

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

NATURAL HISTORY OF
PLUMMERS ISLAND, MARYLAND¹

XIX. ANNOTATED LIST OF THE APHIDS (HOMOPTERA: APHIDIDAE)

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On 27-28 July 1912, while enroute to New York from participation in the Cornell Okefenokee Expedition in Georgia, I visited Plummers Island with Harry L. Viereck. This was a never-to-be-forgotten experience for a young entomologist who had just finished his junior year at Cornell. On the Island I met and collected with the late Herbert S. Barber, E. A. Schwarz, A. K. Fisher, Waldo L. McAtee, and several others whose names have unfortunately escaped me. At that time I had no interest in aphids and, so far as I know, neither did McAtee. However, in 1913-1914 he made about 50 collections of aphids which he sent to Edith M. Patch of the Maine Agricultural Experiment Station for determination. About two years before his death McAtee wrote me about this activity. Through the kindness of W. Geddes Simpson of the Maine Agricultural Experiment Station I have been able to borrow Miss Patch's notes on these collections.

The material collected in the island by McAtee forms the basis for this paper. This was supplemented by several collections made from plants on the island itself and by a few made from plants on the Maryland shore opposite Plummers Island by other members of the Biologists' Field Club in recent years. During the period 1957-1964 Karl V. Krombein of the U. S. Department of Agriculture collected a few aphids in

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connection with his biological studies of predaceous solitary wasps or from aphid food plants. Paul J. Spangler of the U. S. National Museum made several aphid collections in 1961-1962, and George B. Vogt of the U. S. Department of Agriculture made a fair number of collections in 1964, and a larger number in 1965.

Representatives of the specimens collected by McAtee were put on slides by Miss Patch and are in the Department of Entomology, Maine Agricultural Experiment Station, Orono, Maine. However, Dr. Simpson of that institution was unable to locate slides of the aphids listed in this paper in the genera *Dactynotus*, *Macrosiphoniella* and in *Macrosiphum* (except in two cases) to send to Dr. Olive for verification. All the other and more recent collections are represented by slides in the collection of the author.

The total number of aphids determined definitely to species is 48. Six additional species were identified provisionally, and nine other species to genus only. Forty four of the aphids determined specifically were taken on Plummers Island and four were from the Maryland mainland opposite the island. Collections were made from 49 host plants. Intensive collecting would surely reveal many more aphid species on many other plants.

If not otherwise designated, all collections were made by McAtee and determinations by Patch.

My thanks are due to Dr. Simpson for the loan of Miss Patch's notes on the McAtee collections and for sending some of the slides for determination or verification to J. O. Pepper, Pennsylvania State University, A. N. Tissot, University of Florida and A. T. Olive of Wake Forest College. Thanks are due the following for determinations of insects associated with the aphids: C. W. Sabrosky (chloropid flies), J. L. Herring (anthocorid bugs), D. R. Smith (ants), all of the Entomology Research Division, U. S. Department of Agriculture; O. S. Flint (larvae of a chloropid and of a hemerobiid), Department of Entomology, Smithsonian Institution; and the late C. H. Seevers (staphylinid beetles), Research Associate, Chicago Natural History Museum. I am also indebted to C. F. Smith, North Carolina State University, and Louise M. Russell, U. S.

Department of Agriculture, for determining some of the aphids collected in recent years. Miss Russell also kindly reviewed the manuscript of this paper. Stanwyn G. Shetler, Department of Botany, U. S. National Museum, was kind enough to determine some of the plants.

An excellent account of the life and work of Waldo Lee McAtee was published by his long-time associate, E. R. Kalmbach (1963).

LIST OF APHIDS

Acyrtosiphon pisum (Harris), pea aphid. 28 May 1914, accidental on *Acer saccharinum*.

Anuraphis viburniphila Patch, viburnum aphid. 24 May 1914 on stem of *Viburnum acerifolium*. This material was included as "cotypes" in the original description by Patch (1917: 416).

Aphis cephalanthi Thomas. 4 July 1914 on stems and peduncles of *Cephalanthus occidentalis*. 14 June 1964 on stems of *C. occidentalis* (Vogt, coll.; Leonard, det.).

Aphis folsomii Davis. 28 June 1914 on stems and leaves of *Parthenocissus quinquefolia*.

Aphis heraclella Davis, wild parsnip aphid. 1 November 1964, 2 males, 4 or 5 oviparae, several apterae, including several parasitized "mummies" on *Cryptotaenia canadensis* (Shetler, det.) and 8 August 1965, a considerable number of apterae and alatae on several stems of the inflorescence of *C. canadensis*; many parasitized but no parasites emerged; attended by the ant, *Lasius alienus* (Foerster) (D. R. Smith, det.)—(Vogt, coll.; Russell, det.).

Aphis illinoisensis Shimer, grapevine aphid. 24 May on *Viburnum prunifolium* and *Vitis vulpina* and 28 June on *Vitis rotundifolia*, on stems and leaves, 1914. 24 May 1914 on *Vitis vulpina* (G. A. Lawyer, coll.; Mason, det.). 28 June 1961, on *Vitis* sp. (Spangler, coll.; Leonard, det.).

Aphis impatientis Thomas. 16 August 1914, apterae on leaf of *Impatiens pallida*.

Aphis monardae Oestlund. 4 July 1914 on stems and underside of involucre bracts of *Monarda punctata*.

?*Aphis oenotherae* Oestlund. 14 July 1914 on upper leaves of *Oenothera biennis*; determined with query since only apterae were present.

Aphis rumicis Linnaeus, dock aphid. 24 May 1914 on *Rumex crispus*.

Catomerus fulvae (Oestlund). 14 September 1913, 2 alatae on *Impatiens biflora* and (number of specimens not given) 16 August 1914 on terminal branches of *I. pallida*.

Chaitophorus populicola (Thomas), cloudy-winged cottonwood leaf aphid. 9 August 1914 on *Populus deltoides*. On 24 September 1959 a female of the wasp *Passaloecus annulatus* (Say) was captured carrying a winged specimen of this aphid (Russell, det.; Krombein, 1961: 65).

7 July 1964, 1 alate and a few very young on cottonwood (Vogt, coll.; Leonard, det.). 4 August 1965, a number of apterae and alatae on a shoot of *Populus grandidentata* in Maryland near Plummers Island (Vogt, coll.; Leonard, det.); many attended by ants, *Formica fusca* L. (D. R. Smith, det.); also 8 August 1965, attended by the ant *Camponotus pennsylvanicus* (DeG.) (D. R. Smith, det.).

Chaitophorus populicola patchae Hille Ris Lambers. On 27 July 1961 a series of 8 cells in a nest of the wasp *Pemphredon* (*Cemonus*) *lethifer* form *littoralis* Wagner were found to contain approximately 100 aphids, mostly nymphs but also a few winged viviparae, of this aphid (Russell, det.; Krombein, 1964: 99).

Chaitophorus viminalis Monell, little black and green willow aphid. 4 July and 2 August 1914 on stems and upper leaves of *Salix nigra*.

Cinara junipivora (Wilson). 5 July 1914 "Beaten from foliage of *Juniperus virginiana*." These specimens constitute the holotype and paratypes of a new species described in *Lachnus* by H. F. Wilson (1919: 6). The specimens were labeled by Patch as "*Lachnus* n. sp."

Cinara pergandei (Wilson). 27 September 1960 on *Pinus* sp. (Spangler, coll.; Tissot, det.).

Cinara taedae Tissot. 16 August 1913 on *Pinus virginiana* (Tissot and Pepper, det.).

Colopha sp. 11 July 1964, nymphs from a small gall on upper surface of each of two leaves of American elm. (Vogt, coll.; Smith, det.).

Colopha ulmicola (Fitch), elm cockscomb gall aphid. 1914 (no specific date), "a cockscomb gall on leaves of *Ulmus americana*." (This was determined by Patch as *Tetraneura graminis* Monell.)

?*Dactynotus ambrosiae* (Thomas), brown ambrosia aphid. 16 August 1914 on stem of *Solidago* sp. and 23 September 1914 among inflorescence of *Solidago* sp. (Patch det. as *Macrosiphum solidaginis*). Although slides could not be found in the Patch collection so that Olive could verify the determination, it is quite probable that *ambrosiae* is correct for it has been recorded authentically from *Solidago* sp. several times elsewhere.

?*Dactynotus rudbeckiae* (Fitch), goldenglow or coneflower aphid. 28 June 1914 on stem of *Rudbeckia laciniata*. Patch's determination has not been verified by Olive since no slide could be found.

Dactynotus ruralis (Hottes and Frison). 28 May 1914 on *Verbesina virginica* (the name *virginica* in this instance is erroneous and should be *occidentalis*) (Olive det., from slides labeled *Macrosiphum* n. sp. by Patch). 24 May and 4 July 1914 on *Verbesina* sp. (Olive det., from slides labeled *Macrosiphum* n. sp. by Patch). 24 July 1960 (Krombein, coll.) and 7, 13 June, 1 July 1961 (Spangler, coll.) (both Olive det.), on *Verbesina* (*Actinomeris*) *occidentalis*. 18 October 1964 on *V. alternifolia*, a partly-grown larva of a hemerobiid, probably *Micromus* sp. (O. S. Flint, det.) was found feeding in a colony of the aphids. 1 November 1964, a few apterae and 1 alata on the top of a plant of *V. alternifolia* (Vogt, coll.; Leonard, det.). 11 November 1964, several in all stages on *V. alternifolia* (Vogt, coll.; Olive, det.). 10 October 1965, about 40 apterae

of all sizes and 1 alata on upper part of stem of *V. alternifolia* (Vogt, coll.; Leonard, det.).

Drepanaphis sp. On 21 August 1957 three wasps, *Stigmus* (S.) *americanus* Packard, were taken with paralyzed aphid nymphs (Russell, det.). On 3 September 1957 the wasp *Passaloecus annulatus* (Say) was taken with an aphid (Russell, det.; Krombein, 1958: 24).

Drepanaphis acerifolii (Thomas). 24 May and 14 August 1914 on *Acer saccharinum* (det. verified by Tissot and Pepper). 17 July 1961 on *Acer* sp., an alate collected by "beating trees" (Spangler, coll.; Tissot, det. with query). 28 June 1964 on suckers of silver maple (Vogt, coll.; Smith, det.).

Drepanaphis parvus Smith. 16 August 1914 on *Acer saccharinum* (Tissot and Pepper, det.). 17 July 1961 2 alatae collected by "beating trees" (Spangler, coll.; Tissot, det. with query).

Drepanaphis near *parvus* Smith, probably n. sp. 25 June 1964 on suckers of silver maple. (Vogt, coll.; Smith, det.).

? *Drepanaphis sabrinae* Miller. 27 September 1960, 1 alate collected by "beating trees" (Spangler, coll.; Tissot, det. with query).

? *Drepanaphis spicatum* Smith. 27 September 1960, 1 alate collected by "beating trees" (Spangler, coll.; Tissot, det. with query).

Eriosoma americanum (Riley), woolly elm aphid. 24 May 1914 on leaves of *Celtis canadensis*, "pupae" and an alata present. Patch noted "evidently on *Celtis* by accident." Also but without specific date "aphids in pockets on underside of curled leaves of *Ulmus americana*; young are woolly." 27 June 1965, on *Amelanchier* sp. (Vogt, coll.; Smith, det.).

Essigella californica (Essig). 24 May and 28 June, 1914, beaten from foliage of *Pinus virginiana* (Hottes, det.).

Eulachnus sp., Patch det. as n. sp. 9 May, 8 June 1913; and 28 June, 5 July 1914, beaten from foliage of *Pinus virginiana*. Patch noted that this material was sent to Wilson but I cannot find that he described it.

Hormaphis hamamelidis (Fitch). 7 June 1914, conical gall on leaves of *Hamamelis virginiana*.

Hysteroneura setariae (Thomas), rusty plum aphid. 1914, probably August, on leaf of *Echinochloa crusgalli*. Patch, who placed it in *Aphis*, noted "no winged forms but determination seems safe."

Longistigma caryae (Harris), giant bark aphid. 18 May and 5 October 1913 on *Quercus rubra*, and caught flying near Plummerville Island 24 May 1914.

Macrosiphoniella eupatorii (Williams). 13 September 1914, below inflorescence of *Eupatorium rugosum* (given as *ageratoides*).

Macrosiphum sp., Patch det. as n. sp.; no slides available. 16 August 1914, an apterus viviparous female in inflorescence of *Solidago* sp. This is probably a *Dactynotus* (teste Leonard).

Macrosiphum sp., Patch det. as n. sp.; no slides available. 5 October 1913 and 19 July 1914 on stem of *Polymnia canadensis*. This and the next species could be *M. zinzalae* Hottes and Frison—no slides are available for verification.

Macrosiphum sp. 13 September 1914 on inflorescence of *Polymnia uvedalia*.

Macrosiphum euphorbiae (Thomas), potato aphid. 7 June 1914 on *Apocynum cannabinum*.

Macrosiphum impatiens (Williams). June 1914 on stem and leaves of *Impatiens pallida* and apterae only on leaf of *I. pallida*. 17 June 1913 on *I. biflora*.

Macrosiphum liriodendri (Monell), tuliptree aphid. 30 May 1964 on tuliptree on mainland near Plummers Island (Vogt, coll.; Leonard, det.).

Masonaphis (*Ericobium*) *pepperi* MacGillivray. 19 July 1961, several alatae and apterae on *Vaccinium* sp. (Spangler, coll.; Tissot, det.).

Microparsus variabilis Patch. 9 August 1914 on stem, petioles and leaves of *Desmodium* sp.

Monellia costalis (Fitch), black-margined aphid. 27 September 1960, several alatae collected by "beating trees" (Spangler, coll.; Leonard, det.).

Myzocallis bella (Walsh). 19 July 1914 on *Quercus* sp. (Tissot and Pepper, det.). 1914 (no specific date given) on leaves of *Q. rubra* and *Q. alba*. 20 September 1914, beaten from foliage of *Quercus* sp. (det. verified by Tissot and Pepper). 4 October 1914, beaten from foliage of *Q. rubra* (det. verified by Tissot and Pepper). 14 June 1964, 1 alate on *Q. rubra* (Vogt, coll.; Tissot, det.).

Myzocallis discolor (Monell), eastern dusky-winged oak aphid. 30 May 1964, abundant on *Quercus rubra* (Vogt, coll.; Leonard, det.).

Myzocallis punctata (Monell), clear-winged oak aphid. 30 May 1964, 5 alatae, 3 nymphs on *Quercus alba* on mainland near Plummers Island (Vogt, coll.; Leonard, det.).

Myzocallis walshii (Monell). 30 May 1964, a few on *Quercus alba* on mainland near Plummers Island and 14, 22 June 1964, a few on *Q. rubra* (Vogt, coll.; Tissot, det.).

Myzus persicae (Sulzer), green peach aphid. 23 November 1913 on *Ptelea trifoliata*.

Pemphigus sp. 7 June 1914 from a gall at base of leaf of *Populus deltoides*.

Pemphigus populitransversus Riley, poplar petiole gall aphid. 17 October 1960 (Krombein, coll.; Leonard, det.) and July 1961 (Spangler, coll.; Tissot, det.), in galls on *Populus deltoides*.

Between 3 June and 10 October 1965 Vogt collected over 300 galls of this aphid on cottonwoods. Almost all of these were on fallen leaves because the branches were too high to reach. There were 12 collections between 3 June and 16 August and a final one on 10 October, ranging from about 15 to 75 galls in each. Some galls were fairly fresh and contained many live apterous and alate aphids. Other galls were rather dry, but most of them contained live aphids even though some were in a partially deteriorated condition. Almost two-thirds of the galls had been eaten out clean through a large hole in the side; this occurred also during 1964. It is suspected that this may have been the work of birds. The few fresh galls taken from the trees were not eaten out.

From one gall each collected on 13 and 18 July a staphylinid beetle ran out very rapidly when the gall was opened wide. These were determined by Charles H. Seevers as *Tachyporus* sp. They may have been scavengers.

Predators were found inside galls during both 1964 and 1965 as follows:

Anthocoridae—On 18 October 1964 Vogt collected a number of galls in which 4 anthocorid bugs were found. Two of these galls were also filled with aphids in all stages. These were determined by Jon L. Herring as *Anthocoris musculus* (Say). In 1965 in July and August this bug was found in galls collected from cottonwood by Vogt as follows: 18 July, 1 nymph; 25 July, several specimens; 8 August, 2 adults (1 male, 1 female, 1 dead, 1 alive), each in a separate gall along with 4 cast skins and 1 live nymph; 16 August, 4 adults, 3 nymphs and 5 or 6 cast skins. There were usually only one or two specimens per gall. On 10 October Vogt collected 48 uneaten galls all of which were dry inside except for one which contained a few live young and 6 alate aphids. Inside these galls were found 5 nymphal cast skins and one large live nymph of the anthocorid, one specimen to a gall except for one which contained two cast skins. It is presumed that these bugs were feeding on the aphids.

Chloropidae—During 1964 Vogt collected leaves with galls of this aphid on *Populus deltoides* as follows: 11 July, one larva of a chloropid fly in a gall containing live aphids; 19 July, a gall on a fallen leaf containing 3 chloropid larvae but no aphids; 11 October, 1 chloropid larva in a gall; 15 October, 2 chloropid larvae and 2 puparia in a gall; 18 October, 2 chloropid larvae and 4 puparia in 2 galls; 1 November, 1 half-grown chloropid larva in one of about a dozen old galls on fallen leaves. Dipterous larvae in several stages of growth were found in some of the galls collected by Vogt in 1965. These were determined as Chloropidae by Sabrosky. Their chronological distribution is as follows: 3 June, 1 larva; 6 June, 2 or 3 larvae in 1 gall; 6 July, 1 larva; 13 July, 2 larvae; 18 July, 3 larvae in 1 gall; 25 July, 4 larvae in 1 gall among only partly live and moist aphids. Most of the galls containing larvae were placed in small dry vials; only one fly larva transformed to an adult on 27 August. It was determined as *Chaetochlorops inquilinus* (Coquillett) by Sabrosky. On 23 July a newly emerged chloropid fly was found inside a gall; positive identification was impossible, but Sabrosky believed it to be *Siphonella nigripalpus* Malloch.

Periphyllus negundinis (Thomas), boxelder aphid. 8 May 1914 on *Acer negundo*. 16 May 1965 on *A. negundo* (Vogt, coll.; Leonard, det.).

Phyllaphis sp. 11 May 1965, in tightly curled leaves of *Fagus grandifolia*, on mainland near Plummerville Island (Vogt, coll.; Smith, det., who notes "The genus *Phyllaphis* needs to be worked on carefully before we can be sure of the number of species we have.").

Prociphilus corrugatus (Syrine), woolly hawthorne aphid. 7 June 1964, a few on *Amelanchier canadensis* on mainland near Plummerville Island (Vogt, coll.; Smith, det.).

Prociphilus fraxinifolii (Riley), leaf-curl ash aphid. 1 June 1964 in curled leaves of *Fraxonis* sp. (Vogt, coll.; Smith, det.).

Prociphilus tessellatus (Fitch), woolly alder aphid. 23 October 1913, "woolly plant louse feeding at cracks in the bark of soft maple"; Patch wrote the determination as "*Pemphigus tessellatus (acerifolii)*." On 11 June 1956 nine specimens of this aphid (Russell, det.) were taken with females of the wasp *Xylocelia virginiana* Rohwer or were found in the nests of the wasps (Krombein 1958: 22). 17 July 1961, an alate in flight (Spangler, coll.; Tissot, det.).

Pterocomma bicolor (Oestlund), reddish brown willow bark aphid. 12 October 1913 on *Salix nigra*.

Pterocomma flocculosa (Weed), flocculent willow aphid. 1914 (no exact date given) "somewhat bluish woolly" on *Salix nigra*.

Pterocomma smithiae (Monell), willow grove aphid or black willow aphid. 5 October 1913, 28 June and 13 September 1914 on *Salix nigra*.

Rhopalosiphum rhois (Monell), Monell's sumac aphid. 7 June 1964 on *Rhus typhina* on mainland near Plummers Island (Vogt, coll.; Leonard, det.).

Smynthuroides betae (Westwood) (formerly *Trifidaphis radicularis* (Essig)). 1 May 1914 in an ant nest under a stone on lower part of stem of *Dentaria laciniata*.

?*Stegophylla quercicola* Baker. 30 May 1964, 6 apterae on leaf of *Quercus alba* on mainland near Plummers Island (Vogt, coll.; Tissot, det.). 19 July 1964, a partly grown larva of the chrysopid, *Chrysopa 4-punctata* Burmeister (O. S. Flint, det. with query), in the remains of a colony of this aphid in the curled dead edge of a leaf of *Quercus rubra* (Vogt, coll.; Smith, det.); also one live male of the rare anthocorid bug, *Anthocoris confusus* Reuter (Jon L. Herring, det.), in an old colony with very few aphids, also in the curled edge of a red oak leaf.

Therioaphis sp. On 3 July 1959 a nest of the wasp *Stigmus* (S.) *americanus* Packard was found which contained a number of paralyzed, tightly packed, yellowish-green nymphs and adult aphids (Russell, det.; Krombein 1961: 65).

LIST OF FOOD PLANTS

<i>Acer negundo</i> , boxelder	? <i>Drepanaphis parvus</i>
<i>Periphyllus negundinis</i>	<i>Amelanchier canadensis</i> , service-
<i>Acer saccharinum</i> , silver maple	berry
<i>Drepanaphis acerifolii</i>	<i>Prociphilus corrugatus</i>
<i>Drepanaphis parvus</i>	<i>Amelanchier</i> sp., shadbush
<i>Drepanaphis</i> , undescribed species near <i>parvus</i>	<i>Eriosoma americanum</i>
<i>Prociphilus tessellatus</i>	<i>Apocynum cannabinum</i> , dogbane
<i>Acer</i> sp., maple	<i>Macrosiphum euphorbiae</i>
? <i>Drepanaphis acerifolii</i>	<i>Cephalanthus occidentalis</i> , button-
	bush

- Aphis cephalanthi*
Cryptotaenia canadensis, honeysuckle
Aphis heraelella
Dentaria laciniata, toothwort
Smynthuroides betae
Desmodium sp., beggar's ticks
Microgaster variabilis
Echinochloa crusgalli, barnyard grass
Hysteroneura setariae
Eupatorium (*ageratoides*) rugosum, white snakeroot
Macrosiphoniella eupatorii
Fagus grandifolia, American beech
Phyllaphis sp.
Fraxinus sp., ash
Prociphilus fraxinifolii
Hamamelis virginiana, witch hazel
Hormaphis hamamelidis
Impatiens biflora, spotted touch-me-not
Catomerus fulvae
Macrosiphum impatientis
Impatiens pallida, pale touch-me-not
Aphis impatientis
Catomerus fulvae
Macrosiphum impatientis
Juniperus virginiana, red cedar
Cinara juniperivora
Liriodendron tulipifera, tuliptree
Macrosiphum liriodendri
Monarda punctata, wild bergamot
Aphis monardae
Oenothera biennis, evening primrose
? *Aphis oenotherae*
Parthenocissus quinquefolia, Virginia creeper
Aphis folsomii
Pinus sp., pine
Cinara pergandei
Pinus virginiana, scrub pine
Cinara taedae
Essigella californica
Eulachnus, undescribed species
Polymnia canadensis, leafcup
Macrosiphum, undescribed species
Polymnia uvedalia, bearsfoot
Macrosiphum sp.
Populus deltoides, cottonwood
Chaitophorus populicola
Pemphigus populitransversus
Pemphigus sp.
Populus grandidentata, big-toothed poplar
Chaitophorus populicola
Ptelea trifoliata, hoptree
Myzus persicae
Quercus alba, white oak
Myzocallis bella
Myzocallis punctata
Myzocallis walshii
? *Stegophylla quercicola*
Quercus rubra, red oak
Longistigma caryae
Myzocallis bella
Myzocallis discolor
Myzocallis walshii
? *Stegophylla quercicola*
Quercus sp., oak
Myzocallis bella
Rhus typhina, staghorn sumac
Rhopalosiphum rhois
Rudbeckia laciniata, goldenglow
? *Dactynotus rudbeckiae*
Rumex crispus, curled dock
Aphis rumicis
Salix nigra, black willow
Chaitophorus viminalis
Pterocomma bicolor
Pterocomma flocculosa
Pterocomma smithiae
Solidago sp., goldenrod
? *Dactynotus ambrosiae*
Macrosiphum, undescribed species
Ulmus sp., elm
Colopha ulmicola
Ulmus americana, American elm
Colopha sp.
Colopha ulmicola
Eriosoma americanum

<i>Vaccinium</i> sp., blueberry	<i>Anuraphis viburniphila</i>
<i>Masonaphis</i> (<i>Eriocobium</i>) <i>peperi</i>	<i>Viburnum dentatum</i> , arrowwood viburnum
<i>Verbesina</i> sp., crownbeard	<i>Anuraphis viburniphila</i>
<i>Dactynotus ruralis</i>	<i>Viburnum prunifolium</i> , blackhaw
<i>Verbesina</i> (<i>Actinomeris</i>) <i>alternifolia</i> , wingstem	<i>Aphis illinoisensis</i>
<i>Dactynotus ruralis</i>	<i>Vitis rotundifolia</i> , muscadine grape
<i>Verbesina occidentalis</i>	<i>Aphis illinoisensis</i>
<i>Dactynotus ruralis</i>	<i>Vitis</i> sp., grape
<i>Viburnum acerifolium</i> , mapleleaf	<i>Aphis illinoisensis</i>
viburnum	<i>Vitis vulpina</i> , winter grape
	<i>Aphis illinoisensis</i>

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