

The
MICHIGAN ENTOMOLOGIST



VOLUME II (1969)

Ronald S. Wilkinson, Editor

Double number 1-2 (*Spring-Summer 1969*) was mailed on 11 December 1969.
Double number 3-4 (*Fall-Winter 1969*) was mailed on 19 June 1970.

Published by

THE MICHIGAN ENTOMOLOGICAL SOCIETY
c/o Department of Entomology
Michigan State University
East Lansing, Michigan 48823, U.S.A.

THE MICHIGAN ENTOMOLOGIST

VOLUME II (NOS. 1-4, 1969)

INDEX

Edited by George C. Heaton

AUTHOR INDEX OF ARTICLES AND NOTES

- Beatty, G. F. and A. F. Beatty, United States Records of *Williamsonia fletcheri* (Odonata: Corduliidae), 13.
- Bixler, David E., The Tarantula *Atypus muberti* in Michigan (Araneae: Atypidae), 29-30.
- Evans, David A. and Bruce R. Miller, A Note on Adult Overwintering of *Dasymutilla nigripes* in Michigan (Hymenoptera: Mutillidae), 74.
- Johnson, Keith R., A New Species of *Xiphosomella* (Hymenoptera: Ichneumonidae), 27-28.
- Lenke, Armond E. and Vincent R. Mattson, An Emergence Trap for Aquatic Insects, 19-21.
- Manley, Gary A., A Pictorial Key and Annotated List of Michigan Pseudoscorpions (Arachnida: Pseudoscorpionida), 2-13.
- Mignot, Edward C. and John O. Sillings, Winter Occurrence of *Zorotypus hubbardi* (Zoraptera) in Tippecanoe County, Indiana, 72-73.
- Ries, Mary Davis, Odonata New to the Wisconsin State List, 22-27.
- Shiffer, Clark N., Occurrence and Habits of *Somatochlora incurvata*, New for Pennsylvania (Odonata: Corduliinae), 75-76.
- Tigner, Timothy C., Three New Species and a Key for the Genus *Callidora* (Hymenoptera: Ichneumonidae), 36-39.
- Townes, Henry, *Tendipes plumosus* (Diptera: Tendipedidae) at Solberg Lake, Wisconsin, 82.
- Uetz, George W. and Dean G. Dillery, A Study of Spiders on Maple Trees, 31-36.
- Voss, Edward G., Moths of the Douglas Lake Region (Emmet and Cheboygan Counties), Michigan: I. Sphingidae-Ctenuchidae (Lepidoptera), 48-54.
- Wilkinson, Ronald S., Colloquia Entomologica II: A Remarkable Sale of Victorian Entomological Jewelry, 77-81.
- Wilkinson, Ronald S., The Oldest Extant Specimens of North American Lepidoptera, 46-47.
- Wilkinson, Ronald S., Seven Illustrations from Maurice Sand's *Le Monde des Papillons* (1867), 83.
- Wilkinson, Ronald S., Townend Glover (1818-83) and the First Entomological Light Trap, 55-62.
- Wilson, Louis F., The Capability of Some Butterflies as Carriers of Milkweed Pollen, 40-42.

Wilson, Louis F., Shoreline Aggregation Behavior of Adults of a Midge, *Chironomus* sp. (Diptera: Chironomidae) at Solberg Lake, Wisconsin, 14-19.

Witter, J. A. and H. M. Kulman, Estimating the Number of Eggs per Egg Mass of the Forest Tent Caterpillar, *Malacosoma disstria* (Lepidoptera: Lasiocampidae), 63-71.

REVIEWS AND BRIEF NOTICES

Advances in Insect Physiology, Vol. 5, brief notice by R. S. Wilkinson, 88.

Annual Review of Entomology, Vol. 14, brief notice by R. S. Wilkinson, 88.

Cicindela, Vol. 1, No. 1 (1969), review by L. F. Wilson, 87-88.

Cloudsley-Thompson, J. L., *Spiders, Scorpions, Centipedes and Mites*, brief notice by J. P. Donahue, 44.

Curwen's Aurelian Calendar (1970), review by R. S. Wilkinson, 85.

Darlington, Arnold, *The Pocket Encyclopedia of Plant Galls*, review by L. F. Wilson, 42-43.

Donahue, Julian P., review of *Melandria*, Vol. 1 (1969), 85.

Donahue, Julian P., brief notice of *Spiders and their Kin* by Herbert W. Levi and Lorna R. Levi, 44.

Donahue, Julian P., brief notice of *Spiders, Scorpions, Centipedes and Mites* by J. L. Cloudsley-Thompson, 44.

Levi, Herbert W. and Lorna R. Levi, *Spiders and their Kin*, brief notice by J. P. Donahue, 44.

Melandria, Vol. 1 (1969), review by J. P. Donahue, 85.

Nelson, Sigurd, Jr., review of *The Biology of Pseudoscorpions* by Peter Weygoldt, 86.

Nelson, Sigurd, Jr., review of *Introduction to Zoology* by T. H. Savory, 43-44.

Rolston, L. H. and C. E. McCoy, *Introduction to Applied Entomology*, review by L. F. Wilson, 86-87.

Savory, T. H., *Introduction to Zoology*, review by S. Nelson, Jr., 43-44.

Schmid, Michael and Bradford M. Endicott, *Mariposas de Venezuela*, review by R. S. Wilkinson, 87.

Villiard, Paul, *Moths and How to Rear Them*, review by R. S. Wilkinson and J. P. Donahue, 84.

Weygoldt, Peter, *The Biology of Pseudoscorpions*, review by S. Nelson, Jr., 86.

Wilkinson, Ronald S., review of *Curwen's Aurelian Calendar* (1970), 85.

Wilkinson, Ronald S., review of *Mariposas de Venezuela* by Michael Schmid and Bradford M. Endicott, 87.

Wilkinson, Ronald S., brief notice of *Advances in Insect Physiology*, Vol. 5, 88.

- Wilkinson, Ronald S., brief notice of *Annual Review of Entomology*, Vol. 14, 88.
- Wilkinson, Ronald S. and Julian P. Donahue, review of *Moths and How to Rear Them* by Paul Villiard, 84.
- Wilson, Louis F., review of *Cicindela*, Vol. 1, No. 1 (1969), 87-88.
- Wilson, Louis F., review of *Introduction to Applied Entomology* by L. H. Rolston and C. E. McCoy, 86-87.
- Wilson, Louis F., review of *The Pocket Encyclopedia of Plant Galls* by A. Darlington, 42-43.

INDEX OF TAXA AND SUBJECTS

A

- Abbot, John, 47.
- Acer*, 11, 31-36; *negundo*, spiders on, 31-32, 34; *nigrum*, spiders on 31-32, 34; *platanoides*, spiders on, 31-32, 34-35; *rubrum*, 11, 31-32, 34; *rubrum*, spiders on, 31-32, 34; *saccharinum*, spiders on, 31-32, 34; *saccharum*, spiders on, 31-32, 34.
- Achaearanea tepidariorum*, on maple trees, 32-34.
- achemon*, *Pholus*, in the Douglas Lake region, 50.
- acrea*, *Estigmene*, in the Douglas Lake region, 52.
- Actias luna*, in the Douglas Lake region, 51.
- Acuminochernes* sp., 3, 10-11, 12; distribution in Michigan, 10-11.
- Agaristidae, of the Douglas Lake region, 51.
- albata*, *Clemensia*, in the Douglas Lake region, 53-54.
- alba*, *Melilotus*, 54.
- albidum*, *Sassafras*, 51.
- albovincta*, *Callidora*, 36-38; *Limneria*, 38.
- Alder, 75.
- Allochironomus crassiforceps*, 18.
- Alypia langtonii*, in the Douglas Lake region, 51; *octomaculata*, in the Douglas Lake region, 51.
- Amatidae, of the Douglas Lake region, 54.
- americana*, *Apamea*, 84; *Arctia caja*, in the Douglas Lake region, 53; *Malacosoma*, 84.
- American Moth Trap, 57-60.
- Ampeloeca myron*, in the Douglas Lake region, 50.
- Amphion nesus*, in the Douglas Lake region, 50.
- amyntor*, *Ceratonia*, in the Douglas Lake region, 49.
- analis*, *Campoplex*, 36, 38.
- Anisoptera, 22.
- Anisota rubicunda*, in the Douglas Lake region, 50; *virginiensis*, in the Douglas Lake region, 50.
- annellata*, *Callidora*, 38.
- Anomalagrion hastatum*, in Wisconsin, 24.
- Antheraea polyphemus*, in the Douglas Lake region, 51.
- Ants, 18; velvet, 74.
- Apamea americana*, 84.
- Apantesis arge*, in the Douglas Lake region, 53; *nais*, in the Douglas Lake region, 53; *parthenice*, in the Douglas Lake region, 53; *phyllira*, in Douglas Lake region, 53; *virgo*, in the Douglas Lake region, 53; *virguncula*, in the Douglas Lake region, 53.
- Aphidae, 31, 35.
- Aphids, 31, 35.
- aphrodite*, *Speyeria*, as a carrier of milkweed pollen, 40-42.
- Arachnida, 2-13, 29-30, 31-36, 77.
- Araneae, 29-30, 31-36.
- Araniella displicata*, on maple trees, 31-33.
- Arctia caja americana*, in the Douglas Lake region, 53.
- Arctiidae, 48, 51-53; of the Douglas Lake region, 51-53.
- Areolopristomerus smithi*, 28.
- arge*, *Apantesis*, in the Douglas Lake region, 53.
- Argiophidae, on maple trees, 31-33.
- Asclepias* sp., 50; *syriaca*, 40-42, 50; *syriaca*, pollen carried by butterflies, 40-42.
- Ash, green, 51; white, 51.
- Asilidae, 18.
- Aspen, bigtooth, 49.
- aspersum*, *Enallagma*, in Wisconsin, 25-26.

aspersus, *Ophiogomphus*, in Wisconsin, 22.
assimilans, *Phragmatobia*, in the Douglas Lake region, 52.
atrogatha, *Callidora*, a new species, 36-38.
Atypidae, 29-30.
Atypus milberti, in Michigan, 29-30;
niger, 29.
aurantiaca, *Eubaphe*, in the Douglas Lake region, 51-52; *Holomelina*, in the Douglas Lake region, 51-52;
immaculata, *Holomelina*, 52.
aurantiacum, *Hieracium*, 50.
aureola pacifica, *Dasytutilla*, 74.
Automeris io, in the Douglas Lake region, 50.

B

banksiana, *Pinus*, 50.
Bees, 40, 87-88.
Beetles, Carabidae, 18; beetles, 18, 54, 57, 77, 87.
bella, *Nannothemis*, in Wisconsin, 24; *Utetheisa*, in the Douglas Lake region, 53; *Utetheisa ornatrrix*, in the Douglas Lake region, 53.
benzoin, *Lindera*, 51.
Bergamot, wild, 49.
Betula papyrifera, 51.
bicolor, *Lexis*, in the Douglas Lake region, 53; *Tigrioides*, in the Douglas Lake region, 53.
Bigtooth aspen, 49.
Birch, paper, 51.
Black cherry, 51.
Black maple, spiders on, 31-32, 34.
Blueberry, 75.
bombycoides, *Lapara*, in the Douglas Lake region, 49.
Boxelder, spiders on, 31-32, 34.
Brooches, insect, 77.
Browne, D. J., 56.
brunneum, *Microbisium*, 3-4, 6-7, 11; distribution in Michigan, 4, 6-7.
Bufo, 18.
Bush honeysuckle, 50.
Butterflies, as carriers of milkweed pollen, 40-42.
Byrnes, Sarah, 55.

C

caja americana, *Arctia*, in the Douglas Lake region, 53.
Callidora albovineta, 36-38; *annellata*, 38; *atrogatha*, n. sp., 36-38; key to species of, 37; *surata*, n. sp., 36-39; *tegularis*, n. sp., 36-39.
Calliphoridae, 42.

Callosamia promethea, in the Douglas Lake region, 51.
Calopteron terminale, 54.
callus, *Paisochelifer*, 3, 9-10, 12; distribution in Michigan, 10.
Cambarus, 18.
Campoplex analis, 36, 38.
Canada violet, 50.
canadensis, *Sphinx*, in the Douglas Lake region, 49; *Viola*, 50.
cancroides, *Chelifer*, 3, 9, 12; distribution in Michigan, 9.
Carabidae, 18, 87.
Caraboidea, 18, 27.
Carex pensylvanica, 6.
Carya, 51.
caryae, *Halysidota*, in the Douglas Lake region, 51.
casta, *Crambida*, in the Douglas Lake region, 53.
Caterpillar, forest tent, estimating the number of eggs per egg mass of, 63-71; tent, 84.
cecropia, *Hyalophora*, in the Douglas Lake region, 51; *Platysamia*, in the Douglas Lake region, 51; *Samia*, in the Douglas Lake region, 51.
Celerio gallii intermedia, in the Douglas Lake region, 50; *lineata*, in the Douglas Lake region, 50.
Cerambycidae, 72.
Ceratonia amyntor, in the Douglas Lake region, 49; *undulosa*, in the Douglas Lake region, 49.
cerisyi, *Smerinthus*, in the Douglas Lake region, 49.
Chelal hand, taxonomic characters on chelal hand of pseudoscorpions, 4.
Chelicera, taxonomic characters on chelicera of pseudoscorpions, 4.
Chelifer cancroides, 3, 9, 12; distribution in Michigan, 9.
Cheliferidae, 3, 12.
Cheliferinae, 12.
Cheliferoidea, 12.
Chernetidae, 3.
Chernetinae, 3, 12.
Cherry, black, 51; pin, 51.
chersis, *Sphinx*, in the Douglas Lake region, 49.
Chiracanthium inclusum, on maple trees, 32-33.
Chironomidae, 14-19, 82.
Chironomus plumosus, 14-15, 18, 82; at Solberg Lake, 82; sp., shoreline aggregation behavior of, 14-19; *staegeri*, 14.
choerilis, *Darapsa*, in the Douglas Lake region, 50.

Chokecherry, 51.
Christy's moth trap, 60.
Chthoniidae, 3, 11.
Chthonius tetrachelatus, 3, 6, 11;
distribution in Michigan, 6.
Cicindela, 87.
Cicindelidae, 87.
Cirsium muticum, 49.
Cisseps fulvicollis, in the Douglas Lake
region, 54.
Citheroniidae, 48, 50; of the Douglas
Lake region, 50.
Clemensia albata, in the Douglas Lake
region, 53-54.
Clubionidae, on maple trees, 32-33.
Coenagrion interrogatum, in Wisconsin,
24-25; *resolutum*, 25.
Coleoptera, 18, 54, 57, 77, 87.
Colias eurytheme, as a carrier of milkweed
pollen, 40-42; *interior*, as a carrier
of milkweed pollen, 40-42.
colona reversa, *Haploa*, 53.
columbia, *Hyalophora*, 51.
Common milkweed, 40-42, 50;
pollination of, 40; structure of
flower, 40-41.
confusa, *Haploa*, in the Douglas Lake
region, 53.
confusum, *Microbisium*, 3-4, 6-7, 11;
distribution in Michigan, 4, 6.
congener, *Lestes*, in Wisconsin, 24, 26.
congrua, *Estigmene*, in the Douglas Lake
region, 52; *Spilosoma*, in the
Douglas Lake region, 52.
contigua, *Haploa*, in the Douglas Lake
region, 53.
copiosus, *Dactylochelifer*, 3-4, 9, 12;
distribution in Michigan, 4, 9.
Cordulegaster maculata, in Wisconsin, 22.
Cordulia shurtleffi, in Wisconsin, 22-23,
26.
Corduliidae, 13.
Corduliinae, occurrence and habits of
Somatochlora incurvata, 75-76.
Crambidia casta, in the Douglas Lake
region, 52; *pallida*, in the Douglas
Lake region, 53.
Crayfish, 18.
crassiforceps, *Allochironomus*, 18.
Cressonia juglandis, in the Douglas Lake
region, 49.
Cricotopus silvestris, 18.
Ctenucha virginica, in the Douglas Lake
region, 54.
Ctenuchidae, of the Douglas Lake region,
48, 54.
cunea, *Hyphantria*, in the Douglas Lake
region, 52-53.

cyathigerum, *Enallagma*, in Wisconsin,
25-26.
Cycnia tenera, in the Douglas Lake region,
51.

D

Dactylochelifer copiosus, 3-4, 9, 12;
distribution in Michigan, 4, 9.
Danaus plexippus, 46-47.
Dandelion, 50.
Darapsa choerilis, in the Douglas Lake
region, 50; *myron*, in the Douglas
Lake region, 50; *pholus*, in the
Douglas Lake region, 50.
Dasymutilla aureola pacifica, 74; *nigripes*,
overwintering of, 74; *sackenii*, 74.
Dendrochernes morosus, 3, 8-9, 12;
distribution in Michigan, 8-9.
Diacrisia latipennis, in the Douglas Lake
region, 52; *virginica*, in the
Douglas Lake region, 52.
Dictyna subblata, on maple trees, 32-33.
Dictynidae, on maple trees, 32-33.
Diervilla lonicera, 50.
diffinis, *Haemorrhagia*, in the Douglas
Lake region, 50; *Hemaris*, in the
Douglas Lake region, 50.
Dinocheirus pallidus, 3, 10-11, 12;
distribution in Michigan, 10-11;
sp., 3, 11, 12; species, distribution
in Michigan, 11.
Diplosphyronida, 6, 11.
Diptera, 14-19, 31, 34, 42, 57, 82, 85, 88;
Tendipes plumosus at Solberg
Lake, 82.
dispar, *Porthetria*, 84.
displicata, *Araniella*, on maple trees,
31-33.
disstria, *Malacosoma*, estimating the
number of eggs per egg mass of,
63-71.
Dolichopodidae, 85.
Drosophilidae, 31, 34.
drupiferarum, *Sphinx*, in the Douglas
Lake region, 49.
dubia, *Pristomeridia*, 28; *Xiphosomella*,
27-28.

E

Eacles imperialis pini, in the Douglas Lake
region.
Eggs, counting forest tent caterpillar eggs,
63-71.
egle, *Euchaetias*, in the Douglas Lake
region, 51.
Elder, box, spiders on, 31-32, 34.
Emergence trap, for aquatic insects,
19-21.
Enallagma aspersum, in Wisconsin, 25-26;

cyathigerum, in Wisconsin, 25-26; *hageni*, 25.
Estigmene prima, in the Douglas Lake region, 52; *acrea*, in the Douglas Lake region, 52; *congrua*, in the Douglas Lake region, 52.
Eubaphe aurantiaca, in the Douglas Lake region, 51-52; *ferruginosa*, in the Douglas Lake region, 52, *laeta*, in the Douglas Lake region, 51; *lamae*, in the Douglas Lake region, 52.
Euchaелиas oregonensis, in the Douglas Lake region, 51; *egle*, in the Douglas Lake region, 51.
Euchromiidae, of the Douglas Lake region, 54.
eurytheme, *Colias*, as a carrier of milkweed pollen, 40-42.
Evening-primrose, 50.
excaecatus, *Paonias*, in the Douglas Lake region, 49.

F

Feaelloidea, 7, 12.
Ferns, 75.
ferruginosa, *Eubaphe*, in the Douglas Lake region, 52; *Holomelina*, in the Douglas Lake region, 52.
fistulosa, *Monarda*, 49.
fletcheri, *Williamsonia*, United States records of, 13.
Flies, flower, 31, 34; robber, 18; vinegar, 31, 34.
Flower flies, 31, 34.
forcipata, *Somatochlora*, 23, 75-76; in Wisconsin, 23.
Forest tent caterpillar, estimating the number of eggs per egg mass of, 63-71.
Formicidae, 18.
frigida, *Leucorrhinia*, in Wisconsin, 23, 26.
Frogs, 18.
fucosa, *Hypoprepia*, in the Douglas Lake region, 54.
fuliginosa rubricosa, *Phragmatobia*, in the Douglas Lake region, 52.
fulvicollis, *Scepsis*, in the Douglas Lake region, 54; *Cisseps*, in the Douglas Lake region, 54.

G

gale, *Myrica*, 49.
gallii intermedia, *Celerio*, in the Douglas Lake region, 50.
Gedney, James, 56.
geminatus, *Smerinthus*, in the Douglas Lake region, 49.

glacialis, *Leucorrhinia*, 23.
glauc, *Picea*, 50.
Glover's moth trap, 56-60.
Glover, Townend, and first entomological light trap, 55-62.
gordius, *Sphinx*, in the Douglas Lake region, 49.
gracilis, *Hemaris*, 50.
grandidentata, *Populus*, 49.
Green ash, 51.
Gypsy moth, 84.

H

Haemorrhagia diffinis, in the Douglas Lake region, 50; *thysbe*, in the Douglas Lake region, 49.
hageni, *Enallagma*, 25.
Halysidota caryae, in the Douglas Lake region, 51; *maculata*, in the Douglas Lake region, 51; *tessellaris*, in the Douglas Lake region, 51.
Haploa colona reversa, 53; *confusa*, in the Douglas Lake region, 53; *contigua*, in the Douglas Lake region, 53; *lecontei*, 53; *militaris*, 53.
hastatum, *Anomalagrion*, in Wisconsin, 24.
Hawkweed, orange, 50.
Hedge-nettle, 54.
Hemaris diffinis, in the Douglas Lake region, 50; *gracilis*, 50; *thysbe*, in the Douglas Lake region, 49.
Hemerocampa leucostigma, 84.
Hemileuca lucina, 50; *maia*, 50, 84.
hesperus, *Pseudogarypus*, 3, 7, 12; distribution in Michigan, 7.
Heteroptera, 57.
Heterosphyonida, 6, 11.
Hickory, 49, 51.
Hieracium aurantiacum, 50.
Holomelina, 48; *aurantiaca*, in the Douglas Lake region, 51-52; *aurantiaca immaculata*, 52; *ferruginosa*, in the Douglas Lake region, 52; *laeta*, in the Douglas Lake region, 51; *lamae*, in the Douglas Lake region, 52; *opella nigricans*, 52.
Homoptera, 31, 35, 37.
Honeysuckle, bush, 50.
hubbardi, *Zorotypus*, winter occurrence of, 72-73.
Hyalophora cecropia, in the Douglas Lake region, 51; *columbia*, 51; *promethea*, in the Douglas Lake region, 51.
Hymenoptera, 18, 27-28, 36-39, 40, 57, 74, 87-88; a new species of

Xiphosomella, 27-28; overwintering of *Dasymutilla nigripes*, 74; three new species of *Callidora*, 36-39.
hyperboreus, *Tendipes*, 82.
Hyphantria cunea, in the Douglas Lake region, 52-53; *textor*, 53.
Hypophora parthenos, in the Douglas Lake region, 53.
Hypoprepia fucosa, in the Douglas Lake region, 54; *miniata*, in the Douglas Lake region, 54.

I

Ichneumonidae, 27-28, 36-39, 85; a new species of *Xiphosomella*, 27-28; three new species of *Callidora*, 36-39.
Idiochelifer nigripalpus, 3-5, 9-10, 12; distribution in Michigan, 9-10.
immaculata, *Holomelina aurantiaca*, 52.
imperialis pini, *Eacles*, in the Douglas Lake region, 50.
inclusum, *Chiracanthium*, on maple trees, 32-33.
incurvata, *Somatochlora*, occurrence and habits of, 75-76.
Insect brooch, 77; jewelry, 77.
interior, *Colias*, as a carrier of milkweed pollen, 40-42.
intermedia, *Celerio gallii*, in the Douglas Lake region, 50.
interrogatum, *Coenagrion*, in Wisconsin, 24-25.
io, *Automeris*, in the Douglas Lake region, 50.
isabella, *Isia*, in the Douglas Lake region, 52; *Pyrrharctia*, in the Douglas Lake region, 52.
Isia isabella, in the Douglas Lake region, 52.

J

Jack pine, 50.
jamaicensis, *Smerinthus*, in the Douglas Lake region, 49.
Jewelry, Victorian insect, 77.
juglandis, *Cressonia*, in the Douglas Lake region, 49.

K

kalmiae, *Sphinx*, in the Douglas Lake region, 49.
kennedyi, *Somatochlora*, in Wisconsin, 23.

L

laeta, *Eubaphe*, in the Douglas Lake region, 51; *Holomelina*, in the Douglas Lake region, 51.

laeta, *Eubaphe*, in the Douglas Lake region, 52; *Holomelina*, in the Douglas Lake region, 52.

Lamprochernes minor, 3-5, 7-8, 12; distribution in Michigan, 4-5, 8; *oblongus*, 3-4, 7-8, 12; *oblongus*, distribution in Michigan, 4, 7-8.

Lamprochernetinae, 3, 12.

langtonii, *Alypia*, in the Douglas Lake region, 51.

Lapara bombycoides, in the Douglas Lake region, 49.

Lasiocampidae, forest tent caterpillar, 63-71.

latipennis, *Diacrisia*, in the Douglas Lake region, 52; *Spilosoma*, in the Douglas Lake region, 52.

Leatherleaf, 75.

lecontei, *Haploa*, 53.

Lepidoptera, 46-54, 56-57, 63-71, 83-85, 87; butterflies as carriers of common milkweed pollen, 40-42; forest tent caterpillar, 63-71.

Leucorrhinia frigida, 23, 26; *glacialis*, 23; *proxima*, in Wisconsin, 23, 26.

leucostigma, *Hemerocampa*, 84.

Lexis bicolor, in the Douglas Lake region, 53.

Light trap, first entomological light trap, 55-62.

Lilac, 50.

Limneria albovincta, 38.

Lindera benzoin, 51.

lineata, *Celerio*, in the Douglas Lake region, 50.

lintneri, *Williamsonia*, 13.

Linyphiidae, on maple trees, 32-33.

Liparidae, 84.

Lithosiidae, of the Douglas Lake region, 53-54.

lonicera, *Diervilla*, 50.

lucina, *Hemileuca*, 50.

luna, *Actias*, in the Douglas Lake region, 51; *Tropaea*, in the Douglas Lake region, 51.

luscitiosa, *Sphinx*, in the Douglas Lake region, 49.

Lycid beetle, 54.

Lycomorpha pholus, in the Douglas Lake region, 54.

M

maculata, *Cordulegaster*, in Wisconsin, 22; *Halysidota*, in the Douglas Lake region, 51.

maia, *Hemileuca*, 50, 84.

Malacosoma americana, 84; *disstria*, estimating the number of eggs per

egg mass of, 63-71.
mandibulata, *Melanderia*, 85.
Maple, black, spiders on, 31-32, 34;
Norway, spiders on, 31-32, 34-35;
red, spiders on, 31-32, 34; silver,
spiders on, 31-32, 34; sugar,
spiders on, 31-32, 34; trees, 11,
31-36; trees, spiders on, 31-36.
Megachilidae, 85.
Melanderia mandibulata, 85.
Melilotus alba, 54.
Mermithid worm, 82.
Microbisium brunneum, 3-4, 6-7, 11;
distribution in Michigan, 4, 6-7;
confusum, 3-4, 6-7, 11; *confusum*,
distribution in Michigan, 4, 6.
Microchernes, 3.
Midge, *Chironomus* sp., shoreline
aggregation behavior of, 14-19.
milberti, *Atypus*, in Michigan, 29-30.
militaris, *Haploa*, 53.
Milkweed, common, 40-42, 50; flower
structure of common milkweed,
40-41; pollen carried by
butterflies, 40-42; pollination of
common milkweed, 40; species,
50.
miniata, *Hypoprepia*, in the Douglas Lake
region, 54.
minor, *Lamprochernes*, 3-5, 7-8, 12;
distribution in Michigan, 4-5, 8.
Mites, 88.
modesta, *Pachysphinx*, in the Douglas
Lake region, 49.
Monarda fistulosa, 49.
Monosphyronida, 7, 12.
morusus, *Dendrochernes*, 3, 8-9, 12;
distribution in Michigan, 8-9.
Moss, sphagnum, 75.
Moth, gypsy, 84.
Moths, 59, 84; of the Douglas Lake
region, 48-54; trap, American,
57-60; trap, Christy's, 60; trap,
Glover's, 57-60; trap, Studd's,
60-61.
murarium, *Theridion*, on maple trees,
32-33.
muticum, *Cirsium*, 49.
Mutillidae, overwintering of *Dasymutilla*
nigripes, 74.
Mygalomorphae, 29-30.
myops, *Paonias*, in the Douglas Lake
region, 49.
Myrica gale, 49.
myron, *Ampeloeca*, in the Douglas Lake
region, 50; *Darapsa*, in the Douglas
Lake region, 50.
Myzus persicae, 88.

N

nais, *Apantesis*, in the Douglas Lake
region, 53.
Nannothemis bella, in Wisconsin, 24.
Napoleon, Louis, emperor, 56.
negundo, *Acer*, spiders on, 31-32, 34.
Neobisiidae, 11.
Neobisiinae, 11.
Neobisioidea, 11.
nessus, *Amphion*, in the Douglas Lake
region, 50.
Neuroptera, 21, 57.
niger, *Atypus*, 29.
nigripalpus, *Idiochelifer*, 3-5, 9-10, 12;
distribution in Michigan, 9-10.
nigripes, *Dasymutilla*, overwintering of,
74.
nigricans, *Holomelina opella*, 52.
nigrum, *Acer*, spiders on, 31-32, 34.
Noctuidae, 48, 84.
Norway maple, spiders on, 31-32, 34-35.
Nymphalidae, as carriers of milkweed
pollen, 40-42.

O

Oak, white, 72.
oblongus, *Lamprochernes*, 3-4, 7-8, 12;
distribution in Michigan, 4, 7-8.
octomaculata, *Alypia*, in the Douglas
Lake region, 51.
Odonata, 13, 22-27, 75-76; new to
Wisconsin, 22-27; occurrence and
habits of *Somatochlora incurvata*,
75-76.
Oenothera, 50.
opella nigricans, *Holomelina*, 52.
Ophiogomphus aspersus, in Wisconsin, 22.
Orange hawkweed, 50; scale, 56.
oregonensis, *Euchaetias*, in the Douglas
Lake region, 51.
ornatrix bella, *Utetheisa*, in the Douglas
Lake region, 53.
Orthoptera, 56-57.

P

Pachysphinx modesta, in the Douglas
Lake region, 49.
pacifica, *Dasymutilla aureola*, 74.
Paisochelifer callus, 3, 9-10, 12;
distribution in Michigan, 10.
pallida, *Crambidia*, in the Douglas Lake
region, 53.
pallidus, *Dinocheirus*, 3, 10-11, 12;
distribution in Michigan, 10-11.
palustris, *Stachys*, 54.
Paonias excaecatus, in the Douglas Lake
region, 49; *myops*, in the Douglas
Lake region, 49.
Paper birch, 51.

papyrifera, *Betula*, 51.
Parasemia parthenos, in the Douglas Lake region, 53.
parthenice, *Apantesis*, in the Douglas Lake region, 53.
parthenos, *Hyphoraia*, in the Douglas Lake region, 53; *Parasemia*, in the Douglas Lake region, 53.
parvus, *Pselaphoernes*, 3-4, 8, 12; distribution in Michigan, 4, 8.
pennsylvanica, *Carex*, 6.
pernix, *Philodromus*, on maple trees, 32-33.
persicae, *Myzus*, 88.
Petiver, James, 46-47.
Phidippus, 30.
Philodromus pernix, on maple trees, 32-33; *rufus*, on maple trees, 32-33.
Phlegethontius quinque maculata, in the Douglas Lake region, 49.
Pholus achemon, in the Douglas Lake region, 50.
pholus, *Darapsa*, in the Douglas Lake region, 50; *Lycomorpha*, in the Douglas Lake region, 54.
Phragmatobia assimilans, in the Douglas Lake region, 52; *fuliginosa rubricosa*, in the Douglas Lake region, 52.
phrygianus, *Pityohyphantes*, on maple trees, 32-33.
phyllira, *Apantesis*, in the Douglas Lake region, 53.
Picea glauca, 50.
Pieridae, as carriers of milkweed pollen, 40-42.
Pieris rapae, as a carrier of milkweed pollen, 40-42.
Pin cherry, 51.
Pine, jack, 50; red, 50; Scots, 50; white, 50, 75.
pini, *Eacies imperialis*, in the Douglas Lake region, 50.
Pinus banksiana, 50; *resinosa*, 50; *strobis*, 50; *sylvestris*, 50.
Pityohyphantes phrygianus, on maple trees, 32-33.
platanoides, *Acer*, spiders on, 31-32, 34-35.
Platysamia cecropia, in the Douglas Lake region, 51.
plexippus, *Danaus*, 46-47.
plumosus, *Chironomus*, 14-15, 18, 82; at Solberg Lake, 82; *Tendipes*, at Solberg Lake, 82.
polyphemus, *Antheraea*, in the Douglas Lake region, 51; *Telea*, in the Douglas Lake region, 51.

Populus grandidentata, 49.
Porizontinae, three new species of, 36-39.
Portheiria dispar, 84.
prima, *Estigmene*, in the Douglas Lake region, 52; *Spilosoma*, in the Douglas Lake region, 52.
Pristomeridia dubia, 28.
Pristomerus, 27-28; *smithi*, 28.
promethea, *Callosamia*, in the Douglas Lake region, 51; *Hyalophora*, in the Douglas Lake region, 51.
proxima, *Leucorrhinia*, in Wisconsin, 23, 26.
Prunus virginiana, 51.
Pselaphoernes parvus, 3-4, 8, 12; distribution in Michigan, 4, 8.
Pseudogarypidae, 12.
Pseudogarypus hesperus, 3, 7, 12; distribution in Michigan, 7.
Pseudoscorpiona, 11, 86.
Pseudoscorpionida, of Michigan, 2-13.
Pseudoscorpions, 2-13, 86; annotated list of Michigan species, 6-11; of Michigan, 2-13; pictorial key to Michigan species, 3.
Purple vetch, 50.
Pyrrharctia isabella, in the Douglas Lake region, 52.

Q

quinque maculata, *Phlegethontius*, in the Douglas Lake region, 49.

R

Rana, 18.
rapae, *Pieris*, as a carrier of milkweed pollen, 40-42.
Ray, John, 46.
Red maple, spiders on, 31-32, 34; pine, 50.
resinosa, *Pinus*, 50.
resolutum, *Coenagrion*, 25.
reversa, *Haploa colona*, 53.
Robber flies, 18.
rubicunda, *Anisota*, in the Douglas Lake region, 50.
rubricosa, *Phragmatobia fuliginosa*, in the Douglas Lake region, 52.
rubrum, *Acer*, 11, 31-32, 34; spiders on 31-32, 34.
rufus, *Philodromus*, on maple trees, 32-33.

S

saccharinum, *Acer*, spiders on, 31-32, 34; spiders on, 31-32, 34.
sackenii, *Dasymutilla*, 74.
Samia cecropia, in the Douglas Lake region, 51.

Sand, Maurice, seven illustrations from his *Le Monde des Papillons*, 83.
Sassafras, 51.
Sassafras albidum, 51.
Saturniidae, of the Douglas Lake region, 48, 50-51.
Scale, orange, 56.
Scepsis fulvicollis, in the Douglas Lake region, 54.
Scots pine, 50.
scudderi, *Stylurus*, in Wisconsin, 22.
Sedges, 75.
setoni, *Xiphosomella*, a new species, 27-28.
shurtleffi, *Cordulia*, in Wisconsin, 22-23, 26.
Silver maple, spiders on, 31-32, 34.
silvestris, *Cricotopus*, 18.
Smerinthus cerisyi, in the Douglas Lake region, 49; *geminatus*, in the Douglas Lake region, 49; *jamaicensis*, in the Douglas Lake region, 49.
smithi, *Areolopristomerus*, 28; *Pristomerus*, 28.
Somatochlora forcipata, 23, 75-76; in Wisconsin, 23; *incurvata*, occurrence and habits of, 75-76; *kennedvi*, in Wisconsin, 23; *walshii*, in Wisconsin, 23.
Speyeria aphrodite, as a carrier of milkweed pollen, 40-42.
Sphagnum moss, 75.
Sphingidae, 48-50, 84; of the Douglas Lake region, 48-50.
Sphinx canadensis, in the Douglas Lake region, 49; *cherisi*, in the Douglas Lake region, 49; *drupiferarum*, in the Douglas Lake region, 49; *gordius*, in the Douglas Lake region, 49; *kalmiae*, in the Douglas Lake region, 49; *luscitiosa*, in the Douglas Lake region, 49.
Spicebush, 51.
Spider brooch, 77.
Spiders, 29-30, 31-36.
Spilosoma congrua, in the Douglas Lake region, 52; *latipennis*, in the Douglas Lake region, 52; *prima*, in the Douglas Lake region, 52; *virginica*, in the Douglas Lake region, 52.
Spruce, white, 50.
Stachys palustris, 54.
staegeri, *Chironomus*, 14.
strobis, *Pinus*, 50.
Studd's moth trap, 60-61.
Stylurus scudderi, in Wisconsin, 22.

sublata, *Dictyna*, on maple trees, 32-33.
Sugar maple, spiders on, 31-32, 34.
surata, *Callidora*, a new species, 36-39.
sylvestris, *Pinus*, 50.
Syntanidae, of the Douglas Lake region, 54.
syriaca, *Asclepias*, 40-42, 50; pollen carried by butterflies, 40-42.
Syringa vulgaris, 50.
Syrphidae, 31, 34, 88.
Swamp thistle, 49.
Sweet-clover, white, 54.
Sweet gale, 49.

T

Tamarack, 75.
Tarantula, in Michigan, 29-30.
Taraxacum sp., 50.
tegaris, *Callidora*, a new species, 36-39.
Telea polyphemus, in the Douglas Lake region, 51.
Tendipedidae, *Tendipes plumosus* at Solberg Lake, 82.
Tendipes hyperboreus, 82; *plumosus*, at Solberg Lake, 82.
tenera, *Cycnia*, in the Douglas Lake region, 51.
Tent caterpillar, 84; forest, estimating the number of eggs per egg mass of, 63-71.
tepidariorum, *Achaearanea*, on maple trees, 32-34.
terminale, *Calopteron*, 54.
tessellaris, *Halysidota*, in the Douglas Lake region, 51.
tetrachelatus, *Chthonius*, 3, 6, 11; distribution in Michigan, 6.
Tetragnatha viridis, on maple trees, 32-33.
Tetranychidae, 88.
textor, *Hyphantria*, 53.
Theridiidae, on maple trees, 32-34.
Theridion murarium, on maple trees, 32-33.
Thistle, swamp, 49.
Thomisidae, on maple trees, 32-33.
thysbe, *Haemorrhagia*, in the Douglas Lake region, 49; *Hemaris*, in the Douglas Lake region, 49.
Tigrioides bicolor, in the Douglas Lake region, 53.
Toads, 18.
Townend Glover, and first entomological light trap, 55-62.
Traps, moth, 57-60; Christy's moth trap, 60; emergence, for aquatic insects, 19-21; first entomological light trap, 55-62; Glover's moth trap; 57-60; Studd's moth trap, 60-61.

Tropaea luna, in the Douglas lake region,
51.

U

unaulosa, *Ceratomia*, in the Douglas Lake
region, 49.

Utetheisa bella, in the Douglas Lake
region, 53; *ornatrix bella*, in the
Douglas Lake region, 53.

V

Velvet ant, overwintering of *Dasymutilla*
nigripes, 74.

Vetch, purple, 50.

Vicia sp., 50.

Viola canadensis, 50.

Violet, Canada, 50.

Vinegar flies, 31, 34.

virginica, *Ctenucha*, in the Douglas Lake
region, 54; *Diacrisia*, in the
Douglas Lake region, 52;
Spilosoma, in the Douglas Lake
region, 52.

virginiensis, *Anisota*, in the Douglas Lake
region, 50.

virgo, *Apantesis*, in the Douglas Lake
region, 53.

virguncula, *Apantesis*, in the Douglas Lake
region, 53.

viridis, *Tetragnatha*, on maple trees,
32-33.

vulgaris, *Syringa*, 50.

W

Walnut, 49.

walshii, *Somatochlora*, in Wisconsin, 23.

Wasps, 40.

White ash, 51; oak, 72; pine, 50, 75;
spruce, 50; sweet-clover, 54.

Wild bergamot, 49.

Williamsonia fletcheri. United States
records of, 13; *lintneri*, 13.

Worm, mermithid, 82.

X

Xiphosomella, a new species of, 27-28;
dubia, 27-28; key to two species
of, 27-28; *setoni*, a new species,
27-28.

Z

Zoraptera, winter occurrence of
Zorotypus hubbardi, 72-73.

Zorotypus hubbardi, winter occurrence
of, 72-73.

Zygoptera, 22.