

SOME OF THE MORE COMMON GALLS AND ABNORMAL PLANT  
GROWTHS CAUSED BY INSECTS AND MITES IN THE FORESTED AREAS OF  
MANITOBA AND SASKATCHEWAN

by

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

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## INTRODUCTION

Attempts to identify the many galls and abnormal plant growths caused by insects and mites in the forested areas of Manitoba and Saskatchewan have been hindered by the scarcity of work in this field. The standard guide, "Plant Galls and Gall Makers" by E. P. Felt (Comstock Pub. Co. Inc., New York, 1940), while of some help, is outdated and pertains mainly to the eastern part of North America.

This report indicates the species of insects and mites causing some of the more common galls or abnormal plant growths in this area, and is based on laboratory rearings conducted during the last three years. The insects or mites causing these growths were determined by specialists, and are grouped according to their host. For each species a photograph of its characteristic damage is shown, together with common name, scientific order and family to which it belongs, known distribution in Manitoba and Saskatchewan, and at least one reference to some aspect of its biology.

It is hoped that this work will aid in the recognition of some of the more common gall-makers in this area, and will form the basis of a more comprehensive work in this field.

Galls of the Various Host Plants

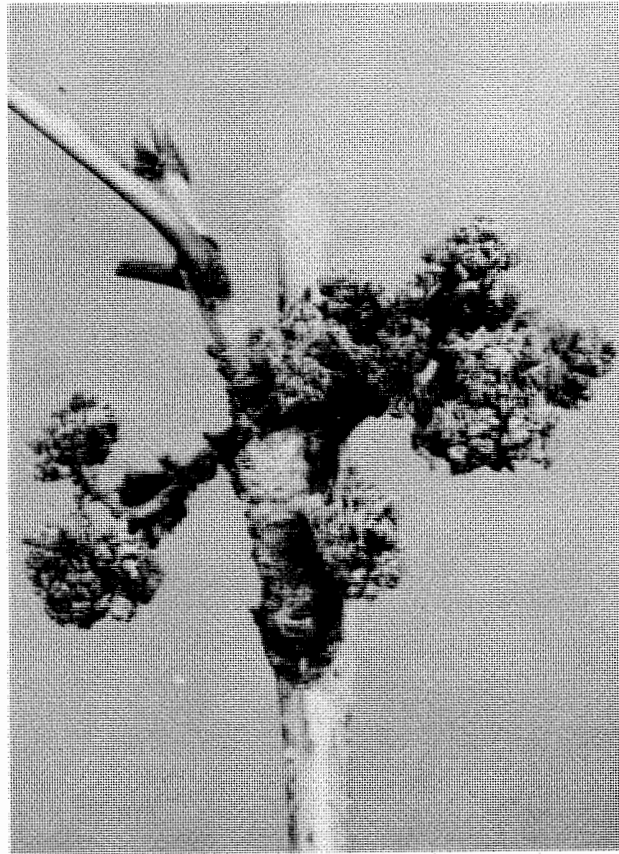
Aceria fraxiniflora (Felt)

Ash flower-gall mite

ORDER: Acarina

FAMILY: Eriophyidae

5



HOST: Green ash (Fraxinus pennsylvanica Marsh var.  
subintegerrima (Vahl) Fern.

LOCATION OF GALLS: Twigs

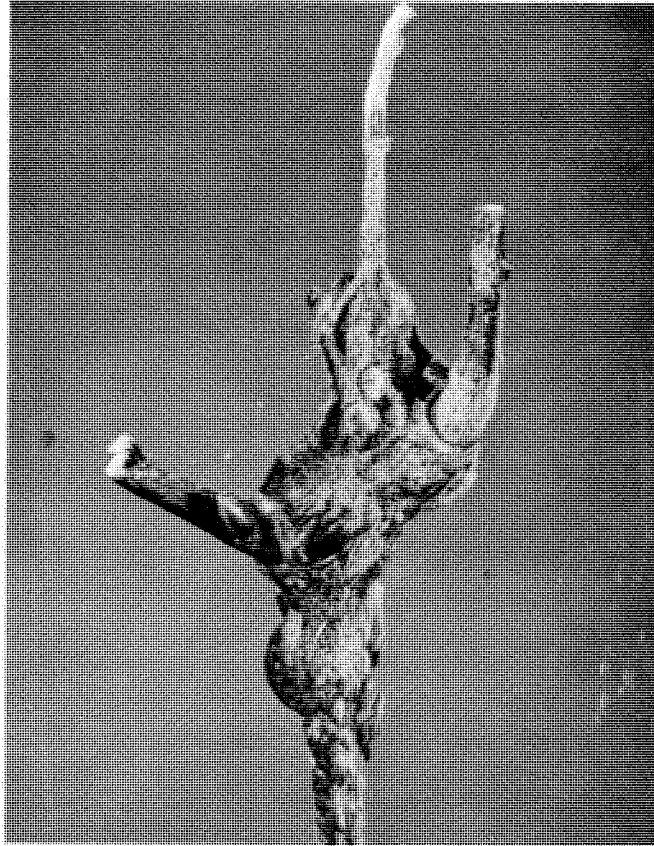
KNOWN DISTRIBUTION: South and central areas of both provinces.

REFERENCES: McDowell, D.N. (Director). \* 1960. Pests and  
diseases of trees and shrubs. Wisc. State  
Dept. Agri. Bull. 351: 87 pp.

Asphondylia rudbeckiaeconspicua  
Osten Sacken  
A gall midge

ORDER: Diptera  
FAMILY: Cecidomyiidae

6



HOST: Coneflower (Rudbeckia spp.)

LOCATION OF GALLS: Foliage

KNOWN DISTRIBUTION: Southern Manitoba

REFERENCES: Osten Sacken, C.R. 1870. Biological notes on  
Diptera. Amer. Ent. Soc. Trans. 3: 51-54.

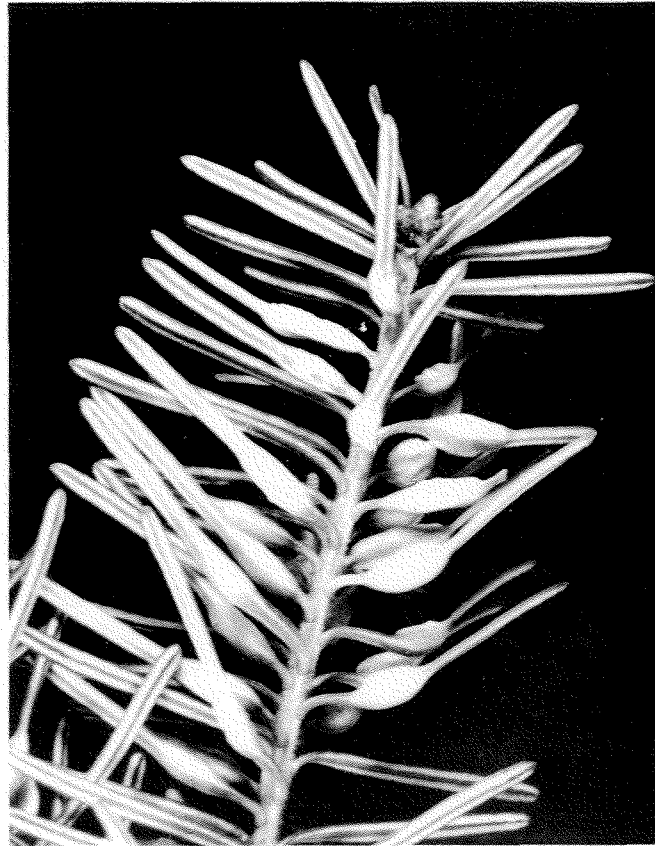
Dasineura balsamicola (Lintner)

Balsam gall midge

ORDER: Diptera

FAMILY: Cecidomyiidae

7



HOST: Balsam fir (Abies balsamiae (L.) Mill.)

LOCATION OF GALLS: Needles

KNOWN DISTRIBUTION: Throughout the range of balsam fir in both provinces.

REFERENCES: Giese, R.L. and D.M. Benjamin. 1959. The biology and ecology of the balsam gall midge (Dasineura balsamicola) in Wisconsin. For. Sci. 5: 193-208.



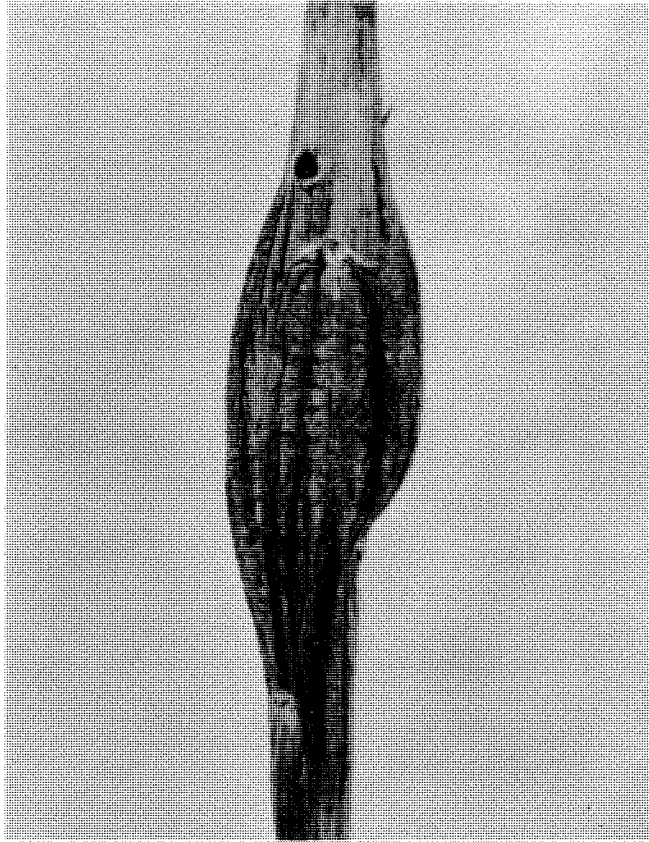
Eurosta solidaginis (Fitch.)

A goldenrod gall fly

ORDER: Diptera

8

FAMILY: Tephritidae



HOST: Goldenrods (Solidago spp.)

LOCATION OF GALLS: Stems

KNOWN DISTRIBUTION: Northern and central Saskatchewan and  
Central Manitoba.

REFERENCES: Felt, E.P. 1940. Plant galls and gall makers.  
Comstock Pub. Co. Inc. New York. 364 pp.

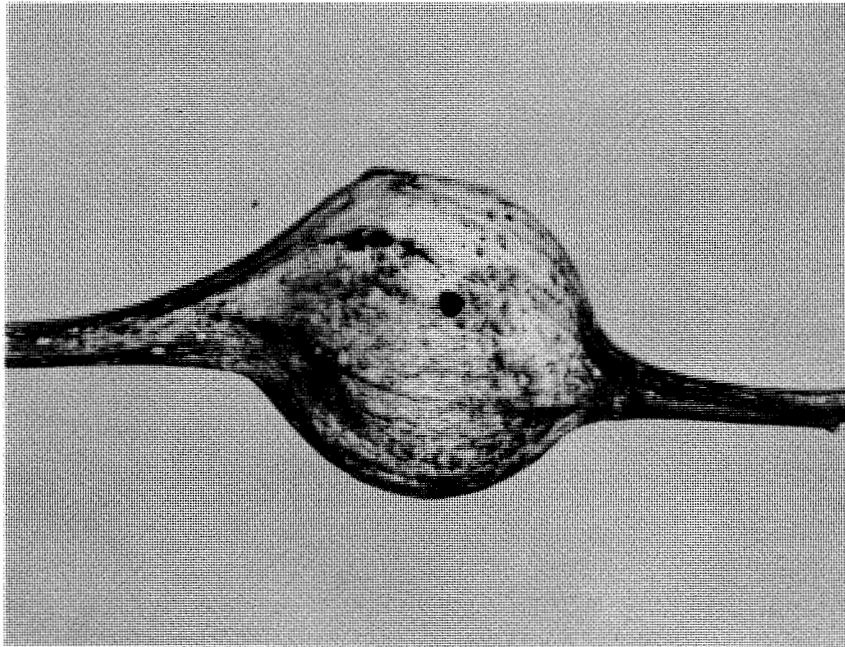
Lasioptera solidaginis Osten Sacken

ORDER: Diptera

9

Knotty goldenrod gall

FAMILY: Cecidomyiidae



HOST: Goldenrods (Solidago spp.)

LOCATION OF GALLS: Stems

KNOWN DISTRIBUTION: Scattered locations in Manitoba and central Saskatchewan.

REFERENCES: Felt, E.P. 1940. Plant galls and gall makers. Comstock Pub. Co. Inc., New York. 364 pp.

Contarinia negundifolia Felt

Boxelder leaf gall midge

ORDER: Diptera

FAMILY: Cecidomyiidae



HOST: Manitoba maple (Acer negundo L. var. interius (Britt.) Sarg.)

LOCATION OF GALL: Leaves.

KNOWN DISTRIBUTION: Throughout range of host in both provinces.

REFERENCES: Wilson, L.F. 1966. Life history, habits, and damage of the boxelder leaf gall midge, Contarinia negundifolia Felt (Diptera: Cecidomyiidae) in Michigan. Can. Ent. 98: 777-784.

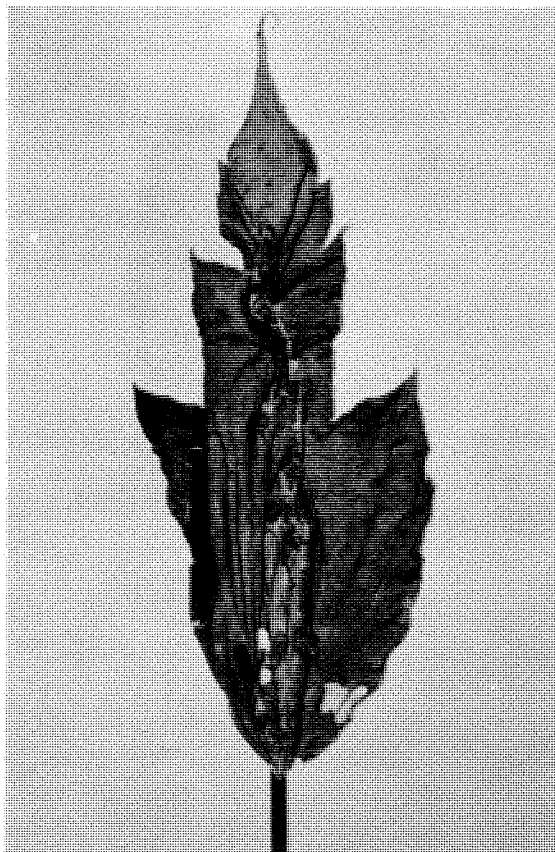
Lasioptera sp.

A gall midge

ORDER: Diptera

11

FAMILY: Cecidomyiidae



HOST: Manitoba maple (Acer negundo L. var. interius (Britt.) Sarg.)

LOCATION OF GALL: Leaves

KNOWN DISTRIBUTION: Southern Manitoba

REFERENCES: Felt, E.P. 1940. Plant galls and gall makers.  
Comstock Pub. Co. Inc., New York. 364 pp.

Proteoteras willingana (Kearfott)

Boxelder twig borer

ORDER: Lepidoptera

FAMILY: Tortricidae

12



Old Gall

New Gall

HOST: Manitoba maple (Acer negundo L. var. interius (Britt.) Sarg.)

LOCATION OF GALLS: New shoots.

KNOWN DISTRIBUTION: Throughout the natural range of the host in both provinces.

REFERENCES: Peterson, L.O.T. 1958. The boxelder twig borer, Proteoteras willingana (Kearfott), (Lepidoptera: Olethreutidae). Can. Ent. 90: 639-646.

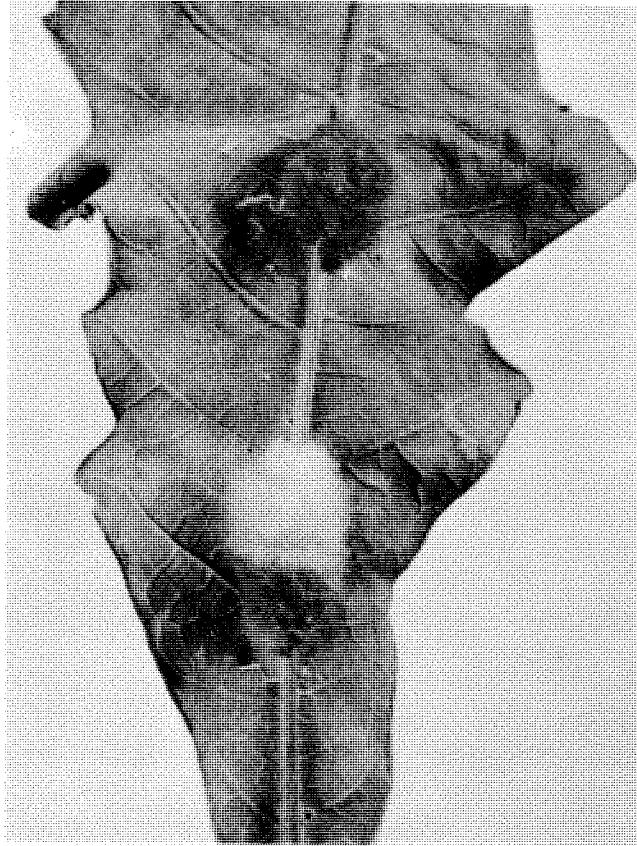
Acraspis villosa Gillette

Hairy oak gall

ORDER: Hymenoptera

FAMILY: Cynipidae

13



HOST: Bur oak (Quercus macrocarpa Michx.)

LOCATION OF GALL: Underside of leaves.

KNOWN DISTRIBUTION: Southern Manitoba.

REFERENCES: Felt, E.P. 1940. Plant galls and gall makers.  
Comstock Pub. Co. Inc. New York. 364 pp.

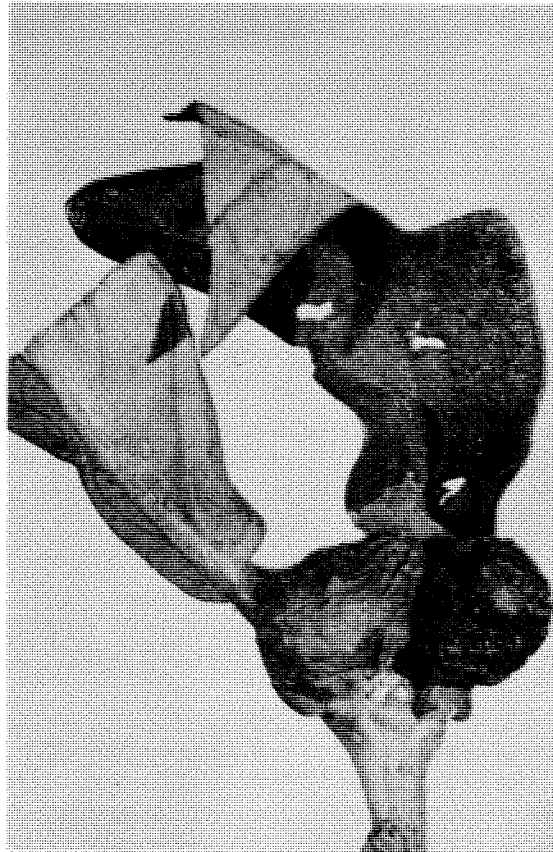
Andricus petiolicola (Osten Sacken)

ORDER: Hymenoptera

14

Oak leaf stalk gall

FAMILY: Cynipidae



HOST: Bur oak (Quercus macrocarpa Michx.)

LOCATION OF GALL: Petioles.

KNOWN DISTRIBUTION: Throughout the range of bur oak in Manitoba.

REFERENCES: Felt, E.P. 1940. Plant galls and gall makers.  
Comstock Pub. Co. Inc., New York. 364 pp.

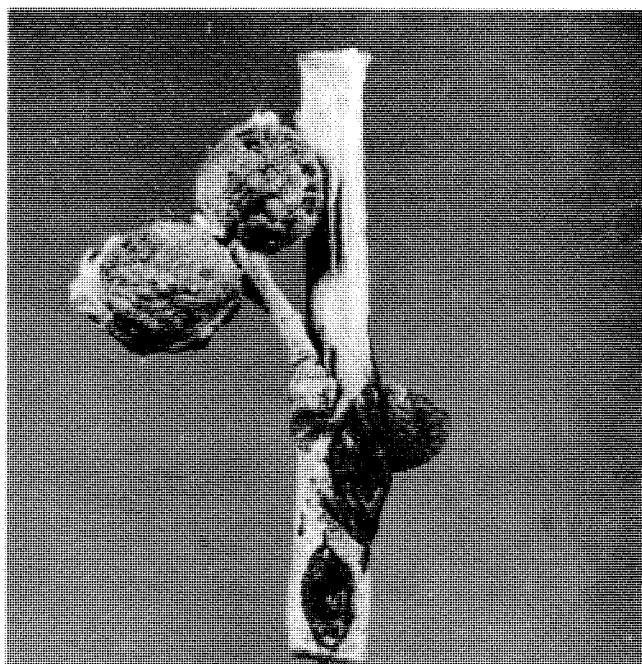
Andricus sp.

A gall wasp

ORDER: Hymenoptera

15

FAMILY: Cynipidae



HOST: Bur oak (Quercus macrocarpa Michx.)

LOCATION OF GALL: Twigs.

KNOWN DISTRIBUTION: Southern Manitoba.

REFERENCES: Felt, E.P. 1940. Plant galls and gall makers.  
Comstock Pub. Co. Inc., New York. 364 pp.

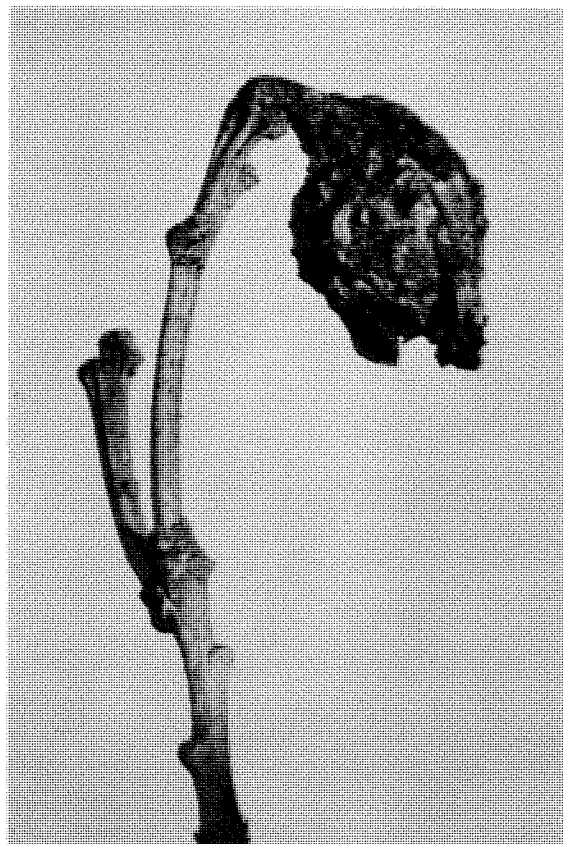


Andricus sp.  
A gall wasp

ORDER: Hymenoptera

16

FAMILY: Cynipidae



HOST: Bur oak (Quercus macrocarpa Michx.)

LOCATION OF GALL: Leaves.

KNOWN DISTRIBUTION: Southern Manitoba.

REFERENCES: Felt, E.P. 1940. Plant galls and gall makers.  
Comstock Pub. Co. Inc., New York. 364 pp.

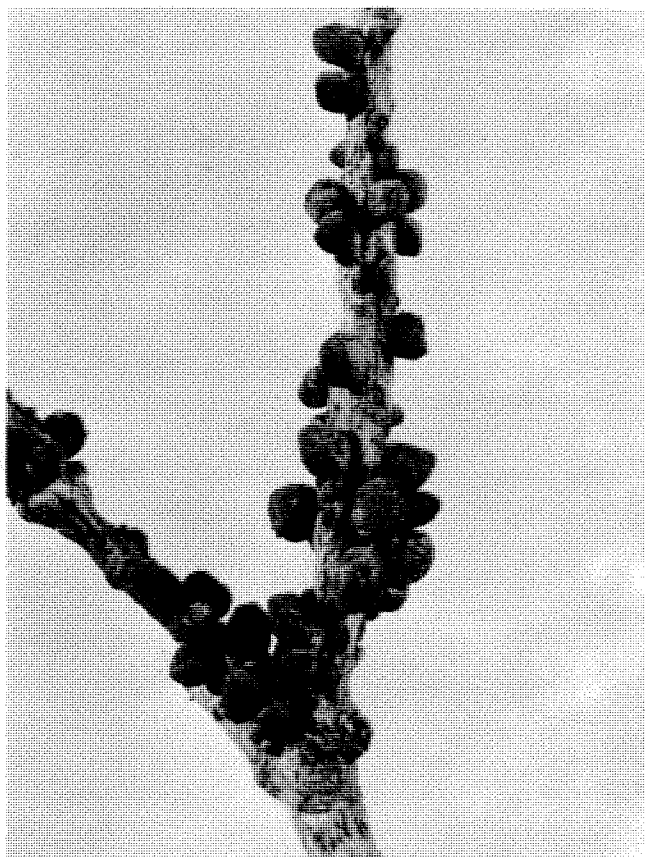
Disholcaspis mamma (Cresson)

ORDER: Hymenoptera

17

Rough bullet gall

FAMILY: Cynipidae



HOST: Bur oak (Quercus macrocarpa Michx.)

LOCATION OF GALLS: Twigs and small branches.

KNOWN DISTRIBUTION: Southern Manitoba.

REFERENCES: Felt, E.P. 1940. Plant galls and gall makers.  
Comstock Pub. Co. Inc., New York. 364 pp.

Disholcaspis spongiosa (Karsch)

Woolly fig gall

ORDER: Hymenoptera

FAMILY: Cynipidae

18



HOST: Bur oak (Quercus macrocarpa Michx.)

LOCATION OF GALL: Twigs.

KNOWN DISTRIBUTION: Central and southern Manitoba and Saskatchewan.

REFERENCES: Felt, E.P. 1940. Plant galls and gall makers. Comstock Pub. Co. Inc., New York. 364 pp.

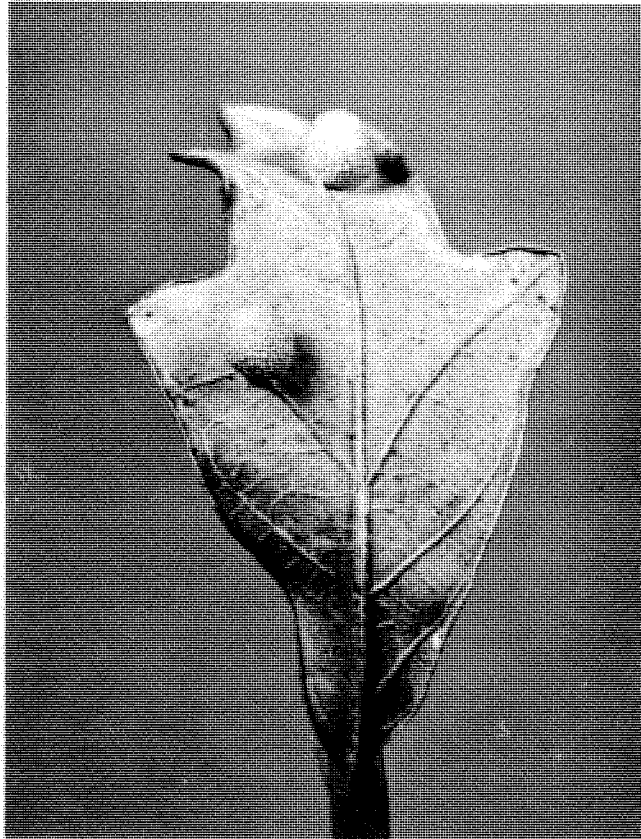
Neuroterus sp.

A gall wasp

ORDER: Hymenoptera

FAMILY: Cynipidae

19



HOST: Bur oak (Quercus macrocarpa Michx.)

LOCATION OF GALL: Underside of leaves.

KNOWN DISTRIBUTION: Scattered collections in Manitoba.

REFERENCES: Felt, E.P. 1940. Plant galls and gall makers.  
Comstock Pub. Co. Inc., New York. 364 pp.

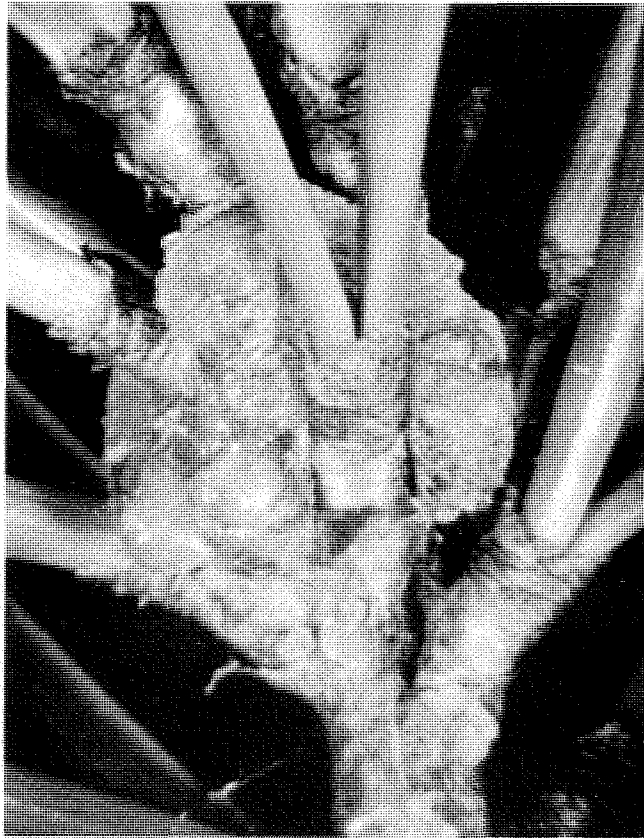
Cecidomyia reeksi Vockeroth

A jack-pine pitch midge

ORDER: Diptera

FAMILY: Cecidomyiidae

20



HOST: Jack pine (Pinus banksiana Lamb.)

LOCATION OF GALL: New shoots.

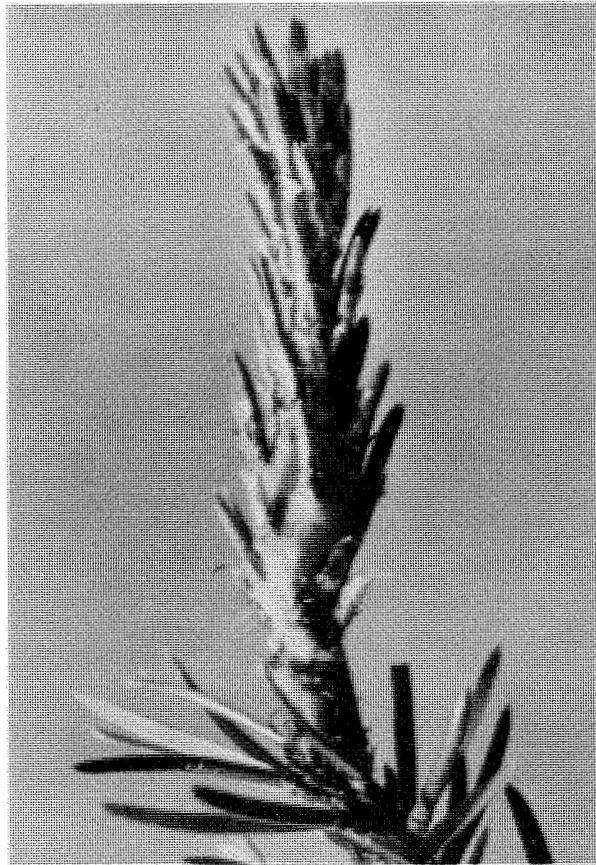
KNOWN DISTRIBUTION: Probably the range of jack pine in both provinces.

REFERENCES: Reeks, W.A. 1960. Observations on the life history, distribution, and abundance of two species of Cecidomyia (Diptera, Cecidomyiidae) on jack pine in Manitoba and Saskatchewan. Can. Ent. 92: 154-160.

Eurytoma calycis Bugbee  
A jack-pine gall chalcid

ORDER: Hymenoptera  
FAMILY: Eurytomidae

21



HOST: Jack pine (Pinus banksiana Lamb.)

LOCATION OF GALL: New shoots.

KNOWN DISTRIBUTION: Sample taken south of latitude 57°N in both provinces.

REFERENCES: Wong, H.R. and J.A. Drouin. 1962. Eurytoma calycis Bugbee in Saskatchewan. Bi-monthly Prog. Rept. 18(2): 3.

Thomas, J.B. and H. Herdy. 1961. A note on Eurytoma calycis Bugbee (Hymenoptera: Eurytomidae) occurring in shoots of jack pine (Pinus banksiana (Lamb.)). Can. Ent. 93: 34-39.

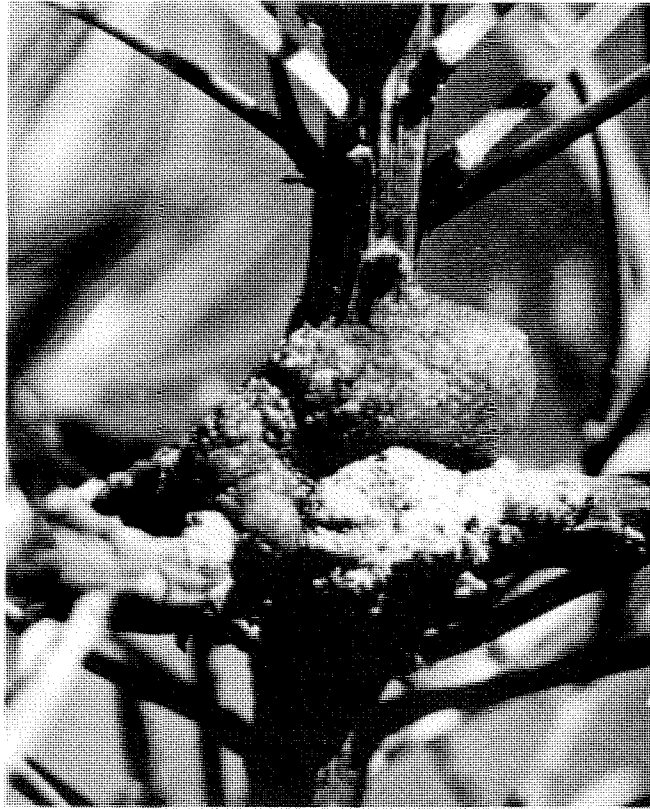
Petrova albicapitana (Busck)

Northern pitch twig moth

ORDER: Lepidoptera

FAMILY: Tortricidae

22



HOST: Pines (Pinus spp.)

LOCATION OF GALLS: Mainly at junction of branches and stem.

KNOWN DISTRIBUTION: Throughout range of hosts in both provinces.

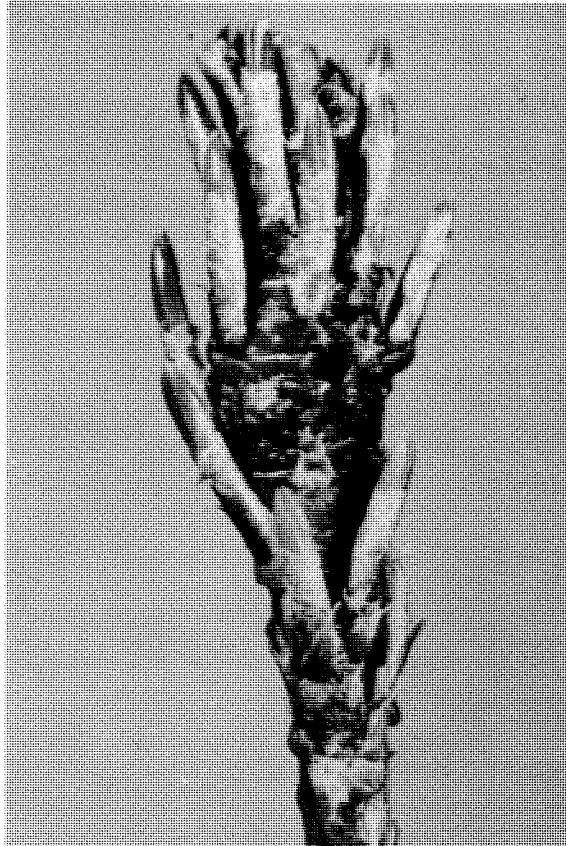
REFERENCES: Turnock, W.J. 1953. Some aspects of the life history and ecology of the pitch nodule maker, Petrova albicapitana (Busck) (Lepidoptera: Olethreutidae). Can. Ent. 85: 233-243.

Xyelid sp.  
A sawfly

ORDER: Hymenoptera

23

FAMILY: Xyelidae



HOST: Jack pine (Pinus banksiana Lamb.)

LOCATION OF GALLS: New shoots.

KNOWN DISTRIBUTION: Southeast Manitoba and central Saskatchewan.

REFERENCES: Wong, H.R. and J.A. Drouin. 1962. Eurytoma calycis  
Bugbee in Saskatchewan. Bi-month. Prog. Rept.  
18(2): 3



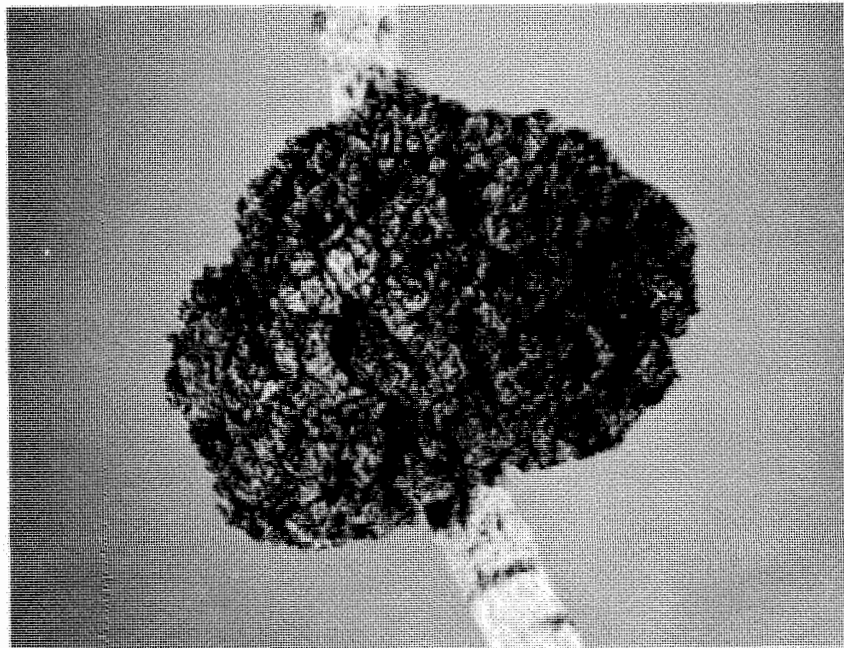
Aceria parapopuli (Keifer)

ORDER: Acarina

24

Poplar bud-gall mite

FAMILY: Eriophyidae



HOST : Native and hybrid poplars and aspens (*Populus* spp.)

LOCATION OF GALLS: New buds and newly unfolded leaves.

KNOWN DISTRIBUTION: Collections received mainly from the southern parts of both provinces.

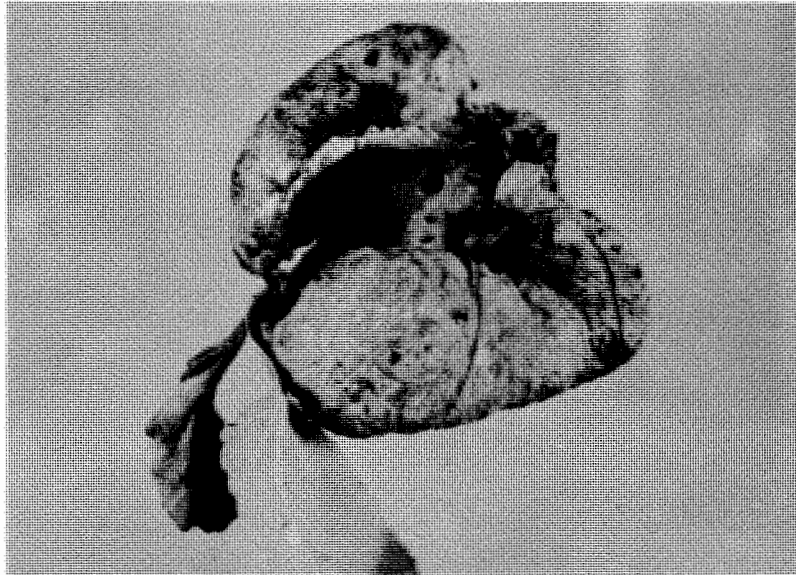
REFERENCES: Campbell, L.M., R.J. Bilodeau and R.F. DeBoo. 1969  
Research on the poplar gall-mite in the prairie provinces. Can. Dept. Fish. and For. For. Res. Lab., Winnipeg, Man. Internal Rept. MS-96. 14 pp.

Keifer, H.N. 1952. The eriophyid mites of California. Bul. Calif. Ins. Survey 2(1): 1-123.

Asiphum sacculi Gillette  
Aspen leaf pocket aphid

ORDER: Homoptera  
FAMILY: Aphididae

25



HOST: Trembling aspen (Populus tremuloides Michx.)

LOCATION OF GALL: Leaves.

KNOWN DISTRIBUTION: Collections made from the southern portion  
of both provinces.

REFERENCES: Harper, A.M. 1966. Three additional poplar gall  
aphids from southern Alberta. Can. Ent.  
98: 1212-1214.

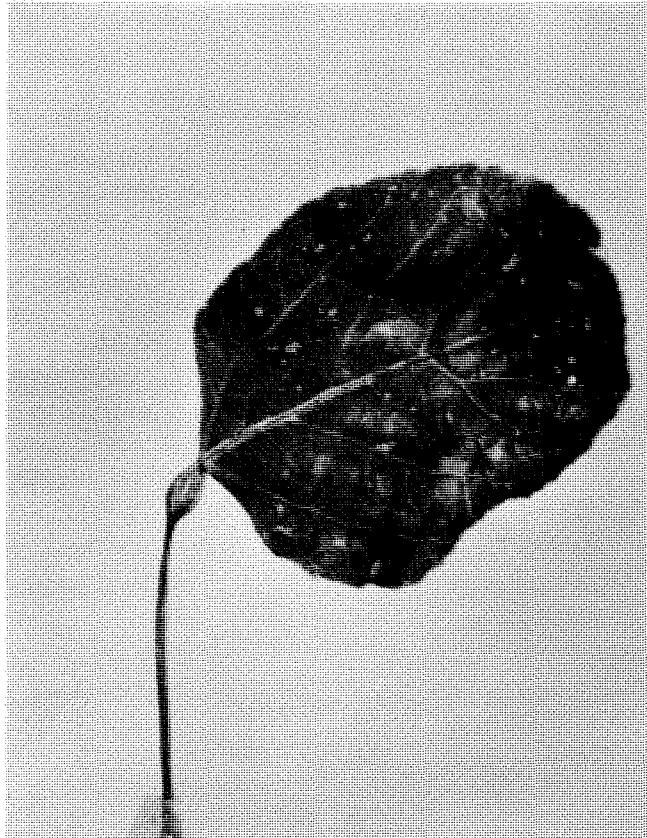
Ectoedemia populella (Busck)

ORDER: Lepidoptera

26

Ribbed petiole gall

FAMILY: Nepticulidae



HOST: Poplar (Populus sp.)

LOCATION OF GALL: Petiole at base of blade.

KNOWN DISTRIBUTION: Southern Manitoba.

REFERENCES: Craighead, F.C. 1950. Insect enemies of eastern forests. U.S. Dept. Agri. Misc. pub. no. 657: 679 pp.

Felt, E.P. 1940. Plant galls and gall makers. Comstock Pub. Co. Inc., New York. 364 pp.

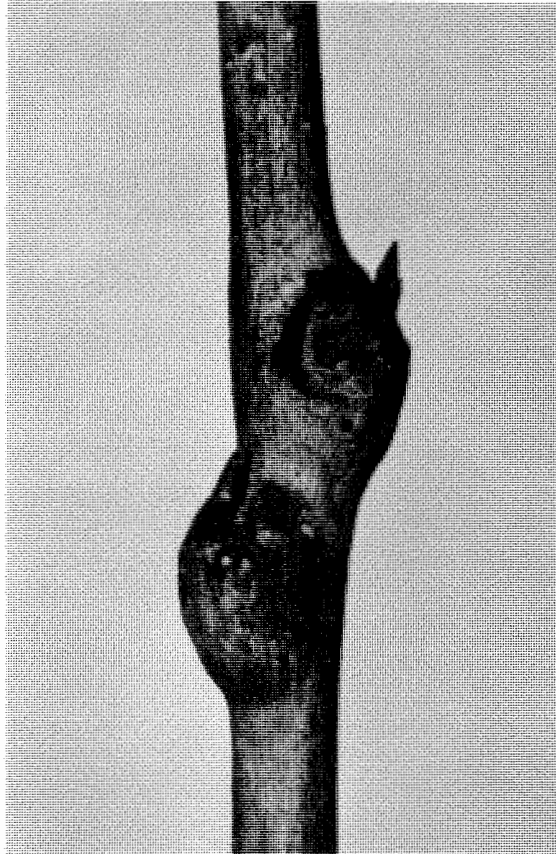
Melanagromyza sp.

ORDER: Diptera

27

A poplar twig gall

FAMILY: Agromyzidae



HOST: Trembling aspen (Populus tremuloides Michx.)

LOCATION OF GALL: Stems and branches.

KNOWN DISTRIBUTION: Central Saskatchewan and south and central Manitoba.

REFERENCES: Herdy, H. 1963. Melanagromyza schineri (Giraud) on trembling aspen in Ontario. Bi-monthly Prog. Rept. 19(5): 2

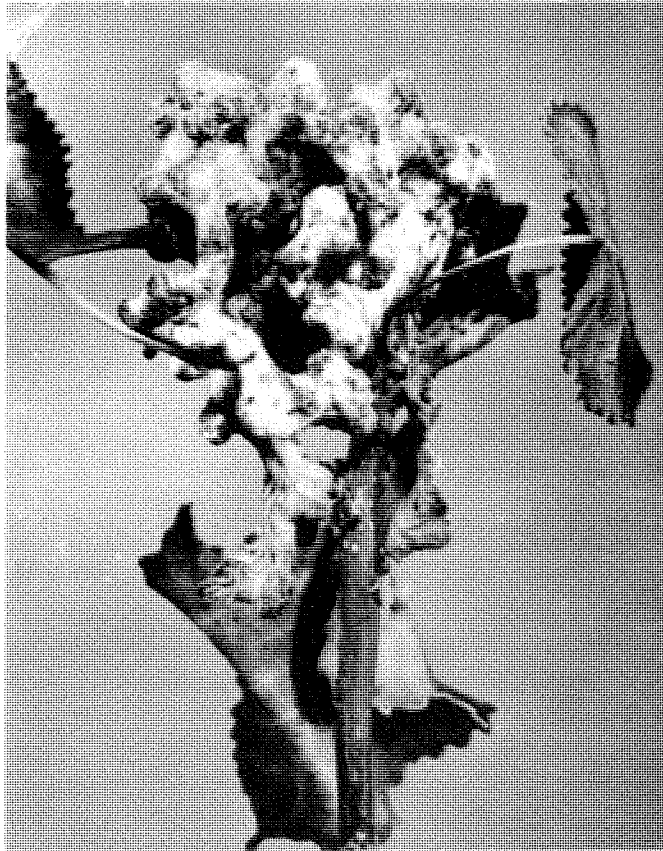
Mordwilkoja vagabunda (Walsh)

ORDER: Homoptera

28

Poplar vagabond aphid

FAMILY: Aphididae



HOST : Poplars (Populus spp.)

LOCATION OF GALLS: Terminal buds.

KNOWN DISTRIBUTION: Generally collected from the southern half of both provinces.

REFERENCES: Ignoffo, C.M. and A.A. Granovsky. 1961. Life history and gall development of Mordwilkoja vagabunda (Homoptera: Aphidae) on Populus deltoides. Ann. Entomol. Soc. Amer. 54: 486-499.

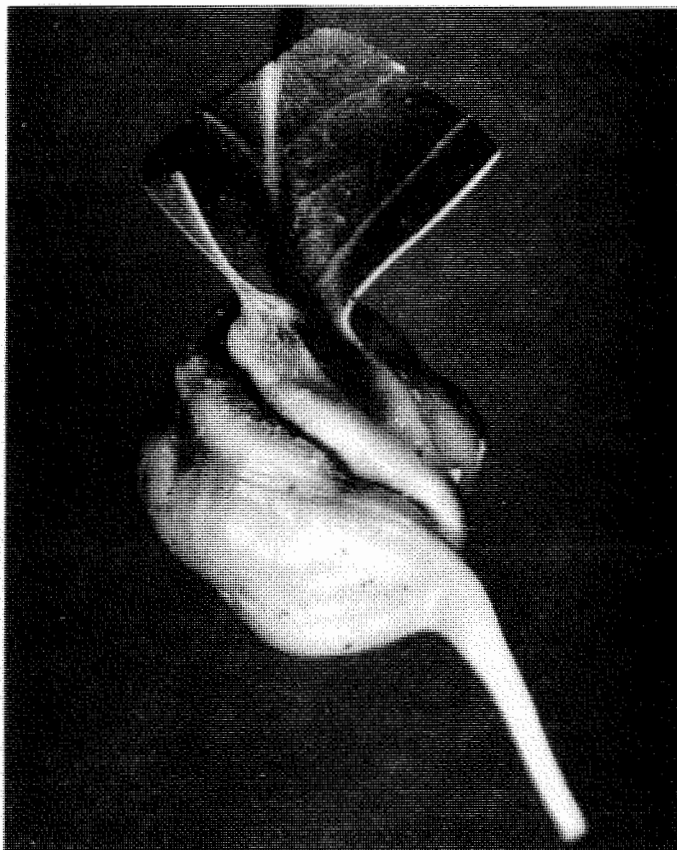
Ignoffo, C.M. and A.A. Granovsky. 1961. Life history and gall development of Mordwilkoja vagabunda (Homoptera: Aphidae) on populus deltoides. Part II - Gall development. Ann. Entomol. Soc. Amer. 54: 635-641.

Harper, A.M. 1959. Gall aphids on poplar in Alberta I. Descriptions of gall and distribution of aphids. Can. Ent. 91: 489-496.

Pemphigus junctisensoriatus Maxson  
A poplar petiole-leaf gall aphid

ORDER: Homoptera  
FAMILY: Aphididae

29



HOST : Poplars (Populus spp.)

LOCATION OF GALL: Petiole at base of blade.

KNOWN DISTRIBUTION: Collected from across the southern portions  
of both provinces.

REFERENCES: Maxson, A.C. 1934. Four new pemphigids from Colorado  
(Aphidae: Homoptera). Ann. Entomol. Soc. Amer.  
27: 34-42.

Palmer, M.A. 1952. Aphids of the Rocky Mountain  
Region. Thomas Say Foundation 5: 452 pp.

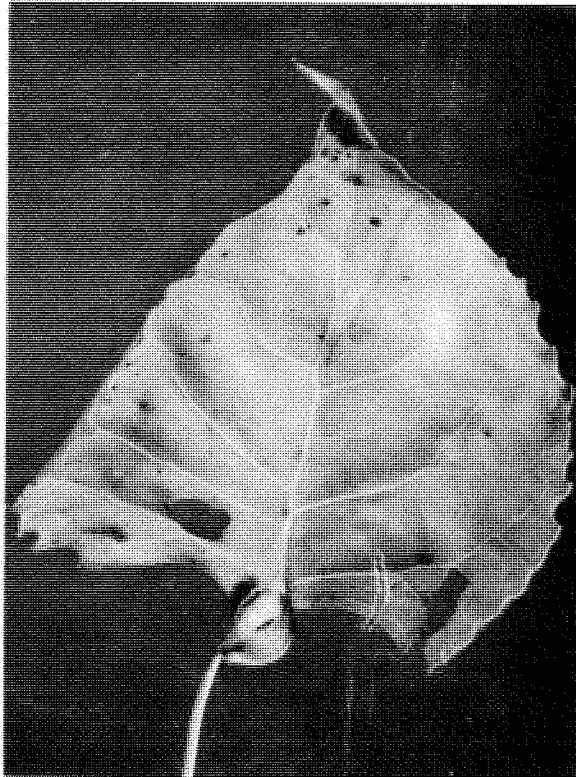
Pemphigus populicaulis Fitch

ORDER: Homoptera

30

A poplar leaf-petiole gall aphid

FAMILY: Aphididae



HOST : Poplars (Populus spp.)

LOCATION OF GALL: Petiole at base of blade.

KNOWN DISTRIBUTION: Throughout the southern portion of both  
provinces.

REFERENCES: Harper, A.M. 1959. Gall aphids on poplar in Alberta I.  
Description of galls and distribution of aphids.  
Can. Ent. 91: 489-496.

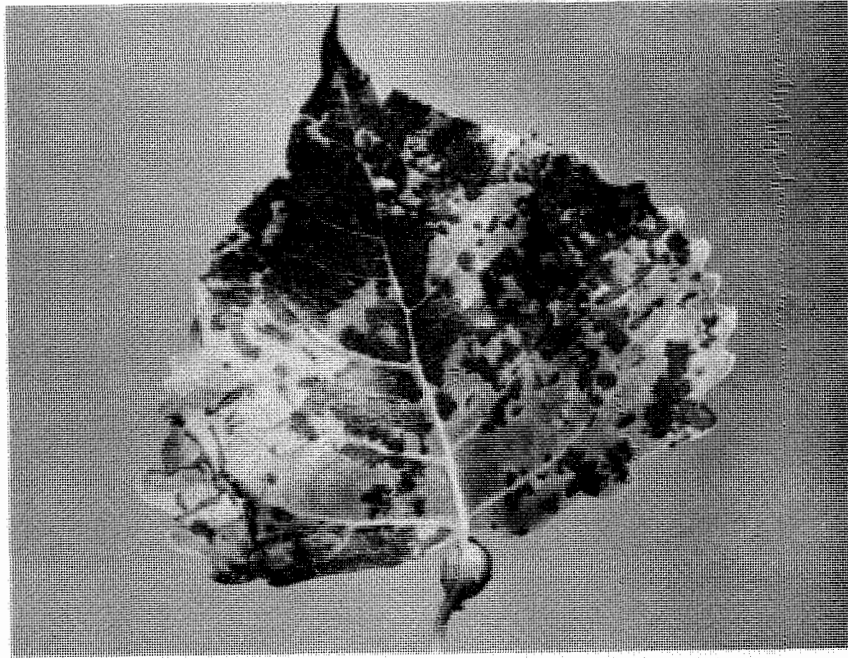
Pemphigus populitransversus Riley

Poplar petiole gall aphid

ORDER: Homoptera

FAMILY: Aphididae

31



HOST : The poplars (Populus spp.)

LOCATION OF GALL: Petioles.

KNOWN DISTRIBUTION: Collections have been received from the southern portion of both provinces.

REFERENCES: Jones, T.H., and C.P. Gillette. 1918. Life history of Pemphigus populi-transversus Riley. J. Agr. Res. 14: 577-594.

Harper, A.M. 1959. Gall aphids on poplar in Alberta I. Descriptions of gall and distribution of aphids. Can. Ent. 91: 489-496.



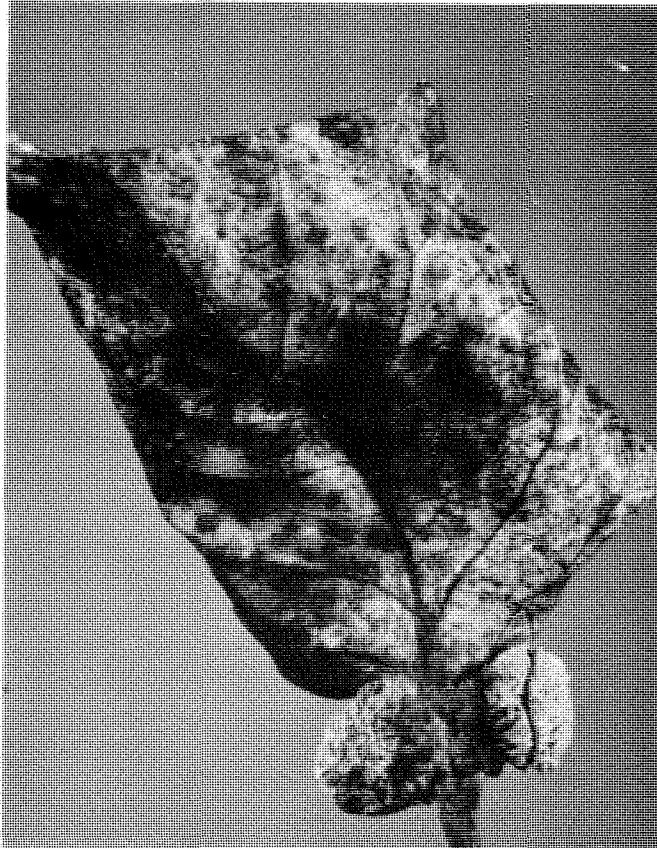
Pemphigus monopagus Maxson

ORDER: Homoptera

32

A poplar leaf-petiole gall aphid

FAMILY: Aphididae



HOST : Poplars (Populus spp.)

LOCATION OF GALL: Petiole at base of blade.

REFERENCES: Maxson, A.C. 1934. Four new pemphigids from Colorado (Aphidae: Homoptera. Ann. Entomol. Soc. Amer. 27: 34-42.

Palmer, M.A. 1952. Aphids of the Rocky Mountain Region. Thomas Say Foundation 5: 452 pp.

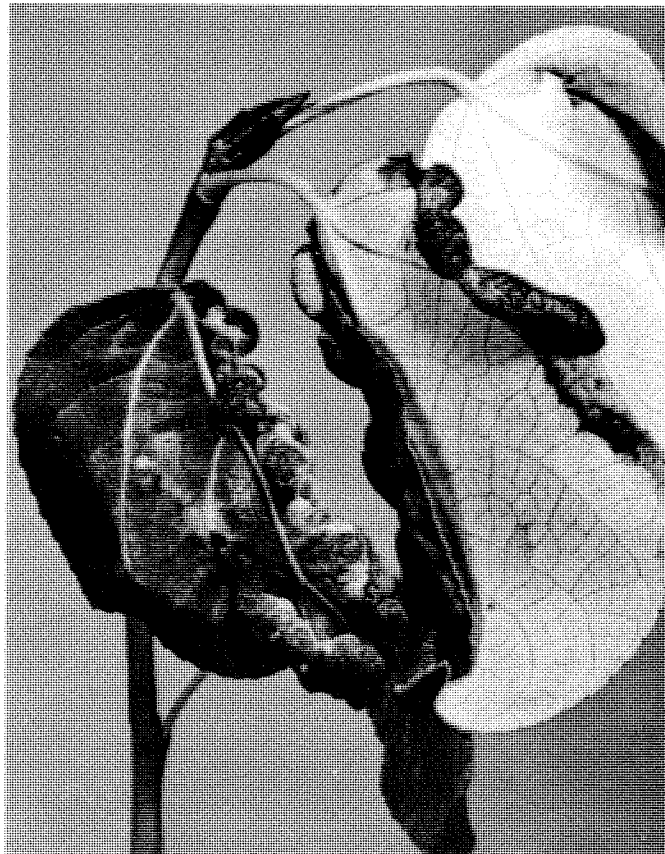
Thecabius affinis (Kaltenbach)

ORDER: Homoptera

33

A gall aphid

FAMILY: Aphididae



HOST: Balsam poplar (Populus balsamifera L.)

LOCATION OF GALLS: Leaves.

KNOWN DISTRIBUTION: Collected from the southern portion of the host range in both provinces.

REFERENCES: Palmer, M.A. 1952. Aphids of the Rocky Mountain Region. Thomas Say Foundation 5: 452 pp.

Harper, A.M. 1966. Three additional poplar gall aphids from southern Alberta. Can. Ent. 98: 1212-1214.

Saperda populnea moesta Leconte

Poplar-twig borer

ORDER: Coleoptera

FAMILY: Cerambycidae

34



HOST: Balsam poplar (Populus balsamifera L.)

LOCATION OF GALL: Twigs and stems.

KNOWN DISTRIBUTION: Collected south of latitude 56°N in both provinces.

REFERENCES: Wong, H.R., B.B. McLeod and J.C.E. Melvin. 1966. Life histories of Saperda concolor Lec. and Saperda populnea moesta Lec. in Manitoba and Saskatchewan (Coleoptera: Cerambycidae). Canada Dept. For., For. Res. Lab. Winnipeg, Man. Internal Rept. MS-34, 12 pp.

Wong, H.R. and B.B. McLeod. 1965. Two species of gall-producing Saperda in Manitoba and Saskatchewan. Bi-month. Prog. Rept. 21(5): 3.

Felt, E.P., and L.H. Joutel. 1904. Monograph of the genus Saperda. Bull. New York Museum 74: 86 pp.

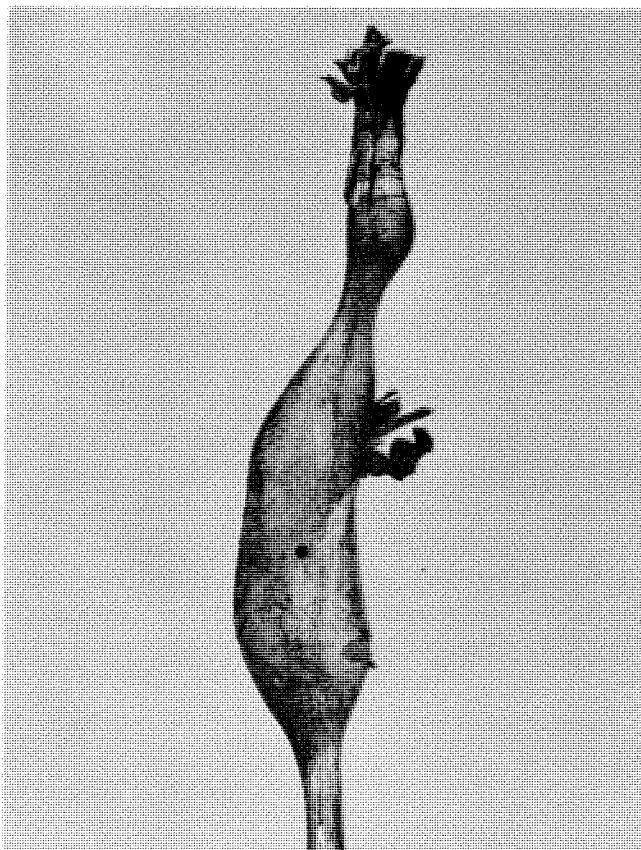
Diastrophus sp.

A gall wasp

ORDER: Hymenoptera

35

FAMILY: Cynipidae



HOST: Raspberry (Rubus sp.)

LOCATION OF GALLS: Stems.

KNOWN DISTRIBUTION: Northern Saskatchewan and Manitoba.

REFERENCES: Felt, E.P. 1940. Plant galls and gall makers.  
Comstock Pub. Co. Inc., New York. 364 pp.

Diplolepis bicolor (Harris)

A gall wasp

ORDER: Hymenoptera

FAMILY: Cynipidae

36



HOST: Roses (Rosa spp.)

LOCATION OF GALLS: New shoots.

KNOWN DISTRIBUTION: Southern Manitoba.

REFERENCES: Harris, T.W. 1841. A report on the insects of  
Massachusetts injurious to vegetation. Folsom,  
Wells and Thurston, Cambridge, Mass.

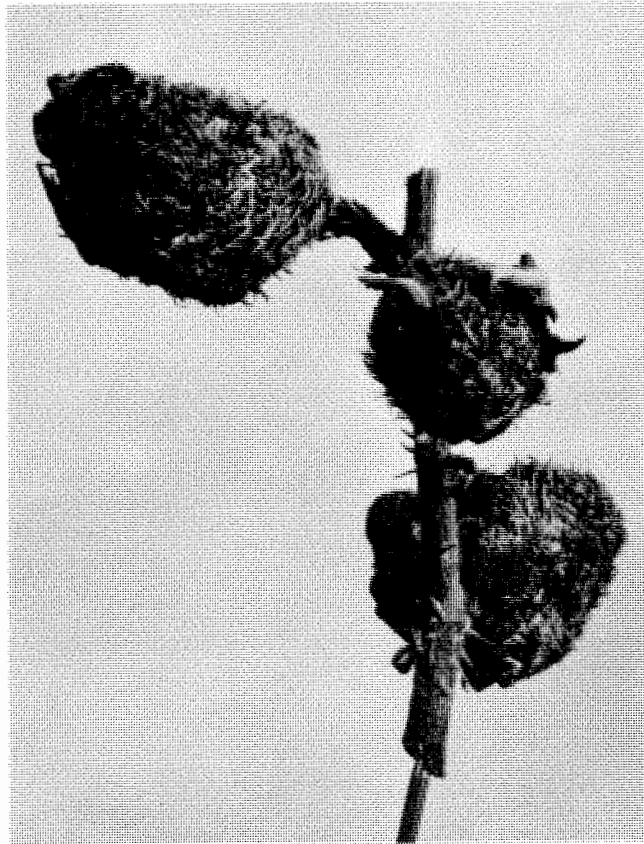
Diplolepis multispinosa (Gillette)

A gall wasp

ORDER: Hymenoptera

37

FAMILY: Cynipidae



HOST: Roses (Rosa spp.)

LOCATION OF GALLS: Twigs and small branches.

KNOWN DISTRIBUTION: Southwestern Manitoba.

REFERENCES: Felt, E.P. 1940. Plant galls and gall makers.  
Comstock Pub. Co. New York. 364 pp.

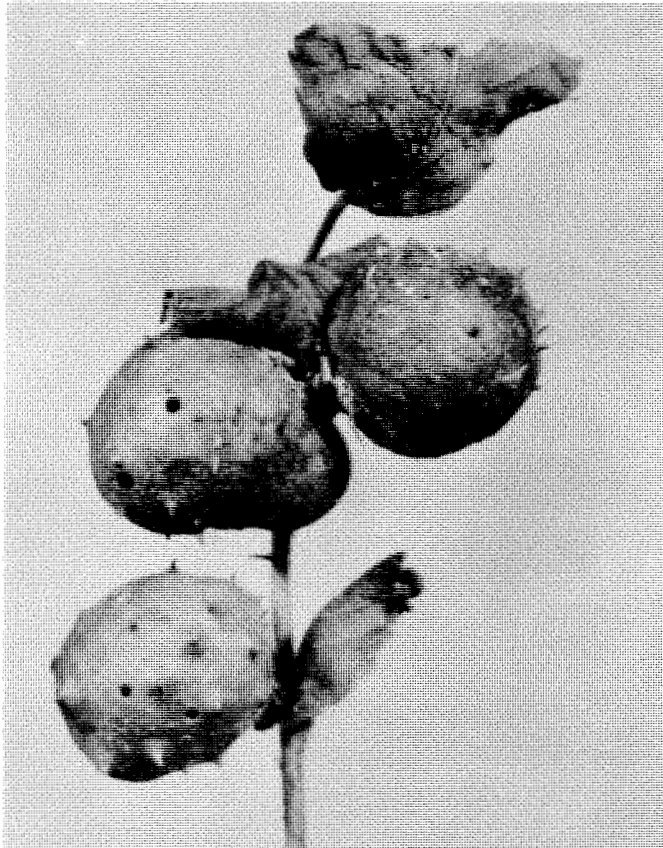
Diplolepis nebulosa (Bassett)

A gall wasp

ORDER: Hymenoptera

FAMILY: Cynipidae

38



HOST: Roses (Rosa spp.)

LOCATION OF GALL: Twigs and small branches.

KNOWN DISTRIBUTION: Northern Saskatchewan.

REFERENCES: Felt, E.P. 1940. Plant galls and gall makers.  
Comstock Pub. Co. Inc., New York. 364 pp.

Diplolepis radicum (Osten Sacken)

Rose root-gall wasp

ORDER: Hymenoptera

FAMILY: Cynipidae

39



HOST: Roses (Rosa spp.)

LOCATION OF GALLS: Junction of stem and root.

KNOWN DISTRIBUTION: North and central Saskatchewan, and southern Manitoba.

REFERENCES: Felt, E.P. 1940. Plant gall and gall makers. Comstock Pub. Co. Inc., New York, 384 pp.



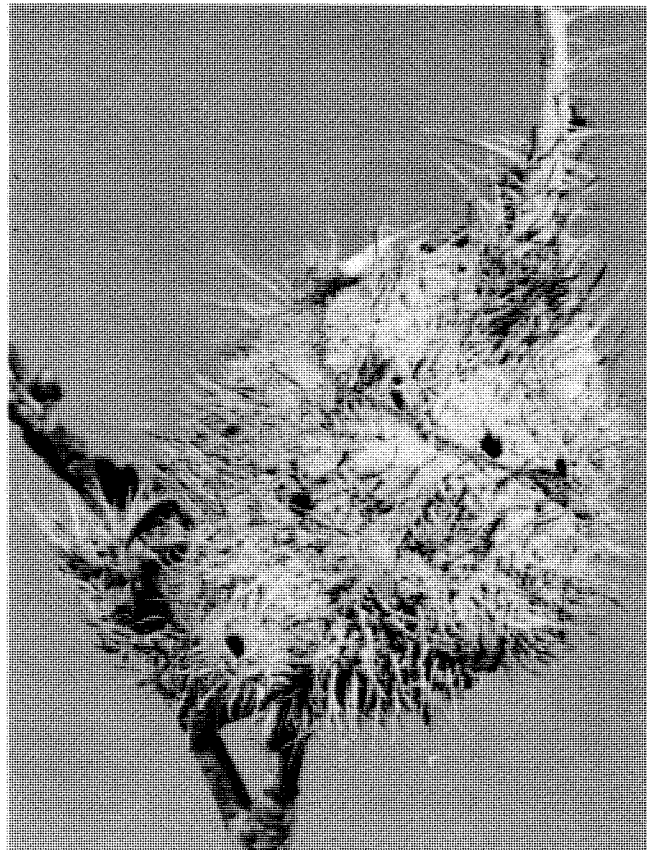
Diplolepis rosae (Linnaeus)

Mossy rose gall

ORDER: Hymenoptera

FAMILY: Cynipidae

40



HOST: Roses (Rosa spp.)

LOCATION OF GALLS: Twigs and small branches.

KNOWN DISTRIBUTION: Central Saskatchewan.

REFERENCES: Felt, E.P. 1940. Plant galls and gall makers.  
Comstock Pub. Co. Inc., New York. 364 pp.

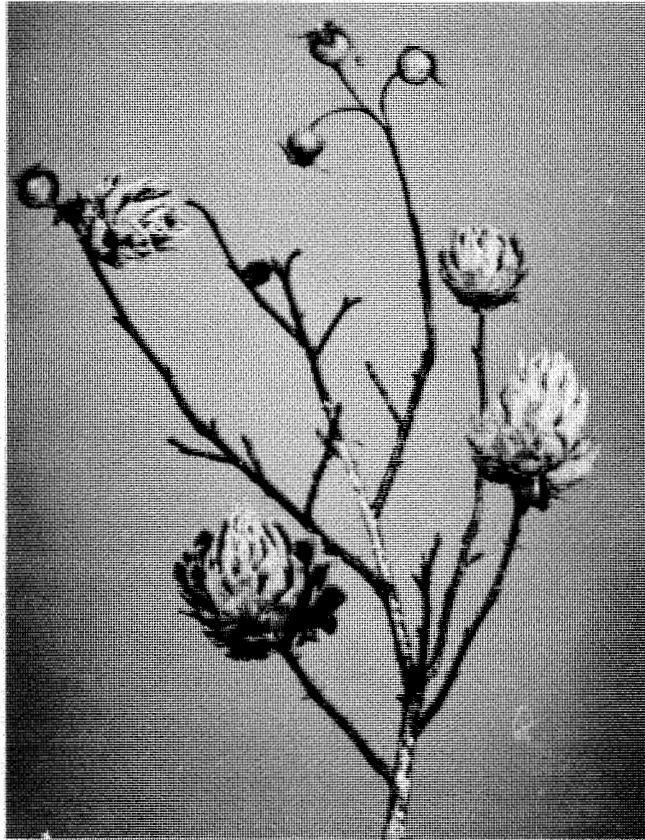
Rhabdophaga rosacea Felt

Rosette midge

ORDER: Diptera

FAMILY: Cecidomyiidae

41



HOST: Roses (Rosa spp.)

LOCATION OF GALLS: Terminal leaves.

KNOWN DISTRIBUTION: South and central portions of both provinces.

REFERENCES: Felt, E.P. 1940. Plant galls and gall makers.  
Comstock Pub. Co. Inc., New York. 364 pp.

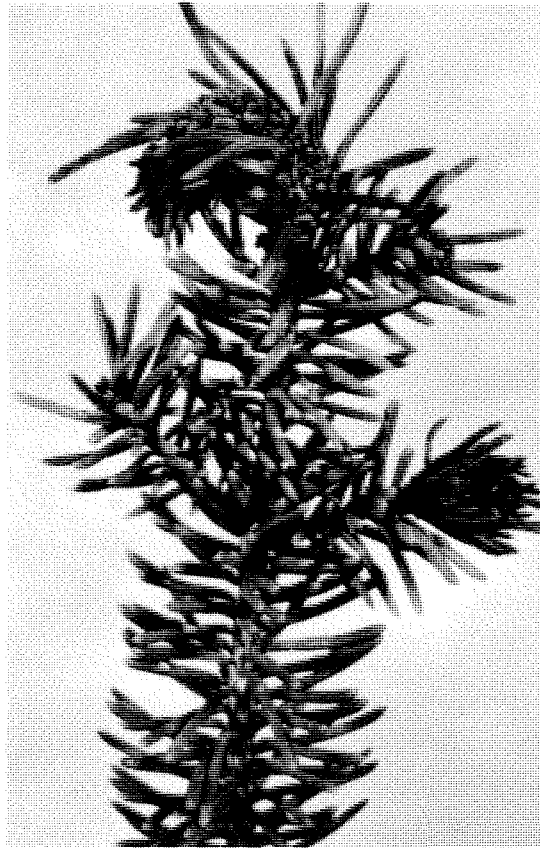
Adelges cooleyi (Gillette)

Cooley spruce gall aphid

ORDER: Homoptera

FAMILY: Phylloxeridae

42



HOST : Spruces (Picea spp.)

LOCATION OF GALLS: Stem and needles of new growth.

KNOWN DISTRIBUTION: Throughout host range in both provinces.

REFERENCES: Cumming, M.F.P. 1959. The biology of Adelges cooleyi (Gill.) (Homopter: Phylloxeridae). Can. Ent. 91: 601-617.

Cumming, M.E.P. 1962. A monomorphic cycle of Adelges cooleyi (Gill.) (Homoptera: Phylloxeridae) living on spruce. Can. Ent. 94: 1190-1195.

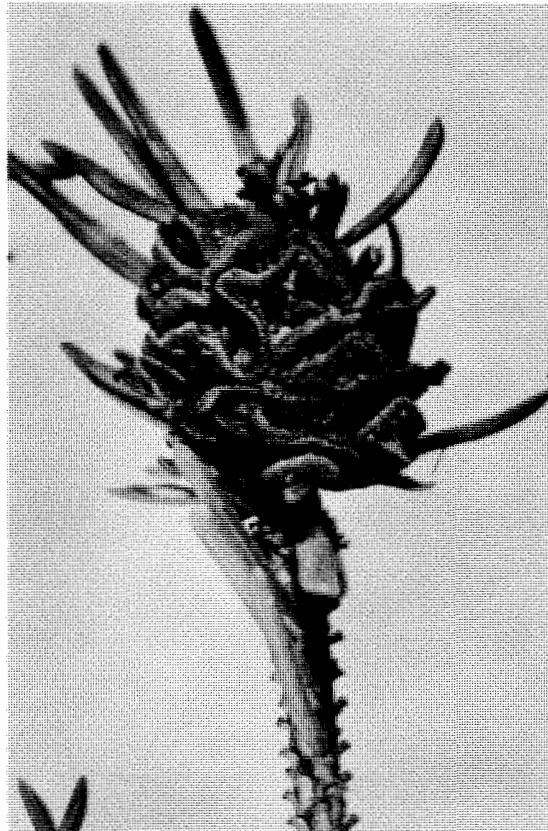
Adelges lariciatus (Patch)

A spruce gall aphid

ORDER: Homoptera

43

FAMILY: Phylloxeridae



HOST : Spruces (Picea spp. and Larix spp.)

LOCATION OF GALLS: Stem and needles of new growths.

KNOWN DISTRIBUTION: Throughout the range of the hosts in both provinces.

REFERENCES: Cumming, M.E.P. 1968. The life history and morphology of Adelges lariciatus (Homoptera: Phylloxeridae). Can. Ent. 100: 113-126.

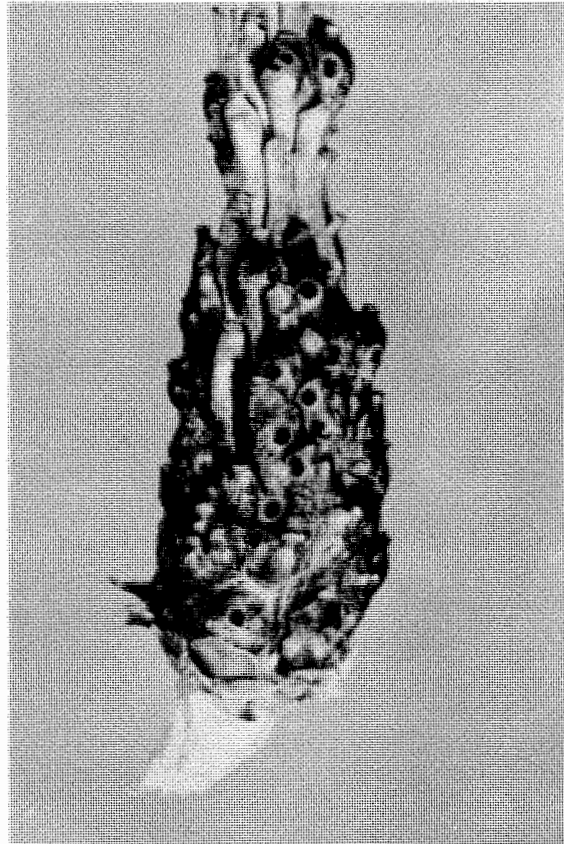
Mayetiola piceae (Felt)

A spruce gall midge

ORDER: Diptera

44

FAMILY: Cecidomyiidae



HOST: White spruce (Picea glauca (Moench) Voss)

LOCATION OF GALLS: New shoots.

KNOWN DISTRIBUTION: Central and southern portion of both provinces.

REFERENCES: Smith, C.C. 1952. The life history and galls of a spruce gall midge, Phytophaga piceae Felt (Diptera: Cecidomyiidae). Can. Ent. 84: 272-275.

Rhabdophaga swainei Felt

Spruce bud midge

ORDER: Diptera

45

FAMILY: Cecidomyiidae



HOST : Spruce (Picea spp.)

LOCATION OF GALLS: Terminal buds.

KNOWN DISTRIBUTION: Throughout the host range in both provinces.

REFERENCES: Clark, J. 1952. The spruce bud midge, Rhabdophaga swainei Felt (Cecidomyiidae: Diptera). Can. Ent. 84: 87-89.

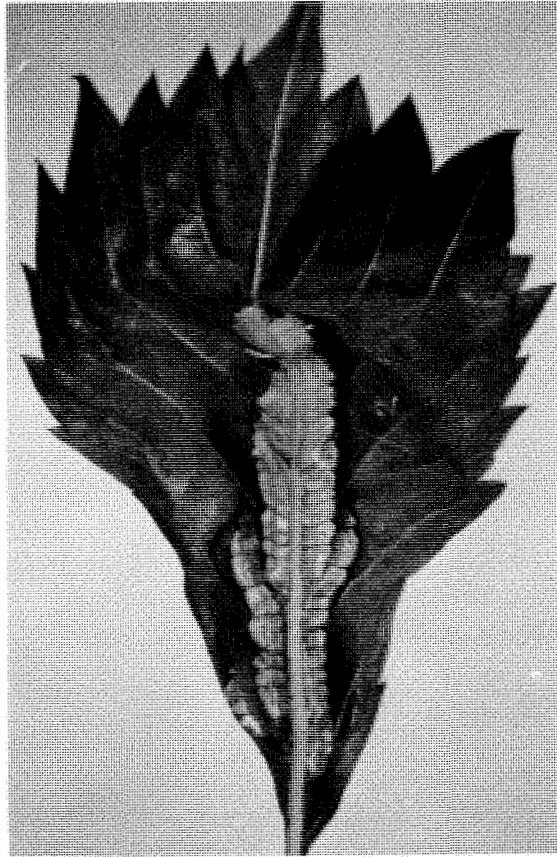
Dasineura parthenocissi (Stebbins)

A gall midge

ORDER: Diptera

46

FAMILY: Cecidomyiidae



HOST: Virginia creepers (Parthenocissus quinquefolia (L.) Planch.

LOCATION OF GALLS: Leaves.

KNOWN DISTRIBUTION: Southern Manitoba.

REFERENCES: Stebbins, F.A. 1910. Insect galls of Springfield, Massachusetts, and vicinity. Springfield (Mass.) Mus. Nat. Hist. Bul. 2: 1-64.

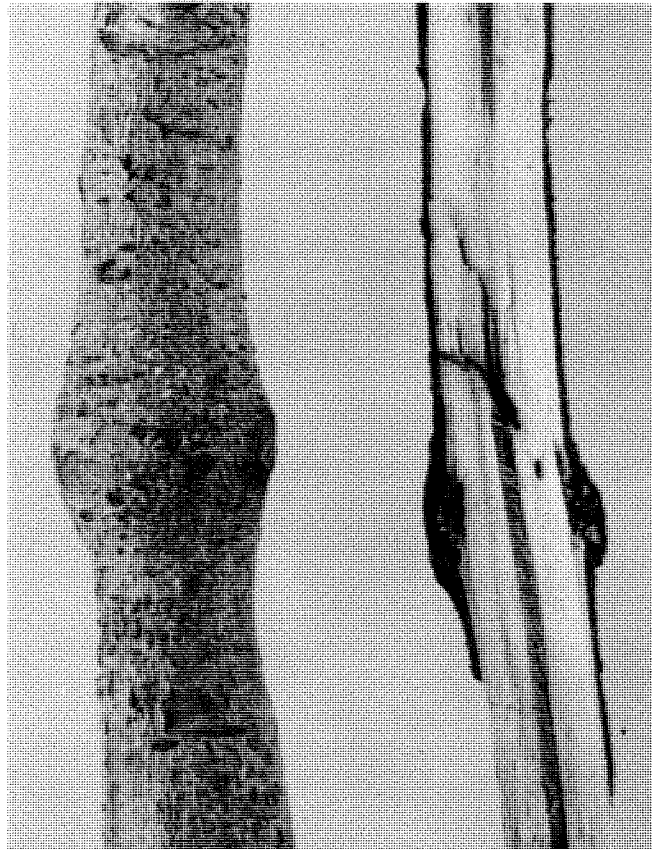
Agrilus criddlei Frost

A flat-headed wood borer

ORDER: Coleoptera

FAMILY: Buprestidae

47



HOST: Willow (Salix bebbiana Sarg.)

LOCATION OF GALL: Main stem and occasionally larger branches.

KNOWN DISTRIBUTION: Collected mainly south of latitude 54<sup>o</sup>N. in both provinces.

REFERENCES: Wong, H.R. and B.B. McLeod. 1965. The host and distribution of Agrilus criddlei Frost in Canada. Bi-Month. Prog. Rept. 21 (4): 3.



Mayetiola rigidae (Osten Sacken)

Willow beaked-gall midge

ORDER: Diptera

48

FAMILY: Cecidomyiidae



HOST : The willows (Salix spp.).

LOCATION OF GALL: Near apical end of branches.

KNOWN DISTRIBUTION: Collections have been received from most areas of Manitoba and Saskatchewan.

REFERENCES: Wilson, L.F. 1968. Life history and habits of the willow beaked gall midge, Mayetiola rigidae (Diptera: Cecidomyiidae), in Michigan. Can. Ent. 100: 202-206.

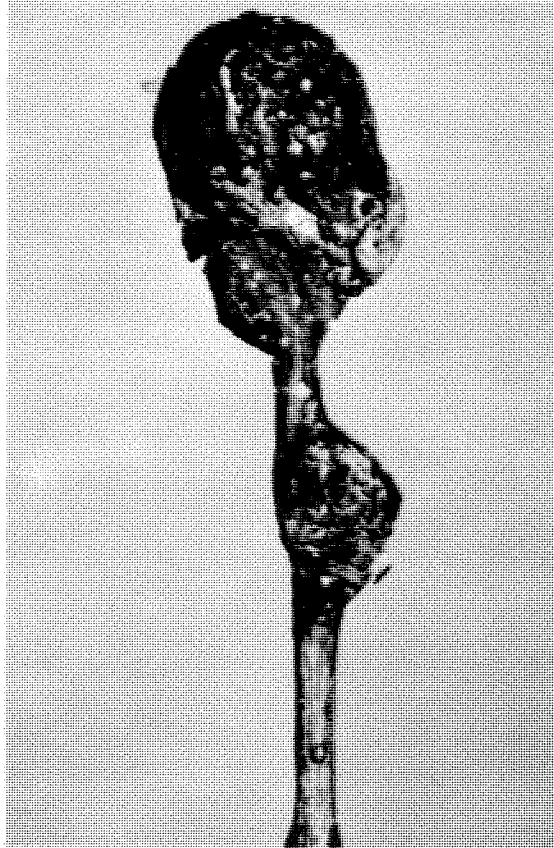
Oligotrophus salicifolius Felt

A gall midge

ORDER: Diptera

49

FAMILY: Cecidomyiidae



HOST: Willows (Salix spp.)

LOCATION OF GALL: Twigs.

KNOWN DISTRIBUTION: Western Saskatchewan and central Manitoba.

REFERENCES: Felt, E.P. 1910. Gall midges of Aster, Carya, Quercus and Salix. Jour. Econ. Ent. 3: 347-356.

Pontania proxima (Lepeletier)

Bean gall sawfly

ORDER: Hymenoptera

FAMILY: Tenthredinidae

50



HOST: Golden willow (Salix alba var. vitellina (L.) Stokes).

LOCATION OF GALLS: Leaves.

KNOWN DISTRIBUTION: Collections from ornamental plantings and shelterbelts in the southern portions of both provinces.

REFERENCES: Carleton, M. 1939. The biology of Pontania proxima Lep. the bean gall sawfly of willows. Journ. Linn. Soc. Lond. 40: 575-624.

Pontania sp.

A gall sawfly

ORDER: Hymenoptera

51

FAMILY: Tenthredinidae



HOST: Willows (Salix spp.)

LOCATION OF GALLS: Leaves.

KNOWN DISTRIBUTION: Throughout the range of willow in both provinces.

REFERENCES: Marlatt, C.L. 1896. Revision of the Nematinae of North America. U.S. Dept. Agri. Tech. Ser. No. 3. 135 pp.

Rhabdophaga salicisbatatas Osten Sacken

A gall midge

ORDER: Diptera

52

FAMILY: Cecidomyiidae



HOST: Willows (Salix spp.)

LOCATION OF GALL: Twigs.

KNOWN DISTRIBUTION: Central Saskatchewan.

REFERENCES: Felt, E.P. 1940. Plant galls and gall makers.  
Comstock Pub. Co. Inc., New York. 364 pp.

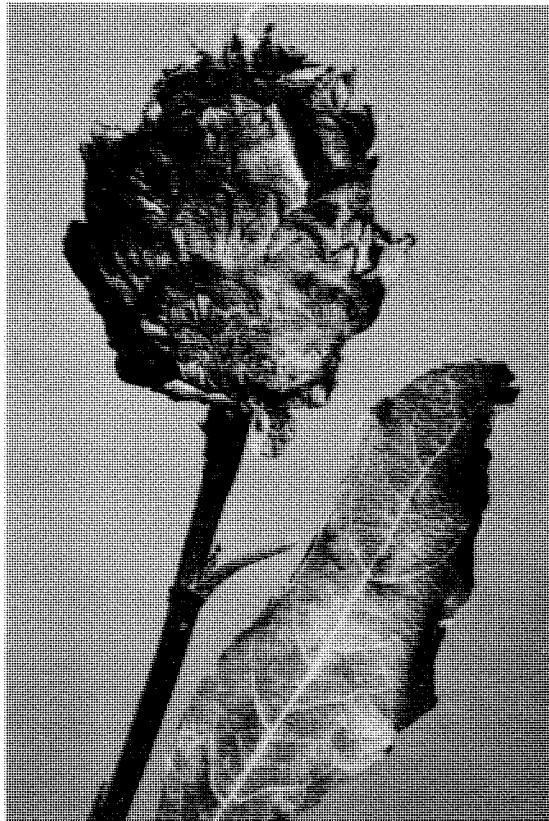
Rhabdophaga strobiloides (Osten Sacken)

Pine cone willow gall midge

ORDER: Diptera

53

FAMILY: Cecidomyiidae



HOST : Willows (Salix spp.)

LOCATION OF GALL: Apical end of shoots.

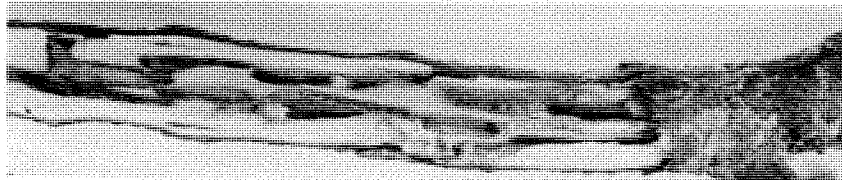
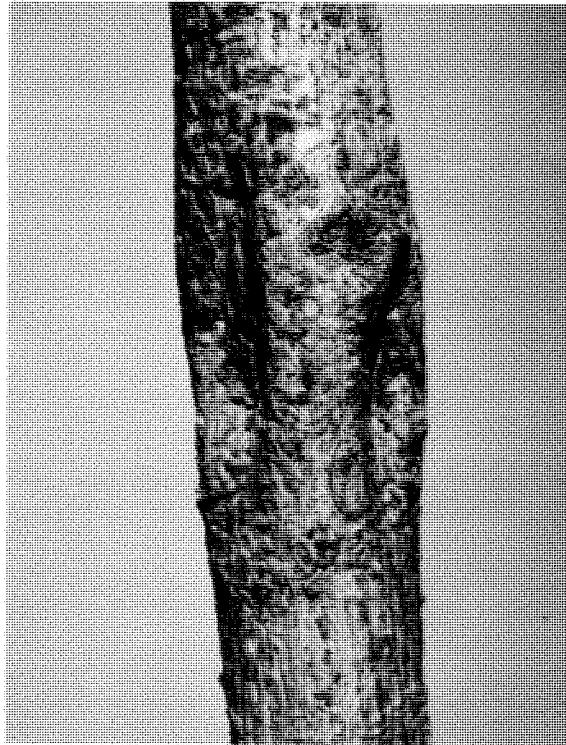
KNOWN DISTRIBUTION: Collections received from all areas of both provinces.

REFERENCES: Wilson, L.F. 1968. Life history and habits of the pine cone willow gall midge, Rhabdophaga strobiloides (Diptera: Cecidomyiidae), in Michigan. Can. Ent. 100: 430-433.

Saperda inornata Say  
Poplar gall saperda

ORDER: Coleoptera  
FAMILY: Cerambycidae

54



HOST: Several species of willows (Salix spp.)

LOCATION OF GALL: Stems, occasionally larger branches.

KNOWN DISTRIBUTION: Throughout the range of willow in both provinces.

REFERENCES: McLeod, B.B. and H.R. Wong. 1967. Biological notes on Saperda concolor Lec. in Manitoba and Saskatchewan (Coleoptera: Cerambycidae) Man. Entomol. 1: 27-33.

Myers, W.L., F.B. Knight and D.G. Grimble. 1968. Frequency of borer attacks as related to characters of aspen sucker stands: A comparative study of Oberea schaumii and Saperda inornata. Ann. Entomol. Soc. Amer. 61: 1418-1423.

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