# WILLIAM RAMSAY MCNAB'S HERBARIUM IN THE NATIONAL BOTANIC GARDENS, GLASNEVIN (DBN) Part I. ITS EARLY HISTORY AND ACQUISITION

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## INTRODUCTION

William Ramsay McNab (born 9 November 1844, died 3 December 1889) was Professor of Botany to the Royal College of Science in Dublin and Scientific Superintendent of the Royal (now National) Botanic Gardens, Glasnevin. A Scot by birth, the son of James McNab (one-time Curator of the Royal Botanic Garden, Edinburgh), W. R. McNab came to Dublin in 1872 as successor to William Thiselton-Dyer in the chair of botany at the Royal College. McNab was appointed Scientific Superintendent at Glasnevin in 1880 (Nelson & McCracken, 1987) and regularly used the facilities at the Botanic Gardens for his research.

Professor McNab was a prolific author; his research papers included a taxonomic revision of Abies, anatomical and physiological contributions, and a Guide to the Royal Botanic Gardens, Glasnevin (McNab, 1885; Anon, 1890). He was credited with the introduction into Britain of the botanical teaching methods then current in Europe; indeed he himself studied in the University of Berlin under Alexander Carl Heinrich Braun and Karl Heinrich Emil Koch.

McNab was an abrasive man, and did not endear himself to the botanical fraternity in Ireland and Britain, and frequently he was in dispute with the Department of Science and Art which, after 1878, administered both the Royal College of Science and the Royal Botanic Gardens in Dublin. That botanical fraternity moved against him on at least one occasion, preventing him from obtaining the vacant chair of botany in the University of Glasgow (Boney, 1985). He was rumoured to have wanted to succeed Dr David Moore as Director of the Botanic Gardens, but following the death of David Moore, Frederick Moore (David's son) was rapidly appointed Curator at Glasnevin, and McNab was given the sinecure of Scientific Superintendent.

He was a demanding person who frequently sought for himself special privileges that the Department of Science and Art declined to grant. After William Ramsay McNab's own death, when the position of Scientific Superintendent was abolished, a confidential memorandum was prepared and it contained the following assessment of the original (and only) occupant of that post:

Among ... claims frequently pressed by the late Scientific Superintendent was that he should have the exclusive service, of one of the gardeners whom, it was understood, he desired to obtain specimens for him in the Gardens ... [This] is simply mentioned here as an illustration of the fact that the late incumbent sought to obtain privileges for his post which were not compatible with the good order of the Gardens. At another time, it must be stated, merely also for the sake of illustration he claimed for the post a practical independence of authority of the Director [of the Dublin Institutions of Science and Art]. William Ramsay McNab was survived by his widow and a young family. Mrs McNab was left in straitened circumstances and was compelled to consider taking paying boarders into her house to ensure an adequate income. She was also obliged to dispose of her late husband's library, scientific instruments and herbarium. Documents in the archives of the

National Botanic Gardens provide details of the disposal of the herbarium and other effects.

## SALE OF McNAB HERBARIUM

On 20 December 1889, three weeks after Professor McNab's death, Frederick Moore (Curator, Glasnevin Botanic Gardens) wrote to William Thiselton-Dyer at the Royal Botanic Gardens Kew, reporting that he and Frederick Burbidge (Curator, Trinity College Botanic Gardens, Ballsbridge, Dublin) had spent three hours examining the late professor's herbarium. More informed Dyer that 'the collections are in good order and some of the bundles are most interesting'. Moore later provided a synopsis of the contents of the herbarium. At that time the collections were housed in the McNab family home in the North Dublin suburb of Cabra.

During December 1889 and January 1890, most of the materials (including herbarium specimens) housed in the botanical museum at the Botanic Gardens in Glasnevin were in the process of being transferred from Glasnevin to the newly-completed National Museum buildings on Kildare and Merrion Streets in central Dublin. On 27 January 1890, Frederick Moore reported to Dr. Valentine Ball, Director of the Dublin Science and Art Institutions, that he had seen Mrs McNab and within a few days her late husband's herbarium would also be sent from Cabra to the new museum; it was delivered to the museum on 29 January and was put in storage. In a memorandum, Dr Ball wrote:

I have undertaken to store Dr McNab's Herbarium. The Glasnevin cart will deliver it ... please see that the cases &c are kept in the Herbarium rooms apart by themselves as they are private property.

Five cases of specimens were received and duly stored.

On the same day, 27 January 1890, Mrs McNab wrote to Dr Ball explaining her situation:

My reason for wishing to dispose of the Herbarium as soon as possible is that I am trying to get a boarder, & will require the room at present filled by the cases ... I shall require to earn money to support us by boarders ...

Probate was granted on William Ramsay McNab's estate in February 1890, clearing the way for the sale of the herbarium, library and scientific instruments; Dr Ball was informed about the granting of probate. In March, Mrs McNab wrote again to Ball.

Dear Dr Ball

Mr. Dyer has written, asking if I will send some 50 bundles (No 4 in the advertisement) of the herbarium to Kew, for him to choose what will be useful to them there. Before doing so, I should be obliged if you will kindly say, if you think I should do this at once, or should I ask Mr. Dyer to wait, till the new Professor comes, in hopes that he may wish the herbarium to be bought as a whole for the Museum. I need not say how glad I shall be if this is done, & have it kept together, in Dublin. I hoped to sell the library, as a whole, to a bookseller, but cannot get a purchaser willing to pay the price put on it by friends who know the value. I may have to sell the books separately, as I can get purchasers.

I am, dear Dr Ball, very truly yours,

#### J. L. McNab.

Prompted by this letter, Ball contacted the three leading botanists in Dublin - Frederick Burbidge, Frederick Moore and Alexander Goodman More (retired Keeper, Natural History Division, Science and Art Museum) - and sought their advice about the quality and value of Professor McNab's herbarium. Moore responded on 18 March 1890:

I find some difficulty in replying to your questions about Dr McNab's herbarium. I sent sample bundles to British Museum [Natural History], but they did not think much of them. I then sent index boxes of Herbarium to Kew, and Dyer wrote to me that the collection would be no use to them, as the specimens were of no special interest and were only suitable for beginners. He however wrote asking for information as to the contents of 50 bundles of mixed plants for which there is no index, as he says Dr McNab informed him in conversation that he had inherited a very interesting lot of [South] African plants, and these Mr. Dyer is anxious to secure. He says if I will send the bundles he will quote a fair price for them. From this you can gather enough to judge of the general collection. I think you should secure the British Herbarium; it is good, and fairly complete, and it would be difficult to get such another. You have it in Kildare St. [i.e. in the Museum], and I am sure that A G More would take a look at it for you, and give you a fair estimate of its value. You could have no better authority than More.

My own impression is that the whole herbarium will not fetch above £100.0.0 and most likely not more than £75.0.0 but I have not much experience in these matters.

On the following day, Burbidge wrote his reply to Ball's enquiry. Explaining that he had not examined more than '... a tithe of its contents..' during his visit with Moore lasting two hours, Burbidge expressed the view that this herbarium, apart from its British material, was a '... very miscellaneous' collection. He confirmed that most of the exotic plants were garden specimens, and stated this opinion:

I quite agree with you that it is important to keep good collections in Dublin, but I do not know whether this collection (especially so far as British plants is concerned) would add much to what you possess already in the Herbm. of Botanic Gardens etc.

Frederick Burbidge reported that some of the older specimens, collected by Professor McNab's grandfather (William McNab, gardener at the Royal Botanic Gardens in Kew and late curator of the Botanic Garden, Edinburgh) were not in good condition. Burbidge believed that the whole of Dr McNab's herbarium was not worth more than one hundred pounds. He continued:

McNab's forte was as a palaeontologist and I had expected to find that portion of his collection valuable, but the only cryptogams I saw were the Ferns & so far as I remember these seemed to be largely from Glasnevin Botanic Gardens.

Alexander More wrote to Dr Ball saying that he would be happy to value the collections and would meet Ball at the Museum - a note in pencil among the papers in Glasnevin archive simply states that 'Mr More values the British Collection at £20.0.0.' A further exchange of letters between Mrs McNab and Dr Ball followed and more correspondence between Frederick Moore and William Thiselton-Dyer.

## SALE OF SCIENTIFIC INSTRUMENTS AND BOOKS

On 26 March, Mrs McNab wrote informing Ball that a few days earlier a friend had contacted the University of Toronto, '... asking if the University would take all my husband's scientific effects,' She was anxious not to have to split the collections, but at that time had not received any offer for the herbarium apart from one made by Ball on behalf of the Science and Art Department.

Early in April 1890, Frederick Moore informed Dyer that Mrs McNab had agreed to the despatch of several bundles of plants to Kew for examination, but this would be delayed until the authorities in Toronto had responded. In this same letter, Moore reported that the position of Scientific Superintendent at the Glasnevin Botanic Gardens had been abolished: ... this change will be a great relief to me', he added.

Mrs McNab informed Dr Ball on 21 April that the University of Toronto would not purchase the collections and scientific instruments: 'May I ask if you are still willing to make me the offer you named in your letter of 25 March?' Ball had not applied for official approval for the purchase, but he now proceeded to seek the Department's consent. On 30 April, Mrs McNab thanked Dr Valentine Ball for

. . . asking to have the library of my husband bought for the Museum. It would be a very great satisfaction to me to know that his books and plants were all placed in the Museum, in which he took so great an interest, & not to have them sent out of Dublin where he worked for so many years.

However, Mrs McNab also told Ball that she had an offer of one hundred and twenty pounds for the library from Messrs Dulau of London, but this price was less than she had expected. Dr Edward Perceval Wright of Trinity College, Dublin, had valued the botanical books at one hundred pounds and the entomologist, Dr Robert Scharff (Curator, Natural History Division, Science & Art Museum) had suggested twenty-five pounds as a reasonable value for the entomological volumes. Another London dealer, Wesley, had confirmed these figures, saying that the library was worth this to a scientific society. Dr Ball had to reply that many of the books were already in the National Library of Ireland, and therefore the Trustees of the Museum would probably not agree to purchase the books.

# **PURCHASE OF HERBARIUM**

On 15 May 1890, the Lords of the Committee of Council on Education, through the Department of Science and Art in London, approved the purchase of Dr McNab's herbarium for the Dublin Museum and the expenditure of sixty pounds. Mrs McNab quickly agreed to this offer and signed the requisite documents. She thanked Dr Ball for his work in securing the herbarium for the National Museum in Dublin, and informed him that the books had all been packed and shipped to Messrs Dulau.

According to the official inventory, the Department purchased the following portions of the McNab herbarium;

No. 1	British Herbarium
	96 Natural Orders 530 Genera 1596 Species
No. 2	General Exotic Collection
No. 3	Cryptograms [sic.]
	Ferns &c. 87 genera
	Mosses 53 genera
	Hepatica fair set
	Lichens 70 genera
	Fungi in good condition
	Net £60.0.0

It is important to note that item No. 4, referred to by Mrs McNab and described as loose bundles, was not included in this inventory.

On the next day, Dr Ball issued instructions that the cases containing Dr McNab's herbarium, already in safe-keeping in the Museum, should be taken to the top floor rooms so that specimens could be incorporated into the general collections. Thus the McNab herbarium joined that already transferred from the Royal Botanic Gardens, Glasnevin, and other specimens donated to the Museum, for example Admiral Theobald Jones's lichen herbarium (Ball, 1890; Johnson, 1891).

## CONCLUSION

The new National Museum complex in which the herbarium was housed was officially opened by the Lord Lieutenant of Ireland on 29 August 1890, and the herbarium remained in the Museum until 1970 when the botanical collections (including the herbarium) were handed over to the National Botanic Gardens, and removed to Glasnevin (Anon., 1970; Nelson, 1980; Nelson & McCracken, 1987).

No complete inventory was made of the McNab herbarium when it was purchased by the Department of Science and Art, and it is clear from the correspondence quoted that some specimens did not remain in Dublin. However, there is no mention of the transfer of specimens to Kew, and the subsequent history of the material referred to by Mrs McNab in her letter dated 13 March 1890 as 'No. 4' is not entirely certain. No. 4 seems to have comprised those loose specimens that Dr McNab had not incorporated into his herbarium. Various letters between Frederick Moore of Glasnevin and William Thiselton-Dyer at Kew suggest that there were about fifty such bundles. On 11 June 1890, Moore informed Dyer that:

At length I have been able to get the loose bundles of plants overhauled which were not arranged with the ordinary herbarium of Dr McNab ... I send them to you today. The rest of the herbarium has been disposed of for £60.00.00

Moore made a very incomplete list of the material sent to Kew, noting 689 specimens of Erica from the Cape of Good Hope collected originally by James Niven. Forty shillings (two pounds) for one hundred specimens was suggested as a reasonable price for these. Some South American plants (from Uruguay), valued at twenty shillings, also attracted Dyer's attention and he offered to purchase these two lots for ten pounds. This was accepted on Mrs McNab's behalf by Moore. Moore thanked Dyer and intimated that he would be sending the remainder of the herbarium to Isaac Bayley Balfour at the Royal Botanic Garden, Edinburgh, for his perusal.

While there is no record to show that Balfour acquired any of the McNab specimens for Edinburgh - and that, despite the strong links between this family and the Royal Botanic Garden - Dyer's purchase of James Niven's Cape heaths is confirmed by records in Kew. Those specimens were incorporated into the Kew herbarium, but are incorrectly attributed to Ninian Niven in Index Herbariorum (Vegter, 1983) - the two Nivens are not related as far as can be traced, despite the widely published opinion that Ninian was the son of James Niven (see Nelson & McCracken 1987).

Whereas Moore, Burbidge and More thought little merit was contained in W. R. McNab's 'miscellaneous' herbarium, modern studies of the specimens tend to indicate that many of the specimens are of considerable nomenclatural significance. It would be easy to overstate the value of portions of the McNab herbarium, but it must be remembered that materials useful in the typification of botanical names have special significance (e.g.

Winch's specimen of Rosa glaucophylla; see Nelson, 1987). Powell & Morley (1976) highlighted the specimens in the McNab herbarium that were collected by Robert Brown in Australia (1801-1803). A catalogue of the specimens cultivated in British gardens (including Royal Botanic Gardens, Kew, 1805-1810, and the Botanic Garden, Edinburgh 1810-c.1820) has been completed (Nelson, 1999); some of these specimens, particularly those from Kew, may be important candidates for typification of species named in the second edition of Hortus Kewensis (Aiton, 1810; for a note on some specimens of Acacia see Edwards, 1981). Nelson & Dore (1987) have noted the types of North American species named by James McNab following his visit to North America in 1834. Of historical rather than taxonomic interest, are the beautifully painted herbarium sheets of James McNab (Nelson, 1989), and the Cape of Good Hope hortus siccus of James Niven (Nelson & Rourke, in prep.).

## PART II

A CATALOGUE OF SPECIMENS FROM THE ROYAL GARDENS, KEW (1805-1810) RELATING TO HORTUS KEWENSIS (EDITION 2), THE BOTANIC GARDEN, EDINBURGH (C. 1815), & SCOTTISH NATIVE SPECIES

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## **ABSTRACT**

A catalogue has been compiled of specimens collected by William McNab from cultivated plants grown at the Royal [Botanic] Gardens, Kew between 1805 and 1810, and at the [Royal] Botanic Garden, Edinburgh after May 1810. Some specimens of native species from localities in Scotland and England are also listed. Among the important collectors represented by the cultivated plants are Robert Brown, Peter Good, George Caley, Archibald Menzies, William Kerr and Francis Masson. The specimens gathered in Kew may be significant in typifying names published in the second edition of Hortus Kewensis.

## INTRODUCTION

William McNab (1780-1848) was employed in the Royal Gardens, Kew (1801-1810), and the Botanic Garden, Edinburgh (1810-1848). He had unique opportunities at Kew and Edinburgh to observe recently introduced plants and to collect specimens from the many new and often unnamed species for his own study. When he died his herbarium passed to his son James (1810-1879) who added his own specimens (see e.g. Nelson & Dore, 1987; Nelson, 1989) and some from his younger brother, Gilbert (1815-1859) (Nelson, 1995a). Both William and James also garnered specimens from many other botanists; some of these specimens have been described and catalogued elsewhere (e.g. James Niven (Nelson & Rourke, 1993); N. J. Winch (Nelson, 1987); Dr P. Neill (Nelson, 1993)). The herbarium later became the property of William Ramsay McNab, William's grandson, who brought it to Dublin sometime after 1872, when he was appointed Professor of Botany in the Royal College of Science; he was probably instrumental in acquiring duplicates from Robert Brown's Australian collections (Powell & Morley, 1976). Professor McNab died suddenly on 3 December 1889, and his widow, left in straitened circumstances, was obliged to sell the collection. As related elsewhere (Nelson, 1990b), most of the herbarium specimens were acquired for the National Museum of Ireland, and incorporated into the Museum's botanical collection. In 1970 the Museum's botanical specimens and library were transferred to the National Botanic Gardens, Glasnevin, Dublin (DBN).

While taxonomist in the National Botanic Gardens, Glasnevin, I had opportunities to work on some of William McNab's specimens with other botanists, and gradually it became clear that the specimens which he had gathered from the plants growing in Kew and Edinburgh in the first two decades of the nineteenth century were of more than minor interest.

## SPECIMENS FROM THE ROYAL GARDENS, KEW

William McNab joined the staff of the Royal Gardens, Kew, in 1801 and worked under William Kerr, foreman, and William Townsend Aiton, curator. When Kerr left for China in 1803, McNab was promoted to foreman. At this period the Gardens were 'under the direction' of Sir Joseph Banks (see Desmond, 1995: 90) and the flow of new plants into Kew was substantial.

William Kerr was one of the many men who sent plants to Kew; some of his material is represented in William McNab's herbarium, although not his most famous plant, Kerria japonica. He sent plants from China and from The Philippines. There are 40 specimens with his name on them. Francis Masson who was the first collector sent out from Kew collected plants at the Cape of Good Hope (1772-1774) and later visited other areas including eastern North America (1798); nine of McNab's specimens represent plants raised from Masson's seeds. Another famous botanical explorer represented is Archibald Menzies who was a naval surgeon, and made collections in various places but is especially notable for his work as a naturalist during the voyage to Australia and western America of H. M. S. DISCOVERY (1791-1794) commanded by George Vancouver.

The year McNab joined the Kew staff, H. M. S. INVESTIGATOR, commanded by Matthew Flinders, set sail for New Holland (Australia) and consignments of seeds collected mainly by Peter Good reached Kew in 1803 (Edwards, 1981). There are 24 specimens with Good's name on them among McNab's gatherings. McNab may have been responsible for their propagation, and he certainly collected herbarium specimens from the seedlings when they bloomed. Several botanists were able to use these specimens to aid their studies; for example, Maslin recognised that specimens of Acacia gathered from plants grown from seeds collected in Australia during the Flinders expedition were the only ones that exemplified the species named in the second edition of Hortus Kewensis (Aiton, 1810; cf. Nelson, 1980, 1990a), and similarly Crisp (1990) was able to typify the Australian shrub Brachysema latifolium named by Robert Brown, the botanist on INVESTIGATOR, using the specimens McNab collected at Kew in 1809. Robert Brown's name appears on six of McNab's specimens, and three of these also bear Van Dieman's Island (now Tasmania) as the locality of origin of the seed. Another Australia collector, George Caley, is represented by 14 specimens

Other interesting material in this herbarium are samples from plants from Guiana which were taken from the French ship LA UNION by British privateers in 1803 and given to Kew. Desmond (1995) commented that most of the plants, originally contained in 100 tubs, died, but eleven are mentioned in Hortus Kewensis. It is interesting to note that ten species are represented in McNab's herbarium.

In the following catalogue the abbreviation [HK] is used on a series of specimens that were collected before McNab's departure for Edinburgh in May 1810; none of these specimens is dated. Evidence on several specimens in this series confirms that the material originated in Kew and not in Edinburgh. Most of the specimens - the exceptions are few - bear an annotation on the reverse which refers to the second edition of William Aiton's Hortus

Kewensis (1810). The series is remarkable because it comprises mainly Australian genera including many Proteaceae.

## SPECIMENS FROM THE BOTANIC GARDEN, EDINBURGH

In May 1810, William McNab left Kew and went to the Botanic Garden in Edinburgh (Fletcher & Brown, 1970). The Edinburgh specimens in his herbarium are mainly dated 1815, and they do not appear to be as significant from a taxonomic point of view as those gathered in Kew.

## NATIVE SPECIMENS FROM SCOTLAND AND ENGLAND

A number of the cultivated plants are labelled as having come from wild populations especially in Scotland. There is also a series of specimens which probably represent wild gatherings; these are listed in part III. Some of these are of rare, montane plants.

The McNabs' collections of British native species have not been catalogued although many specimens are of historical interest. Their herbarium contains, for example, early gatherings of Phyllodoce caerulea (Nelson, 1977), and other rare, even extinct plants (see Nelson, 1995b).

## **OTHER SPECIMENS**

In part IV specimens annotated by William McNab as coming from individual gardeners, nurserymen or collectors are listed or indexed, and in part V those from various localities are listed or indexed.

#### **NOMENCLATURE**

It would have been an immense task to check and annotate every name in this catalogue. Thus the catalogue generally includes botanical names as they appear in manuscript on the herbarium sheets. In some instances it is known that the names used by William McNab were unpublished at the time the specimens were gathered - for example Haxtonia was not published until 1832 (Nelson, 1990a: 294, fn 67). It is possible that some of these binomials have never been published, but it is explicitly not my intention to publish any of these.

## **ACKNOWLEDGEMENTS**

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