

Some First Records of Aphids in Hawaii*

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Since the reestablishment of an Entomology Department in the Hawaii Agricultural Experiment Station, University of Hawaii, in 1937, numerous observations have been made of the insects of diversified crops. These observations have established the presence in Hawaii of a number of insects not formerly recorded here. The present contribution gives the first records of eight species of aphids.

Amphorophora sonchi (Oestlund)

This species was determined by Professor Essig in June 1940 as *Amphorophora sonchi* (Oestlund). Timberlake (7)† recorded an aphid *A. lactucae* (Kaltenbach) on *Sonchus oleraceus* (common sow thistle) in 1922. This aphid is apparently the same species as *A. sonchi* (Oestlund). *A. sonchi* has been observed breeding freely on *S. oleraceus*. Alates have been found on *Solanum tuberosum* (potato) and *Ipomea batatas* (sweetpotato) as well as on *Lycopersicon esculentum*. To date, all of our collections have been made during the cooler months of the year.

Aphis rumicis Linnaeus

This species occurs commonly on various legumes in other parts of the world. In Hawaii it breeds on *Phaseolus limensis* (lima bean), but *A. medicaginis* Koch is the more common and more important species. The determination of both species has been made by Professor Essig.

A. rumicis is an important vector of several virus diseases (5, 6), the most important of which is probably the bean mosaic.

Cavariella capreae (Fabricius)

The yellow willow aphid has a rather wide distribution throughout the temperate regions (2). Except for this first collection at Kohala, Hawaii, this aphid has not been found on carrots in the Territory. Observations to date indicate that *Brevicoryne brassicae* (Linnaeus) is a more important species on carrot than is *C.*

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† Numbers in parentheses refer to the bibliography.

Table 2. Some First Records of Aphids in Hawaii

SPECIES	DATE	HOST	LOCALITY	COLLECTOR	STAGE	IDENTIFIED BY
* <i>Amphorophora sonchi</i> (Oestlund)	Dec. 15, 1939	<i>Lycopersicon esculentum</i> (tomato)	Lualualei, Oahu	W. C. Look	Alate	E. O. Essig
<i>Aphis rumicis</i> Linnaeus	Jan. 23, 1938	<i>Erechtites valerianaefolia</i> § (fireweed)	Lower Tantalus, Oahu	E. McAfee	Alate Apterous	E. McAfee
<i>Brachycolus heraclei</i> Takahashi	Dec. 6, 1940	<i>Apium graveolens dulce</i> (celery)	Waialua, Oahu	F. G. Holdaway	Alate Apterous	E. O. Essig
† <i>Cavariella capreae</i> (Fabricius)	Jan. 25, 1939	<i>Daucus carota sativa</i> (carrot)	Kohala, Hawaii	G. Marvin	Alate Apterous	S. H. Au
<i>Macrosiphum rosaefolium</i> Theobald	Nov. 22, 1940	<i>Rosa</i> sp. (rose)	Manoa, Oahu	W. C. Look	Alate Apterous	E. O. Essig
‡ <i>Micromyzus formosanus</i> (Takahashi)	Dec. 20, 1939	<i>Allium cepa</i> (onion) <i>Allium schoenoprasum</i> (chive)	Kaneohe, Oahu	W. C. Look	Alate Apterous	E. O. Essig
<i>Myzus convolvuli</i> (Kaltenbach)	Feb. 2, 1941	<i>Euphorbia</i> sp. <i>Spathoglottis plicata</i> (wild ground orchid)	Waikane-Kahana Trail, Oahu	E. McAfee	Apterous Apterous	E. O. Essig E. O. Essig
* <i>Rhopalosiphum pseudobrassicae</i> (Davis)	Oct. 20, 1939	<i>Lycopersicon esculentum</i> (tomato)	Kaneohe, Oahu	W. C. Look	Alate	E. O. Essig

* Previously published (4).

† See Proc. Haw. Ent. Soc., 11(3): 270, 1943.

‡ Previously published (3, 4).

§ Det. by Dr. H. St. John.

capreae. Reference to the specimens on which this record is based has already been made by D. T. Fullaway.¹

Macrosiphum rosaefolium Theobald

This species was found breeding freely on roses. Aphids collected a year previously on these same rose bushes were *Myzus circumflexus* (Buckton). It appears that *M. rosaefolium* may, therefore, be a comparatively recent introduction into Hawaii.

Micromyzus formosanus (Takahashi)

This species has since been observed attacking onion at several different places on Oahu. An aphid was reported attacking green onion at Makaweli, Kauai in March 1941. It would appear that *M. formosanus* may have established itself on Kauai in recent years.

Myzus convolvuli (Kaltenbach)

This species has a wide range of hosts elsewhere; it has been found on important crops such as *Apium graveolens dulce* (celery), *Lactuca sativa* (lettuce), *Pisum sativum* (pea), *Solanum tuberosum* (potato), and *Lycopersicon esculentum* (tomato). It is an important vector of western celery mosaic (5) and narcissus mosaic (1).

Rhopalosiphum pseudobrassicae (Davis)

The turnip aphid has become established as an important insect of *Brassica oleracea botrytis* (broccoli), *B. pekinensis* (Chinese cabbage), and *Raphanus sativus longipinnatus* (daikon). It is a vector of several strains of viruses, of which bean mosaic and cauliflower mosaic are the most important (5, 6).

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¹ July 13, 1942 (Proc. Haw. Ent. Soc., 11(3) : 270, 1943.)

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