

Two rows of black currants in a block adjacent to heavily infested English elm were treated with naphthalene compound (naphthalene and wood ashes) just as the migrants were leaving the elms. The treated rows kept entirely free from root infestations for two weeks. A few migrants were found in the soil and an occasional root form, but always dead and discolored. The untreated rows showed numbers of migrants, and infection of the roots soon became general. Eventually, when the effect of the light dose of naphthalene disappeared, the later migrants infected the roots of the treated rows.

From the result of these experiments it would appear that a heavier dressing of crude naphthalene—six handfuls to each bush hoed in to a depth of 2-3 inches—would be satisfactory.

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## PRELIMINARY LIST OF APHIDIDAE OF BRITISH COLUMBIA

BY R. GLENDENNING

### Callipternini (Tribe).

- Phyllaphis fagi** (L.). On copper beech. Agassiz. The copiously flocculent lice are frequent all summer on the undersides of the leaves.
- Chromaphis juglandicola** (Kalt). On walnut. Agassiz.
- Therioaphis tiliae** (L.). Common on lime and linden, **Tilia** sp. on Experimental Farm, Agassiz. A very distinct species. Body with black bars and wing veins heavily bordered with black.
- Euceraphis gillettei** (D'son). A large free-flying species, using **Alnus oregona** as a primary host; also found on Birch.
- Euceraphis betulae** (Koch). A similar species frequent on Birch.
- Myzocallis querci** (Kalt). A small green species on introduced oak—Agassiz and Westminster.
- Drepanosiphum platanoides** (Schrank). A large active species very common on **Acer pseudo-platanus** in the Lower Fraser Valley. Very objectionable from copious excretion of honey dew, on which a black fungus grows.
- Chaitophorus viminalis** (Monell). Frequent on native cottonwood (**P. trichocarpa**), rendering the leaves very sticky.
- Periphyllus americanus** (Baker). A dark red species on **Acer circinatum**—dimorphic—tiding over the dry weather thus.
- Neothomasia populicola** (Thomas). Frequent on petioles of cottonwood leaves. Apteræ yellowish with a black **Y** on back.
- Melanoxantherium populifoliae** (Fitch). On twigs of *Salix* sps.

**Melanoxantherium smithiae** (Monell). Similar habits to above but with shorter cornicles.

Several other **Pterocommnas** have been collected on polpar and willow, but are at present unidentified on account of unsatisfactory state of this sub-tribe.

### APHIDINI (Tribe)

#### Aphidina (Subtribe).

**Anuraphis helichrysi** (Kalt). Taken on plum at Mission. A European species confined in America to the West. Alternate host species of Compositae.

**Anuraphis cardui** (L.). Taken on Scotch thistle occasionally.

**Anuraphis viburnicola** (Gillette). On **Viburnum opulus**, Agassiz.

**Anuraphis crataegifoliae** (Fitch). Fall migrants taken on apple; migrates to clover.

**Anuraphis roseus** (Baker).

**Anuraphis sorbi** (Kalt).

One, or possibly both, of these species taken on apple at Agassiz.

**Aphis helianthi** (Monell). Taken on **Cornus stolonifera** from the flower heads, Harrison Lake, migrates to composites.

**Aphis yuccae** (Cowen). Present in 1921 on **Yucca filamentosa** on Experimental Farm, Agassiz.

**Aphis neomexicanus** (Ckll.). A black species from black currant as primary host only.

**Aphis rumicis** (L.). Very common on a great variety of hosts—most common on goosefoot, spinach and beans.

**Aphis pomi** (De Geer). Green apple aphid occurs throughout the Province, remaining on apple entirely.

**Brevicoryne brassicae** (L.). The cabbage aphid most commonly found on crucifers in British Columbia.

**Cavariella capreae** (Fabr.). A medium to large species migrating from willow to Umbellifers. Common.

**Hyalopteris arundinis** (Fab.). The mealy plum aphid. Taken at Agassiz for the first time in 1924.

**Rhopalosiphum nymphaeae** (L.). Migrates between plum and various water plants.

**Rhopalosiphum prunifoliae** (Fitch). The common apple-grain aphid, generally mentioned in literature as **Aphis avenae**.

**Rhopalosiphum grabhami** (Ckll.). Found on **Lonicera involucrata**, in spring and fall, curling the leaves, which become variously colored. Alternate host unknown. (Possibly belongs to genus **Francoa**).

Subtribe **Macrosiphina**

- Amphorophora lactucae** (Kalt). This light green species migrates between currants and various ligulate composites.
- Amphorophora corylinum** (David). Taken on wild hazel, on twigs Agassiz.
- Macrosiphoniella millifolii** (Fab.). Taken on Achillea at Agassiz. A European species, very distinct by reason of its heavy black and green bars.
- Macrosiphum granarium** (Kirby). Very common on grains, especially oats, where they cluster in the heads. Larger than **Rho: prunifolium**. Stays on Gramineae all the time.
- Macrosiphum rudbeckiae** (Fitch). A red aphid, common on composites (**Solidago, etc.**). Found on the stems and, when disturbed, raises its body at right angles to the stem.
- Macrosiphum rosae** (L.). Occurs on roses, frequently overwinters in viviparous stage in Victoria.
- Macrosiphum solanifolii** (Ashmead). A similar species, migrating between rose and potato.
- Macrosiphum pisi** (Kalt). The common pea aphid, very destructive at Agassiz in 1923.
- Macrosiphum albifrons** (Essig). Specimens collected by Mr. W. Downes in Victoria on **Lupinus arboreus** are apparently this species.
- Myzus cerasi** (Fab.). On common cherry, curling the leaves, partial migration to **Lepidium**.
- Myzus persicae** (Sulzer). One of the few aphids apparently omnivorous.
- Myzus ribis** (L.). Frequent on currants, causing blister-like swellings on leaves.
- Phorodon humili** (Schrank). The common hop-plum aphid—very common and troublesome on hops.

**Mindarinae** (Subfamily).

- Mindarus abietinus** (Koch.). Taken at Agassiz on **Abies grandis**, curling young shoots. This species is considered a relic of the past without any surviving relations.

**ERISOMATINI** (Tribe)

- Erisoma americana** (Riley). Causing leaf curl on American elm and migrating to roots of **Amelanchier florida**. Both forms found at Agassiz.

- Eriosoma lanigera** (Haus.). The common woolly aphid of apple, curling the leaves of American elm, often continuing entirely on apple.
- Eriosoma lanuginosa** (Hartig). The species occurring on pear roots (**pyricola**) has recently been co-related to this species. A pear root aphid occur on Vancouver Island and is probably this species. The primary host is English elm, the leaves of which it causes to form a bag-like gall. A European species.
- Eriosoma ulmi** (L.). An introduced species alternating between English elm and the roots of black currant and gooseberry. The root forms were described as **fodiens**.

#### PEMPHIGINI (Tribe)

- Pemphigus betae** (Doane.). This beet-root aphid occurs in the Province on mangels, beets, Rumex and Polygonums, using the cottonwood as a winter host. The poplar form was described as **balsamiferae** Williams.
- Pemphigus populicaulis** (Fitch.). This species makes a petiole gall on cottonwood, and its secondary host was determined this year as **Oenanthe sarmentosa**, Water Parsley (**Umbelliferae**).
- Pemphigus gravicornis** (Patch.). This species folds the leaves of cottonwood. Its alternate host is unknown.
- Pemphigus populi-venae** (Fitch.). A gall like a cock's comb ascribed to this species has been frequently observed on cottonwood at Agassiz; no alatae, however, were secured. It is believed that this species also migrates to beet.

#### PROCIPHILINI (Tribe)

- Prociphilus corrugatans** (Serrine). An aphid very near this species is commonly found curling the leaves of the native **Pyrus rivularis** at Agassiz. The fall migrants are taken abundantly on various species of **Pyrus** and **Crataegus**.

