

## History of the Royal Botanic Garden, Edinburgh.

### PRINCIPAL GARDENERS.

Of the chiefs of the Garden-staff of the Royal Botanic Garden in its earliest years we have at present no record. Search through documents relating to the period may bring to light some information regarding them, but search of the kind demands more leisure than I am able to claim. From the year 1764, in which the Garden, under Professor John Hope, was for the first time recognised as claiming the direct financial support of the Crown, we have a record which, imperfect though it be, enables us to draw up the following list of the names of men who have held the position of head of the Garden-staff here :—

John Williamson,	Principal Gardener, 1756(?)–1780.
Malcolm M'Coig,	Principal Gardener, 1782–1789.
Robert Menzies,	Principal Gardener, 1789–1799(?)
John Mackay,	Principal Gardener, 1800–1802.
George Don,	Principal Gardener, 1802–1806(?)
Thomas Sommerville,	Principal Gardener, 1806(?)–1810.
William Macnab,	Principal Gardener, 1810–1848.
James Macnab,	Principal Gardener, 1849–1878.
John Sadler,	Curator, 1879–1882.
Robert Lindsay,	Curator, 1883–1896.
Adam Dewar Richardson,	Head Gardener, 1896–1902.
Robert Lewis Harrow,	Head Gardener, 1902.

I may say a word in explanation of the variation in title given to the chief of the Garden-staff in the foregoing table. All the earlier chiefs of the Garden-staff had the official designation, Principal Gardener. At the end of the eighteenth century it had

become usual on the part of the public to speak of this official as Superintendent, and in newspaper references this term is commonly made use of, although all official documents refer to the Gardener or Principal Gardener. This continued up to the appointment of William Macnab in 1810. James Macnab received no official appointment from the Crown; he was appointed verbally by the Regius Keeper of the day to succeed his father, an appointment confirmed subsequently by the Crown when in time the fact of the succession became known to it. James Macnab was spoken of by the public as Superintendent, but in his later years the newer title of Curator became the customary one. On James Macnab's death John Sadler was recommended for the post of Curator, and the Crown accepting without question the designation made the appointment, and the title was continued to his successor. On the retirement of Robert Lindsay the old designation of Gardener was reverted to.

### John Williamson.

He was Principal Gardener during the period in which the Royal Botanic Garden was established in Leith Walk, taking the place of the pre-existing gardens at Holyrood and at the east end of the North Loch. We have little knowledge of him beyond what is recorded on a memorial tablet in the Garden which bears :—

To the memory of | John Williamson, | who during twenty-five years of faithfull service | as Principal Gardener in this place, was no less | respected for the good qualities suited to his | station in life, than esteemed for eminent skill in | his profession, this monument is erected by | John Hope: PB: 1781. | Removed from the Botanic Garden, | Leith Walk, | 2nd September, 1823.

The words "this place" on the tablet are, in the strict sense, inaccurate, for the Garden was only established in Leith Walk in 1764, and Williamson to put in twenty-five years' service as Principal Gardener must have been appointed by Professor Alston—say in 1756. We may assume, however, from their use that the Royal Garden and the Town's Garden prior to their

combination had under the Regius Keeper and Professor one Principal Gardener, who was John Williamson.

The laying-out of the new Garden in Leith Walk was a matter of supreme interest to Professor Hope, and in John Williamson he had apparently an efficient coadjutor. Hugo Arnot,<sup>1</sup> describing the Garden in 1779, speaks of its development, and says "this rapid progress of the Garden was much owing to the skill and diligence of John Williamson, the Principal Gardener."

Of John Williamson's sympathetic collaboration in scientific work in the Garden there is evidence in a manuscript book marked, "A narrative of experiments made on trees in the Botanic Garden," which is amongst the books and papers of Professor Hope bequeathed to the Garden by the late John Hope, W.S. In this book there is an account of five experiments carried out in the year 1769. The subjects of investigation were the movement of the sap, the polarity of the branches, the growth of the wood in the stem, and the relation of the parts of the flower to the ripening of the seed. Examination of the records in the book lead to the conclusion that the daily observations and notes were made by John Williamson under the direction of Professor Hope. The outcome of the experiments is nowhere recorded, but the experiments themselves are of interest as giving us some idea of problems of plant-life that attracted attention in the eighteenth century, and they testify to the diligence and enthusiasm of John Williamson.

John Williamson died<sup>2</sup> in 1780 and was buried on 24th September of that year in St. Cuthbert's Burying Ground.<sup>3</sup> He left two sons, who lived in 8 Church Street, Edinburgh, one,

<sup>1</sup> Hugo Arnot, "The History of Edinburgh," 1779, p. 418, Footnote.

<sup>2</sup> The friendly intervention of the late Mr. John Hope, W.S., brought me into relation with Mr. Andrew F. Kedslie, 12 St. Vincent Street, Edinburgh, and through his kindness I have learned from his aunt, Mrs. Agnes Armand, great-granddaughter of John Williamson, that she has some recollection of being told by her mother that John Williamson was shot at and killed in Leith Walk. To the same source I am indebted for the information in the text regarding John Williamson's family.

<sup>3</sup> "John Williamson from the Botanest Gardens a turf."—*Register of St. Cuthbert's Burying Ground, September 24th, 1780.*

Samuel, who was educated by Professor Hope and became a doctor in the Indian service; the other, James, was blind. He also had a daughter, Nancy, who married the well-known Dr. Andrew Fyfe, Lecturer on Anatomy.<sup>1</sup>

The successor to Williamson apparently was not appointed at once for I find in the Pipe Roll<sup>2</sup> a record of payment of two guineas "to Mr. Knox for superintending the Garden after Mr. Williamson's death," and in the same Pipe Roll "John Bell, gardener," is credited with disbursements for the Garden, these being "wages and petty expenses," the amount of which, £109 17s. 8d., shows that he was acting as paymaster for some little time. John Bell does not seem to have been appointed Principal Gardener, and was perhaps the senior working gardener in the Garden acting at first under the direction of Mr. Knox, and subsequently taking independent charge. Whether a Mr. Richmond, who, according to the same Pipe Roll, received a sum of £2 3s. at this time—for what service is not stated—was also a temporary superintendent, perhaps following Mr. Knox, there is at present no means of deciding, but the position of his name in the Pipe Roll, and the amount and statement of the payment he received, make the conjecture that he so acted a legitimate one.

#### Malcolm M'Coig.

By the 1st January 1782 a new Principal Gardener had been appointed in the person of Malcolm M'Coig, and he continued in this position until his death on the 25th February 1789. He therefore survived Professor Hope, who died in 1787, and he was Principal Gardener when Professor Rutherford became Regius Keeper. Regarding M'Coig we have no further information as yet, but that he was a man of some vigour, and of better education than John Williamson, is shown by papers among our Hope MSS. assigned to his authorship by Professor Hope, in which he makes proposals for various changes in the laying-out of the Garden.

<sup>1</sup> "Last night was married Mr. Andrew Fyfe of this place to Nancy Williamson."—*Caledonian Mercury*, October 20th, 1787.

<sup>2</sup> Pipe Roll.—"The declaration of the accounts of Doctor John Hope, Regius Professor of Botany in the University of Edinburgh, of the money received and paid by him on account of the Botanic Garden there from 11th March 1769 to 1st January 1782."



### Robert Menzies.

On M'Coig's death Robert Menzies was appointed his successor. Of him we can tell little. He was probably a native of Weem in Perthshire, and was elder brother of Archibald Menzies, a distinguished botanist and traveller, who, as a young man, was also employed in the Botanic Garden, and apparently under his brother.<sup>1</sup> The Pipe Roll for the later years of the eighteenth century is missing from the series, and therefore I am not able to determine the exact date of the death of Menzies, but from a statement by Dr. Neill<sup>2</sup> we know that his successor in the Garden was appointed in February 1800.

### John Mackay.

The successor of Robert Menzies was John Mackay, brother of James Townsend Mackay, the distinguished botanist whose name will always be associated with the investigation of the flora of Ireland. John Mackay's name is familiar to British botanists, for it occurs frequently in the pages of British floras, but we depend for our knowledge of the incidents of his career upon the following memoir, from the pen of Dr. Neill, which appeared in the "Scots Magazine" for 1804:—

#### SHORT BIOGRAPHICAL MEMOIR OF THE LATE MR. JOHN MACKAY, SUPERINTENDENT OF THE ROYAL BOTANIC GARDEN AT EDINBURGH.

Almost two years have elapsed since the death of this excellent young botanist; and hitherto no account (as far as I have observed) has been given to the public, of his professional excellence, the progress he had made in botany, and the services he rendered to that science, or of the many amiable qualities of his personal character.

The writer of the following short memoir is conscious of his inability to do justice to the subject. But however imperfect his

<sup>1</sup> The biographical notices of Archibald Menzies in *Proc. Linn. Soc.*, vol. i. (1849), p. 139, and in the *D. N. B.*, give in error "William" as the name of this brother who was Principal Gardener of the Royal Botanic Garden.

<sup>2</sup> See below in the memoir of John Mackay.

account may be, he is certain that it will be gratifying, especially to Mr. Mackay's *botanical* friends, to see some faint memorial of his merits put upon record. The writer had the pleasure of living in habits of intimacy with him during the last three years of his life, and has since had the advantage of enjoying the friendship and confidence of his surviving brothers.

A life so short, and spent in study, cannot be expected to afford incidents for a formal or extensive biographical narrative. Mr. Mackay, indeed, never acted a conspicuous public part; he made no voyage of discovery, he published no botanical work. He was cut down almost at his very entrance into public notice. The materials therefore being scanty, the narrative must appear simple and concise, and not calculated to excite general interest. The most promising traces of future eminence will, however, be discerned, in the earliness of his passion for botany, his zeal in traversing the mountains of Scotland in search of plants, his uncommon assiduity in every pursuit he undertook, and the acuteness of his discriminating powers, as testified<sup>1</sup> by the most competent of judges, Dr. JAMES EDWARD SMITH, the President of the Linnean Society.

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Mr. JOHN MACKAY was born at Kirkcaldy, December 25, 1772. His father, Mr. Hugh Mackay (who survives him,) is professionally a gardener. His mother (who died many years ago) was Margaret Mitchel, from Auchinleck in Ayrshire.

While John was yet a boy at school he discovered a strong predilection for the cultivating of plants. Even at the age of 14 he had formed a very considerable collection of the rarer kinds of garden and hot-house plants. This was at Inveresk, whither his father had removed.

In the beginning of 1791 young John was placed in Dickson and Company's<sup>2</sup> nurseries, Leith Walk, unquestionably the most extensive and best conducted in Scotland, and a most excellent school for a young botanist.

<sup>1</sup> In Sowerby's "English Botany."

<sup>2</sup> George Don, hereafter referred to, was acquainted with the Dicksons. See Gardiner, *Flora of Forfarshire*, 1848, Introduction, p. xii.—*I. B. B.*

During a part of the summer of this year he assisted the late Mr. Robert Menzies (brother to Mr. Archibald Menzies, travelling botanist to the King) in serving to the Professor and students the plants required at the botanical lectures in the Royal garden Edinburgh. I can state, on good authority, that, in the short space of six weeks, this hopeful young botanist actually collected specimens of all the plants then growing in the botanic garden. For this purpose he rose very early in the morning; in this pursuit he spent the greater part of the different hours of remission allotted for meals; and at night, after all the fatigues of a long summer day, assorted his specimens by candle-light.

After having remained some time in the nurseries of Messrs. Dicksons, Mr. Mackay engaged himself at Hopetoun House, the fine garden and pleasure-grounds of which were then (as I believe they still are) under the care of Mr. Hosey. Here he first remarked plenty of the *euphorbia ezula* in the belts of planting near the palace, and the *silene nutans* on the banks near the frith. On the opposite shore, also, he at this time found the rare *astragalus uralensis*. While he remained at Hopetoun Mr. Mackay spent two hours every evening with a teacher of mathematics at Queensferry; and by this sedulous application, he made very considerable progress in that science.

Towards the close of 1792, he left Hopetoun, having been invited by Messrs. Dicksons to act as clerk to their nurseries,<sup>1</sup> and to take the charge of the more curious plants.

It was in the course of the next year<sup>2</sup> that he acquired, when at Glasgow, the acquaintance of Mr. George Don, well known amongst naturalists for his zeal in practical botany. Mr. Don was then by profession a clock and watch-maker, but spent generally about two days in the week in exploring the hills,

<sup>1</sup> His employment here led to his occasional designation as nurseryman by his correspondents in the South.—*I. B. B.*

<sup>2</sup> Don, in a letter to Mr. Winch, gives the date as 1791. See Memoir of George Don in these "Notes." If Mackay had been connected with Dicksons' nurseries from 1791 there would probably have been opportunities of his meeting Don before 1793, seeing that Don also was acquainted with the Dicksons, and the date 1791 given by Don is possible and not unlikely.—*I. B. B.*

rocks, and dales of his neighbourhood. He at this time<sup>1</sup> accompanied Mr. Mackay to the Alps of Scotland. They spent several days in exploring together the great mountain of Ben-Lawers in Bredalbane. Here Mr. Dickson of London had already found the *acrostichum ilvense*, lichen *croceus*, and *fuscoluteus*, &c. all of which occurred to our travellers. They likewise picked up *carex rigida*, originally observed by Dr. Walker, late Professor of Natural History at Edinburgh. They found, also, several plants of the very rare *gentiana nivalis*; and the *arenaria saxatilis* and *cerastium alpinum* were for the first time added to the British Flora by this expedition. On this occasion, also, Mr. Don discovered a new species of grass, which has not yet been scientifically described: it seems to rank under the genus *elymus*, and he has given it the trivial name of *alpinus*. Of this rarity he could find only two plants.

At Blair-in-Athol our botanists attracted the notice of the D[uke] of Athol, and his sister, Lady Charlotte Murray, who has rendered herself celebrated as a botanical writer. The Duke invited them to botanize Glen Tilt, and gave orders for their accommodation at his Grace's hunting lodge in that wild district. Upon a high rock immediately opposite the lodge, they found, within a narrow space, many rare alpine plants; *dryas octopetala*; *salices lapponica*, *reticulata* and *herbacea*; *pyrola secunda*; *carices capillaris* and *atrata*; *azalea procumbens*; *gnaphalium supinum*; and *saxifragæ oppositifolia* and *stellaris*.

Next summer it was concerted between our botanists that they should visit some of the Western Islands of Scotland in company. Mr. Don accordingly, at the appointed time, set out from Forfar (which had now become the place of his residence, and where he cultivated an immense variety of the rarest hardy plants<sup>2</sup> :)

<sup>1</sup> Although Dr. Neill uses this indefinite expression, we have confirmation of the date 1793 in Don's statement that he gathered *Arenaria rubella* in this year in company with Mackay. See Garry, "Notes on the Drawings for English Botany" in *Journal of Botany*, April 1903, p. 35.—*I. B. B.*

<sup>2</sup> If Dr. Neill's date be correct we have the time of Don's migration from Glasgow to Forfar fixed as the end of 1793 or beginning of 1794. See further regarding this on p. 61 of these "Notes."—*I. B. B.*

Mr. Mackay was to meet him; but being by some means detained a few days, they missed each other. Mr. Mackay, however, found no difficulty in tracing Mr. Don's route; the great length of his botanical spade,<sup>1</sup> and the singularity of his occupation in clambering rocks and mountains to get at *weeds*, having arrested the attention, and excited the astonishment of the honest Highlanders. Altho deprived of the advantage of mutual communication, several rare plants rewarded their labours. Besides most of those previously discovered by Dickson of Covent Garden in 1789 and 1790 (such as *Draba stellata*, *phleum alpinum*, *cherleria sedoides*, &c.) they found several species new to the Scottish Flora, as *juncus castaneus* (Jacquini) and *juncus biglumis*, *Saxifraga cernua*, and *Festuca calamaria*.<sup>2</sup>

This journey occupied sixteen weeks, which Mr. Mackay spent in unwearied botanizing. On the Highland mountains, when far from an inn, or other habitation he sometimes passed the night in a deserted *shealing*,<sup>3</sup> a temporary hut that had been raised by the native Highlanders some former season. In the Island of Sky Mr. Mackay discovered a *scirpus*, intermediate between *S. pauciflorus* and *palustris*, and which has received the name of *multicaulis*.<sup>4</sup>

The investigation and assortment of the ample stores of cryptogamia which he accumulated in this journey, occupied him during the evenings of the following winter. The mosses and lichens were all examined by candle-light, after the business of the day; and too often were his investigations pursued through the greater part of the night.

<sup>1</sup> An ash rod, fifteen feet in length, with an iron spaddle fixed to its end. The spaddle has a notch, which serves as a hook to pull down plants from inaccessible crevices in rocks.

<sup>2</sup> Statistical Account of Scotland, parish of Kenmore, by the Rev. Colin Macvean. The *festuca calamaria* is the non-descript grass referred to by the Reverend Author.

<sup>3</sup> During winter the Highlanders are collected into villages in the valleys; but they remove to the mountains every summer, in order to pasture their cattle. The whole family migrates: it is called the *summer flitting*. A temporary hut is reared on the hills: this hut is called a *shealing*. The term *shealing* is often used, also, to denote the range of summer pasture.

<sup>4</sup> Sir James E. Smith in *Flora Britannica*, I. (1800), p. 49, gives 1794 as the date of the finding of this plant, and this agrees with Dr. Neill's date of this second Highland excursion arranged between Mackay and Don.—*I. R. B.*

In the management of Messrs. Dicksons' nurseries, Mr. Mackay made great progress in the knowledge of the culture of plants; nor was he inattentive to matters more strictly botanical. He formed, in a plot of ground in the nurseries, a most extensive arrangement of hardy herbaceous plants, with numbered tallies. He made a similar arrangement of plants indigenous to Scotland. He likewise began the culture of the rarer alpine plants, in which he proved very successful. It is proper to add, that in these pursuits, as well as in his long journeys to the Highland mountains, he met with the greatest encouragement from the liberality and scientific taste of Messrs. Dicksons the proprietors.

Mr. Mackay's merit had now become known to several of the eminent naturalists of London. He was elected an Associate of the Linnean Society of that city, on the 16th of February 1796: In the course of this year also he received a very flattering testimony to his botanical proficiency from Dr. Smith, the President of that Society. This was contained in the elegant periodical work, intituled *English Botany* (of which Dr. Smith may be considered as the author, and Mr. Sowerby as the artist,) at the article *Eriophorum alpinum*. "We are obliged for wild specimens (they say) to Mr. John Mackay of Edinburgh, a most diligent and skilful investigator of the vegetable kingdom, by whose communications we have often been enriched."<sup>1</sup>

<sup>1</sup> In this work Mr. Mackay is acknowledged as a contributor of rare British plants at the following articles:—*Draba incana* [t. 388], *Sison verticillatum* [t. 395, *Carum verticillatum*], *Cardamine hastulata* [t. 469, *Arabis petræa*], *Cerastium alpinum* [t. 472], *Veronica alpina* [t. 484], *Potentilla aurea* [t. 561, *P. alpestris*], *Subularia aquatica* [t. 732], *Eriocaulon septangulare* [t. 733], *Azalea procumbens* [t. 865, *Loiseleuria procumbens*], *Sibbaldia procumbens* [t. 897, *Potentilla Sibbaldi*], *Juncus castaneus* [t. 900], *Rumex digynus* [t. 910, *Oxyria digyna*], *Stellaria cerastoides* [t. 911, *Cerastium trigynum*], *Gnaphalium sylvaticum* [t. 913, *G. sylvaticum*, var. *norvegicum*], *Carex filiformis* [t. 904], *Schoenus rufus* [t. 1010, *Scirpus rufus*], *Lichen lanatus* [t. 846, *Cornicularia lanata*], *venofus* [t. 887, *Peltidea venosa*], *croceus*, [t. 498, *Solorina crocea*], *Splachnum mnioides*, and several others.

[Without any profession of presentation of a complete list of species under which Mackay's work is referred to in *English Botany* by Sir James Edward Smith or his successors, I may add the following names to Dr. Neill's list above:—*Draba hirta* (*D. rupestris*), t. 1338; *Thlaspi hirtum* (*Lepidium hirtum*), t. 1803; *Raphanus Raphanistrum*, t. 856; *Raphanus maritimus*, t. 1643; *Silene nutans*, t. 465; *Lychnis Viscaria*, t. 788; *Arenaria rubella*,

In the course of summer and autumn, 1799, he made a tour of the district of Galloway, and also examined the Island of Arran. In this journey he observed a species of raphanus, which he considered as new, and used to term *maritimus*: Dr. Smith, however, in his *Flora Britannica*, has ranked it only as a variety  $\gamma$  of *Raphanus raphanistrum*. In this tour, mineralogy began to divide Mr. Mackay's attention with botany.

The office of Superintendent of the Royal Botanic garden of

t. 2638; *Cherleria sedoides* (*Arenaria Cherleri*), t. 1212; *Spergula saginoides* (*Sagina Linnæi*), t. 2105; *Astragalus uralensis* (*Oxytropis uralensis*), t. 466; *Rosa involuta*, t. 2068; *Pyrus pinnatifida* (*fennica*), t. 2331; *Saxifraga pedatifida*, t. 2278; *Epilobium alsinefolium*, t. 2000; *Sium repens* (*Apium nodiflorum*), t. 1431; *Erigeron alpinus*, t. 464; *Antennaria hyperborea* (*A. dioica*), t. 2640; *Hedypnois Taraxaci* (*Leontodon autumnalis*, var. *pratensis*), t. 1109; *Hieracium villosum* (*H. eximium*), t. 2379; *Myosotis rupicola* (*M. alpestris*), t. 2559; *Veronica saxatilis*, t. 1027; *Euphorbia Esula*, t. 1399; *Salix damascena* (*S. nigricans*, var.), t. 2709; *Scirpus multicaulis*, t. 1187; *Scirpus glaucus* (*S. Tabernaemontani*), t. 2321; *Eriophorum alpinum*, t. 311; *Eriophorum polystachium* (*E. latifolium*), t. 563; *Carex filiformis*, t. 904; *Carex rigida*, t. 2047; *Carex pulla*, t. 2045; *Phleum alpinum*, t. 519; *Poa alpina*, t. 1003; *Poa flexuosa* (*P. eulaxa*), t. 1123; *Poa cæsia*, t. 1719; *Isoetes lacustris*, t. 1084.

In the interesting and valuable historical record entitled "Notes on the Drawings for English Botany," prepared by Mr. F. N. C. Garry, in course of publication in the *Journal of Botany*, which raises the curtain from the method of production of that work and gives us particulars of the data upon which the figures and description were founded, numerous references to Mackay as well as to George Don will be found. Mackay's name is mentioned under most of the species already cited and also under the following:—*Cochlearia danica*, *Silene acaulis*, *Cerastium latifolium*, *Stellaria glauca*, *Trigonella ornithopodioides*, *Saxifraga nivalis*, *Hieracium nigrescens*, *Veronica humifusa*, *Juncus biglumis*.

Reference by Sir James Edward Smith to the co-operation of Mackay will also be found in *Flora Britannica* under the following additional species:—*Hesperis inodora* (*H. matronalis*), *Brassica campestris*, *Silene anglica*, *Hieracium murorum*, *H. prenanthoides*, *Pulmonaria maritima* (*Mertensia maritima*), *Bartsia viscosa*, *Juncus maritimus*, *Carex teretiuscula*, *Festuca calamaria* (*F. sylvatica*), *Elymus arenarius*, *Splachnum fastigiatum* (*S. mnioides* var.).

In English *Flora* there are further references to Mackay by Sir James Edward Smith under these species:—*Cœnanthe pimpinelloides*, *Hieracium pulmonarium* (*H. saxatile*), *H. denticulatum* (*H. Dewari*), *Lysimachia thyrsiflora*, *Veronica officinalis* var. *Allioni*, *Carex binervis*, *C. lævigata*, *Lolium arvense* (*L. perenne*).—*J. B. B.*]

Edinburgh having become vacant by the death of Mr. Menzies, Mr. Mackay was appointed to that situation in February 1800. He immediately commenced many improvements on the garden, to the great satisfaction of Dr. RUTHERFORD, the Professor of Botany. During the courses of lectures in summer 1800 and 1801, Mr. Mackay occasionally accompanied the more keen and inquisitive students, in short botanical excursions around Edinburgh, a plan admirably calculated to interest the student, and to inspire that enthusiasm and those keen sensations, which enable the naturalist to look at the objects around him with feelings so different from those of mankind in general.

In the course of autumn, 1801, Mr. Mackay's friends had the mortification to remark, that his health was rapidly declining. When winter approached, he was entirely confined to his chamber. In the end of December he received a consolatory visit from Mr. Don the botanist, of Forfar.<sup>1</sup> Although his strength was much impaired, the society of Mr. Don recalled his wonted relish for botany, and immediately his table was covered with Cryptogamia. Even several days after his friend had taken leave of him, I was much pleased to find him still amusing himself with the assorting of mosses. Indeed, in the case of Mr. Mackay, I had frequent occasion to remark the salutary influence of enthusiasm in a favourite pursuit, in tending to divert the mind from those gloomy prospects that are apt to haunt us when under the pressure of bodily affliction.

Mr. Mackay lingered for several months, his strength gradually decaying. Before the end of March 1802 he had become bedrid. About this time he afforded a most striking proof of his invincible ardour as a botanist and florist, by desiring the hyacinths, jonquils, and other early flowers that had come in blow in the dry-stoves to be brought to his bedside, examining them and giving his opinion of them, one by one. About this period, also, a parcel of young plants of new and rare ericas, happening to arrive from some of his correspondents, he requested to see them; and, after declaring his satisfaction with them, observed, in a pathetic tone, "that he would never see them

<sup>1</sup> Don refers to this visit as occurring "about September." See Letter to N. J. Winch, dated Forfar, May 11, 1802.—*I. B. B.*



blow." He lingered till the 14th of April 1802, when he expired in the midst of his afflicted relatives.<sup>1</sup>

Thus fell, in the prime of life, a young man who bid fair, had he lived, to have reached the very summit of eminence in his profession. He possessed an acute and penetrating genius, a good taste, and a thirst for the knowledge of nature, that led him to pursue his studies with the greatest eagerness and ardour. He discharged his professional duties with unremitting assiduity; and often did he rob himself of his nightly rest in acknowledging the communications of his numerous botanical correspondents.

He was honoured with the acquaintance, friendship, and esteem of many men of science, literati, and persons of distinction about Edinburgh. Col. Brodie of Brodie, M.P. for Morayshire (a gentleman distinguished for attachment to botany) was his constant friend and patron.<sup>2</sup>

<sup>1</sup> "A plain stone has been erected to the memory of John Mackay, with a very classical inscription from the pen of Mr. Candlish, by far the best Latinist here, and whose sudden death, by apoplexy, a few days ago still overwhelms me with astonishment, he being a dear friend.

"Mr. J. T. Mackay, Dublin, was here and is gone to Ireland a short time ago. He stayed chiefly with me, and I am happy to say that in knowledge, taste, and modesty he is likely to rival his brother.

"Please mention if this come to hand, and also how I can send you a printed copy of the inscription above mentioned: 'Sacrum | memoriæ | Johannis Mackay, | Qui, | xviii<sup>mo</sup> Calend. Maii, | anno post Christum natum M.DCCC.II<sup>do</sup>, | viginti novem annos natus, | diem defletus obiit supremum; | mortalitate quidem expletâ, | at nondum multifera naturæ amœnitatum studio: | Quique, | vivus, | ut ingenii bonitate, suâ modestia, morumque suavitate, | erat amicis unicè carus; | sic hortensis floræ deliciolas, | et rurigenam prolem, | tam indefesso pernoscendi ardore, | quàm rarâ discernendi disponendique peritiâ, | Florilegis Herbariisque acceptus: | Posuit | Frater | J. T. Mackay, | M.DCCC.V<sup>to</sup>.'"

*Smith Corresp. Linn. Soc.: Dr. Neill to Sir J. E. Smith, 9th May, 1806.*

I have not discovered where this stone was erected or where Mackay was buried. The Registers of Greyfriars, St. Cuthberts, Canongate, and Calton give no information.—*J. B. B.*

<sup>2</sup> "A Mr. John Mackay at Messrs. Dickson's & Co., Seeds and Nursery Men Edinr., travel'd through a great part of the North and West of Scotland in search of Plants, and found a great many not noticed by Lightfoot; of these I have sent a list to Mr. Sowerby, along with some specimens of the *Eriocaulon decangulare*—he wishes for some in seed, I have desired Mr. Mackay if he has any in that state, to send them, along with some for you, and am persuaded he will cheerfully send you specimens of any or all he

Possessed of the most extensive and accurate knowledge of botany, Mr. Mackay yet conducted himself with so much reserve in mixed company, that a stranger might long converse with him without discovering that he knew more of that science than other men. In talking of plants he always preferred the English names (where such existed,) except in conversing with known botanists.

In the course of several little botanical excursions I had the happiness to make in company with him, I could not help remarking the uncommon acuteness of his eye, in detecting the minute cryptogamia. As he glanced around, *oculis emissit*, he used to find the rarer little mosses and lichens in spots where his companions had observed nothing.

The power of his memory in retaining with accuracy, and recalling with the most prompt facility, the generic and specific Linnean names of between 3000 and 4000 plants, always appeared wonderful to me.

His studious habits and enthusiasm for botany did not tinge his social character, or produce any indifference for those little forms of politeness, which men absorbed in study and science are so apt to neglect. The urbanity and complacency of his manners were generally admired. His countenance habitually wore a smile; his eye was piercing, but at the same time beamed with modesty.

has collected—I do not know his situation with Mr. Dickson, but as a young man indefatigable, and an Enthusiast in pursuit of Plants, I am persuaded he will do credit to any employment procured him in that way. I have no connection with him, but was very much pleased with his knowledge of Indigenous Plants, when he passed several days here last season, and ranged through the extensive woods, along with me in this neighbourhood. I have prepared him for your directions, and am certain he will attend to them with exactness.”—*Smith Corresp. Linn. Soc. : Brodie of Brodie to Sir J. E. Smith, 7th May 1795.*

“As you do not say Mr. McKay has furnished you with the Specimens of the Eriocaulon wanted I have again wrote him to that purpose—McKay is a Worthy man and an excellent Botanist to whom I often apply—as I saw him in the list of the Members of the Linnean Society, I wished him to communicate to It throw you my Discoveries in that Way—Your Good Intentions, by which I think myself much honoured, afford me the expectation of being able to do it in Future immediately Myself.”—*Smith Corresp. Linn. Soc. : Brodie of Brodie to Sir J. E. Smith, 18th June 1795.—I. B. B.*

His private social virtues will not indeed ever be forgotten by his relatives and acquaintance: but as the influence of these virtues was local, their remembrance must be temporary; it must perish in a great measure with those who witnessed them. But his fame as a botanist was already widely diffused, and will long be held in remembrance. His name will live in the annals of the Linnean Society: it is frequently recorded with honour by Dr. SMITH in the elegant botanical work already mentioned<sup>1</sup>; and we may perhaps hope that that truly eminent Botanist will yet further embalm it, by connecting it with some species of plant of which he was the discoverer.

It would be improper not to take notice here, of some very neat verses to Mr. Mackay's memory, which were circulated among his acquaintance, and appeared in the "Edinburgh Evening Courant"<sup>2</sup> soon after his decease. They were the effusion of a worthy and most affectionate friend; and, to no small poetical merit, added the recommendation of pourtraying their subject.

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#### LETTERS OF JOHN MACKAY.

To this sympathetic contemporaneous sketch, hitherto lost sight of, I add transcripts of some of Mackay's letters which have come under my notice, for the light they throw on his relationships with botanists of his day.

The following from Mackay to Robert Brown is preserved in the Brown Correspondence in the British Museum, Cromwell

<sup>1</sup> Opposite to plate 1123 of this work (*Poa flexuosa*) Dr. Smith has given the following elegantly simple eulogy of his deceased botanical friend:—"The Scottish mountain of Ben Nevis, amongst a profusion of botanical rarities, has afforded us this new species of *Poa*, discovered there by the late Mr. John Mackay, a young man, who sacrificed his repose, and finally his health and life, to the too ardent pursuit of botany and horticulture. His discriminating powers, and readiness of communication, will long live in the memory of those who knew him. We would never neglect the opportunity of twining a modest garland for the brows of such benefactors to science, even though it were only of grass or moss."—*English Botany*, No. 135, for February 1803.

<sup>2</sup> For June 3, 1802.—*I. B. B.*

Road, and I am enabled to print it here through the courtesy of the Keeper of the Botanical Department of the Museum :—

*John Mackay to Robert Brown.*<sup>1</sup>

Dear Sir,—It gave me very great pleasure indeed when I heard of your appointment to so respectable a situation as the one I now take the liberty to congratulate you in. The particulars of the expedition I have not yet heard, but understands it is to be a very complete one. Sufficiently sensible of your merits and ardour I have not a doubt of your fulfilling your part in the best manner, and sincerely hope it will turn out to a good account both for yourself and the country. Will we not have the pleasure of seeing you here before you depart, or will you find a leisure hour to write me some of the news which will be highly gratifying? In my present situation I feel myself interested in everything relating to Botany, and more stimulus than formerly. The Edin. B. Garden you know has been much neglected, but every endeavour will now be exerted to raise it to that pitch of Eminence it ought to hold among the British Gardens. We have had very considerable additions to our collection both of Indigenous and Exotic plants, and may we not hope to profit by your acquisitions. I have not given up the minute tribes, though for some time past I have had many avocations. I made a trip to the north last season, when I saw our friend G. Donn; he is still as keen as ever in our favourite pursuit and is adding to his collection.

I have often wished to have heard of you since I had the pleasure of seeing you here. The only account I had of you for a long while was through our worthy friend Dr. Walker,<sup>2</sup> but about that time he was seized with a pain in his eyes which I am afraid he will never get the better of, preventing him answering your letter and also me seeing the specimens you sent him. He is still very fond of Botanical news. Mrs. Walker was also poorly, but is now much better.

You will likely have seen Mr. Jameson's<sup>3</sup> publications; he is now in Germany studying under Werner.

<sup>1</sup> The letter is undated, but its terms show that it was written shortly after Mackay's appointment to the Edinburgh Garden, in 1800, and the congratulations it conveys refer without doubt to Brown's appointment as Naturalist to Flinder's Expedition (1801-05).

<sup>2</sup> Professor of Natural History in the University of Edinburgh, 1779-1804.—*I. B. B.*

<sup>3</sup> Professor of Natural History in the University of Edinburgh, 1804-1850.—*I. B. B.*

The bearer of this, my friend Mr. Good<sup>1</sup>, our countryman, also may be able to give you more news. He is to accompany you, and is a very pleasant, unassuming young man. Ever since I had the pleasure of knowing him have entertained a very good opinion of him, and do not know one better qualified for the office I understand he is to hold, and should warmly recommend him to your attention.

Messrs. Fife, Ar. Bruce, Henderson, seedman, and other friends here desires to be kindly remembered to you, in hopes you will find it convenient to correspond. With best wishes for your welfare, I remain, with much goodwill,

Dear Sir, sincerely yours,

(Signed) JOHN MACKAY.

[Addressed to]

Mr. Brown,  
at Sir Joseph Banks,  
Soho Square,  
London.

To the President and Council of the Linnean Society I am indebted for the permission to publish the following letters from the Winch Correspondence preserved by the Society. Although Mackay was so frequent a correspondent of Sir James E. Smith, not one of his letters is to be found in the Smith Correspondence now in the possession of the Linnean Society. The publication of the correspondence with Mr. Winch is of some importance on account of the localities of Scottish plants it records:—

*John Mackay to N. J. Winch.*

Botanic Garden, Leithwalk, Novr. 21st, 1800.

Dr Sir,—Your esteem<sup>d</sup> favour of the 27th Ult<sup>o</sup> I received and assure you few things afford me more pleasure than a new Botanical correspondent. I have annexed a list of my Desiderata any of which will be very acceptable particularly those mark<sup>d</sup> thus +) and which are mentioned as growing near you—most of the other British plants I now am, or expect soon to be in possession of, and will be happy to send you any of them you may want. Though I wish much to have a full collection of growing Plants

<sup>1</sup> Peter Good accompanied as gardener Robert Brown on Flinder's voyage.—*I. B. B.*

as soon as possible—Dried specimens of Lichens, and other cryptogamous plants are equally interesting to me. My list of Scotch cryptogamous plants were some time ago 22 Mniums, according to With\*. 40 Bryums, 36 Hypnoms, 150 Lichens, 50 Fuci, &c. but I hope by and by to add much to it. When convenient I shall be happy to hear what rare plants grow in your neighbourhood, and also your Desiderata. I trust you will always find me open and faithfull and ready to do any thing in favour of our favourite science. In this mean time, I am,  
Dr Sir,

Very respectfully,

Your most obt. Servt.,

(Signed) JOHN MACKAY.

My compts. to Mr. Falla, Junr.

*British Desiderata.*

Salicornia fruticosa	Thesium linophyllum
Veronica triphyllos	Chenopodium rubrum
Salvia pratensis	Gentiana Pneumonanthe
Schoenus fuscus	+ " verna
Cyperus longus	Bupleurum tenuissim <sup>m</sup>
Scirpus Holoschoenus	Echinophora spinosa
" triquet	Tordylium officinale
" romanus	" maximum
Agrostis minima	Athamanta libanotis
" verticillata	Ligusticum cornubiense
Poa procumbens	Pimpinella dioica
" bulbosa	Corrigiola littoralis
+ Holosteum umbellatum	Statice reticulata
Asperula cynanchica	Ornithogalum pyrenaic <sup>m</sup>
Galium pusillum	Anthericum serotinum
" scabrum	Juncus acutus
Exacum filiforme	" filiformis
Buffonia tenuifolia	Frankenia laevis
Tiliaea muscosa	" pulverulenta
Anchusa officinalis	Alisma Damason <sup>m</sup>
Hottonia palustris	" natans
Campanula hederacea	" lanceolata
Lobelia urens	+ Chlora perfoliata
Viola lactea	Elatine Alsinastrum
Verbascum virgatum	Monotropa hypopitys
Chironia pulchella	Saxifraga groenlandica
Ribes spicatum	Saponaria hybrida
" petraeum	Dianthus denudatus

Arenaria juniperina	Trifolium ornithopodio <sup>a</sup>
" laricifolia	" ochroleucum
Cotyledon lutea	" maritimum
Cerastium aquaticum	" suffocatum
Spergula pentandra	+ Picris echioides
Lythrum hyssopifol <sup>m</sup>	" hieracioides
Euphorbia hybernia	Sonchus alpinus
" paralias	+ Lactuca Scariola
" peplis	" saligna
Chelidon <sup>m</sup> laciniatum	Crepis biennis
+ Cistus marifolius	Hypochaeris maculata
" surrejanus	Santolina maritima
" anglicus	Gnaphalium luteo-album
Anemone ranunculoides	" gallicum
Aquilegia alpina	Erigeron canadense
" chamæpitys	Senecio squallida
+ Galeopsis ladanum	+ " tenuifolia
Ballota alba	Cineraria palustris
Melissa nepeta	" integrifolia
Melampyrum cristatum	Matricaria chamomilla
Antirrhin <sup>m</sup> spurium	+ Anthemis maritima
" arvense	Centaurea Isnarda
Dentaria bulbifera	+ " calcitrapa
Cardamine bellidifolia	Orchis militaris
" impatiens	+ Cypripedium calceolus
Limosella aquatica	and any other Orchidia
Thlaspi montana	Carex digitata
Cheiranthus sinuatus	" tomentosa
Arabis stricta	" divulsa
+ Brassica muralis	Xanthium strumarium
Sisymb. tenuifolium	Ceratophyll <sup>m</sup> submersum
+ Brassica oleracea	Hydrocharis morsus ranæ
Fumaria tenuifolia	Atriplex pedunculata
" intermedia	Asplen <sup>m</sup> lanceolatum
Genista pilosa	Polypodium cambricum
Ulex nana	" arvenicum
Lathyrus hirsutus	" nigrum [?]
Vicia lutea	Scorzonera humilis
" hybrida	Daucus maritimus
" bithynica	+ Ajuga alpina
+ Hippocrepis comosa	+ Bartsia alpina

*John Mackay to N. J. Winch.*

Dear Sir,—I ought long ago return<sup>d</sup> you my best thanks for your favour of Dec<sup>r</sup>. last, and the very acceptable present of dried plants which accompanied it as also for yours of 27th Feb<sup>r</sup>. but I have been so very busy this spring I am sorry I have not been able to answer my correspondants in the manner

I could wish. I hope however you will not attribute my silence to want of Gratitude but be pleased to accept of my acknowledgements now though late.

I have now sent some of your Desiderata viz 50 specimens of plants and 30 Lichens which I am hopefull will give you pleasure, some of the specimens are not so good as I could wish, I shall be able to supply you with many live plants you want. Annexed is a list I have extracted from your specimens and Durham catalogue any of which will be very acceptable and I am much obliged by your giving me to hope for some of them I much want I should like them as soon as convenient sent by sea and carefully packed and put on Board just before the vessel sails, and advise me by post when shipped.

I have likewise given you a list of some of the rarer plants I have collected in Scotland, most of which I may be able to send you plants or specimens of I shall be extremely happy to see you here or to be of any service to you or our favourite science. I am with much goodwill,

Dr. Sir very respectfully,

Your most Obt Hble Servant

(Signed) JOHN MACKAY.

Botanic Garden,  
Leith walk, March 21st, 1801.

[Addressed] N. J. Winch, Esqr.

*Desiderata J. M.*

+ Carex species from	Centaurea calcitrapa
Cronkley Fell	Rottbolea incurvata
+ Cistus marifolius	+ Schoenus compressus
+ Tamus communis	"  albus
+ Cypripedium calceolus	+ Satyrium albidum
+ Bartsia alpina	+ Ornithogalum luteum
+ Potentilla aurea	Polypodium rhaeticum
Malaxis paludosa	Lepidium ruderae
Hippocrepis comosa	Antirrhin <sup>m</sup> Peloria
Ophrys muscifera	Orchis pyramidalis
+ Gentiana verna	"  ustulata
+ Ribes petraeum	Ophrys apifera
+ Euphorbia peplis	+ Hottonia palustris
+ Galeopsis Ladanum	Atriplex pedunculata
+ Senecio tenuifolius	"  portulacoides
+ Anchusa officinalis	Bupleurum tenuiss <sup>m</sup>
Sium latifolium	Rumex maritimus
+ Brassica muralis	+ Juncus biglumis



+ *Euphorbia paralias*  
*Cratægus aria*  
*Thalictrum majus*  
*Orobanche major*  
+ *Brassica oleracea*  
*Trifolium hybridum*  
+ " *glomeratum*  
" *scabrum*  
" *ochroleucum*  
" *maritimum*  
*Sisymbrium terrestre*  
+ *Euphorbia tithymaloides*  
+ *Chrysanth<sup>m</sup> italicum*  
+ *Centaurea galactites*  
*Medicago prostrata*  
  
*Fucus natans*  
" *mamillaris*  
" *subfuscus*  
" *variabilis*  
*Conferva spongiosa*  
" *elongata*  
" *pinnata*  
" *parasitica*  
*Lichen jolithus*  
" *niger*  
" *flava virescens*  
" *Baeomyces*

*Lichen cœruleonigrans*  
" *sphærocephalus*  
" *punctatus*  
" *Dicksoni*  
" *tricolor*  
" *cerinus*  
" *upsaliensis*  
" *amphibius*  
" *granulatus*  
" *simplex*  
" *crenulatus*  
" *varius*  
" *subimbricatus*  
" *corneus*  
" *lacustris*  
" *crenularius*  
" *exanthematicus*  
" *ramosus et var.*  
" *leucophæus*  
" *Papillacea*  
" *musæcola*  
" *quernæus*  
" *sinuatus*  
" *inclusus*  
&c.  
*Anthemis maritimus*  
*Aquilegia vulgaris wild*

As under are some of the rarer Plants I have collected in Scotland :—

+ *Acer campestre*  
*Acrosticum ilvense*  
+ " *septentrionale*  
+ *Adoxa moschatellina*  
+ *Anthemis arvensis*  
*Tofieldia palustris*  
*Arbutus alpina*  
+ *Arenaria tenuifolia*  
+ " *verna*  
+ " *marina, &c.*  
*Asperugo procumbens*  
*Asplenium ceterach*  
" *viride, &c.*  
+ *Astragalus uralensis*  
+ " *glycyphyllus*  
*Azalia procumbens*  
*Betula nana*  
*Brassica campestris*

+ *Campanula glomerata*  
*Cardamine petræa, Light.*  
" *amœna*  
*Carex extensa*  
" *filiformis*  
" *limosa*  
" *pauciflora*  
" *rigida*  
" *fulva*  
" *stricta*  
" *teretiuscula*  
" *pulla*  
" *lævigata*  
" *binervis*  
" *umbellatum*  
&c., &c., &c.  
*Centaurea scabiosa*  
*Centunculus minimus*

- |                         |                         |
|-------------------------|-------------------------|
| Cerastium latifolium    | + Ligusticum scoticum   |
| "  alpinum              | Linnæa borealis         |
| + "  tetrandrum         | Lobelia dortmana        |
| "  arvense              | Lolium arvense          |
| Cherleria sediioides    | + Lychnis viscaria      |
| + Cicuta virosa         | Myosotis nana           |
| Cochlearia grœnlandica  | Eranthe pimpinelloides  |
| + "  danica, &c.        | + Ophioglossum vulgatum |
| Convallaria majalis     | + Ophrys cordata        |
| "  verticillata         | + Orobus sylvaticus     |
| Cotyledon umbilicus     | Paris quadrifolia       |
| Crithmum maritimum      | Phleum alpinum          |
| Dianthus deltoides      | Pinguicula lusitanica   |
| Draba incana            | Poa alpina              |
| "  hirta                | "  cœsia                |
| Drosera longifolia      | Polygonum minus         |
| Dryas octopetala        | "  viviparum            |
| Erigeron alpinum        | Polypodium              |
| Eriocaulon septangulare | Potentilla aurea        |
| Eriophorum alpinum      | + "  verna              |
| "  polystachion         | + "  argentea           |
| Erysimum cheiranthoides | &c.                     |
| + Euphorbia ezula       | Pulmonaria maritima     |
| "  exigua               | + Pyrola minor          |
| Galium 6 species        | "  rotundifolia         |
| Genista anglica         | "  secunda              |
| "  tinctoria            | "  uniflorus            |
| Gentiana nivalis        | Raphanus maritimus      |
| + Geranium pusillum     | + Reseda lutea          |
| "  columbinum           | Ranunculus reptans      |
| &c.                     | "  hirsutus             |
| + Glaux maritima        | "  lingua, &c.          |
| Gnaphalium supinum      | Rubus saxatilis         |
| "  sylvaticum           | "  chamæmorus           |
| "  rectum, &c.          | + Sagina apetala        |
| + Hieracium alpinum     | "  alpina               |
| "  molle                | Salix herbacea          |
| "  prenanthoides        | "  reticulata           |
| "  Taraxaci             | "  retusa               |
| "  villosum             | "  arbuscula            |
| "  sylvaticum           | "  lapponum             |
| &c.                     | "  myrsinites           |
| Hypericum elodes        | &c.                     |
| Jasione montana         | + Samolus valerandi     |
| Iberis nudicaulis       | Satyrium repens         |
| Inula crithmoides       | "  albidum              |
| "  dysenterica          | + "  viride             |
| Isoetes lacustris       | Saxifraga nivalis       |
| + Lactuca virosa        | "  oppositifolia        |
| Lathyrus sylvestris     | "  cernua               |

Schœnus rufus	+ Stellaria glauca
" compressus	Subularia aquatica
" mariscus	Thalictrum alpinum
" &c.	Thymus acinos
Scilla bifolia, Light.	Tormentilla reptans
Scirpus pauciflorus	Trichomanes tunbridgen
" multicaulis	Trientalis europæa
Scutellaria minor	+ Trifolium fragiferum
" galericulata	&c.
Serratula alpina	Turritis glabra
" tinctoria	+ " hirsuta
Sibbaldia procumbens	Utricularia vulgaris
Silene acaulis	" minor
" nutans	Veronica alpina
Smyrnium olusatrum	" humifusa
Sparganium natans	" saxatilis
+ Spergula subulata	&c.
" saginoides	Viola hirta
Stellaria cerastioides	

and all the other Plants in Flora Scotica, a dozen or two excepted.

Those marked thus + grow near Edinburgh.

*John Mackay to N. J. Winch.*

[May 27th, 1801.]<sup>1</sup>

Dear Sir,—Your favours of the 1st April and 16th inst. I duely received and is sorry I have not had time to answer them sooner nor even now in the manner I could wish you may however rest assured it is not for want of good will—

I did not receive the Box of plants till the 24th of the month Gentiana verna is in life, but Cistus marifolius Sisymbrium tenuifolium Potentilla aurea and Anchusa officinalis are dead and should be thankfull for them again when you send me anything I should wish sent by the Mail Coach it was only on account of the Gentiana being in a pot I wish'd it by sea—I have not yet received the Lichens you are so good as allow me to hope for—

I shall be very happy to correspond with Mr. Harriman or to do any thing in favour of our favourite Science I now send a scroll of some of the Habitats of the rarer Scotch plants which I fear will scarcely read but as I hope to have the pleasure of seeing you here before you go to the Highlands and know the route you mean to take I shall be better able to point out what you may expect to meet with yr diffr. stages I hope I shall have time to show you what worth your nottage in this neighbourhood but cannot be above a day from home untill the Botanical

<sup>1</sup> In Mr. Winch's handwriting.

Lectures are over which is about the end of July—It would be a very good route for you I think if you do not mean to visit the N.E. part of Scot<sup>d</sup> to go by Perth, Dunkeld, Blair in Athol &c to Garvimore then by Pitmain to Inverness, from thence by Lochness to Fort Augustus Fort William Glenco Kings house &c to Tayndrum go forward by Killin to the mountains north of Loch Tay of which Ben Lawers is one of the best on that range of mountains you may find most of the rarer alpine plants—return again to Tayndrum and thento Inverary, Cavindon and E. Tarbet, to Luss, I will give you a letter to Dr. Stuart who will show you every thing worth your notice there and perhaps accompany you to Ben Lomond from Luss by Dumbarton to Glasgow

This I think you might do in a month in a one Horse Chaise But it would be difficult to travel nearer the western coast any other way but on foot. The western part of the Island is perhaps best for Mineralogy though not for Botany. Arran affords the greatest variety of Fossiles as you may see by my friend Mr. Jamesons acct. with whom I travelled—I shall be able to send you many things you want, but must defer it till you return from the north when I hope to have more leisure. In the mean time

I remain, Dr. Sir, Your mo. obt. Hbl. St.

(Signed) JOHN MACKAY.

[Addressed] Nathl. Jno. Winch, Esqr.,  
Spring Gardens,  
New Castle.

[Enclosure.]

<sup>1</sup> *Genista tinctoria*, plentifully near Dumfries  
*Orob. sylvaticus*, Braid hills 2 miles south of Ed.  
*Lathyrus sylvestris*, St. Marys Isle  
*Vicia sylvatica*, Salisbury Craigs  
„ *lathyroides*, King's park

*Ornithopus perpusillus*, near the Maitland W. of Fish-errow  
*Astragalus hypoglottis*, King's park Leith links &c.  
„ *glycyphyllus*, Water of Leith N. Ferry  
„ *uralensis*, N. Queens-ferry Ben Lawers sparingly

<sup>1</sup> These names and localities are not in table-form in the letter. They are so arranged here for ease of reference.

- <sup>1</sup>Trifol<sup>m</sup> fragiferum, Leith links  
 Hypericum elodes, near Glenluce and other places in Galloway  
     " humifusum, near Queens ferry  
 Hedypnois Taraxaci, Glen tilt  
 Hieracium alpinum, Ben Lawers Malghyrdry &c.  
     " sylvaticum, Ravelston woods  
     " villosum, Ben Lawers  
     " prenanthoides, near Pitmain  
     " molle, King's seat, north of Forfar  
     " umbellatum, Dunkeld &c.  
 Myosurus minimus, near Inverary  
 Serratula alpina, Ben Lomond &c.  
 Carduus pratensis, Methven woods near Perth  
     " eriophorus, near Leith  
 Onopordon acanthium, Lime Kilns  
 Artemesia maritima, on the Coast in E. Lowthian Galloway &c.  
 Gnaphalium sylvaticum, Mountains N. of Loch Erroch Ben Wyvis in Ross-shire. Glen tilt north from Blair in Athol  
     " supinum, Ben Lawers &c.  
     " hyberboreum, Little Breeze hill Isle of Skye  
 Erigeron alpinum, Ben Lawers &c.  
 Aster tripolium, near Queens ferry &c.  
 Inula dysenterica, near Ely Fife and Castle of Dunskey Galloway  
     " crithmoides, near the mull of Galloway  
 Anthemis nobilis, Leith links  
     " arvensis, S. of Ed'. in diff. places  
     " tinctoria, cultivated fields in Angus shire  
 Satyrium repens, woods at Brodie House  
 Pyrola rotundi- } Near  
     folia } Brodie  
     " minor } House  
     " secunda } and Darn-  
     " uniflora } way &c.  
 Ophrys nidus avis, near Taymouth &c.  
     " corallorhiza, has been found by the side of Loch Ness I could never find where Light[foot] mentions Mr. Stuart of Luss informs me he only found one or two specimens which he gave Lightfoot.  
 Ophrys cordata, woods S. of Hopeton house Brodie house &c.  
 Serrapias palustris, below Kelso  
 Acrosticum ilvense, Ben Lawers and Craig Caillich  
 Asplenium ceterach, hill of Kinnoul  
 Carex pauciflora, N. from Blair &c.  
     " rigida, } Ben  
     " pulla, } Lawers  
 Saxifraga stellaris }  
     " nivalis } On  
     " oppositifolia } Ben  
     " aizoides } Law-  
     " hypnoides } ers  
     " cernua }

<sup>1</sup>These names and localities are nat in table-form in the letter. They are so arranged here for ease of reference.

<sup>1</sup>*Dianthus deltoides*, Arthur seat and other places near Ed.

*Silene nutans*, N. Queens ferry

„ *maritima*, } Ben

„ *acaulis*, } Lawers

*Stellaria nemorum*, woods at Roslin &c.

„ *glauca*, Loch end Dudingston Loch and near Edinr.

„ *cerastoides*, Ben Nivis

*Arenaria verna*, Arthur seat

„ *tenuifolia*, N. Queens-ferry &c.

*Cherleria sedoides*, Ben Lawers

*Cotyledon umbilicus*, Isle of Arran &c.

*Sedum Telephium*, N.

Queens ferry and near Kirkaliston &c.

„ *anglicum*, common on the western coast

„ *villosum*, N. Queens ferry Pentland hills &c.

„ *reflexum*, Ravilston W. of Edr.

*Cerastium tetrandrum*, not uncommon on the coast of Fife and S. of Scotland

„ *arvense*, in pastures in Angusshire near Dirlerton E. Lowthian

„ *latifolium*, } on Ben

„ *alpinum*, } Lawers

„ *aquaticum*, near Hopeton house

*Spergula saginoides*, Ben Lawers

„ *subulata*, N. Queens-ferry

*Reseda lutea*, near Limekilns, Fife

*Euphorbia exigua*, N.

Queensferry

„ *Ezula*, Abercorn W. from Hopeton House

*Sorbus hybrida*, Isle of Arran

*Rubus saxatillis*, near Dunkeld &c.

„ *chamaemorus*, frequent in wet moorish places in the N. and S. of Scot<sup>d</sup>.

*Potentilla aurea*, E.B. Ben Lawers &c.

„ *verna*, Arthur Seat &c.

„ *argentea*, N. ferry

*Tormentilla reptans*, near Galloway house

*Dryas octopetala*, Glentilt N. from Blair, and plentifully in Strath Isle of Skye &c.

*Thalictrum alpinum*, in the Highlands frequent

„ *minus*, N. Queens ferry

„ *flavum*, near Hopeton house

*Ranunculus Lingua*, Loch end &c. near Edin<sup>r</sup>

*Thymus acinos*, near Nairn

*Scutellaria minor*, betw<sup>h</sup> Buchanan and Loch Lomond

*Bartsia alpina*, Malghyrdy in Breadalbane

„ *viscosa*, Gare Loch near Ardincaple in Argyleshire

*Melampyrum pra-* } Den of

tense, } Rechip

„ *sylvaticum*, }  
*Lathraea Squamaria*, woods at Roslin

<sup>1</sup> These names and localities are not in table-form in the letter. They are so arranged here for ease of reference.

'Scrophularia aquatica, near  
Hopeton house  
Linnaea[a] borealis, Edge of a  
fir wood near Inglismaldin  
near the roadside  
Subularia aquatica, Loch  
Clunny E. from Dunkeld  
Loch Lomond &c.  
Draba hirta, Ben Lawers  
" incana, Ben Lawers  
Alyssum sativum, corn-  
fields near Forfar  
Lepidium latifolium, coast  
of Fife near Aberdour  
Thlaspi campestre, near  
Hopeton house  
" hirtum? near Duplin  
Perthshire  
Cochlearia danica, N.  
Queens ferry  
" groenlandica, Ben  
Lawers  
Iberis nudicaulis, near the  
Mull of Galloway &c.  
Bunias Cakile, near Leith  
Crambe maritima, western  
coast of So. of Scotd.

Cardamine amara, water of  
Leith  
Sisymbrium monense,  
sandy shores in Arran  
Galloway &c.  
Erysimum cheiranthoides,  
cultiv. fields in  
Arran &c.  
Cardamine hastulata, E. B.  
in Skye  
Turritis hirsuta, Arthur seat  
" glabra, near Kinnaird  
Brassica campestris, near  
Port Patrick in  
Arran Skye &c.  
" Napus, Edinr. Castle  
rock—Inch Keith  
Sinapis nigra, Inch Keith  
Raphanis maritimus, Three  
miles from the point of the  
Mull of Galloway  
Geranium columbinum,  
below Perth by the water  
side  
Malva moschata, Hill of  
Kinnoul near Perth

Mr. Winch had come to Edinburgh on his tour through Scotland, and the following are letters of introduction from Mackay, along with a further instalment of his directions :—

*John Mackay to N. J. Winch.*

Dear Sir,—Inclosed are some letters for you which you will please seal before you deliver, they are wrote in a hurry but hope they will answer the purpose, I wish I had more time to make out a more explicit Route. With best wishes

I remain Dr. Sir Yours truly

(Signed) JOHN MACKAY.

B. G. 6 o'clock, Thursday.

Please be so good as give the bearer my parcel I will send for yours another time. J. M.

[Addressed]

Mr. Winch, Pool's Hotel.

<sup>1</sup> These names and localities are not in table-form in the letter. They are so arranged here for ease of reference.

*John Mackay to George Houston, Paisley.*

Sir,—Mr. Winch of New Castle being on a Tour through Scotland and having heard much of your Coal pits I have used the freedom of introducing to you if you will be so good point out what is most remarkable it will be highly gratifying

I hope your young trees are thriving

With my best Compts. to the young Gentlemen,

I am Sir Your most ob Servt.

(Signed) JOHN MACKAY.

Botanic Garden,  
3 June 1801.

[Addressed] George Houston, Esqr., of Johnstone, By Paisley.

*John Mackay to Mr. M'Combie, Inverness.*

Sir,—The Bearer Mr. Winch of N. Castle being on a Botanical and Mineralogical Tour through the Highlands, I have used the freedom of Introducing to you. If you will be so good as point any thing remarkable in your neighbourhood it will be highly gratifying—Collector Ogilvie and Mr. Ar. Bruce desires to be remembered to you—The civilities you showed myself when I had the pleasure of waiting on you in Inverness, prevents my making any apology for troubling you at this time

I am Sir Your most Ob<sup>l</sup>. Hb<sup>l</sup>. Servt.

(Signed) JOHN MACKAY.

Botanic Garden,  
Leith walk, June 3rd  
1801.

[Addressed] Mr. M'Combie, Rector, Academy, Inverness.



[Enclosure marked "1st" in Mr. Winch's writing.]

<sup>1</sup> *Salicornia herbacea*, Inver-  
keithing bay  
*Hippuris vulgaris*, Duding-  
ston Loch near Edin.  
*Veronica saxatilis*, Glen tilt,  
near Blair in Athol,  
Ben Lawers &c.  
" *alpina*, Mountains  
north from Loch  
Errich &c.  
" *montana*, near Edin.  
" *anagallis*, near Edin.  
*Pinguicula lusitanica*, differ-  
ent places in ye Isle  
of Skye, Arran, and Lam-  
lash  
*Lycopus europæus*, not un-  
common on ditch banks  
on ye western coast  
*Valeriana dioica*, in ye South  
of Scotland and Berwick-  
shire  
*Schœnus mariscus*, near  
Forfar in Angus  
shire, and Kirkcud-  
bright in ye S. of  
Scotland  
" *compressus*, ab<sup>t</sup> the  
caves on the coast  
East Dunbar  
" *rufus*, with the above  
and at Thornton  
Loch, &c.  
" *nigricans*, do.  
" *albus*, in many places  
in the north and  
west of Scotland  
*Scirpus multicaulis*, in Skye,  
by ye side of the  
White Loch Manse  
of Colvend, and be-  
tw<sup>n</sup> Glen luce and  
the Mull of Gallo-  
way  
" *pauciflorus*, a com-  
mon plant in many  
places as near  
Leith

*Scirpus fluitans*, two miles  
S. of Edr. &c.  
" *maritimus*, at Queens-  
ferry &c.  
" *sylvaticus*, woods at  
Roslin  
*Eriophorum polystachion*,  
in Skye and other places  
in ye western Coast,  
woods of Colodon &c.  
*Phalaris arenaria*, E. from  
Montrose  
*Phleum alpinum*, Ben Law-  
ers &c.  
*Poa alpina*, Ben Lomond  
Ben Lawers &c.  
" *cæsia*, do.  
" *flexuosa*, Ben Nivis  
*Festuca calamaria*, below  
the Lint Mill near the  
Public House foot of Ben  
Lawers  
*Lolium arvense*, in corn  
fields  
*Rotbolla incurvata*, near  
Hopeton house, and east  
from Dunbar  
*Elymus arenarius*, E. from  
St. And<sup>ws</sup> at Irvin &c.  
*Scabiosa columbaria*, near  
Arbroath  
*Galium Witheringii*, n. of  
Forfar  
" *saxatile*, common  
" *uliginosum*, Bogs  
" *palustre*, ditches  
" *mollugo*, hills E. of  
Forfar  
" *boreale*, Roslin &c.  
*Plantago media*, n. from  
Dalkeith  
*Centunculus minimus*, diff.  
places around Forfar,  
Links of St. And<sup>ws</sup>  
*Sanguisorba officinale*, S. of  
Scotland  
*Cornus suecica*, Ben Lawers  
Benaglo Ben Lomond &c.

<sup>1</sup> These names and localities are not in table-form in the letter. They are so arranged here for ease of reference.

- Alchemilla alpina*, common  
 in ye North  
*Potamogeton graminum*, } near  
 " *pusillum*, } Forfar  
 " *lucens*, }  
 " *compressum*, E. from  
 Forfar  
 " *pectinatum*, Duding-  
 ston loch  
*Ruppia maritima*, stagnant  
 waters on the western  
 coast &c.  
*Sagina apetala*, North  
 Queens ferry  
*Myosotis nana*, on Ben  
 Lawers  
*Asperugo procumbens*, by  
 the ruins of ye old church  
 at Dunbar  
*Lysimachia vulgaris*, by the  
 side of Loch Lo-  
 mond &c.  
 " *thyrsiflora*, in a moss  
 close to the town  
 of Forfar and  
 plentifully by the  
 side of a Lake abt  
 4 miles E. of Forfar,  
 &c.  
 " *numularia*, woods at  
 Bothwell Castle  
*Anagallis tenella*, plentifully  
 in ye south and west  
 coast of Scotland, north  
 fr. Haddington Tynning-  
 ham sparingly in the  
 Kings Park  
*Azalia procumbens*, plenti-  
 fully on the mountains,  
 north from Blair in Athol—  
 Ben Lawers and sparingly  
 on Ben Lomond  
*Convolvulus Soldanella*,  
 plentifully on the Airsh.  
 coast and S.W. coast of  
 Galloway
- Campanula* } woods  
 latifol. } at  
 " *trachelium* } Roslin  
 " *glomerata*, betw<sup>n</sup>  
 Kinghorn and Kirk-  
 aldy &c.  
*Jasione montana*, plentifully  
 in the S. of Scotland and  
 near Hamilton  
*Lobelia Dortmana*, in many  
 of the Highland lakes  
 and also in the S. of Scot-  
 land  
*Viola hirta*, N. Queens ferry  
 &c.  
*Samolus valerandi*, Lord  
 Elgin's Lime works Fife  
*Rhamnus frangula*, below  
 Dumfries  
*Glaux maritima*, on the coast  
 near Leith  
*Chenopodium maritimum*,  
 N. Queens ferry  
*Beta maritima*, Bass Island  
 and coast opposite  
*Salsola kali*, near Leith  
*Gentiana nivalis*, Ben Law-  
 ers S. side of the Loch  
*Ligusticum scoticum*,  
 Queens ferry  
*Sium angustifol<sup>m</sup>*, Kings  
 park  
 " *nodiflo<sup>m</sup>*, below Kirk-  
 cudbright  
 " *repens*, moist places  
 in Guilan Links  
 " *verticillatum*, plenti-  
 fully in Galloway  
 and Argyle shire  
 near Loch Gare  
*Enanthe pimpinelloides*, E.  
 from Dunbar Galloway  
 Arran, &c.  
*Cicuta virosa*, Loch End  
 near Edin'.  
*Smyrnum olusatrum*, E.  
 from Wemyss Castle fife

<sup>1</sup> These names and localities are not in table-form in the letter. They are so arranged here for ease of reference.

<sup>1</sup>*Apium graveolens*, Back of  
Loretto Musselburgh &c.  
*Sambucus Ebulus*, 2 miles  
S. of Ed. and on the coast  
of Fife  
*Statice Limonium*, St. Marys  
Isle  
*Sibbaldia procumbens*, fre-  
quent in the Highlands  
*Drosera longifolia*, head of  
Loch Erroch and on the  
western coast &c.  
*Tulipa sylvestris*, near  
Brichan  
*Scilla bifolia*, Light. on the  
Galloway coast  
*Convallaria verticillata*, den  
of Rechip E. from  
Dunkeld  
" *majalis*, do.  
*Juncus acutus*, near Colvend  
Galloway  
" *maritimus*, E. from St.  
And<sup>ws</sup>, Galloway  
coast and Isle of  
Arran  
" *trifidus*, north from  
Blair in Athol Ben  
Lawers  
" *triglumis*, Ben Law-  
ers

*Juncus biglumis*, } Ben  
" *spicatus*, } Lawers  
" *castaneus*, }  
" *bulbosus*, near Leith  
" *uliginosus*, near For-  
far &c.  
*Rumex digynis*, in the north  
*Tofieldia palustris*, north  
from Blair Ben Lawers  
&c.  
*Triglochin maritimum*,  
Queensferry  
*Alisma ranunculoides*,  
Kings park  
*Epilobium roseum*, Ben Law-  
ers &c.  
" *alpinum*, do.  
*Daphne Laureola*, woods  
at Roslin  
*Polygonum minus*, Ayr  
links, and S. from  
Forfar  
" *bistorta*, in the High-  
lands frequent  
*Paris quadrifolia*, Den of  
Rechip  
*Andromeda polifolia*, below  
Dumfries  
*Arbutus alpina*, S. of Garvi-  
more plentifully in Ross-  
shire near Loch Broom

[Enclosure marked "2" in Mr. Winch's writing.]

Abt a mile sth of Garvimore, on the N.W. side of the Hill  
+ *Arbutus alpina*—about three miles W. of Pitmain by the road side,  
*Hieracium prenanthoides* and *Satyrium albidum*

The vitrified rock of Craig Phaedrech, abt two miles W. of  
Inverness on the road to Beaulie.

On the banks N. side of Loch Ness++*Ophrys corallorhiza* has  
been found and *Rubus Nessensis*.

On Ben Nivis++*Salix myrtilloides* *Stellaria cerastoides*+++  
*Poa flexuosa* *Saxifraga rivularis*++*Ajuga pyramidalis* *Hieracium*  
*villosum* &c.

Mr. Stuart will show everything remarkable about Luss and Ben  
Lomond &c.

To go from Tayndrum by Killin to Croft house where you ascend  
Ben Lawers to proceed by the rivulet that leads from the Loch  
about half way up the hill before you come to the Loch you will

<sup>1</sup> These names and localities are not in table-form in the letter. They  
are so arranged here for ease of reference.

observe *Juncus triglumis* *biglumis* and *castaneus* on the dry summit *J. trifidus* on the rocks N. of the *Gentiana nivalis*, *Acrosticum ilvense*, *Veronica saxatilis*, and sparingly *Astragalus uralensis*.

+ *Saxifraga cernua* near the summit of the Hill and an + *Arenaria* in habit something like *Cherleria sedioides* *Cerastium latifolium* and *alpinum* + *Erigeron alpinum* + *Carex pulla* *Carex atrata* *C. rigida* *Salix reticulata* and herbacea *arbuscul*a in various parts of the hill, as well some of those mentioned formerly *Epilobium alpinum* in the rivulet *Cornus suecica* Black peat earth *Draba incana* and *hirta* *Viola* with blue flowers *Myosotis nana* *Azalia procumbens* and most other alpine plants; below the Lint Mill a little to the So. of Croft house, where you ascend the hill, *Festuca calamaria* ab<sup>t</sup> 3 miles from Kenmore betw<sup>n</sup> the road and the Loch *Osmunda regalis*, it is very common at Luss—*Bartsia viscosa* by the side of Gare Loch near Ardincaple; *Sium verticillatum* very common in that neighbourhood in moist meadows—

The Pre. . . .<sup>1</sup> at Fintray, 2 miles from Dumbarton, on the road to Glasgow.

(here I must stop)

*Acer campestre* on the banks a little to the east of N. Ferry—*Astragalus uralensis*, top of the banks a little further on.—*Silene nutans* a little below that and more to the east amongst the rocks. *Cochlearia danica* by the dyke at the east landing near the Fort. *Spergula subulata* and *Arenaria tenuifolia*, &c., between the Fort and the Town—*Ligusticum scoticum* on the coast a little to the west of the N. Ferry—*Carex teretiuscula* in a marsh top of the hill betw<sup>n</sup> the Ferry and Inverkeithing—*Ranunculus reptans* side of Loch Leven, near Kinross.

On the hill of Kinnoul *Asplenium ceterach* *Cynoglossum officinale* *Sagina apetala* *Potentilla argentea* &c. *Ranunculus hirsutis* a little west of Perth.

*Convallaria verticillata* *Melampyrum sylvaticum* and *pratense*, *Salix caprea* *Convallaria majalis* &c., in the Den Rechip East from Dunkeld.—*Subularia aquatica*, *Isoetes lacustris*, &c., in the Loch of the Lows S.E. from Rechip + *Lycopodium inundatum* between that and Clunney; if you find time go the length of Clunney which is abt 5 or 6 miles E. of Dunkeld Mr. M'Ritchie<sup>2</sup> will point out all the rare plants in this Parish—

<sup>1</sup> Illegible.

<sup>2</sup> The Rev. William MacRitchie was born in the parish of Clunie, Perthshire, in 1754. From 1783 to 1837 was minister of Clunie, where he died 6th December 1837. For biographical details see his "Diary of a Tour through Great Britain in 1795," edited, with an Introduction and Notes, by David MacRitchie. London, 1897.—*I. B. B.*

Mr. Peter MacIntosh the Gardiner at Blair will show you through the Dins where you may observe++*Pyrola secunda* *Aspl viride* and other rare plants He may also direct you to Bennaglo and Glentilt where the *Azalia procumbens* grows in the greatest abundance as also *Gnaphalium sylvaticum* *Cornus suecica*, *Veronica saxatilis* *Polygonum viviparum*+*Toefieldia palustris*++*Carex pauciflora* *Gentiana amarella* and *campestris* *Carex capillaris* *Juncus trifidus* *Dryas octopetala*

South from Dalwhinnie between that and the head of Loch Erroch, the++*Carex pauciflora* in plenty and which I much want, +*Drosera longifolia* on the hills to the N. of the Loch+*Veronica alpina* ++ *Gnaphalium* + *sylvaticum* + *Lycopodium annotinum* *Betula nana* &c.

I do not attempt an analysis of Mackay's botanical work. Our record of what he did betokens a vast deal of work regarding which we have no information. In the short span of his life he advanced materially the knowledge of the plants of Scotland and is entitled to rank with George Don as an investigator of its flora. If he is less known than his compatriot we may find the reason in his early death and in the eclipse of his reputation by that of Don around whose name have circled so many controversies which are referred to below. The relative merits of the two botanists do not call for discussion by me here. The men were a remarkable couple of enthusiasts—one of finer, the other of rougher fibre—firm friends to the end of the days of the younger. The preceding pages will furnish botanists with such data as are available for an estimate of Mackay's character and life-work, as the succeeding pages will provide similar data in regard to George Don. The only further comment I could make is that all the evidence we possess goes to show that John Mackay was no less gifted than his brother, James Townsend Mackay, and by his death Scotland lost a field-botanist who might in the end have dealt with its flora in the comprehensive and thorough manner in which his brother treated that of Ireland.

#### George Don.

Although John Mackay died in April 1802, some time elapsed before his successor was appointed, or at least entered upon

his duties. This successor was George Don, who is known to posterity, not for his work as Principal Gardener of the Botanic Garden, where his career was not a long one, but as a botanist of acute perception and as an able investigator of the Scottish Flora. The friendship between Mackay and Don, which brought Don to Edinburgh and to the Botanic Garden to visit him, would furnish opportunity to Professor Rutherford of becoming acquainted with Don, and of realising the great knowledge of British plants he possessed and his practical acquaintance with gardening, and these would be strong recommendations in favour of his selection for the post of Principal Gardener when it became vacant. As matter of fact, Don did not enter upon the duties of Principal Gardener until mid-December of 1802, and it was only on 24th October of that year that Brodie of Brodie, who interested himself in Don's appointment, wrote to Sir James E. Smith telling him of it. Even allowing for some delay after the event in the penning of this letter, there must have been a considerable interval between Mackay's death and Don's appointment. Why was this? In the light of after-history may we not construct a picture of, on one side, Rutherford, tempted by Don's qualifications as a botanist and gardener, yet hesitating to appoint one whose independence and wilfulness, showing, as one must believe, in Don's every feature and action, gave scarce promise of contentment under control; and, on the other side, Don, wrestling with himself over the value of his freedom and doubtful of the wisdom of entangling himself in the trammels of the routine of a subordinate and ill-paid official post which would enforce banishment from the open-air life amongst the plants on the hills to which he had become used. Whether this be right or wrong, certain is it that Don's advent as Principal Gardener was long delayed, and it is significant that when he did come to Edinburgh he did not give up his Forfar garden. That, as we are told, he left under the care of his father and to it he returned when, whatever the cause or causes, he quitted the Botanic Garden after some three or four years' service in it.

I had accumulated with other material for a History of the Royal Botanic Garden some facts for a memoir of George Don, when I heard from Mr. G. Claridge Druce that, following

upon his Presidential Address to the British Pharmaceutical Conference, in which he had given a biographical sketch of Don, he had worked out in critical detail the story of Don's botanical work, and of the discoveries of British plants with which Don's name has been associated. Mr. Druce was so good as willingly to assent to his memoir of Don and analytical account of Don's work appearing in "Notes from the Royal Botanic Garden, Edinburgh," as part of our History, as it does in the following pages. Here and there his story has been modified, with his consent, in the light of facts not in his possession at the moment of writing, and other information has been introduced in footnotes. It will be seen that I am much indebted to Mr. Alexander P. Stevenson of Dundee for new matter included in footnotes, and I have to thank him for the postscript regarding the progress of the movement for the erection of a monument in Forfar to the memory of Don; he also first directed my attention to the paper on "Indigenous Grasses" by Don in the Transactions of the Highland Society of Scotland. This paper, and also Don's account of "Native Plants of Forfarshire," are reprinted as appendices to Mr. Druce's Memoir. In both of them there is mention of dates of incidents in Don's life, and the first is prefaced by a brief autobiographical statement. Another Appendix contains, by permission, such of George Don's letters as have come under notice, my object being to present all the evidence available for independent judgment upon the questions that have been raised in regard to Don and his work and his relations with contemporary botanists. It is much to be regretted that Dr. Neill, who knew Don so well, did not write a biographical notice of him early in the century, at the time of Don's death, when the incidents of Don's life would be fresh in his mind; and it is no less regrettable that Dr. Neill's papers, which were in existence in Edinburgh up to a few years ago, have disappeared and cannot now be traced, for amongst them, doubtless, there will be correspondence with Don. Should these papers be found and given to the public they may be expected to throw much light not only on Don's history but also upon all the leading botanical events that happened in Scotland during the first half of the nineteenth century. As it is, we have but little material relating to the early years of Don's

life, and the story of them as given by Mr. Druce is somewhat conjectural and open to correction.

A special interest attaches to Don's life that is absent in the case of other Principal Gardeners on account of the number of plants new to the Scottish Flora that were recorded by him and which were for long gathered by no one else. The list of such "unconfirmed finds" is smaller now than it was a few years ago. In the case of some of them it seemed unlikely that the plants would belong to the Scottish Flora, and as year after year passed by without their being re-gathered the question of the possibility of error on Don's part was naturally raised and discussed with increasing persistency. In the following pages Mr. Druce deals with this matter in fullest detail.<sup>1</sup> I wish only to say here regarding it that as I read history it does not seem to be established that botanists of last century suggested—as has been hinted—moral turpitude on the part of Don—that he deliberately recorded false stations and knowingly sent out garden-plants as natives of the Highland hills—but only that his methods and circumstances<sup>2</sup> being such as to make mistakes easy and not unlikely, he sometimes fell into error. If an incautious botanist occasionally expressed himself in too dogmatic terms regarding Don the attitude of the majority has been, I think, the judicial one so clearly explained by Mr. H. C. Watson<sup>3</sup>, and in Scotland there has been coupled with this an expectancy, as stated by Professor John Hutton Balfour<sup>4</sup>, although with often a reservation in respect of some unlikely forms. So much was the just claim of Science, and the list of "Reputed" and "Unconfirmed" Discoveries by Don that is placed at the end of "Hooker's Student's Flora" was its legitimate outcome and a call to investigation. That investigation has resulted—as Mr. Druce shows, and in it he has shared in no small degree—in a reduction of the dimensions of the list, but, notwithstanding all that has been done, we have still, nearly one hundred years after Don's time, a list of plants recorded by him "respecting which grave suspicion of error exists."<sup>5</sup>

<sup>1</sup> See pages 123, 141.

<sup>2</sup> See Mr. Druce as to this on page 142.

<sup>3</sup> Quoted with approval by Mr. Druce on page 93.

<sup>4</sup> "Botanical Excursions made by Professor John Hutton Balfour," in Notes from the Royal Botanic Garden, Edinburgh, vol. ii. (1902), p. 55.

See Mr. Druce as to this on page 125.