

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,

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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.

**Apterous viviparous female**—General color light yellowish green, the only exceptions being the sixth segment, with spur and tarsi, which are dusky to black. Nectaries and cauda same color as the body, eyes dark red. Body long and slender, the antennae reaching beyond the tip of the cauda and with the spur longer than the third segment. Antennae slender with a strong and prominent antennal tubercle. In this form, as sometimes in the pupae, the third antennal segment bears from two to seven irregular sensoria situated near the base and lying along one side of the segment. Legs long and slender. The nectaries are long and tapering, usually with a slight swelling near the tip, which makes them appear strongly constricted just back of the tip. Cauda short and slightly ensiform.

Measurements—Length of body, 4mm.; width, 1.58 mm.; length of antennae by segments, I, 0.15 mm.; II, 0.09mm.; III, 1.74 mm.; IV, 0.93 mm.; V, 0.84 mm.; VI, 0.3 mm.; spur, 1.8 mm.; total length of segments, 5.288 mm.; length of nectaries, 1.5 mm.; cauda, side measurement, 0.5 mm.

**Pupa**—General color light green covered with a fine white waxy powder or bloom. This form is slightly shorter and slightly narrower than the apterous forms. Length of body, 3 mm.; width, 0.95 mm.

**Alate viviparous female**—First collected in Stanley Park, Vancouver, British Columbia, July 14, 1913. General color, greenish white, the six antennal segments with spur and tarsi are dusky to black; eyes dark red. Body long and slender and without distinct markings. Antennae and legs long and slender, antennae reaching beyond the end of the cauda. Antennal tubercles large and strongly angled at the upper inner edge. Third segment with 12 to 18 round sensoria, which vary greatly in size. Wings hyaline and of the usual type.

Measurements—Length of body, 3.5 mm.; width, 1.25 mm.; total wing expanse, 8 to 9 mm.; length of antennae by segments, I, 13 mm.; II, 0.09 mm.; III, 1.06 mm.; IV, 0.95 mm.; V, 0.9 mm.; VI, 0.3 mm.; spur, 2 mm.; length of nectaries, 1.3 mm.; cauda, 0.55 mm.

2. **Macrosiphum frigidae** Oestlund on **Artemisia** sp., Vernon, July 16.
3. **Macrosiphum rudbeckiae** Fitch on **Solidago** sp., Vernon, July 16.
4. **Macrosiphum urticae** Schrank on **Urtica dioica**, Vernon, July 16.
5. **Macrosiphum ludoviciana**e, Oestlund on **Artemisia ludoviciana**, Vernon, July 16.
6. **Macrosiphum rosae** Linn., on **Rosa** sp., Vancouver, July 12.
7. **Nectarosiphon rubicola** Oestlund on **Rubus** sp., Vancouver, July 12.
8. **Myzus cerasi** Fab., on wild cherry, Vancouver, July 12.

9. *Aphis cerasifoliae* Fitch., on choke cherry, Vernon, July 16.
10. *Aphis sorbi* Kalt., on apple, Agassiz, July 13.
11. *Aphis avenae* Fab., on apple, Vernon, July 16.
12. *Aphis cardui* Linn., on *Carduus* sp., Vernon, July 16.
13. *Hyalopterus arundinis* Fab., on *Prunus* sp., Vernon, July 16.
14. *Melanoxantherium smithiae* Monell., on *Populus* sp., Vernon, July 16.
15. *Cladobius populeus* Kalt.? on *Populus (tremuloides?)* Vernon, July 16.
16. *Arctaphis populifolii* Essig, on *Populus* sp., Vernon, July 16.
17. *Chaitophorus aceris* Linn., on *Acer* sp., Agassiz, July 13.
18. *Chaitophorus negundinis* Thomas, on *Acer negundo*, Agassiz, July 13.
19. *Euceraphis betula* Fitch, on Eastern birch, July 13.
20. *Phyllaphis fagi* Linn., on *Fagus* sp. (imported), Agassiz, July 13.

**MYZAPHIS (APHIS) ABIETINA WALKER.** Plate I. Figs. 1-12.

This insect is here reported for the first time from North America; and should it continue to cause serious damage, as during the present season, it will be necessary to develop some methods of control.

The material and notes used with this species were furnished me by Mr. R. C. Treherne and Mr. J. M. Swaine, of the Dominion Entomological Staff, and Dr. E. C. Van Dyke, of the University of California.

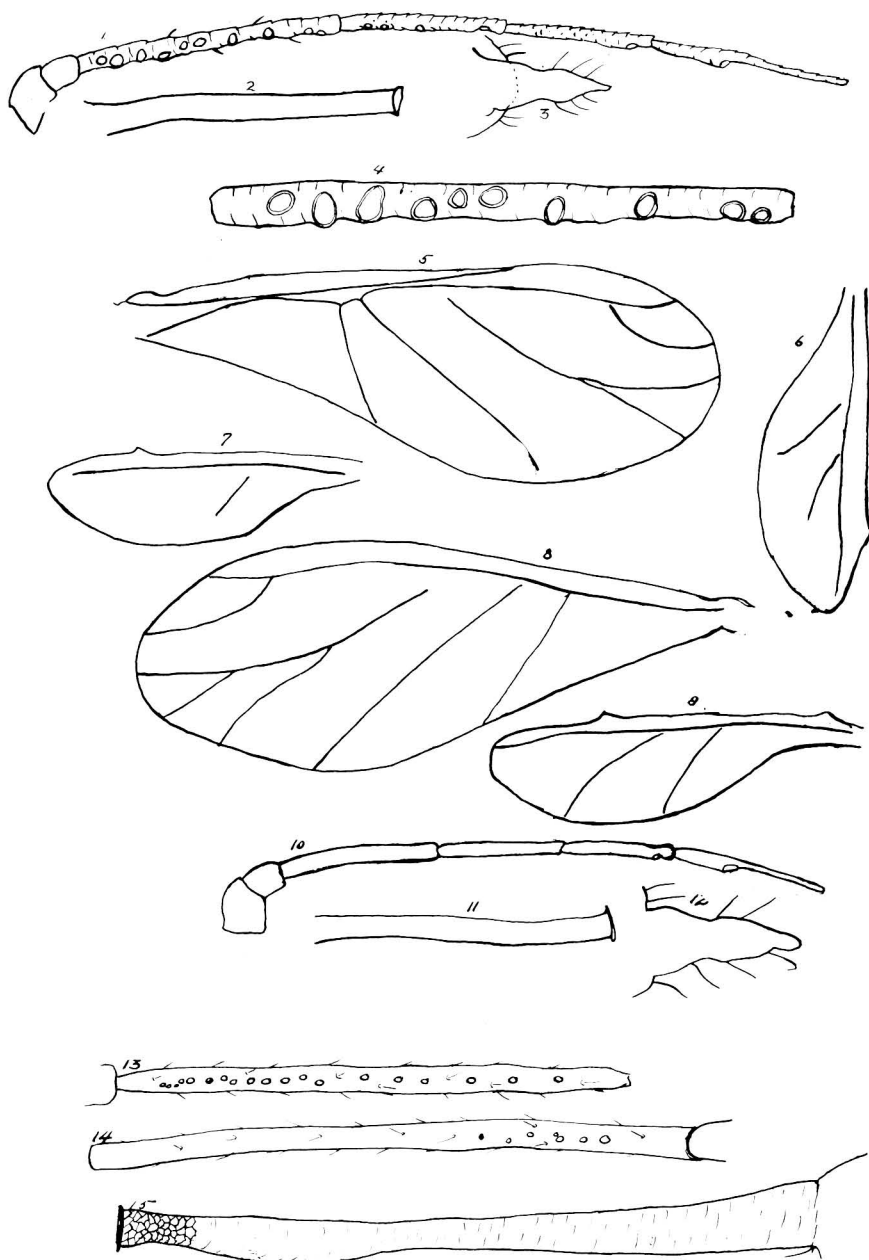
Mr. Treherne first noticed the aphids about May 1, 1914, on spruce trees in Stanley Park, Vancouver, B. C. By June 1 they had caused very serious damage, and all of the old needles were falling. Later observations by the parties mentioned show that practically every needle of last year's growth had fallen from the infested trees. The current year's growth was intact and uninfested. On some of the spruce twigs sent in to me, I found as high as seven aphids on a single needle, and nearly every needle was infested.

Mr. Treherne writes that "this insect is as serious, if not more serious, than any other insect attacking spruce in the forest lands along the British Columbia Coast at the present time."

Later in the season the aphids left the spruce and must have migrated to some alternate host, where they may be found feeding on either the roots or parts above ground.

This species was first described as new in 1848, and in England has received some little attention from various workers. The latest and

*Myzaphis (Aphis) abietina* Walker.



***Myzaphis (aphis) abietina* Walker.**

Fig. 1, antennae; Fig. 2, nectary; Fig. 3, cauda; Fig. 4, third antennal segment much enlarged, of alate viviparous female; Figs. 5, 6, 7, wing venation from a single individual. Figs. 8, 9, normal venation; Fig. 10, antenna; Fig. 11, nectary; Fig. 12, cauda of apterous viviparous females.

***Macrosiphum stanleyi* n. sp.**

Fig. 13, third antennal segment of alate viviparous female; Fig. 14, same of apterous female; Fig. 15, nectary of alate form.