

John Russell Malloch (1875-1963)
his early life and contribution
to entomology in Scotland



MALLOCH SOCIETY
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Contents

Introduction and Early Years	1
Entomological Development	2
Character and relationship with others	3
Emigration	5
Acknowledgements & Notes	6
References	8
Appendix 1	11
Appendix 2	12
Appendix 3	15

This Malloch Society publication seeks to provide an account of Malloch's life and work in the country in which he was born. It is essentially a starting point for a more comprehensive analysis of Malloch and the impact that this abrasive but gifted Scot made on the world of entomology.

Cover photograph

John Russell Malloch

Urbana, Illinois, USA
1920

(The earliest traced photograph of Malloch)

Introduction and background

The Malloch Society is so named because of the world famous and long lasting contribution that John Russell Malloch made to entomology, particularly the study of Diptera. This account of his early life fills a gap, as his obituaries were published in North America and were necessarily brief when covering his formative years. The period was one during which Malloch built up his knowledge of entomology, established a network of correspondents and began to publish papers. After emigrating to the United States of America he gained employment as a professional entomologist and started on a career which was to have a great impact on the subject. Some seminal works, such as his revision of the higher classification of the Diptera (Malloch, 1918) appeared early in this second part of his life. This is a remarkable testament to his innate ability, as his formal schooling was minimal, although of the rigorous Scottish variety.

Early years and family

John Russell Malloch was born, one of eight children, on the 16th November 1875 in Milton of Campsie, Stirlingshire. His parents, John Malloch and Margaret Stirling, were married on 30th August, 1875. Although this means that Malloch was conceived out of marriage, it was a fairly common practice at the time and there appears to have been no social stigma attached to such an event. There were significant numbers of pregnancies before marriage amongst working class lowland Scots during this period. Couples often confirmed their fertility mainly because a large family was an economic insurance policy for old age. The church did not condone the practice but was not too loud in voicing disapproval (Smout, 1980).

John Russell seems to have had an elder brother, James, born in 1873. His father, John Malloch, was a widower on marrying Margaret Stirling, and it is presumed that James was the issue of an earlier marriage.

Information from the population census returns and other sources give a number of other families called Malloch in the area. For example, Duncan Malloch of Denny, Stirlingshire had a daughter, Grace Russell Malloch, the shared middle name probably indicating a close family relationship. In 1881, the census lists the six year old John Russell Malloch as residing in Milton of Campsie with his grandmother, Amelia Stirling, a widow aged 76 years, who had herself been born in Denny. His parents are not listed at this address so must have moved out of the area at least temporarily. They were reunited sometime after 1885, when the houses known as Dillichip Terrace, in Bonhill, were built. The next census (1891) shows a growing family in this new location, some 25 miles west of Milton of Campsie.

Dillichip, Bonhill

Dillichip Terrace was built in 1885 to accommodate the workers of a textile mill. The mill was established earlier, in about 1848, as a calico printers and later also dyers of yarn. A considerable number of families had moved from the Campsie Fells area. Alexandria and Bonhill had become a local centre for the Turkey Red dyeing industry and factory workers were being recruited from amongst the declining cottage based weaving trade. The River Leven, which flows out of Loch Lomond, provided an ample supply of clean water for the various processes.

The terrace, described as a substantial row of workmen's houses (Neill, 1912), was to provide an address for Malloch until he emigrated to the United States of America. It is still standing but has undergone a substantial number of changes which have affected its external appearance and internal living arrangements. When constructed, it is evident that they would have been crowded by modern standards, with the big families which prevailed a hundred years ago. At the front, there were eleven pairs of doors each of which gave access to two separate ground floor dwellings. At the rear are eleven external stone stairs, each of which formerly gave access to the two doors of the upstairs apartments. Each group of four dwellings had shared access to coal sheds, privies and drying greens across a narrow back lane. Therefore, when built the whole of Dillichip Terrace would have housed 44 families where a much smaller number reside today. This has been achieved by knocking together adjacent homes and from the front, for example, one of the pairs of doors is now usually converted into a window.

The Malloch family lived at No.17 Dillichip Terrace and to use Malloch's own description¹ was 'a moderate sized Scotch family of eight, three sisters and five brothers'. By definition, when employed they all worked in some capacity in the mill.

Education

At present no information is forthcoming on Malloch's early schooling. From other sources, however, Malloch appears to have had a university degree from Glasgow. One biographical account (Stone, 1980) has it as a Bachelor of Science, an obituary (Sabrosky, 1963) has it in the Arts. The comprehensive archives of the University of Glasgow have his name neither in the matriculation records (i.e., registration for classes) nor for graduation. The Andersonian College, which has been known under a variety of titles including Anderson's University, and is now Strathclyde University, has no record either. It must be conjectured that he either led people to believe he had an academic qualification in order to gain employment or it was assumed for him by his contemporaries. Either of these situations may apply although Malloch needed no diploma on paper to achieve his impact on entomology. In some respects modern attitudes to qualifications can exclude those who, like him, could make considerable contributions to a subject, but are often barred from paid employment in academia.

Entomological development

Malloch's specific interest in insects dates from at least 1897 when he had started to collect aculeate Hymenoptera (see Appendix 1). His first publication (Malloch, 1897) was in the same year, on a migrant butterfly. It might be expected that a period of study predated these activities during which techniques would be learnt and confidence developed. Part of this included contact with other local naturalists. There was an active coterie of entomologists in the Glasgow area. He certainly spent some time in their company and refers to at least one long field trip with J.J.F.X.King (1855-1933). This can be deduced from excursion reports in the published proceedings of the Glasgow Natural History Society which refer to records provided by Malloch. He did not join these societies, which may have been for financial reasons, although one gets the impression that he was not a very clubbable person. Papers submitted by him were read at meetings by others², which was a protocol for those either absent from the meeting or who were not themselves members.

However, it is clear that Malloch valued the opinions of other entomologists from beyond the local sphere of influence. He was familiar with the published work of continental workers and in later life acknowledged the benefits of communication with them. There is no doubt

that he had a broad outlook on the subject and could not be grouped with the number of insular British naturalists of the period.

Selling his collections to Glasgow Museum in 1903 may be the first indication of some ambition beyond being a textile factory worker. On the other hand his situation may have been precarious. Indeed, his employment seems to vary from printfield worker through engraver to journeyman and back to engraver³. He indicates he may be leaving Scotland in the first letter on the subject of his collections (Appendix 1). However, the only immediate move that he appears to have made was to No. 10 Dillichip Terrace with his own growing family⁴, all of whom had previously shared the parental home at No.17. His restlessness actually dates from even earlier than this. In one of his first papers (Malloch, 1901a) he refers to the "possibility that I may be able to continue my collecting for another season on this ground [but] if I am prevented from pursuing the study of this group ... I hope ... this list will prompt others".

His description of the collection on offer to Glasgow Museum indicates the number of entomologists with whom he was acquainted and corresponded with over a period of at least six years. Many of the specimens can still be found in the collections in Glasgow Museums despite an unfortunate reference to the contrary (Stace, et al., 1987).



The insects bear labels with localities and hand-writing which demonstrate their origin, although Malloch was extremely brief in labelling specimens. The maximum data are normally place name and year on a very small piece of paper, almost invariably in the form 'Bonhill 01', for example.

The disposal of this collection could be seen as a step forward. He would no longer have drawers full of moths, bees, ants and wasps and henceforth appeared to concentrate almost exclusively on flies. Whether or not this was a deliberate intention on his part is impossible to deduce. Many entomologists find it difficult to pinpoint any one event which resulted in studying a specific group, although it is quite usual to have begun by collecting butterflies and moths at a relatively early age. Although most of Malloch's Diptera from this period are in the Royal Museum of Scotland, Edinburgh, a few specimens can be found amongst those of J.J.F.X. King and Robert Henderson. The bulk of these two collections are in the Hunterian Museum & Art Gallery, Zoology Museum, University of Glasgow. As a result of establishing correspondence with J.E. Collin (1876-1968) and sending him specimens for identification, Scottish collected material is in the Verrall-Collin collection also, which is in the Oxford University Museum.

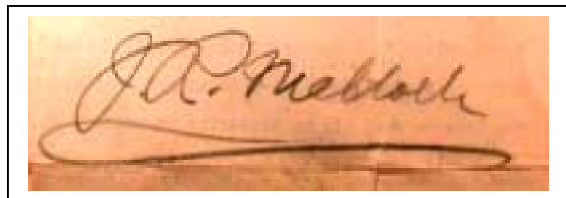
What is evident from this period is that Malloch had developed a simple but discursive style of writing which even now is easy to read. Many publications from this time still had the heavy Victorian verbosity so wasteful of paper and printing ink. He includes his reasoning and allows the reader to test his theory as descriptions are precise and simple dichotomous keys are included where appropriate. It would seem that he had to start from first principles in identifying the flies he caught, that is by tracing original descriptions and translating foreign texts. Such good practice was to be highly beneficial when he moved on to study the world fauna. Examples of this method are the short paper with a key to the *Amaurosoma* (= *Nanna*) Scathophagidae species (Malloch 1909b) and the longer article on *Fannia* which deals with 29 species of both sexes in separate keys (Malloch, 1910c). He later states, in relation to a genus of chironomids, that because of the 'invariable custom when working over material belonging to other families, I have drawn up a synoptic table for the species' (Malloch, 1914c).

One measure of the output of Malloch is the number of species or other levels of taxa that he created and the number of scientific papers that were published by him. Of the more than 3,200 species and 500 generic or subgeneric names proposed, only a tiny proportion originated before he became professionally employed as an entomologist. Malloch gave new names to eight species of fly while still in Scotland, of which four are still valid. His rate of success, in terms of validity, is higher with his later work, which might be expected when studying less well-worked faunas. A full ranking of his work, and thus comparison with other workers with a similar output on a qualitative basis would require a more detailed analysis.

Character and relationships with others

It seems odd that in Malloch's later recollections he does not mention J.E. Collin as an early acquaintance. A considerable number of letters are preserved from Malloch to Collin which appear to demonstrate a mutually beneficial and long-lasting correspondence, albeit containing the occasional difference of opinion. These span the period 1905-1939, that is beginning well before Malloch had any inkling he would become a professional entomologist, until after he had retired from the Bureau of the Biological Survey, Washington, D.C. Surely in mentioning G.H. Verrall⁵ as one of his early contacts (see Appendix 3) he could not have failed to recall this long-standing correspondence.

The letters from Malloch to Collin are addressed to 'My Dear Sir' and finish, 'Yours sincerely' until about 1921 when he finally unbends as far as 'My Dear Collin' and signed 'Sincerely Yours'. This may be a product of the more formal practices of the time or an equal formality



on Collin's part. Unfortunately, although we have Malloch's letters to peruse, none of Collin's replies appear to have been preserved and if he kept a copy book it is not to be found in Oxford. A selected few of the letters from Malloch to Collin are reproduced (Appendix 2) courtesy of the

Hope Library Archive, Oxford University. The last one quoted (10 May 1921) was written when Malloch was employed by the Natural History Survey of Illinois but was about to move back to Washington. Although his comments have a hint of arrogance it seems clear that his conviction of rightness is based on a great knowledge of the subject. An extract is reproduced, although from the later period, for the light it throws on his character.

The story of Dalglish and the Clyde list of Tenthredinidae also gives an insight into Malloch's relationship with others. In 1914 Malloch had published in two parts a list of sawflies from the Clyde area. His intention seems to have been to tidy up a loose end in that he attempted to up-date the local list (Dalglish, 1901) with his own records but also included earlier published records with the latest synonymy. Within a matter of months an article criticising Malloch's contribution (Dalglish, 1914), gave details of some of the errors of omission and commission contained within it. Malloch himself then sent this short note which appeared before the end of the year:

In explanation of some points raised by Mr Dalglish in connection with my recent paper on Clyde sawflies, I desire to state the following facts. The paper was written nearly five years ago, before my departure for America. The identifications were, so far as my own material is concerned, made by Rev. F.D. Morice. Several of the species mentioned

by Dalglish have been dealt with in papers written by other authors subsequent to the completion of my manuscript. The synonymy is complete only so far as I could ascertain, and, unless one cares to arbitrarily decide certain points, almost as complete as it is ever likely to be. Many of the species mentioned by Dalglish were accidental omissions, and would have been rectified had I remained in Scotland. My purpose in writing the list was solely to bring together the recorded species. Lastly, I accept Dalglish's criticism as an addition to our knowledge of the group, and not as criticisms of myself or my work. I consider the work should have been undertaken by Dalglish in 1901 when he compiled the list for the Glasgow "Handbook" (Malloch, 1914b).

This would seem to be strong evidence for Malloch not only having a dislike for having his own deficiencies pointed out but also for giving at least as good as he got. He also managed to have the final word. This exchange may have come at an embarrassing time for him. Having just started his career in Illinois and wishing to build up a reputation, the last thing he would want would be for any actual or potential future employers to think he was careless in his work. Nevertheless, he is not too convincing when he admitted that it had actually been written five years ago. Also, involving Morice in this context might be taken the wrong way, in that instead of being held up as a higher authority, could be blamed for some of the errors. Nevertheless, Malloch's publications in alpha taxonomy dating from before and during this time appear to be so sound and confidently written that his reputation was surely not under threat from any errors in a compiled species list. It is hard not to conclude that he was naturally combative in his communications with a number of other entomologists. His directness allowed for no cushioning of his criticisms of others.

There is an example of an even more acerbic side to Malloch. To adopt a well-used phrase, he did not suffer fools gladly. That it was his own opinion as to who qualified for being a fool is no doubt part of such a character trait. In his autobiographical reminiscences (unpublished, see Appendix 3), he gives his opinion of several ex-colleagues in no uncertain terms. Although a full account of Malloch's life and work in North America is not being treated here, it is impossible not to succumb to the temptation to quote some passages. He recounted how, on his last visit to Scotland in 1912 he talked to Percy Grimshaw (1869-1939) of the Royal Scottish Museum (now the Royal Museum of Scotland), Edinburgh, about the latter's descriptive terminology of the leg surfaces and their bristles (Grimshaw, 1905) used in describing Diptera. Grimshaw said that his plan had been used by Josef Mik (1839-1900) some years before though not so elaborately. Malloch then recalled how he shared a room with August Busck (1870-1944) in Washington who apparently disliked the terminology. In this room one day Malloch:

in conversation with H.S. Barber [1882-1950] indicated the possibilities of the use of these more exact terms. Barber said that an innovation of this nature would prove acceptable to other entomologists and at that Busck butted in a pompous manner, the tone that he invariably used and I saw red. My last and only reply to him was that "Lepidopterists like him saw only the outer and inner sides of their bugs". He was a pompous ass!

Malloch separately makes the comment that "Busck may have become inoculated with this pomposity through contact with Lord Walsingham and others, and therefore too great to notice the likes of me". A number of obviously strained relationships with other colleagues were possibly fuelled by the insecurity of working under contract rather than tenure⁶. There is no reason to suppose that he was always antagonistic or unfriendly. He was a good correspondent and kept in contact with old acquaintances as can be seen, for example, in a

large set of reprints sent to a friend of his youth, J.J.F.X. King, which are now housed in Glasgow Museums.

Emigration

Malloch arrived in the New World in 1910 but there is no indication as to why he should have gone at that particular time. Undoubtedly he had been restless for a few years and maybe felt he had exhausted any possibilities on home ground. It appears that he had some entrepreneurial flair and was ambitious. This was demonstrated in his later life in the USA when he made a living from dealing in real estate (see letter from McAtee to Alexander, 29 November 1935, Appendix 3). But it is also the case that tens of thousands of European under-privileged families emigrated to North America during this period.

One of his last acts before leaving Scotland was to deposit some 13,000 flies that he had accumulated up to that time in the Royal Scottish Museum. No correspondence exists in relation to this transaction which might have thrown some additional light on the reasons for his leaving Scotland at this particular time. Several hundred insects, mainly Diptera, had been donated also by him over the previous five years, indicative of his positive relationship with the curator, Percy Grimshaw. This period also coincides with Malloch's burgeoning interest in flies; his first published paper on Diptera appeared in 1906.

Whereas there is no evidence that he sought paid employment as an entomologist while still resident in Scotland, he obtained such a post within less than two years of his arrival in America. Perhaps some form of prejudice, class consciousness or other barrier that applied in Britain, did not operate once he had emigrated. He may have invented a university degree to help this process along, as referred to above. His stated intention to return home after a period and the fact that his wife and children did not join him until 1919 is probably typical of an emigrant. The Great War was possibly a factor in this as well as a need for stability before such a commitment.

The details of his life from 1910 onwards deserve a separate and detailed analysis. An account of his work on the Australian fauna has been given (Lee, *et al.*, 1955) and this could be extended to include his impact on the whole of entomology on the world stage. An idea of Malloch's work, assessed by a fellow American worker (Sabrosky, 1963), can be gained from this précis:

His major research interest was in the Diptera, especially in the acalyprates and Muscidae (*sensu lato*) and he published contributions dealing with all the faunal regions of the world. One of his most influential works was 'A preliminary classification of Diptera, exclusive of the Pupipara, based on larval and pupal characters' [Malloch, 1918] which was illustrated with 30 plates of drawings by himself. Major contributions to various faunal areas include 40 papers entitled 'Exotic Muscaridae' in the *Annals & Magazine of Natural History*, 39 on 'Notes on Australian Diptera', 20 on New Zealand species and numerous fascicles in the Patagonia and South Chile, Samoa and Marquesan series. The total Australian papers amount to 140, covering a range of families in which over 200 genera are described and more than 1,000 species. No attempt has been made to count the totals for the whole of his output.

His memory was phenomenal and it is often said that he carried his own Card Catalogue of the Diptera in his head. Unfortunately, this and his great productivity led to occasional lapses in the spelling of names, errors

in the recording of data on localities and type material, and slips in the composition of keys, all of which can be annoying and misleading. On the positive side his papers were often illustrated with his own drawings of key characters including male genitalia, femoral and tibial features. He produced many keys which helped other workers to distinguish the new genera being described.

Throughout his work his keen eye for significant albeit obscure characters resulted in many strikingly useful additions to taxonomic knowledge. He was unquestionably one of the most perceptive and prolific of dipterists with a broad knowledge that made possible valuable additions in most families to the far corners of the earth.

This gives an idea of the man and his acknowledged contribution to entomology. It is not surprising, given Malloch's attitude, that not everybody thought highly of him. One interesting comment reproduced by Leonard (1989) is contained in a letter dated 27 June 1934 from W.S. Patton (1867-1960) to C.J. Wainwright (1867-1949):

Yes, I was sorry to hear from America that Aldrich had died on May 29th. What a loss, he cannot be replaced. I hope they don't give Malloch the job, but I suppose Curran will get it.

Patton (of the Liverpool School of Tropical Medicine) and Malloch disagreed on almost every point concerning the systematics of the genus *Musca*⁷. It is most likely that Malloch would have been ineligible for the post as much of his work was on hourly paid contracts with the U.S. Biological Survey and so Patton's concern, based on this considerable professional antagonism, was unnecessary. John Merton Aldrich (1964-1934) was employed as Associate Curator in the U.S. National Museum. Charles Howard Curran (1894-1972) didn't get the job either but stayed at the American Museum of Natural History, New York.

Acknowledgements

A particular debt is due to F. Christian Thompson of the United States Department of Agriculture, based at the Smithsonian Institution, Washington DC, USA. He was able to make available copies of the part of Alexander's archive which deals with Malloch's own account of his early years (Appendix 3). A much greater archive remains to be studied.

A number of local libraries provided information of a general nature and access to genealogical files. Dr George C. McGavin of the Hope Department, Oxford University provided access to the Collin correspondence (Appendix 2). Adrian C. Pont drew particular attention to the background to Patton's relationship with Malloch as well as a number of valuable comments on the first draft.

Fellow members of the Malloch Society made numerous suggestions also and gave much encouragement to the idea of committing this account to print.

Notes

1. Malloch supplied Charles Paul Alexander (1889 - 1982) with a set of autobiographical notes in letters dating from 7 June 1951 (Smithsonian Archives, Record Unit 7298, Box 35). Alexander's archive, acquired with his world-wide collection of Tipulidae and related families, contains voluminous correspondence with many 20th century entomologists. Alexander was one of the most prolific taxonomists the world has ever seen, having

described over 12,000 species in at least 1,000 books, monographs or papers. The great majority of these were in the Tipulidae (*sensu lato*) and hence there was no direct rivalry between him and Malloch. Alexander was interested to know of Malloch's equivalent statistics, which rivalled his own at the time. Malloch and Alexander were contemporaries at the Illinois Natural History Survey the history of which has been summarised by Smith (1977). As Malloch retired in 1933 he effectively ceased to be a competitor and Alexander continued systematic work, at Amherst College, Massachusetts, for a further fifty years.

2. An example from the Proceedings of the Glasgow Natural History Society for the meeting of the 28 January, 1908, although not published until 1911, is as follows:

On behalf of Mr J.R. Malloch of Bonhill, Mr Alexander Ross brought before the meeting some interesting material sent for exhibition. This included a collection of dipterous insects belonging to the family Phoridae, which had been captured in Dumbartonshire, mainly in the neighbourhood of Bonhill. Of the 52 species shown, 3 were new to the British list and 29 new to science. As these flies are generally very small, Mr Malloch had prepared very accurate drawings of the wings of several species so as to illustrate their characteristic venation.

He also submitted a collection of predaceous Diptera, along with the prey upon which they were feeding when captured. The former consisted chiefly of specimens of *Scatophaga stercoraria* and *S. squalida*, while the insects upon which they were feeding were various species of Chironomidae, Bibionidae Tipulidae, etc.

Mr Malloch likewise showed specimens of *Neottiophilum praeustum*, a dipteran new to the Clyde area, which had been bred from pupae taken from the nest of a greenfinch.

In the same year, Robert Henderson in updating the local list of flies refers to the accomplishments of the local entomologists, Alexander Ross, J.R. Malloch, James J.F.X. King, in helping with this task. He furthermore claims that the 'Clyde List' exceeded 1,000 species and rivalled the total for the whole of the British Isles at the time.

3. These descriptions are derived from the census, his marriage certificate and his children's birth certificates during the period 1891 to 1910. His training and skills in engraving were to be beneficial in providing work when he first arrived in North America and later allowed him to produce his own plates for publication. The reference to being a journeyman implies that his trade was for hire, or in modern terminology, he was self-employed.

4. Malloch married Elizabeth Bryan in 1899 and they had four children, John Stirling (b.1900), Bessie (b.1903), James Alexander (b. 1904) and George Graham (b.1910). He divorced Elizabeth after their move to North America, while in Urbana, Illinois, and married his house keeper, Annie Ingle. There was no issue from this marriage although Annie already had a daughter of her own. James Alexander was to inherit the estate in Tampa, Florida, where Bessie also lived, and the other two sons remained in Illinois.

5. George Henry Verrall (1855-1911) as well as being one of the most influential British dipterists, was J.E. Collin's uncle and co-worker in several families. An account of the collection made by these two entomologists and their contribution to the science has recently been published (Pont, 1995).

6. This occurs as a footnote in Alexander's hand to one of the letters from Malloch.

7. The situation is recounted by Thompson & Pont (1994) which details the various contributions made by Malloch on the classification of *Musca*. The question of supraspecific divisions has always been the subject of much discussion. Malloch preferred a number of genera or subgenera whereas Patton had them in species groups. Both men were adamant in their own opinion and each had their supporters. At present a combination of these two polarised views is generally accepted.

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APPENDICES - transcriptions from archives

The archives are preserved in either Glasgow Museums, the University Museum, Oxford (correspondence with J.E. Collin) or the Smithsonian Institution, Washington, DC (part of the Alexander papers).

They are reproduced verbatim apart from the addition of some punctuation and the italicisation of Latin names. The style is slightly idiosyncratic in parts, especially the later accounts (Appendix 3) which were written after Malloch had suffered what was probably a stroke of some kind.

Appendix 1.

(To Glasgow Museum regarding disposal of some of his collection .)

27 July 1903, 17 Dillichip Terrace

Sirs,

Owing to having to leave Scotland shortly I shall have to part with my many collections of insects, etc., and among them the collection of Hymenoptera - Aculeata which formed the basis of the list of the ants, bees and wasps printed in the British Association Handbook of Natural History 1901 (Glasgow). I do not desire that this collection falls into private hands and if the Trustees of the Museum could see their way to give the nominal price of £15 for them I should be pleased to place them at their disposal at an early date. The collection contains 200 species (B.A. List, 104 spp.) and about 700 specimens. The price mentioned is of course much below what I would obtain from either a private collector or from a sale by auction but unless I can make no bargain with a public museum I shall not offer them to any individual.

You can appoint any qualified party to see and value the collection should you consider the advisability of acquiring it. I shall considerably enlarge on the numbers in the course of the next week or so as my correspondents will be then sending on specimens which I have treated for in exchange.

All specimens with data.

Sincerely Yours, J.R. Malloch.

P.S. some of the specimens are the only Scotch ones known and others are very rare English.

[There follows an extensive series of letters following a visit to see Malloch by Peter Macnair, the museum curator. The museum eventually acquired Microlepidoptera (principally Tineina and Tortricina, using his terminology) and Hymenoptera (sawflies and aculeates). Within the former he refers to many of the specimens having been bred and therefore in good condition and to several lots being from leading English collectors, such as C.G.Barrett, E.R. Bankes, Rev G.H. Raynor, etc. The Hymenoptera had all been authenticated by Edward Saunders, Rev. F.D. Morice or R.C.L. Perkins and dated from either 1897 for the English ones or 1899 for those from the Clyde area. Altogether, there were over 3,800 specimens from more than 800 species.]

Appendix 2.

Letters from Malloch to J.E. Collin

The first letter (dated 19 October, 1905, addressed from 10 Dillichip Terrace)

Dear Sir,

I hope you will excuse the liberty I take in writing you, but I am in such a position that I have decided it best to do so. To explain.

I am beginning to collect the Diptera (have begun in fact) and am finding great difficulty in naming my captures. I manage the Dolichopodidae all right thanks to your list, but with the somewhat negative assistance afforded me by Meades' Anthomyidae and his published monograph on the Cordyluridae I am practically at a standstill. I have not got your Syrphidae but can obtain it until I do so from Mr J.J.F.X. King.

I know (or at least I have been told) that you do not care to undertake the naming of spms for anyone; but do you know of anyone who would, in exchange for my duplicates, do this for me?

By duplicates, I do not mean when I have a large series - but when I have 2 spms of a species.

Can your list of the Diptera still be obtained & where? I have a few spms of the Heteromyzidae that I have been unable to get named including one spm which Mr Grimshaw places near *femoralis*. Would you care to examine this spm? Also one *Amaurosoma* which does not agree with either of our British ones.

I have taken between 40 & 50 Dolichopodidae species this year including *Argyra confinis*.

With apologies for troubling you,

I am yrs sincerely J R Malloch.

Next letter (dated 3 Sept. 1906).

[There appear to be some letters missing from the correspondence but in the meantime Malloch has succeeded in persuading Collin to examine his captures.]

My Dear Sir,

Herewith I send 6 spms of *P[hora] cubitalis* (5 males, 1 female) as promised but I also have put in some things that I should like your opinion on. The three *P. carinifrons* you can keep also.

The female *Empis* you might take a look at and see if it is *E. hyalipennis*. I believe it is that species. This you can also retain. The 3 spms of *Helomyza* I should like to be certain about. I am not able to place it nor is Mr Grimshaw. You can retain these also.

Besides these I have put in a few spms of Helomyzidae in the hope that you may be able to give me the benefit of your opinion upon them. 12 and 13 are *Heteromyza atricornis* and *oculata* respectively but is 11 *rotundicornis*? I thought you might like to see these spms especially the *atricornis* male. The *oculata* was taken on Saturday and I thought at first sight it was a *Pegomyia* but the length of the wings and position of the inner crossvein and long stigma caused me to look it up.

With apologies for troubling you, etc.

Next letter in the sequence (dated 2 Oct. 1906)

My Dear Sir,

I had a cursory look over some of the Diptera belonging to Mr King of Glasgow on Saturday and among some of this year's spms taken at Nethy Bridge I noticed four males and one female of *Heteromyza oculata*. I have 2 females and 1 male of this species so that it is probably a fairly common species. I also detected 1 male of *H. atricornis* in King's boxes which was taken in Cappoquin, an Irish locality. The female of this last species which you saw of mine was taken off a dead bird early last spring. I have also seen 1 male which believe belonged to this species from Mr Bloomfield of Hastings.

I was collecting the other day among fungi and took a spm or two of a *Phora* that I believe may prove to be *sordida*. I shall examine it again and if I find it is correct I may, if you permit me, send it on to you for recording it. Possibly Dr Wood has already taken it though?

What I particularly desired to write you about was to learn if I can obtain a copy of Mr Verrall's list of Diptera. Is this still obtainable?

I have been working away with books dealing with British and European species and am rather in the dark occasionally as to the real extent of the British list.

With apologies for troubling you, Yours, etc.

Fourth letter (dated 7 Oct. 1906)

My Dear Sir,

I rec'd your note and Mr Verrall's list and monograph on the Dolichopodidae last week and thank you and Mr Verrall for your kindness. I have the Magazine with the list of Dolichop. but it was a tedious task turning up a genus in the unbound copies. I have taken the liberty of sending herewith a few things that are in some cases doubtful species to me and in others complete blanks. No.1 is the sp. I think is *P[hora] sordida*. I am not at all sure of my ground here. I have put in a few Helomyzidae. If No.9 is *Blepharophora iners* [= *Schroederella*] and you require the spm take it out. No.19 I believe is *Rhamphomyia niveipennis* - could you get Mr Verrall to look at this and also at the two spms above No.21 in Box? These do not agree with *atripes* in the colour of the face.

The spms without numbers are some I have put in for your acceptance. The top one I believe is a male of *Heterophyllus discipes*; the second *Teucophora monocanthus*; 4 to 6 *Chrysotus femoratus*, 7 *C. gramineus* and *Empis borealis*.

I hope those few things may be of use to you. Should I have made any mistakes you might let me know in what species. I have seen several of the species sent herewith in different Scotch collections but in every case they were unnamed.

By the way is there anyone working up the Anthomyidae? I picked up a few of these things during the summer but of course cannot get them named. If I could get a start with the group I might possibly make something of it as I have plenty of time to spare and I hope have still a number of years ere my sight will fail me. The drawback is that I know practically nothing of the group but possibly as I have nothing to unlearn that may be an advantage. I should like to take up this group more

particularly as Binnie, a Glasgow man, made a good deal of progress with it some years ago.

I believe I have one of the best Scotch districts here and judging from the results attained in the Lepidoptera and Hymenoptera I think that a very large number of species might be obtained in the Diptera. So far I have taken 600 species in the two years collecting.

With apologies for taking up so much of your valuable time,
Yours etc.

10 May 1921 (written from Urbana, Illinois, State Natural History Survey Division)

My Dear Collin,

I have seen the first part of a paper by you on the British species of the genus *Limnophora* and want to draw your attention to the fact that you are liable to make errors if you have not seen my recent papers on the North American Anthomyiidae. You say that no author has used the characters of the setulose third wing-vein and prosternum, but you will find that both have been used by me in recent papers, some of them three years ago. I have also used another set of characters for the erection of the genus *Lispoides* but have refrained from going into the matter very fully till I have had time to thoroughly study all my material from Europe and the exotic forms in my hands.

[There follows a page of detail about related genera from various parts of the world]

I regret I have not been in constant correspondence with you as there are many of my papers on the Anthomyiidae that you will have to consult on the family, especially on generic characters. I have not used many of the characters used by the older authors and have introduced many new characters so that you will be able to work them into your scheme of classification if you intend to go into the whole family in Britain.

I am not egotistical in this matter but having gained some proficiency in the classification of the family and priority of publication I am merely drawing your attention to the matter to prevent your having to retract statements made in error.

Sincerely Yours
J.R. Malloch

p.s. see Exotic Muscaridae, Ann. Mag. Nat. Hist., 1921.

Appendix 3.

(Originals are preserved in the Smithsonian Institution, see Notes, page 9.)

These transcripts from Alexander's papers contain biographical information of relevance to this account. Some slight edits have been made in these transcriptions. It is clear that his style and to some extent his memory have become a little idiosyncratic. Some other preserved archives are also of interest but relate to his later work in the United States of America and the temptation to reproduce them all has been resisted.

To Alexander from Malloch (dated 7 June 1951, Box 414, Vero Beach, Florida)

My Dear Alex,

For a long time I have been under the weather for over a year. A sort of stroke or something that I never understood and the doctor was like me in the diagnosis. Possibly it was sunstroke but in any event I lost my speech so that I could not use the small and common words for two months. Gradually it came along after months I have got something like a semblance like myself. I could not write, only my name, after weeks of struggling with my impediments that a long time seemed never to end. Even I could not count figures like a child. I hope it never comes back. And some part of my particular life history may be clear to me and can just be placed on paper that you may understand what I have done in the long and distant past so that you can be clear about data. Briefly put the fact are as follows: Born in Milton of Campsie, Stirlingshire, Scotland, 16 Nov. 1875. My father was John Malloch, mother Margaret Stirling. It was a rather moderate sized Scotch family of 8; 3 sisters and five brothers. Three of them died: two several years ago in Scotland and one a few years ago in B.C. where she was married to a piper who was wounded in the first war as a bandsman in a Canadian regiment of highlanders that was decimated in the gas attack. That was early in the German's new method.

That is about all of interest except that nowadays so far as I know those that are extant are as follows: a sister in Queensland and another in Portland, Oregon; one brother in B.C. with a homestead given as a member of the Royal Engineers for war services, the others are in Scotland and in England.

I have nothing of the earliest recollections of N[atural] H[istory]. They were so far back I vaguely remember them. Bugs and birds and plants and fossils were things that always interested and puzzled me so I appeared to have made them a life time study. And in time I accidentally and intentionally made acquaintance with one after another until I possessed a long array of correspondents.

You may have my records that I will send them in a short time if you want them.

Yours sincerely J.R. Malloch

p.s. I am out of sorts today. My wife has been in hospital for 3 months and I have her home but taking care of her is a job. I will try in a day or two to supply data.

To Alexander from Malloch (dated 11 June 1951, Vero Beach, Florida)

My Dear Alex:

To present briefly with data the best method may be to divide the two periods into 'pre-American' and 'American'. Up to 1910 the first period.

The first whose counsel I took was Dr H.G. Knaggs, one of the original founders of the Ent(omological) Mon(thly) Mag(azine) in pages of which you will find small items from 1896 (*sic*, actually 1897) until 1910 (*sic*, actually 1914). As usual they refer to Lepidoptera and later they refer to other orders, though I went over to Scot(tish) Nat(uralist), the last appeared in 1912 (*sic*, actually 1914) when I was in this country. The orders were Hymenoptera, and Diptera.

Amongst those I was corresponding with in the period I wrote to ; Pastor Konow, Rev F.D. Morice, Rev E.A. Eaton, Howard Saunders, E.A. Atmore, P. Grimshaw, C.G. Barrett, Rev. Kieffer, G.H. Verrall, Rev Wood, Lamb and others. Bankes is another lepidopterist. The underlined were in Hymenoptera or Lepidoptera.

Recollections: Eaton I sent a psychodid that was entirely new. I sent a large number that well represented the species asking him to describe as I was not fitted to compare with related species. He replied that he would send me comparative data and drawings of the genitalia to assist if I would describe the species but I turned it down and so far as [I know] it was described and named.

One time Vaughan, a lawyer, described a microlepidopteran as new. Right, shortly after Stainton crudely corrected it as an old species and the tyro took to drinking and disgusted disappeared from the entomological public.

Dr Tutt (Noctuidae) was a voluminous writer and Knaggs wrote me asking if I knew him and bluntly he said that his name was "omnipotent". Because unless "God had never made it Tutt did not know it, it could not be a noctuid" . I did not carry out any plan for making an acquaintance with so exclusive.

Tutt and Knaggs ended up as 'bitter enemies' on the basis of a difference of opinion on a matter of a species distinction which could be determined by field work.

In 1901 I was a member of the British Association which organised and published a handbook to the Glasgow and west of Scotland for Flora and Fauna as a memoir and part to mark the international exposition of that year. My part was Hymenoptera Tenthredinidae (*sic* - he meant the Aculeata). The other parts were assisted by added data in Coleoptera and Lepidoptera.

Several years before I left for America I placed my Lepidoptera in The Glasgow Exposition Building [Art Gallery & Museum, Kelvingrove]. Later I deposited my Diptera, etc., in the Royal Scottish Museum in Edinburgh.

[There follows the story of Busck and the descriptive chaetotaxy of the legs of insects which is reproduced on page 7.]

In 1910, April, I made up my mind to come to America and with a reservation to return, some various journeyings through the east and a protracted stay in 1912 in Canada (Medicine Hat, Alberta), finally ended

by coming to D.C. in March 1912. My family were in Scotland, until later in 1919 after the first war.

During I had leanings to entomological studies and finally I was offered a position as dipterological expert by Dr Howard.

[The account continues of life in the United States of America.]

To Alexander from Malloch (dated 9 October 1951, Vero Beach, Florida)

My Dear Alex:

I thought that the duties of school were more than usual at this time and a delay was to be expected. I have no pressing duties that have to be taken care of now. I am taking leisure and possibly aim to take time in the sun where I would probably a few years ago think such a waste of time.

Data that may fill in a few of the chinks and make the matter whole. I arrived on May 1st, 1910 at New York, it was a Sunday. My intention was to see the country and possibly in a few years I intended to return to Scotland where I had the beginnings of a political career. [*It is not clear to what this refers.*] I wandered around in the east, part time as an engraver to tide things over. At the end of June I left for Medicine Hat, Canada, and there I spent the winter of 1911 which was a cold one. The lowest I spent was a period of 45⁰F below and that made my mind up I was no arctic explorer. I wrote to Howard and he told me to come to Washington, which I got to that city in March 1st, 1912. I have since itemised the staff in my recent 'Letters of my life' if you can imagine that. I was not a citizen so I merely was accepted pro tem. I made a visit to Scotland in July 1912. After that I returned to do some work, particularly on blackflies (Simuliidae). I was not allowed to take field work and the material I had was only old stuff and the larvae and pupa was in alcohol.

[There follows several pages of description of Malloch's relationship with staff such as Knab and Aldrich in Washington. Interestingly, this last visit to Scotland was the opportunity for him to hand over a collection of North American flies to the Royal Museum of Scotland. This event might have been an unsolicited gift or at the request of Percy Grimshaw. His address in the accessions register was given as "Hopefield, Jane St, Dunoon, Argyll / U.S. National Museum, Washington, DC". This visit was also the occasion of his discussion with Grimshaw on the value of chaetotaxy for specific and phylogenetically useful characters, as referred to on page 4.]

W. L. McAtee to Alexander (29 Nov. 1935, Biological Survey, Washington, DC)

Dear Alexander,

[After some chit chat about matters of mutual interest]Malloch was dropped during the reorganisation process although he does a little work still for which he is paid on an hourly basis. For a period after he was dropped, Malloch went rather intensively into the real estate business now booming in this region. Through the years, as you might imagine, Malloch has been thrifty and having business instincts had assured himself of an outside income sufficient for a good livelihood....

You are correct in your appraisal of Malloch's work in entomology. I think it can be said without any question that he is the most accomplished dipterist in the world and I believe that he has such a keen eye and such ability to detect characters of significance in classification that he would become a leader regardless of the group of insects to which he chose to devote his attention. Personal relationships have been his tumbling block as they are for many of us, but I think that of those who object to Malloch, there are a good proportion who do so even unconsciously because they cannot endure association with anyone of greater ability than themselves.....

[Although this letter refers to a later period of Malloch's life, it gives another independent opinion of him.]