

INSECT PARASITES OF SOME INSECT GALLS  
IN THE FORESTED AREAS OF  
MANITOBA AND SASKATCHEWAN

by

J.C.E. Melvin, H.R. Wong and B.B. McLeod

FOREST RESEARCH LABORATORY  
WINNIPEG, MANITOBA  
INFORMATION REPORT MS-X-25

CANADIAN FORESTRY SERVICE  
DEPARTMENT OF FISHERIES AND FORESTRY  
MARCH 1970

## INTRODUCTION

The insects causing some of the more common galls and abnormal plant growths in the forested areas of Manitoba and Saskatchewan (Information Report MS-X-23, Canadian Forestry Service, Winnipeg, Manitoba) contained a number of parasites. These were sent to officers of the Entomological Research Institute for determination and are listed in Table I, which also indicates the order and family of the insect host, and whether the parasite is of common (C), occasional (O) or single (S) occurrence. Table II records the parasite or parasites recovered from each host species reared, the order and family to which the parasite belongs, the plant host, and the location of the gall on the plant.

Table I

Parasitic species	Host Species			Abundance*
	Species	Family	Order	
Amblymerus sp.	Mayetiola rigidae O.S.	Cecidomyidae	Diptera	0
	Pontania sp.	Tenthredinidae	Hymenoptera	S
	Rhabdophaga strobiloides O.S.	Cecidomyidae	Diptera	C
Aphanogmus sp.	Rhabdophaga strobiloides O.S.	Cecidomyidae	Diptera	0
Bracon n. sp.	Saperda concolor Lec.	Cerambycidae	Coleoptera	0
	Saperda populnea	Cerambycidae	Coleoptera	0
	moesta Lec.			
Cecidostiba sp.	Rhabdophaga strobiloides O.S.	Cecidomyidae	Diptera	S
	Mayetiola rigidae O.S.	Cecidomyidae	Diptera	0
	Rhabdophaga sp.	Cecidomyidae	Diptera	S
Cirrospilus cinctithorax (Grlt.)	Mayetiola rigidae O.S.	Cecidomyidae	Diptera	S
Closterocerus sp.	Rhabdophaga strobiloides O.S.	Cecidomyidae	Diptera	S
Closterocerus trifasciatus Westwood	Disholcaspis mamma (Cress.)	Cynipidae	Hymenoptera	S
Copidosoma sp.	Rhabdophaga strobiloides O.S.	Cecidomyidae	Diptera	S
	Mayetiola rigidae O.S.	Cecidomyidae	Diptera	S
Cubucephalus contactus Tow. & Gupta	Saperda concolor Lec.	Cerambycidae	Coleoptera	S
Cubucephalus prolixus Tow.	Saperda concolor Lec.	Cerambycidae	Coleoptera	0
Dacnusa sp.	Pontania proxima (Lep.)	Tenthredinidae	Hymenoptera	S
Diapriid sp.	Rhabdophaga strobiloides O.S.	Cecidomyidae	Diptera	S
Diglyphus begini (Ashm.)	Eurosta solidaginis Fitch	Tephritidae	Diptera	S

Parasitic species	Host Species			Abundance*
	Species	Family	Order	
Dolichomitus messor perlongus (Cr.)	Saperda concolor Lec.	Cerambycidae	Coleoptera	0
	Saperda populnea moesta Lec.	Cerambycidae	Coleoptera	0
Dolichomitus populneus (Ratz.)	Saperda concolor Lec.	Cerambycidae	Coleoptera	0
	Saperda populnea	Cerambycidae	Coleoptera	0
	moesta Lec.			
Dolichomitus sp. nr. messor (Cr.)	Saperda concolor Lec.	Cerambycidae	Coleoptera	0
Elasmus atratus How.	Rhabdophaga strobiloides O.S.	Cecidomyidae	Diptera	S
Eudecatoma flava (Ashm.)	Acraspis villosa Gill.	Cynipidae	Hymenoptera	S
Eudecatoma nubilipennis (Nort.)	Cynipid sp.	Cynipidae	Hymenoptera	0
Eudecatoma nubilistigma (Walsh)	Mayetiola rigidae O.S.	Cecidomyidae	Diptera	S
	Rhabdophaga salicis- batates O.S.	Cecidomyidae	Diptera	S
	Rhabdophaga strobiloides O.S.	Cecidomyidae	Diptera	S
Euderus saperdae Miller	Agrilus criddlei Frost	Buprestidae	Coleoptera	S
	Saperda concolor Lec.	Cerambycidae	Coleoptera	0
Eulophus sp.	Cynipid sp.	Cynipidae	Hymenoptera	S
Eurytoma sp.	Andricus sp.	Cynipidae	Hymenoptera	S
	Cynipid sp.	Cynipidae	Hymenoptera	0
	Melanagromyza sp.	Agromyzidae	Diptera	0
	Mayetiola rigidae O.S.	Cecidomyidae	Diptera	0
	Pontania sp.	Tenthredinidae	Hymenoptera	0
	Mayetiola sp.	Cecidomyidae	Diptera	S
	Rhabdophaga strobiloides O.S.	Cecidomyidae	Diptera	S
Eurytoma calcarea Bugbee	Diplolepis radicum Bass.	Cynipidae	Hymenoptera	S
Eurytoma diastrophi Walsh	Cynipid sp.	Cynipidae	Hymenoptera	S
	Pontania sp.	Tenthredinidae	Hymenoptera	0
	Rhabdophaga sp.	Cecidomyidae	Diptera	S

Parasitic species	Host Species		Order	Abundance*
	Species	Family		
Eurytoma nr. diastrophi Walsh	Cynipid sp.	Cynipidae	Hymenoptera	0
	Rhabdophaga strobiloides O.S.	Cecidomyidae	Diptera	S
Eurytoma gigantea Walsh	Eurosta solidaginis Fitch	Tephritidae	Diptera	S
Eurytoma levo Bugbee	Xyelid sp.	Xyelidae	Hymenoptera	S
Eurytoma querci-globuli (Fitch)	Disholcaspis poss. mamma (Cress.)	Cynipidae	Hymenoptera	S
	Melanagromyza sp.	Agromyzidae	Diptera	S
Eurytoma spongiosa Bugbee	Diplolepis bicolor Harv.	Cynipidae	Hymenoptera	S
Eurytoma nr. tumoris Bugbee	Xyelid sp.	Xyelidae	Hymenoptera	S
Eurytoma tylodermatis Ashm.	Cecidomyid sp.	Cecidomyidae	Diptera	S
Eutheresia sp.	Saperda populnea moesta Lec.	Tachinidae	Diptera	C
Exeristes sp.	Saperda populnea moesta Lec.	Ichneumonidae	Hymenoptera	0
Gastrancistrus sp.	Rhabdophaga strobiloides O.S.	Cecidomyidae	Diptera	0
Habrocytus sp.	Diplolepis bicolor Harv.	Cynipidae	Hymenoptera	S
	Mayetiola rigidae O.S.	Cecidomyidae	Diptera	0
	Rhabdophaga sp.	Cecidomyidae	Diptera	0
Habrocytus rosa Grlt.	Diplolepis sp.	Cynipidae	Hymenoptera	S
Hyssopus sp.	Cynipid sp.	Cynipidae	Hymenoptera	S
	Rhabdophaga strobiloides O.S.	Cecidomyidae	Diptera	S
Metaphycus sp.	Mayetiola rigidae O.S.	Cecidomyidae	Diptera	S
Meteorus n. sp.	Saperda concolor Lec.	Cerambycidae	Coleoptera	0
Meteorus tibialis Mues.	Saperda concolor Lec.	Cerambycidae	Coleoptera	S

Parasitic species	Host Species		Order	Abundance*
	Species	Family		
Necremnus sp. nr. oregonensis Gahan	Pontania proxima (Lep.)	Tenthredinidae	Hymenoptera	S
	Pontania sp.	Tenthredinidae	Hymenoptera	O
Odinia boletina (Zett.)	Saperda concolor Lec.	Cerambycidae	Coleoptera	C
	Saperda populnea moesta Lec.	Cerambycidae	Coleoptera	C
Ormyrus sp.	Andricus sp.	Cynipidae	Hymenoptera	S
Parapsilophrys n. sp.	Rhabdophaga strobiloides O.S.	Cecidomyiidae	Diptera	S
Pediobius nr. wilderi (How.)	Mayetiola rigidae O.S.	Cecidomyiidae	Diptera	S
Platygaster sp.	Mayetiola rigidae O.S.	Cecidomyiidae	Diptera	C
	Rhabdophaga strobiloides O.S.	Cecidomyiidae	Diptera	S
Pteromalid sp.	Neuroterus sp.	Cynipidae	Hymenoptera	S
	Cynipid sp.	Cynipidae	Hymenoptera	S
	Rhabdophaga sp.	Cecidomyiidae	Diptera	S
	Mayetiola rigidae O.S.	Cecidomyiidae	Diptera	O
Rhoptromeris sp.	Rhabdophaga strobiloides O.S.	Cecidomyiidae	Diptera	S
Sphegigaster sp.	Xyelid sp.	Xyelidae	Hymenoptera	S
	Melanagromyza sp.	Agromyzidae	Diptera	C
	Cynipid sp.	Cynipidae	Hymenoptera	C
	Mayetiola rigidae O.S.	Cecidomyiidae	Diptera	S
Syntomopus sp.	Cynipid sp.	Cynipidae	Hymenoptera	O
Syntomopus americanus Ashm.	Cynipid sp.	Cynipidae	Hymenoptera	C
	Melanagromyza sp.	Agromyzidae	Diptera	O
Syntomosphyrum erurus (Riley)	Cynipid sp.	Cynipidae	Hymenoptera	S
Tetrastichus sp.	Melanagromyza sp.	Agromyzidae	Diptera	O
	Cynipid sp.	Cynipidae	Hymenoptera	S
	Mayetiola rigidae O.S.	Cecidomyiidae	Diptera	S
	Rhabdophaga sp.	Cecidomyiidae	Diptera	S
	Rhabdophaga strobiloides O.S.	Cecidomyiidae	Diptera	O

Parasitic species	Host Species			Abundance*
	Species	Family	Order	
Tetrastichus nr. faustus Burks.	Rhabdophaga strobiloides O.S.	Cecidomyidae	Diptera	S
Tetrastichus nr. hibus Burks.	Disholcaspis mamma (Cress.)	Cynipidae	Hymenoptera	S
Tetrastichus nr. neuroteri (Ashm.)	Cynipid sp.	Cynipidae	Hymenoptera	S
Tetrastichus nr. scriptus Burks.	Saperda concolor Lec.	Cerambycidae	Coleoptera	S
Tetrastichus nr. sobrius Gahan	Cynipid sp.	Cynipidae	Hymenoptera	S
	Melanagromyza sp.	Agromyzidae	Diptera	O
Torymus sp.	Cynipid sp.	Cynipidae	Hymenoptera	O
	Contarinia virginianiae (Felt)	Cecidomyidae	Diptera	S
	Mayetiola rigidae O.S.	Cecidomyidae	Diptera	C
	Pontania sp.	Tenthredinidae	Hymenoptera	S
	Rhabdophaga sp.	Cecidomyidae	Diptera	O
	Rhabdophaga strobiloides O.S.	Cecidomyidae	Diptera	C
Torymus bedeguaris (L.)	Diplolepis sp.	Cynipidae	Hymenoptera	S
	Diplolepis radicum Bass.	Cynipidae	Hymenoptera	O
Torymus longistigma (Huber)	Rhabdophaga sp.	Cecidomyidae	Diptera	S
	Mayetiola sp.	Cecidomyidae	Diptera	S
	Mayetiola rigidae O.S.	Cecidomyidae	Diptera	C
	Rhabdophaga strobiloides O.S.	Cecidomyidae	Diptera	C
Torymus strobiloides (Huber)	Rhabdophaga strobiloides O.S.	Cecidomyidae	Diptera	O
	Mayetiola rigidae O.S.	Cecidomyidae	Diptera	O
Tridymus sp.	Mayetiola rigidae O.S.	Cecidomyidae	Diptera	O
	Rhabdophaga sp.	Cecidomyidae	Diptera	S
	Rhabdophaga strobiloides O.S.	Cecidomyidae	Diptera	C
Xylophrurus bicolor bicolor (Cush.)	Saperda populnea moesta Lec.	Cerambycidae	Coleoptera	O

Parasitic species	Host Species			Abundance*
	Species	Family	Order	
	Saperda concolor Lec.	Cerambycidae	Coleoptera	0
Zatropis catalpae (Cwfd.)	Contarinia negundifolia (Felt)	Cecidomyidae	Diptera	S
Zatropis sp.	Contarinia virginianiae (Felt)	Cecidomyidae	Diptera	S

\*

C = common

0 = occasional

S = single record



Table II

Insect Host	Parasite		Order	Plant Host	Location of gall on plant
	Species	Family			
<i>Acraspis villosa</i> Gill.	<i>Eudecatoma flava</i> (Ashm.)	Eurytomidae	Hymenoptera	<i>Quercus macrocarpa</i>	stem
<i>Andricus</i> sp.	<i>Eurytoma</i> sp.	Eurytomidae	Hymenoptera		leaves
	<i>Ormyrus</i> sp.	Ormyridae	Hymenoptera		stem
<i>Cecidomyid</i> sp.	<i>Eurytoma tylodermatis</i> Ashm.	Eurytomidae	Hymenoptera		leaves
<i>Cynipid</i> sp.	<i>Torymus</i> sp.	Torymidae	Hymenoptera		leaves
<i>Diplolepis</i> sp.	<i>Torymus bedeguaris</i> (L.)	Torymidae	Hymenoptera		stem
<i>Disholcaspis mamma</i> (Cress.)	<i>Tetrastichus hibus</i> Burks	Eulophidae	Hymenoptera		stem
	<i>Closterocerus trifasciatus</i> Westwood	Eulophidae	Hymenoptera		stem
<i>Disholcaspis</i> poss. <i>mamma</i> (Cress.)	<i>Eurytoma querciglobuli</i> (Fitch)	Eurytomidae	Hymenoptera		stem
<i>Neuroterus</i> sp.	<i>Pteromalid</i> sp.	Pteromalidae	Hymenoptera		leaves
<i>Contarinia negundifolia</i> Felt	<i>Zatropis catalpae</i> (Cwfd.)	Pteromalidae	Hymenoptera	<i>Acer negundo</i> L.	leaves
<i>Diplolepis</i> sp.	<i>Habrocytus rosa</i> Grt.	Pteromalidae	Hymenoptera	<i>Rosa</i> spp.	stem
<i>Diplolepis bicolor</i> Harr.	<i>Eurytoma</i> sp.	Eurytomidae	Hymenoptera		stem
	<i>Habrocytus</i> sp.	Pteromalidae	Hymenoptera		stem
	<i>Eurytoma spongiosa</i> Bugbee	Eurytomidae	Hymenoptera		stem
<i>Diplolepis radicum</i> Bass.	<i>Torymus bedeguaris</i> (L.)	Torymidae	Hymenoptera		root
	<i>Eurytoma calcarea</i> Bugbee	Eurytomidae	Hymenoptera		root
<i>Rhabdophaga</i> sp.	<i>Torymus longistigma</i> (Huber)	Torymidae	Hymenoptera		leaves

Insect Host	Parasite			Plant Host	Location of gall on plant	
	Species	Family	Order			
Contarinia virginianiae (Felt)	Zatropis sp.	Pteromalidae	Hymenoptera	Prunus virginiana L.	fruit	
Xyelid sp.	Eurytoma nr. tumoris Bugbee	Eurytomidae	Hymenoptera	Pinus banksiana Lamb.	stem	
	Eurytoma levo Bugbee	Eurytomidae	Hymenoptera		stem	
	Sphegigaster sp.	Pteromalidae	Hymenoptera	stem		
Cynipid sp.	Eurytoma sp.	Eurytomidae	Hymenoptera	Populus tremuloides Michx.	stem	
	Tetrastichus nr. sobrius Gahan	Eulophidae	Hymenoptera		stem	
	Tetrastichus nr. neuroteri (Ashm.)	Eulophidae	Hymenoptera		stem	
	Pteromalid sp.	Pteromalidae	Hymenoptera		stem	
	Syntomopus sp.	Pteromalidae	Hymenoptera		stem	
	Sphegigaster sp.	Pteromalidae	Hymenoptera		stem	
	Syntomopus americanus Ashm.	Pteromalidae	Hymenoptera		stem	
	Eurytoma diastrophii Walsh.	Eurytomidae	Hymenoptera		stem	
	Melanagromyza sp.	Eurytoma sp.	Eurytomidae	Hymenoptera		stem
		Eurytoma querci-globuli (Fitch)	Eurytomidae	Hymenoptera		stem
Tetrastichus sp.		Eulophidae	Hymenoptera		stem	
Tetrastichus nr. sobrius Gahan		Eulophidae	Hymenoptera		stem	
Syntomopus americanus Ashm.		Pteromalidae	Hymenoptera		stem	
Sphegigaster sp.		Pteromalidae	Hymenoptera		stem	
Saperda populnea moesta Lec.		Dolichomitus messor perlongus (Cr.)	Ichneumonidae	Hymenoptera	Populus balsamifera L.	stem
		Dolichomitus populneus (Ratz.)	Ichneumonidae	Hymenoptera		stem
	Exeristes sp.	Ichneumonidae	Hymenoptera		stem	
	Xylophrurus bicolor bicolor (Cush.)	Ichneumonidae	Hymenoptera		stem	
	Bracon n. sp.	Braconidae	Hymenoptera		stem	
	Odinia boletina (Zett.)	Oдиниidae	Diptera		stem	
	Eutheresia sp.	Tachinidae	Diptera		stem	
	Lixophaga plumbea Ald.	Tachinidae	Diptera		stem	

Insect Host	Parasite			Plant Host	Location of gall on plant
	Species	Family	Order		
Pontania proxima (Lep.)	Dacnusa sp.	Braconidae	Hymenoptera	Salix alba var. vitellina (L.) Stokes	leaves
	Necremnus sp. nr. oregonensis Gahan	Eulophidae	Hymenoptera		leaves
Agrilus criddlei Frost	Euderus saperdae Miller	Eulophidae	Hymenoptera	Salix bebbiana Sarg.	stem
Cynipid sp.	Eurytoma diastrophi Walsh.	Eurytomidae	Hymenoptera	Salix spp.	stem
	Eudecatoma nubilipennis (Nort.)	Eurytomidae	Hymenoptera		stem
	Torymus sp.	Torymidae	Hymenoptera		stem
	Eurytoma sp.	Eurytomidae	Hymenoptera		stem
	Eulophus sp.	Eulophidae	Hymenoptera		stem
	Hyssopus sp.	Eulophidae	Hymenoptera		stem
	Syntolmopus americanus Ashm.	Pteromalidae	Hymenoptera		stem
	Eurytoma sp. nr. diastrophi Walsh	Eurytomidae	Hymenoptera		stem
	Syntomosphyrum erusus (Riley)	Eulophidae	Hymenoptera		stem
	Tetrastichus sp.	Eulophidae	Hymenoptera		stem
	Mayetiola sp.	Torymus longistigma (Huber)	Torymidae		Hymenoptera
Mayetiola rigidae O.S.	Torymus longistigma (Huber)	Torymidae	Hymenoptera	stem	
	Torymus strobiloides (Huber)	Torymidae	Hymenoptera	stem	
	Habrocytus sp.	Pteromalidae	Hymenoptera	stem	
	Eurytoma sp.	Eurytomidae	Hymenoptera	stem	
	Amblymerus sp.	Pteromalidae	Hymenoptera	stem	
	Tridymus sp.	Pteromalidae	Hymenoptera	stem	
	Cecidostiba sp.	Pteromalidae	Hymenoptera	stem	
	Eudecatoma nubilistigma (Walsh)	Eurytomidae	Hymenoptera	stem	
	Tetrastichus sp.	Eulophidae	Hymenoptera	stem	
	Cirrospilus cinctithorax (Grlt.)	Eulophidae	Hymenoptera	stem	
	Torymus sp.	Torymidae	Hymenoptera	stem	
	Platygaster sp.	Platygasteridae	Hymenoptera	stem	

Insect Host	Parasite			Plant Host	Location of gall on plant
	Species	Family	Order		
	Metaphycus sp.	Encyrtidae	Hymenoptera	Salix spp.	stem
	Sphegigaster sp.	Pteromalidae	Hymenoptera		stem
	Pediobius nr. wilderi (How.)	Eulophidae	Hymenoptera		stem
	Copidosoma sp.	Encyrtidae	Hymenoptera		stem
Pontania sp.	Torymus sp.	Torymidae	Hymenoptera		leaves
	Eurytoma diastrophii Walsh	Eurytomidae	Hymenoptera		leaves
	Eurytoma sp.	Eurytomidae	Hymenoptera		leaves
	Amblymerus sp.	Pteromalidae	Hymenoptera		leaves
	Necremnus nr. oregon- ensis Gahan	Eulophidae	Hymenoptera		leaves
	Eurytoma sp.	Eurytomidae	Hymenoptera		stem
Rhabdophaga sp.	Cecidostiba sp.	Pteromalidae	Hymenoptera		stem
	Tetrastichus sp.	Eulophidae	Hymenoptera		stem
	Torymus sp.	Torymidae	Hymenoptera		stem
	Pteromalid sp.	Pteromalidae	Hymenoptera		stem
	Habrocytus sp.	Pteromalidae	Hymenoptera		stem
	Tridymus sp.	Pteromalidae	Hymenoptera		stem
	Eurytoma diastrophii Walsh	Eurytomidae	Hymenoptera		stem
Rhabdophaga salicisbatates O.S.	Eudecatoma nubilis- tigma (Walsh)	Eurytomidae	Hymenoptera		stem
Rhabdophaga strobiloides O.S.	Torymus strobiloides (Huber)	Torymidae	Hymenoptera		leaves
	Torymus sp.	Torymidae	Hymenoptera		leaves
	Tridymus sp.	Pteromalidae	Hymenoptera		leaves
	Gastrancistrus sp.	Pteromalidae	Hymenoptera		leaves
	Diapriid sp.	Diapriidae	Hymenoptera		leaves
	Closterocerus sp.	Eulophidae	Hymenoptera		leaves
	Amblymerus sp.	Pteromalidae	Hymenoptera		leaves
	Tetrastichus sp.	Eulophidae	Hymenoptera		leaves
	Tetrastichus nr. faustus Burks.	Eulophidae	Hymenoptera		leaves
	Aphanogmus sp.	Ceraphronidae	Hymenoptera		leaves
	Cecidostiba sp.	Pteromalidae	Hymenoptera		leaves
	Eurytoma nr. diastrophii Walsh	Eurytomidae	Hymenoptera		leaves

Insect Host	Parasite			Plant Host	Location of gall on plant
	Species	Family	Order		
	Eudecatoma nubilipennis (Walsh)	Eurytomidae	Hymenoptera	Salix spp.	leaves
	Eurytoma sp.	Eurytomidae	Hymenoptera		leaves
	Rhoptromeris sp.	Cynipidae	Hymenoptera		leaves
	Elasmus atratus How.	Elasmidae	Hymenoptera		leaves
	Copidosoma sp.	Encyrtidae	Hymenoptera		leaves
	Hyssopus sp.	Eulophidae	Hymenoptera		leaves
	Parapsilophrys sp.	Encyrtidae	Hymenoptera		leaves
	Platygaster sp.	Platygasteridae	Hymenoptera		leaves
Saperda concolor Lec.	Cubucephalus contactus Tow. & Gupta	Ichneumonidae	Hymenoptera		stem
	Cubucephalus prolixus Tow.	Ichneumonidae	Hymenoptera		stem
	Dolichomitus messor perlongus (Gr.)	Ichneumonidae	Hymenoptera		stem
	Dolichomitus populneus (Ratz.)	Ichneumonidae	Hymenoptera		stem
	Dolichomitus sp. nr. messor (Cr.)	Ichneumonidae	Hymenoptera		stem
	Xylophrurus bicolor bicolor (Cush.)	Ichneumonidae	Hymenoptera		stem
	Bracon n. sp.	Braconidae	Hymenoptera		stem
	Meteorus n. sp.	Braconidae	Hymenoptera		stem
	Meteorus tibialis Mues.	Braconidae	Hymenoptera		stem
	Euderus saperdae Miller	Eulophidae	Hymenoptera		stem
	Tetrastichus nr. scriptus Burks.	Eulophidae	Hymenoptera		stem
	Odinia boletina (Zett.)	Odiniidae	Diptera		stem
Eurosta solidaginis Fitch	Diglyphus begini (Ashm.)	Eulophidae	Hymenoptera		stem
	Eurytoma gigantea Walsh	Eurytomidae	Hymenoptera		stem