

12. APPENDICES

APPENDIX A. ALGAL FLORA AND LOWER PLANTS OF OLD WOMAN CREEK ESTUARY, WATERSHED, AND ADJACENT WATERS OF LAKE ERIE

KINGDOM MONERA

DIVISION CYANOPHYTA (blue-green algae)

CLASS CYANOPHYCEAE

Order Chroococcales

	Common Name	Family	Location
<i>Aphanocapsa delicatissima</i>	blue-green	Chroococcaceae	ES
<i>Aphanocapsa elachista</i>	blue-green	Chroococcaceae	ES
<i>Aphanocapsa incerta</i>	blue-green	Chroococcaceae	CK
<i>Aphanothece saxicola</i>	blue-green	Chroococcaceae	ES
<i>Chroococcus dispersus</i>	blue-green	Chroococcaceae	CK,ES
<i>Chroococcus minor</i>	blue-green	Chroococcaceae	CK
<i>Chroococcus minutus</i>	blue-green	Chroococcaceae	CK,LE
<i>Chroococcus plancticus</i>	blue-green	Chroococcaceae	ES
<i>Chroococcus spp.</i>	blue-greens	Chroococcaceae	CK,ES
<i>Coelosphaerium naegelianum</i>	blue-green	Chroococcaceae	ES
<i>Coelosphaerium pallidum</i>	blue-green	Chroococcaceae	ES
<i>Dactylococcopsis irregularis</i>	blue-green	Chroococcaceae	ES
<i>Gloeocapsa aeruginosa</i>	blue-green	Chroococcaceae	CK
<i>Gloeocapsa sp.</i>	blue-green	Chroococcaceae	ES
<i>Gomphosphaeria lacustris</i>	blue-green	Chroococcaceae	ES
<i>Merismopedia glauca</i>	blue-green	Chroococcaceae	ES
<i>Merismopedia minima</i>	blue-green	Chroococcaceae	CK,ES
<i>Merismopedia tenuissima</i>	blue-green	Chroococcaceae	ES
<i>Microcystis aeruginosa</i>	blue-green	Chroococcaceae	ES
<i>Microcystis minutissima</i>	blue-green	Chroococcaceae	ES
<i>Microcystis sp.</i>	blue-green	Chroococcaceae	ES
<i>Rhabdoderma minima</i>	blue-green	Chroococcaceae	ES
<i>Rhabdoderma sp.</i>	blue-green	Chroococcaceae	ES
<i>Synechococcus leopoliensis</i>	blue-green	Chroococcaceae	ES
<i>Synechococcus sp.</i>	blue-green	Chroococcaceae	ES

Order Oscillatoriales

<i>Anabaena circinalis</i>	blue-green	Nostocaceae	ES
<i>Anabaena spiroides</i>	blue-green	Nostocaceae	LE
<i>Anabaena spiroides</i> var. <i>crassa</i>	blue-green	Nostocaceae	LE
<i>Anabaena variabilis</i>	blue-green	Nostocaceae	ES
<i>Anabaena</i> spp.	blue-greens	Nostocaceae	ES,LE
<i>Aphanizomenon flos-aquae</i>	blue-green	Nostocaceae	ES,LE
<i>Calothrix fusca</i>	blue-green	Rivulariaceae	CK
<i>Calothrix</i> spp.	blue-greens	Rivulariaceae	CK
<i>Lyngba</i> sp.	blue-green	Oscillatoriaceae	CK,ES
<i>Microcoleus lyngbyaceus</i>	blue-green	Oscillatoriaceae	CK
<i>Oscillatoria agardhii</i>	blue-green	Oscillatoriaceae	ES,LE
<i>Oscillatoria amphibia</i>	blue-green	Oscillatoriaceae	ES
<i>Oscillatoria chlorina</i>	blue-green	Oscillatoriaceae	LE
<i>Oscillatoria granulata</i>	blue-green	Oscillatoriaceae	ES
<i>Oscillatoria hamelii</i>	blue-green	Oscillatoriaceae	ES,LE
<i>Oscillatoria limosa</i>	blue-green	Oscillatoriaceae	CK,ES
<i>Oscillatoria prolifica</i>	blue-green	Oscillatoriaceae	LE
<i>Oscillatoria</i> spp.	blue-greens	Oscillatoriaceae	ES,LE
<i>Oscillatoria subbrevis</i>	blue-green	Oscillatoriaceae	CK,ES
<i>Oscillatoria tenuis</i>	blue-green	Oscillatoriaceae	CK,ES
<i>Phormidium tenue</i>	blue-green	Oscillatoriaceae	ES
<i>Raphidiopsis mediterranea</i>	blue-green	Rivulariaceae	LE
<i>Schizothrix calcicola</i>	blue-green	Oscillatoriaceae	CK,ES
<i>Spirulina</i> sp.	blue-green	Rivulariaceae	ES

KINGDOM PROTISTA

DIVISION RHODOPHYTA (red algae)

CLASS RHODOPHYCEAE

Order Bangiales

*Bangia atropurpurea*Common Name
red algaFamily
BangiaceaeLocation
LE

DIVISION CHRYSOPHYTA (golden & yellow-green algae)

CLASS CHRYSOPHYCEAE (chrysophycean algae)

Order Ochromonadales

Anthophysa steinii

golden-brown alga

Mallomonadaceae

ES

Anthophysa vegetans

golden-brown alga

Mallomonadaceae

ES

Chrysococcus biporus

golden-brown alga

Ochromonadaceae

ES

Chrysococcus minutus

golden-brown alga

Ochromonadaceae

ES

Chrysococcus rufescens var. *tripora*

golden-brown alga

Ochromonadaceae

ES

Chrysococcus triporus

golden-brown alga

Ochromonadaceae

ES

Chrysococcus spp.

golden-brown algae

Ochromonadaceae

ES

Dinobryon bavaricum

golden-brown alga

Dinobryaceae

ES

Dinobryon divergens

golden-brown alga

Dinobryaceae

ES

Dinobryon sertularia

golden-brown alga

Dinobryaceae

ES

Dinobryon sociale

golden-brown alga

Dinobryaceae

ES

Dinobryon sp.

golden-brown alga

Dinobryaceae

ES

Epipyxis tabellariae

golden-brown alga

Dinobryaceae

ES

Kephryion ovale

golden-brown alga

Ochromonadaceae

ES

Kephryion spirale

golden-brown alga

Ochromonadaceae

LE

Kephryion spp.

golden-brown algae

Ochromonadaceae

ES

Mallomonas acaroides

golden-brown alga

Mallomonadaceae

ES

Mallomonas elegans

golden-brown alga

Mallomonadaceae

ES

Mallomonas intermedia

golden-brown alga

Mallomonadaceae

ES

Microglena sp.

golden-brown alga

Ochromonadaceae

ES

Monas guttula

golden-brown alga

Ochromonadaceae

ES

Monas socialis

golden-brown alga

Ochromonadaceae

ES

Monas sp.

golden-brown alga

Ochromonadaceae

ES

Ochromonas ludibunda

golden-brown alga

Ochromonadaceae

ES

Ochromonas nana

golden-brown alga

Ochromonadaceae

ES

Ochromonas sp.

golden-brown alga

Ochromonadaceae

ES

Physomonas vestita

golden-brown alga

Ochromonadaceae

ES

Pseudeokephyrion cylindricum

golden-brown alga

Dinobryaceae

ES

Pseudeokephyrion entzii f. *granulata*

golden-brown alga

Dinobryaceae

ES

Spumella sp.

golden-brown alga

Ochromonadaceae

ES

Stokesiella sp.

golden-brown alga

Dinobryaceae

ES

Synura uvella

golden-brown alga

Mallomonadaceae

ES

CLASS XANTHOPHYCEAE (yellow-green algae)

Order Rhizochloridaceae

Stipitococcus vasiformis

yellow-green alga

Stipitococcaceae

ES

Order Mischococcales

Centrictactus ellipsoideus

yellow-green alga

Centrictactaceae

ES

Goniochloris fallax

yellow-green alga

Pleurochloridaceae

ES

Ophiocytium capitatum var. *longispina*

yellow-green alga

Ophiocytaceae

ES

Pseudostaurastrum hastatum

yellow-green alga

Pleurochloridaceae

ES

Order Vaucherales

Vaucheria sp.

yellow-green alga

Vaucheriaceae

ES

CLASS BACILLARIOPHYCEAE (diatoms)

Order Centrales (centric diatoms)

Acanthoceras zachariasii

centric diatom

Rhizosoleniaceae

ES

Actinocyclus normanii

centric diatom

Coscinodiscaceae

ES

Aulacoseira alpigena

centric diatom

Melosiraceae

ES

Aulacoseira ambigua

centric diatom

Melosiraceae

ES

Aulacoseira crassipunctata

centric diatom

Melosiraceae

ES

Order Centrales (cont'd)	Common Name	Family	Location
<i>Aulacoseira granulata</i>	centric diatom	Melosiraceae	ES
<i>Aulacoseira granulata</i> var. <i>angustissima</i>	centric diatom	Melosiraceae	ES,LE
<i>Aulacoseira islandica</i>	centric diatom	Melosiraceae	E
<i>Aulacoseira italicica</i>	centric diatom	Melosiraceae	ES
<i>Aulacoseira</i> spp.	centric diatoms	Melosiraceae	ES
<i>Coscinodiscus</i> sp.	centric diatom	Coscinodiscaceae	ES
<i>Cyclostephanos invisitatus</i>	centric diatom	Thalassiosiraceae	ES
<i>Cyclostephanos tholiformis</i>	centric diatom	Thalassiosiraceae	ES
<i>Cyclotella atomus</i>	centric diatom	Thalassiosiraceae	ES
<i>Cyclotella atomus</i> var. 1	centric diatom	Thalassiosiraceae	ES
<i>Cyclotella meneghiniana</i>	centric diatom	Thalassiosiraceae	ES
<i>Cyclotella meneghiniana</i> var. 1	centric diatom	Thalassiosiraceae	ES
<i>Cyclotella pseudostelligera</i>	centric diatom	Thalassiosiraceae	ES
<i>Cyclotella radiosa</i>	centric diatom	Thalassiosiraceae	ES
<i>Cyclotella stelligera</i>	centric diatom	Thalassiosiraceae	ES
<i>Cyclotella</i> spp.	centric diatoms	Thalassiosiraceae	ES
<i>Melosira varians</i>	centric diatom	Melosiraceae	ES
<i>Rhizosolenia eriensis</i>	centric diatom	Rhizosoleniaceae	ES
<i>Skeletonema potamos</i>	centric diatom	Thalassiosiraceae	ES
<i>Stephanodiscus alpinus</i>	centric diatom	Coscinodiscaceae	ES
<i>Stephanodiscus binderanus</i>	centric diatom	Coscinodiscaceae	ES,LE
<i>Stephanodiscus hantzschii</i>	centric diatom	Coscinodiscaceae	ES
<i>Stephanodiscus minutulus</i>	centric diatom	Coscinodiscaceae	ES
<i>Stephanodiscus nipigonensis</i>	centric diatom	Coscinodiscaceae	ES
<i>Stephanodiscus parvus</i>	centric diatom	Coscinodiscaceae	ES
<i>Stephanodiscus rotula</i>	centric diatom	Coscinodiscaceae	CK,ES,LE
<i>Stephanodiscus subtilis</i>	centric diatom	Coscinodiscaceae	ES
<i>Stephanodiscus</i> sp.	centric diatom	Coscinodiscaceae	ES
<i>Thalassiosira pseudonana</i>	centric diatom	Thalassiosiraceae	ES
<i>Thalassiosira weissflogii</i>	centric diatom	Thalassiosiraceae	ES
Order Pennales (pennate diatoms)			
<i>Achnanthes biasolettiana</i>	pennate diatom	Achnanthaceae	ES
<i>Achnanthes clevei</i>	pennate diatom	Achnanthaceae	ES
<i>Achnanthes conspicua</i>	pennate diatom	Achnanthaceae	CK
<i>Achnanthes grischuna</i>	pennate diatom	Achnanthaceae	ES
<i>Achnanthes hungarica</i>	pennate diatom	Achnanthaceae	ES
<i>Achnanthes lanceolata</i>	pennate diatom	Achnanthaceae	CK,ES
<i>Achnanthes lanceolata</i> ssp. <i>dubia</i>	pennate diatom	Achnanthaceae	CK,ES
<i>Achnanthes lanceolata</i> ssp. <i>lanceolata</i>	pennate diatom	Achnanthaceae	CK,ES
<i>Achnanthes lanceolata</i> ssp. <i>l.</i> var. <i>boyei</i>	pennate diatom	Achnanthaceae	ES
<i>Achnanthes laurenburgiana</i>	pennate diatom	Achnanthaceae	ES
<i>Achnanthes minutissima</i>	pennate diatom	Achnanthaceae	CK,ES
<i>Achnanthes minutissima</i> var. <i>gracillima</i>	pennate diatom	Achnanthaceae	ES
<i>Achnanthes minutissima</i> var. <i>minutissima</i>	pennate diatom	Achnanthaceae	CK
<i>Achnanthes minutissima</i> var. <i>saprophiла</i>	pennate diatom	Achnanthaceae	ES
<i>Achnanthes minutissima</i> var. 2	pennate diatom	Achnanthaceae	ES
<i>Achnanthes</i> sp.	pennate diatom	Achnanthaceae	CK,ES
<i>Amphilpleura pellucida</i>	pennate diatom	Naviculaceae	CK,ES
<i>Amphora montana</i>	pennate diatom	Cymbellaceae	ES
<i>Amphora ovalis</i>	pennate diatom	Cymbellaceae	ES
<i>Amphora pediculus</i>	pennate diatom	Cymbellaceae	CK,ES
<i>Amphora</i> sp.	pennate diatom	Cymbellaceae	ES
<i>Anomoeoneis brachysira</i>	pennate diatom	Naviculaceae	ES
<i>Anomoeoneis sphaerophora</i>	pennate diatom	Naviculaceae	ES
<i>Asterionella formosa</i>	pennate diatom	Fragilariaceae	ES,LE
<i>Caloneis amphisbaena</i>	pennate diatom	Naviculaceae	CK,ES
<i>Caloneis bacillum</i>	pennate diatom	Naviculaceae	CK,ES
<i>Caloneis clevei</i>	pennate diatom	Naviculaceae	ES
<i>Caloneis molaris</i>	pennate diatom	Naviculaceae	ES

Order Pennales (cont'd)	Common Name	Family	Location
<i>Caloneis schumanniana</i>	pennate diatom	Naviculaceae	ES
<i>Caloneis thermalis</i>	pennate diatom	Naviculaceae	ES
<i>Cocconeis pediculus</i>	pennate diatom	Achnanthaceae	ES
<i>Cocconeis placentula</i>	pennate diatom	Achnanthaceae	CK,ES
<i>Cocconeis placentula</i> var. <i>euglypta</i>	pennate diatom	Achnanthaceae	ES
<i>Cocconeis placentula</i> var. <i>lineata</i>	pennate diatom	Achnanthaceae	ES
<i>Cylindrotheca gracilis</i>	pennate diatom	Nitzschiacea	ES
<i>Cymatopleura elliptica</i>	pennate diatom	Surirellacea	CK
<i>Cymatopleura solea</i>	pennate diatom	Surirellacea	ES
<i>Cymbella affinis</i>	pennate diatom	Cymbellacea	ES
<i>Cymbella caespitosa</i>	pennate diatom	Cymbellacea	ES
<i>Cymbella microcephala</i>	pennate diatom	Cymbellacea	ES
<i>Cymbella minuta</i>	pennate diatom	Cymbellacea	CK,ES
<i>Cymbella naviculiformis</i>	pennate diatom	Cymbellacea	ES
<i>Cymbella prostrata</i>	pennate diatom	Cymbellacea	CK
<i>Cymbella silesiaca</i>	pennate diatom	Cymbellacea	CK,ES
<i>Cymbella triangulum</i>	pennate diatom	Cymbellacea	LE
<i>Cymbella tumida</i>	pennate diatom	Cymbellacea	CK,ES
<i>Cymbella tumidula</i>	pennate diatom	Cymbellacea	CK,ES
<i>Cymbella turgidula</i>	pennate diatom	Cymbellacea	CK,ES
<i>Denticula kuetzingii</i>	pennate diatom	Epithemiacea	ES
<i>Diatoma vulgaris</i> var. <i>distorta</i>	pennate diatom	Fragilariaeae	ES
<i>Diatoma mesodon</i>	pennate diatom	Fragilariaeae	ES
<i>Diatoma tenuis</i>	pennate diatom	Fragilariaeae	ES
<i>Diatoma vulgaris</i>	pennate diatom	Fragilariaeae	ES
<i>Entomoneis ornata</i>	pennate diatom	Naviculacea	LE
<i>Epithemia adnata</i>	pennate diatom	Epithemiacea	ES
<i>Epithemia turgida</i>	pennate diatom	Epithemiacea	ES
<i>Eunotia arcus</i> var. <i>bidens</i>	pennate diatom	Eunotiacea	ES
<i>Eunotia bilunaris</i> var. <i>bilunaris</i>	pennate diatom	Eunotiacea	ES
<i>Eunotia bilunarius</i> var. <i>mucophila</i>	pennate diatom	Eunotiacea	ES
<i>Eunotia denticulata</i>	pennate diatom	Eunotiacea	ES
<i>Eunotia diodon</i>	pennate diatom	Eunotiacea	ES
<i>Eunotia exigua</i>	pennate diatom	Eunotiacea	ES
<i>Eunotia formica</i>	pennate diatom	Eunotiacea	ES
<i>Eunotia pectinalis</i>	pennate diatom	Eunotiacea	ES
<i>Eunotia</i> sp.	pennate diatom	Eunotiacea	ES
<i>Fragilaria capucina</i>	pennate diatom	Fragilariaeae	CK,ES,LE
<i>Fragilaria capucina</i> var. <i>gracilis</i>	pennate diatom	Fragilariaeae	ES
<i>Fragilaria capucina</i> var. <i>radians</i>	pennate diatom	Fragilariaeae	ES
<i>Fragilaria capucina</i> var. <i>rumpens</i>	pennate diatom	Fragilariaeae	CK,ES
<i>Fragilaria capucina</i> var. <i>vaucheriae</i>	pennate diatom	Fragilariaeae	CK,ES
<i>Fragilaria construens</i>	pennate diatom	Fragilariaeae	ES
<i>Fragilaria construens</i> f. <i>venter</i>	pennate diatom	Fragilariaeae	CK,ES
<i>Fragilaria crotonensis</i>	pennate diatom	Fragilariaeae	ES,LE
<i>Fragilaria fasciculata</i>	pennate diatom	Fragilariaeae	CK,ES
<i>Fragilaria leptostauron</i> var. <i>martyi</i>	pennate diatom	Fragilariaeae	ES
<i>Fragilaria parasitica</i> var. <i>subconstricta</i>	pennate diatom	Fragilariaeae	ES
<i>Fragilaria pulchella</i>	pennate diatom	Fragilariaeae	ES
<i>Fragilaria tenera</i>	pennate diatom	Fragilariaeae	ES
<i>Fragilaria ulna</i>	pennate diatom	Fragilariaeae	CK,ES
<i>Fragilaria ulna</i> var. <i>acus</i>	pennate diatom	Fragilariaeae	ES
<i>Fragilaria ulna</i> var. <i>danica</i>	pennate diatom	Fragilariaeae	ES
<i>Fragilaria ulna</i> var. <i>obtusa</i>	pennate diatom	Fragilariaeae	CK
<i>Fragilaria ulna</i> var. <i>oxyrhynchus</i>	pennate diatom	Fragilariaeae	CK
<i>Fragilaria ulna</i> var. 1	pennate diatom	Fragilariaeae	ES
<i>Fragilaria virescens</i>	pennate diatom	Fragilariaeae	CK,ES
<i>Frustulia rhomboidea</i>	pennate diatom	Naviculacea	ES
<i>Frustulia vulgaris</i>	pennate diatom	Naviculacea	ES
<i>Gomphonema acuminatum</i>	pennate diatom	Cymbellacea	ES

Order Pennales (cont'd)	Common Name	Family	Location
<i>Gomphonema affine</i>	pennate diatom	Cymbellaceae	CK,ES
<i>Gomphonema affine</i> var. <i>elongatum</i>	pennate diatom	Cymbellaceae	ES
<i>Gomphonema amoenum</i>	pennate diatom	Cymbellaceae	ES
<i>Gomphonema angustatum</i>	pennate diatom	Cymbellaceae	CK,ES
<i>Gomphonema angustatum</i> var. <i>citera</i>	pennate diatom	Cymbellaceae	CK
<i>Gomphonema a.</i> var. <i>sarcophagus</i>	pennate diatom	Cymbellaceae	ES
<i>Gomphonema angustum</i>	pennate diatom	Cymbellaceae	CK,ES
<i>Gomphonema augar</i> var. <i>spaerophorum</i>	pennate diatom	Cymbellaceae	CK
<i>Gomphonema augur</i>	pennate diatom	Cymbellaceae	CK,ES
<i>Gomphonema clavatum</i>	pennate diatom	Cymbellaceae	ES
<i>Gomphonema clevei</i>	pennate diatom	Cymbellaceae	ES
<i>Gomphonema dichotomum</i>	pennate diatom	Cymbellaceae	ES
<i>Gomphonema gracile</i>	pennate diatom	Cymbellaceae	ES
<i>Gomphonema minutum</i>	pennate diatom	Cymbellaceae	ES
<i>Gomphonema minutum</i> f. <i>lamanense</i>	pennate diatom	Cymbellaceae	ES
<i>Gomphonema olivaceum</i>	pennate diatom	Cymbellaceae	CK,ES
<i>Gomphonema parvulum</i>	pennate diatom	Cymbellaceae	CK,ES
<i>Gomphonema truncatum</i>	pennate diatom	Cymbellaceae	ES
<i>Gomphonema truncatum</i> var. <i>elongata</i>	pennate diatom	Cymbellaceae	ES
<i>Gomphonema</i> sp.	pennate diatom	Cymbellaceae	ES
<i>Gyrosigma acuminatum</i>	pennate diatom	Naviculaceae	CK
<i>Gyrosigma attenuatum</i>	pennate diatom	Naviculaceae	ES
<i>Gyrosigma exilis</i>	pennate diatom	Naviculaceae	ES
<i>Gyrosigma scalproides</i>	pennate diatom	Naviculaceae	ES
<i>Gyrosigma</i> sp.	pennate diatom	Naviculaceae	ES
<i>Hantzschia amphioxys</i>	pennate diatom	Nitzschiaeae	ES
<i>Meridion circulare</i>	pennate diatom	Fragilariaeae	CK,ES
<i>Meridion circulare</i> var. <i>constrictum</i>	pennate diatom	Fragilariaeae	ES
<i>Navicula absoluta</i>	pennate diatom	Naviculaceae	ES
<i>Navicula agnita</i>	pennate diatom	Naviculaceae	ES
<i>Navicula arvensis</i>	pennate diatom	Naviculaceae	ES
<i>Navicula atomus</i>	pennate diatom	Naviculaceae	ES
<i>Navicula atomus</i> var. <i>permittis</i>	pennate diatom	Naviculaceae	ES
<i>Navicula bacillum</i>	pennate diatom	Naviculaceae	ES
<i>Navicula bahusiensis</i>	pennate diatom	Naviculaceae	ES
<i>Navicula capitata</i>	pennate diatom	Naviculaceae	ES
<i>Navicula capitata</i> var. <i>capitata</i>	pennate diatom	Naviculaceae	ES
<i>Navicula capitatoradiata</i>	pennate diatom	Naviculaceae	ES
<i>Navicula cincta</i>	pennate diatom	Naviculaceae	ES
<i>Navicula confervacea</i>	pennate diatom	Naviculaceae	ES
<i>Navicula contenta</i>	pennate diatom	Naviculaceae	ES
<i>Navicula cryptocephala</i>	pennate diatom	Naviculaceae	ES
<i>Navicula cryptotenella</i>	pennate diatom	Naviculaceae	CK,ES
<i>Navicula cuspidata</i>	pennate diatom	Naviculaceae	CK,ES
<i>Navicula decussis</i>	pennate diatom	Naviculaceae	CK,ES
<i>Navicula elgineensis</i>	pennate diatom	Naviculaceae	CK,ES
<i>Navicula erifuga</i>	pennate diatom	Naviculaceae	ES
<i>Navicula goeppertia</i>	pennate diatom	Naviculaceae	ES
<i>Navicula goeppertia</i> var. <i>goeppertia</i>	pennate diatom	Naviculaceae	ES
<i>Navicula goeppertia</i> var. <i>monita</i>	pennate diatom	Naviculaceae	ES
<i>Navicula gregaria</i>	pennate diatom	Naviculaceae	CK,ES
<i>Navicula grunowii</i> var. 1	pennate diatom	Naviculaceae	ES
<i>Navicula halophila</i>	pennate diatom	Naviculaceae	ES
<i>Navicula heimansii</i>	pennate diatom	Naviculaceae	ES
<i>Navicula hustedtii</i>	pennate diatom	Naviculaceae	ES
<i>Navicula ingenua</i>	pennate diatom	Naviculaceae	ES
<i>Navicula insocibilis</i>	pennate diatom	Naviculaceae	ES
<i>Navicula integra</i>	pennate diatom	Naviculaceae	ES
<i>Navicula lanceolata</i>	pennate diatom	Naviculaceae	CK,ES
<i>Navicula menisculus</i>	pennate diatom	Naviculaceae	ES

Order Pennales (cont'd)	Common Name	Family	Location
<i>Navicula menisculus</i> var. <i>grunowii</i>	pennate diatom	Naviculaceae	ES
<i>Navicula menisculus</i> var. <i>upsaliensis</i>	pennate diatom	Naviculaceae	CK,ES
<i>Navicula minima</i>	pennate diatom	Naviculaceae	CK,ES
<i>Navicula minima</i> var. <i>pseudofossalis</i>	pennate diatom	Naviculaceae	ES
<i>Navicula minusculoides</i>	pennate diatom	Naviculaceae	ES
<i>Navicula molestiformis</i>	pennate diatom	Naviculaceae	ES
<i>Navicula monoculata</i>	pennate diatom	Naviculaceae	ES
<i>Navicula mutica</i>	pennate diatom	Naviculaceae	ES
<i>Navicula mutica</i> var. <i>ventricosa</i>	pennate diatom	Naviculaceae	ES
<i>Navicula pelliculosa</i>	pennate diatom	Naviculaceae	ES
<i>Navicula praeterita</i>	pennate diatom	Naviculaceae	ES
<i>Navicula pseudolanceolata</i>	pennate diatom	Naviculaceae	ES
<i>Navicula pupula</i>	pennate diatom	Naviculaceae	ES
<i>Navicula pupula</i> var. <i>aquaeductae</i>	pennate diatom	Naviculaceae	ES
<i>Navicula pupula</i> var. <i>rectangularis</i>	pennate diatom	Naviculaceae	ES
<i>Navicula pygmaea</i>	pennate diatom	Naviculaceae	ES
<i>Navicula radiosa</i>	pennate diatom	Naviculaceae	ES
<i>Navicula recens</i>	pennate diatom	Naviculaceae	ES
<i>Navicula rhynchocephala</i>	pennate diatom	Naviculaceae	ES
<i>Navicula salinarum</i>	pennate diatom	Naviculaceae	CK,ES
<i>Navicula saprophila</i>	pennate diatom	Naviculaceae	CK,ES
<i>Navicula schroeterii</i>	pennate diatom	Naviculaceae	ES
<i>Navicula seminulum</i>	pennate diatom	Naviculaceae	ES
<i>Navicula similis</i>	pennate diatom	Naviculaceae	ES
<i>Navicula splendicula</i>	pennate diatom	Naviculaceae	ES
<i>Navicula subminuscula</i>	pennate diatom	Naviculaceae	ES
<i>Navicula submolesta</i>	pennate diatom	Naviculaceae	ES
<i>Navicula tenelloides</i>	pennate diatom	Naviculaceae	ES
<i>Navicula tenera</i>	pennate diatom	Naviculaceae	ES
<i>Navicula tripunctata</i>	pennate diatom	Naviculaceae	CK,ES
<i>Navicula tripunctata</i> var. <i>schizonemoides</i>	pennate diatom	Naviculaceae	ES
<i>Navicula trivialis</i>	pennate diatom	Naviculaceae	ES
<i>Navicula vaucherie</i>	pennate diatom	Naviculaceae	ES
<i>Navicula veneta</i>	pennate diatom	Naviculaceae	CK,ES
<i>Navicula viridula</i>	pennate diatom	Naviculaceae	ES
<i>Navicula viridula</i> var. <i>germainii</i>	pennate diatom	Naviculaceae	CK,ES
<i>Navicula viridula</i> var. <i>rostellata</i>	pennate diatom	Naviculaceae	CK,ES
<i>Navicula viridula</i> var. 1	pennate diatom	Naviculaceae	ES
<i>Navicula</i> spp.	pennate diatoms	Naviculaceae	ES
<i>Nedium affine</i>	pennate diatom	Naviculaceae	ES
<i>Nedium dubium</i>	pennate diatom	Naviculaceae	ES
<i>Nitzschia acicularis</i>	pennate diatom	Nitzschiacea	ES
<i>Nitzschia acidoclinata</i>	pennate diatom	Nitzschiacea	ES
<i>Nitzschia acuminata</i>	pennate diatom	Nitzschiacea	ES
<i>Nitzschia admissoides</i>	pennate diatom	Nitzschiacea	CK
<i>Nitzschia agnita</i>	pennate diatom	Nitzschiacea	ES
<i>Nitzschia amphibia</i>	pennate diatom	Nitzschiacea	CK,ES
<i>Nitzschia angustata</i>	pennate diatom	Nitzschiacea	ES
<i>Nitzschia angustatula</i>	pennate diatom	Nitzschiacea	ES
<i>Nitzschia angustiforaminata</i>	pennate diatom	Nitzschiacea	ES
<i>Nitzschia bita?</i>	pennate diatom	Nitzschiacea	CK
<i>Nitzschia brevissima</i>	pennate diatom	Nitzschiacea	ES
<i>Nitzschia capitellata</i>	pennate diatom	Nitzschiacea	ES
<i>Nitzschia clausii</i>	pennate diatom	Nitzschiacea	ES
<i>Nitzschia closterium</i>	pennate diatom	Nitzschiacea	ES
<i>Nitzschia communis</i>	pennate diatom	Nitzschiacea	CK,ES
<i>Nitzschia commutatooides</i>	pennate diatom	Nitzschiacea	ES
<i>Nitzschia compressa</i> var. <i>vexans</i>	pennate diatom	Nitzschiacea	ES
<i>Nitzschia constricta</i>	pennate diatom	Nitzschiacea	CK
<i>Nitzschia dissipata</i>	pennate diatom	Nitzschiacea	CK,ES

Order Pennales (cont'd)	Common Name	Family	Location
<i>Nitzschia dissipata</i> var. <i>media</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia dubia</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia filiformis</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia fonticola</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia frustulum</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia frustulum</i> var. <i>perpusilla</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia fruticosa</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia gracilis</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia hantzschiana</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia hungarica</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia inconspicua</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia intermedia</i>	pennate diatom	Nitzschiaeae	CK,ES
<i>Nitzschia levidensis</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia linearis</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia linearis</i> var. <i>subtilis</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia littoralis</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia microcephala</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia nereidis</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia palea</i>	pennate diatom	Nitzschiaeae	CK,ES
<i>Nitzschia palea</i> var. <i>minuta</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia paleacea</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia parvula</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia perspicua</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia plana</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia pusilla</i>	pennate diatom	Nitzschiaeae	CK,ES
<i>Nitzschia recta</i>	pennate diatom	Nitzschiaeae	CK,ES
<i>Nitzschia reversa</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia sigma</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia sigmaeidea</i>	pennate diatom	Nitzschiaeae	CK,ES
<i>Nitzschia sinuata</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia sinuata</i> var. <i>tabellaria</i>	pennate diatom	Nitzschiaeae	CK,ES
<i>Nitzschia sociabilis</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia solita</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia spiculum</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia stricta</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia subacicularis</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia supralitorea</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia tropica</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia tryblionella</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia tubicola</i>	pennate diatom	Nitzschiaeae	ES
<i>Nitzschia valga</i>	pennate diatom	Nitzschiaeae	ES
<i>Pinnularia abaujensis</i> var. <i>rostrata</i>	pennate diatom	Naviculaceae	ES
<i>Pinnularia borealis</i>	pennate diatom	Naviculaceae	LE
<i>Pinnularia intermedia</i>	pennate diatom	Naviculaceae	ES
<i>Pinnularia microstauron</i>	pennate diatom	Naviculaceae	ES
<i>Pinnularia microstauron</i> var. <i>b. f. diminuta</i>	pennate diatom	Naviculaceae	ES
<i>Pinnularia nodosa</i>	pennate diatom	Naviculaceae	ES
<i>Pinnularia obscura</i>	pennate diatom	Naviculaceae	ES
<i>Pinnularia stomatophora</i>	pennate diatom	Naviculaceae	ES
<i>Pinnularia viridis</i>	pennate diatom	Naviculaceae	ES
<i>Pinnularia</i> sp.	pennate diatom	Naviculaceae	ES
<i>Plagiotropis lepidoptera</i> var. <i>probosidea</i>	pennate diatom	Naviculaceae	ES
<i>Pleurosigma delicatulum</i>	pennate diatom	Naviculaceae	CK
<i>Reimeria sinuata</i>	pennate diatom	Cymbellaceae	CK,ES
<i>Rhoicosphenia abbreviata</i>	pennate diatom	Achnanthaceae	CK,ES
<i>Stauroneis anceps</i>	pennate diatom	Naviculaceae	ES
<i>Stauroneis kriegeri</i>	pennate diatom	Naviculaceae	ES
<i>Stauroneis phoenicenteron</i>	pennate diatom	Naviculaceae	ES
<i>Stauroneis smithii</i>	pennate diatom	Naviculaceae	ES

Order Pennales (cont'd)	Common Name	Family	Location
<i>Stauroneis thermicola</i>	pennate diatom	Naviculaceae	ES
<i>Surirella angusta</i>	pennate diatom	Surirellacea	ES
<i>Surirella brebissonii</i> var. <i>kuetzingii</i>	pennate diatom	Surirellacea	ES
<i>Surirella minuta</i>	pennate diatom	Surirellacea	CK,ES
<i>Surirella ovalis</i>	pennate diatom	Surirellacea	ES
<i>Surirella suecica</i>	pennate diatom	Surirellacea	ES
<i>Surirella tenera</i>	pennate diatom	Surirellacea	ES
<i>Surirella turgida</i>	pennate diatom	Surirellacea	ES
<i>Tabellaria fenestrata</i>	pennate diatom	Fragilariaceae	ES
<i>Tabellaria</i> sp.	pennate diatom	Fragilariaceae	ES
DIVISION PYRRHOPHYTA (fire algae)			
CLASS DINOPHYCEAE (dinoflagellates)			
Order Gymnodiniales			
<i>Gymnodinium aeruginosum</i>	dinoflagellate	Gymnodiniaceae	ES
<i>Gymnodinium helveticum</i>	dinoflagellate	Gymnodiniaceae	ES
<i>Gymnodinium palustre</i>	dinoflagellate	Gymnodiniaceae	ES
<i>Gymnodinium</i> spp.	dinoflagellates	Gymnodiniaceae	CK,ES
<i>Katodinium fungiforme</i>	dinoflagellate	Gymnodiniaceae	ES
Order Peridiniales			
<i>Ceratium hirundinella</i>	dinoflagellate	Ceratiaceae	ES,LE
<i>Ceratium</i> sp.	dinoflagellate	Ceratiaceae	ES
<i>Glenodinium</i> sp.	dinoflagellate	Peridiniaceae	ES
<i>Perdiniospis quadridens</i>	dinoflagellate	Peridiniaceae	ES
<i>Woloszynskia coronata</i>	dinoflagellate	Lophodiniaceae	ES
DIVISION CRYPTOPHYTA (cryptomonads)			
CLASS CRYPTOPHYCEAE			
Order Cryptomonadales			
<i>Chilomonas</i> sp.	cryptomonad	Cryptomonadaceae	ES
<i>Chroomonas norstedtii</i>	cryptomonad	Cryptomonadaceae	ES
<i>Chroomonas</i> sp.	cryptomonad	Cryptomonadaceae	ES
<i>Cryptomonas compressa</i>	cryptomonad	Cryptomonadaceae	ES
<i>Cryptomonas erosa</i>	cryptomonad	Cryptomonadaceae	ES
<i>Cryptomonas erosa</i> var. <i>reflexa</i>	cryptomonad	Cryptomonadaceae	CK
<i>Cryptomonas marszonii</i>	cryptomonad	Cryptomonadaceae	ES
<i>Cryptomonas obovata</i>	cryptomonad	Cryptomonadaceae	ES
<i>Cryptomonas ovata</i>	cryptomonad	Cryptomonadaceae	ES
<i>Cryptomonas reflexa</i>	cryptomonad	Cryptomonadaceae	ES
<i>Cryptomonas tenuis</i>	cryptomonad	Cryptomonadaceae	ES
<i>Cryptomonas tetrapyrenoidosa</i>	cryptomonad	Cryptomonadaceae	ES
<i>Cryptomonas</i> spp.	cryptomonads	Cryptomonadaceae	ES
<i>Cyathomonas truncata</i>	cryptomonad	Cyathomonadaceae	ES
<i>Cyathomonas</i> sp.	cryptomonad	Cyathomonadaceae	ES
<i>Planonephros parvula</i>	cryptomonad	Hemiselmidaceae	ES
<i>Rhodomonas lacustris</i>	cryptomonad	Cryptomonadaceae	ES
<i>Rhodomonas lens</i>	cryptomonad	Cryptomonadaceae	ES
<i>Rhodomonas minuta</i>	cryptomonad	Cryptomonadaceae	ES
<i>Rhodomonas m. var. nannoplanctonica</i>	cryptomonad	Cryptomonadaceae	ES,LE
<i>Rhodomonas</i> spp.	cryptomonads	Cryptomonadaceae	CK,ES
DIVISION EUGLENOPHYTA (euglenoids)			
CLASS EUGLENOPHYCEAE			
Order Euglenales (green euglenas)			
<i>Ascoglena vaginicola</i>	euglenoid	Euglenaceae	ES
<i>Ascoglena</i> sp.	euglenoid	Euglenaceae	ES
<i>Astasia klebsii</i>	euglenoid	Astaciaceae	ES
<i>Astasia</i> spp.	euglenoids	Astaciaceae	ES
<i>Euglena acus</i>	euglenoid	Euglenaceae	ES
<i>Euglena bellovacensis</i>	euglenoid	Euglenaceae	ES

Order Euglenales (cont'd)	Common Name	Family	Location
<i>Euglena deses</i>	euglenoid	Euglenaceae	ES
<i>Euglena ehrenbergii</i>	euglenoid	Euglenaceae	ES
<i>Euglena elastica</i>	euglenoid	Euglenaceae	ES
<i>Euglena fronsundulata</i>	euglenoid	Euglenaceae	ES
<i>Euglena gasterosteus</i>	euglenoid	Euglenaceae	CK,ES
<i>Euglena gracilis</i>	euglenoid	Euglenaceae	ES
<i>Euglena ignobilis</i>	euglenoid	Euglenaceae	ES
<i>Euglena minima</i>	euglenoid	Euglenaceae	ES
<i>Euglena oxyuris</i>	euglenoid	Euglenaceae	ES
<i>Euglena oxyuris</i> var. <i>minima</i>	euglenoid	Euglenaceae	ES
<i>Euglena oxyuris</i> var. <i>minor</i>	euglenoid	Euglenaceae	ES
<i>Euglena pisciformis</i>	euglenoid	Euglenaceae	ES
<i>Euglena proxima</i>	euglenoid	Euglenaceae	ES
<i>Euglena spathirhyncha</i>	euglenoid	Euglenaceae	ES
<i>Euglena spirogyra</i>	euglenoid	Euglenaceae	ES
<i>Euglena tripteris</i>	euglenoid	Euglenaceae	ES
<i>Euglena vermiforis</i>	euglenoid	Euglenaceae	ES
<i>Euglena</i> spp.	euglenoids	Euglenaceae	CK,ES
<i>Lepocinclus ovum</i>	euglenoid	Euglenaceae	ES
<i>Lepocinclus ovum</i> f. <i>typica</i>	euglenoid	Euglenaceae	ES
<i>Lepocinclus ovum</i> var. <i>deflandriana</i>	euglenoid	Euglenaceae	ES
<i>Lepocinclus ovum</i> var. <i>dimidio-minor</i>	euglenoid	Euglenaceae	ES
<i>Lepocinclus ovum</i> var. <i>ovata</i> f. <i>ecaudata</i>	euglenoid	Euglenaceae	ES
<i>Lepocinclus texta</i> f. <i>minor</i>	euglenoid	Euglenaceae	ES
<i>Lepocinclus</i> spp.	euglenoids	Euglenaceae	CK,ES
<i>Phacus acuminatus</i>	euglenoid	Euglenaceae	CK,ES
<i>Phacus arnoldi</i>	euglenoid	Euglenaceae	ES
<i>Phacus caudatus</i>	euglenoid	Euglenaceae	ES
<i>Phacus contortus</i>	euglenoid	Euglenaceae	ES
<i>Phacus curvicauda</i>	euglenoid	Euglenaceae	ES
<i>Phacus helikoides</i>	euglenoid	Euglenaceae	ES
<i>Phacus longicauda</i>	euglenoid	Euglenaceae	ES
<i>Phacus obicularis</i>	euglenoid	Euglenaceae	ES
<i>Phacus pleuronectes</i>	euglenoid	Euglenaceae	ES
<i>Phacus pseudonordstedii</i>	euglenoid	Euglenaceae	ES
<i>Phacus rudicula</i>	euglenoid	Euglenaceae	ES
<i>Phacus tortus</i>	euglenoid	Euglenaceae	ES
<i>Phacus triqueter</i>	euglenoid	Euglenaceae	ES
<i>Phacus</i> sp.	euglenoid	Euglenaceae	ES
<i>Scytonomas</i> sp.	euglenoid	Astaciaceae	ES
<i>Strombomonas acuminata</i>	euglenoid	Euglenaceae	ES
<i>Strombomonas fluviatilis</i>	euglenoid	Euglenaceae	ES
<i>Strombomonas gibberosa</i>	euglenoid	Euglenaceae	ES
<i>Strombomonas longicauda</i>	euglenoid	Euglenaceae	ES
<i>Strombomonas schauinslandii</i>	euglenoid	Euglenaceae	ES
<i>Strombomonas verrucosa</i> var. <i>zmiewika</i>	euglenoid	Euglenaceae	ES
<i>Strombomonas</i> sp.	euglenoid	Euglenaceae	ES
<i>Trachelomonas abrupta</i> var. <i>minor</i>	euglenoid	Euglenaceae	ES
<i>Trachelomonas armata</i>	euglenoid	Euglenaceae	ES
<i>Trachelomonas bulla</i>	euglenoid	Euglenaceae	ES
<i>Trachelomonas crebea</i>	euglenoid	Euglenaceae	ES
<i>Trachelomonas granulosa</i>	euglenoid	Euglenaceae	ES
<i>Trachelomonas hispida</i>	euglenoid	Euglenaceae	ES
<i>Trachelomonas horrida</i>	euglenoid	Euglenaceae	ES
<i>Trachelomonas lacustris</i>	euglenoid	Euglenaceae	ES
<i>Trachelomonas oblonga</i>	euglenoid	Euglenaceae	ES
<i>Trachelomonas oblonga</i> var. <i>attenuata</i>	euglenoid	Euglenaceae	ES
<i>Trachelomonas oblonga</i> var. <i>truncata</i>	euglenoid	Euglenaceae	ES
<i>Trachelomonas o.</i> var. <i>umbilicophora</i>	euglenoid	Euglenaceae	ES
<i>Trachelomonas planctonica</i>	euglenoid	Euglenaceae	ES

	Common Name	Family	Location
Order Euglenales (cont'd)			
<i>Trachelomonas scabra</i>	euglenoid	Euglenaceae	ES
<i>Trachelomonas spiralis</i>	euglenoid	Euglenaceae	ES
<i>Trachelomonas superba</i>	euglenoid	Euglenaceae	ES
<i>Trachelomonas varians</i>	euglenoid	Euglenaceae	ES
<i>Trachelomonas volvocina</i>	euglenoid	Euglenaceae	ES
<i>Trachelomonas volvocina</i> var. <i>minuta</i>	euglenoid	Euglenaceae	ES
<i>Trachelomonas</i> spp.	euglenoids	Euglenaceae	ES
<i>Urceolus ovatus</i>	euglenoid	Astaciaceae	ES
<i>Urceolus sabulosus</i>	euglenoid	Astaciaceae	ES
Order Rhabdomonadales			
<i>Menodium gibbum</i>	euglenoid	Rhabdomonaceae	ES
<i>Rhabdomonas</i> sp.	euglenoid	Rhabdomonaceae	ES
DIVISION CHLOROPHYTA (green algae)			
CLASS CHLOROPHYCEAE			
Order Volvocales			
<i>Carteria bournellei</i>	green alga	Chlamydomonadaceae	ES
<i>Carteria globosa</i>	green alga	Chlamydomonadaceae	ES
<i>Carteria wisconsinensis</i>	green alga	Chlamydomonadaceae	CK,ES
<i>Carteria</i> sp.	green alga	Chlamydomonadaceae	ES
<i>Chlamydomonas globosa</i>	green alga	Chlamydomonadaceae	CK,ES
<i>Chlamydomonas gracilis</i>	green alga	Chlamydomonadaceae	ES
<i>Chlamydomonas monadina</i>	green alga	Chlamydomonadaceae	ES
<i>Chlamydomonas reinhardtii</i>	green alga	Chlamydomonadaceae	ES
<i>Chlamydomonas subasymmetrica</i>	green alga	Chlamydomonadaceae	ES
<i>Chlamydomonas</i> spp.	green algae	Chlamydomonadaceae	CK,ES,LE
<i>Chlamydonephris excavata</i>	green alga	Chlamydomonadaceae	ES
<i>Chlorogonium elongatum</i>	green alga	Chlamydomonadaceae	ES
<i>Chlorogonium euchlorum</i>	green alga	Chlamydomonadaceae	ES
<i>Chlorogonium hyalinum</i>	green alga	Chlamydomonadaceae	ES
<i>Eudorina elegans</i>	green alga	Volvaceae	LE
<i>Haematococcus pluvialis</i>	green alga	Chlamydomonadaceae	ES
<i>Pandorinamorum</i>	green alga	Volvaceae	ES
<i>Pandorina</i> sp.	green alga	Volvaceae	ES
<i>Pedinopera</i> sp.	green alga	Phacotaceae	ES
<i>Phacus lenticularis</i>	green alga	Phacotaceae	ES
<i>Phacus</i> sp.	green alga	Phacotaceae	ES
<i>Pteromonas angulosa</i>	green alga	Phacotaceae	ES
<i>Pteromonas</i> sp.	green alga	Phacotaceae	ES
<i>Sphaerellopsis</i> spp.	green algae	Chlamydomonadaceae	ES
<i>Volvox</i> sp.	green alga	Volvaceae	ES
Order Tetrasporales			
<i>Chlamydocapsa ampla</i>	green alga	Palmellaceae	CK,ES
<i>Chlamydocapsa planctonica</i>	green alga	Palmellaceae	ES
<i>Chlamydocapsa</i> sp.	green alga	Palmellaceae	ES
<i>Gloeocystis vesiculosa</i>	green alga	Palmellaceae	CK,ES
<i>Pseudosphaerocystis lacustris</i>	green alga	Palmellaceae	CK,ES
Order Chlorococcales			
<i>Actinastrium hantzschii</i>	green alga	Scenedesmaceae	ES
<i>Ankistrodesmus falcatus</i>	green alga	Oocystaceae	ES
<i>Ankistrodesmus stipitatus</i>	green alga	Oocystaceae	ES
<i>Ankyra judayi</i>	green alga	Chlorococcaceae	ES
<i>Characium curvatum</i>	green alga	Chlorococcaceae	ES
<i>Characium</i> sp.	green alga	Chlorococcaceae	ES
<i>Chlorococcum</i> sp.	green alga	Chlorococcaceae	ES
<i>Closteriopsis acicularis</i>	green alga	Oocystaceae	ES
<i>Coelastrum astroidenium</i>	green alga	Scenedesmaceae	ES
<i>Coelastrum cambricum</i>	green alga	Scenedesmaceae	ES

Order Chlorococcales (cont'd)	Common Name	Family	Location
<i>Coelastrum microporum</i>	green alga	Scenedesmaceae	ES
<i>Coelastrum pseucomicroporum</i>	green alga	Scenedesmaceae	ES
<i>Coelastrum</i> sp.	green alga	Scenedesmaceae	ES
<i>Crucigenia fenestrata</i>	green alga	Scenedesmaceae	ES
<i>Crucigenia mucronata</i>	green alga	Scenedesmaceae	ES
<i>Crucigenia quadrata</i>	green alga	Scenedesmaceae	ES
<i>Crucigenia tetrapedia</i>	green alga	Scenedesmaceae	ES
<i>Crucigeniella apiculata</i>	green alga	Scenedesmaceae	ES
<i>Crucigeniella rectangularis</i>	green alga	Scenedesmaceae	ES
<i>Dictyosphaerium puchellum</i>	green alga	Dictyosphaeriaceae	ES
<i>Didymocystis inconspicua</i>	green alga	Scenedesmaceae	ES
<i>Didymocystis plancticus</i>	green alga	Scenedesmaceae	ES
<i>Didymocystis</i> sp.	green alga	Scenedesmaceae	ES
<i>Didymogenes palatina</i>	green alga	Scenedesmaceae	ES
<i>Franceia droescheri</i>	green alga	Oocystaceae	ES
<i>Golenkinia radiata</i>	green alga	Micractiniaceae	ES
<i>Golenkiniopsis</i> sp.	green alga	Micractiniaceae	ES
<i>Kirchneriella contorta</i> var. <i>contorta</i>	green alga	Oocystaceae	ES
<i>Kirchneriella contorta</i> var. <i>elegans</i>	green alga	Oocystaceae	ES
<i>Kirchneriella lunaris</i>	green alga	Oocystaceae	ES
<i>Kirchneriella</i> sp.	green alga	Oocystaceae	ES
<i>Korshikoviella limnetica</i>	green alga	Chlorococcaceae	ES
<i>Lagerheimia balatonica</i>	green alga	Oocystaceae	ES
<i>Lagerheimia ciliata</i>	green alga	Oocystaceae	ES
<i>Lagerheimia citriformis</i>	green alga	Oocystaceae	ES
<i>Lagerheimia genevensis</i>	green alga	Oocystaceae	ES
<i>Lagerheimia marssonii</i>	green alga	Oocystaceae	ES
<i>Lagerheimia subsalsa</i>	green alga	Oocystaceae	ES
<i>Lagerheimia wratislawiensis</i>	green alga	Oocystaceae	ES
<i>Micractinium pusillum</i>	green alga	Micractiniaceae	ES
<i>Monoraphidium arcuatum</i>	green alga	Oocystaceae	ES,LE
<i>Monoraphidium circinale</i>	green alga	Oocystaceae	ES
<i>Monoraphidium contortum</i>	green alga	Oocystaceae	ES
<i>Monoraphidium c. var. convolutum</i>	green alga	Oocystaceae	ES
<i>Monoraphidium griffithii</i>	green alga	Oocystaceae	ES
<i>Monoraphidium komarkovae</i>	green alga	Oocystaceae	ES
<i>Monoraphidium mirabile</i>	green alga	Oocystaceae	ES
<i>Monoraphidium</i> sp.	green alga	Oocystaceae	ES
<i>Neodesmus danubialis</i>	green alga	Scenedesmaceae	ES
<i>Nephrochlamys subsolitaria</i>	green alga	Oocystaceae	ES
<i>Nephrochlamys</i> spp.	green algae	Oocystaceae	ES
<i>Oocystis lacustris</i>	green alga	Oocystaceae	ES,LE
<i>Oocystis novae-semliae</i>	green alga	Oocystaceae	ES
<i>Oocystis parva</i>	green alga	Oocystaceae	ES
<i>Oocystis pusilla</i>	green alga	Oocystaceae	ES
<i>Oocystis</i> sp.	green alga	Oocystaceae	ES
<i>Pediastrum boryanum</i>	green alga	Hydrodictyaceae	ES
<i>Pediastrum duplex</i>	green alga	Hydrodictyaceae	ES
<i>Pediastrum duplex</i> var. <i>duplex</i>	green alga	Hydrodictyaceae	ES
<i>Pediastrum duplex</i> var. <i>reticulatum</i>	green alga	Hydrodictyaceae	ES
<i>Pediastrum simplex</i>	green alga	Hydrodictyaceae	ES
<i>Pediastrum simplex</i> var. <i>biwaense</i>	green alga	Hydrodictyaceae	ES
<i>Pediastrum simplex</i> var. <i>echinulatum</i>	green alga	Hydrodictyaceae	ES
<i>Pediastrum simplex</i> var. <i>sturmii</i>	green alga	Hydrodictyaceae	ES
<i>Pediastrum tetras</i>	green alga	Hydrodictyaceae	ES
<i>Pediastrum tetras</i> var. <i>tetraodon</i>	green alga	Hydrodictyaceae	ES
<i>Pediastrum</i> sp.	green alga	Hydrodictyaceae	ES
<i>Quadrigula closteroides</i>	green alga	Oocystaceae	ES
<i>Quadrigula lacustris</i>	green alga	Oocystaceae	ES
<i>Scenedesmus acuminatus</i>	green alga	Scenedesmaceae	ES

	Common Name	Family	Location
Order Chlorococcales (cont'd)			
<i>Scenedesmus acuminatus</i> var. <i>minor</i>	green alga	Scenedesmaceae	ES
<i>Scenedesmus armatus</i>	green alga	Scenedesmaceae	ES
<i>Scenedesmus bicaudatus</i>	green alga	Scenedesmaceae	ES
<i>Scenedesmus bijuga</i>	green alga	Scenedesmaceae	ES
<i>Scenedesmus bijuga</i> var. <i>alternans</i>	green alga	Scenedesmaceae	ES
<i>Scenedesmus brevispina</i>	green alga	Scenedesmaceae	ES
<i>Scenedesmus denticulatus</i>	green alga	Scenedesmaceae	ES
<i>Scenedesmus dimorphus</i>	green alga	Scenedesmaceae	CK,ES
<i>Scenedesmus hystrix</i>	green alga	Scenedesmaceae	ES
<i>Scenedesmus longispina</i>	green alga	Scenedesmaceae	ES
<i>Scenedesmus opoliensis</i>	green alga	Scenedesmaceae	CK,ES
<i>Scenedesmus quadricauda</i>	green alga	Scenedesmaceae	ES
<i>Scenedesmus quadricauda</i> var. <i>longispina</i>	green alga	Scenedesmaceae	ES
<i>Scenedesmus sempervirens</i>	green alga	Scenedesmaceae	ES
<i>Scenedesmus serratus</i>	green alga	Scenedesmaceae	ES
<i>Scenedesmus smithii</i>	green alga	Scenedesmaceae	ES
<i>Scenedesmus sooi?</i>	green alga	Scenedesmaceae	ES
<i>Scenedesmus subspicatus</i>	green alga	Scenedesmaceae	ES
<i>Scenedesmus verrucosus</i>	green alga	Scenedesmaceae	ES
<i>Scenedesmus</i> spp.	green algae	Scenedesmaceae	CK,ES
<i>Schroederia indica</i>	green alga	Chlorococcaceae	LE
<i>Schroederia robusta</i>	green alga	Chlorococcaceae	ES
<i>Schroederia setigera</i>	green alga	Chlorococcaceae	ES
<i>Schroederia spiralis</i>	green alga	Chlorococcaceae	ES
<i>Selenastrum capricornutum</i>	green alga	Oocystaceae	ES
<i>Selenastrum</i> sp.	green alga	Oocystaceae	ES
<i>Tetraedron caudatum</i>	green alga	Chlorococcaceae	ES
<i>Tetraedron incus</i>	green alga	Chlorococcaceae	ES
<i>Tetraedron minimum</i>	green alga	Chlorococcaceae	CK,ES
<i>Tetraedron muticum</i>	green alga	Chlorococcaceae	ES
<i>Tetraedron regulare</i>	green alga	Chlorococcaceae	ES
<i>Tetraedron trigonum</i> var. <i>gracile</i>	green alga	Chlorococcaceae	ES
<i>Tetrastrum elegans</i>	green alga	Scenedesmaceae	ES
<i>Tetrastrum glabrum</i>	green alga	Scenedesmaceae	CK,ES
<i>Tetrastrum heteracanthum</i>	green alga	Scenedesmaceae	ES
<i>Tetrastrum heteracanthum</i> (<i>elegans</i> f.)	green alga	Scenedesmaceae	ES
<i>Tetrastrum punctatum</i>	green alga	Scenedesmaceae	ES
<i>Tetrastrum staurogeniaeforme</i>	green alga	Scenedesmaceae	ES
<i>Treubaria quadrispina</i>	green alga	Oocystaceae	ES
<i>Treubaria schmidlei</i>	green alga	Oocystaceae	ES
<i>Treubaria triappendiculata</i>	green alga	Oocystaceae	ES
<i>Willea irregularis</i>	green alga	Scenedesmaceae	ES
Order Oedogoniales			
<i>Oedogonium</i> sp.	green alga	Oedogoniaceae	ES
Order Chaetophorales			
<i>Desmococcus olivaceus</i>	green alga	Chaetophoraceae	CK
<i>Draparnaldia glomerata</i>	green alga	Chaetophoraceae	CK,ES
<i>Stigeoclonium farctum</i>	green alga	Chaetophoraceae	ES
<i>Stigeoclonium</i> sp.	green alga	Chaetophoraceae	ES
<i>Stigeoclonium tenue</i>	green alga	Chaetophoraceae	ES
Order Ulotrichales			
<i>Microspora</i> sp.	green alga	Microsporaceae	ES
<i>Microspora stagnorum</i>	green alga	Microsporaceae	ES
<i>Radiofilmum conjunctivum</i>	green alga	Ulotrichaceae	CK
<i>Ulothrix</i> sp.	green alga	Ulotrichaceae	ES
Order Ulotrichales (cont'd)			
<i>Ulothrix tenerrima</i>	green alga	Ulotrichaceae	CK
<i>Ulothrix tenuissima</i>	green alga	Ulotrichaceae	CK

	Common Name	Family	Location
Order Cladophorales			
<i>Cladophora glomerata</i>	green alga	Cladophoraceae	ES,LE
<i>Rhizoclonium hieroglyphicum</i>	green alga	Cladophoraceae	CK
Order Zygnematales			
<i>Closterium aciculare</i> var. <i>aciculare</i>	green alga, desmid	Desmidiaceae	ES
<i>Closterium acutum</i> var. <i>acutum</i>	green alga, desmid	Desmidiaceae	ES
<i>Closterium acutum</i> var. <i>variabile</i>	green alga, desmid	Desmidiaceae	ES
<i>Closterium gracile</i> var. <i>gracile</i>	green alga, desmid	Desmidiaceae	ES
<i>Closterium intermedium</i>	green alga, desmid	Desmidiaceae	CK
<i>Closterium limneticum</i> var. <i>limneticum</i>	green alga, desmid	Desmidiaceae	ES
<i>Closterium macilentum</i> var. <i>macilentum</i>	green alga, desmid	Desmidiaceae	ES
<i>Closterium moniliferum</i> var. <i>moniliferum</i>	green alga, desmid	Desmidiaceae	ES
<i>Closterium</i> spp.	green algae, desmids	Desmidiaceae	ES
<i>Cosmarium formosulum</i>	green alga, desmid	Desmidiaceae	ES
<i>Cosmarium granatum</i>	green alga, desmid	Desmidiaceae	ES
<i>Cosmarium granatum</i> var. <i>granatum</i>	green alga, desmid	Desmidiaceae	ES
<i>Cosmarium granulatum?</i>	green alga, desmid	Desmidiaceae	ES
<i>Cosmarium</i> spp.	green algae, desmids	Desmidiaceae	ES
<i>Mougeotia</i> sp.	green alga	Zygnemataceae	ES
<i>Spirogyra</i> sp.	green alga	Zygnemataceae	CK,ES
<i>Staurastrum gracile</i>	green alga, desmid	Desmidiaceae	ES
KINGDOM FUNGI			
DIVISION MYXOMYCOTA (mucus molds)			
CLASS MYXOMYCETES (true slime molds)			
Order Physarales (physar slimes)			
<i>Badhamia affinis</i>	slime mold	Physaraceae	RE
<i>Craterium minimum</i>	slime mold	Physaraceae	RE
<i>Diderma crustaceum</i>	slime mold	Didymiaceae	RE
<i>Diderma hemisphericum</i>	slime mold	Didymiaceae	RE
<i>Diderma reticulatum</i>	slime mold	Didymiaceae	RE
<i>Didymium crustaceum</i>	slime mold	Didymiaceae	RE
<i>Didymium iridis</i>	slime mold	Didymiaceae	RE
<i>Didymium melanospermum</i>	slime mold	Didymiaceae	RE
<i>Didymium squamulosum</i>	slime mold	Didymiaceae	RE
<i>Fuligo cinerea</i>	slime mold	Physaraceae	RE
<i>Fuligo violacea</i>	slime mold	Physaraceae	RE
<i>Mucilago spongiosa</i>	slime mold	Didymiaceae	RE
<i>Physarella oblonga</i>	slime mold	Physaraceae	RE
<i>Physarum nutans</i>	slime mold	Physaraceae	RE
<i>Physarum vernum</i>	slime mold	Physaraceae	RE
<i>Physarum viride</i>	slime mold	Physaraceae	RE
<i>Physarum viride</i> var. <i>incanum</i>	slime mold	Physaraceae	RE
<i>Tilmadoche alba</i>	slime mold	Physaraceae	RE
Order Liceales (lice slimes)			
<i>Cibraria intricata</i>	slime mold	Cribriariaceae	RE
<i>Dictyodium cancellatum</i>	Japanese-lantern slime	Cribriariaceae	RE
<i>Lindbladia tubulina</i>	slime mold	Cribriariaceae	RE
<i>Lycogala epidendrum</i>	wolf's-milk slime	Reticulariaceae	RE
<i>Lycogala flavo-fuscum</i>	slime mold	Reticulariaceae	RE
<i>Reticularia splendens</i>	slime mold	Reticulariaceae	RE
<i>Tubifera ferruginosa</i>	red raspberry slime	Reticulariaceae	RE
<i>Tubifera microsperma</i>	slime mold	Reticulariaceae	RE
Order Trichiales (trichi slimes)			
<i>Acryodes incarnata</i>	slime mold	Trichiaceae	RE
<i>Arcyria cinerea</i>	slime mold	Trichiaceae	RE

	Common Name	Family	Location
Order Trichiales (cont'd)			
<i>Arcyria denudata</i>	carnival candy slime	Trichiaceae	RE
<i>Arcyria incarnata</i>	slime mold	Trichiaceae	RE
<i>Arcyria nutans</i>	slime mold	Trichiaceae	RE
<i>Calonema aureum</i>	slime mold	Trichiaceae	RE
<i>Hemitrichia clavata</i>	yellow-fuzz cone slime	Trichiaceae	RE
<i>Hemitrichia intorta</i>	slime mold	Trichiaceae	RE
<i>Hemitrichia stipitata</i>	slime mold	Trichiaceae	RE
<i>Hemitrichia vesparium</i>	slime mold	Trichiaceae	RE
<i>Lachnobolus globosus</i>	slime mold	Trichiaceae	RE
<i>Ophiotheca wrightii</i>	slime mold	Trichiaceae	RE
<i>Perichaena quadrata</i>	slime mold	Trichiaceae	RE
<i>Trichia inconspicua</i>	slime mold	Trichiaceae	RE
Order Stemonitales (stemonit slimes)			
<i>Comatichia laxa</i>	slime mold	Stemonitaceae	RE
<i>Comatichia pulchella</i>	slime mold	Stemonitaceae	RE
<i>Comatricha stemonitis</i>	slime mold	Stemonitaceae	RE
<i>Diachea leucopodia</i>	white-footed slime	Stemonitaceae	RE
<i>Lamproderma arcyriонема</i>	slime mold	Stemonitaceae	RE
<i>Stemonitis fenestrata</i>	slime mold	Stemonitaceae	RE
<i>Stemonitis fusca</i>	slime mold	Stemonitaceae	RE
<i>Stemonitis herbarica</i>	slime mold	Stemonitaceae	RE
<i>Stemonitis maxima</i>	slime mold	Stemonitaceae	RE
<i>Stemonitis smithii</i>	slime mold	Stemonitaceae	RE
DIVISION PHYCOMYCOTA (algal fungi)			
CLASS CHYTRIDIOMYCETES (chytrids)			
Order Chytridiales			
<i>Entophlyctis aurea</i>	water mold	Phylctidiaceae	LE,RE
<i>Rozella allomyces</i>	water mold	Olpidiaceae	LE,RE
<i>Synchytrium decipiens</i>	water mold	Synchytriaceae	LE,RE
Order Blastocladiiales			
<i>Allomyces arbuscula</i>	water mold	Blastocladiaceae	LE,RE
<i>Blastocladia globosa</i>	water mold	Blastocladiaceae	LE,RE
<i>Blastocladia pringsheimii</i>	water mold	Blastocladiaceae	LE,RE
<i>Blastocladia ramosa</i>	water mold	Blastocladiaceae	LE,RE
<i>Blastocladia simplex</i>	water mold	Blastocladiaceae	LE,RE
<i>Blastocladia tenuis</i>	water mold	Blastocladiaceae	LE,RE
Order Monoblepharidiales			
<i>Gonapodya prolifera</i>	water mold	Gonapodyaceae	LE,RE
<i>Monoblepharis</i> sp.	water mold	Monoblepharidaceae	LE,RE
CLASS OOMYCETES (egg fungi)			
Order Saprolegniaceae			
<i>Achlya americana</i>	water mold	Saprolegniaceae	LE,RE
<i>Achlya bisexualis</i>	water mold	Saprolegniaceae	LE,RE
<i>Achlya debaryana</i>	water mold	Saprolegniaceae	LE,RE
<i>Achlya dubia</i>	water mold	Saprolegniaceae	LE,RE
<i>Achlya flagellata</i>	water mold	Saprolegniaceae	LE,RE
<i>Achlya klebsiana</i>	water mold	Saprolegniaceae	LE,RE
<i>Achlya polyandra</i>	water mold	Saprolegniaceae	LE,RE
<i>Achlya prolifera</i>	water mold	Saprolegniaceae	LE,RE
<i>Achlya proliferoides</i>	water mold	Saprolegniaceae	LE,RE
<i>Achlya rodrigueziana</i>	water mold	Saprolegniaceae	LE,RE
<i>Achlya</i> sp.	water mold	Saprolegniaceae	LE,RE
<i>Aphanomyces euteiches</i>	water mold	Saprolegniaceae	LE,RE
<i>Aphanomyces laevis</i>	water mold	Saprolegniaceae	LE,RE
<i>Aphanomyces scaber</i>	water mold	Saprolegniaceae	LE,RE
<i>Aphanomyces</i> sp.	water mold	Saprolegniaceae	LE,RE
<i>Dictyuchus anomalus</i>	water mold	Saprolegniaceae	LE,RE

	Common Name	Family	Location
Order Saprolegniaceae (cont'd)			
<i>Dictyuchus missouriensis</i>	water mold	Saprolegniaceae	LE,RE
<i>Dictyuchus monosporus</i>	water mold	Saprolegniaceae	LE,RE
<i>Dictyuchus pseudodictyon</i>	water mold	Saprolegniaceae	LE,RE
<i>Dictyuchus</i> sp.	water mold	Saprolegniaceae	LE,RE
<i>Geolegnia inflata</i>	water mold	Saprolegniaceae	LE,RE
<i>Isoachlya</i> sp.?	water mold	Saprolegniaceae	LE,RE
<i>Leptolegnia subterranea</i>	water mold	Saprolegniaceae	LE,RE
<i>Protoachlya paradoxa</i>	water mold	Saprolegniaceae	LE,RE
<i>Saprolegnia diclina</i>	water mold	Saprolegniaceae	LE,RE
<i>Saprolegnia ferax</i>	water mold	Saprolegniaceae	LE,RE
<i>Saprolegnia monoica</i>	water mold	Saprolegniaceae	LE,RE
<i>Saprolegnia parasitica</i>	water mold	Saprolegniaceae	LE,RE
<i>Saprolegnia</i> sp.	water mold	Saprolegniaceae	LE,RE
Order Leptomitales			
<i>Apodachlya brachynema</i>	water mold	Leptomitaceae	LE,RE
Order Lagenidiales			
<i>Olpidiopsis saprolegniae</i>	water mold	Olpidiopsidaceae	LE,RE
<i>Olpidiopsis varians</i>	water mold	Olpidiopsidaceae	LE,RE
Order Peronosporales (downy mildews)			
<i>Cystopus bliti</i>	downy mildew	Peronosporaceae	RE
<i>Cystopus candidus</i>	downy mildew	Peronosporaceae	RE
<i>Peronospora geranii</i>	downy mildew	Peronosporaceae	RE
<i>Peronospora parasitica</i>	downy mildew	Peronosporaceae	RE
<i>Phytophthora cactorum</i>	crown rot	Pythiaceae	CK
<i>Phytophthora undulatum</i>	downy mildew	Pythiaceae	LE,RE
<i>Plasmopara sordida</i>	downy mildew	Peronosporaceae	RE
<i>Plasmopara viticola</i>	downy mildew of grape	Peronosporaceae	CK,ES,RE
<i>Pythium aphanidermatum</i>	downy mildew	Pythiaceae	LE,RE
<i>Pythium cystosiphon?</i>	downy mildew	Pythiaceae	LE,RE
<i>Pythium debaryanum</i>	downy mildew	Pythiaceae	LE,RE
<i>Pythium proliferum</i>	downy mildew	Pythiaceae	LE,RE
<i>Pythium pulchrum</i>	downy mildew	Pythiaceae	LE,RE
<i>Pythium</i> sp.	downy mildew	Pythiaceae	LE,RE
<i>Pythium ultimum</i>	downy mildew	Pythiaceae	LE,RE
CLASS ZYgomycetes (pair fungi)			
Order Entomophthorales			
<i>Empusa grylli</i>	mold	Entomophthoraceae	RE
Order Mucorales			
<i>Mucor stolonifer</i>	mold	Mucoraceae	RE
<i>Rhizopus</i> sp.	bread mold	Mucoraceae	CK
DIVISION ASCOMYCOTA (ascomycetes or bladder fungi)			
CLASS HEMIASCOMYCETES (yeasts)			
Order Protomycetales			
<i>Taphrina communis</i>	plum pockets	Protomycetaceae	CK
<i>Taphrina deformans</i>	peach leaf curl	Protomycetaceae	CK
CLASS LOCULOASCOMYCETES (rots & scabs)			
Order Myriangiales			
<i>Elsinoë corni</i>	dogwood anthracnose	Elsinoëaceae	CK
Order Dothideales			
<i>Botryosphaeria dothidea</i>	white apple rot	Dothioraceae	CK
<i>Botryosphaeria obtusa</i>	black apple rot	Dothioraceae	CK
dothidean spp.	pear sooty molds	Dothideaceae	CK
<i>Mycosphaerella fragariae</i>	strawberry leaf spot	Dothideaceae	CK
<i>Plowrightia morbosa</i>	rot	Dothideaceae	RE

Order Pleosporales	Common Name	Family	Location
<i>Apiosporina morbosa</i>	black knot	Venturiaceae	CK
<i>Venturia crataegi</i>	apple scab	Venturiaceae	CK
<i>Venturia pyrina</i>	pear scab	Venturiaceae	CK
CLASS PLECTOMYCETES (ascomolds)			
Order Eurotiales			
<i>Aspergillus herbariorum</i>	mold	Trichocomaceae	RE
<i>Aspergillus niger</i>	mold	Trichocomaceae	RE
<i>Ophiostoma ulmi</i>	Dutch elm disease	Ophiostomataceae	CK
<i>Penicillium crustaceum</i>	mold	Trichocomaceae	RE
<i>Penicillium</i> sp.	blue mold	Trichocomaceae	CK
CLASS PYRENOMYCETES (flask fungi)			
Order Erysiphales (powdery mildews)			
<i>Erysiphe cichoracearum</i>	powdery mildew	Erysiphaceae	RE
<i>Erysiphe communis</i>	powdery mildew	Erysiphaceae	RE
<i>Erysiphe montagnei</i>	powdery mildew	Erysiphaceae	RE
<i>Erysiphe polygoni</i>	black locust powdery mildew	Erysiphaceae	RE
<i>Microsphaera alni</i>	lilac powdery mildew	Erysiphaceae	CK,RE
<i>Microsphaera diffusa</i>	powdery mildew	Erysiphaceae	RE
<i>Microsphaera ravenelii</i>	powdery mildew	Erysiphaceae	RE
<i>Microsphaera viburni</i>	powdery mildew	Erysiphaceae	CK
<i>Phyllactinia corylea</i>	tree powdery mildew	Erysiphaceae	RE
<i>Podosphaera leucotricha</i>	apple powdery mildew	Erysiphaceae	CK
<i>Podosphaera oxyacanthae</i>	powdery mildew	Erysiphaceae	RE
<i>Sphaerotheca castagñeai</i>	downy mildew	Erysiphaceae	RE
<i>Uncinula necator</i>	grape powdery mildew	Erysiphaceae	CK
Order Xylariales (flask fungi)			
<i>Daldinia cingulata</i>	zoned black fungus	Xylariaceae	RE
<i>Hypoxyylon</i> sp.	wood-wart	Xylariaceae	RE
<i>Xylaria digitata</i>	finger fungus	Xylariaceae	RE
<i>Xylaria polymorpha</i>	dead man's fingers	Xylariaceae	RE
Order Diaporthales (flask fungi)			
<i>Apiognomonia veneta</i>	sycamore anthracnose	Diaporthaceae	CK
<i>Cryphonectria parasitica</i>	chestnut blight	Diaporthaceae	CK
<i>Diaporthe ailanthi</i>	flask fungus	Diaporthaceae	RE
<i>Glomerella cingulata</i>	apple bitter rot	Diaporthaceae	CK
<i>Guignardia bidwellii</i>	grape black rot	Diaporthaceae	CK,RE
Order Hypocreales			
<i>Leucostoma</i> sp.	peach canker	Hypocreaceae	CK
<i>Nectria galligena</i>	nectria canker	Hypocreaceae	CK
Order Clavicipitales (flask fungi)			
<i>Claviceps purpurea</i>	ergot claviceps	Clavicipitaceae	RE
<i>Cordyceps militaris</i>	military orange caterpillar fungus	Clavicipitaceae	RE
CLASS DISCOMYCETES (disc fungi)			
Order Phacidiales			
<i>Rhytisma</i> sp.	maple tar spot	Rhytismataceae	CK
Order Helotiales (earth tongues)			
<i>Blumeriella jaapii</i>	cherry leaf spot	Dermateaceae	CK
<i>Monilinia fructicola</i>	stone fruits brown rot	Sclerotiniaceae	CK
<i>Pseudopeziza medicaginis</i>	leaf spot	Dermateaceae	RE
<i>Sclerotinia fructigena</i>	rind rot	Sclerotiniaceae	ES
Order Pezizales (cup fungi and allies)			
<i>Aleuria aurantia</i>	orange peel fungus	Aleuriaceae	CK
<i>Lachnea scutellata</i>	patella	Pezizaceae	RE
<i>Macropodia semitosta</i>	paxina	Pezizaceae	RE

Order Pezizales (cont'd)	Common Name	Family	Location
<i>Morchella esculenta</i>	common morel	Morchellaceae	CK
<i>Patella setosa</i>	cup fungus	Pezizaceae	CK
DIVISION BASIDIOMYCOTA (basidiomycetes or small base fungi)			
CLASS TELIOMYCETES (rust and smut fungi)			
Order Uredinales (rust fungi)			
<i>Aecidium cimicifugatum</i>	rust	Pucciniaceae	RE
<i>Aecidium compositatum</i>	rust	Pucciniaceae	RE
<i>Aecidium fraxini</i>	rust	Pucciniaceae	RE
<i>Aecidium grossulariae</i>	rust	Pucciniaceae	RE
<i>Aecidium impatientis</i>	rust	Pucciniaceae	RE
<i>Aecidium nesææ</i>	rust	Pucciniaceae	RE
<i>Aecidium oenotheræ</i>	rust	Pucciniaceae	RE
<i>Aecidium pammelii</i>	rust	Pucciniaceae	RE
<i>Aecidium pustulatum</i>	rust	Pucciniaceae	RE
<i>Allodus podophylli</i>	May-apple rust	Pucciniaceae	CK
<i>Coleosporium sonchi-arvensis</i>	rust	Melampsoraceae	RE
<i>Gymnoconia peckiana</i>	rust	Pucciniaceae	RE
<i>Gymnoconia</i> sp.	orange rust	Pucciniaceae	CK
<i>Gymnosporangium globosum</i>	rust	Pucciniaceae	RE
<i>Gymnosporangium juniperi-virginianae</i>	cedar-apple rust	Pucciniaceae	CK
<i>Gymnosporangium nidus-avis</i>	rust	Pucciniaceae	RE
<i>Kunkelia nitens</i>	blackberry rust	Pucciniaceae	CK
<i>Melampsora salicis-capreae</i>	melampsora rust	Melampsoraceae	RE
<i>Negridio caladii</i>	Jack in the pulpit rust	Pucciniaceae	CK
<i>Phragmidium obtusum</i>	rust	Pucciniaceae	RE
<i>Puccinia caricis</i>	current rust	Pucciniaceae	RE
<i>Puccinia coronata</i>	buckthorn crown rust	Pucciniaceae	RE
<i>Puccinia fraxinata</i>	rust	Pucciniaceae	RE
<i>Puccinia glechomatis</i>	rust	Pucciniaceae	RE
<i>Puccinia graminis</i>	grape rust	Pucciniaceae	RE
<i>Puccinia helianthi</i>	rust	Pucciniaceae	RE
<i>Puccinia malvacearum</i>	rust	Pucciniaceae	RE
<i>Puccinia menthae</i>	rust	Pucciniaceae	RE
<i>Puccinia osmorrhizae</i>	rust	Pucciniaceae	RE
<i>Puccinia podophylli</i>	rust	Pucciniaceae	RE
<i>Puccinia polygoni-amphibii</i>	rust	Pucciniaceae	RE
<i>Puccinia seymeriae</i>	rust	Pucciniaceae	RE
<i>Puccinia simplex</i>	rust	Pucciniaceae	RE
<i>Puccinia taraxaci</i>	rust	Pucciniaceae	RE
<i>Puccinia xanthii</i>	rust	Pucciniaceae	RE
<i>Pucciniastrum agrimoniae</i>	rust	Pucciniastraceae	RE
<i>Uromyces euphorbiae</i>	rust	Pucciniaceae	RE
<i>Uromyces phaseoli</i>	rust	Pucciniaceae	RE
<i>Uromyces striatus</i>	rust	Pucciniaceae	RE
<i>Uromyces toxicodendri</i>	rust	Pucciniaceae	RE
<i>Uromyces trifolii</i>	rust	Pucciniaceae	RE
Order Ustilaginales (smut fungi)			
<i>Entyloma menispermi</i>	smut	Tilletiaceae	RE
<i>Ustilago avenae</i>	smut	Ustilaginaceae	RE
<i>Ustilago hordei</i>	smut	Ustilaginaceae	RE
<i>Ustilago maydis</i>	corn smut	Ustilaginaceae	CK
<i>Ustilago zea</i>	smut	Ustilaginaceae	CK,RE
CLASS PHRAGMOBASIDIOMYCETES			
(jelly and waxy fungi)			
Order Eutremellales (jelly fungi)			
<i>Exidia spiculosa</i>	jelly fungus	Tremellaceae	CK
<i>Tremella candida</i>	jelly fungus	Tremellaceae	RE

Order Metatremellales (waxy fungi) <i>Calocera cornea</i>	Common Name clublike tuning fork	Family Dacrymycetaceae	Location RE
CLASS HYMENOMYCETES (exposed hymenium fungi)			
Order Agaricales (coral and pore fungi)			
<i>Agaricus campestris</i>	meadow mushroom	Agaricaceae	CK
<i>Agaricus comtulus</i>	agaricus	Agaricaceae	RE
<i>Amanita phalloides</i>	death cup	Amanitaceae	RE
<i>Amanitopsis vaginata</i>	sheathed amanitopsis	Amanitaceae	RE
<i>Armillaria mellea</i>	honey mushroom	Agaricaceae	CK
<i>Atrichum undulatum</i>	wavy Catherinea mushroom	Polyporaceae	CK
<i>Berkandera adusta</i>	pore fungus	Polyporaceae	CK
<i>Boletus chrysenteron</i>	golden-flesh or red-crack bolete	Boletaceae	RE
<i>Boletus piperatus</i>	edible bolete	Boletaceae	RE
<i>Clavaria flaccida</i>	soft coral fungus	Clavariaceae	RE
<i>Clavaria pyxidata</i>	edible coral fungus	Clavariaceae	RE
<i>Clavaria</i> sp.	coral mushroom	Clavariaceae	CK
<i>Clitocybe infundibuliformis-membranacea</i>	funnel clitocybe	Tricholomataceae	RE
<i>Clitopilus abortivus</i>	field type mushroom	Agaricaceae	CK
<i>Collybia delicatella</i>	collybia	Tricholomataceae	RE
<i>Collybia dryophila</i>	oak-loving collybia	Tricholomataceae	RE
<i>Collybia myriadophylla</i>	conifer collybia	Tricholomataceae	RE
<i>Collybia platyphylla</i>	broad-gilled collybia	Tricholomataceae	RE
<i>Coprinus fuscescens</i>	ink-cup	Coprinaceae	RE
<i>Coprinus micaceus</i>	glistening ink-cup	Coprinaceae	RE
<i>Crepidotus malachius</i>	spotted stumpfoot	Agaricaceae	CK
<i>Daedalea confragosa</i>	currycomb bracket fungus	Polyporaceae	CK
<i>Daedalea quercina</i>	oak mazegill fungus	Polyporaceae	CK
<i>Entoloma</i> sp.	entoloma	Rhodophyllaceae	RE
<i>Favolus alveolaris</i>	pore fungus	Polyporaceae	CK
<i>Fomes applanatus</i>	artist's fomes	Polyporaceae	RE
<i>Fomes everhartii</i>	artist's type fungus	Polyporaceae	CK
<i>Fomes ohioensis</i>	artist's type fungus	Polyporaceae	CK
<i>Galera</i> sp.	deadly galerina	Cortinariaceae	RE
<i>Ganoderma applanatum</i>	artist's shelf fungus	Polyporaceae	CK
<i>Gomphidius</i> sp.	gomphidius	Gomphidiaceae	RE
<i>Gyrodom merulioides</i>	fleshy pore fungus or bolete	Boletaceae	CK
<i>Hydrochaete olivacea</i>	red leather fungus	Polyporaceae	CK,RE
<i>Inocybe</i> sp.	fiber cap	Cortinariaceae	RE
<i>Irpe lacteus</i>	white leather fungus	Polyporaceae	RE
<i>Lactarius rimosellus</i>	milk cap	Russulaceae	RE
<i>Lactarius subdulcis</i>	dull milk cap	Russulaceae	RE
<i>Lactarius theiogalus</i>	yellow -straining milk cap	Russulaceae	RE
<i>Laetiporus sulphureus</i>	sulfur polypore	Polyporaceae	RE
<i>Lentinus sulcatus</i>	lentinus	Tricholomataceae	RE
<i>Lenzites betulina</i>	birch mazegill fungus	Polyporaceae	CK
<i>Lenzites sepiaria</i>	gill polypore	Polyporaceae	RE
<i>Lepiota adirondackensis</i>	Adirondacks lepiota	Lepiotaceae	RE
<i>Lepiota cristata</i>	crested lepiota	Lepiotaceae	RE
<i>Lepiota erminea</i>	ermine lepiota	Lepiotaceae	RE
<i>Lepiota illinita</i>	lepiota	Lepiotaceae	RE
<i>Macrolepiota procera</i>	parasol mushroom	Lepiotaceae	CK
<i>Marasmius albiceps</i>	marasmius	Tricholomataceae	RE
<i>Marasmius candidus</i>	marasmius	Tricholomataceae	RE
<i>Marasmius nigripes</i>	marasmius	Tricholomataceae	RE
<i>Marasmius oreades</i>	fairy-ring mushroom	Tricholomataceae	CK
<i>Marasmius siccus</i>	orange pin-wheel	Tricholomataceae	RE
<i>Marasmius trullisatipes</i>	marasmius	Tricholomataceae	RE
<i>Mycena capillaris</i>	bonnet mushroom	Tricholomataceae	RE
<i>Oligoporus tephroleucus</i>	pore fungus	Polyporaceae	CK
<i>Panus rufus</i>	rudy panus	Amanitaceae	RE

	Common Name	Family	Location
Order Agaricales (cont'd)			
<i>Panus strypticus</i>	field type mushroom	Amanitaceae	CK
<i>Phaeolus schweinitzii</i>	polypore	Polyporaceae	RE
<i>Phellinus gilvus</i>	polypore	Polyporaceae	CK,RE
<i>Pholiota unicolor</i>	scalecap mushroom	Cortinariaceae	CK
<i>Pleurotus sapidus</i>	lavender-spored pleurotus	Tricholomataceae	CK,RE
<i>Pluteus cervinus</i>	fawn-colored pluteus	Volvulaceae	RE
<i>Polyporus arcularius</i>	polypore	Polyporaceae	CK,RE
<i>Polyporus carneus</i>	polypore	Polyporaceae	RE
<i>Polyporus elegans</i>	pore fungus	Polyporaceae	CK
<i>Polyporus squamosus</i>	Dryad's saddle fungus	Polyporaceae	CK
<i>Polystictus hirsutus-albiporus</i>	polypore	Polyporaceae	RE
<i>Poria unita</i>	pore fungus	Polyporaceae	CK
<i>Psilocybe ammophila</i>	psilocybe	Cortinariaceae	RE
<i>Pyrenoporus cinnibarinus</i>	cinnabar polypore	Polyporaceae	RE
<i>Russula alutacea</i>	red brittle gills	Russulaceae	RE
<i>Russula compacta</i>	compact brittle gills	Russulaceae	RE
<i>Russula ftens</i>	fetid brittle gills	Russulaceae	RE
<i>Russula pectinata</i>	brittle gills	Russulaceae	RE
<i>Russula xerampelina</i>	crab-scented brittle gills	Russulaceae	RE
<i>Schizophyllum commune</i>	spit-gilled bracket	Schizophyllaceae	RE
<i>Stereocherinum ochraceum</i>	hydnnum tooth fungus	Hydnaceae	CK
<i>Stereum candidum</i>	sereum	Corticiaceae	RE
<i>Stereum disciforme</i>	sereum	Corticiaceae	RE
<i>Stereum fasciatum</i>	sereum	Corticiaceae	RE
<i>Stereum frustulosum</i>	false turkeytail fungus	Corticiaceae	CK
<i>Stereum versicolor</i>	sereum	Corticiaceae	RE
<i>Strobilomyces strobilaceus</i>	old-man-of-the-woods	Boletaceae	RE
<i>Trametes conchifer</i>	pore fungus	Polyporaceae	CK
<i>Trametes versicolor</i>	turkeytail or pore fungus	Polyporaceae	CK
<i>Tricholoma albo-flavidum</i>	knight-cap	Tricholomataceae	RE
CLASS GASTEROMYCETES (stomach fungi)			
Order Phallales			
<i>Mutinus caninus</i>	dog stinkhorn	Phallaceae	CK
Order Lycoperdales (puffballs)			
<i>Bovista pila</i>	common puffball	Lycoperdaceae	CK
<i>Calvatia gigantea</i>	giant puffball	Lycoperdaceae	CK
<i>Geaster hygrometricus</i>	water measuring earthstar	Lycoperdaceae	RE
<i>Lycoperdon perlatum</i>	gem puffball	Lycoperdaceae	CK
<i>Lycoperdon pusillum</i>	mini puffball	Lycoperdaceae	CK,RE
<i>Lycoperdon pyriforme</i>	pear-shaped or stump puffball	Lycoperdaceae	CK,RE
<i>Myriostoma coliformis</i>	pepper box	Lycoperdaceae	RE
Order Tulostomatales (stalked puffballs)			
<i>Tulostoma campestre</i>	field tylostoma	Tulostomataceae	RE
<i>Tulostoma fimbriatum</i>	buried-stalk puffball	Tulostomataceae	RE
Order Sclerodermatales			
<i>Scleroderma citrinum</i>	common earth ball	Sclerodermataceae	CK
Order Nidulariales (bird's-nest fungi)			
<i>Cyathus striatus</i>	fluted bird's nest	Nidulariaceae	RE
DIVISION DEUTEROMYCOTA (second or imperfect fungi)			
CLASS HYPOMYCETES			
Order Hyphomycetales			
<i>Botrytis cinerea</i>	raspberry mold	Moniliaceae	CK
<i>Cercospora chenopodii</i>	imperfect fungus	Dematiaceae	RE
<i>Cercospora clavata</i>	imperfect fungus	Dematiaceae	RE
<i>Cercospora helianthi</i>	imperfect fungus	Dematiaceae	RE

	Common Name	Family	Location
Order Hypocreales(cont'd)			
<i>Cercospora maianthemi</i>	imperfect fungus	Dematiaceae	RE
<i>Cercospora monoica</i>	imperfect fungus	Dematiaceae	RE
<i>Cercospora osmorrhizae</i>	imperfect fungus	Dematiaceae	RE
<i>Cercospora oxybaphi</i>	imperfect fungus	Dematiaceae	RE
<i>Cercospora tuberosa</i>	imperfect fungus	Dematiaceae	RE
<i>Cladosporium carpophilum</i>	peach scab	Moniliaceae	CK
<i>Didymaria ungeri</i>	imperfect fungus	Moniliaceae	RE
<i>Drechslera teres</i>	imperfect fungus	Dematiaceae	RE
<i>Macrosporium saponariæ</i>	imperfect fungus	Dematiaceae	RE
<i>Macrosporium solani</i>	imperfect fungus	Dematiaceae	RE
<i>Ovularia obliqua</i>	imperfect fungus	Moniliaceae	RE
<i>Ramularia arvensis</i>	imperfect fungus	Moniliaceae	RE
<i>Ramularia celastri</i>	imperfect fungus	Moniliaceae	RE
<i>Ramularia variabilis</i>	imperfect fungus	Moniliaceae	RE
<i>Rhinotrichum curtisiae</i>	imperfect fungus	Moniliaceae	RE
Order Tubulariales			
<i>Tuberculina persicina</i>	imperfect fungus	Tubulariaceae	RE
CLASS COELOMYCETES			
Order Melanconiales			
<i>Cylindrosporium padi</i>	imperfect fungus	Melanconiaceae	RE
<i>Gleosporium irregularare</i>	imperfect fungus	Melanconiaceae	RE
<i>Gleosporium nervisequum</i>	imperfect fungus	Melanconiaceae	RE
<i>Gleosporium septorioides</i>	imperfect fungus	Melanconiaceae	RE
<i>Marsonia toxicodendri</i>	imperfect fungus	Melanconiaceae	RE
Order Sphaeropsidales			
<i>Cicinnobolus cesatii</i>	imperfect fungus	Sphaeropsidaceae	RE
<i>Coniothyrium sp.</i>	raspberry cane blight	Sphaeropsidaceae	CK
<i>Diplodia maydis</i>	corn ear rot	Sphaeropsidaceae	CK
<i>Peltaster fructicola</i>	apple sooty blotch mold	Leptostromataceae	CK
<i>Phoma uvicola</i>	imperfect fungus	Sphaeropsidaceae	RE
<i>Phyllosticta cruenta</i>	imperfect fungus	Sphaeropsidaceae	RE
<i>Phyllosticta iridis</i>	imperfect fungus	Sphaeropsidaceae	RE
<i>Phyllosticta palustri</i>	imperfect fungus	Sphaeropsidaceae	RE
<i>Phyllosticta phaseolina</i>	imperfect fungus	Sphaeropsidaceae	RE
<i>Septoria aegopodii</i>	imperfect fungus	Sphaeropsidaceae	RE
<i>Septoria aquilegiæ</i>	imperfect fungus	Sphaeropsidaceae	RE
<i>Septoria erigerontis</i>	imperfect fungus	Sphaeropsidaceae	RE
<i>Septoria lactucicola</i>	imperfect fungus	Sphaeropsidaceae	RE
<i>Septoria littorea</i>	imperfect fungus	Sphaeropsidaceae	RE
<i>Septoria lophanthi</i>	imperfect fungus	Sphaeropsidaceae	RE
<i>Septoria musiva</i>	imperfect fungus	Sphaeropsidaceae	RE
<i>Septoria ochroleuca</i>	imperfect fungus	Sphaeropsidaceae	RE
<i>Septoria oenotheræ</i>	imperfect fungus	Sphaeropsidaceae	RE
<i>Septoria podophyllina</i>	imperfect fungus	Sphaeropsidaceae	RE
<i>Septoria polygonorum</i>	imperfect fungus	Sphaeropsidaceae	RE
<i>Septoria rubi</i>	imperfect fungus	Sphaeropsidaceae	RE
<i>Septoria scrophulariæ</i>	imperfect fungus	Sphaeropsidaceae	RE
<i>Septoria violæ-palustris</i>	imperfect fungus	Sphaeropsidaceae	RE
<i>Zygophiala jamaicensis</i>	apple flyspeck	Leptostromataceae	CK
DIVISION MYCOPHYCOPHYTA			
(lichens or fungus algae)			
CLASS ASCOLICHENES (ascomycete lichens)			
Order Pyrenulales			
<i>Arthopyrenia alba</i>	lichen	Pyrenulaceae	RE
<i>Microthelia micula</i>	lichen	Pyrenulaceae	RE
<i>Pyrenula leucoplaca</i>	lichen	Pyrenulaceae	RE
<i>Trypethelium virens</i>	lichen	Trypetheliaceae	RE
<i>Verrucaria muralis</i>	pitted lichen	Verrucariaceae	RE

	Common Name	Family	Location
Order Caliciales			
<i>Coniocephalum furfuraceum</i>	lichen	Caliciaceae	RE
Order Hysteriales			
<i>Arthonia punctiformis</i>	lichen	Arthoniaceae	RE
<i>Arthonia radiata</i>	lichen	Arthoniaceae	RE
<i>Arthothelium spectabile</i>	lichen	Arthoniaceae	RE
<i>Graphis scripta</i>	script lichen	Graphidaceae	RE
<i>Opegrapha lichenoides</i>	lichen	Graphidaceae	RE
<i>Opegrapha pulicaris</i>	lichen	Graphidaceae	RE
<i>Opegrapha viridis</i>	lichen	Graphidaceae	RE
Order Lecanorales			
<i>Alectoria nidulifera</i>	lichen	Usneaceae	RE
<i>Anaptychia echinata</i>	lichen	Physciaceae	RE
<i>Anaptychia hypoleuca</i>	lichen	Physciaceae	RE
<i>Anaptychia leucomelaena</i>	lichen	Physciaceae	RE
<i>Anaptychia palmulata</i>	lichen	Physciaceae	RE
<i>Anaptychia speciosa</i>	lichen	Physciaceae	RE
<i>Bacidia fuscocubella</i>	lichen	Lecideaceae	RE
<i>Bacidia schweinitzii</i>	lichen	Lecideaceae	RE
<i>Bilimbia sabuletorum</i>	lichen	Lecideaceae	RE
<i>Bilimbia trachona</i>	lichen	Lecideaceae	RE
<i>Buellia parasema</i>	lichen	Buellaceae	RE
<i>Caloplaca aurantiaca</i>	lichen	Caloplacaceae	RE
<i>Caloplaca cerina</i>	lichen	Caloplacaceae	RE
<i>Candelaria concolor</i>	lichen	Parmeliaceae	RE
<i>Candelaria fibrosa</i>	lichen	Parmeliaceae	RE
<i>Cetraria ciliaris</i>	shield lichen	Parmeliaceae	RE
<i>Cetraria ericetorum</i>	shield lichen	Parmeliaceae	RE
<i>Cladonia arbuscula</i>	lichen	Cladoniaceae	RE
<i>Cladonia bacillaris</i>	lichen	Cladoniaceae	RE
<i>Cladonia caespiticia</i>	lichen	Cladoniaceae	RE
<i>Cladonia capitata</i>	lichen	Cladoniaceae	RE
<i>Cladonia coniocraea</i>	lichen	Cladoniaceae	RE
<i>Cladonia conista</i>	lichen	Cladoniaceae	RE
<i>Cladonia cristatella</i>	British soldiers or red crest lichen	Cladoniaceae	RE
<i>Cladonia cryptochlorophaea</i>	lichen	Cladoniaceae	RE
<i>Cladonia fimbriata</i>	lichen	Cladoniaceae	RE
<i>Cladonia furcata</i>	lichen	Cladoniaceae	RE
<i>Cladonia gracilis</i>	spoon lichen	Cladoniaceae	RE
<i>Cladonia grayi</i>	lichen	Cladoniaceae	RE
<i>Cladonia nemoxyna</i>	lichen	Cladoniaceae	RE
<i>Cladonia parasitica</i>	lichen	Cladoniaceae	RE
<i>Cladonia pyxidata</i>	pixie cup lichen	Cladoniaceae	RE
<i>Cladonia rangiferina</i>	reindeer lichen	Cladoniaceae	RE
<i>Cladonia sp.</i>	reindeer moss	Cladoniaceae	CK
<i>Cladonia squamosa</i>	lichen	Cladoniaceae	RE
<i>Cladonia subcariosa</i>	lichen	Cladoniaceae	RE
<i>Cladonia verticillata</i>	ladder lichen	Cladoniaceae	RE
<i>Collema subfurvum</i>	lichen	Collemaceae	RE
<i>Conotrema urceolatum</i>	lichen	Diploschistaceae	RE
<i>Lecanora dispersa</i>	lichen	Lecanoraceae	RE
<i>Lecanora pallida</i>	lichen	Lecanoraceae	RE
<i>Lecanora subfuscata</i>	lichen	Lecanoraceae	RE
<i>Lecanora varia</i>	lichen	Lecanoraceae	RE
<i>Lecidea albocaerulea</i>	whitewash lichen	Lecideaceae	RE
<i>Lecidea myriocarpoides</i>	whitewash lichen	Lecideaceae	RE
<i>Lecidea parasema</i>	whitewash lichen	Lecideaceae	RE
<i>Lecidea viridescens</i>	whitewash lichen	Lecideaceae	RE
<i>Lepraria sp.</i>	lichen	Leprariaceae	RE

Order Lecanorales (cont'd)	Common Name	Family	Location
<i>Leptogium lichenoides</i>	lichen	Collemaceae	RE
<i>Leptogium tenuissimum</i>	lichen	Collemaceae	RE
<i>Leptogium tremelloides</i>	lichen	Collemaceae	RE
<i>Ochrolechia tartarea</i>	lichen	Lecanoraceae	RE
<i>Parmelia aspera</i>	boulder lichen	Parmeliaceae	RE
<i>Parmelia aurulenta</i>	boulder lichen	Parmeliaceae	RE
<i>Parmelia borreri</i>	boulder lichen	Parmeliaceae	RE
<i>Parmelia caperata</i>	boulder lichen	Parmeliaceae	RE
<i>Parmelia crozalsiana</i>	boulder lichen	Parmeliaceae	RE
<i>Parmelia flaventior</i>	boulder lichen	Parmeliaceae	RE
<i>Parmelia livida</i>	boulder lichen	Parmeliaceae	RE
<i>Parmelia margaritata</i>	boulder lichen	Parmeliaceae	RE
<i>Parmelia perlata</i>	boulder lichen	Parmeliaceae	RE
<i>Parmelia ruderata</i>	boulder lichen	Parmeliaceae	RE
<i>Parmelia saxatilis</i>	boulder lichen	Parmeliaceae	RE
<i>Parmelia sulcata</i>	boulder lichen	Parmeliaceae	RE
<i>Parmelia ulophylloides</i>	boulder lichen	Parmeliaceae	RE
<i>Peltigera aphthosa</i>	lichen	Peltigeraceae	RE
<i>Peltigera canina</i>	dog lichen	Peltigeraceae	RE
<i>Peltigera canina spuria</i>	lichen	Peltigeraceae	RE
<i>Peltigera horizontalis</i>	lichen	Peltigeraceae	RE
<i>Peltigera spuria</i>	lichen	Peltigeraceae	RE
<i>Pertusaria leioplaca</i>	lichen	Pertusariaceae	RE
<i>Pertusaria multipuncta</i>	lichen	Pertusariaceae	RE
<i>Pertusaria pertusa</i>	lichen	Pertusariaceae	RE
<i>Pertusaria pustulata</i>	lichen	Pertusariaceae	RE
<i>Physcia adscendens</i>	lichen	Physciaceae	RE
<i>Physcia aguila detonsa</i>	lichen	Physciaceae	RE
<i>Physcia aipolia</i>	lichen	Physciaceae	RE
<i>Physcia ciliata</i>	lichen	Physciaceae	RE
<i>Physcia elaeina</i>	lichen	Physciaceae	RE
<i>Physcia grisea</i>	lichen	Physciaceae	RE
<i>Physcia hypoleuca</i>	lichen	Physciaceae	RE
<i>Physcia millegrana</i>	lichen	Physciaceae	RE
<i>Physcia orbicularis</i>	lichen	Physciaceae	RE
<i>Physcia stellaris</i>	lichen	Physciaceae	RE
<i>Physcia syncolla</i>	lichen	Physciaceae	RE
<i>Physcia tribacia</i>	lichen	Physciaceae	RE
<i>Physcia tribacoides</i>	lichen	Physciaceae	RE
<i>Placynthium nigrum</i>	lichen	Pannariaceae	RE
<i>Ramalina farinacea</i>	lichen	Usneaceae	RE
<i>Ramalina sinensis</i>	lichen	Usneaceae	RE
<i>Rinodina tephraspis</i>	lichen	Buelliaceae	RE
<i>Sarcogyne simplex</i>	lichen	Acarosporaceae	RE
<i>Sticta pulmonaria</i>	lichen	Stictaceae	RE
<i>Teloschistes chrysophthalmus</i>	lichen	Teloschistaceae	RE
<i>Usnea strigosa</i>	lichen	Usneaceae	RE
<i>Xanthoria candelaria</i>	lichen	Teloschistaceae	RE
<i>Xanthoria fallax</i>	lichen	Teloschistaceae	RE
<i>Xanthoria polycarpa</i>	lichen	Teloschistaceae	RE

KINGDOM PLANTAE

DIVISION BRYOPHYTA (mosses and liverworts)

CLASS HEPATICOPSIDA (liverworts)

Order Jungermanniales

Lophocolea heterophylla

Common Name

liverwort

Family

Lophocoleaceae

Location

CK

Order Marchantiales (typical liverworts)

Conocephalum conicum

common liverwort

Conocephalaceae

CK

Riccia fluitans

slender riccia

Ricciaceae

ES

Ricciocarpus natans

purple-fringed riccia

Ricciaceae

ES

CLASS SPHAGNOPSIDA (peat mosses)

Order Sphagnales

Sphagnum compactum

sphagnum

Sphagnaceae

RE

Sphagnum lescurii

sphagnum

Sphagnaceae

RE

Sphagnum magellanicum

sphagnum

Sphagnaceae

RE

Sphagnum palustre

boat-leaved sphagnum

Sphagnaceae

RE

Sphagnum russowii

sphagnum

Sphagnaceae

RE

Sphagnum sp.

bog moss

Sphagnaceae

CK

CLASS BRYOPSIDA (mosses)

Order Polytrichales

Atrichum altecristatum

spineleaf moss

Polytrichaceae

RE

Atrichum angustatum

slender Catherinea

Polytrichaceae

RE

Atrichum undulatum

spineleaf moss

Polytrichaceae

RE

Pogonatum pensylvanicum

false hair-cap moss

Polytrichaceae

RE

Polytrichum commune

common hair-cap moss

Polytrichaceae

CK,RE

Polytrichum ohioense

hair-cap moss

Polytrichaceae

CK,RE

Polytrichum piliferum

hair-cap moss

Polytrichaceae

RE

Order Tetraphiales

Tetraphis pellucida

four-tooth moss

Tetraphidaceae

RE

Order Funariales

Disclerium nudum

moss

Discleriaceae

RE

Funaria hygrometrica

cord moss

Funariaceae

CK,RE

Physcomitrium pyriforme

urn moss

Funariaceae

RE

Order Orthotrichales

Drummondia prorepens

moss

Orthotrichaceae

RE

Orthotrichum anomalum

moss

Orthotrichaceae

RE

Orthotrichum pumilum

moss

Orthotrichaceae

RE

Orthotrichum pusillum

moss

Orthotrichaceae

RE

Orthotrichum strangulatum

moss

Orthotrichaceae

RE

Ulota crispa

moss

Orthotrichaceae

RE

Order Bryales

Aulacomnium heterostichum

moss

Aulacomniaceae

RE

Aulacomnium palustre

moss

Aulacomniaceae

RE

Bartramia pomiformis

apple moss

Bartramiaceae

RE

Bryum argenteum

silvery moss

Bryaceae

RE

Bryum caespiticium

silvery moss

Bryaceae

RE

Bryum capillare

silvery moss

Bryaceae

RE

Bryum lisae var. *cuspidatum*

silvery moss

Bryaceae

RE

Bryum pseudotriquetrum

silvery moss

Bryaceae

RE

Leptobryum pyriforme

moss

Bryaceae

RE

Mnium cuspidatum

woody mnium moss

Mniaceae

CK

Mnium stellare

star moss

Mniaceae

RE

Philonotis fontana

moss

Bartramiaceae

RE

Plagiomnium ciliare

moss

Mniaceae

RE

Plagiomnium cuspidatum

moss

Mniaceae

RE

Plagiomnium medium

moss

Mniaceae

RE

Pohlia nutans

moss

Bryaceae

RE

Order Bryales (cont'd)	Common Name	Family	Location
<i>Rhizomnium punctatum</i>	moss	Mniaceae	RE
<i>Rhodobryum roseum</i>	rose moss	Bryaceae	RE
Order Hypnobryales			
<i>Amblystegium serpens</i>	moss	Amblystegiaceae	RE
<i>Amblystegium serpens</i> var. <i>juratzkanum</i>	moss	Amblystegiaceae	RE
<i>Amblystegium varium</i>	moss	Amblystegiaceae	CK,RE
<i>Brachythecium acuminatum</i>	moss	Brachytheciaceae	RE
<i>Brachythecium campestre</i>	moss	Brachytheciaceae	RE
<i>Brachythecium oxycladon</i>	moss	Brachytheciaceae	RE
<i>Brachythecium rivulare</i>	rivulet brachythecium	Brachytheciaceae	RE
<i>Brachythecium rutabulum</i>	moss	Brachytheciaceae	RE
<i>Brachythecium salebrosum</i>	moss	Brachytheciaceae	RE
<i>Bryhnia graminicolor</i>	moss	Brachytheciaceae	RE
<i>Bryhnia novae-angliae</i>	moss	Brachytheciaceae	RE
<i>Bryoandersonia illecebria</i>	moss	Brachytheciaceae	RE
<i>Callicladium haldanianum</i>	moss	Hypnaceae	RE
<i>Calliergon stramineum</i>	moss	Amblystegiaceae	RE
<i>Calliergon trifarium</i>	moss	Amblystegiaceae	RE
<i>Calliergonella cuspidata</i>	moss	Amblystegiaceae	RE
<i>Campylium chrysophyllum</i>	moss	Amblystegiaceae	RE
<i>Campylium hispidulum</i>	moss	Amblystegiaceae	RE
<i>Campylium polygamum</i>	moss	Amblystegiaceae	RE
<i>Campylium stellatum</i>	moss	Amblystegiaceae	RE
<i>Cyrtos hypnum minutulum</i>	moss	Thuidiaceae	RE
<i>Drepanocladus aduncus</i> var. <i>aduncus</i>	moss	Amblystegiaceae	RE
<i>Drepanocladus aduncus</i> var. <i>kneiffii</i>	moss	Amblystegiaceae	RE
<i>Entodon cladorrhizans</i>	moss	Entodontaceae	RE
<i>Entodon seductrix</i>	moss	Entodontaceae	RE
<i>Eurhynchium hians</i>	moss	Brachytheciaceae	RE
<i>Eurhynchium pulchellum</i>	moss	Brachytheciaceae	RE
<i>Eurhynchium serrulatum</i>	moss	Brachytheciaceae	CK
<i>Helodium blandowii</i>	moss	Thuidiaceae	RE
<i>Helodium paludosum</i>	moss	Thuidiaceae	RE
<i>Herzogiella turfacea</i>	moss	Hypnaceae	RE
<i>Homomallium adnatum</i>	moss	Hypnaceae	RE
<i>Hygroamblystegium fluviatile</i>	moss	Amblystegiaceae	RE
<i>Hygroamblystegium tenax</i>	moss	Amblystegiaceae	RE
<i>Hygrohypnum luridum</i>	moss	Amblystegiaceae	RE
<i>Hypnum cupressiforme</i>	moss	Hypnaceae	RE
<i>Hypnum curvifolium</i>	feather moss	Hypnaceae	CK,RE
<i>Hypnum imponens</i>	moss	Hypnaceae	RE
<i>Hypnum lindbergii</i>	moss	Hypnaceae	RE
<i>Isopterygiopsis muelleriana</i>	moss	Hypnaceae	RE
<i>Leptodictyum humile</i>	moss	Amblystegiaceae	RE
<i>Leptodictyum riparium</i>	moss	Amblystegiaceae	RE
<i>Limprichtia revolvens</i>	moss	Amblystegiaceae	RE
<i>Plagiothecium cavifolium</i>	slender moss	Plagiotheciaceae	RE
<i>Plagiothecium denticulatum</i>	slender moss	Plagiotheciaceae	RE
<i>Plagiothecium</i> sp.	moss	Plagiotheciaceae	CK
<i>Platydictya confervoides</i>	moss	Hypnaceae	RE
<i>Platygyrium repens</i>	moss	Hypnaceae	RE
<i>Pleurozium schreberi</i>	moss	Hylocomiaceae	RE
<i>Pylaisiella intricata</i>	moss	Hypnaceae	RE
<i>Pylaisiella selwynii</i>	moss	Hypnaceae	RE
<i>Rauiella scita</i>	moss	Thuidiaceae	RE
<i>Rhytidium rugosum</i>	moss	Rhytidaceae	RE
<i>Sematophyllum demissum</i>	moss	Sematophyllaceae	RE
<i>Steerecleus serrulatus</i>	moss	Brachytheciaceae	RE
<i>Taxiphyllum taxirameum</i>	moss	Hypnaceae	RE

	Common Name	Family	Location
Order Hypnobryales (cont'd)			
<i>Thuidium delicatulum</i>	common fern moss	Thuidiaceae	CK,RE
<i>Thuidium recognitum</i>	fern moss	Thuidiaceae	RE
Order Isobryales			
<i>Anacamptodon splachnoides</i>	moss	Fabroniaceae	RE
<i>Anomodon attenuatus</i>	moss	Leskeaceae	RE
<i>Anomodon minor</i>	moss	Leskeaceae	RE
<i>Anomodon rostratus</i>	moss	Leskeaceae	RE
<i>Anomodon rugelii</i>	moss	Leskeaceae	RE
<i>Climacium americanum</i>	tree moss	Climaciaceae	CK,RE
<i>Climacium kindbergii</i>	tree-flooded moss	Climaciaceae	CK,RE
<i>Fontinalis dalecarlica</i>	common water moss	Fontinaliaceae	RE
<i>Fontinalis hypnoides</i>	water moss	Fontinaliaceae	RE
<i>Fontinalis hypnoides</i> var. <i>duriæi</i>	water moss	Fontinaliaceae	RE
<i>Hedwigia ciliata</i>	white-tipped moss	Hedwigiaceae	RE
<i>Leskea gracilens</i>	moss	Leskeaceae	RE
<i>Leskea obscura</i>	moss	Leskeaceae	RE
<i>Leucodon julaceus</i>	moss	Leucodontaceae	RE
<i>Thelia asprella</i>	moss	Leskeaceae	RE
<i>Thelia hirtella</i>	moss	Leskeaceae	RE
Order Pottiales			
<i>Barbula convoluta</i>	moss	Pottiaceae	RE
<i>Barbula indica</i> var. <i>indica</i>	twisted teeth moss	Pottiaceae	RE
<i>Barbula unguiculata</i>	moss	Pottiaceae	RE
<i>Bryoerythrophyllum recurvirostre</i>	moss	Pottiaceae	RE
<i>Desmatodon obtusifolius</i>	moss	Pottiaceae	RE
<i>Desmatodon porteri</i>	moss	Pottiaceae	RE
<i>Didymodon fallax</i>	moss	Pottiaceae	RE
<i>Didymodon rigidulus</i>	moss	Pottiaceae	RE
<i>Gymnostomum aeruginosum</i>	moss	Pottiaceae	RE
<i>Hymenostylium recurvirostre</i>	moss	Pottiaceae	RE
<i>Hyophila involuta</i>	moss	Pottiaceae	RE
<i>Phascum cuspidatum</i>	moss	Pottiaceae	RE
<i>Tortella humilis</i>	twisted moss	Pottiaceae	RE
<i>Tortella tortuosa</i>	twisted moss	Pottiaceae	RE
<i>Tortula ruralis</i>	wall moss	Pottiaceae	RE
<i>Weissia controversa</i>	moss	Pottiaceae	RE
Order Dicranales			
<i>Bruchia flexuosa</i>	moss	Ditrichaceae	RE
<i>Ceratodon purpureus</i>	purple horn-tooth moss	Ditrichaceae	RE
<i>Dicranella cerviculata</i>	fork moss	Dicranaceae	RE
<i>Dicranella heteromalla</i>	silky fork moss	Dicranaceae	RE
<i>Dicranella varia</i>	fork moss	Dicranaceae	RE
<i>Dicranum flagellare</i>	broom moss	Dicranaceae	RE
<i>Dicranum scoparium</i>	broom moss	Dicranaceae	RE
<i>Dicranum viride</i>	broom moss	Dicranaceae	RE
<i>Ditrichum lineare</i>	moss	Ditrichaceae	RE
<i>Leucobryum glaucum</i>	white pin-cushion moss	Leucobryaceae	RE
<i>Pleuridium subulatum</i>	moss	Ditrichaceae	RE
Order Fissidentales			
<i>Fissidens adiantoides</i>	moss	Fissidentaceae	RE
<i>Fissidens bryoides</i>	moss	Fissidentaceae	RE
<i>Fissidens obtusifolius</i>	moss	Fissidentaceae	RE
<i>Fissidens taxifolius</i>	moss	Fissidentaceae	CK,RE
Order Seligeriales			
<i>Seligeria calcarea</i>	moss	Seligeriaceae	RE
<i>Seligeria campylopoda</i>	moss	Seligeriaceae	RE
<i>Seligeria pusilla</i>	moss	Seligeriaceae	RE

Order Grimmiales	Common Name	Family	Location
<i>Grimmia pulvinata</i>	moss	Grimmiaceae	RE
<i>Schistidium apocarpum</i>	moss	Grimmiaceae	RE
<i>Schistidium rivulare</i>	moss	Grimmiaceae	RE
DIVISION LYCOPODIOPHYTA (clubmosses)			
CLASS LYCOPODIOPSIDA (clubmosses)			
Order Lycopodiales			
<i>Lycopodium dendroideum</i>	tree-like clubmoss	Lycopodiaceae	CK
<i>Lycopodium obscurum</i>	tree clubmoss	Lycopodiaceae	CK
DIVISION EQUISETOPHYTA (horsetails and scouring rushes)			
CLASS EQUISETOPSIDA (horsetails)			
Order Equisetales			
<i>Equisetum arvense</i>	field or common horsetail	Equisetaceae	CK,ES
<i>Equisetum hyemale</i>	rough horsetail, scouring rush	Equisetaceae	CK
DIVISION FILICOPHYTA [=POLYPODIOPHYTA] (ferns)			
CLASS FILICOPSIDA [=POLYPODIOPSIDA] (ferns)			
Order Ophioglossales			
<i>Botrychium dissectum</i>	cut-leaf grapefern	Ophioglossaceae	CK
<i>Botrychium rugulosum</i>	leathery grapefern	Ophioglossaceae	CK
<i>Botrychium virginianum</i>	rattlesnake fern	Ophioglossaceae	CK,ES
Order Polypodiales			
<i>Adiantum pedatum</i>	northern maidenhair fern	Adiantaceae	CK,ES
<i>Athyrium filix-femina</i>	subarctic lady fern	Aspleniaceae	CK,ES
<i>Cystopteris bulbifera</i>	bulblet fern	Aspleniaceae	CK
<i>Cystopteris tenuis</i>	fragile fern	Aspleniaceae	CK
<i>Dryopteris carthusiana</i>	spinulose woodfern	Aspleniaceae	CK,ES
<i>Dryopteris intermedia</i>	evergreen woodfern	Aspleniaceae	CK
<i>Dryopteris marginalis</i>	marginal shield-fern or woodfern	Aspleniaceae	CK
<i>Dryopteris</i> sp.	woodfern	Aspleniaceae	ES
<i>Gymnocarpium dryopteris</i>	oak-fern	Aspleniaceae	CK
<i>Onoclea sensibilis</i>	sensitive fern	Onocleaceae	CK,ES
<i>Osmunda cinnamomea</i>	cinnamon fern	Osmundaceae	ES
<i>Osmunda claytoniana</i>	fern	Osmundaceae	CK,ES
<i>Phegopteris hexagonoptera</i>	broad beech-fern	Aspleniaceae	CK
<i>Polypodium virginianum</i>	common polypody	Polypodiaceae	CK
<i>Polystichum acrostichoides</i>	Christmas fern	Aspleniaceae	CK,ES

Location Codes:

- CK – Old Woman Creek watershed upstream of the estuary
- ES – Old Woman Creek estuary (including watershed within boundaries of NERR)
- LE – Lake Erie, principally nearshore waters of Erie County and western Lorain County, Ohio
- RE – Regional occurrence, principally Lake Erie watersheds of eastern Erie County and western Lorain County, Ohio

**APPENDIX B. VASCULAR PLANTS
OF OLD WOMAN CREEK ESTUARY AND WATERSHED**

LIVERWORTS (Ricciaceae)	Common Name	Phenology	Origin	Loc
<i>Riccia fluitans</i>	slender riccia		N	E
<i>Ricciocarpus natans</i>	purple-fringed riccia		N	E
CLUBMOSES (Lycopodiaceae)				
<i>Lycopodium dendroideum</i>	tree-like clubmoss		N	W
<i>Lycopodium obscurum</i>	tree clubmoss	Jul-Nov	N	W
HORSETAILS (Equisetaceae)				
<i>Equisetum arvense</i>	field or common horsetail	Apr-Jul	N	E,W
<i>Equisetum hyemale</i>	rough horsetail, scouring rush	Jun-Aug	N	W
ADDER'S TONGUES (Ophioglossaceae)				
<i>Botrychium dissectum</i>	cut-leaf grapefern	Aug-Nov	N	W
<i>Botrychium rugulosum</i> [= <i>B. ternatum</i>]	leathery grapefern		N	W
<i>Botrychium virginianum</i>	rattlesnake fern	spring - early summer	N	E,W
ROYAL FERNS (Osmundaceae)				
<i>Osmunda cinnamomea</i>	cinnamon fern	Apr-May	N	E
<i>Osmunda claytoniana</i>	interrupted fern	Mar-Jun	N	E,W
POLYPODIES (Polypodiaceae)				
<i>Polypodium virginianum</i> [= <i>P. vulgare</i>]	common polypody	Jul-Aug	N	W
MAIDENHAIR FERNS (Adiantaceae)				
<i>Adiantum pedatum</i>	northern maidenhair fern	Jun-Sep	N	E,W
SPLEENWORTS (Aspleniaceae)				
<i>Athyrium filix-femina</i>	subarctic lady fern	Aug-Sep	N	E,W
<i>Cystopteris bulbifera</i>	bulblet fern	Jun-Sep	N	W
<i>Cystopteris tenuis</i>	fragile fern		N	W
<i>Dryopteris carthusiana</i> [= <i>D. austriaca</i> var. <i>spinulosa</i>]	spinulose woodfern		N	E,W
<i>Dryopteris carthusiana</i> [= <i>D. austriaca</i> var. <i>spinulosa</i>]	spinulose woodfern		N	E,W
<i>Dryopteris intermedia</i> [= <i>D. austriaca</i> var. <i>intermedia</i>]	evergreen woodfern		N	W
<i>Dryopteris marginalis</i>	marginal shield-fern or woodfern	Jun-Oct	N	W
<i>Dryopteris</i> sp.	woodfern		E	
<i>Polystichum acrostichoides</i>	Christmas fern	Jun-Oct	N	E,W
<i>Gymnocarpium dryopteris</i>	oak-fern		N(T)	W
<i>Phegopteris hexagonoptera</i>	broad beech-fern		N	W
<i>Polystichum acrostichoides</i>	Christmas fern	Jun-Oct	N	E,W
SENSITIVE FERNS (Onocleaceae)				
<i>Onoclea sensibilis</i>	sensitive fern	Jun-Oct	N	E,W
PINES (Pinaceae)				
<i>Picea pungens</i>	blue spruce	May	A	E
<i>Pinus nigra</i>	Austrian pine	May-Jun	A	E
<i>Pinus rigida</i>	pitch pine	May-Jun	N	E
<i>Pinus strobus</i>	eastern white pine	May-Jun	N	E
<i>Pinus sylvestris</i>	Scotch pine	May-Jun	A	E
<i>Tsuga canadensis</i>	eastern hemlock	May-Jun	N	E,W
BALD CYPRESSES (Taxodiaceae)				
<i>Metasequoia glyptostroboides</i>	dawn redwood	Apr-May	A	E

ECOLOGY OF OLD WOMAN CREEK ESTUARY AND WATERSHED

	Common Name	Phenology	Origin	Loc
CYPRESSES (Cupressaceae) <i>Juniperus virginiana</i>	eastern red cedar	May	N	W
MAGNOLIAS (Magnoliaceae) <i>Liriodendron tulipifera</i>	tulip tree, tulip-poplar	May-Jun	N	E,W
CUSTARD-APPLES (Annonaceae) <i>Asimina triloba</i>	common or North American papaw	Apr-May	N	W
LAURELS (Lauraceae) <i>Lindera benzoin</i>	northern spicebush	Mar-May	N	E,W
<i>Sassafras albidum</i>	sassafras	Apr-May	N	E,W
LIZARD'S TAILS (Saururaceae) <i>Saururus cernuus</i>	lizard's tail	Jun-Aug	N	E,W
BIRTHWORTS (Aristolochiaceae) <i>Aristolochia serpentaria</i>	Virginia snakeroot	May-Jul	N	W
<i>Asarum canadense [= A. reflexum]</i>	wild or short-lobed ginger	Apr-May	N	E,W
LOTUS-LILIES (Nelumbonaceae) <i>Nelumbo lutea [= Nelumbium luteum]</i>	American or water lotus, lotus-lily	Jul-Sep	N	E
WATER-LILIES (Nymphaeaceae) <i>Nuphar lutea</i> ssp. <i>advena</i> [= <i>N. advena</i>] <i>Nymphaea odorata</i> [= <i>N. tuberosa</i>]	yellow cow-lily, spatterdock	Jun-Aug	N	E
HORNWORTS (Ceratophyllaceae) <i>Ceratophyllum demersum</i>	white water-lily	Jun-Sep	N	E
BUTTERCUPS (Ranunculaceae) <i>Actaea pachypoda</i>	common hornwort, coontail	Jul-Sep	N	E
<i>Actaea rubra</i> [= <i>A. spicata</i> ssp. <i>rubra</i>] <i>Anemone canadensis</i>	white baneberry	May-Jun	N W	
<i>Anemone cylindrica</i>	red baneberry	May-Jun	N(T)	W
<i>Anemone quinquefolia</i>	Canada thimble-weed	May-Aug	N	E,W
<i>Anemone virginiana</i>	long-headed anemone	May-Jun	N(T)	W
<i>Aquilegia canadensis</i>	American woodland thimble-weed	Apr-Jun	N	E
<i>Caltha palustris</i>	tall thimble-weed, windflower	Jun-Aug	N	E,W
<i>Cimicifuga racemosa</i>	wild columbine	Apr-Jun	N	W
<i>Clematis virginiana</i>	common marsh marigold	Apr - May	N	E,W
<i>Hepatica nobilis</i> var. <i>acuta</i> [= <i>H. acutiloba</i>] <i>Hydrastis canadensis</i>	black snakeroot or cohosh	Jun-Sep	N	E,W
<i>Ranunculus abortivus</i>	Virginia virgin's-bower	Jul-Aug	N	E,W
<i>Ranunculus acris</i>	sharp-lobed hepatica	Mar-Apr	N	E,W
<i>Ranunculus fascicularis</i>	goldenseal	May-Jun	N	E,W
<i>Ranunculus flabellaris</i>	subalpine or kidney buttercup	Apr-Jun	N	E,W
<i>Ranunculus hispidus</i> var. <i>caricetorum</i>	tall or meadow buttercup	May-Sep	A	W
<i>Ranunculus hispidus</i> var. <i>nitidus</i> [= <i>R. septentrionalis</i>] <i>Ranunculus pensylvanicus</i>	early buttercup	Apr-May	N(P)	E,W
<i>Ranunculus recurvatus</i>	yellow water buttercup	Apr-May	N	E
<i>Ranunculus repens</i>	bristly or hispid buttercup	Apr-May	N	E,W
<i>Ranunculus sceleratus</i>	northern swamp buttercup	Mar-May	N	E,W
<i>Thalictrum dioicum</i>	Pennsylvania buttercup	Jul-Aug	N	E
<i>Thalictrum pubescens</i> [= <i>T. polygamum</i>] <i>Thalictrum thalictroides</i> [= <i>Anemonella thalictroides</i>]	hooked buttercup or crowfoot	Apr-Jun	N	E,W
	creeping buttercup	May-Jul	A	E
	celery-leaf buttercup	Jun-Sep	N	E,W
	early meadow-rue	May	N	E,W
	tall meadow-rue	Jul-Sep	N	W
	rue anemone	Mar-May	N	E

	Common Name	Phenology	Origin	Loc
BARBERRIES (Berberidaceae)				
<i>Berberis thunbergii</i>	Japanese barberry	May	A	E,W
<i>Berberis vulgaris</i>	European or common barberry	May-Jun	A	E
<i>Caulophyllum thalictroides</i>	blue cohosh	Apr-Jun	N	W
<i>Podophyllum peltatum</i>	may-apple	Apr-May	N	E,W
MOONSEEDS (Menispermaceae)				
<i>Menispermum canadense</i>	Canada moonseed	Jun-Jul	N	E,W
POPPIES (Papaveraceae)				
<i>Chelidonium majus</i>	celandine	Apr-Aug	A	W
<i>Sanguinaria canadensis</i>	bloodroot	Mar-May	N	E,W
FUMITORIES (Fumariaceae)				
<i>Dicentra canadensis</i>	squirrel-corn	Apr-May	N	W
<i>Dicentra cucullaria</i>	Dutchman's breeches	Apr-May	N	E,W
<i>Fumaria officinalis</i>	fumitory	May-Aug	A	W
PLANE-TREES (Platanaceae)				
<i>Platanus occidentalis</i>	American sycamore	Apr-Jun	N	E,W
WITCH HAZELS (Hamamelidaceae)				
<i>Hamamelis virginiana</i>	American witch hazel	Sep-Nov	N	W
ELMS (Ulmaceae)				
<i>Celtis occidentalis</i>	common or northern hackberry	Oct-Nov	N	E,W
<i>Ulmus americana</i>	American or white elm	Mar-May	N	E,W
<i>Ulmus pumila</i>	Siberian elm	Apr-May	A	W
<i>Ulmus rubra</i>	slippery or red elm	Mar-Apr	N	E,W
MULBERRIES (Moraceae)				
<i>Maclura pomifera</i>	osage-orange	May-Jun	Z	W
<i>Morus alba</i>	white mulberry	May-Jun	C	E,W
<i>Morus rubra</i>	red mulberry	Jun-Jul	N	W
NETTLES (Urticaceae)				
<i>Boehmeria cylindrica</i>	small-spike false-nettle	Jul-Aug	N	E
<i>Laportea canadensis</i>	Canada wood-nettle	Jul-Aug	N	E
<i>Parietaria pensylvanica</i>	Pennsylvania pellitory	May-Sep	N	W
<i>Pilea fontana</i>	springs clearweed	Jul-Sep	N	E
<i>Pilea pumila</i>	Canada clearweed	Jul-Sep	N	E,W
<i>Urtica dioica</i>	stinging nettle	Jul-Aug	A	E,W
<i>Urtica dioica</i> ssp. <i>gracilis</i> [= <i>U. gracilis</i> ; <i>U. procera</i>]	slender or tall nettle	Jul-Sep	A	E,W
WALNUTS (Juglandaceae)				
<i>Carya alba</i> [= <i>C. tomentosa</i>]	mockernut hickory	May-Jun	N	E
<i>Carya cordiformis</i>	bitter-nut hickory	May	N	E,W
<i>Carya ovata</i>	shag-bark hickory	May	N	E,W
<i>Juglans cinerea</i>	butternut	May	N(P)	W
<i>Juglans nigra</i>	black walnut	Apr-May	N	E,W
BEECHES (Fagaceae)				
<i>Castanea dentata</i>	American chestnut	Jun-Aug	N(P)	E,W
<i>Fagus grandifolia</i> [= <i>F. ferruginea</i>]	American beech	Apr-May	N	E,W
<i>Quercus alba</i>	white oak	May-Jun	N	E,W
<i>Quercus bicolor</i>	swamp white oak	May	N	E,W
<i>Quercus coccinea</i>	scarlet oak	May	N	E,W
<i>Quercus macrocarpa</i>	bur oak	May	N	E,W
<i>Quercus nigra</i>	water or black oak	May	N	E
<i>Quercus palustris</i>	pin oak	May-Jun	N	E,W
<i>Quercus rubra</i> var. <i>ambigua</i> [= <i>Q. borealis</i>]	northern red oak	May-Jun	N	E,W
<i>Quercus velutina</i>	black oak	May	N	E,W

	Common Name	Phenology	Origin	Loc
BIRCHES & HAZELS (Betulaceae)				
<i>Alnus serrulata</i>	brook-side or smooth alder	Mar-Apr	N	E
<i>Carpinus caroliniana</i>	American hornbeam, ironwood	Apr	N	W
<i>Corylus americana</i>	American hazel-nut	Mar-Apr	N	E,W
<i>Ostrya virginiana</i>	eastern hop-hornbeam	Apr-May	N	E,W
POKEWEEDS (Phytolaccaceae)				
<i>Phytolacca americana</i>	common pokeweed	Jun-Sep	N	E,W
FOUR-O'CLOCKS (Nyctaginaceae)				
<i>Mirabilis nyctaginea</i>	heart-leaf or wild four-o'clock	Sep	N	E
GOOSEFOOTS & PIGWEEDS (Chenopodiaceae)				
<i>Atriplex</i> sp.	orache	Jun-Nov		W
<i>Chenopodium album</i>	white goosefoot, lamb's quarters	Sep	A	E,W
<i>Chenopodium simplex</i> [= <i>C. hybridum</i>]	maple-leaved goosefoot	Jun-Oct	N	W
<i>Cycloloma atriplicifolium</i>	winged pigweed	Sep	N	E
<i>Salsola kali</i>	Russian thistle, saltwort	Aug-Sep	A	E
AMARANTHS (Amaranthaceae)				
<i>Amaranthus albus</i>	white amaranth, tumbleweed	Sep	N	E
<i>Amaranthus retroflexus</i>	red-root amaranth, pigweed	Aug-Sep	N	E
<i>Amaranthus tuberculatus</i>	rough-fruit amaranth	Aug-Oct	N	E
<i>Amaranthus</i> sp.	pigweed	Aug-Oct		W
PURSLANES (Portulacaceae)				
<i>Claytonia virginica</i>	narrow-leaf spring-beauty	early spring	N	E,W
<i>Portulaca oleracea</i>	common purslane	Jun-Sep	A	E,W
CARPET-WEEDS (Molluginaceae)				
<i>Mollugo verticillata</i>	green carpet-weed	Jun-Nov	Z	W
PINKS (Caryophyllaceae)				
<i>Arenaria serpyllifolia</i>	thyme-leaf sandwort	Apr-Aug	A	W
<i>Cerastium arvense</i>	field chickweed	Apr-Aug	N	E
<i>Cerastium fontanum</i>	mouse-ear chickweed	Apr-Oct	A	E
<i>Cerastium fontanum</i> ssp. <i>vulgare</i> [= <i>C. vulgatum</i>]	common mouse-ear chickweed	Apr-Oct	A	E,W
<i>Dianthus armeria</i>	Deptford pink	May-Jul	A	W
<i>Saponaria officinalis</i>	bouncing-bet	Jun-Sep	A	E,W
<i>Silene antirrhina</i>	sleepy catchfly	May-Sep	N	W
<i>Silene latifolia</i> ssp. <i>alba</i> [= <i>S. pratensis</i>]	white campion	Apr-Aug	A	W
<i>Stellaria graminea</i>	lesser starwort or stitchwort	May-Oct	A	W
<i>Stellaria longifolia</i>	long-leaf starwort or stitchwort	May-Jul	N	W
<i>Stellaria media</i>	common chickweed	Feb-Dec	A	W
<i>Stellaria pubera</i>	great chickweed	Apr-Jun	N	E
BUCKWHEATS (Polygonaceae)				
□ <i>Polygonum amphibium</i> var. <i>emersum</i> [= <i>P. coccineum</i>]	water smartweed	Aug-Sep	N	E
<i>Polygonum aviculare</i>	prostrate knotweed or smartweed	Jun-Nov	N	E,W
<i>Polygonum convolvulus</i>	black bindweed	Jun-Sep	A	E
<i>Polygonum cuspidatum</i>	Japanese knotweed	Aug-Sep	A	W
<i>Polygonum hydropiper</i>	marshpepper smartweed, water-pepper	Jun-Nov	A	E,W
<i>Polygonum hydropiperoides</i>	swamp smartweed, water-pepper	Jun-Nov	N	E
<i>Polygonum lapathifolium</i>	willow-weed, nodding smartweed	Aug-Sep	N	E,W
<i>Polygonum pensylvanicum</i> [= <i>P. p. var. eglandulosum</i>]	Pennsylvania smartweed, Lake Erie pinkweed	Aug-Sep	N	E,W
<i>Polygonum persicaria</i>	lady's thumb	Jul-Sep	A	E,W
<i>Polygonum punctatum</i>	dotted or water smartweed	Aug-Sep	N	E
<i>Polygonum sagittatum</i>	arrow-leaf tearthumb, arrow-vine	Sep	N	E,W
<i>Polygonum scandens</i>	climbing false-buckwheat	Aug-Nov	N	W

	Common Name	Phenology	Origin	Loc
BUCKWHEATS (cont'd)				
<i>Polygonum virginianum</i> [= <i>Tovara virginiana</i>]	Virginia knotweed, jumpseed	Aug	N	E,W
<i>Rumex acetosella</i>	garden sorrel, sheep sorrel	Jun-Oct A	E,W	
<i>Rumex crispus</i>	curly or sour dock	Jun-Sep	A	E,W
<i>Rumex orbiculatus</i>	great water dock	Sep	N	E
<i>Rumex verticillatus</i>	swamp dock	Jun-Sep	N	E
GARCINIAS (Clusiaceae)				
<i>Hypericum ascyron</i> [= <i>H. pyramidatum</i>]	great St. John's-wort	Jun-Aug	N	W
<i>Hypericum majus</i>	large Canadian St. John's-wort	Jul-Sep	N(P)	E
<i>Hypericum perforatum</i>	common St. John's-wort	Jun-Sep	A	E,W
<i>Hypericum punctatum</i>	dotted or spotted St. John's-wort	Aug	N	E,W
LINDENS (Tiliaceae)				
<i>Tilia americana</i>	American basswood	Jul	N	E,W
MALLOWS (Malvaceae)				
<i>Abutilon theophrasti</i>	velvet-leaf	Jul-Oct	A	E,W
<i>Hibiscus moscheutos</i> [= <i>H. palustris</i>]	swamp rosemallow	Aug-Sep	N	E
<i>Hibiscus trionum</i>	flower-of-the-hour	Jul-Sep	A	E,W
<i>Malva moschata</i>	musk mallow	Jun-Sep	A	W
<i>Malva neglecta</i>	common mallow	Apr-Oct	A	W
<i>Malva sylvestris</i>	high mallow	Jun-Aug	A	W
SUNDEWS (Droseraceae)				
<i>Drosera rotundifolia</i>	round-leaf sundew	Jun-Aug	N(P)	W
ROCKROSES (Cistaceae)				
<i>Helianthemum bicknellii</i> [= <i>H. majus</i> misapplied]	plains frostweed	Jun-Jul	N(T)	E,W
<i>Lechea minor</i>	pinweed	Jul-Nov	N(T)	W
VIOLETS (Violaceae)				
<i>Viola blanda</i>	sweet white violet	Apr-May	N	W
<i>Viola canadensis</i>	Canada violet	Apr-Jun	N	E
<i>Viola conspersa</i>	American dog violet	May-Jul	N	E
<i>Viola cucullata</i>	marsh blue violet	May	N	E,W
<i>Viola odorata</i>	white violet	Apr-May	A	W
<i>Viola palmata</i> [= <i>V. triloba</i>]	three-lobed violet	Apr-May	N	W
<i>Viola pubescens</i>	downy or common yellow violet	May	N	E,W
<i>Viola rostrata</i>	long-spur violet	Apr-Jun	N	W
<i>Viola sagittata</i>	arrow-leaf violet	Apr-Jun	N	W
<i>Viola sororia</i>	woolly blue violet, freckled violet	Apr-Jun	N	E,W
<i>Viola striata</i>	striped cream violet, pale violet	May	N	E,W
GOURLDS (Cucurbitaceae)				
<i>Echinocystis lobata</i>	wild mock-cucumber	Jul-Sep	N	E,W
WILLOWS (Salicaceae)				
<i>Populus deltoides</i>	eastern cotton-wood	Apr-May	N	E,W
<i>Populus grandidentata</i>	big-tooth aspen	Apr	N	E,W
<i>Salix alba</i>	white willow	Apr-May	A	E
<i>Salix amygdaloides</i>	peach-leaf willow	Apr-Jun	N	E
<i>Salix babylonica</i>	weeping willow	Feb-May	A	E
<i>Salix discolor</i>	pussy willow	Feb-May	N	W
<i>Salix eriocephala</i> [= <i>S. rigida</i>]	Missouri River or heart-leaf willow	Mar-Apr	N	W
<i>Salix exigua</i> [= <i>S. interior</i>]	sandbar willow	May-Jun	N	E,W
<i>Salix fragilis</i>	crack willow	Apr-Jun	A	E
<i>Salix humilis</i>	tall prairie willow	Mar-Jun	N	W
<i>Salix nigra</i>	black willow	Apr-Jun	N	E,W
CAPERS (Capparaceae)				
<i>Polanisia dodecandra</i>	rough-seed clammy-weed	Jul-Sep	N	E

MUSTARDS (Brassicaceae)

<i>Alliaria petiolata</i> [= <i>A. officinalis</i>]
<i>Arabidopsis thaliana</i>
<i>Arabis laevigata</i>
<i>Barbarea vulgaris</i>
<i>Brassica nigra</i>
<i>Brassica rapa</i> [= <i>B. campestris</i>]
<i>Cakile edentula</i>
<i>Capsella bursa-pastoris</i>
<i>Cardamine bulbosa</i>
<i>Cardamine concatenata</i> [= <i>Dentaria laciniata</i>]
<i>Cardamine diphylla</i> [= <i>Dentaria diphylla</i>]
<i>Cardamine douglassii</i>
<i>Cardamine hirsuta</i>
<i>Cardamine pensylvanica</i>
<i>Draba verna</i> [= <i>Erophila verna</i>]
<i>Erysimum repandum</i>
<i>Hesperis matronalis</i>
<i>Lepidium campestre</i>
<i>Lepidium virginicum</i>
<i>Lunaria annua</i>
<i>Noebeckia aquatica</i> [= <i>Armoracia aquatica</i> , <i>Nasturtium lacustre</i>]
<i>Rorippa nasturtium-aquaticum</i> [= <i>Nasturtium officinale</i>]
<i>Rorippa palustris</i>
<i>Rorippa palustris</i> ssp. <i>hispida</i> [= <i>R. palustris</i> var. <i>hispida</i>]
<i>Sinapis alba</i> [= <i>Brassica hirta</i>]
<i>Sinapis arvensis</i> [= <i>Brassica kabera</i>]
<i>Sisymbrium officinale</i>
<i>Thlaspi arvense</i>

HEATHS (Ericaceae)

<i>Epigaea repens</i>
<i>Gaultheria procumbens</i>
<i>Vaccinium macrocarpon</i> [= <i>Oxycoccus macrocarpus</i>]
<i>Vaccinium pallidum</i> [= <i>V. vacillans</i>]

WINTERGREENS (Pyrolaceae)

<i>Chimaphila umbellata</i>
<i>Pyrola americana</i> [= <i>P. rotundifolia</i>]

INDIAN PIPES (Monotropaceae)

<i>Monotropa uniflora</i>

PRIMROSES (Primulaceae)

<i>Lysimachia ciliata</i>
<i>Lysimachia nummularia</i>
<i>Lysimachia quadrifolia</i>
<i>Samolus valerandi</i>

HYDRANGEAS (Hydrangeaceae)

<i>Hydrangea arborescens</i>
<i>Philadelphus coronarius</i>

GOOSEBERRIES (Grossulariaceae)

<i>Ribes americanum</i>
<i>Ribes cynosbati</i>

Common Name	Phenology	Origin	Loc
garlic mustard	Jul-Sep	A	E,W
mouse-ear cress	Mar-Jun	A	W
smooth rock cress	Apr-Jun	N	E,W
yellow rocket, common winter-cress	Jun	A	E,W
black mustard	Jun-Oct	A	W
field mustard	May-Oct	A	E
American or inland searocket	Jul-Sep	N(P)	E
common shepherd's purse	Mar-Dec	A	W
bulbous bitter-cress, spring cress	Apr-Jun	N	E,W
cut-leaf toothwort	Apr-May	N	E,W
two-leaf or common toothwort	Apr-May	N	W
purple bitter-cress	Apr-May	N	E,W
hairy bitter-cress	Mar-Apr	A	W
Pennsylvania bitter-cress	Jun-Jul	N	E,W
whitlow-grass	Apr-May	A	W
treacle mustard	May-Jul	A	W
dame's rocket	May-Jun	A	E,W
cow cress	May-Jun	N	W
poor-man's pepper-grass	May-Sep	N	W
moneyplant	May-Jun	C	W
lakecress	May-Aug	N	E,W
true water-cress	Apr-Jun	A	W
marsh yellow-cress	Jun-Oct	N	W
bog yellow-cress, marsh cress	Jun-Jul	N	E
white mustard	Jun-Aug	A	E
charlock	May-Jul	A	E
hedge mustard	May-Oct	A	W
field penny-cress	Apr-Jun	A	W
trailing arbutus, ground laurel	Mar-May	N	W
creeping wintergreen	Jul-Aug	N	W
American or large cranberry	Jun-Aug	N(P)	W
low or hillside blueberry	Apr-Jun	N	E,W
prince's pine	Jul-Aug	N(T)	W
round-leaf wintergreen	Jun-Aug	N	W
Indian-pipe	Jun-Sep	N	W
fringed loosestrife	Jul-Sep	N	E,W
creeping Jennie, moneywort	Jun-Aug	A	E,W
whorled or prairie loosestrife	Jun-Jul	N	E,W
water pimpernel	May-Sep	N	W
wild hydrangea	Jun-Jul	N	E
mock orange, syringa	Jun-Jul	A	W
wild or American black currant	Apr-Sep	N	W
bristly gooseberry, dogberry	May-Sep	N	W

	Common Name	Phenology	Origin	Loc
GOOSEBERRIES (cont'd)				
<i>Ribes rubrum</i> [= <i>R. sativum</i>]	red currant	Apr-Jun	A	E,W
<i>Ribes uva-crispa</i>	garden gooseberry	May-Jun	A	E
ORPINES (Crassulaceae)				
<i>Sedum telephium</i>	live-forever	Aug-Sep	A	E
<i>Sedum ternatum</i>	wild sedum	Apr-Jun	N	W
SAXIFRAGES (Saxifragaceae)				
<i>Heuchera americana</i>	American alum-root	Apr-Jul	N	E,W
<i>Mitella diphylla</i>	two-leaf bishop's-cap, mitrewort	Apr-May	N	W
<i>Penthorum sedoides</i>	ditch-stonecrop	Jul-Sep	N	E
ROSES (Rosaceae)				
<i>Agrimonia gryposepala</i>	tall hairy grooverbur, agrimony	Jul-Aug	N	E,W
<i>Agrimonia parviflora</i>	small-flower groovebur	Jul-Sep	N	E,W
<i>Agrimonia pubescens</i>	downy agrimony	Jul-Sep	N	W
<i>Amelanchier arborea</i>	downy service-berry	Apr	N	E,W
<i>Amelanchier laevis</i>	smooth service-berry, Juneberry	Apr-Jun	N	W
<i>Aronia melanocarpa</i> [= <i>Pyrus arbutifolia melanocarpa</i>]	black chokeberry	Apr-Nov	N	W
<i>Crataegus crus-galli</i>	cockspur hawthorn	May-Oct	N	W
<i>Crataegus mollis</i>	downy hawthorn	Sep-Oct	N	E
<i>Crataegus punctata</i>	dotted hawthorn	May-Oct	N	W
<i>Crataegus</i> spp.	hawthorns	May-Jun	A	E,W
<i>Duchesnea indica</i>	Indian mock-strawberry	Apr-Jun	A	W
<i>Fragaria vesca</i>	woodland strawberry	May-Aug	A	W
<i>Fragaria virginiana</i>	Virginia or wild strawberry	Apr-Jun	N	E,W
<i>Geum canadense</i>	white avens	Jun	N	E,W
<i>Geum laciniatum</i>	rough avens	Jun	N	E,W
<i>Geum vernum</i>	spring or vernal avens	Apr-Jun	N	W
<i>Malus coronaria</i> [= <i>Pyrus coronaria</i> ; <i>M. angustifolia</i>]	wild crab, southern crab-apple	Mar-May	N	E,W
<i>Malus pumila</i>	apple	Apr-Jun	A	E
<i>Potentilla canadensis</i>	running five-finger, cinquefoil	Apr-Jun	N	E
<i>Potentilla norwegica</i>	Norwegian or rough cinquefoil	Jun-Aug	N	E,W
<i>Potentilla recta</i>	rough-fruited cinquefoil	Jun-Aug	A	E,W
<i>Potentilla simplex</i>	old-field or common cinquefoil	Apr-Jun	N	E,W
<i>Prunus americana</i>	American or wild plum	May-Jun	N	E,W
<i>Prunus avium</i>	sweet cherry	Apr-Jul	A	W
<i>Prunus pensylvanica</i>	pin cherry	Apr-May	N	E
<i>Prunus serotina</i>	black or wild cherry	May	N	E,W
<i>Prunus virginiana</i>	choke cherry	Aug-Oct	N	W
<i>Rosa blanda</i>	smooth stem rose	Jun	N(T)	E
<i>Rosa carolina</i>	pasture or wild rose	Jun-Jul	N	E,W
<i>Rosa multiflora</i>	multiflora rose	Jun-Jul	A	E,W
<i>Rosa palustris</i>	swamp rose	Jun-Aug	N	E,W
<i>Rosa setigera</i>	prairie or climbing rose	Jun-Jul	N	E,W
<i>Rubus allegheniensis</i>	Allegheny blackberry	May-Jul	N	W
<i>Rubus canadensis</i>	smooth blackberry	Jun-Jul	N	E
<i>Rubus flagellaris</i>	northern dewberry	May-Jun	N	E
<i>Rubus hispida</i>	bristly or running swamp blackberry	Jun-Aug	N	W
<i>Rubus occidentalis</i>	black raspberry	May-Jun	N	E,W
<i>Rubus odoratus</i>	flowering raspberry	Jun-Aug	N	E
<i>Spiraea alba</i>	narrow-leaf meadow-sweet	Jun-Aug	N	E
CAESALPINIAS (Caesalpiniaceae)				
<i>Cercis canadensis</i>	eastern redbud	Mar-May	N	E,W
<i>Gleditsia triacanthos</i>	honey-locust	May-Jun	N	W
<i>Gymnocladus dioicus</i> [= <i>G. canadensis</i>]	Kentucky coffee-tree	May	N	E,W

	Common Name	Phenology	Origin	Loc
PEAS (Fabaceae)				
<i>Amorpha fruticosa</i>	false indigo-bush	May-Jun	N	E
<i>Amphicarpa bracteata</i>	American hog-peanut	Aug-Sep	N	E,W
<i>Apios americana</i>	American potato-bean, groundnut	Jul-Aug	N	E,W
<i>Astragalus canadensis</i>	Canada milkvetch	Jul-Aug	N	E
<i>Baptisia tinctoria</i>	wild indigo	May-Sep	N	W
<i>Coronilla varia</i>	crown vetch	Jun-Aug	A	W
<i>Desmodium canadense</i>	showy tick-trefoil	Jul-Aug	N	E,W
<i>Desmodium canescens</i>	hoary tick-trefoil	Jul-Sep	N	E
<i>Desmodium ciliare</i>	little-leaf tick-trefoil	Jul-Aug	N	W
<i>Desmodium glutinosum</i>	cluster-leaf tick-trefoil	Jul	N	E
<i>Desmodium laevigatum</i>	smooth tick-trefoil	Jul-Aug	N	E
<i>Desmodium paniculatum</i>	panicked tick-trefoil	Jul-Aug	N	E,W
<i>Desmodium pauciflorum</i>	few-flowered tick-trefoil	Jul-Aug	N(P)	W
<i>Lathyrus latifolius</i>	everlasting pea	Jun-Sep	A	W
<i>Lathyrus tuberosus</i>	tuberous vetchling	Jun-Aug	A	W
<i>Lespedeza capitata</i>	round-head bush clover	Jul-Sep	N	E,W
<i>Lespedeza hirta</i> [= <i>L. polystachya</i>]	hairy bush clover	Jul-Oct	N	W
<i>Lespedeza virginica</i>	Virginia bush clover	Aug-Sep	N	E
<i>Lotus corniculatus</i>	bird's-foot trefoil	Jun-Sep	A	W
<i>Lupinus perennis</i>	wild or sundial lupine	Apr-Jul	N(P)	W
<i>Medicago lupulina</i>	black medick	May-Sep	A	E,W
<i>Melilotus albus</i> [= <i>M. alba</i>]	white sweetclover	Jul-Sep	A	E,W
<i>Melilotus officinalis</i>	yellow sweetclover	Jun-Sep	A	E,W
<i>Robinia pseudoacacia</i>	black locust	May-Jun	Z	E,W
<i>Strophostyles helvula</i>	trailing wildbean	Jun-Sep	N	E,W
<i>Trifolium campestre</i> [= <i>T. procumbens</i>]	pinnate or lesser hop-clover	May-Sep	A	W
<i>Trifolium hybridum</i>	alsike clover	May-Oct	A	W
<i>Trifolium pratense</i>	red clover	May-Aug	A	E,W
<i>Trifolium repens</i>	white clover	All summer	A	E,W
<i>Vicia cracca</i>	bird vetch	Jul-Aug	A	E
<i>Vicia</i> sp.	vetch	May-Sep		W
OLEASTERS (Elaeagnaceae)				
<i>Elaeagnus angustifolia</i>	Russian olive	Jun-Jul	A	E
<i>Elaeagnus umbellata</i>	autumn-olive	May-Jun	A	W
WATER MILFOILS (Haloragaceae)				
<i>Myriophyllum spicatum</i>	Eurasian water-milfoil	Jul-Sep	N	E
<i>Proserpinaca palustris</i>	marsh or common mermaid-weed	Jul-Aug	N	E
LOOSESTRIFES (Lythraceae)				
<i>Decodon verticillatus</i>	hairy swamp-loosestrife	Jul-Sep	N	E
<i>Lythrum alatum</i>	winged loosestrife	Jun-Sep	N	E
<i>Lythrum salicaria</i>	purple loosestrife	Jun-Sep	A	E
EVENING-PRIMROSE (Onagraceae)				
<i>Circaea lutetiana</i> [= <i>C. quadrifida</i>]	common enchanter's nightshade	Jun-Aug	N	E,W
<i>Epilobium ciliatum</i>	hairy or northern willow-herb	Jun-Aug	N	E,W
<i>Epilobium ciliatum</i> ssp. <i>glandulosum</i> [= <i>E. glandulosum</i>]	willow-herb	Jul-Sep	N	E
<i>Gaura biennis</i>	biennial butterfly-weed or gaura	Aug-Sep	N	E
<i>Ludwigia alternifolia</i>	bushy seedbox	Jun-Aug	N	W
<i>Ludwigia palustris</i>	marsh seedbox, water-purslane	Aug	N	E
<i>Oenothera biennis</i>	common evening-primrose	Jun-Sep	N	E,W
<i>Oenothera perennis</i> [= <i>O. pumila</i>]	small evening-primrose	May-Aug	N	W
DEERGRASSES (Melastomataceae)				
<i>Rhexia virginica</i>	Virginia meadow-beauty, deergrass	Jul-Sep	N(P)	W
DOGWOODS (Cornaceae)				
<i>Cornus alternifolia</i>	alternate-leaf or pagoda dogwood	May-Sep	N	W
<i>Cornus amomum</i>	silky or knob-styled dogwood	May-Jul	N	E,W

	Common Name	Phenology	Origin	Loc
DOGWOODS (cont'd)				
<i>Cornus drummondii</i>	rough-leaf dogwood	May-Jun	N	E,W
<i>Cornus florida</i>	flowering dogwood	Apr-May	N	E,W
<i>Cornus racemosa</i>	gray dogwood	May-Oct	N	E,W
<i>Cornus rugosa</i>	round-leaved dogwood	May-Oct	N(P)	W
<i>Cornus sericea</i> [= <i>C. stolonifera</i>]	red-osier dogwood	May-Aug	N	E,W
<i>Nyssa sylvatica</i>	black gum	May-Jun	N	E,W
SANDALWOODS (Santalaceae)				
<i>Comandra umbellata</i>	umbellate bastard-toadflax	May-Jul	N	E
STAFF-TREES (Celastraceae)				
<i>Celastrus scandens</i>	American bittersweet	Jun	N	E,W
<i>Euonymus fortunei</i>	bigleaf or Chinese wintercreeper	May	A	E,W
HOLLIES (Araliaceae)				
<i>Ilex verticillata</i>	common winterberry	May-Jun	N	E
SPURGES (Euphorbiaceae)				
<i>Acalypha virginica</i> var. <i>rhomboidea</i> [= <i>A. rhomboidea</i>]	three-seed mercury	Sep	N	E,W
<i>Chamaesyce maculata</i> [= <i>Euphorbia maculata</i>]	spotted broomspurge	Jun-Oct	N	W
<i>Chamaesyce nutans</i> [= <i>E. nutans</i>]	eyebane broomspurge	Jun-Oct	N	W
<i>Chamaesyce polygonifolia</i> [= <i>Euphorbia polygonifolia</i>]	seaside broomspurge, seaside spurge	Jul-Oct	N(P)	E
<i>Euphorbia corollata</i>	flowering spurge	Jun-Sep	N	E
<i>Euphorbia cyparissias</i>	cypress spurge	Apr-Aug	A	W
<i>Euphorbia dentata</i>	toothed spurge	Jun-Sep	N	E
BUCKTHORNS (Rhamnaceae)				
<i>Ceanothus americanus</i>	New Jersey tea	Jun-Jul	N	E,W
<i>Frangula alnus</i> [= <i>R. frangula</i>]	glossy buckthorn	May-Jul	A	W
<i>Rhamnus cathartica</i>	European or common buckthorn	May-Jun	A	W
GRAPES (Vitaceae)				
<i>Parthenocissus quinquefolia</i> [= <i>P. inserta</i>]	Virginia or thicket creeper	Jun	N	E,W
<i>Vitis aestivalis</i>	summer grape	May-Oct	N	E,W
<i>Vitis labrusca</i>	northern fox grape	May-Oct	N(P)	W
<i>Vitis riparia</i>	riverbank grape	May-Jul	N	E,W
<i>Vitis vulpina</i> [= <i>V. cordifolia</i>]	frost or chicken grape	May-Oct	N	W
FLAXES (Linaceae)				
<i>Linum virginianum</i>	Virginia flax	Jul-Aug	N	W
MILKWORTS (Polygalaceae)				
<i>Polygala sanguinea</i>	red milkwort	Jun-Oct	N	W
<i>Polygala verticillata</i>	whorled milkwort	Jul-Oct	N	E
BLADDER-NUTS (Staphyleaceae)				
<i>Staphylea trifolia</i>	American bladdernut	May	N	E
HORSE-CHESTNUTS (Hippocastanaceae)				
<i>Aesculus glabra</i>	Ohio buckeye	Apr-May	N	E,W
MAPLES (Aceraceae)				
<i>Acer negundo</i> var. <i>negundo</i> [= <i>Negundo aceroides</i>]	box-elder	Apr-Oct	N	W
<i>Acer nigrum</i>	black maple	May-Sep	N	W
<i>Acer palmatum</i>	Japanese maple		A	E
<i>Acer platanoides</i>	Norway maple	Apr-May	A	E,W
<i>Acer rubrum</i>	red maple	Mar-Apr	N	E,W
<i>Acer saccharinum</i>	silver maple	Mar-Apr	N	E,W

ECOLOGY OF OLD WOMAN CREEK ESTUARY AND WATERSHED

MAPLES (cont'd)	Common Name	Phenology	Origin	Loc
<i>Acer saccharum</i>	sugar maple	Apr-Jun	N	E,W
CASHEWS (Anacardiaceae)				
<i>Rhus glabra</i>	smooth sumac	Jun-Jul	N	E,W
<i>Rhus hirta</i> [= <i>R. typhina</i>]	staghorn sumac	Jun-Aug	N	E,W
<i>Toxicodendron radicans</i> [= <i>R. radicans</i>]	poison ivy	May-Jun	N	E,W
QUASSIAS (Simaroubaceae)				
<i>Ailanthus altissima</i> [= <i>A. glandulosa</i>]	Chinese sumach	Jun-Jul	A	W
RUES (Rutaceae)				
<i>Zanthoxylum americanum</i>	common prickly-ash	Apr-May	N	W
WOOD SORRELS (Oxalidaceae)				
<i>Oxalis stricta</i> [= <i>O. europaea</i>]	common yellow wood sorrel	Aug	N	E,W
<i>Oxalis violacea</i>	violet wood sorrel	Apr-Jun	N	E,W
GERANIUMS (Geraniaceae)				
<i>Erodium cicutarium</i>	redstem-filaree, storksbill	Apr-Oct	A	W
<i>Geranium carolinianum</i>	Carolina crane's-bill	May-Jul	N	W
<i>Geranium maculatum</i>	purple crane's-bill, wild geranium	Apr-Jun	N	E,W
<i>Geranium pusillum</i>	small-flowered crane's-bill	Jun-Oct	A	W
MEADOW-FOAMS (Limnanthaceae)				
<i>Floerkea proserpinacoides</i>	false mermaid-weed	Apr-May	N	E,W
JEWELWEEDS (Balsaminaceae)				
<i>Impatiens capensis</i>	spotted touch-me-not, jewelweed	Jun-Sep	N	E,W
<i>Impatiens pallida</i>	pale touch-me-not	Jun-Sep	N	E,W
GINSENGS (Araliaceae)				
<i>Panax quinquefolius</i>	American ginseng	Jul-Aug	N	W
<i>Panax trifolius</i>	dwarf ginseng	Apr-Jun	N	W
CARROTS (Apiaceae)				
<i>Chaerophyllum procumbens</i>	spreading chervil	Apr-May	N	W
<i>Cicuta maculata</i>	spotted water-hemlock	Jun-Aug	N	E,W
<i>Cryptotaenia canadensis</i>	Canada honewort	Jun-Jul	N	E,W
<i>Daucus carota</i>	wild carrot, Queen Anne's lace	May-Oct	A	E,W
<i>Heracleum maximum</i>	cow-parsnip	Jun-Aug	N	W
<i>Osmorhiza claytonii</i>	hairy or woolly sweetcicely	May-Jun	N	E,W
<i>Osmorhiza longistylis</i>	smooth sweetcicely	May-Jun	N	E,W
<i>Pastinaca sativa</i>	wild parsnip	May-Oct	A	W
<i>Sanicula canadensis</i>	Canada sanicle or black snakeroot	Jun-Aug	N	E,W
<i>Sium suave</i>	hemlock water-parsnip	Jul-Sep	N	E
<i>Taenidia integerrima</i>	yellow pimpernel	Apr-Jun	N	E
<i>Thaspium trifoliatum</i>	smooth meadow-parsnip	May-Jun	N	E
<i>Zizia aurea</i>	golden alexanders	Apr-Jun	N	W
GENTIANS (Gentianaceae)				
<i>Bartonia virginica</i>	yellow screwstem	Jul-Sep	N	W
<i>Frasera carolinensis</i> [= <i>Swertia c.</i>]	American columbo	May-Jun	N	E,W
<i>Gentiana andrewsii</i>	fringe-top bottle or closed gentian	Sep	N	E
<i>Gentianella tenella</i> [= <i>Bartonia tenella</i>]	gentian	Aug-Sep	N	W
<i>Gentianopsis crinita</i> = <i>Gentiana crinita</i>]	fringed gentian	Sep-Nov	N(P)	W
<i>Sabatia angularis</i>	square-stem rose-gentian	Jul-Sep	N	E,W
DOGBANES (Apocynaceae)				
<i>Apocynum cannabinum</i>	Indian hemp	Jun-Sep	N	E,W
<i>Apocynum sibiricum</i>	clasping-leaf dogbane	Jun-Sep	N(E)	E
<i>Vinca minor</i>	periwinkle	Mar-Jun	A	W

	Common Name	Phenology	Origin	Loc
MILKWEEDS (Asclepiadaceae)				
<i>Asclepias incarnata</i>	swamp milkweed	Jun-Aug	N	E,W
<i>Asclepias sullivantii</i>	smooth milkweed	Jun-Jul	N	E
<i>Asclepias syriaca</i>	common milkweed	Jun-Aug	N	E,W
<i>Asclepias tuberosa</i>	butterfly-weed	Jun-Sep	N	E,W
NIGHTSHADES (Solanaceae)				
<i>Datura stramonium</i>	jimsonweed	Jun-Aug	Z	E,W
<i>Physalis heterophylla</i>	clammy ground-cherry	Jul-Sep	N	W
<i>Physalis</i> sp.	ground-cherry	Jun-Oct		W
<i>Solanum carolinense</i>	horse-nettle	May-Oct	Z	W
<i>Solanum dulcamara</i>	climbing or bittersweet nightshade	Jun-Sep	A	E,W
<i>Solanum ptychanthum</i> [= <i>S. nigrum</i> misapplied]	black or common nightshade	May-Sep	N	E,W
MORNING-GLORIES (Convolvulaceae)				
<i>Calystegia sepium</i> [= <i>Convolvulus sepium</i>]	hedge bindweed	May-Sep	N	E,W
<i>Convolvulus arvensis</i>	field bindweed	May-Sep	A	E,W
<i>Ipomoea pandurata</i>	wild sweet-potato vine	Jun-Sep	N	W
<i>Ipomoea purpurea</i>	common morning-glory	Jul-Oct	A	W
DODDERS (Cuscutaceae)				
<i>Cuscuta gronovii</i>	common dodder	Jul-Oct	N	E,W
<i>Cuscuta polygonorum</i>	smartweed dodder	Jul-Sep	N	E
PHLOXES (Polemoniaceae)				
<i>Phlox divaricata</i>	woodland or blue phlox	Apr-Jun	N	E,W
<i>Phlox subulata</i>	ground phlox, moss-pink	Apr-May	N	W
WATERLEAFS (Hydrophyllaceae)				
<i>Hydrophyllum virginianum</i>	Virginia waterleaf	May-Jun	N	E,W
BORAGES (Boraginaceae)				
<i>Buglossoides arvensis</i> [= <i>Lithospermum arvense</i>]	corn gromwell	Apr-Jun	A	W
<i>Cynoglossum officinale</i>	hound's-tongue	May-Jul	A	W
<i>Hackelia virginiana</i>	Virginia stickseed	Jun-Sep	N	W
<i>Mertensia virginica</i>	Virginia bluebells or cowslip	Apr-May	N	W
<i>Symphytum officinale</i>	common comfrey	Jun-Aug	A	E
VERVAINS (Verbenaceae)				
<i>Phryma leptostachya</i>	lopseed	Jun-Aug	N	E,W
<i>Verbena hastata</i>	blue vervain	Jul-Sep	N	E,W
<i>Verbena urticifolia</i>	white vervain	Jun-Oct	N	E,W
<i>Verbena x illicita</i>	hybrid vervain	Jul-Aug	N	E
MINTS (Lamiaceae)				
<i>Agastache nepetoides</i>	yellow giant-hyssop	Jul-Sep	N	W
<i>Agastache scrophulariifolia</i> [= <i>Lophanthus scrophulariifolius</i>]	purple giant-hyssop	Jul-Sep	N	W
<i>Collinsonia canadensis</i>	Canada horse-balm	Jul-Sep	N	E
<i>Glechoma hederacea</i>	ground ivy	Apr-Jul	A	W
<i>Lamium amplexicaule</i>	henbit, dead nettle	Mar-Oct	A	W
<i>Lamium purpureum</i>	purple or red dead nettle	Apr-Oct	A	E,W
<i>Leonurus cardiaca</i>	motherwort, lion's tail	Jun-Aug	A	W
<i>Lycopus americanus</i>	American bugleweed	Jun-Sep	N	E,W
<i>Lycopus europaeus</i>	European bugleweed	Jun-Sep	A	E
<i>Lycopus rubellus</i>	taper-leaf bugleweed	Jul-Oct	N	W
<i>Lycopus uniflorus</i>	northern bugleweed, water horehound	Jun-Sep	N	E
<i>Lycopus virginicus</i>	Virginia bugleweed	Jun-Sep	N	E,W
<i>Lycopus x sherardii</i>	hydrid water horehound	Jun-Sep	N	E

	Common Name	Phenology	Origin	Loc
MINTS (cont'd)				
<i>Mentha arvensis</i> [= <i>M. gentilis</i>]	field mint	Jul-Aug	N	E,W
<i>Mentha spicata</i>	spearmint	Jun-Oct	A	W
<i>Mentha x gracilis</i> [= <i>M. x cardiaca</i>]	small-leaf mint	Jul-Aug	A	E
<i>Monarda fistulosa</i>	wild bergamot	Jun-Sep	N	E,W
<i>Nepeta cataria</i>	catnip	Jun-Oct	A	E,W
<i>Prunella vulgaris</i>	heal-all, self-heal	Jun-Oct	A	E,W
<i>Pycnanthemum virginianum</i>	Virginia mountain-mint	Jul-Sep	N	E
<i>Scutellaria galericulata</i> [= <i>S. epilobiifolia</i>]	hooded or marsh skullcap	Jun-Aug	N	E
<i>Scutellaria lateriflora</i>	blue or mad-dog skullcap	Jul-Sep	N	E,W
<i>Stachys tenuifolia</i> [= <i>S. t.</i> var. <i>hispida</i> ; <i>S. hispida</i>]	smooth or common hedgenettle	Jun-Aug	N	E,W
<i>Teucrium canadense</i>	American germander	Jun-Aug	N	E
<i>Teucrium canadense</i> var. <i>virginicum</i>	germander	Jul-Sep	N	W
WATER-STARWORTS (Callitrichaceae)				
<i>Callitricha heterophylla</i>	larger water-starwort	Apr-Dec	A	W
PLANTAINS (Plantaginaceae)				
<i>Plantago lanceolata</i>	English plantain	May-Oct	A	W
<i>Plantago major</i>	common plantain	Jul-Sep	A	E,W
<i>Plantago rugelii</i>	black-seed or Rugel's plantain	Jul-Oct	N	W
OLIVES (Oleaceae)				
<i>Fraxinus americana</i>	white ash	Apr-Jun	N	E,W
<i>Fraxinus pennsylvanica</i> [= <i>F. p.</i> var. <i>subintegerrima</i>]	green ash	May	N	E
<i>Ligustrum vulgare</i>	common or European privet	Jun	A	E,W
FIGWORTS (Scrophulariaceae)				
<i>Agalinis tenuifolia</i>	slender false-foxglove or gerardia	Jul-Sep	N	W
<i>Antirrhinum majus</i>	common snapdragon	Jun-Sep	A	E
<i>Aureolaria flava</i>	smooth false-foxglove	Jul-Sep	N	W
<i>Chaenorhinum minus</i>	lesser toadflax	Jun-Sep	A	E
<i>Chelone glabra</i>	white turtlehead	Jul-Sep	N	E,W
<i>Gratiola neglecta</i>	clammy hedgehyssop	May-Oct	N	W
<i>Linaria vulgaris</i>	butter-and-eggs	Jul-Aug	A	E
<i>Lindernia dubia</i>	yellow-seed false-pimpernel	Jul-Sep	N	E
<i>Mimulus alatus</i>	sharp-wing monkey-flower	Jun-Aug	N	E,W
<i>Mimulus ringens</i>	Allegheny or common monkey-flower	Jun-Sep	N	E,W
<i>Pedicularis lanceolata</i>	swamp lousewort	Aug-Sep	N	E,W
<i>Penstemon hirsutus</i>	hairy beardtongue	May-Jul	N	E
<i>Scrophularia lanceolata</i>	lance-leaf or American figwort	May-Jul	N	E
<i>Scrophularia marilandica</i>	carpenter's square	Jun-Oct	N	W
<i>Verbascum blattaria</i>	moth mullein	Jun-Sep	A	W
<i>Verbascum thapsus</i>	common or woolly mullein	Jun-Sep	A	E,W
<i>Veronica anagallis-aquatica</i> [= <i>V. anagallis</i>]	water speedwell	May-Oct	N	W
<i>Veronica arvensis</i>	corn speedwell	Apr-Sep	A	E,W
<i>Veronica officinalis</i>	common speedwell	May-Jul	A	W
<i>Veronica peregrina</i>	purslane speedwell	Mar-Aug	N	W
<i>Veronica polita</i>	slender speedwell	Mar-May	A	W
<i>Veronica serpyllifolia</i>	thyme-leaf speedwell	May-Aug	A	E,W
<i>Veronicastrum virginicum</i>	Culver's-root	Jun-Aug	N	E
BROOM-RAPES (Orobanchaceae)				
<i>Epifagus virginiana</i>	beech-drops	Aug-Oct	N	W

	Common Name	Phenology	Origin	Loc
BIGNONIAS (Bignoniaceae)				
<i>Campsis radicans</i>	trumpet creeper	Jul-Aug	Z	E,W
<i>Catalpa bignonioides</i>	southern catalpa	Jun-Jul	C	E
<i>Catalpa speciosa</i>	northern catalpa	May-Jun	Z	W
BLUEBELLS (Campanulaceae)				
<i>Lobelia cardinalis</i>	cardinal flower	Jul-Sep	N	E
<i>Lobelia inflata</i>	Indian-tobacco	Jul-Oct	N	E,W
<i>Lobelia siphilitica</i>	great blue lobelia	Aug-Sep	N	E,W
<i>Triodanis perfoliata</i> [= <i>Specularia p.</i>]	clasping-leaf Venus'-looking-glass	May-Jun	N	E,W
MADDERS (Rubiaceae)				
<i>Cephaelanthus occidentalis</i>	common buttonbush	Jun-Aug	N	E,W
<i>Galium aparine</i>	catchweed bedstraw, cleavers	May-Jul	N	E,W
<i>Galium asprellum</i>	rough bedstraw	May-Aug	N	E
<i>Galium circaeans</i>	forest bedstraw	Jun-Jul	N	E,W
<i>Galium lanceolatum</i>	wild licorice	Jun-Jul	N	W
<i>Galium mollugo</i>	wild madder	Jun-Aug	A	W
<i>Galium obtusum</i>	blunt-leaf bedstraw	May-Jul	N	W
<i>Galium tinctorium</i>	stiff marsh bedstraw	Jun-Aug	N	E
<i>Galium trifidum</i>	small bedstraw	Jul-Sep	N	W
<i>Galium triflorum</i>	sweet-scent bedstraw	Jun-Aug	N	E,W
<i>Houstonia caerulea</i> [= <i>Hedyotis caerulea</i>]	innocence, bluetts	Apr-Jun	N	E,W
<i>Mitchella repens</i>	partridge-berry	Jun-Jul	N	W
HONEYSUCKLES (Caprifoliaceae)				
<i>Lonicera dioica</i> var. <i>dioica</i>	mountain honeysuckle	May-Jun	N	E
<i>Lonicera dioica</i> var. <i>glaucescens</i>	wild honeysuckle	May-Jun	N	E
<i>Lonicera japonica</i>	Japanese honeysuckle	May-Sep	N	E,W
<i>Lonicera maackii</i>	amur honeysuckle		A	W
<i>Lonicera tatarica</i>	tartarian or bush honeysuckle	May-Jun	A	W
<i>Sambucus nigra</i> ssp. <i>canadensis</i> [= <i>S. canadensis</i>]	American elder, common elderberry	Jun-Jul	N	E,W
<i>Sambucus racemosa</i>	European red elder	May-Jun	N	W
<i>Triosteum perfoliatum</i>	tinker's weed, perfoliate horse-gentian	May-Jul	N	E,W
<i>Viburnum acerifolium</i>	maple-leaf viburnum, dockmackie	May-Jun	N	E,W
<i>Viburnum dentatum</i>	arrow-wood	May-Jul	N	W
<i>Viburnum dentatum</i> var. <i>lucidum</i> [= <i>V. recognitum</i>]	southern arrow-wood	May-Jul	N	E,W
<i>Viburnum lentago</i>	nannyberry	May-Jun	N	E,W
<i>Viburnum opulus</i>	guelder rose, Euro cranberry	Jun-Jul	A	E,W
<i>Viburnum prunifolium</i>	black-haw	Apr-May	N	E
VALERIANS (Valerianaceae)				
<i>Valerianella radiata</i>	beaked cornsalad	Apr-May	N	E,W
<i>Valerianella locusta</i> [= <i>V. olitoria</i>]	European cornsalad	Apr-Jun	A	W
<i>Valerianella umbilicata</i>	navel-shape cornsalad	May-Jun	N	E
<i>Valerianella woodsiana</i>	Woods' cornsalad	May-Jun	N	W
TEASELS (Dipsacaceae)				
<i>Dipsacus fullonum</i> ssp. <i>sylvestris</i> [= <i>D. sylvestris</i>]	teasel	Jul-Sep	A	E,W
COMPOSITES (Asteraceae)				
<i>Achillea millefolium</i>	common yarrow	Jun-Oct	N	E,W
<i>Ageratina altissima</i> [= <i>Eupatorium rugosum; E. ageratoicles</i>]	white snakeroot	Jul-Oct	N	E,W
<i>Ambrosia artemisiifolia</i>	annual or common ragweed	Aug-Sep	N	E,W
<i>Ambrosia trifida</i>	great or giant ragweed	Jul-Oct	N	E,W
<i>Antennaria neglecta</i>	field pussytoes	Apr-Jul	N	W
<i>Antennaria parlinii</i>	Parlin's everlasting pusseytoes	Apr-Jun	N	W
<i>Antennaria plantaginifolia</i>	plantain pussytoes	Apr-Aug	N	E

COMPOSITES (cont'd)	Common Name	Phenology	Origin	Loc
<i>Arctium minus</i>	common burdock	Jul-Oct	A	E,W
<i>Arnoglossum atriplicifolium</i> [= <i>Cacalia atriplicifolia</i>]	pale Indian-plantain	Jul-Sep	N	E
<i>Artemisia campestris</i>	beach wormwood	Jul-Sep	N(T)	E
<i>Artemisia campestris</i> ssp. <i>caudata</i>	wormwood [= <i>A. caudata</i>]	Jul-Sep	N	E
<i>Artemisia vulgaris</i>	mugwort	Jul-Aug	A	W
<i>Aster borealis</i> [= <i>A. junciformis</i>]	rush aster	Jun-Sep	N	W
<i>Aster cordifolius</i>	common blue heart-leaved aster	Aug-Oct	N	E,W
<i>Aster cordifolius</i> var. <i>sagittifolius</i> [= <i>A. sagittifolius</i>]	arrow-leaved aster	Aug-Oct	N	E,W
<i>Aster dumosus</i>	bush aster	Aug-Oct	N(T)	E
<i>Aster ericoides</i>	white heath aster	Jul-Oct	N	E
<i>Aster laevis</i>	smooth aster	Aug-Oct	N	E
<i>Aster lanceolatus</i> [= <i>A. paniculatus</i> ; <i>A. simplex</i>]	panicled aster	Aug-Oct	N	E,W
<i>Aster lateriflorus</i> [= <i>A. vimineus</i>]	calico aster	Aug-Oct	N	E,W
<i>Aster longifolius</i> [= <i>A. junceus</i>]	New York aster	Jul-Oct	N	W
<i>Aster macrophyllus</i>	big-leaf aster	Aug-Sep	N	W
<i>Aster novae-angliae</i>	New England aster	Aug-Oct	N	E,W
<i>Aster oolentangiensis</i> [= <i>A. azureus</i>]	prairie heart-leaved aster	Aug-Oct	N	E
<i>Aster pilosus</i>	awl aster	Aug-Oct	N	W
<i>Aster pilosus</i> var. <i>demotus</i> [= <i>A. racemosus</i>]	coastal-plain aster	Oct	N	E,W
<i>Aster paeonifolius</i>	willow-leaf aster	Sep-Oct	N	E
<i>Aster prenanthoides</i>	crooked-stem aster	Aug-Oct	N	W
<i>Aster shortii</i>	midwestern blue heart-leaved aster	Aug-Oct	N	E
<i>Aster undulatus</i>	clasping heart-leaved aster	Aug-Oct	N	E
<i>Bidens cernua</i>	nodding beggar-ticks	Sep-Oct	N	E,W
<i>Bidens connata</i>	purple-stem beggar-ticks	Sep-Oct	N	E
<i>Bidens frondosa</i>	devil's beggar-ticks	Sep-Oct	N	E,W
<i>Bidens laevis</i>	smooth beggar-ticks, tickseed	Aug-Nov	N	E
<i>Bidens vulgata</i>	tall beggar-ticks	Aug-Oct	N	W
<i>Cichorium intybus</i>	chicory	Jun-Oct	A	E,W
<i>Cirsium arvense</i>	creeping thistle	Jul-Oct	A	E,W
<i>Cirsium muticum</i>	swamp thistle	Jul-Sep	N	W
<i>Cirsium vulgare</i>	bull thistle	Jul-Sep	A	E,W
<i>Conyza canadensis</i> [= <i>Erigeron canadensis</i>]	horseweed	late summer-autumn	N	E,W
<i>Coreopsis tripteris</i>	tall tickseed	Jul-Sep	N	E,W
<i>Eclipta prostrata</i> [= <i>E. alba</i>]	yerba de tajo, pie-plate-plant	Aug-Oct	N	E
<i>Erechtites hieraciifolia</i>	American burn, pilewort	Jul-Oct	N	W
<i>Erigeron annuus</i>	white-top fleabane	Jun-Oct	N	E,W
<i>Erigeron philadelphicus</i>	Philadelphia or daisy fleabane	Apr-May	N	E,W
<i>Erigeron strigosus</i>	prairie fleabane	Jun-Aug	N	E,W
<i>Eupatorium altissimum</i>	tall eupatorium	Jul-Sep	N	E
<i>Eupatorium maculatum</i>	spotted Joe-pye-weed	Jul-Sep	N	E,W
<i>Eupatorium perfoliatum</i>	common boneset	Jul-Oct	N	E,W
<i>Eupatorium pilosum</i>	hairy thoroughwort	Aug-Sep	N	E
<i>Eupatorium purpureum</i>	sweet Joe-pye-weed	Jul-Sep	N	W
<i>Euthamia graminifolia</i>	flat-top fragrant-golden-rod	Jul-Oct	N	E,W
<i>Euthamia tenuifolia</i>	narrow-leaf fragrant-golden-rod	Aug-Oct	N	E
<i>Galinsoga parviflora</i>	lesser quickweed or galinsoga	Jun-Oct	A	E,W
<i>Galinsoga quadriradiata</i>	common quickweed or galinsoga	Jun-Nov	A	W
<i>Helenium autumnale</i>	common sneezeweed	Aug-Oct	N	E
<i>Helianthus annuus</i>	common or garden sunflower	Jul-Oct	C	W
<i>Helianthus divaricatus</i>	divaricate sunflower	Jul-Oct	N	E
<i>Helianthus hirsutus</i>	hairy sunflower	Jul-Oct	N	E
<i>Helianthus strumosus</i>	rough-leaved sunflower	Jul-Sep	N	E
<i>Helianthus tuberosus</i>	Jerusalem artichoke	Aug-Oct	N	E,W

Common Name	Phenology	Origin	Loc	
ox-eye, sunflower-everlasting	Jul-Oct	N	E	
Hieracium aurantiacum	Jun-Sep	A	E,W	
Hieracium caespitosum [= <i>H. pratense</i>]	May-Sep	A	E,W	
Hieracium paniculatum	Jul-Sep	N	W	
Hieracium pilosella	Jun-Sep	A	W	
Hieracium venosum	May-Jul	N	E	
Hieracium x floribundum	Jun-Aug	A	W	
Krigia biflora	May-Oct	N	E	
Lactuca biennis	Jul-Oct	N	W	
Lactuca canadensis	Jul-Sep	N	E,W	
Lactuca floridana	Jun-Sep	N	E	
Lactuca serriola	Jul-Sep	A	W	
Leucanthemum vulgare	Jun-Aug	A	W	
[= <i>Chrysanthemum leucanthemum</i>]				
Liatris spicata	spiked gayfeather, blazing star	Jul-Sep	N	E,W
Matricaria discoidea	pineapple-weed	May-Sep	Z	W
Oligoneuron ohioense	Ohio golden-rod	Aug-Sep	N(P)	E
[= <i>Solidago ohioensis</i>]				
Picris hieracioides	hawkweed oxtongue, bitterweed	Jul-Sep	A	W
Prenanthes alba	white rattlesnake-root or lettuce	Aug-Sep	N	E,W
Prenanthes serpentaria	lion's foot	Aug-Oct	N	E
Rudbeckia fulgida	orange coneflower	Jul-Oct	N	E
Rudbeckia hirta	black-eyed Susan	Jun-Oct	N	E,W
Rudbeckia laciniata	cut-leaf or greenheaded coneflower	Jul-Sep	N	E,W
Senecio aureus	golden ragwort	Apr-Aug	N	E,W
Senecio glabellus	grass-leaf groundsel	May-Jul	N	E
Senecio obovatus [= <i>S. rotundus</i>]	round-leaf groundsel	Apr-Jun	N	E,W
Senecio vulgaris	common groundsel	May-Oct	A	W
Silphium perfoliatum	cup-plant	Jul-Sep	N	W
Silphium trifoliatum	whorled rosinweed	Jul-Sep	N	E,W
Solidago caesia	wreath golden-rod	Aug-Oct	N	E,W
Solidago canadensis	Canada golden-rod	Jul-Sep	N	E,W
Solidago flexicaulis [= <i>S. latifolia</i>]	zigzag golden-rod	Jul-Oct	N	W
Solidago gigantea	giant golden-rod	Aug-Oct	N	E
Solidago juncea	early golden-rod	Jul-Sep	N	E
Solidago nemoralis	gray golden-rod	Jul-Nov	N	W
Solidago patula	rough-leaf golden-rod	Aug-Oct	N	W
Solidago rugosa	wrinkled golden-rod	Aug-Oct	N	E,W
Solidago speciosa	showy golden-rod	Aug-Oct	N	E
Solidago ulmifolia	elm-leaved golden-rod	Aug-Oct	N	E
Sonchus arvensis	field sowthistle	Jul-Oct	A	W
Sonchus asper	prickly sowthistle	Jun-Oct	A	E,W
Sonchus oleraceus	common sowthistle	Jun-Oct	A	W
Taraxacum officinale	common dandelion	Mar-Dec	A	E,W
Tragopogon porrifolius	salsify	May-Jul	A	W
Tragopogon pratensis	goats-beard	Jun-Oct	A	W
Tussilago farfara	colts-foot	Mar-May	A	W
Verbesina alternifolia	wingstem	Aug-Oct	N	E,W
[= <i>Actinomeris alternifolia</i>]				
Verbesina occidentalis	southern flatseed-sunflower,	Jun-Oct	N(E)	E
[= <i>Actinomeris occidentalis</i>]	yellow crownbeard			
Vernonia gigantea [= <i>V. altissima</i>]	tall ironweed	Aug-Oct	N	E,W
Xanthium strumarium	rough cockle-bur	Aug-Sep	N	E,W
[= <i>Solidago tenuifolia</i>]				
FLOWERING RUSHES (Butomaceae)				
Butomus umbellatus	flowering-rush	Jun-Sep	A	E

	Common Name	Phenology	Origin	Loc
WATER-PLANTAINS (Alismataceae)				
<i>Alisma subcordatum</i>	subcordate water-plantain	Jun-Sep	N	E
<i>Alisma triviale</i> [= <i>A. plantago-aquatica</i> var. <i>americanum</i>]	broad-leaf water-plantain	Jun-Sep	N(T)	E
<i>Sagittaria latifolia</i>	broad-leaf arrow-head	Jul-Sep	N	E,W
FROG'S-BITES (Hydrocharitaceae)				
<i>Elodea canadensis</i>	broad water-weed	Jul-Sep	N	E,W
PONDWEEDS (Potamogetonaceae)				
<i>Potamogeton crispus</i>	curly pondweed	May-Sep	A	E
<i>Potamogeton foliosus</i>	leafy pondweed	Jul-Oct	N	E
<i>Potamogeton nodosus</i>	long-leaf pondweed	Aug-Sep	N	E
<i>Potamogeton pectinatus</i>	sago pondweed	Jul-Aug	N	E
SWEETFLAGS (Acoraceae)				
<i>Acorus americanus</i>	sweetflag	May-Jun	N	E,W
<i>Acorus calamus</i>	sweetflag	May-Jun	N	E
ARUMS (Araceae)				
<i>Arisaema dracontium</i>	green dragon	May-Jun	N	W
<i>Arisaema triphyllum</i> [= <i>A. atrorubens</i>]	swamp Jack-in-the-pulpit	Apr-Jun	N	E,W
<i>Peltandra virginica</i>	arrow arum	May-Jun	N	E
<i>Symplocarpus foetidus</i>	skunk-cabbage	Mar-Apr	N	E,W
DUCKWEEDS (Lemnaceae)				
<i>Lemna minor</i>	lesser duckweed	Jun-Aug	N	E,W
<i>Spirodela polyrrhiza</i>	greater duckweed	Jun-Aug	A	E
<i>Wolfia columbiana</i>	Columbia water-meal, wolfia		N	E,W
SPIDERWORTS (Commelinaceae)				
<i>Commelina communis</i>	Asiatic dayflower	Jun-Oct	A	E,W
<i>Tradescantia virginiana</i>	Virginia spider-wort	spring	N	E
RUSHES (Juncaceae)				
<i>Juncus acuminatus</i>	taper-tip rush	May-Aug	N	E
<i>Juncus biflorus</i>	turnflower rush	May-Sep	N	W
<i>Juncus canadensis</i>	Canada rush	Jul-Oct	N	W
<i>Juncus effusus</i>	soft rush	Aug	N	E,W
<i>Juncus marginatus</i>	grass-leaf rush	Jun-Sep	N	W
<i>Juncus nodosus</i>	knotted rush	Jul-Aug	N	W
<i>Juncus tenuis</i>	slender or path rush	May-Jul	N	E,W
<i>Juncus torreyi</i>	Torrey's rush	Jul-Oct	N	W
<i>Luzula multiflora</i>	common woodrush	Apr-Jul	N	E
SEDGES (Cyperaceae)				
<i>Bolboschoenus fluviatilis</i> [= <i>Scirpus fluviatilis</i>]	river bulrush	Jun-Aug	N	E
<i>Bulbostylis capillaris</i> [= <i>Fimbristylis capillaris</i>]	dense-tuft hairsedge	Aug-Oct	N	W
<i>Carex albicans</i> [= <i>C. artitexta</i>]	closely-covered sedge	May-Aug	N	E
<i>Carex albursina</i> [= <i>C. laxiflora</i> var. <i>latifolia</i>]	loose-flowered sedge	Apr-Jun	N	W
<i>Carex amphibola</i> var. <i>turgida</i> [= <i>C. grisea</i>]	narrow-leaf sedge	May-Jul	N	E,W
<i>Carex annectens</i>	yellow-fruit sedge	May-Jul	N	E
<i>Carex aquatilis</i>	water or leafy tussock sedge	Jul-Aug	N(T)	E
<i>Carex arctata</i>	northern clustered sedge	Jun-Aug	N(E)	W
<i>Carex atherodes</i>	slough sedge	Jun-Aug	N(P)	E
<i>Carex bebbii</i>	Bebb's sedge	Jun-Aug	N(P)	E
<i>Carex bicknellii</i>	Bicknell's sedge	May-Jul	N(T)	E,W
<i>Carex blanda</i>	woodland sedge	Apr-Jun	N	E,W
<i>Carex brevior</i>	shorter sedge	May-Jul	N	E
<i>Carex bromoides</i>	brome-like sedge	May-Jul	N	W

Common Name	Phenology	Origin	Loc	
oval-leaf sedge	May-Jul	N	E	
bearded or longhair sedge	Jun-Aug	N	E	
hirsute sedge	May-Jul	N	E	
soft fox sedge	Jun	N	W	
fringed sedge	May-Aug	N	E,W	
raven-foot sedge	Jun-Jul	N(E)	E	
Davis' sedge	May-Jun	N	W	
finger sedge	May-Jul	N	E,W	
little prickly sedge	Jul-Sep	N(E)	E	
Frank's sedge	Jun-Jul	N	E,W	
thin-fruit sedge	May-Jul	N	W	
[= <i>C. flaccosperma</i> var. <i>glaucodea</i>]				
<i>Carex granularis</i>	meadow sedge	May-Jul	N	W
<i>Carex grayi</i>	Asa Gray's sedge	Jun-Oct	N	E,W
<i>Carex hirsutella</i>	slightly hirsute sedge	May-Jul	N	E
<i>Carex hirtifolia</i>	hairy-leaved sedge	May-Jun	N	W
<i>Carex intumescens</i>	bladder sedge	May-Sep	N	E,W
<i>Carex jamesii</i>	James' sedge	May-Jun	N	W
<i>Carex lacustris</i>	lakebank sedge	May-Aug	N	E
<i>Carex lasiocarpa</i>	woolly-fruit sedge	May-Aug	N(P)	E,W
<i>Carex laxiculmis</i> [= <i>C. digitalis copulata</i>]	loose-culmed sedge	May-Jul	N	W
<i>Carex laxiflora</i> [= <i>C. laxiflora patulifolia</i>]	loosely-flowered sedge	Apr-Jun	N	W
<i>Carex lupulina</i>	hop sedge	Jun-Oct	N	E,W
<i>Carex lurida</i>	shallow sedge	Jun-Oct	N	W
<i>Carex normalis</i>	larger straw sedge	May-Aug	N	W
<i>Carex oligocarpa</i>	few-fruited sedge	May-Jul	N	W
<i>Carex pallescens</i>	rather pale sedge	May-Aug	N(T)	W
<i>Carex pedunculata</i>	peduncled sedge	Apr-May	N	W
<i>Carex pensylvanica</i>	Pennsylvania sedge	Apr-Jun	N	E,W
<i>Carex projecta</i>	necklace sedge	Jun-Aug	N(T)	W
<i>Carex radiata</i>	radiate sedge	May-Aug	N(P)	E
<i>Carex retroflexa</i>	reflexed sedge	May-Jun	N(P)	E
<i>Carex rosea</i> [= <i>C. convoluta</i>]	rose-like sedge	May-Jul	N	E,W
<i>Carex scoparia</i>	pointed broom sedge	May-Aug	N	W
<i>Carex shortiana</i>	Short's sedge	May-Jun	N	W
<i>Carex squarrosa</i>	squarrose sedge	Jun-Sep	N	E,W
<i>Carex stipata</i>	awl-fruited sedge	May-Aug	N	E,W
<i>Carex straminea</i>	straw sedge	May-Jul	N(P)	W
[= <i>C. straminea mirabilis</i>]				
<i>Carex striatula</i>	lined sedge	May-Jun	N(E)	W
[= <i>C. laxiflora</i> var. <i>angustifolia</i>]				
<i>Carex tribuloides</i>	blunt broom sedge	Jun-Sep	N	E
<i>Carex typhina</i> [= <i>C. typhinoides</i>]	cat-tail sedge	Jun-Sep	N	W
<i>Carex vesicaria</i> var. <i>monile</i> [= <i>C. monile</i>]	inflated sedge	Jun-Aug	N	W
<i>Carex virescens</i>	greenish sedge	May-Jul	N	W
[= <i>C. virescens</i> var. <i>costata</i>]				
<i>Carex vulpinoidea</i>	fox sedge	Jun-Jul	N	E,W
<i>Cyperus bipartitus</i> [= <i>C. rivularis</i>]	shining flatsedge	Sep	N	E
<i>Cyperus erythrorhizos</i>	red-root flatsedge, umbrella-sedge	Aug-Oct	N	E
<i>Cyperus esculentus</i>	chufa	Sep	N	E,W
<i>Cyperus filiculmis</i>	slender flatsedge, nutsedge	Aug-Oct	N	W
<i>Cyperus odoratus</i>	rusty or Englemann flatsedge	Aug-Sep	N	E
[= <i>C. ferrugineascens</i> ; <i>C. engelmannii</i>]				
<i>Cyperus schweinitzii</i>	Schweinitz's flatsedge	Jul-Sep	N(P)	W
<i>Cyperus strigosus</i>	straw-color flatsedge, galingale	Sep	N	E
<i>Eleocharis obtusa</i>	blunt spikerush	May-Oct	N	W
<i>Eleocharis ovata</i>	ovate spikerush	Aug-Oct	N(E)	E
<i>Rhynchospora glomerata</i> [= <i>R. cymosa</i>]	clustered beakrush	Jul-Oct	N	W
<i>Schoenoplectus pungens</i>	three-square bulrush	Jul-Aug	N	E
[= <i>Scirpus americanus</i> ; <i>S. pungens</i>]				

Common Name	Phenology	Origin	Loc
SEDGES (cont'd)			
<i>Schoenoplectus tabernaemontani</i> [= <i>Scirpus validus</i> ; <i>S. v.</i> var. <i>creber</i>]	soft-stem or great bulrush	Jul-Aug	N E,W
<i>Scirpus atrovirens</i>	green bulrush	Jun-Aug	N E,W
<i>Scirpus cyperinus</i>	wool-grass	Jun-Sep	N E,W
<i>Scirpus pedicellatus</i>	stalked bulrush	Jul-Aug	N E
<i>Scirpus polyphyllus</i>	leafy bulrush	Jul-Sep	N W
<i>Scleria pauciflora</i>	few-flower nutrush	Jun-Sep	N(T) W
<i>Scleria triglomerata</i>	whip nutrush	Jun-Sep	N(P) W
GRASSES (Poaceae)			
<i>Aegilops cylindrica</i>	jointed goat-grass	Jul-Sep	A E
<i>Agrostis stolonifera</i>	spreading bentgrass	Jun-Sep	N E
<i>Ammophila breviligulata</i>	American beachgrass	Jul-Sep	N(T) W
<i>Andropogon gerardii</i>	big bluestem	Aug-Sep	N E
<i>Andropogon virginicus</i>	broom-sedge		N W
<i>Brachyelytrum erectum</i>	erect grass	Jun-Aug	N W
<i>Bromus arvensis</i>	field chess	Jun-Jul	A W
<i>Bromus hordeaceus</i> [= <i>B. mollis</i>]	soft chess	May-Jul	A W
<i>Bromus japonicus</i>	Japanese brome	Jul-Aug	A E
<i>Bromus kalmii</i>	Kalm's brome	Jun-Aug	N E
<i>Calamagrostis canadensis</i>	blue-joint reedgrass	Jun-Sep	N E
<i>Cenchrus incertus</i> [= <i>C. pauciflorus</i>]	few-flower sandbur	Jul-Oct	A E
<i>Cinna arundinacea</i>	stout wood-reed grass	Aug	N E
<i>Dactylis glomerata</i>	orchard grass	May-Sep	A W
<i>Danthonia compressa</i>	flattened oatgrass	Jun-Aug	N(P) W
<i>Danthonia spicata</i>	poverty oatgrass	May-Jul	N W
<i>Dichanthelium acuminatum</i> var. <i>fasciculatum</i> [= <i>Panicum lanuginosum</i> ; <i>P. l.</i> var. <i>implicatum</i>]	panic grass	Jun-Sep; Jul-Nov	N E,W
<i>Dichanthelium depauperatum</i> [= <i>Panicum depauperatum</i>]	impoverished panic grass	May-Aug; Jul-Oct	N(E) W
<i>Dichanthelium dichotomum</i> [= <i>Panicum dichotomum</i> ; <i>P. barbulatum</i>]	cypress witchgrass	May-Jul; Jun-Nov	N W
<i>Digitaria ischaemum</i>	small crabgrass	Jul-Oct	A W
<i>Digitaria sanguinalis</i>	hairy crabgrass	Sep-Oct	A E,W
<i>Echinochloa crus-galli</i>	barnyard grass	Sep	A E,W
<i>Echinochloa muricata</i> [= <i>E. pungens</i>]	rough barnyard grass	Jul-Sep	N E
<i>Echinochloa walteri</i>	coast cockspur, Walter's millet	Sep	N E
<i>Eleusine indica</i>	India goosegrass	Jul-Oct	A W
<i>Elymus canadensis</i>	nodding wild-rye	Jul-Oct	N E
<i>Elymus caninus</i> [= <i>Agropyron caninum</i>]	cutting wheatgrass	Jun-Aug	A W
<i>Elymus hystrix</i> [= <i>Hystrix patula</i>]	bottlebrush grass	Jun-Aug	N E,W
<i>Elymus trachycaulus</i> ssp. <i>subsecundus</i> [= <i>Agropyron trachycaulum</i> var. <i>glaucum</i>]	slender wheatgrass	Jun-Aug	N W
<i>Elymus villosus</i>	hairy wild-rye	Jun-Aug	N E
<i>Elymus virginicus</i>	Virginia wild-rye	Jul-Sep	N E,W
<i>Elytrigia repens</i> [= <i>Agropyron repens</i>]	quackgrass	Jun-Aug	A W
<i>Eragrostis pectinacea</i>	purple lovegrass	Aug-Sep	N E,W
<i>Glyceria striata</i>	fowl manna grass	May-Sep	N E,W
<i>Leersia oryzoides</i>	rice cutgrass	Aug	N E,W
<i>Leersia virginica</i>	whitegrass	Jul-Oct	N E,W
<i>Lolium pratense</i> [= <i>Festuca elatior</i>]	tall fescue	Jun-Aug	A W
<i>Muhlenbergia schreberi</i>	nimble will	Jul-Nov	N W
<i>Nardus stricta</i>	mat grass	Jun-Sep	A E
<i>Panicum capillare</i>	witchgrass	Sep	N E,W
<i>Panicum virgatum</i>	switchgrass	Jul-Sep	N E
<i>Phalaris arundinacea</i>	reed canary grass	Jun-Sep	Z E,W
<i>Phleum pratense</i>	timothy	Jul-Aug	A E,W

	Common Name	Phenology	Origin	Loc
GRASSES (cont'd)				
<i>Phragmites australis</i>	common reed	Jul-Sep	Z	E,W
<i>Poa compressa</i>	Canada bluegrass	May-Sep	A	E,W
<i>Poa pratensis</i>	Kentucky bluegrass	May-Aug	Z	E,W
<i>Poa sylvestris</i>	woodland bluegrass	Apr-Jun	N	E
<i>Poa trivialis</i>	rough bluegrass	Jun-Aug	A	W
<i>Schizachyrium scoparium</i> [= <i>Andropogon scoparius</i>]	little bluestem	Sep-Oct	N	E
<i>Setaria faberii</i>	Faber's fox-tail grass	Aug-Sep	A	E,W
<i>Setaria glauca</i>	yellow bristle grass	Sep	A	E,W
<i>Sorghastrum nutans</i>	Indian grass	Sep	N	E
<i>Sorghum halepense</i>	Johnson grass	Jul-Sep	A	E
<i>Tridens flavus</i> [= <i>Triodia flava</i>]	purple-top tridens	Aug-Oct	N	W
<i>Triplasis purpurea</i>	purple sand-grass	Aug-Oct	N(P)	E
<i>Vulpia octoflora</i> var. <i>glauca</i> [= <i>Festuca tenella</i>]	six-weeks fescue	May-Jun	N	W
BUR-REEDS (Sparganiaceae)				
<i>Sparganium americanum</i>	American bur-reed	Jun-Sep	N	W
<i>Sparganium eurycarpum</i>	giant bur-reed	Jun-Sep	N	E
CATTAILS (Typhaceae)				
<i>Typha angustifolia</i>	narrow-leaf cattail	May-Jul	Z	E,W
<i>Typha x glauca</i>	blue cattail	May-Jul	N	E
<i>Typha latifolia</i>	broad-leaf or common cattail	May-Jul	N	E,W
PICKERELWEEDS (Pontederiaceae)				
<i>Pontederia cordata</i>	pickerel weed	Jun-Oct	N	E
LILIES (Liliaceae)				
<i>Allium canadense</i>	meadow onion	May-Jul	N	E,W
<i>Allium sativum</i>	garlic	May-Jun	A	E
<i>Allium tricoccum</i>	small white leek	Jun-Jul	N	W
<i>Allium vineale</i>	field garlic	May-Jul	A	W
<i>Asparagus officinalis</i>	garden asparagus-fern	May-Jun	A	E,W
<i>Camassia scilloides</i>	Atlantic camassia, wild hyacinth	May-Jun	N	W
<i>Chamaelirium luteum</i> [= <i>C. carolinianum</i>]	fairy-wand, blazing-star	May-Jul	N	W
<i>Convallaria majalis</i>	lily-of-the-valley	Apr-Jun	C	W
<i>Disporum lanuginosum</i>	fairy bells, yellow mandarin	May-Jun	N	W
<i>Erythronium albidum</i>	white fawnlily or trout-lily	Mar-May	N	E,W
<i>Erythronium americanum</i>	yellow fawnlily or trout-lily	Mar-May	N	E,W
<i>Hemerocallis fulva</i>	common orange day-lily	Jun-Aug	C	E,W
<i>Hypoxis hirsuta</i>	eastern yellow stargrass	Jun-Sep	N	E
<i>Lilium canadense</i>	Canada lily	Jun-Aug	N	E
<i>Lilium michiganense</i>	Michigan lily	Jun-Jul	N	E
<i>Lilium</i> sp.	lily	Jun-Sep		W
<i>Maianthemum canadense</i> [= <i>M. convallaria</i>]	wild-lily-of-the-valley or Canada mayflower	May-Jul	N	W
<i>Maianthemum racemosum</i> [= <i>Smilacina racemosa</i>]	feather false-Solomon's-seal	May-Jul	N	E,W
<i>Medeola virginiana</i>	Indian cucumber-root	May-Jun	N	W
<i>Ornithogalum umbellatum</i>	common star of Bethlenem	Apr-Jun	A	W
<i>Polygonatum biflorum</i>	small Solomon's-seal	Apr-Jun	N	E
<i>Polygonatum pubescens</i>	hairy Solomon's-seal	May-Jun	N	W
<i>Trillium flexipes</i>	white or drooping trillium	Apr-Jun	N	E,W
<i>Trillium grandiflorum</i>	large- or grand-flowered trillium	Apr-May	N	E,W
<i>Uvularia grandiflora</i>	large flowered bellwort	Apr-Jun	N	W
<i>Uvularia sessilifolia</i>	sessile-leaf bellwort, merry-bells	May-Jun	N	W
IRISES (Iridaceae)				
<i>Iris pseudacorus</i>	yellow iris	May-Jul	A	E,W
<i>Iris versicolor</i>	blueflag	May-Jul	N	E,W

ECOLOGY OF OLD WOMAN CREEK ESTUARY AND WATERSHED

	Common Name	Phenology	Origin	Loc
IRISES (cont'd)				
<i>Sisyrinchium albidum</i>	blue-eye-grass	May-Jun	N	E
<i>Sisyrinchium mucronatum</i>	Michaux's blue-eye-grass	May-Jun	N(E)	E
[= <i>S. montanum</i> misapplied]				
<i>Sisyrinchium</i> sp.	blue-eye-grass	May		W
CATBRIERS (Smilacaceae)				
<i>Smilax ecirrata</i>	erect carrion-flower	May	N	W
<i>Smilax herbacea</i>	smooth carrion-flower	May-Jun	N	W
<i>Smilax rotundifolia</i>	common greenbrier	Apr-Jun	N	W
<i>Smilax tamnoides</i> [= <i>S. hispida</i>]	bristly greenbrier	May-Jul	N	E,W
YAMS (Dioscoreaceae)				
<i>Dioscorea quaternata</i>	four-leaf yam	May	N	E
<i>Dioscorea villosa</i>	yellow or wild yam	Jun-Jul	N	E,W
ORCHIDS (Orchidaceae)				
<i>Coeloglossum viride</i>	long-bract-green orchid	Jun-Aug	N(E)	W
<i>Epipactis helleborine</i> [= <i>E. latifolia</i>]	helleborine	Jul-Sep	A	E
<i>Galearis spectabilis</i> [= <i>Orchis spectabilis</i>]	showy orchis	Apr-Jun	N	W
<i>Goodyera pubescens</i>	downy rattlesnake-plantain	Jul-Aug	N	W
<i>Pogonia ophioglossoides</i> [= <i>P. pendula</i>]	rose pogonia	Jun-Aug	N(T)	W
<i>Spiranthes cernua</i>	nodding ladies'-tresses	Aug-Sep	N	E
<i>Spiranthes magnicamporum</i>	great plains ladies'-tresses	Sep-Oct	N(P)	E
<i>Spiranthes ochroleuca</i>	ladies'-tresses	Aug-Sep	N	W
<i>Triphora trianthophora</i>	three-birds orchid	Jul-Sep	N(T)	W

Origin (and Status) Codes:

A – Alien species

(E) – Endangered (Ohio)

C – Escaped from cultivation

(P) – Potentially threatened (Ohio)

N – Native species

(T) – Threatened (Ohio)

Z – Native to North America,

but later naturalized to Old Woman Creek watershed

Location Codes:

E - Estuary

W- Watershed

APPENDIX C. INVERTEBRATE FAUNA OF OLD WOMAN CREEK ESTUARY, WATERSHED, AND ADJACENT WATERS OF LAKE ERIE

PHYLUM SARCOMASTIGOPHORA (PROTOZOA)

Subphylum Mastigophora

CLASS DINOFLAGELLATA
Order Gymnodinida

Gymnodinium fungiforme

CLASS PHYTOMASTIGOPHORA
Order Cryptomonadida

Chilomonas sp.
Chroomonas norstedtii
Cryptomonas compressa
Cryptomonas erosa
Cryptomonas obovata
Cryptomonas ovata
Cryptomonas reflexa
Cryptomonas tenuis
Cyathomonas truncata
Planonephros parvula [=Sennia parvula]
Rhodomonas lacustris
Rhodomonas lens
Rhodomonas minuta

Order Chrysomonadida

Anthophysa steinii
Anthophysa vegetans
Chromulina nana
Dinobryon bavaricum
Dinobryon sertularia
Mallomonas elegans
Mallomonas intermedia
Microglena sp.
Monas guttula
Monas socialis
Ochromonas ludibunda
Oikomonas termo
Physomonas vestita
Spumella sp.
Stokesiella sp.

Order Volvocida

Carteria globosa
Chlamydomonas excavata
Chlamydomonas globosa
Chlamydomonas gracilis
Chlamydomonas monadina
Chlamydomonas reinhardtii
Chlamydomonas subasymmetrica
Chlorogonium elongatum
Chlorogonium euchlorum
Chlorogonium hyalinum
Pandorina morum
Phacotus lenticularis
Pteromonas sp.

	Common Name	Family	Location
	dinoflagellate	Gymnodiniidae	ES
	cryptomonad protozoan	Cryptomonadidae	ES
	cryptomonad protozoan	Cryptomonadidae	ES
	cryptomonad protozoan	Cryptomonadidae	ES
	cryptomonad protozoan	Cryptomonadidae	ES
	cryptomonad protozoan	Cryptomonadidae	ES
	cryptomonad protozoan	Cryptomonadidae	ES
	cryptomonad protozoan	Cryptomonadidae	ES
	cryptomonad protozoan	Cryptomonadidae	ES
	cryptomonad protozoan	Cryptomonadidae	ES
	cryptomonad protozoan	Hemiselmidae	ES
	cryptomonad protozoan	Cryptomonadidae	ES
	cryptomonad protozoan	Cryptomonadidae	ES
	cryptomonad protozoan	Cryptomonadidae	ES
	chrysomonad protozoan	Anthophysidae	ES
	chrysomonad protozoan	Anthophysidae	ES
	chrysomonad protozoan	Chromulinidae	ES
	chrysomonad protozoan	Dinobryonidae	ES
	chrysomonad protozoan	Dinobryonidae	ES
	chrysomonad protozoan	Mallomonadidae	ES
	chrysomonad protozoan	Mallomonadidae	ES
	chrysomonad protozoan	Chrysococcidae	ES
	chrysomonad protozoan	Ochromonadidae	ES
	chrysomonad protozoan	Ochromonadidae	ES
	chrysomonad protozoan	Ochromonadidae	ES
	chrysomonad protozoan	Ochromonadidae	ES
	chrysomonad protozoan	Ochromonadidae	ES
	chrysomonad protozoan	Dinobryonidae	ES
	volvocean protozoan	Carteriidae	ES
	volvocean protozoan	Chlamydomonadidae	ES
	volvocean protozoan	Chlamydomonadidae	ES
	volvocean protozoan	Chlamydomonadidae	ES
	volvocean protozoan	Chlamydomonadidae	ES
	volvocean protozoan	Chlamydomonadidae	ES
	volvocean protozoan	Chlamydomonadidae	ES
	volvocean protozoan	Chlamydomonadidae	ES
	volvocean protozoan	Chlamydomonadidae	ES
	volvocean protozoan	Chlamydomonadidae	ES
	volvocean protozoan	Volvocidae	ES
	volvocean protozoan	Phacotidae	ES
	volvocean protozoan	Phacotidae	ES

CLASS EUGLENEA	Common Name	Family	Location
Order Euglenida (green euglenas)			
<i>Ascoglena vagincola?</i>	euglenoid protozoan	Trachelomonadidae	ES
<i>Astasia klebsii</i>	euglenoid protozoan	Euglenidae	ES
<i>Euglena acus</i>	euglenoid protozoan	Euglenidae	ES
<i>Euglena deses</i>	euglenoid protozoan	Euglenidae	ES
<i>Euglena ehrenbergii</i>	euglenoid protozoan	Euglenidae	ES
<i>Euglena gracilis</i>	euglenoid protozoan	Euglenidae	ES
<i>Euglena oxyuris</i>	euglenoid protozoan	Euglenidae	ES
<i>Euglena oxyuris</i> var. <i>minor</i>	euglenoid protozoan	Euglenidae	ES
<i>Euglena pisciformis</i>	euglenoid protozoan	Euglenidae	ES
<i>Euglena tripteris</i>	euglenoid protozoan	Euglenidae	ES
<i>Euglena vermiciforis</i>	euglenoid protozoan	Euglenidae	ES
<i>Lepocinclis</i> sp.	euglenoid protozoan	Euglenidae	ES
<i>Menoidium gibbum</i>	euglenoid protozoan	Euglenidae	ES
<i>Phacus acuminatus</i>	euglenoid protozoan	Euglenidae	ES
<i>Phacus arnoldi</i>	euglenoid protozoan	Euglenidae	ES
<i>Phacus helikoides</i>	euglenoid protozoan	Euglenidae	ES
<i>Phacus pleuronectes</i>	euglenoid protozoan	Euglenidae	ES
<i>Phacus pseudoonordstedii</i>	euglenoid protozoan	Euglenidae	ES
<i>Phacus tortus</i>	euglenoid protozoan	Euglenidae	ES
<i>Rhabdomonas</i> sp.	euglenoid protozoan	Euglenidae	ES
<i>Scytononas</i> sp.	euglenoid protozoan	Euglenidae	ES
<i>Strombomonas gibberosa</i>	euglenoid protozoan	Trachelomonadidae	ES
<i>Trachelomonas armata</i>	euglenoid protozoan	Trachelomonadidae	ES
<i>Trachelomonas hispida</i>	euglenoid protozoan	Trachelomonadidae	ES
<i>Trachelomonas horrida</i>	euglenoid protozoan	Trachelomonadidae	ES
<i>Trachelomonas spiralis</i>	euglenoid protozoan	Trachelomonadidae	ES
<i>Trachelomonas superba</i>	euglenoid protozoan	Trachelomonadidae	ES
<i>Trachelomonas varians</i>	euglenoid protozoan	Trachelomonadidae	ES
<i>Trachelomonas volvocina</i>	euglenoid protozoan	Trachelomonadidae	ES
<i>Trachelomonas volvocina</i> var. <i>minuta</i>	euglenoid protozoan	Trachelomonadidae	ES
<i>Urceolus ovatus</i>	euglenoid protozoan	Trachelomonadidae	ES
<i>Urceolus sabulosus</i>	euglenoid protozoan	Trachelomonadidae	ES
Order Peranemida (colorless euglenas)			
<i>Anisonema acinus</i>	colorless euglena	Anisonemidae	ES
<i>Anisonema emarginatum</i>	colorless euglena	Anisonemidae	ES
<i>Anisonema ovale</i>	colorless euglena	Anisonemidae	ES
<i>Anisonema strenuum</i>	colorless euglena	Anisonemidae	ES
<i>Anisonema truncatum</i>	colorless euglena	Anisonemidae	ES
<i>Entosiphon obliquum</i>	colorless euglena	Anisonemidae	ES
<i>Entosiphon ovatum</i>	colorless euglena	Anisonemidae	ES
<i>Entosiphon polyalux</i>	colorless euglena	Anisonemidae	ES
<i>Entosiphon sulcatum</i>	colorless euglena	Anisonemidae	ES
<i>Heteronema klebsii</i>	colorless euglena	Peranemidae	ES
<i>Notosolenus apocampatus</i>	colorless euglena	Anisonemidae	ES
<i>Notosolenus obicularis</i>	colorless euglena	Anisonemidae	ES
<i>Notosolenus sinuatus</i>	colorless euglena	Anisonemidae	ES
<i>Peranema asperum</i>	colorless euglena	Peranemidae	ES
<i>Peranema inflexum</i>	colorless euglena	Peranemidae	ES
<i>Peranema trichophorum</i>	colorless euglena	Peranemidae	ES
<i>Petalomonas mediocanella</i>	colorless euglena	Petalomonadidae	ES
<i>Petalomonas minuta</i>	colorless euglena	Petalomonadidae	ES
<i>Petalomonas quadrilineata</i>	colorless euglena	Petalomonadidae	ES
CLASS ZOOMASTIGOPHORA			
Order Choanoflagellida			
<i>Codonosiga</i> sp.?	choanoflagellate	Codonosigidae	ES
<i>Codonosigopsis</i> sp.	choanoflagellate	Codonosigidae	ES
<i>Codosiga</i> sp.	choanoflagellate	Codonosigidae	ES
<i>Desmarella</i> sp.	choanoflagellate	Codonosigidae	ES

	Common Name	Family	Location
Order Choanoflagellida (cont'd)			
<i>Diplosiga</i> sp.	choanoflagellate	Codonosigidae	ES
<i>Monosiga ovata</i>	choanoflagellate	Codonosigidae	ES
<i>Monosiga robusta</i>	choanoflagellate	Codonosigidae	ES
<i>Poteriodendron petiolatum</i>	choanoflagellate	Salpingoecidae	ES
<i>Salpingoeca elegans</i>	choanoflagellate	Salpingoecidae	ES
Order Kinetoplastida			
<i>Bodo alexeieffii</i>	kinetoplastid protozoan	Bodonidae	ES
<i>Bodo amoebinus</i>	kinetoplastid protozoan	Bodonidae	ES
<i>Bodo angustus</i> [= <i>Bodo saliens</i>]	kinetoplastid protozoan	Bodonidae	ES
<i>Bodo caudatus</i>	kinetoplastid protozoan	Bodonidae	ES
<i>Bodo celer</i>	kinetoplastid protozoan	Bodonidae	ES
<i>Bodo edax</i>	kinetoplastid protozoan	Bodonidae	ES
<i>Bodo fusiformis</i>	kinetoplastid protozoan	Bodonidae	ES
<i>Bodo globosa</i>	kinetoplastid protozoan	Bodonidae	ES
<i>Bodo minimus</i>	kinetoplastid protozoan	Bodonidae	ES
<i>Bodo obovatus</i>	kinetoplastid protozoan	Bodonidae	ES
<i>Bodo ovatus</i>	kinetoplastid protozoan	Bodonidae	ES
<i>Bodo repens</i>	kinetoplastid protozoan	Bodonidae	ES
<i>Bodo rostratus</i>	kinetoplastid protozoan	Bodonidae	ES
<i>Bodo saltans</i>	kinetoplastid protozoan	Bodonidae	ES
<i>Bodo triangularis</i>	kinetoplastid protozoan	Bodonidae	ES
<i>Bodo uncinatus</i>	kinetoplastid protozoan	Bodonidae	ES
<i>Bodo variabilis</i>	kinetoplastid protozoan	Bodonidae	ES
<i>Cercobodo</i> sp.	kinetoplastid protozoan	Bodonidae	ES
<i>Cercomonas crassicauda</i>	kinetoplastid protozoan	Bodonidae	ES
<i>Cercomonas longicauda</i>	kinetoplastid protozoan	Bodonidae	ES
<i>Colponema loxodes</i>	kinetoplastid protozoan	Bodonidae	ES
<i>Pleuromonas jaculans</i>	kinetoplastid protozoan	Bodonidae	ES
<i>Rhynchomonas nasuta</i>	kinetoplastid protozoan	Bodonidae	ES
CLASS LOBOSA			
Order Amoebida			
<i>Amoeba</i> sp.	amoeboid protozoan	Amoebidae	ES
<i>Cashia limacoides</i>	amoeboid protozoan	Hartmannellidae	ES
<i>Centropyxis</i> sp.	amoeboid protozoan	Centropyxidae	ES
<i>Hartmannella vermiciformis</i>	amoeboid protozoan	Hartmannellidae	ES
<i>Hartmannella</i> sp.	amoeboid protozoan	Hartmannellidae	ES
<i>Mayorella bigemma</i>	amoeboid protozoan	Paramoebidae	ES
<i>Mayorella penardi</i>	amoeboid protozoan	Paramoebidae	ES
<i>Oscillosgignum proboscidium</i>	amoeboid protozoan	Paramoebidae	ES
<i>Striamoeba quadrilineata</i>	amoeboid protozoan	Thecamoebidae	ES
<i>Striamoeba</i> sp.	amoeboid protozoan	Thecamoebidae	ES
<i>Thecamoeba striata</i>	amoeboid protozoan	Thecamoebidae	ES
<i>Trichamoeba</i> sp.	amoeboid protozoan	Amoebidae	ES
<i>Vannella miroides</i>	amoeboid protozoan	Thecamoebidae	ES
<i>Vexillifera</i> sp.	amoeboid protozoan	Paramoebidae	ES
Order Schizopyrenida			
<i>Naegleria gruber</i>	amoeboid protozoan	Vahlkampfiidae	ES
<i>Vahlkampfia</i> sp.	amoeboid protozoan	Vahlkampfiidae	ES
Order Pelobiotida			
<i>Pelomyxa</i> sp.	amoeboid protozoan	Pelomyxidae	ES
Order Arcellinida			
<i>Arcella discooides</i>	amoeboid protozoan	Arcellidae	ES
<i>Arcella vulgaris</i>	amoeboid protozoan	Arcellidae	ES
<i>Cochliopodium bilimbosum</i>	amoeboid protozoan	Cochliopodiidae	ES
<i>Cochliopodium minus</i>	amoeboid protozoan	Cochliopodiidae	ES
<i>Difflugia acuminata</i>	amoeboid protozoan	Difflugiidae	ES

	Common Name	Family	Location
Order Arcellinida (cont'd)			
<i>Diffugia globosa</i>	amoeboid protozoan	Diffugidiidae	ES
<i>Diffugia lobostoma</i>	amoeboid protozoan	Diffugidiidae	ES
<i>Diffugia pyriformis</i>	amoeboid protozoan	Diffugidiidae	ES
<i>Hyalosphenia</i> sp.	amoeboid protozoan	Arcellidae	ES
<i>Pseudodiffugia</i> sp.	amoeboid protozoan	Diffugidiidae	ES
CLASS FILOSA			
Order Aconchulinida			
<i>Nuclearia</i> sp.	amoeboid protozoan	Vampyrellidae	ES
<i>Vampyrella lateritia</i>	amoeboid protozoan	Vampyrellidae	ES
Order Testaceafilosida			
<i>Cyphoderia ampulla</i>	amoeboid protozoan	Cyphoderidae	ES
CLASS GRANULORETICULOSA			
Order Athalamida			
<i>Biomyxa vagans</i>	amoeboid protozoan	Biomyxidae	ES
Order Foraminiferida			
<i>Diplophrys archeri</i>	amoeboid protozoan	Lagynidae	ES
CLASS HELIOZOA			
Order Actinophryida			
<i>Actinophrys sol</i>	heliozoan	Actinophryidae	ES
<i>Actinophrys vesiculata</i>	heliozoan	Actinophryidae	ES
<i>Actinosphaerium</i> sp.	heliozoan	Actinosphaeridae	ES
<i>Ciliophrys</i> sp.	heliozoan	Ciliophryidae	ES
Order Centrohelida			
<i>Acanthocystis aculeata</i>	heliozoan	Acanthocystidae	ES
<i>Acanthocystis chaetophora</i>	heliozoan	Acanthocystidae	ES
<i>Acanthocystis mira</i>	heliozoan	Acanthocystidae	ES
<i>Acanthocystis myriospina</i>	heliozoan	Acanthocystidae	ES
<i>Acanthocystis turfacea</i>	heliozoan	Acanthocystidae	ES
<i>Heterophrys</i> sp.	heliozoan	Heterophryidae	ES
<i>Pompholyxophrys</i> sp.	heliozoan	Acanthocystidae	ES
<i>Raphidiocystis</i> sp.	heliozoan	Acanthocystidae	ES
<i>Raphidiophrys pallida</i>	heliozoan	Raphidiophryidae	ES
<i>Raphidiophrys</i> sp.	heliozoan	Raphidiophryidae	ES

PHYLUM CILIOPHORA (PROTOZOA)

CLASS KINETOFRAGMINOPHORA			
Order Prostomatida			
<i>Balanion</i> sp.	ciliated protozoan	Holophryidae	ES
<i>Coleps bicuspis</i>	ciliated protozoan	Colepidiae	ES
<i>Coleps hirtus</i>	ciliated protozoan	Colepidiae	ES
<i>Coleps octospinus</i>	ciliated protozoan	Colepidiae	ES
<i>Holophrya nigricans</i>	ciliated protozoan	Holophryidae	ES
<i>Holophrya</i> sp.	ciliated protozoan	Holophryidae	ES
<i>Placus ovum</i>	ciliated protozoan	Prorodontidae	ES
<i>Prorodon discolor</i>	ciliated protozoan	Prorodontidae	ES
<i>Urotricha armata</i>	ciliated protozoan	Prorodontidae	ES
<i>Urotricha farcta</i>	ciliated protozoan	Prorodontidae	ES
<i>Urotricha furcata</i>	ciliated protozoan	Prorodontidae	ES
Order Haptorida			
<i>Askenasia volvox</i>	ciliated protozoan	Didiniidae	ES
<i>Chaenea</i> sp.	ciliated protozoan	Enchelyidae	ES
<i>Didinium nasutum</i>	ciliated protozoan	Didiniidae	ES
<i>Enchelydium</i> sp.	ciliated protozoan	Spathidiidae	ES
<i>Lacrymaria olor</i>	ciliated protozoan	Enchelyidae	ES
<i>Mesodinium pulex</i>	ciliated protozoan	Didiniidae	ES
<i>Trachelius ovum</i>	ciliated protozoan	Trachelidae	ES

	Common Name	Family	Location
Order Haptorida (cont'd)			
<i>Trachelophyllum pusillum</i>	ciliated protozoan	Enchelyidae	ES
<i>Trachelophyllum sigmoides</i>	ciliated protozoan	Enchelyidae	ES
Order Pleurostomatida			
<i>Acineria incurvata</i>	ciliated protozoan	Amphileptidae	ES
<i>Hemiphrys pleurosigma</i>	ciliated protozoan	Amphileptidae	ES
<i>Hemiphrys</i> sp.	ciliated protozoan	Amphileptidae	ES
<i>Litonotus anguilla</i>	ciliated protozoan	Amphileptidae	ES
<i>Litonotus cygus</i>	ciliated protozoan	Amphileptidae	ES
<i>Litonotus fasciola</i>	ciliated protozoan	Amphileptidae	ES
<i>Litonotus lamella</i>	ciliated protozoan	Amphileptidae	ES
<i>Litonotus</i> sp.	ciliated protozoan	Amphileptidae	ES
<i>Loxophyllum uninucleatum</i>	ciliated protozoan	Amphileptidae	ES
<i>Loxophyllum</i> sp.	ciliated protozoan	Amphileptidae	ES
Order Colpodida			
<i>Cyrtolophosis mucicola</i>	ciliated protozoan	Cyrtolophosidiidae	ES
Order Nassulida			
<i>Chilodontopsis oopsis</i>	ciliated protozoan	Nassulidae	ES
<i>Leptopharynx sphagnetorum</i>	ciliated protozoan	Leptopharyngidae	ES
<i>Microthorax simulans</i>	ciliated protozoan	Microthoracidae	ES
<i>Trichopelma</i> sp.	ciliated protozoan	Leptopharyngidae	ES
Order Cyrtophorida			
<i>Chilodonella acuta</i>	ciliated protozoan	Chilodonellidae	ES
<i>Chilodonella algivora</i>	ciliated protozoan	Chilodonellidae	ES
<i>Chilodonella capucina</i>	ciliated protozoan	Chilodonellidae	ES
<i>Chilodonella labiata</i>	ciliated protozoan	Chilodonellidae	ES
<i>Chilodonella nana</i>	ciliated protozoan	Chilodonellidae	ES
<i>Chilodonella uncinata</i>	ciliated protozoan	Chilodonellidae	ES
<i>Trochilia palustris</i>	ciliated protozoan	Dysteriidae	ES
<i>Trochilia pusillum</i>	ciliated protozoan	Dysteriidae	ES
<i>Trochilia sigmoides</i>	ciliated protozoan	Dysteriidae	ES
Order Suctorida			
<i>Acineta tuberosa</i>	ciliated protozoan	Acinetidae	ES
<i>Sphaerophrya</i> sp.	ciliated protozoan	Podophryidae	ES
<i>Tokophrya</i> sp.	ciliated protozoan	Dendrosomatidae	ES
CLASS OLIGOHYMENOPHORA			
Order Hymenostomatida			
<i>Frontonia</i> sp.	ciliated protozoan	Frontoniidae	ES
<i>Lembadion bullinum</i>	ciliated protozoan	Lembadionidae	ES
<i>Paramecium caudatum</i>	ciliated protozoan	Parameciidae	ES
<i>Tetrahymena pyriformis</i>	ciliated protozoan	Tetrahymenidae	ES
<i>Urocentrum turbo</i>	ciliated protozoan	Urocentridae	ES
Order Scuticociliatida			
<i>Calypotricha pleuronemoides</i>	ciliated protozoan	Pleuronematidae	ES
<i>Cinetochilum margaritaceum</i>	ciliated protozoan	Cinetochilidae	ES
<i>Cristigera phoenix</i>	ciliated protozoan	Cyclidiida	ES
<i>Cyclidium glaucoma</i>	ciliated protozoan	Cyclidiida	ES
<i>Cyclidium litomesum</i>	ciliated protozoan	Cyclidiida	ES
<i>Cyclidium muscicola</i>	ciliated protozoan	Cyclidiida	ES
<i>Cyclidium paucisetum</i>	ciliated protozoan	Cyclidiida	ES
<i>Cyclidium pellucidum</i>	ciliated protozoan	Cyclidiida	ES
<i>Cyclidium versatile</i>	ciliated protozoan	Cyclidiida	ES
<i>Histiobalantium natans</i>	ciliated protozoan	Histiobalantidiidae	ES
<i>Pleuronema</i> sp.	ciliated protozoan	Pleuronematidae	ES
<i>Uromema</i> sp.	ciliated protozoan	Uronematidae	ES

	Common Name	Family	Location
Order Peritrichida (stalked ciliates)			
<i>Vaginicola</i> sp.	stalked ciliated protozoan	Vaginicolidae	ES
<i>Vorticella campanula</i>	stalked ciliated protozoan	Vorticellidae	ES
<i>Vorticella microstoma</i>	stalked ciliated protozoan	Vorticellidae	ES
<i>Vorticella picta</i>	stalked ciliated protozoan	Vorticellidae	ES
<i>Vorticella striata</i>	stalked ciliated protozoan	Vorticellidae	ES
<i>Zoothamnium</i> sp.	stalked ciliated protozoan	Vorticellidae	ES
CLASS POLYHYMENOPHORA			
Order Heterotrichida			
<i>Spirostromum</i> sp.	ciliated protozoan	Spirostomidae	ES
<i>Stentor</i> sp.	ciliated protozoan	Stentoridae	ES
Order Oligotrichida			
<i>Codonella cratera</i>	ciliated protozoan	Codonellidae	ES
<i>Halteria grandunella</i>	ciliated protozoan	Halteriidae	ES
<i>Limnostrombidium</i> sp.	ciliated protozoan	Strombidiidae	ES
<i>Pelagostrombidium fallax</i>	ciliated protozoan	Strombidiidae	ES
<i>Rimostrombidium humile</i>	ciliated protozoan	Strombidiidae	ES
<i>Rimostrombidium lacustris</i>	ciliated protozoan	Strombidiidae	ES
<i>Strobilidium gyrans</i>	ciliated protozoan	Strobilidiidae	ES
<i>Tintinnidium fluviatile</i>	ciliated protozoan	Tintinnidae	ES
Order Hypotrichida			
<i>Aspidisca costata</i>	ciliated protozoan	Aspidiscidae	ES
<i>Aspidisca lynceus</i>	ciliated protozoan	Aspidiscidae	ES
<i>Aspidisca steini</i>	ciliated protozoan	Aspidiscidae	ES
<i>Balladyna fusiformis</i>	ciliated protozoan	Holostichidae	ES
<i>Balladyna ovata</i>	ciliated protozoan	Holostichidae	ES
<i>Balladyna parvula</i>	ciliated protozoan	Holostichidae	ES
<i>Euplates</i> sp.	ciliated protozoan	Euplotidae	ES
<i>Holosticha vernalis</i>	ciliated protozoan	Holostichidae	ES
<i>Hypotrichidium conicum</i>	ciliated protozoan	Spirofilida	ES
<i>Keronopsis</i> sp.	ciliated protozoan	Holostichidae	ES
<i>Oxytricha aeruginosa</i>	ciliated protozoan	Oxytrichidae	ES
<i>Oxytricha bifaria</i>	ciliated protozoan	Oxytrichidae	ES
<i>Oxytricha chlorelligeum</i>	ciliated protozoan	Oxytrichidae	ES
<i>Oxytricha setigera</i>	ciliated protozoan	Oxytrichidae	ES
<i>Oxytricha tricornis</i>	ciliated protozoan	Oxytrichidae	ES
<i>Stichotricha secunda</i>	ciliated protozoan	Strongylidiidae	ES
<i>Styloynchia mytilus</i>	ciliated protozoan	Oxytrichidae	ES
<i>Styloynchia notophora</i>	ciliated protozoan	Oxytrichidae	ES
<i>Tachysoma pellionella</i>	ciliated protozoan	Oxytrichidae	ES
<i>Tachysoma</i> sp.	ciliated protozoan	Oxytrichidae	ES
<i>Uroleptus</i> sp.	ciliated protozoan	Holostichidae	ES
<i>Urostyla grandis</i>	ciliated protozoan	Strongylidiidae	ES
<i>Urostyla</i> sp.	ciliated protozoan	Strongylidiidae	ES
PHYLUM PORIFERA			
CLASS DEMOSPOONGIAE (horny sponges)			
Order Haplosclerida			
<i>Eunapius fragilis</i>	freshwater sponge	Spongillidae	LE
PHYLUM CNIDARIA [=COELENTERATA]			
CLASS HYDROZOA (hydras)			
Order Hydroida			
<i>Hydra americana</i>	hydra	Hydridae	ES
Order Trachylina			
<i>Craspedacusta sowerbyi</i>	freshwater jellyfish	Petasidae	CK,TR

	Common Name	Family	Location
PHYLUM PLATYHELMINTHES			
CLASS TURBELLARIA (flatworms)			
Order Catenulida (catenulids)			
<i>Stenostomum</i> sp.	turbellarian flatworm	Stenostomidae	ES
Order Neorhabdocoela			
<i>Microdalyellia</i> sp.?	turbellarian flatworm	Dalyellioda	ES
<i>Mesostoma</i> sp.?	turbellarian flatworm	Typhloplanidae	ES
Order Tricladida (planarians)			
<i>Dugesia tigrina</i>	planaria	Planariidae	CK
<i>Hymenella reteuova</i>	planaria	Planariidae	ES
PHYLUM GASTROTRICHA			
Order Chaetonotida (gastrotrichs)			
<i>Chaetonotus</i> sp.	gastrotrich	Chaetonotidae	ES
PHYLUM ROTIFERA			
CLASS BDELLOIODEA (rotifers)			
Order Bdelloida			
<i>Philodina</i> sp.	rotifer	Philodinidae	ES
<i>Rotaria neptunia</i>	rotifer	Philodinidae	ES
CLASS MONOGONONTA (rotifers)			
Order Ploima			
<i>Ascomorpha ecaudis</i>	rotifer	Gastropodidae	ES
<i>Asplanchna priodonta</i>	rotifer	Asplanchnidae	ES
<i>Brachionus angularis</i>	rotifer	Brachionidae	ES
<i>Brachionus bidentata</i>	rotifer	Brachionidae	ES
<i>Brachionus calyciflorus</i>	rotifer	Brachionidae	ES
<i>Brachionus caudatus</i>	rotifer	Brachionidae	ES
<i>Brachionus havanaensis</i>	rotifer	Brachionidae	ES
<i>Brachionus quadridentatus</i>	rotifer	Brachionidae	ES
<i>Brachionus urceolaris</i>	rotifer	Brachionidae	ES
<i>Euchlanis parva</i>	rotifer	Brachionidae	ES
<i>Kellicottia longispina</i>	rotifer	Brachionidae	ES
<i>Keratella cochlearis</i>	rotifer	Brachionidae	ES
<i>Keratella cochlearis forma tecta</i>	rotifer	Brachionidae	ES
<i>Keratella cochlearis forma typica</i>	rotifer	Brachionidae	ES
<i>Keratella quadrata</i>	rotifer	Brachionidae	ES
<i>Lecane luna</i>	rotifer	Lecanidae	ES
<i>Platyias patulus</i>	rotifer	Brachionidae	ES
<i>Ploesoma hudsoni</i>	rotifer	Synchaetidae	ES
<i>Polyarthra dolichoptera</i>	rotifer	Synchaetidae	ES
<i>Polyarthra remata</i>	rotifer	Synchaetidae	ES
<i>Sycheata kitina</i>	rotifer	Synchaetidae	ES
<i>Sycheata stylata</i>	rotifer	Synchaetidae	ES
<i>Trichocerca multicrinis</i>	rotifer	Trichocercidae	ES
<i>Trichotria tetractis</i>	rotifer	Brachionidae	ES
Order Flosculariae (rotifers)			
<i>Conochilus</i> sp.	rotifer	Conochiliidae	LE
<i>Filinia</i> sp.	rotifer	Testudinellidae	ES
<i>Floscularia</i> sp.	rotifer	Flosculariidae	ES
<i>Sinantherina</i> sp.	rotifer	Flosculariidae	ES
PHYLUM NEMATODA			
CLASS ADENOPHOREA (roundworms)			
Order Enoplia			
<i>Tobrilus</i> sp.	roundworm	Tripylidae	ES

	Common Name	Family	Location
Order Dorylaimida <i>Dorylaimus</i> sp.	roundworm	Dorylaimidae	ES
Order Tylenchida <i>Criconemoides</i> sp.	roundworm	Criconematidae	ES
PHYLUM MOLLUSCA			
CLASS GASTROPODA (snails) Order Mesogastropoda <i>Cipangopaludina japonicus</i>	Japanese mystery snail	Viviparidae	ES
Order Basommatophora (freshwater snails) <i>Ferrissia parallela</i> <i>Fossaria</i> sp. [=Galba sp.] <i>Gyraulus deflectus</i> <i>Helisoma anceps anceps</i> <i>Lymnaea megasoma</i> [=Bulimnaea m.] <i>Physa</i> sp. <i>Physella gyrina</i> <i>Pseudosuccinea columella</i>	oblong aenylid fossaria flexed gyro two-ridge rams-horn mammoth lymnaea physa tadpole physa mimic lymnaea	Aenylidae Lymnaeidae Planorbidae Planorbidae Lymnaeidae Physidae Physidae Lymnaeidae	ES ES ES ES ES ES ES ES
Order Stylommatophora (land snails) <i>Mesodon thyroidus</i>	white-lip globe	Polygyridae	ES
CLASS BIVALVIA (clams)			
Order Unionoida <i>Amblema plicata plicata</i> <i>Anodontoides ferussacianus</i> <i>Cyclonaia tuberculata</i> <i>Elliptio dilatata</i> <i>Lampsilis radiata luteola</i> <i>Lampsilis ventricosa</i> <i>Lasmigona compressa</i> <i>Leptodea fragilis</i> <i>Ligumia recta</i> <i>Potamilus alatus</i> <i>Pyganodongrandis grandis</i> <i>Ptychobranchus fasciolaris</i> <i>Quadrula pustulosa pistulosa</i> <i>Toxolasma parvus</i> <i>Truncilla donaciformis</i> <i>Truncilla truncilla</i> <i>Utterbackia imbecillis</i>	threeridge cylindrical papershell purple wartyback spike lampmussel fatmucket creek heelsplitter fragile papershell black sandshell pink heelsplitter giant floater kidneyshell pimpleback lilliput fawnsfoot deertoe paper pondshell	Unionoidae Unionoidae Unionoidae Unionoidae Unionoidae Unionoidae Unionoidae Unionoidae Unionoidae Unionoidae Unionoidae Unionoidae Unionoidae Unionoidae Unionoidae Unionoidae Unionoidae Unionoidae Unionoidae Unionoidae	LE TR LE LE,TR LE,TR LE,TR TR LE LE ES,LE ES,LE LE LE LE LE ES,LE
Order Veneroida <i>Dreissena bugensis</i> <i>Dreissena polymorpha</i> <i>Musculium securis</i> [=Sphaerium securis] <i>Musculium</i> sp. <i>Pisidium compressum</i>	quagga mussel zebra mussel pond fingernail clam fingernail clam ridge-beak peaclam	Dreissenidae Dreissenidae Pisidiidae Pisidiidae Pisidiidae	LE ES,LE ES ES ES
PHYLUM ANNELIDA			
CLASS HIRUDINEA (leeches) Order Rhynochobdella <i>Batracobdella phalera</i> <i>Glossiphonia</i> sp. <i>Helobdella stagnalis</i> <i>Placobdella</i> sp.	leech leech leech leech	Glossiphoniidae Glossiphoniidae Glossiphoniidae Glossiphoniidae	ES ES ES ES
CLASS OLIGOCHAETA (segmented worms) Order Lumbriculida <i>Lumbriculus variegatus</i> <i>Stylodrillus herringianus</i>	aquatic earthworm aquatic earthworm	Lumbriculidae Lumbriculidae	ES ES

Order Haplotauxida	Common Name	Family	Location
<i>Aeolosoma headleyi</i>	aquatic earthworm	Aeolosomatidae	ES
<i>Aeolosoma hemprichi</i>	aquatic earthworm	Aeolosomatidae	ES
<i>Amphichaeta leydigii</i>	naidid worm	Naididae	ES
<i>Aulodrilus limnobius</i>	tubificid worm	Tubificidae	ES
<i>Aulodrilus pigueti</i>	tubificid worm	Tubificidae	ES
<i>Aulodrilus pluriseta</i>	tubificid worm	Tubificidae	ES
<i>Branchiria sowerbyi</i>	tubificid worm	Tubificidae	ES
<i>Chaetogaster diaphanus</i>	naidid worm	Naididae	ES
<i>Chaetogaster diastrophus?</i>	naidid worm	Naididae	ES
<i>Chaetogaster limnaei</i>	naidid worm	Naididae	ES
<i>Dero nivea</i>	naidid worm	Naididae	ES
<i>Dero trifida?</i>	naidid worm	Naididae	ES
<i>Dero vaga [=Auloporus vaga]</i>	naidid worm	Naididae	ES
<i>Haemonais waldvogeli</i>	naidid worm	Naididae	ES
<i>Ilyodrilus templetoni</i>	tubificid worm	Tubificidae	ES
<i>Limnodrilus hoffmeisteri</i>	tubificid worm	Tubificidae	ES
<i>Limnodrilus maumeensis</i>	tubificid worm	Tubificidae	ES
<i>Limnodrilus profundicola</i>	tubificid worm	Tubificidae	ES
<i>Limnodrilus udekemianus</i>	tubificid worm	Tubificidae	ES
<i>Limnodrilus cervix</i>	tubificid worm	Tubificidae	ES
<i>Limnodrilus claparedieianus</i>	tubificid worm	Tubificidae	ES
<i>Nais barbata</i>	naidid worm	Naididae	ES
<i>Nais communis</i>	naidid worm	Naididae	ES
<i>Nais elinguis</i>	naidid worm	Naididae	ES
<i>Nais pardalis</i>	naidid worm	Naididae	ES
<i>Nais pseudobtusa</i>	naidid worm	Naididae	ES
<i>Nais variabilis</i>	naidid worm	Naididae	ES
<i>Ophidonais serpentina</i>	naidid worm	Naididae	ES
<i>Pristina longiseta longiseta</i>	naidid worm	Naididae	ES
<i>Pristina sima?</i>	naidid worm	Naididae	ES
<i>Pristinaella osborni</i>	naidid worm	Naididae	ES
<i>Pristinella acuminata?</i>	naidid worm	Naididae	ES
<i>Pristinella jenkinae</i>	naidid worm	Naididae	ES
<i>Quistadrilus multisetsosus</i>	tubificid worm	Tubificidae	ES
<i>Rhyacodrilus coccineus</i>	tubificid worm	Tubificidae	ES
<i>Telmatodrilus sp.?</i>	tubificid worm	Tubificidae	ES
<i>Vejdovskyella comata</i>	naidid worm	Naididae	ES
<i>Vejdovskyella intermedia</i>	naidid worm	Naididae	ES

CLASS ARACHNIDA

Order Araneae (spiders)

<i>Achaearanea tepidariorum</i>	American house spider	Theridiidae
<i>Agelenopsis pennsylvanica</i>	green spider	Agelenidae
<i>Agroeca pratensis?</i>	sac spider	Clubionidae
<i>Allocosa funerea</i>	wolf spider	Lycosidae
<i>Alopecosa aculeata?</i>	wolf spider	Lycosidae
<i>Anyphaena celer</i>	hunting spider	Anyphaenidae
<i>Araneus marmoreus</i>	marbled orb weaver	Araneidae
<i>Araneus trifolium</i>	orb weaver	Araneidae
<i>Argiope aurantia</i>	black & yellow garden spider	Araneidae
<i>Argiope trifasciata</i>	banded garden	Araneidae
<i>Atopogyna cornupalis</i>	sheet-web weaver	Linyphiidae
<i>Bathyphantes</i> sp.?	sheet-web weaver	Linyphiidae
<i>Callobius</i> sp.?	thread-web weaver	Amaurobiidae
<i>Castianeira cingulata</i>	sac spider	Clubionidae
<i>Ceraticelus fissiceps</i>	dwarf spider	Linyphiidae
<i>Cheiracanthium mildei</i>	sac spider	Clubionidae
<i>Cicurina pallida</i>	loose-web weaver	Dictynidae
<i>Cirurina robusta</i>	funnel web weaver	Agelenidae

Order Araneae (cont'd)

Clubiona sp.
Clubionoides excepta?
Coras medicinalis
Coriarachne versicolor?
Crustulina altera
Cyclosa conica
Dictynia annulipes
Dolomedes tenebrosus?
Eris militaris
Ero canionis
Eustala anastera
Frontinella pyramitela
Gea heptagon
Habrocestum pulex
Herpyllus ecclesiasticus
Hogna helluo
Hogna rabida
Lepthyphantes zebra
Maevia inclemens?
Mangora placida
Meioneta unimaculata
Metaphidippus sp.
Micrathena gracilis
Misumenoides formosipes
Misumenops asperatus?
Neoscona crucifera
Neriene radiata? [or *Microlin* sp.]
Pardosa milvina
Pardosa moesta?
Pardosa saxatilis
Phidippus audax
Phidippus clarus
Phidippus whitmani
Philodromus keyserlingi
Philodromus vulgaris
Pholcus phalangioides
Pirata minutus?
Pisaurina mira
Pityohyphantes costatus
Platycryptus undatus
Salticus scenicus
Schizocosa avida
Schizocosa ocreata
Sitticus sp.
Steatoda borealis
Steatoda triangulosa
Tetragnatha elongata
Tetragnatha laboriosa
Theridion frondeum
Tmarus angulatus
Trachelas tranquillus
Tutelina elegans
Verrucosa arenata
Xysticus elegans
Xysticus ferox
Xysticus funestus

Order Acariformes (mites)

Limnesia sp.
Neumania sp.
Unionicola sp.

	Common Name	Family	Location
<i>Clubiona</i> sp.	sac spider	Clubionidae	CK
<i>Clubionoides excepta?</i>	sac spider	Clubionidae	CK
<i>Coras medicinalis</i>	funnel web weaver	Agelenidae	CK
<i>Coriarachne versicolor?</i>	crab spider	Thomisidae	CK
<i>Crustulina altera</i>	comb-footed spider	Theridiidae	CK
<i>Cyclosa conica</i>	orb weaver	Araneidae	CK
<i>Dictynia annulipes</i>	loose-web weaver	Dictynidae	CK
<i>Dolomedes tenebrosus?</i>	nursery web spider	Pisauridae	CK
<i>Eris militaris</i>	jumping spider	Salticidae	CK
<i>Ero canionis</i>	ambush spider	Mimetidae	ES
<i>Eustala anastera</i>	orb weaver	Araneidae	CK
<i>Frontinella pyramitela</i>	sheet-web weaver	Linyphiidae	CK
<i>Gea heptagon</i>	orb weaver	Araneidae	CK
<i>Habrocestum pulex</i>	jumping spider	Salticidae	CK
<i>Herpyllus ecclesiasticus</i>	parson spider	Gnaphosidae	CK
<i>Hogna helluo</i>	wolf spider	Lycosidae	ES
<i>Hogna rabida</i>	wolf spider	Lycosidae	ES
<i>Lepthyphantes zebra</i>	sheet-web weaver	Linyphiidae	CK
<i>Maevia inclemens?</i>	jumping spider	Salticidae	CK
<i>Mangora placida</i>	orb weaver	Araneidae	CK
<i>Meioneta unimaculata</i>	sheet-web weaver	Linyphiidae	CK
<i>Metaphidippus</i> sp.	jumping spider	Salticidae	CK
<i>Micrathena gracilis</i>	orb weaver	Araneidae	CK
<i>Misumenoides formosipes</i>	crab spider	Thomisidae	CK
<i>Misumenops asperatus?</i>	crab spider	Thomisidae	CK
<i>Neoscona crucifera</i>	orb weaver	Araneidae	CK
<i>Neriene radiata?</i> [or <i>Microlin</i> sp.]	sheet-web weaver	Linyphiidae	CK
<i>Pardosa milvina</i>	wolf spider	Lycosidae	CK
<i>Pardosa moesta?</i>	thin-legged wolf spider	Lycosidae	CK
<i>Pardosa saxatilis</i>	wolf spider	Lycosidae	ES
<i>Phidippus audax</i>	jumping spider	Salticidae	CK
<i>Phidippus clarus</i>	jumping spider	Salticidae	CK
<i>Phidippus whitmani</i>	jumping spider	Salticidae	CK
<i>Philodromus keyserlingi</i>	crab spider	Thomisidae	CK
<i>Philodromus vulgaris</i>	crab spider	Thomisidae	CK
<i>Pholcus phalangioides</i>	cellar spider	Pholcidae	CK
<i>Pirata minutus?</i>	wolf spider	Lycosidae	CK
<i>Pisaurina mira</i>	nursery web spider	Pisauridae	CK
<i>Pityohyphantes costatus</i>	hammock spider	Linyphiidae	CK
<i>Platycryptus undatus</i>	jumping spider	Salticidae	CK
<i>Salticus scenicus</i>	jumping spider	Salticidae	CK
<i>Schizocosa avida</i>	wolf spider	Lycosidae	CK
<i>Schizocosa ocreata</i>	wolf spider	Lycosidae	CK
<i>Sitticus</i> sp.	jumping spider	Salticidae	CK
<i>Steatoda borealis</i>	comb-footed spider	Theridiidae	CK
<i>Steatoda triangulosa</i>	comb-footed spider	Theridiidae	CK
<i>Tetragnatha elongata</i>	stilt-legged spider	Tetragnathidae	CK
<i>Tetragnatha laboriosa</i>	long-jawed orb weaver	Tetragnathidae	CK
<i>Theridion frondeum</i>	comb-footed spider	Theridiidae	CK
<i>Tmarus angulatus</i>	crab spider	Thomisidae	CK
<i>Trachelas tranquillus</i>	sac spider	Clubionidae	CK
<i>Tutelina elegans</i>	jumping spider	Salticidae	CK
<i>Verrucosa arenata</i>	orb weaver	Araneidae	CK
<i>Xysticus elegans</i>	crab spider	Thomisidae	CK
<i>Xysticus ferox</i>	crab spider	Thomisidae	CK
<i>Xysticus funestus</i>	crab spider	Thomisidae	CK
<i>Limnesia</i> sp.	freshwater mite	Limnessiidae	ES
<i>Neumania</i> sp.	clam mite	Unionicolidae	ES
<i>Unionicola</i> sp.	clam mite	Unionicolidae	ES

Common Name	Family	Location
CLASS CRUSTACEA (crustaceans)		
Subclass Branchiopoda		
Order Cladocera (water fleas)		
<i>Alona barbulata?</i>	Chydoridae	CK,ES
<i>Alona cf. circumfimbriata</i>	Chydoridae	CK
<i>Alona costata</i>	Chydoridae	ES
<i>Alona guttata</i>	Chydoridae	ES
<i>Alona quadrangularis</i>	Chydoridae	CK,ES,LE
<i>Alonella excisa</i> [or <i>Alonella exigua</i> ?]	Chydoridae	ES
<i>Alonella hamulata</i>	Chydoridae	CK,ES
<i>Alonella nana</i>	Chydoridae	ES
<i>Alonella setulosa</i>	Chydoridae	ES,LE
<i>Bosmina longirostris</i>	Bosminidae	ES
<i>Bythotrephes cederstroemi</i>	Cercopagidae	LE
<i>Ceriodaphnia lacustris</i>	Daphnididae	CK,ES
<i>Ceriodaphnia quadrangula</i>	Daphnididae	ES
<i>Ceriodaphnia reticulata</i>	Daphnididae	ES
<i>Chydorus sphaericus</i>	Chydoridae	ES
<i>Daphnia catawba</i>	Daphnididae	LE
<i>Daphnia galeata mendotae</i>	Daphnididae	CK,ES,LE
<i>Daphnia parvula</i>	Daphnididae	CK,LE
<i>Daphnia retrocurva</i>	Daphnididae	CK,ES,LE
<i>Diaphanosoma birgei</i>	Sididae	CK,ES,LE
<i>Disparalona leei</i>	Chydoridae	CK,ES,LE
<i>Eubosmina coregoni</i> [= <i>Bosmina coregoni</i>]	Bosminidae	CK,ES,LE
<i>Ilyocryptus sordidus</i>	Macrothricidae	CK,ES,LE
<i>Latona setifera</i>	Sididae	ES
<i>Leptodora kindtii</i>	Leptodoridae	LE
<i>Leydigia acanthocercoides</i>	Chydoridae	ES
<i>Leydigia leydi</i>	Chydoridae	CK,ES,LE
<i>Macrothrix laticornis</i>	Macrothricidae	CK,ES
<i>Moina micrura</i>	Moinidae	CK,ES
<i>Pleuroxus cf. denticulatus</i>	Chydoridae	CK,ES
<i>Pleuroxus procurvus</i>	Chydoridae	CK,ES
<i>Pseudochydorus globosus</i>	Chydoridae	CK,ES
<i>Scapholeberis kingi</i>	Daphnididae	ES
<i>Scapholeberis mucronata</i>	Daphnididae	ES
<i>Sida crystallina</i>	Sididae	ES
<i>Simocephalus serrulatus</i>	Daphnididae	CK,ES
Subclass Ostracoda (seed shrimps)		
Order Podocopina		
<i>Candonia simpsoni</i>	Candonidae	ES
<i>Cypria maculata</i>	Cyprididae	ES
<i>Cypria ophthalmica</i>	Cyprididae	ES
<i>Cypria pellucida</i>	Cyprididae	ES
<i>Cypridopsis vidua</i>	Cypridopsidae	ES
<i>Darwinula stevensoni</i>	Darwinulidae	ES
<i>Pelocypris</i> sp.	Ilyocyprididae	ES
<i>Physocypria pustulosa</i>	Cyprididae	ES
Subclass Copepoda (copepods)		
Order Calanoida		
<i>Diaptomus</i> sp.	Diaptomidae	ES
<i>Epischura lacustris</i>	Temoridae	ES
<i>Eurytemora affinis</i>	Temoridae	CK,ES,LE
<i>Leptodiaptomus ashlandi</i>	Diaptomidae	CK,ES,LE
<i>Leptodiaptomus minutus</i>	Diaptomidae	ES,LE
<i>Leptodiaptomus sicilis</i>	Diaptomidae	ES,LE
<i>Leptodiaptomus siciloides</i>	Diaptomidae	CK,ES,LE
<i>Skistodiaptomus oregonensis</i>	Diaptomidae	CK,ES,LE
<i>Skistodiaptomus pallidus</i>	Diaptomidae	CK,ES

	Common Name	Family	Location
Order Cyclopoida			
<i>Acanthocyclops vernalis sensu lata</i>	copepod	Cyclopidea	CK,ES,LE
<i>Cyclops varicans rubellus?</i>	copepod	Cyclopidea	CK,ES,LE
<i>Diacyclops cf. navus</i>	copepod	Cyclopidea	ES
<i>Diacyclops nearcticus</i>	copepod	Cyclopidea	ES
<i>Diacyclops thomasi</i>	copepod	Cyclopidea	CK,ES,LE
<i>Eucyclops agilis</i>	copepod	Cyclopidea	ES,LE
<i>Eucyclops elegans [=E. speratus]</i>	copepod	Cyclopidea	ES
<i>Macrocylops albidus</i>	copepod	Cyclopidea	ES
<i>Mesocyclops edax</i>	copepod	Cyclopidea	CK,ES,LE
<i>Microcyclops varicans rubellus</i>	copepod	Cyclopidea	ES
<i>Paracyclops fimbriatus poppei</i>	copepod	Cyclopidea	ES
<i>Tropocyclops prasinus mexicanus</i>	copepod	Cyclopidea	CK,ES,LE
Order Harpacticoida			
<i>Attheyella illinoiensis</i>	copepod	Canthocamptidae	ES
<i>Bryocamptus sp.</i>	copepod	Canthocamptidae	ES
<i>Canthocamptus robertcokeri</i>	copepod	Canthocamptidae	ES
<i>Nitocra hibernica</i>	copepod	Canthocamptidae	ES
Subclass Branchiura			
Order Arguloida (fish lice)			
<i>Argulus</i> sp.	fish louse	Argulidae	ES
Subclass Malacostraca			
Order Isopoda (sowbugs)			
<i>Asellus</i> sp. [=Caecidotea sp.]	aquatic sowbug	Asellidae	ES
<i>Caecidotea racovitzai racovitzai</i>	aquatic sowbug	Asellidae	ES
Order Amphipoda (scuds)			
<i>Crangonyx gracilis</i>	sideswimmer	Gammaridae	ES
<i>Gammarus fasciatus</i>	sideswimmer	Gammaridae	ES
<i>Gammarus pseudolimnaeus</i>	sideswimmer	Gammaridae	ES
<i>Hyalella azteca</i>	sideswimmer	Talitridae	ES
Order Decapoda (crayfishes & shrimps)			
<i>Cambarus diogones</i>	devil crayfish	Cambaridae	ES
<i>Orconectes rusticus</i>	rusty crayfish	Cambaridae	ES
<i>Palaemonetes kadiakensis</i>	Mississippi glass shrimp	Palaemonidae	ES
CLASS INSECTA (insects)			
Order Collembola (springtails)			
entomobryid sp.	springtail	Entomobryidae	CK,ES
isotomid sp.	springtail	Isotomidae	ES
Order Diplura (diplurans)			
dipluran sp.	dipluran	Campodeidae	CK
Order Thysanura (bristletails)			
lepismatid sp.	silverfish	Lepismatidae	CK
Order Ephemeroptera (mayflies)			
<i>Baetis</i> sp.	bluewing olive	Baetidae	ES,TR
<i>Caenis simulans</i>	squaregill mayfly	Caenidae	CK
<i>Ephemera</i> sp.	burrowing mayfly	Ephemeridae	TR
<i>Ephemerella</i> sp.	spiny crawler	Ephemerellidae	CK
<i>Ephoron</i> sp.	pale burrowing mayfly	Polymitarcyidae	TR
<i>Heptagenia pulla</i>	flatheaded mayfly	Heptageniidae	CK
<i>Heptagenia</i> sp.	flatheaded mayfly	Heptageniidae	CK
<i>Hexagenia limbata</i>	burrowing mayfly	Ephemeridae	ES
<i>Isonychia sicca</i>	brushlegged mayfly	Oligoneuriidae	CK
<i>Leptophlebia</i> sp.	pronggill mayfly	Leptophlebioidae	ES
<i>Stenacron</i> sp.	flatheaded mayfly or yellow may	Heptageniidae	CK,TR
<i>Stenonema femoratum</i>	flatheaded mayfly or pale red fox	Heptageniidae	CK

	Common Name	Family	Location
Order Odonata (damselflies & dragonflies)			
<i>Aeshna</i> sp.	blue darner or paddletail	Aeshnidae	ES
<i>Anax junius</i>	big green darner	Aeshnidae	ES,CK
<i>Argia fumipennis</i>	dancer	Coenagrionidae	TR
<i>Argia tibialis</i>	dancer	Coenagrionidae	CK,ES
<i>Argia translata</i>	dancer	Coenagrionidae	TR
<i>Argia apicalis</i>	dancer	Coenagrionidae	ES
<i>Argia meosta</i>	dancer	Coenagrionidae	ES
<i>Argia violacea</i>	purple damselfly or violet dancer	Coenagrionidae	ES
<i>Calopteryx maculata</i> [=Agrion maculatus]	blackwinged damselfly	Calopterygidae	CK,TR
<i>Calopteryx</i> sp.	bandwing damselfly	Calopterygidae	ES
<i>Celithemis elisa</i>	spotted skimmer/ calico pennant	Libellulidae	CK,TR
<i>Chromagrion</i> sp.	variegated damsel	Coenagrionidae	TR
<i>Dromogokmaphus spinosus</i>	spinylegged clubtail	Gomphidae	TR
<i>Dromogokmaphus spoliatus</i>	spinylegged clubtail	Gomphidae	TR
<i>Enallagma antennatum</i>	bluet	Coenagrionidae	CK,ES
<i>Enallagma civile</i>	civil bluet	Coenagrionidae	CK,ES
<i>Enallagma exsulans</i>	bluet	Coenagrionidae	CK
<i>Enallagma signatum</i>	bluet	Coenagrionidae	CK
<i>Enallagma vespersum</i>	bluet	Coenagrionidae	ES
<i>Epitheca princeps</i>	royal skimmer	Corduliidae	ES
<i>Erythemis simplicicollis</i>	eastern pondhawk	Libellulidae	CK,ES,TR
<i>Hagenius brevistylus</i>	black dragonfly	Gomphidae	TR
<i>Hevaerina americana</i>	American ruby spot	Calopterygidae	ES
<i>Ischnura posita</i>	forktail	Coenagrionidae	CK,ES
<i>Ischnura verticalis</i>	forktail	Coenagrionidae	CK,ES
<i>Lestes forcipatus</i>	marsh spreadwing	Lestidae	TR
<i>Leucorrhinia</i> sp.	whitefaced skimmer	Libellulidae	ES
<i>Libellula luctuosa</i>	widow dragonfly	Libellulidae	CK,TR
<i>Libellula pulchella</i>	tenspot dragonfly	Libellulidae	CK,ES
<i>Macromia illinoiensis</i>	river skimmer	Macromiidae	TR
<i>Macromia taeniolata</i>	river skimmer	Macromiidae	TR
<i>Nehalennia irene</i>	green damsel	Coenagrionidae	ES
<i>Pachydiplax longipennis</i>	blue pirate	Libellulidae	ES
<i>Pantala flavescens</i>	yellow skimmer	Libellulidae	TR
<i>Pantala hymenea</i>	globe skimmer	Libellulidae	CK,ES,TR
<i>Perithemis tenera</i>	eastern amber-winged skimmer	Libellulidae	CK,ES,TR
<i>Plathemis lydia</i>	common white-tailed skimmer	Libellulidae	CK,TR
<i>Sympetrum rubicundulum</i>	red skimmer	Libellulidae	TR
<i>Sympetrum semicinctum</i>	red skimmer	Libellulidae	TR
<i>Tramea lacerata</i>	raggedy skimmer	Libellulidae	TR
<i>Tramea onusta</i>	red saddlebags dragonfly	Libellulidae	CK
Order Blattaria (cockroaches)			
<i>Blatta orientalis</i> ?	Oriental cockroach	Blattellidae	CK
<i>Parcoblatta</i> sp.?	wood cockroach	Blattellidae	CK
<i>Periplaneta americana</i> ?	American cockroach	Blattellidae	CK
Order Mantodea (mantids)			
<i>Tenodera aridifolia sinensis</i>	Chinese mantid/praying mantis	Mantidae	CK,TR
Order Isoptera (termites)			
<i>Reticulitermes flavipes</i>	eastern subterranean termite	Rhinotermitidae	CK
Order Orthoptera (crickets & grasshoppers)			
acridid sp.	eastern lubber grasshopper	Acrididae	CK
<i>Ceuthophilus</i> sp.	camel or cave cricket	Gryllacrididae	CK
cyrtacanthacridin sp.	spur-throated grasshopper	Acrididae	CK
<i>Ellipes minuta minuta</i>	pygmy mole cricket	Tridactylidae	ES,TR
<i>Gryllus</i> sp.	field cricket	Gryllidae	CK
<i>Microcentrum rhombifolium</i>	broad-winged katydid	Tettigoniidae	CK
<i>Neocurtilla hexadactyla</i>	northern mole cricket	Gryllotalpidae	CK
<i>Nomotetrix cristatus</i>	pygmy grasshopper	Tettigidae	TR

Order Orthoptera (cont'd)	Common Name	Family	Location
<i>oedipidin</i> sp.	band-winged grasshopper	Acrididae	CK
<i>Paratettix cueullatus</i>	pygmy grasshopper	Tetrigidae	TR
<i>Pterophylla camellifolia</i>	northern katydid	Tettigoniidae	CK
tetrigid sp.	pygmy grasshopper	Tetrigidae	CK
tridactylid sp.	pygmy mole cricket	Tridactylidae	ES
Order Dermaptera (earwigs)			
<i>Euborellia annulipes?</i>	ring-legged earwig	Labiduridae	TR
<i>Forficula auricularia?</i>	European earwig	Forficulidae	CK
<i>Labia</i> sp.?	little earwig	Labiidae	CK
Order Plecoptera (stoneflies)			
<i>Acroneuria</i> sp.	stonefly	Perlidae	TR
<i>Allocapnia recta</i>	spring stonefly	Capniidae	CK
<i>Allocapnia vivapara</i>	spring stonefly	Capniidae	CK
chloroperlid sp.	green stonefly	Chloroperlidae	CK
<i>Isoperla duplicata</i>	green-winged stonefly	Perlodidae	CK
nemourid sp.	broadback stonefly	Nemouridae	CK
<i>Neoperla</i> sp.	stonefly	Perlidae	TR
<i>Neophasganophora</i> sp.	great stonefly	Perlidae	TR
<i>Paragnetina</i> sp.	stonefly	Perlidae	CK,TR
<i>Perlesta</i> sp.	stonefly	Perlidae	TR
<i>Perlinella</i> sp.	stonefly	Perlidae	TR
taeniopterygid sp.	broadback stonefly	Taeniopterygida	CK
Order Thysanoptera (thrips)			
aeolothripid sp.	banded thrips	Aeolothripidae	CK
phlaeothripid sp.	mullin thrips	Phlaeothripidae	CK
thripid sp.	thrips	Thripidae	ES
Order Hemiptera (true bugs)			
alydid sp.	broad-headed bug	Alydidae	CK
<i>Anasa tristis</i>	squash bug	Coreidae	CK
<i>Aquarius</i> sp.	water strider	Gerridae	TR
<i>Aradus</i> sp.	flat bug	Aradidae	CK
<i>Arhyssus lateralis</i>	scentless plant bug	Rhopalidae	CK
<i>Belostoma flumineum</i>	giant water bug	Belostomatidae	ES
<i>Corisella inscripta</i>	water boatman	Corixidae	ES
<i>Corythuca pruni</i>	lace bug	Tingidae	CK
cydnid sp.	burrower bug	Cydnidae	CK
<i>Euschistus icterius</i>	stink bug	Pentatomidae	CK
<i>Gelastocoris</i> sp.	toad bug	Gelastocoridae	TR
<i>Geocoris uliginosus</i>	big-eyed bug	Lygaeidae	CK
<i>Gerris buenoi</i>	water strider	Gerridae	ES
<i>Gerris canaliculatus</i>	water strider	Gerridae	ES
<i>Gerris comatus</i>	water strider	Gerridae	ES
<i>Gerris marginatus</i>	water strider	Gerridae	ES
<i>Gerris remigis</i>	water strider	Gerridae	ES
<i>Hesperocorixa lucida</i>	water boatman	Corixidae	ES
<i>Hesperocorixa</i> sp.	water boatman	Corixidae	TR
<i>Hoplitoscelus sordidus</i>	damsel bug	Nabidae	CK
<i>Hydrometra martini</i>	water measurer	Hydrometridae	ES
<i>Hydrometra</i> sp.	water measurer	Hydrometridae	CK
<i>Lasiomerus</i> sp.	damsel bug	Nabidae	CK
<i>Leptocoris trivittatus</i>	boxelder bug	Rhopalidae	CK
<i>Leptoglossus oppositus?</i>	lead-footed bug	Coreidae	CK
<i>Leptoptera dolabrata</i>	meadow plant bug	Miridae	CK
<i>Lygaeus kalmii</i>	small milkweed bug	Lygaeidae	CK
<i>Lygus lineolaris?</i>	tarnished plant bug	Miridae	CK
<i>Merragata</i> sp.	velvet water bug	Hebridae	TR
<i>Mesovelvia mulsanti</i>	water treader	Mesovelviidae	ES
<i>Mesovelvia</i> sp.	water treader	Mesovelviidae	ES

Order Hemiptera cont'd)*Metrobates hesperius**Micracanthia* sp.*Microvelia* sp.?*Myodocha serripes**Nabis* sp.*Nepa* sp.*Notonecta irrorata**Notonecta raleighi lunata**Notonecta undulata**Orius insidiosus**Palmacorixa buenoi**Palmacorixa nana**Palmacorixa* sp.*Pelocoris* sp.*Peocilocapsus lineatus**Phymata pennsylvanica**Ranatra fusca**Ranatra nigra**Ranatra* sp.*Rhagovelia* sp.*Rheumatobates* sp.*scutellerid* sp.*Sigara alternata**Sigara modesta**Sigara* sp.*Sinea diadema**Thyanta pallido-virens**thyreocorid* sp.*tingid* sp.*Trepobates* sp.*Trichocorixa calva**Trichocorixa kanza**Trichocorixa* sp.*Zelus exsanguis***Common Name**

water strider

shore bug

small water strider

seed bug

damsel bug

oval water scorpion

backswimmer

backswimmer

backswimmer

insidious flower bug

water boatman

water boatman

water boatman

creeping water bug

four-lined leaf bug

ambush bug

sticklike water scorpion

sticklike water scorpion

sticklike water scorpion

small water strider

water strider

shield-backed bug

water boatman

water boatman

water boatman

assassin bug

green stink bug

negro bug

lace bug

water strider

water boatman

water boatman

water boatman

assassin bug

Family

Gerridae

Saldidae

Veliidae

Lygaeidae

Nabidae

Nepidae

Notonectidae

Notonectidae

Notonectidae

Anthocoridae

Corixidae

Corixidae

Corixidae

Naucoridae

Miridae

Phymatidae

Nepidae

Nepidae

Nepidae

Veliidae

Gerridae

Scutelleridae

Corixidae

Corixidae

Corixidae

Reduviidae

Pentatomidae

Thyreocoridae

Tingidae

Gerridae

Corixidae

Corixidae

Corixidae

Reduviidae

Location

TR

CK,ES

CK,TR

CK

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CK,ES,TR

ES

ES

CK,ES

CK

Order Homoptera (cicadas, hoppers, aphids, & scale insects)*acanaloniid* sp.

planthopper

Acanaloniidae

CK

Adelges abeitis

eastern spruce gall adelgid

Adelgidae

CK

Adelges cooleyi

Cooley spruce gall adelgid

Adelgidae

CK

Aphis pomi

green apple aphid

Aphididae

CK

Cacopsylla pyricola

pear psylla

Psyllidae

CK

Daktulosphaira vitifoliae

grape phylloxera

Phylloxeridae

CK

Draeculacephala mollipes

cicadellin leafhopper

Cicadellidae

CK

Dysaphis plantaginea

rosy apple aphid

Aphididae

CK

Empoasca fabae

potato leafhopper

Cicadellidae

CK

Eriosoma lanigerum

woolly aphid

Aphididae

CK

Graphocephala coccinea

colorful leafhopper

Cicadellidae

CK

Melaphis rhois?

sumac gall

Aphididae

CK

membracid sp.

treehopper

Membracidae

CK,ES

Myzus cerasi

black cherry aphid

Aphididae

CK

Myzus persicae

green peach aphid

Aphididae

CK

Pachypsylla celtidisamma

hackberry nipple gall

Psyllidae

CK

Penthima americana

gyponin leafhopper

Cicadellidae

CK

Periphyllus lyropictus

Norway maple aphid

Aphididae

CK

Philaenus spumarius

meadow spittlebug

Cercopidae

CK

Phylloxera caryaecaulis?

shag-bark hickory gall

Phylloxeridae

CK

Quadrastripiotus perniciosus

San Jose scale

Diaspididae

CK

Tibicen canicularis

dog day cicada

Cicadidae

CK

Tibicen linnei

dog day cicada

Cicadidae

CK

Typhlocyba pomaria

white apple leafhopper

Cicadellidae

CK

Order Neuroptera (nerve-wing insects)	Common Name	Family	Location
<i>Chauliodes</i> sp.	hellgrammite or fishfly	Corydalidae	CK,ES
<i>Chrysopa oculata</i>	golden eye	Chrysopidae	CK
<i>Climacia</i> sp.	spongillafly	Sisyridae	LE,TR
<i>coniopterygid</i> sp.	dustywing	Coniopterygidae	CK
<i>Corydalus cornutus</i>	hellgrammite	Corydalidae	CK,TR
<i>hemerobiid</i> sp.	brown lacewing	Hemerobiidae	CK
<i>Sialis infumata</i>	alderfly	Sialidae	TR
Order Coleoptera (beetles)			
<i>Acalymma vittata?</i>	striped cucumber beetle	Chrysomelidae	CK
<i>Acilius sylvanus</i>	striped diving beetle	Dytiscidae	ES
<i>Acilius</i> sp.	striped diving beetle	Dytiscidae	CK
<i>Agabus</i> sp.	diving beetle	Dytiscidae	CK,ES
<i>Alobates pensylvanicus?</i>	darkling beetle	Tenebrionidae	CK
<i>Altica chalybea</i>	grape flea beetle	Chrysomelidae	CK
<i>Anacaena limbata</i>	water scavenger beetle	Hydrophilidae	ES
<i>Ancyronyx</i> sp.	riffle beetle	Elmithidae	TR
<i>Anthicus</i> sp.?	ant-like flower beetle	Anthicidae	CK
<i>Anthrenus scrophulariae?</i>	carpet beetle	Dermestidae	CK
<i>Aphodius</i> sp.	dung beetle	Scarabaeidae	CK
<i>Berosus fraternus</i>	water scavenger beetle	Hydrophilidae	ES
<i>Berosus infuscatus</i>	water scavenger beetle	Hydrophilidae	ES
<i>Berosus peregrinus</i>	water scavenger beetle	Hydrophilidae	ES
<i>Berosus striatus</i>	water scavenger beetle	Hydrophilidae	ES
<i>Berosus</i> sp.	water scavenger beetle	Hydrophilidae	CK
<i>Bidessus</i> sp.	diving beetle	Dytiscidae	ES
<i>Bledius</i> sp.	rove beetle	Staphylinidae	TR
<i>Bolitotherus cornutus</i>	horned fungus beetle	Tenebrionidae	CK
<i>Brachinus</i> sp.?	bombadier ground beetle	Carabidae	CK
<i>brachyrhinin</i> sp.	broad-nosed weevil	Curculionidae	CK
<i>Brontes</i> sp.?	flat bark beetle	Cucujidae	CK
<i>Calathus</i> sp.	ground beetle	Carabidae	CK
<i>Cantharis bilineatus</i>	soldier beetle	Cantharidae	CK
<i>Carpophilus</i> sp.	carpophilin sap beetle	Nitidulidae	CK
<i>cerambycid</i> sp.	locust borer beetle	Cerambycidae	CK
<i>Chauliognathus marginata</i>	soldier beetle	Cantharidae	CK
<i>Chauliognathus pennsylvanicus?</i>	soldier beetle	Cantharidae	CK
<i>Chilocorus stigma</i>	twice-stabbed ladybug	Coccinellidae	CK
<i>Chrysobothris femorata</i>	flat-headed apple tree borer	Buprestidae	CK
<i>Chrysochus auratus</i>	dogbane beetle	Chrysomelidae	CK
<i>Cicindela</i> sp.	tiger beetle	Carabidae	CK
<i>clerid</i> sp.?	checkered beetle	Cleridae	CK
<i>Colaoulon</i> sp.	click beetle	Elateridae	CK
<i>Coleomegilla</i> sp.	ladybird beetle	Coccinellidae	CK
<i>Conotrachelus nenuphar</i>	plum curculio	Curculionidae	CK
<i>Copelatus glyphius</i>	diving beetle	Dytiscidae	ES
<i>Copelatus</i> sp.	diving beetle	Dytiscidae	ES
<i>Coptotomus lenticus</i>	diving beetle	Dytiscidae	ES
<i>Creophilus maxillosus</i>	rove beetle	Staphylinidae	CK
<i>Curculio</i> sp.	chestnut weevil	Curculionidae	CK
<i>Curculio</i> sp.	nut weevil	Curculionidae	CK
<i>curculionid</i> sp.	weevil	Curculionidae	CK
<i>Cymbiodyta</i> sp.	water scavenger beetle	Hydrophilidae	ES
<i>Cyphon</i> sp.	marsh beetle	Scirtidae	ES
<i>Cyrtophorus verrucosus</i>	long-horned beetle	Cerambycidae	CK
<i>Dermestes lardarius?</i>	larder beetle	Dermestidae	CK
<i>Derodontus</i> sp.	tooth-necked fungus beetle	Derodontidae	CK
<i>Diabrotica undecimpunctata howardi</i>	spotted cucumber beetle	Chrysomelidae	CK
<i>Dineutus assimilis</i>	whirligig beetle	Gyrinidae	ES
<i>Dineutus</i> sp.	whirligig beetle	Gyrinidae	CK,ES
<i>Disonycha</i> sp.	leaf beetle	Chrysomelidae	CK

Order Coleoptera (cont'd)

	Common Name	Family	Location
<i>Donacia</i> sp.	leaf beetle	Chrysomelidae	ES
<i>Dubiraphia bivittata</i>	riffle beetle	Elmidae	ES
<i>Dubiraphia</i> sp.	riffle beetle	Elmidae	ES,TR
<i>Dytiscus fasciventris</i>	diving beetle	Dytiscidae	ES
<i>Elaphidionoides</i> sp. [= <i>Elaphidion</i>]	longhorn twig pruner beetle	Cerambycidae	CK
<i>Elaprus ruscarius</i>	marsh or bog beetle	Carabidae	CK
<i>Ellychnia</i> sp.	firefly or lightningbug	Lampyridae	CK
endomychid sp.	handsome fungus beetle	Endomychidae	CK
<i>Enochrus hamiltoni</i>	water scavenger beetle	Hydrophilidae	ES
<i>Enochrus ochraceus</i>	water scavenger beetle	Hydrophilidae	CK,ES
<i>Enochrus perplexus</i>	water scavenger beetle	Hydrophilidae	ES
<i>Enochrus pygmaeus nebulosus</i>	water scavenger beetle	Hydrophilidae	ES
<i>Enochrus sayi</i>	water scavenger beetle	Hydrophilidae	ES
<i>Epicauta</i> sp.	blister beetle	Meloidae	CK
<i>Epilachna varivestis</i>	Mexican bean beetle	Coccinellidae	CK
erotylid sp.?	pleasing fungus beetle	Erotylidae	CK
<i>Euphoria inda</i> ?	bumble flower beetle	Scarabaeidae	CK
<i>Glischrochilus fasciatus</i>	cryptarchin sap beetle	Nitidulidae	CK
<i>Haliplus borealis</i>	crawling water beetle	Halipidae	ES
<i>Haliplus immaculicollis</i>	crawling water beetle	Halipidae	ES
<i>Haliplus triopsis</i>	crawling water beetle	Halipidae	ES,TR
<i>Harmonia axyridis</i>	Asiatic lady beetle	Coccinellidae	CK
<i>Harpalus compar</i>	ground beetle	Carabidae	CK
<i>Harpalus herbivagus</i>	ground beetle	Carabidae	CK
<i>Helichus</i> sp.	long-toed water beetle	Dryopidae	CK,ES
<i>Helophorus lineatus</i>	water scavenger beetle	Hydrophilidae	ES
<i>Helophorus orientalis</i>	water scavenger beetle	Hydrophilidae	ES
<i>Helophorus marginicollis</i>	water scavenger beetle	Hydrophilidae	ES
<i>Helophorus</i> sp.	water scavenger beetle	Hydrophilidae	ES
<i>Heterocerus</i> sp.	variegated mud-loving beetle	Heteroceridae	ES,TR
<i>Heterosternuta wickhami</i>	diving beetle	Dytiscidae	ES
<i>Hippodamia convergens</i> ?	covergent ladybird beetle	Coccinellidae	CK
<i>Hister foedatus</i>	hister beetle	Histeridae	CK
<i>Homaeotarsus</i> sp.?	rove beetle	Staphylinidae	CK
<i>Hoplia</i> sp.	grapevine beetle	Scarabaeidae	CK
<i>Hydrobius fuscipes</i>	water scavenger beetle	Hydrophilidae	ES
<i>Hydrocanthus iricolor</i>	burrowing water beetle	Noteridae	ES
<i>Hydrochara leechi</i>	water scavenger beetle	Hydrophilidae	ES
<i>Hydrochara obtusata</i>	water scavenger beetle	Hydrophilidae	TR
<i>Hydrochara</i> sp.	water scavenger beetle	Hydrophilidae	ES
<i>Hydrophilus</i> sp.	water scavenger beetle	Hydrophilidae	TR
<i>Hydroporus niger</i>	diving beetle	Dytiscidae	ES
<i>Hydroporus</i> sp.	diving beetle	Dytiscidae	CK,ES
<i>Hydrovatus</i> sp.	diving beetle	Dytiscidae	CK,ES
<i>Hygrotus dissimilis</i>	diving beetle	Dytiscidae	ES
<i>Hygrotus impressopunctatus</i>	diving beetle	Dytiscidae	ES
<i>Hygrotus sayi</i>	diving beetle	Dytiscidae	ES
<i>Hyperodes</i> sp.	weevil	Curculionidae	TR
<i>Ilybius</i> sp.	diving beetle	Dytiscidae	CK
<i>Laccobius</i> sp.	water scavenger beetle	Hydrophilidae	ES
<i>Laccophilus maculosus maculosus</i>	diving beetle	Dytiscidae	ES
<i>Laccophilus</i> sp.	diving beetle	Dytiscidae	CK
<i>Leptinotarsa decemlineata</i>	Colorado potato beetle	Chrysomelidae	CK
leptodirin sp.	small carrion beetle	Leiodidae	CK
<i>Lucidota atra</i>	firefly or lightningbug	Lampyridae	CK
<i>Lucidota punctata</i>	firefly or lightningbug	Lampyridae	CK
lyctin sp.?	powder-post beetle	Bostrichidae	CK
<i>Lytta aenea</i> ?	blister beetle	Meloidae	CK
<i>Macrodactylus subspinosus</i>	rose chafer	Scarabaeidae	CK
<i>Megacyllene robiniae</i>	locust borer	Cerambycidae	CK

Order Coleoptera (cont'd)	Common Name	Family	Location
<i>Melanotus</i> sp.	click beetle	Elateridae	CK
<i>melolonthin</i> sp.	May beetle	Scarabaeidae	CK
<i>melyrid</i> sp.	soft-winged flower beetle	Melyridae	CK
<i>Microcylloepus</i> sp.	riffle beetle	Elmithidae	ES
<i>Neoporus</i> sp.	diving beetle	Dytiscidae	ES
<i>noterid</i> sp.	burrowing water beetle	Noteridae	ES
<i>Oberea bimaculata</i>	raspberry cane borer	Cerambycidae	CK
<i>Odontota dorsalis?</i>	locust leaf beetle	Chrysomelidae	CK
<i>Paederus littorarius</i>	rove beetle	Staphylinidae	CK
<i>Paracymus subcupreus</i>	water scavenger beetle	Hydrophilidae	ES
<i>Parandra brunnea</i>	pole borer	Cerambycidae	CK
<i>Pelidnota punctata</i>	grapevine beetle	Scarabaeidae	CK
<i>Peltodytes duodecimpunctatus</i>	crawling water beetle	Halipidae	ES
<i>Peltodytes edentulus</i>	crawling water beetle	Halipidae	ES
<i>Peltodytes lengi</i>	crawling water beetle	Halipidae	ES
<i>Peltodytes muticus</i>	crawling water beetle	Halipidae	ES
<i>Peltodytes sexmaculatus</i>	crawling water beetle	Halipidae	ES
<i>Peltodytes</i> sp.	crawling water beetle	Halipidae	ES
<i>phalacrid</i> sp.?	shining mold beetle	Phalacridae	CK
<i>Photinus pyralis</i>	firefly or lightningbug	Lampyridae	CK
<i>Photuris pennsylvanica</i>	firefly or lightningbug	Lampyridae	CK
<i>Phyllophaga</i> sp.	June beetle or junebug	Scarabaeidae	CK
<i>Platynus placidus</i>	ground beetle	Carabidae	CK
<i>Podabrus flavicollis?</i>	soldier beetle	Cantharidae	CK
<i>Podabrus modestus?</i>	soldier beetle	Cantharidae	CK
<i>Popilia japonica</i>	Japanese beetle	Scarabaeidae	CK
<i>Psephenus herricki</i>	water-penny beetle	Psephenidae	CK,TR
<i>Pseudolucanus</i> sp.	pinching beetle	Lucanidae	CK
<i>Quedius</i> sp.?	large rove beetle	Staphylinidae	CK
<i>Rhantus</i> sp.	diving beetle	Dytiscidae	CK
<i>salpingid</i> sp.	narrow-waisted bark beetle	Salpingidae	ES
<i>Saprinus</i> sp.	hister beetle	Histeridae	CK
<i>Scarites subterraneus?</i>	ground beetle	Carabidae	CK
<i>Scolytus rugulosus</i>	shot-hole borer	Curculionidae	CK
<i>Silpha americana</i>	carrion beetle	Silphidae	CK
<i>Sphenophorus</i> sp.	billbug weevil	Curculionidae	CK
<i>Staphylinus</i> sp.	rove beetle	Staphylinidae	CK
<i>Stelidiota octomaculata</i>	tiny sap beetle	Nitidulidae	CK
<i>Stenelmis crenata</i>	riffle beetle	Elmithidae	ES
<i>Stenelmis</i> sp.	riffle beetle	Elmithidae	CK,TR
<i>Stenolophus</i> sp.?	ground beetle	Carabidae	CK
<i>Stenus</i> sp.	rove beetle	Staphylinidae	CK,TR
<i>Stethorus punctum</i>	black lady beetle	Coccinellidae	CK
<i>Telephanus velox?</i>	flat bark beetle	Cucujidae	CK
<i>Tetraopes</i> sp.	milkweed beetle	Cerambycidae	CK
<i>thylactin</i> sp.	snout beetle	Curculionidae	CK
<i>Tropisternus lateralis nimbatis</i>	narrow water scavenger beetle	Hydrophilidae	ES,TR
<i>Tropisternus natator</i>	narrow water scavenger beetle	Hydrophilidae	ES
<i>Tropisternus</i> sp.	narrow water scavenger beetle	Hydrophilidae	CK,ES,TR
<i>Xenochalepus dorsalis</i>	locust leafminer	Chrysomelidae	CK
Order Mecoptera (scorpionflies)			
<i>Panorpa helena?</i>	common scorpionfly	Panorpidae	CK
Order Siphonaptera (fleas)			
<i>Ctenocephalides canis</i>	dog flea	Pulicidae	CK
<i>Ctenocephalides felis</i>	cat flea	Pulicidae	CK
Order Diptera (true flies)			
<i>Ablabesmyia parajanta</i>	midge	Chironomidae	ES
<i>Aedes communis?</i>	mosquito	Culicidae	CK

Order Diptera (cont'd)

	Common Name	Family	Location
<i>Aedes infirmatus</i>	mosquito	Culicidae	ES
<i>Aedes vexans</i>	mosquito	Culicidae	ES
anthomyzid sp.	anthomyzid fly	Anthomyzidae	CK
<i>Anthrax</i> sp.	bee fly	Bombyliidae	CK
<i>Aphidoletes aphidimyza</i>	orange maggot or gall gnat	Cecidomyiidae	CK
asilid sp.	robber fly	Asilidae	CK
asteiid sp.	asteiid fly	Asteiidae	CK
<i>Atherix varigata</i>	snipe fly	Athericidae	TR
<i>Baccha</i> sp.?	flower fly	Syrphidae	CK
<i>Bibio</i> sp.?	march fly	Bibionidae	CK
blepharocerid sp.	net-winged midge	Blepharoceridae	ES
<i>Brachypremna</i> sp.	crane fly	Tipulidae	CK,TR
<i>Chaoborus flavicans</i>	phantom midge	Chaoboridae	ES
<i>Chaoborus punctipennis</i>	phantom midge	Chaoboridae	ES
<i>Chironomus anthracinus</i>	midge	Chironomidae	ES
<i>Chironomus cristatus</i>	midge	Chironomidae	ES
<i>Chironomus decorus</i>	midge	Chironomidae	ES
<i>Chironomus plumosus</i>	midge	Chironomidae	ES
<i>Chironomus riparius</i>	midge	Chironomidae	ES
<i>Chironomus staegeri</i>	midge	Chironomidae	ES
<i>Chironomus tentans</i>	midge	Chironomidae	ES
chloropid sp.	frit fly	Chloropidae	CK
<i>Chrysops</i> sp.	deer fly	Tabanidae	CK,TR
<i>Cladopelma</i> sp.	midge	Chironomidae	ES
<i>Cladotanytarsus</i> sp.	midge	Chironomidae	ES
<i>Coelotanypus concinnus</i>	midge	Chironomidae	ES
<i>Cricotopus sylvestris</i>	midge	Chironomidae	ES
<i>Cricotopus tremulus</i>	midge	Chironomidae	ES
<i>Cricotopus trifascia</i>	midge	Chironomidae	ES
<i>Cryptochironomus</i> sp.	midge	Chironomidae	ES
<i>Culex pipiens</i>	mosquito	Culicidae	CK
<i>Dicrotendipes nervous</i>	midge	Chironomidae	ES
<i>Dicrotendipes</i> sp.	midge	Chironomidae	ES
<i>Didea</i> sp.	flower fly	Syrphidae	CK
dolichopodid sp.	long-legged fly	Dolichopodidae	CK
<i>Drosophila melanogaster</i>	pomace fly	Drosophilidae	CK
<i>Endochironomus nigrans</i>	midge	Chironomidae	ES
ephydrid sp.	shore fly	Ephydriidae	CK,ES
<i>Eristalis tenax</i> ?	hover fly	Syrphidae	CK
<i>Eurosta solidaginis</i>	round ball goldenrod gall	Tephritidae	CK
<i>Glyptotendipes loberiferus</i>	midge	Chironomidae	ES
<i>Glyptotendipes</i> sp.	midge	Chironomidae	ES
<i>Hedriodus</i> sp.	soldier fly	Stratiomyidae	ES
heleomyzid sp.	heleomyzid fly	Heleomyzidae	CK
<i>Helicobia</i> sp.	flesh fly	Sarcophagidae	CK
<i>Hexatoma</i> sp.	crane fly	Tipulidae	TR
<i>Hydrobaenus</i> sp.	midge	Chironomidae	ES
<i>Labrundinia pilosilla</i>	midge	Chironomidae	ES
lauxaniid sp.	lauxaniid fly	Lauxaniidae	CK
<i>Limnochironomus tenuicadatus</i>	midge	Chironomidae	ES
<i>Limnophyes</i> sp.	midge	Chironomidae	ES
<i>Lipiniella</i> sp.	midge	Chironomidae	ES
lonchopterid sp.	spear-winged fly	Lonchpoteridae	ES
<i>Lucilia illustris</i> ?	blow fly	Calliphoridae	CK
<i>Merycomia</i> sp.	horse fly	Tabanidae	TR
<i>Microchironomus</i> sp.	midge	Chironomidae	ES
<i>Micropsectra polita</i>	midge	Chironomidae	ES
<i>Microtendipes caelum</i>	midge	Chironomidae	ES
<i>Musca</i> sp.	house fly	Muscidae	CK
mycetophilid sp.	fungus gnat	Mycetophilidae	CK,ES

Order Diptera (cont'd)

	Common Name	Family	Location
<i>Odontomyia</i> sp.	soldier fly	Stratiomyidae	ES
<i>Orthocladius obumbratus</i>	midge	Chironomidae	ES
<i>Orthocladius</i> sp.	midge	Chironomidae	ES
<i>Parachironomus</i> sp.	midge	Chironomidae	ES
<i>Paradelphomyia</i> sp.	crane fly	Tipulidae	TR
<i>Paralauterborniella</i> sp.	midge	Chironomidae	ES
<i>Paratanytarsus</i> sp.	midge	Chironomidae	ES
<i>Paratendipes</i> sp.	midge	Chironomidae	ES
<i>Pedicia</i> sp.	crane fly	Tipulidae	TR
<i>Pentaneura</i> sp.	midge	Chironomidae	ES
phorid sp.	humpbacked fly	Phoridae	CK,ES
<i>Pollenia</i> sp.?	cluster blow fly	Calliphoridae	CK
<i>Polypedilum halterale</i>	midge	Chironomidae	ES
<i>Polypedilum</i> sp.	midge	Chironomidae	ES
<i>Pothastia longimanus</i>	midge	Chironomidae	ES
<i>Probezzia</i> sp.	biting midge	Ceratopogonidae	ES
<i>Procladius</i> sp.	midge	Chironomidae	ES
<i>Procladius sublettei</i>	midge	Chironomidae	ES
<i>Protoplasa</i> sp.?	primitive crane fly	Tanyderidae	CK
ptychopterid sp.	phantom crane fly	Ptychopteridae	CK
<i>Rhagio</i> sp.	snipe fly	Rhagionidae	CK
<i>Rhagoletis pomonella</i>	apple maggot	Tephritidae	CK
<i>Rheotanytatsus exiguus</i>	midge	Chironomidae	ES
<i>Rhopalomyia solidaginis</i>	leafy goldenrod gall	Cecidomyiidae	CK
sciariid sp.	dark-winged fungus gnat	Sciaridae	CK
sciomyzid sp.	marsh fly	Sciomyzidae	ES
<i>Simulium</i> sp.	black fly	Simuliidae	CK,ES
<i>Spoggosia</i> sp.?	tachina fly	Tachinidae	CK
<i>Stictochironomus</i> sp.	midge	Chironomidae	ES
<i>Stratiomys</i> sp.	soldier fly	Stratiomyidae	CK
<i>Sympothastia</i> sp.	midge	Chironomidae	ES
<i>Syrphus</i> sp.	hover fly	Syrphidae	CK
<i>Tabanus</i> sp.	horse fly	Tabanidae	CK,TR
<i>Tanypus</i> sp.	midge	Chironomidae	ES,TR
<i>Tanytarsus glabrescens</i>	midge	Chironomidae	ES
therevid sp.	stiletto fly	Therevidae	CK
<i>Thienemannimyia</i> sp.	midge	Chironomidae	ES
<i>Tipula</i> sp.	crane fly	Tipulidae	CK,ES,TR
<i>Tribelos</i> sp.	midge	Chironomidae	ES
<i>Trichocera</i> sp.?	winter crane fly	Trichoceridae	CK

Order Trichoptera (caddisflies)

<i>Agraylea</i> sp.	caddisfly	Hydroptilidae	CK,ES
<i>Ceraclea cancellatus</i>	caddisfly	Leptoceridae	CK
<i>Ceraclea resurgens</i>	caddisfly	Leptoceridae	CK
<i>Ceraclea tarsi-punctata</i>	caddisfly	Leptoceridae	CK,ES
<i>Ceraclea transversus</i>	caddisfly	Leptoceridae	ES
<i>Ceraclea</i> sp.	caddisfly	Leptoceridae	CK
<i>Ceratopsyche bronta</i>	caddisfly	Hydropsychidae	ES
<i>Ceratopsyche slossonae</i>	caddisfly	Hydropsychidae	ES
<i>Ceratopsyche</i> sp.	caddisfly	Hydropsychidae	ES,TR
<i>Cernotina ohio</i>	caddisfly	Polycentropodidae	ES
<i>Cheumatopsyche burksi</i>	caddisfly	Hydropsychidae	ES
<i>Cheumatopsyche campyla</i>	caddisfly	Hydropsychidae	CK
<i>Cheumatopsyche minuscula</i>	caddisfly	Hydropsychidae	ES
<i>Cheumatopsyche pasella</i>	caddisfly	Hydropsychidae	ES
<i>Cheumatopsyche sordida</i>	caddisfly	Hydropsychidae	CK,ES
<i>Cheumatopsyche</i> sp.	caddisfly	Hydropsychidae	ES,TR
<i>Chimarra obscura</i>	caddisfly	Philopotamidae	CK,ES
<i>Cyrnellus fraternus</i>	caddisfly	Polycentropodidae	CK,ES
<i>Cyrnellus marginalis</i>	caddisfly	Polycentropodidae	ES

Order Trichoptera (cont'd)	Common Name	Family	Location
<i>Helicopsyche</i> sp.	caddisfly	Helicopsychidae	TR
<i>Hydropsyche betteni</i>	caddisfly	Hydropsychidae	CK,ES
<i>Hydropsyche recurvata</i>	caddisfly	Hydropsychidae	CK,ES
<i>Hydropsyche</i> sp.	caddisfly	Hydropsychidae	CK,ES,TR
<i>Hydropsyche walkeri</i>	caddisfly	Hydropsychidae	CK
<i>Hydroptila ajax</i>	caddisfly	Hydroptilidae	CK,ES
<i>Hydroptila angusta</i>	caddisfly	Hydroptilidae	CK
<i>Hydroptila armata</i>	caddisfly	Hydroptilidae	ES
<i>Hydroptila consimilis</i>	caddisfly	Hydroptilidae	ES
<i>Hydroptila grandiosa</i>	caddisfly	Hydroptilidae	CK
<i>Hydroptila perdita</i>	caddisfly	Hydroptilidae	CK,ES
<i>Hydroptila spatulata</i>	caddisfly	Hydroptilidae	CK
<i>Hydroptila waubesiana</i>	caddisfly	Hydroptilidae	CK,ES
<i>Leptocerus americanus</i>	caddisfly	Leptoceridae	CK
<i>Limnephilus submonilifer</i>	caddisfly	Limnephilidae	CK
<i>Nectopsyche</i> sp.	caddisfly	Leptoceridae	CK,ES
<i>Neophylax</i> sp.	caddisfly	Limnephilidae	CK
<i>Neureclipsis crepuscularis</i>	caddisfly	Polycentropodidae	ES
<i>Nyctiophylax moestus</i>	caddisfly	Polycentropodidae	CK,ES
<i>Ochrotrichia tarsalis</i>	caddisfly	Hydroptilidae	CK,ES
<i>Oecetis avara</i>	caddisfly	Leptoceridae	ES
<i>Oecetis cinerascens</i>	caddisfly	Leptoceridae	CK,ES
<i>Oecetis inconspicua</i>	caddisfly	Leptoceridae	CK,ES
<i>Oecetis persimilis</i>	caddisfly	Leptoceridae	CK
<i>Orthotrichia americana</i>	caddisfly	Hydroptilidae	CK,ES
<i>Oxeythira pallida</i>	caddisfly	Hydroptilidae	ES
<i>Philarctus</i> sp.?	caddisfly	Limnephilidae	ES
<i>Phryganea cinerea</i>	caddisfly	Phryganeidae	ES
<i>Polycentropus interruptus</i>	caddisfly	Polycentropodidae	ES
<i>Polycentropus aureolus</i>	caddisfly	Polycentropodidae	CK
<i>Polycentropus cinereus</i>	caddisfly	Polycentropodidae	CK
<i>Polycentropus crassicornis</i>	caddisfly	Polycentropodidae	ES
<i>Potamyia</i> sp.	caddisfly	Hydropsychidae	CK,TR
<i>Pycnopsyche</i> sp.	caddisfly	Limnephilidae	TR
<i>Rhyacophila ledra</i>	caddisfly	Rhyacophilidae	CK
<i>Rhyacophila vibox</i>	caddisfly	Rhyacophilidae	CK
<i>Triaenodes frontalis</i>	caddisfly	Leptoceridae	ES
Order Lepidoptera (butterflies & moths)			
<i>Alypia</i> sp.	forester moth	Agaristidae	CK
<i>Antheraea polyphemus</i>	polyphemus moth	Saturniidae	CK
<i>Archips argyrospila</i>	fruittree leaf-roller	Tortricidae	CK
<i>Argyrotaenia velutinana</i>	red-banded leaf-roller	Tortricidae	CK
<i>Asterocampa celtis</i>	hackberry butterfly	Nymphalidae	CK
<i>Asterocampa clyton</i>	tawny emperor	Nymphalidae	CK
<i>Autographa</i> sp.	looper moth	Noctuidae	CK
<i>Automeris io</i>	io moth	Saturniidae	CK
<i>Battus philenor</i>	pipevine swallowtail	Papilionidae	CK
<i>Boloria bellona bellona</i>	meadow fritillary	Nymphalidae	CK
<i>Catocala</i> sp.	underwing moth	Noctuidae	CK
<i>Celastrina ladon ladon</i>	spring azure	Lycaenidae	CK
<i>Cercyonis pegala</i>	common wood nymph	Satyridae	CK
<i>Choristoneura rosaceana</i>	oblique-banded leaf-roller	Tortricidae	CK
<i>Colias eurytheme</i>	orange sulfur	Pieridae	CK
<i>Colias philodice</i>	common sulfur	Pieridae	CK
<i>Crambus</i> sp.	close-wings or grass moth	Pyralidae	CK
<i>Ctenucha virginica</i>	ctenuchid Virginia moth	Ctenuchidae	CK
<i>Cydia pomonella</i>	codling moth	Tortricidae	CK
<i>Danaus plexippus</i>	monarch butterfly	Danaidae	CK
<i>Enodia anthedon</i>	northern pearly eye	Nymphalidae	CK
<i>Epargyreus clarus</i>	silver-spotted skipper	Hesperiidae	CK

Order Lepidoptera (cont'd)

	Common Name	Family	Location
<i>Erynnis baptisiae</i>	wild indigo duskywing skipper	Hesperiidae	CK
<i>Estigmene sp.?</i>	white moth	Arctiidae	CK
<i>Euchoea albovitatta</i>	white-striped black moth	Geometridae	CK
<i>Euzophera semifuneralis</i>	American plum borer	Pyralidae	CK
<i>Everes comyntas</i>	eastern tailed blue	Lycaenidae	CK
<i>Gnorimoschema gallaesolidaginis</i>	golden rod gall	Gelechiidae	CK
<i>Grapholita molesta</i>	Oriental fruit moth	Tortricidae	CK
<i>Haemotopis grataria</i>	chickweed geometer moth	Geometridae	CK
<i>Heliothis zea</i>	corn earworm	Noctuidae	CK
<i>Hemerocampa leucostigma</i>	white-marked tussock moth	Lymantriidae	CK
<i>Hyphantria cunea</i>	fall webworm	Arctiidae	CK
<i>Isia isabella</i>	banded woollybear	Arctiidae	CK
<i>Junonia coenia</i>	buckeye	Nymphalidae	CK
<i>Libytheana bachmanii</i>	snout butterfly	Libytheidae	CK
<i>Limenitis archippus</i>	viceroy	Nymphalidae	CK
<i>Limenitis arthemis astyanax</i>	red-spotted purple	Nymphalidae	CK
<i>Lycaena phlaeas</i>	American copper	Lycaenidae	CK
<i>Malacosoma americanum</i>	eastern tent caterpillar	Lasiocampidae	CK
<i>Manduca quinquemaculata</i>	tomato hornworm	Sphingidae	CK
<i>Megisto cymela</i>	little wood satyr	Satyridae	CK
notodontid sp.	prominent moth	Notodontidae	CK
<i>Nymphalis antiopa</i>	mourning cloak	Nymphalidae	CK
<i>Nymphalis milberti</i>	Milbert's tortoise shell	Nymphalidae	CK
<i>Ostrinia nubilalis</i>	European corn borer	Pyralidae	CK
<i>Papaipema nebris</i>	stalk borer	Noctuidae	CK
<i>Papilio cresphontes</i>	giant swallowtail	Papilionidae	CK
<i>Papilio glaucus</i>	tiger swallowtail	Papilionidae	CK
<i>Papilio polyxenes asterius</i>	black swallowtail	Papilionidae	CK
<i>Papilio troilus</i>	spicebush swallowtail	Papilionidae	CK
<i>Paralobesia viteana</i>	grape berry moth	Tortricidae	CK
<i>Pennisetia marginata</i>	raspberry crown borer	Sesiidae	CK
<i>Pholisora catullus</i>	common sootywing skipper	Hesperiidae	CK
<i>Phyciodes tharos</i>	pearl crescent	Nymphalidae	CK
<i>Phyllonorycter blanchardella</i>	spotted tentiform leafminer	Gracillariidae	CK
<i>Pieris rapae</i>	cabbage white	Pieridae	CK
<i>Platy nota flavedana</i>	variegated leaf-roller	Tortricidae	CK
<i>Platynota idaealis</i>	tufted apple bud-moth	Tortricidae	CK
<i>Platysamia cecropia</i>	cecropia moth	Saturniidae	CK
<i>Plodia interpunctata</i>	Indian meal moth	Pyralidae	CK
<i>Poanes zabulon</i>	southern golden skipper	Hesperiidae	CK
<i>Podosesia syringae syringae</i>	lilac borer	Sesiidae	CK
<i>Polites coras [=Polites peckius]</i>	yellowpatch or Peck's skipper	Hesperiidae	CK
<i>Polygonia interrogationis</i>	question-mark	Nymphalidae	CK
<i>Protoparce sexta?</i>	sphinx moth	Sphingidae	CK
<i>Speyeria</i> sp.	fritillary or silverspot	Nymphalidae	CK
sphingid sp.	clear-wing sphinx moth	Sphingidae	CK
<i>Spilonota ocellana</i>	eye-spotted bud-moth	Tortricidae	CK
<i>Synanthedon exitiosa</i>	peach tree borer	Sesiidae	CK
<i>Synanthedon pictipes</i>	lesser peach tree borer	Sesiidae	CK
<i>Synanthedon scitula</i>	dogwood borer	Sesiidae	CK
<i>Synchlora aerata</i>	green geometrid moth	Geometridae	CK
tineid sp.	clothes moth	Tineidae	CK
<i>Vanessa atalanta rubria</i>	red admiral	Nymphalidae	CK
<i>Vanessa cardui</i>	painted lady	Nymphalidae	CK
<i>Vanessa virginiensis</i>	American painted lady	Nymphalidae	CK
yponomeutoid sp.	ermine moth	Yponomeutoidea	ES

Order Hymenoptera (ants, bees, sawflies, & wasps)

<i>Acanthomyops</i> sp.	foundation ant	Formicidae	CK
<i>Agapostemon</i> sp.	halictid bee	Halictidae	CK

Order Hymenoptera (cont'd)	Common Name	Family	Location
<i>Amphibolips</i> sp.?	oak apple gall	Cynipidae	CK
andrenid sp.	andrenid bee	Andrenidae	CK
anthophorid sp.	digger bee	Anthophoridae	CK
<i>Apis mellifera</i>	honey bee	Apidae	CK
<i>Bombus</i> sp.	large bumblebee	Apidae	CK
braconid sp.	braconid wasp	Braconidae	CK
<i>Camponotus</i> sp.	carpenter ant	Formicidae	CK
<i>Chalybion</i> sp.?	thread-waisted wasp	Sphecidae	CK
chrysidid sp.	cuckoo wasp	Chrysididae	CK
colletid sp.	colletid bee	Colletidae	CK
<i>Crematogaster</i> sp.	small black ant	Formicidae	CK
<i>Diastrophus cuscuteformis</i>	blackberry gall	Cynipidae	CK
<i>Diastrophus nebulosus</i>	blackberry gall-maker	Cynipidae	CK
<i>Eumenes</i> sp.?	potter wasp	Eumenidae	CK
eurytomid sp.	chalid seed wasp	Eurytomidae	CK
evaniid sp.	ensign wasp	Evaniidae	ES
<i>Formica</i> sp.	mound builder ant	Formicidae	CK
halictid sp.	halictid bee	Halictidae	CK
ichneumonid sp.	ichneumon wasp	Ichneumonidae	CK,ES
<i>Lasius</i> sp.	winged ant	Formicidae	CK
<i>Leptothorax</i> sp.	ant	Formicidae	CK
megachilid sp.	leafcutting bee	Megachilidae	CK
<i>Megarhyssa</i> sp.?	ichneumon wasp	Ichneumonidae	CK
<i>Monobia</i> sp.?	potter wasp	Eumenidae	CK
<i>Monomorium pharaonis</i> ?	Pharaoh ant	Formicidae	CK
<i>Myrmica</i> sp.	ant	Formicidae	CK
nomadin sp.?	cuckoo bee	Anthophoridae	CK
polistin sp.	paper wasp	Vespidae	CK
<i>Ponera</i> sp.	ant	Formicidae	CK
<i>Prenolepis</i> sp.	parasitic wasp	Proctotrupidae	CK
proctotrupid sp.	cicada killer wasp	Sphecidae	CK
<i>Sphexius speciosus</i>	sawfly	Tenthredinidae	CK
tenthredinid sp.	pavement ant	Formicidae	CK
<i>Tetramorium caespitum</i>	tiphiid wasp	Tiphiidae	CK,ES
tiphiid sp.	parasitic wasp	Torymidae	CK
torymid sp.	horntail sawfly	Siricidae	CK
<i>Tremex</i> sp.?	giant hornet	Vespidae	CK
<i>Vespa crabro germana</i>	picnic wasp	Vespidae	CK
<i>Vespa germanica</i>	bald-faced hornet	Vespidae	CK
<i>Vespa maculata</i>	yellowjacket wasp	Vespidae	CK
<i>Vespa maculifrons</i> ?	large carpenter bee	Anthophoridae	CK

PHYLUM TARDIGRADA (water bears)**Order Eutardigrada**

macrobiotid sp.

water bear Macrobiotidae ES

PHYLUM BRYOZOA [=ECTOPROCTA] (bryozoans)**CLASS PHYLACTOLAEMATA****Order Plumatellida**

Lophopodella carteri
Pectinatella magnifica
Plumatella casmiana
Plumatella repens

sac bryozoan	Lophopodidae	ES
slimy bryozoan	Lophopodidae	ES
bryozoan	Plumatellidae	ES
spreading bryozoan	Plumatellidae	ES

Location Codes:

CK – Old Woman Creek watershed upstream of the estuary

ES – Old Woman Creek Estuary (including watershed within boundaries of NERR)

LE – Lake Erie, principally nearshore waters of Erie County and western Lorain County, Ohio

TR – Tributary watersheds to Lake Erie other than Old Woman Creek, principally of eastern Erie County and western Lorain County, Ohio

**APPENDIX D. FISH FAUNA OF OLD WOMAN CREEK ESTUARY AND WATERSHED,
AND ADJACENT TRIBUTARIES AND WATERS OF LAKE ERIE**

	Common Name	Location
LAMPREYS (Petromyzontidae)		
<i>Ichthyomyzon unicuspis</i>	silver lamprey	LE,TR
<i>Petromyzon marinus</i>	sea lamprey	LE
STURGEONS (Acipenseridae)		
<i>Acipenser fulvescens</i>	lake sturgeon	LE
GARS (Lepisosteidae)		
<i>Lepisosteus osseus</i>	longnose gar	ES,LE,TR
BOWFINS (Ammidae)		
<i>Amia calva</i>	bowfin	ES,LE,TR
HERRINGS (Clupeidae)		
<i>Alosa pseudoharengus</i>	alewife	ES,LE,TR
<i>Dorosoma cepedianum</i>	gizzard shad	ES,LE,TR
WHITEFISHES (Coregoninae)		
<i>Coregonus clupeaformis</i>	lake whitefish	LE
MOONEYES (Hiodontidae)		
<i>Hiodon tergisus</i>	mooneye	LE
SALMONS AND TROUTS (Salmoninae)		
<i>Oncorhynchus kisutch</i>	coho salmon	ES,LE,TR
<i>Oncorhynchus tshawytscha</i>	chinook salmon	LE,TR
<i>Oncorhynchus mykiss</i>	rainbow or steelhead trout	CK,ES,LE,TR
<i>Salvelinus fontinalis</i>	brook trout	TR
<i>Salmo trutta</i>	brown trout	TR
SMELETS (Osmeridae)		
<i>Osmerus mordax</i>	rainbow smelt	LE
MUDMINNOWS (Umbridae)		
<i>Umbrä limi</i>	central mudminnow	ES,TR
PIKES (Esocidae)		
<i>Esox americanus</i>	grass pickerel	TR
<i>Esox lucius</i>	northern pike	CK,ES,LE,TR
<i>Esox masquinongy</i>	muskellunge	LE
<i>Esox niger</i>	chain pickerel	TR
CARPS AND MINNOWS (Cyprinidae)		
<i>Campostoma anomalum</i>	stoneroller minnow	CK,ES,TR
<i>Carassius auratus</i>	goldfish	ES,LE,TR
<i>Clinostomus elongatus</i>	redside dace	LE,TR
<i>Cyprinella spiloptera</i>	spotfin shiner	ES,LE,TR
<i>Cyprinus carpio</i>	common carp	ES,LE,TR
<i>Hybopsis amblops</i>	bigeye chub	TR
<i>Hybopsis storriana</i>	silver chub	ES,LE,TR
<i>Luxilus chrysocephalus</i>	striped shiner	LE,TR
<i>Luxilus cornutus</i>	common shiner	CK,ES,TR
<i>Lythrurus umbratilis</i>	redfin shiner	TR
<i>Nocomis biguttatus</i>	hornyhead chub	TR
<i>Nocomis micropogon</i>	river chub	TR
<i>Notemigonus crysoleucas</i>	golden shiner	ES,LE,TR
<i>Notropis atherinoides</i>	emerald shiner	CK,ES,LE,TR
<i>Notropis buccata</i>	silverjaw minnow	LE,TR
<i>Notropis buchanani</i>	ghost shiner	LE,TR
<i>Notropis dorsalis</i>	bigmouth shiner	TR

	Common Name	Location
CARPS AND MINNOWS (cont'd)		
<i>Notropis emiliae</i>	pugnose minnow	TR
<i>Notropis heterolepis</i>	blacknose shiner	LE
<i>Notropis hudsonius</i>	spottail shiner	ES,LE,TR
<i>Notropis photogenis</i>	silver shiner	TR
<i>Notropis rubellus</i>	rosyface shiner	ES,TR
<i>Notropis stramineus</i>	sand shiner	ES,LE,TR
<i>Notropis volucellus</i>	mimic shiner	LE,TR
<i>Phoxinus erythrogaster</i>	southern redbelly dace	TR
<i>Pimephales notatus</i>	bluntnose minnow	CK,ES,LE,TR
<i>Pimephales promelas</i>	northern fathead minnow	ES,TR
<i>Rhinichthys atratulus</i>	blacknose dace	CK,TR
<i>Rhinichthys cataractae</i>	longnose dace	LE
<i>Semotilus atromaculatus</i>	northern creek chub	ES,CK,TR
SUCKERS (Catostomidae)		
<i>Carpoides cyprinus</i>	quillback carpsucker	ES,LE,TR
<i>Catostomus commersoni</i>	white sucker	CK,ES,LE,TR
<i>Hypentelium nigricans</i>	northern hog sucker	LE,TR
<i>Ictiobus bubalus</i>	smallmouth buffalo	ES,LE,TR
<i>Ictiobus cyprinellus</i>	bigmouth buffalo	LE,TR
<i>Minytrema melanops</i>	spotted sucker	ES,LE,TR
<i>Moxostoma anisurum</i>	silver redhorse	LE,TR
<i>Moxostoma duquesnei</i>	black redhorse	ES,LE,TR
<i>Moxostoma erythrurum</i>	golden redhorse	ES,LE,TR
<i>Moxostoma macrolepidotum</i>	shorthead redhorse	ES,LE,TR
BULLHEAD CATFISHES (Ictaluridae)		
<i>Ameiurus melas</i>	black bullhead	ES,TR
<i>Ameiurus natalis</i>	yellow bullhead	ES,LE,TR
<i>Ameiurus nebulosus</i>	brown bullhead	ES,LE,TR
<i>Ictalurus punctatus</i>	channel catfish	ES,LE,TR
<i>Noturus flavus</i>	stonecat madtom	ES,LE,TR
<i>Noturus gyrinus</i>	tadpole madtom	ES,TR
<i>Noturus miurus</i>	brindled madtom	LE,TR
<i>Pylodictis olivaris</i>	flathead catfish	LE,TR
TROUT-PERCHES (Percopsidae)		
<i>Percopsis omniforum</i>	trout-perch	LE,TR
CODFISHES (Gadidae)		
<i>Lota lota</i>	burbot	LE
KILLIFISHES (Cyprinodontidae)		
<i>Fundulus diaphanus menona</i>	western banded killifish	TR
SILVERSIDES (Poeciliidae)		
<i>Labidesthes sicculus</i>	brook silverside	ES,LE,TR
TEMPERATE BASSES (Percichthyidae)		
<i>Morone americana</i>	white perch	ES,LE,TR
<i>Morone chrysops</i>	white bass	ES,LE,TR
SUNFISHES (Centrarchidae)		
<i>Ambloplites rupestris</i>	rock bass	LE,TR
<i>Lepomis cyanellus</i>	green sunfish	CK,ES,LE,TR
<i>Lepomis gibbosus</i>	pumpkinseed	CK,ES,LE,TR
<i>Lepomis humilis</i>	orangespotted sunfish	ES,TR
<i>Lepomis macrochirus</i>	bluegill sunfish	ES,LE,TR
<i>Lepomis megalotis peltastes</i>	northern longear sunfish	TR
<i>Micropterus dolomieu</i>	smallmouth bass	ES,LE,TR
<i>Micropterus salmoides</i>	largemouth bass	CK,ES,LE,TR
<i>Pomoxis annularis</i>	white crappie	ES,LE,TR
<i>Pomoxis nigromaculatus</i>	black crappie	ES,LE,TR

ECOLOGY OF OLD WOMAN CREEK ESTUARY AND WATERSHED

	Common Name	Location
PERCHES (Percidae)		
<i>Ammocrypta pellucida</i>	eastern sand darter	LE,TR
<i>Etheostoma blennioides</i>	greenside darter	TR
<i>Etheostoma caeruleum</i>	rainbow darter	CK,LE,TR
<i>Etheostoma exile</i>	Iowa darter	LE,TR
<i>Etheostoma flabellare</i>	fantail darter	LE,TR
<i>Etheostoma nigrum</i>	johnny darter	ES,TR
<i>Perca flavescens</i>	yellow perch	ES,LE,TR
<i>Percina caprodes</i>	logperch darter	ES,LE,TR
<i>Percina copelandi</i>	channel darter	LE,TR
<i>Percina maculata</i>	blackside darter	TR
<i>Stizostedion canadense</i>	sauger	LE
<i>Sander vitreus vitreus</i>	walleye	ES,LE,TR
DRUMS (Sclaenidae)		
<i>Aplodinotus grunniens</i>	freshwater drum	ES,LE,TR
SCULPINS (Cottidae)		
<i>Cottus bairdi</i>	mottled sculpin	LE,TR

Location Codes:

CK – Old Woman Creek upstream of the estuary

ES – Old Woman Creek estuary

LE – Lake Erie, principally nearshore waters of eastern Erie County and western Lorain County, Ohio

TR – Tributary waters to Lake Erie other than Old Woman Creek, principally of eastern Erie County and western Lorain County, Ohio

**APPENDIX E. AVIFAUNA OF OLD WOMAN CREEK ESTUARY, WATERSHED,
AND ADJACENT TRIBUTARIES AND WATERS OF LAKE ERIE**

		—Abundance—				
		Common Name	Sp	Su	F	W
LOONS (Gaviidae)		common loon	U	R	U	O
<i>Gavia immer</i>		red-throated loon	O		O	R
GREBES (Podicipedidae)		horned grebe	U		U	O
<i>Podiceps auritus</i>		red-necked grebe	R		R	R
<i>Podiceps grisegena</i>		eared grebe	R		R	R
<i>Podiceps nigricollis</i>		pied-billed grebe	C	U	C	O
CORMORANTS (Phalacrocoracidae)		double-crested cormorant	C	C	C	R
<i>Phalacrocorax auritus</i>						
HERONS (Ardeidae)		great egret [=common heron]	U	U	O	
<i>Ardea albus</i>		great blue heron	C	C	C	O
<i>Ardea herodias</i>		American bittern	R	R	R	
<i>Botaurus lentiginosus</i>		cattle egret	R	R	R	
<i>Bubulcus ibis</i>		striated heron [=green-backed heron]	U	U	U	
<i>Butorides striatus</i>		snowy egret	R	R	R	
<i>Egretta thula</i>		least bittern	R	R	R	
<i>Ixobrychus exilis</i>		yellow-crowned night-heron	R	R	R	
<i>Nyctanassa violacea</i>		black-crowned night-heron	U	U	U	R
<i>Nycticorax nycticorax</i>						
WATERFOWL: DUCKS, GEESE, & SWANS (Anatidae)						
<i>Aix sponsa</i>		wood duck	C	C	C	R
<i>Anas acuta</i>		northern pintail	O	R	O	O
<i>Anas americana</i>		American wigeon	O	R	O	O
<i>Anas clypeata</i>		northern shoveler	O	R	O	R
<i>Anas crecca</i>		green-winged teal	O	R	O	R
<i>Anas discors</i>		blue-winged teal	U	U	U	R
<i>Anas platyrhynchos</i>		mallard	A	A	A	A
<i>Anas rubripes</i>		American black duck	C	U	C	C
<i>Anas strepera</i>		gadwall	U	R	U	O
<i>Aythya affinis</i>		lesser scaup	C	R	C	C
<i>Aythya americana</i>		redhead	U	R	U	O
<i>Aythya collaris</i>		ring-necked duck	U	R	U	O
<i>Aythya marila</i>		greater scaup	U		U	U
<i>Aythya valisineria</i>		canvasback	U		U	O
<i>Branta canadensis</i>		Canada goose	C	C	A	C
<i>Bucephala albeola</i>		bufflehead	C		C	U
<i>Bucephala clangula</i>		common goldeneye	C		C	C
<i>Chen caerulescens</i>		snow goose	R		O	R
<i>Clangula hyemalis</i>		oldsquaw	O		O	O
<i>Cygnus columbianus</i>		tundra swan [= whistling swan]	U		U	R
<i>Cygnus olor</i>		mute swan	R		R	R
<i>Lophodytes cucullatus</i>		hooded merganser	U	R	U	U
<i>Melanitta fusca</i>		white-winged scoter	O		O	U
<i>Melanitta nigra</i>		black scoter	R		O	R
<i>Melanitta perspicillata</i>		surf scoter	R		O	R
<i>Mergus merganser</i>		common merganser	O		O	U
<i>Mergus serrator</i>		red-breasted merganser	C	R	A	C
<i>Oxyura jamaicensis</i>		ruddy duck	C	R	C	R

—Abundance—					
	Common Name	Sp	Su	F	W
		C	C	C	
AMERICAN VULTURES (Cathartidae)					
<i>Cathartes aura</i>	turkey vulture	U	R	U	
BIRDS OF PREY: OSPREYS: (Accipitridae: Panioninae)					
<i>Pandion haliaetus</i>	osprey				
BIRDS OF PREY: HAWKS & EAGLES (Accipitridae: Accipitrinae)					
<i>Accipiter cooperii</i>	Cooper's hawk	U	U	U	U
<i>Accipiter gentilis</i>	northern goshawk	R		R	R
<i>Accipiter striatus</i>	sharp-shinned hawk	U	R	U	R
<i>Buteo jamaicensis</i>	red-tailed hawk	C	C	C	C
<i>Buteo lagopus</i>	rough-legged hawk	O		O	C
<i>Buteo lineatus</i>	red-shouldered hawk	U	R	U	R
<i>Buteo platypterus</i>	broad-winged hawk	U	R	U	
<i>Circus cyaneus</i>	northern harrier [= marsh hawk]	U	R	U	U
<i>Falco columbarius</i>	merlin	O		O	
<i>Falco peregrinus</i>	peregrine falcon	O	R	O	R
<i>Falco sparverius</i>	American kestrel [=sparrow hawk]	C	C	C	C
<i>Haliaeetus leucocephalus</i>	bald eagle	C	C	C	C
GALLINACEOUS BIRDS: PHEASANTS & QUAILS (Phasianidae)					
<i>Colinus virginianus</i>	northern bobwhite	R	R	R	R
<i>Meleagris gallopavo</i>	wild turkey	O	O	O	O
<i>Phasianus colchicus</i>	ring-necked pheasant	R	R	R	R
RAILS (Rallidae)					
<i>Fulica americana</i>	American coot	U	U	U	U
<i>Gallinula chloropus</i>	common moorhen	O	O	O	
<i>Porzana carolina</i>	sora	U	O	U	
<i>Rallus elegans</i>	king rail	R	R	R	
<i>Rallus limicola</i>	Virginia rail	O	O	O	
SHOREBIRDS: PLOVERS (Charadriidae)					
<i>Charadrius melanotos</i>	piping plover	R	R	R	
<i>Charadrius semipalmatus</i>	semipalmated plover	U	U	U	
<i>Charadrius vociferus</i>	killdeer	C	C	C	R
<i>Pluvialis dominica</i>	American golden-plover	U	R	U	
<i>Pluvialis squatarola</i>	black-bellied plover	U	O	U	
SHOREBIRDS: SANDPIPER & ALLIES (Scolopacidae)					
<i>Actitis macularia</i>	spotted sandpiper	C	C	C	
<i>Arenaria interpres</i>	ruddy turnstone	U	O	U	R
<i>Bartramia longicauda</i>	upland sandpiper	R	R	R	
<i>Calidris alba</i>	sanderling	U	O	U	
<i>Calidris alpina</i>	dunlin	A	O	C	R
<i>Calidris canutus</i>	red knot	O	O	O	
<i>Calidris fuscicollis</i>	white-rumped sandpiper	O	O	O	
<i>Calidris himantopus</i>	stilt sandpiper	O	O	O	
<i>Calidris maritima</i>	purple sandpiper			O	O
<i>Calidris mauri</i>	western sandpiper	O	U	U	
<i>Calidris melanotos</i>	pectoral sandpiper	C	U	C	
<i>Calidris minutilla</i>	least sandpiper	C	U	C	
<i>Calidris pusilla</i>	semipalmated sandpiper	C	U	C	
<i>Catoptrophorus semipalmatus</i>	willet	O	R	O	
<i>Gallinago gallinago</i>	common snipe	U	O	U	
<i>Limnodromus scolopaceus</i>	long-billed dowitcher	R	R	U	
<i>Limnodromus griseus</i>	short-billed dowitcher	C	U	U	
<i>Limosa fedo</i>	a marbled godwit	R	R	O	
<i>Phalaropus lobatus</i>	red-necked phalarope	O	R	O	
<i>Phalaropus tricolor</i>	Wilson's phalarope	O	R	O	
<i>Scolopax minor</i>	American woodcock	U	U	U	
<i>Tringa flavipes</i>	lesser yellowlegs	U	O	U	

—Abundance—				
	Sp	Su	F	W
SHOREBIRDS: SANDPIPER & ALLIES (cont'd)				
<i>Tringa melanoleuca</i> greater yellowlegs	U	O	U	
<i>Tringa solitaria</i>	U	U	U	
TERNS (Laridae: Sterninae)				
<i>Chlidonias niger</i>	O	O	O	
<i>Sterna caspia</i>	C	O	C	
<i>Sterna forsteri</i>	C	O	C	R
<i>Sterna hirundo</i>	C	O	C	R
JAEGERS (Laridae: Stercorariinae)				
<i>Stercorarius parasiticus</i>			O	R
GULLS (Laridae: Larinae)				
<i>Larus argentatus</i>	A	C	A	A
<i>Larus atricilla</i>	R	O	O	R
<i>Larus delawarensis</i>	A	A	A	A
<i>Larus fuscus</i>	O		U	O
<i>Larus glaucopterus</i>	O		O	U
<i>Larus hyperboreus</i>	O		O	U
<i>Larus marinus</i>	U	O	U	C
<i>Larus minutus</i>	O	R	O	R
<i>Larus philadelphicus</i>	C	O	A	O
<i>Larus pipixcan</i>	R	R	O	R
<i>Larus ridibundus</i>	R		R	R
<i>Larus thayeri</i>	O		O	U
<i>Rissa tridactyla</i>	R		O	O
DOVES (Columbidae)				
<i>Columba livia</i>	A	A	A	A
<i>Zenaida macroura</i>	A	A	A	A
CUCKOOS (Cuculidae)				
<i>Coccyzus americanus</i>	U	U	U	
<i>Coccyzus erythrophthalmus</i>	O	O	O	
OWLS (Strigidae)				
<i>Aegolius acadicus</i>	R	R	R	R
<i>Asio flammeus</i>	R		O	O
<i>Asio otus</i>	R		R	O
<i>Bubo virginianus</i>	C	C	C	C
<i>Nyctea scandiaca</i>	R		R	O
<i>Otus asio</i>	C	C	C	C
<i>Strix varia</i>	R	R	R	R
BARN-OWLS (Tytonidae)				
<i>Tyto alba</i>	R	R	R	R
GOATSUCKERS & ALLIES (Caprimulgidae)				
<i>Caprimulgus vociferus</i>	O	R		
<i>Chordeiles minor</i>	C	C	C	
HUMMINGBIRDS (Trochilidae)				
<i>Archilochus colubris</i>	C	C	C	
SWIFTS (Apodidae)				
<i>Chaetura pelasgica</i>	C	C	C	
KINGFISHERS (Alcedinidae)				
<i>Ceryle alcyon</i>	C	C	C	U

—Abundance—				
	Sp	Su	F	W
WOODPECKERS (Picidae)				
<i>Colaptes auratus</i>	C	C	C	O
<i>Dryocopus pileatus</i>	R	R	R	R
<i>Melanerpes carolinus</i>	U	U	U	U
<i>Melanerpes erythrocephalus</i>	U	U	U	R
<i>Picoides pubescens</i>	C	C	C	C
<i>Picoides villosus</i>	C	C	C	C
<i>Sphyrapicus varius</i>	U	R	U	R
PERCHING BIRDS				
TYRANT FLYCATCHERS (Tyrannidae: Fluvicolinae)				
<i>Contopus cooperi</i>	U	R	O	
<i>Contopus virens</i>	C	C	C	
<i>Empidonax alnorum</i>	O	R	O	
<i>Empidonax flaviventris</i>	U	R	U	
<i>Empidonax minimus</i>	C	U	U	
<i>Empidonax traillii</i>	C	C	O	
<i>Empidonax virescens</i>	C	C	U	
<i>Sayornis phoebe</i>	C	U	O	R
KINGBIRDS (Tyrannidae: Tyranninae)				
<i>Myiarchus crinitus</i>	C	C	C	
<i>Tyrannus tyrannus</i>	C	C	C	
LARKS (Alaudidae)				
<i>Eremophila alpestris</i>	horned lark	C	C	C
SWALLOWS (Hirundinidae)				
<i>Petrochelidon pyrrhonota</i>	cliff swallow	O	R	O
<i>Hirundo rustica</i>	barn swallow	C	C	C
<i>Progne subis</i>	purple martin	C	C	C
<i>Riparia riparia</i>	bank swallow	O	O	O
<i>Stelgidopteryx serripennis</i>	northern rough-winged swallow	C	C	C
<i>Tachycineta bicolor</i>	tree swallow	C	C	C
JAYS & CROWS (Corvidae)	American crow	C	C	C
	blue jay	A	A	A
CHICKADEES (Paridae)				
<i>Baeolophus bicolor</i>	tufted titmouse	C	C	C
<i>Poecile atricapillus</i>	black-capped chickadee	C	C	C
NUTHATCHES (Sittidae)				
<i>Sitta canadensis</i>	red-breasted nuthatch	U		U
<i>Sitta carolinensis</i>	white-breasted nuthatch	C	C	C
CREEPERS (Certhiidae)				
<i>Certhia americana</i>	brown creeper	U	R	U
WRENS (Troglodytidae)				
<i>Cistothorus palustris</i>	marsh wren	U	U	U
<i>Cistothorus platensis</i>	sedge wren	R	R	R
<i>Thryothorus ludovicianus</i>	Carolina wren	O	O	O
<i>Troglodytes aedon</i>	house wren	C	C	C
<i>Troglodytes troglodytes</i>	winter wren	C	O	O
GNATCATCHERS (Sylviidae)				
<i>Polioptila caerulea</i>	blue-gray gnatcatcher	C	C	C

		—Abundance—				
		Common Name	Sp	Su	F	W
KINGLETS (Regulidae)		ruby-crowned kinglet	C		C	O
<i>Regulus calendula</i>		golden-crowned kinglet	C		C	O
THRUSHES (Turdidae)		veery	U	O	U	
<i>Catharus fuscescens</i>		hermit thrush	U	R	U	R
<i>Catharus guttatus</i>		gray-cheeked thrush	U		U	
<i>Catharus minimus</i>		Swainson's thrush	U	R	U	
<i>Catharus ustulatus</i>		wood thrush	C	C	C	
<i>Hylocichla mustelina</i>		eastern bluebird	U	U	U	O
<i>Sialia sailis</i>		American robin	A	A	A	U
MOCKINGBIRDS (Mimidae)		gray catbird	C	C	C	
<i>Dumetella carolinensis</i>		northern mockingbird	R	R	R	R
<i>Mimus polyglottos</i>		brown thrasher	U	U	U	
PIPITS (Motacillidae)		water pipit	U		U	
<i>Anthus spinoletta</i>						
WAXWINGS (Bombycillidae)		cedar waxwing	C	C	C	U
<i>Bombycilla cedrorum</i>						
SHRIKES (Laniidae)		northern shrike	R		R	O
<i>Lanius excubitor</i>		loggerhead shrike	R	R	R	
STARLINGS (Sturnidae)		European starling	A	A	A	A
<i>Sturnus vulgaris</i>						
VIREOS (Vireonidae)		yellow-throated vireo	U	U	U	
<i>Vireo flavifrons</i>		warbling vireo	C	C	C	
<i>Vireo gilvus</i>		white-eyed vireo	O	O	O	
<i>Vireo griseus</i>		red-eyed vireo	C	C	C	
<i>Vireo olivaceus</i>		Philadelphia vireo	O		O	
<i>Vireo philadelphicus</i>		blue-headed vireo [=solitary vireo]	U	O	U	
WOOD-WARBLERS (Parulidae)						
<i>Dendroica caerulescens</i>		black-throated blue warbler	U		U	
<i>Dendroica castanea</i>		bay-breasted warbler	C		C	
<i>Dendroica cerulea</i>		cerulean warbler	U	U	U	
<i>Dendroica coronata</i>		yellow-rumped warbler	C		C	O
<i>Dendroica discolor</i>		prairie warbler	R	R	R	
<i>Dendroica dominica</i>		yellow-throated warbler	O			
<i>Dendroica fusca</i>		Blackburnian warbler	U		U	
<i>Dendroica magnolia</i>		magnolia warbler	U		U	
<i>Dendroica palmarum</i>		palm warbler	U		U	
<i>Dendroica pensylvanica</i>		chestnut-sided warbler	U	O	U	
<i>Dendroica petechia</i>		yellow warbler	C	C	C	
<i>Dendroica pinus</i>		pine warbler	O		U	
<i>Dendroica striata</i>		blackpoll warbler	O		C	
<i>Dendroica tigrina</i>		Cape May warbler	U		U	
<i>Dendroica virens</i>		black-throated green warbler	U		U	
<i>Geothlypis trichas</i>		common yellowthroat	C	C	C	R
<i>Icteria virens</i>		yellow-breasted chat	U	U	U	
<i>Mniotilla varia</i>		black-and-white warbler	U	R	U	
<i>Oporornis philadelphica</i>		mourning warbler	O		R	
<i>Parula americana</i>		northern parula	U	R	O	
<i>Protonotaria citrea</i>		prothonotary warbler	O	O	O	
<i>Seiurus aurocapillus</i>		ovenbird	U	U	U	

	Common Name	Sp	Su	F	W	—Abundance—
WOOD-WARBLERS (cont'd)						
<i>Seiurus motacilla</i>	Louisiana waterthrush	U	R	U		
<i>Seiurus noveboracensis</i>	northern waterthrush	U	R	U		
<i>Setophaga ruticilla</i>	American redstart	C	C	C		
<i>Vermivora celata</i>	orange-crowned warbler	O		O	R	
<i>Vermivora chrysopera</i>	golden-winged warbler	O	R	R		
<i>Vermivora peregrina</i>	Tennessee warbler	C		C		
<i>Vermivora pinus</i>	blue-winged warbler	U	U	U		
<i>Vermivora ruficapilla</i>	Nashville warbler	U		U		
<i>Wilsonia canadensis</i>	Canada warbler	U		U		
<i>Wilsonia citrina</i>	hooded warbler	U	O	U		
<i>Wilsonia pusill</i>	Wilson's warbler	U		U		
TANAGERS (Thraupidae)						
<i>Piranga olivacea</i>	scarlet tanager	U	U	U		
CARDINALS (Cardinalidae)						
<i>Cardinalis cardinalis</i>	northern cardinal	C	C	C	C	
<i>Passerina cyanea</i>	indigo bunting	C	C	C		
<i>Pheucticus ludovicianus</i>	rose-breasted grosbeak	U	U	U		
<i>Spiza americana</i>	dickcissel	R	R	R		
AMERICAN SPARROWS (Emberizidae)						
<i>Ammodramus caudacutus</i>	saltmarsh sharp-tailed sparrow	R		O		
<i>Ammodramus henslowii</i>	Henslow's sparrow	R	R	R		
<i>Ammodramus savannarum</i>	grasshopper sparrow	O	U	O		
<i>Calcarius lapponicus</i>	Lapland longspur	O		O	O	
<i>Junco hyemalis</i>	dark-eyed junco	C		C	C	
<i>Melospiza georgiana</i>	swamp sparrow	U	O	U	O	
<i>Melospiza lincolni</i>	Lincoln's sparrow	U		U	R	
<i>Melospiza melodia</i>	song sparrow	C	C	C	C	
<i>Passerculus sandwichensis</i>	Savannah sparrow	U	C	U	R	
<i>Passerella iliaca</i>	fox sparrow	U		U	R	
<i>Pipilo erythrorththalmus</i>	eastern towhee [=rufous-sided towhee]	C	C	C	R	
<i>Plectrophenax nivalis</i>	snow bunting	O		C	U	
<i>Pooecetes gramineus</i>	vesper sparrow	U	U	U		
<i>Spizella arborea</i>	American tree sparrow	C		U	C	
<i>Spizella passerina</i>	chipping sparrow	U	C	U		
<i>Spizella pusilla</i>	field sparrow	C	C	C	R	
<i>Zonotrichia albicollis</i>	white-throated sparrow	C	R	C	U	
<i>Zonotrichia leucophrys</i>	white-crowned sparrow	U		U	O	
BLACKBIRDS & ORIOLES (Icteridae)						
<i>Agelaius phoeniceus</i>	red-winged blackbird	A	A	A	U	
<i>Dolichonyx oryzivorus</i>	bobolink	U	C	U		
<i>Euphagus carolinus</i>	rusty blackbird	U		U	O	
<i>Icterus galbula</i>	Baltimore oriole [=northern oriole]	C	C	C		
<i>Icterus spurius</i>	orchard oriole	U	U	O		
<i>Molothrus ater</i>	brown-headed cowbird	C	C	C	O	
<i>Quiscalus quiscula</i>	common grackle	A	A	A	O	
<i>Sturnella magna</i>	eastern meadowlark	C	C	C	O	
<i>Sturnella neglecta</i>	western meadowlark	R	R	R		
FINCHES & ALLIES (Fringillidae)						
<i>Carduelis flammea</i>	common redpoll	O		R	O	
<i>Carduelis pinus</i>	pine siskin	O	R	U	O	
<i>Carduelis tristis</i>	American goldfinch	C	C	C	C	
<i>Carpodacus mexicanus</i>	house finch	A	A	A		
<i>Carpodacus purpureus</i>	purple finch	U	O	U	U	
<i>Coccothraustes vespertinus</i>	evening grosbeak	O		O	O	

	Common Name	—Abundance—			
		Sp	Su	F	W
FINCHES & ALLIES (cont'd)	red crossbill	R		R	R
<i>Loxia curvirostra</i>	white-winged crossbill	R		R	R
<i>Loxia leucoptera</i>	pine grosbeak	R		R	R
OLD WORLD SPARROWS (Passeridae)	house sparrow	A	A	A	A
<i>Passer domesticus</i>					

Seasonal Designations:

Sp – Spring (March-May)
 Su – Summer (June-August)
 F – Fall (September-November)
 W – Winter (December-February)

Abundance Codes:

A – Abundant
 C – Common
 O – Occasional
 U – Uncommon
 R – Rare

**APPENDIX F. AMPHIBIAN, REPTILIAN, AND MAMMALIAN FAUNA
OF OLD WOMAN CREEK ESTUARY, WATERSHED,
AND ADJACENT TRIBUTARIES AND WATERS OF LAKE ERIE**

AMPHIBIANS

	Common Name	Location
NEWTS (Salamandridae) <i>Notophthalmus viridescens</i>	eastern newt	TR
MUDPUPPIES (Proteidae) <i>Necturus maculosus</i>	mudpuppy	LE,TR
MOLE SALAMANDERS (Ambystomatidae)		
<i>Ambystoma jeffersonianum</i>	Jefferson's salamander	TR
<i>Ambystoma maculatum</i>	spotted salamander	CK,TR
<i>Ambystoma opacum</i>	marbled salamander	TR
<i>Ambystoma platineum</i>	silvery salamander	TR
<i>Ambystoma texanum</i>	small-mouthed salamander	TR
<i>Ambystoma tigrinum</i>	tiger salamander	TR
<i>Ambystoma</i> hybrid mole salamander	CK,ES,TR	
LUNGLESS SALAMANDERS (Plethodontidae)		
<i>Desmognathus fuscus</i>	dusky salamander	CK,TR
<i>Eurycea bislineata</i>	two-lined salamander	CK,TR
<i>Hemidactylum scutatum</i>	4-toed salamander	TR
<i>Plethodon cinereus</i>	eastern redback salamander	CK,ES,TR
<i>Plethodon glutinosus</i>	slimy salamander	CK,ES,TR
<i>Plethodon richmondi</i>	ravine salamander	CK,ES,TR
<i>Pseudotriton ruber</i>	red salamander	CK
BUFONID TOADS (Bufonidae)		
<i>Bufo americanus</i>	American toad	CK,ES,TR
<i>Bufo woodhousii fowleri</i>	Fowler's toad	ES,TR
CRICKET FROGS AND TREEFROGS (Hylidae)		
<i>Acris crepitans</i>	northern cricket frog	TR
<i>Hyla versicolor</i>	gray treefrog	TR
<i>Pseudacris crucifer crucifer</i>	northern spring peeper	CK,ES,TR
<i>Pseudacris triseriata</i>	western chorus frog	ES,TR
RANID FROGS (Ranidae)		
<i>Rana catesbeiana</i>	bullfrog	CK,ES,TR
<i>Rana clamitans melanota</i>	green frog	CK,ES,TR
<i>Rana palustris</i>	pickerel frog	TR
<i>Rana pipiens</i>	northern leopard frog	ES,TR
<i>Rana sylvatica</i>	wood frog	TR

REPTILES

MUD AND MUSK TURTLES (Kinosternidae) <i>Sternotherus odoratus</i>	common musk turtle	TR
SNAPPING TURTLES (Chelydridae) <i>Chelydra serpentina</i>	snapping turtle	ES,TR
BOX AND WATER TURTLES (Emydidae)		
<i>Chrysemys picta marginata</i>	midland painted turtle	CK,ES,TR
<i>Clemmys guttata</i>	spotted turtle	ES,TR
<i>Emydoidea blandingii</i>	Blanding's turtle	ES,TR
<i>Graptemys geographica</i>	common map turtle	ES,TR
<i>Terrapene carolina carolina</i>	eastern box turtle	CK,ES,TR

	Common Name	Location
SOFTSHELL TURTLES (Trionychidae) <i>Apalone spinifera</i>	spiny softshell turtle	ES,TR
COLUBRID SNAKES (Colubridae)		
<i>Clonophis kirtlandii</i>	Kirtland's snake	TR
<i>Coluber constrictor foxii</i>	blue racer	CK,TR
<i>Diadophis punctatus edwardsii</i>	northern ring-neck snake	CK,TR
<i>Elaphe obsoleta obsoleta</i>	black rat snake	CK,TR
<i>Elaphe vulpina gloydi</i>	eastern fox snake	ES,TR
<i>Heterodon platirhinos</i>	eastern hog-nosed snake	TR
<i>Lampropeltis triangulum triangulum</i>	eastern milk snake	ES,TR
<i>Nerodia sipedon sipedon</i>	northern water snake	CK,ES,TR
<i>Ophiodrys vernalis</i>	smooth green snake	TR
<i>Regina septemvittata</i>	queen snake	CK,TR
<i>Storeria dekayi dekayi</i>	northern brown snake	ES,TR
<i>Storeria dekayi wrightorum</i>	midland brown snake	ES,TR
<i>Thamnophis butleri</i>	Butler's garter snake	ES,TR
<i>Thamnophis sauritus</i>	eastern ribbon snake	TR
<i>Thamnophis sirtalis sirtalis</i>	eastern garter snake	CK,ES,TR
<i>Thamnophis sirtalis sirtalis</i>	e. garter snake (melanistic)	ES,TR
VIPERS (Viperidea) <i>Sistrurus catenatus</i>	Massasauga rattlesnake	TR
MAMMALS		
OPOSSUMS (Didelphidae) <i>Didelphis virginiana</i>	Virginia opossum	CK,ES,TR
SHREWS (Soricidae)		
<i>Blarina brevicauda</i>	northern short-tailed shrew	ES,TR
<i>Cryptotis parva</i>	least shrew	TR
<i>Sorex cinereus</i>	masked shrew	ES,TR
<i>Sorex hoyi</i> pygmy shrew		ES,TR
MOLES (Talpidae)		
<i>Parascalops breweri</i>	hairy-tailed mole	ES,TR
<i>Scalopus aquaticus</i>	eastern mole	CK,ES,TR
VESPERTILIONID BATS (Vespertilionidae)		
<i>Eptesicus fuscus</i>	big brown bat	TR
<i>Lsionycteris noctivagans</i>	silver-haired bat	TR
<i>Lasiurus borealis</i>	red bat	TR
<i>Lasiurus cinereus</i>	hoary bat	TR
<i>Myotis keenii</i>	Keen's myotis or Keen's bat	TR
<i>Myotis leibii</i>	small-footed myotis	TR
<i>Myotis lucifugus</i>	little brown bat	ES,TR
<i>Pipistrellus subflavus</i>	e. pipistrelle or Georgian bat	TR
WOLVES & FOXES (Canidae)		
<i>Canis latrans</i>	coyote or brush wolf	ES,TR
<i>Urocyon cinereoargenteus</i>	gray fox	ES,TR
<i>Vulpes vulpes</i>	red fox	ES,TR
PROCYONIDS (Procyonidae)		
<i>Procyon lotor</i>	raccoon	CK,ES,TR
MUSTELIDS (Mustelidae)		
<i>Mustela frenata</i>	long-tailed weasel	ES,TR
<i>Mustela nivalis</i>	least weasel	TR
<i>Mustela vison</i>	mink	TR
<i>Taxidea taxus</i>	badger	TR
<i>Mephitis mephitis</i>	striped skunk	ES,TR

	Common Name	Location
HARES & RABBITS (Leporidae) <i>Sylvilagus floridanus</i>	eastern cottontail rabbit	CK,ES,TR
SQUIRRELS (Sciuridae) <i>Glaucomys volans</i> <i>Marmota monax</i> <i>Sciurus carolinensis</i> <i>Sciurus niger</i> <i>Tamias striatus</i> <i>Tamiasciurus hudsonicus</i>	southern flying squirrel woodchuck or groundhog gray squirrel fox squirrel eastern chipmunk red squirrel	TR CK,ES,TR TR CK,ES,TR CK,ES,TR CK,ES,TR
BEAVERS (Castoridae) <i>Castor canadensis</i>	beaver	ES
RATS, MICE & VOLES (Muridae) <i>Peromyscus leucopus</i> <i>Peromyscus maniculatus</i> <i>Microtus pennsylvanicus</i> <i>Ondatra zibethicus</i> <i>Synaptomys cooperi</i> <i>Mus musculus</i> <i>Rattus norvegicus</i>	white-footed mouse deer mouse meadow vole or field mouse muskrat southern bog lemming house mouse Norway rat or common rat	ES,TR ES,TR ES,TR ES,TR TR ES,TR TR
JUMPING MICE (Dipodidae) <i>Zapus hudsonius</i>	meadow jumping mouse	ES,TR
DEER (Cervidae) <i>Odocoileus virginianus</i>	white-tailed deer	CK,ES,TR
BOVIDS (Bovidae) <i>Bison bison</i>	bison	CK

Location Codes:

CK – Old Woman Creek watershed upstream of the estuary

ES – Old Woman Creek estuary and contiguous uplands within State Nature Preserve

LE – Lake Erie, principally nearshore waters of eastern Erie County and western Lorain County, Ohio

TR – Tributary watersheds to Lake Erie other than Old Woman Creek, principally of eastern Erie County and western Lorain County, Ohio