

The Manchester Entomological Society (1902–1991), its story and historical context

Манчестерское Энтомологическое Общество (1902–1991), его история и исторический контекст

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КЛЮЧЕВЫЕ СЛОВА: энтомология, насекомые, Манчестер, музей, естественная история, профессионализм.

ABSTRACT: The history of the Manchester Entomological Society is examined using the Manchester Museum’s archive material and published sources. The society operated between 1902 and 1991, during which time members made significant contributions to the Museum, and their activities illustrate the development of thought about the practice of entomology at an amateur level. To see how attitudes have developed 19th century societies in Manchester, both scientific and recreational, are reviewed.

РЕЗЮМЕ: История Манчестерского Энтомологического Общества представлена на основе изучения опубликованных данных и архивных материалов Манчестерского Музея. Общество существовало в период с 1902 по 1991 г., в течение которого члены общества внесли значительный вклад в развитие Музея. Их деятельность отражает развитие энтомологической практики на любительском уровне. Чтобы понять, как общее мироощущение повлияло на развитии обществ XIX века в Манчестере, в статье обсуждаются как научные, так и любительские общества.

Introduction

The development of industrial cities such as Manchester in the 19th century naturally led to curiosity about all manner of technical and scientific fields among its industrialists and entrepreneurs. Engineering and manufacturing innovations arose for specific purposes and these were accompanied by increasing curiosity about sciences and the natural world in general, not only engineering, physics and chemistry but also such subjects as geology, meteorology and natural history. By the early 19th century, science became the cultural mode of the Manchester elite [Thackray, 1974], who saw it as a serious and morally elevating activity (along

with music and poetry) that emphasizes the mind, rather than the body [Lowe, 1976; Secord, 1994]. More surprisingly, the frequently horrific conditions of the 19th century industrial working class often encouraged a keen interest in natural history among its members. Many factory workers used what spare time they had visiting open spaces to study and collect minerals, wild flowers and insects; moreover, some were also familiar with Latin names. As noted by E.P. Thompson [1980, cited in Secord, 1994: 271], in the early 19th century north-west England: “Every weaving district had its *weaver-poets, biologists, mathematicians, musicians, geologists, botanists*”. D.E. Allen [1994] suggested that skilled loom operatives attracted to the factories of the north from East Anglia and immigrant cloth workers from Flanders brought these interests with them. From the mid-19th century such interests were also catalysed by initiatives aimed at social improvement of the working class by intellectual means (the so-called “*advancement and diffusion of knowledge*” [Waller, Legge, 1962: 227]). One such — the Workers’ Educational Association of Manchester — was founded in 1903. At both the genteel and the working class level natural history and scientific societies flourished in the 19th century. Their regular meetings took place in public houses or church halls to exchange specimens, to share experiences and knowledge, and to borrow/return books.

In the text and figure captions, the following abbreviations are used: MMEA — the Manchester Museum’s Entomology Archive; M.E.S. — the Manchester Entomological Society.

Some early Manchester societies

By the end of 19th century there were about 500 local societies in Britain, with a combined membership of about 100,000 [Lowe, 1976]. These societies shared a common format: formal rules, public meetings and

published accounts [Alberti, 2002]; entry was regulated by subscription or sometimes election. As a rule, the topics of politics and religion were avoided. Here a few Manchester-based natural history societies will be briefly outlined as a background to the history of the M.E.S. More information about them and their development can be found in Alberti [2009], Fairbrother et al. [1962], Kargon [1977], Salmon [2000] and Thackray [1974].

The Manchester Literary and Philosophical Society

The Manchester Literary and Philosophical Society, the first and one of the most significant of Manchester's scientific institutions [Thackray 1974], was founded in 1781 to allow gentlemen of like mind to get together for the study and discussion of "*natural philosophy, theoretical and experimental chemistry, literature, civil law commerce, and the arts*" [Kargon, 1977: 6]. It is the oldest enduring provincial scientific society in the UK, and continues to thrive [Fairbrother et al., 1962]. Religion and politics were excluded and, with over half the founding members being physicians or surgeons, practical medicine. Over the coming century the complexion changed progressively towards that of a professional

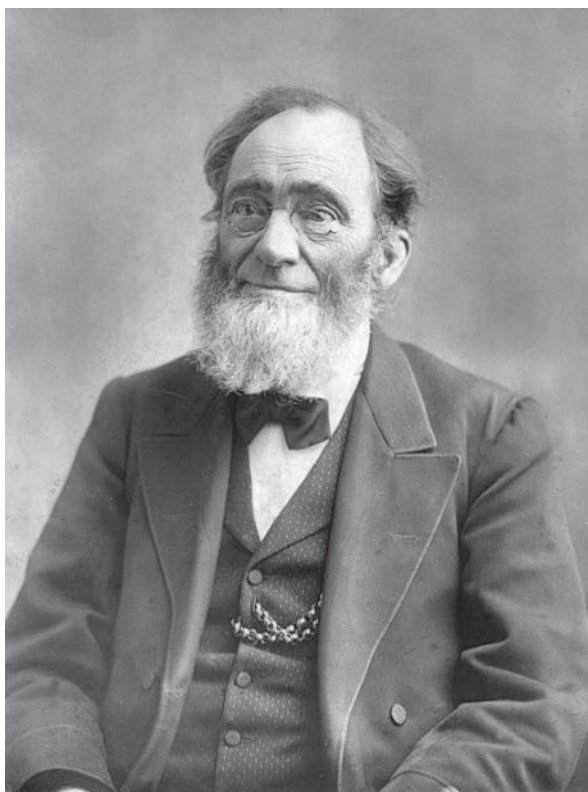


Fig. 1. Leopold Hartley Grindon (1818–1904), a self-taught botanist and popularizer who encouraged the working class people of Manchester to grow flowers to make their lives less bleak. © The Manchester Museum, the Botany Department's archive.

Рис. 1. Леопольд Хартли Гриндон (1818–1904), ботаник-самоучка и популяризатор, который призывал рабочих Манчестера выращивать цветы, с целью сделать их жизнь менее мрачной. © Манчестерский музей, архив отделения ботаники.

society with the object of reading and publishing scientific papers, the membership including such important figures as the famous English physicists James Prescott Joule (1818–1889) and John Dalton (1766–1844), the latter once being venerated as "*the father of science in Manchester*" [Fairbrother et al., 1962: 188]. Specialist groups such as the Manchester Microscopical & Natural History Society had their origins within it. At the social level this change led to some strain; not only did dilettante gentlemen feel less at home but those of more humble station and scientific commitment were also excluded. One notable example is the so-called Grindon Affair, when in 1862 the well-known natural historian Leopold Hartley Grindon (Fig. 1) wished to join the microscopical section but was twice rejected for membership (see Kargon [1977] for discussion of his case).

The Manchester Society for the Promotion of Natural History

Continuing in the same spirit, the Manchester Society for the Promotion of Natural History was formed in 1821 to preserve the ornithological and entomological collections of a deceased member of the Literary and Philosophical Society, textile manufacturer John Leigh Philips (1761–1814). His collection was bought by Thomas Henry Robinson at auction for over £5,000 [Alberti, 2009; Thackray, 1974]. Thirty gentlemen agreed to provide support, a museum was commissioned to house the collections and a Curator put in charge. The first Curator was William Crawford Williamson (1816–1895), later to become Professor of Natural History at Owen's College (founded in 1851; the forerunner of the federal Victoria University of Manchester) teaching geology, botany and zoology. Initially, entry was restricted to members and their relatives; it was only considerably later that middle class citizens of Manchester, 'mechanics' and school children were permitted to visit on payment of suitably graded fees [Kargon, 1977]. This democratization did not please everybody. It led one of the founding members, the physician and naturalist Edward Holme (1770–1847), to alter his will to ensure that the Society did not receive his library, originally bequeathed to it. The Society commissioned its own premises in the form of a handsome building in the City and further opened its doors to the public. Disagreements among the management and shortage of funds, however, led to the museum's closure in 1868 and, by 1873, transfer of the scientific collections to the Manchester Museum at the newly developed Owen's College site just south of the centre. There, curators were appointed and exhibits were displayed, providing free admission on Mondays, Tuesdays and Saturdays and largely focusing on working-class visitors; access to research collections was reserved to "*those who are able to read and appreciate their contents*" [Alberti, 2002: 308].

The Banksian Society

One initiative designed to help and to educate working people, founded in 1824 and dedicated to promoting

the study and application of science, was the Manchester Mechanics Institution. Its aims were laudable enough but it was an organization run by well-meaning members of the middle class. In 1829 some of those receiving instruction broke away and, among other things, formed the Banksian Society for the collection and study of entomology, botany, mineralogy and geology [Cash, 1873; Kargon, 1977]. One of the founders was a servant, another a fabric cutter. The social difference from the societies discussed above is apparent in a patronising piece that appeared in the *Spectator* in 1830 [Anonymous, 1830: 30], complementing the Society on its foundation: “*We are often sneeringly told of the march of intellect among the lower orders of our countrymen; and we do not deny that in some cases it is but a hobbling march that they maintain. ... But in the case of the Banksian Society, illiberality will find no opportunity or place for the indulgence of its small wit. The objects of the Society are too sound, the means too appropriate, the language and argument of its most respectable members too simple, unaffected, and convincing. The Society is composed of ordinary mechanics; Can any sight be more pleasing, than a number of such risen, amidst all the difficulties and depressions to which trade has been subjected, devoting a portion of their hard-earned pittance and brief leisure to the storing of their minds with a knowledge of Nature’s works,—turning aside from the coarse and common pleasures of their station, and seeking for a*

nobler and purer solace of their toils in the study of ‘divine philosophy’?”

The Society did not have a very long life, ending in 1836. Its books and collections went to the Mechanics Institution, from which the newly built Manchester Museum received material, including two specimens of the unique Manchester Moth, *Euclémensia woodiella* (Curtis, 1830) (Fig. 2). Robert Cribb, a local lepidopterist, collected some dozens of this moth in 1829 at a site just north of the city. It has not been seen since, and for various reasons only three specimens have survived, one in Manchester (see Ridout [2016] for an intriguing account of this discovery and the probable origin of the Manchester Moth).

The Manchester Field-Naturalists’ Society.

A little later another initiative was conceived which spanned the various divisions of class, specialization, professionalism and even gender. This was the Manchester Field Naturalists Society [Anonymous, 1860: 4], founded in 1860 for “*ladies and gentlemen, who are especially interested in Natural History, either as students of Botany, Entomology, or any of the kindred Sciences. It is open also to those who, without paying minute scientific attention to the objects of nature, delight to ramble in the country, and find pleasure in the contemplation of its liveliness; and equally so to persons fond of Topography, Archaeology, and all other pursuits, literary, artistic and scientific, that give life and reward to rural excursions.*”

Two of its founders were Leopold Hartley Grindon (1818–1904) (Fig. 1), a self-taught botanist, one-time cashier and later professional writer and popularizer [Weiss, 1930b; Gill, 2012] and Joseph Sidebotham (1824–1885), coal mine owner and partner in a calico printing firm and, among other interests, an enthusiastic botanist, microscopist, photographer and entomologist [Cook, 2015; Cook, Logunov, 2016]. The 2nd Earl of Ellesmere, George Granville Francis Egerton (1823–1862), consented to be President, Grindon became secretary and Sidebotham treasurer. There were 229 names on the original membership list, 14 of them Honorary or Corresponding and 38 women [Anonymous, 1860]. It continued into the 20th century, arranging regular soirées, where papers were read, specimens displayed and music played. Most importantly, it arranged excursions to places of interest within 10 or 20 miles of Manchester. The Report on the first year’s activities [Anonymous, 1860] notes that 60 or more members took part in the rambles when the weather was good, reduced to a dozen or so when it was black and heavy. Hundreds of insect specimens were exhibited at the soirées and rich displays of plants of various kinds. The Treasurer felt it necessary to explain the layout of the accounts “*For the information of lady members of the Society, and also for such gentlemen as may need a few words of explanation ...*” [Anonymous, 1860: 35]. The Report also noted with pleasure that a new entomological society has been formed in Bowdon, south of Manchester, and another resembling the Field Naturalists’, among the working-men of Salford.



Fig. 2. The specimen of the Manchester Moth — *Euclémensia woodiella* (Curtis, 1830) — from the Manchester Museum, the Walsingham collection of micro-Lepidoptera. © The Manchester Museum.

Рис. 2. Экземпляр Манчестерской моли — *Euclémensia woodiella* (Curtis, 1830) — из Манчестерского музея, коллекция микро-Lepidoptera Вальсингама. © Манчестерский музей.

Within the Manchester Field-Naturalists' Society opportunities for disagreement soon developed. It became necessary to stress that the Society existed “*not so much to extend and encourage the boundaries of science, as to diffuse taste for knowledge which has already been accumulated, and to call forth that latent interest in Natural History in particular, which exists so very generally in amiable minds*” [Anonymous, 1865: 11]. By 1863 the membership had increased to well over 500, augmented by the issue of complementary tickets to non-members, and, one suspects, by friends tagging along [Anonymous, 1863]. As a result the excursion parties became too large and the soirées overcrowded. Some members complained that new locations were not sought whilst others saw the virtue of increasing knowledge of established ones. There was a mass resignation of Committee members in 1865, and Grindon's position as Secretary was made ongoing and paid. The newly constituted Committee made it clear that soirées were “*an afterthought and never intended to be anything more than accessory to the green-field meetings*”, while the membership, which had “*increased to a totally unmanageable extent*”, fell to 244 subscribers [Anonymous, 1868: 12–15], more in keeping with the original aims.

The Bowden and Altrincham Entomological Society

This short-lived society was founded in 1860 by T. and J. B. Blackburn and others [Salmon, 2000]. Two years later they commenced to publish ‘*The Weekly Entomologist*’, designed to continue in the tradition of Henry Stainton's ‘*Entomologist's Weekly Intelligence*’, which ran from 1856 to 1862. The new journal lasted three years. Thomas Blackburn (1844–1912), who was only 18 when it started, went on to London where he became one of the editors of the ‘*Entomologist's Monthly Magazine*’ [Anonymous, 2017], and was later ordained in the Church of England and pursued his vocation and entomological researches in Hawaii and Australia [Lea, 1912]. The *EMM* still flourishes. Bowden later became the home of a number of notable naturalists, including Sidebotham, R.S. Edleston (1819–1872) and Thomas and T.A. Coward (1867–1933), who were respectively brother-in-law and nephew of Sidebotham.

The Manchester Microscopical & Natural History Society

Another organization with unexpectedly similar activities came into being just before the Field Naturalists' Society. In 1858 the Microscopical Section of the Manchester Literary & Philosophical Society was founded by W.C. Williamson, Joseph Sidebotham (who had an early interest in the subject), the celebrated Manchester optician, instrument maker and inventor of microphotography John Benjamin Dancer (1812–1887) and a few others. In 1867, it was renamed the Manchester Scientific Students' Microscopical Club, changed to Leeuwenhoek Microscopical Club in 1875 and then in 1880 to the Manchester Microscopical Society [Anony-

mous, 2013; Weiss, 1930a]; the society still exists, known as the Manchester Microscopical & Natural History Society. One of those involved in formation of the revised body was Richard Brauer (1845–1905), born in Leipzig, a company manager and a keen microscopist [Stevenson, 2010]. He was interested in zoophytes and was also an entomologist with a collection of Lepidoptera, Coleoptera and Orthoptera. The society was naturally interested in microscopical subjects and technical matters, but appears to have had a broad remit which overlapped that of the field naturalists and with general entomology. Soirées were held and talks were given on a range of topics. For some time at any rate, there was a programme of rambles to local places of interest and as far afield as the Isle of Man. For his part, Dancer used to take his instruments to the evening meetings of the Manchester Field Naturalists Society for use and, presumably, possible purchase. Sidebotham provided a link between the two societies.



Fig. 3. View of the Manchester Museum's Entomology archive. © The Manchester Museum.

Рис. 3. Вид энтомологического архива Манчестерского музея. © Манчестерский музей.

Changing objectives

Amateur botanists and entomologists enjoyed plants and animals for their emotional and aesthetic appeal [Allen, 1994], as well as for the excitement of the chase and to escape “*the smoke and dirt of thickly-populated districts*” [Alberti, 2001: 123]. They wished to identify the collected specimens, to establish the synonymy and priorities of the names bestowed on them, and to analyse their distribution in Britain and Ireland, thus dealing with various aspects of what is often called ‘*natural history*’ [Berry, 1988; Clark, 2009]. By 1890, the connotation of ‘*naturalist*’ was coined by the mathematician Sir William Thomson (1824–1907) to describe those who were “*mere descriptive investigators of nature*” [Lowe, 1976: 518]. Urban naturalists also paid a lot of attention to determining whether the recorded/collected species truly belonged to the indigenous flora and fauna. Apart from anything else this mattered because a few natural history dealers would pass off foreign moth species as native British ones [see Allan, 1975; Allen, 1994].

At the same time, the late 19th and early 20th centuries saw the rapid advance of experimental, laboratory-centred and concept-driven science, the practitioners considering themselves to be ‘professionals’, as opposed to amateur ‘fungus-hunters’ or ‘stamp-collectors’ [Alberti, 2001; Johnson, 2007; Kohler, 2002; Secord, 1994; etc.]. They regarded collections as relevant to other fields of evolution, behaviour, ecology or genetics (the ‘new’ biology of Huxley [Berry, 1988]; but see Kraft, Alberti [2003] and Nyhart [1996]), so that, intentionally or not, a distinction was made between laboratory biologists and classification-minded field naturalists. This happened not only in Britain but elsewhere in Europe [e.g., Drouin, Bensaude-Vincent, 1996]. At the same time, the changing patterns of life in the 19th century made it apparent that there was a need for applied entomological study in the fields of agriculture and medicine [Clark, 2009].

These strands overlapped, but as seen with respect to both the Manchester Literary and Philosophical Society and the Manchester Naturalists, the differences could lead to serious tensions. In a well-known extract W.N.P. Barbellion [1919: 110–111], who worked at the British Museum (Natural History) in London and was a member of the Royal Entomological Society, wrote in his Journal:

“March 4 1914 The Entomological Society There were a great many Scarabees present who exhibited to one another poor little pinned insects in collecting-boxes.... It was really a one-man show, Prof Poulton, a man of very considerable scientific attainments, being present, and shouting in a raucous voice in a way that must have scared some of the timid, unassuming collectors of our country’s butterflies and moths. Like a great powerful sheep-dog, he got up and barked, ‘Mendelian characters’, or ‘Germ plasm’, what time the obedient flock ran together and bleated a pitiful applause. I

suppose, having frequently heard these and similar phrases fall from the lips of the great man at these reunions, they have come to regard them as symbols of a ritual which they think it pious to accept without any questions. So every time the Professor says, ‘Allelomorph’, or some such phrase, they cross themselves and never venture to ask him what the hell it is all about.”

Edward Bagnall Poulton (1856–1943) was the second Hope Professor of Zoology in Oxford [Smith, 1986] and an authority on adaptive coloration; his book on the subject was a classic [Poulton, 1890]. Surprisingly, Poulton’s own approach was also ridiculed as ‘museum-made mimicry’ because his emphasis was thought to be based on “*explanation at the expense of careful observation*” [Johnson, 2007: 246]. His successor as Hope Professor, Geoffrey Douglas Hale Carpenter (1882–1953), disturbed the entomological Fellows in a similar way. Audrey Smith [1986: 50] gives the following example:

“Carpenter collected an imposing volume of data proving that in many parts of the world visual hunters

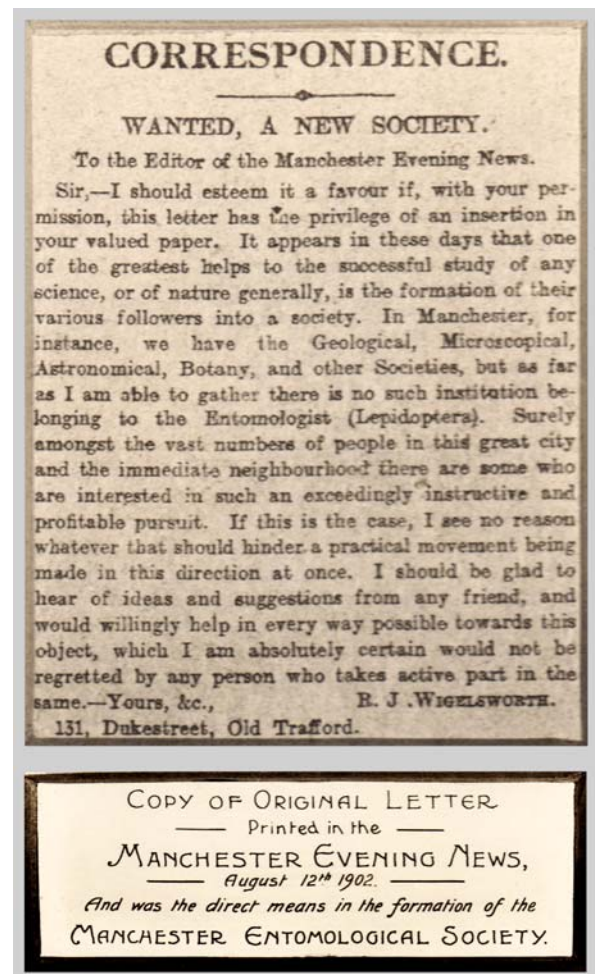


Fig. 4. Copy of the letter published in ‘Manchester Evening News’ on 12th August 1902. © The Manchester Museum.

Рис. 4. Копия письма, опубликованного в ‘Манчестерских Вечерних Новостях’ 12 августа 1902 г. © Манчестерский музей.

Table. Publications, Presidents and Secretaries of the Manchester Entomological Society.
Таблица. Публикации, президенты и секретари Манчестерского Энтомологического Общества.

Annual Report	Year	President	Secretary
	1902	W.E. Hoyle	R.J. Wigelsworth
1	1903	W.E. Hoyle	R.J. Wigelsworth
2	1904	W.E. Hoyle	R.J. Wigelsworth
3	1905	B.H. Crabtree	R.J. Wigelsworth
4	1906	B.H. Crabtree	R.J. Wigelsworth
5	1907	R. Tait	R.J. Wigelsworth
6	1908	R. Tait	A.W. Boyd
7	1909	C.F. Johnson	A.W. Boyd
8	1910	C.F. Johnson	A.W. Boyd
9	1911	W. Buckley	A.W. Boyd
10	1912	W. Buckley	A.W. Boyd
11	1913	J.H. Watson	A.W. Boyd
12	1914	J.H. Watson	J.E. Cope
13	1915	W. Mansbridge	J.E. Cope
14–15	1916	W. Mansbridge	W. Buckley
	1917	A. Binns	W. Buckley
16–19	1918	A. Binns	W. Buckley
	1919	A. Binns	W. Buckley
	1920	A.W. Boyd	W. Buckley
	1921	A.W. Boyd	W. Buckley
20–21	1922	H. Britten	J.F.G. Wynne
	1923	H. Britten	J.F.G. Wynne
22–24	1924	B.H. Crabtree	J.F.G. Wynne
	1925	B.H. Crabtree	J.F.G. Wynne
	1926	H.R.P. Collett	J.F.G. Wynne
25–28	1927	H.R.P. Collett	J.F.G. Wynne
	1928	W. Buckley	R.J. Wigelsworth
	1929	W. Buckley	R.J. Wigelsworth
	1930	H.L. Burrows	R.J. Wigelsworth
29–31	1931	H.L. Burrows	R.J. Wigelsworth
	1932	A.E. Tonge	R.J. Wigelsworth
	1933	A.E. Tonge	R.J. Wigelsworth
32–34	1934	J.E. Cope	R.J. Wigelsworth
	1935	J.E. Cope	R.J. Wigelsworth
	1936	R. Tait	R.J. Wigelsworth
35–38	1937	R. Tait	R.J. Wigelsworth
	1938	H.N. Michaelis	L. Nathan
	1939	H.N. Michaelis	R.J. Wigelsworth
	1940	H. Kitchin	R.J. Wigelsworth
39–49	1941–1951	G.S. Kloet (1946,1947), T.H. Hanson (1948), H. Hayhurst (1949), S. Charlson (1950), I.E. Whitehead (1951)	R.J. Wigelsworth
50–58	1952–1960	W.D. Hincks (1952), G.W.R. Bartindate (1953), H.C. Allcard (1954,1955), L.N. Kidd (1956), R.C.R. Crewdson (1957), H.N. Michaelis (1958), H.L. Burrows(1959), J.C. Gladman (1960)	E.H. Fielding
59–61	1961–1963	H. Hayhurst (1962), D.W. Mackie (1963)	E.H. Fielding
62–63	1965	Rostherne number	
64–71	1974	Burrows number	
	1986	G. Hulme	W.R. Wooff
	1987	T. Street	D. Sumner
	1988	T. Street	D. Sumner
	1989	J. Delf	D. Sumner
	1990	P.B. Hardy	D. Sumner

The publications are Annual Reports (to 1908), Annual Reports and Transactions (1909–60) and subsequently Proceedings and Transactions.

Публикации — это Ежегодные Отчёты (до 1908), Ежегодные Отчёты и Труды (1909–60) и далее Материалы и Труды.

such as birds do prey heavily on edible species of butterflies but avoid those that mimic distasteful species. As a result of his researches he became acknowledged as a leading authority on mimicry, and he became intensely interested in the imprints of birds' beaks often found upon the wings of butterflies which had escaped from their attackers. ... He was much more interested in beak marks than he was in the butterflies themselves, and many meetings of the Royal Entomological Society were taken up with long communications and exhibits on the subject. At last the Fellows could stand it no longer and Carpenter was privately warned that unless he discontinued the exhibition of beak marks there would be a public protest against him. Far from being abashed by this, Professor Carpenter was overjoyed as it proved to him that he had produced overwhelming evidence of his case that birds do eat butterflies. In spite of these differences he was elected President of the Society for 1945–6."

This is the background in Britain in which the 20th century M.E.S. was founded. Although the founders may not have been consciously aware of the different themes animating the earlier societies, there continued to be echoes in one form or another throughout its existence. The archives of the Society as well as its library (139 books) were donated to the Manchester Museum, apparently in 1991. The annotated archives consist of 741 items [Logunov, 2010] and are now in the Museum's Entomology Department (Fig. 3) so as to increase accessibility, making it possible, among other things, to trace the origin and development of the Society.

The Manchester Entomological Society

The Society was founded in 1902. It apparently owed much to an enthusiasm for butterflies developed by Robert J. Wigelsworth (1876–1951; see also p. 372; Fig. 7) on a trip to South America. When he got home he wrote a letter to the Manchester Evening News, published on 12th August (Fig. 4), suggesting the formation of a society, "and with this publicity, plus a notice in the shop window of Mr R. Ramsbottom, sports outfitter, of 81 Market Street, Manchester, the Manchester Entomological Society was born" [Nathan, 1953: 10]. On 11th October Richard Brauer wrote to the Keeper (=Director) of the Manchester Museum, William Evans Hoyle (1855–1926; Fig. 5) as follows (MMEA, M.E.S. archive, Box 1, Item 80):

"I beg to enclose herewith a circular from which you will see that it is the intention of myself and friends to form an Entomological Society, the intention being to carry it on energetically, somewhat on the lines of the Manchester Microscopical Society.

One of the most important things to be considered and upon which the failure or success of the projected new society will largely depend, is, to find a suitable place to hold our meetings at, than which there would be no more suitable place than the Owens College Museum with its wide collections of insects.

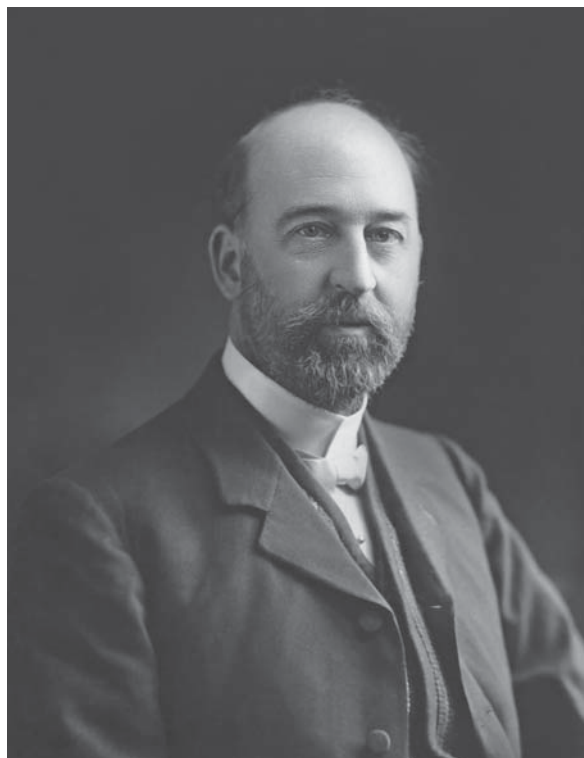


Fig. 5. William Evans Hoyle (1855–1926), the first Keeper of the Manchester Museum (1890–1908) and the first President of the M.E.S. (1902–04). © The Manchester Museum.

Рис. 5. Вильям Эванс Хоил (1855–1926), первый хранитель Манчестерского музея (1890–1908) и первый президент М.Е.С. (1902–04). © Манчестерский музей.

I therefore venture to ask whether we might hope that the authorities of the Museum would consent to permit the meetings to take place at the Museum – a privilege they accorded some time ago to the "Entomological Club" and if so, on what terms?

I have reason to believe that Mr C.H. Schill would kindly support me in this matter."

Brauer was Treasurer of the Microscopical Society (see above) at the time and wrote on their notepaper, although in a private capacity [Anonymous, 1906]. Charles H. Schill (b.1863) was an important member of the Museum Committee who had donated his major collection of world-wide Lepidoptera to the Museum in 1900 [Dockery, Logunov, 2015]. In reply the Director explained that the Museum could not make promises or enter into arrangements with a Society that had not yet come into existence, but "if you will let me know when the opening meeting is to be held, I will do my best to attend – quite unofficially of course" (MMEA, M.E.S. archive, Box 1, Item 107). By 20th November Wigelsworth was able to inform the Director that the M.E.S. had been "brought into active existence" at a meeting held in the Municipal School of Technology on November 17th 1902, at which he became its Secretary (MMEA, M.E.S. archive, Box 1, Item 115). Hoyle was elected President and stood as such for three years (1902–04); subsequent arrangements were put into the hands of his Assistant John R. Hardy (1844–1924).

The Manchester Entomological Society.

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NOMINATION FORM.

.....

I am desirous of becoming a Member of the Society, and if elected, hereby undertake to conform to all its rules and regulations so long as my membership continues, which shall be to the end of the year in which a written and signed Resignation of Membership is received by the Secretary.

} Signature of Candidate

We, the undersigned Members of the Society, hereby recommend

M..... } Full Name, Abbreviations of Titles, and Postal Address
In case of a Lady say whether "Mrs." or "Miss"

as a fit and proper person to become a Member of the Manchester Entomological Society.

} Signatures

Received by the Secretary.....19

Read for the First Time.....19

Ballotted for and Elected.....19

Chairman.

RULES OF THE Manchester Entomological Society.

.....

- 1.—The Society shall be called "The Manchester Entomological Society.
- 2.—The object of the Society shall be the association of its members for mutual assistance in the study of Entomology, by the holding of Meetings, and such other means, as the Council may from time to time determine.
- 3.—The Society shall consist of Ordinary and Honorary Members.

ORDINARY MEMBERS.

A Candidate for Ordinary Membership shall sign a declaration that he will abide by the rules of the Society, shall be nominated by two Members at one meeting, and voted for at the next, and shall be elected if the number of adverse votes do not exceed one-fourth of the members present.

HONORARY MEMBERS.

Gentlemen who have acquired an eminent position in Entomological Science shall be eligible for election as Honorary Members, on the nomination of the Council. They shall pay no Subscription, but have all the privileges of Ordinary Members. No Honorary Member shall be proposed if the existing number of such members be greater than ten per cent. of the Ordinary Members.
- 4.—Ordinary Members shall pay a Subscription of 5/- per annum, due on the 1st of January each year. If on the 31st of December of any year a member shall be three or more years in arrear with his or her subscription, the Council shall erase his or her name from the list of members, and shall take whatever steps seem desirable for recovery of the arrears. The Council shall further report the erasure of such names to the next meeting of the Society, with a view to their publication.
- 5.—No member shall be allowed to resign from the Society until all Subscriptions, due up to the end of the year in which written notice of such resignation shall have been received by the Secretary, shall have been paid, and any property of the Society which may be in his or her keeping shall have been returned.
- 6.—The Society shall be governed by a Council, consisting of a President, Vice-President, Treasurer, Secretary, Librarian, and three Members of Council, who shall be elected annually by ballot. The President and Vice-President shall not hold office for more than two consecutive years. The senior member of the Council (not an official) shall retire every year, and shall not be eligible for immediate re-election.
- 7.—The ordinary meetings shall be held monthly, at the time and place fixed by the Council, who shall also have power to postpone any meeting or arrange any additional meeting or excursion as they think desirable.
- 8.—The Annual Meeting for the election of Council and Officers and the presentation of the Treasurer's accounts, shall be held at such time and place as the Council may decide.
- 9.—An Auditor shall be elected to audit the accounts of the Society, prior to their being laid before the members at the Annual Meeting.
- 10.—Three members at a Council Meeting, and five members at an ordinary Meeting shall constitute a quorum.
- 11.—No alteration shall be made in the foregoing rules unless decided by three-fourths of the members present at a meeting which has been specially summoned for that purpose, of which a month's notice has been given.

Fig. 6. Copy of the original Nomination Form and Rules of the M.E.S.
Рис. 6. Копия оригинальной формы-заявки и правил M.E.S.

Twenty-five members were enrolled. In further correspondence he supplied a specimen copy of the Rules and Nomination Form (Fig. 6) and discussed the design of a suitable membership card (MMEA, M.E.S. archive, Box 1, Item 111). Ordinary members were to be nominated (and pay 5 shillings (25 p.) per annum), honorary members who had displayed "*eminence in Entomological Science*" could be elected and did not pay; the Society should have a President, Vice-President, Treasurer, Secretary, Librarian and three Council members. It should hold meetings on the first Wednesday of each month at 7 pm at the Manchester Museum. The Entomological Club referred to in Brauer's letter (see above) was presumably the Lancashire and Cheshire Entomological Society, founded in 1877 and usually operating out of Liverpool. At any rate that was the body contacted by Hoyle suggesting that they hold joint meetings and offering to provide refreshments during the evening. Indeed, on February 16th 1903 the first meeting of the Society in the Museum was held together with the Lancashire and Cheshire Entomological Society [Report, 1903]; at that meeting J. R. Hardy gave a short address devoted to bee-moths (Galleriidae) supported

by the specimens from the museum collection. Members of both societies continued to meet regularly and also organized joint rambles to various sites.

Wigelsworth (Fig. 7) was Secretary until 1907, then again from 1928 to 1945 (Table), and from April 1945 was made an honorary member of the Society [Nathan, 1953]. He was usually referred to only by his surname and initials, although in the published reports of the Council (1904–09) as Robert J. Wigelsworth. He died in 1951, aged 75, being at that time "*the last surviving original member*" of the Society [Nathan, 1953: 10]. The 1891 census lists a Robert James Wigelsworth, aged 15, as a shipping house clerk, an occupation that could perhaps have led to a visit abroad.

The new society produced a series of publications (Table; Fig. 8). At first they were '*Annual Reports*', providing a list of members, the Rules and Officers of the Society, the year's accounts, lists of Library holdings and little else. In time, some covered several years' activities and the membership list was sometimes dropped. From 1909 to 1960 they were headed '*Annual Report and Transactions*', with President's addresses accompanied sometimes by a photograph, lists of meet-



Fig. 7. Robert James Wigelsworth (1876–1951), the first Secretary of the M.E.S. (1902–07; 1928–45); photograph was taken in Manchester in 1939. © The Manchester Museum.

Рис. 7. Роберт Джеймс Вигелсворт (1876–1951), первый секретарь М.Е.С. (1902–07; 1928–45); фотография сделана в Манчестере в 1939 г. © Манчестерский музей.

ings arranged, sometimes of exhibitors and their exhibits. The final one in this format is entitled '*Proceedings and Transactions 1961–1963 incorporating the 59th – 61st Annual reports*'. It contains five papers such as would be found in other small entomological journals and a library list. After that two single subject issues were produced that were listed as part of the series. They were by H.N. Michaelis [1965] on the Lepidoptera of Rostherne Mere [see Gradwell, 1966] and by E.H. Fielding [1974] on the survey work of H.L. Burrows.

Inspection of the lists in the publications shows the membership rose from the initial 25 to 42 by 1905 and over 50 by 1912, with an increase to 73 in 1951, embracing "*most of the orders of British insects*" [Kloet, 1953: 9]. Membership lists were not published in later years but this level appears to have been maintained for a further two decades until a slow decline in the 1980s led to a final phase of low attendance. The founding members were noted in the lists. Their numbers naturally fell over the years, halving by 1916 but there were still 3 in 1940.

The M.E.S. did not attract many women, neither were they common in other local natural history societies [see Secord, 1994]. In the 29th Annual Report [1931: 5] Miss C.E.M. Pugh (elected in 1930) was congratulated as "*the first lady member to be elected*" on her most interesting paper '*Some black pigments*'.

She was Caecilia E.M. Pugh, ex Manchester High School for Girls, who wrote several papers from Manchester University's Department of Physiology on tyrosinase in relation to pigment formation and later continued research in Cardiff. The writer (apparently R.J. Wigelsworth) was not correct, however, in giving her priority. In 1922, there were Miss Annie Dixon FRMS, MSc of the Laboratory, Harpenden, Hertfordshire (now Rothamsted Research), Miss D.M. Griffin of a private address in Wigan and Miss R. Tonge, from the address of A.E. Tonge (President 1932–33). None of these continued very long; Dixon had moved to Wales by 1925 and was not heard of after that, Griffin, Pugh and Tonge gave up within two years. In the later 1920s and the 1930s, a few more women were elected and remained for a short time. One of them was Miss Cecilia Legge (elected in 1932), an Assistant Keeper in Zoology at the Manchester Museum from 1930 to 1945, until she "*resigned in order to take up moral welfare work*" [Report, 1931, 1945: 3]. She was acknowledged in Museum's Annual Reports several times in relation to

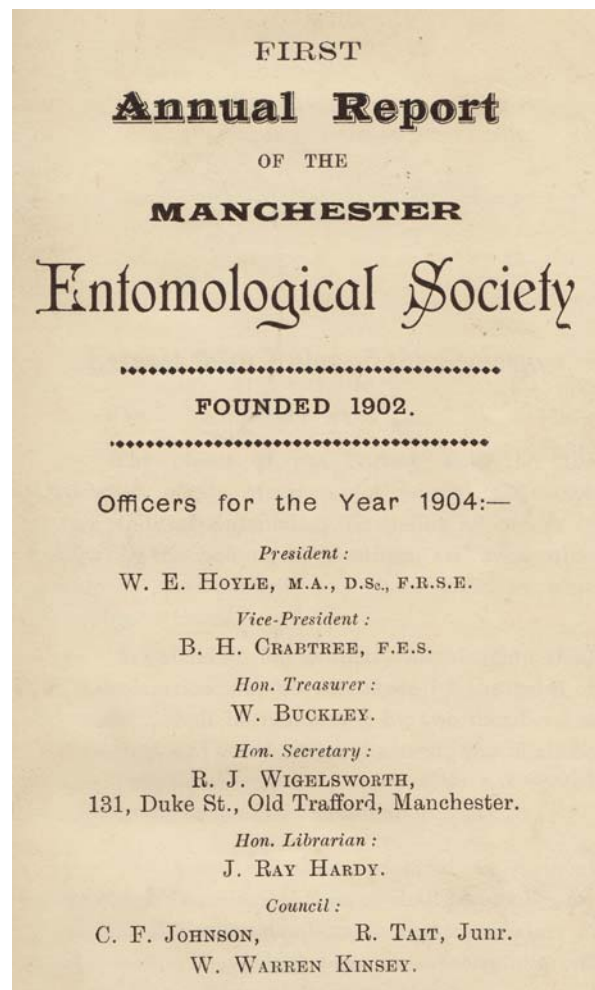


Fig. 8. Front page of the first Annual Report of the M.E.S. published in 1904.

Рис. 8. Титульная страница первого Ежегодного Отчёта М.Е.С., опубликованного в 1904 г.

arranging small temporary exhibitions and other services, and at that time she was also a Secretary of the North-West Naturalists' Union [Report, 1943]. Another notable woman was Mrs Dorothy B. Kloet (elected in 1934), whose husband was a member and who frequently accompanied him [Popham, 1982].

Given its close relation with the Manchester Museum it is not surprising that those in charge of the entomological collections should have played a significant part in the workings of the Society, often serving as its officers and bringing with them an intense interest in insects. For a number of years (1940s–50s), the Museum's Annual Reports regularly included information about these services under the headings 'Co-operation' or 'Contacts and co-operation'.

They began with J.R. Hardy, who from 1881 to 1908 was Assistant Keeper (to the Keeper of Zoology) then Senior Assistant Keeper and Curator of Entomology until 1918 [Logunov, 2010]. Hardy joined the Society from the date of its foundation (1902), served as a Honorary Librarian for two years (1902–04), and then remained as an Ordinary and later (since 1910) Honorary Member until his death in 1921 [Britten, 1922]. In

the Museum, Hardy was followed by Harry Britten (1870–1954) until 1938 and then Geoffrey J. Kerrich (1909–2002), who left in 1947 to take up a position at the British Museum (Natural History) [Logunov, 2012]. Britten was the son of a gamekeeper; after some other employment he became a gamekeeper himself before moving to museum work [Hincks, 1954]. He joined the Society in 1919, served as President in 1921–23, and then continued as an Honorary Member until his death; he also served as a Society's Auditor in 1951. Kerrich joined the Society in 1938 and served as a Council Member for two years (1939–40) [Report, 1940] (see also below, p. 375).

Walter Douglas Hincks (1906–1961) replaced Britten at the Museum, and held the post of Assistant Keeper until 1957 when he continued as Keeper with a Technician (Stanley Shaw in the period 1949–1956 and Alan Brindle since 1958) until his early death in 1961. Hincks was originally trained as a chemist and worked in the commercial Pharmaceutical sector; his entomological interests were a hobby before they became full-time [Higham, 2012]. He was President of the Society in 1952–53, with his technician Stanley Shaw as the Soci-

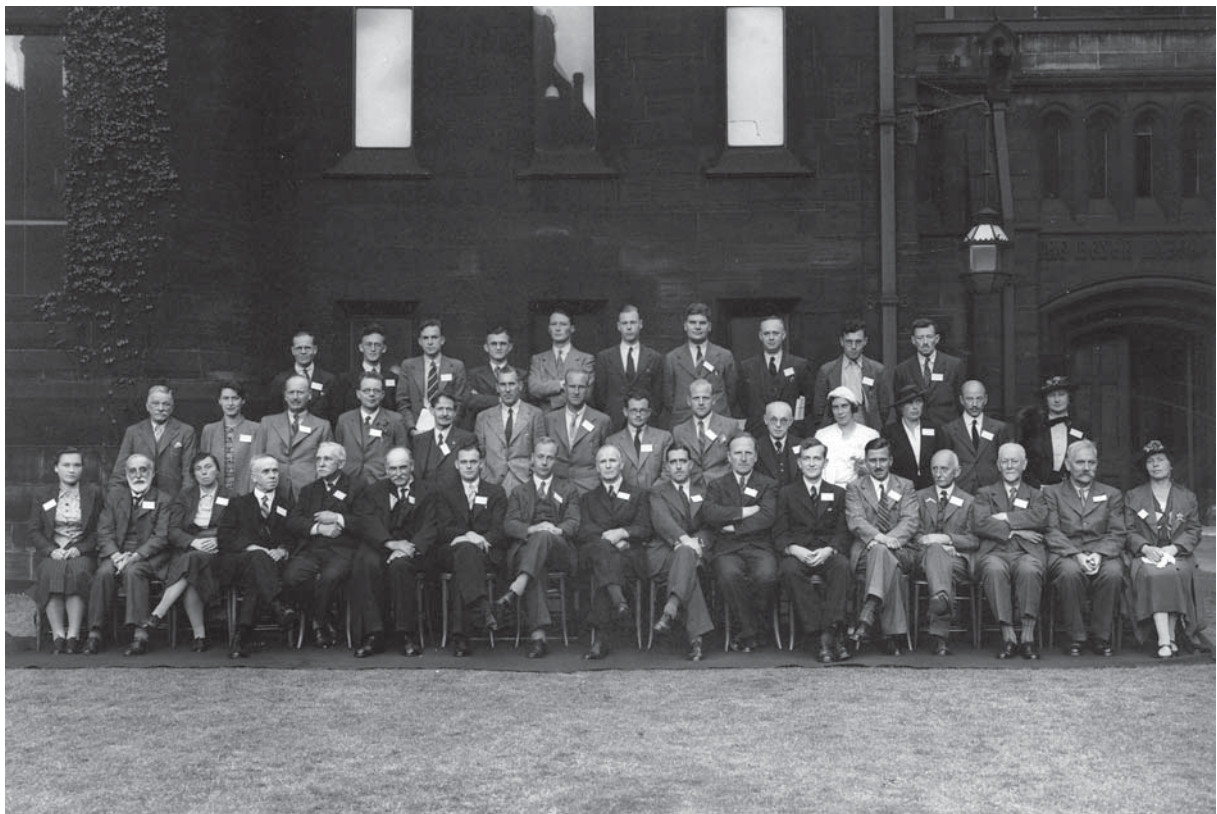


Fig. 9. Fifth Annual Meeting of the Society for British Entomology, held in the University of Manchester with the co-operation of the M.E.S., July 15th–17th, 1939; photograph by Guttenber Ltd., Manchester, from the MMEA.

Key to photograph: Back row (left to right) — E.S. Pilling, H. Driver, H.P. Meek, C.J. Banks, T.T. Macan, A.H. Ingleby, W.D. Hincks, R.W. Hartley, A. Brindle, C.H. Wallace Pugh. Middle row — J.H. Watson, Mrs Ingleby, A. Winterbottom, T.H. Hanson, J.B. Garnett, J. Hope, K.M. White, J.M. Branson, unknown person, L. Nathan, Mrs Kerrich, Mrs Daltry, H.W. Daltry, Miss K.E. Burnard. Front row — Miss R.H. Goffe, T. Dannreuther, Mrs Goffe, R.J. Wigelsworth, H.L.F. Audcent, W.H. Western, H. Kitchin, H.P. Moon, W.A.F. Balfour-Brown, H.N. Michaelis, E. Rivenhall Goffe, G.J. Kerrich, G.S. Kloet, B.H. Crabtree, Hugh Main, H. Britten, Mrs Wigelsworth.

Рис. 9. Пятое ежегодное совещание Общества Британской Энтомологии, которое прошло в Манчестерском университете при содействии М.Е.С., 15–17 июля 1939; фотография Guttenber Ltd., Манчестер, из ММЕА. Расшифровка фотографии: см. выше.

ety's Librarian [Report, 1952]. At the same time Hincks was also Assistant Secretary for the North Western Naturalists' Society and Yorkshire Naturalists' Union, President and Recorder of the Lancashire and Cheshire Fauna Committee, a council member of the Manchester Microscopical Society and the Society for British Entomology, and Vice-President of the Royal Entomological Society of London, and others [Report, 1952, 1955]; apparently, such a mode of multi-memberships was typical amongst active naturalists at that time.

Alan Brindle (1915–2001) was Keeper until 1982, with Colin Johnson (b. 1943) as a Technician and then Assistant for some of this period. Brindle started as a mill worker. He learnt German, French and Russian at night school in order to further his knowledge of entomological literature, and with this background served in the Intelligence Corp in India and Hong Kong during war service [Johnson, 2003]. Brindle joined the Society in the late 1950s and served as its President in 1961. Johnson then became Keeper in 1982, with Phillip Rispin acting as part-time Assistant [Johnson, 1996]. He was fascinated by natural history as a child, had an opportunity to assist Brindle at an early age and remained at the Museum until he retired in July 2003 [Report, 2003].

In their turn members of the Society's supported the Manchester Museum and the University of Manchester in organizing and running two entomological meetings. On 15th–17th July 1939, the M.E.S. invited the Society for British Entomology to hold its Fifth Annual Congress in Manchester (Fig. 9) [Anonymous, 1940]. Fifty-seven participants from all over the country attended. The key role in making the meeting a success was played by G.J. Kerrich, at that time the Museum's Assistant Keeper of Entomology and also a council member of the Society [Logunov, 2012; Report, 1940]. One of the special exhibitions at the congress was prepared by the Vice-President of the Society H. Kitchin (President in 1940–45; Fig. 10), in the form of the Museum's collection of Papilionidae which he had re-curated and catalogued in an honorary capacity in 1938–39 [Dockery, Logunov, 2015]. Cyril Henry Wallace Pugh (1889–1973) organized a pre-congress field trip [Anonymous, 1940]. He was a well-known local dipterist, whose Diptera collections and archive are retained in the Manchester Museum [Logunov, 2012]. This congress alone shows how much the Museum's staff was interconnected with Society's members, and with those of other entomological societies as well.

On 20th–22nd July 1951, the University of Manchester and Museum organised a weekend meeting of the Royal Entomological Society, "*the first it had ever held outside of London*" [Report, 1951: 8]. The M.E.S. acted as the host [Kloet, 1953], with many Society's members (e.g., G.W.R. Bartindale, R.C.R. Crewdson, L.N. Kidd, H.N. Michaelis, etc.) supporting the meeting by exhibiting interesting insect specimens from personal collections [Britton, 1951; Report, 1951]. Many of the Society's members who exhibited at the meeting undertook regular surveys of local insect faunas and published



Fig. 10. H. Kitchin, President of the M.E.S. (1940–45) who helped the Manchester Museum to re-curate the Papilionidae collection; photograph was taken in Manchester in 1939. © The Manchester Museum.

Рис. 10. Х. Китчин, президент М.Е.С. (1940–45), который помог Манчестерскому музею реорганизовать коллекцию Papilionidae; фотография сделана в Манчестере в 1939 г. © Манчестерский музей.

their scientific results. For instance, L.N. Kidd (see p. 377) published some 44 papers on entomology (mostly on Diptera) [Chandler, 2014], H.N. Michaelis (see p. 381) published 29 papers devoted to new records and species lists of micro-Lepidoptera, R.C.R. Crewdson (1902–1978; President in 1957) published two papers on micro-Lepidoptera, A.W. Boyd (b.1885; the Society's Secretary in 1908–17) published 30 papers on Lepidoptera [see Chalmers-Hunt, 1989], etc. Occasionally special donations were made by the Society to the Museum's Department of Entomology. For example, in 1955 two entomological cabinets were donated as a memorial to the late Harry Britten [Report, 1955].

The Museum's personnel and insect collections provided a backdrop for the Society. The collections date back to material received from the Manchester Society for the Promotion of Natural History (see p. 366) and formally opened in 1888. When John Hardy took charge of Entomology they were in need of revision and extension [Logunov, 2010, 2012]. He had a personal interest in British Coleoptera and Lepidoptera and was instrumental in obtaining C.H. Schill's collection of world Lepidoptera for the Museum in 1900 [Dockery, Logunov, 2015]. Harry Britten established a major component of the Museum's British collections [Johnson, 1996]. Kerrich specialized in parasitic Hymenoptera, while Hincks added Coleoptera and European butterflies assembled by the businessman and philanthropist Robert W. Lloyd (1868–1958), who also bequeathed

his entomological library [Higham, 2012]. Between them, they obtained the comprehensive, worldwide Späth collection of tortoise beetles (Cassidinae). Hincks' earwig collection formed a nucleus of the Museum's worldwide collection of Dermaptera, which was then significantly augmented by Alan Brindle [Miles, 2015]. Brindle continued the revision and reorganization of the Museum's entomological collections, at first of larval stages of Diptera and aquatic insects, followed by equally thorough work on Trichoptera (caddisflies), Diptera and especially Dermaptera. Colin Johnson's particular interests lay with certain groups of Coleoptera, in which he made significant taxonomic revisions. Several important collections of Lepidoptera were added over the years, most recently from R.L.H. Dennis between 1985 and 2008 [Logunov, 2010]. The result is that the Manchester Museum's entomological holdings are now among the foremost in the country; further information can be found in Allnatt [2013], Cook [2015], Cook, Logunov [2016], Dockery, Logunov [2015], Higham [2012], Johnson [1996, 2003], Kloet [1961], Logunov [2010, 2011, 2012], Logunov, Merriman [2012], Miles [2015].

Some notable members of the Society

H. L. Burrows (1897–1970)

H.L. Burrows (Fig. 11) was perhaps a typical member of the Society. He joined in 1916 in his late teens and served twice as President in 1930–31 and 1958–59. A studio portrait from the second occasion shows him looking a little nervous and downcast as if he did not enjoy the attention. His friend E.H. Fielding [1974: 4] referred to his shy and retiring nature so that “*in later years he became somewhat of a recluse*” and comments that as a bachelor he could devote all his attention to his interests. His notebooks (Fig. 13), running from 1918 to



Fig. 11. H.L. Burrows (1897–1970), President of the M.E.S. (1930–31 and 1958–59); photograph from Vol.29–31 of Annual Reports and Transactions of the M.E.S., taken in 1931.

Рис. 11. Х.Л. Барроус (1897–1970), президент М.Е.С. (1930–31 и 1958–59); фотография 1931 г. из 29–31-го тома Ежегодных Отчётов и Трудов М.Е.С.

1970, are preserved in the Society's archives in the MMEA. They begin with bicycle journeys from his home in Old Trafford to various places about Manches-



Figs 12–13. Two specimens of caddis fly *Hydropsyche pellucidula* (Curtis, 1834) (Hydropsychidae, Trichoptera) collected by H.L. Burrows (12), and one of his notebooks deposited at the MMEA (A. Brindle's archive, box 2, item 29) (13). © The Manchester Museum.

Рис. 12–13. Два экземпляра ручейников *Hydropsyche pellucidula* (Curtis, 1834) (Hydropsychidae, Trichoptera), собранных Х.Л. Барроус (12), и один из его полевых дневников, хранящихся в ММЕА (архив А. Бриндла, ящик 2, номер 29) (13). © Манчестерский музей.

ter and its environs, meticulously recorded, then regular visits to over a dozen locations in Staffordshire, Shropshire, Derbyshire, Cheshire and Lancashire, as well as to a few sites further afield. The notebooks give lists of species noted on each occasion and provide a record of season and year of occurrence. The groups to which he paid most attention were the Lepidoptera (33 butterfly species), dragonflies (19 species), caddis flies (54 species, many of them rare and limited to single sites; Fig. 12) and Neuroptera (43 species). Burrows was also interested in rearing insects and studied life-cycles of many moths in detail, of which some (e.g., *Hypenodes humidalis* Doubleday, 1850; fam. Erebidae) were reared by him for the first time. He also recorded impressive numbers of moths, seen in the field, trapped or reared. Two hundred and fifty-six species are listed for Burnt Wood, Staffordshire. Fielding [1974] published a posthumous summary of Burrows' insect records for 13 sites, often mosses or heathland that have contracted over the years.

Benjamin Hill Crabtree (1862–1950)

B.H. Crabtree (Fig. 14) comes across as an altogether more mercurial figure, involved in the velvet trade and with a substantial house in Alderley Edge [Nathan, 1953]. He was clearly a strong supporter of the Society, being President in 1905–06, then again in 1923–24. He also served as a member of the Manchester Museum's Committee for 20 years (1925–1945), being nominated by the M.E.S. The records show an interest in Lepidoptera both in the field and the sale room [see Rait-Smith, 1947]. He assembled a fine butterfly collection that contained lots of varieties and rarities [Nathan, 1953]. One area that interested him was Witherslack in the Lake District where he found the locally rare geometrid moths *Idaea trigeminata* and *Scopula imitatoria* [Routledge, 1923] and with his friend C.F. Johnson collected specimens of the now extinct local form of the Silver-studded Blue Butterfly (*Plebejus argus maseyi*). It was first obtained there by J.B. Hodgkinson, a mill worker, in 1856 [Anonymous, 2014]. It was then taken by Herbert Massey in 1892 and after some uncertainty about its relation to a Corsican sub-species, named after him by James W. Tutt (1858–1911) [Dennis, 1977]. Another interest was variation in the Grey Arches (*Polia nebulosa*). At a Society meeting in 1912 he exhibited specimens from Argyll and the New Forest and from Delamere, a locality noted at the time for melanic forms of several species [Bowater, 1914]. Apart from field activities he enlarged his stock by regularly competing with such major collectors as Percy M. Bright (1863–1941), Lord Lionel Walter Rothschild (1868–1937) and Sir Vauncey Harpur Crewe (1846–1924) at the sales that took place at Stevens' Auction House in Covent Garden [see Salmon, 2000]. His collection was dispersed in time. The Oxford University Museum of Natural History received material in 1914, 1923 and 1925 [Smith, 1986]. A series of 'aberrations' was sold in 1942 and the rest of the collection offered at auction in 1946 [Debenham et al., 1946].



Fig. 14. Benjamin Hill Crabtree (1862–1950), President of the M.E.S. (1905–06 and 1923–24) and a member of the Manchester Museum's Committee for 20 years (1925–1945); photograph from Vol.4 of Annual Reports of the M.E.S., taken in 1906.

Рис. 14. Бенджамин Хил Крабтри (1862–1950), президент М.Е.С. (1905–06 и 1923–24) и член Комитета Манчестерского музея в течении 20 лет (1925–1945); фотография 1906 г. из 4-го тома Ежегодных Отчётов М.Е.С.

Sporadic notices show that Crabtree was interested in breeding as well as collecting variant forms. He confirmed the conclusions of the Yorkshire naturalist George Taylor Porritt (1848–1927) as to the Mendelian nature of a black variety of the Magpie Moth (*Abraxas grossulariata*) [Bowater, 1914] and about the same time bred a pale form of the Orange Moth (*Angerona prunaria*) [Williams, 1946]. Periodically he exhibited at meetings unusual varieties of different species, such as the rare Irish yellow form of the Green-veined White Butterfly (*Pieris napi*) [Anonymous, 1913].

Leonard Nixon Kidd (1920 – 2013)

Leonard Kidd (Fig. 15) was born at Crewe into the family of a jeweller's shop manager [Chandler, 2014]. In 1934, the family moved to Oldham. Leonard had always been fascinated by nature; he studied biology and was connected with various natural history societies, including the M.E.S., which he joined in the 1940s and served as President in 1956 [Fielding, 1961]. Kidd was one of those Society's members who were actively involved in taxonomic research. His main interest was Diptera, particularly the fungus gnats (Mycetophilidae). He published many new faunistic records to the British fauna and described several new species, one of which



Fig. 15. Leonard Nixon Kidd (1920–2013) and his wife Dorothy Mary Wood in home village of Greenfield, West Yorkshire, 1977. © Gallery Oldham.

Рис. 15. Леонард Никсон Кид (1920–2013) и его жена Дороти Мари Вуд возле своего дома в поселке Гринфилд, западный Йоркшир, 1977. © Галерея Олдам.

(*Mycomya britteni* Kidd, 1955) was dedicated to Harry Britten (see p. 374–375). In the period of 1948–81, when Kidd was employed at the Werneth Park Study Centre & Natural History Museum in Oldham, he actively collaborated with many eminent British entomologists, for instance, with Alan Brindle (see p. 374) of the Manchester Museum on the Nematocera list for Lancashire and Cheshire [Kidd, Brindle, 1959], and with Tony Hutson on the Royal Entomological Society Handbook on fungus gnats [Hutson et al., 1980] (see Chandler [2014] for further details). He also produced a small book on ‘Oldham’s Natural History’ [Kidd, 1977], which is still in use by the staff of Gallery Oldham (P. Francis, pers. comm.).

During his time at the Oldham Museum, Kidd was responsible for the routine museum work (exhibitions and lecturing) and (re)organising the Museum’s insect collection, which numbered 49,811 specimens belonging to 6,071 species, mostly British [Hayhow, 1988]. This collection contains many specimens collected by him (Fig. 16), but also by A. Brindle (see p. 375), W.D. Hincks (see p. 374), Michael G. Fitton, Peter Skidmore (1936–2009) and many other notable British entomologists – another indication of Kidd’s diverse scientific



Fig. 16. Specimens of the horsefly *Tabanus distinguendus* Verrall, 1909 (Tabanidae, Diptera) (top) and the scorpion fly *Panorpa germanica* Linnaeus, 1758 (Panorpidae, Mecoptera) (bottom) collected by L.N. Kidd and retained at Gallery Oldham. © The Manchester Museum.

Рис. 16. Экземпляры слепня *Tabanus distinguendus* Verrall, 1909 (Tabanidae, Diptera) (вверху) и скорпионницы *Panorpa germanica* Linnaeus, 1758 (Panorpidae, Mecoptera) (внизу), собранных Л.Н. Кидом и хранящихся в Галерее Олдам. © Манчестерский музей.

contacts. His personal insect collection of some 12,000 specimens was donated to the Liverpool Museum in 1989 [Chandler, 2014]. Following retirement he stopped working on insects and concentrated on local and family history studies.

George Sidney Kloet (1904–1981)

The Society member whose name is perhaps the most widely quoted in an entomological context is G.S. Kloet (Fig. 17), a descendant of a Dutch immigrant family who became a successful Manchester business man and a lecturer on entomology in the University of Manchester [Popham, 1982]. He was a member from 1930, President in 1946–47 but otherwise figured little in the Reports. He was a gifted artist and illustrated some of his talks with own inimitable cartoons; once he even designed and illustrated the menu card for a Society’s meeting (Fig. 18). From the 1930s Kloet assembled details of the correct nomenclature of the animals he studied, urging other members to extend their interests beyond the Lepidoptera, alas unsuccessfully, on the ground that “members could not collect insects until a check list was available” [Popham, 1982: 9]. He knew Hincks (see p. 374), who at the time they became acquainted was working in Leeds and was an active member of Yorkshire Naturalists’ Union. Between them they compiled the ‘Check List of British Insects’ (Fig.



Fig. 17. George Sidney Kloet (1904–1981), President of the M.E.S. (1946–47) and the co-author of 'Check List of British Insects' published in 1945; photograph was taken in Manchester in 1939. © The Manchester Museum.

Рис. 17. Джорж Сидней Клоет (1904–1981), президент М.Е.С. (1946–47) и соавтор 'Списка Британских Насекомых', опубликованного в 1945 г.; фотография сделана в Манчестере в 1939 г. © Манчестерский музей.



Fig. 19. Front page of 'Check List of British Insects' that was published privately by G.S. Kloet and W.D. Hincks in December 1945.

Рис. 19. Титульная страница 'Списка Британских Насекомых', который был опубликован Г.С. Клоетом и В.Д. Хинксом в декабре 1945 г.

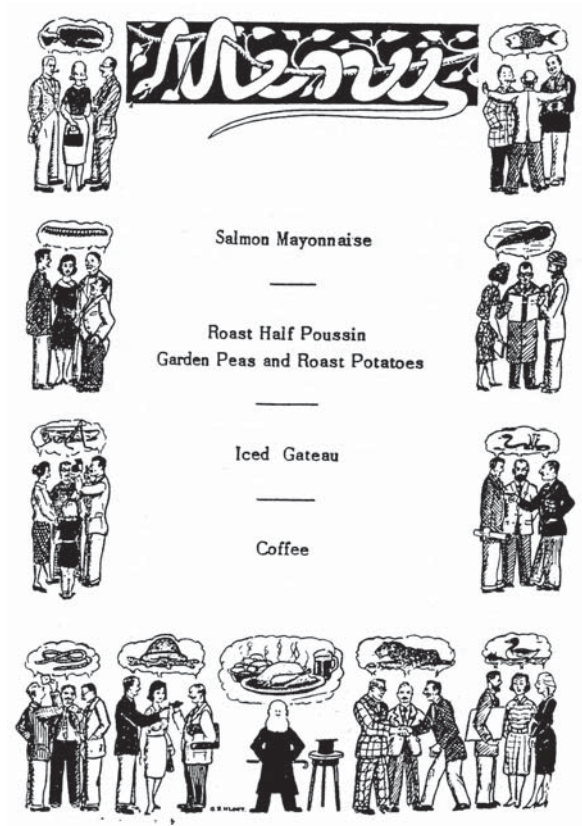


Fig. 18. Copy of the card designed by G.S. Kloet on the occasion of the Sectional Dinner (Section D — Zoology) of the British Association for the Advancement of Science in the Haworth Refectory of the Manchester University on Friday 31st August 1962.

Рис. 18. Копия карты-меню, разработанная Г.С. Клоетом по случаю секционного ужина (секция D — зоология) Британской ассоциации по развитию науки в трапезной Хаворт Манчестерского университета, пятница 31 августа 1962 г.

19). It was published privately in December 1945 [Kloet, Hincks, 1945], Kloet never fully recovering the publication cost. The entire work was done "in spite of difficulties of working under wartime conditions" [Michaelis, 1953: 32]. For this achievement the University of Manchester awarded Kloet an Honorary MSc. The 'Check List' dealt with a total of 20,248 species, including 220 casual immigrants [Michaelis, 1953], and became an essential companion for British entomologists for many years. Given the continual revision of nomenclature that takes place for reasons ranging from reassessment of phylogenetic affinities to clarification of questions of priority, it was inevitable that sooner or later a revision would be needed. Although the two authors planned to embark on this, Hincks died in 1961 and Kloet felt he could not continue alone. As a result the task was taken up by the Royal Entomological Society, which, between 1964 and 1978 produced five volumes, respectively on Small Orders and Hemiptera, Lepidoptera, Diptera and Siphonaptera, Coleoptera and Strepsiptera and Hymenoptera [Barnard, 2011]. They are multi-authored but still, out of respect for the originators, referred to as Kloet and Hincks. Although there

is a more recent series the future of the checklist as a practical tool must now lie with easily refinable and accessible lists on the Internet.

Harold Shawcross Leigh (1884–1938)

A name that turns up from time to time in the Reports is that of Leigh, who was a member from 1905 to 1933. Originally living in his parents' grand house at Worsley, north of Manchester, he was Special Lecturer in Entomology in the University Zoology Department in 1910–16. At an early date he seemed set to conduct a survey of the frequencies of melanic forms of the Peppered Moth, *Biston betularia* Linnaeus, 1758. In an article in 'The Entomologist' [Leigh, 1908: 41] he wrote:

"In connection with an investigation I am making on the "melanism" of *Amphidasys betularia* with a view to elucidating, so far as is possible by experimental and statistical methods, the causes which operate in the production of melanic forms, it is intended to make an extensive enquiry as to the distribution etc., of the typical intermediate, and melanic forms of this species.

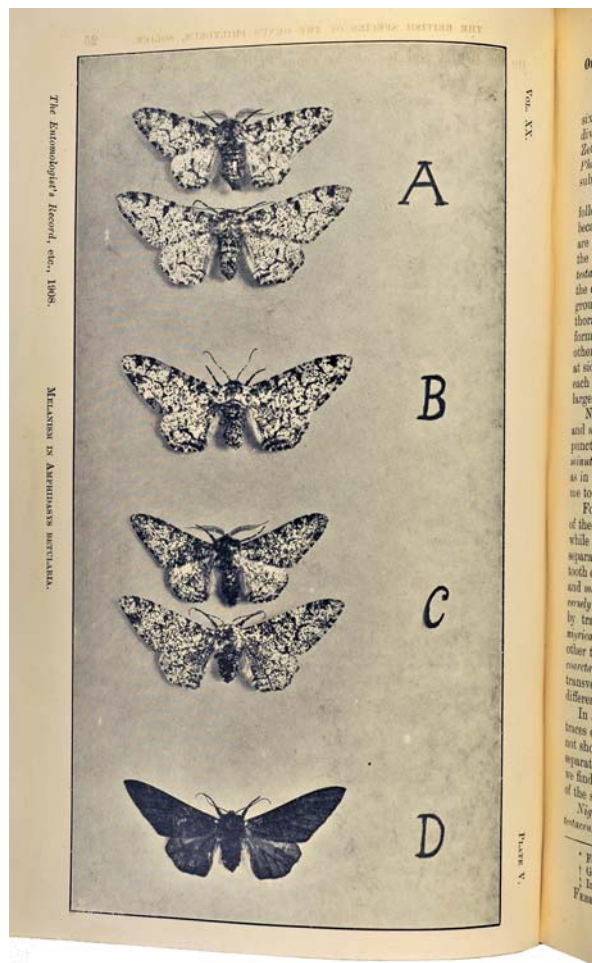


Fig. 20. Page from the paper by H.S. Leigh [1908] with the figure table showing different colour morphs of the Peppered Moth, *Biston betularia* Linnaeus, 1758; see in the text for further explanations.

Рис. 20. Страница из статьи Х.С. Ли [Leigh, 1908] с таблицей, показывающей различные цветовые морфы берёзовой пяденицы, *Biston betularia* Linnaeus, 1758; дальнейшие объяснения в тексте.

I should be extremely grateful if entomologists would assist me in collecting the information concerning the occurrence and distribution of these forms by answering as many as possible of the subjoined questions. “

The article was accompanied by an illustration showing a typical insect, a fully melanic one (*carbonaria*) and two intermediates with different degrees of darkening (Fig. 20). He goes on to ask for information on forms observed and the nature of their environments, whether it was smoky or clear, urban or rural. Later [Leigh, 1910, 1911], he thanks contributors who have sent him information on frequencies and habitat and, since the relation between the two is relatively loose, speculates on whether the prevalence of dark forms can really be simply a means of concealment. This approach to data collection, which we might now call citizen science [see Tweddle et al., 2012], had earlier been used by William Bateson [1900] when requesting from lepidopterists information about the general increase in frequency of melanic forms of moths in industrial regions during the 19th century. Sadly, Leigh's enterprise, half a century before Bernard Kettlewell (1907–1979) set out on a programme with similar objectives [Kettlewell, 1973], does not seem to have seen the light of day [Cook, 1981]. One possible factor that could have diverted him is that he took on the job of collating and publishing information on the food of wild birds assembled through the Board of Agriculture because of its relevance to the nation's crop production [Theobald et al., 1916]. This work related to the activities of the Economic Biology laboratories set up through the initiative of Frederick E. Weiss (1865–1953) and Sidney Hickson (1859–1940), respectively Professors of Botany and Zoology, to develop more applied avenues in their subjects [Clark, 2009; Kraft, 2004]. On the zoological side the emphasis was on entomology; government funding decisions, however, led to closure shortly after the war. Despite analysing the stomach contents of nearly 1500 birds for the 1916 publication Leigh found time to give talks to the M.E.S., such as one on the 'Colours of Insects' [Leigh, 1909] illustrated with a figure of melanic and non-melanic specimens of *Erannis defoliaria* from Delamere (provided by founder member, R. Tait).

David Watson Mackie (1902–1984)

D.W. Mackie (Fig. 21) was a member of the Society who pursued natural history as a recreation, paying particular attention to recording regional wildlife (spiders in particular) and educating others. He was born in Irvine, Ayrshire and educated at Irvine Royal Academy [Parker, 1982]. He became an electrical engineer by trade and worked for Irvine shipyard; later he worked as an inspector for the Scottish Boiler and General Insurance Company until his retirement in 1964 (L. Kidd's archive at Gallery Oldham); later he moved to Stockport in Cheshire [Felton, 1991]. His interest in natural history originated from his school days when he collected Arachnida, Coleoptera and Orthoptera in the sand dunes of the Ayrshire coast. He was also interested in plants, both wild and cultivated, as a shared interest with his wife Gertrude. Mackie became a member of the Society in the 1960s, and served as Presi-



Fig. 21. David Watson Mackie (1902–1984), President of the M.E.S. in 1963; photograph was taken at Leicester Museum in 1971. Courtesy by Eric Duffey (UK).

Рис. 21. Давид Ватсон Маки (1902–1984), президент М.Е.С. в 1963 г.; фотография сделана в Музее Лестера в 1971 г. С любезного разрешения Эрика Даффи (Великобритания).

dent in 1963. For people who knew him, he was “*a quiet and kindly man, who was always ready to help and encourage beginners*” [Felton, 1991: 55], and “*a splendid companion in the field and ... a good teacher*” [Lockett, 1985: 320]. Indeed, of the 33 publications on spiders and harvestmen he produced, two booklets [Mackie, 1977, 1978] represent excellent introductions to Opiliona and Araneae (Fig. 22), which are “*just the thing to take to lectures, field meetings and so on*” [Murphy, 1991: 8]. At a meeting on 3rd–10th September 1958, with a group of 11 participants he founded the Flatford Mill Spider Group and became its Secretary and Treasurer. In 1963, the group changed name to the British Spider Study Group (c. 50 members), the precursor of the present British Arachnological Society, nowadays with over 600 members [Felton, 1991; Merrett, 2009a,b; Parker, 1982].

Hugh Nicholas Michaelis (1904–1995)

H.N. Michaelis (Fig. 23) was an exceptional field naturalist and collector. As a child he spent holidays in north Wales and became familiar with its flora, butterflies and moths. As a pupil at Manchester Grammar School he met George Kloet (see p. 378) and collected with him in

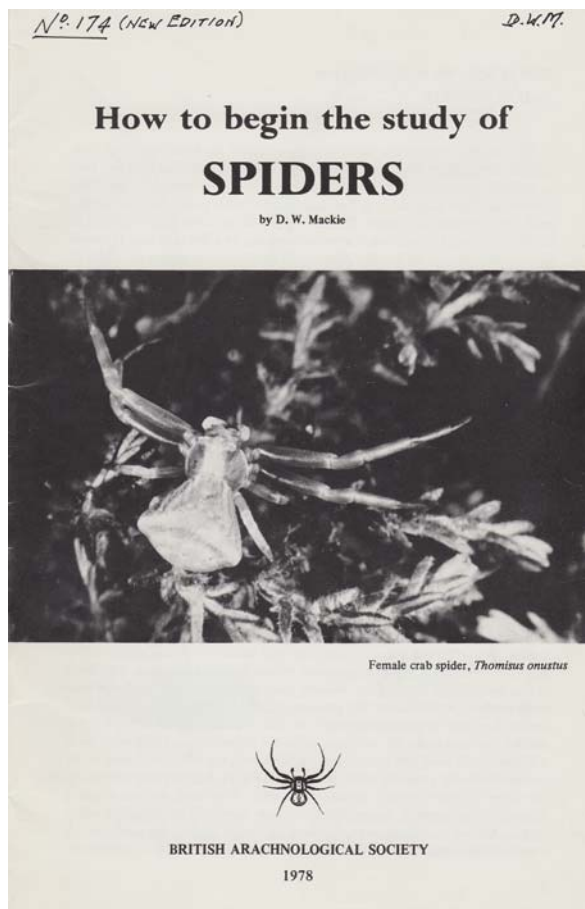


Fig. 22. Front page of the spider booklet published by D.W. Mackie [1978].

Рис. 22. Титульная страница буклета по паукам, опубликованного Д.В. Маки [Mackie, 1978].

the Cheshire countryside. Like Alan Brindle (see p. 375) he was in the Intelligence Corps during the Second World War, spending three years in India. This was followed by a career as bank manager in Manchester and on retirement in 1964, a return to Wales, where he settled in the Conwy Valley [Morgan, 1996]. Those who knew Michaelis personally, noticed his unsurpassed knowledge of Lepidoptera and thoughtful kindness, which “*was all one would expect of an Old Mancunian*” [Dennis, 2015: 222]. He published 29 short papers on his findings, but is particularly noted for his comprehensive and beautifully prepared Lepidoptera collections (Fig. 24). Over the years the Manchester Museum benefited as these were donated to it [Logunov, 2012]. In 1964, he presented a 32-drawer cabinet containing the micro-Lepidopteran families Tortricidae and Pyralidae and a 30-drawer cabinet of Tinaeidea originally assembled and given to him by a notable British naturalist (botanist, conchologist and entomologist) from an earlier era, James Cosmo Melville (1845–1929), whose insect collections are also in the Museum, presented by his daughter in 1944 [Report, 1944] (see Weiss [1930c] about Cosmo Melville). Michaelis’ interests were not limited to these groups, however.



Fig. 23. Hugh Nicholas Michaelis (1904–1995), President of the M.E.S. (1938–39 and 1958–59); photograph was taken in Manchester in 1939. © The Manchester Museum.

Рис. 23. Хью Николас Михелис (1904–1995), президент М.Е.С. (1938–39 и 1958–59); фотография сделана в Манчестере в 1939 г. © Манчестерский музей.

The basis of the general collection of British macro-Lepidoptera in the Museum was acquired from him between 1959 and 1963 and he also provided smaller assemblages of parasitic Hymenoptera, both wild-caught and bred from Lepidoptera, besides a small collection of caddis-flies. Michaelis was President in 1938–39 and again in 1958–59.

John Henry Watson (1866–1952)

One Society member – J.H. Watson from Withington (Fig. 25) – was known for his interest in and deep knowledge of silk, sericulture and (cross)breeding of silk moths [Riley, 1953]. He was a Lancashire manufacturer of textiles and a member of the Advisory Board on Sericulture. Watson joined the Society in 1909, served as President in 1913–15, was elected Honorary Member in 1937, and remained so until his death. He published many papers on rearing silk moth larvae and on descriptions of new (sub)species of Saturniidae, some of them in the Society's Proceedings [e.g., Watson, 1911, 1912, etc.]. He also carried out a number of experiments in hybridising different Oriental species, and even described some hybrids as quasi-species [Watson, 1914]. Most of his collection was donated to the Natural History Museum in London (through Lord W. Rothschild) [Riley, 1953], although some specimens went to the Manchester Museum: viz., four of his quasi-species in the genus *Samia* Hübner, 1819 (*S. andrei* Watson, *S. lastoursi* Watson, *S. oberthuri* Watson, and *S. roths-*

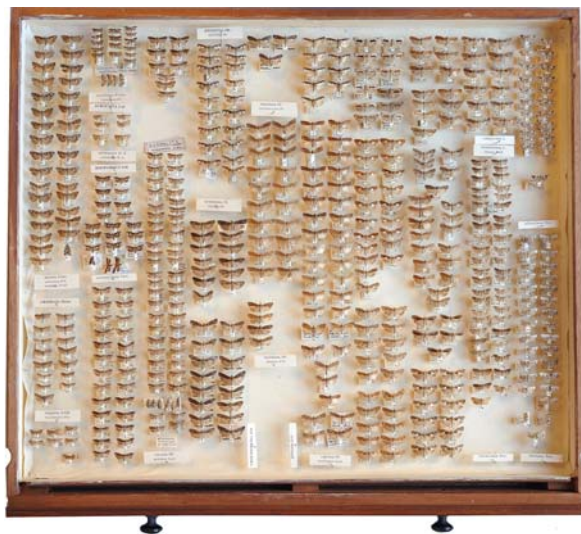


Fig. 24. One of the drawers with leafroller moths (Tortricidae) from the Lepidoptera collection of H.N. Michaelis that is retained at the Manchester Museum. © The Manchester Museum.

Рис. 24. Один из ящиков с листовёртками (Tortricidae) из коллекции Lepidoptera Х.Н. Михелиса, которая хранится в Манчестерском музее. © Манчестерский музей.

childi Watson; see Watson [1914]), and the holotype and allotype of the still valid subspecies *Caligula simla jaintiensis* (Watson, 1927) (Fig. 26).



Fig. 25. John Henry Watson (1866–1952), President of the M.E.S. (1913–15); photograph from Vol.13 of Annual Report and Transactions of the M.E.S., taken in 1914.

Рис. 25. Джон Генри Ватсон (1866–1952), президент М.Е.С. (1913–15); фотография 1914 г. из 13-го тома Ежегодных Отчётов и Трудов М.Е.С.



Fig. 26. The male holotype of *Caligula simla jaintiensis* (Watson, 1927) (Saturniidae, Lepidoptera) from the entomological collection of Manchester Museum. Scale bar: 1 cm. © The Manchester Museum.

Рис. 26. Самец-голотип *Caligula simla jaintiensis* (Watson, 1927) (Saturniidae, Lepidoptera) из энтомологической коллекции Манчестерского музея. Масштаб: 1 см. © Манчестерский музей.

Many of the 50-odd members of the Society over the years had a low profile and did not appear in the records; indeed why should they? R.J. Wigelsworth (see p. 371–372; Fig. 7), for example, rarely contributed in print, but as originator of the Society and secretary for fourteen years extending over the period 1903 to 1940 he undoubtedly had a major influence on its development and success. The object of the Society was to provide a forum for interested parties to share their interests and experiences who would find it convenient to congregate in the Museum's premises on Oxford Road.

Their knowledge and experience contributed greatly in other ways. For instance, among the Presidents listed (see Table), Kitchin (see p. 375; Fig. 10) assisted with the re-curation of world-wide collection of Papilionidae owned by the Manchester Museum [Dockery, Logunov, 2015]; Kidd (see p. 377; Fig. 15) (re)identified many specimens of the Museum's Mycetophilidae while revising the British fauna [Report, 1971]; Kloet (see p. 378; Fig. 17) had been giving annual public lectures on insects in the Museum on behalf of the Society (usually in February) for two decades (1947–67), covering such subjects as 'Colour of insects' (1947), 'Insects and the farm' (1953), 'The natural groups of insects' (1955), 'The shape of insects' (1960), 'Insects – nature's spring cleaners' (1966), 'Flies and light' (1967), etc. Mackie (see p. 380; Fig. 21) for six years (1975–81) was an Honorary Keeper of Arachnology at the Manchester Museum, cataloguing the Museum's spider collections and dealing with spider enquires [Report, 1981], his spider collection (4,535 specimens of 436 species) is also in the Museum, bequeathed in 1984.

Collections of many other Society members were donated or bequeathed to the Manchester Museum. For instance, the important collection of Lepidoptera assembled by R.C.R. Crewdson (see p. 375) was donated in 1978 [Logunov, 2012]. The Coleoptera collection of some 20,000 specimens assembled by Guy W.R. Bartindale (1917–2002; President in 1953) was given to the Museum by his widow after his death in 2002 [Johnson, 2004]. The collection of smaller orders (Trichoptera, Plecoptera, Neuroptera and Odonata) of the late H.L. Burrows (see p. 376; Fig. 11) was passed over to the Museum by his friend E.H. Fielding in five batches between 1971 and 74 (Manchester Museum's Register, accession numbers F2578–80, F2617–22). Many other individual donations by members (e.g., H.R.P. Collett, E.H. Fielding, H. Kitchin, S. Shaw, etc.) came to the Museum at various times.

In 1925, the Manchester Museum Council sanctioned the initiative to nominate a Society's member to serve on the Museum Committee [Report, 1925] in order to widen its membership. Three notable members to undertake this task were Crabtree (see p. 377; Fig. 14) serving for 20 years (1925–1945), Kloet (see p. 378; Fig. 17) for 15 years (1946–1961), after which he was a co-opted member for at least ten more years (1961–1977), and H. Hayhurst (President in 1960–61), who served for over ten years (1962–1977). It is not clear when co-option of Society's members stopped, because the Museum's Annual Reports for 1977–85 do not list Museum Committee members and there were no annual reports for the period 1985–1995 [see Logunov, 2012]. Later Reports do not mention the arrangement.

It is worth noticing that when Kloet was a member of the Museum Committee he used all his influence to appoint Hincks (see p. 374) as Assistant Keeper in Entomology [Popham, 1982]. This is hardly surprising considering the close Kloet-Hincks collaboration that had already been established between them, and the fact that Kloet referred to Hincks as to "one of England's greatest Entomologists" [Kloet, 1961: 183]. When Hincks was appointed in 1947 he became one of the best Keepers of Entomology the Manchester Museum ever had, making "the Museum's Entomology Department the finest reference and study centre in the North" [Kloet, 1961: 183] and its insect collections "the most important in the country after the British Museum [N.H.] and the Hope Collection, Oxford" [Report, 1961: 1].

Pressure for change

As time passed there were intimations of changing attitudes. Interest in rarities and unexpected locations for species continued, but the competitive spirit that accompanied the habit of amassing series of individuals in cabinets declined and mention of other objectives increased. An early example is the Presidential address of J.H. Watson (see p. 382; Fig. 25) in 1914 on 'The history of our entomological science'. It covers the great entomologists of the past and goes on to suggest that the future

“will be more and more on the lines of the economic rather than the aesthetic” [Watson, 1915: 28]. He gave examples of the programme of Gipsy Moth, *Lymantria dispar* (Linnaeus, 1758), extermination in America, which employed over 7,000 men, and the transfer of ladybirds from their hibernation sites as control agents for aphid pests of American orchards, reflecting the objectives of the University’s Entomology Research Centre [Kraft, 2004]. On the other hand, in 1922 Robert Tait (1869–1939), a founder member and President of the Society in 1907–08, gave a talk on “*Agrotis ashworthii*: life history up to date”, where he declares himself to be “a mere collector” as opposed to “a severely scientific worker”, while giving a very thorough account of this locally distributed Welsh moth species. Adopting the same tone in 1933, A.E. Tonge presented a Presidential address on “*Random notes for beginners*”, while in 1931, an anonymous article was “read by Mr J.E. Cope” entitled ‘*An afternoon on Ashton Moss*’. Such a title would have graced a Manchester Naturalists’ Soirée. By 1964, however, the *Proceedings and Transactions* announced that the society was passing from a “collecting and recording body to the point in which the scientific aspect of Entomology takes a greater part, reflecting the new approach to which Natural History is moving” [Fielding, 1964: 2], a change which is presumably reflected in the restructuring of the journal. Unfortunately, the reconstructed journal flourished neither as a scientific periodical, nor as a repository of entomological notes and signalled the beginning of the end.

Various factors can be guessed that contributed; in the Society’s archive information on the last few years is sketchy. As Colin Johnson pointed out to the Secretary in 1988, minute books were only retained in the Museum until 1974 (MMEA, M.E.S. archive, Box 3, Item 202). However, there are typed and handwritten notes in the archive referring to the later years. Ordinary and annual general meetings were held in the Museum: seven in 1987, eight in 1988, seven in 1989, three in 1990 and the last one in 1991. Their agendas were not much different from the earlier years, but attendance was falling. The Secretary’s report for 1989 notes that average attendance had been less than eight, “three of these are usually myself and family”, and that serious thought should be given to the situation (MMEA, M.E.S. archive, Box 3, Item 131). Competition from television was suggested as a reason for low attendance (MMEA, M.E.S. archive, Box 3, Item 133), and that the membership had become more dispersed, making meetings at a venue in town less convenient. In addition, the available premises were not thought to be comfortable, Museum staff usually did not attend and there was no access to collections, unless a special arrangement was made (MMEA, M.E.S. archive, Box 3, Item 132). Such circumstances were quite different from those reported in earlier years, when the Society found in the Museum “excellent accommodation for our meetings combined with space for our library” [Kloet, 1953: 8]. The last Annual General Meeting was held on 19th January 1991 and attended by six members, leading to the conclusion

that “although the society still existed it seemed unlikely to do very much” (P.B. Hardy, pers. comm.). A date for the next AGM was proposed as 18th January 1992 but it was never held; the Society became formally disbanded.

Traditionally, many small local entomological societies were taxonomically limited (mostly Lepidoptera) and saw their main role as carrying out *local* observations and records [Berry, 1988; Lowe, 1976]. Therefore, the existence of ‘competing’ societies – such as, the Raven Entomological and Natural History Society or the Lancashire and Cheshire Entomological Society, which could offer a wider agenda (e.g., more insect groups were considered) and operated in the same region – could have had a negative effect on the subscription to the Society. More fundamentally, in the last period of its existence the Society was unable to transform own agenda by developing, say, a wider research, educational and/or national biodiversity network programme. With a limited subscription and low attendance, it became a kind of a social family club, with no young people taking any interest in joining.

At the same time other channels became available for sharing and recording. Enthusiasts interested in field observations and records who had a wish to communicate found no shortage of national and regional organizations for those interested in entomology and natural history. An early start was made with the Lancashire and Cheshire Fauna Committee that emerged in 1914 from an idea of Walter M. Tattersall (1882–1943), then Director of the Manchester Museum [Jackson, 1964]. It dealt with all taxonomic groups, some of which were at the time quite neglected. At the present time, the North Western Naturalists’ Union lists 46 relevant clubs with varying degrees of activity currently affiliated with it (online at: <http://www.mikewalton.org.uk/nwnuweb/nwnu06.htm>). At a country-wide level a membership charity, the National Biodiversity Network (online at: <https://nbn.org.uk/>), brings together and collates information from over 150 British organizations and individuals, currently with more than 127 million wild life records accessible. Such a facility would have been unimaginable in the past. It is estimated that nowadays in the UK over 2,000 organisations and 60,000 individuals are involved in collecting biological records, of which over 70% are collected by individual ‘volunteer’ recorders [Porter, 2001]. With modern computer technology interested members of the public can now access information, and in many cases contribute their own observations from their own homes, without the formality of a society. For better or worse they are less likely to find the time to meet simply to share collecting experiences and listen to occasional talks by external visitors.

Conclusion

Britain has a long tradition of recreational interest in natural history, linked to a vision of countryside rather than of wilderness. It is hardly surprising, for already by

the late 17th century 50% of England and Wales was classified as agricultural land [Davies, 1996]. This tradition is rapidly becoming the valid model for most of the world as the remaining empty spaces experience increasingly aggressive exploitation. It has always been supported by the interplay of museum studies and the curiosity of enthusiastic amateur naturalists, who have played a crucial role in the conservation movement in Britain [Davies, 1996]. It continues to be essential for a proper understanding of biodiversity and assessment and management of the effects of habitat modification or climate change.

The M.E.S. followed many of its predecessors in having a finite life span, but during its lifetime it made a significant contribution to the relationship. George S. Kloet (see p. 378; Fig. 17) took it upon himself as a matter of personal satisfaction to regularize the systematic positions of the organisms that interested him. H.L. Burrows (see p. 376; Fig. 11) on his solitary visits made a lifetime's study of the biodiversity of a number of sites that presages the management and systematic monitoring now conducted. At least eight are now Sites of Special Scientific Interest (Cotterill Clough, Prees Heath), National Nature Reserves (Chartley Moss, Whixall Moss, Wybunbury Moss) and/or managed by Wildlife Trusts (Abbotts Moss, Burnt Wood, Prees Heath). Of more recent examples, Darwyn Sumner, a Diptera specialist and Society Secretary for the last few years (1987–91), is now professionally involved with the Association of Local Environmental Records Cen-

tres, while Peter B. Hardy, the last President (Fig. 27), undertook the first ever multi-scale mapping project for the butterflies of Greater Manchester which resulted in 50 papers/notes and a monograph [Hardy, 1998]. The latter is a brilliant example of the effective 'citizen science', i.e. "*the involvement of volunteers in science*" [Tweddle et al., 2012: ii], which has had a long tradition within the UK.

A recent example of collective study by amateurs and professionals is the Alderley Edge project [Prag, 2016], an account of surveys of a striking location south of Manchester that was made accessible by rail in the 19th century. It has long been a favoured site for some members of the societies described here, starting with the Field Naturalists. The survey was an initiative of the Manchester Museum and the National Trust and covered human and social history, legends and folklore, geology and natural history. It includes comprehensive checklists of the invertebrate fauna [Logunov, Dennis, 2016] that will form the basis for further biodiversity research. These partly derive from the rich Museum collections, which in turn have benefited from the pleasure and energy of Society members.

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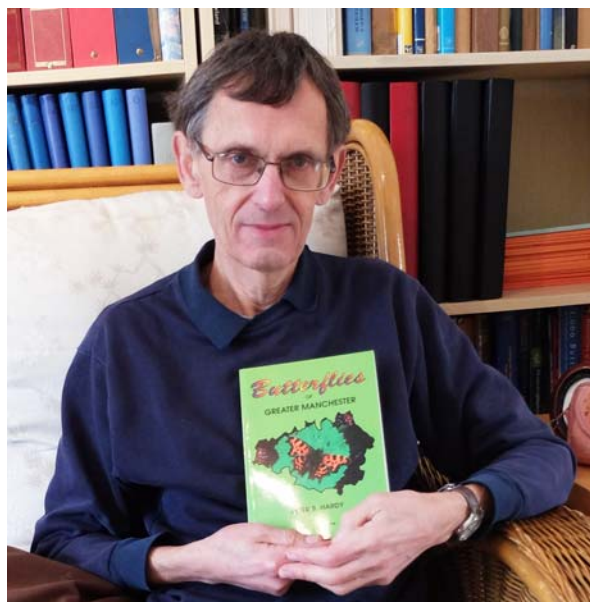


Fig. 27. Peter B. Hardy (b. 1945), the last President of the M.E.S. (1990–91) and the author of '*Butterflies of Greater Manchester*' [Hardy, 1998]; photograph was taken at Sale, Cheshire, on 5th December 2016. Courtesy by P.B. Hardy.

Рис. 27. Петер Б. Харди (р. 1945), последний президент М.Е.С. (1990–91) и автор '*Бабочек Манчестера*' [Hardy, 1998]; фотография сделана в Сейле, Чешир, 5-го декабря 2016 г. С любезного разрешения П.Б. Харди.

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