

**Macdonald Campus Library**  
**Lyman Collection Digitization Project**

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**OBJECTIVES**

The library's collection of rare yet highly used entomological texts was selected for digitization. Digitization of these published works compliments unpublished archives in the Entomological Museum on campus documenting the history of early entomological research in Canada and the contributions Henry H. Lyman made to the Mount Royal Entomological Club, the Museum and his influence on its curators. A descriptive catalogue of the materials is also being prepared. Selected works considered pivotal to the science of entomology as well as manuscript materials including field notes and correspondence from the late 19<sup>th</sup> and early 20<sup>th</sup> centuries are part of the project.

**OUTCOMES**

Early entomological texts are still in frequent use amongst researchers and students across Canada and around the world. Many keys to species identification and catalogues of species and genera are current and valuable to researchers today. Digital formats of the material would enable their academic and research use from a variety of locations and allow for national and international collaboration.

## **CONCLUSIONS**

Heritage collections of current scientific value are urgent and valuable candidates for digitization. Careful planning of digitization projects with intended web access is a long and complex process. Funding, attention to transcription standards, web design and appropriate personnel will be discussed.

## **PROJECT DESCRIPTION**

McGill University's Macdonald Campus Library in collaboration with the Lyman Entomological Museum and the Faculty of Agricultural and Environmental Sciences undertook a project to increase access and ensure the continued availability of materials in the Lyman Collection of entomological texts in the library. A digitization program and website will focus on original texts from the Henry Herbert Lyman bequest of 1914 as well as other rare yet highly used entomological publications. Digitization of these published works will compliment unpublished archives in the Lyman Entomological Museum that document the history of early entomological research in Canada, the Mount Royal Entomological Club, the Lyman Entomological Museum and its curators, and the contribution that Henry Lyman made to McGill University and Macdonald Campus. A descriptive catalogue of the materials will also be prepared.

### **Henry Herbert Lyman 1854 – 1914**

Following college Lyman joined his father's firm – Lymans, Clare & Co., “wholesale chemists and druggists in Montreal.” (Bethune 1914) The company's name was changed to Lyman, Sons & Co. with H.H. Lyman becoming a partner in 1885. When his father died he became senior partner and president of Lymans, Limited (including the branch house in Toronto). Lyman held this position until his death. (Vickery 1964)

Turning to his entomological endeavors, Lyman's interest in insects began at eight years old and he started a Lepidoptera collection at the age of twelve. Lyman joined the Montreal Branch of

the Entomological Society of Ontario on January 5<sup>th</sup>, 1875. He presented his first paper at a meeting held on October 5<sup>th</sup>, 1875, the topic being the descriptions of the larva and pupa of *Grapta interrogationis*. Many of the Montreal Branch's monthly meetings were held at Lyman's home over a span of 37 years.

Lyman spent many of his summers in Portland, Maine where he collected many specimens and furthered his knowledge of butterflies. Lyman became one of the most well-known lepidopterists in North America (in addition to other parts of the world) and was highly interested in genera such as *Colias*, *Argynnis*, *Grapta*, *Chionobas*, *Haploa*, *Hyphantria*, *Papaipema*, *Xylina*, and *Hepialus*. (Bethune 1914) He published many papers dealing with Lepidoptera, most of them published in *Canadian Entomologist*. Interestingly, volumes 19 to 44 each contain at least one article by Lyman. He also became known for being meticulous; he would often take specimens to the United States or to the British Museum for identification. Because of his attention to detail, the majority of the specimen names determined by Lyman are still applicable. (Vickery 1964)

Unfortunately, Lyman developed a hearing disability later in life and was almost totally deaf at the time of his death. (Bethune 1914) In fact, he could be easily identified at entomological meetings as a result of the ear-trumpet that he always carried with him. (Vickery 1964)

In March 1912, Lyman married the daughter of Rev. William Kirkby (of New York, but previously of Collingwood, Ontario). Unfortunately the marriage came to an abrupt end two years later when Lyman and his wife drowned on the steamship "Empress of Ireland." The ship went down in the St. Lawrence River near Father Point just after midnight on Friday, May 29<sup>th</sup> 1914. Lyman and his wife were actually supposed to have sailed two weeks earlier but postponed their plans due to Lyman's business commitments. (ibid.)

Lyman left behind an estate valued at \$1 268 315. In his will he expressed the desire to give his entomological collections and library to McGill University. This bequest included \$40,000 to be used explicitly for the preservation and expansion of the collections. At the time of Lyman's

death the entomological collections comprised of 20,000 specimens (predominantly Lepidoptera) kept in 5 cabinets of 30 drawers each. The entomological library consisted of 78 books.

### **Lyman Museum & Collections**

McGill's downtown campus did not possess an entomological collection until 1915 when it obtained the insect collection bequeathed by Henry H. Lyman. Some of the specimens in this original collection were collected as early as 1860. (Kevan 1978) The terms of Lyman's bequest stated that in order to accept the collections and the endowment fund, the University had to form a committee to oversee the collection, "to invest the capital, and to make available the interest from this, to provide a 'suitable and commodious room' in the Redpath Museum, 'free from dampness and properly lighted,' in which to house the collections, and to erect there 'a brass wall tablet' to the memory of the benefactor." The Lyman Bequest Committee, which was later renamed as the Lyman Entomological Committee, was formed on December 22, 1914. Professor A. Willey was appointed as Chairman, while George A. Moore was selected to be the Secretary.(*ibid.*)

From 1916 onwards the Redpath Museum's Lyman Room became the main meeting place for the Montreal Branch of the Entomological Society of Ontario. At least one meeting per year was held at the Redpath Museum until 1961. The Collection was unofficially viewed as belonging to the Montreal Branch. (*ibid.*)

However, the first entomological collection at McGill University was not that bequeathed by Lyman, but was established by James M. Swaine [assistant to Professor William Lochhead who was responsible for the subject of Entomology at Macdonald College (1908)]. Swaine left in 1912 after managing to compile a small collection. Following the departure of Swaine, the Macdonald College collection became disorganized. In 1926-27 Walter E. Whitehead was appointed as Assistant in the Department of Entomology and took on the task of organizing the collection. Robert S. Bigelow was appointed in 1955 to take over the Macdonald College collection following Whitehead's retirement. Bigelow oversaw the growth of the collection until its merger with the Lyman Collection in 1962. (*ibid.*)

Nearing the end of the 1950s it became apparent that the Peter Redpath Museum did not provide sufficient room for the continued growth of the collections. The transfer of the collections to the Biology Building at Macdonald College (the Lyman Collections took up part of a then newly constructed third floor) required authorization from Lyman's heirs, which was of course granted. Macdonald College's Lyman Entomological Museum was formally opened on April 12, 1962 by George A. Moore. The relocation of the collections to the Macdonald College Campus allowed for the amalgamation of the Lyman Collections (insects and books) with the collections possessed by the Department of Entomology (known as the Department of Entomology and Plant Pathology due to the merging of these two departments during 1958-1964 (Kevan 1963, 1979) at Macdonald College. The transfer also meant that the Curator would no longer be isolated from colleagues and had the opportunity to become an Assistant Professor in the Department of Entomology. Dr. D.K. McE. Kevan, Chairman of both the Lyman Bequest Committee and the Department of Entomology at Macdonald College at the time, played a large role in the implementation of these modifications. (Vickery 1964)

In 1961-62, the library portion of the Lyman Collections was added to the holdings of the Macdonald Library and merged with the entomological books and journals housed at Macdonald campus. Due to various obstacles (lack of staff, decentralization of Macdonald College's entomological holdings), the cataloguing and incorporation of the Lyman books and periodicals took approximately eight years to complete. However, the Macdonald College Library did not take over the maintenance of the Lyman reprints. The collection was first voluntarily maintained by Mrs. Muriel Vickery (Vernon R. Vickery's wife) and later by the Museum's staff. (Kevan 1978)

### **Description of the Materials**

Approximately 40 historically important volumes were selected from the pre-1920 titles in the Lyman Collection. The selected volumes are widely considered to be pivotal works in the science of entomology. In addition, 2000 manuscript pages from Henry Lyman's archives, archival material from the early years of the Lyman Entomological Museum, and documents from the Mount Royal Entomological Club's meetings and field activities from 1904-1907 were selected for inclusion in the digitization project.

Phase One of the project includes the following materials:

***Books***

American Entomology, vols. 1, 2 and 3

Arcana Entomologica, vols 1 and 2

De Locustis

Fauna Boreali Americana IV

Illustration of Exotic Entomology, vols 1, 2, and 3

Insecta Lapponica

North-American Orthoptera

Phenomena Locustarum

Systema Antliatorum

***Manuscript material***

Accession Book

Collection de Coléoptères, Catalogue no. 1 by Germain Beaulieu

Field Manual nos 1 and 2

Letters to Lyman 1909, 1910, 1911, and 1912

Minutes of the Mount Royal Entomological Club

Untitled Field Notebook

***Photographs, Drawings and Figures, and Printed papers***

### **Expected Use**

Insect taxonomy and biodiversity are historically-based disciplines, in that descriptions and illustrations of new species named after 1758 are valid documents that often must be consulted in order to establish the correct name of a species. Because of this, early entomological texts are still in frequent use amongst researchers and students across Canada and around the world. Many keys to species identification and catalogues of species and genera are current and valuable to researchers today. Unfortunately, these volumes have become increasingly rare in institutional libraries and access is often difficult or impossible. The major reason for this is that the quality of illustrations in many of these works makes them prized by private book collectors. In some cases, the Lyman Collection houses the only copy available in Canadian libraries. Their age and

high use threaten to destroy these standard texts. Digital formats of the material would enable their academic and research use from a variety of locations and allow for national and international collaboration.

Courses offered at the undergraduate and graduate levels in the Department of Natural Resource Sciences include Evolution and Systematics, Systematic Entomology and Insect Phylogeny and Diversity, all of which make use of these historic texts in readings and assignments. In addition, thesis research by graduate students in entomology requires frequent searching and access to these volumes.

The benefits to the international research community would be significant and far-reaching. The great majority of entomologists do not have access to a comprehensive entomological library with the holdings of the Lyman Collection and these early texts are simply not available to them. Off-site access to these works would facilitate research in insect biodiversity across Canada and around the world, as well as promoting McGill University's status as a major centre of research in entomology.

The web-based digital access to these important materials will do much to enhance the scholarly impact of these site specific tools. The educational potential of this project encompasses Canadian scientific history, McGill's scientific contributions and Montreal's influence on the field of entomology.

### **Contribution to McGill Library's Digital Collections**

The Lyman Collection, originally housed in the Redpath Museum, is part of McGill's heritage and therefore a key preservation project to be made available to the widest possible audience. The scholarly contributions made by McGill's entomologists are crucial stories in the history of insect biodiversity, ecology, pest management, biological control and animal and human health.

Some key figures include:

***Albert F. Winn***

Appointed as the first Curator of the Lyman Entomological Collection and Library, Redpath Museum, McGill University, Montreal in 1914. (Moore 1935) Winn retained this position for 20 years and was directly responsible for the entomological collection's growth from 5 cabinets of 30 drawers to 26 cabinets of 730 drawers. He collected various orders to ensure the comprehensiveness of the collection. (Moore 1935, Vickery 1964)

Winn became interested in entomology at a young age and spent a great deal of time studying certain groups of Lepidoptera. (Moore 1935) Besides Lepidoptera, he also spent time studying the orders Diptera and Hymenoptera. (Vickery 1964) He became known as an expert of the local fauna and wrote and read approximately 200 papers at local meetings. (ibid.) Among his publications are two Quebec Government papers – (1) “A List of the Lepidoptera of the Province of Quebec,” and (2) “A List of the Diptera of the Province of Quebec” (this second paper was co-authored by Mr. Germain Beaulieu). (Moore 1935)

Winn became a very well-known member of the Montreal Branch of the Entomological Society of Ontario as he was involved, and contributed to the maintenance of the Society for over 47 years. He held the presidency of the Montreal Branch of the Society numerous times (Secretary for 20 years and President for 15 years (Vickery 1964)), even at the time of his death. He was elected president of the Head Branch during the periods 1915-1916 and 1916-1917. (Moore 1935)

Winn contributed greatly to the growth of entomology in Montreal and was known as being very helpful to young entomologists/nature students. (ibid.)

Unfortunately, Winn was incapacitated during the last 4 years of his life due to a mental breakdown and died July 3, 1935. (Moore 1935, Vickery 1963)

***Dr. Vernon R. Vickery***

Vickery was born in 1921 in Yarmouth County, Nova Scotia. He acquired his teacher's license from the Nova Scotia Normal School in 1940 and then taught for one year prior to joining the Royal Canadian Air Force in 1941. (Vickery 1964, Kevan 1978) Vickery served in Canada, as well as overseas in North Africa and Europe. (Kevan 1978) He obtained his Diploma in Agriculture at the Nova Scotia Agricultural College in 1947 and attained his B.Sc. (Agr.; focusing on entomology) in 1949 from Macdonald College. (Kevan 1979) He was then employed as Extension Entomologist for the Nova Scotia Department of Agriculture, Truro. He was concurrently employed as an Instructor in Entomology at the Nova Scotia Agricultural College where he established an insect collection to replace a previous one that had been destroyed by a fire in 1946. (Vickery 1964, Kevan 1978)

Vickery stayed in Nova Scotia until 1960, except for the time he spent at Macdonald College pursuing courses for his M.Sc. which he completed in 1957. He returned to Macdonald College in 1960 as a Ph.D. candidate, and took on the additional role of Assistant Professor in 1961 (not formalized until 1962). (Kevan 1979) It is also during 1961 that the Lyman Collections were moved from the Peter Redpath Museum to the Biology building on the Macdonald College campus. The move was successfully completed on December 28, 1961. In fact, Vickery was brought to the University by Dr. D.K. McE. Keith Kevan (Chairman of both the Lyman Bequest Committee and the Department of Entomology at Macdonald College) specifically for the purpose of the transfer of the Lyman Collections. (McGill News 1965).

Vickery achieved his Ph.D. in 1964. His areas of interest focused on the "systematics of crickets and grasshoppers, but also in apiculture." (Kevan 1979)

***Dr. E. Melville DuPorte***

DuPorte was born on Oct. 24, 1891 on the Island of Nevis in the British West Indies. He began his education at the Charlestown Boys Primary School and attracted the attention of the humanitarian H.C. Huggins. Huggins granted DuPorte a scholarship to attend the St. Kitts-Nevis Grammar School in Basseterre (the capital of St. Kitts). Because of his exceptionally high grades, the St. Kitts-Nevis Legislative Council granted DuPorte a very special scholarship in 1910 that provided him with the opportunity to go to University abroad. DuPorte chose to study

in the field of zoology. Although he could have attended the University of London, he chose to pursue his studies at McGill University's Macdonald College instead. As a result, DuPorte began his post-secondary education at Macdonald College in Oct. 1910. He has been described as "...one of the most brilliant students ever to attend Macdonald College." He was able to complete his four year B.S.A. in three years, and graduated in 1913 at the top of his class and with an average of 94%. Following graduation DuPorte was given the opportunity of an assistantship and taught Bacteriology and Biology. (Castagna 1994)

DuPorte was the first Macdonald College Zoology graduate to achieve both an M.Sc. (1914) and a Ph.D. (1921) at McGill University. He was also the first person of African descent to teach at McGill University. He taught many courses during his time at Macdonald College, not all of them being entomologically related. As a result, DuPorte influenced students in several scientific areas as he also taught subjects such as genetics and parasitology. However, there is one course for which he is renowned – Zoology 220. DuPorte maintained very high standards, resulting in many students having to repeat this course, including those students that went on to become McGill professors. His standards were so high that when the B.S.A. degree was replaced with the B.Sc. (Agr.) degree in 1932-33, DuPorte's courses were the only ones within the Faculty of Agriculture that were not upgraded. (ibid.)

DuPorte guided many graduate students but being extremely modest, he never added his name to any of his students' publications. He took on many teaching and administrative responsibilities and even took over many responsibilities of the Entomology Department for several years prior to becoming the Department Chairperson. Furthermore, the establishment of the Macdonald College Institute of Parasitology was accomplished in large part due to DuPorte's efforts. (ibid.)

His distinctions and recognitions include: full and post-Retirement Professor of Entomology and Emeritus Professor of Entomology and Plant Pathology, an honorary Doctorate of Science from Carleton University, as well as honorary memberships in both the Canadian and Quebec Entomological Societies. Other recognitions: the Quebec Entomological Society created a prize named in his honor; "at McGill University, the Department of Entomology, supported by the Dean of Agriculture, presents the annual memorial DR. E. Melville DuPorte lecture in his honor;

the Department of Entomology also presents the annual Dr. E. Melville DuPorte Award with the aim of encouraging a worthy student's pursuit of post-graduate studies in the Department;" to honor DuPorte's seventy years of work, a plaque was mounted in the Lyman section of the Macdonald Campus, McGill University Library in Dec. 1981. (ibid.)

DuPorte was highly respected by his students. When he retired in 1957 (he kept up with his research after his retirement), 137 of his former students provided him with the funds so that he and his wife could go on a tour across Canada, visiting the laboratories of former students along the way. (ibid.)

DuPorte died on July 31, 1981 at the age of 89 (ibid.) and was best known for his research in insect morphology. (Stewart 1983) Robin Stewart, the Chairman of Macdonald College's Department of Entomology at the time stated that DuPorte's "... major contribution to entomology was his superlative teaching ability. " (Montreal Gazette 1981)

### ***Douglas Keith McEwan Kevan***

Kevan was born in 1920 in Helsinki, Finland and moved to Edinburgh, Scotland before the age of two. (Kevan 1979) He went to school at George Watson's college in Edinburgh and subsequently to the University of Edinburgh where he completed his B.Sc. in zoology (with a focus on entomology), achieving First Class Honors when he graduated in 1941. Kevan was recruited for military service, but was immediately discharged and sent by His Majesty's Colonial Office to the Imperial College of Tropical Agriculture, St. Augustin, Trinidad to work as an Agricultural Cadet (Entomology specialist). He graduated from the College in 1943 with an A.I.C.T.A., which was comparable to the M.Sc. degree later offered at the University of the West Indies. Kevan's next endeavor was to work for the Kenya Department of Agriculture and take part in "quasi-military anti-locust operations" throughout East Africa. (ibid.)

Kevan resigned from the "Colonial Service" in 1948 and became head of the new "Zoology Section" founded at the University of Nottingham School of Agriculture at Sutton Bonington in England. It is during this time that Kevan became interested in soil zoology (this is in addition to

his research on grasshopper taxonomy) and actually planned the first international symposium dealing with the topic in 1955. In addition, he completed a “staff Ph.D.” in 1956. (ibid.)

In 1957 Kevan was voted a Fellow of the Royal Society of Edinburgh (confirmed March 3, 1958) and was also appointed Professor and Chairman of the Department of Entomology (until 1971). Kevan was 37 years old when he became a full professor, one of the youngest in McGill’s history. He may have also been the youngest chairmen of any department in the University (not confirmed). Kevan was eventually also appointed as Chairman of the Department of Plant Pathology (July 1, 1958) when the former Chairman retired. It was at this time that the departments of Entomology and Plant Pathology were amalgamated for a period of approximately 5 years. (Kevan 1979).

Kevan managed to attain the title of Professor Emeritus, and was awarded the Entomological Society of Canada Gold Medal in 1981. Throughout his career, he oversaw 45 graduate degrees and 12 Post-Doctoral Fellows and Associates. He contributed over 500 scientific publications, including some highly relevant books and performed the role of Director of the Lyman Entomological Museum from 1972 until he retired in 1986.

Kevan died on July 9, 1991 in Dunbar, Scotland and was known predominantly for his work on grasshoppers and soil fauna.

### **Level of Collaboration**

Manuscript transcription, web design and the organization and description of archival and rare materials are complex and exacting tasks. Forty volumes from the Lyman collection represents approximately 20,000 pages to capture, along with 2000 manuscript pages.

Collaborations with the Library Digital Scanning Service to capture and make the images available, the Rare Book Division will provide much support with the descriptive catalogue of the Lyman Collection and bring the components of the project together in order to provide a pedagogical tool toward describing the history of entomology in Canada and at McGill. New page-turning technology will be most useful for the display and interactivity of the project.

The Lyman Entomological Museum and Research Laboratory and its director, Professor Terry Wheeler, are important and active partners in this project. Identification of materials, access to archival materials, and information on the historical significance of the project are invaluable. Professor Wheeler is currently collaborating on a multi-institutional research proposal to the Canada Foundation for Innovation that, if successful, will provide funding for digitization of specimen data housed in the Lyman Entomological Museum and construction of a distributed on-line database of insect collections in major museums across Canada. Productive research in natural history collections is reliant on access to both specimens and their supporting documentation and reference materials. Web-based access to all of these resources associated with a single collection would make McGill University unique in Canada.

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