

## AN ANNOTATED LIST OF THE TREEHOPPERS (HOMOPTERA: MEMBRACIDAE) OF QUÉBEC<sup>1</sup>

M.-C. Larivière<sup>2</sup>, A. Larochelle<sup>3</sup>

**ABSTRACT:** Treehoppers were collected in the Province of Québec during the summers of 1979 to 1985. Information on geographical distribution, associated plants and seasonal occurrence has been gathered for 67 species occurring in Québec. The collection methods used were beating and sweeping. Material (more than 10,000 specimens) from entomological collections dealing with the fauna of the Province has also been identified. Geographical distribution, associated plants and seasonal range have been compiled into an annotated list of the Québec species. Prior to this study, the seasonal range and associated plants of Québec Membracidae were unknown. Seven species are recorded in Québec for the first time: *Stictocephala tauriniformis*, *Cyrtolobus discoidalis*, *Palonica tremulata*, *P. viridia*, *Telamona dubiosa*, *T. spreta*, and *Thelia uhleri*.

**RESUME:** La récolte de Membracides au Québec au cours des étés 1979 à 1985 a permis de recueillir des données sur la répartition géographique, les plantes associées et la période d'activité saisonnière de ces insectes, ainsi que l'élaboration d'une liste annotée des 67 espèces se trouvant sur ce territoire. On a utilisé le battage et le fauchage comme méthodes d'échantillonnage. Au cours de cette étude, on a aussi procédé à la détermination de plus de 10 000 exemplaires provenant de collections entomologiques se rapportant à la faune du Québec. Jusqu'à maintenant, la période d'activité saisonnière et les plantes associées des Membracidae du Québec nous étaient inconnues. Cette liste confirme la présence de sept nouvelles espèces pour la Province: *Stictocephala tauriniformis*, *Cyrtolobus discoidalis*, *Palonica tremulata*, *P. viridia*, *Telamona dubiosa*, *T. spreta* et *Thelia uhleri*.

Sixty-seven species of Membracidae (Homoptera) are known to occur in the Province of Québec. Most of these are concentrated in the southernmost part of this area. This family has received little attention in Québec. Since 1950, only three substantial publications (Moore 1950a, 1950b, Beirne 1959) have dealt with Québec membracids. In 1950, Moore cited 68 species in his list for the Province, mostly from the Montréal area, but 7 of these could not be confirmed by the present work. The present paper lists 67 species and is based upon 8 years of field collecting and recording of associated plants of membracids in more than 200 localities throughout Québec. Beating and sweeping were the primary methods of collection. The insects collected by the authors have been deposited in the Lyman Entomological Museum and Research Laboratory (Macdonald College of McGill University). This work also includes data from the examination of

<sup>1</sup>Received September 19, 1987. Accepted November 7, 1987.

<sup>2</sup>Department of Entomology, Macdonald College of McGill University, Sainte-Anne-de-Bellevue, Québec H9X 1CO.

<sup>3</sup>Lyman Entomological Museum and Research Laboratory, Macdonald College of McGill University, Sainte-Anne-de-Bellevue, Québec H9X 1CO.

more than 10,000 specimens from insect collections dealing with the Québec fauna: Canadian National Collection (Biosystematic Research Centre, Ottawa, Ontario), Complexe Scientifique du Québec (Sainte-Foy Québec), Collection Léon-Provancher (Université Laval, Sainte-Foy, Québec), Collection Ouellet-Robert (Université de Montréal, Montréal, Québec), Lyman Entomological Museum and Research Laboratory (Macdonald College of McGill University, Sainte-Anne-de-Bellevue, Québec).

The distribution, associated plants and seasonal range are listed for each species. Membracidae have been collected from 114 species of associated plants in the course of this study. A list of the host plants giving both their scientific and common names is given at the end of this paper. Prior to this study, the seasonal range and associated plants of Québec Membracidae were unknown. Seven species are recorded for Québec for the first time: *Stictocephala tauriniformis* Caldwell, *Cyrtolobus discoidalis* (Emmons), *Palonica tremulata* (Ball), *P. viridia* (Ball), *Telamona dubiosa* Van Duzee, *T. spreta* Goding, and *Thelia uhleri* Stål.

The species *Entylia sinuata* (Fabricius), *Stictocephala brevis* (Walker), *S. brevitylus* (Van Duzee), *Cyrtolobus cinereus* (Emmons), *C. gratiosus* Woodruff, *Xantholobus tumidus* Walker, *Archasia galeata* Stål, *Telamona agradata* Ball, and *T. decorata* Ball were cited by Moore (1950b) but are excluded from the present list. These are doubtful records; specimens recorded by Moore were not found in the Lyman Entomological Museum and Research Laboratory collection, though all of his specimens are supposed to be there.

The systematic arrangement of this family follows Kopp and Yonke (1973a, b, c, 1974, and 1979).

#### Subfamily Centrotinae Amyot and Serville Genus *Microcentrus* Stål

***Microcentrus caryae* (Fitch).** — 4 localities; southernmost part of Québec. Primary associated plant: *Carya cordiformis*. A few specimens also collected on *Carya ovata*, *Quercus macrocarpa*, and *Vitis riparia*. 6.VIII.-10.IX.

#### Subfamily Membracinae Dohrn Genus *Campylenchia* Stål

***Campylenchia latipes* (Say).** — 152 localities; north to Chibougamau (Territoire-du-Nouveau-Québec). In fields and along roadsides, on weeds, especially *Cirsium arvense*, *Cirsium* sp., *Melilotus alba*, *Solidago*

*canadensis*, and *Solidago* sp. Also found on *Aster novae-angliae*, *A. puniceus*, *Betula papyrifera*, *Chenopodium album*, *Fraxinus* sp., *Galium* sp., *Medicago sativa*, *Polygonum persicaria*, *Rubus idaeus*, *Tsuga canadensis*, *Ulmus* sp., and umbellifers. 10.VII.-15.IX.

### Genus *Enchenopa* Amyot and Serville

***Enchenopa binotata* (Say).** — 43 localities; north to Dégelis (Témiscouata Co.). Primary associated plants: *Amphicarpa bracteata*, *Carya cordiformis*, *Celastrus scandens*, *Viburnum cassinoides*, and *V. Lentago*. This membracid has also been found in lesser numbers on *Diervilla Lonicera*, *Juglans cinerea*, *Populus balsamifera*, *P. tremuloides*, *Prunus serotina*, *Quercus macrocarpa*, *Robinia Pseudo-Acacia*, *Salix alba*, and *Ulmus* sp. 4.VII.-28.VIII.

#### Subfamily Smiliinae Stål Tribe Acutalini Fowler Genus *Acutalis* Fairmaire

***Acutalis tartarea* (Say).** — 64 localities; north to New-Richmond (Bonaventure Co.) and Mont-Laurier (Labelle Co.). In fields, along roadsides, at forest edge and in marshy areas; on weeds, and shrubs, especially *Eupatorium maculatum*, *Solidago canadensis*, and *Solidago* sp. This membracid has also been found on *Aster novae-angliae*, *A. umbellatus*, *Cornus obliqua*, *Eupatorium perfoliatum*, *Impatiens capensis*, *Picea glauca*, *Populus tremuloides*, *Rumex acetosella*, *Solidago graminifolia*, and *Salix* spp. 4.VI-3.X.

### Genus *Micrortalis* Fowler

***Micrortalis dorsalis* (Fitch).** — 9 localities; southernmost part of Québec. Found on *Clematis virginiana*. A few specimens also were collected on *Cornus* sp., *C. stolonifera*, and *Pinus strobus*. 21.VII-13.VIII.

#### Tribe Ceresini Goding Genus *Hadrophallus* Kopp and Yonke

***Hadrophallus borealis* (Fairmaire).** — 14 localities; north to Saint-Cyrille (Drummond Co.). Associated plant: *Ulmus americana*. 20.VII.-28.VIII.

***Hadrophallus constans* (Walker).** — 14 localities; north to La Tuque (Champlain Co.). Found mainly on *Carya cordiformis*, *Quercus rubra*, and *Tilia americana*. *Tanacetum vulgare* is probably an accidental host. 17.VII.-19.IX.

**Genus *Stictocephala* Stål**

***Stictocephala albescens* (Van Duzee).** — 5 localities; north to Berthierville (Berthier Co.). Collected from *Ostrya virginiana* and *Solidago canadensis*. 10.VIII.-3.IX.

***Stictocephala basalis* (Walker).** — 201 localities; north to Chibougamau (Territoire-du-Nouveau-Québec). In fields, along roadsides, at forest edge, and in marshy areas; on weeds, shrubs, and trees, for example: *Betula lenta*, *Cirsium* sp., *Comptonia peregrina*, *Cornus stolonifera*, *Impatiens capensis*, *Juglans cinerea*, *Juncus* sp., *Larix laricina*, *Melilotus alba*, *Ostrya virginiana*, *Parthenocissus quinquefolia*, *Picea mariana*, *Picea* sp., *Pinus sylvestris*, *Populus balsamifera*, *P. tremuloides*, *Quercus macrocarpa*, *Q. rubra*, *Rhus typhina*, *Ribes* sp., *Rubus idaeus*, *Salix exigua*, *Solidago canadensis*, *Solidago* sp., *Tilia americana*, *Ulmus americana*, *Vicia Cracca*, *Vitis riparia*, and graminaceous plants. 16.VII.-18.IX.

***Stictocephala bisonia* Kopp and Yonke.** — 77 localities; north to Ile Nepawa (Abitibi Co.) and Clermont (Charlevoix-Est Co.). In fields along roadsides and at forest edge; on weeds, shrubs and trees, for example: *Cornus obliqua*, *Corylus cornuta*, *Diervilla Lonicera*, *Eupatorium maculatum*, *Fraxinus* sp., *Picea glauca*, *Populus deltoides*, *Salix* sp., *Solidago* sp., and graminaceous plants. 1.VII.-8.X.

***Stictocephala brevicornis* (Fitch).** — 17 localities; north to Cap-Rouge (Québec Co.). Specimens were taken from *Ostrya virginiana*, *Populus tremuloides*, *Prunus pennsylvanica*, and *Rubus alleghaniensis*. 16.VII.-11.IX.

***Stictocephala diceros* (Say).** — 98 localities; north to La Tuque (Champlain Co.). In fields, along roadsides, on a variety of plants, for example weeds, shrubs, and trees such as: *Alnus* sp., *Amelanchier* sp., *Asclepias syriaca*, *Betula populifolia*, *Clematis virginiana*, *Cornus stolonifera*, *Corylus cornuta*, *Crataegus* sp., *Eupatorium maculatum*, *Fagus grandifolia*, *Fraxinus* sp., *Galium* sp., *Juglans cinerea*, *Parthenocissus quinquefolia*, *Picea glauca*, *Pinus Banksiana*, *P. sylvestris*, *Populus tremuloides*, *Prunus pennsylvanica*, *Quercus macrocarpa*, *Q. rubra*, *Robinia* sp., *Rubus odoratus*, *Salix* sp., *Sambucus canadensis*, *Solidago canadensis*, *Solidago* sp., *Ulmus americana*, *Urtica procera*, *Vaccinium* sp., *Vitis riparia*, graminaceous plants, and umbellifers. 12.VII.-17.IX.

***Stictocephala lutea* (Walker).** — 9 localities; southernmost part of Québec. Collected only from *Acer saccharum*. 19.V.-24.VII.

***Stictocephala palmeri* (Van Duzee).** — 8 localities; southernmost part of Québec. Primary associated plants: *Quercus rubra* and *Tilia americana*. *Populus balsamifera* is probably an accidental host. 28.VII.-6.X.

***Stictocephala taurina* (Fitch).** — 55 localities; north to Saint-Vital-de-

Clermont (Abitibi Co.) and Gaspé (Gaspé-Est Co.). In fields, along roadsides and at forest edge, on a wide variety of plants such as weeds, shrubs and trees: *Aster umbellatus*, *Betula papyrifera*, *Carya ovata*, *Celtis occidentalis*, *Cirsium* sp., *Corylus cornuta*, *Crataegus* sp., *Diervilla*, *Lonicera*, *Laportea canadensis*, *Pinus strobus*, *Populus tremuloides*, *Quercus macrocarpa*, *Robinia* sp., *Rubus idaeus*, *Salix* sp., *Solidago* sp., *Solidago canadensis*, *Thuja occidentalis*, *Tsuga canadensis*, *Ulmus* sp., *Viburnum Lentago*. 14.VII.-15.IX.

***Stictocephala tauriniformis* Caldwell.** — FIRST RECORD FOR THE PROVINCE. 2 localities from the southernmost part of the Province: Shawville (Pontiac Co.) and Plaisance (Papineau Co.) (Specimens deposited in the Lyman Entomological Museum). Found by the authors on *Crataegus* sp. and *Tilia americana*. 27.VII.-2.VIII.

### Genus *Tortistilus* Caldwell

***Tortistilus inermis* (Fabricius).** — 27 localities; north to Cap-Rouge (Québec Co.). Weeds; in fields and along roadsides. 9.VI.-12.IX.

#### Tribe Polyglyptini Goding Genus *Entylia* Germar

***Entylia carinata* (Forster).** — 75 localities; north to New-Richmond (Bonaventure Co.) and Saint-Jean-sur-Lac (Labelle Co.). In fields, along roadsides, at forest edge and in marshy areas. On a wide variety of plants, weeds, shrubs, and trees, especially on: *Cirsium arvense*, *Cirsium* sp., *Eupatorium maculatum*, *Salix* sp., *Solidago canadensis*, and *Solidago* sp. This membracid has also been found in lesser numbers on *Acer rubrum*, *A. saccharum*, *Alnus* sp., *Anthriscus sylvestris*, *Artemisia Absinthium*, *Aster novae-angliae*, *Betula populifolia*, *Carpinus caroliniana*, *Chenopodium album*, *Juglans cinerea*, *Oenothera* sp., *Pinus Strobus*, *Populus tremuloides*, *Prunus pennsylvanica*, *Quercus rubra*, *Ranunculus abortivus*, *Rubus* sp., *Rumex crispus*, *Ulmus*, and *Viburnum cassinoides*. 26.IV.-14.IX.

### Genus *Publilia* Stal

***Publilia concava* (Say).** — 71 localities; north to Gaspé (Gaspé-Est Co.). In fields, along roadsides, at forest edge and in marshy areas; particularly on *Solidago canadensis* and *Solidago* sp. Also found on *Acer spicatum*, *Anemone canadensis*, *Anthriscus sylvestris*, *Aster umbellatus*, *Cornus alternifolia*, *C. stolonifera*, *Equisetum* sp., *Picea* sp., *Quercus rubra*,

*Rhamnus frangula*, *Rubus alleghaniensis*, *R. idaeus*, *Rubus* sp., *Rumex acetosella*, *Tilia americana*, and *Urtica* sp. 12.IV.-30.IX.

**Tribe Smiliini**  
**Genus *Atymna* Stål**

***Atymna helena* (Woodruff).** — 6 localities; southernmost part of the Province. *Quercus macrocarpa* and *Q. alba*. 21.VI.-27.VII.

***Atymna querci* (Fitch).** — 10 localities; southernmost part of the Province. Found on oak trees, *Quercus alba* and *Q. macrocarpa*. One specimen also was collected on *Ostrya virginiana*. 12.VI.-11.VIII.

**Genus *Cyrtolobus* Goding**

***Cyrtolobus cinctus* Van Duzée.** — A single locality: Montréal (Île-de-Montréal). Associated plants are unknown for the Province. 11.IX.

***Cyrtolobus discoidalis* (Emmons).** — FIRST RECORD FOR THE PROVINCE. 12 localities; southernmost part of Québec (Specimens deposited in the Lyman Entomological Museum). Found by the authors mostly on *Quercus rubra*, but also on *Amelanchier* sp., *Diervilla Lonicera*, *Pinus Strobus*, *Populus tremuloides*, *Prunus pensylvanica*, *Quercus macrocarpa*, and *Tsuga canadensis*. 15.VI.-30.VII.

***Cyrtolobus fenestratus* (Fitch).** — 11 localities; southernmost part of the Province. Found mainly on *Quercus rubra*. A few specimens collected on *Quercus alba*, *Q. macrocarpa*, and *Ostrya virginiana*. 15.VI.-21.VIII.

***Cyrtolobus fuliginosus* (Emmons).** — 5 localities; southernmost part of the Province. Associated plant: *Quercus rubra*. One specimen also found on *Ulmus americana*. 15.VI.-30.VII.

***Cyrtolobus fuscipennis* (Van Duzee).** — 5 localities; southernmost part of the Province. Found mostly on *Quercus rubra*. A few specimens also collected on *Fraxinus americana*, and *Quercus alba*. 5.VI.-5.VIII.

***Cyrtolobus gramatanus* Woodruff.** — 9 localities; southernmost part of the Province. Primary associated plant: *Quercus macrocarpa*. A few specimens also collected on *Juglans cinerea*, *Quercus alba*, *Q. bicolor*, *Q. rubra*, and *Viburnum Rafinesquianum*. 27.VI.-29.VII.

***Cyrtolobus griseus* Van Duzee.** — 13 localities; southernmost part of the Province. Associated plants: *Quercus alba*, *Q. macrocarpa*, *Q. rubra*. A few specimens also found on *Acer spicatum*, *Betula lutea*, *Carpinus caroliniana*, *Rubus* sp., *Spiraea* sp., *Viburnum cassinoides*, and *Zanthoxylum americanum*. 12.VI-21.VIII.

***Cyrtolobus maculifrontis* (Emmons).** — 9 localities; southernmost part

of Québec. Primary associated plant: *Quercus macrocarpa*. A few specimens also collected from *Amelanchier* sp., *Cornus stolonifera*, *Corylus cornuta*, *Quercus bicolor*, and *Q. rubra*. 16.VI.-27.VII.

***Cyrtolobus pallidifrontis* (Emmons).** — 6 localities; southernmost part of the Province. Mostly found on *Quercus alba*, but also on *Quercus bicolor*, *Q. macrocarpa*, and *Q. rubra*. 12.VI.-21.VIII.

***Cyrtolobus puritanus* Woodruff.** — 2 localities from the Montréal area: Montréal (Île-de-Montréal) and Saint-Hilaire (Rouville Co.). Associated plants are unknown for the Province. 4.-14.VII.

***Cyrtolobus rufulus* Woodruff.** — 7 localities; southern most part of Québec. Found mainly on *Quercus macrocarpa*. Two specimens also were found on *Amelanchier* sp. and *Quercus alba*. 12.VI.-21.VIII.

***Cyrtolobus vau* (Say).** — 6 localities; north to Lévis (Lévis Co.). Associated plants are unknown for the Province. VI.

### Genus *Ophiderma* Fairmaire

***Ophiderma definita* Woodruff.** — 13 localities; southernmost part of the Province. Primary associated plant: *Quercus rubra*. A few specimens also were collected on *Amelanchier* sp. and *Quercus alba*. 10.VI.-3.IX.

***Ophiderma evelyna* Woodruff.** — One locality: Montréal (Île-de-Montréal). Associated plants are unknown for the Province. 10.VII.1937.

***Ophiderma flava* Goding** — 21 localities; north to Ile d'Orléans (Montmorency No. 2 Co.). Collected mostly from *Quercus rubra*. A few specimens also collected on *Abies balsamea*, *Acer pennsylvanicum*, *A. rubrum*, *Amelanchier* sp., *Carpinus caroliniana*, *Ostrya virginiana*, *Quercus alba*, *Tsuga canadensis*, and *Ulmus* sp. 2.VI.-21.VIII.

***Ophiderma flavicephala* Goding.** — 2 localities from the southernmost part of Quebec: Montreal (Île-de-Montréal) and Hudson-Heights (Vaudreuil Co.). Associated plants are unknown for the Province. 9-12.VI.

***Ophiderma pubescens* (Emmons).** — 19 localities; north to Québec (Québec Co.). Primary associated plant appears to be *Quercus rubra*. A few specimens also were collected on *Acer Negundo*, *A. rubrum*, *A. saccharum*, *Amelanchier* sp., *Carpinus caroliniana*, *Corylus cornuta*, *Ostrya virginiana*, *Populus tremuloides*, *Prunus pensylvanica*, *P. serotina*, *Quercus alba*, *Rubus idaeus*, and *Salix* sp. 15.VI.-5.VIII.

***Ophiderma salamandra* Fairmaire.** — 14 localities; north to Lévis (Lévis Co.). Primary associated plant: *Quercus rubra*. A few specimens also were collected on *Acer rubrum*, *A. saccharum*, *Amelanchier* sp., *Ostrya virginiana*, *Picea* sp., *Pinus resinosa*, *Prunus pensylvanica*, and *Quercus alba*. 14.VI.-21.VIII.

### Genus *Smilia* Germar

***Smilia camelus* (Fabricius).** — 19 localities; north to Trois-Rivières (Saint-Maurice Co.). Primary associated plant: *Quercus rubra*. A few specimens also collected on *Acer saccharum*, *Carpinus caroliniana*, *Potentilla argentea*, and *Salix* sp. 31.V.-30.VII.

### Genus *Xantholobus* Van Duzee

***Xantholobus intermedius* (Emmons).** — 1 locality from the Montréal area: Ile-de-Montréal. Associated plants are unknown for the Province. 19.VI.-17.VII.

***Xantholobus muticus* (Fabricius).** — 8 localities: southernmost part of the Province. Found mostly on *Quercus macrocarpa*. Less frequently on *Cornus stolonifera* and *Crataegus* sp. 5.VI.-6.VII.

### Tribe Telamonini Goding Genus *Archasia* Stål

***Archasia belfragei* Stål** — 10 localities; north to Québec (Québec Co.). Taken on oak trees, *Quercus alba* and *Quercus* sp. 20.VI.-2.VIII.

### Genus *Carynota* Fitch

***Carynota marmorata* (Say).** — 30 localities; north to Falardeau (Chicoutimi Co.) and Grande-Cascapédia (Bonaventure Co.). Found primarily on *Alnus* sp. but a few specimens also were collected on *Picea* sp. and *Salix* sp. 9.VII.-29.VIII.

***Carynota mera* (Say).** — 11 localities; southernmost part of the Province. Found on a variety of plants including *Carya cordiformis*, *C. ovata*, *Juglans cinerea*, and *Quercus macrocarpa*. 14.VII.-19.IX.

***Carynota stupida* (Walker).** — 30 localities; north to Val-Paradis (Territoire-du-Nouveau-Québec). Associated plants: *Betula lutea*, *B. papyrifera*, *B. populifolia*, and *B.* sp. A few specimens also caught on *Salix* sp. and *Spiraea* sp. 7.VI.-1.IX.

### Genus *Glossonotus* Butler

***Glossonotus acuminatus* (Fabricius).** — 9 localities; north to Sainte-Foy (Québec Co.). Primary associated plant: *Quercus rubra*. Two specimens collected from *Ostrya virginiana* and *Quercus alba*. 27.VII.-5.VIII.

**Glossonotus crataegi** (Fitch). — 6 localities; north to Lévis (Lévis Co.). A single specimen caught on *Ostrya virginiana*, the regular associated plant being *Crataegus* sp. 22.VII.-15.IX.

**Glossonotus nimbatulus** Ball. — 6 localities; southernmost part of the Province. Associated plants are unknown for the Province. 25.VI.-13.IX.

**Glossonotus turriculatus** (Emmons). — 4 localities; southernmost part of the Province. Found on *Quercus alba* and *Q. macrocarpa*. 10.VII.-26.VIII.

**Glossonotus univittatus** (Harris). — 18 localities; north to Saint-Maurice (Champlain Co.). Primary associated plants are *Quercus macrocarpa*, and *Q. rubra*. A few specimens also were collected on *Acer rubrum*, *Betula papyrifera*, *Celastrus scandens*, *Corylus cornuta*, *Crataegus* sp., and *Populus tremuloides*. 17.VI.-31.VIII.

### Genus **Heliria** Stål

**Heliria scalaris** (Fairmaire). — 25 localities; north to Amqui (Matapédia Co.). Collected mainly from *Crataegus* sp. A few specimens also collected on *Betula papyrifera*, *Malus pumila* and *Salix* sp. 27.V.-30.VIII.

### Genus **Palonica** Ball

**Palonica pyramidata** (Uhler). — 83 localities; north to Chibougamau (Territoire-du-Nouveau-Québec). Found on a wide variety of associated plants: *Salix amygdaloides*, *S. sp.* A few specimens also collected on *Abies balsamea*, *Alnus* sp., *Artemisia Absinthium*, *Betula populifolia*, *Clematis virginiana*, *Cornus stolonifera*, *Larix laricina*, *Picea* sp., *Pinus Banksiana*, *Populus balsamifera*, *P. tremuloides*, *Prunus pennsylvanica*, *Trifolium pratense*, and *Ulmus* sp. 3.VII.-7.IX.

**Palonica tremulata** (Ball). — FIRST RECORD FOR THE PROVINCE. 28 localities; north to Villemontel (Abitibi Co.) and Marsoui (Gaspé-Ouest Co.) (Specimens deposited in the Lyman Entomological Museum). Found by the authors on *Populus tremuloides*. A few specimens also were collected on *Alnus* sp., *Betula papyrifera*, *Fraxinus americana*, *Populus balsamifera*, *Quercus macrocarpa*, *Salix* sp., and *Vitis riparia*. 3.VII.-23.IX.

**Palonica viridia** (Ball). — FIRST RECORD FOR THE PROVINCE. One locality: Vaudreuil (Vaudreuil Co.) (Specimens deposited in the Lyman Entomological Museum). Found by the authors on *Populus deltoides*. 9.VII.1984.

**Genus *Telamona* Fitch**

***Telamona ampelopsisidis* (Harris).** — 25 localities; north to Lévis (Lévis Co.). Primary associated plant: *Parthenocissus quinquefolia*. A few specimens were found on *Betula papyrifera*, *Carya cordiformis*, *Corylus cornuta*, and *Thuja occidentalis*. 8.VI.-1.IX.

***Telamona concava* Fitch.** — 4 localities; north to Lévis (Lévis Co.). Collected from *Quercus alba*, *Q. rubra*, and other species of oaks. Associated plants were previously unknown for this species. 21.VI.-21.VIII.

***Telamona dubiosa* Van Duzee.** — FIRST RECORD FOR THE PROVINCE. One locality: Pointe-Claire (Île-de-Montréal) (Specimens deposited in the Lyman Entomological Museum). On "tree". Specific associated plants are unknown for the Province. 2.VII.1919.

***Telamona monticola* (Fabricius).** — 28 localities; north to Sainte-Foy (Québec Co.). Main associated plant: *Quercus rubra*. A few specimens also were collected on *Acer Negundo*, *Alnus* sp., *Betula lutea*, *B. papyrifera*, *B. populifolia*, *Fagus grandifolia*, *Pinus resinosa*, *Populus deltoides*, *P. tremuloides*, *Quercus alba*, *Q. macrocarpa*, *Q. sp.*, and *Salix* sp. 10.VI.-1.IX.

***Telamona reclivata* Fitch.** — 2 localities from the southernmost part of Québec: La Trappe (Deux-Montagnes Co.) and Montebello (Papineau Co.). Associated plants: *Carpinus caroliniana* and *Quercus rubra*. 1.VII.-27.VIII.

***Telamona spreta* Goding.** — FIRST RECORD FOR THE PROVINCE. 14 localities; north to Lévis (Lévis Co.) (Specimens deposited in the Lyman Entomological Museum). Primary associated plant: *Quercus macrocarpa*. A few specimens also were collected by the authors on *Quercus alba*, *Q. bicolor*, *Q. rubra*, and *Populus tremuloides*. 20.VI.-6.X.

***Telamona tiliae* Ball.** — 31 localities; north to Lac Saint-Jean (Lac Saint-Jean Co.). Found mainly on *Tilia americana*. A few specimens collected on *Ostrya virginiana*, *Quercus alba*, *Q. bicolor*, *Q. macrocarpa*, and *Q. rubra*. 1.VII.-14.X.

***Telamona tristis* Fitch.** — 24 localities; north to Grande-Cascapédia (Bonaventure Co.). Associated plants: *Corylus cornuta*, less frequently found on *Betula lutea*, *Carpinus caroliniana*, *Ostrya virginiana*, and *Quercus alba*. 23.VI.-13.VIII.

***Telamona unicolor* Fitch.** — 10 localities; southernmost part of the Province. Collected from *Carya cordiformis*, *Populus deltoides*, *Ulmus* sp., and *Viburnum Lentago*. 20.VI.-28.VIII.

***Telamona westcotti* Goding.** — 7 localities; southernmost part of Québec.

Found on *Carya ovata*, *Quercus macrocarpa*, *Q. rubra*, and *Ulmus* sp.  
27.VII.-6.VIII.

### Genus *Thelia* Amyot and Serville

***Thelia bimaculata* (Fabricius).** — 2 localities from the southernmost part of the Province: Ile Sainte-Hélène and Montréal (Ile-de-Montréal). Associated tree: *Robinia Pseudo-Acacia*. 12.VIII.-4.IX.

***Thelia uhleri* Stål.** — FIRST RECORD FOR THE PROVINCE. 2 localities from the southernmost part of Québec: Ile de Carillon (Argenteuil Co.) and Baie Noire (Papineau Co.) (Specimens deposited in the Lyman Entomological Museum). Collected by the authors on *Prunus serotina* and *Tilia americana*. 10.-28.VII.

### Scientific and common names of associated plants

Scientific names	Common names
<i>Abies balsamea</i> (L.)	Balsam Fir
<i>Acer Negundo</i> L.	Box Elder
<i>Acer pennsylvanicum</i> L.	Striped Maple
<i>Acer rubrum</i> L.	Red Maple
<i>Acer saccharinum</i> L.	Silver Maple
<i>Acer saccharum</i> Marsh.	Sugar Maple
<i>Acer spicatum</i> Lam.	Mountain Maple
<i>Alnus</i> sp.	Alder
<i>Amelanchier</i> sp.	Shadbush
<i>Amphicarpa bracteata</i> (L.)	Hog Peanut
<i>Anemone canadensis</i> L.	Canadian Anemone
<i>Anthriscus sylvestris</i> (L.)	Wild Parsley
<i>Artemisia Absinthium</i> L.	Absinth
<i>Asclepias syriaca</i> L.	Common Milkweed
<i>Aster novae-angliae</i> L.	New England Aster
<i>Aster puniceus</i> L.	Red-stalked Aster
<i>Aster umbellatus</i> Mill.	Umbellate Aster
<i>Betula</i> sp.	Birch
<i>Betula lutea</i> Michx.	Yellow Birch
<i>Betula papyrifera</i> Marsh.	Canoe Birch
<i>Betula populifolia</i> Marsh.	Grey Birch
<i>Carpinus caroliniana</i> Walt.	Hornbeam
<i>Carya cordiformis</i> (Wang.) K. Koch	Bitternut
<i>Carya ovata</i> (Mill.) K. Koch	Shag-bark Hickory
<i>Celastrus scandens</i> L.	Climbing Bittersweet
<i>Celtis occidentalis</i> L.	Hackberry
<i>Chenopodium album</i> L.	White Goosefoot
<i>Cirsium</i> sp.	Thistle

## Scientific and common names of associated plants (Continued)

Scientific names	Common names
<i>Cirsium arvense</i> (L.) Scop.	Canada Thistle
<i>Clematis virginiana</i> L.	Virginia Virgin's Bower
<i>Comptonia peregrina</i> (L.) Coulter	Sweet Fern
<i>Cornus</i> sp.	Dogwood
<i>Cornus alternifolia</i> L.f.	Alternate-leaved Dogwood
<i>Cornus obliqua</i> Raf.	Oblique Dogwood
<i>Cornus stolonifera</i> Michx.	Red-osier Dogwood
<i>Corylus cornuta</i> Marsh.	Beaked Hazelnut
<i>Crataegus</i> sp.	Hawthorn
<i>Diervilla Lonicera</i> Mill.	Bush Honeysuckle
<i>Equisetum</i> sp.	Horsetail
<i>Eupatorium maculatum</i> L.	Joe-pye-weed
<i>Eupatorium perfoliatum</i> L.	Thoroughwort
<i>Fagus grandifolia</i> Ehrh.	American Beech
<i>Fraxinus</i> sp.	Ash
<i>Fraxinus americana</i> L.	White Ash
<i>Galium</i> sp.	Bedstraw
<i>Impatiens capensis</i> Meerb.	Cape Touch-me-not
<i>Juglans cinerea</i> L.	Butternut
<i>Juncus</i> sp.	Rush
<i>Laportea canadensis</i> (L.) Wedd.	Wood Nettle
<i>Larix laricina</i> (Du Roi) Koch	Tamarack
<i>Malus pumila</i> Mill.	Common Apple tree
<i>Medicago sativa</i> L.	Alfalfa
<i>Melilotus alba</i> Desr.	White Sweet Clover
<i>Myrica Gale</i> L.	Sweet Gale
<i>Oenothera</i> sp.	Evening Primrose
<i>Ostrya virginiana</i> (Mill.) K. Koch	Ironwood
<i>Parthenocissus quinquefolia</i> (L.) Planch.	Virginia Creeper
<i>Picea glauca</i> (Moench) Voss	White Spruce
<i>Pinus Banksiana</i> Lamb.	Jack Pine
<i>Pinus resinosa</i> Art.	Red Pine
<i>Pinus Strobus</i> L.	White Pine
<i>Pinus sylvestris</i> L.	Scotch Pine
<i>Polygonum</i> sp.	Knotweed
<i>Polygonum persicaria</i> L.	Lady's -thumb
<i>Populus balsamifera</i> L.	Balsam Poplar
<i>Populus deltoides</i> Marsh.	Cottonwood
<i>Populus tremuloides</i> Michx.	American Aspen
<i>Potentilla argentea</i> L.	Silvery Cinquefoil
<i>Prunus pennsylvanica</i> L.f.	Wild Red Cherry
<i>Prunus serotina</i> Ehrh.	Rum Cherry
<i>Prunus virginiana</i> L.	Choke Cherry
<i>Quercus alba</i> L.	White Oak
<i>Quercus bicolor</i> Willd.	Swamp White Oak
<i>Quercus macrocarpa</i> Michx.	Burr Oak
<i>Quercus rubra</i> L.	Red Oak

## Scientific and common names of associated plants (Continued)

Scientific names	Common names
<i>Ranunculus abortivus</i> L.	Smooth-leaved Crowfoot
<i>Rhamnus frangula</i> L.	Black Buckthorn
<i>Rhus typhina</i> L.	Staghorn Sumac
<i>Ribes</i> sp.	Gooseberry
<i>Robinia Pseudo-Acacia</i> L.	Black-locust
<i>Rubus</i> sp.	Blackberry
<i>Rubus alleghaniensis</i> Port.	Alleghany Blackberry
<i>Rubus idaeus</i> L.	Wild Raspberry
<i>Rubus odoratus</i> L.	Flowering Raspberry
<i>Rudbeckia hirta</i> L.	Black-eyed Susan
<i>Rumex acetosella</i> L.	Field Sorrel
<i>Rumex crispus</i> L.	Curled Dock
<i>Salix</i> sp.	Willow
<i>Salix alba</i> L.	White Willow
<i>Salix amygdaloides</i> And.	Peach-leaved Willow
<i>Salix exigua</i> Nutt.	Sandbar Willow
<i>Sambucus canadensis</i> L.	Canadian Elder
<i>Solidago</i> sp.	Goldenrod
<i>Solidago canadensis</i> L.	Canada Goldenrod
<i>Solidago graminifolia</i> (L.) Salisb.	Narrow-leaved Goldenrod
<i>Spiraea</i> sp.	Meadow-sweet
<i>Tanacetum vulgare</i> L.	Common Tansy
<i>Thuja occidentalis</i> L.	White Cedar
<i>Tilia americana</i> L.	American Linden
<i>Trifolium pratense</i> L.	Red Clover
<i>Tsuga canadensis</i> (L.) Carr	Hemlock
<i>Ulmus</i> sp.	Elm
<i>Ulmus americana</i> L.	American Elm
<i>Urtica</i> sp.	Nettle
<i>Urtica procera</i> Muhl.	Stinging Nettle
<i>Vaccinium</i> sp.	Blueberry
<i>Viburnum cassinoides</i> L.	Appalachian Tea
<i>Viburnum Lentago</i> L.	Sweet Viburnum
<i>Viburnum Rafinesquianum</i> Schult.	Rafinesque's Arrow-wood
<i>Vicia Cracca</i> L.	Cow Vetch
<i>Vitis riparia</i> Michx.	Wild Grape
<i>Zanthoxylum americanum</i> Müll.	Prickly Ash

### ACKNOWLEDGMENTS

We are grateful to K.G.A. Hamilton, Canadian National Collection (Ottawa); M. Letendre, Complexe Scientifique du Québec (Ste-Foy); J.-M. Perron, Collection Léon-Provancher and Collection de l'Université Laval (Ste-Foy); V.R. Vickery, Lyman Entomological Museum and Research Laboratory (Macdonald College of McGill University, Sainte-Anne-de-Bellevue); P. Harper, Collection Ouellet-Robert (Université de Montréal), Montréal) for the loan of or permission to examine material under their care. Thanks are also extended to V.R. Vickery for his comments, criticisms and further help in the course of this study.

## LITERATURE CITED

- Beirne, B.P. 1961. The cicadas (Homoptera: Cicadidae) and treehoppers (Homoptera: Membracidae) of Canada. Canada Dept. of Agr. Publ. 54 pp.
- Kopp, D.D. and T.R. Yonke. 1973a. The Treehoppers of Missouri: Part 1.. Subfamilies Centrotinae, Hoplophorinae, and Membracinae (Homoptera: Membracidae). *J. Kansas Entomol. Soc.* 46(1): 42-64.
- Kopp, D.D. and T.R. Yonke. 1973b. The Treehoppers of Missouri: Part 2. Subfamily Smiliinae; Tribes Acutalini, Ceresini, and Polyglyptini. *J. Kansas Entomol. So.* 46(2): 233-276.
- Kopp, D.D. and T.R. Yonke. 1973c. The Treehoppers of Missouri: Part 3. Subfamily Smiliinae (Homoptera: Membracidae); Tribe Smiliini. *J. Kansas Entomol. Soc.* 46(3): 375-421.
- Kopp, D.D. and T.R. Yonke. 1974. The Treehoppers of Missouri: Part 4. Subfamily Smiliinae; Tribe Telamonini (Homoptera: Membracidae). *J. Kansas Entomol. Soc.* 47(1): 80-130.
- Kopp, D.D. and T.R. Yonke. 1979. A taxonomic review of the Tribe Ceresini (Homoptera: Membracidae). *Misc. Publ. Ent. Soc. Amer.* 11(2): 1-98.
- Moore, G.A. 1950a. Catalogue des Hemiptères de la Province de Québec. *Nat. Canadien* 77: 233-271.
- Moore, G.A. 1950b. Liste des Hémiptères de la Province de Québec (Checklist of the Hemiptera of the Province of Québec). *Inst. Biol. Univ. Montréal Contrib.* 26: 1-49.



Lariviere, M C and Larochele, A. 1988. "An Annotated List Of The Treehoppers (Homoptera, Membracidae) Of Quebec." *Entomological news* 99, 111–124.

**View This Item Online:** <https://www.biodiversitylibrary.org/item/20715>

**Permalink:** <https://www.biodiversitylibrary.org/partpdf/38913>

**Holding Institution**

Smithsonian Libraries and Archives

**Sponsored by**

Smithsonian

**Copyright & Reuse**

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: American Entomological Society

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.