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Forest Insects Collected in Waterton National Park, 1948-1971

by E. J. Gautreau and J.C.E. Melvin



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NORTHERN FOREST RESEARCH CENTRE
CANADIAN FORESTRY SERVICE
DEPARTMENT OF THE ENVIRONMENT
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ABSTRACT

Forest insects collected in Waterton National Park from 1948 to 1971 are listed alphabetically by order, family, genus, and species. Hosts, numbers of collections, and stages of the insects when collected are shown.

RESUME

Les insectes forestiers récoltés de 1948 à 1971 dans le parc national du Waterton sont énumérés alphabétiquement selon les ordres, les familles, les genres et les espèces. A ceci s'ajoutent les hôtes, le nombre des récoltes et les stades de développement des insectes, s'il y a eu récolté.

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION.....	1
LIST OF COMMON NAMES OF PLANTS USED WITH SCIENTIFIC EQUIVALENTS.....	2
COLEOPTERA.....	3
DIPTERA.....	15
HEMIPTERA.....	16
HOMOPTERA.....	17
HYMENOPTERA.....	19
LEPIDOPTERA.....	21
NEUROPTERA.....	37

INTRODUCTION

The forest Insect and Disease Survey, operating within a number of federal government departments, has been collecting forest insects in the Prairie Provinces and western National Parks since 1937. The vast majority of collections were made following post-war staff increases. Since 1948, all collections have been recorded on computer tapes, along with pertinent ecological data. Computer print-outs were used to compile the following annotated list of insects collected in Waterton National Park from 1948 to 1971.

As most collections were made by beating foliage over a canvas sheet, some of the hosts shown for adult collections may be inaccurate. Because of the emphasis placed on the collection of some insects for special studies, the numbers of collections do not necessarily reflect the relative abundance of species.

*LIST OF COMMON NAMES OF PLANTS USED
WITH SCIENTIFIC EQUIVALENTS*

Alder	<i>Alnus</i> spp.
Aspen, Trembling	<i>Populus tremuloides</i> Michx.
Birch	<i>Betula</i> spp.
Birch, Dwarf	<i>Betula glandulosa</i> Michx.
Birch, Water	<i>Betula fontinalis</i> Sarg. = <i>B. occidentalis</i> Hook.
Birch, White	<i>Betula papyrifera</i> Marsh.
Caragana	<i>Caragana</i> spp.
Chokecherry	<i>Prunus virginiana</i> L.
Cottonwood, Black	<i>Populus trichocarpa</i> Torr. & Gray
Cottonwood, Plains	<i>Populus deltoides</i> Bartr.
Dogwood	<i>Cornus</i> spp.
Elm, White	<i>Ulmus americana</i> L.
Fir	<i>Abies</i> Mill.
Fir, Alpine	<i>Abies lasiocarpa</i> (Hook.) Nutt.
Fir, Douglas	<i>Pseudotsuga menziesii</i> (Mirb.) Franco var. <i>glauca</i> (Beissn.) Franco
Juniper	<i>Juniperus</i> spp.
Juniper, Common	<i>Juniperus communis</i> L.
Maple, Douglas	<i>Acer glabrum</i> Torr. var. <i>douglasii</i> (Hook.) Dipp.
Pine, Limber	<i>Pinus flexilis</i> James
Pine, Lodgepole	<i>Pinus contorta</i> Dougl. var. <i>latifolia</i> Engelm.
Poplar	<i>Populus</i> spp.
Poplar, Balsam	<i>Populus balsamifera</i> L.
Spruce	<i>Picea</i> spp.
Spruce, Black	<i>Picea mariana</i> (Mill.) B.S.P.
Spruce, Engelmann	<i>Picea engelmannii</i> Parry
Spruce, White	<i>Picea glauca</i> (Moench.) Voss.
Willow	<i>Salix</i> spp.

COLEOPTERA

Family Genus	Species	Host	Number of Collections	Stage Collected	
BUPRESTIDAE					
Agrilus sp.		Willow	2	A	
		Black cottonwood	1	A	
		Misc.	1	A	
	politus Say	Willow	1	A	
		Misc.	1	A	
	politus burkei Fisher	Birch	1	A	
Buprestis	aurulenta Linn.	Spruce	1	A	
	nuttalli Kby.	Birch	1	A	
Dicerca sp.		Birch	3	A	
		Water birch	1	A	
		White birch	1	A	
		Trembling aspen	1	A	
BYRRHIDAE					
Byrrhus sp.		Willow	1	A	
CANTHARIDAE					
Podabrus sp.		Lodgepole pine	8	A	
		White spruce	6	A	
		Alpine fir	5	A	
		Douglas fir	4	A	
		Engelmann spruce	2	A	
		Alder	2	A	
		Spruce	1	A	
		Limber pine	1	A	
		Poplar	1	A	
		Trembling aspen	1	A	
		Misc.	1	A	
		fissilis Fall	Willow	1	A
		piniphilus Esch.	Balsam poplar	1	A

COLEOPTERA

Silis sp.		Alpine fir	1	A
		Lodgepole pine	1	A
	difficilis Lec.	Alpine fir	1	A
CARABIDAE				
Agonum sp.		Alpine fir	1	A
		Willow	1	A
Amara sp.		Spruce	1	A
Dromius	piceus Dej.	Spruce	1	A
CERAMBYCIDAE				
Acmaeops	pratensis Laich.	Alpine fir	1	A
		Misc.	1	A
Anoplodera sp.		Lodgepole pine	1	A
	aspera Lec.	Douglas Maple	1	A
	chrysocoma Kby.	Lodgepole pine	1	A
	sanguinea Lec.	Willow	1	A
	tibialis Lec.	Alpine fir	1	A
		White spruce	1	A
Asemum	striatum Linn.	Lodgepole pine	1	A
Cortodera	longicornis Kby.	Willow	1	A
Gaurotes	cressoni Bland.	White spruce	1	A
Gonocallus	collaris Kby.	Douglas fir	1	A
		Trembling aspen	1	A
Oberea sp.		Trembling aspen	1	
Phymatodes sp.		Spruce	1	A
Rhagium sp.		White spruce	1	A
	vestitus Hald.	Birch	2	A
		Douglas fir	1	A

COLEOPTERA

<i>Saperda</i> sp.		Trembling aspen	5	L	A
	<i>calcarata</i> Say	Trembling aspen	3	L	IR
		White spruce	1		A
<i>Xylotrechus</i> sp.		Trembling aspen	1	L	
	<i>obliteratus</i> Lec.	Trembling aspen	1	L	A
	<i>undulatus</i> Say.	Douglas fir	1		A
CHRYSOMELIDAE					
<i>Adoxus</i>	<i>obscurus</i> Linn.	Lodgepole pine	1		A
		Misc.	1		A
<i>Altica</i> sp.		Dwarf birch	3		A
		White birch	2	L	A
		Balsam poplar	1		A
		Willow	1		A
		Alpine fir	1		A
		Misc.	3	L	A
	<i>ambiens alni</i> Harr.	Balsam poplar	1		A
		Spruce	1		A
	<i>plicipennis</i> Mann.	Willow	4		A
<i>Chrysomela</i> sp.		Willow	2		A
	<i>aeneicollis</i> Schffr.	Willow	1		A
		Balsam poplar	1		A
	<i>falsa</i> Brown	Balsam poplar	5	E-L	A
		Black cottonwood	1		A
	<i>lineatopunctata</i> Forst.	Balsam poplar	1	L	A
	<i>schaefferi</i> Brown	Willow	2		A
		Dwarf birch	1		A
	<i>scripta</i> F.	Black cottonwood	1	L	A
		Balsam poplar	1	L	A
	<i>semota</i> Brown	Balsam poplar	3	E	A
<i>Crypto- cephalus</i>	<i>notatus</i> F.	Misc.	1		A

COLEOPTERA

Disonycha sp.		Misc.	1	A
	latifrons asteris	Lodgepole pine	1	A
	Schaef.	Willow	1	A
Gonioctena	americana	Schaef. Trembling aspen	38	A
		Poplar	4	A
		Balsam poplar	1	A
		Willow	3	A
		Birch	1	A
		Dwarf birch	1	A
		Alpine fir	2	A
		Lodgepole pine	2	A
		White spruce	2	A
		Misc.	1	A
	notmani	Schaef. Lodgepole pine	1	A
Orsodacne	atra	Ahr. Alpine fir	2	A
		Lodgepole pine	1	A
		White spruce	1	A
		Balsam poplar	1	A
		Misc.	1	A
Pyrrhalta sp.		Lodgepole pine	1	A
	carbo (Lec.)	Willow	1	A
	cavicollis (Lec.)	Willow	1	A
	punctipennis (Mann.)	Willow	1	A
Syneta sp.		White spruce	3	A
		Lodgepole pine	1	A
		Balsam poplar	1	A
	carinata	Mann. Alpine fir	3	A
		Lodgepole pine	1	A
		Alder	1	A
	hamata	Horn Willow	2	A
		Trembling aspen	1	A
		Balsam poplar	1	A
		Misc.	2	A

COLEOPTERA

	<i>pilosa</i> Brown	Alpine fir	9	A
		White spruce	5	A
		Lodgepole pine	3	A
		Douglas fir	2	A
		Spruce	1	A
		Birch	1	A
		Douglas maple	1	A
		Misc.	1	A
	<i>simplex</i> Lec.	Lodgepole pine	1	A
COCCINELLIDAE				
<i>Adalia</i>	<i>bipunctata</i> Linn.	Misc.	1	A
	<i>frigida</i> Schn.	Trembling aspen	4	A
		Water birch	3	A
		Dwarf birch	1	A
		Birch	1	A
		Alpine fir	2	A
		Lodgepole pine	2	A
		White spruce	1	A
		Misc.	1	A
<i>Anatis</i>	<i>mali</i> Say	Lodgepole pine	2	A
		Alpine fir	1	A
<i>Anisocalvia</i>	<i>duodecimmaculata</i> Gebl.	Engelmann spruce	1	A
		White birch	1	A
<i>Chilocorus</i>	<i>stigma</i> Say	Douglas fir	1	A
		Lodgepole pine	1	A
		White spruce	1	A
		Salix	1	A
<i>Coccinella</i> sp.		Lodgepole pine	1	A
		Balsam poplar	1	A
	<i>monticola</i> Muls.	Lodgepole pine	1	A
		White spruce	1	A
	<i>transversoguttata</i>	Alpine fir	11	A
	<i>richardsoni</i> Brown	Lodgepole pine	11	A
		White spruce	8	A
		Alder	3	A
		Birch	2	A
		Dwarf birch	1	A
		White birch	1	A
		Poplar	1	A
		Balsam poplar	1	A

COLEOPTERA

		Trembling aspen	2		A
		Willow	1		A
		Douglas fir	1		A
		Common juniper	1		A
		Misc.	1		
	trifasciata perplexa Muls.	Willow	1		A
Exochomus	septentrionis Weise	Lodgepole pine	1		A
Hippodamia sp.		Douglas fir	1		A
		Lodgepole pine	1		A
		Misc.	1		A
	parenthesis Say	White spruce	1		A
	quinquesignata	Lodgepole pine	2		A
	quinquesignata Kby.	Dwarf birch	1		A
		White birch	1		A
		Alder	1		A
Hyperaspis sp.		White spruce	1	L	
Mulsantina sp.		Alpine fir	2	L	
		Fir	1	L	
		Lodgepole pine	2		A
		White spruce	1		A
	picta Rand.	Lodgepole pine	8		A
		Douglas fir	5		A
		Alpine fir	2		A
		White spruce	4		A
		Birch	1		A
		Misc.	1		A
Neomysia sp.		Lodgepole pine	1	L	
	montana Csy.	Lodgepole pine	1		A
Psyllobora	vigintimaculata Say	Alder	1		A
CRYPTOPHAGIDAE					
Cryptophagus sp.		White spruce	1		A

COLEOPTERA

CURCULIONIDAE

Apion sp.		White spruce	1		A	
Brachyrhinus	ovatus linn.	Common juniper	2		A	
		Douglas fir	1		A	
		Balsam poplar	1		A	
		Misc.	1		A	
Cryptorhynchus	lapathi (Linn.)	Willow	13	5L	A	
Dorytomus sp.		Trembling aspen	2		A	
		Balsam poplar	1		A	
Dyslobus sp.		White spruce	1		A	
Hypera	comptus Say	Misc.	1		A	
Lepyryus sp.		Willow	1		A	
		palustris Scop.	Willow	2		A
Magdalis sp.		Willow	2		A	
		Birch	1		A	
		Trembling aspen	1		A	
		Douglas fir	1		A	
		Alpine fir	1		A	
		Misc.	1		A	
Pissodes sp.		White spruce	5		A	
		Engelmann spruce	1		A	
		Lodgepole pine	3		A	
		Limber pine	1		A	
		Alpine fir	1		A	
	engelmanni Hopk.		White spruce	11	4L-1P	A
			Engelmann spruce	1		A
			Spruce	1		A
	schwarzi Hopk.		Lodgepole pine	4		A
			Alpine fir	1		A
Proctorus	armatus Lec.	Trembling aspen	2		A	
		Dwarf birch	1		A	
Rhynchaenus sp.		Misc.	1		A	

COLEOPTERA

Rhynchites	bicolor F.	Misc.	1	A
Scythropus sp.		Lodgepole pine	2	A
	elegans Couper	Lodgepole pine	5	
		Limber pine	1	
		Douglas fir	2	
		White spruce	2	
Trichalophus sp.		Alpine fir	1	A
		Alder	1	A
ELATERIDAE				
Agriotes sp.		White spruce	2	A
		Spruce	1	A
		Lodgepole pine	1	A
		Trembling aspen	1	A
	limosus Lec.	White spruce	2	A
		Lodgepole pine	1	A
	tardus Brown	Spruce	1	A
Ampedus	nigrinus Hbst.	Douglas fir	1	A
	rhodopus Lec.	Lodgepole pine	2	A
		White spruce	1	A
Athous	rufiventris Esch.	Lodgepole pine	1	A
		Misc.	1	A
Ctenicera sp.		White spruce	3	A
		Lodgepole pine	2	A
		Birch	1	A
	aereipennis Kby.	Douglas fir	1	A
		Trembling aspen	1	A
	bombycina Germ.	Lodgepole pine	1	A
		Dwarf birch	1	A
		White birch	1	A
	cruciata festiva Lec.	White birch	1	A
	elegans Cand.	Alpine fir	1	A
		Dwarf birch	1	A

COLEOPTERA

<i>glauca</i> Germ.	Spruce	1	A
<i>hoppingi</i> Van D.	Poplar	1	A
<i>kendalli</i> Kby.	Dwarf birch	1	A
<i>nitidula</i> Lec.	Lodgepole pine	1	A
	White spruce	1	A
<i>ochreipennis</i> Lec.	Lodgepole pine	1	A
	White spruce	1	A
	Dwarf birch	1	A
<i>propola columbiana</i> Brown	Dwarf birch	1	A
<i>propola</i>	Spruce	4	A
<i>propola</i> Lec.	White spruce	2	A
	Douglas fir	2	A
	Alpine fir	1	A
	Lodgepole pine	1	A
	Dwarf birch	1	A
	Balsam poplar	1	A
<i>pudica</i> Brown	Alpine fir	1	A
	Douglas fir	1	A
	Lodgepole pine	1	A
	Spruce	1	A
	Birch	1	A
	Trembling aspen	1	A
<i>resplendens</i> <i>aeraria</i> Rand.	Trembling aspen	1	A
<i>resplendens</i>	Spruce	1	A
<i>resplendens</i> Esch.	White spruce	1	A
	Douglas fir	1	A
	Birch	1	A
	Willow	1	A
<i>semimetallica</i> Walk.	Lodgepole pine	1	
	Birch	1	
	White birch	1	
<i>splendens</i> Ziegl	Douglas fir	1	A
<i>stricklandi</i> Brown	White spruce	1	A
	Birch	1	A

COLEOPTERA

	<i>sylvatica</i> V.D.	Lodgepole pine	3	A
		Spruce	1	A
		White spruce	1	A
		Birch	1	A
	<i>triundulata</i> Rand.	Douglas fir	1	A
	<i>umbricola</i> Esch.	Lodgepole pine	1	A
		White spruce	1	A
Dalopius sp.		White spruce	1	A
		Balsam poplar	1	A
		Trembling aspen	1	A
	<i>fucatus</i> Brown	White spruce	1	A
LAMPYRIDAE				
Lucidota sp.		Dwarf birch	1	A
	<i>corrusca</i> Linn.	Willow	1	A
MELANDRYIDAE				
Scotochroa	<i>basalis</i> Lec.	Douglas fir	1	A
MELOIDAE				
Epicauta sp.		Misc.	1	A
MELYRIDAE				
Hoppingiana	<i>hudsonica</i> Lec.	Lodgepole pine	4	A
		Birch	2	A
		Alpine fir	1	A
		Trembling aspen	1	A
		Misc.	1	A
Listrus sp.		Douglas fir	1	A
		Balsam poplar	1	A
OEDEMERIDAE				
Calopus	<i>angustus</i> Lec.	Lodgepole pine	1	A
		White spruce	1	A
Ditylus	<i>quadricollis</i> Lec.	Lodgepole pine	1	A

COLEOPTERA

PEDILIDAE

Stereopalpus	columbianus R. Hopp.	Birch	1	A
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SCARABAEIDAE

Aphodius	hematus Say	Trembling aspen	1	A
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	opacus Lec.	Balsam poplar	1	A
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Dichelonyx sp.		Birch	1	A
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		Misc.	1	A
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	backi Kby.	Willow	3	A
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		Lodgepole pine	2	A
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		White spruce	2	A
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		Alpine fir	1	A
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		Douglas fir	1	A
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		Trembling aspen	1	A
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		Misc.	1	A
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	fulgida Lec.	Douglas fir	1	A
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		Lodgepole pine	1	A
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	subvittata Lec.	Douglas fir	1	A
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	valida Lec.	White spruce	1	A
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SCOLYTIDAE

Dendroctonus sp.		Lodgepole pine	1	A
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		White spruce	1	A
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	murrayanae Hopk.	Lodgepole pine	7	A
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	rufipennis Kby.	White spruce	1	A
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Dryocoetes	confusus Sw.	Fir	1	A
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Hylurgops sp.		Lodgepole pine	3	A
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	rugipennis Mann.	Lodgepole pine	1	A
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Ips sp.		Lodgepole pine	3	A
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	engelmanni Sw.	Lodgepole pine	1	A
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		Engelmann spruce	1	A
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	guildi Blackm.	Lodgepole pine	1	A
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COLEOPTERA

	<i>interruptus</i> Mann.	Lodgepole pine	1	A
	<i>mexicanus</i> Hopk.	Lodgepole pine	3	A
	<i>perturbatus</i> Eich.	Lodgepole pine	2	A
		Engelmann spruce	1	A
		White spruce	1	A
	<i>pini</i> Say	Lodgepole pine	8	A
	<i>plastographus</i> Lec.	Lodgepole pine	2	A
Orthotomicus	<i>caelatus</i> Eich.	Lodgepole pine	1	A
	<i>vicinus</i> Lec.	Lodgepole pine	1	
Phloeotribus sp.		Douglas fir	1	
Pityogenes	<i>knechteli</i> Sw.	Lodgepole pine	4	A
Pityophthorus sp.		Limber pine	1	A
Pseudohylesinus sp.		Fir	1	A
	<i>nebulosus</i> Lec.	Douglas fir	5	L A
Scierus	<i>annectens</i> Lec.	White spruce	1	A
Scolytus	<i>tsugae</i> Sw.	Lodgepole pine	1	A
	<i>sobrinus</i> Blackm.	Fir	1	A
Taenioglyptes	<i>ruficollis</i>	Alpine fir	1	A
	<i>ruficollis</i> Hopk.			
Trypodendron sp.		White spruce	1	A
TENEBRIONIDAE				
Corticeus sp.		Lodgepole pine	1	A
		Engelmann spruce	1	A
Helops sp.		Willow	1	A
Phellopsis	<i>porcata</i> Lec.	Alpine fir	1	A
Scaphidema	<i>aeneolum</i> Lec.	Dwarf birch	1	A

DIPTERA

Family Genus	Species	Host	Number of Collections	Stage Collected
SYRPHIDAE				
Metasyrphus sp.		Douglas fir	1	L
		Lodgepole pine	1	L & P
	lapponicus Zett.	Douglas fir	1	P
		Lodgepole pine	1	P
Scaeva	pyrastris Linn.	Douglas fir	2	L-P
		Alpine fir	1	L-P
TACHINIDAE				
Meigenia	submissa A. & W.	Trembling aspen	1	A

HEMIPTERA

Family Genus	Species	Host	Number of Collections	Stage Collected
ARADIDAE				
Aradus sp.		Spruce	1	A
MIRIDAE				
Lygus sp.		White spruce	1	A
	shulli Kngt.	Misc.	1	A
PENTATOMIDAE				
Chlorochroa sp.		Willow	1	A
	ligata Say	Misc.	1	A
	uhleri Say	Misc.	1	A
Meadorus	lateralis Say	Birch	1	A
Podisus	modestus Dall.	Balsam poplar	1	A
	serieventris Uhl.	Lodgepole pine	1	A
Trichopepla	semivittata Say	Misc.	1	A
SCUTELLERIDAE				
Homaemus	aeneifrons Say	Misc.	1	A

HOMOPTERA

Family Genus	Species	Host	Number of Collections	Stage Collected		
ADELGIDAE						
Adelges sp.		Alpine fir	2	L	A	
		Douglas fir	1		A	
		Limber pine	1		A	
		Engelmann spruce	1		A	
		Alder	1		A	
		cooleyi Gill.	White spruce	7		
			Engelmann spruce	1		A
			Black spruce	1		
			Spruce	1		
Pineus sp.		Limber pine	1			
		pinifoliae Fitch.	White spruce	3		
			Engelmann spruce	1		
			Spruce	1		
		similis Gill.	White spruce	1		
APHIDIDAE						
Asiphum sp.		Trembling aspen	1			
Chaitophorus sp.		Willow	1	L		
		populicola Thos.	Balsam poplar	1	L	
Cinara	canatra H. & B.	Alpine fir	1		A	
	coloradensis Gill.	Spruce	1		A	
	pseudotsugae Wilson	Douglas fir	1	L		
Eriosoma	americanum Riley	White elm	1			
Euceraphis sp.		White birch	1		A	
Macrosiphum	crataegi Monell	Caraganae	1	L		

HOMOPTERA

Mindarus	abietinus Koch.	Engelmann spruce	1		A
		Alpine fir	2	L	A
Pemphigus sp.		Balsam poplar	1		
Pterocomma	smithiae Monell	Trembling aspen	1	L	
Wahlgreniella sp.					
CERCOPIDAE					
Aphrophora sp.		Limber pine	1		A
COCCIDAE					
Phenacaspis	pinifoliae Fitch	Lodgepole pine	5		L
		White spruce	1		

HYMENOPTERA

Family Genus	Species	Host	Number of Collections	Stage Collected	
ARGIDAE					
Arge sp.		Alder	1	L-P	
		Birch	1	L	
	scapularis Klug.	Birch	1	A	
		White birch	1	A	
CIMBICIDAE					
Cimbex	americana Leach	Birch	1	L	
Trichiosoma sp.		Lodgepole pine	2	L A	
		Alder	2	L	
		Willow	1	L	
	triangulum Kby.	Lodgepole pine	1	L	
Zaraea sp.		White spruce	4	L-P	
		Spruce	1	L	
		Alpine fir	1	L A	
		Misc.	3	L	
DIPRIONIDAE					
Monoctenus sp.		Lodgepole pine	1	L-P	
Neodiprion sp.		White spruce	65	L-P	
		Engelmann spruce	19	L-P	
		Spruce	6	L-P	
		Lodgepole pine	61	L-P	
		Douglas fir	22	L-P	
		Alpine fir	16	L-P	
		Limber pine	2	L-P	
		Alder	1	L	
		Willow	1	L	
		Misc.	1	L	
		abietis Harr.	Engelmann spruce	19	L-P
			White spruce	8	L-P
			Alpine fir	4	L-P
	Douglas fir		3	L-P	

HYMENOPTERA

PAMPHILIDAE

Acantholyda sp.	White spruce	13	L
	Spruce	1	L
	Engelmann spruce	1	L
	Lodgepole pine	10	L
	Alpine fir	7	L

TENTHREDINIDAE

Amauronematus sp.	White birch	1	L
Ametastegia sp.	Alpine fir	1	L
	Douglas fir	1	L
	Lodgepole pine	1	L
Dolerus sp.	Douglas fir	1	L
Nematus sp.	Willow	2	L
	Balsam poplar	1	L
	White birch	1	L-P
	Lodgepole pine	1	L
Pikonema sp.	Lodgepole pine	1	L
	White spruce	1	L
alaskensis Roh.	White spruce	47	L-P
	Engelmann spruce	8	L-P
	Spruce	1	P
	Lodgepole pine	3	L
	Alpine fir	1	L
	Douglas fir	2	L
dimmockii Cress.	White spruce	82	L-P
	Engelmann spruce	16	L
	Spruce	7	L
	Douglas fir	3	L
	Alpine fir	1	P
	Lodgepole pine	1	L

LEPIDOPTERA

Family Genus	Species	Host	Number of Collections	Stage Collected
AEGERIIDAE				
Synanthedon	sp.	White spruce	1	A
Vespamia	novaroensis Hy. & Edw.	Spruce	1	L
ARCTIIDAE				
Parasemia	parthenos Harr.	Misc.	1	L
COLEOPHORIDAE				
Coleophora	sp.	Balsam poplar	1	L
GELECHIIDAE				
Chionodes	sp.	Misc.	1	L
	continuella Zell.	Trembling aspen	1	L
Compsolechia	niveopulvella Cham.	Trembling aspen Willow Misc.	9 2 1	L L L
Gelechia	versutella Zell.	Trembling aspen	1	L
Recurvaria	sp.	Lodgepole pine White spruce	4 1	L-P L
GEOMETRIDAE				
Anagoga	occiduaria Wlk.	Misc.	1	L
Biston	cognataria Gn.	Douglas fir Alder Balsam poplar Willow	1 1 1 1	L L L L
Brephos	sp.	Dwarf birch White birch Willow	1 1 1	L L L
	infans Moesch.	Alder	1	L

LEPIDOPTERA

Campaea	perlata Gn.	Trembling aspen	12	L	
		Willow	4	L	
		Alder	4	L	
		White spruce	4	L-P	
		Dwarf birch	3	L	
		White birch	3	L	
		Birch	2	L	
		Balsam poplar	2	L	
		Lodgepole pine	1	L	
		Douglas fir	1	L	
		Misc.	1	L	
Caripeta sp.	angustiorata Wlk.	Douglas fir	1	L	
		Lodgepole pine	43	L	
		Limber pine	1	L	
		White spruce	2	L	
		Douglas fir	1	L	
		divisata Wlk.	White spruce	20	L
			Engelmann spruce	1	L
			Douglas fir	17	L
			Alpine fir	4	L
		Cosymbia	pendulinaria Gn.	White spruce	1
Alder	1			L	
Deuteronomos	magnarius Gn.	Water birch	1	L	
		Alder	1	L	
Dysstroma sp.	citrata Linn.	Misc.	1	L	
		Dwarf birch	1	L	
	formosa boreata Tayl.	Misc.	1	L	
		Alpine fir	1	L	
	truncata Hufn.	White spruce	1	L	
		Trembling aspen	1	L	
		Misc.	2	L	
		Misc.	2	L	
	truncata walkerata Pears.	Misc.	2	L	
		Misc.	2	L	

LEPIDOPTERA

Ectropis sp.		Douglas fir	1	L	
Entephria	multivagata Hlst.	White spruce	1	L	
Enypia	moillieti Blkmre.	Douglas fir	5	L-P	
Epirrita	autumnata omissa Harr.	Alpine fir	5	L	
		Douglas fir	2	L	
		White spruce	1	L	
		Alder	1	L	
Eufidonia	notataria Wlk.	Alpine fir	1	L	
		Douglas fir	1	L	
		White spruce	1	L	
Eupithecia sp.		Douglas fir	4	L	
		Alpine fir	1	L	
		Common juniper	2	L	
		Juniper	1	L	
		White spruce	1	L	
		albicapitata Pack.	Alpine fir	1	L
		annulata Hlst.	Engelmann spruce	1	L
		anticaria Wlk.	Misc.	2	L
		bryanti Tayl.	Willow	2	L
		columbiata Dyar.	Willow	1	L
			Misc.	1	L
		filmata Pears.	White spruce	13	L
			Engelmann spruce	5	L
			Spruce	1	L
			Douglas fir	7	L
			Juniper	1	L
	germinata Pack.	Misc.	1	L	
	luteata Pack.	White spruce	15	L	
		Engelmann spruce	1	L	
		Douglas fir	11	L	
		Alpine fir	9	L	
		Lodgepole pine	2	L	

LEPIDOPTERA

	misturata Hlst.	White spruce	1	L
	nimbicolor Hlst.	Misc.	1	L
	niphadophilata Dyar.	Juniper Common juniper	7 7	L L
	ornata Hlst.	Lodgepole pine	5	L
	palpata Pack.	Lodgepole pine Douglas fir	4 3	L L
	perfusca Hlst.	Alpine fir	1	L
	perfusca alberta Tayl.	Alder Willow Misc.	1 1 1	L L L
	ravocostaliata Pack.	White birch Willow	1 1	L L
	satyrata Hbn.	Douglas fir Misc.	1 1	L L
	transcanadata Mack.	Alpine fir Douglas fir White spruce	1 1 1	L L L
	vinsullata Mack.	Douglas fir	1	L
Hesperumia	sulphuraria Pack.	Douglas fir Limber pine Birch Willow Dogwood Misc.	2 1 1 1 1 2	L L L L L L-P
Hydriomena	furcata Thun.	Willow Trembling aspen White birch Alpine fir White spruce	10 1 1 1 1	L L L L L
	recunciata Wlk.	Alder	2	L

LEPIDOPTERA

Hypagyrtis	piniata Pack.	White spruce	1	L
Itame sp.		Chokecherry	1	L
	anataria Swett.	Dwarf birch	3	L
		Alder	1	L
		Willow	1	L
		Misc.	1	P
	bitactata Wlk.	Alder	2	L-P
		Engelmann spruce	1	L
	decorata Hlst.	Misc.	1	L
	denticulodes Hlst.	Misc.	2	L
	exauspicata Wlk.	White birch	1	L
	loricaria Evers.	Trembling aspen	32	L
		Balsam poplar	3	L
		Poplar	1	L
		Willow	1	L
	loricaria julia Hlst.	Trembling aspen	1	L
	occiduaria Pack.	Limber pine	4	L
		Douglas fir	1	L
Lambdina	fiscellaria fiscellaria Gn.	Engelmann spruce	1	L
Leucobrephos	brepoides Wlk.	Alder	3	L
		Birch	1	L
		Misc.	2	L
Lobophora	nivigerata Wlk.	White spruce	1	L
Lycia	rachelae Hlst.	Lodgepole pine	1	L
		Willow	1	L
	ursaria Wlk.	Birch	1	L
		White birch	1	L

LEPIDOPTERA

Lygris sp.	Willow	2	L	
	Dwarf birch	1	L	
	Alpine fir	1	P	
	Douglas fir	1	L	
	White spruce	1	L	
	destinata Moesch.	Alpine fir	3	L-P
		White spruce	1	L
		Misc.	1	L
	propulsata Wlk.	White spruce	1	P
		Misc.	3	L
	testata Linn.	Willow	2	L
		White spruce	1	L
	xylina Hlst.	Alder	1	L
		Lodgepole pine	1	L
		White spruce	1	P
Misc.		1	L	
xylina speciosa Hlst.	Willow	1	L	
	Alder	1	L	
Nyctobia	limitaria Wlk.	White spruce	22	L
		Engelmann spruce	10	L
		Alpine fir	15	L
		Douglas fir	12	L
		Fir	1	L
limitaria nigroangulata Stkr.	White spruce	1	L	
Operophtera	bruceata Hlst.	Trembling aspen	1	L
		Trembling aspen	14	L
		Engelmann spruce	2	L
		White spruce	1	L
		Douglas fir	1	L
		Alder	1	L
		Dwarf birch	1	L
		White birch	1	L
		Douglas maple	1	L
		Willow	1	L

LEPIDOPTERA

Pero sp.		Lodgepole pine	1	L
		Common juniper	1	L
		Alder	1	L
		Misc.	1	L
behrensarius Pack.		Douglas fir	13	
		Alpine fir	5	
		White spruce	3	
		Lodgepole pine	1	
		Engelmann spruce	1	
morrisonarius Hy. Edw.		Dwarf birch	1	
Plagodis	phlogosaria	Alder	2	L
	approximaria Dyar	Birch	1	L
		Dwarf birch	1	L
Plemyria	georgii Hlst.	Alder	3	L
		Birch	1	L
		Douglas maple	1	L
		Willow	1	L
Protitame	virginalis Hlst.	Trembling aspen	1	L
Protoboarmia	porcelaria	White spruce	3	L
	indicataria Wlk.			
Rheumaptera sp.		White birch	1	L
	hastata Linn.	Birch	1	L
		Alder	1	L
Selenia	alciphearia Wlk.	Alder	1	L
Semiothisa sp.		Lodgepole pine	2	L
	granitata Gn.	White spruce	36	L
		Engelmann spruce	5	L
		Douglas fir	31	L
		Alpine fir	10	L
		Lodgepole pine	8	L
	hebetata Hlst.	Willow	1	L
	perplexa McD.	Lodgepole pine	30	L
		Douglas fir	1	L

LEPIDOPTERA

Sicya	macularia Harr.	Alpine fir	2	L	
		Alder	2	L	
		Trembling aspen	1	L	
		Willow	L	L	
	macularia agyllaria Wlk.	Willow	1	L	
Stenoporpia	separataria Grt.	Douglas fir	1	L	
Synaxis	jubararia Hlst.	Lodgepole pine	1	L	
Thera	otisi Dyar	Juniper	8	L	
		Common juniper	7	L	
GRACILLARIIDAE					
Phyllocnistis	populiella Cham.	Trembling aspen	11	P	
LASIOCAMPIDAE					
Epicnaptera	americana Harr.	Alder	3	L	
		Birch	2	L	
		White spruce	1	L	
Malacosoma sp.		Lodgepole pine	4	P-A	
		Trembling aspen	1	P	
		Misc.	1	P	
	disstria Hbn.		Trembling aspen	9	L-P
			Willow	1	L
			Misc.	2	L
	californicum pluviale (Dyar.)		Willow	13	L-P
			Chokecherry	6	L
			Trembling aspen	6	L
			Lodgepole pine	5	L-P
			Alder	4	
			Birch	3	L-P
			Dwarf birch	1	L
Water birch			1	L	
White birch			1	L	
Poplar			1	L	
Balsam poplar			1	L	
Plains cottonwood			1	L	
White spruce			1	L	
Alpine fir	1	P			
Misc.	8	L			

LEPIDOPTERA

LYMANTRIIDAE

<i>Orgyia</i>	<i>antiqua</i> L.	Alder	1	L
<i>Parorgyia</i> sp.		Trembling aspen	1	P
	<i>plagiata</i> Wlk.	Lodgepole pine	4	L
		White spruce	2	L
		Engelmann spruce	1	L
		Douglas fir	1	L
	<i>vagans willingi</i> B. & McD.	Trembling aspen	1	L

LYCAENIDAE

<i>Incisalia</i>	<i>eryphon</i> Bdv.	Lodgepole pine	8	L
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NOCTUIDAE

<i>Achytonix</i> sp.		White spruce	1	L
<i>Acronicta</i>	<i>distans</i> Grt.	Birch	1	L
	<i>grisea</i> Wlk.	Birch	1	L
	<i>imprensa</i> Wlk.	Lodgepole pine	1	L
<i>Andropolia</i>	<i>aedon</i> Grt.	Alder	1	L
	<i>contacta</i> Wlk.	Trembling aspen	10	L
<i>Anomogyna</i>	<i>elimata</i> Gn.	Douglas fir	1	L
		White spruce	1	L
	<i>perquiritata</i> Morr.	Alpine fir	1	L
		White spruce	1	L
<i>Autographa</i> sp.		Misc.	2	L
<i>Brachylomia</i>	<i>populi</i> Stkr.	Poplar	4	L
		Balsam poplar	3	L
		Plains cottonwood	1	L
		Trembling aspen	1	L

LEPIDOPTERA

Catocala sp.		Trembling aspen	2	L-P	
		Poplar	1	L	
		Willow	1	L	
		Misc.	2	L	
Dysocnemis sp.		Lodgepole pine	1	L	
Enargia	infumata Grt.	Trembling aspen	1	L	
		Balsam poplar	1	L	
Feralia sp.		White spruce	4	L	
		Engelmann spruce	3	L	
		Spruce	1	L	
		Douglas fir	2	L	
		comstocki Grt.	Alpine fir	1	L
			Douglas fir	1	L
			Engelmann spruce	1	L
			White spruce	1	L
		jocosa Gn.	White spruce	28	L
			Spruce	1	L
			Douglas fir	12	L
			Alpine fir	2	L
Homoglaea sp.		Willow	1	L	
	carbonaria Harv.	Trembling aspen	2	L	
		Willow	2	L	
	hircina Morr.	Trembling aspen	1	L	
Hypena	humuli Harr.	Misc.	1	L	
Ipimorpha	pleonectusa Grt.	Trembling aspen	8	L	
		Willow	1	L	
Lithomoia	solidaginis	White spruce	1	L	
	germana Morr.				
Lithophane sp.		Willow	3	L	
		Birch	2	L	
		Dwarf birch	1	L	
		Balsam poplar	1	L	
		amanda Sm.	Willow	1	L
		innominata Sm.	Douglas maple	1	L
		petulca Grt.	White birch	1	L

LEPIDOPTERA

<i>Oligia</i> sp.		Lodgepole pine	1	A
<i>Orthosia</i> sp.		Willow	1	L
	<i>hibisci</i> Gn.	Trembling aspen	4	L
		Willow	3	L
		Alder	1	L
		White birch	1	L
	<i>revicta</i> Morr.	White spruce	3	L
		White birch	1	L
		Willow	1	L
		Misc.	1	L
<i>Panthea</i>	<i>acronyctoides</i> Wlk.	Douglas fir	6	L
		White spruce	5	L
	<i>furcilla</i> Pack.	Lodgepole pine	5	L
<i>Pleroma</i>	<i>cinerea</i> Sm.	Misc.	1	L
<i>Polia</i> sp.		Lodgepole pine	1	L
		White spruce	1	L
		Misc.	2	L
	<i>crisifera</i> Wlk.	Douglas fir	1	L
		White spruce	1	L
	<i>segregata</i> Sm.	Misc.	1	L
<i>Pseudorthosia</i> sp.		Misc.	1	L
<i>Scoliopteryx</i>	<i>libatrix</i> Linn.	Willow	6	L
		Spruce	1	L
<i>Syngrapha</i> sp.		White spruce	4	L
		Spruce	2	L
		Engelmann spruce	1	L
		Alpine fir	1	L
		White birch	1	L
	<i>alias</i> Ottol.	White spruce	28	L
		Engelmann spruce	1	L
		Alpine fir	1	L
		Douglas fir	1	L
	<i>selecta</i> Wlk.	White spruce	2	L
		Dougl's fir	1	L

LEPIDOPTERA

Xylena	thoracica Put.-Cram.	Dogwood	1	L
Xylomyges sp.		Limber pine	7	L
		Birch	1	L
		Trembling aspen	1	L
	dolosa Grt.	Trembling aspen	3	L
		Willow	1	L
Xylotype sp.		White spruce	6	L
	capax G. & R.	White spruce	4	L
Zale sp.		Lodgepole pine	1	L
		Douglas fir	1	L
	duplicata largera Sm.	Lodgepole pine	8	L
		Douglas fir	2	L
		Misc.	1	L
NOTODONTIDAE				
Pheosia	rimosa Pack.	Balsam poplar	1	L
NYMPHALIDAE				
Euphydryas sp.		Juniper	1	P
Limenitis	arthemis Dru.	Balsam poplar	1	P
Nymphalis	antiopa Linn.	Willow	4	L
		Balsam poplar	2	L
	milberti Godt.	Misc.	2	L-P
Polygonia sp.		Alder	1	P
	faunus Edw.	White spruce	1	P
Willow		1	L	
Misc.		1	L	
OECOPHORIDAE				
Agonopterix	gelidella Busck.	Willow	1	L
Depressaria	betulella Busck.	Dwarf birch	1	L

LEPIDOPTERA

OLETHREUTIDAE

Alphania	capreana Hbn.	Willow	1	L
	dextrana McD.	Trembling aspen	2	L-P
	infida Heinr.	Willow	2	L-P
Badebecia	urticana Hbn.	Trembling aspen	3	L
		Balsam poplar	1	L
		Misc.	1	L
Epinotia sp.		Willow	2	L
		Trembling aspen	1	L
	cruciana Linn.	Willow	1	L
	nisella criddleana Kft.	Trembling aspen	3	L
	similana Hbn.	Dwarf birch	1	L
	solandriana Linn.	White birch	1	L
	solicitana Wlk.	White birch	1	L
		Willow	1	L
Griselda	radicana Wlshm.	Douglas fir	9	L-P
		White spruce	8	L
		Engelmann spruce	4	L
Petrova sp.		Lodgepole pine	2	
		White spruce	1	
	metallica Busck.	Lodgepole pine	1	
Pseudexentra	oregonana Wishm.	Trembling aspen	2	L
Sciaphila	duplex Wishm.	Trembling aspen	1	P
		Dogwood	1	L
Taniva	albolineana Kft.	White spruce	1	
Zeiraphera sp.		Douglas fir	3	L-P
		Alpine fir	2	L
		White spruce	2	L

LEPIDOPTERA

	<i>fortunana</i> Kft.	White spruce	5	L
		Engelmann spruce	5	L
		Douglas fir	4	L
		Alpine fir	1	L-P
	<i>canadensis</i> Mut. & Free.	White spruce	1	L
PAPILIONIDAE				
	<i>Papilio</i> sp.	Alder	1	L
		Misc.	1	L
PERICOPIDAE				
	<i>Gnophaela</i> <i>latipennis</i> Bdv.	Misc.	1	L
PIERIDAE				
	<i>Pieris</i> sp.	White birch	1	L
PLUTELLIDAE				
	<i>Cerostoma</i> <i>dorsimaculella</i> Kft.	Willow	4	L-P
	<i>Plutella</i> <i>vanella</i> Wlshm.	White spruce	1	P
PTEROPHORIDAE				
	<i>Oidaematophorus</i> <i>homodactylus</i> Wlk.	Engelmann spruce	1	A
	<i>Platyptilia</i> <i>punctidactyla</i> Haw.	Alpine fir	2	L-P
		Lodgepole pine	1	-P
		White spruce	1	L
PYRALIDAE				
	<i>Dioryctria</i> sp.	Limber pine	1	
		White spruce	1	
	<i>abietivorella</i> Grt.	Lodgepole pine	1	
	<i>reniculella</i> Grt.	White spruce	1	L
	<i>Oreana</i> <i>unicolorella</i> Hlst.	Trembling aspen	1	L
	<i>Tetralopha</i> <i>aplastella</i> Hlst.	Trembling aspen	1	L
	<i>Udea</i> <i>itysalis</i> Wlk.	Misc.	1	P

LEPIDOPTERA

SATURNIIDAE

Pseudohazis	eglanterina Bdv.	Misc.	4	L	A
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SPHINGIDAE

Celerio	gallii intermedia Kby.	Misc.	1	L	
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Proserpinus	flavofasciata Wlk.	Misc.	1	L	
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Smerinthus sp.		Willow	1	L	
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TORTRICIDAE

Acleris sp.		White spruce	1	L		
		calignosana Wlk.	Alder	1	L	
		logiana Linn.	Birch	1		P
		maximana B. & B.	Alder	1	L	
		pulverosana Wlk.	Willow	1	L-P	
			Birch	1	L	
		semiannula Rob.	Birch	1	L	
		variana Fern.	White spruce	46	L-P-A	
			Engelmann spruce	11	L-P	
			Spruce	1	L	
	Douglas fir		17	L-P-A		
	Alpine fir		12	L-P		
	Fir		1	L		
	Misc.		1		P	
Archips sp.		Balsam poplar	1		P	
	cerasivoranus Fitch.	Chokecherry	10	L		
		Willow	1		P	
Misc.		2	L			
Archippus	oporanus Linn.	Chokecherry	7	L		
		Willow	1		P	
Argyrotaenia	occultana Freeman	Lodgepole pine	1	L		

LEPIDOPTERA

Choristoneura	conflictana Wlk.	Trembling aspen	39	L-P
		Willow	4	L-P
		White birch	1	L
		White spruce	1	L
	fumiferana Clem.	White spruce	4	L
		Engelmann spruce	2	L
		Alpine fir	3	L-P
		Douglas fir	3	L
	lambertiana Busck	Lodgepole pine	1	P
Clepsia	persicana Fitch.	White spruce	1	L
		Alder	1	L
		Misc.	1	L
Eulia	ministrana Linn.	Alder	1	L
Pandemis	canadana Kft.	Willow	1	L
		Misc.	1	L
Syndemis	afflictana Wlk.	Spruce	1	L

NEUROPTERA

Family Genus	Species	Host	Number of Collections	Stage Collected
HEMEROBIIDAE				
Hemerobius	conhenctus	Lodgepole pine	1	A
	conjunctus Fitch	White spruce	1	A
	dorsatus Bks.	Lodgepole pine	3	L A
	humulinus Linn.	Lodgepole pine Misc.	1	A
			1	A
	kokaneeanus Currie	Alpine fir	1	A
	stigmaterus Fitch.	Alpine fir Douglas fir	1	A
1			A	
Kimminsia sp.	Lodgepole pine	1	A	
Micromus	angulatus Steph.	White spruce	1	A
		Misc.	1	A
Wesmaelius	longifrons Wlk.	Lodgepole pine	1	A
RAPHIDIIDAE				
Agulla	adnixa Hag.	Alpine fir	1	A
		Douglas fir	1	A
		Lodgepole pine	1	A
		Birch	1	A