

THE TYPE SPECIMENS OF ROBERT GRAHAM

L. A. LAUENER & H. PAUL

ABSTRACT. The species described by Robert Graham, Regius Keeper of the Royal Botanic Garden, Edinburgh (1819-1845) in the *Edinburgh Philosophical Journal* (later the *Edinburgh New Philosophical Journal*) are listed. Brief details of the origin of the species, whether a type or other specimen of importance has been seen, and the current name as far as is known, are also given. Searches at Edinburgh, Florence and Kew herbaria have revealed a total of 74 type specimens representing 64 of Graham's species.

INTRODUCTION

The Edinburgh herbarium has often received requests for the loan of, or information about, Robert Graham type specimens because the descriptions were published in the *Edinburgh Philosophical Journal*, and because of Graham's association with Edinburgh. The purpose of this paper, therefore, is to list all the species described by Graham with a brief note about its source and the country of origin if known, the location of a type or otherwise important specimen, and any alternative name or identification. Even where types have not been found, we feel the information given will be of help, particularly to those without access to the *Edinburgh Philosophical Journal*.

Robert Graham was Regius Keeper of the Royal Botanic Garden, Edinburgh from 15 December 1819 until August 1845, the year in which he died, and Professor of Botany of Edinburgh University from 5 January 1820. He was also the first President of the Botanical Society of Edinburgh. Further details of Graham's career can be found in H. R. Fletcher and W. H. Brown *The Royal Botanic Garden, Edinburgh, 1670-1970*, pp. 99-112 (1970).

Between the years 1824 and 1842 Graham described many new species in volumes 11-14 (1824-26) of the *Edinburgh Philosophical Journal* and then in volumes 1-32 (1826-42) of the *Edinburgh New Philosophical Journal*. In the following text these two periodicals are abbreviated to 'E.P.J.' and 'E.N.P.J.'.

Graham's papers were entitled 'List of Rare Plants which have Flowered in the Royal Botanic Garden, Edinburgh, during the last three months'. The descriptions were based on these cultivated plants which were grown from seed or plants sent to Graham from various parts of the world, but sometimes the source or country of origin was not known. In these papers Graham did not always distinguish clearly between the new species he was describing and those rare species already described, but it is possible to separate them.

Over this period of 18 years, Graham described about 149 taxa, including one or two varieties. Most of these taxa were also featured in the *Botanical Magazine* and the publication dates in the *Philosophical Journal* and the *Botanical Magazine* were often very close. We have given the month of publication when the year is the same, and the date when the month is the same. In some cases, although perhaps not intentional,

publication in the *Botanical Magazine* was earlier than in the *Philosophical Journal*. Many of the *Botanical Magazine* articles were signed by Graham, others by Hooker. Occasionally the wrong author has been attributed to the species by various writers and attention is drawn to these errors. Graham often wrote for William Hooker (who succeeded him at Glasgow) for the *Botanical Magazine*, and it seems that these articles were sent to Hooker for his approval, perhaps with a specimen, and some of the specimens eventually finished up at Kew in Hooker's herbarium. Some which were with Hooker remained at Glasgow, where he worked for a while, but eventually came back to Edinburgh, on permanent loan, with the contents of the Glasgow herbarium, in 1965. These sheets are stamped GL and are cited E-GL. Other Graham type specimens have been found at Edinburgh, Kew and Florence. During a thorough search in these herbaria, 18 types have been found in E, 13 in E-GL, 28 in K and 15 in FI-W, a total of 74 types but representing 64 Graham species. In addition, many specimens have been found which could be important, in the absence of type specimens, for the typification of Graham's species. However, we have thought it expedient to leave the typification in such cases to the specialist in any particular genus who will undoubtedly have a greater knowledge of the material available.*

The handwriting on many Graham specimens in E is believed to be that of R. K. Greville and only some of the type specimens carry any notation in Graham's hand. Samples of Graham's handwriting are shown in Fig. 1.

After Graham died many of his books and herbarium collections were auctioned and sold. The *London Journal of Botany* (5:11-12, 1846) refers to the impending sale of the herbarium. The British Museum (Natural History) possesses a 'Catalogue of the Valuable Botanical Library and Extensive Herbarium of the late Robert Graham, F.R.S.' of which there is a copy in the Edinburgh Botanic Garden library. An examination of the various herbarium lots which were itemised in the Catalogue shows that lots 72-78 and lot 103 may have contained specimens pertaining to those species described by Graham, particularly lot 103 described as 'Miscellaneous Garden Specimens, named, about 230'. Lots 72-78 also 'contain garden specimens', some from particular geographical areas.

Some of Graham's herbarium was bought by Baron Delessert of Paris, and eventually went to Geneva. These sheets from Graham's herbarium bear a printed label 'Herb. R. Graham, purchased 1846'. The Director at Geneva kindly instigated a search there for any of Graham's types but none were found. It was thought also that there might be Graham specimens at the Fielding-Druce Herbarium, Oxford (OXF), at the Botany School Cambridge (CGE), and at the Jardin Botanique National de Belgique, Meise (BR), but no types have been found there either. It is interesting to note, however, that Meise does have a collection of 112 Scottish plants from the Graham herbarium. It was known that there were Graham specimens at Florence both from the *Index Herbariorum* (Collectors) and from a paper by Carlo H. Steinberg (*Webbia* 32(1): 1-49,

*Photographs of type and other specimens at Kew and Florence have been incorporated in the herbarium at Edinburgh.

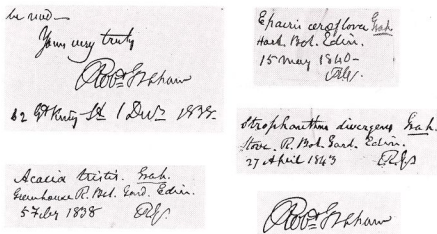


FIG. 1. Examples of Robert Graham's handwriting ($\times \frac{1}{2}$).

1977) entitled 'The collectors and collections in the Herbarium Webb'. Positive evidence of Graham types in the Webb herbarium (FI-W) was provided by Dr Michael Crisp of the National Botanic Gardens, Canberra, Australia (pers. comm.) and in June 1984 the senior author was able to visit Florence and look for Graham types.

It now seems evident that Graham's type specimens may only be in Edinburgh (including E-GL), Kew and Florence, and although we are of the opinion that we have found most of those still in existence, it is possible that a few more may yet be found.

In the text which follows the families and genera are arranged in alphabetical order so as to eliminate an index, but an appendix is provided to list separately the species for which a type has been found, other important specimens which may be useful for typification, and their location.

ACKNOWLEDGEMENTS

We are grateful to the Director of Kew (K) for permitting us to search the herbarium for Graham type specimens and to have them on loan. Our thanks are due also to the Curators at Oxford (OXF), Cambridge (CGE), to Professor G. Bocquet at Geneva (G), Dr P. Bamps at Meise (BR) and especially to Professor G. Moggi at Florence (FI), for their co-operation and willing help, and to Dr M. Crisp for his interest. At Florence, Mr Giuliano Aldobrandi and Mr Marcello Tardelli were of great assistance to the senior author and he is particularly indebted to the Edinburgh Botanic Garden Trust for providing funds for his visit to Florence and thus enabling the completion of this paper. Finally, we wish to acknowledge our appreciation to Mr B. L. Burtt for his help and guidance in assessing the type status of the specimens we have examined.

ACANTHACEAE

Thunbergia coccinea Wall. ex Graham in E.P.J. 14:150 (Jan. 1826); Hook., Fl. Exot. 3, t. 195 (Feb. 1826); Wall., Tent. Fl. Nap. 48, 58, t. 37 (Aug. 1826); Hook. in Bot. Mag. 85: t. 5124 (1859).

Ex Calcutta Botanic Garden in 1823. **Type E.**

It is quite clear that the name *T. coccinea* was supplied by Wallich but the species was first described by Graham.

AMARYLLIDACEAE

Alstroemeria aurea Graham in E.N.P.J. 15:181 (July 1833) & in Bot. Mag. 61: t. 3350 (1834)—non Meyen (1834); Lauener in Notes RBG Edinb. 42:50 (1984).

Plant ex Mr Low of Clapton, imported by Mr Anderson from Chiloe.

Type n.v.

Syn.: *A. aurantiaca* D. Don in Sweet, Brit. Fl. Gard. ser. 2, 3: t. 205 (Sept. 1833).

A. aurantiaca has been the accepted name for this taxon but it was published as *A. aurea* by Graham a few months earlier.

Alstroemeria neillii Gillies ex Graham in E.N.P.J. 11:376 (Sept. 1831) & in Bot. Mag. 58: t. 3105 (Oct. 1831).

Suspected to be seed ex Dr Gillies from Los Ojos de Agua, in the same packet as seeds of *A. pallida*. **Type n.v.**

= *A. spathulata* Presl, Rel. Haenk. 1(2):122, t. 22. f. 2 (1827); Uphof in Plant Life 8:51 (1952).

Alstroemeria pallida Graham in E.N.P.J. 7:344 (1829); Hook. in Bot. Mag. 58: t. 3040 (1831).

Seed ex Dr Gillies, S America. **Type K.**

The *Botanical Magazine* refers *A. pallida* to '*A. ligtu pulchra*'. It is not mentioned by Uphof (op. cit.) in his review of the genus.

APOCYNACEAE

Strophanthus divergens Graham in E.N.P.J. 3:177 (1827).

Seedling plants from Valleyfield (seat of Sir Robert Preston); Hort. Bot. Edin. 16 vi 1827. **Type E-GL.**

= *S. divaricatus* (Lour.) Hook. & Arn., Bot. Beech. Voy. 199 (1836); Tsiang & Li in Fl. Reipubl. Pop. Sin. 63:152 (1977).

There are also two other sheets in E and E-GL dated April and May 1843.

ARACEAE

Pothos coriacea Graham in E.P.J. 14:353 (April 1826); Hook., Exot. Fl. 3: t. 210 (May 1826).

Ex Captain Graham, H.M. Packet Service, from Rio de Janeiro, 1824.

Type n.v.

= *Anthurium coriaceum* (Graham) G. Don in Sweet's Hort. Brit. ed. 3, 633 (1839); Kunth, Enum. Pl. 3:68 (1841); Engler in Mart., Fl. Bras. 3(2):83, t. 10 (1878); Engler, Pflanzenr. 4(23A):144 (1920).

Engler & Drude cited Endlicher (*Gen. Pl.* 240, 1837) as the authority of the combination under *Anthurium* but Endlicher did not write the combination.

Pothos harrisii Graham in E.P.J. 14:353 (April 1826); Hook., *Exot. Fl.* 3: t. 211 (May 1826).

Ex Captain Graham, H.M. Packet Service, from Rio de Janeiro, 1824; Hort. Edin. e Brazilia. **Type K** (left hand specimen only).

= **Anthurium harrisii** (Graham) G. Don in Sweet's Hort. Brit. ed. 3, 633 (1839); Kunth, *Enum. Pl.* 3:70 (1841); Engler, *Pflanzenr.* 4(23A): 163 (1920).

Syn.: *A. harrisii* (Graham) Kunth var. *grahamianum* Engler in Mart., *Fl. Bras.* 3(2):88 (1878).

ASCLEPIADACEAE

Brachystelma crispum Graham in E.N.P.J. 9:170 (1 Sept. 1830) & in Bot. Mag. 57: t. 3016 (1 Sept. 1830).

Bulbs ex Mr Bowie, South Africa; Hort. Neill. **Type E.**

= **B. caudatum** (Thunb.) N. E. Brown in J. Linn. Soc., Bot. 17:169 (1878); R. A. Dyer in Fl. S Afr. 27(4):8 (1980).

Ceropegia lushii Graham in E.N.P.J. 16:175 (Jan. 1834); Hook. in Bot. Mag. 61: t. 3300 (Feb. 1834).

Tuber ex Mr Lush from Bombay. **Type? K.**

= **C. bulbosa** Roxb., Pl. Corom. 1:11, t. 7 (1795); Huber in Mem. Soc. Brot. 12:60 (1957).

Physianthus auricomus Graham in E.N.P.J. 30:207 (Jan. 1841) & in Bot. Mag. 68: t. 3891 (Aug. 1841).

Cutting from Hales Garden near Liverpool. **Type n.v.**

= **Schubertia graveolens** Lindley in Edwards' Bot. Reg. 24: Misc. 2 (1838); Fourn. in Mart., Fl. Bras. 6(4):296 (1885).

Graham reports the type as identical with *Gardner* 1757 from Brazil. There is a specimen from 'Garden of Caled. Hort. Soc.' dated 14 vi 1844 in FI-W which might be important for typification.

BEGONIACEAE

Begonia dipetala Graham in E.N.P.J. 5:169 (June 1828) & in Bot. Mag. 55: t. 2849 (Sept. 1828).

Seed ex Dr Johnston, Bombay. **Type n.v.**

A specimen from 'Stove, R.B.G. Edin.', dated 27 iii 1829 in FI-W could be used for typification.

Begonia diversifolia Graham in E.N.P.J. 8:183 (1829) & in Bot. Mag. 57: t. 2966 (1830).

Seeds via Captain Vetch from Rigla, Mexico to P. Neill, Cannonmills Nursery. **Type FI-W.**

A specimen in E is annotated '*Begonia diversifolia* Graham Oct. 1830'.

Botanical Magazine 136: t. 8322 (1910) states that *B. diversifolia*

Graham 'is now recognized as being only a state of *B. mattiana* Link & Otto'.

Begonia fischeri Otto ex Graham in E.N.P.J. 21:154 (July 1836) & in Bot. Mag. 63: t. 3532 (Nov. 1836); Otto & Dietr. in Allg. Gartenz. 4:354 (Nov. 1836)—non Schrank (1820).

Plant ex Berlin, 1835. **Type K** (left-hand specimen).

= *B. dietrichiana* Irmsch. in Bot. Jahrb. 76:60 (1953).

The authority for *B. fischeri* is usually ascribed to Otto & Dietr. but Graham used Otto's epithet in his description which was earlier by a few months.

Begonia insignis Graham in E.N.P.J. 6:173 (1828); Hook. in Bot. Mag. 56: t. 2900 (1829).

Plant ex Berlin Bot. Gard. under the name *B. ciliata* Kunth.; Stove, R.B.G. Edin., 5 xii 1828. **Type FI-W**.

Begonia papillosa Graham in E.N.P.J. 5:170 (April–June 1828); Hook. in Bot. Mag. 55: t. 2846 (Aug. 1828).

Plant ex Kew in 1824; Stove R.B.G. Edin., iv 1828. **Type FI-W**.

Lindley also described a *B. papillosa* in Edwards' Bot. Reg. 27: misc. 39 (1841) and it appears to have been intended as a new and separate species.

Another Graham sheet in FI-W is dated 25 vii 1830.

Begonia radiata Graham in E.N.P.J. 15:182 (1833).

Plant ex Berlin in 1832. **Type n.v.**

= *B. heracleifolia* Schldl. & Cham. in Linnaea 5:603 (1830); Lindley in Edwards' Bot. Reg. 20: t. 1668 (1834); Hook. in Bot. Mag. 62: t. 3444 (1835).

Begonia sinuata Graham in E.N.P.J. 24:192 (1838) & in Bot. Mag. 66: t. 3731 (1839)—non Wall. ex Meisn. (Aug. 1836) nec E. Meyer ex Otto & Dietr. (Nov. 1836).

Ex Berlin 1836. **Type n.v.**

= *B. homonyma* Steudel, Nomencl. ed. 2, 194 (1840); Burt in Notes RBG Edinb. 32:274 (1973); Hilliard in Fl. S. Afr. 22:41 (1976).

Begonia undulata Graham in E.N.P.J. 2:184 (1826); Schott in Spreng., Syst. 4, App. 408 (1827); Hook. in Bot. Mag. 54: t. 2723 (1827); A. DC. in Mart., Fl. Bras. 4(1):355 (1861).

Ex M. Otto, Berlin, from Brazil. **Type K**.

BROMELIACEAE

Bromelia cruenta Graham in E.N.P.J. 6:174 (1828).

Plant ex Capt. Graham, H. M. Packet Service via Mr Harris from Rio de Janeiro in 1824. **Type n.v.**

= *Neoregelia cruenta* (Graham) L. B. Smith in Contr. Gray Herb. no. 124:9 (1939).

Syn.: *Billbergia cruenta* (Graham) Hook. in Bot. Mag. 56: t. 2892 (1829).

CACTACEAE

Cereus napoleonis Graham in Bot. Mag. 63: t. 3458 (1 Jan. 1836) & in E.N.P.J. 20:190 (1 Jan. 1836).

Plant ex Mr Mackay, Clapton, 'about ten years ago'. **Type n.v.**

= **Hylocereus napoleonis** (Graham) Britton & Rose in Contr. U.S. Nat. Herb. 12:429 (1909).

Index Kewensis and other publications cite the *Bot. Mag.* as the first reference for *C. napoleonis*.

CAMPANULACEAE

Lobelia corymbosa Graham in E.N.P.J. 1:385 (Oct. 1826); Hook. in Bot. Mag. 53: t. 2693 (Nov. 1826)—non *L. corymbosa* Berg. (1767)=*L. comosa* L.

Seeds ex South Africa; Hort. Edin. 1826. **Type E.**

= **L. jasionoides** (A. DC) E. Wimm. in Pflanzenr. 106 (IV. 276b): 609 (1957).

There is a sheet in E-GL from Hort. Bot. Glasgow, 1828.

Lobelia crispa Graham in E.N.P.J. 1:173 (1826).

Seeds ex Lord Napier & Mr Mair. Native of Mexico; Hort. Reg. Edin., 3 vii 1826. **Type E-GL.**

= **L. fenestralis** Cav., Icon. 6:8, t. 512 f.l. (1801); E. Wimm. in Pflanzenr. 106 (IV. 276b): 556 (1957).

A specimen in FI-W is dated 17 vii 1829.

Lobelia kraussii Graham in E.N.P.J. 8:379 (March 1830) & in Bot. Mag. 57: t. 3012 (Sept. 1830).

Seeds ex Dr Krauss from Dominica. **Type E.**

Wimmer (*Pflanzenr.* 106 (IV. 276b): 623, 1957) put *L. kraussii* as a synonym of *L. persicifolia* Lam. but Rogers McVaugh annotated the type sheet in 1938 as 'apparently quite distinct from *L. persicifolia* Lam. of Guadeloupe'.

There are two sheets in EG-L, and a sheet in FI-W dated 23 v 1835.

Lobelia mollis Graham in E.N.P.J. 8:185 (1829).

Seeds ex Dr Krous (sic) from Dominica. **Type n.v.**

= **L. xalapensis** H.B.K., Nov. Gen. & Sp. 3:315 (1818); E. Wimm. in Pflanzenr. 106 (IV.276b): 531 (1957).

Lobelia odorata Graham in E.N.P.J. 16:178 (1834).

Seed ex Mr Tweedie. Mr Neill's Garden, 19 vii 1833. **Type FI-W; iso. K** (except specimen at bottom right hand corner).

= **Pratia hederacea** (Cham.) G. Don, Gen. Syst. 3:699 (1834); E. Wimm. in Pflanzenr. 106 (IV.276b): 114 (1957).

Lobelia robusta Graham in E.N.P.J. 11:378 (1831) & in Bot. Mag. 59: t. 3138 (1832)—non Wall. 1845.

Plant ex Dr Fischer, St Petersburg; Native of Hayti. **Type K.**

= *L. assurgens* L. var. *portoricensis* (A.DC.) Urb., Symb. Antill. 1:454 (1899); E. Wimm. in Pflanzenr. 106 (IV.276b): 631 (1957).

A specimen in FI-W is dated Oct. 1832.

Lobelia rugulosa Graham in E.N.P.J. 8:186 (1829).

Plant ex Messrs Young, nurserymen, Epsom; Native of New Zealand.

Type n.v.

= *Pratia angulata* (Forst. f.) Hook. f., Fl. Antarct. 1:43 (1844); E. Wimm. in Pflanzenr. 106 (IV.276b):110 (1957).

Specimen in E-GL dated 3 vi 1831 and another in FI-W dated 19 xi 1834.

Siphocampylus revolutus Graham in E.N.P.J. 30:429 (1841).

Seedling plants ex Mr Low of Clapton. **Type n.v.**

= *S. reticulatus* (Willd.) Klotzsch & Karsten apud Vatke in Linnaea 38:728 (1874); E. Wimm. in Pflanzenr. 106 (IV.276b): 285 (1957).

CELASTRACEAE

Euonymus scandens Graham in E.N.P.J. 2:386 (March 1827); Hook. in Bot. Mag. 54: t. 2767 (Sept. 1827) pro syn. sub *E. echinatus* Wall. ex Roxb.; Blakelock in Kew Bull. 1951:274 (1951).

Ex Calcutta Bot. Gard., 1823. **Type K.**

Graham (in E.N.P.J. 3:179, 1827) agrees with Hooker that *E. scandens* is synonymous with *E. echinatus* and not a new species, but Blakelock retained *E. scandens* as distinct.

COMMELINACEAE

Commelina formosa Graham in E.N.P.J. 9:366 (1830).

Seeds ex Mr Cruckshanks, Lima. **Type E.**

= *C. diffusa* Burm. f., Fl. Ind. 18, t. 7, f. 12 (1768).

COMPOSITAE

Baccharis alata Graham in E.N.P.J. 14:370 (1833); Loudon, Hort. Brit. ed. 2, (suppl. 2): 612 (1839).

Plant ex Berlin Bot. Gard. **Type n.v.**

Elephantopus martii Graham in E.N.P.J. 8:378 (1830); Mart. in Flora 20(2): Beibl. 104 (1837); Baker in Mart., Fl. Bras. 6(2):173 (1873) pro syn. sub *E. scaber* L. var. *tomentosus* (L.) Schulz Bip.

Seeds ex Mr Harris, Rio de Janeiro, via Capt. Graham, H. M. Packet Service; 'Brazil near Rio de Janeiro, Martius 136'. **Types E-GL, FI-W, K.**

= *E. tomentosus* L., Sp. Pl. 814 (1753).

The Kew sheet of *Martius* 136 bears a label saying 'type specimen named by J. G. Baker' and Graham also referred to a specimen collected by Martius. It seems apparent therefore that *Martius* 136 is a type of *E. martii*. The types above are of equal status but that in FI-W is not from Herb. Graham.

Elephantopus sericeus Graham in E.N.P.J. 10:373 (1831).

Seeds ex Dr Krous, Dominica, in 1829. **Type n.v.**

Erigeron humilis Graham in E.N.P.J. 6:175 (1828); Cronquist in Brittonia 6:237 (1947).

Seed presented by Dr Richardson, 1827, on his return from the Arctic shores of America. **Type n.v.**

Helichrysum niveum Graham in Bot. Mag. 67: t. 3857 (March 1840) & in E.N.P.J. 30:42 (April 1841)—non (L.) Less. (1832) nec Boiss. & Heldr. (1849).

Seed ex Mr Drummond, Swan River; Garden of Caledon. Hort. Soc. 1840. **Types FI-W, K.**

= **H. bracteatum** Willd. var. **albidum** DC., Prodr. 6:189 (1838); Benth., Fl. Austral. 3:621 (1866).

Podolepis gracilis Graham in E.N.P.J. 5:379 (1828); Hook. in Bot. Mag. 56: t. 2904 (1829); G. L. Davis in Proc. Linn. Soc. N.S.W. 81:268 (1957).

Seeds ex Mr Fraser, New South Wales; Hort. Edin. 1828. **Type E.**
Syn.: *Stylolepis gracilis* Lehm., Del. Sem. Hort. Hamb. 17 (1828).

Podotheca gnaphalioides Graham in E.N.P.J. 31:394 (1841) & in Bot. Mag. 68: t. 3920 (1842); Benth., Fl. Austral. 3:601 (1866).

Seeds ex Mrs Murray from Swan River. **Type K.**

Pyrethrum diversifolium Graham in E.N.P.J. 1:174 (1826); Hook., Exot. Fl. 3: t. 215 (1827).

Seed ex Mr Fraser, New Holland; Hort. Glasgow 1826. **Type? K.**

= **Brachycome diversifolia** (Graham) Fischer & C. Meyer, Ind. Sem. Hort. Petrop. 2:31 (1836); G. L. Davis in Proc. Linn. Soc. N.S.W. 73:199 (1948).

A specimen in FI-W is dated 1842.

Trixis auriculata Graham in E.N.P.J. 3:178 (June 1827); Hook. in Bot. Mag. 54: t. 2765 (Sept. 1827).

Plant ex Mr Otto, Berlin, under the name *Perdicium brasiliense*, which is a nom. nud.; Hort. Bot. Edin., 6 vi 1827. **Types E-GL** (top right specimen only), **K.**

= **T. antimenorrhoea** (Schrank) Mart. var. **auriculata** (Graham) Cabrera in Rev. Mus. Plat. n.s. 1 (Bot): 73 (1936).

Syn.: *T. divaricata* (H.B.K.) Spreng., Syst. 3:501 (1826).

Cabrera cited Hooker as the authority for *T. auriculata* but it was first described by Graham.

CRUCIFERAE

Arabis retrofracta Graham in E.N.P.J. 7:345 (1829).

Seed ex Captain Franklin's expedition to North America. **Type K.**

= **A. holboellii** Hornem. var. **retrofracta** (Graham) Rydberg in Contr. U.S. Nat. Herb. 3:484 (1896); Rollins in Rhodora 43:441 (1941).

Syn.: *Turritis retrofracta* (Graham) Hook., Fl. Bor.-Amer. 1:41 (1829).

Draba crassifolia Graham in E.N.P.J. 7:183 (1829); Hooker, Fl. Bor. Amer. 1:54 (1830); Mulligan in Can. J. Bot. 54:1389 (1976).

Seed ex Mr Drummond from Rocky Mountains; Hort. Bot. Edin. 1829. **Type E** (top specimen only).

Draba gracilis Graham in E.N.P.J. 5:172 (1828).

Seed ex Dr Richardson in 1827 from Northern coast of America. **Type n.v.**

= **D. nemorosa** L. var. **leiocarpa** Lindblom in Linnaea 13(1):333 (1839); Schulz in Pflanzenr. 89 (IV.105): 314 (1927).

Turritis patula Graham in E.N.P.J. 7:350 (1829); Hook., Fl. Bor.-Amer. 1:40 (1829); Hopkins in Rhodora 39:134 (1937); Rollins in Rhodora 43:480 (1941).

Seeds ex Captain Franklin's expedition to N America & Canada. **Type n.v.**

= **Arabis** sp.

Syn.: *A. patula* (Graham) Torrey, Bot. U.S. & Mex. Bound. Surv. 1:32 (1859)—non Host (1831).

A. bourgovii Rydberg in Mem. N.Y. Bot. Gard. 1:186 (1900).

Both Hopkins and Rollins discussed the difficulty of positive identification without seeing the type of *Turritis patula*.

Turritis stricta Graham in E.N.P.J. 7:350 (1829); Hook., Fl. Bor.-Amer. 1:40 (1829).

Seeds ex Mr Drummond, Rocky Mountains. **Type n.v.**

= **Arabis drummondii** Gray in Proc. Am. Acad. 6:187 (1866); Rollins in Rhodora 43:370 (1941).

EPACRIDACEAE

Epacris ceraeflora Graham in E.N.P.J. 13:168 (1832) & in Bot. Mag. 60: t. 3243 (1933).

Seeds ex Mr Newbigging & Rev E. Craig. Native of Van Diemen's Land (Tasmania). **Type K** (specimen on left hand side only).

= **E. impressa** Labill., Pl. Nov. Holl. 1:43, t. 58 (1805); Benth., Fl. Austral. 4:235 (1868).

Epacris nivalis Loddiges [Bot. Cab. 19: t. 1821 (1832) nom nud.] ex Graham in E.N.P.J. 15:183 (1 July 1833) & in Bot. Mag. 60: t. 3253 (1 July 1833).

Ex Garden of Messrs Loddiges introduced there by Mr H. M. Dyer. **Type n.v.**

= **E. impressa** Labill., Pl. Nov. Holl. 1:43, t. 58 (1805).

ERICACEAE

Arbutus pilosa Graham in E.N.P.J. 13:167 (July 1832) & in Bot. Mag. 59: t. 3177 (Aug. 1832).

Seed ex Mr Don, native of Mexico. **Type K.**

- = *Pernettya ciliata* (Schldl. & Cham.) Small in North Am. Fl. 29(1):82 (1914); Sleumer in Notizbl. Bot. Gart. Berl. 12:642 (1935).
Syn.: *P. pilosa* (Graham) G. Don, Gen. Syst. 3:837 (1834).
A specimen in FI-W is dated 21 xii 1832.

EUPHORBIACEAE

- Euphorbia cruentata* Graham in E.N.P.J. 13:361 (1832).
Seeds and specimens ex Mr Drummond from St Louis, N America;
R.B.G. Ed. 1832. **Type FI-W.**

- Omalthus populifolius* Graham in E.N.P.J. 3:175 (1827).
Seeds ex Mr Fraser, New Holland 1824; Hort. Edin. 18 ix 1827. **Type K.**
= *Homalthus populifolius* Graham; Airy Shaw in Kew Bull. 21:410 (1968).
Syn.: *Carumbium populifolium* (Graham) Benth., Fl. Austral. 6:150 (1873).

GENTIANACEAE

- Gentiana caespitosa* Graham in E.N.P.J. 9:367 (1830).
Seeds ex Capt. Franklin's last expedition to the arctic coasts of America. **Type n.v.**
= *G. glauca* Pall., Fl. Ross. 1(2):104, t. 93, f. 2 (1788); Hook., Fl. Bor. Amer. 2:59 (1837).

- Halenia fischeri* Graham in E.N.P.J. 9:174 (1830).
Seed ex Dr Fischer via Mr Hunneman from Dahurica. **Type n.v.**

GERANIACEAE

- Geranium costatum* Graham in E.N.P.J. 31:390 (1841).
Seed ex Dr Falconer, Cashmere. **Type n.v.**
This species is not listed in the *Index Kewensis*.

- Oxalis bipunctata* Graham in E.N.P.J. 3:176 (June 1827); Hook. in Bot. Mag. 54: t. 2781 (Nov. 1827).

Roots ex Mr Harris, via Captain Graham, H. M. Packet Service, from Rio de Janeiro, 1823. **Lectotype E.**

- = *O. debilis* H.B.K. var. *corymbosa* (DC.) Lourt. in Ann. Missouri Bot. Garden 67:840 (1981).
Syn.: *O. corymbosa* DC., Prodr. 1:696 (1824).

The lectotype chosen by Dr Lourteig is a Hort. Bot. Edin. specimen dated 1828, but it should be considered as a neotype.

HYDROPHYLLACEAE

- Eutoca sericea* Graham in E.N.P.J. 9:172 (June 1830) & in Bot. Mag. 57: t. 3003 (July 1830); Hook., Fl. Bor.-Amer. 2:79 (1837).
Seeds ex Mr Drummond from Captain Franklin's expedition to Arctic coasts of America; R.B.G. Edin., v 1830. **Type E-GL.**

- = *Phacelia sericea* (Graham) A. Gray in Amer. J. Sci. ser. 2, 34:254 (1862).

IRIDACEAE

Cypella drummondii Graham in E.N.P.J. 20:190 (1836).

Bulbs ex Mr Drummond from San Filipe. **Type n.v.**

= **Alophia drummondii** (Graham) Foster in Contr. Gray Herb. 155:34 (1945).

Syn.: *Alophia drummondiana* Herb. in Bot. Mag. 66: sub t. 3779 (1840), nomen superfl.

Ferraria elongata Graham in E.N.P.J. 9:173 (1830).

Bulb ex Mr Tweedie, Buenos Ayres. **Type n.v.**

= **Gelasine azurea** Herb. in Bot. Mag. 66: t. 3779 (1840); de Vos in J. S. Afr. Bot. 45:372 (1979)—fide B. L. Burt.

Libertia crassa Graham in E.N.P.J. 15:383 (1833).

Ex Mr Low, Clapton, imported from near Cape Horn by Mr Anderson. **Type n.v.**

Said to be conspecific with *L. formosa* (q.v.) in *Index Kewensis*.

Libertia formosa Graham in E.N.P.J. 15:383 (1833) & in Bot. Mag. 61: t. 3294 (1834).

Seed ex Mr Low, Clapton, imported from near the southern extremity of America by Mr Anderson. **Type n.v.**

Sisyrinchium macrocephalum Graham in E.N.P.J. 14:176 (Jan. 1833); F. W. Klatt in Linnaea 31:98 (1861–2); Johnston in J. Arn. Arb. 19:383 (1938).

Seeds ex Mr Tweedie, Buenos Ayres. **Type n.v.**

LABIATAE

Gardoquia gilliesii Graham in E.N.P.J. 11:377 (1831).

Seed ex Mr Gillies, Chile. **Type K.**

Syn.: *Satureia gilliesii* (Graham) Briq. in Pflanzenfam. ed. 1, IV.3a: 300 (1897); Epling & Játiva in Brittonia 16:403 (1964)—non (Benth.) Briquet (1897) based on *Hedeoma gilliesii* Benth. (1834).

Mentha? pumila Graham in E.N.P.J. 4:393 (1828); Hook. in Bot. Mag. 56: t. 2907 (1829), pro syn. sub *Mentha verticillata* D. Don.

Seeds ex Captain Macgill from Nepal; Stove, R.B.G. Edin. **Possible types:** 15 x 1828, E; 17 x 1828, FI-W.

= **Dysophylla pumila** (Graham) Benth. in Wall., Pl. Asiat. Rar. 1:30 (1830).

Although *M. pumila* was described in March 1828 and the Edinburgh specimen is dated 15 Oct. 1828, and the Florence specimen 17 x 1828, in the absence of other specimens they are considered possible type material. Another specimen in E-GL is labelled '*Mentha verticillata* Hook., *M. pumila* Graham, cult. Dr Hooker'.

Monarda menthaefolia Graham in E.N.P.J. 7:347 (1829) & in Bot. Mag. 57: t. 2958 (1830); McClintock & Epling in Univ. Calif. Publ. Bot. 20:168 (1942).

Seeds ex Mr Drummond from between Norway House and Canada.
Type K (the two right hand specimens only).

= *M. fistulosa* L. var. *menthifolia* (Graham) Fernald in *Rhodora* 3:15 (1901); Scora in *Univ. Calif. Publ. Bot.* 41:36 (1967).

LEGUMINOSAE

Acacia decipiens (C. Koen.) R. Br. var. *praemorsa* Graham in *E.N.P.J.* 14:370 (April 1833) & in *Bot. Mag.* 60: t. 3244 (June 1833).

Plant ex Mr Knight, King's Road Nursery, presumably imported by Mr Baxter. **Type n.v.**

= *A. littorea* Maslin in *Nuytsia* 2(5):311, f. 16 (1978).

Acacia tristis Graham in *Bot. Mag.* 62: t. 3420 (1835) & in *E.N.P.J.* 20:189 (1836).

Seeds ex Mr Fraser, from New Holland. **Type n.v.**

= *A. armata* R. Br. in Aiton, *Hort. Kew*, ed. 2, 5:463 (1813); Benth., *Fl. Austral.* 2:347 (1864).

There is an important specimen from 'Greenhouse, R.B.G. Edinb.' dated 5 ii 1838 in E and a duplicate in FI-W.

Bossiaea tenuicaulis Graham in *E.N.P.J.* 29:171 (1840) & in *Bot. Mag.* 68: t. 3895 (1841).

Seeds ex Mr Cooper, Wentworth House from Van Diemen's land (Tasmania). **Type n.v.**

= *B. cinerea* R. Br. in Aiton, *Hort. Kew* ed. 2, 4: 268 (1812); Benth., *Fl. Austral.* 2:160 (1864).

Cassia opaca Graham in *E.N.P.J.* 4:173 (1827); Vog., *Syn. Cassiae* 42 (1837).

Plant ex Mr Ferguson's gardener from Raith from seeds ex Prof. Leslie in 1825 from S America. **Type n.v.**

Chorizema baxteri Graham in *E.N.P.J.* 11:187 (June 1831).

Seed under *Mirbelia* ex Rev. David Landsborough from New Holland; Greenhouse B. Gdn. 21 iv 1831. **Types FI-W, K.**

= *Oxylobium scandens* (Sm.) Benth. in *Ann. Wien. Mus.* 2:70 (1838); Benth., *Fl. Austral.* 2:20 (1864).

Syn.: *Chorizema scandens* Sm. in *Trans. Linn. Soc.* 9:253 (1808).

Podolobium scandens (Sm.) DC., *Prodr.* 2:103 (1825).

Mirbelia baxteri Lindley in *Edwards' Bot. Reg.* 17: t. 1434 (Sept. 1831). (Lindley makes no reference to *Chorizema baxteri*.)

Chorizema dicksonii Graham in *E.N.P.J.* 26:194 (Jan. 1839) & in *Maund, Botanist* 3: t. 106 (Feb. 1839); Benth., *Fl. Austral.* 2:27 (1864).

Seed ex Mrs Murray of Lintrose, Forfarshire to James Dickson & Son from Swan River. **Type n.v.**

Index Kewensis & *Fl. Austral.* gives the place of publication of this species as *Maund, Botanist*, but evidence points to it having been described one month earlier in *E.N.P.J.* (Dates of *Maund, Botanist* in *Journ. Bot.* 56:242, 1918).

Crotalaria dichotoma Graham in E.N.P.J. 2:186 (1826); Hook. in Bot. Mag. 54: t. 2714 (1824)—non Heyne ex Roth (1821) nec Boj. ex Sweet (1830).

Seed ex Dr Mair in 1824, from Mexico. **Type K** (left hand specimen only).

= **C. pumila** Ortega, Hort. Bot. Matrit., Dec. 2:27 (1797); Senn in Rhodora 41:358 (1939).

Edwardsiana macnabiana Graham in E.N.P.J. 26:195 (Jan. 1839) & in Bot. Mag. 66: t. 3735 (July 1839).

Origin at R.B.G. unknown. **Type n.v.**

= **Sophora microphylla** Aiton subsp. **macnabiana** (Graham) Yakovl. in Trudy Lening. Khim. farm. Inst. 21:57 (1967).

Gompholobium polymorphum R. Br. var. **luteum** Graham in E.N.P.J. 8:184 (1829).

Imported from New Holland by F. Henschman Esq. and sent to R.B.G. Edin. by Mr Mackay. **Type n.v.**

It appears that Graham intended this to be a new variety as he made no reference to any other publication.

Hedysarum nutans Graham in E.N.P.J. 5:173 (June 1828); Hook. in Bot. Mag. 55: t. 2867 (Nov. 1828).

Plants ex Bot. Gard. Calcutta from Dr McWhirter in 1823. **Type n.v.**

= **Desmodium elegans** DC. var. **nutans** (Graham) Ohashi in Fl. E. Himal. 2:297 (1971).

H. nutans has been attributed to Hooker but it was first described by Graham. Two important specimens are at E both annotated 'stove R.B.G. Edin.', one dated 17 Oct 1828, the other 22 Nov. 1829.

Kennedia comptoniana Link var. **quinquefolia** Graham in E.N.P.J. 13:169 (1832).

Seed ex Mr Fraser from New Holland. **Type n.v.**

Although Graham did not provide a latin description this variety is validly published.

= **Hardenbergia comptoniana** Benth. in Endl., Enum. Pl. Hueg. 41 (1837); Stapf in Bot. Mag. 149: t. 8992 (1924).

Lupinus incanus Graham in Bot. Mag. 60: t. 3283 (Dec. 1833) & in E.N.P.J. 16:178 (Jan. 1834); Burkart in Cabrera, Fl. Prov. Buen. Aires 3:540 (1967).

Seed ex Mr Tweedie, Buenos Ayres; Mr Neill's Garden, 5 vii 1833. **Type E.**

Mirbelia angustifolia Graham in E.N.P.J. 26:197 (1839).

Seed ex Mr Spiers of Culcreuch, from New Holland; Bot. Gard. Edin. 18 v 1838. **Type FI-W.**

= **M. rubiifolia** (Andr.) G. Don, Gen. Syst. 2:126 (1832).

Pultenaea cordata Graham in Bot. Mag. 62: t. 3443 (1835) & in E.N.P.J. 20:195 (1836).

Seeds ex Campbell Ridell from Van Diemen's land (Tasmania). **Type n.v.**

= *P. juniperina* Labill. var. *latifolia* Benth. in Fl. Austral. 2:131 (1864).

LILIACEAE

Allium paradoxicum Fisch. ex Graham in E.N.P.J. 11:186 (1831)—not to be confused with *A. paradoxum* (Bieb.) G. Don (1827) from the Caucasus.

Bulbs ex Dr Fischer of St Petersburg from the banks of the Volga. **Type n.v.**

We can find no other reference to this species.

There is a specimen in FI-W labelled 'Hort. Bot. Edin.' and dated 10 v 1832 which could be used for typification.

Dracaena obtecta Graham in E.N.P.J. 3:175 (1827); Hooker in Bot. Mag. 55: t. 2835 (1828), pro syn. sub *Dracaena australis* Forst.

Seed ex Mr Fraser 1820, from New Holland. **Type n.v.**

= *Cordyline obtecta* (Graham) Baker in J. Linn. Soc., Bot. 14:543 (1875).

Syn.: *C. baueri* Hook. f. in Gard. Chron. 1860:792 (1860).

Fritillaria cuprea Graham in E.N.P.J. 20:192 (1836).

Imported from Mexico? **Type n.v.**

= *Calochortus barbatus* (H.B.K.) Painter in Contr. Nat. Herb. 13:348 (1911); Ownbey in Ann. Missouri Bot. Gard. 27:525 (1940); Beetle in Madroño 7:158 (1944).

Fritillaria leucantha Fischer ex Graham in E.N.P.J. 11:190 (June 1831); Hook. in Bot. Mag. 58: t. 3083 (July 1831).

Ex Dr Fischer, from Altaica. **Type n.v.**

= *F. verticillata* Willd., Sp. Pl. 2:91 (1799); A. Los. in Fl. URSS. 4:316 (1935).

Syn.: *Imperialis leucantha* Fischer, nom. nud.

F. leucantha Fischer ex Schult., Syst. Veg. 7(1):397 (1829), nom. nud.

Milla uniflora Graham in E.N.P.J. 14:174 (1833) & in Bot. Mag. 61: t. 3327 (1834).

Bulbs ex Mr Tweedie, Buenos Ayres. **Type n.v.**

= *Ipheion uniflorum* (Graham) Raf., Fl. Tellur 2:12 (1837); W. T. Stearn in Gard Chron. ser. 3, 114:60 (1943); H. E. Moore in Gentes Herb. 8:294 (1953).

A specimen in E-GL annotated 'Dry banks & old pastures, Buenos Ayres, Tweedie', could be useful for typification. There is also a specimen in FI-W dated 2 iv 1836, from Canonmills.

Phalangium longifolium Graham in E.N.P.J. 10:171 (1830).

Bulbs ex Mr Cruckshanks from Lima. **Type n.v.**

May be an *Anthurium* but we can find nothing in the literature about Graham's species.

LOASACEAE

Loasa incana Graham in E.N.P.J. 10:169 (1830) & in Bot. Mag. 58: t. 3048 (1831); Macbride in Field Mus. Nat. Hist. (Bot.) 13(5):155 (1941).

Seed ex Mr Cruckshanks from Yazo, valley of Canta in Peru, 1830.
Type E.

Loasa patula Graham in E.N.P.J. 4:174 (1827).

Seed ex Dr Fischer, Göttingen, as *Blumenbachia insignis*. **Type n.v.**

= *Blumenbachia insignis* Schrader in Gött. Gel. Anz. 3:1705 (1825); Hook. in Bot. Mag. 55: t. 2865 (1828).

A specimen in E-GL annotated 'Hort. Bot. Ed.' and dated 14 iv 1828, four months after the description, could be useful for typification.

Loasa pinnata Graham in E.P.N.J. 32:403 (1842)—non Ruiz & Pav. apud Lopez (1958).

Seed ex London Hort. Soc., native of Mexico. **Type n.v.**

Graham's name is validly published and precedes *L. pinnata* Ruiz. & Pav. apud Lopez in An. Inst. Bot. A. J. Cavanilles 16:421 (1958).

MALPIGHIACEAE

Heteropteris fulgens Graham in E.N.P.J. 4:391 (1828).

Source unknown. **Type n.v.**

= *H. nitida* (Lam.) H.B.K., Nov. Gen. & Sp. 5:163 (1821), in obs.

There is a specimen in E annotated 'Heteropteris fulgens Grah. Phil. Journ., Hort. Bot. Edin. Dr Graham 1831', and another in E-GL 'Hort. Bot. Ed. 1829'. Both sheets might be significant for typification.

MALVACEAE

Hibiscus divaricatus Graham in E.N.P.J. 9:367 (1830); F. D. Wilson in Austral. J. Bot. 22:170 (1974).

Seed ex Mr Goodsir, New Holland, probably Morton Bay. **Type n.v.**

Wilson (loc. cit.) has designated *R. Brown* 5124 (BM) as neotype.

Hibiscus splendens Fraser ex Graham in E.N.P.J. 9:175 (June 1830) & in Bot. Mag. 57: t. 3025 (Nov. 1830); F. D. Wilson in Austral. J. Bot. 22:165 (1974).

Seed ex Mr Fraser, New Holland. **Type K.**

A sheet in E annotated 'Hastings River, N. Holld., Fraser 1825' was selected by Wilson (loc. cit.) as a neotype, but he was presumably unaware that an original type existed at Kew, as only the Edinburgh material had been sent to him on loan.

Malva crecana Graham in Bot. Mag. 65: t. 3698 (1838) & in E.N.P.J. 26:420 (1839).

Ex Mr Pince, Nurseryman, Exeter. **Type n.v.**

= ?*Sphaeralcea munroana* (Douglas) Spach subsp. *subrhomboidea* (Rydberg) Kearney in Univ. Calif. Publ. Bot. 19:85 (1935).

Syn.: *S. creeana* (Graham) Sprague & Sandwith in Kew Bull. 1929:203 (1929).

A Graham specimen in E dated 15 v 1840 could be important for typification.

Palavia rhombifolia Graham in E.N.P.J. 9:369 (1830) & in Bot. Mag. 58: t. 3100 (1831).

Seed ex Mr Cruckshank, Lima. **Possible type E-GL.**

An undated specimen in E-GL labelled 'Palavia rhomboidea, Bot. Gard. Ed., Dr Graham' is a possible type.

MARANTACEAE

Maranta secunda Graham in E.P.J. 12:357 (1825).

Ex Captain Graham, H. M. Packet Service from Rio de Janeiro, 1824; Hort. Edin. from Brazil, 1825. **Type K.**

= *Ctenanthe setosa* (Roscoe) Eichler in Ab. K. Pruss. Akad. Wissen, Berlin, 84 (1883); K. Schum. in Pflanzenreich 11 (IV.48): 154 (1902).

MELASTOMATACEAE

Arthrostemma nitida Graham in E.N.P.J. 12:186 (1831) & in Bot. Mag. 59: t. 3142 (1832).

Seeds ex Mr John Tweedie of Buenos Ayres from the Banda Oriental.

Type n.v.

= *Tibouchina nitida* (Graham) Cogn. in Mart., Fl. Bras. 14(3):404 (1885).

Osbeckia canescens E. Meyer ex Graham in E.N.P.J. 28:399 (1 April 1840) & in Bot. Mag. 66: t. 3790 (1 April 1840).

Ex Berlin, Hort. Bot. Edin. 3 ix 1839. **Type E-GL** (from S Africa).

= *Dissotis canescens* (E. Meyer ex Graham) Hook. f. in Oliver, Fl. Trop. Afr. 2:453 (1871); J. H. Ross, Fl. Natal 261 (1972).

Syn.: *Osbeckia incana* E. Meyer ex Hochst. in Flora 27:424 (1845-46).

Argyrella incana (E. Meyer ex Hochst.) Naud. in Ann. Sc. Nat. sér. 3, 13:300, t. 6, f. 7 (1849).

Dissotis incana (E. Meyer ex Hochst.) Triana in Trans. Linn. Soc. 28:58 (1871).

MYOPORACEAE

Stenochilus viscosus Graham in E.N.P.J. 6:387 (Mar. 1829) & in Bot. Mag. 56: t. 2930 (Aug. 1829).

Seeds imported from New Holland by Mr F. Henchman; described from plant raised by Mr Mackay, Clapton. **Type n.v.**

= *Eremophila glabra* (R. Br.) Ostenf. in Dansk. Vidensk. Selsk. Biol. Medd. 3:119 (1921); L. S. Smith in Contr. Queensl. Herb. no. 19:41 (1975).

ONAGRACEAE

Oenothera perampla Graham in E.N.P.J. 13:362 (1832).

Seeds ex Mr Cruckshanks, probably from Lima. **Type n.v.**

ORCHIDACEAE

Bletia patula Graham in E.N.P.J. 21:155 (July 1836) & in Bot. Mag. 63: t. 3518 (Sept. 1836).

Ex Dr Fischer, St Petersburg, 'marked as a native of Hayti'; R.B.G. Ed. 28 x 1834. **Type FI-W.**

Cited in Index Kewensis as *B. patula* Hook.

Cattleya intermedia Graham in E.N.P.J. 5:170 (June 1828) & in Bot. Mag. 55: t. 2851 (Sept. 1828); Cogn. in Mart., Fl. Bras. 3(5):222 (1898-1902).

Plant from Mr Harris, via Captain Graham, 1824, Rio Janeiro. **Type n.v.**

Liparis walkeriae Graham in E.N.P.J. 20:194 (1836) & in Bot. Mag. 66: t. 3770 (1839); Ridley in J. Linn. Soc., Bot. 22:277 (1886); Bhattacharjee in Amer. Orchid. Soc. Bull. 47:688 (1978).

Plant ex Mrs Colonel Walker, Ceylon, 1834. **Type n.v.**

Maxillaria aromatica Graham in E.N.P.J. 1:173 (1826); Hook., Exot. Fl. 3: t. 219 (1826-7).

Bulbs ex Lord Napier, Mexico, 1825. **Type n.v.**

= *Lycaste aromatica* (Graham) Lindley in Bot. Reg. 29: misc. p. 16 (1843).

PASSIFLORACEAE

Passiflora alata Dryand. var. **pedunculata** Graham in E.N.P.J. 3:177 (1827).

Seed ex Captain Graham, H. M. Packet Service, from Rio de Janeiro in 1823. **Type n.v.**

This variety is not listed under *P. alata* by Killip in the 'American Species of Passifloraceae' (*Field. Mus. Nat. Hist. (Bot.)* 19:339, 1938).

PENAEACEAE

Penaea imbricata Graham in E.N.P.J. 3:177 (1827) & in Bot. Mag. 55: t. 2809 (1828).

Seeds ex Mr Aiton 1823, from Cape of Good Hope. **Type n.v.**

= *Brachysiphon fucatus* (L.) Gilg. in Bot. Jahrb. 18:520 (1894); R. Dahlgr. in Opera Bot. 18:28 (1968).

POLEMONIACEAE

Polemonium richardsonii Graham in E.N.P.J. 4:175 (1827); Hook. in Bot. Mag. 55: t. 2800 (1828).

Seeds ex Dr Richardson, Great Bear Lake in 1825. **Type n.v.**

= *Polemonium boreale* Adams in Mém. Soc. Nat. Mosc. 5:92 (1817); Davidson in Univ. Calif. Publ. Bot. 23:241 (1947-51).

On a sheet at Kew there are several collections of *Polemonium boreale* including four on the lower right-hand side labelled '*P. richardsonii* Bot. Mag.'. These may also be the specimens referred to under *P. capitatum* Benth. in A. DC., *Prodr.* 9:317 (1845). The sheet was annotated *P. boreale*

Adams by Davidson in 1947 but he has not indicated any type status for *P. richardsonii*. Nevertheless, we consider these specimens could be important for typification.

PRIMULACEAE

Androsace linearis Graham in E.N.P.J. 7:179 (1829).

Seed ex Mr Drummond, North America; Hort. Bot. Ed. 3 vi 1825.

Type E-GL.

= **Androsace occidentalis** Pursh, Fl. Am. Sept. 1:137 (1814).

There is a sheet in E-GL annotated 'Hort. Bot. Ed. 3 vi (18) 25' which we consider to be a type.

PROTEACEAE

Anadenia manglesii [Hort. ex] Graham in E.N.P.J. 27:189 (1839); Hook., Ic. Pl. 4, t. 337 (1841).

Plant ex Mr Lowe, Clapton—probably from New Holland; Bot. Gard. Edin. 25 vii 1839. **Possible type E-GL.**

= **Grevillea glabrata** (Lindley) Meisn. in Lehm., Pl. Preiss. 1:549 (1845), 2:255 (1848) & in A. DC., Prodr. 14:391 (1857); Benth., Fl. Austral. 5:486 (1870).

Syn.: *Manglesia glabrata* Lindley, Sketch Veg. Swan R., 37 (1840).

Conospermum acinacifolium Graham in E.N.P.J. 1:171 (1826).

Seeds ex Mr Fraser, New Holland. **Type n.v.**

Benth., Fl. Austral. 5:370 (1870) states that *C. acinacifolium* is probably the same as *C. longifolium* Sm. var. *angustifolium* R. Br.

Grevillea pubescens Graham in E.N.P.J. 1:172 (1826); Hook., Exot. Fl. 3: t. 216 (1826-7).

Seeds ex Mr Fraser, New Holland. **Type n.v.**

= **G. baueri** R. Br. in Trans. Linn. Soc. 10:173 (1811); Benth., Fl. Austral. 5:443 (1870).

A specimen in E is annotated '*Grevillea pubescens* Hook. Hort. Bot. Ed. 14 4 28' (?)—i.e. after the date of publication, and so cannot be the type. It has been redetermined as *G. baueri*.

A specimen in K labelled '*G. pubescens* Hook. Exot. Fl.' is probably not a Graham type.

Persoonia pallida Graham in E.N.P.J. 6:177 (1828).

Seed ex Captain Wauch from New South Wales; specimen at Kew dated Dec. 1828 annotated '*P. acerosa*, prob. isotype of *P. pallida* Grah.' by L. A. S. Johnson in Oct. 1963. **Type K.**

= **P. acerosa** Sieber in Roem. & Schult., Syst. Mant. 3:269 (1827), type in K.

RANUNCULACEAE

Ranunculus schlechtendalii Hook. ex Graham in E.N.P.J. 7:188 (June 1829); Hook., Fl. Bor.-Amer. 1:21 (Sept. 1829).

Seed ex Mr Drummond, Rocky Mountains. **Type n.v.**

= *R. hispidus* Michx. var. *marilandicus* (Poir.) L. Benson in Amer. Mid. Nat. 40:84 (1948).

Although authorship of *R. schlechtendalii* was attributed to Hooker, who provided the MS name, Graham published it a few months earlier than Hooker.

ROSACEAE

Sieversia rosea Graham in E.N.P.J. 11:193 (1831).

Seeds ex Mr Drummond, Rocky Mountains; Hort. Bot. Ed. **Types** 3 vi 1831, E; R.B.G. Ed. 2 vi 1831, **FI-W**.

= *Geum triflorum* Pursh, Fl. Amer. Septentr. 2:736 (1814).

Syn.: *Erythrocoma triflora* (Pursh) E. L. Greene, Leaf. Bot. Observ. Crit. 1:175 (1906); Bolle in Repert. Spec. Nov. Regni Veg. Beih. 72:24 (1933).

RUBIACEAE

Aeginetia capitata Graham in E.N.P.J. 4:389 (Mar. 1828).

Seeds ex Mr Harris, Rio de Janeiro via Captain Graham. **Type** E.

= *Lipostoma capitatum* (Graham) D. Don in E.N.P.J. 8:168 (Dec. 1829); Schumann in Mart., Fl. Bras. 6(6):276 (1889).

Syn.: *Hedyotis campanuliflora* Hook. in Bot. Mag. 55: t. 2840 (July 1828).

Coccosypselum campanuliflorum (Hook.) Cham. & Schldl. in Linnaea 4(1):140 (1829).

Bouvardia splendens Graham in Bot. Mag. 66: t. 3781 (Feb. 1840) & in E.N.P.J. 28:397 (April 1840).

Ex James MacNab via Chiswick Garden; Experimental Garden 7 ix 1839. **Types**: **FI-W**; Hort. Ed. 1839, **K** (left-hand specimen).

= *B. ternifolia* (Cav.) Schldl. in Linnaea 26:98 (1854); Blackwell in Ann. Miss. Bot. Gard. 55:23 (1968).

Syn.: *B. triphylla* Salisb. var. *splendens* (Graham) Lindley in Edwards' Bot. Reg. 26: t. 37 (1840).

Portlandia daphnoides Graham in E.N.P.J. 30:206 (1841).

Plant ex Conde de Fernandina from Cuba; Bot. Gard. Edin. 18 viii 1840. **Type** **FI-W**.

= *Cubanola daphnoides* (Graham) Aiello in J. Arn. Arb. 60:112 (1979).

Aiello (loc. cit.) neotypified *P. daphnoides* with Rugel 374 (NY). However, the type material in Florence, although consisting of one flower only, must take precedence over the neotype.

RUTACEAE

Eriostemon gracile Graham in E.N.P.J. 16:175 (1834).

Seed imported from New Holland by Mr Cunningham. **Type** **n.v.**

= *Philotheca* sp. e descr.; P. G. Wilson in Nuytsia 1(1):119 (1970) under 'Excluded Names'.

SAXIFRAGACEAE

Mitella trifida Graham in E.N.P.J. 7:185 (1829); Hook., Fl. Bor.-Amer. 1:241 (1830); Rosend. in Bot. Jahrb. 50 suppl.: 381 (1914).

Seeds ex Mr Drummond, arctic coast America. **Type K.**

Saxifraga ferruginea Graham in E.N.P.J. 7:349 (1829); Engl. & Irmsch. in Pflanzenr. IV.117:69 (1919).

Seed ex Dr Richardson. **Type n.v.**

Syn.: *S. leucanthemifolia* auct. non Michx.; Hook., in Bot. Mag. 57: t. 2959 (1830) & Fl. Bor. Amer. 1:250 (1832).

Tiarella colorans Graham in E.N.P.J. 7:349 (1829).

Seed ex Mr Drummond from Rocky Mountains. **Type n.v.**

= *Heuchera glabra* Willd. in Roem. & Schult., Syst. Veg. 6:216 (1820); Hook., Fl. Bor. Amer. 1:236; t. 79 (1832).

SCROPHULARIACEAE

Calceolaria arachnoidea Graham in E.N.P.J. 5:371 (Sept. 1828) & in Bot. Mag. 55: t. 2874 (Dec. 1828).

Seeds ex Dr Gillies, Mendoza—collected by him in Chili. **Type n.v.**

There is a sheet in E-GL of *C. arachnoidea* annotated 'Hort. Bot. Ed. 8 vi 29'. Another sheet in E also bears the name '*C. tinctoria* Gill.' dated June 1829. *C. tinctoria* Gill. is a manuscript name given in synonymy by Hooker. Both sheets post-date the original description but could be important specimens. A third specimen in FI-W is dated 21 vii 1830.

Calceolaria connata Hook. ex Graham in E.N.P.J. 5:372 (1828); Hook. in Bot. Mag. 56: t. 2876 (1829).

Ex Bot. Gard. Glasgow which received plants from Mr Tait of Sloane Street Nursery in 1827 and seeds from Dr Gillies and from Mr Cruickshanks from La Guardia, Andes en route from St Jago de Chile to Mendoza; Hort. Edin. 1828. **Type E.**

Calceolaria purpurea Graham in E.N.P.J. 3:371 (Sept. 1827); Hook. in Bot. Mag. 54: t. 2775 (Oct. 1827).

Seeds ex Mr Cruickshanks, Cordilleras, Peru. **Possible type E-GL.** There is a sheet in E-GL from Hort. Bot. Ed. dated 3 vi [18]25.

Calceolaria thyrsiflora Graham in E.N.P.J. 5:373 (1828) & in Bot. Mag. 56: t. 2915 (1829).

Seeds ex Dr Gillies, Mendoza; Hort. Edin. 1828; **Type E; iso. E-GL.**

Collinsia heterophylla Buist ex Graham in Bot. Mag. 65: t. 3695 (1838) & in E.N.P.J. 26:195 (1839); Munz, Fl. S. Calif. 799 (1974).

Found by Nuttall on the Colombia, seeds ex Mr Buist. **Type n.v.**

Syn.: *C. bicolor* Benth. in Trans. Hort. Soc. London Ser. 2, 1:480 (1835)—non *C. bicolor* Rafin. (1824).

Conobea alata Graham in E.N.P.J. 10:168 (1830); Hook. in Bot. Mag. 58: t. 3067 (1831), pro syn. sub *Mimulus perfoliatus* H.B.K.

Seeds ex Mr D. Don from Mexico. **Type n.v.**

= **Leucocarpus alatus** (Graham) D. Don in Sweet, Brit. Fl. Gard. ser. 2, 2: t. 124 (1831).

Penstemon glaucus Graham in E.N.P.J. 7:348 (1829); Hook., Fl. Bor. Amer. 2:95 (1837), pro syn. sub *P. gracilis* Nutt.; Krautter in Contr. Bot. Lab. Univ. Penn. 3:165 (1908).

Seeds ex Mr Drummond after his return from the 2nd journey to British North America. **Type n.v.**

Penstemon procerus Douglas ex Graham in E.N.P.J. 7:348 (1829); Hook., Fl. Bor. Amer. 2:97 (1837); Krautter in Contr. Bot. Lab. Univ. Penn. 3:153 (1908), pro syn. sub *P. confertus* Douglas ex Lindley; Pennell in Contr. U.S. Nat. Herb. 20:365 (1920); Keck in Amer. Mid. Nat. 33:144 (1945).

Seed ex Mr Drummond (probably Saskatchewan). **Type n.v.**
Syn.: *P. micranthus* Nutt. in J. Acad. Nat. Sci. Philadelphia 7:45 (1834); Pennell in Acad. Nat. Sci. Philadelphia Monogr. 1:632 (1935).

Keck regards *P. confertus* as a distinct species. As explained by Pennell and Keck, the plant which Douglas intended as *P. procerus* is different from that described by Graham. Douglas' plant is *P. hesperius* Peck.

A specimen in FI-W is labelled 'Penstemon procerus R.B.G. Ed. 3 vi 1831'.

Torenia fimbriata Hook. ex Graham in E.N.P.J. 11:379 (Sept. 1831).

Seeds ex Mr Fraser from New Holland & ex Sir T. Brisbane.

Possible type: *T. scabra* Graham, **E-GL**.

= **Artanema fimbriatum** (Hook. ex Graham) D. Don in Sweet, Brit. Fl. Gard. ed. 2, 3: t. 234 (April 1834); Benth., Fl. Austral. 4: 495 (1868).
Syn.: *T. scabra* Graham in Bot. Mag. t. 3104 (Oct. 1831)—non *T. scabra* R. Br. (1810).

There is another undated sheet in E annotated '*Torenia scabra*, Hort. Bot. Ed., Dr Graham'. The descriptions and notes for *T. fimbriata* Hook. ex Graham and *T. scabra* Graham relate to the same plant.

SOLANACEAE

Browallia grandiflora Graham in E.N.P.J. 10:168 (1830); Lindley in Edwards' Bot. Reg. 16:1384 (Feb. 1831); Hook. in Bot. Mag. 58: t. 3069 (May 1831); Macbride in Field Mus. Nat. Hist. (Bot.) 13, 5-B(1):149 (1962).

Seeds ex Mr Cruckshanks, near Yazo, valley of Canta, Peru. **Type n.v.**

Nicotiana glauca Graham in E.N.P.J. 5:175 (June 1828) & in Bot. Mag. 55: t. 2837 (July 1828); Sendt. in Mart., Fl. Bras. 10:170 (1846); Goodspeed in Chronica Botanica 16:335, f. 59 (1954).

Seeds ex Mr Smith, Monkswood, Ayr from his son in Buenos Ayres, Argentina; Hort. Edin. 1828. **Type E**.

Nierembergia intermedia Graham in E.N.P.J. 14:175 (1833).

Seed ex Mr Tweedie, Buenos Ayres. **Type E.**

= **Petunia linearis** (Hook.) Paxton, Mag. Bot. 2:219 (1836); R. Millán in Darwiniana 5:543 (1941).

Syn.: *Salpiglossis linearis* Hook. in Bot. Mag. 58: t. 3113 (Nov. 1831) in nota & 60: t. 3256 (Aug. 1833).

Petunia intermedia (Graham) G. Don, Gen. Syst. 4:468 (1838); Miers in Hook., London J. Bot. 5:186 (1846); Sendt. in Mart., Fl. Bras. 10:198 (1846).

Nierembergia linariaefolia Graham in E.N.P.J. 11:378 (1831); R. Millán in Darwiniana 5:512 (1941).

Seeds ex Mr Tweedie, Buenos Ayres. **Type n.v.**

There is a specimen in E from the nursery of Dicksons & Co. d/d 28 vi 1900, but this, of course, is not a type specimen.

Petunia acuminata Graham in E.N.P.J. 5:378 (1828).

Seed ex Dr Gillies from Mendoza. **Type n.v.**

= **Nicotiana acuminata** (Graham) Hook. in Bot. Mag. 56: t. 2919 (1829); Goodspeed in Chronica Botanica 16:421, f. 92 (1954).

There is a specimen in E-GL annotated 'Nicotiana acuminata Hook. Hort. Edin. e semini Gilliesianus (Drawn) Dr Hooker', also a label saying Mendoza, J. Gillies. This may not be a Graham type but is an important specimen.

Salpiglossis atro-purpurea Graham in E.N.P.J. 4:176 (1827) & in Bot. Mag. 55: t. 2811 (1828).

Seeds ex Dr Gillies, hills 50 mls beyond Mendoza and seeds ex Mr Cruickshanks in 1826 from the Cordillera. **Lectotype E-GL.**

= **S. sinuata** Ruiz & Pavón, Syst. Veg. 163 (1798); D'Arcy in Ann. Missouri Bot. Gard. 65:720 (1978); A. T. Hunz. & Subils in Bot. Mus. Leaflets Harv. Univ. 27 (1/2):6 (1979).

There are two relevant specimens of *S. atro-purpurea* at E, one dated 1828 and an E-GL specimen not dated but marked 'Hort. Bot. Ed.' which was chosen by Hunziker & Subils as a lectotype.

Schizanthus hookeri Gillies ex Graham in E.N.P.J. 9:176 (1830) & in Bot. Mag. 58: t. 3070 (1831).

Seed ex Dr Gillies on Chilian side of Cordillera of the Andes. **Type K** (left-hand specimen only).

There is also a specimen in E-GL labelled 'S. hookeri n. sp. Gillies, Andes of Chile and Mendoza'.

Schizanthus porrigens Graham in E.P.J. 11:401 (1824).

No source given. Hort. Ed. **Type E.**

STERCULIACEAE

Lasiopetalum macrophyllum Graham in E.N.P.J. 31:390 (Oct. 1841) & in Bot. Mag. 68: t. 3908 (Nov. 1841); Benth., Fl. Austral. 1:262 (1863).

Seed ex Mr Richard Cunningham, New South Wales. **Type n.v.**

Rulingia corylifolia Graham in E.N.P.J. 13:171 (July 1832) & in Bot. Mag. 59: t. 3182 (Sept. 1832).

Plant ex Mr Knight, Kings Road. **Type K.**

STYLIDIACEAE

Stylidium drummondii Graham in E.N.P.J. 30:208 (1841).

Seeds ex Mr Drummond, Swan River. **Type n.v.**

= **S. reduplicatum** R. Br., Prodr. 568 (1810); Benth., Fl. Austral. 4:7 (1868).

Stylidium recurvum Graham in Bot. Mag. 68: t. 3913 (1841) & in E.N.P.J. 32:404 (1842).

Ex Mr Henderson's Nursery, Edgeware Road and Mr Jackman's Nursery, Kingston, Surrey; R.B.G. Edin. 18 v 1841. **Type FI-W.**

= **S. bulbiferum** Benth. in Hügel, Enum. 73 (1837) var. **macrocarpum** Benth., Fl. Austral. 4:31 (1869).

Note: Neither of Graham's species is mentioned in Mildbraed's Monograph of Stylidiaceae (*Pflanzenr.* IV.278, 1908).

THYMELAEACEAE

Pimelea hendersonii Graham in E.N.P.J. 26:197 (Jan. 1839) & in Bot. Mag. 66: t. 3721 (April 1839).

Seed ex Captain Cheyne, probably from King George's Sound, Australia. **Type n.v.**

= **Pimelea rosea** R. Br., Prodr. 360 (1810); Benth., Fl. Austral. 6:10 (1873).

Syn.: *P. rosea* R. Br. var. *hendersonii* (Graham) Meisn. in A. DC., Prodr. 14:503 (1857).

There is a Graham specimen in FI-W labelled '*P. rosea*, Hort. Bot. Edin. 17 vii 38', i.e. a year before *P. hendersonii* was described.

Pimelea intermedia [Hort. ex] Graham in E.N.P.J. 26:421 (1839)—non *P. intermedia* Lindley, Bot. Reg. t. 1439 (1831) quae = *P. glauca* R. Br.

Ex M. Makoy Liège. **Type n.v.**

The true identity of *P. intermedia* Hort. ex Graham is not known.

Pimelea nana Graham in E.N.P.J. 29:174 (July 1840) & in Bot. Mag. 67: t. 3833 (Nov. 1840); Meisn. in A. DC., Prodr. 14:508 (1857).

Plant ex Mr Low, Clapton, native of Swan River. **Type n.v.**

= **P. imbricata** R. Br., Prodr. 361 (1810); Benth., Fl. Austral. 6:21 (1873); pro syn. sub *P. imbricata* f. *pellifera*.

Syn.: *Calyptrostegia nana* (Graham) Endl., Gen. Pl. Suppl. 4(2):61 (1847).

There is a specimen in K, *Drummond* 553, received from Hugh Low, and in FI-W of *Drummond* 236 from Swan River, labelled *P. nana* Graham.

UMBELLIFERAE

Trachymene coerulea Graham in E.N.P.J. 5:380 (Sept. 1828); Burt in J. Bot. 79:44 (1941).

Seeds ex Mr Fraser, New South Wales 1827, marked 'native of the island of Baracha'. **Type n.v.**

Syn.: *Didiscus coeruleus* (Graham) Hook. in Bot. Mag. 55: t. 2875 (Dec. 1828).

There is a specimen in E annotated '*Didiscus coeruleus*, Hort. Bot. Glasg. ix 1849'.

VACCINIACEAE

Vaccinium humifusum Graham in E.N.P.J. 11:193 (1831).

Seeds ex Mr Drummond, Rocky Mountains, Capt. Franklin's expedition. **Type n.v.**

= *Gaultheria humifusa* (Graham) Rydberg in Mem. N. Y. Bot. Gard. 1:300 (1900).

Syn.: *G. myrsinites* Hook., Fl. Bor.-Amer. 2:35, t. 129 (1834), type in E-GL.

VERBENACEAE

Lantana hirta Graham in E.N.P.J. 2:186 (1826).

Ex Lord Napier 1825, native of Mexico. Seeds ex mountains of Arizaba or Real del Monte. **Type n.v.**

Lantana mollis Graham in E.N.P.J. 7:184 (1829).

Ex Mr Barclay, 1828, received at Buryhill from Mexico. **Type n.v.**

A specimen in FI-W from 'Stove, R.B.G. Edin.,' dated 31 iii 1831 could be used for typification.

Verbena barbata Graham in E.N.P.J. 4:176 (1827).

Plant ex Mr Hogg, New York, probably from Mexico. **Type n.v.**

Verbena tuberosa Graham in E.N.P.J. 29:174 (1840).

Plant ex garden of Dublin Society, understood to have been imported from Buenos Ayres. **Type n.v.**

= *Castelia cuneato-ovata* Cav. in Anal. Cienc. Nat. Madrid 3:134 (1801); Moldenke in Phytologia 6:235 (1958).

ALPHABETICAL LIST AND LOCATION OF GRAHAM TYPES AND OTHER IMPORTANT SPECIMENS

	E	E-GL	FI-W	K
<i>Aeginetia capitata</i>	x			
<i>Alstroemeria pallida</i>				x
<i>Anadenia mangliesii</i> *		x		
<i>Androsace linearis</i>		x		
<i>Arabis retrofracta</i>				x
<i>Arbutus pilosa</i>				x
<i>Begonia diversifolia</i>			x	
<i>Begonia fischeri</i>				x
<i>Begonia insignis</i>			x	
<i>Begonia papillosa</i>			x	
<i>Begonia undulata</i>				x
<i>Bletia patula</i>			x	
<i>Brachystelma crispum</i>	x			
<i>Bouvardia splendens</i>			x	x
<i>Calceolaria connata</i>	x			
<i>Calceolaria purpurea</i> *		x		
<i>Calceolaria thyrsiflora</i>	x	x		
<i>Ceropegia lushii</i>				x
<i>Chorizema baxteri</i>			x	x
<i>Commelina formosa</i>	x			
<i>Crotalaria dichtoma</i>				x
<i>Draba crassifolia</i>	x			
<i>Elephantopus martii</i>		x	x	x
<i>Epacris ceraeflora</i>				x
<i>Euonymus scandens</i>				x
<i>Euphorbia cruentata</i>			x	
<i>Eutoca sericea</i>		x		
<i>Gardoquia gilliesii</i>				x
<i>Helichrysum niveum</i>			x	x
<i>Hibiscus splendens</i>				x
<i>Loasa incana</i>	x			
<i>Lobelia corymbosa</i>	x			
<i>Lobelia crispa</i>		x		
<i>Lobelia kraussii</i>	x			
<i>Lobelia odorata</i>			x	x
<i>Lobelia robusta</i>				x
<i>Lupinus incanus</i>	x			
<i>Maranta secunda</i>				x
<i>Mentha pumila</i> *	x		x	
<i>Mirbelia angustifolia</i>			x	
<i>Mitella trifida</i>				x
<i>Monarda menthaefolia</i>				x
<i>Nicotiana glauca</i>	x			
<i>Nierembergia intermedia</i>	x			
<i>Omalanthus populifolius</i>				x
<i>Osbeckia canescens</i>		x		
<i>Oxalis bipunctata</i>	x			
<i>Palavia rhombifolia</i> *		x		
<i>Persoonia pallida</i>				x
<i>Podolepis gracilis</i>	x			
<i>Podotrichum gnaphalioides</i>				x
<i>Portlandia daphnoides</i>			x	
<i>Pothos harrisii</i>				x
<i>Pyrethrum diversifolium</i>				x
<i>Rulingia corylifolia</i>				x

*Possible type

	E	E-GL	FI-W	K
<i>Salpiglossis atropurea</i>		x		
<i>Schizanthus hookeri</i>				x
<i>Schizanthus porrigens</i>	x			
<i>Sieversia rosea</i>	x		x	
<i>Strophanthus divergens</i>		x		
<i>Stylidium recurvum</i>			x	
<i>Thunbergia coccinea</i>	x			
<i>Torenia scabra (fimbriata)*</i>		x		
<i>Trixis auriculata</i>		x		x

IMPORTANT SPECIMENS

<i>Acacia tristis</i>	x		x	
<i>Allium paradoxicum</i>			x	
<i>Begonia dipetala</i>			x	
<i>Calceolaria arachnoidea</i>	x	x	x	
<i>Hedysarum nutans</i>	x			
<i>Heteropteris fulgens</i>	x	x		
<i>Lantana mollis</i>			x	
<i>Loasa patula</i>		x		
<i>Lobelia rugulosa</i>		x	x	
<i>Malva creeana</i>	x			
<i>Milla uniflora</i>		x	x	
<i>Petunia acuminata</i>		x		
<i>Physianthus auricomus</i>			x	
<i>Polemonium richardsonii</i>				x

*Possible type