

Aphids of New Jersey, A Few More Records (Homoptera: Aphididae)

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Abstract: At present, 242 species of aphids on 313 plants are known to occur in New Jersey. This paper is based on collections made in 1969, 1970, and 1971 and on several records omitted from my four previous papers on New Jersey aphids. Here are listed 52 species of aphids from 68 plants and records of five aphids and two food plants new to the state.

In New Jersey, 242 species of aphids on 313 plants are known to occur. This paper is based on collections made in 1969, 1970, and 1971 and on several records omitted from my four previous papers (Leonard, 1956; 1964; 1967; 1971) on New Jersey aphids. Here, I list 52 species of aphids from 68 plants. Five of the aphid and two of the food plant records are new to the state. The names of winged aphids collected from a yellow water-pan at Haddonfield (Leonard, 1972) are not included.

The aphid species are listed alphabetically by genus. An asterisk (*) indicates that the species was not included in the four previous papers. Detailed records of localities, dates, food plants, and collectors (indicated by initials) are given for each species. Records from the Co-operative Economic Insect Report (CEIR), published by the USDA Agricultural Research Service, are included. The following made collections:

H. W. Allen (HWA), USDA, Moorestown, N.J.
G. W. Angalet (GWA), USDA, Moorestown, N.J.
M. H. Brunson (MHB), USDA, Moorestown, N.J.
L. W. Coles (LWC), USDA, Moorestown, N.J.
Lemuel Craft (LC), Cornell University
W. H. Day (WHD), USDA, Moorestown, N.J.
L. D. DeBlois (LDD), N.J. Department of Agriculture, Trenton, N.J.
R. W. Fuester (RWF), USDA, Moorestown, N.J.
D. D. Leonard (DDL), Ridgewood, N.J.
M. D. Leonard (MDL), Washington, D.C.
F. N. Pagliaro (FNP), N.J. Department of Agriculture, Trenton, N.J.
L. L. Pechuman (LLP), Cornell University
S. W. Race (SWR), N.J. Coll. Agriculture
J. P. Reed (JPR), N.J. Dept. Agr., Trenton, N.J.

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Mrs. Graham W. Rendell (GWR), Glen Rock, N.J.
 E. A. Richmond (EAR), deceased, 14-VII-70, Moorestown, N.J.
 Mary Rohwer (MR), Medford Lakes, N.J.
 J. A. Stewart (JAS), USDA, Moorestown, N.J.
 F. S. Stinson (FSS), N.J. Dept. Agriculture, Trenton, N.J.
 H. L. Streu (HLS), N.J. Coll. Agriculture, New Brunswick, N.J.
 H. E. Surface (HES), N.J. Dept. Agriculture
 L. M. Vasvary (LMV), N.J. Coll. Agriculture, New Brunswick, N.J.
 D. L. Winters (DLW), Haddonfield, N.J.

I am grateful to the specialists who identified the aphids. These are indicated by their initials:

Mortimer D. Leonard (MDL), Washington, D.C.
 M. E. MacGillivray (MEM), Agriculture Canada, Fredericton, N.B., Canada
 F. W. Quednau (FWQ), Environment Canada, Sillery, Quebec, Canada
 A. G. Robinson (AGR), University of Manitoba, Winnipeg, Manitoba, Canada
 L. M. Russell (LMR), ARS, USDA, Washington, D.C.
 A. N. Tissot (ANT), University Florida, Gainesville, Florida

Again, Dr. S. G. Shetler, Dept. Botany, Smithsonian Institute, Washington, D.C., kindly named some of the plants. The plants are listed alphabetically by genus. Plant species not reported in previous lists are marked with an asterisk (*).

LIST OF APHIDS

Acyrtosiphon pisum (Harris), Pea Aphid. “. . . This aphid caused very little injury in NEW JERSEY.” [in 1969 on alfalfa].—CEIR, 1970 (20: 139).

G. W. Angalet reported on populations in 1971: “The pea aphid for the third year in a row proved to be of no economic importance in New Jersey, Delaware, eastern Pennsylvania, eastern Maryland and southeastern New York. An occasional alfalfa field was encountered where pea aphid populations reached 200 aphids per sweep in late May and early June but this population does not seem to harm healthy alfalfa and the highest populations of aphids found were heavily parasitized by *Aphidius ervi ervi* Haliday and declined in numbers within a few days.” (Angalet, 1971a.)

“The aphid populations during this quarter [July–September] remained at low levels in New Jersey, Delaware and eastern Pennsylvania until late September when there was a rapid increasing population. Parasitization of pea aphids was not an important factor during the past 3 months with most samples showing a percentage of less than 1%. Cloudy wet weather delayed the build-up of parasites that had occurred in past seasons. Predators were common in all of the alfalfa fields surveyed and in some fields were unusually abundant for this time of the year and had to be considered a factor in the control of the pea aphid population encountered.” (Angalet, 1971b.)

Acyrtosiphon (Aulacorthum) solani (Kltb.), Foxglove Aphid. Ridgewood, 22-VI-69, on *Philadelphus* sp. (MDL, DDL, coll). In addition to those records

from Glen Rock reported by Leonard, 1971, the following collections were made by GWR:—on *Anthurium schezeriana*, 1-XII-67, 2 apterae;—II-68, a few on flower stalks;—on two hybrids of *Leliocattleya*, 4 apterae and nymph, 1-XII-67;—on the buds and flowers of the orchid hybrid, Pansy Orchid *Miltonidium* (*Miltonia* × *Onedium*), late November, 1970;—on *Hibiscus rosasinensis*, May, 1970, 1 alata and about 30 apterae and nymphs on young leaves, buds, and flower stalks;—on Gesneriads: August, September, 1970, *Streptocarpus* hybrid, 15 apterae and nymphs on flowers and flower stems; *Sinningia* “Dollbaby × *Gloxinia* “Pink Flake” and *Sinningia* “Cindy,” 30 apterae and nymphs on flowers; *Sinningia eumorpha* × *Reichsteineria leucotricha*, a number of apterae and nymphs; *Gloxinia* hybrid in terrarium and indoors, June, 1969, many apterae and nymphs on leaves; *Columnea perscrassa*, 1-XII-67, several apterae and nymphs; February, 1968, heavy on leaves, a few on flowers of *Columnea* hybrid “Mary Anne”; June, 1969, on the *Columnea* hybrid *Caryuga*.

Aphis craccivora Koch. Sommerville, 29-VI-69, on *Deutzia gracilis* (FSS coll MDL det with query); Fairton, 13-VIII-70, aptera and nymphs on *Asparagus plumosus* (GWA coll LMR det).

Aphis fabae Scopoli, Bean Aphid. Ridgewood:—VII-67, abundant on *Philadelphus* sp. (DDL coll); 22-V-69, moderate on *Philadelphus* sp. (MDL, DDL, DLW coll); 28-VI-70, on *Rudbeckia hirta* (DDL coll MacG det); Haddonfield, 14-VI-69, a number of alatae, apterae, and nymphs on stems of *Viburnum opulus* var. *roseum* (MDL, DLW coll); Moorestown, 24-V-68, many on *Euonymus alatus* and *E. atropurpureus* (EAR coll FWQ det).

Aphis gossypii Glover, Cotton or Melon Aphid. Moorestown:—XI-66, common on *Hibiscus* sp. in greenhouse (WHD coll); 26-V-68, about 35 alatae, apterae, and nymphs on *Celastrus scandens* (EAR coll).

Aphid illinoisensis Shimer, Grapevine Aphid. Ridgewood, 22-VI-69, a few on cultivated grape (MDL, DDL, DLW coll); 3 & 4-VII-70, two long tendrils of same grapevine heavily infested (DDL coll).

Aphis nerii B. de F., Oleander and Milkweed Aphid. Siklerville, 22-X-69, on *Asclepias* sp. (RWF coll).

Aphis pomi de Geer, Apple Aphid. Sommerville, 29-VI-67, heavy on tips of curled leaves of *Chaenomeles japonica* (FSS coll); Moorestown, 14-VII-67, heavy on terminals of *C. japonica* (HWA coll); Haddonfield, 16-VI-69 and mid-V-70, light on two terminals of *C. speciosa* with many ants (MDL coll).

“Abundant in New Jersey, *D. plantaginea* and *A. pomi* curled leaves in many commercial apple orchards by early May [1970]. Aphidices in early cover sprays reduced numbers so that injury was not significant.”—CEIR, 1971 (21: 219).

“... winged forms and nymphs continue abundant on terminal leaves in many southern area apple orchards. (Ins.-Dis. Newsltr.)”—CEIR, 1971 (21: 433).

Aphis rumicis L., Dock Aphid. Moorestown, 19-XI-69, a few on *Rumex crispus* (WHD coll); Haddonfield, 20-V-69, several on *Rumex* sp. (WHD coll).

Aphis spiraecola Patch, Spiraea Aphid. Haddonfield: late May 1970, on *Spiraea Vanhouttei*; many shoots encrusted with aphids; reported to be abundant early in season in 1971, scarce by mid-season (MDL coll).

Brachycaudus maidiradicis (Forbes), Corn Root Aphid. "Corn Root Aphid (*Anuraphis maidiradicis*) was found for the first time on corn in NEW JERSEY on 8-VIII-69, in a field near Blawenburg, Somerset County:"—CEIR, 1970 (20: 121).

Haddonfield, 9-X-70, on roots of grass (MDL coll P. W. Mason det); 25-X-70, many on roots of a single *Plantago major* in a lawn (DLW coll MDL det). Attended by ants, *Acanthomyops claviger* (Roger).

Brevicoryne brassicae (Linnaeus), Cabbage Aphid. "... was light and easy to control in NEW JERSEY during spring."—CEIR, 1970 (20: 165).

"... Light to moderate on cabbage in several Burlington County fields. (Ins.-Dis. Newsltr.)."—CEIR, 1971 (21: 451).

Calaphis betulaecolens (Fitch). Red Lion, 30-VI-66, on *Betula populifolia* (LLP coll FWQ det); Wycoff, 1-VII-67, on *Betula* sp. (MDL, DDL coll FWQ det).

Calaphis betulella Walsh. Haddonfield, 6-VI-69, on *Betula populifolia* (DLW coll FWQ det).

**Calaphis (Calipterinella) callipterus* (Hartig). On *Betula pendula*—Ridgewood: 21-VI-69, 1 aptera (MDL, DDL coll FWQ det);—VI-69, 30 alatae, apterae, nymph (DDL coll FWQ det); 19-X-69, 2 apterae (DDL coll FWQ det). On *B. populifolia*.—Haddonfield: 6 and 11-VI-69, several apterae, nymphs, alatae (DLW coll FWQ det); 23-V-70, 18 specimens (MDL, DLW coll FWQ det); Medford Lakes: 16-V-64, 3 specimens (MR coll FWQ det).

**Calaphis leonardi* Quednau. On *B. populifolia*.—Medford Lakes, 16-V-64, 19 specimens (MR coll FWQ det). Haddonfield, from one tree: 6-VI-69, 4 alatae (DLW coll FWQ det); 15 to 20-VI-69, 2 alatae (MDL coll FWQ det); 23-V-70, 13 specimens (MDL, DLW coll FWQ det); 21-V-70, 5 specimens (MDL coll FWQ det); 5-VII-70, about 50 alatae, a few immature alatae (DLW coll); 2-VIII-70, no aphid could be found. On *Betula pendula*—Ridgewood, 21-VI-69, 9 alatae (DDL, MDL, DLW coll FWQ det). On *Betula* sp.—Franklin Lakes, 16-X-66 (MDL, LWC coll FWQ det).

**Calaphis neobetulella* Quednau. Haddonfield, 25-V-69, 1 alata on *Betula* sp. (DLW coll FWQ det).

Capitophorus elaeagni (Del Guercio), Oleaster, Thistle Aphid. Haddonfield, a few apterae on *Polygonum persicaria* (MDL coll MDL det). Ridgewood, 19-IX-70, 2 apterae, 1 nymph on *Polygonum* sp. (DDL coll).

Capitophorus hippophaes (Walker), Polygonum Aphid. Haddonfield, 15 and 16-X-70, apterae, nymphs, scarce on a few leaves of several large plants of

Polygonum cuspidatum (MDL coll), attended by ants, *Prenolepis imparis* (Say) and *Lasius neoniger* Emery.

Cinara pinea (Mordvilko). Moorestown, 11-V-68, 2 apterae on *Pinus sylvestris* (EAR coll ANT det).

Cuernavaco (*Brachycorynella*) *asparagi* (Mordv.), Asparagus Aphid. This little aphid was described by Mordvilko in 1928 as *Brachycolus asparagi*. Apparently it is not a common aphid. Börner (1952) reported that it occurred sporadically in Central Europe. Szelegiewicz (1961) redescribed the species and stated that it is known from the USSR and southern Poland. In a letter, dated March 4, 1970, Dr. D. Hille Ris Lambers, Bennekom, Netherlands, stated that although asparagus is widely grown in his country, he has been unable to find the aphid there. Likewise, at about the same time, Dr. V. F. Eastop, British Museum (Natural History), London, wrote that he had never seen this aphid even as a student when he had made observations on the asparagus beetle.

In North America, the asparagus aphid was first reported in 1970: "AN APHID (*Brachycolus asparagi* Mordvilko)—NEW YORK—Single alate collected on redtop (*Agrostis alba*) at Orient, Long Island, July 20, 1969, by R. Latham. Determined by F. W. Quednau. This is the first record of *B. asparagi* in North America. This aphid is native to the Mediterranean area and eastern Europe. Asparagus is the only recorded host. Feeding by *B. asparagi* causes seedlings to shrivel or die, and is responsible for severe dwarfing of older plants. (Leonard). NEW JERSEY—Aphids first noted on asparagus plants in Rutgers University horticultural greenhouse at New Brunswick, Middlesex County, in August 1969. Specimens collected November 20, 1969, at this location by J. P. Reed determined by F. W. Quednau. This is a new State record and first known infestation of *B. asparagi* in North America. Aphids found nearby on 2 horticultural farms at East Brunswick in late August and early September 1969. Aphids caused severe rosetting of brush, and damaged young growth, resulting in shortening of internodes. No chlorosis was observed. Aphids fed on cladophylls (modified leaves) and under bracts. Plants in greenhouse and on university farms sprayed during August and September. Last import of asparagus material from Europe (England and Holland) made in 1959. As of February 16, 1970, no *B. asparagi* or recent injury observed in any of the horticultural greenhouses. (Race)."—CEIR, 1970 (20: 156).

Other records from New Jersey soon followed:

"ASPARAGUS APHID (*Brachycolus asparagi*)—NEW JERSEY—Nymphs and winged forms stunted and rosetted asparagus and weeds at New Brunswick, Middlesex County. Also collected in Burlington County for a new county record. Determined by L. M. Russell. (Ins.-Dis. Newsltr.)."—CEIR, 1970 (20: 539).

"CEIR 20(31): 539—ASPARAGUS APHID (*Brachycolus asparagi*)—NEW JERSEY—. . . stunted and rosetted asparagus and weeds . . . should read . . .

stunted and rosetted asparagus and *volunteer asparagus plants* . . . ”—CEIR, 1970 (20: 561).

“ASPARAGUS APHID (*Brachycolus asparagi*)—NEW JERSEY—Collected on asparagus in Monmouth, Ocean, Cumberland (Centerton), and Gloucester (Swedesboro and Mullica Hill) Counties. Determined by L. M. Russell. These are new county records. (Ins.-Dis. Newsltr.). Specimens collected July 30 in Salem County determined by L. M. Russell for new county record. Now known to occur in 7 counties, including Middlesex and Burlington. (PPD).”—CEIR, 1970 (20: 584).

“ASPARAGUS APHID (*Brachycolus asparagi*)—NEW JERSEY—Adults taken from wild asparagus at Rocky Hill, Somerset County, by R. R. Jackowski August 6. Determined by L. M. Russell. This is a new county record. (PPD).”—CEIR, 1970 (20: 627).

“ASPARAGUS APHID (*Brachycolus asparagi*)—NEW JERSEY—Eggs on leaves of asparagus plants at Somerset, Somerset County. Found by J. P. Reed October 1, 1970. First report of eggs laid by this aphid in North America. Eggs small and shiny black. (Race).”—CEIR, 1970 (20: 737).

In 1971, the occurrence of this aphid in North America was summarized: “ASPARAGUS APHID (*Brachycolus asparagi*) was first identified from NEW JERSEY in February 1970 although asparagus research plots had been treated in August 1969 to control damaging aphid populations, which undoubtedly were this species. It first appeared during late June in experimental plantings at East Brunswick, Middlesex County; damage was severe enough to warrant control by early July. This aphid was found in Monmouth County and elsewhere in Middlesex County by July 23, in Burlington, Ocean, Cumberland, and Gloucester Counties by August 7, and in Salem, Mercer, and Somerset Counties by August 14. Severe stunting, rosetting of brush, and stickiness from much honeydew were evident in many heavily infested fields. Overwintering eggs, probably of this species, were first observed on brush at Somerset, Somerset County, on October 1. By late August many aphids in many fields were parasitized. Middlesex County by July 23, in Burlington, Ocean, Cumberland, and Gloucester County fields. Asparagus aphid was found on asparagus in Bucks and Montgomery Counties for a new State record in PENNSYLVANIA.”—CEIR, 1971 (21: 205). In addition it was collected in New York,—CEIR, 1970 (20: 773) Virginia,—CEIR, 1970 (20:759), and Pennsylvania,—CEIR, 1970 (20: 658, 699).

Angalet (1971a) reported on the occurrence of the aphid in New Jersey in 1971: “The asparagus aphid was again found in Burlington, Salem, Gloucester and Cumberland Counties, New Jersey, during the quarter. As in 1970 a few asparagus bushes were destroyed by the aphid but the aphid again disappeared before there was a build-up of economic populations. Some growers did spray

against the aphid but in the great majority of the asparagus fields observed no insecticidal treatments were found to be necessary. The primary aphid parasites, *Diaeretiella rapae* (McInt.) and *Lysephlebius testaceipes* (Cress.) were recovered from all of the asparagus fields investigated. . . . Disease was a greater factor in the control of the asparagus aphid this year than during 1970. . . . Predators were found to be abundant wherever the asparagus aphid was found and predation, as during 1971, must be considered the major factor in the control of the asparagus aphid. Even on asparagus bushes which had light populations of the aphid, several species of predators in all stages were common . . ."

Several additional records of the occurrence of the asparagus aphid were reported in 1971 and include records from Delaware,—CEIR, 1971 (21: 709) and Maryland,—CEIR, 1971 (21: 660) as well as those from New Jersey—CEIR, 1971 (21: 376, 473, 512, 548, 569, 633, 709).

Dactynotus ambrosiae (Thomas), Brown Ambrosia Aphid. Centerton, light infestation in experimental plots of head lettuce, at Rutgers University South Jersey Vegetable Research Farm, 27-X-69 (JPR coll FWQ det). Haddonfield, 24-IX-64, a few on *Ambrosia trifida* (MDL coll MDL det). Crosswicks, 9-X-69, several on *Ambrosia trifida* (RWF coll).

**Drepanosiphum platanoides* (Schrank), Sycamore Maple Aphid. Cinnaminson, common on *Acer pseudoplatanus*, 2-VI-71 and abundant on same tree, 27-VI-71, (LWC coll).

Dysaphis plantaginea (Passerini), Rosy Apple Aphid. ". . . Numbers were light in most NEW JERSEY areas [in 1969 on apples]; injury was insignificant."—CEIR, 1970 (20: 198). Abundant in 1970 (see *Aphis pomi* above).

Dysaphis tulipae (B de F), Tulip Bulb Aphid. Saddlebrook, 9-XI-69, on stored wedgewood iris bulbs (LMV coll). First record since 1942.

Euceraphis deducta Baker. Haddonfield, on *Betula populifolia*: 21-V-70 (MDL coll FWQ det); 23-V-70 (MDL, DLW coll FWQ det).

Euceraphis lineata Baker. On *Betula populifolia* (MDL, DDL coll FWQ det): Summit, 22-VI-63; Haddonfield, 5-VII-70.

Euceraphis punctipennis (Zett.). Ridgewood, 21-VI-69, 3 alatae on *Betula pendula* (MDL, DDL, DLW coll); Haddonfield, 6, 15-VI-69 (DLW coll).

Hamamelistes spinosus Shimer. Haddonfield, 25-V-69, 81 alatae and 10 apterae, on *Betula populifolia* (DLW coll FWQ det).

Hyadaphis foeniculi (Passerini), Honeysuckle and Parsnip Aphid. Ridgewood, 20-X-62, many on wild *Daucus carota* (MDL, DDL coll).

Macrosiphoniella sanborni (Gillette), Chrysanthemum Aphid. Moorestown, 30-VI-69, scarce on garden "mums" (HWA coll).

Macrosiphum sp. (possibly new). Sutton Road, Lebanon, RD # 2, males, oviparae, 1 apterous vivipara on *Erigeron canadensis* (DDL coll AGR det). '71

Macrosiphum euphorbiae (Thomas), Potato Aphid. Glen Rock,—VI-69, abundant on tall, bearded iris and *Dicentra* sp. (MR coll). Ridgewood, 22-VI-69,

2 alatae, 2 apterae on *Philadelphus* sp. (MDL, DDL, DLW coll); on *Lithospermum* sp: 1 alata, 1 aptera, 22-VI-69 (MDL, DDL, DLW coll), many, in all stages 21-VI-71 (DDL coll); on *Rhododendron* sp. (DDL coll) and Rose (DDL coll MacG det), 20-VI-70. Moorestown, 30-VI-69, many on *Asclepias* sp., several on *Iris* sp. and *Ipomoea purpurea* (WHD coll). Centerton, 29-X-69, light infestation of all stages on head lettuce (JPR coll). Swedesboro, 5-VI-67, alatae, apterae, and nymphs on *Asparagus officinalis* (MHB coll LMR det).

Macrosiphum rosae (Linnaeus), Rose Aphid. Moorestown, 16-X-69, about 25 apterae, nymphs on one rose stem (MDL coll). Haddonfield, scarce on cultivated rose between 1969 and 1971 (DDL).

**Masonaphis lambersi* MacGillivray. Ridgewood, 20-VI-70, on *Rhododendron* sp. (DDL coll MacG det).

Masonaphis pepperi MacGillivray. New Lisbon, 15-VI-70, about 4 apterae, nymphs on cultivated *Vaccinium corymbosum* (Marucci coll MacG det).

**Masonaphis rhokalaza* (Tissot & Pepper). Ridgewood (MacG det)—on *Rhododendron* spp: 4-VIII-68 (DDL coll), 22-VI-69. (MDL, DDL, DLW coll), 20-VI-70 (DDL coll)—on wild *Azalea* sp., 22-VI-69 (MDL, DDL, DLW coll).

**Monellia hispida* Quednau. Haddonfield, (MDL coll TLB det): 30-V-47, 1 alata on *Carya* sp.; 16 to 30-IX-62, 1 alata in yellow water-pan.

Myzocallis melanocera Boudreaux & Tissot. Princeton, 19-V-64, several on *Quercus* sp. (LWC coll).

Myzocallis punctata (Monell), Clear-winged Oak Aphid. Princeton, 19-V-64, several on *Quercus* sp. (LWC coll).

Myzocallis ulmifolii (Monell). See *Tinocallis ulmifolii* (Monell).

Myzus persicae (Sulzer), Green Peach Aphid. Glen Rock (GWR coll FWQ det):—II-68, on *Columnea percrassa*; -VIII, IX-70, on flowers of *Hibiscus rosa-sinensis cooperi*. Moorestown: (WHD coll).—11-XI-69, a few on Chinese cabbage—19-XI-69, 7-XII-69, on leaves of *Rumex crispus*—18-XII-69, about 30 apterae, nymphs on red clover; (EAR coll).—5-XI-69, 1 aptera, 2 nymphs, 1 immature alata, on cultivated *Chrysanthemum* sp.—19-V-70, 2 apterae, 5 nymphs on *Euonymus alatus*. Centerton, 14 alatae, 15-IX-68; 16 alatae, 21-IX-68, in yellow water-pan in a squash field (SRR coll). Jacobstown, 17-IV-70, apterae and nymphs on *Asparagus officinalis* (ET coll LMR det). New Brunswick 21-IV-71, on greenhouse tomatoes, extremely difficult to control (SRR coll); 11-XI-71, on greenhouse chrysanthemums, possibly the number one problem in growing potted chrysanthemums. Hackettstown, 11-XI-71, a low infestation on greenhouse chrysanthemums (HES coll).

Reports of the species in CEIR for the period 1969–1971 are summarized as follows:

1969—"GREEN PEACH APHID (*Myzus persicae*) started to build up on all vegetable crops in NEW JERSEY during late spring and early summer.

Midsummer rains and a fungus disease kept this pest in check the rest of the season. Generally, populations and damage were much lighter than in previous years. Incidence of mosaic type viruses transmitted by this species was generally much lighter than in past years."—CEIR 1970 (**20**: 167). "... was typically abundant without noticeable injury on stone fruits in the spring."—CEIR, 1970 (**20**: 199).

1970—"... In NEW JERSEY it damaged a sweetpotato planting in Burlington County during late July; by August 7 it was eliminated by heavy numbers of *Hippodamia convergens* (convergent lady beetle)."—CEIR, 1971 (**21**: 205). "Abundant in many peach orchards in southern NEW JERSEY, many leaves were cupped by May 15 due to *M. persicae* feeding. Numbers declined by early July due to widespread migrations to alternate hosts. No lasting injury to peach occurred."—CEIR, 1971 (**21**: 220). "This pest was troublesome and damaging to eggplant in many Cumberland and Gloucester County, NEW JERSEY, plantings by late July. Thousands of winged forms were observed hovering above plants in one field near Vineland on July 29. By mid-August, adequate rainfall helped reduce populations to more manageable levels. Populations became heavy by late July in New Jersey. Buildup was partly due to lower than average early summer rainfall."—CEIR, 1971 (**21**: 197).

1971—"Myzus persicae (green peach aphid) winged forms on eggplant, pepper, and tomato seedlings throughout State; nymphs abundant beneath leaves."—CEIR, 1971 (**21**: 431) "Potentially heavy population of *M. persicae* on eggplant indicated. Winged forms observed on potato leaves in several Burlington and Salem County fields."—CEIR, 1971 (**21**: 450). "Heavy damaging foliage of potato planting near Lumberton, Burlington County."—CEIR, 1971 (**21**: 547).

Nearctaphis bakeri (Cowen), Clover Aphid. Moorestown, 18-VIII-69, about 40 apterae, nymphs on red clover (WHD coll).

Neosymydobius annulatus Koch. Haddonfield, 15 to 20-VI-69, on *Betula populifolia* (MDL coll).

Ovatus crataegarius (Walker), Mint Aphid. Haddonfield, 14-VI-69, scarce, on spearmint (DLW coll).

Periphyllus californiensis Shinji, California Maple Aphid. Trenton, 6-V-64, heavy on leaves and twigs of *Acer palmatum* var. *dissectum* (FNP coll MDL det). This is the collection that Leonard recorded in CEIR, 1969 (**19**: 26). Although it is the first record from New Jersey, Essig (1952) records it also from California, Washington, Oregon, New York, Washington, D.C., Pennsylvania. Takahashi (1919) described the species from *A. palmatum*.

Periphyllus lyropictus (Kessler), Norway Maple Aphid. Haddonfield, 15-VI-69, moderate on *Acer platanoides*, shade trees in the town (MDL coll).

Phyllaphis fagi (Linnaeus) Haddonfield, 213 Rhodes Ave., 15-VI-69, abundant on *Fagus sylvatica nigra*; some leaves heavily infested mid-May 1970; few

aphids mid-October 1970, mid-May and late October, 1971 (MDL coll MDL det).

Pleotrichophorus glandulosus (Kaltenbach). Haddonfield, 18-X-70, scarce, on a few small *Artemisia vulgaris* (MDL coll MDL det).

Prociphilus erigeronensis (Thomas), White Aster Root Aphid. Haddonfield, 20-VI-69, on the roots of *Artemisia vulgaris* (DLW coll).

Rhopalosiphum maidis (Fitch), Corn Leaf Aphid. "... Counts were generally light [1969] in NEW JERSEY and not so troublesome as in recent years except in several Camden County fields."—CEIR, 1970 (20: 110).

Therioaphis maculata Buckton, Spotted Alfalfa Aphid. Surveys for this species have been made in New Jersey since 1966. In 1969, spotted alfalfa aphid was found in only three of seven alfalfa fields surveyed in Cumberland and Gloucester Counties, in October and November. The highest population was 20 aphids per 100 sweeps. Early survey records suggested that the aphid did not overwinter in New Jersey. However, in 1971 aphids were found as early as April 20, on alfalfa at Medford (an average of 1 per 100 sweeps) and for the first time were found as far north as Blairtown and Hope in Warren County by July 17. "... There is no reason to believe that the spotted alfalfa aphid cannot continue to extend its range northward if it can overwinter in northern New Jersey."—(Angalet, 1971b).

Therioaphis trifolii (Monell), Yellow-Clover Aphid. This aphid was rare in May, 1971 in New Jersey and was found only in five of twenty fields surveyed in central and southern part of the State. Populations remained low between July and September. "... The dominant parasite of the yellow clover aphid in New Jersey continued to be *Praon exsoletum palitans* which made up more than 90% of the parasite collections made during the Quarter. There was a slight increase in the number of *Trioxya complanatus* during August and *Aphelinus semiflavus* became rare. One of the clover fields from which the 3 species of parasites were recovered was in Warren County in north New Jersey proving that these parasites of the yellow clover aphid as well as the spotted alfalfa aphid are present throughout the state and were present in New Jersey on the yellow clover aphid prior to the establishment of the spotted alfalfa aphid in New Jersey during 1966." (Angalet, 1971b).

LIST OF FOOD PLANTS

<i>Acer palmatum</i> var. <i>dissectum</i> (Japanese Red Maple)	<i>Dactynotus ambrosiae</i>
<i>Periphyllus californiensis</i>	<i>Anthurium schezeriana</i>
<i>Acer platanoides</i> (Norway Maple)	<i>Acyrtosiphon</i> (<i>Aulacorthum</i>) <i>solani</i>
<i>Periphyllus lyropictus</i>	Apple—see <i>Malus sylvestris</i>
* <i>Acer pseudoplatanus</i> (Sycamore Maple)	<i>Artemisia vulgaris</i> (Mugwort)
<i>Drepanosiphum platanoides</i>	<i>Pleotrichophorus glandulosus</i>
Alfalfa—see <i>Medicago sativa</i>	<i>Prociphilus erigeronensis</i>
<i>Ambrosia trifida</i> (Giant Ragweed)	<i>Asclepias</i> sp. (Milkweed)
	<i>Aphis nerii</i>

- Macrosiphum euphorbiae*
 Asparagus Fern—see *Asparagus plumosus*
Asparagus officinalis (Garden Asparagus)
 Cuernavaca asparagi
 Macrosiphum euphorbiae
 Myzus persicae
 **Asparagus plumosus* (Fern Asparagus)
 Aphis craccivora
 Cuernavaca asparagi
 Macrosiphum euphorbiae
 Myzus persicae
Azalea sp.
 Masonaphis rhokalaza
Betula sp.
 Calaphis betulaecolens
 Calaphis callipterus
 Calaphis leonardi
 Calaphis neobetullella
Betula pendula (White Birch)
 Calaphis leonardi
Betula populifolia (Gray or Yellow Birch)
 Calaphis betulaecolens
 Calaphis betullella
 Calaphis callipterus
 Calaphis leonardi
 Euceraphis deducta
 Euceraphis lineata
 Hamamelistes spinosus
 Neosymydobious annulatus
Birch, White—see *Betula pendula*
Birch, Gray or Yellow—see *Betula populifolia*
Bittersweet—see *Celastrus scandens*
Blackeyed Suzan—see *Rudbeckia hirta*
Bleedingheart—see *Dicentra*
Blueberry, Highbush—see *Vaccinium corymbosum*
Brassica chinensis (Chinese Cabbage)
 Myzus persicae
Brassica oleracea capitata (Cabbage)
 Brevicoryne brassicae
Cabbage, Chinese—see *Brassica chinensis*
Cabbage—see *Brassica oleracea capitata*
Carrot, Wild—see *Daucus carota*
Capsicum frutescens
 Myzus persicae
Celasteus scandens (Bittersweet)
 Aphis gossypii
Chaenomeles japonica (Flowering Crab)
 Aphis pomi
 Chaenomeles speciosa
 Aphis pomi
Chrysanthemum sp.
 Macrosiphoniella sanborni
 Myzus persicae
Columnnea hybrids
 Acyrthosiphum (Aulacorthum) solani
Columnnea percrassa
 Acyrthosiphon (Aulacorthum) solani
 Myzus persicae
Corn—see *Zea mays*
Cucurbita maxima (Squash)
 Myzus persicae
Daucus carota (Wild Carrot)
 Hyadaphis foeniculi
Deutzia gracilis
 Aphis craccivora
Dicentra sp. (Bleedingheart)
 Macrosiphum euphorbiae
Dock—see *Rumex*
Eggplant—see *Solanum melogena*
Erigeron canadensis (Horseweed Fleabane)
 Macrosiphum sp.
Euonymus alatus (Winged Euonymus)
 Aphis fabae
 Myzus persicae
Euonymus atropurpureus (Eastern Wahoo)
 Aphis fabae
Fagus sylvatica nigra
 Phyllaphis fagi
Giant Ragweed (Ambrosia trifida)
Gloxinia hybrid
 Acyrthosiphon (Aulacorthum) solani
Grape—see *Vitis*
Grass—see *Brachycaudus maidiradicis*
Gromwell—see *Lithospermum*
Head Lettuce—see *Lactuca sativa capitata*
Hibiscus sp.
 Aphis gossypii
Hibiscus rosa-sinensis (Rose-of-China)
 Acyrthosiphon (Aulacorthum) solani
 Myzus persicae
Horseweed Fleabane—see *Erigeron canadensis*
Ipomoea batata (Sweetpotato)
 Myzus persicae
Ipomoea purpurea (Morningglory)
 Macrosiphum euphorbiae
Iris sp.
 Dysaphis tulipae
 Macrosiphum euphorbiae

- Lactuca sativa capitata* (Head Lettuce)
Dactynotus ambrosiae
Macrosiphum euphorbiae
Leliocattleya hybrid
Acyrtosiphon (Aulacorthum) solani
Lithospermum sp. (Gromwell)
Macrosiphum euphorbiae
Lycopersicon esculentum (Tomato)
Myzus persicae
Malus sylvestris (Apple)
Aphis pomi
Dysaphis plantaginea
 Maple, Japanese Red—see *Acer palmatum dissectum*
 Maple, Norway—see *Acer platanoides*
 Maple, Sycamore—see *Acer pseudoplatanus*
Medicago sativa (Alfalfa)
Acyrtosiphon pisum
Therioaphis maculata
Mentha spicata (Spearment)
Ovatus crataegarius
 Milkweed—see *Asclepias*
Miltonidium hybrid
Acyrtosiphon (Aulacorthum) solani
 Mockorange—see *Philadelphus*
 Morningglory—see *Ipomoea purpurea*
 Mugwort—see *Artemisia vulgaris*
 Oak—see *Quercus*
 Peach—see *Prunus persica*
 Pepper—see *Capsicum frutescens*
Philadelphus sp. (Mockorange)
Aphis fabae
Acyrtosiphon (Aulacorthum) solani
Macrosiphum euphorbiae
 Pine, Scotch—see *Pinus sylvestris*
Pinus sylvestris (Scotch Pine)
Cinara pinea
Plantago major
Brachycaudus maidiradicis
Polygonum sp. (Smartweed)
Capitophorus elaeagni
Polygonum cuspidatum
Capitophorus hippophaes
Polygonum persicaria (Heartsease)
Capitophorus elaeagni
 Potato—see *Solanum tuberosum*
Prunus persicae (Peach)
Myzus persicae
Quercus sp. (Oak)
Myzocallis melanocera
Myzocallis punctata
 Red Clover—see *Trifolium pratense*
Rhododendron sp.
Macrosiphum euphorbiae
Masonaphis lambersi
Masonaphis rhokalaza
Rosa sp.
Macrosiphum euphorbiae
Macrosiphum rosae
Rudbeckia hirta (Blackeyed Suzan)
Aphis fabae
Rumex sp. (Dock)
Aphis rumicis
Rumex crispus (Curled Dock)
Aphis rumicis
Myzus persicae
Sinningia eumorpha × *Reichsteineria leuco-trichia*
Acyrtosiphon (Aulacorthum) solani
Sinningia × *Gloxinia*
Acyrtosiphon (Aulacorthum) solani
Solanum melogena (Eggplant)
Myzus persicae
Solanum tuberosum (Potato)
Macrosiphum euphorbiae
Myzus persicae
Spiraea Vanhouttei
Aphis spiraeicola
Streptocarpus hybrid
Acyrtosiphon (Aulacorthum) solani
 Smartweed—see *Polygonum*
 Spearment—see *Mentha spicata*
 Squash—see *Cucurbita maxima*
 Tomato—see *Lycopersicon esculentum*
Trifolium pratense (Red Clover)
Myzus persicae
Nearctaphis bakeri
Therioaphis trifolii
 Sweetpotato—see *Ipomoea batata*
 Tomato—see *Lycopersicon esculentum*
Vaccinium corymbosum (Highbush blue-berry)
Masonaphis pepperi
Viburnum opulus var. *roseum*
Aphis fabae
Vitis sp. (Grape)
Aphis illinoisensis
Zea mays
Brachycaudus maidiradicis

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