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Feeding Records of Aphids (Hemiptera: Aphididae) From Wisconsin, Supplement

Andrew H. Williams¹, Doris M. Lagos² and James C. Trager³

Abstract

Basic to our understanding of any animal and its habitat requirements is knowing what it eats. Reported here are observations of feeding by 24 species of aphids encountered in Wisconsin over 2002-2010.

Knowing what an animal eats is basic to understanding that animal and its habitat requirements. Reported here are observations of feeding by 24 species of aphids (Hemiptera: Aphididae) collected in Wisconsin by Williams from 2002 through 2010.

Aphids were reared in the lab on the same plant species on which they had been found feeding so that both wingless and winged adults could be secured. These were put into 80% or 95% EtOH and sent to Lagos, who determined them using morphological and in some cases genetic characters and deposited the specimens in the collection at Illinois Natural History Survey. Ants tending the aphids were collected, point mounted and sent to Trager, who determined them and returned them for deposition in the Insect Research Collection (IRC) of the Entomology Department at University of Wisconsin - Madison. Predators of aphids were collected, immatures reared out on those same aphids in the lab and adult specimens deposited in the IRC.

These aphid data are presented in Table 1. All insects were collected by Williams. All plants and aphid predators were determined by Williams. Plant nomenclature follows Gleason and Cronquist (1991). Data reported here supplement similar data reported in Williams et al. (2004).

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Table 1. Observations of aphids feeding on plants, ants tending those aphids and aphid predators.

APHID	PLANT	ANT	NOTES
<i>Anoecia corni</i> Fabricius	<i>Cornus racemosa</i>	<i>Formica obscuriventris</i> Mayr	Many winged adults and young on undersides of leaves, especially on veins.
<i>Aphis eraccivora</i> Koch	<i>Asclepias syriaca</i> <i>Tephrosia virginiana</i>	<i>Myrmica emeryana</i> Cole <i>Formica pruinosus</i> (Roger)	On youngest leaves. On flowers.
<i>Aphis fabae</i> Scopoli	<i>Arctium minus</i> <i>Asclepias hirtella</i> <i>Asclepias syriaca</i>	<i>Lasius alienus</i> Mayr <i>Formica montana</i> Wheeler <i>Lasius neoniger</i> Emery <i>Prenolepis imparis</i> (Say)	On stems and on undersides of youngest leaves. On pedicels of flowers in umbels. On young leaves. Few, on upper side of youngest leaf of resprout, by midvein.
	<i>Cirsium altissimum</i>	<i>Formica postoculata</i> Kennedy & Dennis <i>Camponotus americanus</i> Mayr	On stems, especially at bases of young lateral stems. On stems just below flowers.
	<i>Cirsium discolor</i> <i>Cirsium muticum</i> <i>Erechtites hieracifolia</i> <i>Froelichia floridana</i>	<i>Crematogaster cerasi</i> (Fitch) <i>Crematogaster cerasi</i> (Fitch) <i>Formica obscuripes</i> Forel <i>Formica obscuripes</i> Forel	On stems just below flowers. On stems just below flowers. On peduncles just below involucre. On stems of inflorescence.
<i>Aphis helianthi</i> Monell	<i>Apocynum androsaemifolium</i>	usually tended by ants	These aphids, with their young, are often found on the undersides of yellowing terminal leaves and adjacent stem tips only when the plant is beginning its seasonal senescence, all across northern Wisconsin.
	<i>Cryptotaenia canadensis</i>	<i>Prenolepis imparis</i> (Say)	In small clusters on upper stems, plants now with flower buds.

Table 1. Continued.

APHID	PLANT	ANT	NOTES
<i>Aphis nasturtii</i>	Kaltenbach	<i>Crematogaster cerasi</i> (Fitch)	On stems and undersides of leaves.
<i>Nepeta cataria</i>			
<i>Aphis oestlundii</i>	Gillette	<i>Formica montana</i> Emery	Clustered at shoot tip on youngest leaves.
<i>Oenothera biennis</i>			
<i>Aphis pulchella</i>	Hottes & Frison	<i>Lasius neoniger</i> Emery	Many together on stems.
<i>Euphorbia corollata</i>			
<i>Aulacorthum solani</i>	Kaltenbach	-----	On youngest leaves.
<i>Asclepias purpurascens</i>			
<i>Brachycaudus cardui</i>	(Linnaeus)	<i>Lasius alienus</i> Mayr	On peduncles just below involucre.
<i>Erechtites hieracifolia</i>		<i>Formica montana</i> Emery	Many together with young on underside of a leaf adjacent to plant of <i>Cirsium vulgare</i> with more such aphids on undersides of its leaves.
<i>Asclepias syriaca</i>			On upper surfaces of leaves, mostly by midveins, high on plant.
<i>Chaitophorus nigrae</i>	Oestlund	<i>Formica obscuripes</i> Forel	On youngest green twigs.
<i>Salix</i> sp.		<i>Formica obscuriventris</i> Mayr	
<i>Chaitophorus populicola</i>	Thomas	<i>Crematogaster cerasi</i> (Fitch)	In large hollow galls with gallmaker aphids <i>Mordvilkoja vagabunda</i> (Walsh), terminal on green twigs, ants also inside galls, which have openings by which ants come and go.
<i>Populus deltoides</i>		<i>Formica glacialis</i> Wheeler	In dense colony encircling green twig near its tip.
<i>Populus tremuloides</i>		<i>Formica obscuripes</i> Forel	On green twigs & leaf petioles.

Table 1. Continued.

APHID	PLANT	ANT	NOTES
<i>Cryptomyzus galeopsidis</i> (Kaltenbach)	<i>Galeopsis tetrahit</i>	----	On veins on undersides of leaves.
<i>Glabromyzus</i> sp.	<i>Rhus glabra</i>	----	On leaves, prey of larval and adult <i>Harmonia axyridis</i> (Pallas).
<i>Hyperomyzus lactucae</i> (Linnaeus)	<i>Senecio vulgaris</i>	----	On sides of blooming heads & peduncles with <i>Macrosiphum euphorbiae</i> (Thomas).
<i>Sonchus asper</i>		----	On sides of blooming heads & peduncles with <i>Macrosiphum euphorbiae</i> (Thomas).
<i>Hysteronera setariae</i> (Thomas)	<i>Prunus pumila</i>	<i>Formica dolosa</i> Buren	On youngest green twigs.
		<i>Crematogaster cerasi</i> (Fitch)	On youngest green twigs.
<i>Macrosiphum euphorbiae</i> (Thomas)	<i>Apocynum androsaemifolium</i>	----	On lesser veins on undersides of leaves.
		----	Together on youngest leaves & shoot tips.
<i>Apocynum cannabinum</i>		----	Together on shoot tips & upper & lower surfaces of youngest leaves.
		----	Together on shoot tips & scattered on undersides of leaves.
		----	Together on stems at shoot tips.
		----	Together on youngest leaves & shoot tips.
		----	Together on shoot tips & scattered on undersides of leaves, prey of larval <i>Chrysopa carnea</i> Stephens (reared) and larval coccinellid.

<i>Asclepias syriaca</i>	-----	On undersides of mature leaves.
<i>Polytaenia nuttallii</i>	<i>Formica subsericea</i> Say	Clustered on stems below inflorescences.
<i>Scrophularia marilandica</i>	-----	Generally solitary on young developing seed capsules and their stems.
<i>Senecio vulgaris</i>	-----	On sides of blooming heads & peduncles with <i>Hyperomyzus lactucae</i> (Linnaeus).
<i>Sonchus asper</i>	-----	On sides of blooming heads & peduncles with <i>Hyperomyzus lactucae</i> (Linnaeus).
<i>Microparsus desmodiorum</i> Smith & Tuatay	-----	Very many, feeding on leaves & green lomentis, prey of many adult Coccinellidae: <i>Coccinella septempunctata</i> (Linnaeus), <i>Cycloneda munda</i> (Say), <i>Harmonia axyridis</i> (Pallas), <i>Hippodamia variegata</i> (Goeze), and <i>Scymnus</i> sp.
<i>Desmodium canadensis</i>	-----	In large hollow galls with aphids <i>Chaitophorus populicola</i> Thomas, terminal on green twigs, ants also inside galls, which have openings by which ants come and go.
<i>Mordvilkoja vagabunda</i> (Walsh)	<i>Crematogaster cerasi</i> (Fitch)	
<i>Populus deltoides</i>		
<i>Uroleucon ambrosiae</i> (Thomas)	<i>Formica postoculata</i> Kennedy & Dennis	On stems among flowers.
<i>Ambrosia trifida</i>	-----	On flower buds and first open flower.
<i>Silphium integrifolium</i>	-----	On flower buds, pedicels and the sheaths from which they spring.
<i>Silphium perfoliatum</i>	-----	
<i>Uroleucon impatiensicolens</i> (Patch)		
<i>Impatiens pallida</i>	-----	On stems just below flowers.

Table 1. Continued.

APHID	PLANT	ANT	NOTES
<i>Uroleucon nigrotuberculatum</i>	(Olive)	----	On stem tip.
<i>Solidago canadensis</i>		----	On undersides of youngest leaves, on stem tip & on stems of budded inflorescence.
<i>Solidago nemoralis</i>		----	On upper stems.
<i>Solidago rigida</i>		----	On young leaves & shoot tips.
<i>Uroleucon pseudoambrosiae</i>	(Olive)	----	On branches of inflorescence.
<i>Lactuca canadensis</i>			
<i>Uroleucon sonchellum</i>	(Monell)	----	On green seedheads.
<i>Lactuca canadensis</i>			
<i>Uroleucon sonchi</i>	(Linnaeus)	----	On peduncles of flowers & flower buds.
<i>Sonchus arvensis</i>		----	

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