

EDWARD AND SARAH BOWDICH'S NAMES OF MACARONESIAN AND AFRICAN PLANTS, WITH NOTES ON THOSE OF ROBERT BROWN.

D. J. MABBERLEY

Departments or Botany and Forestry, University of Oxford.

SUMMARY

The little known botanical activities of Edward and Sarah Bowdich on Madeira, Pórtó Santo, Cape Verde Islands and in The Gambia are outlined. Their nine new generic names and seventeen new specific names are interpreted. This necessitates new combinations in *Elaphoglossum* and *Kohautia*, but their new generic names *Goodallia* (Madeira), *Coddingtonia* and *Keiria* (The Gambia) are still not identifiable with certainty. Robert Brown's overlooked names of Madeira and African plants are listed. One of these necessitates a new combination in *Oenanthe* and another is a later homonym of a synonym of an Australian *Jacquemontia*, for which the earliest available epithet is another of Brown's, in *Ipomoea*, necessitating a new combination in *Jacquemontia*.

RESUMEN

Se describen las actividades botánicas de Edward y Sarah Bowdich en Gambia y en las islas de Madeira, Porto Santo y Cabo Verde. Se interpretan sus nueve nuevos nombres genéricos y diecisiete nuevos nombres específicos.

Se ha hecho una lista de unos nombres de plantas pocas conocidas de Robert Brown de Madeira y Africa, y se han hecho algunas nuevas combinaciones.

CONTENTS

Introducción	54
The bowdich plant names.....	58
Acknowledgements	65
Referencias	66

INTRODUCTION

Work on the papers of Robert Brown (1773-1858) at the Department of Botany, British Museum (Natural History) towards a full biography, *Jupiter botanicus*, has led to the consideration of his manuscript notes on the collections made by Henry Tedlie, Assistant Surgeon on the Africa Company's mission to Ashanti (1817), which expedition was taken over in the field by Edward Bowdich. This, in turn, has led to an evaluation of the botanical work carried out by Bowdich on his final journey to Macaronesia and Africa with his wife, Sarah, in 1823.

A mission from Cape Coast Castle to Ashantee

An uncle of Thomas Edward Bowdich (1791-1824) of Bristol was Governor-in-Chief of the settlements belonging to the Africa Company. Shortly after the marriage of his nephew, who was known as Edward, in 1813, he obtained a writership for him at Cape Coast Castle in what is now Ghana. Edward set out in 1814, his wife Sarah (née Wallis, 1791-1856) sailing out later and unfortunately reaching Africa by the time Edward had left for England. The following year, the Company promoted a diplomatic mission to Ashanti to negotiate with the King: Bowdich was to be scientific officer (Ward, 1966) on the mission which was to be led by Frederick James, Governor of Fort Accra. Events at the King's court at Kumasi led Bowdich to take over and draw up a treaty with the King, resulting in a somewhat inconsequential agreement over the security of the Company's settlements. Shortly after the mission, Bowdich's health began to fail, and he returned to England to complete the writing-up of his journey as *A mission from Cape Coast Castle to Ashantee* (April, 1819), part of which is reproduced in *Tilloch's philosophical magazine* 54: 26-34 (1819). Bowdich presented specimens of all kinds to the British Museum, his book and these materials exciting considerable interest at a time when the activities of the Company were under some scrutiny. The only plant taxonomic matter of any import is to be found in Chapter XI, on *materia medica* and disease.

In Chapter XI, then, is a list of medicinal plants, which was provided by Tedlie, who died at Cape Coast Castle. In arranging Tedlie's list of vernacular names for publication, Bowdich 'was indebted to Mr Brown's knowledge for the names and references in the parentheses' which are contained in the Brown manuscript preserved in the Department of Botany. According to a footnote in Tuckey's 'Congo' (see below), the materials reached Sir Joseph Banks and thus Brown early in 1818 and included a drawing of the *akee*, *Blighia sapida* König, thereby establishing its native country for the first time.

The list includes local names with short statements on the medicinal value of the materials. The only new species was the spectacular climber, Ashanti Blood, *Mussaenda erythrophylla* Schum. & Thonn. (p. 374, as *M. fulgens* R. Br., *nom. nud.*) though the name **Musanga cecropioides* R. Br. ** (p. 372) was validly published here for the first time. Brown's rough manuscript of the list is that preserved at the British Museum. In the herbarium (BM) are the surviving Tedlie and Bowdich specimens, including a sheet of '*Mussaenda fulgens*' with a small watercolour of the plant executed by Tedlie himself as well as the *akee* drawing and specimen and the *Musanga* specimen. Other drawings are preserved with Brown's manuscript. According to Hepper & Neate (1971:78), some Tedlie specimens are also to be found at Kew.

The Company seems to have taken a rather dim view of Bowdich's assuming command of the expedition, despite its success, and made its feelings clear by not awarding Bowdich a fitting bounty. And so Bowdich wrote a pamphlet, *The Africa Committee* (October, 1819), pointing out the Company's parsimony 'in the confidence that the government and the public will do me justice'. It was commonly believed that the pamphlet was an important factor in the vesting of the Company's settlements in the Crown, though this may well have been exaggerated (Ward, 1966), Bowdich's pamphlet perhaps being used as something of a scapegoat for the Government's already formulated plans.

Bowdich then left for Paris to study mathematics and physical and natural sciences with the savants there, becoming friendly with Georges Leopold Cuvier, Jean Baptiste Biot and Alexander von Humboldt, who dedicated a genus of South American leguminous trees to him - *Bowdichia*, 'in honorem Eduardi Bowdich, britanni, peregrinatoris strenui'. He impressed the French, particularly with his astronomical and other mathematical facilities, writing papers on these topics, and was even offered a post by their Government, an honour he declined. Biot, an astronomer and mathematician, wrote to Banks in 1819 (Dawson, 1958:49) that Bowdich should perform astronomical experiments in Africa and that the British Government should be approached in the matter of supplying instruments. Banks was in no mood to patronize Bowdich for he wrote on 20 October to Sir Charles Blagden, his physician friend in Paris, that Bowdich had written an attack on his employers (Dawson, 1958:101). To finance a new expedi

*Additions and amendments to *index kewensi*: or *Index filicum*.

**This name was not used, as far as we know, by Tedlie, so that it should not be attributed to him (cf. Léonard in *Bull. Agric. Congo Beige* 2: 955 (1951) and de Ruiter in *Bull. Jard. Bot. Nat. Belg.* 46: 5 (1976).

tion himself, the versatile Bowdich produced a prospectus *Quart. J. Arts Sci.* 9: 428-430, 1820) and set about writing a series of books, his wife preparing the drawings: *An analysis of the natural classification of Mammalia* (Paris, 1821), *An introduction to the Ornithology of Cuvier* (Paris London, 1821), *An essay on the geography of north-western Africa* (Paris, 1821), **The British and French expeditions to Teembo with remarks on civilisation in Africa* (Paris, 1821)

Elements of conchology (Paris, 1822) as well as editing Mollien's *Travels to the interior of Africa* (London, 1820), publishing a reply to an attack on *Mission* in the *Quarterly review* and *An essay on the superstitions, customs and arts common to the Ancient Egyptians, Abyssinians and Ashantees* (Paris, 1821), lithographing *The contradictions in Mungo Park's last journal explained* (1821) and bringing out his and Sarah's bestseller, *Taxidermy* (1820), which ran to at least six editions.

Excursions in Madeira and Porto-Santo.

By 1823 then, after 'the painful struggles, the numerous privations, the years of intensive study', all was ready, and Edward, with Sarah and at least one baby, set off for Sierra Leone from Le Havre, calling at Lisbon, where the energetic Edward wrote an essay on Portuguese discoveries in Africa from the manuscript material deposited in the capital, and reached Madeira on 30 September, when they met their first delay. Undeterred, Edward set about collecting and surveying, preparing an important geological survey of Porto Santo. His 'Sketch of the geognosy of Madeira and Porto Santo' was published in *Edinb. Phil. J.* 9: 315-322 (1823), *where he mentions a manuscript sketch of a Flora' and a 'fuller report on the geographical distribution of plants in Madeira' which he had 'already forwarded to Sir Humphrey Davy [President of the Royal Society] and the Cambridge Philosophical Society'. To Davy he was 'regularly transmitting one set' of drawings to illustrate his manuscripts, and he intended to send a second set of the '107 figures (several of which are coloured)' to the library of the French Institute.

They sailed on to the Cape Verde Islands when the Governor of Madeira had been replaced, travelling in an American brig, all hope of a direct route to Sierra Leone being now lost. They left Madeira on 26 October and first reached Boa Vista, 'a mere sand bank', to engage help for completing the rest of the voyage. Once again they were delayed, and despite promises of trips to the other islands of the group, were confined there, collecting more plants, though they did botanize

*A rare collector's item (*The Times*, 10 June 1978).

on S. Tiago. Badly treated, they eventually sailed in an infested ship, a twelve days' voyage bringing them at last to Africa, to Banjul ('Bathurst') in The Gambia.

Held up yet again, they both collected plants on the island of 'Banjole' and on Cape St. Mary's on the mainland. Edward set about surveying the River Gambia, up which they hoped to continue their journey. The surveying necessitated his making measurements at night on the river. In the cold air he caught a chill which developed into a fever, and he died on 10 January 1824. He was buried in what was by 1917 'a small tumble-down brick grave with a cracked marble tablet' (McDonnell, 1917) leaving Sarah a widow with three children. (An engraved portrait of Edward was published in 1824 see *Eur. Mag.* 85: 383-384. A copy is preserved with an autograph letter in the Department of Manuscripts at the British Library: Add. MSS 37951 f. 22).

They had arrived two months after the end of the rains and Sarah later wrote (Bowdich, 1825: 266-267).

'Many faded and broken specimens were brought to me, of which I took notes, hoping, at Mr Bowdich's second visit, to procure, not only the perfect plants, but those we had missed by our late arrival. I preserved a numerous collection as vouchers for my veracity, and, disappointed in all other respects, was returning with a splendid herbarium, carefully packed in a case which seemed impenetrable. The vessel in which I returned was so overladen, and consequently so deep in the water, that, as we had a succession of storms, from the moment we made the Azores till we reached Dover, her deck was incessantly afloat; the water penetrated, and most of my property was destroyed. To examine the luggage in the hold was impossible, and it would have availed nothing if I could have secured my plants in my cabin, for I was there driven three times from my berth (*sic*) by the torrents of water which set everything swimming, and which left me nothing but wet bedding to sleep on during the last fortnight. I was fearful that much destruction had taken place, but, when I went to the decks to select the articles liable to duty, I can scarcely describe my mortification, at seeing many of my valuable books, maps, and engravings, but above all my dried plants, drop at my feet in atoms. I was thus disabled from comparing my herbarium with the magnificent collections of England and France, and all I can now do with my new, or imperfect genera, is to offer them as notes for any future traveller.

With regard to those which I profess to have determined, I offer them with some degree of confidence, for, since my return, I have re-examined my notes, and the remnants of my specimens, amid the collections in the Jardin du Roi [P], and have scarcely had a single instance to alter'.

What happened to these 'remnants' is unclear, though Hepper and Neate (1971:12) record that some specimens collected by Sarah are at BM. I have been unable, however, to trace any bearing labels with the names listed below. Equally unclear is the fate of Edward's manuscripts which cannot now be found at Cambridge or in Davy's papers, preserved at the Royal Institution.

On her return, Sarah set about arranging Edward's notes for publication, adding a narrative of the later part of the journey and appendices, including lists of plants of 'Bona Vista', 'St. Jago' and 'Banjole and its environs'. This remarkable widow was probably the first woman to describe new genera of plants and was certainly the first to collect systematically in tropical West Africa (Keay, 1960). She seems to have received no help from Brown who was compiling a list of Madeira plants for his friend Leopold von Buch and dealing with the African collections of Major Dixon Denham and others made in 1822-1824 (see below) although Sarah was the intermediary in taking specimens of *Didymocarpus* (Gesneriaceae) from Brown to Jacques Gay in Paris in 1826 (BM Add. MSS. 32441 ff. 14-15). The Bowdich account was published as *Excursions in Madeira and Porto-Santo during the autumn of 1823, while on his third voyage to Africa* (London: May, 1825). The following year it was published in Paris and Strasbourg as *Excursions dans les isles de Madère et de Porto-Santo...* with a separate atlas of plates. An uncut copy from Prince Roland Bonaparte's library and now held at the Société de Géographie, Paris, has been examined. It includes 'Notes de M. de Humboldt' at the end and foot-notes by Cuvier in the zoological appendix, pp. 426-455.

Sarah later remarried and, as Mrs. [Robert] Lee, wrote a biography of Cuvier, a whole series of popular natural history books and incorporated accounts of her African experiences in short stories in Ackermann's *Forget me not* (collected together as *Stories of strange lands; and fragments from the notes of a traveller*, 1835) and in (poorly received) 'novels' like *The African wanderers* (1847).

THE BOWDICH PLANT NAMES

The new names of the Madeira plants in *Excursions* are therefore Edward's, those of plants from Cape Verde Is. and Banjul, Sarah's. No complete identification of these names has ever been attempted as far as I know, nor the scattered references to them gathered together. Many of the new generic names are entered 'Quid?' in the latest edition (1973) of J. C. Willis's *Dictionary of the flowering plants and*

ferns. The following is an attempt to remedy this. A dagger indicates a new generic name.

I. MADEIRA

- ***ASPIDIUM LOBATUM** *T. Bowd.*, Exc. Madeira (ed. S. Bowd.): 50 1825 & *Fr. ed.*: 78 (1826), *non* (Huds Sw. (1800), *nom. illeg.* Dr. G. Benl suggests that Bowdich's plant may well be *Polystichum falcinellum* (Sw.) C. Presl, which he has collected on Madeira.
- ***ASPLENIUM HIRSUTUM** *T. Bowd. op. cit.* 50, 153 (1825) & *Fr. ed.* 78, 238 (1826) = *A. aureum* Cav.
- ***CUPRESSUS MADEIRENSIS** *T. Bowd. op. cit.*: 118 (1825) & *Fr. Ed.*: 185, 270 (1826) = *C. Lusitanica* L.
- GNAPHALIUM TOMENTOSUM** *T. Bowd. op. cit.*: 63, 161 (1825) & *Fr. ed.*: 99, 256 (1826), *non* Hoffm. ex J.F. Gmel. (1792), *Nom. Illeg.* = *Helichrysum obconicum* D.C. (*fide* Lowe, 1868: 480).
- †**GOODALLIA** *T. Bowd. op. cit.* 61 (1825), *Fr. ed.*: 96 (1826) *non* Benth. (1845, Thymelaeaceae). The description of 4-valved capsules arising from two "species" of plant resembling a *Sempervivum* has been referred to Crassulaceae. It may possibly represent *Aichryson* Webb & Berth. (1840) but may not be crassulaceous at all, the fruit suggesting *Saxifraga*. Whatever it is, it will be necessary to conserve *Goodallia* Benth.
- †**HERSCHELIA EDULIS** (L.) *T. Bowd., op. cit.*: 34, 35, 159 (1825) & *Fr. ed.*: 53, 252 (1826) = *Physalis peruviana* L.
- ***LILIUM MADEIRENSE** *T. Bowd., op. cit.*; 34, 35, 159 (1825) & *Fr. ed.*: 56, 242, (1826) = *Amaryllis belladonna* L. (*Brunsvigia rosea* (Lam.) Hannibal.
- ***LOMARIA SEMICYLINDRICA** *T. Bowd. op. cit.* 50, 153 (1825) & *Fr. ed.*: 78, 238 (1826). The description is of an acrostichoid fern suggesting *Elaphoglossum*. Dr. Benl kindly identified Bowdich's description with the plant currently known as *E. paleaceum* (Hook. & Grev.) Sledge, a binomial based on a later name such that a new combination, which should be attributed to Dr. Benl, is unavoidable:
- ELAPHOGLOSSUM SEMICYLINDRICUM** (*T. Bowd.*) Benl, **comb. nov.** *Lomaria semicylindrica* T. Bowd., Excursions (ed. S. Bowd.): 50, 153, 'general, by streams' (1825) & *Fr. ed.* 50, 153 (1826). *Acrostichum paleaceum* Hook. & Grev., *Ic. fil.* 2: t. 235 & indices (1831) **synon. nov.** *E. paleaceum* (Hook. & Grev.) Sledge in *Bull. Brit. Mus. Nat. Hist. (Bot.)* 4 (2): 95 (1967).

[*E. hirtum* auctt., non (Sw.) C. Chr., see Pichi-Sermolli & Schelpe in *Webbia* 23:149(1968).]

- †SEDGWICKIA HEMISPHERICA T. Bowd., *op. cit.*: 35,152 & t.25 (1826) = *Lunularia cruciata* (L.) Dum. (see Müller, 1954:366 as 'hemisphaerica'). This is the only plant figured (by Sarah) in *Excursions*.

II BOA VISTA Cape Verde Islands.

- †*MANOELIA PALLIDA S. Bowd. in T. Bowd., *Exc. Madeira* (ed S. Bowd):246 (1825) & *Fr. ed.*: 381 (1826) = *Withania somnifera* (L.) Dun. Often referred to *Lysimachia*, but first correctly identified by Chevalier (1935:902).

*PRENANTHES SPINOSA T. Bowd. *op. cit.* 245 (1825), *Fr. ed.* 379 (1826), non Forssk. (1775), *nom. illeg.* = *Launaea lanifera* Pau; 'Boa Vista: Très abondant à travers toute l'île', Chevalier (1935:887).

III. BANJUL, The Gambia

In compiling his *Florula gambica*, Williams (1907) considered the 193 plant names listed by Sarah but included only 51 of them, 'even now the benefit of the doubt has been given to too many'. Of the remainder, three were cryptograms, 29 were cultivated plants, 50 only assigned to a genus and 60 were 'probably errors', 'many of them only two [sic] obvious'. He made no attempt to interpret the seven validly published new names:

- †BANJOLEA VIOLACEA S. Bowd., *op. cit.*: 258 (1825) *Fr. Es.*: 396 (1826) = *Nelsonia canescens* (Lam.) Spr.

- †*CODDINGTONIA PARASITICA S. Bowd, *op. cit.*: 260 (1825) *Fr. ed.*: 398

(1826). Often identified with *Lonicera*, this epiphytic (? and parasitic) shrub sounds very much like a rubiaceaceous plant, perhaps the epiphytic *Psychotria bidentata* (R. & S.) Hiern, but the long tubular flowers suggest *Loranthus* [non *l. parasitus* (L.) Druce].

- *CONVOLVULUS CUJANENSIS S. Bowd., *op. cit.*: 252 (1825) *Fr. ed.*: 387

(1826) = *Merremia aegyptia* (L.) Urb.

- †*DUVAUCELLIA TENUIS S. Bowd., *op. cit.*: 259 (1825) *Fr. ed.*: 397 (1826) = *Kohautia senegalensis* Cham. & Schlect. (1829) Sarah's description is as follows: 'Classis 8. Ordo 4. Jasmineae? Calyx tubulosus, 4-fidus. Corolla tubulosus, regularis, tubo longo et limbo 4-lobo, lobis lanceolatis. Stamina 4, instra tubum. Stylus

1. *Stigma ignotum*. Fructus superus, dispermus. Herba tenuissima, pulcherrima. Flores laxate paniculati. Corolla intus alba, sed extus rosea. Folia linearia, fasciculata'. The slender herb with 'clustered' linear leaves and reddish tetramerous flowers, rather jasmine-like in appearance immediately suggests a species of *Kohautia*, and indeed the (admittedly crude) description seems to fit no other genus to be found in West Africa. The 'dispermus' ovary is readily explained, as many Rubiaceae have ovules arranged on two placentae, as clearly drawn for *K. grandiflora* DC in *Fl. Trop. East Africa*, Rubiaceae I: 237 (1976). The paniculate arrangement of the flowers which have lanceolate lobes in *D. tenuis* are characters which clearly distinguish *K. senegalensis* from *K. grandiflora*, both of which have been recorded from The Gambia. I have found no Bowdich specimen.

***KOHAUTIA GENUIS** (*S. Bowd.*) *Mabberley, comb. nov.*

Duvaucellia tenuis S. Bowd. in T. Bowd., Exc. Madeira (ed. S. Bowd): 259 (1825) Fr.ed.: 387 (1826).

K. senegalensis Cham. & Schlect. in *Linnaea* 4:156 (1829). **synon. nov.**

†***FINDLAYA ALBA** *S. Bowd., op. cit.:* 258 (1825) Fr. ed.: 396 (1826)

Plumbago zeylanica L. *Findlaya* S. Bowd. antedates *Findalaya* Hook. f. (1876), Ericaceae), Which it will be necessary to conserve.

†***KEIRIA LUTEA** *S. Bowd., op. cit.:* 259 (1825) Fr. ed. *l.c.* (1826)

Although described as a tree ('Arbor magna') allied to Olacaceae, with alternate more or less glabrous cordate leaves and terminal subcorymbose inflorescences of yellow flowers with 4-lobed corollas and 4 stamens, giving rise to globose 7-ridged, 1-seeded fruits, I cannot match this with any tree, and feel it may represent a liane emerging from the crown of a tree. In this case, *Keiria* might possibly be *Cissus populnea* Guill. & Perr. [non *C. luteus* Exell & Mendonça].

***PIRIPEA COERULEA** *S. Bowd, op. cit.:* 251 (May 1825) Fr. ed.: 386 (1826) = *Buchnera hispida* [Buch.-Ham. ex] D. Don (Feb. 1825).

Sarah identified her plant with a specimen collected in Madagascar in 1820 by Georges Perrottet, and preserved at the 'Jardin du Roi'. The sheet labelled 'Madagascar Perrottet 1820', which must be considered type material, Sarah's specimen having been lost, is still at P (!), and is a gathering of *B. hispida*, which species is native to Africa, Madagascar and India.

POSTSCRIPT: ROBERT BROWN'S NAMES OF MADEIRA AND AFRICAN PLANTS

Brown compiled the first 'Flora' of Madeira (Britten, 1904) for Leopold von Buch, with whom he had already collaborated on extending the list of von Buch's records of Canary Island plants (1819). The Madeira Flora, a mere list, was published in von Buch's *Physicalische Beschreibung der Canarischen Inseln*, a privately circulated book, the preface of which is dated 28 May 1825. It was not received at the library of the Royal Society until 1827, and I have so far been unable to date it with any precision. It seems not to have entered the book trade, not being mentioned, for example, in Oken's *Isis* for 1825 or 1826, which may account for the overlooking of von Buch's remarkable views on speciation (Mayr, 1963:483). There are five validly published new names - *Sideroxylon mirmulans* R. Br. and the following:

- **BUPLEURUM SALICIFOLIUM* R. Br. in Buch, Phys. Besch. Canar. Ins.: 195 (1825). This is the earliest publication of this name, as was pointed out by Britten (1904:41).
- **CELASTRUS UMBELLATUS* R. Br., *op. cit.*: 198 (1825); Britten, J. Bot. 42:7 (1904), *non* Vell., Fl. Flum.:92 (1825). This is the earliest name for *Maytenus dryandri* (Lowe) Loes., but I have been unable to show whether it was published before Vellozo's name for a Brazilian species, now known to be **Reissekia smilacina* (Sm.) Steud., Nomencl., ed. 2: 440 (1841 Rhamnaceae).
- **CONVOLVULUS FLEXUOSUS* R. Br., *op. cit.*: 193 (1825); Britten, *op. cit.*: 176 (1904), *nom. illeg. (nec* Spr. (1824) = *Jacquemontia browniana* Oostr. (see below), *non* Pomel (1860) = *C. siculus* L.], = *C. althaeoides* L. *Convolvulus flexuosus* Spr. was a *nomen novum* for *Ipoea erecta* R. Br., a plant Brown had collected on Matthew Flinders's voyage to Australia, 1801-1803. Allied to this were two other 'species' discovered and described by Brown: his *I. erecta* had been collected on Sweer's Island and Allen Island, Carpentaria; *I. biflora* was collected on Mt. Caledon in the west of the Gulf of Carpentaria (Arnhem South Bay Point Ul; see Burbidge, 1956) and *I. pannosa* on the mainland opposite Groote Eylandt. The types of all three species names are at BM. Brown's manuscript descriptions of '*C. lanatus*' (*I. pannosa*) and '*C. erectus*' (*I. erecta*) made in the field are in the slip catalogue of his plant descriptions preserved at the Department of Botany, British Museum (Natural History). Although the type of *I. pannosa* is more robust than that of *I. erecta* or *I. biflora*, Brown included *I. erecta* in *I. pannosa* in his MSS, but maintained it as a distinct species in his *Prodromus*, marking the three type specimens with their *Prodromus* names on the field labels, which bear the provisional names of his field descriptions.

Bentham, *Fl. Austr.* 4:427 (1868) pointed out that the three 'species' were probably forms of one variable one. They do represent such forms of the species currently known as *Jacquemontia browniana*, which must be renamed: ***JACQUEMONTIA PAN-NOSA (R. Br.) Mabblerley, comb. nov.**

Ipomoea pannosa R. Br., Prodr. Fl. Nov. Holl.: 487 (1810). Type: "Convolvulus lanatus", "Carpenteria mainland opposite Groote Island", 4 January 1803, R. Brown (BM!, specimen from Brown's own herbarium; also specimen selected by Brown and Jonas Dryander for the 'National Collection', labelled *I. pannosa* in Dryander's hand).

Convolvulus pannosus (R. Br.) Spr., Syst. 1:612 (1824).

I. biflora R. Br., *l.c.* (1810). Type: "Convolvulus cinereus", "Arnhem South Bay Point U1", i.e. Mt. Caledon, 6 Feb. 1803 R. Brown (BM!, specimen from Brown's own herbarium), *nom. illeg., non* (L.) Pers. (1805) i.e. *C. biflorus* L. (1762).

I. diantha R. & S., Syst. 4:254 (1819). Type as for *I. biflora* R. Br., *non C. dianthus* J.F. Gmel. (1791) i.e. *I. gracilis* R. Br.

C. flexuosus Spr., *l.c.* (1824). Type as for *I. biflora* R. Br., *non* R. Br. (1825) i.e. *C. althaeoides* L.

I. erecta R. Br., *l.c.* (1810). Type: "Convolvulus erectus", "Carpentaria Islands a [Sweer's], c [Allen]", 17 Nov 1802, R. Brown (BM!, specimen from Brown's own herbarium; also a fragment mounted with the 'National Collection' sheet of '*I. pannosa*'); Ferdinand Bauer drawing '327' (?W), *non J. erecta* Choisy (1845).

C. erectus (R. Br.) Spr., *l.c.* (1824).

J. browniana Oostr. in Fl. Malesiana 1, 4:434 (1953). Type as for *I. erecta*.

***SELINUM DIVARICATUM** R. Br., *op. cit.*: 195 (1825). Brown took up Daniel Solander's manuscript name and validly published it. It is the oldest name for *Oenanthe pteridifolia* Lowe:

***OENANTHE DIVARICATA (R. Br.) Mabblerley, comb. nov.**

Lectotype (selected here): Madeira, Masson (BM., labelled with Solander's MS name in Brown's hand). Another, '1776, Masson' is labelled by Solander (BM!).

Selinum divaricatum R. Br. in Buch, Phys. Besch. Canar. Ins.: 195 (1825); Britten, *op. cit.*: 41 (1904). Type as above.

O. pteridifolia Lowe in Trans. Camb. Phil. Soc. 4:30 (1831).

N.B. The name of a Greek plant, '*O. divaricata* Simon' (in Rev. Bot. Syst. Geog. bot. 1:96 1903) of *Index kewensis*, was not validly published as a species name, being one of the 'cinq formes' of '*O. biebersteinii* Simon *dimorpha* Simon'. *O. biebersteinii* was Eugène Simon's superfluous name for *O. silaifolia* Bieb. combi-

ned with *O. media* Griseb., Simon (p. 91) writing that all the plants described under his *O. biebersteinii* were 'une seule et même espèce', which is the widespread plant now known as *O. silaifolia*.

It has been said (Keay, 1960) that all material collected in West Africa and deposited in the British Isles passed through Robert Brown's hands. His work on the flora of Africa was mainly published in three papers dealing with the collections made by Henry Salt in Ethiopia, by Christen Smith made on Captain James Tuckey's Congo expedition and by Dixon Denham, Walter Oudney and Hugh Clapperton in north-west Africa. Although these were all published as appendices to works of exploration, they have been considered by botanists, and indeed the state of the nomenclature of African plants in general seems to be a good deal healthier than that of Indian plants, relevant to which many works seem to have been purposefully neglected (see Mabberley 1977). Nevertheless a few names have been missed but, fortunately, no name changes have to be proposed.

Of the 146 species names listed in the appendix to Salt's *A voyage to Abyssinia* (1814), only six of the new names are validly published with references to earlier published descriptions. None of the names therefore refers to Salt's specimens! The six, one of them illegitimate, are: *Buddleja acuminata* R. Br. (*non* Poir. 1811) = *B. polystachya* Fres., *Cleome roridula* R. Br. = *C. droserifolia* (Forssk.) Del., *C. siliquaria* R. Br. = *C. arabica* L., *Cordia abyssinica* R.Br. *Kanahia laniflora* (Forssk.) R. Br. and:

*HYPOESTES FORSKALEI (*Vahl*) R. Br., in Salt, *Voy. Abyss.* app.: lxiii (1814) = *H. verticillaris* (L. F.) R. & S.

Other overlooked Brownian binomials are:

*HOLCUS ACICULARIS R. Br., *Bot. App. in Denham & Clapperton. App. Narr. travels Africa: 244* (1826) *sphalm.*, based on *Andropogon aciculatus* Retz. (1789) as '*A. acicularis*' the rendering of Willd. (1805), = *Chrysopogon aciculatus* (Retz.) Trin.

*MAERUA RIGIDA R. Br., *op. cit.*: 226 (1826) = *M. crassifolia* Forssk.

*M. SENEGALENSIS R. Br., *op. cit.*: 227 (1826) = *M. crassifolia* Forssk.

*OXYSTELMA ESCULENTUM (*Lf.*) R. Br. in Tuckey, *Narr. Exp. R. Zaire: 450, 478* (1818). N.B. Brown's 'Observations..... on the herbarium collected by Professor Christian Smith in the vicinity of the Congo....' also appeared as a separate with its own pagination. A copy of this pamphlet was presented to the Linnean Society on 3 March 1818 (General Minute Book 2:142).

In January 1824, Brown received a letter from William Hamilton (1783-1856), sometime resident doctor in Nevis, written on the back of a printed circular, dealing *inter alia* with another African plant. The circular, published on 1 January 1824 and printed at Plymouth reads: "DOCTOR HAMILTON will feel much obliged to [space for name of recipient in MS] should circumstances allow of it during his stay in the West Indies to procure for him the Seeds, Flowers, and Leaves, of the following Plants, which as desirable acquisitions for our own Colonies in the West Indies, and at Sierra Leone, he is anxious to obtain". There follow hints on collecting and descriptions of three *desiderata* of which one is:

"3rd. *Inga Faeculifera*. *Pois Doux*. *Vicinity of the City of San Domingo, Hispaniola*.

This Tree, of which a specimen was first brought to France, in August 1822, by the Surgeon of a French Brig, who gave it with some of the Pods, to my learned friend M. Desvaux, is at present growing in the Hot-houses of the Jardin des Plantes, at Angers... *Inga Faeculifera* (which is a species hitherto unknown to Botanists)". There follows a description of the fruits and their qualities. The tree is, of course, *Parkia biglobosa* which had been introduced from West Africa. The circular seems to contain the first use of the name *Inga faeculifera* and, as it was distributed to travellers and botanists, it seems to me that the name is validly published. A copy of the circular (No. 71) is bound (as BM Add. MSS 32440:373) in the Brown correspondence preserved in the Department of Manuscripts at the British Library:

*INGA FAECULIFERA *W. Ham.*, 'Circ. Desir. W. Ind. P1.': [1] (1824); *Desv. W. Ham.*, *Prodr. P1. Ind. Occ.*: 61 (1825, *fide Pharm. J.*6: 323

**PARKIA BIGLOBOSA* (Jacq.) R.Br. ex. G. Don f. in *Loud. Hort. Brit.*: 277 (1830).

ACKNOWLEDGMENTS

I am grateful to Dr. Benl and Mr. Crabbe for assistance with the Madeira ferns, to Dr. Bramwell and Mr. Chater for advice on the flowering plant names, to Mr. Marshall for information on Brown's herbarium, and to Dr. Brummitt, Mr. Hepper and Dr. Verdcourt for critically reading parts of the manuscript.

REFERENCES

- BOWDICH, T.E., 1825. *Excursions in Madeira and Porto-Santo during the autumn of 1823, while on his third voyage to Africa*. London: Whittaker.
- BURBIDGE, N.T., 1956. Robert Brown's Australian collecting localities. *Proceedings of the Linnean Society of New South Wales* 80: 229-233.
- BRITTEN, J., 1904. R. Brown's list of Madeira plants. *Journal of Botany, London* 42: 1-8, 39-46, 175-182, 197-200.
- CHEVALIER, A. 1935. Les îles du Cap Vert. Flore de l'Archipel. *Revue de Botanique appliquée et d'agriculture tropicale* 15: 733-1090.
- DAWSON, W., 1958 *The Banks Letters*. London: British Museum (Natural History).
- HEPPER, F.N. & F. NEATE, 1971. Plant collectors in West Africa. *Regnum Vegetabile* 74.
- KEAY, R.W.J., 1960. Early botanical collectors in West Africa. pp. 5-13 in R.W.J. KEAY' C.F.A. ONOCHIE & D.P. STANFIELD, *Nigerian Trees*, Vol. 1. Lagos: Fed.Govt. Printer.
- LOWE, R.T., 1868. *Manual flora of Madeira and the adjacent islands of Porto-Santo and the Desertas*. Vol. 1: London: Van Voorst.
- MABBERLEY, D.J., 1977. Francis Hamilton's Commentaries with particular reference to Meliaceae. *Taxon* 26: 523-540.
- McDONNELL, M.F.J., 1917. Foreign graves of British authors. *Notes and Queries* 12 ser., 3: 176-177.
- MAYR, E., 1963. *Animal species and evolution*. Cambridge, Massachusetts: Harvard Univ. Press.
- MULLER, K., 1954. *Die Lebermoose Europas*. Raben hoirst's Kryptogamen Flora 6 (1), 3rd ed. Leipzig: Akad. Verlag Geest & Portig K-G.
- WARD, W.E.F., 1966. Introduction to T.E. BOWDICH, *Mission from Cape Coast Castle to Ashantee*, 3rd ed. London: Cass.
- WILLIAMS, F.N., 1907. Florula gambica, une contribution à la flore de la colonie britannique de la Gambie [part 1]. *Bulletin de l'Herbier Boissier*, 2nd ser., 7: 681-696.