

Provincial Government Grant, Vote No. 247, made available April, 1914	\$350.00	
By cheque to R. C. Treherne for loan		115.00
By cheque to H. H. Creese, finances of Kelowna meeting, August, 1914		20.40
To R. C. Treherne, by cheque, Nov. 30th, Distribution of Bulletin, No. 4, \$10.00; slides made for lantern use, \$15.00		25.00
To Evans and Hastings, Printers, Dec. 2nd, 500 subscription notices		4.00
To Hawkins and Hayward, Electricians		2.30
Balance in bank to date, Dec. 31st		183.30
	<hr/>	<hr/>
	\$350.00	\$350.00

A NOTE ON THE OCCURRENCE AND SIGNIFICANCE OF ANOPHELINEAE IN B. C.

Seymour Hadwen, D. V. Sci., Agassiz, B. C.

For several years notes and observations have been made on the mosquitoes of this province, their classification and seasonal prevalence, the main object being to find methods for their control. This work has been confined mainly to the **Culicinae**; as far as we know the genus **Anopheles** is represented, on the lower mainland, by a single species, **A punctipennis**, say. The Anophelines are never as numerous as the **Culicinae** and are often hard to find. **A punctipennis** is never found in large numbers, and it is only in the early spring that these mosquitoes are to be seen outside; it is at this season that they can be found biting animals. During the summer it is extremely hard to find a specimen; in the autumn they reappear on the walls of houses and in cellars.

The species **A maculipennis**, which I am recording in this paper, probably has the same seasonal prevalence as **punctipennis**: though it has been looked for in the Similkameen and Nicola valleys, its presence has not been recorded during the summer. This year it was discovered for the first time at Keremeos, B. C. This portion of the province is peculiarly situated and the climate is very hot and dry.

A. punctipennis is not definitely known to transmit malaria, while **A maculipennis** is a well-known carrier of the disease, both in Europe and in America. Its presence, however, does not necessarily infer the existence of malaria. Sometimes the mosquitoes are not infected. Thus, in Eastern Canada, **A maculipennis** is still comparatively common, though malaria, according to reports, is now of rare occurrence. In England, in certain malarial districts, the disease has disappeared while the mos-

quitoes showed no corresponding decrease in numbers. In the investigations of Nuttall, Cobbett and Strangeways-Pigg, these well-known authorities found many mosquitoes but no cases of malaria, in districts where the disease had been previously very prevalent. Later Theobald discovered a genuine case, contracted in England.

In conversation with residents of Keremeos, we have heard of cases of malaria in that part of the country. However, it is unnecessary to do more than mention this fact, without further discussion, for the subject can be better dealt with by a medical man.

I give a short description, taken from Patton and Cragg, of **A punctipennis** and **A maculipennis**, so that the two species may be readily distinguished.

Anopheles punctipennis, say. Palpi with two indistinct greyish bands, and apices sometimes grey. Thorax chestnut brown. Abdomen brown with golden hairs. Legs brown, except coxae, knees and tips of tibiae, which are yellowish. Costa black, with two yellow spots, one at the apex and the other at the apical third. This species is the winter anopheline of the United States.

Anopheles maculipennis Meigen. Palpi brown, unbanded. Thorax and abdomen brown. Legs brown without any definite bands. Costa dark, with four dark spots, two apical and two median. It is widely distributed in Europe, and is a natural carrier of the parasites of malaria in Italy. (Specimens of **A maculipennis** were shown at the meeting).

APHID NOTES FROM BRITISH COLUMBIA.

By H. F. Wilson,

Entomologist, Oregon Experiment Station.

During the month of July, 1913, the writer had the pleasure of attending the summer meeting of the British Columbia Entomological Society, at Vernon, B. C., and the following species of aphids were collected during the trip:

1. **Macrosiphum stanleyi** n. sp. on **Sambucus glauca** in Stanley Park, Vancouver.

Macrosiphum stanleyi n. sp. (plate 1, figures 13-15.)

A large, light, green species found feeding on the under side of the leaves of **Sambucus glauca** Nutt. This species is common in the vicinity of Vancouver, B. C., and Seattle, Wash. I have not collected it in Oregon. All forms are lightly covered with a white bloom, which is much more abundant on the pupae. All forms are quite active and move about over the leaf surface when disturbed.