

Insect Herbivores of Aquatic and Wetland Plants in the United States: a Checklist From Literature

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ABSTRACT

Lacking a central database of insect herbivores and associated aquatic and wetland plants, we compiled a relatively thorough literature listing into an accessible table, providing plant species, associated insect herbivores, plant parts affected, and region of study. The intent was to provide aquatic plant managers, researchers, and other interested personnel access to information on the wide diversity of insect herbivores of aquatic plants and wetland plant species in the United States.

Key words: aquatic plants, herbivory, insects, insect-plant associations

INTRODUCTION

Although overlooked for many years, herbivory of aquatic plants is a common and important factor contributing to structure and composition of plant communities (Carpenter and Lodge 1986, Lodge 1991, Newman 1991, Lodge et al. 1998). Herbivory has been shown to alter photosynthetic ability, thereby retarding growth, stressing plants, and reducing winter bud formation (Wallace and O'Hop 1985, Doyle et al. 2002, 2005). These facts are especially important to researchers studying the ecology of freshwater systems, but also to those involved in aquatic ecorestoration, in which native plants are used to preempt invasion by more weedy, exotic species (Smart et al. 1998). In addition, knowledge of insect herbivory is the basis of many of the classical biological control programs in use throughout the world (Bennett and Buckingham 2000, Center et al. 1998, Coombs et al. 2004).

Because herbivory is such an important determinant in plant competitive success in aquatic systems, it is necessary to understand what species impact aquatic plants and how their feeding influences plant growth and competitive ability. Although herbivory by other organisms (e.g., crayfish, turtles, waterfowl, and nutria) is substantial (Dick et al. 1995, Doyle and Smart 1995, Doyle et al. 1997), this paper compiled only published information regarding insect species known to feed on native aquatic and wetland plants in the United States, although other works have focused on introduced

plants and their biocontrol agents (Center et al. 1999, Coombs et al. 2004). In fact, more information is often available regarding introduced biocontrol agents of exotic plants than that of native insect herbivores. Descriptions of the nature and magnitude of insect impacts on the various host plants is not reported here and is, in most cases, unknown. In that regard further work is warranted.

MATERIALS AND METHODS

From 2005 to 2008 a literature review of native plants was conducted to summarize published information regarding insect herbivores of aquatic and wetland plants in the United States. With the exception of the Chironomidae (Diptera), only literature reporting actual herbivory was included (i.e., no inferences are made here regarding insect diet). Some chironomid taxa are obligate stem and leaf miners, and although some of those listed may not directly consume plant tissue, some larvae probably injure the plant through tunneling action and also increase the likelihood of pathogenic infection.

RESULTS AND DISCUSSION

We compiled results of the literature review (Table 1), reporting plant names with the most current (as of 2009) taxonomic classification recognized by the United States Department of Agriculture Natural Resources Conservation Service (USDA-NRCS 2009), and to the best of our knowledge, insect classifications are also current. In some instances information regarding "plant part affected" by herbivores was not available and thus not included in the table. In addition, location of the insect species study was not always clear and was omitted from the table.

We reported 761 plant-herbivore interactions comprising 313 insect and 167 plant species, including the herbivore family Curculionidae (Coleoptera) and the genus *Hydrellia* (Diptera: Ephydriidae), represented by 81 and 29 species, respectively. Also included are the common aquatic lepidopterans and chrysolids. We suspect some associations in the literature were not available to us during this review, and certainly some new plant-herbivore interactions are yet to be discovered; however, the information we provide herein offers the most comprehensive and extensive compilation to date regarding aquatic plants in the United States and the associated insect herbivore faunas.

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TABLE 1. A CHECKLIST OF AQUATIC AND WETLAND PLANTS OF THE UNITED STATES AND THEIR INSECT HERBIVORES.

Plant	Insect Order: Family	Insect Species	Part of Plant Affected	Author (year)	Study Region
<i>Acorus</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia aequalis</i> Say	roots, leaves	Marx (1957)	
<i>Acorus</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia subtilis</i> Kunze	roots, leaves	Marx (1957)	
<i>Alisma plantago</i> L.	Diptera: Ephydriidae	<i>Hydrellia mutata</i> Zetterstedt		Hering (1957)	
<i>Alnus oblongifolia</i> Torr.	Coleoptera: Chrysomelidae	<i>Altica guatemalensis</i> Jacoby	leaves	LeSage (1995)	
<i>Alnus oblongifolia</i> Torr.	Coleoptera: Curculionidae	<i>Rhynchaenus griseus</i> Sleeper	leaves	Anderson (1989)	
<i>Alnus rhombifolia</i> Nutt.	Coleoptera: Chrysomelidae	<i>Altica ambiens ambiens</i> LeConte	leaves	LeSage (1995)	
<i>Alnus rhombifolia</i> Nutt.	Coleoptera: Curculionidae	<i>Rhynchaenus griseus</i> Sleeper	leaves	Anderson (1989)	
<i>Alnus rubra</i> Bong.	Coleoptera: Chrysomelidae	<i>Altica ambiens ambiens</i> LeConte	leaves	LeSage (1995)	
<i>Alnus rubra</i> Bong.	Coleoptera: Curculionidae	<i>Rhynchaenus griseus</i> Sleeper	leaves	Anderson (1989)	
<i>Alnus rugosa</i> (DuRoi) Spreng.	Coleoptera: Chrysomelidae	<i>Altica ambiens alni</i> Harris	leaves	LeSage (1995)	
<i>Alnus tenuifolia</i> Nutt.	Coleoptera: Curculionidae	<i>Rhynchaenus griseus</i> Sleeper	leaves	Anderson (1989)	
<i>Amaranthus retroflexus</i> L.	Coleoptera: Chrysomelidae	<i>Disonycha glabrata</i> Fabricius	stems, leaves	Center et al. (1999)	
<i>Amaranthus spinosus</i> L.	Coleoptera: Chrysomelidae	<i>Disonycha glabrata</i> Fabricius	stems, leaves	Center et al. (1999)	
<i>Azolla caroliniana</i> Willd.	Coleoptera: Chrysomelidae	<i>Pseudolampus guttata</i> LeConte	floating leaves	Haag et al. (1986)	Florida, USA
<i>Azolla caroliniana</i> Willd.	Coleoptera: Curculionidae	<i>Stenopelmus rufinasus</i> Gyllenhal	floating leaves	Richerson and Grigarick (1967)	
<i>Azolla filiculoides</i> Lam.	Coleoptera: Curculionidae	<i>Stenopelmus rufinasus</i> Gyllenhal	floating leaves	Richerson and Grigarick (1967)	
<i>Bacopa caroliniana</i> (Walter) Robinson	Lepidoptera: Crambidae	<i>Paraponyx allionealis</i> Walker		Herlong (1979)	South Carolina, USA
<i>Bacopa caroliniana</i> (Walter) Robinson	Lepidoptera: Crambidae	<i>Paraponyx maculalis</i> Clemens		Herlong (1979)	South Carolina, USA
<i>Bacopa caroliniana</i> (Walter) Robinson	Lepidoptera: Crambidae	<i>Paraponyx obscuralis</i> Grote		Herlong (1979)	South Carolina, USA
<i>Betula glandulosa</i> Michx.	Coleoptera: Chrysomelidae	<i>Altica subcostata</i> LeSage	leaves	LeSage (1995)	
<i>Betula nigra</i> L.	Coleoptera: Chrysomelidae	<i>Altica subcostata</i> LeSage	leaves	LeSage (1995)	
<i>Betula nigra</i> L.	Coleoptera: Curculionidae	<i>Rhynchaenus betuleti</i> Horn	leaves	Anderson (1989)	
<i>Betula occidentalis</i> Hook.	Coleoptera: Chrysomelidae	<i>Altica subcostata</i> LeSage	leaves	LeSage (1995)	
<i>Brasenia schreberi</i> J. F. Gmel.	Coleoptera: Chrysomelidae	<i>Donacia cincticornis</i> Newman	roots, leaves	Marx (1957)	
<i>Brasenia schreberi</i> J. F. Gmel.	Coleoptera: Chrysomelidae	<i>Galerucella nymphaea</i> L.	leaves	Center et al. (1999)	
<i>Brasenia schreberi</i> J. F. Gmel.	Coleoptera: Curculionidae	<i>Bagous cavifrons</i> LeConte	leaves	O'Brien and Marshall (1979)	
<i>Brasenia schreberi</i> J. F. Gmel.	Diptera: Chironomidae	<i>Polypedilum braseniae</i> Leathers	floating leaves	McGaha (1952)	Michigan, USA
<i>Brasenia schreberi</i> J. F. Gmel.	Lepidoptera: Crambidae	<i>Munroessa gyralis</i> Hulst		Herlong (1979)	South Carolina, USA
<i>Brasenia schreberi</i> J. F. Gmel.	Lepidoptera: Crambidae	<i>Munroessa icciusalis</i> Walker		Herlong (1979)	South Carolina, USA
<i>Brasenia schreberi</i> J. F. Gmel.	Lepidoptera: Crambidae	<i>Paraponyx allionealis</i> Walker		Stoops et al. (1998)	South Carolina, USA
<i>Brasenia schreberi</i> J. F. Gmel.	Lepidoptera: Crambidae	<i>Paraponyx icciusalis</i> Walker	floating leaves	McGaha (1952)	Michigan, USA
<i>Brasenia schreberi</i> J. F. Gmel.	Lepidoptera: Crambidae	<i>Paraponyx maculalis</i> Clemens		Forbes (1910)	Massachusetts, USA
<i>Brasenia schreberi</i> J. F. Gmel.	Lepidoptera: Crambidae	<i>Paraponyx seminealis</i> Walker		Stoops et al. (1998)	South Carolina, USA
<i>Brasenia schreberi</i> J. F. Gmel.	Lepidoptera: Crambidae	<i>Synclita oblitalis</i> Walker		Herlong (1979)	South Carolina, USA
<i>Brasenia schreberi</i> J. F. Gmel.	Lepidoptera: Crambidae	<i>Synclita tinealis</i> Munroe		Stoops et al. (1998)	South Carolina, USA
<i>Cabomba caroliniana</i> Gray	Trichoptera: Leptoceridae	<i>Nectopsyche tavara</i> Ross		Haag et al. (1986)	Florida, USA
<i>Carex</i> sp.	Coleoptera: Curculionidae	<i>Bagous chandleri</i> Tanner		Tanner (1943)	
<i>Carex</i> sp.	Diptera: Ephydriidae	<i>Hydrellia griseola</i> Fallen		Hering (1957)	
<i>Carex</i> sp.	Lepidoptera: Crambidae	<i>Schoenobius melinellus dispersellus</i> Robinson		McCafferty and Minno (1979)	
<i>Carex</i> spp.	Coleoptera: Chrysomelidae	<i>Neorepidodera pallida</i> Fall		Riley et al. (2002)	
<i>Carex</i> spp.	Coleoptera: Chrysomelidae	<i>Poecilocera harrisii</i> LeConte		Riley et al. (2002)	
<i>Carex</i> spp.	Coleoptera: Chrysomelidae	<i>Stenyspa metallica</i> Fabricius		Riley et al. (2002)	
<i>Carpinus caroliniana</i> Walt.	Coleoptera: Curculionidae	<i>Rhynchaenus mixtus</i> Blatchley	leaves	Anderson (1989)	Tennessee, USA
<i>Cephalanthus occidentalis</i> L.	Coleoptera: Curculionidae	<i>Plocetes ulmi</i> LeConte	reproductive structures	Clark (1982), Anderson (1991)	
<i>Cephalanthus occidentalis</i> L.	Lepidoptera: Noctuidae	<i>Simyra henrici</i> Grote	leaves	Center et al. (1999)	
<i>Cicuta maculata</i> L. var. <i>maculata</i>	Orthoptera: Acrididae	<i>Gymnosirtetes pusillus</i> Scudder		Squitier and Capinera (2002)	Florida, USA

TABLE 1. (CONTINUED) A CHECKLIST OF AQUATIC AND WETLAND PLANTS OF THE UNITED STATES AND THEIR INSECT HERBIVORES.

Plant	Insect Order: Family	Insect Species	Part of Plant Affected	Author (year)	Study Region
<i>Cicuta maculata</i> L. var. <i>maculata</i>	Orthoptera: Acrididae	<i>Paroxya atlantica</i> Scudder		Squitier and Capinera (2002)	Florida, USA
<i>Cicuta maculata</i> L. var. <i>maculata</i>	Orthoptera: Acrididae	<i>Paroxya clavuliger</i> Serville		Squitier and Capinera (2002)	Florida, USA
<i>Cicuta maculata</i> L. var. <i>maculata</i>	Orthoptera: Acrididae	<i>Romalea microptera</i> Beauvois		Squitier and Capinera (2002)	Florida, USA
<i>Corylus rostrata</i> Ait.	Coleoptera: Curculionidae	<i>Rhynchaenus mixtus</i> Blatchley	leaves	Anderson (1989)	California, USA
Cyperaceae	Lepidoptera: Crambidae	<i>Nymphula akthlipsis</i> Grote		McCafferty and Minno (1979)	Illinois, USA
<i>Cyperus virens</i> Michx.	Coleoptera: Curculionidae	<i>Bagous texanus</i> Tanner		Tanner (1943)	
<i>Dasiphora fruticosa</i> (L.) Rydb. ssp. <i>floribunda</i> (Pursh) Kartesz	Coleoptera: Chrysomelidae	<i>Altica caurina</i> Blake	leaves	LeSage (1995)	
<i>Echinodorus cordifolius</i> (Linnaeus) Grisebach	Coleoptera: Curculionidae	<i>Listronotus echinodori</i> O'Brien	stems	O'Brien (1981)	
<i>Eleocharis elongata</i> Chapman	Lepidoptera: Crambidae	<i>Eoparargyractis floralis</i> Lange	leaves	Munroe (1972)	
<i>Eleocharis macrostachya</i> Britton	Coleoptera: Curculionidae	<i>Listronotus grypidiodes</i> Dietz		O'Brien (1981)	
<i>Eleocharis macrostachya</i> Britton	Coleoptera: Curculionidae	<i>Listronotus teretirostris</i> LeConte		O'Brien (1981)	
<i>Eleocharis obtusa</i> (Willd.) Schult.	Diptera: Ephydriidae	<i>Hydrellia tibialis</i> Cresson		Deonier (1971)	
<i>Eleocharis palustris</i> L.	Lepidoptera: Crambidae	<i>Chilo forbesellus</i> Fernald		Frohne (1939a)	Michigan, USA
<i>Eleocharis palustris</i> L.	Lepidoptera: Crambidae	<i>Schoenobius melinellus dispersellus</i> Robinson		Frohne (1939b)	Michigan, USA
<i>Eleocharis parvula</i> (R. + S.) Link	Diptera: Ephydriidae	<i>Hydrellia americana</i> Cresson		LaSalle (1988)	
<i>Eleocharis</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia fulgens</i> LeConte	roots, leaves	Marx (1957)	
<i>Eleocharis</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia rugosa</i> LeConte	roots, leaves	Marx (1957)	
<i>Eleocharis</i> sp.	Coleoptera: Curculionidae	<i>Brachybamus electus</i> Schoenherr		Anderson (2002)	
<i>Eleocharis vivipara</i> Link	Lepidoptera: Crambidae	<i>Paraponyx allionealis</i> Walker		Habeck (1974)	
<i>Elodea canadensis</i> Michx.	Diptera: Ephydriidae	<i>Hydrellia discursa</i> Deonier	submerged leaves	Deonier (1971)	
<i>Elodea canadensis</i> Michx.	Diptera: Ephydriidae	<i>Hydrellia harti</i> Cresson	submerged leaves	Deonier (1998)	
<i>Elodea canadensis</i> Michx.	Diptera: Ephydriidae	<i>Hydrellia trichaeta</i> Cresson	submerged leaves	Deonier (1971)	
<i>Elodea canadensis</i> Michx.	Trichoptera: Leptoceridae	<i>Leptocella</i> spp.	submerged leaves, petioles, stems and young buds	McGaha (1952)	Michigan, USA
<i>Elodea canadensis</i> Michx.	Trichoptera: Leptoceridae	<i>Leptocerus americanus</i> Banks	submerged leaves, petioles, stems and buds	McGaha (1952)	Michigan, USA
<i>Epilobium</i> sp.	Coleoptera: Curculionidae	<i>Tyloderma foveolatum</i> Say	stems, taproots	Wibmer (1981)	
<i>Epilobium</i> spp.	Coleoptera: Chrysomelidae	<i>Bromius obscurus</i> Linnaeus	leaves	Riley et al. (2002)	
<i>Equisetum</i> spp.	Coleoptera: Curculionidae	<i>Grypus equiseti</i> Fabricius		Anderson (2002)	
<i>Eriocaulon</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia liebecki</i> Schaeffer	roots, leaves	Marx (1957)	
<i>Gaura villosa</i> Torrey	Coleoptera: Curculionidae	<i>Tyloderma baridium</i> LeConte	roots	Wibmer (1981)	
<i>Glyceria grandis</i> S. Watson	Diptera: Ephydriidae	<i>Hydrellia ischiaca</i> Loew		Deonier (1971)	
<i>Glyceria obtusa</i> (Muhl.) Trin.	Diptera: Ephydriidae	<i>Hydrellia ischiaca</i> Loew		Deonier (1971)	
<i>Hydrocotyle</i> spp.	Orthoptera: Acrididae	<i>Gymnoscirtetes pusillus</i> Scudder		Squitier and Capinera (2002)	Florida, USA
<i>Hydrocotyle</i> spp.	Orthoptera: Acrididae	<i>Paroxya atlantica</i> Scudder		Squitier and Capinera (2002)	Florida, USA
<i>Hydrocotyle</i> spp.	Orthoptera: Acrididae	<i>Paroxya clavuliger</i> Serville		Squitier and Capinera (2002)	Florida, USA
<i>Hydrocotyle</i> spp.	Orthoptera: Acrididae	<i>Romalea microptera</i> Beauvois		Squitier and Capinera (2002)	Florida, USA
<i>Hydrocotyle umbellata</i> L.	Diptera: Agromyzidae	<i>Liriomyza munda</i> Frick	leaves	Stegmaier (1966)	
<i>Isoetes muricata</i> Durieu	Lepidoptera: Crambidae	<i>Eoparargyractis plevie</i> Dyar	leaves	Fiance and Moeller (1977)	New Hampshire, USA
<i>Isoetes tuckermanii</i> A. Braun	Lepidoptera: Crambidae	<i>Eoparargyractis plevie</i> Dyar	leaves	Fiance and Moeller (1977)	New Hampshire, USA
<i>Juncus debilis</i> A. Gray	Diptera: Ephydriidae	<i>Hydrellia tibiospica</i> Deonier		Deonier (1995)	
<i>Juncus effusus</i> L.	Orthoptera: Acrididae	<i>Leptysmia marginicollis</i> Serville		Squitier and Capinera (2002)	Florida, USA
<i>Juncus effusus</i> L.	Orthoptera: Acrididae	<i>Paroxya atlantica</i> Scudder		Squitier and Capinera (2002)	Florida, USA
<i>Juncus effusus</i> L.	Orthoptera: Acrididae	<i>Paroxya clavuliger</i> Serville		Squitier and Capinera (2002)	Florida, USA

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<i>Juncus effusus</i> L.	Orthoptera: Acrididae	<i>Romalea microptera</i> Beauvois		Squitier and Capinera (2002)	Florida, USA
<i>Juncus effusus</i> L.	Orthoptera: Acrididae	<i>Stenacris vitreipennis</i> Marschall		Squitier and Capinera (2002)	Florida, USA
<i>Juncus repens</i> Michx.	Diptera: Ephydriidae	<i>Hydrellia biloxiae</i> Deonier		Deonier (1971)	
<i>Juncus</i> sp.	Lepidoptera: Crambidae	<i>Chilo forbesellus</i> Fernald		Dyar and Heinrich (1927)	Minnesota, USA
<i>Juncus</i> sp.	Lepidoptera: Noctuidae	<i>Archana subflava</i> Grote	leaves	McCafferty and Minno (1979)	
<i>Juncus</i> spp.	Coleoptera: Chrysomelidae	<i>Myochrous whitei</i> Blake	leaves	Riley et al. (2002)	
<i>Lachnanthes caroliana</i> (Lamarck) Dandy	Coleoptera: Curculionidae	<i>Neobagoidius carlsoni</i> O'Brien		O'Brien (1990)	Florida, USA
<i>Lemna minor</i> L.	Diptera: Ephydriidae	<i>Hydrellia personata</i> Deonier		Keiper et al. (2002)	
<i>Lemna</i> sp.	Lepidoptera: Crambidae	<i>Neargyrtactis magnificentalis</i> Hübner		Solis (2008)	
<i>Lemna</i> spp.	Coleoptera: Curculionidae	<i>Tanysphyrus lemnae</i> Paykull	floating leaves	Haag et al. (1986)	Florida, USA
<i>Lemna</i> spp.	Diptera: Ephydriidae	<i>Lemnaphila scotlandae</i> Cresson	leaves	Center et al. (1999)	
<i>Lemna</i> spp.	Homoptera: Aphididae	<i>Rhopalosiphum nymphaeae</i> L.	leaves	Center et al. (1999)	
<i>Lemna</i> spp.	Lepidoptera: Crambidae	<i>Synclita oblitalis</i> Walker		Stoops et al. (1998)	South Carolina, USA
<i>Lemna</i> spp.	Lepidoptera: Crambidae	<i>Synclita tinealis</i> Munroe		Stoops et al. (1998)	South Carolina, USA
<i>Limnobium spongia</i> (Bosc) Rich. ex Steud.	Coleoptera: Curculionidae	<i>Bagous lunatoides</i> O'Brien	leaves, stolons, petioles	Haag et al. (1986), O'Brien and Marshall (1979)	Florida, Georgia, Louisiana, Tennessee, USA
<i>Limnobium spongia</i> (Bosc) Rich. ex Steud.	Diptera: Ephydriidae	<i>Hydrellia limnobia</i> Deonier		Deonier (1993)	Florida, USA
<i>Limnobium spongia</i> (Bosc) Rich. ex Steud.	Lepidoptera: Crambidae	<i>Munroessa gyralis</i> Hulst		Stoops et al. (1998)	South Carolina, USA
<i>Limnobium spongia</i> (Bosc) Rich. ex Steud.	Lepidoptera: Crambidae	<i>Munroessa icciusalis</i> Walker		Stoops et al. (1998)	South Carolina, USA
<i>Lobelia dortmanna</i> L.	Lepidoptera: Crambidae	<i>Eoparygyrtis plevie</i> Dyar	leaves	Fiance and Moeller (1977)	New Hampshire, USA
<i>Ludwigia sphaerocarpa</i> Ell.	Coleoptera: Curculionidae	<i>Tyloderma sphaerocarpha</i> Wibmer		Wibmer (1981)	
<i>Ludwigia alterniflora</i> L.	Coleoptera: Curculionidae	<i>Perigaster cretura</i> Herbst	leaves	Knab (1915)	Maryland, USA
<i>Ludwigia octovalvis</i> (Jacq.) P. H. Raven	Coleoptera: Chrysomelidae	<i>Altica litigata</i> Fall	leaves	Center et al. (1999)	
<i>Ludwigia octovalvis</i> (Jacq.) P. H. Raven	Coleoptera: Curculionidae	<i>Perigaster cretura</i> Herbst	leaves	Center et al. (1999)	
<i>Ludwigia octovalvis</i> (Jacq.) P. H. Raven	Lepidoptera: Spingidae	<i>Eumorphia fasciata</i> Sulzer	stems, leaves	Center et al. (1999)	
<i>Ludwigia octovalvis</i> (Jacq.) P. H. Raven	Orthoptera: Acrididae	<i>Gymnoscartetes pusillus</i> Scudder		Squitier and Capinera (2002)	Florida, USA
<i>Ludwigia octovalvis</i> (Jacq.) P.H. Raven	Orthoptera: Acrididae	<i>Leptysma marginicollis</i> Serville		Squitier and Capinera (2002)	Florida, USA
<i>Ludwigia octovalvis</i> (Jacq.) P. H. Raven	Orthoptera: Acrididae	<i>Paroxya atlantica</i> Scudder		Squitier and Capinera (2002)	Florida, USA
<i>Ludwigia octovalvis</i> (Jacq.) P. H. Raven	Orthoptera: Acrididae	<i>Paroxya clavuliger</i> Serville		Squitier and Capinera (2002)	Florida, USA
<i>Ludwigia octovalvis</i> (Jacq.) P. H. Raven	Orthoptera: Acrididae	<i>Romalea microptera</i> Beauvois		Squitier and Capinera (2002)	Florida, USA
<i>Ludwigia octovalvis</i> (Jacq.) P. H. Raven	Orthoptera: Acrididae	<i>Stenacris vitreipennis</i> Marschall		Squitier and Capinera (2002)	Florida, USA
<i>Ludwigia palustris</i> (L.) Ell.	Coleoptera: Chrysomelidae	<i>Altica litigata</i> Fall	leaves	Center et al. (1999)	
<i>Ludwigia palustris</i> (L.) Ell.	Coleoptera: Curculionidae	<i>Perigaster liturata</i> Dietz		Majka et al. (2007)	
<i>Ludwigia peploides</i> (Kunth) P.H. Raven	Coleoptera: Curculionidae	<i>Perigaster cretura</i> Herbst	leaves	Clark (1976)	Texas, USA
<i>Ludwigia peploides</i> (Kunth) P.H. Raven	Coleoptera: Chrysomelidae	<i>Lysathia ludoviciana</i> Fall	leaves	Haag et al. (1986)	Florida, USA
<i>Ludwigia repens</i> Forst	Coleoptera: Curculionidae	<i>Hyperodes echinatus</i> Dietz		Mitchell and Pierce (1911)	Texas, USA
<i>Ludwigia repens</i> Forst	Coleoptera: Curculionidae	<i>Perigaster cretura</i> Herbst	leaves	Mitchell and Pierce (1911)	Texas, USA
<i>Ludwigia repens</i> Forst	Coleoptera: Curculionidae	<i>Tyloderma aquaticum</i> Wibmer		Wibmer (1981)	
<i>Ludwigia repens</i> Forst	Diptera: Ephydriidae	<i>Hydrellia alabamiae</i> Deonier		Deonier (1993)	Alabama, Mississippi, USA
<i>Ludwigia</i> sp.	Homoptera: Delphacidae	<i>Pissonotus piceus</i> Van Duzee		Haag et al. (1986)	Florida, USA
<i>Ludwigia</i> sp.	Lepidoptera: Crambidae	<i>Langessa nomophilalis</i> Dyar		Stoops et al. (1998)	South Carolina, USA
<i>Ludwigia</i> sp.	Lepidoptera: Crambidae	<i>Munroessa gyralis</i> Hulst		Herlong (1979)	South Carolina, USA
<i>Ludwigia</i> sp.	Lepidoptera: Crambidae	<i>Paraponyx seminealis</i> Walker		Stoops et al. (1998)	South Carolina, USA
<i>Ludwigia</i> spp.	Coleoptera: Curculionidae	<i>Pelenomus</i> sp.		Haag et al. (1986)	Florida, USA
<i>Ludwigia</i> spp.	Coleoptera: Curculionidae	<i>Perigaster</i> sp.	leaves	Haag et al. (1986)	Florida, USA
<i>Ludwigia</i> spp.	Coleoptera: Curculionidae	<i>Perigasteromimus tetracanthus</i> Champion		Anderson (2002)	Florida, USA

TABLE 1. (CONTINUED) A CHECKLIST OF AQUATIC AND WETLAND PLANTS OF THE UNITED STATES AND THEIR INSECT HERBIVORES.

Plant	Insect Order: Family	Insect Species	Part of Plant Affected	Author (year)	Study Region
<i>Ludwigia</i> spp.	Coleoptera: Curculionidae	<i>Tyloderma circumcaribbeum</i> Wibmer		Wibmer (1981)	
<i>Ludwigia suffruticosa</i> Walter	Coleoptera: Curculionidae	<i>Tyloderma punctatum</i> Casey		Wibmer (1981)	
<i>Ludwigia suffruticosa</i> Walter	Orthoptera: Acrididae	<i>Gymnoscirtetes pusillus</i> Scudder		Squitier and Capinera (2002)	Florida, USA
<i>Ludwigia suffruticosa</i> Walter	Orthoptera: Acrididae	<i>Leptysmia marginicollis</i> Serville		Squitier and Capinera (2002)	Florida, USA
<i>Ludwigia suffruticosa</i> Walter	Orthoptera: Acrididae	<i>Paroxya atlantica</i> Scudder		Squitier and Capinera (2002)	Florida, USA
<i>Ludwigia suffruticosa</i> Walter	Orthoptera: Acrididae	<i>Paroxya clavuliger</i> Serville		Squitier and Capinera (2002)	Florida, USA
<i>Ludwigia suffruticosa</i> Walter	Orthoptera: Acrididae	<i>Romalea microptera</i> Beauvois		Squitier and Capinera (2002)	Florida, USA
<i>Ludwigia suffruticosa</i> Walter	Orthoptera: Acrididae	<i>Stenacris vitreipennis</i> Marschall		Squitier and Capinera (2002)	Florida, USA
<i>Luziola fluitans</i> (Michx.) Terrell & Rob.	Diptera: Ephydriidae	<i>Hydrellia spinicornis</i> Cresson		Deonier (1971)	
<i>Luziola fluitans</i> (Michx.) Terrell & Rob.	Lepidoptera: Crambidae	<i>Eoparygyractus floridalis</i> Lange	leaves	Munroe (1972)	
<i>Luziola fluitans</i> (Michx.) Terrell & Rob.	Lepidoptera: Crambidae	<i>Paraponyx allionealis</i> Walker		Habeck (1974)	
<i>Menyanthes trifoliata</i> L.	Lepidoptera: Crambidae	<i>Hydrocampus formosalis</i>	leaves	Packard (1884)	Providence, R.I., USA
<i>Micranthemum umbrosum</i> (Gmel.) Blake	Lepidoptera: Crambidae	<i>Langessa nomophilalis</i> Dyar		Stoops et al. (1998)	South Carolina, USA
<i>Micranthemum umbrosum</i> (Gmel.) Blake	Lepidoptera: Crambidae	<i>Paraponyx obscuralis</i> Grote		Stoops et al. (1998)	South Carolina, USA
<i>Mimosa</i> spp.	Coleoptera: Chrysomelidae	<i>Dysphenges elongatus</i> Horn	leaves	Riley et al. (2002)	
<i>Mimosa</i> spp.	Coleoptera: Chrysomelidae	<i>Pseudochlamys semirufescens</i> Karren	leaves	Riley et al. (2002)	
<i>Myrica gale</i> L.	Coleoptera: Chrysomelidae	<i>Galerucella nymphaea</i> L.	emergent leaves	Scott (1924)	Michigan, USA
<i>Myrica</i> spp.	Coleoptera: Chrysomelidae	<i>Colaspis favosa</i> sp. group	leaves	Riley et al. (2002)	
<i>Myriophyllum heterophyllum</i> Michx.	Coleoptera: Chrysomelidae	<i>Donacia cincticornis</i> Newman	roots, leaves	McGaha (1952)	Michigan, USA
<i>Myriophyllum heterophyllum</i> Michx.	Coleoptera: Curculionidae	<i>Perenthis vestitus</i> Dietz	emergent leaves and stems	McGaha (1952)	Michigan, USA
<i>Myriophyllum heterophyllum</i> Michx.	Coleoptera: Curculionidae	<i>Tyloderma myriophylli</i> Wibmer		Wibmer (1981)	
<i>Myriophyllum heterophyllum</i> Michx.	Lepidoptera: Crambidae	<i>Paraponyx allionealis</i> Walker	submerged leaves	Habeck (1974)	
<i>Myriophyllum heterophyllum</i> Michx.	Trichoptera: Leptoceridae	<i>Mystacides longicornis</i> Linnaeus	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Myriophyllum heterophyllum</i> Michx.	Trichoptera: Leptoceridae	<i>Oecetis cinerascens</i> Hagen	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Myriophyllum heterophyllum</i> Michx.	Trichoptera: Leptoceridae	<i>Triaenodes injusta</i> Hagen	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Myriophyllum heterophyllum</i> Michx.	Trichoptera: Leptoceridae	<i>Triaenodes marginata</i> Sibley	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Myriophyllum heterophyllum</i> Michx.	Trichoptera: Leptoceridae	<i>Triaenodes</i> sp.	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Myriophyllum sibiricum</i> Kom.	Diptera: Chironomidae	<i>Harnischia abortiva</i> Malloch	submerged leaves and stems	McGaha (1952)	Michigan, USA
<i>Myriophyllum sibiricum</i> Kom.	Diptera: Chironomidae	<i>Harnischia tenuicaudata</i> Malloch	submerged leaves and stems	McGaha (1952)	Michigan, USA
<i>Myriophyllum sibiricum</i> Kom.	Lepidoptera: Crambidae	<i>Paraponyx badiusalis</i> Walker	leaves	McGaha (1952)	Michigan, USA
<i>Myriophyllum sibiricum</i> Kom.	Trichoptera: Leptoceridae	<i>Atripisodes</i> sp.	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Myriophyllum sibiricum</i> Kom.	Trichoptera: Leptoceridae	<i>Leptocella exquisita</i> Walker	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Myriophyllum sibiricum</i> Kom.	Trichoptera: Leptoceridae	<i>Leptocella</i> spp.	submerged leaves, petioles, stems and young buds	McGaha (1952)	Michigan, USA
<i>Myriophyllum sibiricum</i> Kom.	Trichoptera: Leptoceridae	<i>Mystacides longicornis</i> L.	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Myriophyllum</i> sp.	Coleoptera: Curculionidae	<i>Bagous tingi</i> Tanner		O'Brien and Marshall (1979)	
<i>Myriophyllum</i> sp.	Lepidoptera: Crambidae	<i>Paraponyx allionealis</i> Walker		Herlong (1979)	South Carolina, USA
<i>Myriophyllum</i> spp.	Coleoptera: Chrysomelidae	<i>Lysathia ludoviciana</i> Fall	leaves	Riley et al. (2002)	

TABLE 1. (CONTINUED) A CHECKLIST OF AQUATIC AND WETLAND PLANTS OF THE UNITED STATES AND THEIR INSECT HERBIVORES.

Plant	Insect Order: Family	Insect Species	Part of Plant Affected	Author (year)	Study Region
Myriophyllum spp.	Coleoptera: Curculionidae	<i>Eurychiopsis lecontei</i> Dietz		Spencer and Lokie (1974), Anderson (2002)	
<i>Myriophyllum</i> spp.	Coleoptera: Curculionidae	<i>Phytobius leucogaster</i> Marsham	flowers	Anderson (2002)	
<i>Myriophyllum</i> spp.	Homoptera: Aphididae	<i>Rhopalosiphum nymphaeae</i> L.	leaves	Center et al. (1999)	
<i>Najas guadalupensis</i> (Spreng.) Magnus	Diptera: Ephydriidae	<i>Hydrellia bilobifera</i> Cresson	submersed leaves	Deonier (1998)	
<i>Najas guadalupensis</i> (Spreng.) Magnus	Diptera: Ephydriidae	<i>Hydrellia najadis</i> Deonier	submersed leaves	Deonier (1993)	Florida, USA
<i>Najas guadalupensis</i> (Spreng.) Magnus	Trichoptera: Leptoceridae	<i>Nectopsyche tavara</i> Ross		Haag et al. (1986)	Florida, USA
<i>Nasturtium officinale</i> W. T. Aiton	Coleoptera: Curculionidae	<i>Amalorrhynchus melanarius</i> Stephens		Anderson (2002)	Northeast, USA
<i>Nasturtium officinale</i> W. T. Aiton	Diptera: Ephydriidae	<i>Hydrellia griseola</i> Fallen		Deonier (1971)	
<i>Nelumbo lutea</i> Willd.	Lepidoptera: Crambidae	<i>Ostrinia penitalis</i> Grote	leaves and petioles	Mutuura and Munroe (1970)	
<i>Nelumbo lutea</i> Willd.	Lepidoptera: Noctuidae	<i>Bellura obliqua</i> Walker	leaves and petioles	McCafferty and Minno (1979)	
<i>Nuphar lutea</i> (L.) Sm.	Coleoptera: Chrysomelidae	<i>Donacia piscatrix</i> Lacordaire	roots, leaves	Hoffman (1940), McGaha (1952)	Michigan, USA
<i>Nuphar lutea</i> (L.) Sm.	Coleoptera: Chrysomelidae	<i>Donacia proxima</i> Kirby	roots, leaves	Hoffman (1940), McGaha (1952)	Michigan, USA
<i>Nuphar lutea</i> (L.) Sm.	Coleoptera: Chrysomelidae	<i>Galerucella nymphaeae</i> L.	emergent and floating leaves	Scott (1924), McGaha (1952)	Michigan, USA
<i>Nuphar lutea</i> (L.) Sm.	Coleoptera: Coccinellidae	<i>Coleomegilla maculata</i> DeGeer	floating leaves	McGaha (1952)	Michigan, USA
<i>Nuphar lutea</i> (L.) Sm.	Coleoptera: Coccinellidae	<i>Hippodamia 13-punctata tibialis</i> Say	floating leaves	McGaha (1952)	Michigan, USA
<i>Nuphar lutea</i> (L.) Sm.	Diptera: Anthomyiidae	<i>Hydromyza confluens</i> Loew	floating leaves	McGaha (1952), Haag et al. (1986)	Florida, USA
<i>Nuphar lutea</i> (L.) Sm.	Diptera: Chironomidae	<i>Polypedium fallax</i> Johannsen	petioles	McGaha (1952)	Michigan, USA
<i>Nuphar lutea</i> (L.) Sm.	Diptera: Chironomidae	<i>Polypedium tritum</i> Walker	petioles	McGaha (1952)	Michigan, USA
<i>Nuphar lutea</i> (L.) Sm.	Diptera: Chironomidae	<i>Tanytarsus quadripunctatus</i> Johannsen	petioles and flower peduncles	McGaha (1952)	Michigan, USA
<i>Nuphar lutea</i> (L.) Sm.	Diptera: Chironomidae	<i>Tendipes</i> sp.	petioles	McGaha (1952)	Michigan, USA
<i>Nuphar lutea</i> (L.) Sm.	Diptera: Empididae	<i>Hilara bella</i> Coquillett	flowers	McGaha (1952)	Michigan, USA
<i>Nuphar lutea</i> (L.) Sm.	Diptera: Ephydriidae	<i>Hydrellia curialis</i> Coquillett	flowers	McGaha (1952)	Michigan, USA
<i>Nuphar lutea</i> (L.) Sm.	Diptera: Hileidae	<i>Atrichopogon fusinervis</i> Malloch	flowers	McGaha (1952)	Michigan, USA
<i>Nuphar lutea</i> (L.) Sm.	Homoptera: Aphididae	<i>Rhopalosiphum nymphaeae</i> L.	aerial and floating leaves	McGaha (1952)	Michigan, USA
<i>Nuphar lutea</i> (L.) Sm.	Homoptera: Cicadellidae	<i>Draeculacephala inscripta</i> Van Duzee	emergent leaves	Haag et al. (1986)	Florida, USA
<i>Nuphar lutea</i> (L.) Sm.	Homoptera: Cicadellidae	<i>Draeculacephala</i> sp.	emergent leaves	McGaha (1952)	Michigan, USA
<i>Nuphar lutea</i> (L.) Sm.	Homoptera: Delphacidae	<i>Megamelus davisii</i> Van Duzee		McGaha (1952), Haag et al. (1986)	Florida, USA
<i>Nuphar lutea</i> (L.) Sm.	Lepidoptera: Crambidae	<i>Ostrinia penitalis</i> Grote	leaves and petioles	Mutuura and Munroe (1970)	
<i>Nuphar lutea</i> (L.) Sm.	Lepidoptera: Crambidae	<i>Paraponyx maculalis</i> Clemens	submerged and floating leaves	Welch (1916), McGaha (1952)	Michigan, USA
<i>Nuphar lutea</i> (L.) Sm.	Lepidoptera: Crambidae	<i>Paraponyx obscuralis</i> Grote	floating leaves	Berg (1950), McGaha (1952)	Michigan, USA
<i>Nuphar lutea</i> (L.) Sm.	Lepidoptera: Noctuidae	<i>Bellura gortynoides</i> Walker	leaves	McCafferty and Minno (1979)	
<i>Nuphar lutea</i> (L.) Sm.	Lepidoptera: Noctuidae	<i>Bellura melanopyga</i> Grote	emergent and floating leaves and petioles	McGaha (1952, 1954b)	Michigan, USA
<i>Nuphar lutea</i> (L.) Sm.	Trichoptera: Lemnephilidae	<i>Lemnephilus consocius</i> Walker	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Nuphar lutea</i> (L.) Sm.	Trichoptera: Leptoceridae	<i>Atripsodes</i> sp.	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Nuphar lutea</i> (L.) Sm.	Trichoptera: Leptoceridae	<i>Leptocella exquisita</i> Walker	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Nuphar lutea</i> (L.) Sm.	Trichoptera: Leptoceridae	<i>Leptocella</i> spp.	submerged leaves, petioles, stems and young buds	McGaha (1952)	Michigan, USA

TABLE 1. (CONTINUED) A CHECKLIST OF AQUATIC AND WETLAND PLANTS OF THE UNITED STATES AND THEIR INSECT HERBIVORES.

Plant	Insect Order: Family	Insect Species	Part of Plant Affected	Author (year)	Study Region
<i>Nuphar lutea</i> (L.) Sm.	Trichoptera: Leptoceridae	<i>Trianodes aba</i> Milne	submerged leaves, petioles, stems and young buds	McGaha (1952)	Michigan, USA
<i>Nuphar lutea</i> (L.) Sm.	Trichoptera: Leptoceridae	<i>Trianodes injusta</i> Hagen	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Nuphar lutea</i> (L.) Sm.	Trichoptera: Leptoceridae	<i>Trianodes marginata</i> Sibley	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Nuphar lutea</i> ((L.) Sm.	Trichoptera: Leptoceridae	<i>Trianodes sepulchralis</i> Walker	submerged leaves	McGaha (1952)	Michigan, USA
<i>Nuphar lutea</i> (L.) Sm.	Trichoptera: Leptoceridae	<i>Trianodes</i> sp.	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Nuphar lutea</i> (L.) Sm.	Trichoptera: Phryganeidae	<i>Banksiola salina</i> Betten	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Nuphar lutea</i> (L.) Sm. ssp. <i>advena</i> (Aiton) Kartesz & Gandhi	Coleoptera: Curculionidae	<i>Onychylis nigrirostris</i> Boheman	emergent leaves, stems	Center et al. (1999)	
<i>Nuphar lutea</i> (L.) Sm. ssp. <i>advena</i> (Aiton) Kartesz & Gandhi	Lepidoptera: Noctuidae	<i>Homophoberia cristata</i> Morr.	leaves	Center et al. (1999)	
<i>Nuphar</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia palmata</i> Oliver	roots, leaves	Marx (1957)	
<i>Nuphar</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia piscatrix</i> Lacordaire	roots, leaves	Marx (1957)	
<i>Nuphar</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia proxima</i> Kirby	roots, leaves	Marx (1957)	
<i>Nuphar</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia texana</i> Crotch	roots, leaves	Marx (1957)	
<i>Nuphar</i> sp.	Diptera: Chironomidae	<i>Hyporhygma quadripunctatum</i> Malloch	leaves, petioles	Epler (2001)	North and South Carolina, USA
<i>Nuphar</i> sp.	Lepidoptera: Crambidae	<i>Synclita oblitalis</i> Walker	floating leaves	Brigham and Herlong (1982)	
<i>Nuphar</i> sp.	Lepidoptera: Noctuidae	<i>Neorastris caduca</i> Grote	emergent leaves	McCafferty and Minno (1979)	Indiana, Illinois, Michigan, Ohio, USA
<i>Nymphaea odorata</i> Aiton	Coleoptera: Chrysomelidae	<i>Donacia cincticornis</i> Newman	roots, leaves	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton	Coleoptera: Chrysomelidae	<i>Donacia pubescens</i> LeConte	roots, leaves	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton	Coleoptera: Chrysomelidae	<i>Galerucella nymphaea</i> L.	emergent and floating leaves	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton	Coleoptera: Coccinellidae	<i>Coleomegilla maculata</i> DeGeer	floating leaves	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton	Coleoptera: Coccinellidae	<i>Hippodamia 13-punctata tibialis</i> Say	floating leaves	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton	Coleoptera: Curculionidae	<i>Bagous americanus</i> LeConte	leaves and petioles	McGaha (1952), O'Brien and Marshall (1979)	Michigan, Florida, USA
<i>Nymphaea odorata</i> Aiton	Coleoptera: Curculionidae	<i>Bagous magister</i> LeConte		O'Brien and Marshall (1979)	
<i>Nymphaea odorata</i> Aiton	Coleoptera: Curculionidae	<i>Bagous tanneri</i> Tanner	petioles	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton	Coleoptera: Curculionidae	<i>Onychylis nigrirostris</i> Boheman	floating and emergent leaves	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton	Diptera: Chironomidae	<i>Polypedium braseniae</i> Leathers	floating leaves	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton	Diptera: Chironomidae	<i>Polypedium illinoense</i> Malloch	floating leaves	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton	Diptera: Chironomidae	<i>Tanytarsus quadripunctatus</i> Johannsen	petioles and flower peduncles	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton	Diptera: Ephydriidae	<i>Notiphila loewi</i> Cresson	flowers	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton	Homoptera: Aphididae	<i>Rhopalosiphum nymphaeae</i> L.	aerial and floating leaves	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton	Homoptera: Delphacidae	<i>Megamelus davisii</i> Van Duzee	Emergent and floating leaves	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton	Lepidoptera: Crambidae	<i>Langessa nomophilalis</i> Dyar		Herlong (1979), Stoops et al. (1998)	South Carolina, USA
<i>Nymphaea odorata</i> Aiton	Lepidoptera: Crambidae	<i>Munroessa gyralis</i> Hulst		Herlong (1979), Stoops et al. (1998)	South Carolina, USA

TABLE 1. (CONTINUED) A CHECKLIST OF AQUATIC AND WETLAND PLANTS OF THE UNITED STATES AND THEIR INSECT HERBIVORES.

Plant	Insect Order: Family	Insect Species	Part of Plant Affected	Author (year)	Study Region
<i>Nymphaea odorata</i> Aiton	Lepidoptera: Crambidae	<i>Munroessa icciusalis</i> Walker		Herlong (1979)	South Carolina, USA
<i>Nymphaea odorata</i> Aiton	Lepidoptera: Crambidae	<i>Paraponyx allionealis</i> Walker	leaves	McGaha (1952), Herlong (1979)	Michigan, USA
<i>Nymphaea odorata</i> Aiton	Lepidoptera: Crambidae	<i>Paraponyx badiusalis</i> Walker	leaves	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton	Lepidoptera: Crambidae	<i>Paraponyx maculalis</i> Clemens	submerged and floating leaves	McGaha (1952), Habeck (1974), Herlong (1979), Stoops et al. (1998)	Michigan, USA
<i>Nymphaea odorata</i> Aiton	Lepidoptera: Crambidae	<i>Paraponyx obscuralis</i> Grote		Stoops et al. (1998)	South Carolina, USA
<i>Nymphaea odorata</i> Aiton	Lepidoptera: Crambidae	<i>Paraponyx seminealis</i> Walker		Herlong (1979)	South Carolina, USA
<i>Nymphaea odorata</i> Aiton	Lepidoptera: Crambidae	<i>Paraponyx serralinealis</i> Barnes & Benjamin	leaves and petioles	McGaha (1952, 1954b)	Michigan, USA
<i>Nymphaea odorata</i> Aiton	Lepidoptera: Crambidae	<i>Synclita oblitalis</i> Walker	floating leaves	Herlong (1979)	South Carolina, USA
<i>Nymphaea odorata</i> Aiton	Trichoptera: Leptoceridae	<i>Mystacides longicornis</i> Linnaeus	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton	Trichoptera: Leptoceridae	<i>Oecetis</i> sp.	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton	Trichoptera: Leptoceridae	<i>Triaenodes aba</i> Milne	submerged leaves, petioles, stems and young buds	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton	Trichoptera: Leptoceridae	<i>Triaenodes marginata</i> Sibley	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton	Trichoptera: Leptoceridae	<i>Triaenodes</i> sp.	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton	Trichoptera: Polycentropidae	<i>Polycentropus remotus</i> Banks	submerged leaves	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton ssp. <i>tuberosa</i> (Paine) Wiersma & Hellquist	Coleoptera: Chrysomelidae	<i>Donacia cincticornis</i> Newman	roots, leaves	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton ssp. <i>tuberosa</i> (Paine) Wiersma & Hellquist	Coleoptera: Chrysomelidae	<i>Donacia pubescens</i> LeConte	roots, leaves	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton ssp. <i>tuberosa</i> (Paine) Wiersma & Hellquist	Coleoptera: Coccinellidae	<i>Hippodamia 13-punctata tibialis</i> Say	floating leaves	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton ssp. <i>tuberosa</i> (Paine) Wiersma & Hellquist	Coleoptera: Curculionidae	<i>Bagous americanus</i> LeConte	leaves and petioles	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton ssp. <i>tuberosa</i> (Paine) Wiersma & Hellquist	Coleoptera: Curculionidae	<i>Bagous tanneri</i> Tanner	petioles	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton ssp. <i>tuberosa</i> (Paine) Wiersma & Hellquist	Diptera: Chironomidae	<i>Polypedium illinoense</i> Malloch	floating leaves	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton ssp. <i>tuberosa</i> (Paine) Wiersma & Hellquist	Diptera: Ephydriidae	<i>Notiphila loewi</i> Cresson	flowers	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton ssp. <i>tuberosa</i> (Paine) Wiersma & Hellquist	Homoptera: Aphididae	<i>Rhopalosiphum nymphaeae</i> L.	aerial and floating leaves	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton ssp. <i>tuberosa</i> (Paine) Wiersma & Hellquist	Lepidoptera: Crambidae	<i>Paraponyx serralinealis</i> Barnes & Benjamin	leaves and petioles	McGaha (1952, 1954b)	Michigan, USA
<i>Nymphaea odorata</i> Aiton ssp. <i>tuberosa</i> (Paine) Wiersma & Hellquist	Trichoptera: Leptoceridae	<i>Mystacides longicornis</i> Linnaeus	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton ssp. <i>tuberosa</i> (Paine) Wiersma & Hellquist	Trichoptera: Leptoceridae	<i>Oecetis</i> sp.	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton ssp. <i>tuberosa</i> (Paine) Wiersma & Hellquist	Trichoptera: Leptoceridae	<i>Triaenodes aba</i> Milne	submerged leaves, petioles, stems and young buds	McGaha (1952)	Michigan, USA
<i>Nymphaea odorata</i> Aiton ssp. <i>tuberosa</i> (Paine) Wiersma & Hellquist	Trichoptera: Leptoceridae	<i>Triaenodes injusta</i> Hagen	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA

TABLE 1. (CONTINUED) A CHECKLIST OF AQUATIC AND WETLAND PLANTS OF THE UNITED STATES AND THEIR INSECT HERBIVORES.

Plant	Insect Order: Family	Insect Species	Part of Plant Affected	Author (year)	Study Region
<i>Nymphaea odorata</i> Aiton ssp. <i>tuberosa</i> (Paine) Wiersma & Hellquist	Trichoptera: Leptoceridae	<i>Trianaodes</i> sp.	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Nymphaea</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia cincticornis</i> Newman	roots, leaves	Marx (1957)	
<i>Nymphaea</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia liebecki</i> Schaeffer	roots, leaves	Marx (1957)	
<i>Nymphaea</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia megacornis</i> Blatchley	roots, leaves	Marx (1957)	
<i>Nymphaea</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia militaris</i> Lacordaire	roots, leaves	Marx (1957)	
<i>Nymphaea</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia parvidens</i> Schaeffer	roots, leaves	Marx (1957)	
<i>Nymphaea</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia rufescens</i> Lacordaire	roots, leaves	Marx (1957)	
<i>Nymphaea</i> spp.	Diptera: Chironomidae	<i>Hyporhygma quadripunctatum</i> Malloch	leaves, petioles	Epler (2001)	North and South Carolina, USA
<i>Nymphaea</i> spp.	Lepidoptera: Noctuidae	<i>Bellura gortynoides</i> Walker	leaves	McCafferty and Minno (1979)	
<i>Nymphoides aquatica</i> (J. F. Gmel.) Kuntze	Lepidoptera: Crambidae	<i>Langessa nomophilalis</i> Dyar		Herlong (1979), Stoops et al. (1998)	South Carolina, USA
<i>Nymphoides aquatica</i> (J. F. Gmel.) Kuntze	Lepidoptera: Crambidae	<i>Paraponyx allionealis</i> Walker		Stoops et al. (1998)	South Carolina, USA
<i>Nymphoides aquatica</i> (J. F. Gmel.) Kuntze	Lepidoptera: Crambidae	<i>Paraponyx seminealis</i> Walker		Habeck (1974), Herlong (1979), Stoops et al. (1998)	Florida and South Carolina, USA
<i>Nymphoides aquatica</i> (J. F. Gmel.) Kuntze	Lepidoptera: Crambidae	<i>Synclita oblitalis</i> Walker	floating leaves	Stoops et al. (1998)	South Carolina, USA
<i>Oenothera albicaulis</i> Pursh	Coleoptera: Curculionidae	<i>Tyloderma pseudofoveolatum</i> Wibmer	roots	Wibmer (1981)	
<i>Oenothera biennis</i> L.	Coleoptera: Curculionidae	<i>Tyloderma foveolatum</i> Say	stems, taproots	Wibmer (1981)	
<i>Oenothera biennis</i> L.	Coleoptera: Curculionidae	<i>Tyloderma pseudofoveolatum</i> Wibmer	roots	Wibmer (1981)	
<i>Oenothera laciniata</i> Hill	Coleoptera: Curculionidae	<i>Tyloderma baridium</i> LeConte	roots	Wibmer (1981)	
<i>Oenothera laciniata</i> Hill	Coleoptera: Curculionidae	<i>Tyloderma foveolatum</i> Say	stems, taproots	Wibmer (1981)	
<i>Oenothera</i> sp.	Coleoptera: Chrysomelidae	<i>Altica copelandi</i> Ciegler	leaves	Ciegler (2006)	South Carolina, USA
<i>Oenothera</i> sp.	Coleoptera: Curculionidae	<i>Tyloderma angustulum</i> Casey		Wibmer (1981)	
<i>Oenothera</i> sp.	Coleoptera: Curculionidae	<i>Tyloderma pseudofoveolatum</i> Wibmer	roots	Wibmer (1981)	
<i>Oenothera</i> spp.	Coleoptera: Chrysomelidae	<i>Lysathia ludoviciana</i> Fall	leaves	Riley et al. (2002)	
<i>Orontium aquaticum</i> L.	Lepidoptera: Crambidae	<i>Munroessa icciusalis</i> Walker		Herlong (1979), Stoops et al. (1998)	South Carolina, USA
<i>Orontium aquaticum</i> L.	Lepidoptera: Crambidae	<i>Paraponyx maculalis</i> Clemens		Stoops et al. (1998)	South Carolina, USA
<i>Orontium aquaticum</i> L.	Lepidoptera: Crambidae	<i>Paraponyx obscuralis</i> Grote		Stoops et al. (1998)	South Carolina, USA
<i>Orontium aquaticum</i> L.	Lepidoptera: Crambidae	<i>Paraponyx seminealis</i> Walker		Herlong (1979)	South Carolina, USA
<i>Panicum</i> sp.	Diptera: Ephydriidae	<i>Hydrellia griseola</i> Fallen		Malloch (1915)	
<i>Peltandra</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia rufa</i> Say	roots, leaves	Marx (1957)	
<i>Peltandra virginica</i> (L.) Schott	Coleoptera: Curculionidae	<i>Listronotus delumbis</i> Gyllenhal		O'Brien (1997)	
<i>Phragmites australis</i> (Cav.) Trin. ex Steud.	Coleoptera: Chrysomelidae	<i>Donacia pubicollis</i> Crotch	roots, leaves	Hoffman (1940)	Northern Michigan, USA
<i>Phragmites</i> sp.	Coleoptera: Chrysomelidae	<i>Donaciella pubicollis</i> Suffrian	floating leaves	Riley et al. (2002)	
<i>Polygonum amphibium</i> L.	Coleoptera: Chrysomelidae	<i>Galerucella nymphaea</i> L.	emergent leaves	Scott (1924)	Michigan, USA
<i>Polygonum amphibium</i> L.	Lepidoptera: Arctiidae	<i>Estigmene acraea</i> Drury		Tietz (1972)	Florida, USA
<i>Polygonum densiflorum</i> Meissner	Coleoptera: Chrysomelidae	<i>Disomycha pensylvanica</i> Illiger	leaves	Heppner and Habeck (1977)	Florida, USA
<i>Polygonum glabrum</i> Willd.	Coleoptera: Chrysomelidae	<i>Disomycha conjugata</i> Fabricius	leaves	Heppner and Habeck (1977)	Florida, USA
<i>Polygonum glabrum</i> Willd.	Coleoptera: Curculionidae	<i>Lixus merula</i> Suffr.	stems, leaves	Center et al. (1999)	
<i>Polygonum glabrum</i> Willd.	Coleoptera: Curculionidae	<i>Lixus punctinatus</i> LeConte	stems, leaves	Center et al. (1999)	
<i>Polygonum glabrum</i> Willd.	Coleoptera: Curculionidae	<i>Rhinoncus longulus</i> LeConte	stems, leaves	Heppner and Habeck (1977)	Florida, USA
<i>Polygonum glabrum</i> Willd.	Coleoptera: Curculionidae	<i>Tyloderma rufescens</i> Casey		Wibmer (1981)	
<i>Polygonum glabrum</i> Willd.	Diptera: Stratiomyidae	<i>Nothomyia calopus</i> Loew		Heppner and Habeck (1977)	Florida, USA
<i>Polygonum glabrum</i> Willd.	Lepidoptera: Crambidae	<i>Ostrinia penitialis</i> Grote	leaves and petioles	Heppner and Habeck (1976)	Florida, USA
<i>Polygonum glabrum</i> Willd.	Lepidoptera: Crambidae	<i>Synclita oblitalis</i> Walker	leaves	Heppner and Habeck (1976)	Florida, USA
<i>Polygonum glabrum</i> Willd.	Lepidoptera: Gelechiidae	<i>Aristotelia ansconditella</i> Walker		Heppner and Habeck (1976)	Florida, USA

TABLE 1. (CONTINUED) A CHECKLIST OF AQUATIC AND WETLAND PLANTS OF THE UNITED STATES AND THEIR INSECT HERBIVORES.

Plant	Insect Order: Family	Insect Species	Part of Plant Affected	Author (year)	Study Region
<i>Polygonum glabrum</i> Willd.	Lepidoptera: Gelechiidae	<i>Chionodes discoocellella</i> Chambers	leaves	Heppner and Habeck (1976)	Florida, USA
<i>Polygonum glabrum</i> Willd.	Lepidoptera: Pyralidae	<i>Sylepta penumbralis</i> Grote	leaves	Heppner and Habeck (1976)	Florida, USA
<i>Polygonum glabrum</i> Willd.	Lepidoptera: Tortricidae	<i>Argyrotaenia ivana</i> Fernald	leaves	Heppner and Habeck (1976)	Florida, USA
<i>Polygonum glabrum</i> Willd.	Coleoptera: Curculionidae	<i>Bagous lunatoides</i> O'Brien		O'Brien and Marshall (1979)	Florida, USA
<i>Polygonum hirsutum</i> Walter	Orthoptera: Acrididae	<i>Paroxya atlantica</i> Scudder		Squitier and Capinera (2002)	Florida, USA
<i>Polygonum hirsutum</i> Walter	Orthoptera: Acrididae	<i>Romalea microptera</i> Beauvois		Squitier and Capinera (2002)	Florida, USA
<i>Polygonum hydropiperoides</i> Michx.	Coleoptera: Chrysomelidae	<i>Galerucella nymphaea</i> L.	emergent leaves	Scott (1924)	Michigan, USA
<i>Polygonum hydropiperoides</i> Michx.	Coleoptera: Curculionidae	<i>Tyloderma rufescens</i> Casey		Wibmer (1981)	
<i>Polygonum hydropiperoides</i> Michx.	Coleoptera: Curculionidae	<i>Tyloderma subpubescens</i> Casey	stems	Wibmer (1981)	
<i>Polygonum hydropiperoides</i> Michx.	Lepidoptera: Crambidae	<i>Synclita oblitalis</i> Walker	leaves	Heppner and Habeck (1976)	Florida, USA
<i>Polygonum hydropiperoides</i> Michx.	Lepidoptera: Noctuidae	<i>Simyra henrici</i> Grote	leaves	Cassani (1985)	Florida, USA
<i>Polygonum lapathifolium</i> L.	Coleoptera: Curculionidae	<i>Tyloderma subpubescens</i> Casey	stems	Wibmer (1981)	
<i>Polygonum punctatum</i> Elliot	Coleoptera: Curculionidae	<i>Lixus merula</i> Suffr.	stems, leaves	Heppner and Habeck (1977)	Florida, USA
<i>Polygonum punctatum</i> Elliot	Coleoptera: Curculionidae	<i>Lixus punctinatus</i> LeConte	stems, leaves	Heppner and Habeck (1977)	Florida, USA
<i>Polygonum punctatum</i> Elliot	Coleoptera: Curculionidae	<i>Rhynoncus longulus</i> LeConte	stems	Heppner and Habeck (1977)	Florida, USA
<i>Polygonum punctatum</i> Elliot	Coleoptera: Curculionidae	<i>Tyloderma rufescens</i> Casey		Wibmer (1981)	
<i>Polygonum punctatum</i> Elliot	Coleoptera: Curculionidae	<i>Tyloderma subpubescens</i> Casey	stems	Mitchell and Pierce (1911)	Texas, USA
<i>Polygonum punctatum</i> Elliot	Diptera: Chloropidae	<i>Elachiptera willistoni</i> Sabrosky	leaves	Heppner and Habeck (1977)	Florida, USA
<i>Polygonum punctatum</i> Elliot	Homoptera: Aphididae	<i>Hyalomyzus tissoti</i> Nielssohn & Habeck	leaves and stems	Heppner and Habeck (1977)	Florida, USA
<i>Polygonum punctatum</i> Elliot	Homoptera: Psyllidae	<i>Aphalara persicaria</i> Caldwell	leaves	Heppner and Habeck (1977)	Florida, USA
<i>Polygonum punctatum</i> Elliot	Hymenoptera: Tenthredinidae	<i>Ametastegia articulata</i> Klug.	leaves	Heppner and Habeck (1977)	Florida, USA
<i>Polygonum punctatum</i> Elliot	Lepidoptera: Arctiidae	<i>Diacrisia virginica</i> Fabricius		Heppner and Habeck (1976)	Florida, USA
<i>Polygonum punctatum</i> Elliot	Lepidoptera: Arctiidae	<i>Estigmene acraea</i> Drury		Heppner and Habeck (1976)	Florida, USA
<i>Polygonum punctatum</i> Elliot	Lepidoptera: Coleophoridae	<i>Coleophora</i> sp.		Heppner and Habeck (1976)	Florida, USA
<i>Polygonum punctatum</i> Elliot	Lepidoptera: Crambidae	<i>Ostrinia penitalis</i> Grote	leaves and petioles	Center et al. (1999)	
<i>Polygonum punctatum</i> Elliot	Lepidoptera: Crambidae	<i>Synclita oblitalis</i> Walker	leaves	Heppner and Habeck (1976)	Florida, USA
<i>Polygonum punctatum</i> Elliot	Lepidoptera: Gelechiidae	<i>Aristotelia ansconditella</i> Walker		Heppner and Habeck (1976)	Florida, USA
<i>Polygonum punctatum</i> Elliot	Lepidoptera: Gelechiidae	<i>Chionodes discoocellella</i> Chambers	leaves	Heppner and Habeck (1976)	Florida, USA
<i>Polygonum punctatum</i> Elliot	Lepidoptera: Geometridae	<i>Anacamptodes defectaria</i> Guenee	flowers, leaves	Heppner and Habeck (1976)	Florida, USA
<i>Polygonum punctatum</i> Elliot	Lepidoptera: Noctuidae	<i>Acronicta obliquata</i> Abbot & Smith		Heppner and Habeck (1976)	Florida, USA
<i>Polygonum punctatum</i> Elliot	Lepidoptera: Noctuidae	<i>Argyrogramma verruca</i> Fabricius	leaves	Heppner and Habeck (1976)	Florida, USA
<i>Polygonum punctatum</i> Elliot	Lepidoptera: Noctuidae	<i>Neoeaetria apicosa</i> Haworth	leaves	Heppner and Habeck (1976)	Florida, USA
<i>Polygonum punctatum</i> Elliot	Lepidoptera: Noctuidae	<i>Palthis asopialis</i> Guenee	leaves	Heppner and Habeck (1976)	Florida, USA
<i>Polygonum punctatum</i> Elliot	Lepidoptera: Noctuidae	<i>Spodoptera dolichos</i> Fabricius	leaves	Heppner and Habeck (1976)	Florida, USA
<i>Polygonum punctatum</i> Elliot	Lepidoptera: Noctuidae	<i>Spodoptera eridania</i> Cramer	leaves	Heppner and Habeck (1976)	Florida, USA
<i>Polygonum punctatum</i> Elliot	Lepidoptera: Tortricidae	<i>Argyrotaenia ivana</i> Fernald	leaves	Heppner and Habeck (1976)	Florida, USA
<i>Polygonum punctatum</i> Elliot	Lepidoptera: Tortricidae	<i>Platynota rostrana</i> Walker	leaves	Heppner and Habeck (1976)	Florida, USA
<i>Polygonum punctatum</i> Elliot	Lepidoptera: Tortricidae	<i>Sparganothis sulfureana</i> Clemens	leaves	Heppner and Habeck (1976)	Florida, USA
<i>Polygonum punctatum</i> Elliot	Orthoptera: Acrididae	<i>Paroxya atlantica</i> Scudder		Squitier and Capinera (2002)	Florida, USA
<i>Polygonum punctatum</i> Elliot	Orthoptera: Acrididae	<i>Paroxya clavuliger</i> Serville		Squitier and Capinera (2002)	Florida, USA
<i>Polygonum punctatum</i> Elliot	Orthoptera: Acrididae	<i>Romalea microptera</i> Beauvois		Squitier and Capinera (2002)	Florida, USA
<i>Polygonum setaceum</i> Baldwin ex Elliot	Lepidoptera: Noctuidae	<i>Argyrogramma verruca</i> Fabricius	leaves	Heppner and Habeck (1976)	Florida, USA
<i>Polygonum</i> sp.	Homoptera: Delphacidae	<i>Pissonotus piceus</i> Van Duzee		Haag et al. (1986)	Florida, USA
<i>Polygonum</i> sp.	Lepidoptera: Arctiidae	<i>Apantesis arge</i> Drury	leaves	Tietz (1972)	Florida, USA
<i>Polygonum</i> sp.	Lepidoptera: Arctiidae	<i>Isia isabella</i> Abbot & Smith	leaves	Tietz (1972)	Florida, USA
<i>Polygonum</i> sp.	Lepidoptera: Coleophoridae	<i>Coleophora shaleriella</i> Chambers	seeds	Forbes (1923)	

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Plant	Insect Order: Family	Insect Species	Part of Plant Affected	Author (year)	Study Region
<i>Polygonum</i> sp.	Lepidoptera: Crambidae	<i>Munroessa icciusalis</i> Walker		Herlong (1979)	South Carolina, USA
<i>Polygonum</i> sp.	Lepidoptera: Crambidae	<i>Ostrinia penitalis</i> Grote	leaves and petioles	Heppner and Habeck (1976)	Florida, USA
<i>Polygonum</i> sp.	Lepidoptera: Crambidae	<i>Parponyx obscuralis</i> Grote		Habeck (1974), Herlong (1979)	South Carolina, USA
<i>Polygonum</i> sp.	Lepidoptera: Crambidae	<i>Synclita oblitalis</i> Walker	leaves	Heppner and Habeck (1976)	Florida, USA
<i>Polygonum</i> sp.	Lepidoptera: Gelechiidae	<i>Chionodes discocelella</i> Chambers	leaves	Forbes (1923)	
<i>Polygonum</i> sp.	Lepidoptera: Geometridae	<i>Apicia confusaria</i> Hübner	leaves	Tietz (1972)	Florida, USA
<i>Polygonum</i> sp.	Lepidoptera: Geometridae	<i>Euphyia centrostrigaria</i> Wolaston	leaves	Tietz (1972)	Florida, USA
<i>Polygonum</i> sp.	Lepidoptera: Geometridae	<i>Euphyia multiferata</i> Walker	leaves	Tietz (1972)	Florida, USA
<i>Polygonum</i> sp.	Lepidoptera: Geometridae	<i>Haematopsis grataria</i> Fabricius	leaves	Tietz (1972)	Florida, USA
<i>Polygonum</i> sp.	Lepidoptera: Geometridae	<i>Melanolophia canadaria</i> Guenée	leaves	Tietz (1972)	Florida, USA
<i>Polygonum</i> sp.	Lepidoptera: Geometridae	<i>Nycterosea obstipata</i> Fabricius	leaves	Tietz (1972)	Florida, USA
<i>Polygonum</i> sp.	Lepidoptera: Geometridae	<i>Prochoerodes transversata</i> Drury	leaves	Tietz (1972)	Florida, USA
<i>Polygonum</i> sp.	Lepidoptera: Geometridae	<i>Timandra amaturlaria</i> Walker	leaves	Tietz (1972)	Florida, USA
<i>Polygonum</i> sp.	Lepidoptera: Lycaenidae	<i>Lycena thoe</i> Guérin-Ménéville	leaves	Tietz (1972)	Florida, USA
<i>Polygonum</i> sp.	Lepidoptera: Noctuidae	<i>Dipterygia scabriuscula</i> L.	leaves	Tietz (1972)	Florida, USA
<i>Polygonum</i> sp.	Lepidoptera: Noctuidae	<i>Feltia subterranea</i> Fabricius	leaves	Tietz (1972)	Florida, USA
<i>Polygonum</i> sp.	Lepidoptera: Noctuidae	<i>Heliothis zea</i> Boddie	leaves	Tietz (1972)	Florida, USA
<i>Polygonum</i> sp.	Lepidoptera: Noctuidae	<i>Lithacodia carneola</i> Guenée	leaves	Tietz (1972)	Florida, USA
<i>Polygonum</i> sp.	Lepidoptera: Noctuidae	<i>Peridroma saucia</i> Hübner	leaves	Tietz (1972)	Florida, USA
<i>Polygonum</i> sp.	Lepidoptera: Noctuidae	<i>Plathypena scabra</i> Fabricius	leaves	Tietz (1972)	Florida, USA
<i>Polygonum</i> sp.	Lepidoptera: Noctuidae	<i>Simyra henrici</i> Grote	leaves	Tietz (1972)	Florida, USA
<i>Polygonum</i> sp.	Lepidoptera: Papilionidae	<i>Battus philenor</i> L.	leaves	Tietz (1972)	Florida, USA
<i>Polygonum</i> sp.	Lepidoptera: Pyralidae	<i>Sylepta penumbralis</i> Grote	leaves	Heppner and Habeck (1976)	Florida, USA
<i>Polygonum</i> sp.	Lepidoptera: Sphingidae	<i>Hyles lineata</i> Fabricius	leaves	Tietz (1972)	Florida, USA
<i>Polygonum</i> sp.	Lepidoptera: Tortricidae	<i>Epiblema otiosana</i> Clemens	leaves	Tietz (1972)	Florida, USA
<i>Polygonum</i> spp.	Coleoptera: Chrysomelidae	<i>Disonycha glabrata</i> Fabricius	stems, leaves	Haag et al. (1986)	Florida, USA
<i>Polygonum</i> spp.	Coleoptera: Chrysomelidae	<i>Disonycha pensylvanica</i> Illiger	leaves	Haag et al. (1986)	Florida, USA
<i>Polygonum</i> spp.	Coleoptera: Curculionidae	<i>Amalus scortillum</i> Herbst	crown	Anderson (2002)	Northeast, USA
<i>Polygonum</i> spp.	Coleoptera: Curculionidae	<i>Homorosoma sulcipenne</i> LeConte		Anderson (2002)	
<i>Polygonum</i> spp.	Coleoptera: Curculionidae	<i>Neophytobius cavifrons</i> LeConte		Anderson (2002)	
<i>Polygonum</i> spp.	Coleoptera: Curculionidae	<i>Rhinoncus pyrrhopus</i> Bohemon		Hoebcke and Whitehead (1980)	
<i>Polygonum</i> spp.	Coleoptera: Curculionidae	<i>Rhinoncus</i> sp.		Haag et al. (1986)	Florida, USA
<i>Polygonum</i> spp.	Coleoptera: Curculionidae	<i>Tyloclonus capitale</i> Wibmer		Wibmer (1981)	
<i>Polygonum</i> spp.	Lepidoptera: Noctuidae	<i>Acronycta oblimita</i> Abbot and Smith		Brigham and Herlong (1982)	
<i>Polygonum</i> spp.	Lepidoptera: Noctuidae	<i>Dipterygia scabriuscula</i> Linnaeus		Forbes (1954)	
<i>Polygonum</i> spp.	Lepidoptera: Noctuidae	<i>Neoerastria apicosa</i> Haworth	leaves	Tietz (1972)	Florida, USA
<i>Polygonum</i> spp.	Lepidoptera: Noctuidae	<i>Lithacodia carneola</i> Guenée		Forbes (1954)	
<i>Pontederia cordata</i> L.	Coleoptera: Curculionidae	<i>Onychylis nigrirostris</i> Boheman	emergent leaves, stems	Haag et al. (1986)	Florida, USA
<i>Pontederia cordata</i> L.	Diptera: Ephydriidae	<i>Hydrellia pontederiae</i> Deonier		Deonier (1993)	Florida, USA
<i>Pontederia cordata</i> L.	Homoptera: Aphididae	<i>Rhopalosiphum nymphaeae</i> L.	leaves	Center et al. (1999)	
<i>Pontederia cordata</i> L.	Lepidoptera: Noctuidae	<i>Bellura densa</i> Walker	stems and petioles	Vogel and Oliver (1969)	
<i>Pontederia cordata</i> L.	Lepidoptera: Noctuidae	<i>Bellura gortynoides</i> Walker	leaves	McCafferty and Minno (1979)	
<i>Pontederia cordata</i> L.	Lepidoptera: Noctuidae	<i>Bellura obliqua</i> Walker	leaves	McCafferty and Minno (1979)	
<i>Pontederia cordata</i> L.	Orthoptera: Acrididae	<i>Leptysmia marginicollis</i> Serville		Squitier and Capinera (2002)	Florida, USA
<i>Pontederia cordata</i> L.	Orthoptera: Acrididae	<i>Paroxya atlantica</i> Scudder		Squitier and Capinera (2002)	Florida, USA
<i>Pontederia cordata</i> L.	Orthoptera: Acrididae	<i>Paroxya clavuliger</i> Serville		Squitier and Capinera (2002)	Florida, USA
<i>Pontederia cordata</i> L.	Orthoptera: Acrididae	<i>Romalea microptera</i> Beauvois		Squitier and Capinera (2002)	Florida, USA

TABLE 1. (CONTINUED) A CHECKLIST OF AQUATIC AND WETLAND PLANTS OF THE UNITED STATES AND THEIR INSECT HERBIVORES.

Plant	Insect Order: Family	Insect Species	Part of Plant Affected	Author (year)	Study Region
<i>Pontederia cordata</i> L.	Orthoptera: Acrididae	<i>Stenacris vitreipennis</i> Marschall		Squitier and Capinera (2002)	Florida, USA
<i>Pontederia</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia fulgens</i> LeConte	roots, leaves	Marx (1957)	
<i>Pontederia</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia rugosa</i> LeConte	roots, leaves	Marx (1957)	
<i>Pontederia</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia subtilis</i> Kunze	roots, leaves	Marx (1957)	
<i>Populus angustifolia</i> James	Coleoptera: Curculionidae	<i>Isochnus rufipes</i> LeConte	leaves	Anderson (1989)	
<i>Populus balsamifera</i> L. ssp. <i>balsamifera</i>	Coleoptera: Chrysomelidae	<i>Altica prasina populi</i> Brown	leaves	LeSage (1995)	
<i>Populus balsamifera</i> L. ssp. <i>balsamifera</i>	Coleoptera: Curculionidae	<i>Tachyerges salicis</i> Linnaeus	leaves	Anderson (1989)	
<i>Populus balsamifera</i> L. ssp. <i>trichocarpa</i> (Torr. & A. Gray ex Hook.) Brayshaw	Coleoptera: Chrysomelidae	<i>Altica prasina populi</i> Brown	leaves	LeSage (1995)	
<i>Populus balsamifera</i> L. ssp. <i>trichocarpa</i> (Torr. & A. Gray ex Hook.) Brayshaw	Coleoptera: Chrysomelidae	<i>Altica prasina prasina</i> LeConte	leaves	LeSage (1995)	
<i>Populus balsamifera</i> L. ssp. <i>trichocarpa</i> (Torr. & A. Gray ex Hook.) Brayshaw	Coleoptera: Curculionidae	<i>Tachyerges salicis</i> Linnaeus	leaves	Anderson (1989)	
<i>Populus deltoides</i> Marsh.	Coleoptera: Chrysomelidae	<i>Altica prasina populi</i> Brown	leaves	LeSage (1995)	
<i>Populus deltoides</i> Marsh.	Coleoptera: Chrysomelidae	<i>Altica prasina prasina</i> LeConte	leaves	LeSage (1995)	
<i>Populus</i> sp.	Lepidoptera: Geometridae	<i>Anacamptodes defectaria</i> Guenee	flowers, leaves	Kimball (1965)	Florida, USA
<i>Populus</i> spp.	Coleoptera: Chrysomelidae	<i>Chrysomela crotchi</i> Brown		Riley et al. (2002)	
<i>Populus</i> spp.	Coleoptera: Chrysomelidae	<i>Chrysomela invicta</i> Brown		Riley et al. (2002)	
<i>Populus</i> spp.	Coleoptera: Chrysomelidae	<i>Plagioderia californica</i> Rogers		Riley et al. (2002)	
<i>Populus</i> spp.	Coleoptera: Chrysomelidae	<i>Plagioderia californica</i> Rogers		Riley et al. (2002)	
<i>Populus</i> spp.	Coleoptera: Chrysomelidae	<i>Plagioderia versicolora</i> Laicharding		Riley et al. (2002)	
<i>Populus</i> spp.	Coleoptera: Curculionidae	<i>Rutidosoma decipiens</i> LeConte		Anderson (1997)	
<i>Populus</i> spp.	Lepidoptera: Noctuidae	<i>Simyra henrici</i> Grote	leaves	Center et al. (1999)	
<i>Populus tremuloides</i> Michx.	Coleoptera: Curculionidae	<i>Tachyerges salicis</i> Linnaeus	leaves	Anderson (1989)	
<i>Potamogeton alpinus</i> Balbis	Coleoptera: Chrysomelidae	<i>Donacia cincticornis</i> Newman	roots, leaves	Berg (1949)	Michigan, USA
<i>Potamogeton alpinus</i> Balbis	Coleoptera: Chrysomelidae	<i>Donacia hirticollis</i> Kirby	roots, leaves	Berg (1949)	Michigan, USA
<i>Potamogeton alpinus</i> Balbis	Diptera: Anthomyiidae	<i>Hydromyza confluens</i> Loew	Roots	Berg (1949)	Michigan, USA
<i>Potamogeton alpinus</i> Balbis	Diptera: Ephydriidae	<i>Hydrellia ascita</i> Cresson	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton alpinus</i> Balbis	Diptera: Ephydriidae	<i>Hydrellia cruralis</i> Coquillet	submerged leaves (rarely on floating leaves)	Berg (1949)	Michigan, USA
<i>Potamogeton alpinus</i> Balbis	Diptera: Ephydriidae	<i>Hydrellia luctuosa</i> Cresson	submerged leaves (rarely on floating leaves)	Berg (1949)	Michigan, USA
<i>Potamogeton alpinus</i> Balbis	Diptera: Ephydriidae	<i>Notiphila loewi</i> Cresson	Roots	Berg (1949)	Michigan, USA
<i>Potamogeton alpinus</i> Balbis	Trichoptera: Leptoceridae	<i>Triaenodes marginata</i> Sibley	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton amplifolius</i> Tuck.	Coleoptera: Chrysomelidae	<i>Donacia cincticornis</i> Newman	roots, leaves	Berg (1949)	Michigan, USA
<i>Potamogeton amplifolius</i> Tuck.	Coleoptera: Chrysomelidae	<i>Donacia hirticollis</i> Kirby	roots, leaves	Berg (1949)	Michigan, USA
<i>Potamogeton amplifolius</i> Tuck.	Diptera: Chironomidae	<i>Cricotopus elegans</i> Johannsen	floating leaves	Berg (1949)	Michigan, USA
<i>Potamogeton amplifolius</i> Tuck.	Diptera: Chironomidae	<i>Cricotopus flavipes</i> Johannsen	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton amplifolius</i> Tuck.	Diptera: Chironomidae	<i>Cricotopus trifasciatus</i> Panzer	Floating leaves	Berg (1949)	Michigan, USA
<i>Potamogeton amplifolius</i> Tuck.	Diptera: Chironomidae	<i>Glyptotendipes dreisbachi</i> Townes	stems, petioles, leaf mid-ribs	Berg (1949)	Michigan, USA
<i>Potamogeton amplifolius</i> Tuck.	Diptera: Chironomidae	<i>Glyptotendipes lobiferus</i> Say	stems, petioles, leaf mid-ribs	Berg (1949)	Michigan, USA
<i>Potamogeton amplifolius</i> Tuck.	Diptera: Chironomidae	<i>Polypedium sordens van der Wulp</i>	stems, petioles, leaf mid-ribs	Berg (1949)	Michigan, USA
<i>Potamogeton amplifolius</i> Tuck.	Diptera: Chironomidae	<i>Tanytarsus nigricans</i> Johannsen	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton amplifolius</i> Tuck.	Diptera: Ephydriidae	<i>Hydrellia ascita</i> Cresson	submerged leaves	Berg (1949)	Michigan, USA

TABLE 1. (CONTINUED) A CHECKLIST OF AQUATIC AND WETLAND PLANTS OF THE UNITED STATES AND THEIR INSECT HERBIVORES.

Plant	Insect Order: Family	Insect Species	Part of Plant Affected	Author (year)	Study Region
Potamogeton amplifolius Tuck.	Diptera: Ephydriidae	<i>Hydrellia cruralis</i> Coquillet	submerged leaves (rarely on floating leaves)	Berg (1949)	Michigan, USA
<i>Potamogeton amplifolius</i> Tuck.	Diptera: Ephydriidae	<i>Hydrellia luctuosa</i> Cresson	submerged leaves (rarely on floating leaves)	Berg (1949)	Michigan, USA
<i>Potamogeton amplifolius</i> Tuck.	Diptera: Ephydriidae	<i>Hydrellia pulla</i> Cresson	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton amplifolius</i> Tuck.	Lepidoptera: Crambidae	<i>Paraponyx badiusalis</i> Walker	submerged leaves (rarely on floating leaves)	Berg (1949, 1950)	Michigan, Wisconsin, USA
<i>Potamogeton amplifolius</i> Tuck.	Lepidoptera: Crambidae	<i>Paraponyx obscuralis</i> Grote	submerged leaves	Berg (1949, 1950)	Michigan, USA
<i>Potamogeton amplifolius</i> Tuck.	Trichoptera: Leptoceridae	<i>Leptocella albida</i> Walker	leaves, stems, stipules, petioles	Berg (1949)	Michigan, USA
<i>Potamogeton amplifolius</i> Tuck.	Trichoptera: Leptoceridae	<i>Triaenodes aba</i> Milne	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton amplifolius</i> Tuck.	Trichoptera: Leptoceridae	<i>Triaenodes injusta</i> Hagen	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton amplifolius</i> Tuck.	Trichoptera: Leptoceridae	<i>Triaenodes tarda</i> Milne	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton amplifolius</i> Tuck.	Trichoptera: Phryganeidae	<i>Ptilostomis</i> sp.	Leaves	Berg (1949)	Michigan, USA
<i>Potamogeton berchtoldii</i> Fieber	Diptera: Ephydriidae	<i>Hydrellia bilobifera</i> Cresson		Deonier (1971)	
<i>Potamogeton diversifolius</i> Fernald	Lepidoptera: Crambidae	<i>Munroessa gyralis</i> Hülst		Stoops et al. (1998)	South Carolina, USA
<i>Potamogeton diversifolius</i> Fernald	Lepidoptera: Crambidae	<i>Munroessa icciusalis</i> Walker		Stoops et al. (1998)	South Carolina, USA
<i>Potamogeton diversifolius</i> Fernald	Lepidoptera: Crambidae	<i>Paraponyx allionealis</i> Walker		Stoops et al. (1998)	South Carolina, USA
<i>Potamogeton diversifolius</i> Fernald	Lepidoptera: Crambidae	<i>Paraponyx obscuralis</i> Grote		Stoops et al. (1998)	South Carolina, USA
<i>Potamogeton diversifolius</i> Fernald	Lepidoptera: Crambidae	<i>Paraponyx seminealis</i> Walker		Stoops et al. (1998)	South Carolina, USA
<i>Potamogeton epihydrus</i> Raf.	Coleoptera: Chrysomelidae	<i>Donacia hirticollis</i> Kirby	roots, leaves	Berg (1949)	Michigan, USA
<i>Potamogeton epihydrus</i> Raf.	Diptera: Chironomidae	<i>Cricotopus flavipes</i> Johannsen	submerged leaves	Berg (1950)	Michigan, USA
<i>Potamogeton epihydrus</i> Raf.	Diptera: Ephydriidae	<i>Hydrellia ascita</i> Cresson	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton epihydrus</i> Raf.	Diptera: Ephydriidae	<i>Hydrellia bilobifera</i> Cresson		Deonier (1971)	
<i>Potamogeton epihydrus</i> Raf.	Diptera: Ephydriidae	<i>Hydrellia cruralis</i> Coquillet	submerged leaves (rarely on floating leaves)	Berg (1949)	Michigan, USA
<i>Potamogeton epihydrus</i> Raf.	Diptera: Ephydriidae	<i>Hydrellia discursa</i> Deonier		Deonier (1971)	
<i>Potamogeton epihydrus</i> Raf.	Diptera: Ephydriidae	<i>Hydrellia trichaeta</i> Cresson		Deonier (1971)	
<i>Potamogeton epihydrus</i> Raf.	Lepidoptera: Crambidae	<i>Paraponyx obscuralis</i> Grote		Herlong (1979)	South Carolina, USA
<i>Potamogeton foliosis</i> Raf.	Diptera: Ephydriidae	<i>Hydrellia ascita</i> Cresson	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton foliosis</i> Raf.	Diptera: Ephydriidae	<i>Hydrellia cruralis</i> Coquillet	submerged leaves (rarely on floating leaves)	Berg (1949)	Michigan, USA
<i>Potamogeton friesii</i> Rupr.	Trichoptera: Leptoceridae	<i>Triaenodes injusta</i> Hagen	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton gramineus</i> L.	Coleoptera: Chrysomelidae	<i>Donacia cincticornis</i> Newman	roots, leaves	Berg (1949)	Michigan, USA
<i>Potamogeton gramineus</i> L.	Diptera: Chironomidae	<i>Glyptotendipes dreisbachi</i> Townes	stems, petioles, leaf mid-ribs	Berg (1950)	Michigan, USA
<i>Potamogeton gramineus</i> L.	Diptera: Chironomidae	<i>Glyptotendipes lobiferus</i> Say	stems, petioles, leaf mid-ribs	Berg (1950)	Michigan, USA
<i>Potamogeton gramineus</i> L.	Diptera: Chironomidae	<i>Polypedium sordens</i> van der Wulp	stems, petioles, leaf mid-ribs	Berg (1950)	Michigan, USA
<i>Potamogeton gramineus</i> L.	Diptera: Chironomidae	<i>Tanytarsus nigricans</i> Johannsen	submerged leaves	Berg (1950)	Michigan, USA
<i>Potamogeton gramineus</i> L.	Diptera: Ephydriidae	<i>Hydrellia bilobifera</i> Cresson		Deonier (1971)	
<i>Potamogeton gramineus</i> L.	Diptera: Ephydriidae	<i>Hydrellia cruralis</i> Coquillet	submerged leaves (rarely on floating leaves)	Berg (1949)	Michigan, USA

TABLE 1. (CONTINUED) A CHECKLIST OF AQUATIC AND WETLAND PLANTS OF THE UNITED STATES AND THEIR INSECT HERBIVORES.

Plant	Insect Order: Family	Insect Species	Part of Plant Affected	Author (year)	Study Region
<i>Potamogeton gramineus</i> L.	Diptera: Ephydriidae	<i>Hydrellia discursa</i> Deonier		Deonier (1971)	
<i>Potamogeton gramineus</i> L.	Diptera: Ephydriidae	<i>Hydrellia pulla</i> Cresson	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton gramineus</i> L.	Diptera: Ephydriidae	<i>Hydrellia trichaeta</i> Cresson	submerged leaves (rarely on floating leaves)	Deonier (1971)	
<i>Potamogeton gramineus</i> L.	Trichoptera: Leptoceridae	<i>Leptocella albida</i> Walker	leaves, stems, stipules, petioles	Berg (1949)	Michigan, USA
<i>Potamogeton illinoensis</i> Morong	Coleoptera: Chrysomelidae	<i>Haemonia nigricornis</i> Kirby	roots, stipules, stems, leaves	Berg (1949)	Michigan, USA
<i>Potamogeton illinoensis</i> Morong	Diptera: Chironomidae	<i>Cricotopus flavipes</i> Johannsen	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton illinoensis</i> Morong	Diptera: Chironomidae	<i>Tanytarsus nigricans</i> Johannsen	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton illinoensis</i> Morong	Diptera: Ephydriidae	<i>Hydrellia ascita</i> Cresson	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton illinoensis</i> Morong	Diptera: Ephydriidae	<i>Hydrellia bilobifera</i> Cresson	submerged leaves (rarely on floating leaves)	Deonier (1998)	
<i>Potamogeton illinoensis</i> Morong	Diptera: Ephydriidae	<i>Hydrellia cruralis</i> Coquillet	submerged leaves (rarely on floating leaves)	Berg (1949)	Michigan, USA
<i>Potamogeton natans</i> L.	Coleoptera: Chrysomelidae	<i>Donacia cincticornis</i> Newman	roots, leaves	Berg (1949)	Michigan, USA
<i>Potamogeton natans</i> L.	Coleoptera: Chrysomelidae	<i>Donacia hirticollis</i> Kirby	roots, leaves	Hoffman (1940)	Northern Michigan, USA
<i>Potamogeton natans</i> L.	Coleoptera: Chrysomelidae	<i>Donacia hirticollis</i> Kirby	roots, leaves	Berg (1949)	Michigan, USA
<i>Potamogeton natans</i> L.	Coleoptera: Chrysomelidae	<i>Donacia</i> sp.	roots, leaves	Hoffman (1940)	Northern Michigan, USA
<i>Potamogeton natans</i> L.	Coleoptera: Chrysomelidae	<i>Haemonia nigricornis</i> Kirby	roots, stipules, stems, leaves	Hoffman (1940)	Northern Michigan, USA
<i>Potamogeton natans</i> L.	Diptera: Chironomidae	<i>Cricotopus elegans</i> Johannsen	floating leaves	Berg (1949)	Michigan, USA
<i>Potamogeton natans</i> L.	Diptera: Chironomidae	<i>Cricotopus trifasciatus</i> Panzer	floating leaves	Berg (1949)	Michigan, USA
<i>Potamogeton natans</i> L.	Diptera: Chironomidae	<i>Glyptotendipes dreisbachi</i> Townes	stems, petioles, leaf mid-ribs	Berg (1949)	Michigan, USA
<i>Potamogeton natans</i> L.	Diptera: Chironomidae	<i>Polypedium bergi</i> Maschwitz	leaves	Epler (2001)	
<i>Potamogeton natans</i> L.	Diptera: Chironomidae	<i>Polypedium illinoense</i> Malloch	floating leaves	Berg (1949)	Michigan, USA
<i>Potamogeton natans</i> L.	Diptera: Chironomidae	<i>Polypedium ophiodes</i> Townes	floating leaves	Berg (1949)	Michigan, USA
<i>Potamogeton natans</i> L.	Diptera: Chironomidae	<i>Polypedium sordens van der Wulp</i>	stems, petioles, leaf mid-ribs	Berg (1949)	Michigan, USA
<i>Potamogeton natans</i> L.	Diptera: Ephydriidae	<i>Hydrellia bergi</i> Cresson	stems, petioles	Berg (1949)	Michigan, USA
<i>Potamogeton natans</i> L.	Diptera: Ephydriidae	<i>Hydrellia cruralis</i> Coquillet	submerged leaves (rarely on floating leaves)	Berg (1949)	Michigan, USA
<i>Potamogeton natans</i> L.	Diptera: Ephydriidae	<i>Hydrellia ischiaca</i> Loew		Deonier (1971)	
<i>Potamogeton natans</i> L.	Diptera: Ephydriidae	<i>Hydrellia luctuosa</i> Cresson	submerged leaves (rarely on floating leaves)	Berg (1949)	Michigan, USA
<i>Potamogeton natans</i> L.	Homoptera: Aphididae	<i>Rhopalosiphum nymphaeae</i> L.	floating leaves	Berg (1949)	Michigan, USA
<i>Potamogeton natans</i> L.	Homoptera: Delphacidae	<i>Megamelus davisii</i> Van Duzee	floating leaves	Berg (1949)	Michigan, USA
<i>Potamogeton natans</i> L.	Lepidoptera: Crambidae	<i>Munroessa icciusalis</i> Walker	floating leaves	Berg (1949)	Michigan, USA
<i>Potamogeton natans</i> L.	Lepidoptera: Crambidae	<i>Paraponyx allionealis itealis</i> Walker	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton natans</i> L.	Lepidoptera: Crambidae	<i>Paraponyx badiusalis</i> Walker	submerged leaves (rarely on floating leaves)	Berg (1949)	Michigan, USA

TABLE 1. (CONTINUED) A CHECKLIST OF AQUATIC AND WETLAND PLANTS OF THE UNITED STATES AND THEIR INSECT HERBIVORES.

Plant	Insect Order: Family	Insect Species	Part of Plant Affected	Author (year)	Study Region
<i>Potamogeton natans</i> L.	Lepidoptera: Crambidae	<i>Parapoxyx obscuralis</i> Grote	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton natans</i> L.	Lepidoptera: Crambidae	<i>Synclita oblateralis</i> Walker		Brigham and Herlong (1982)	
<i>Potamogeton nodosus</i> Poir.	Diptera: Chironomidae	<i>Cricotopus elegans</i> Johannsen	floating leaves	Berg (1949)	Michigan, USA
<i>Potamogeton nodosus</i> Poir.	Diptera: Chironomidae	<i>Cricotopus trifasciatus</i> Panzer	floating leaves	Berg (1949)	Michigan, USA
<i>Potamogeton nodosus</i> Poir.	Diptera: Chironomidae	<i>Glyptotendipes dreisbachi</i> Townes	stems, petioles, leaf mid-ribs	Berg (1949)	Michigan, USA
<i>Potamogeton nodosus</i> Poir.	Diptera: Ephydriidae	<i>Hydrellia bilobifera</i> Cresson	submerged leaves (rarely on floating leaves)	Deonier (1971)	
<i>Potamogeton nodosus</i> Poir.	Diptera: Ephydriidae	<i>Hydrellia cruralis</i> Coquillet	submerged leaves (rarely on floating leaves)	Berg (1949)	Michigan, USA
<i>Potamogeton nodosus</i> Poir.	Diptera: Ephydriidae	<i>Hydrellia discursa</i> Deonier	submerged leaves (rarely on floating leaves)	Deonier (1971)	
<i>Potamogeton nodosus</i> Poir.	Diptera: Ephydriidae	<i>Hydrellia trichaeta</i> Cresson	submerged leaves (rarely on floating leaves)	Deonier (1971)	
<i>Potamogeton nodosus</i> Poir.	Homoptera: Aphididae	<i>Rhopalosiphum nymphaeae</i> L.	Floating leaves	Berg (1949)	Michigan, USA
<i>Potamogeton oakesianus</i> J.W. Robbins	Diptera: Ephydriidae	<i>Hydrellia ascita</i> Cresson	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton praelongus</i> Wulfen	Diptera: Chironomidae	<i>Cricotopus flavipes</i> Johannsen	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton praelongus</i> Wulfen	Diptera: Chironomidae	<i>Glyptotendipes dreisbachi</i> Townes	stems, petioles, leaf mid-ribs	Berg (1949)	Michigan, USA
<i>Potamogeton praelongus</i> Wulfen	Diptera: Ephydriidae	<i>Hydrellia caliginosa</i> Cresson	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton praelongus</i> Wulfen	Diptera: Ephydriidae	<i>Hydrellia cruralis</i> Coquillet	submerged leaves (rarely on floating leaves)	Berg (1949)	Michigan, USA
<i>Potamogeton praelongus</i> Wulfen	Lepidoptera: Crambidae	<i>Parapoxyx badiusalis</i> Walker	submerged leaves (rarely on floating leaves)	Berg (1949)	Michigan, USA
<i>Potamogeton praelongus</i> Wulfen	Lepidoptera: Crambidae	<i>Parapoxyx obscuralis</i> Grote	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton praelongus</i> Wulfen	Trichoptera: Leptoceridae	<i>Leptocella albida</i> Walker	Leaves, stems, stipules, petioles	Berg (1949)	Michigan, USA
<i>Potamogeton pulcher</i> Tuck.	Lepidoptera: Crambidae	<i>Munroessa gyralis</i> Hulst		Stoops et al. (1998)	South Carolina, USA
<i>Potamogeton pulcher</i> Tuck.	Lepidoptera: Crambidae	<i>Munroessa icciusalis</i> Walker		Herlong (1979)	South Carolina, USA
<i>Potamogeton pulcher</i> Tuck.	Lepidoptera: Crambidae	<i>Parapoxyx obscuralis</i> Grote		Herlong (1979), Stoops et al. (1998)	South Carolina, USA
<i>Potamogeton pusillus</i> L.	Coleoptera: Curculionidae	<i>Bagous restrictus</i> LeConte		O'Brien and Marshall (1979)	California, USA
<i>Potamogeton pusillus</i> L.	Coleoptera: Curculionidae	<i>Bagous transversus</i> LeConte		O'Brien and Marshall (1979)	Utah, USA
<i>Potamogeton pusillus</i> L.	Diptera: Ephydriidae	<i>Hydrellia bilobifera</i> Cresson		Deonier (1998)	
<i>Potamogeton pusillus</i> L.	Lepidoptera: Crambidae	<i>Parapoxyx allionealis</i> Walker		Habeck (1974)	
<i>Potamogeton pusillus</i> L. ssp. <i>pusillus</i>	Coleoptera: Curculionidae	<i>Bagous tingi</i> Tanner		Tanner (1943)	
<i>Potamogeton pusillus</i> L. ssp. <i>tenuissimus</i> (Mert. & W. D. J. Koch) Haynes & C. B. Hellquist	Lepidoptera: Crambidae	<i>Langessa nomophilalis</i> Dyar		Stoops et al. (1998)	South Carolina, USA
<i>Potamogeton richardsonii</i> (Benn.) Rydb.	Coleoptera: Chrysomelidae	<i>Donacia cincticornis</i> Newman	roots, leaves	Berg (1949)	Michigan, USA
<i>Potamogeton richardsonii</i> (Benn.) Rydb.	Coleoptera: Chrysomelidae	<i>Donacia hirticollis</i> Kirby	roots, leaves	Berg (1949)	Michigan, USA
<i>Potamogeton richardsonii</i> (Benn.) Rydb.	Diptera: Chironomidae	<i>Cricotopus flavipes</i> Johannsen	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton richardsonii</i> (Benn.) Rydb.	Diptera: Chironomidae	<i>Glyptotendipes dreisbachi</i> Townes	stems, petioles, leaf mid-ribs	Berg (1949)	Michigan, USA

TABLE 1. (CONTINUED) A CHECKLIST OF AQUATIC AND WETLAND PLANTS OF THE UNITED STATES AND THEIR INSECT HERBIVORES.

Plant	Insect Order: Family	Insect Species	Part of Plant Affected	Author (year)	Study Region
<i>Potamogeton richardsonii</i> (Benn.) Rydb.	Diptera: Chironomidae	<i>Polypedium sordens</i> van der Wulp	stems, petioles, leaf mid-ribs	Berg (1949)	Michigan, USA
<i>Potamogeton richardsonii</i> (Benn.) Rydb.	Diptera: Chironomidae	<i>Tanytarsus nigricans</i> Johannsen	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton richardsonii</i> (Benn.) Rydb.	Diptera: Ephydriidae	<i>Hydrellia ascita</i> Cresson	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton richardsonii</i> (Benn.) Rydb.	Diptera: Ephydriidae	<i>Hydrellia bergi</i> Cresson	stems, petioles	Berg (1949)	Michigan, USA
<i>Potamogeton richardsonii</i> (Benn.) Rydb.	Diptera: Ephydriidae	<i>Hydrellia cruralis</i> Coquillet	submerged leaves (rarely on floating leaves)	Berg (1949)	Michigan, USA
<i>Potamogeton richardsonii</i> (Benn.) Rydb.	Diptera: Ephydriidae	<i>Hydrellia luctuosa</i> Cresson	submerged leaves (rarely on floating leaves)	Berg (1949)	Michigan, USA
<i>Potamogeton richardsonii</i> (Benn.) Rydb.	Diptera: Ephydriidae	<i>Hydrellia pulla</i> Cresson	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton richardsonii</i> (Benn.) Rydb.	Diptera: Ephydriidae	<i>Notiphila loewi</i> Cresson	Roots	Berg (1949)	Michigan, USA
<i>Potamogeton richardsonii</i> (Benn.) Rydb.	Lepidoptera: Crambidae	<i>Paraponyx badiusalis</i> Walker	submerged leaves (rarely on floating leaves)	Berg (1949)	Michigan, USA
<i>Potamogeton richardsonii</i> (Benn.) Rydb.	Lepidoptera: Crambidae	<i>Paraponyx obscuralis</i> Grote	submerged leaves	Berg (1950)	Michigan, USA
<i>Potamogeton richardsonii</i> (Benn.) Rydb.	Trichoptera: Leptoceridae	<i>Trianaodes injusta</i> Hagen	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton robbinsii</i> Oakes	Diptera: Chironomidae	<i>Cricotopus flavipes</i> Johannsen	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton robbinsii</i> Oakes	Diptera: Chironomidae	<i>Glyptotendipes dreisbachi</i> Townes	stems, petioles, leaf mid-ribs	Berg (1949)	Michigan, USA
Potamogeton robbinsii Oakes	Diptera: Chironomidae	<i>Glyptotendipes lobiferus</i> Say	stems, petioles, leaf mid-ribs	Berg (1949)	Michigan, USA
Potamogeton robbinsii Oakes	Diptera: Chironomidae	<i>Polypedium sordens</i> van der Wulp	stems, petioles, leaf mid-ribs	Berg (1949)	Michigan, USA
<i>Potamogeton robbinsii</i> Oakes	Trichoptera: Leptoceridae	<i>Leptocella albida</i> Walker	Leaves, stems, stipules, petioles	Berg (1949)	Michigan, USA
<i>Potamogeton robbinsii</i> Oakes	Trichoptera: Leptoceridae	<i>Trianaodes injusta</i> Hagen	submerged leaves	Berg (1949)	Michigan, USA
<i>Potamogeton</i> sp.	Coleoptera: Curculionidae	<i>Bagous chandleri</i> Tanner		O'Brien and Marshall (1979)	Utah, USA
<i>Potamogeton</i> sp.	Coleoptera: Curculionidae	<i>Bagous tingi</i> Tanner		O'Brien and Marshall (1979)	
<i>Potamogeton</i> sp.	Diptera: Ephydriidae	<i>Hydrellia fascitibia</i> von Rosser	submerged leaves (rarely on floating leaves)	Hering (1951)	
<i>Potamogeton</i> spp.	Coleoptera: Curculionidae	<i>Eurychiopsis lecontei</i> Dietz		Anderson (2002)	
<i>Potamogeton zosteriformis</i> Fernald	Diptera: Ephydriidae	<i>Hydrellia bergi</i> Cresson	stems, petioles	Berg (1949)	Michigan, USA
<i>Potamogeton zosteriformis</i> Fernald	Diptera: Ephydriidae	<i>Hydrellia cruralis</i> Coquillet	submerged leaves (rarely on floating leaves)	Berg (1949)	Michigan, USA
<i>Potamogeton zosteriformis</i> Fernald	Diptera: Ephydriidae	<i>Hydrellia itascae</i> Deonier		Deonier (1971)	
<i>Potamogeton zosteriformis</i> Fernald	Diptera: Ephydriidae	<i>Hydrellia luctuosa</i> Cresson	submerged leaves (rarely on floating leaves)	Berg (1949)	Michigan, USA
<i>Potamogeton zosteriformis</i> Fernald	Lepidoptera: Crambidae	<i>Paraponyx badiusalis</i> Walker	submerged leaves (rarely on floating leaves)	Berg (1949)	Michigan, USA
<i>Rhexia mariana</i> L.	Coleoptera: Curculionidae	<i>Tyloderma marshalli</i> Wibmer		Wibmer (1981)	
<i>Rhexia virginica</i> L.	Coleoptera: Curculionidae	<i>Tyloderma caseyi</i> Wibmer	leaves	Wibmer (1981)	
<i>Ricciocarpus natans</i> (L.) Corda	Coleoptera: Curculionidae	<i>Tanyssphyrus ater</i> Blatchley	floating leaves	Anderson (2002)	
<i>Roripa americana</i> Gray	Coleoptera: Curculionidae	<i>Ceutorhynchus semirufus</i> LeConte		Blatchley (1922)	Indiana, USA

TABLE 1. (CONTINUED) A CHECKLIST OF AQUATIC AND WETLAND PLANTS OF THE UNITED STATES AND THEIR INSECT HERBIVORES.

Plant	Insect Order: Family	Insect Species	Part of Plant Affected	Author (year)	Study Region
<i>Rumex</i> sp.	Lepidoptera: Gelechiidae	<i>Chionodes discoocellella</i> Chambers	leaves	Forbes (1923)	
<i>Rumex</i> spp.	Coleoptera: Chrysomelidae	<i>Mantura chrysanthemi</i> Koch	leaves	Riley et al. (2002)	
<i>Rumex</i> spp.	Coleoptera: Chrysomelidae	<i>Mantura floridana</i> Crotch	leaves	Riley et al. (2002)	
<i>Rumex</i> spp.	Lepidoptera: Noctuidae	<i>Dipterygia scabriuscula</i> Linnaeus		Forbes (1954)	
<i>Rumex</i> spp.	Lepidoptera: Noctuidae	<i>Lithacodia carneola</i> Guenée		Forbes (1954)	
<i>Sagittaria cuneata</i> Sheldon	Coleoptera: Curculionidae	<i>Listronotus rubtsoffi</i> O'Brien	stems, root collars	O'Brien (1981)	
<i>Sagittaria englemanniana</i> J. G. Smith	Coleoptera: Curculionidae	<i>Listronotus neocallosus</i> O'Brien	leaf petiole, root collar	O'Brien (1981)	
<i>Sagittaria filiformis</i> J. G. Sm.	Coleoptera: Curculionidae	<i>Listronotus neocallosus</i> O'Brien	leaf petiole, root collar	O'Brien (1981)	
<i>Sagittaria filiformis</i> J. G. Sm.	Lepidoptera: Crambidae	<i>Paraponyx obscuralis</i> Grote		Habeck (1974)	
<i>Sagittaria graminea</i> Michx.	Coleoptera: Curculionidae	<i>Listronotus neocallosus</i> O'Brien	leaf petiole, root collar	O'Brien (1981)	
<i>Sagittaria graminea</i> Michx.	Coleoptera: Curculionidae	<i>Listronotus</i> sp.	fruiting heads, flower stalks	Haag et al. (1986)	Florida, USA
<i>Sagittaria lancifolia</i> Linnaeus	Coleoptera: Curculionidae	<i>Listronotus cryptops</i> Dietz	flower stalks	O'Brien (1981)	
<i>Sagittaria latifolia</i> Willd.	Coleoptera: Curculionidae	<i>Listronotus squamiger</i> Say		O'Brien (1997)	
<i>Sagittaria latifolia</i> Willd.	Coleoptera: Chrysomelidae	<i>Donacia aequalis</i> Say	roots, leaves	Hoffman (1940), McGaha (1952)	Michigan, USA
<i>Sagittaria latifolia</i> Willd.	Coleoptera: Chrysomelidae	<i>Donacia subtilis</i> Kunze	roots, leaves	McGaha (1952)	Michigan, USA
<i>Sagittaria latifolia</i> Willd.	Coleoptera: Coccinellidae	<i>Coleomegilla maculata</i> DeGeer	emergent leaves	McGaha (1952)	Michigan, USA
<i>Sagittaria latifolia</i> Willd.	Coleoptera: Curculionidae	<i>Anchodemus angustus</i> LeConte	leaves and petioles	McGaha (1952)	Michigan, USA
<i>Sagittaria latifolia</i> Willd.	Coleoptera: Curculionidae	<i>Hyperodes solutus</i> Boh.	flowers	Blatchley (1928)	Florida, USA
<i>Sagittaria latifolia</i> Willd.	Coleoptera: Curculionidae	<i>Hyperodes</i> spp.	leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Sagittaria latifolia</i> Willd.	Coleoptera: Curculionidae	<i>Listronotus appendiculatus</i> Boheman	leaves, petioles and stems	McGaha (1952), O'Brien (1981)	Michigan, USA
<i>Sagittaria latifolia</i> Willd.	Coleoptera: Curculionidae	<i>Listronotus delumbis</i> Gyllenhal		O'Brien (1997)	
<i>Sagittaria latifolia</i> Willd.	Coleoptera: Curculionidae	<i>Listronotus echinodori</i> O'Brien	flowers, stems	O'Brien (1981)	
<i>Sagittaria latifolia</i> Willd.	Diptera: Itonididae	<i>Porricondylini</i> sp.	aerial leaves	McGaha (1952)	Michigan, USA
<i>Sagittaria latifolia</i> Willd.	Homoptera: Aphididae	<i>Rhopalosiphum nymphaeae</i> L.	aerial and floating leaves	McGaha (1952)	Michigan, USA
<i>Sagittaria latifolia</i> Willd.	Homoptera: Cicadellidae	<i>Draeculacephala</i> sp.	emergent leaves	McGaha (1952)	Michigan, USA
<i>Sagittaria latifolia</i> Willd.	Lepidoptera: Crambidae	<i>Munroessa icciusalis</i> Walker		Herlong (1979)	South Carolina, USA
<i>Sagittaria latifolia</i> Willd.	Lepidoptera: Crambidae	<i>Paraponyx obscuralis</i> Grote		Habeck (1974), Herlong (1979)	
<i>Sagittaria latifolia</i> Willd.	Orthoptera: Acrididae	<i>Paroxya atlantica</i> Scudder		Squitier and Capinera (2002)	Florida, USA
<i>Sagittaria latifolia</i> Willd.	Orthoptera: Acrididae	<i>Paroxya clavuliger</i> Serville		Squitier and Capinera (2002)	Florida, USA
<i>Sagittaria latifolia</i> Willd.	Orthoptera: Acrididae	<i>Romalea microptera</i> Beauvois		Squitier and Capinera (2002)	Florida, USA
<i>Sagittaria latifolia</i> Willd.	Trichoptera: Lemnephilidae	<i>Pycnopsyche</i> sp.	submerged leaves	McGaha (1952)	Michigan, USA
<i>Sagittaria latifolia</i> Willd.	Trichoptera: Leptoceridae	<i>Leptocella</i> spp.	submerged leaves, petioles, stems and young buds	McGaha (1952)	Michigan, USA
<i>Sagittaria latifolia</i> Willd.	Trichoptera: Leptoceridae	<i>Leptocerus americanus</i> Banks	submerged leaves and petioles	McGaha (1952)	Michigan, USA
<i>Sagittaria latifolia</i> Willd.	Trichoptera: Leptoceridae	<i>Triaenodes aba</i> Milne	submerged leaves, petioles, stems and young buds	McGaha (1952)	Michigan, USA
<i>Sagittaria latifolia</i> Willd.	Trichoptera: Leptoceridae	<i>Triaenodes ignita</i> Walker	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA

TABLE 1. (CONTINUED) A CHECKLIST OF AQUATIC AND WETLAND PLANTS OF THE UNITED STATES AND THEIR INSECT HERBIVORES.

Plant	Insect Order: Family	Insect Species	Part of Plant Affected	Author (year)	Study Region
<i>Sagittaria latifolia</i> Willd.	Trichoptera: Leptoceridae	<i>Trienodes injusta</i> Hagen	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Sagittaria latifolia</i> Willd.	Trichoptera: Leptoceridae	<i>Trienodes marginata</i> Sibley	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Sagittaria latifolia</i> Willd.	Trichoptera: Leptoceridae	<i>Trienodes</i> sp.	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Sagittaria latifolia</i> Willd.	Trichoptera: Polycentropidae	<i>Neureclipsis crepuscularis</i> Walker	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Sagittaria latifolia</i> Willd.	Trichoptera: Polycentropidae	<i>Polycentropus</i> spp.	submerged leaves	McGaha (1952)	Michigan, USA
<i>Sagittaria</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia aequalis</i> Say	roots, leaves	Marx (1957)	
<i>Sagittaria</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia rufa</i> Say	roots, leaves	Marx (1957)	
<i>Sagittaria</i> sp.	Coleoptera: Chrysomelidae	<i>Galerucella nymphaea</i> L.	leaves	Center et al. (1999)	
<i>Sagittaria</i> sp.	Coleoptera: Curculionidae	<i>Onychylis angustus</i> LeConte		Tanner (1943)	
<i>Sagittaria</i> sp.	Coleoptera: Curculionidae	<i>Onychylis nigrirostris</i> Boheman	emergent leaves, stems	Tanner (1943)	
<i>Sagittaria</i> sp.	Diptera: Ephydriidae	<i>Hydrellia deceptor</i> Deonier		Deonier (1971)	
<i>Sagittaria</i> sp.	Diptera: Ephydriidae	<i>Hydrellia griseola</i> Fallen		Lange et al. (1953)	
<i>Sagittaria</i> sp.	Coleoptera: Curculionidae	<i>Brachybamus electus</i> Schoenherr		Tanner (1943)	
<i>Sagittaria</i> spp.	Coleoptera: Curculionidae	<i>Listronotus turbatus</i> O'Brien	leaves, petioles	O'Brien (1981)	
<i>Sagittaria</i> spp.	Lepidoptera: Noctuidae	<i>Acronycta oblinita</i> Abbot and Smith		Brigham and Herlong (1982)	
<i>Sagittaria</i> spp.	Lepidoptera: Noctuidae	<i>Argyrogramma verruca</i> Fabricius	leaves	Kimball (1965)	Florida, USA
<i>Sagittaria</i> spp.	Lepidoptera: Noctuidae	<i>Bellura obliqua</i> Walker	leaves	McCafferty and Minno (1979)	
<i>Salicornia virginica</i> L.	Coleoptera: Curculionidae	<i>Listronotus salicorniae</i> O'Brien	stem nodes	O'Brien (1981)	
<i>Salix amygdaloides</i> Anderss.	Coleoptera: Chrysomelidae	<i>Altica bimarginata bimarginata</i> Say	leaves	LeSage (1995)	
<i>Salix arctica</i> Pall.	Coleoptera: Curculionidae	<i>Isochnus arcticus</i> Korotyaev	leaves	Anderson (1989)	Alaska, USA
<i>Salix bebbiana</i> Sarg.	Coleoptera: Curculionidae	<i>Tachyerges niger</i> Horn	leaves	Anderson (1989)	
<i>Salix caroliniana</i> Michx.	Lepidoptera: Noctuidae	<i>Simyra henrici</i> Grote	leaves	Cassani (1985)	Florida, USA
<i>Salix cordata</i> Michx.	Coleoptera: Chrysomelidae	<i>Altica subplicata</i> LeConte	leaves	LeSage (1995)	
<i>Salix discolor</i> Muhl.	Coleoptera: Curculionidae	<i>Isochnus rufipes</i> LeConte	leaves	Anderson (1989)	
<i>Salix exigua</i> Nutt.	Coleoptera: Chrysomelidae	<i>Altica bimarginata bimarginata</i> Say	leaves	LeSage (1995)	
<i>Salix exigua</i> Nutt.	Coleoptera: Chrysomelidae	<i>Altica prasina prasina</i> LeConte	leaves	LeSage (1995)	
<i>Salix exigua</i> Nutt.	Coleoptera: Curculionidae	<i>Tachyerges ephippiatus</i> Say	leaves	Anderson (1989)	
<i>Salix exigua</i> Nutt.	Coleoptera: Curculionidae	<i>Tachyerges niger</i> Horn	leaves	Anderson (1989)	
<i>Salix gooddingii</i> Ball	Coleoptera: Curculionidae	<i>Tachyerges salicis</i> Linnaeus	leaves	Anderson (1989)	
<i>Salix humilis</i> Marsh. var. tristis (Aiton) Griggs	Coleoptera: Curculionidae	<i>Tachyerges ephippiatus</i> Say	leaves	Anderson (1989)	
<i>Salix interior</i> Rowlee	Coleoptera: Chrysomelidae	<i>Altica bimarginata bimarginata</i> Say	leaves	LeSage (1995)	
<i>Salix interior</i> Rowlee	Coleoptera: Chrysomelidae	<i>Altica subplicata</i> LeConte	leaves	LeSage (1995)	
<i>Salix interior</i> Rowlee	Coleoptera: Chrysomelidae	<i>Disonycha alternata</i> Illiger		Deswarte and Balsbaugh (1973)	
<i>Salix lasiolepis</i> Benth.	Coleoptera: Curculionidae	<i>Tachyerges niger</i> Horn	leaves	Anderson (1989)	
<i>Salix lasiolepis</i> Benth.	Coleoptera: Curculionidae	<i>Tachyerges salicis</i> Linnaeus	leaves	Anderson (1989)	
<i>Salix lasiolepis</i> var. <i>bigelovii</i> (Torr.)	Coleoptera: Curculionidae	<i>Tachyerges niger</i> Horn	leaves	Anderson (1989)	
<i>Salix lemmonii</i> Bebb.	Coleoptera: Curculionidae	<i>Tachyerges niger</i> Horn	leaves	Anderson (1989)	
<i>Salix lucida</i> Muhl.	Coleoptera: Curculionidae	<i>Isochnus populicola</i> Silfverberg	leaves	Anderson (1989)	
<i>Salix lucida</i> Muhl. ssp. <i>caudata</i> (Nutt.) E. Murray	Coleoptera: Curculionidae	<i>Isochnus rufipes</i> LeConte	leaves	Anderson (1989)	Utah, USA
<i>Salix nigra</i> Marsh.	Coleoptera: Curculionidae	<i>Isochnus rufipes</i> LeConte	leaves	Anderson (1989)	
<i>Salix nigra</i> Marsh.	Coleoptera: Curculionidae	<i>Isochnus rufipes</i> LeConte	leaves	Anderson (1989)	
<i>Salix nigra</i> Marsh.	Coleoptera: Curculionidae	<i>Tachyerges niger</i> Horn	leaves	Anderson (1989)	

TABLE 1. (CONTINUED) A CHECKLIST OF AQUATIC AND WETLAND PLANTS OF THE UNITED STATES AND THEIR INSECT HERBIVORES.

Plant	Insect Order: Family	Insect Species	Part of Plant Affected	Author (year)	Study Region
<i>Salix scouleriana</i> Barratt	Coleoptera: Chrysomelidae	<i>Altica prasina prasina</i> LeConte	leaves	LeSage (1995)	
<i>Salix scouleriana</i> Barratt	Coleoptera: Curculionidae	<i>Tachyerges niger</i> Horn	leaves	Anderson (1989)	
<i>Salix scouleriana</i> Barratt	Coleoptera: Curculionidae	<i>Tachyerges salicis</i> Linnaeus	leaves	Anderson (1989)	
<i>Salix</i> sp.	Coleoptera: Chrysomelidae	<i>Altica bimarginata labradorensis</i> LeSage	leaves	LeSage (1995)	
<i>Salix</i> sp.	Coleoptera: Chrysomelidae	<i>Altica bimarginata plicipennis</i> Mannerheim	leaves	LeSage (1995)	
<i>Salix</i> sp.	Coleoptera: Curculionidae	<i>Acalyptus carpini</i> Herbst		Anderson (2002)	
<i>Salix</i> sp.	Lepidoptera: Geometridae	<i>Anacamptodes defectaria</i> Guenee	flowers, leaves	Kimball (1965)	Florida, USA
<i>Salix</i> spp.	Coleoptera: Chrysomelidae	<i>Lexiphanes saponatus</i> Fabricius	leaves	Riley et al. (2002)	
<i>Salix</i> spp.	Coleoptera: Chrysomelidae	<i>Myochrous magnus</i> Schaeffer	leaves	Riley et al. (2002)	
<i>Salix</i> spp.	Coleoptera: Chrysomelidae	<i>Galerucella nymphaea</i> L.	leaves	Center et al. (1999)	
<i>Salix</i> spp.	Coleoptera: Chrysomelidae	<i>Plagioderia arizonae</i> Crotch		Riley et al. (2002)	
<i>Salix</i> spp.	Coleoptera: Chrysomelidae	<i>Plagioderia arizonae</i> Crotch		Riley et al. (2002)	
<i>Salix</i> spp.	Coleoptera: Chrysomelidae	<i>Plagioderia versicolora</i> Laicharding		Riley et al. (2002)	
<i>Salix</i> spp.	Lepidoptera: Noctuidae	<i>Acronycta oblimita</i> Abbot and Smith		Brigham and Herlong (1982)	
<i>Saururus cernuus</i> L.	Coleoptera: Curculionidae	<i>Tyloclerum variegatum</i> Horn	stems	Wibmer (1981)	
<i>Schoenoplectus acutus</i> (Muhl. ex Bigelow)	Coleoptera: Curculionidae	<i>Endalpus limatulus</i> Castelnau		Tanner (1943)	Utah, USA
A. Löve & D. Löve var. <i>acutus</i>					
<i>Schoenoplectus acutus</i> (Muhl. ex Bigelow)	Lepidoptera: Crambidae	<i>Chilo forbesellus</i> Fernald		Frohne (1939a)	Michigan, USA
A. Löve & D. Löve var. <i>occidentalis</i> (S. Watson) S. G. Sm.					
<i>Schoenoplectus acutus</i> (Muhl. ex Bigelow)	Lepidoptera: Crambidae	<i>Occidentalia comptulatalis</i> Hulst		Frohne (1939b)	Michigan, USA
A. Löve & D. Löve var. <i>occidentalis</i> (S. Watson) S. G. Sm.					
<i>Schoenoplectus acutus</i> (Muhl. ex Bigelow)	Coleoptera: Chrysomelidae	<i>Donacia pubescens</i> LeConte	roots, leaves	Hoffman (1940)	Northern Michigan, USA
A. Löve & D. Löve var. <i>occidentalis</i> (S. Watson) S. G. Sm.					
<i>Schoenoplectus acutus</i> (Muhl. ex Bigelow)	Coleoptera: Chrysomelidae	<i>Donacia quadricollis</i> Say	roots, leaves	Hoffman (1940)	Northern Michigan, USA
A. Löve & D. Löve var. <i>occidentalis</i> (S. Watson) S. G. Sm.					
<i>Schoenoplectus americanus</i> (Pers.) Volkart ex Schinz & R. Keller	Lepidoptera: Crambidae	<i>Chilo forbesellus</i> Fernald		Brigham and Herlong (1982)	Michigan, USA
<i>Schoenoplectus americanus</i> (Pers.) Volkart ex Schinz & R. Keller	Lepidoptera: Crambidae	<i>Occidentalia comptulatalis</i> Hulst		Frohne (1939b)	Michigan, USA
<i>Schoenoplectus americanus</i> (Pers.) Volkart ex Schinz & R. Keller	Lepidoptera: Crambidae	<i>Schoenobius melinellus dispersellus</i> Robinson		McCafferty and Minno (1979)	
<i>Schoenoplectus americanus</i> (Pers.) Volkart ex Schinz & R. Keller	Coleoptera: Chrysomelidae	<i>Plateumaris flavipes</i> Schaeffer	leaves	Hoffman (1940)	Northern Michigan, USA
<i>Schoenoplectus tabernaemontani</i> (C. C. Gmel.) Palla	Coleoptera: Curculionidae	<i>Listronotus squamiger</i> Say		O'Brien (1997)	
<i>Schoenoplectus tabernaemontani</i> (C. C. Gmel.) Palla	Lepidoptera: Crambidae	<i>Chilo forbesellus</i> Fernald		Brigham and Herlong (1982)	Michigan, USA
<i>Schoenoplectus tabernaemontani</i> (C. C. Gmel.) Palla	Lepidoptera: Crambidae	<i>Occidentalia comptulatalis</i> Hulst		Frohne (1939b)	Michigan, USA
<i>Scirpus atrovirens</i> Willd.	Coleoptera: Curculionidae	<i>Dirabius rectirostris</i> LeConte		Blatchley (1928)	New Jersey, USA
<i>Scirpus cyperinus</i> (L.) Kunth	Coleoptera: Curculionidae	<i>Dirabius rectirostris</i> LeConte	stems	Majka et al. (2007)	
<i>Scirpus</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia fulgens</i> LeConte	roots, leaves	Marx (1957)	
<i>Scirpus</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia subtilis</i> Kunze	roots, leaves	Marx (1957)	
<i>Scirpus</i> sp.	Diptera: Ephydriidae	<i>Hydrellia griseola</i> Fallen		Lange et al. (1953)	

TABLE 1. (CONTINUED) A CHECKLIST OF AQUATIC AND WETLAND PLANTS OF THE UNITED STATES AND THEIR INSECT HERBIVORES.

Plant	Insect Order: Family	Insect Species	Part of Plant Affected	Author (year)	Study Region
<i>Scirpus</i> sp.	Lepidoptera: Noctuidae	<i>Oligia diversicolor</i> Morrison		McCafferty and Minno (1979)	Indiana, USA
<i>Scirpus</i> sp.	Lepidoptera: Noctuidae	<i>Archana subflava</i> Grote	leaves	McCafferty and Minno (1979)	
<i>Scirpus</i> spp.	Coleoptera: Chrysomelidae	<i>Poecilocera harrisii</i> LeConte		Riley et al. (2002)	
<i>Scirpus</i> spp.	Coleoptera: Chrysomelidae	<i>Stenospa metallica</i> Fabricius		Riley et al. (2002)	
<i>Scirpus</i> spp.	Lepidoptera: Noctuidae	<i>Archana oblonga</i> Grote	leaves	McCafferty and Minno (1979)	
<i>Sesbania herbacea</i> (Mill.) McVaugh	Orthoptera: Acrididae	<i>Gymnosirtetes pusillus</i> Scudder		Squitier and Capinera (2002)	Florida, USA
<i>Sesbania herbacea</i> (Mill.) McVaugh	Orthoptera: Acrididae	<i>Paroxya atlantica</i> Scudder		Squitier and Capinera (2002)	Florida, USA
<i>Sesbania herbacea</i> (Mill.) McVaugh	Orthoptera: Acrididae	<i>Paroxya clavuliger</i> Serville		Squitier and Capinera (2002)	Florida, USA
<i>Sesbania herbacea</i> (Mill.) McVaugh	Orthoptera: Acrididae	<i>Romalea microptera</i> Beauvois		Squitier and Capinera (2002)	Florida, USA
<i>Solanum</i> spp.	Coleoptera: Chrysomelidae	<i>Acallepitrix nitens</i> Horn	leaves	Riley et al. (2002)	
<i>Sparganium americanum</i> Nutt.	Lepidoptera: Crambidae	<i>Langessa nomophilalis</i> Dyar		Stoops et al. (1998)	South Carolina, USA
<i>Sparganium americanum</i> Nutt.	Lepidoptera: Crambidae	<i>Munroessa icciusalis</i> Walker		Stoops et al. (1998)	South Carolina, USA
<i>Sparganium americanum</i> Nutt.	Lepidoptera: Crambidae	<i>Paraponyx badiusalis</i> Walker		Habeck (1974)	
<i>Sparganium americanum</i> Nutt.	Lepidoptera: Crambidae	<i>Paraponyx obscuralis</i> Grote		Stoops et al. (1998)	South Carolina, USA
<i>Sparganium americanum</i> Nutt.	Lepidoptera: Crambidae	<i>Paraponyx seminealis</i> Walker		Stoops et al. (1998)	South Carolina, USA
<i>Sparganium americanum</i> Nutt.	Lepidoptera: Crambidae	<i>Synclita oblitteralis</i> Walker		Stoops et al. (1998)	South Carolina, USA
<i>Sparganium angustifolium</i> Michx.	Coleoptera: Chrysomelidae	<i>Donacia hirticollis</i> Kirby	roots, leaves	Hoffman (1940)	Northern Michigan, USA
<i>Sparganium angustifolium</i> Michx.	Coleoptera: Chrysomelidae	<i>Donacia</i> sp.	roots, leaves	Hoffman (1940)	Northern Michigan, USA
<i>Sparganium angustifolium</i> Michx.	Coleoptera: Chrysomelidae	<i>Donacia subtilis</i> Kunze	roots, leaves	Hoffman (1940)	Northern Michigan, USA
<i>Sparganium diversifolium</i> Graebner	Coleoptera: Chrysomelidae	<i>Donacia subtilis</i> Kunze	roots, leaves	Hoffman (1940)	Northern Michigan, USA
<i>Sparganium eurycarpum</i> Engelm.	Coleoptera: Chrysomelidae	<i>Donacia subtilis</i> Kunze	roots, leaves	Hoffman (1940)	Northern Michigan, USA
<i>Sparganium</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia aequalis</i> Say	roots, leaves	Marx (1957)	
<i>Sparganium</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia assimilis</i> Lacordaire	roots, leaves	Marx (1957)	
<i>Sparganium</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia fulgens</i> LeConte	roots, leaves	Marx (1957)	
<i>Sparganium</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia hirticollis</i> Kirby	roots, leaves	Marx (1957)	
<i>Sparganium</i> sp.	Coleoptera: Chrysomelidae	<i>Donacia subtilis</i> Kunze	roots, leaves	Marx (1957)	North and South Carolina, USA
<i>Sparganium</i> sp.	Coleoptera: Curculionidae	<i>Sphenophorus pertinax</i> Oliver	roots	Claasen (1921)	
<i>Sparganium</i> sp.	Diptera: Chironomidae	<i>Glyptotendipes seminole</i> Townes	stems	Epler (2001)	
<i>Sparganium</i> sp.	Lepidoptera: Noctuidae	<i>Archana laeta</i> Morrison	leaves	McCafferty and Minno (1979)	
<i>Sparganium</i> spp.	Lepidoptera: Noctuidae	<i>Archana oblonga</i> Grote	leaves	Brigham and Herlong (1982)	
<i>Sparganium</i> spp.	Lepidoptera: Noctuidae	<i>Bellura obliqua</i> Walker	leaves	McCafferty and Minno (1979)	
<i>Spartina alterniflora</i> Loisel.	Diptera: Ephydriidae	<i>Hydrellia valida</i> Loew		Stiling and Strong (1982)	Michigan, USA
<i>Spirodela</i> spp.	Coleoptera: Curculionidae	<i>Tanyphyrus lemnae</i> Paykull	floating leaves	Center et al. (1999)	
<i>Stuckenia pectinata</i> (L.) Böerner	Coleoptera: Curculionidae	<i>Bagous restrictus</i> LeConte		O'Brien and Marshall (1979)	California, USA
<i>Stuckenia pectinata</i> (L.) Böerner	Diptera: Ephydriidae	<i>Notiphila loewi</i> Cresson	roots	Berg (1949)	Michigan, USA
<i>Taxodium distichum</i> (L.) Rich.	Coleoptera: Curculionidae	<i>Eudocimus mannerheimi</i> Bohemon		Anderson (2002)	
<i>Typha domingensis</i> Pers.	Lepidoptera: Noctuidae	<i>Bellura obliqua</i> Walker	stems, leaves	Center et al. (1999)	
<i>Typha latifolia</i> L.	Coleoptera: Chrysomelidae	<i>Plateumaris flavipes</i> Schaeffer	leaves	Hoffman (1940)	Michigan, USA
<i>Typha latifolia</i> L.	Coleoptera: Curculionidae	<i>Endalus limatulus</i> Castelnau		Tanner (1943)	Utah, USA
<i>Typha latifolia</i> L.	Coleoptera: Curculionidae	<i>Notaris aethiops</i> Fabricius		Anderson (2002)	
<i>Typha latifolia</i> L.	Coleoptera: Curculionidae	<i>Notaris puncticollis</i> LeConte	stems	Claasen (1921)	
<i>Typha latifolia</i> L.	Coleoptera: Curculionidae	<i>Sphenophorus pertinax</i> Oliver	roots, rhizomes	Claasen (1921)	

TABLE 1. (CONTINUED) A CHECKLIST OF AQUATIC AND WETLAND PLANTS OF THE UNITED STATES AND THEIR INSECT HERBIVORES.

Plant	Insect Order: Family	Insect Species	Part of Plant Affected	Author (year)	Study Region
<i>Typha latifolia</i> L.	Coleoptera: Curculionidae	<i>Tournotaris bimaculata</i> Fabricius		Anderson (2002)	
<i>Typha latifolia</i> L.	Diptera: Ephydriidae	<i>Hydrellia griseola</i> Fallen		Grigarick (1959)	Florida, USA
<i>Typha latifolia</i> L.	Hemiptera: Aphididae	<i>Aphis avenae</i> Fabricius	leaves	Claasen (1921)	Kansas, USA
<i>Typha latifolia</i> L.	Hemiptera: Aphididae	<i>Rhopalosiphum dianthi</i> Schrank	leaves	Sanborn (1906)	
<i>Typha latifolia</i> L.	Hemiptera: Aphididae	<i>Rhopalosiphum nymphaeae</i> L.	leaves	Claasen (1921)	New York, USA
<i>Typha latifolia</i> L.	Hemiptera: Aphididae	<i>Rhopalosiphum persicae</i> Sulz.	leaves	Wilson and Vickery (1918)	
<i>Typha latifolia</i> L.	Hemiptera: Lygaeidae	<i>Kleidocerys resedae</i> LeConte	seeds	Claasen (1921)	New York, USA
<i>Typha latifolia</i> L.	Lepidoptera: Cosmopterigidae	<i>Lymnaecia phragmitella</i> Stainton	flowers, seeds, stems	Claasen (1921)	New York, USA
<i>Typha latifolia</i> L.	Lepidoptera: Noctuidae	<i>Archana oblonga</i> Grote	stems, leaves	Claasen (1921)	New York, USA
<i>Typha latifolia</i> L.	Lepidoptera: Noctuidae	<i>Arsilonche albovenosa</i> Goeze	leaves	Claasen (1921)	New York, USA
<i>Typha latifolia</i> L.	Lepidoptera: Noctuidae	<i>Bellura densa</i> Walker	leaves	McCafferty and Minno (1979)	
<i>Typha latifolia</i> L.	Lepidoptera: Noctuidae	<i>Bellura obliqua</i> Walker	stems, leaves	Center et al. (1999)	
<i>Typha latifolia</i> L.	Lepidoptera: Noctuidae	<i>Simyra henrici</i> Grote	leaves	Cassani (1985)	New York, USA
<i>Typha latifolia</i> L.	Lepidoptera: Pyralidae	<i>Dicymolomia julianalis</i> Walker	flowers, seeds	Claasen (1921)	
<i>Typha latifolia</i> L.	Lepidoptera: Tortricidae	<i>Choristoneura obsoletana</i> Walker	leaves	Claasen (1921)	New York, USA
<i>Typha</i> spp.	Homoptera: Aphididae	<i>Rhopalosiphum nymphaeae</i> L.	leaves	Center et al. (1999)	
<i>Typha</i> spp.	Lepidoptera: Noctuidae	<i>Acronycta obliqua</i> Abbot and Smith		Brigham and Herlong (1982)	New York, USA
<i>Typha</i> spp.	Lepidoptera: Noctuidae	<i>Bellura gortynoides</i> Walker	leaves	McCafferty and Minno (1979)	
<i>Typha</i> spp.	Lepidoptera: Noctuidae	<i>Bellura obliqua</i> Walker	stems, leaves	Claasen (1921), McCafferty and Minno (1979)	Florida, USA
<i>Typha</i> spp.	Orthoptera: Acrididae	<i>Gymnosirtetes pusillus</i> Scudder		Squitier and Capinera (2002)	Florida, USA
<i>Typha</i> spp.	Orthoptera: Acrididae	<i>Leptysma marginicollis</i> Serville		Squitier and Capinera (2002)	Florida, USA
<i>Typha</i> spp.	Orthoptera: Acrididae	<i>Paroxya atlantica</i> Scudder		Squitier and Capinera (2002)	Florida, USA
<i>Typha</i> spp.	Orthoptera: Acrididae	<i>Paroxya clavuliger</i> Serville		Squitier and Capinera (2002)	Florida, USA
<i>Typha</i> spp.	Orthoptera: Acrididae	<i>Romalea microptera</i> Beauvois		Squitier and Capinera (2002)	Florida, USA
<i>Typha</i> spp.	Orthoptera: Acrididae	<i>Stenacris vitreipennis</i> Marshall		Squitier and Capinera (2002)	Florida, USA
<i>Typha</i> spp.	Lepidoptera: Noctuidae	<i>Archana oblonga</i> Grote	leaves	McCafferty and Minno (1979)	
<i>Utricularia inflata</i> Walter	Lepidoptera: Crambidae	<i>Paraponyx allionealis</i> Walker		Habeck (1974)	South Carolina, USA
<i>Utricularia macrorhiza</i> Leconte	Trichoptera: Leptoceridae	<i>Triaenodes aba</i> Milne	submerged leaves, petioles, stems and young buds	McGaha (1952)	Michigan, USA
<i>Utricularia</i> spp.	Homoptera: Aphididae	<i>Rhopalosiphum nymphaeae</i> L.	leaves	Center et al. (1999)	
<i>Vallisneria americana</i> Michx.	Diptera: Ephydriidae	<i>Hydrellia gladiator</i> Deonier		Deonier (1971)	Illinois River, USA
<i>Vallisneria americana</i> Michx.	Lepidoptera: Crambidae	<i>Paraponyx obscuralis</i> Grote	submerged leaves	Hart (1895), Herlong (1979)	Michigan, South Carolina, USA
<i>Vallisneria americana</i> Michx.	Lepidoptera: Crambidae	<i>Paraponyx allionealis</i> Walker	leaves	McGaha (1952)	Michigan, USA
<i>Vallisneria americana</i> Michx.	Trichoptera: Leptoceridae	<i>Leptocerus americanus</i> Banks	submerged leaves and petioles	McGaha (1952)	Michigan, USA
<i>Vallisneria americana</i> Michx.	Trichoptera: Leptoceridae	<i>Triaenodes aba</i> Milne	submerged leaves, petioles, stems and young buds	McGaha (1952)	Michigan, USA
<i>Vallisneria americana</i> Michx.	Trichoptera: Leptoceridae	<i>Triaenodes marginata</i> Sibley	submerged leaves, petioles and stems	McGaha (1952)	Michigan, USA
<i>Zannichellia palustris</i> L.	Diptera: Ephydriidae	<i>Hydrellia bilobifera</i> Cresson		Deonier (1971)	
<i>Zannichellia palustris</i> L.	Diptera: Ephydriidae	<i>Hydrellia notiphiloides</i> Cresson		Deonier (1971)	Michigan, USA
<i>Zizania aquatica</i> L.	Diptera: Ephydriidae	<i>Hydrellia cruralis</i> Coquillett	flowers	McGaha (1952)	Michigan, USA
<i>Zizania aquatica</i> L.	Diptera: Ephydriidae	<i>Hydrellia griseola</i> Fallen		Deonier (1971)	

TABLE 1. (CONTINUED) A CHECKLIST OF AQUATIC AND WETLAND PLANTS OF THE UNITED STATES AND THEIR INSECT HERBIVORES.

Plant	Insect Order: Family	Insect Species	Part of Plant Affected	Author (year)	Study Region
<i>Zizania aquatica</i> L.	Diptera: Ephydridae	<i>Hydrellia ischiaca</i> Loew		Deonier (1971)	Michigan, USA
<i>Zizania aquatica</i> L.	Lepidoptera: Noctuidae	<i>Apamea apamiformis</i> Guenée	submerged leaves,	MacKay and Rockburne (1958)	Michigan, USA
<i>Zizania aquatica</i> L.	Trichoptera: Phryganeidae	<i>Banksiola salina</i> Betten	petioles and stems	McGaha (1952)	Michigan, USA
<i>Zizania aquatica</i> L.	Trichoptera: Polycentropidae	<i>Nyctiophylax vestitus</i> Hagen	submerged leaves and stems	McGaha (1952)	Michigan, USA

Our study included 78 literature sources. Pondweeds (*Potamogeton* spp.) were the subject of the most citations, with 140 plant-herbivore associations documented in 14 sources. Smartweeds (*Polygonum* spp.) and waterlilies (*Nymphaeae* spp.) followed pondweeds, with 95 and 53 associations from 17 and 7 sources, respectively.

Several species of submersed aquatic plants lack, or have minimal reports of, herbivore species in the literature, including *Heteranthera dubia* (Jacq.) MacM., *Elodea* spp., *Ceratophyllum demersum* L., and others. The apparent lack of data from these plants probably results from their submersed nature and the difficulty of accurately sampling herbivores. Herbivory of several submersed macrophytes, including *H. dubia*, is the subject of a separate study (Harms and Grodowitz, unpublished data).

The main purpose of this review is to provide information regarding insect species known to feed on aquatic and wetland plants in the United States. The data (Table 1) may be used as a quick reference to research insect herbivory for a particular plant species or group of herbivorous insects.

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LITERATURE CITED

- Anderson, R. S. 1989. Revision of the subfamily Rhynchaeninae in North America (Coleoptera: Curculionidae). *Transactions of the American Entomological Society* 115:207-312.
- Anderson, R. S. 1991. A new species of *Plocetes* from the Florida Keys with notes on other species occurring in the United States (Curculionidae; Curculioninae; Tychiini). *Fla. Entomol.* 74:105-110.
- Anderson, R. S. 1997. Weevils (Coleoptera: Curculionidae, excluding Scolytinae and Platypodinae) of the Yukon. pp. 523-562. *In: H. V. Danks and J. A. Downes (eds.), Insects of the Yukon. Biological Survey of Canada (Terrestrial Arthropods)*, Ottawa.
- Anderson, R. S. 2002. Curculionidae. pp. 722-815. *In: American Beetles*, R. H. Arnett, Jr., M. C. Thomas, P. E. Skelley and J. H. Frank (eds.). CRC Press, Boca Raton, FL. 861 pp.
- Bennett, C. A. and G. R. Buckingham. 2000. The Herbivorous insect fauna of a submersed weed, *Hydrilla verticillata* (Alismatales: Hydrocharitaceae), pp. 307-313. *In: Proceedings of the X International Symposium on Biological Control of Weeds*.
- Berg, C. O. 1949. Limnological relations of insects to plants of the genus *Potamogeton*. *Trans. Am. Microscop. Soc.* 68:279-291.
- Berg, C. O. 1950. Biology of certain Chironomidae reared from *Potamogeton*. *Ecol. Monogr.* 20:83-101.
- Blatchley, W. S. 1922. Notes on the Rhynchophora of eastern North America, with characterizations of new genera and descriptions of new species. *J. New York Entomol. S.* 30:113-127.
- Blatchley, W. S. 1928. Notes on the Rhynchophora of eastern North America with descriptions of new species, IV. *J. New York Entomol. S.* 36:235-262.
- Brigham, A. R. and D. D. Herlong. 1982. Aquatic and semiaquatic Lepidoptera. pp. 12.1-12.36. *In: A. R. Brigham, W. U. Brigham and A. Gnillka (eds.), Aquatic insects and oligochaetes of North and South Carolina. Midwest Aquatic Enterprises, Illinois.*
- Carpenter, S. R. and D. M. Lodge. 1986. Effects of submerged macrophytes on ecosystem processes. *Aquat. Bot.* 24:341-370.

- Cassani, J. R. 1985. Biology of *Simyra henrici* (Lepidoptera: Noctuidae) in Southwest Florida. Fla. Entomol. 68: 645-652.
- Center, T. D., F. A. Dray, G. P. Jubinsky and M. J. Grodowitz. 1999. Insects and other arthropods that feed on aquatic and wetland plants. U.S. Department of Agriculture, Agricultural Research Service, Technical Bulletin No. 1870.
- Ciegler, J. C. 2006. *Altica copelandi*, a new species of flea beetle from South Carolina, U.S.A. (Coleoptera: Chrysomelidae: Alticini). Entomol. News 117:288-292.
- Claasen, P. W. 1921. *Typha* insects: Their ecological relationships. Memoir, Cornell University Agricultural Experiment Station. 47:459-531.
- Clark, W. E. 1976. Notes on the life history and habits of *Perigaster cretura* (Herbst) (Coleoptera: Curculionidae) with descriptions of the larva and pupa. Coleopt. Bull. 30:159-165.
- Clark, W. E. 1982. Classification of the weevil tribe Lignyodini (Coleoptera, Curculionidae, Tychiinae), with a revision of the genus *Plocetes*. T. Am. Entomol. Soc. 108:11-151.
- Coombs, E. M., J. K. Clark, G. L. Piper and A. F. Cofrancesco, Jr. 2004. Biological control of invasive plants in the United States. Western Society of Weed Science, Oregon State Univ. Press, Corvallis. 448 pps.
- Deonier, D. L. 1971. A systematic and ecological study of nearctic *Hydrellia* (Diptera: Ephydriidae). Smithsonian. Contrib. Zool. 68:1-147.
- Deonier, D. L. 1993. New species of *Hydrellia* (Diptera: Ephydriidae) from the southern United States. Insecta Mundi 7:193-209.
- Deonier, D. L. 1995. North American members of the *Hydrellia crassipes* species group (Diptera: Ephydriidae). Insecta Mundi 9:81-103.
- Deonier, D. L. 1998. A manual of the common North American species of the aquatic leaf-mining genus *Hydrellia* (Diptera: Ephydriidae). Memoirs on Entomology, International Volume 12, Gainesville, FL.
- Deswarte, D. H. and E. U. Balsbaugh. 1973. Biologies of *Altica subplicata* and *Disonycha alternata* (Coleoptera: Chrysomelidae), two flea beetles that feed on sandbar willow. Ann. Entomol. Soc. Am. 66:1349-1353.
- Dick, G. O., Smart, R. M. and E. D. Keiser. 1995. Populations of turtles and their potential impacts on aquatic plants in Guntersville Reservoir, Alabama. Joint Agency Guntersville Project Aquatic Plant Management, Tennessee Valley Authority Report. 49 pp.
- Doyle, R. D. and R. M. Smart. 1995. Competitive interactions of native plants with nuisance species in Guntersville Reservoir, Alabama. pp. 237-242. In: Proceedings, 29th Annual Meeting, Aquatic Plant Control Research Program. Miscellaneous Paper A-95-3, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.
- Doyle, R. D., R. M. Smart, C. Guest and K. Bickell. 1997. Establishment of native aquatic plants for fish habitat: test plantings in two north Texas reservoirs. Lake Reserv. Manage. 13:259-269.
- Doyle, R. D., M. J. Grodowitz, R. M. Smart and C. S. Owens. 2002. Impact of herbivory by *Hydrellia pakistanae* (Diptera: Ephydriidae) on growth and photosynthetic potential of *Hydrilla verticillata*. Biol. Control 24:221-229.
- Doyle, R. D., M. J. Grodowitz, R. M. Smart and C. S. Owens. 2005. Separate and interactive effects of competition and herbivory on the growth, expansion, and tuber formation of *Hydrilla verticillata*. Biol. Control 41:327-338.
- Dyar, G. H. and C. Heinrich. 1927. The American moths of the genus *Diatraea* and allies. Proc. U.S. Natl. Mus. 71. 48 pp.
- Epler, J. H. 2001. Identification manual for the larval Chironomidae (Diptera) of North and South Carolina. Special Publication SJ2001-SP13. North Carolina Department of Environment and Natural Resources, Raleigh, NC, and St. Johns River Water Management District, Palatka, FL. 526 pp.
- Fiance, S. B. and R. E. Moeller. 1977. Immature stages and ecological observations of *Eoparagyractis plevie* (Pyralidae: Nymphulinae). J. Lepid. Soc. 31:81-88.
- Forbes, W. T. M. 1910. The aquatic caterpillars of Lake Quinsigamond. Psyche 6:219-227.
- Forbes, W. T. M. 1923. Lepidoptera of New York and neighboring states. Primitive forms, Microlepidoptera, Pyralids, Bombyces. Cornell Univ. Agr. Exp. Sta. Mem. 68:1-729.
- Forbes, W. T. M. 1954. Lepidoptera of New York and neighboring states. Part III. Noctuidae. Cornell Univ. Agric. Exp. Sta. Mem. 329:1-433.
- Frohne, W. C. 1939a. Biology of *Chilo forbesellus* Fernald, a hygrophilous crambine moth. Trans. Am. Microsc. Soc. 58:304-326.
- Frohne, W. C. 1939b. Observations on the biology of three semiaquatic lacustrine moths. Trans. Am. Microsc. Soc. 58:327-348.
- Grigarick, A. A. 1959. Bionomics of the leaf-miner, *Hydrellia griseola* (Fallén), in California (Diptera: Ephydriidae). Hilgardia 29:1-80.
- Haag, K. H., D. H. Habeck and G. R. Buckingham. 1986. Native insect enemies of aquatic macrophytes other than moths and beetles. Aquatics 8:16-22.
- Habeck, D. H. 1974. Caterpillars of *Paraponyx* in relation to aquatic plants in Florida. Hyacinth Control J. 12:15-18.
- Hart, C. A. 1895. On the entomology of the Illionise River and adjacent waters. Bull. Ill. St. Lab. Nat. Hist. 4:149-273.
- Heppner, J. B. and D. H. Habeck. 1976. Insects associated with *Polygonum* (Polygonaceae) in North Central Florida. I. Introduction and Lepidoptera. Fla. Entomol. 59:231-239.
- Heppner, J. B. and D. H. Habeck. 1977. Insects associated with *Polygonum* (Polygonaceae) in North Central Florida. II. Insects other than Lepidoptera. Fla. Entomol. 60:167-170.
- Hering, E. M. 1951. Biology of the Leaf Miners. W. Junk. Gravenhage, Holland.
- Hering, E. M. 1957. Bestimmungstabellen der Blattminen von Europa. Vols. 1-3. W. Junk. Gravenhage, Holland.
- Herlong, D. D. 1979. Aquatic Pyralidae (Lepidoptera: Nymphulinae) in South Carolina. Fla. Entomol. 62(3):188-193.
- Hoebeke, E. R., and D. R. Whitehead. 1980. New records of *Rhinoncus bruchoides* (Herbst) for the Western Hemisphere and a revised key to the North American species of the genus *Rhinoncus* (Coleoptera: Curculionidae: Ceutorhynchinae). Proc. Entomol. Soc. Wash. 82:556-561.
- Hoffman, C. E. 1940. Limnological relationships of some north Michigan Donaciini (Chrysomelidae: Coleoptera). Trans. Am. Microsc. Soc. 59(3):259-274.
- Keiper, J. B., D. L. Deonier, J. Giannino, M. Sanford and W. E. Walton. 2002. Biology, immature stages, and redescription of *Hydrellia personata* Deonier (Diptera: Ephydriidae), a *Lemna* Miner. Proc. Entomol. Soc. Wash. 104(2):458-467.
- Kimball, C. P. 1965. The Lepidoptera of Florida. An annotated checklist. Fla. Dept. Agr. & Consumer Services, Div. Plant Industry, Arthropods of Florida and Neighboring Land Areas.
- Knab, F. 1915. Dung-bearing weevil larvae. Proc. Entomol. Soc. Wash. 17:193-194.
- Lange, W. H., Jr., K. H. Ingebretsen and L. L. Davis. 1953. Rice leaf miner. Calif. Agric. 7:8-9.
- LaSalle, M. W. 1988. Leaf-mining of the spike-rush *Eleocharis parvula* (R&S) Link by the Ephydrid *Hydrellia americana* Cresson. Assoc. Southeastern Biologists Bull. 35:53 (abstract).
- LeSage, L. 1995. Revision of the costate species of *Altica* Müller of North America North of Mexico (Coleoptera: Chrysomelidae). Can. Entomol. 127:295-411.
- Lodge, D. M. 1991. Herbivory on freshwater macrophytes. Aquat. Bot. 41:195-224.
- Lodge, D. M., G. Cronin, E. van Donk and A. J. Froelich. 1998. Impact of herbivory on plant standing crop: comparisons among biomes, between vascular and nonvascular plants, and among freshwater herbivore taxa. pp.149-174. In: The structuring role of submerged macrophytes in lakes. Springer, New York.
- MacKay, M. R. and E. W. Rockburne. 1958. Notes on life-history and larval description of *Apamea apamiformis* (Guenée), a pest of wild rice (Lepidoptera: Noctuidae). Can. Entomol. 90:579-582.
- Majka, C. G., R. S. Anderson and D. B. McCorquodale. 2007. The weevils (Coleoptera: Curculionidae) of the Maritime Provinces of Canada, II: New records from Nova Scotia and Prince Edward Island and regional zoogeography. Can. Entomol. 139:397-442.
- Malloch, J. R. 1915. Some additional records of Chironomidae for Illinois and notes on other Illinois Diptera. Bull. Ill. State Lab. Nat. Hist. 11:305-364.
- Marx, E. J. F. 1957. A review of the subgenus *Donacia* in the Western Hemisphere (Coleoptera, Donaciidae), Bull. Am. Mus. Nat. Hist. 112:191-278.
- Matuura, A. and E. Munroe. 1970. Taxonomy and distribution of the European corn borer and allied species: Genus *Ostrinia* (Lepidoptera: Pyralidae). Mem. Ent. Soc. Can. 71:1-112.
- McGaha, Y. J. 1952. The limnological relations of insects to certain aquatic flowering plants. Trans. Am. Microsc. Soc. 71:355-381.
- McGaha, Y. J. 1954b. Contribution to the biology of some Lepidoptera which feed on certain aquatic flowering plants. Trans. Am. Microsc. Soc. 73(2):167-177.
- McCafferty, W. P. and M. C. Minno. 1979. The aquatic and semiaquatic Lepidoptera of Indiana and adjacent areas. Great Lakes Entomol. 12:179-187.
- Mitchell, J. D. and W. D. Pierce. 1911. The weevils of Victoria County, Texas. Proc. Entomol. Soc. Wash. 13:45-62.

- Munroe, E. G. 1972. Pyraloidea. Pyralidae (In Part), Fasc. 13.1, A-C., pp. 1-304. In: R. B. Dominick (ed.). The moths of North America north of Mexico. E. W. Classey Ltd., London.
- Newman, R. M. 1991. Herbivory and detritivory on freshwater macrophytes by invertebrates: a review. J. N. Am. Benthol. Soc. 10:89-114.
- O'Brien, C. W. 1981. The larger (4.5+ mm.) *Listronotus* of America, north of Mexico (Cylindrorhininae, Curculionidae, Coleoptera). Trans. Am. Entomol. Soc. 107:69-123.
- O'Brien, C. W. 1990. *Neobagoides carlsoni*, new genus, new species of aquatic weevil from Florida. Southwest. Entomol. 15:71-76.
- O'Brien, C. W. 1997. A catalog of the Coleoptera of America north of Mexico. Family: Curculionidae. Subfamilies: Acicnemidinae, Cossoninae, Rhytirrhinae, Molytinae, Petalochilinae, Trypetidinae, Dryophthorinae, Tachygoninae, Thecesterninae. United States Department of Agriculture, Agriculture Handbook No. 529, 48 pp.
- O'Brien, C. W. and G. B. Marshall. 1979. U.S. *Bagous*, bionomic notes, a new species, and a new name (Bagoiini, Eriirrhinae, Curculionidae, Coleoptera). Southwest. Entomol. 4:141-149.
- Packard, A. S. 1884. Habits of an aquatic pyralid caterpillar. Am. Nat. 8:824-829.
- Richerson, P. J. and A. A. Grigarick. 1967. The life history of *Stenopelmus rufinusus* (Coleoptera: Curculionidae). Ann. Entomol. Soc. Am. 60:351-354.
- Riley, E. G., S. M. Clark, R. W. Flowers and A. J. Gilbert. 2002. 124. Chrysomelidae Latreille 1802. pp. 617-692. In: American Beetles, R. H. Arnett Jr., M. C. Thomas, P. E. Skelley and J. H. Frank (eds.). CRC Press, Boca Raton, FL.
- Sanborn, C. E. 1906. Kansas Aphididae, with catalogue of North American Aphididae, and with host-plant and plant-host list, Part II. Kansas Univ. Sci. Bul. 3:225-274.
- Scott, H. M. 1924. Observations on the habits and life history of *Galerucella nymphalae* (Coleoptera). Trans. Am. Microsc. Soc. 43:11-16.
- Solis, M. A. 2008. Aquatic and semiaquatic Lepidoptera. pp. 553-569. In: R. W. Merritt, K. W. Cummins and M. B. Berg (eds.). An introduction to the aquatic insects of North America. Kendall/Hunt Publishing Co., Dubuque, IA.
- Spencer, N. R. and M. Lekie. 1974. Prospects for biological control of Eurasian watermilfoil. Weed Sci. 22:401-404.
- Squitier J. M. and J. L. Capinera. 2002. Host selection by grasshoppers (Orthoptera: Acrididae) inhabiting semi-aquatic environments. Fla. Entomol. 85:336-340.
- Smart, R. M., G. O. Dick and R. D. Doyle. 1998. Techniques for establishing native aquatic plants. J. Aquat. Plant Manage. 36:44-49.
- Stegmaier, Jr., C. E. 1966. Host plants and parasites of *Liriomyza munda* in Florida (Diptera: Agromyzidae). Fla. Entomol. 49:75-80.
- Stiling, P. D., B. V. Brodbeck and D. R. Strong. 1984. Intraspecific competition in *Hydrellia valida* (Diptera: Ephydriidae), a leaf miner of *Spartina alterniflora*. Ecology 65:660-662.
- Stiling, P. D. and D. R. Strong. 1982. A leaf miner (Diptera: Ephydriidae) and its parasitoids on *Spartina alterniflora* in northwest Florida. Fla. Entomol. 64:468-471.
- Stoops, C. A., P. H. Adler and J. W. McCreadie. 1998. Ecology of aquatic Lepidoptera (Crambidae: Nymphulinae) in South Carolina, USA. Hydrobiologia 379:33-40.
- Tanner, V. M. 1943. Study of the subtribe Hydronomi with description of new species, (Curculionidae), Study No. VI. Great Basin Nat. 4:1-38.
- Tietz, H. G. 1972. An index to the described life histories, early stages, and hosts of the Macrolepidoptera of the Continental United States and Canada. Allyn Mus. Ent., Sarasota. 2 vol.
- USDA, NRCS (U.S. Department of Agriculture, Natural Resources Conservation Service. 2009. The PLANTS Database. <http://plants.usda.gov>. Accessed 6 April 2009). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.
- Vogel, E. and A. D. Oliver, Jr. 1969. Life history and some factors affecting the population of *Arzama densa* in Louisiana. Ann. Entomol. Soc. Am. 62:749-752.
- Wallace, J. B. and J. O'Hop. 1985. Life on a fast pad: waterlily leaf beetle impact on water lilies. Ecology 66:1534-1544.
- Welch, P. S. 1916. Contributions to the biology of certain aquatic Lepidoptera. Ann. Ent. Soc. Am. 9:159-87.
- Wibmer, G. J. 1981. Revision of the New World weevil genus *Tyloderma* in America north of Mexico (Coleoptera: Curculionidae: Cryptorhynchinae). Southwest. Entomol. 3:1-95.
- Wilson, H. F. and R. A. Vickery. 1918. A species list of the Aphididae of the world and their recorded food plants. Wisc. Acad. Sci., Arts Lett. Trans. 19: 25-355.