"TO GET THOSE PLANTS . . . LIKELY TO PROVE INTERESTING AT EDINBURGH": ROBERT BROWN OF PERTH AND JAMES MCNAB'S NORTH AMERICAN TOUR OF 1834

Graham Hardy[1]

ABSTRACT

Robert Brown and James McNab are introduced and the purposes of their journey in 1834 are explained. Extracts from the diaries written by McNab which might be of particular interest to horticulturists are reproduced. The details of the itinerary and a seed list of species collected are also included as appendices.

INTRODUCTION

The aim of this paper is to highlight a unique collection of documents held in the Archives of the Royal Botanic Garden Edinburgh (RBGE) and to show how archival material in botanic garden collections can shed light on historical aspects of plant collecting and plant propagation.

SETTING OUT

Even today the opportunity to leave Scotland for seven months in order to travel and undertake a horticultural and botanical tour of eastern North America would be considered exceptional. That Robert Brown (c. 1767–1845), a Scottish nurseryman in his sixties, and James McNab (1810–1878), a young improving gardener – albeit one with very good horticultural connections – made such a voyage and tour from May to December 1834 is, whilst not unique for that period, still something to be remarked on. The RBGE Archives hold three manuscript diaries of this tour compiled by McNab, as well as a looseleaf manuscript in 12 parts, written up by McNab from these diaries (McNab, 1835/36; McNab, 1836). At some point in the early 20th century the looseleaf sectioned manuscript has been typed up, and a bound copy of this typescript is also held in the RBGE Archives.

Accounts of horticultural tours within the British Isles and further afield are to be found scattered throughout 19th-century horticultural periodicals, such as the *Gardener's Magazine*, commenced by John Claudius Loudon (1783–1843) in 1826. But perhaps the most directly comparable ones are John Goldie's botanical excursion through Upper Canada and some of the New England states in 1819 (Goldie, 1827) and David Douglas's first expedition to eastern North America in 1823, sponsored by the Royal Horticultural Society (Douglas, 1914).

1. Graham Hardy is Serials Librarian at the Royal Botanic Garden Edinburgh. Address: 20A, Inverleith Row, Edinburgh, EH5 3LR. Email: G.Hardy@rbge.org.uk

Supported by William Jackson Hooker (1785–1865), later of Kew, Goldie (1793–1886) spent three years in North America from 1817 to 1819, mainly engaged in plant collecting. In 1819, he made a botanical tour during which he visited many of the localities and townships visited by McNab and Brown, including Niagara (Goldie, 1897). Goldie subsequently returned to Scotland and after employment at RBGE was sent in 1826 from Edinburgh with plants to help establish the botanic garden at St Petersburg. In 1844 he returned to Canada with his family, where he settled in Ontario.

Douglas (1779–1835) also visited many of the localities subsequently botanised by Brown and McNab and also called on some of the nurserymen and garden proprietors whom the latter visited some 12 years later, notably the indomitable Grant Thorburn of New York (1773–1863) and the Landreth and Carr families in Philadelphia.

THE TRAVELLERS

The decision to visit North America appears to have been taken by Robert Brown. This is confirmed by a footnote in James McNab's paper on the trip, 'An account of some of the rarer plants observed during an excursion in the United States and the Canadas in 1834' (McNab, 1835b), in which he noted:

> I may mention that the trip was undertaken chiefly for the gratification of my valued friend Mr Brown, formerly of the Perth Nurseries, whose ardent love of science led him to America, that he might have the opportunity of seeing, in a state of nature, those forest trees and shrubs, to the rearing of which, in early life, his attention had been devoted; and a greater treat need not be sought for by any one whose delight is in the cultivation of plants or shrubs, than to see the perfection to which they attain in their native soils: Thus, too, will he be the better able to judge the degree of perfection to which they are capable of being brought by cultivation. The tour, therefore, was strictly private, and not (as some of the public journals seem to have imagined) under the auspices of any public institution. (McNab, 1835b)

Robert Brown was a nurseryman and partner in the firm of Dickson and Brown, Perth. This company had a history stretching back to 1766. One of the founder partners was a scion of that remarkable horticultural dynasty of Dickson which was established at Hassendeanburn near Hawick in 1728, and whose reach eventually extended across Britain, with nurseries in Edinburgh, London, Chester and Brechin, as well as in Perth.

McNab later provided further interesting information about Brown in his 'Notes on a visit to Messrs Dickson & Turnbull's Nurseries', read to the Botanical Society of Edinburgh in 1874 (McNab, 1874):

> Mr Robert Brown, one of the early partners of the firm (formerly Dickson & Brown) was the first discoverer in Scotland of *Menziesia* [now *Phyllodoce*]

> *caerulea*, specimens of which still exist in this establishment, being sub-divisions of the original plants found by Mr Brown on the Sow of Athole, in Perthshire. For many years the bog or dwarf American plants, indeed all kinds requiring peat soil, have been cultivated in this establishment with success, and few nurseries in the kingdom contain a greater variety of these interesting plants. The various species of *Ammyrsine, Andromeda, Azalea, Cassiope, Fothergilla, Gaultheria, Ledum, Daboecia, Menziesia, Rhodora, Vaccinium*, also hardy heaths and dwarf rhododendrons, with numerous others, are cultivated here to an extent, not often seen. (McNab, 1874)

This excerpt highlights Brown's greatest discovery, and the interest in Scottish alpine botany that he shared with McNab. Another area to which Brown contributed significantly was the development of cultivated varieties of Scots roses. On retiring from Dickson and Brown, Brown emigrated to the United States, where he died in Philadelphia in September 1845, aged 78.

James McNab was the eldest son, and second child, of William McNab, who became Curator of RBGE in 1810. James was born at Kew – where his father was a foreman gardener – and was only four weeks old when his father started looking after the Garden at Edinburgh, at that time situated on Leith Walk.

In 1834 McNab was a young man of 24 at the beginning of a horticultural career that would take him to the position of Superintendent of the Caledonian Horticultural Society Experimental Garden (1836–1848), and then as his father's successor as RBGE Curator (1849–1878). Even at this early stage he had stores of horticultural and botanical knowledge garnered from his official and unofficial education, and had also begun developing his skill as a botanical artist. Throughout the remainder of his life McNab continued to make botanical excursions and also to contribute regular papers on practical and scientific horticultural subjects to the gardening press. The silhouette portrait of James McNab by an unknown artist reproduced here as Fig. 1 shows McNab in 1832, with his hands clasped behind his back, a habit William McNab instilled in all his children to prevent them from touching the plants in the Botanic Garden.

Fig. 1 Silhouette portrait of a young James McNab c. 1830 by an unknown artist, RBGE Library and Archives. Photo: Lynsey Wilson.

THE ITINERARY

Adding up the mileages noted in the diary, a conservative estimate of the distance covered by Brown and McNab, between landing in New York on 19 June 1834 and embarking from the same city on 2 November 1834 for the return trip to Liverpool, is approximately 1,500 miles. During this time, the travellers made an extended stay in only a single locality – Goderich – and shorter stays, each of a few days, in other places, notably the New Jersey swamps, Philadelphia and the Alleghany Mountains.

A full reading of the tour diary reveals that the chosen itinerary had at least six definite purposes. These can be summarised as follows:

1. To explore and collect plants and seeds.
2. To make observations on natural habitats, including soils and plant communities.
3. To make observations on agricultural and horticultural practice in eastern North America.
4. To visit nurserymen and botanists and specific gardens.

CANADA STEAMBOAT
AND
MAIL-COACH COMPANY. 62

STEAMBOATS AND STAGES
By the St. Lawrence,

LEAVE MONTREAL *every day*, except *Sunday*, at 10, A. M. and arrive in PRESCOTT and BROCKVILLE the following day, (with the exception of *Saturday's* Stage, which will remain over the *Sabbath* at CORNWALL,) as follows :—

	Miles
Montreal to Lachine, by land	9
Lachine to Cascades, by steamboat	24
Cascades to Coteau du Lac, by land	16
Coteau du Lac to Cornwall, *via* St. Regis, Indian Village, by steamboat	41
Cornwall to Dickinson's Landing, by land	12
Dickinson's Landing to Prescott, by steamboat, 38, or to Brockville	50
	152

Brockville to Kingston 48

DOWNWARDS.

LEAVE BROCKVILLE and PRESCOTT *every morning*, except *Sunday*, and arrive in MONTREAL the same evening.

A. BIGELOW,
Agent.

Montreal, May, 1834. Gazette Office.

Fig. 2 Trade card for Canada Steamboat and Mail-coach Company annotated by McNab giving details of sections of the itinerary. RBGE Library and Archives. Photo: Lynsey Wilson.

5. To report on opportunities for emigrants from Scotland and the emigrant lifestyle encountered, and to visit family friends who had commenced that emigrant lifestyle.
6. Self-improvement and professional development.

An itemised diary of the tour with notes on localities visited, modes of transport used and distances covered (where noted), is given here as Appendix 1. Fig. 2 is an image of a piece of ephemera from RBGE Archives showing part of the itinerary.

One thing that perhaps deserves notice is the reason why McNab and Brown chose to spend nearly three weeks in a Canadian 'new town'. The Canada Company was established in 1824, largely through the exertions of John Galt, to devise a scheme that sought to compensate Canadians who had suffered economic loss from the United States invasion of 1812. Galt acted as Secretary to the Canada Company, which sought to make a return on the development and settlement of lands in Ontario, and thus provide capital to compensate these Canadians. Galt was well known in Scotland as a perceptive and wry novelist of the effects of early industrialisation on Scottish communities, and of the age-old relations between human nature and money. He was also a near contemporary of William McNab and, like him and John Goldie, a native of Ayrshire. Galt used his Canadian experience in his novel *Lawrie Todd* (Galt, 1830), which in part drew on the life experiences of Grant Thorburn. The town of Goderich had been established in 1827, and so was very much a young and emerging town when Brown and McNab arrived there in August 1834. It contained a significant Scottish emigrant population, further details of which can be found in Robina and Kathleen Lizars' book, *In the Days of the Canada Company* (Lizars & Lizars, 1896). The McNabs' connection with Canada did not cease with James's excursion, as his youngest brother Thomas, who had assisted his father at RBGE in 1847–1848, emigrated to Montreal, where his descendants still reside.

THE COLLECTIONS

Brown and McNab went primarily to look at and collect plants. Over 550 species of plant are referred to in McNab's tour diary. Detailed analysis of these species has not yet been undertaken at RBGE, nor has a comparison of the species named in the diary with the list of 300 itemised seed collections entered in a 'Donation of Seeds' ledger[2] for the period 1830–1838, held in RBGE Archives. The ledger entry for the seeds donated from Brown and McNab's tour is reproduced here as Appendix 2.

Two publications were produced within twelve months of Brown and McNab returning to Scotland: McNab's 'An account of some of the rarer plants . . .' (1835b), first read to the Wernerian Natural History Society, and 'On the local distribution of different species of trees in the native forests of America', published in the *Quarterly Journal*

2. Recording details on plants received by RBGE appears to have been a practice started (or perhaps restarted) by William McNab on his arrival as Curator in 1810.

of Agriculture, volume 5 (1835a). This is a fairly early paper dealing with rudimentary plant geography.

As well as publishing these papers McNab read accounts of parts of his tour to the newly established Botanical Society of Edinburgh. On 9 June 1836 the members heard an account of the part of the tour taking in the Alleghany Mountains (Anonymous, 1837) and just over a year later, on 13 July 1837 (Anonymous, 1838), McNab read an account of the Niagara part of the tour. The manuscript of this latter paper is held in the RBGE Archives.

These publications and papers highlight one of McNab's major preoccupations: trees. Perhaps this preoccupation had its origins in McNab's young life when his father was responsible for the removal of trees from the Leith Walk botanic garden site to the New Botanic Garden at Inverleith between 1820 and 1822, for which mammoth task William McNab developed a tree transplanter. Fifteen species of *Quercus* and nine species of *Pinus* are discussed in the diary, as well as other trees and shrubs, including species of *Taxodium*, *Rhus*, *Juglans*, *Thuja* and *Populus.* McNab's paper in the *Quarterly Journal of Agriculture* (McNab, 1835a) makes reference to some forty species of trees and shrubs, whilst the paper on the rarer plants makes reference to only two tree species. McNab's interest in North American trees continued throughout his lifetime, as evidenced by papers published in the *Transactions and Proceedings of the Botanical Society of Edinburgh*, notably a paper on the conifers collected in British Columbia by John Jeffrey and Robert Brown of Campster between 1850 and 1866 (McNab, 1865; McNab, 1872).

Orchids are another group that feature significantly in the diary, reference being made to species of *Habenaria*, *Orchis*, *Goodyera*, *Cypripedium* and *Neottia*. Visiting the Montreal nursery – the first to be established there – of Robert Cleghorn (1778–1841), another expatriate Scot (McGuire, 2009), McNab makes a note about Cleghorn's trade in North American orchids with Britain.

Carnivorous plants also feature regularly in the diary, and an extract below gives more details about some of these. Amongst the collections of seed made by McNab was *Drosera filiformis*. He made a sketch of this plant once it flowered in Edinburgh (see Fig. 3), and the sketch was subsequently used as the basis for plate 3540 in *Botanical Magazine* 63 with accompanying text by Professor Robert Graham (1786–1845), Regius Keeper of RBGE from 1820 to 1845 (Graham, 1836). McNab described three new species and three new varieties in his paper published in the *Edinburgh New Philosophical Journal* (McNab, 1835b), namely *Patrinia longifolia* (now *Valeriana edulis*), *Liatris borealis*, *L. stricta*, *Lobelia cardinalis* var. *alba*, *Gentiana angustifolia* var. *nana* (now *G. autumnalis*) and *Gentiana barbata* var. *browniana* (now *Gentianopsis virgata*). The type specimens of these taxa discussed by Nelson and Dore (Nelson and Dore, 1987) are now in the Herbarium at the National Botanic Gardens of Ireland, Glasnevin.

Finally, one plant now ubiquitous in nurseries and shops in the United Kingdom, particularly in the winter months, which McNab introduced through contact with

the nurserymen he visited on the tour is the poinsettia, *Euphorbia pulcherrima*. This plant was obtained from Robert Buist (1805–1880) of Philadelphia, who had trained as a gardener at RBGE, under William McNab.

Fig. 3 McNab's sketch of *Drosera filiformis* used for plate 3540 in *Botanical Magazine* 63 (Graham, 1836). RBGE Library and Archives. Photo: Lynsey Wilson.

CONTEMPORARY PLANS TO PUBLISH THE JOURNAL

Only months after Brown and McNab's return to Britain, John Claudius Loudon wrote in a note in the *Gardener's Magazine*, "it is much to be desired that the entire journal should be published, as it would do for the gardener and forester what Mr. Shirreff's tour has done for the farmer" (Loudon, 1835). Almost simultaneously, the editor of the Edinburgh-based *Quarterly Journal of Agriculture* wrote, "We would suggest that Mr McNab should publish his entire Journal in a separate form, as the hints of such excellent observers as Mr Brown and himself, could not fail to be highly useful to emigrants, as well as interesting to the general reader" (Anonymous, 1835).

Despite these editorial encouragements to publish, it is perhaps understandable why only two portions of McNab's diary (McNab, 1835/36) were published at that time, as Patrick Shirreff of Mungoswells (1791–1876) had covered an itinerary almost identical to that of Brown and McNab. The resulting work, referred to by Loudon, was *A Tour through North America; together with a comprehensive view of the Canadas and the United States*, published in Edinburgh by Oliver and Boyd (Shirreff, 1835). From the late 1890s Isaac Bayley Balfour (1857–1922), Regius Keeper of RBGE from 1889 to 1922, engaged professional researchers to scour archives, State papers and newspaper backfiles to provide the raw materials for a projected definitive history of RBGE and its position and influence nationally and internationally. Because of his premature death this was sadly never completed, but early issues of *Notes from the Royal Botanic Garden Edinburgh* contain a number of 'precursor' papers (published anonymously) on the history of RBGE and its principal gardeners. From the working scrapbooks in the RBGE Archives it is reasonable to attribute these papers to Bayley Balfour. One of these papers is a life of William McNab appended to republished versions of two of his most important papers, and published in *Notes from the Royal Botanic Garden Edinburgh*, vol. 3 (Balfour, 1908).

The existence of the bound early 20th-century typescript drawn from McNab's manuscript diaries may indicate that Bayley Balfour had in a mind an edited published version, although this cannot be definitely ascertained. However, the interested and at times couthie correspondence from James's surviving sister Miss E.M. McNab[3] to Professor Balfour, preserved in the RBGE Archives, does hint at this possibility.

Finally, Nelson and Dore (1987) refer to the plans by Dore to publish an edited version of the diary. The late Dr Dore's manuscript has yet to be located and at the time of writing the author is pursuing lines of enquiry in the Library and Archives Canada to this end. In a personal communication Dr Nelson states that Dr Dore deserves acknowledgement for the enormous expenditure of time and effort he took in researching the diary, making a detailed analysis of the plants and collecting localities, and studying the plant specimens collected by McNab, now held at the National Botanic Gardens of Ireland, Glasnevin (Nelson, pers. comm., 2011).

EXTRACTS FROM THE TOUR DIARY

The extracts below are taken from the typed transcript of the diary held in the RBGE Archives. This typescript appears to be a copy of the 12-section manuscript worked up by McNab from his separate tour diaries (see Fig. 4). McNab has added material relating to the propagation of seed on its arrival at Edinburgh.

Sometimes McNab's confidence in his horticultural ability irks, as he adopts a somewhat didactic tone on subjects such as fences and fruit culture. At other times he can be sentimental, as befits a man born in the Romantic period. However, the diary is not without humour, and some of this is gently self-deprecating. To illustrate this here are two excerpts, one telling of an unusual use for whisky, the other cautioning against eating cucumbers during hot weather:

> While returning to town we fell in with several men busily employed killing what they called a blowing adder. It was considered as being very poisonous. This reptile was two feet six inches long and of a dark colour. After a little persuasion we obtained the reptile, and carried it to an adjoining hotel where we procured a bottle of Whisky, into which it was inserted. I need not stop to narrate the endless questions put to us concerning the use we were to make of it, and why we spoiled the good whisky with it. (From entry dated 11 August 1834)

> … we beg to inform those whose intention it is to travel in America to resist as much as possible from eating cucumbers during hot weather. They were always put upon the table, and greedily sought after by many from their cooling nature,

3. Elizabeth Margaret McNab, eldest daughter of James McNab and Margaret Scott, died in 1929. Her younger sister, Susan Mary Hamilton Ramsay McNab, who died in 1931and was the last surviving member of the family, donated the McNab archive to Royal Botanic Garden Edinburgh in 1924.

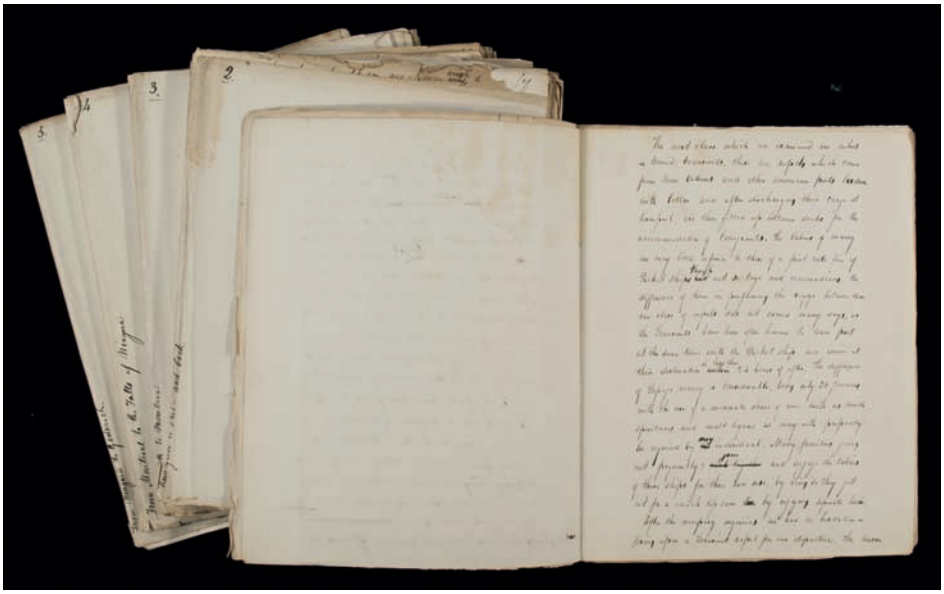

Fig. 4 Photograph showing the first five sections of McNab's edited manuscript diary of the tour. RBGE Library and Archives. Photo: Lynsey Wilson.

> and fearful consequences resulted from a moderate use of them, in various parts of the country, and more particularly at this disastrous period, the hot weather predisposing those who partake freely of them, to the raging epidemic. During mild weather we did partake freely of them without experiencing any inconvenience. Only twice did we meddle with them during hot weather, and though sparingly, severe diarhoea [sic] resulted. (From entry dated 21 July 1834)

The complete diary extends to a little over 99,000 words. The following sample excerpts aim to give a cross-section of content illustrating the six aims of the tour, as identified above. The extracts are given chronologically. Spelling and punctuation have been retained as transliterated in the early 20th century typescript, except for some minor spelling corrections and italicisation of plant names.

NOTES ON A VISIT TO BARTRAM BOTANIC GARDEN, PHILADELPHIA: ENTRY DATED 1 JULY 1834

We next visited the Bartram Botanic Garden being the Nursery grounds of Col. Carr and Son. It has been established for 130 years and contains many noble specimens of trees, amongst which we particularly noticed several specimens of:

Gymnocladus canadensis (Kentucky Coffee tree) 5 feet in circumference with a clear stem for 40 feet, after which it branched and tapered much. *Aesculus flava* 7 feet in circumference. *Andromeda arborea* 4 feet in circumference. *Gordonia pubescens* 4 feet in circumference, in full flower. *Magnolia auriculata* 4 feet in circumference. *Magnolia acuminata* 2 trees – one 6 feet and the other 6½ feet in circumference with 50 feet of a clear stem, and 90 feet high. *Halesia tetraptera* (Snowdrop tree) 4 feet in circumference. *Larix pendula* (Black American Larch) 4 feet in circumference and tapering to 60 feet in height. *Pinus canadensis* (Hemlock spruce) 7 feet. *Pinus strobus* (White Pine) 8 feet. *Fraxinus acuminata* (White Ash) 7 feet. *Quercus Phellos* (Willow leaved Oak) 6 feet. *Quercus aquatica* 4 feet. *Quercus robur* (British Oak) 6 feet. *Juglans olivaeformis* 5 feet.

The most remarkable tree which we saw in these grounds was a splendid specimen of *Taxodium distichum* (Deciduous Cypress) measuring 19 feet in circumference at 4 feet above the ground, 28 feet at the surface, 24 feet of a clear thick stem after which it tapers to 120 feet, this noble tree has now been planted 100 years.

In these grounds were a few beautiful and healthy specimens of *Rhododendron maximum* being the first which we had seen removed from their native habitats. The *Bignonia radicans* planted on a trellis was growing vigorously and showing abundance of flower. Its stem was 10 inches in diameter.

The Bark of many of the Magnolia trees presented a curious appearance having numerous rows of small holes regularly bored around the stems done by the Woodpeckers in quest of insects. We observed here the little Humming Birds flitting about from tree to tree, and their nests stuck on the sides of the branches.

The greenhouse collection of plants here is numerous, and the Camellias form the principal mass. A few good stove plants were kept amongst them, a large *Cycas revoluta* with an extensive collection of Cacti formed the leading objects. The grounds contained a numerous stock of saleable trees with an extensive collection of Herbaceous plants, both exotic and natives of the country.

No where have we seen a piece of ground better calculated for a public Botanic Garden than the present, and it would do honour to the Botanical amateurs in Philadelphia to be in possession of such a spot. From the large size and beauty of many of the trees which have been planted a portion of it will soon be rendered useless for a nursery and it would be a pity to see any of the fine specimens cut down. The expense attending the keeping of it up in the state which it deserves would be rather more than a private individual would be

willing to encounter. It is situated on the north bank of the Schuylkill River and at a very convenient distance from the city.

POOR GARDENING PRACTICE AT NIAGARA: ENTRY DATED 7 AUGUST 1834

I am sorry to add that the garden belonging to the Pavilion Hotel was without exception the most slovenly kept place which we witnessed. The principal road from the Hotel to the Falls is through it, and it must have puzzled many to know what were the plants originally put in, a good many annual flower seeds had been sown but an unexpected crop of millet had almost smothered them, and only a few straggling flowers were here and there seen. Potatoes, onions, carrots and indeed all other vegetables were in like condition. We were not a little amused while sitting at our window in the Hotel which looked into a field of Indian Corn and potatoes where a number of hogs were constantly devouring the cobs, being then in a green state, very juicy and in consequence very palatable, the lower cobs being above their reach, they had recourse to a very ingenious method of getting them down, viz., by biting through the stalk at the surface of the ground, which caused the plant to fall over, when they immediately seized and devoured the heads of each. In this way 8 of them cleared a good part of the field of its corn, they were frequently drove out but no sooner was the back of the individual turned, than they were instantly in again, and carrying on devastation as before.

STAY AT GODERICH: ENTRY DATED 16 AUGUST 1834

Accompanied by our friend Mr. D[unlop] we went to see his property (Hermitage Bank) which was situated about two miles further on. We reached it with much difficulty having a number of very large tree stems to cross over on account of the recent formation of the road. This property consists of a 100 acres and we found it to be very rich and fertile. It is situated on the banks of a valley and bordering upon a beautiful running stream which having a gradual fall it is our friend's intention to have banked up and thus former a reservoir to supply a saw mill which it is his intention to erect. This ground has not been long taken in, so very few acres of it were cut down. About half of the part cut was cropped with potatoes and turnips. Both were very much drawn up, on account of the low situation and being so much shaded with trees. As his clearing was going on upon the bank which faces the south it will therefore be drier and in future will prove much better for his purpose. At this time a

considerable portion of the trees were cut down and partly burnt up consisting of Oaks, Elms, Maples, Birch, Cherry, Limes, Ashes and Hemlock. His shanty is of very simple construction being in the form of a shed, having the sides and back worked in with the branches of Hemlock and quite open in front. The roof was covered with the Ash bark and several large flakes of it round the bottom inside. The site of his Log-house has been fixed upon, and the wood drawn together for its erection.

Leaving Hermitage Bank we proceeded a few miles further on to Meadowlands, the property of our friend Mr. L[izars.] Before reaching it we encountered a great deal of exertion and difficulty caused by our taking a near way through the forest and what with the numerous large stems which we had to go over, and often in wet marshy ground we were in a terrible mess. We continued on as far as practicable along the blazes, which separates one property from another. Blazing means the cutting of a slap with an axe out of the side of all the trees which bound a property, the cutting always being on the one side. This serves as the boundary line till such time as the proprietors can get a snake fence put round. From one property to another we at last came upon Meadowlands which appeared to us to be the most happily chosen situation which we witnessed in the Colborn district. We found our friend Mr. L[izars] with his wife and family in excellent health and at the time we visited them they were living in their primitive shanty made entirely of large flakes of the Ash bark and of the form shown below. This gentleman was uncommonly busy with his men getting the logs dressed and drawn together for the erection of a permanent dwelling, the foundation of which was going on in an excellent situation, and judging from the plans which were shown us will be substantial and commodious. When the necessary quantity of logs is drawn together and a foundation for every wall of the house laid a Bee is then called, which is the collecting of all the neighbours around to assist in its erection. On this case upwards of forty people assembled and completed the raising of the walls in two days. During this time the proprietor had to furnish them with plenty to eat and drink and accommodation during the night for those individuals who came from a distance.

COLLECTING IN THE ALLEGHANY MOUNTAINS: ENTRY DATED 12 SEPTEMBER 1834

On this part of the mountain we stood nearly 2000 feet above its base, seeing no particular landmarks, and knowing the risk of wandering in such impenetrable forests as we beheld around, we procured a guide in order that we might with

greater facility retrace our steps from whatever part of the forest our botanical researches might lead us to.

At 8 o'clock A.M. after botanically equipping ourselves, we started with our guide in a south west direction, following for a time a beaten track having our attention continually arrested by numerous shrubs and trees both right and left of us, now first beheld by us in their native habitats and seeing others beyond of still greater interest, we therefore kept wandering in various directions, till at last we had so entwined ourselves in this great natural labyrinth, that even our guide was not a little puzzled to bring us into a forest track by means of which he might again steer with certainty.

Trusting to our guide we kept our minds unfettered by the fear of wandering in these unlimited forests. Although many rising grounds exist, they afford no index to the stranger in guiding him on, for the inferences which he might otherwise draw in reference to the direction in which he ought to proceed cannot be procured on account of the lofty and dense nature of the trees with which they are covered. As the height and luxuriance of the trees seen this day upon the rising grounds vary in proportion to the nature of the soil, no conclusion could therefore be drawn from ascending any one of the eminences.

We now proceed to explain the nature of the most interesting trees, shrubs, and herbaceous plants, which we met with during this day's ramble. We shall begin with the trees, they being the most conspicuous although we are sorry that the means afforded us of witnessing the extent of the masses was quite inadequate to do justice to their distribution. In the meantime suffice it to say that we passed through immense natural groups of Oaks, Chestnuts, Elms, Beeches, Birches, Hickorys, Limes, Maples, Magnolias, and Sour Gums, with Weymouth, Hemlock, and a variety of other pines, varying according to the elevation of the surface. Often did we wish for the means of soaring aloft so as to procure a bird's eye view of these mountains in order to satisfy ourselves regarding the outline and extent of the masses which these trees present, before being disturbed by the hand of man.

The top of the ridges as well as different elevations on their sides and also the valleys according as they are moist or dry have all their particular trees. These are generally unmixed in undisturbed places, or if mixed one kind was generally seen predominant.

A great variety of shrubs exist as underwood, also varying according to the nature of the soil and elevation. Of these the most conspicuous during this day's ramble were the *Rhododendron catawbiense*, *Kalmia latifolia*, *Azalea nudiflora*, with others which shall be afterwards mentioned. Before entering the forests we were informed by the inhabitants of the Hotel that we ought to have visited

the mountains during the months of June and July, as at that time the beauty of the flowers both of the Large and Small Laurel as well as the varieties of Honeysuckle are unrivalled and although we had heard these terms used before, and were aware that they had here a different meaning from that attached to them in the Old Country, we did not understand which particular plants were alluded to, till they were pointed out by our guide. The Rhododendron we ascertained is called the Large Laurel or Greenbay, the Kalmia, the Small, Sheep Laurel, or Callico Bush, and the Azaleas the Honeysuckles. From thence we concluded that the Greenbay ridge and the Laurel ridge of the Alleghanies, which we passed over the previous day have received their names from the quantity of Rhododendrons and Kalmias which are found upon their surface. This day we witnessed vast masses of all these genera throughout the moist valleys, where they seem to delight and where they attain their largest size. The same kinds of shrubs also exist on the dry sides of mountains, but of dwarfer dimensions. Sometimes in the moist situations we got all the three sorts alluded to mixed together but in the generality of cases the kinds were found apart. When separate the Rhododendrons were generally found on the moist banks of running streams which wind their course through the mountain valleys. They grow in soils of various qualities, sometimes in moist gravelly or rocky places, the soil having a great admixture of decayed vegetable matter, as leaves and rotten stems. In such situations we generally found the rhododendrons branching much from below, and frequently in a procumbent position. They are also abundant, and equally large, on extended open spaces, beside the mountain streams, where the surface was hard and dry though the subsoil was wet and gravelly. In these situations they presented a curious appearance to us, walking as we did amidst their numerous stems, which stood upright, some of them branching from below, while many of them had the appearance of small trees only branching from above. They generally averaged when growing in these large natural masses twenty feet in height, with stems varying from eight to fourteen inches in circumference, and nearly the same thickness for ten feet up, after which they branch to the height of twenty feet. The stems and under part of the branches of almost all of them were bare, being only crowned with leaves on their tops. The species which exhibits the appearance now described we feel convinced is the *Rhododendron catawbiense* which we have in cultivation in Europe. The leaves have likewise the same drooping appearance, concave on the under surface, and of a yellowish green colour. On ascending a neighbouring Hemlock tree and looking down the appearance above described were very characteristic, and only from such elevated situations can the flowering be seen to advantage. Judging from the quantity of green capsules (seed vessels)

now covering the plants the sight must be, as we were assured it is, truly magnificent at midsummer. Notwithstanding the multitude of seeds which are annually produced, it was singular that we observed very few seedling plants. We found them only upon the large and decayed stems of White Pines, which were lying near the streams and where they are continually saturated with moisture. Some of these large stems bore several hundred healthy rhododendron plants varying from 2 to 8 inches high growing upon their surface, and having their roots completely matted through the decayed wood.

We found it utterly impossible to come to any conclusion regarding the precise age of these shrubs, many of the larger ones being decayed. One however which we cut down for the sake of bringing home a section of a full grown native stem had 120 annual circles distinctly visible. Many more layers exist but from the density of the wood it is impossible accurately to trace them. Larger stems we were assured are to be found on many parts of the mountains, but whether of the same species or not we are unable to say, not having seen them. The wood of these aged Rhododendrons is close grained, and very white, and is eagerly sought after by many persons who manufacture it into basons, ladles, spoons, and other domestic utensils.

The *Kalmia latifolia* was also seen in vast quantities, but the shrubs were here trifling in size when compared with those afterwards seen in the neighbourhood of Tuckerton, New Jersey, where they resemble in size and mode of growth the *Rhod. catawbiense* just described. Notwithstanding however, their small size on these mountains, they were not unworthy of notice. We observed them in various situations, sometimes amongst great coarse pieces of sandstone, sometimes on small elevated grassy knolls throughout extended marshy grounds, and frequently in a mixture of a light sandy clay, with a considerable portion of loose rocky matter and decayed leaves intermixed. In such soils as the last mentioned they seemed to form by far the finest plants, for all the specimens seen on the mountains were branched close to the surface of the ground. It was rather difficult to obtain a good section of a large stem, for although many healthy specimens must exist, the largest seen by us were rapidly approaching decay, many of the branches being completely gone, while others on the same plants were in a state of vigour. The largest stem we could procure on these mountains was four inches in height and twelve inches in circumference below the branches. The number of annual rings visible in the section was nearly identical with those of *Rhod. catawbiense* formerly stated.

The *Azalea nudiflora* was also a very abundant shrub, and was found in great perfection in situations more exposed than those inhabited by the

Rhododendrons and Kalmia, but not unfrequently mixed with the Kalmias. They are generally slender branching shrubs, and like the Kalmias were now studded over with fruit. The few flowers we saw were red and white with all the tints between.

No sight in America we are persuaded can delight the lover of botany so much as a trip to the Alleghany Mountains, and that during the early part of the season when all the above mentioned shrubs are in flower. From observation we draw the conclusion that the drier and more exposed the situation the greater is the chance of these plants flowering freely. When grown on dry and stoney soil the plants were generally stunted, but the quantity of seed produced by them was great, compared with that afforded by those of more luxuriant growth, and in soils apparently better adapted for them.

With the above we also picked in seed, various species of Andromedas, Vacciniums, *Cornus*, *Viburnum*, *Prinos*, *Crataegus*, *Mespilus*, *Pyrus*, with very many others which evidently flower at the same time.

The herbaceous plants seen in flower this day were by no means numerous, the most remarkable on the banks of the streams being *Gentiana crinita*, and *G. saponaria*, with *Habenaria obtusata*, and *Neottia cernua*. In the forests the *Orobanche virginica*, *Monotropa hypopytis* and *lanuginosa*, with many others, but possessing little interest at this late season of the year.

Towards evening we returned, not so richly laden with specimens of herbaceous plants as we had anticipated, although vastly pleased with what we had witnessed in the way of shrubby kinds.

COLLECTING AND PROPAGATING ACORNS: ENTRY DATED 7 OCTOBER 1834

We next perambulated the forests of *Quercus nigra* (Black Jack Oak). Its scarlet leaves admirably contrasted with the Pines and Hollies which were occasionally intermixed. As one of the principal inducements for our visiting New Jersey at this season was to procure the fruit of the Black Oak we gathered a large bag of acorns because we had not seen it in a growing state in Britain, and the fear of not getting the Oak to succeed after reaching Edinburgh caused us to try several experiments with it. To our gratification we succeeded in introducing it in a germinating state. They are now (Oct. 1836) fine healthy plants and succeeding uncommonly well.

The various methods which we had recourse to for introducing acorns in a state capable of germination we shall endeavour to explain. The way which we had the greatest number of kinds put up was in paper bags and packed

dry. Several lbs. weight of the acorns of *Quercus nigra* were also put up in the same manner. To our surprise when they came to be sown not one of them germinated and only about one out of forty of a few of the other kinds succeeded. The method adopted by us for introducing the greatest number in a germinating state is as follows: we got a quantity of sphagnum moss (moist but not wet) and spread a layer of it on the bottom of a box, then spread a thin layer of acorns, afterwards another layer of moss, and another layer of acorns. We then packed the remainder of the box with living plants also between layers of moss. When unpacked at Edinburgh eight weeks after they had been put up, we found all the acorns fresh and the radicles of many of them had protruded fully an inch. They were immediately placed upon the surface of boxes, flats and pots filled with sandy loam and then covered over with an inch of soil of the same mixture, and then placed in a cold frame where they remained during winter. The following May they all began to appear above the surface of the soil. Those acorns of *Q. nigra* brought home in paper, part of them were sown at the same time with the germinating seeds and the others which were kept and sown in spring not one of them succeeded. The *Quercus macrocarpa* and some varieties of the Chestnut leaved Oak were also introduced in sphagnum and with equal success. We had also some acorns put in soil and brought home but the success of this experiment was not equal to the sphagnum for the quantity of soil required was too great to keep the seeds in a moist condition. If used in quantity the method will prove equally beneficial with the sphagnum for the purpose. The fruit of *Tilia americana* (Lime tree) brought home in soil succeeded perfectly well, whereas those brought in paper remain in the soil in a fresh state to this time (Oct. 1836). The method of introducing the larger seeds of American trees or shrubs not surrounded with a pulpy covering is from the small experiment which we have made greatly facilitated by bringing them home in a moist condition, besides when we look to nature we find our theory and practice amply demonstrated. No where throughout Europe or the temperate districts of America can seeds lie on the ground during winter in a dry state. They are either covered with leaves or snow and consequently a certain portion of humidity must naturally exist around them. On these grounds we think it next to impossible for seeds to get injured with a little moisture previous of the season of germination provided it is cautiously applied. Seeds intended to be packed in the method recommended ought not to be collected till perfectly ripe and dry. In their natural condition they never do fall from the trees unless accidental agents are employed till perfectly ripe.

COLLECTING AND PROPAGATING CARNIVOROUS PLANTS: ENTRY DATED 8 OCTOBER 1834

The *Sarracenia purpurea* (side saddle plant) is a very remarkable production and much cultivated on account of its singular form. With a little attention owing to its hardiness it succeeds uncommonly well in Britain and a cold frame throughout the season is sufficient to keep it tolerably healthy and in a growing state. If planted in a mixture of very open fibrous peat and sphagnum with a little admixture of sand, and placed during the summer months in a flat of water, and in winter let the flats be kept dry so as to allow the plants a state of rest. By this treatment with a due supply of air the plants will succeed well. To flower them freely it is necessary to put the pots during the summer season in a warm house and in autumn to be placed in a cold frame again. If the plants are not grown in a free open compost they will if put in heat be found very subject to red spider. If so, the plants after being thus disfigured are speedily destroyed. This proneness to red spider is very apt to be the case when the plants are put in close black peat soil. It is very liable to get soured particularly with the moisture which is required to keep the plants in a growing state. If Sarracenias are planted in an open spongy mixture and constantly kept in a great heat, they will make by far the finest plants. Some treated in this way were larger and of a more healthy appearance than in their native state. In swampy grounds particularly in New Jersey the *Sarracenia purpurea* was abundant and by far the greatest proportion and largest plants of them were growing amongst sphagnum, which was matted with fibrous roots of the neighbouring shrubby and herbaceous vegetation. The *Oxycoccus macrocarpus* (Cranberry) – covered with fruit – matted the surface of the sphagnum amongst the Sarracenias, and their roots also assisted in binding the sphagnous surface.

At this season the Sarracenias afforded abundance of seed. Innumerable minute seedlings were also abundant on many parts of the surface of the sphagnum so much so that we have counted twenty-five on a square inch. Of the thousands which are annually produced comparatively few ever come to maturity, the probability is that one or two of the seedlings being stronger than the rest take the lead and ultimately smother the others. The space occupied by the larger plants varied from six to ten inches in diameter. In many places from ten to forty square yards were seen unbroken with them. The generality of surface where they were growing had elevated species of spongy ground of various dimensions throughout all covered with shrubby and rank herbaceous vegetation.

We procured some ripe seeds which were thinly sown (June 1835) on the surface of pots without any covering of soil. The pots were prepared by filling

the underpart with a mixture of sphagnum and very fibrous peat, the surface was then covered with peat of a very sandy nature. After the seeds were sown the pots were then placed in flats of water and kept in a cold frame where they speedily vegetated and formed fine young plants before winter. They were allowed to remain in the cold frame during winter having the flats dry. During the spring of 1836 they were pricked thinly over the surface of the pots filled with a similar mixture to that on which they were sown, and covered with bell glasses and placed in a gentle heat, they are now (Oct. 1836) forming excellent plants.

In their natural state where freely exposed to the sun they were always of a very dark red hue, and under the shade of trees of a light green colour, when so, they were of a more spongy nature and did not succeed in cultivation nearly so well as those collected in the exposed places where they were less drawn up, and very firm in their texture.

What object the inflated or pitcher formed leaves of the Sarracenias are intended is not easily accounted for, each contained a portion of water having meriads of insects of various kinds floating about in a state of decomposition. Owing to the dense set of inverted bristles which occupy the upper part of the inner surface of the pitcher formed appendage, insects getting in cannot return, and owing to the number of insects existing in some of the older ones they diffuse a putrid smell.

Drosera filiformis (sun-dew) – The beauty of this plant when seen during our first visit (3rd July 1834) was such as to make us very anxious to procure a stock of it for the purpose of sending to Edinr. at which time we took up a quantity for that purpose, but they did not succeed. This season (Oct.) was particularly favourable for getting the roots in a fit state to bring home, as the plants, instead of being covered with long leaves, had now assumed their hibernating state, being globular scaly masses, about the size of small marbles and attached to the wet sandy soil with a few delicate fibres. In cultivation this truly interesting production succeeds uncommonly well when planted in small pots filled with very sandy peat having a little fresh sphagnum placed on the surface of each pot, and standing in flats of water. If kept in a warm stove during summer they uncoil their leaves and flowers beautifully, in autumn they assume precisely the same appearance as they do in their native habitat. When in this state we have found it very beneficial to keep them a little drier than at other times.

The flowering is considerably facilitated if the roots are kept in a green-house during winter and as soon as the leaves are observed making an effort to uncoil themselves they should then be placed in heat with the usual supply of

moisture, and standing as near the glass as possible. If kept constantly in heat they start rather early in the season and the leaves and flowers are apt to get distorted, and they not unfrequently exhaust themselves by starting twice the same year.

A RARE PLANT AND A SCEPTICAL BOTANIST: ENTRY DATED 16 OCTOBER 1834

Leaving this interesting spot, we proceeded to another swamp being the station for the *Helonias latifolia*, situated five miles from the preceding, abundance of it was procured, on ground which to all appearance seemed inundated during the early part of the season and dry during summer and autumn. This plant is of rare occurrence, as Dr. Torr[e]y of New York, Professor of Botany informed us that he had neither seen the plant nor did he believe it to be a native of that part of that country till we showed him specimens and informed him of its station.

REFERENCES

ANONYMOUS (1835). Editor's note on J. McNab paper, On the local distribution of different species of trees in the native forests of America, *Quarterly Journal of Agriculture*, 5, 605.

ANONYMOUS (1837). Proceedings of the Botanical Society of Edinburgh, Account of meeting of the Botanical Society of Edinburgh held on 9 June 1836. *First Annual Report, Laws and Transactions of the Botanical Society of Edinburgh*, 28–29.

ANONYMOUS (1838). Proceedings of the Botanical Society of Edinburgh, Account of meeting of the Botanical Society of Edinburgh held on 13 July 1837. *Second Annual Report and Proceedings of the Botanical Society*, 46–47.

BALFOUR, I.B. (1908). History of the Royal Botanic Garden Edinburgh. Principal Gardeners: William McNab. *Notes from the Royal Botanic Garden Edinburgh*, 3, 293–394.

DOUGLAS, D. (1914). *Journal kept by David Douglas during his travels in North America 1823-1827, together with a particular description of thirty-three species of American oaks and eighteen species of* Pinus. London: William Wesley & Son.

GALT, J. (1830). *Lawrie Todd; or The settlers in the woods.* London & New York: H. Colburn & R. Bentley.

GOLDIE, J. (1827). On the culture of North American plants, including ferns; founded on observations made during a journey through Canada and some of the northern States of the Union, in the years 1817, 1818, and 1819. *Gardeners' Magazine*, 2, 129–133.

GOLDIE, J. (1897). *Diary of a journey through Upper Canada and some of the New England States 1819.* Toronto: Wm. Tyrrell.

GRAHAM. R. (1836). *Drosera filiformis.* Narrow-leaved sun-dew. *Curtis's Botanical Magazine*, 63: plate 3540.

LIZARS, R. & LIZARS, K.M. (1896). *In the days of the Canada Company: the story of the settlement of the Huron Tract and a view of the social life of the period, 1825–1850; with an introduction by G.M. Grant*. Toronto: W. Briggs; Montreal: C.W. Coates.

LOUDON, J.C. (1835). Foreign Notes: America. Botanical Tour. *Gardener's Magazine*, 11, 207.

McGUIRE, S. (2009). Robert Cleghorn: nurseryman and man of culture. Quebec Heritage News, 5, 9–11 Available at: http://montrealhistory.org/?s=cleghorn (accessed 29 July 2011).

McNAB, J. (1835a). On the local distribution of different species of trees in the native forests of America. *Quarterly Journal of Agriculture* 5, 594–605.

McNAB, J. (1835b). Account of some of the rare plants observed during an excursion in the United States and the Canadas in 1834. *Edinburgh New Philosophical Journal*, 19, 56–64.

McNAB, J. (1835/36). *Journal of tour through America in 1834.* Bound typescript held in RBGE Archives.

McNAB, J. (1836). Manuscript of paper relating to visit to Niagara in 1834, read at the meeting of the Botanical Society of Edinburgh on 13 July 1837. Held in RBGE Archives.

McNAB, J. (1865). Remarks on some seedling Coniferae raised from seeds ripened in Britain. *Transactions and Proceedings of the Botanical Society of Edinburgh*, 8, 256–260.

McNAB, J. (1872). On the discoveries of Mr John Jeffrey and Mr Robert Brown, Collectors to the Botanical Expeditions to British Columbia between the years 1850 and 1866, with remarks on the cultivation of certain species. *Transactions and Proceedings of the Botanical Society of Edinburgh*, 11, 322–338.

McNAB, J. (1874). Notes on a visit to Messrs. Dickson & Turnbull's Nurseries. *Transactions and Proceedings of the Botanical Society of Edinburgh*, 12, 48–49.

NELSON, E.C. (2011). Personal communication with the author. E-mail sent on 5 August 2011.

NELSON, E.C. & DORE, W.G. (1987). James McNab's collections from eastern North America, 1834: Notes on nomenclature and type specimens in the National Botanic Gardens, Glasnevin, Ireland. *Notes from the Royal Botanic Garden Edinburgh*, 44, 343–349.

SHIRREFF, P. (1835). *A Tour through North America; together with a comprehensive view of the Canadas and the United States.* Edinburgh: Oliver and Boyd.

APPENDIX 1

ITINERARY OF THE ROUTE TAKEN AND PLACES VISITED BY MCNAB AND BROWN DURING THEIR NORTH AMERICAN TOUR, 1834

Date	Itinerary
07.05.1834	Left Edinburgh for Liverpool via Glasgow
08.05.1834	Visited Manchester via railway. Visited Manchester Botanic Garden
09.05.1834	Visited Old and New Botanic Gardens, Liverpool. Visited Mr. Skirving's Nursery, Liverpool. Visited Liverpool Vegetable Market
14.05.1834	Boarded "Constitution"
15.05.1834	Departed Liverpool
16.05.1834 – 06.06.1834	Crossing the Atlantic Ocean
18.06.1834	Dropped anchor
19.06.1834	5 AM weighed anchor for entry to New York harbour. New York City : Grant Thorburn's Nursery, New York : Castle Gardens, New York
20.06.1834	Hogg's Nursery, New York :
21.06.1834	Staten Island
22.06.1834	Church: Hoboken
23.06.1834	Custom House : Mr Pringle, New York Bank : Mr. Pringle's garden, New York
24.06.1834	Flushing : Messrs. Princes' Nursery
25.06.1834	Flushing : Hobocken, New Jersey : Weehawken :
26.06.1834	New Jersey swamps : Hobocken
27.06.1834	New York
28.06.1834	New York
29.06.1834	New York
30.06.1834	New York to South Amboy 6-8.30 AM steam boat : South Amboy to Bordentown 8.30-11 36 miles, steam train : Bordentown to Philadelphia 11 – 2 steam boat via Bristol, Burlington : Burlington : J. B. Smith's property, Philadelphia :
01.07.1834	D & G. Landreth; Bartram Botanic Garden [Col. Carr & Son]; Schuylkill Water Works; Lemon Hill [Henry Pratt, Esq.]; Mrs. Stott; Philadelphia Museum.
02.07.1834	Philadelphia to Camden, New Jersey
03.07.1834	Quaker Bridge
04.07.1834	Quaker Bridge to Philadelphia
05.07.1834	Philadelphia : Markets : Naval Yard
06.07.1834	Philadelphia

Date	Itinerary
07.07.1834	Philadelphia to New York
08.07.1834	New York to Albany : 7 AM boarded Champlain Steamboat to proceed up the Hudson river to Albany. Reached Albany at 7.30 PM, [Journey of 143 miles]
09.07.1834	Albany : Messrs Buel & Wilson Nursery
10.07.1834	Albany
11.07.1834	E. C. Delevan's garden, : Greenbush (opposite bank of the Hudson)
12.07.1834	Albany to Troy 6 miles by steam boat : Mount Olympus
13.07.1834	Hudson Embankment: Mount Olympus
14.07.1834	Troy to Stillwater by Whitehall stagecoach 16 miles :
15.07.1834	Stillwater : Hudson River
16.07.1834	Hudson River
17.07.1834	Stillwater
18.07.1834	Stillwater to Whitehall by canal boat
19.07.1834	Whitehall to St Johns, Lower Canada : Lake Champlain : 5pm at Burlington, 8pm at Plattsburg
20.07.1834	4am crossed US / Lower Canada : 6am arrived at St Johns
21.07.1834	St Johns to Lapraire stage coach 8am-12noon : Lapraire to Montreal "Britannia" steam boat on the St Lawrence 2pm-
22.07.1834	Montreal: Camp de Mars
23.07.1834	Montreal : Montreal Mountain : Mr. Guilbault's Nursery; Mr. Cleghorn's Nursery
24.07.1834	Montreal
25.07.1834	Montreal to Lachine stage coach 10.30am- : Lachine to Cascades 24 miles ; steam boat "Henry Brougham" : Cascades to Cote du Lac stage coach ; Cote du Lac to Cornwall via Rochester 41 miles 6pm-1am steam boat "Neptune"
26.07.1834	Cornwall to Dickensons Landing 12 miles steam boat 6am-8am : Dickensons Landing to Prescott on "Brockville" steamer 38 miles
27.07.1834	Prescott to Kingston "William IVth" steamboat 60 miles arrived 6pm: Lake of a Thousand Islands : Johns Wharf : St Clair Bay
28.07.1834	Kingston : Naval Dockyard
29.07.1834	Kingston : Botanical excursion to area north east of Kingston
30.07.1834	Kingston : Botanical excursion to woods west of Kingston
31.07.1834	6am Left Kingston by steam boat "Oswego" – Lake Ontario – 11am reached Sacketts Harbour – 6pm arrived at Oswego
01.08.1834	5am Oswego to Rochester – 1pm mouth of Genessii River – 4 miles to North Rochester –
02.08.1834	Lake Ontario : Toronto

Date	Itinerary
03.08.1834	Toronto
04.08.1834	Peninsula of Toronto – 2½ miles from Toronto
05.08.1834	7am-12 noon Toronto to Fort Niagara by steam boat 36 miles : Queenston Heights
06.08.1834	Fort Niagara : Pavilion Hotel :
07.08.1834	Museum : Goat Island, Niagara :
08.08.1834	Falls of Niagara to Queenstown by stage coach : 1am Queenstown to Hamilton by stage coach 48 miles :
09.08.1834	Hamilton : Lake Ontario : Burlington Bay
10.08.1834	Hamilton
11.08.1834	Hamilton to Brandford
12.08.1834	Brandford to New London by waggon "wrapped in buffalo hides" arrived 8pm
13.08.1834	New London
14.08.1834	New London to Goderich 60 miles by hired four wheeled waggon "corduroy roads" 12noon to 9pm only made part of the journey ; lodged overnight with Irish family in a shack
15.08.1834	4am arrived at McConnel's Tavern 10am [30 miles of journey covered] 8pm crossed Bayfield River ; travelling mostly on foot for comfort : Lodged at Hicks Tavern [51 miles of journey covered]
16.08.1834	6am Hicks Tavern to Goderich 9 miles
17.08.1834	Goderich: Lake Huron shore
18.08.1834	Maitland River : Goderich
19.08.1834	Maitland River : Goderich : inspecrted collections damaged due to road conditions
20.08.1834	Hermitage Bank : Meadowlands : Goderich
21.08.1834	Maitland River : Goderich
22.08.1834	Goderich
23.08.1834	Goderich
24.08.1834	Goderich
25.08.1834	Maitland River
26.08.1834	Goderich
27.08.1834	4am Goderich to Pittsburg steam boat : St Clair Bay : Fort Gratiot by 4pm reached Johns Wharf
28.08.1834	4am Johns Wharf to County Seat
29.08.1834	County Seat
30.08.1834	County Seat
31.08.1834	County Seat

Date	Itinerary
01.09.1834	9am-7pm County Seat to Detroit by steam boat 64 miles : Evening visited Theatre
02.09.1834	9am Detroit to Cleveland 130 miles on the steam boat Pennsylvania : Reached Huron 7pm : Arrived Cleveland Lighthouse 1am
03.09.1834	Cleveland: Botanical excursion shores of Lake Erie (east)
04.09.1834	Cleveland : Botanical excursion shores of Lake Erie (west)
05.09.1834	2am left Cleveland for Pittsburg by mail stage 130 miles : Bedford, Twinsburgh, Hudson (24 miles) -breakfast – Franklin (34 miles) – Ravana (44 miles) – Edinburgh (50 miles) arrived 2pm – Canfield (58 miles) – Polland (73 miles) arrived 8pm – 3 hour wait for Erie stage – then passed through Middleton, Petersburg and Adairstown
06.09.1834	730am arrived Beaver : Arrived Pittsburg at 3pm
07.09.1834	"one of the wettest days experienced"
08.09.1834	Pittsburg : Collecting – pm : 2am account of fire in carpenter's premises – McNab uses Scots "wright"
09.09.1834	Preparations for leaving Pittsburg
10.09.1834	7am short botanical excursion a few miles along the Pittsburg to Beaver road : 4pm returned to Pittsburg, visited Mr Bone's Nursery – Long section on vines and gooseberries –
11.09.1834	4am left Pittsburg per telegraph line of coaches for Philadelphia : 11am arrived Greensburg (31 miles) : dined at Youngstown : Greenbay Ridge : Laughlinton : Somerset valley – Jennersville – Stagstown – 8pm left Stagstown 1am arrived Stetler's Hotel (80 miles)
12.09.1834	Alleghany Mountains : spoons from rhododendron wood –
13.09.1834	Alleghany Mountains
14.09.1834	Alleghany Mountains – "Alleghany waggons proceeding westwards"
15.09.1834	Alleghany Mountains
16.09.1834	12 midnight left Stetler's Hotel per stage coach – arrived Shellsburg 3am – 6am arrived Bedford – Juniata River – Tussey Mountains – Sideling Hill – 2pm arrived McConnelstown
17.09.1834	McConnelstown
18.09.1834	2pm left McConnelstown for Pittsburg : North Mountain – London Town – 7pm reached Chambersburg (19 miles)
19.09.1834	3am left Chambersburg for Carlisle by stage coach (30 miles) Shippensburg : reached Carlisle at 9am : Carlisle : Conedagivinit Creek
20.09.1834	Carlisle
21.09.1834	Carlisle : botanical excursion
22.09.1834	9am left Carlisle by stage coach : Harrisburg – Lancaster (36 miles between) via Middletwon, Elizabethtown and Mountjoy
23.09.1834	7am Left Lancaster by rail for Philadelphia (70 miles) – 4.30pm reached Philadelphia

Date	Itinerary
24.09.1834	Philadelphia
25.09.1834	New Jersey : Delaware River : Camden, New Jersey : New Jersey swamps
26.09.1834	Philadelphia – sale of greenhouse plants :
27.09.1834	Philadelphia – markets – vegetables : Academy of Natural Sciences – Nuttall's Herbarium
28.09.1834	Philadelphia
29.09.1834	Schuylkill River, Philadelphia – botanical excursion
30.09.1834	Philadelphia – herbarium work
01.10.1834	Philadelphia – herbarium work
02.10.1834	Philadelphia – herbarium work
03.10.1834	Philadelphia : Mill Creek, Philadelphia : Reference to political riot and Jackson party
04.10.1834	Philadelphia: Academy of Natural Sciences
05.10.1834	
06.10.1834	Philadelphia to Camden, New Jersey : Camden to Long a coming 15 miles arrived 5pm
07.10.1834	Long a coming to Atsion to Quaker Bridge : Quaker Bridge
08.10.1834	Quaker Bridge
09.10.1834	Quaker Bridge Tavern to Washington Tavern : Wadden River on foot
10.10.1834	6am-12noon Wadden River to Tuckerton 12 miles
11.10.1834	Tuckerton : Union Tavern
12.10.1834	Tuckerton
13.10.1834	6am-6pm Tuckerton to Philadelphia by mail stage 51 miles
14.10.1834	Philadelphia : sorting specimens – plant labels
15.10.1834	Philadelphia : sorting specimens
16.10.1834	New Jersey swamps : Jesops Mill, New Jersey (12 miles from Camden)
17.10.1834	Philadelphia : Bartram Botanic Garden : D. C. Landreth : Lemon Hill : McMahon Nursery
18.10.1834	Philadelphia : markets – wild plants : Buist's Nursery
19.10.1834	Philadelphia
20.10.1834	10am-6pm Philadelphia to New York
21.10.1834	New York : book berths on the Packet Ship "South America" (Captain Waterman) sailing 1st November (£25 sterling each) : visted Mr. Prime's garden (Mr. Hyslop gardener)
22.10.1834	New York : arranging dried plants (1000 species, 10, 000 duplicates)
23.10.1834	New York : arranging dried plants (1000 species, 10, 000 duplicates)

Date	Itinerary
24.10.1834	New York : arranging dried plants (1000 species, 10, 000 duplicates) 2 cases conveyed on board “South America”
25.10.1834	Visit to Hallet’s Cove Nursery : pm collecting acorns near Hellgate :
26.10.1834	New YorK ; walk with Mr. Buist
27.10.1834	AM – business : PM crossed East River and explored Long Island :
28.10.1834	7am – Excursion to Hobocken, New Jersey : collected tree seed : overnight stay at hotel at Durham Swamp
29.10.1834	Collecting sphagnum and Indian corn : hired dearborn to Hobocken then steam boat to New York and on to Hogg’s Nursery
30.10.1834	New York : preparations prior to departure and final calls
31.10.1834	New York : preparations prior to departure and final calls
01.11.1834	Departure postponed due to strong winds – snow fall
02.11.1834	Boarded “South America” from smaller boat – set sail
03.11.1834 – 28.11.1834	Crossing the Atlantic Ocean
29.11.1834	Reached Liverpool
30.11.1834	Liverpool
01.12.1834	Left Liverpool for Glasgow per steamboat
02.12.1834	Arrived Glasgow
03.12.1834	Proceeded by stage coach from Glasgow to Edinburgh : luggage going by canal boat

APPENDIX 2

LIST OF SEEDS COLLECTED IN THE UNITED STATES AND CANADA DURING 1834 BY ROBERT BROWN AND JAMES MCNAB FROM 'DONATION OF SEEDS 1830–1838' LEDGER HELD IN THE RBGE ARCHIVES

Names in this list are as transcribed with no corrections to account for modern nomenclature.

1. Acalypha caroliniana [1 illegible word]
2. Actaea americana fr. Alb. [? Canada]
3. [Actaea americana] fr. [? Godric]
4. Ageratum coelistinium
5. Allium sp. Goderich
6. [Allium] sp.
7. [Allium] sp.
8. [Allium] sp.
9. Andromeda All. Mts.
10. [Andromeda] sp. N.Y.
11. Andropogon macreurum
12. Anemone sp. Goderich
13. [Anemone] sp. tall
14. Apias glycine
15. Aralia spinosa
16. [Aralia] sp.
17. [Aralia] sp. Goderich
18. [Aralia] large black berries
19. Arbutus uva ursi
20. Arenaria stricta Brantford
21. [Arenaria] squarrasa N. Y.
22. Arum triphyllum
23. Ascelpias incarnate
24. Arcyrium stani [?]
25. Aster sparciflorus Tuckerton
26. [Aster] subulatus [Tuckerton]
27. [Aster] ledifolius N. Y.
28. Astragalus Canadensis
29. [Astragalus] nova sp. Goderich
30. Azalea nudiflora ? Allagany
31. [Azalea nudiflora ? Allagany]
32. [Azalea] viscasa N.J.
33. Baptisia tinctoria Pitts.
34. Bartsia coccinea
35. [Bartsia] pallida
36. Batschia canescens
37. Bryonia, Allagany Mts.
38. Cacalia tuberosa Goderich
39. [Cacalia] large leaved Pitts
40. Cakile americana
41. Campanula sp. Mr. Buist
42. [Campanula] sp. Toronto
43. Carex (drupacea) Goderich
44. Cassia chamaechristi
45. [Cassia] marylandica
46. Ceanothus americanus
47. Cenchrus echinatus L. Erie
48. Celastrus scandens
49. Chryopsis falcata
50. [Chryopsis] mariana
51. Cimicifuga podocarpa
52. [Cimicifuga] serpentaria
53. Cleome dodecandrae
54. Conastylis americana N.J.
55. Conyza camphorata N.J.
56. Convallaria racemosa All.
57. Convolvulus panduratus
58. [Convolvulus] sp.
59. Crotallaria sagittalis
60. Cucubalus stellatus
61. Drosera filiformis
62. Elephantopus carolinianus
63. Elymus hystrix
64. Eriocaulon decangulare
65. Erysium sp. Goderich

66. [Erysium] carolinianum
67. Euonymus americanus
68. Eupatorum sp. N.Y.
69. Euphorbia polygonifolia
70. [Euphorbia] platyphylla
71. [Euphorbia] sp. Pittsburg
72. [Euphorbia] collarata
73. [Euphorbia collarata] var. hirsuta
74. Gerardia maritima Tuck
75. [Gerardia] pedicularis
76. [Gerardia] purpurea
77. Gonolobus obliquus
78. Glycine peduncularis
79. [Glycine] sp. tall
80. [Glycine] monoica
81. Hedeoma palesioides [?]
82. Hedeoma glabra
83. Hedysarum sp. Brant.
84. [Hedysarum] sp. Niagara
85. Helianthemum canadense
86. Helonias dioica
87. Heuchera pubescens
88. Hibiscus palustris
89. Lindernia macrocarpa
90. Houstonia ciliolate Godr.
91. [Houstonia] All. Mts.
92. [Houstonia] longifolia
93. Hudsonia ericoides
94. Hydrophyllum peltatum
95. Hypericum canadense
96. Hysopus scrophularifolius
97. Impatiems biflora
98. [Impatiens] sp.
99. [Impatiens] large yellow
100. [Impatiens] sp.
101. [Impatiens] white
102. Isanthus sp. small
103. Jeffersonia diphylla
104. Juniperus depressa
105. [Juniperus] sp. like communis
106. Justicia pedunculata
107. Iris sp. Phil.
108. Kalmia latifolia 10 feet high
109. Lathyrus pisiformis
110. Lathyrus palustris
111. Leptandra virginica
112. Liatris squarrasa
113. [Liatris] macrostachya
114. Lilium sp. N.Y.
115. [Lilium] sp. St. Clair
116. Lespideza capitata
117. Lobelia cardinalis
118. [Lobelia] Kalmiana
119. [Lobelia] Claytoniana
120. Lonicera sp. Rochester
121. [Lonicera] sp. Goderich
122. Lupinus sp. Albany
123. [Lupinus] perennis
124. Lysimachia revoluta
125. Lythrum verticillatum
126. Mikania scandens
127. Mediola [?] virginica
128. Mimulus unigens [?]
129. Monarda punctata
130. Nelumbium luteum
131. Nuphar Kalmiana
132. Orobanche americana
133. Paspalum laeve
134. Penstemon laevigatum
135. Phryma [?] leptostachya
136. Physalis sp.
137. Pinguicola sp. Goderich
138. Polygala purpurea
139. [Polygala] cruciata
140. [Polygala] verticillata
141. [Polygala] lutea
142. Polygonum reticulatum
143. Potentilla fruticosa nana
144. Prenanthes racemosa vera
145. [Prenanthes] palmate
146. Primula mistacinica Quebec
147. [Primula mistacinica] Goderich
148. Prinos glabra
149. [Prinos] verticillata

150. Pycnanthemum virginicum
151. [Pycnanthemum] incanum
152. [Pycnanthemum] linifolium
153. Ranunculus sp. Goderich
154. [Ranunculus] sp. Kingston
155. [Ranunculus] obovtivus
156. Rhododendron catawbiense
157. Rhexia virginica
158. Rhus tephina var. elegans
159. [Rhus] toxicodendron
160. [Rhus] sp. New Jersey
161. Rockelia luppula
162. Rosa sp. N.J.
163. Sabbatia stellaris
164. [Sabbatia] augustifolia
165. Sanguinaria grandiflora
166. Sarothra hypericoides
167. Sarracenia purpurea
168. Scandix sp. St. Clair
169. Scrophularia lanceolata
170. Scutellaria galericulata
171. Setaria verticillata
172. Sicyas angulata
173. Sida sp. Cleveland
174. [Sida] sp. yellow
175. Smilax sp. New Jersey
176. [Smilax] sp. Kingston
177. [Smilax] sp.
178. Smillacina stellata
179. Smyrnium integerrinum
180. Sonchus sp. orange
181. Spiraea trifoliate
182. Spermacoce diodina
183. Stylasanthus elatior
184. Symphoria occidentalis Goder.
185. [Symphoria] racemosa
186. Swertia deflexa
187. Tephrosia virginica
188. Tofieldia viscose
189. Trichostoma dichotoma
190. Triosteum perfoliatum
191. Trillium sp. large dark
192. Tumaria glauca
193. Vaccinium corymbasum Albany
194. [Vaccinium] sp. Albany
195. [Vaccinium] sp. All. Mts.
196. Verbascum lychnitis
197. Verbena augustifolia
198. [Verbena] sp.
199. Viola sp. All. Mts.
200. [Viola] sp. entire leaves
201. [Viola] sp. Goderich
202. [Viola] sp. yellow
203. [Viola] palmata
204. [Viola] concolor
205. Xanthium spinosum
206. [Xanthium] strumarium
207. Xyris caroliniana
208. Zigadinus chloranthus
209. Plant like Actea, Goderich
210. Snowberry small round fruit
211. Three leaved Bladder nut
212. Tall grass, St. Lawrence
213. Aquatic grass
214. White flowering Thistle
215. Syngenesious plant
216. Cleveland
217. North America
218. Ohio River
219. No name
220. [No name]
221. Climbing orange melon
222. Round water melon
223. Long water melon
224. Althaea frutex Painted Lady
225. [Althaea frutex] single
226. Hibiscus manihot yellow
227. [Hibiscus] Halbert leaved
228. Vernonia noveborense

Shrubby seeds

229. Aesculus pavia
230. Alnus serrulata
231. Betula

232. Ostrya virginica
233. Celtis occidentalis
234. Cercis canadensis
235. Cornus florida
236. [Cornus] blue fruited
237. [Cornus] Lake Erie
238. Crataegus pear leaved Tuck.
239. [Crataegus] beautiful leaves Tuck.
240. [Crataegus] arbutus leaved Carlisle
241. [Crataegus] sp. New London
242. [Crataegus] sp. St. Clair
243. [Crataegus] early globular fruited
244. [Crataegus] upright growing
245. [Crataegus] sp. St. Clair
246. [Crataegus] sp. N. Jersey
247. [Crataegus] maple leaved
248. [Crataegus] sp. St. Clair
249. [Crataegus] dwf birch leaved
250. [Crataegus] …. leaves
251. Cupressus thyoides
252. Euonymus atropurpureus
253. Gleditzia horrida
254. Hamaelis virginica
255. Ilex opaca
256. Juglans nigra (Black walnut)
257. Carya alba (Hickory)
258. [Carya] porcina (Hog Hickory)
259. Juniperus virginiana green var.
260. [Juniperus virginiana] green var. Tuck.
261. [Juniperus virginiana] glaucus var.
262. Laurus Benzoin
263. [Laurus] sassafras
264. Ligustrum vulgare
265. Liquidamber styraciflua
266. Maclura aurantiaca
267. Magnolia acuminata All. Mts.
268. [Magnolia] tripetala
269. Mespilus All. Mts.
270. Myrica sp. 15 feet high
271. Pinus serotina All. Mts.
272. [Pinus] recinosa Kingston
273. [Pinus] inops pendulus branches
274. [Pinus] inops true
275. [Pinus] pungens All. Mts.
276. Prinus ambiguous
277. [Prinos] verticillatus
278. Prunus Canadensis
279. [Prunus] sp. St. Clair
280. Rhamnus sp. Rocky Mts., Col. Carr, Philadelphia
281. Rhus sp. a tree
282. Rosa sp.
283. Spiraea apulifolia Goderich
284. Tilaea Americana
285. Thuja occidentalis
286. Vaccinium All. Mts.
287. Viburnum Phil.
288. [Viburnum] Phil.
289. [Viburnum] Phil.
290. [Viburnum] St. Clair
291. [Viburnum] St. [Clair]
292. [Viburnum] Carlisle Cumb.
293. [Viburnum] dentatum All. Mts.
294. Zanthoxylon fraxinium large var.
295. [Zanthoxylon fraxinium] St. Clair
296. Sweet scented Crab apple St. C.
297. [Sweet scented Crab apple] small fruited All. Mts.
298. Wild Plum St. Clair
299. [Wild Plum St. Clair]
300. Shrub like Ligustrum Goderic