§ 31. Insect Deformities. Mr. H. K. Morrison showed a specimen of *Erynnis icelus*, which had a nick in the front margin of each fore-wing, perfectly symmetrical on the two wings. It seems as if the pupa must have received some wound just at the point where the two fore-margins meet, which corresponds to the position of the notches on these wings.

(Oct. 9, 1874.)

BIBLIOGRAPHICAL RECORD.

(Continued from page 136.)

The date of publication, here given in brackets [], marks the time at which the work was received by the Editor, unless an earlier date of publication is known to him. An asterisk * before a title is the Recorder's certificate of accuracy of quotation. Corrections of errors and notices of omissions are solicited. — B. PICKMAN MANN.

Nos. 955 to 966 are from *Field and Forest*, v. 3.


About 446 specimens of 29 species of Catocala collected [at Frankford, Pa.] between 9 July and 10 Oct., 1877, as follows:

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The search began 20 June, but no specimens were found until 9 July. In pleasing contrast to the ways of sham scientists who collect only good specimens or uncommon species, Mr. Johnson collected all the specimens he could get.
Description of blocks for setting the wings of Lepidoptera, and how to use them; other descriptions, by C. R. Dodge, with figures, appended.
Describes Argynnis macaria from Cal., and Choris australis, Lycæna striata and Thecla clytie from Texas = 4 n. spp.
Insects are guided by odor rather than by color.
* 959. C. E. BESSEY. Flights of spiders. p. 91. [Dec., 1877.]
Lycosa and other spiders wafted through the air upon their threads.
* 960. J. W. CHICKERING. Insect ravages among the willows. p. 92. [Dec., 1877.]
Leaves of alpine species of Salix on Mt. Washington eaten by insects.
Describes Melitaea bolii from Texas, Argynnis columba (H: Edwards) from British Columbia, and Apatura antonia from Texas and Arizona = 3 n. spp.
Predatory and cannibalistic propensities of Reduvius novendrius.
Describes Pamphila rhena, P. rhesus, P. morrisoni, P. phylace, Amblyscirtes aenetus, Pholisorapirus from Southern Colorado; Amblyscirtes nilus from Texas = 7 n. spp.; the female of Pamphila snowii resembles the male, except in the absence of the stigma.
Two imagos of Urocerus cyaneus cut a passage 10 cm. long through firm casimere cloth.
Twigs of Amygdalus persica covered with scales of Lecanium persicae; seasons of the insect.
Terrifying effect of an onslaught of Vespa sp., narrated in twenty-two
verses.

* 967. Townend Glover. Manuscript notes from my
journal, or Illustrations of insects, native and foreign. Order
Hemiptera, suborder Heteroptera, or plant-bugs. Washington,
written & etched by Townend Glover; transferred to & printed
(p. 1-57bis, p. 58-132), 10 pl. (pl. 1-9 colored), printed only
on one side of the sheet. 30·5 × 24. t 24×17. [Not pub-
lished. Only 53 copies printed, for gratuitous distribution.]
[Oct., 1876.]
Title; copyright.  a. Introduction, p. 1-2.  b. About 325 figures of
about 257 imagos, 19 young and numerous anatomical details of about 240
species, pl. 1-10, each pl. with a p. of explanatory text.  c. Arrangement
of families &c. of the Heteroptera, or plant-bugs [Burmeister's arrange-
ment (1835), p. 1-6, p. 16; Westwood's (1840), p. 7-9, p. 16; Amyot and
Servile's (1843), p. 9-12, p. 16; Douglas and Scott's (1861-1865), p.
12-15, p. 17], p. 1-17.  d. Alphabetical list of the families, & genera of
Heteroptera mentioned in this work with synonyms, habits, food, habitat,
&c. [includes, with others, all the species mentioned in Say's works, with
the names of the genera to which they have more recently been removed],
p. 18-73.  e. Alphabetical list of predaceous or parasitic Heteroptera, the
larvae, pupae, or perfect insects of which destroy other insects, p. 74-75.
f. Alphabetical list of vegetable, and animal substances, frequented,
injured, or destroyed, by Heteroptera, p. 76-85.  g. Alphabetical list of
insects, of other orders, either destroying the Heteroptera, or destroyed by
them, p. 86-87.  h. Alphabetical list of the names of the authors and of
authorities, or societies, &c., referred to in this work, p. 88-91.  i. Abbrevia-
tions &c used in this work [with a diagram of three French inches divided
into lines], p. 92.  j. Remedies reported to be serviceable in destroying
insects of the suborder Heteroptera or plant bugs, p. 93-96.  k. Alphabetical
list of [some principal] sections, families, and genera of the Hemiptera,
Heteroptera, with derivation of names &c., &c. [compiled from the works
of various authors, omitting many synonyms, and referring the genera to
the families of Amyot and Servile's classification], p. 97-112.  l. Alphabet-
ical list of species, of the Hemiptera, Heteroptera [with translation of
the names and referring the synonyms to their proper genera], p. 112-118.
m. Genera as arranged in the entomological cabinet of the Museum of
the Department of Agriculture, Washington, D. C, 1876 [with reference to
the pages on which the genera are mentioned in Amyot and Servile's
Histoire naturelle des Hémipètes, Paris, 1843], p. 119-123.  n. Extracts
from the list of Hemiptera, of the region west of the Mississippi, including
those collected by the Hayden explorations of 1873, by P. R. Uhler, Balti-
more, Md., Washington, D. C., Jan. 1876 [giving Uhler's arrangement of
the "families &c.," and referring to the pages on which the genera are
mentioned in that work (see Rec., no. 568)], p. 124-127. o. Notes of the
habits of Heteropterous insects, with the latest changes in the nomenclature,
position and classification of the various families, subfamilies, genera and
species [taken from Uhler's List (see Rec., no. 568), and referring to the
pages of that list], p. 128-131. p. Errata and addenda, p. 132. q. List of
[45] societies, and individuals, to whom a copy of this work has been sent
(1876), p. 132.

* 968. Townend Glover. Manuscript notes from my
journal, or Entomological index, to names, &c., in Agricultural
reports, with list of vegetable and animal substances injured or
destroyed by insects, &c. Washington, written by Townend
Glover; transferred to and printed from stone by J. C. Ent-
wisle, 1877. Title-cover + title-p. + p. 1-79bis + p. 81-103,
printed only on one side of the sheet. 30 × 23. t 22.5 × 16.
[Not published. Only printed for gratuitous distribution.]
[Dec., 1877.]

a. Entomological index to the Agricultural reports [with abstract of
many of the passages referred to], p. 1-77. b. Insects to a greater or less
degree beneficial, by destroying noxious insects [stating what insects they
destroy], p. 78-79bis. c. Other agencies useful in the destruction of
insects [animals, fungi and other plants, poisons and diseases; insects which
bore in lead], p. 79bis. d. [List of vegetal and animal substances injured
or destroyed by insects; list of articles, in the Reports, on cotton and on
cotton insects], p. 81-101. e. Addenda and errata, p. 102-103. f. Blank
for notes, p. 103.

* 969. Townend Glover. Manuscript notes from my
journal. — Cotton, and the principal insects, &c., frequenting
or injuring the plant, in the United States. Washington, D. C.
Written and etched by Townend Glover, transferred to and
printed from stone by J. C. Entwisle, 1878. T.-p. + 2 p.,
22 pl.; each pl. with explanation at bottom, all printed only on
one side of the sheet. 31 × 25. t 27 × 16.5. [July, 1878.]

Introductory; list of some principal articles, relating to cotton, printed
in the Reports of the U. S. Department of Agriculture, p. 1-2. b. Seeds,
and young plants, pl. 1. c. Root, and disease commonly known as sore-
shin, pl. 2. d. Rust of the leaf, as caused by fungus or by Acarus, pl. 3.
e. Rust more developed, pl. 4. f. Blight, pl. 5. g. Aphis, pl. 6. h. Plusia,
2 spp.; Boarmia, pl. 7. i. Hyperchiria, pl. 8. j. Lozotaenia rosacea,
Laphrygma macra, pl. 9. k. Aletia argillacea, pl. 10. l. Lozotaenia gossypiana, Anthocoris insidiosus, Centrinus persicillus, Calocoris rapidus, C. binaeusualus, pl. 11. m. Young flower bud, young boll, bud in its involucre or "square," pl. 12. n. Flower open first day; Epicauta strigosa, E. vittata, E. ferruginea, Chaudoignathus americanus, Ch. marginatus, pl. 13. o. Young "squares" shed in consequence of non-impregnation occasioned by wet weather, pl. 14. p. Flower and young boll on second and third day; Euryonia melaneholica, E. sepulchralis, Trigonopeltastes delta, Podisus spinosus, Converclus obesus, pl. 15. q. Young bolls; Leptoglossus phyllopus, Euschistus punctipes, Nezara pensylvanicus, Lurgus succinctus, pl. 16. r. Flower; Heliothis armigera, pl. 17. s. Boll; H. armigera, pl. 18. t. Dysdercus suturellus, pl. 19. u. Rotted bolls; Colostus semitectus, Homalota sp., Carpophilus hemipterus; Sileanus quadricollis attacking maize also; fungoid growth on maize, pl. 20. v. Rusted bolls; Tinea granella (?), in maize also, pl. 21. w. Healthy boll and partially rusted boll, pl. 22.

* 970. C. V. Riley, State Entomologist. Eighth annual report on the noxious, beneficial and other insects of the state of Missouri, made to the State Board of Agriculture, pursuant to an appropriation for this purpose from the legislature of the state. Jefferson City, 1876. 7 + 185 + 4 + p. 23.5 × 15.5. t 19 × 11.5. 55 fig. [June, 1876.]

Preface and Table of contents, p. iii-vii.

a. The Colorado potato beetle - Doryphora 10-lineata Say [damage during the year; migrations; generic name; natural enemies; remedies, especially Paris green; native home; poisonous qualities], p. 1-12, fig. 1-2.
b. Canker worms [antithetic descriptions of Paleacrita vernata and Anisopteryx pometaria, defining the new genus Paleacrita; remedies], p. 12-22, fig. 3-15.
c. The army worm - Leucania unipuncta Haw. [various applications of the vernacular name; past history of this species; sexual differences in the imagos; description of all stages; habitat; oviposition; hibernation; habits and time of appearance of the larva; number of broods; comparison with Prodenia autumnalis; food-plants; conditions under which it becomes abundant; natural enemies; remedies], p. 22-56, fig. 16-38; p. 182-185.
d. The Rocky Mountain locust - Caloptenus spretus Thomas [experience with it in 1875 in Mo., Ks., Nebr., Ia., Minn., Col., Dak., Mont., Wyom., Tex., Ind. Terr. and Manitoba; molting; habits and migrations; native home; comparison with allied species; food-plants; changes in vegetation following the invasions; natural enemies; remedies, legislative and practical; use of locusts as food for man; fears and injuries caused by other locusts], p. 57-156, fig. 39-47.
e. The grape phylloxera [oviposition of, description of female, of male and of egg of, and means against Phylloxera vastatrix], p. 157-168, fig. 48.
f. The yucca borer. - Megathymus yuccae (Walker) [indefiniteness of classificatory divisions; biological, bibliographical and
descriptive details about the species; its affinities; its enemies], p. 109-182, fig. 49-55. g. Index, p. i-iv.

* 971. C. V. Riley, State Entomologist. Ninth annual report on the noxious, beneficial and other insects of the state of Missouri, made to the State Board of Agriculture, pursuant to an appropriation for this purpose from the legislature of the state. Jefferson City, 1877. 7 + 129 + 3 + p. 23 × 15. t 20 × 11.5. 32 fig.

Preface and Table of contents, p. iii-vii.

a. Insects which feed on plants of the genus Ribes, and their appropriation to the several species of this genus; treats especially of Eufloria vibeiaria (p. 3-7, fig. 1-3), of Nematus ventricosus (p. 7-22, fig. 4-8) with a figure of Podiusus placidus which preys upon it, and of Pristiphora grossulatia (p. 23-27, fig. 9). b. History, habits and description of Emphytis maculatus, which feeds upon Fragaria, p. 27-29, fig. 10. c. Habits, transformations and description of Lophyrus lecontei which feeds on Pinus; description of Limneria lophyri n. sp., parasitic in the larva of the Lophyrus, p. 29-32, fig. 11. d. Habits and description of Lophyrus lecontei, which feeds on Pinus, p. 32-34. e. Spread and present distribution of Doryphora 10-lineata, with a map of distribution; probability of and precautions against the introduction of the beetle into Europe; figure and description of Uropoda americana, parasitic on the beetle; value of various "potato pest poisons," p. 34-47, fig. 12-13. f. Oviposition, number of annual broods, longevity, hibernation and summary of the natural history of Leucania unipuncta, p. 47-50. g. Ravages, habits and natural history and description and figures of egg, larva and imago of Leucania albilinea; its natural enemies and means against it; description of Anomalon apicale, a parasite, p. 50-57, fig. 14-15. h. Detailed information of the invasions of Caloptenus spretus, during the year 1876, into all the regions subject to it; source and destination of swarms, distribution, rate of spread, direction of flight; oviposition and hatching of eggs; natural enemies and parasites, especially Trombidium sericeum, Anthomyia radicum var. calopteni (deser. and fig.), Sarcophaga carnaria, an undetermined ichneumon and two undetermined carabids (one figured and described), Eraz bastardii (fig.) and Amblychila cylindriformis (fig.); experiments to test the effects of alternately freezing and thawing the eggs of C. spretus, of soaking and drying them, of exposing them to the air, of burying them, and of pressing the soil down over them; resolutions of the Omaha Conference [see Rec., no. 794]; active and legislative means against the lecysts; prospects for the year 1877, p. 57-124, fig. 16-29. i. Description and figures of the eggs, egg-masses and larvae of Corydalus cornutus; figures of the pupa and imago; figure of Betostoma grandis and of eggs, probably of this species, formerly supposed to be those of the Corydalus, p. 125-129, fig. 80-33. j. Habits of Megathymus yuccae, p. 129. Index, p. i-iii. Errata.
*1 972. **Annual Report of the Entomological Society of the Province of Ontario**, for the year 1876. Printed by order of the Legislative Assembly. Toronto: 1877. 8vo. pg. 2, 58, fig. 1-15, 18, and 1 pl., contains the following, and nos. 973 to 978.

Title.  
- *b.* Annual address of the President of the E. S. O. (by Wm. Saunders) (from Can. Entom., 1876, v. 8, p. 210-217) [collection exhibited by the Society at the Centennial Exhibition in Philadelphia, and notes on the other collections of insects shown there; rules of nomenclature discussed at the meeting of the A. A. A. S., at Buffalo], p. 6-10.  
- *c.* Report of the Committee on Centennial Exhibition (by W. Saunders, Chairman) [with appended notice from *The Daily Graphic*—N. Y., Sept. 26, 1876—of the collection exhibited by the Society], p. 10-12.  
- *e.* Insects introduced by the Centennial Exhibition [see Rec. No. 845], p. 20-23.  
- *f.* Index, p. 57-58.


Discusses the relations of Artemia and Branchipus, and those of Daphnia, Cyclops and Canthocamptus; advocates enlarging the characters of species and those of genera; list of characters not to be considered generic; generic characters.

*1 974. **W. Saunders.** On blistering beetles. p. 24-29, fig. 1, pl.

Treats of *Epicauta vittata, E. cinerea, E. atrata, Meloe angusticollis; Cysteodemus armatus, Mylabris cichorii, Macrobasia albida, M. atricollata, M. segmentata, Cantharis vesicatoria, C. vulnerata, C. nutalli, Pygros my labrina, Teragrada crosa*, figuring all except *Epicauta atrata*; life-history of *Meloe*, mostly an abstract from Trans. Linn. Soc., v. 29; notes on *Meloe* about Toronto. [Essentially the same as Can. Entom., 1876, v. 8, p. 221-228, pl., and Can. Entom, 1877, v. 9, p. 11-12.]

*1 975. **C: J. S. Bethune.** The destructive locust of the west. p. 29-34, fig. 2.


*1 976. **W. Saunders.** On some of our common insects. p. 35-38, fig. 3-8.

Treats of *Actias luna, Deilephila chamaenerii, D. lineata, Papilio asterias.* [Essentially the same as Can. Entom, 1877, v. 9, p. 32-33, fig. 1; p. 63-67, fig. 2-5; with a brief sketch of *Papilio asterias* added.]

*1 977. **W. Saunders.** Notes of the year. p. 39-40, fig. 9.

Treats of *Heliophila unipuncta, Pempelia grossularia, Pieris rapae.*

1 Record made by Mr. George Dimmock.


Treats of Apis mellifica, Galleria cereana, Trupanea apivora, Pimpla annulipes, Tremex columba, Sigalphus curculionis, Porizon conotracchi.

*1 979. Annu. Rept. Entom. Soc. Ontar., for the year 1877. Including reports on some of the noxious, beneficial and other insects of the province of Ontario. Prepared for the Honourable the Commissioner of Agriculture, on behalf of the Society. Printed by order of the Legislative Assembly. Toronto: 1877. 8vo. pg. iv, 59, fig. 1-50, and 1 pl., contains the following, and nos. 980 to 989.


Food-plants and quantity of food required by Doryphora decemlineata.


Description of Nephoteryx (Doryctria) zimmermani, a new species of Pyralidae destructive to pines about Buffalo, N. Y. [Same as Can. Entom., 1877, v. 9, p. 161-163.]

¹ Record made by Mr. George Dimmock.

Treats of larvae of Arctia isabella, Ecpantheria and others. [Same as Can. Entom., 1877, v. 9, p. 127-129.]


[From Can. Entom., 1877, v. 9, p. 139-140.] Uses cyanide of potassa (KCN) and sulphuric acid (H\(_2\)SO\(_4\)). [The hydrocyanic acid vapor generated by this mixture is a very dangerous poison, and should never be used except by an experienced chemist. G. D.]

\*1 984. C. J. S. Bethune. A few common wood-boring beetles. p. 22-30, fig. 1-3, 1 pl.

Treats of and figures Monohammus scutellatus, Clytus speciosus, Orthosoma cylindricum, Clytus robiniae, Chrysobothris femorata, Saperda candida, Monohammus confusor, Oberea tripunctata. [From Can. Entom., 1877, v. 9, p. 221-226, 1 pl.]

\*1 985. W. Saunders. The aphides or plant lice. p. 31-29, fig. 4-20.

Treats of generation of aphides; figures and treats of Aphis mali, Eriosoma pyri, Aphis cerasi; and their insect enemies, Pipiza radicum [corr.], Coccinella novemnotata, C. bipunctata, Hippodamia maculata, H. tredecimpunctata, Coccinella munda, Hippodamia convergens, Myisia quindecimpunctata, Chilocorus bivulnerus and species of Chrysopa and Syrphus.


Treats of Clisiocampa americana, Aegeria ? tipuliformis, Nematus ventricosus, Pempelia grossularia, Phyllophaga quercina, Agrotis devastator, Doryphora deceimlenta, Petidnota punctata, Haltica chalybea, Phylloxera vastatrix, Eriosoma, Carpocapsa pononella, Conotrachelus nenuphar, Pieris rapae, Arctia isabella; figures of most of the above species; an insect register for 1877.


Figures and treats of galls made by Cecidomyiidae.


\*1 989. C. J. S. Bethune. The Hessian fly. p. 56-59, fig. 50.

Treats of Cecidomyia destructor.

\^1 Record made by Mr. George Dimmock.

Published in German and English; "has been thoroughly revised, and embraces the latest discoveries and improvements in bee keeping; and, in short, just the information most useful to the apiarian."—*Field and Forest*, 1878, v. 3, p. 134. [Not seen by the recorder.]

*991. L. Provancher. Petite faune entomologique du Canada précédée d'un traité élémentaire d'entomologie. Volume I — Les coléoptères. Québec, 1877. 12mo. pg. viii, 785, with 52 figures. [June, 1877.]


Entomological fauna of Canada: introductory, p. 127–130; Coleoptera [characters and synoptic table of 54 families], p. 130–138; descriptions of 54 families, 418 genera, and 873 species of Coleoptera of Canada in systematic order, and mention of other species attributed to Canada [the (2) new genera and (?) new species described are Athous bipunctatus [corr.], Micronychnus, *M. sulcatus*, Erichinus viridis, *Atelabus maculatus*, Homogaster, *H. quebecensis* [Elateridae], *Leptura nitidipennis* [Cerambycidae], *Anatis canadensis* [Coccinellidae]. [For synonymy see Rec. No. 992.] Under each family are its characters, a synopsis of its genera; under the genus, its characters, a synopsis of the species if numerous, notes on habitats; under the species, its description and notes on its rarity. The French and scientific names are both given, (the former usually a direct translation of the latter), p. 138–705. Additions to the coleopterous fauna of the province of Quebec [made during the printing of the preceding pages]: describes 1 family, 31 genera, 90 (*Philonthus longipennis* [Staphylinidae] = 1 new) species; adds a few synoptic tables], p. 707–756. Vocabulary, p. 757–765. Contents, Index of genera and species, p. 767–785. Errata, [p. 786].

*992. L. Provancher. Addition et corrections à la faune coléoptérologique de la province de Québec. 1877. Québec: 1877. 8vo. pg. 38. [Jan., 1878.]

Title, Preface, p. 1–4. Additions [1 family, 32 genera, and 89 species] and corrections [including the following: *Philonthus longipennis* Prov.—Ph.]

1 Record made by Mr. George Dimmock.
* 993. **Cyrus Thomas**, **State Entomologist.** Sixth report of the State Entomologist (Walsh, 1. Le Baron, 4. Thomas, 1.) on the noxious and beneficial insects of the state of Illinois. — The first biennial report by Cyrus Thomas. — Springfield, Ill., 1877. 174 + 4 + 2 + p., 31 fig. 22-5 × 14-5. t 18-8 × 10-8.


Part II. The introduction to, and first part of, a manual [sic] of economic entomology for the state of Illinois. — The part herein present includes only the Coleoptera, or beetles [definition of insects and of their several orders, list of their important families, description of the developmental stages and of the structure of imagos, directions for the identification of injurious species, characters of the several subdivisions of Coleoptera; descriptions, habits and food of about 112 species of Coleoptera, beneficial or injurious, with means against many of them], p. 63-174, fig. 1-31. List of trees, plants and other substances injured by insects described in this report, with names of the species injuring, p. 1-4. Index, p. 1-2. Errata.


Use of mimicry as a protection and disguise; insects which mimic their surroundings; insects which mimic other insects; prophetic and synthetic types of insects.
Description of pits, holes, galls and dwellings made or inhabited by insects.

Organization and work of colonies of termites, ants, wasps and bees.

Activity, senses, nervous organization, volition, reason, temper, timidity, faculties, memory, power of communication, educability, solicitude and loyalty of insects.

[We are requested by the author to publish the following corrections of errors detected in this work. Page 187, in explanation of fig. 187, for Bucculating read Bucculatrix; p. 289, line 23, for Disippus read Archippus, and in line 25, for Archippus read Disippus; p. 305, line 13, for sumac read cotton wood; p. 306, in explanation of fig. 236, for sumac gall read vagabond gall.]


Etymology of the word "locust"; frequency of locust invasions; liability of Minnesota to invasions; history of past invasions; naturalization and degeneration of the locusts in Minnesota; source, destination and direction of flight of the locusts; area in which eggs have been deposited (map); time of depositing eggs; parasites and enemies; ravages of the locusts; practical methods of contending with the locusts young and old.

* 996. Herman Strecker. Butterflies and moths of North America, with full instructions for collecting, breeding, preparing, classifying, packing for shipment, etc., a complete synonymical catalogue of Macrolepidoptera, with a full bibliography, to which is added a glossary of terms and an alphabetical and descriptive list of localities. — Diurnes. — Reading, Pa., 1878. [4] + 2 + 283 p. t 19·5 × 11·9. 2 pl. t 23·5 × 14·6. 24·5 × 16.

Museum pests [detection and destruction], p. 21.  p. Packing and transportation, p. 22–23.  q. Packing . . . for transmission to foreign parts [packing, making lists, expresses, custom-houses], p. 24–28.  r. Rearing . . . from the egg and caterpillar [getting eggs, keeping pupae, varieties], p. 28–31.  s. Final remarks [sending money, price of specimens], p. 31–32.  t. Structure of butterflies and moths, as shown on plate 1, figs. 1–10, p. 33–34.  u. Terms and abbreviations used in works on Lepidoptera, p. 33–45.  v. Alphabetical and explanatory list of localities of which the lepidopterous fauna is more or less known, p. 46–66.  w. Catalogue of the American Macrolepidoptera north of Mexico [comprising Rhopalocera only; full bibliography and synonymy, with localities, food-plants and descriptions of varieties, p. 67–192.  x. Corrigenda, p. 193–194.  y. Index to catalogue, p. 195–208.  z. Bibliography [titles of all the articles upon Lepidoptera published by authors who have treated of the Rhopalocera of various parts of the world, as well as all the titles of articles upon the N. A. lepidopterous fauna; with biographical notes], p. 209–283.

*1 997. The Amer. Nat. [see Rec., nos. 264–307], v. 9, from p. 573, contains the following, and nos. 998 and 999.


Brief enumeration of the characters of crustacea and of insects (tracheata), embryology of many forms, with figures of different stages and of adult forms. Numerous references to the literature of the subject.

*1 999. Mrs. Mary Treat. Plants that eat animals. p. 658–662, fig. 306–308.

Capture of larvae of Chironomus and other insects in the bladders of Utricularia.

*1 1000. The Amer. Nat., v. 10, contains the following, and Nos. 1001 to 1021.


Some insects eaten, and Doryphora decemlineata refused by Anolis principalis.

* 1002. J. M. Mulligan. Intelligence in the hawk moth. p. 50.

Hawk moths observed never to go twice to the same flower of Oenothera lamarekiiana.

Correction. In no. 48 of Psyche, v. 2, p. 131, line 3, for 968, read 970; on p. 135, lines 21-25, for 973 read 979, for 975 read 990, for 976 read 992, for 974 read 993.

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