azores / Non-native	
Piptatherum miliacea (L.) Coss. [*Agrostis miliacea*] (Poaceae)	Madeira / Non-native	Menezes (1922) and Nicolson & Fosberg (2004) assigned *Oryzopsis miliacea* (L.) Asch. & Schweinf. to this plant entry; however, we follow the taxonomy of Sequeira *et al*. (2010a)
Persea indica (L.) Spreng. [*Laurus indica* L.] (Lauraceae)	Madeira /Macaronesian endemic	Forster (1789) used the common name "Vinhatico" to refer to this plant entry
Phagnalon saxatile (L.) Cass. [*Conyza saxatilis* L.] (Asteraceae)	Madeira / Native	
Phoenix dactylifera L. (Arecaceae)	Cape Verde Islands / Cultivated	This record might well refer to *P. atlantica* A. Chev., a Cape Verde Island endemic species (Henderson *et al*., 2006)

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Taxon[a]	Record provenance based on Forster's (1789) account / Actual biogeographical status of determined species	Notes
Physalis peruviana L. (Solanaceae)	Azores / Non-native	
Picris echioides L. (Asteraceae)	Madeira / Uncertain status (native or non-native)	Nicolson & Fosberg (2004) suggested *Helminthoteca echioides* (L.) Holub for this plant entry. In here we follow Menezes (1922) and Sequeira *et al*. (2010a) and accept *P. echioides*
Plagiochasma rupestre (J.R. Forst. & G. Forst.) Stephani [*Aytonia rupestris* J.R. Forst. & G. Forst., as "*Aitonia*"] (Aytoniaceae)	Madeira / Native	
Plantago lagopus L. (Plantaginaceae)	Madeira / Native	
Plantago lanceolata L.	Madeira / Native	
Podaxis pistillaris (L.) Fr. (Basidiomycota, Agaricaceae) [*Clavaria pistillaris* L. (Basidiomycota, Clavariaceae)]	Cape Verde Islands/ Uncertain status (native or non-native)	*Clavaria pistillaris* [accepted name *Clavariadelphus pistillaris* (L.) Donk (Cabi, 2015)] does not occur in the Cape Verde Islands. Tentatively we have assigned this fungus record to *P. pistillaris*
Polycarpon tetraphyllum (L.) L. (Caryophyllaceae)	Azores / Non-native	
Polycarpon tetraphyllum	Madeira / Native	
Pseudognaphalium luteoalbum (L.) Hilliard & Burtt (Asteraceae)	Azores / Native	
Pseudognaphalium luteoalbum	Madeira / Native	
Psidium guajava L. [*P. pyriferum* L.] (Myrtaceae)	Cape Verde Islands / Cultivated	
Pteridium aquilinum (L.) Kuhn [*Pteris aquilina* L.] (Dennstaedtiaceae)	Azores / Native	
Pycreus flavescens (L.) Rchb. [*Cyperus flavescens* L.] (Cyperaceae)	Madeira / Native	

Taxon[a]	Record provenance based on Forster's (1789) account / Actual biogeographical status of determined species	Notes
Reseda luteola L. (Resedaceae)	Azores / Non-native	
Rubus ulmifolius Schott [*R. fruticosus* L.] (Rosaceae)	Madeira / Native	Nicolson & Fosberg (2004) assigned this plant entry to *R. bollei* Focke; however, they were not certain of this taxonomic assignment. *Rubus fruticosus* has been considered a synonym of *R. ulmifolius* (Monasterio-Huelin, 1998), the latter occurs in Madeira; therefore we selected this name for this plant entry
Ruta chalepensis L. [*R. graveolens* L.] (Rutaceae)	Madeira / Native	*Ruta chalepensis* is the only species of the genus occurring in Madeira
Saccharum officinarum L. (Poaceae)	Cape Verde Islands / Cultivated	
Sanguisorba verrucosa (Link ex G. Don) Ces. [*Poterium sanguisorba* L.] (Rosaceae)	Madeira / Native	This is the only species of *Sanguisorba* found in Madeira. *Poterium sanguisorba* [accepted name *S. minor* Scop. (Navarro & Muñoz Garmendia, 1998)] does not occur in Madeira. Menezes (1922) listed this taxon at subspecific rank as *S. minor* ssp. *verrucosa* (Link ex G. Don) Cout.
Saponaria officinalis L. (Caryophyllaceae)	Madeira / Non-native	
Scabiosa atropurpurea L. [*S. columbaria* L.] (Dipsacaceae)	Madeira / Non-native	*Scabiosa atropurpurea* is the only species of the genus found on this island. Menezes (1922) assigned this plant entry to *S. maritima* L. [accepted name *S. atropurpurea* (Devesa, 2007)]
Scorpiurus vermiculatus L. (Fabaceae)	Madeira / Native	
Senna occidentalis (L.) Link [*Cassia occidentalis* L.] (Fabaceae)	Cape Verde Islands / Non-native	
Sesuvium portulacastrum (L.) L. (Aizoaceae)	Cape Verde Islands / Native	
Setaria pumila (Poir.) Roem. & Schult. [*Panicum glaucum* L.] (Poaceae)	Madeira / Uncertain status (native or non-native)	*Panicum glaucum* does not occur in Madeira. Nicolson & Fosberg (2004) suggested *S. pumila* as a match for this plant record. Based on the short description provided by Forster (1789) we agree with this taxonomic assignment. Menezes (1922) mistakenly indicated that "*Setaria* (*Panicum*) *glauca*" is a common species in Madeira

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Taxon[a]	Record provenance based on Forster's (1789) account / Actual biogeographical status of determined species	Notes
Sherardia arvensis L. (Rubiaceae)	Azores / Non-native	
Sibthorpia peregrina L. [*Disandra prostrata* L.] (Scrophulariaceae)	Madeira / Endemic	*Disandra prostrata* is a synonym of *S. peregrina* (Rico, 2009). Menezes (1922) assigned this plant record to *S. peregrina*
Sida rhombifolia L. [*S. rhombifolia*?] (Malvaceae)	Cape Verde Islands / Uncertain status (native or non-native)	
Silene gallica L. (Caryophyllaceae)	Madeira / Native	
Silene inaperta L.	Madeira / Native	
Silene vulgaris (Moench) Garcke [*Cucubalus behen* L.]	Madeira / Native	*Cucubalus behen* is a synonym of *S. vulgaris* (Talavera, 1990). Menezes (1922) assigned this record to "*Silene venosa* (Gilib.) Aschers var. *vulgaris* Lowe". However, we have not found this name in the taxonomic literature we have consulted. We assume that Menezes (1922) was referring to *S. inflata* var. *vulgaris* Lowe [accepted name *S. vulgaris* (Talavera, 1990)]
Sisymbrium officinale (L.) Scop. [*Erysimum officinale* L.] (Brassicaceae)	Madeira / Native	
Solanaceae sp. [*Solanum dulcamara* L.]	Madeira / Unknown	Nicolson & Fosberg (2004) assigned this plant record to *Normania triphylla* (Lowe) Lowe [accepted name: *Solanum trisectum* Dunal (Bohs & Olmstead, 2001)]. However this is a very rare Madeiran endemic. *Solanum dulcamara* does not occur neither in Madeira nor in the Cape Verdes and its presence in the Azores is questionable. Menezes (1922) suggested that this plant entry might refer to S. *jasminoides* J. Paxton, a species that is cultivated in Madeira as a garden plant and that he claimed to belong to *Solanum* sect. *Dulcamara*
Solanum lycopersicum L.	Madeira / Cultivated	The common name "tomatos" is referred to this plant entry by Forster (1789)
Solanum pseudocapsicum L.	Azores / Non-native	
Solanum pseudocapsicum	Madeira / Non-native	

Taxon[a]	Record provenance based on Forster's (1789) account / Actual biogeographical status of determined species	Notes
Spartium junceum L. (Fabaceae)	Azores / Non-native	
Tamarindus indica L. (Fabaceae)	Cape Verde Islands / Cultivated	
Tamarix senegalensis Willd. [*T. gallica* L.] (Tamaricaceae)	Cape Verde Islands / Native	This is the only species of the genus occurring on the Cape Verde Islands
Teucrium betonicum L'Hér. [*T. canescens* G. Forst.] (Lamiaceae)	Madeira / Endemic	*Teucrium canescens* was published as a new species by Forster (1789). However, L'Héritier (1788) published an earlier name for this species
Thlaspi arvense L. (Brassicaceae)	Madeira / Uncertain status (native or non-native)	
Thlaspi arvense L. or *Lobularia maritima* (L.) Desv. [*Thlaspi peregrinum* L.] (Brassicaceae)	Madeira / Uncertain status (native or non-native) (*T. arvense*) or non-native (*L. maritima*)	*Thlaspi peregrinum* L. [accepted name *Aethionema saxatile* (L.) R.Br. (Cafferty & Jarvis, 2002)] does not occur in Madeira. Nicolson & Fosberg (2004) assigned this plant entry to *T. arvense*, the only member of the genus occurring in Madeira; however, from the morphological description (*foliis lanceolatis integerrimis*) provided by Forster (1789) this plant entry might also refer to individuals of *L. maritima* with almost lanceolate leaves
Tribulus cistoides L. [*T. terrestris* L.] (Zygophyllaceae)	Cape Verde Islands / Non-native	*Tribulus cistoides* and *T. terrestris* occur in the Cape Verde Islands; however, both Nicolson & Fosberg (2004) and Romeiras *et al*. (2014) assigned this plant entry to *T. cistoides*
Trichodesma africanum (L.) Sm. [*Borago tristis* G. Forst.] (Boraginaceae)	Cape Verde Islands / Native	
Trifolium angustifolium L. (Fabaceae)	Madeira / Native	
Trifolium arvense L.	Azores / Native	
Trifolium repens L.	Madeira / Native	
Verbena officinalis L. (Verbenaceae)	Azores / Non-native	
Veronica anagallis-aquatica L. ssp. *anagallis-aquatica* [*V. anagallis* L.] (Plantaginaceae)	Madeira / Native	*Veronica anagallis* (published by Linnaeus as "*V. anag.* ∇") is a synonym of *V. anagallis-aquatica* (Martínez Ortega *et al*., 2009)

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Taxon[a]	Record provenance based on Forster's (1789) account / Actual biogeographical status of determined species	Notes
Vicia sativa L. (Fabaceae)	Azores / Non-native	
Withania somnifera (L.) Dunal [*Physalis somnifera* L.] (Solanaceae)	Cape Verde Islands / Uncertain status (native or non-native)	

[a] Names provided by Forster (1789) are shown inside square parenthesis.

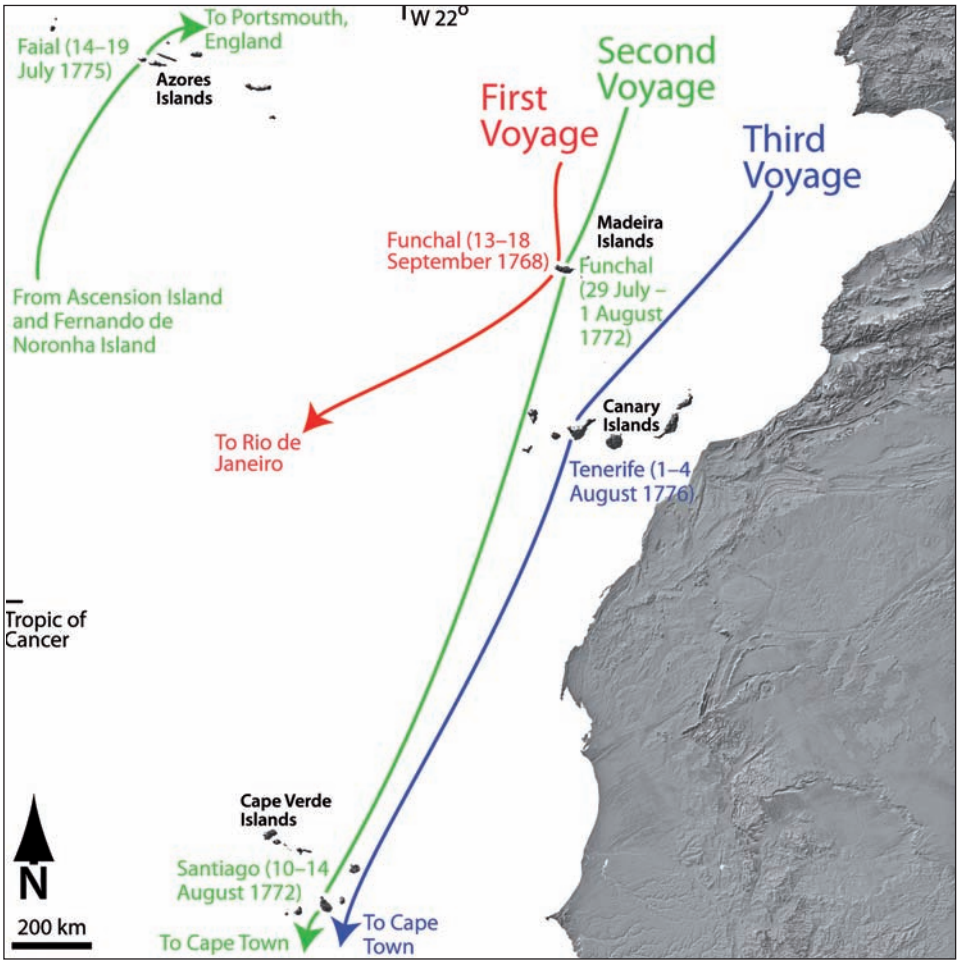
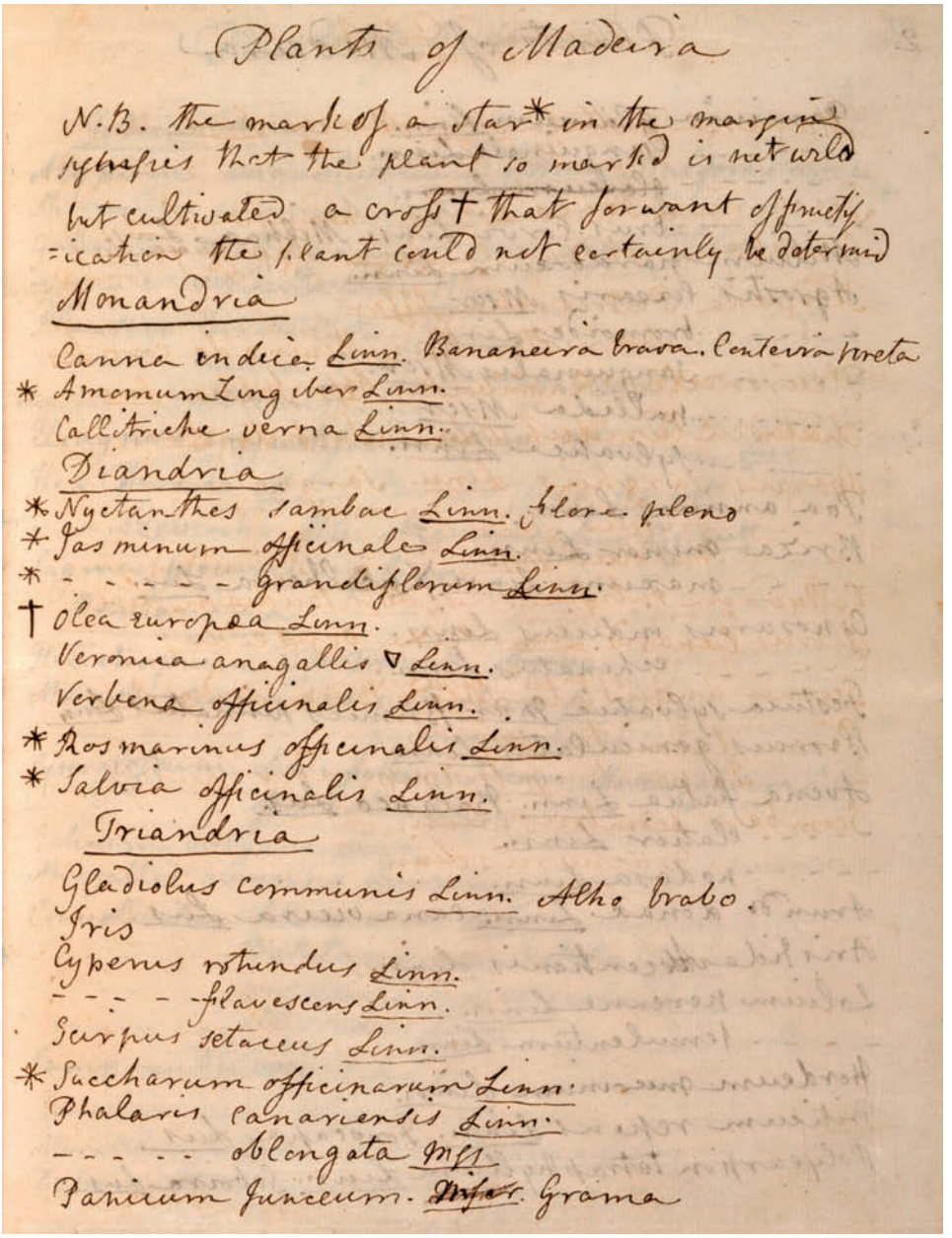


Figure 1.- Visits made to Macaronesia by Captain James Cook during his three voyages. Dates from COOK (1777), COOK & KING (1784), and BEAGLEHOLE (1962). Notice that the trajectory shown for the first voyage does not represent the actual route followed by *The Endeavour* as after leaving the island of Madeira she sailed between Tenerife and Gran Canaria and navigated close to the island of São Nicolau (Cape Verde Islands).

Figure 2.- Replica of *The Endeavour* sailing on Australian water. Image copyright of the Australian National Maritime Museum.

Figure 3.- Participants from the first voyage of Captain Cook as celebrated in stamps from Australia. Clockwise, starting in left top corner: Sydney Parkinson, Sir Joseph Banks, Captain James Cook, and Daniel Solander. Stamps of Parkinson and Banks were issued in 1986 as part of series of six stamps to celebrate the Australia bicentenary. The stamp showing Captain Cook was issued in 1966 as part of a series of 11 stamps to celebrate the contributions of six famous early navigators who explored Australia. The stamp depicting Solander was issued in 2001 and belongs to a series of two stamps that were jointly issued by Australia and Sweden.



Plants of Madeira

N.B. the mark of a star * in the margin signifies that the plant so marked is not wild but cultivated a cross † that for want of specificaticn the plant could not certainly be determined

Monandria

Canna indica Linn. Bananeira brava. Centeira preta
* Amomum Zingiber Linn.
Callitriche verna Linn.

Diandria

* Nyctanthes sambac Linn. flore pleno
* Jasminum officinale Linn.
* - - - - - grandiflorum Linn.
† Olea europea Linn.
Veronica anagallis ∇ Linn.
Verbena officinalis Linn.
* Rosmarinus officinalis Linn.
* Salvia officinalis Linn.

Triandria

Gladiolus communis Linn. Alho brabo.
Iris
Cyperus rotundus Linn.
- - - - flavescens Linn.
Scirpus setaceus Linn.
* Saccharum officinarum Linn.
Phalaris canariensis Linn.
- - - - oblongata MSS
Panicum junceum. ~~Mss~~ Grama

Figure 4.- First page of the 13 page manuscript that lists the plants recorded in Madeira by Banks and Solander during the first voyage of Captain Cook (Document Series 03, CY 3006 / 40). The whole document was transcribed by BEAGLEHOLE (1962). Image copyright of the State Library of New South Wales, Australia.

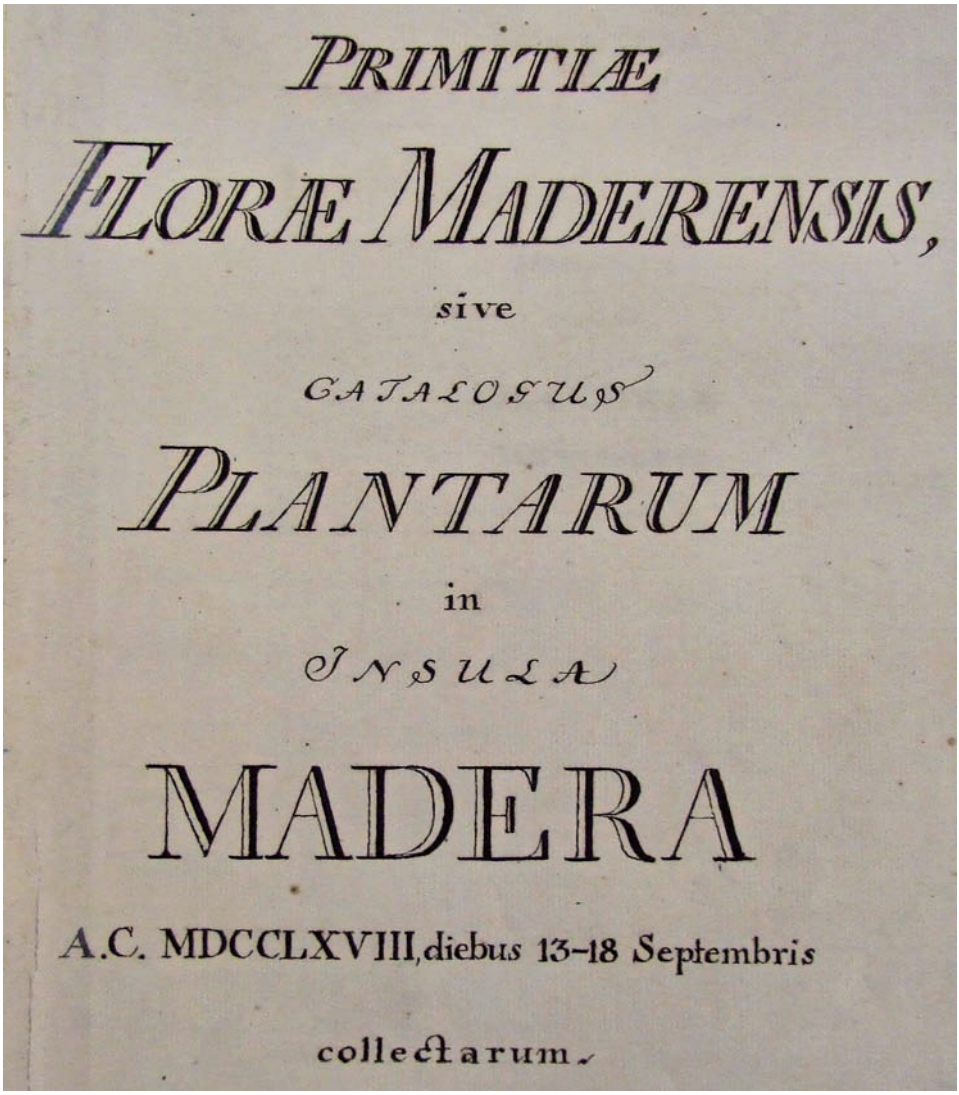

PRIMITIÆ
FLORÆ MADERENSIS,
sive
CATALOGUS
PLANTARUM
in
INSULA
MADERA
A.C. MDCCLXVIII, diebus 13–18 Septembris
collectarum.

Figure 5.- Cover page of the unpublished document produced by Solander that has a list of plants growing on Madeira based on material collected during Cook's first voyage and including reference to the works of Plukenet and Sloane. Image copyright of the Natural History Museum of London.

Figure 6.- Watercolor of *Ilex canariensis* Poir. (Aquifoliaceae) made by Sydney Parkinson in 1768, based on material recorded in Madeira during the first voyage of Captain Cook. Image copyright of the Natural History Museum of London.

Figure 7.- Watercolor of *Ilex perado* Aiton (Aquifoliaceae) made by Sydney Parkinson in 1768, based on material recorded in Madeira during the first voyage of Captain Cook. Image copyright of the Natural History Museum of London.

Figure 8.- Watercolor of *Lavandula pinnata* L.f. (Lamiaceae) made by Sydney Parkinson based on material recorded in Madeira during the first voyage of Captain Cook. Image copyright of the Natural History Museum of London.

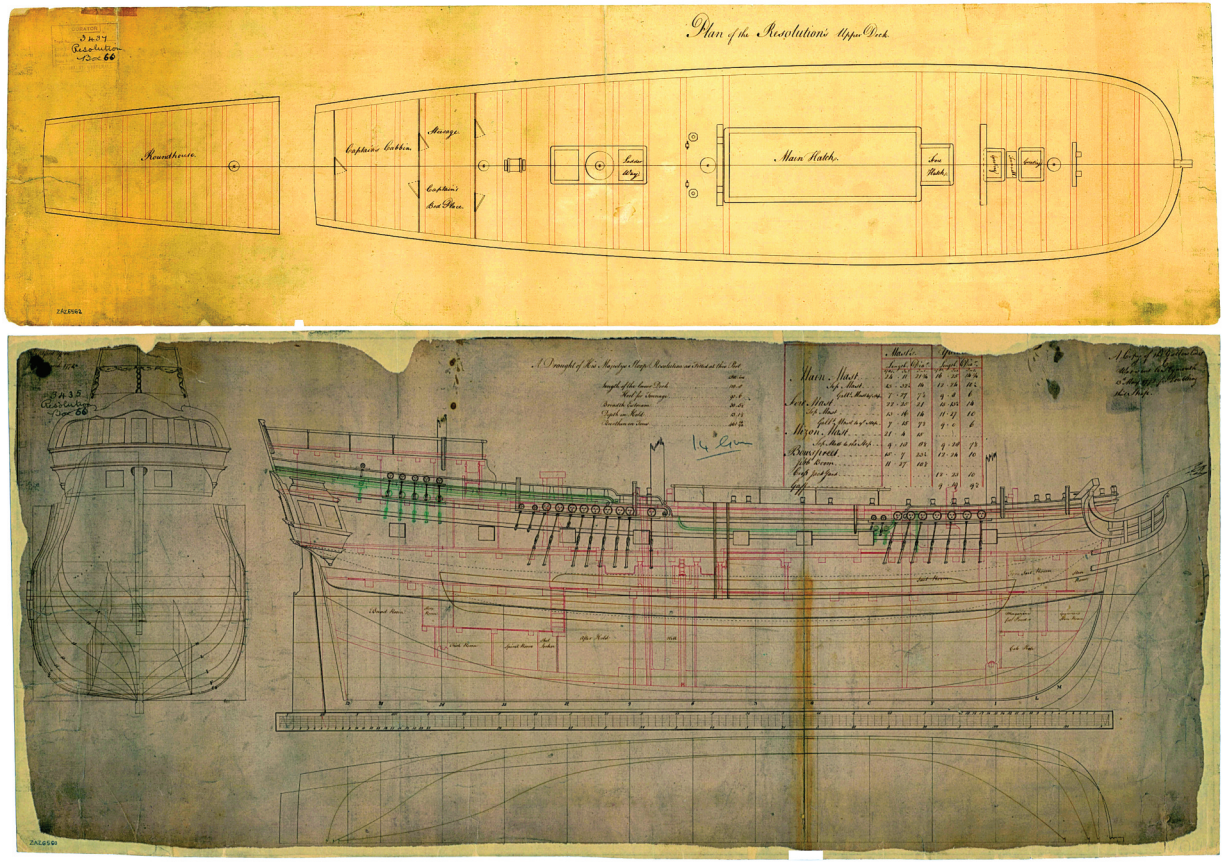


Figure 9.- Plans of *The Resolution*, Captain Cook sailed in this boat during his second and third voyages [documents J2190 (top image) and J2192 (bottom image)]. Image copyright of the National Maritime Museum Picture Library, Greenwich, London.

Figure 10.- Macaronesian botany during the second voyage of Captain James Cook. Clockwise, starting in left top corner: Portrait of Johann Reinhold Forster (ca. 1800) as clay medallion on green dip jasper from a model made by Joachim Smith (c. 1737-1814) [see BERTSCHINGER (2004) for additional details concerning this portrait]. A specimen of *Forstera sedifolia* G. Forst. (Stylidiaceae) can be seen on coat pocket. The genus was originally named by Linnaeus fil. to honor the Forsters. Image copyright of the State Library of New South Wales, Australia. Portrait of George Forster, unknown author [see BERTSCHINGER (2004) for additional details concerning the author of this canvas painting]. Image copyrigh of the Weltkulturen Museum, City of Frankfurt/Main, Germany. Illustrations (apparently from material collected in Macaronesia) published by FORSTER & FORSTER (1775) as part of their descriptions for *Epibaterium pendulum* J.R. Forst. & G. Forst. [accepted name *Cocculus pendulus* (J.R. Forst. & G. Forst.) Diels (Menispermaceae)] and *Aytonia rupestris* J.R. Forst. & G. Forst. [accepted name *Plagiochasma rupestre* (J.R. Forst. & G. Forst.) Stephani (Aytoniaceae)]. The two plant illustrations are reproduced by courtesy of the Linnean Society of London.

Figure 11.- Watercolor of *Cullen americanum* (L.) Rydb. (Fabaceae) made by George Forster (sketched on August 3, 1772, painted on February 25, 1773), based on material recorded in Madeira during the second voyage of Captain Cook. Image copyright of the Natural History Museum of London.

Figure 12.- Watercolor of *Echium plantagineum* L. (Boraginaceae) made by George Forster (Sketched August 3, 1772, painted on February 20, 1773), based on material recorded in Madeira during the second voyage of Captain Cook. Image copyright of the Gotha Library, Thuringia, Germany.

Figure 13.- Watercolor of *Jatropha curcas* L. (Euphorbiaceae) made by George Forster, based on material recorded in Cape Verde Islands during the second voyage of Captain Cook. Image copyright of the Natural History Museum of London.

Figure 14.- Watercolor of *Trichodesma africanum* (L.) Sm. (Boraginaceae) made by George Forster, based on material recorded in the Cape Verde Islands during the second voyage of Captain Cook. Image copyright of the Gotha Library, Thuringia, Germany.