

Reporting the Irish lichen flora, 1850–1900

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ABSTRACT: The principal publications in which additions to the Irish lichen flora were documented during the latter half of the nineteenth century are specified; reference is made, in particular, to those that detail taxa described from this country. Information is provided concerning the location of material collected by the main field workers.

INTRODUCTION

In the fifty years following Thomas Taylor's death in 1848, the number of currently accepted infrageneric lichen taxa known from Ireland increased from a little over 250 to some 570. Although that substantial advance can be very largely attributed to diligent collecting by Isaac Carroll, Theobald Jones and Charles Lorbalestier, none of these men possessed Taylor's taxonomic flair: it was William Leighton and, in particular, William Nylander who were responsible for virtually all the new lichens described from Irish material in the latter half of the nineteenth century.

SOURCES

In a letter sent from Kenmare on 12 May 1838, Thomas Taylor informed Thomas Salwey that he had dispatched 'such of your desiderata as I could lay my hands on' (Ludlow Museum, Salwey correspondence). These and further specimens in Salwey's herbarium provided Schaerer (1850) with his sprinkling of Irish records, all of which relate to previously reported taxa. Other of Taylor's lichens did, however, afford the first increase after mid-century: a study of his pyrenocarp material in William Borrer's herbarium resulted in the description of *Verrucaria murina* and the addition of two species new to Ireland (Leighton, 1851).¹ Leighton's publication carries an introductory note requesting material to assist him in a revision of, among other genera, *Graphis*, *Opegrapha* and *Umbilicaria*; it was, very likely, as a result of this request that several records attributed to Isaac Carroll are cited by Leighton (1854, 1856) from counties Cork, Tipperary and Wicklow.

During the 1850s and '60s Carroll formed a substantial herbarium, despite his having commercial responsibilities that left scant opportunity for field work (Mitchell, 1996).² Carroll continued to supply Leighton with records but it was to William Nylander, with whom he began a correspondence in 1858, that he submitted material for determination. Carroll, presumably, provided the specimen collected by Ellen Hutchins on the basis of which Nylander (1858a) published the name *Lecidea* [*Trapeliopsis*]³ *glaucolepidea*; *Verrucaria* [*Strigula*] *taylorii*, one of the two valid species with which Carroll's name is associated as author, was published by Nylander (1858b), and he also pronounced on the other, *Lecidea* [*Trapelia*] *mooreana*, described by Carroll (1859). Although that contribution detailed some sixty taxa, among them several new to Ireland, Carroll's own view was that 'My first paper on Lichens is very poor' (National Botanic Gardens, Jones correspondence, 19 February 1860).

¹ The nomenclature of Purvis *et al.* (1993) is adopted in this paper.

² Carroll's background remains poorly documented; his only obituary, contributed by More (1881), is not overly informative, and it is a matter of regret that neither Thomas Chandlee nor Joseph Wright, both naturalists and his close friends, chose to comment on the career of this versatile botanist.

³ Names in square brackets denote the current generic placement.

The study of pycnidia and spermatia published by Lindsay (1859) has some fifty references to Irish lichens, three of which were additions to the flora; Lindsay states that Carroll had 'repeatedly sent me large collections...made by himself in the south of Ireland', but a considerable number of the references are to specimens given to Carroll by David Moore. Carroll and Moore, together with Theobald Jones, also supplied most of the Irish records for Mudd (1861), which includes over thirty species new to this country; of these, almost half are credited to Carroll from his total contribution of approximately 100 records.

About the year 1860, in response to a request from the Dublin University Zoological and Botanical Association, Jones undertook a comprehensive collection of Irish lichens. When presenting his results to a meeting of the Natural History Society of Dublin in May 1864, Jones (1865) remarked 'Such of the specimens as I supposed to be new were sent to Dr. Nylander, and were named by him; with the assistance of Mr. Carroll, I have as far as possible named the remainder'. Jones' list of almost 350 taxa includes twenty not previously reported from Ireland, and credits Nylander with the description of five species based on material submitted for identification. Nylander was, in fact responsible for just three of these – all subsequently reduced to synonymy; however, two of the lichens represented by Nylander's names were additions: *Catillaria minuta* (*Lecidea luteella* Nyl.) and *Pertusaria chiodectonoides* (*P. nolens* Nyl.).

Further progress was reported by Carroll (1865). Although much of that paper is devoted to the results of a visit he and Jones had made to Scotland in July 1864, it does include nine species new to the Irish flora. A similar number are found in Carroll (1866), which is, however, again largely concerned with Scottish taxa. Carroll's business affairs continued to restrict his opportunities for field work – on 27 September 1866 Jones commented in a letter to Nylander 'I fear he can no longer give Time and he is nearly lost to us' (University of Helsinki Library, Nylander correspondence). Carroll nonetheless availed himself of such occasions as presented and, on 21 March 1867, wrote to Nylander 'I found a few things at Killarney one day last Christmas – & wish you w^d kindly look at them (University of Helsinki Library, Nylander correspondence); of the five species described from that material by Nylander (1867a), two are currently valid: *Arthonia ilicinella* and *Melaspilea amota*. On 25 May 1867 Carroll sent further specimens, some of which he had collected on a day's visit to Killarney with Wright in the previous month (Carroll, 1867; Mitchell, 1996); six of these were considered by Nylander (1867b) to represent new species, though just three are now accepted: *Lecanora* [*Lecania*] *hutchinsiae*,⁴ *Lecidea* [*Catillaria*] *aphana* and *Lecidea* [*Bactrospora*] *homalotropa*. In September 1867 Carroll returned to Killarney for another brief visit, which provided the type material of *Calicium diploellum* (Nylander 1868); it also provided six other additions, detailed by Carroll (1868). Although that was his last lichenological contribution, Carroll continued to take an active interest in the subject and supplied data for a number of publications that appeared at the beginning of the next decade.

Crombie (1870) expressed warm thanks to Carroll whose numerous records include those for over half the twenty-four species new to Ireland listed in that work. Carroll was responsible for a similar proportion of the thirty-two Irish additions reported by Leighton (1871). Lindsay's (1872) study of microlichen pycnidia mentions upwards of fifty specimens supplied by Carroll, to one of which, collected by Taylor at Dunkerron, Lindsay gave the name *Lecanora carrollii*.⁵

⁴ The basionym of this species was printed '*Lecanora Hutchinsia*', which occasioned some discussion by Mayrhofer (1988) but, in fact, the specific epithet had been amended to '*Hutchinsiae*' by Nylander (1879c).

⁵ The only subsequent mention of that name, it would seem, occurs in Zahlbruckner (1928) and, apparently, its current status remains to be assessed.

Prior to the 1870s, the principal areas of the country in which lichenological work had been carried out were Antrim/Armagh, Cork/Kerry and Dublin/Wicklow (Mitchell, 1998); midway through that decade, however, Connemara became the focus of attention. *Buellia excelsa* (Leighton, 1875a; as *Lecidea excelsa* Leighton) and *Arthonia atlantica* (Leighton, 1875b, as *Stigmatidium dendriticum* Leighton) were described from collections sent, as the latter paper states, by ‘Mr. Charles Larbalestier, of Jersey, at present residing at Kylemore Castle, Co. Galway’. Larbalestier, who was employed between 1875 and 1878 as tutor to the sons of Mitchell Henry MP, collected assiduously while in Ireland and though he began by submitting specimens to Leighton, he soon came to rely on the taxonomic expertise of Nylander.

In connection with the first collection that he sent to Nylander, in January 1876, Larbalestier remarked ‘Among these plants you will, doubtless, find many good things and even perhaps some that are new’ (Mitchell, 1996). This indeed proved to be the case; the basionyms of *Celothelium ischnobelum*, *Lecania baeomma* and *Micarea submoestula* were published by Nylander (1876a). Other gatherings sent later that year provided the type material of *Lecanora* [*Halecania*] *spodomela* and *Lecidea* [*Lecidella*] *meiococca* (Nylander, 1876b). Several additions for which Larbalestier was credited were also reported at this time by Crombie (1876), from counties Galway and Mayo. Material collected during the following year resulted in the description of *Collemopsis* [*Porocyphus*] *leptogiella*, *Lecidea* [*Rinodina*] *biloculata* and *Lecidea* [*Bacidia*] *chlorotricula* (Nylander, 1877a, 1877b, 1877c). Four valid species were published on the basis of Larbalestier’s last Irish collections, made in 1878: *Lecidea* [*Micarea*] *alabastrites* (Nylander, 1879a), *Lecidea* [*Absconditella*] *delutula* and *Chiodecton* [*Byssoloma*] *subdiscordans* (Nylander, 1879b), and *Opegrapha paraxanthodes* (Nylander, 1879c).

Larbalestier was again living in Jersey when the third edition of Leighton’s *Lichen-Flora* appeared in the spring of 1879; some 500 records from Connemara contributed by Larbalestier are included, of which forty concern taxa new to Ireland, among them the previously undescribed *Micarea lignaria* var. *endoleuca* (*Lecidea milliaris* var. *endoleuca* Leighton). In the same year Larbalestier began to issue his *Lichen-Herbarium* (1879–1881), an exsiccata that ran to 360 numbers and added six species to the Irish flora. He subsequently produced another exsiccata that may contain Irish material: *Lichenes rarissimi* comprised over 150 numbers, though little else is currently known about it.⁶ Larbalestier’s departure from Ireland in 1878, Moore’s death in 1879 and Carroll’s in the following year left the country without a serious student of the lichen flora. This situation was to endure, and of the few publications that reported additions in the years to the end of the century, just two require mention: Lett (1890), who acknowledged the assistance of William West, contributed four species from counties Down and Louth, while specimens at the then British Museum (Natural History) enabled Crombie (1894) to include over a dozen more.

COLLECTIONS

The material on which Irish records in the publications surveyed here are based is today distributed over a wide range of herbaria. Carroll sold his collection of almost 4,000 specimens to the British Museum in 1874, and they are now in the Natural History Museum, London (**BM**); lichens that he sent to Crombie and Leighton are also housed there. When requesting Nylander’s assistance with identification Carroll, where possible, sent duplicates, which are preserved in Nylander’s herbarium at Helsinki (**H**). Lichens collected by Carroll in 1858, and now at the Royal Botanic Garden, Edinburgh (**E**), may be those he provided for the

⁶ Paulson (1921) reported that the Essex Field Club had acquired two fascicles of the work, but an attempt to establish their present whereabouts has proved unsuccessful.

works on pycnidia published by Lindsay, whose ‘herbarium [is] at E containing material of various collectors’ (Hedge & Lamond, 1970). Specimens gathered by Carroll during the years 1875 to 1879 and deposited in the herbarium of Queen’s (later University) College, Cork are now at Trinity College, Dublin (**TCD**).

Jones (1865), when presenting the Natural History Society of Dublin with the collection on which his first report was based, remarked that the specimens were contained ‘in four fasciculi’; following his death in 1868, Jones’ nephew and executor presented ‘a Fifth Fasciculus of Irish Lichens’ (Moore, 1868). Those fascicles soon passed to the Royal Dublin Society: A. G. More, then an assistant in its Museum, referred in a memoir of 1870 to ‘Admiral Jones’s Lichens, lately acquired by the Society’ (Moffat, 1898). Jones’ collections, including his non-Irish material, were subsequently transferred to the Science and Art (later National) Museum where they were catalogued by Pim (1888). In a preface to the *Catalogue*, which lists approximately 1,000 names, the Director of the Museum stated that since Jones’ lichens were so packaged on presentation that they could not be consulted, a re-arrangement had been effected and ‘they are now readily accessible to those who may have occasion to refer to them.’⁷ Jones’ collections were transferred to the National Botanic Gardens, Dublin (**DBN**) in 1970; he is also represented at Helsinki and London.

The personal collection formed by LARBALÉSTIER was acquired by the University of Birmingham some few years before his death, but its present whereabouts is not known (Mitchell, 1996). Many of his lichens are, however, in Nylander’s herbarium and at the Natural History Museum, London. In 1903 LARBALÉSTIER sent ‘a box of Lichens – my choicest & rarest’ to Edward Holmes (Linnean Society of London, E. M. Holmes correspondence, 23 June 1903), whose lichen herbarium is at Nottingham (**NOT**). Specimens collected by LARBALÉSTIER while at Kylemore, and formerly housed at University College, Cork but now in Trinity College, Dublin, were most likely sent by LARBALÉSTIER to Carroll who, in the late 1870s, was employed on botanical work at the Cork College; according to Laundon (1979) there is also LARBALÉSTIER material at Firenze (**FI**).

Moore’s lichens are at the National Botanic Gardens, Dublin, at the Royal Botanic Garden, Edinburgh and at the Natural History Museum, London.

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⁷ Editor’s note: The Admiral Jones collection is still retained in its original purpose built cabinets which have been transferred to the new National Herbarium building at the National Botanic Gardens, Glasnevin.

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