

PRESIDENTIAL ADDRESS

By E. H. Blackmore, Victoria, B.C.

In welcoming you to the Sixteenth Annual Meeting of our Society, it is my sad and painful duty to call attention to the deaths of three of our members that have occurred since our last meeting.

I refer to the deaths of Mr. A. H. Bush, Mr. E. Baynes Reed, and Mr. Tom Wilson, in the order in which they occurred. More competent hands than mine will pay worthy tribute to each of them, but I would like to say a few words of personal appreciation.

Mr. Bush was one of the original members of our Society when it was formed in 1901, and was elected Vice-President in 1908.

He was one of our most active members, and built up an interesting collection of Lepidoptera which contained many records new to British Columbia, mostly taken on Mt. Cheam, the ascent of which mountain he made on many occasions. He contributed papers, chiefly on Mountain Fauna, at our annual meetings in 1912, 1913 and 1914.

He had a pleasing personality, and was well liked by all those with whom he came in contact. As you all doubtless know, he fell while fighting for his King and Country on the blood-stained battlefields of France in August, 1916.

Mr. Baynes Reed, who was elected Honorary President of our Society in January, 1913, was one of the oldest entomologists in the Dominion of Canada, having joined the Entomological Society of Ontario on its inception in 1863, and in the succeeding 25 years before his removal to Victoria, he held at different times the positions of Vice-President, Secretary-Treasurer, Librarian, Curator and Auditor. He wrote many articles on economic entomology, and was a constant contributor to the *Canadian Entomologist*. He passed away at his home in this city on November 18th last, after a long illness, at the advanced age of 79. A fitting tribute to his memory is penned by his life-long friend, Rev. J. C. S. Bethune, in the *Canadian Entomologist* for February, 1917.

It is with deep and sincere regret that I have to refer to the tragic fate which overtook Mr. Tom Wilson, on the morning of March the 6th. He was also one of our original members, and was elected President at the resuscitation of our Society in December, 1911. He was an ardent entomologist and botanist, being especially interested in Scale Insects and the distribution of the Tent-caterpillar in this Province, and we always looked forward to an interesting paper by him at our annual meeting. He was one of the most genial, generous and warm-hearted men that I ever met, and in him the Dominion Government has lost a most faithful and conscientious servant, and our Society one of its most valued members.

In passing, I think it is only right to mention the heroic death of Sergt.-Major W. T. Taylor, the youngest son of the late Rev. G. W. Taylor, who was the President of our Society for so many years. Sergt. Taylor was only twenty years of age, and while leading his men during an attack on an enemy position, he was struck by a piece of shrapnel and his left arm torn off. Despite this terrible injury, he urged on his men to greater efforts, while he lay in a shell hole. After the assault on the enemy had been successfully effected, he was rescued but spurned assistance, saying that there were others who needed it worse than he. He died shortly afterwards, alone in his dugout, from loss of blood. He was educated at Mount Tolmie University School, and was a pupil of the late Captain Harvey.

At this, our annual meeting, it will be only fitting for us to pass a vote of condolence to the families of the deceased gentlemen.

During the past season the Dominion Government appointed Dr. A. E. Cameron on a special mission to investigate the ravages of the Pear Thrips on the Saanich Peninsula, and I wish to welcome him amongst us, and to take this opportunity of extending the good wishes of the Society towards him. Perhaps you are not all aware of the great success that attended the work of Dr. Cameron and Mr. Treherne amongst the Pear Thrips during the past year.

I believe I am right in stating that, owing to their efforts in this direction at Mr. Bryden's orchard at Royal Oak, there was the biggest crop of fruit produced in many years, notwithstanding the adverse weather conditions encountered in the early part of the season. Dr. Cameron has become a member of our Society, and will be a great acquisition to us and a source of strength to the entomology of the Province.

He has offered to help any of our members who are desirous of going deeper into the studies of our local insects, and I look forward to Dr. Cameron's assistance with great interest, assistance which will be invaluable to those of us who intend to study the biology and taxonomy of our insect fauna.

While I am on this subject, I would like to draw the attention of our Society to the excellent work that our worthy Secretary, Mr. R. C. Treherne, has done on that destructive pest the Cabbage Root Maggot. A very excellent bulletin, comprising 58 pages and 27 original illustrations, entitled "The Cabbage Root Maggot and its Control in Canada," was issued by the Dominion Department of Agriculture last April, written by Messrs. Arthur Gibson and R. C. Treherne in collaboration, which covers every phase of the subject, and I think that we, as a Society, should congratulate our worthy Secretary as junior author of such an important contribution to economic entomology.

Speaking of entomological literature reminds me that I would like to say a few words regarding two Monographs recently published in the State of Illinois. The first was issued in July, 1915, by the University of Illinois, and is the work of Stanley B. Fracker. It is entitled "The Classification of Lepidopterous Larvae," and carries to a successful conclusion the preliminary work done by Dr. Dyar and others. It is a very clever piece of work and wonderfully well thought out. The chief structures of value in the classification of the larvae, are the position of the setae, the shape of the spiracles, the number of prolegs and the arrangements of the crochets they bear.

The other Monograph was published by the Illinois State Laboratory in March, 1916, and is entitled "The Classification of the Lepidoptera based on Pupal Characters," by Dr. Edna Mosher, and is a really important addition to entomological literature, as previous to this publication very little had been done in this particular line of research. Some of the chief characters used for determining the phylogeny of the order are the number of movable segments, the freedom of the appendages, the number of sutures present in the head, and the relative length of the body segments. It has been found in some orders that the only good taxonomic characters available are found in the pupal stage of the insect. These two publications, taken together, afford much food for thought both to systematic and economic entomologists.

It is of special interest to the economic entomologist, as he early realizes the value of being able to recognize the immature stages, for in many orders of insects the larval stages alone are responsible for a great deal of the damage done to crops and orchards.

At present, in many cases, he has to content himself with rearing the adult forms to determine the species, and thereby possibly losing a lot of valuable time. To those of us that are systematists, it is very evident that the classification of Lepidoptera based upon characters that are only present in the adult forms, must necessarily be arbitrary and artificial, and that to get a natural classification we shall have to study in conjunction characters that appear in the larval and pupal stages as well as those in the adult insects, and also the inter-relationships of one to the other.

The new check list of North American Lepidoptera issued by Drs. Barnes and McDunnough, which we have all been waiting for, was published last week. There are a large number of additions and a great many changes in nomenclature. The arrangement of genera is also entirely different to what we have been accustomed. I must say that, on a cursory glance through its pages, the numerous shiftings of species into different genera is a great improvement on previous lists, and that the arrangement in general seems to me to be a great step towards a more natural arrangement of the species.

With the valued assistance of our energetic Assistant Secretary, Mr. Williams Hugh, I instituted a series of monthly meetings, beginning with the New Year. We held one in January and another in February, both of which were attended by about nine of our local members, and a great deal of interest was shown at both meetings in the subjects under discussion. It is our intention to hold these meetings the second week in each month throughout the year, and to make them as interesting and instructive as possible, especially to the younger members of our Society.

I have not taken any set subject for my address, but am contenting myself with making a few general remarks on different subjects that I wish to speak of, and this seems to me the most convenient opportunity of expressing myself to you. I would like to say here that these remarks are not made in any spirit of criticism but are made solely with the idea of improving the collections of the systematic entomologists of British Columbia.

During the past four years, as most all of you know, I have been studying the Geometridae of British Columbia. In the course of my studies I have examined about fourteen collections, both on the Island and the Mainland. Many of these collections had neither date nor locality labels; some of the insects were on short pins, others low set on long pins; again others were badly set and badly arranged, and in a few instances the presence of mites and dermestids was very evident.

Noticing all these things made me feel that if I were permitted to draw the attention of our systematic collectors to these several defects, a more uniform standard could be attained in the display of our collections. This may seem to many of you a trivial matter, but I can assure you from the remarks of Mr. Wolley Dod and other eminent entomologists, that it is a matter of the utmost importance, both to the collector himself and more especially to others who may either want to exchange material, or for comparison to settle some disputed point.

I was very sorry to see so many collections without date labels of any kind, as the value of labelling at the time of capture cannot be too strongly impressed upon all collectors. It has been truly said that at times a label without an insect is of more value than an insect without a label. A small printed label not only adds to the appearance of a collection but in many cases is the only means of a ready identification of specimens. To illustrate what I mean, I will give an example as regards the value of a date label. We have on Vancouver Island two geometrids that are almost exactly alike, *Hydriomena irata* and *Hydriomena californiata*, so close in fact that if there were no labels on them only an expert could tell which was which, but when properly dated can be easily separated, as *irata* occurs in April while *californiata* does not emerge until June.

An example of the value of locality labels occurs in the common sulphur butterfly of the eastern states, *Eurymus philodice*, the points of difference between this and its western representative, *Eurymus eriphele*, are so slight that without locality labels no one but a close student of this genus could tell one from the other. As any one can get these labels printed with locality and collector's name in 3 point type for the small sum of 25 cents per thousand, there is no reason why every collector should not have a supply of these on hand.

Low setting has fallen into disuse in nearly all countries, with the exception of the British Isles. It has many disadvantages as compared with high setting, chief of which is the greater danger to the attack of insect pests, and in those species which are liable to "grease," the danger of the grease spreading to the lining of the box and ruining the whole of the specimens contained therein is very great.

Now as to arrangement, I have seen collections of Lepidoptera beautifully set and labelled correctly, but badly mixed up—diurnals, noctuids and geometers all in one box; genera split up, some in one box, some in another; and even specimens of the same species scattered through two or three different boxes. The result of this haphazard arrangement is that when one wants to show a fellow-collector a certain group or even a certain species, one has to hunt through half a dozen boxes or drawers, as the case may be, before finding them. It is time well spent to go over one's entire collection every winter and arrange it in accordance with the list which is the recognized standard of the time. We should have no difficulty as regards this from now on, as the new check list just published will probably be the standard list for a great many years.

As regards insect pests in our collection, immediate steps should be taken to exterminate them at the very first sign of their presence. Nothing is more sure or certain than a tablespoonful of bisulphide of carbon in a small container, and placed in the box or drawer and left for twenty-four hours. All exchanges should be subjected to this process before being placed in our cabinets, as very often pests are introduced into our collections by specimens from outside sources.

I would also like to ask our more active members to study their insects more in the leisure hours of the winter months. I am sure many interesting points would be discovered and many mistakes rectified. I have seen in several collections different species listed under the same name, in some cases as many as three, and in one case four; also the same species listed under two different names, and so on. I think in cases like this a little more care and study would eliminate these mistakes.

I would be sorry to see the collection of any member of our Society come under the scathing indictment made by Mr. Wolley Dod on the

Heath Collection of Lepidoptera, which appeared in the *Canadian Entomologist* for May, 1916. In support of my remarks to you this morning, I would like to give a few brief extracts from the article in question. As some of you probably know, the late Mr. E. F. Heath was a resident of Cartwright, Manitoba, and collected there for about 35 years. At his death, his collection was acquired by the Manitoba Government, as a nucleus for the entomological section of the Provincial Museum.

Mr. Wolley Dod was given an opportunity of looking over it last December, and this, in part, is what he says: "Viewed as a whole the collection was in poor condition. The percentage of worn or indifferent specimens was high, and with a very few exceptions, the setting was badly done on short pins. A portion, and only a portion, of the specimens bore date labels, usually face downwards." Again he says: "Heath, though a most energetic collector, had unfortunately a poorly developed faculty for recognizing a species. We frequently found a series of good specimens standing as one species, a series of bad specimens of the same as distinct, and perhaps a series of smaller specimens of the same thing as something else. Nor was that all, besides the frequency with which one species stood for two or more, it was deplorable the number of very distinct and often dissimilar species which were arranged in one series under the same name. In short, the errors and mixtures were appalling."

Now, that is a pretty severe indictment of a man who had been collecting for 35 years. There is no reason why any of our members should lay themselves open to an attack of this nature. There is a good collection of Lepidoptera in the Museum, which is available at any time during the day, and my own private collection is open at all times for inspection and comparison to any of our members who care to avail themselves of it.

In conclusion, I would like to appeal to all our members to do some one thing or other during the coming season to advance the knowledge of the entomology of this Province, either by recording life histories of species, by the breeding of rare or uncommon forms, by making ecological notes of all rare or uncommon species they may happen to capture, or by taking interesting and uncommon forms in other orders than those in which they happen to be interested, and giving those specimens to members who are making a special study of them.

Dr. Hewitt, the chief entomologist of the Dominion, paid a brief visit to this city last June, during which I had the pleasure of spending an evening with him, and he wished me to convey to you his hearty appreciation of the work our Society was doing. As your President, it is my earnest desire to maintain this work, and that is why I ask all

of you to do something, however little, to keep up the reputation that we have gained.

We have the finest field in the Dominion of Canada for the prosecution of our studies, and there are many perplexing problems waiting to be solved. In *Leptarctia californiae* and its varieties, to determine if any males can be produced that have red secondaries; all the males that I have seen have yellow ones and the females red, although Dr. McDunnough assures me that he has a red male. In the genus *Alypia*, Sir George Hampson, in his synopsis of the species, differentiates between *octomaculata* hind wings marked with white and *langtoni* hind wings marked with yellow. The species that we have are all listed under the name of *langtoni*, although in all the specimens that I have seen the males have hind wings marked with white and the females marked with yellow. By breeding we could determine if this was only a sexual and not a specific difference. Again we have a species called *Hadena arctica*, which Dr. McDunnough claims to be a variety of *Hadena castanea*. I am of the opinion that it is a western race of the eastern *arctica*, but by breeding *castanea* and so called *arctica* from the eggs of known females, this point could be definitely settled for all time. There are a number of other instances which I could give you along the same lines, but I think these are sufficient to show you that if our systematic members would each take up one of these subjects and carry it to a successful conclusion, they would accomplish something that would add to their credit and be of great taxonomic value to the entomology of Boreal America.