PROCEEDINGS

OF THE

BRITISH COLUMBIA ENTOMOLOGICAL SOCIETY

1912

The Thirteenth Annual Meeting of the British Columbia Entomological Society was held in the Botanical Room, Parliament Buildings, Victoria, B. C., on January 9th, 1913.

The meeting was called to order by the President, Mr. Tom Wilson, at 10:00 a. m., with 22 members present. The day was divided into morning, afternoon and evening sessions. At the evening session 27 members were present.

MR. CHAIRMAN—We will commence proceedings by receiving reports from the various districts. I notice that I am first on the programme with a report from the Lower Mainland, so without further delay I will present it.

REPORT FROM VANCOUVER DISTRICT.

On account of the unusually wet season which has not been conducive to the propagation and spread of many of our pests throughout the Fraser Valley and surrounding districts, we were not very greatly troubled with many injurious insects during the summer of 1912. The attack of the caterpillar *Malacosoma erosa* seemed to be confined to the west and southwest of the mainland, comprising part of the Municipality of Surrey and part of the Delta, as far as Blaine on the American boundary, and the immigration laws with regard to pests seemed not to have been put in force, so the insect exchanged visits to both sides of the International line in a perfect spirit of reciprocity. In the town of Blaine they were not only a nuisance, but were positively loathsome, crawling over fences and into open doors and windows. All along the shore of Simiamhoo Bay the few orchards and all the diciduous trees

were completely denuded of foliage. The attack seemed to get less as we got further inland till around Chilliwack and at Harrison on the opposite side of the Fraser River, although the worms emerged in large numbers, many of them dried up and did no further harm, while as a whole, the most of them remained sluggish and nearly all were attacked by parasites. What these were I have not been able to determine. A rather bad, though isolated, attack of this insect was around Agassiz, where many of the orchards and also the crab apple brush were defoliated. This infestation did not extend beyond a mile east of Agassiz. I am glad that the point has now been cleared up with regard to the feeding habits of this insect. I think I was the first to report to the Department at Ottawa that I had never seen it attack the foliage of the pear, but this seemed to be pooh poohed down there. Now it has remained for some of our American friends to make the same observation, and to prove it.

Red Humped Apple Tree Caterpillar, *Schizura concinna,* I found doing extensive damage in the arid and semi-arid parts of the Fraser Valley. It seemed to be most voracious, sometimes four or five caterpillars would be hanging to the margin of a leaf gradually eating their way into the midrib. One could almost fancy one could hear the sound of their jaws when they were busy feeding. Some of them I found to be attacked by the parasite Limneria.

Fall Web Worm, *Hyphantria textor.* This insect is no respector of plants when it wants food. All the deciduous trees seem to have been made for it. It attacks the apple, plum, cherry, pear and peach in the orchards; and maple, choke cherry and thorn are rendered unsightly by the destruction of the leaves and also by the filthy webs which remain long after the foliage has disappeared. This web will be full of the remains of the worms and their excreta. This insect extends its work from the Fraser far into the interior.

Several of the Cut Worms, *Noctuids,* did much injury in different parts of the district. The first that I noticed was up the Coast about 20 miles, at Sechelt. A little later I found cut worms all the way down the Fraser Valley between Lillooet and Lytton, where they had eaten off such things as cabbages, tomatoes, cauliflowers, etc. In some cases these had been planted three times before a crop could be insured. I may say that I also saw the same grubs at Alberni near the West Coast of Vancouver Island.

Bud Moths, *Spilonota* (*Tmetocera*) *ocellana,* were very prevalent and certainly injured such fruits as apple, plum and cherry, and more especially the Italian prune, and I believe reduced the output of this by 50 per cent.

Click Beetles were very numerous, working among the plum blossoms. They also were to be blamed, in some measure, for reducing the crop in some districts.

The Hop Flea Beetle, *Psyloide punctulata,* was still in evidence in the hop yards at Chilliwack, but I think on account of the rather moist season it did not do so much damage as usual and good crops were gathered. This insect is very catholic in its feeding habits, as it will eat nettles, clover, chickweed, tomatoes, beets and other farm crop. It is very fond of the bright sunshine, when it is extremely active, and correspondingly sluggish in dull weather.

Cherry Slug, *Eriocampoides limacina,* did, on the whole, very little damage during the past season in the coast districts, but in the dry and semi-arid parts of the Interior it was very numerous and destructive. It does not confine its attention to cherries and pears, but attacks the thorn, the apple, and other plants of the Rosacae.

Thrips during one or two hot dry spells which we had I noticed did much harm by injuring the leaves of some varieties of roses. They seemed to suck the chlorophyl, leaving the leaves a pale, sickly gray.

Saw Flies also injured the leaves of certain varieties. They seemed to confine their attacks to roses of the *Spinosissima* class.

We have had, in certain districts, some very bad attacks of root maggots on early turnips, radishes and cabbages. I have recommended the use of discs of tar paper which has been advocated by the Department at Ottawa, but this is almost out of the question on a large scale, and adds too much to the cost of production. In the event of discing not being practical, a solution of crude carbolic acid and soap has been found to be fairly effectual and it has the merit of being easily applied. On a recent visit I paid to the Nicola country, I noticed a very serious infestation of *Chionaspis pinifolia* on the bull pines, *P. ponderosa.* Some of the trees were covered from the ground to the top and so conspicuous was it that they seemed to have been powdered over with sawdust. Many of the pines are dying, though whether from this cause or not I am unable to say.

I noticed some time ago some curious looking galls on the poplars in some parts of the Okanagan. I thought at first that they were an aggregation of buds, but on examination they were found to be the work of one of the mites *Eriophyes.* Very little harm seems to accrue from the attack, as most of the trees seem healthy enough.

The dry belt seems to be the happy hunting ground for several of those gall forming insects, more especially among the Artemesia. I have found stems of those plants which were scarce recognizable on

account of these galls. I don't know whether very many of these insects have been described.

During the past season we have had the usual complement of Green and Wooly Aphis, but I don't think it has been larger than other years—certainly the Green Aphis has not. I have confined my remarks almost entirely to insects doing damage to orchard and other crops, as they have come more especially under my own observation. I should like to give you a list of captures of Lepodoptera, but as this paper is already too long, I shall refrain.

TOM WILSON,
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Vancouver.

MR. TREHERNE—Mr. Gibson of Ottawa wrote to me recently and mentioned the fact that *M, erosa* was a variety of *"disstria."* In connection with the Root Maggots in relation to the market gardening industry of the Lower Fraser Valley, I noted that the great majority of the enquiries at the Agassiz Experimental Farm were relative to these insects. I invariably replied giving the thin tarred felt paper discs and the Carbolic Emulsion remedies as having been the most effective in the matter of control. Has any one experience in this country with these remedies?

MR. WILSON—I can certainly recall instances where the Carbolic Emulsion has given the gardeners in the Fraser Valley very satisfactory results. One grower saved 90% to 95% of his crop a year or so ago by using this emulsion, much to his satisfaction. Previously his crops had been failures.

MR. BRITTAIN—Fresh pryethrum has also been effective.

MR. BUSH—The tarred paper discs are thoroughly effective. Usually this remedy is only advocated for small areas, but after all it is not such a big job over a larger area.

MR. LYNE—Is there any merit in puddling the roots in a sulphur and mud bath previous to transplanting?

MR. WILSON—That method is of very little use. The eggs of the fly are laid after the plant is in the ground.

MR. LYNE—But the sulphur might be objectionable.

MR. WILSON—Its aroma is not sufficiently strong.

MR. BUSH—That is why the tarred discs are so effective. They throw off quite a considerable odor when fresh and thus affect the fly.

MR. WILSON—Discs cannot be used with satisfaction for radishes or carrots.

MR. CUNNINGHAM—How is the Carbolic Emulsion made?

MR. WILSON—One pound of soft or hard soap in a gallon of water to which is added one pint of crude carbolic acid. This is boiled together for a few minutes and held as stock solution. When required for use this mixture is diluted at the rate of one part to twenty and poured around the plants. Weekly applications increase the percentage of good results.

MR. CUNNINGHAM—Does the liquid not harm the plants?

MR. WILSON—The liquid does no harm to the plants and for that matter can be poured over the plants themselves. I have seen plants dipped right into the mixture before planting.

REPORT FROM VICTORIA DISTRICT.

Nineteen hundred and twelve from a collector's standpoint was without doubt the most disappointing season for many years past. This was due to frequent cold and wet weather which prevailed throughout the spring and summer months, therefore making systematic collecting an impossibility; furthermore, in the field it was most discouraging, for at times nothing could be seen, save an occasional *rapae, antiopa, grapta,* or some other common insect unworthy of note; however, during the year in spite of weather conditions I succeeded in securing a number of good captures.

The Tent Caterpillar, as usual, did considerable damage to the apple trees. It is gratifying to state that over 60% of a large number of Tent Caterpillars examined, were infested with ova of the small ichneumon fly; this fact alone will greatly reduce the numbers next season.

The disappearance of *"Neophasia menapia,"* the Pine White Butterfly, was most noticeable in the outskirts of Victoria, for in places on previous years, where thousands occurred, hardly a single specimen could be seen. During the months of September and October this insect usually occurs in numbers about Metchosin and Goldstream districts amongst the valleys of the conifers.

Therina (*Ellopia*) *somniaria,* Hulst., commonly known as the Oak Tree Pest, did no great damage as in previonus years, for the only spot I noticed any devastation whatsoever was on three or four scrub oaks near Cadbora Bay.

LIST OF CAPTURES.

Pontia occidentalis (Reak) May 29th, one male, Goldstream.

Oenis gigas (Butler) July 7th, Mount Finlayson, near Goldstream. While collecting birds and eggs for the Provincial Museum I found this fine insect fairly common near the top of the ridge of the western slope.