

# The Lepidopterists' News

THE MONTHLY NEWSLETTER OF THE LEPIDOPTERISTS' SOCIETY

P. O. Box 104, Cambridge 38, Massachusetts

Edited by C. L. REMINGTON and H. K. CLENCH

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July, 1947

## HOST PLANT IDENTIFICATION

In addition to the Lepidoptera identifications by the Board of Specialists, outlined in the June NEWS, it will be possible to have host plants identified through the Society. The identifications will be made by Dr. I.M. Johnston, professor of plant taxonomy at Harvard University, and an enthusiastic Lepidopterist.

In order to be certain to have enough plant material collected to make possible accurate identifications, certain steps should be taken:

1) Preserve as many parts of the plant as possible. The leaves, in attachment to their stalk or twig, and the flower are essential for most species. For small herbs it is usually easy to preserve the entire plant, including roots. For trees and shrubs, a leafy branch and a flowering branch should be taken. If flowers are not present and it will not be possible to return to the same tree when it flowers, make a few notes on the bark, and the habit of the tree. The fruiting body - pods, nuts, burrs, etc. - is always helpful to the identifier. Many oaks are almost impossible to identify without mature acorns. Some herbs, such as the mustard family, have two kinds of leaves: a rosette at the base, and lateral leaves on the ascending stem. In this case both kinds of leaves should be taken.

2) Include complete data. The locality, date of collection, habitat, type of soil, and (if in mountains) altitude above sea level should accompany every plant specimen. Any further notes are useful.

3) Preserve the specimen carefully. As is universally known, the best preservation of flowers and foliage is by flattening and drying the specimen simultaneously. A Lepidopterist who will carry on extensive life history studies should purchase a standard botanical press. However, a very satisfactory specimen can be obtained using a rather large book weighted by a few bricks or other heavy weight. Newspaper is an excellent absorbent layering in which to place the plant specimen for pressing. Drying plants should be kept under warm, low humidity conditions for a week (two if thick or succulent). Of course, large fruits, such as nuts, burrs, cherries, etc., cannot be pressed, but should be dried and by key numbers carefully associated with the pressed specimen. If packed firmly, the plants may be mailed in folded newspaper, with the label carefully fastened, and the package braced against bending by strong cardboard backing on both sides.

The accurate identifications made possible by careful handling of the plants are well worth the effort required. If the Lepidopterist will have no need of the plant after obtaining the identification, it will be mounted and placed in the Harvard Herbarium. Specimens mailed to: "C.L. Remington, Biological Labs., Harvard University, Cambridge 38, Mass." will be turned over to Professor Johnston. Please do not send material before September 20th.

C. L. R.

## HANDLING SPECIMENS

An excellent selection of strong, relatively inexpensive net frames of the handy folding type is usually available in any sporting goods store. These nets are sold for fishing purposes, but are transformed into fine insect nets by the exchange of the fish netting for a bag made of soft, strong netting of about 15 holes to the inch (much closer mesh for small moths). The bags may be purchased from one of the natural science supply houses or, better, may be run off on the family sewing machine.

The generally preferred killing substance is cyanide (sodium, potassium, or calcium are essentially equal in effect). A cyanide jar, with the cyanide firmly fastened in the bottom by a layer of plaster of paris, needs to have a tight-fitting cover, preferably screw-cap and provided with a rubber ring. Some other poisons have been used, but are generally inferior to cyanide. Carbon tetrachloride tends to wet specimens badly, is too volatile, and may cause stiffening. Chloroform is very volatile and must be replenished often, and specimens quickly become brittle, with frequent loss of antennae and legs. Ether is very quick, and does not stiffen, but it is so volatile and expensive that it is not satisfactory. Chloroform and ether may be used for special collecting, to quickly anaesthetize the specimen, which is then moved to a cyanide jar for actual killing.

Butterflies and larger moths may be placed in envelopes and relaxed and mounted at a later time. However, all smaller moths (wing-spread 1" or less), all skippers, and most very small butterflies should be pinned while fresh, although the wings need not be mounted until a later time. Many collectors carry small pinning boxes with them and pin specimens as soon as dead.

All specimens must be cared for the day they are collected if this is at all possible. Wrinkled wings, broken antennae and legs, stiffness, and uncertain data generally result from specimens left beyond the first day. It is usually easiest to mount cabinet specimens while fresh. In some groups such as skippers it often is preferable to pin them unmounted or to dry them in envelopes, and relax and mount later.

If not to be pinned immediately, Lepidoptera should be placed in a triangular envelope with the wings folded up over the back--one specimen to one envelope. Glassine (transparent) envelopes should be avoided and experienced collectors are outspoken in condemning them because of the crispness of the paper, which makes breakage almost unavoidable. A soft, absorbent paper is best, and the three-cornered envelope seems to have no rival for style.

Complete data should be included on every envelope. This means locality (including exact place, county, and state), date of capture, altitude if in mountains, and the collector's name. Habitat notes are strongly recommended. Most collectors use a system of key numbers or letters to let them know the condition of the specimen (for example, "1+" is perfect, "1" is good, "2" is torn or rubbed, "3" is very poor). If possible, the sex should be determined while the specimen is fresh and should be marked on the envelope by the conventional signs of: ♂ = male; ♀ = female. A dating stamp, or even a complete locality rubber stamp will save a lot of time if the collecting has been good. Hasty, illegible writing on envelopes must be carefully avoided.

We will welcome special notes from members on improved techniques in handling specimens in the field.

3. The Butterfly Book

by W.J. Holland\*

The appearance, in 1898, of Holland's Butterfly Book marked the end of one and the start of another epoch in the history of North American butterfly study. Previously work on the North American fauna had come largely from the pens of foreign students, professional American entomologists, or a few amateurs of independent means. The era was conspicuous for its paucity of workers. Following the publication of the Butterfly Book, however, and certainly because of it, the day of the amateur began in earnest, not only in the large increase in collectors and collections, but in the published record as well.

Holland and his Butterfly Book have both had considerable criticism pointed at them. The fact remains, nevertheless, that through the medium of his book Holland probably has stimulated the interest of more individuals in the study of butterflies than has any other American. So successful was it that year after year it was reissued. Finally, after more than thirty years, being completely revised and augmented both in text and plates, it was published for the last time in 1931, shortly before its author's death.

In its pages the reader learns the salient features of butterfly anatomy and biology, the elements of classification, methods of collecting and keeping a collection and the principal literature. He is also given a good account of the North American fauna as known at that time. It is interesting to note that the scheme of classification and arrangement Holland used in 1898, following practices then current, was largely abandoned in later years, but is now coming into wider use.

The plates, an outstanding, generously provided feature of the book, were considered remarkable at the time, and are well thought of even today, insofar as their clarity and fidelity are concerned. The great misfortune in them is that frequently in groups that find their greatest diagnostic features beneath (such as Argynnis (Speyeria), "Lycaena" (various blues of several genera), and the majority of skip-pers) most of the specimens figured show upper surfaces only, rendering identification difficult or impossible. The plates added in the revised edition have rectified this to some extent.

Though the book is still the only relatively complete guide on the North American butterfly fauna available to the average student, it is clearly inadequate. The coverage is too brief for each species, illustrations are in many cases of small value, the classification leaves much to be desired, even in the revised edition. Clearly the time is approaching for a new Butterfly Book - embodying a modern classification, fuller, more accurate text, and more practical illustrations, and making use of recent developments in the more broadly applicable biological principles of genetics, geographic distribution, and ecology.

H.K. Glench

\*The Butterfly Book, Rev. Ed. (xii, 424 pp., 75 colored and 2 plain plates, 198 text figs.) is published by Doubleday, Doran & Company, New York. It may be obtained new for \$10.00 through most book stores, or from John D. Sherman, Jr., 132 Primrose Ave., Mt. Vernon, New York. (The earlier edition may be bought for less than half this price, but is entirely superseded by the revised edition).



19. Beall, Geoffrey "Seasonal Variation in Sex Proportion and Wing Length in the Migrant Butterfly, Danaus plexippus L. (Lep., Dan-  
aidae)." Transactions Royal Ent. Soc. London., vol. 97: pp. 337-353.  
Oct. 30, 1946. Another of Beall's studies on butterfly migration,  
based on analysis of wing length of The Monarch. Tables record  
measurements of 1062 specimens from the N. shore of Lake Erie in  
fall migration, 283 from July brood near there, 105 from Louisiana  
in late fall, and 296 from California in late fall and winter. In  
Ontario, the July specimens averaged distinctly shorter wings than  
the fall migrants. Also, of over 30 measurable dead Monarchs wash-  
ed up on the shore of Erie, they, too, averaged distinctly shorter  
than the average of the fall population, implying that natural se-  
lection operates against short-wingedness in migration! The south-  
ern specimens fluctuated too much from year to year for any very  
reasonable generalizations, but Beall believes that different breed-  
ing populations may have different wing-lengths, and thus may be id-  
entifiable in the wintering areas in Calif. and Fla. He suggests  
similar studies on Phlegethontius quinquemaculatus, the tobacco and  
tomato sphinx, a suspected powerful migrator.
20. Beirne, Bryan P. "The Seasonal Abundance of the British Lepidoptera."  
The Entomologist 80: pp. 49-53. March, 1947. A detailed analysis  
of the abundance of British macrolepidoptera from 1865 to 1944,  
based on all available published notes in the several British jour-  
nals which carry a preponderance of Lepidoptera papers. A chart  
illustrates well the fluctuation. Among the very interesting con-  
clusions reached from comparison of Lepidoptera abundance and weath-  
er records are: 1) Long, severe winter frosts are very good. (Birds  
suggested as "probably the most important natural enemies of most  
Lepidoptera", and are probably killed by the cold.) 2) Late spring  
or early fall frosts are very damaging. 3) A gradual increase in  
rainfall for several years is detrimental. 4) High winds for a long  
time may deter breeding. (They certainly do not deter Oeneis on Mt.  
Washington in N.H.!) Beirne writes: "Regrettably little is known  
of the diseases of Lepidoptera, and it is not improbable that they  
may be at least as important as birds in the natural control of  
these insects." Cycles for some species are discussed. Note- we  
would welcome comments from members on fluctuation observations,  
and their ideas on what causes them.
21. Buckell, E.R. "A List of the Lepidoptera Collected in the Shuswap  
Lake District of British Columbia by Dr. W.R. Buckell." Proc.  
Ent. Society British Columbia, vol. 43: pp. 11-21. Feb. 4, 1947.  
This is a list of the species taken by Dr. Buckell in one area of  
B.C., with dates recorded. There are 773 species, varieties, and  
forms, of which 541 are macrolepidoptera (67 butterflies). The  
identifications were checked by Dr. J. McDunnough, E.H. Blackmore,  
and T.N. Freeman, and are authoritative, although many of the names  
will undoubtedly be corrected as a result of revisional works now  
in progress. E.R. Buckell wrote us that Dr. W.R. Buckell collected  
until he became blind at 91. Many species were reared.
22. Chermock, Ralph L. "Notes on North American Enodias (Lepidoptera)."  
Entomological News, vol. 58: pp. 29-35. February, 1947. A careful  
review of the three North American species. Places Enodia as a sub-  
genus of Lothe Hübner, with Satyrodes dropped to the synonymy. Con-  
siders portlandia, creola, and eurydice as distinct species. Recog-  
nizes two geographic races of portlandia: typical from the south-



eastern states; anthedon from the Northeast, with borealis a synonym. Describes as new but does not figure "Lethe(Enodia)eurydice appalachia new subspecies", occurring in the Appalachian Mts. from W. Va. to Fla. As a result of these studies the proposed nomenclature is as follows:

Lethe (Enodia) portlandia portlandia Fabr.  
portlandia anthedon Clark  
creola Skinner  
eurydice eurydice L.-Joh.  
eurydice appalachia R.L.Chern.

We believe that Mr. Chernock has taken a very commendable step in committing himself in print against the naming of minor variants, particularly those originally named on the basis of insufficient material from too few localities, and we must applaud his relegation to the synonymy of so many varietal, aberrational, and weak subspecific names. His analysis of the geographic races of the species discussed appears to be very satisfactory, and his recognition of a new race seems to be based on careful study of extensive material from many places, and thus sound. With only a little more effort Mr. Chernock could have made this a "Synopsis of ---", instead of "Notes on ---". One plate of photographs, and careful citations referring to original descriptions and other applicable papers would have made this very valuable. Exact localities of specimens examined of the species and subspecies, other than the new one, were unfortunately omitted, so the reader can glean nothing definite about distribution of the Enodias from this paper. Nothing is said about habitats and habits, and these are critical aspects of lumping eurydice with the Enodias. Nevertheless, we feel this paper is a valuable contribution.

23. Muesebeck, C.F.W. "Two New Species of Apanteles from California." Pan-Pacific Entomologist, vol. 23: pp. 21-24. Jan., 1947. Describes as new Apanteles medicaginis, parasitic on Colias chrysotheme eurytheme, and Amblyteles praesens on Anacamptodes fragilaria. Amb. flaviconchae listed as a parasite of Colias from Maine to Texas, and occasionally parasitizes Plathypena scabra. These parasitic wasps are significant and interesting factors in Lepidoptera field problems, and it is particularly important for Lepidopterists to preserve carefully all parasites which they rear from butterfly and moth eggs, larvae, and pupae, labeling them according to their host.
24. Stallings, Don B. & J.R. Turner "Texas Lepidoptera (With Description of a New Subspecies)", Ent. News 58: pp. 36-41. February, 1947. An addition to paper #14, reviewed in the May LEP. NEWS, giving additional Pharr records and results of Texas collecting by the authors. New U.S. records are: Papilio lycophron pallas (Brownsville), Thecla costri (Pharr), T. vojca (Pharr), T. spurina (Pharr), Adopaeoides simplex (Davis Mts.). Described as new is "Asterocampa clyton louisiana new subspecies" from Pharr, said to be the subtropical race of clyton. Description very brief, no figures. Appendix A of the International Rules of Zoological Nomenclature was ignored, since no repository for the type is stated. This is a serious and incredibly common error.

C.L.R.

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PLEASE KEEP US INFORMED OF CHANGES OF ADDRESS

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## BRIEF BIOGRAPHIES

### 3. Harrison Gray Dyar (1866-1929)

About the figure of Harrison Gray Dyar has grown a wealth of legends and stories, and far from the least of these is that of his untiring energy and zeal as an entomologist. That he must have poured heart and soul into his work is at once apparent to anyone taking even the most cursory trip through his published works. Their sheer volume alone would astound the uninitiated, but when confronted with the fact that behind his large number of printed pages there lies keen observation, accuracy of detail, genius in systematics--then it is realized that here indeed is a man of whom American entomology may be justly proud.

Dr. Dyar was born in New York City on the 14th of February, 1866, but moved, with his family, at an early age to Boston, where he received most of his schooling--first at Roxbury Latin School, and then Massachusetts Institute of Technology. From there he returned to New York, where in 1894, at Columbia University, he received his Masters degree, and a year later, his doctorate. In 1897 he entered the halls of the United States National Museum, where he was to spend the rest of his life.

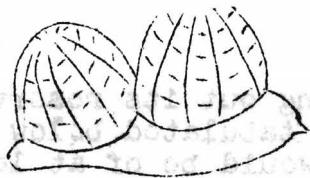
Throughout most of his professional career he was editor of one or another journal of entomology: from 1904 to 1907, the Jour. N.Y.Ent. Soc.; 1909-1912, the Proc. Ent. Soc. Washington. Finally, in 1913 he founded the journal, Insecutor Inscitiae Menstruus, which he edited and was himself the principal contributor, until the journal ceased publication in 1927. It was primarily devoted to mosquitoes, a well-known specialty of Dyar.

Dyar commenced publishing papers long before his formal education was finished. Indeed, in 1890 Dyar noted and published the fact that the increase in size of the chitinous parts of a larva through its successive moults proceeds at a constant ratio--this observation now bearing the title, 'Dyar's Law.' Shortly after his appointment in the National Museum, Dyar started work on the List of North American Lepidoptera, published in 1902, and still a most useful work of reference, patterned on the style of Staudinger and Rebel's European catalogue, with reference to the literature, general locality data and so forth.

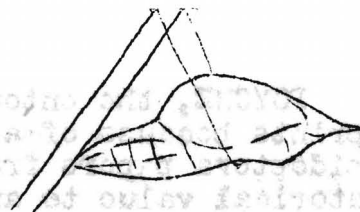
To Lepidopterists Dyar is perhaps most famous for the vast quantity of life-history work he accomplished, much of it with the help of Miss Emily Morton. At the time of his death he had done more than any other American Lepidopterist in this respect. Further, he not only amassed descriptions of early stages, but put them to work, using their characters in classificatory work. He is to be thanked for much of the present order in our faunal lists.

Dyar's work was not by any means restricted to Lepidoptera. As was mentioned above, his knowledge of mosquitoes was vast, and his published work on that group of insects runs through many often-consulted pages. His principal contribution to that study is the four-volume monograph on the Mosquitoes of North and Central America, written in collaboration with Drs. Howard and Knab, and appearing through the years 1912-1917. He was also actively interested in other groups of insects, and his doctoral thesis on the Bacteria of New York City set forth ideas not then currently accepted, but which later became recognized!

Active to the very end, he turned in a manuscript on the Mosquitoes of Montana ten days before his death in Washington on January 21, 1929, just before his 63rd birthday.



## LIFE HISTORY STUDIES



### II. Methods of Preservations of Eggs, Larvae, and Pupae.

by C.L. Remington

#### A. Eggs:

The preservation of eggs is more difficult than of other stages. The best results are obtained with special fixatives, but this is too complicated to be practical for field work. Fairly good preservation may be obtained with four parts of pure Ethyl Alcohol (Grain Alcohol) and one part water. Better results may be obtained with four parts of Ethyl Alcohol and one part Acetic Acid (glacial).

#### B. Larvae:

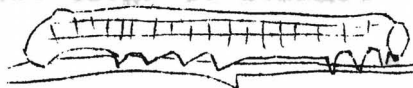
Larvae are important in life history and classification studies and it is essential that they be preserved carefully. Larvae preserved in fluid lose most of their color, but this is not a serious loss. The valuable characters for study are found in the arrangement of bristles, pits, spiracles, and other structural characters. It is true that Lepidopterists, particularly butterfly specialists, have almost universally described the colors and markings and ignored the setae. However, use of these structures will become increasingly widespread in the near future, and there is a great need for larvae preserved in fluid.

The first step in preparing a larva is to kill it by dropping it into water which has been brought to a boil and then removed from the heat source a moment before killing the larva. The larva should be left in the hot water about  $\frac{1}{2}$  minute if small, 1 minute if medium-sized, and  $1\frac{1}{2}$  minutes if large. The hot water removes fats which turn black and badly discolor the larva.

There is only one good preserving medium, and that is Ethyl Alcohol. Never use Methyl Alcohol (wood alc.), or any of the others. Formaldehyde is also undesirable. On removal from the hot water, the larva should be placed in 50% Ethyl Alcohol (1 part alc. to 1 part water). It should be left in this for about  $\frac{1}{2}$  hour and then placed in 80% Ethyl Alcohol. After one day it should be moved to fresh 80% Alcohol, its final preservative. 1 part Glycerine added to 99 parts of the 80% Ethyl Alcohol will help keep the specimen soft and flexible. The specimen should be kept in a tightly-corked vial. It is essential that a label be included in the vial, showing the host plant, locality, date, and collector. Labels should be written in India Ink. Otherwise they fade and become illegible.

#### C. Pupae:

Pupae should be preserved exactly as outlined for larvae, including the killing in hot water. If possible, the collector should wait for at least two days after pupation before killing a pupa, and should kill it before it becomes darkened by the developed imago within. If the pupa is in a cocoon, the cocoon should be slit open carefully, the pupa removed, killed, and preserved, and the cocoon kept dry with a label relating it to the pupa in alcohol. Pupae from which parasites have emerged should be mounted on an insect pin, unless they were still soft at the time of emergence.





## A BARGAIN IN LITERATURE

PSYCHE, the entomological journal, is clearing out its reserve of reprints because of a shortage of space. We have tabulated below the Lepidoptera papers from their list. Every paper would be of at least historical value to any American Lepidopterist, and if you are assembling a reprint library, this will give it quite a boost.

According to the note of explanation accompanying the reprint list, the price is  $1\frac{1}{2}\phi$  a page. Checks should be made payable to: "Psyche", and orders addressed to "Psyche, Biological Labs., Harvard University, Cambridge 38, Mass." Several copies of any papers may be bought by anyone, if needed. In the following list, the number of pages is given in brackets after the year.

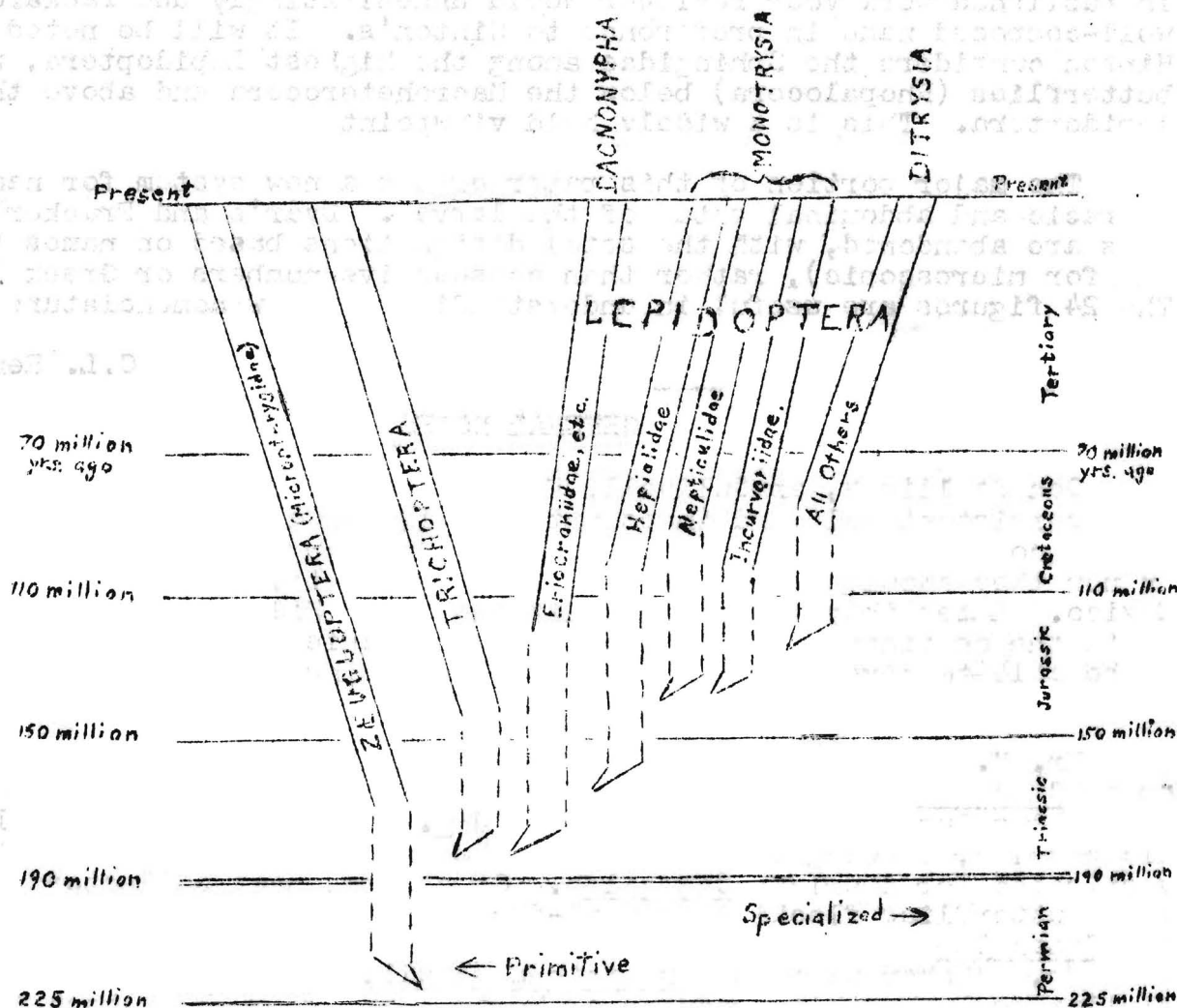
- 
- BARNES & LINDSEY. A New Species of *Heterocampa* (Notodont.). 1921.(2).  
-. Notes on Noctuidae with Descriptions of some New Species. 1921.(2).
- BARNES & McDUNNOUGH. List of Sphingidae of America, North of Mexico. 1910.(17).  
-. On Certain *Olene* Species. 1911.(3).  
-. On the Early Stages of Certain Geometrid Species. 1912.(7).  
-. On the Early Stages of Some Western *Catocala* Species. 1913.(5).
- BARTSCH, R.C.B. "Sugaring" in the Autumn. 1912.(5).
- COOLIDGE, C.R. Western Lepidoptera. III. Notes on *Leptarctia californiae*. 1910.(4).  
-. Western Lepidoptera. IV. 1911.(3).
- DAVIS, W.T. The Red-margined Luna, a New Variety. 1912.(2).
- FIELD, W.L.W. The Offspring of a Captured Female *Basilarchia proserpina*. 1910.(3).  
-. Hybrid Butterflies of the Genus *Basilarchia*. 1914.(3).
- FORBES, W.T.M. The Aquatic Caterpillars of Lake Quinsigamond. 1910.(9).  
-. Another Aquatic Caterpillar (*Elophila*). 1911.(2).  
-. The North American Families of Lepidoptera. 1914.(13).  
-. On the Tympanum of Certain Lepidoptera. 1916.(10).
- GRINNELL, F. Some Variations in the Genus *Vanessa* (*Pyramois*). 1918.(6).
- MARCHAND, W. The Specific Differences Between *Apantesis nais* Drury, *A. vittata* Fabr. and *A. phalarata* Harris. 1917.(2).
- NEWCOMB, H.H. *Argynnis cybele* Fab., variety *baal*, Streck. Melanic. 1910(1).
- RAU, P. The Period of Incubation of the Eggs of *Samia cecropia*. 1912.(2).  
-. Notes on the Duration of the Pupal Stage in Certain Lepidoptera. 1913.(2).
- REIFF, W. *Argynnis cybele* Fabr. Forma *bartschi*. F. Nov. 1910.(4).
- SWETT, L.W. Geometrid Notes. A New Variety of *Nyctobia*. 1910.(2).
- WALKER, F.H. Synchronous Movements in *Vanessa antiopa* larvae, with Notes on the Attraction of Certain Male Lepidoptera by the Females of their Own Species. 1919.(4).

## A NEW CLASSIFICATION OF THE LEPIDOPTERA

A highly important paper by Dr. H.E. Hinton, of the British Museum, entitled: "On the homology and nomenclature of the setae of lepidopterous larvae, with some notes on the phylogeny of the Lepidoptera" appeared in the July 22, 1946, Transactions of the Royal Entomological Society of London (vol.97:pp.1-37). Although we have known of this paper for some time, we obtained a copy only very recently. It is so significant that we are reviewing it separately from the regular section on recent papers.

The present paper has only 37 pages, and the author indicates that it anticipates "some of the results of two papers now in preparation, one on the systematic position of the Micropterygidae and one on the natural groups within the Lepidoptera."

The conclusions on phylogeny in the present paper are best shown by the following diagram adapted from Hinton's Figure 1:



The interrupted lines represent the zone of uncertainty of origin. That is, the top of the interrupted line shows the latest time the group

may have arisen and the bottom of the same line shows the earliest probable time of origin. The tapered base shows the direction from which the group evolved. Since Hinton considers the Monotrysia as suborder, with all of its members derived from one insect, the chart should show this unity. His chart actually makes the Ditrysia appear to stem from the Incurvarioidea.

The classification is based primarily on larval studies, although the larger categories are characterized also by important morphological differences of the adults. As is seen from the chart, Hinton follows Chapman (1917) in placing the Micropterygidae in a separate order (Zeugoptera), closer to the caddis-flies (Trichoptera) than to the Lepidoptera. He divides the latter into three suborders: the new suborder DACNONYMPHA, for the very primitive Eriocraniidae; Börner's (1939) suborder MONOTRYSIA, for the Hepialidae, Nepticulidae, and Incurvariidae; and Börner's DITRYSIA, containing all other families. Hinton admits that his "Dacnonympa" equals Packard's (1895) "Paleolepidoptera", but ignores priority claims for higher categories, as do too many entomologists, merely because the International Rules do not directly apply. In published work your reviewer would unhesitatingly use Packard's well-composed name in preference to Hinton's. It will be noted that Hinton considers the Sphingidae among the highest Lepidoptera, with the butterflies (Rhopalocera) below the Macroheterocera and above the Microlepidoptera. This is a widely held viewpoint.

The major portion of this paper erects a new system for naming the thoracic and abdominal setae of the larvae. Dyar's and Fracker's systems are abandoned, with the setal designations based on names (such as "M" for microscopic), rather than consecutive numbers or Greek letters. The 24 figures are useful in understanding the new nomenclature.

C.L. Remington

#### GENERAL NOTES

Don Stallings, at Caldwell, Kansas, reports a very poor spring, with persistent cold and incessant rain in Kansas. The Stallings and Turner collecting combine has laid plans for another active summer. By now they should have returned from a short trip to northeastern New Mexico. Later they expected to hit the Black Hills and Wyoming. This month the destination was to be the high Rockies of Colorado. We hope to be able to give some of their results at the end of the summer.

Mr. V. Nabokov has contributed an interesting observation on European Catocala, of which he was reminded on reading Dr. Brower's article in the June NEWS. He has observed C. fraxini, a beautiful Palearctic species, feeding on dead fish in Russia. The habit should be investigated for American Catocalae. Of course, most collectors have seen butterflies flocking to well-decayed fish, but we know of no record for Catocalae or other moths.

Mr. Nabokov also saw Smerinthus populi, a European sphinx moth similar to Pachysphinx modesta of North America, rushing back and forth over ponds and puddles at night, flicking the surface of the water with the tip of their abdomen in the manner of ovipositing dragonflies. Both sexes exhibited this unexplained behavior. Lep.Soc. members who are particularly interested in Sphingidae should watch for this habit in Smerinthus, Paonias, Cressonia, and Pachysphinx.



NOTICES BY MEMBERS

Wanted- All species of the hesperioid genus Megathymus for exchange or purchase. Many rare Lepidoptera offered in exchange. P.S. Remington, 5570 Etzel Avenue, St. Louis 12, Missouri.

Pupae and larvae of Arctiidae, especially Apantesis, needed for systematic studies. Marion E. Smith, Fernald Hall, Amherst, Mass.

Wanted- Samples of the following genera of Satyridae, found in North and South America: Argyrophorus, Cheimas, Cosmosatyrus, Cyllopsis, Daedalma, Drucina, Elina, Eretris, Faunula, Idioneura, Manerebia, Neomaeas, Neosatyrus, Panarche, Polymastus, Proboscis, Pseudomaniola, Pseudosteroma, Sabatoga, Sinarista, Steremnia, Tetraphlebia, Thiemeia, or Zabirnia. Have some 5000 duplicates representing perhaps 500 species or varieties of Lepidoptera from all over the world to offer in exchange. Arthur H. Moeck, 301 East Armour Avenue, Milwaukee 7, Wisconsin.

EREBIA, OENEIS, & BRENTIIS, ETC. from Arctic Canada for sale at reasonable prices. R.J. Fitch, Rivercourse P.O., via Lloydminster, Sask.

Catocalas and their eggs and larvae wanted (also various other Lepidoptera). Can offer many Lepidoptera and some rare material in other orders. A.E. Brower, 5 Hospital Street, Augusta, Maine.

LYCAENIDAE & PIERIDAE from all parts of North America desired. I am building up my collection from scratch, and need virtually everything. Offer butterflies of all groups from Southern California. Graham Heid, 11745 Hesby Street, North Hollywood, California.

LEPIDOPTERA FROM NOVA SCOTIA of any group offered in exchange for North American Satyridae, Catocala, Arctiidae (esp. Eubaphe), and Geometridae (esp. the Plagodis-Metarranthis group and Caripeta and Semiothisa). Douglas C. Ferguson, Box 617 Armdale P.O., Halifax, Nova Scotia.

CASCADE MTS. LEPIDOPTERA offered in exchange for species from other parts of North America. J.C. Hopfinger, Brewster, Washington.

WANTED- North American SPHINGIDAE AND CATOCALA. C.W. Baker, Waynesburg, Ohio.

SPHINGIDAE, ESPECIALLY SPHINX (Hyloicus) desired. Will collect in any family of Lepidoptera in exchange. Wm. E. Sieker, 119 Monona Ave., Madison, Wis.

Specializing in systematics and life histories of North American GEO-METROIDEA. Would like to exchange and buy specimens in this group. Frederick H. Rindge, 437 Ocean View Ave., Berkeley 7, California.

If you have for exchange or sale North American CATOCALA or SPHINGIDAE from the Americas (N. & S.) and Antilles, write: Mrs. C. Reed Cary, Ellet Lane & Wissahickon Ave., Mt. Airy, Philadelphia 19, Pa.

PAPILIOS of the MACHAON group desired. Offering in exchange Lepidoptera of any groups from Calif. and Ariz. Also larvae and pupae of the machaon group are desired. David L. Bauer, P.O. Box 469, Yuma, Ariz.

Since preparing the June NEWS with the note on Tilden's paper concerning ants and larvae of Lycaenidae we noticed a paper in the Oct., 1911, Entomological News (pp. 359-363) by H.M. Bower of Chicago, on the "Early Stages of Lycaena lygdamus Doubleday". Bower observed egg-laying and collected eggs and larvae on Lathyrus (Perennial Vetch). He returned later in the season and found more mature larvae abundant. "These were in almost every case attended by ants which made the search rather easy as the ants invariably led to the discovery of a larva." Bower gives descriptions of each instar, as well as the egg and pupae, from reared material. Although he did not see larvae being carried into the ant nests, such may be the case. That the larvae may feed on ant larvae, like Maculinea arion in England, is very plausible, since the captive lygdamus larvae often fed on brother larvae, although supplied with plenty of food.

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One letter in our interesting mail deserves particular comment. D.L. Bauer, of Yuma, Arizona, while expressing agreement with our comments in the May issue on the faults in regional lists, and with the general aspects of our stand against naming seasonal forms, asks some searching questions on the latter point. He gives several instances of Arizona butterflies which have remarkably different seasonal forms, such as Pieris napi, Strymon melinus, and Calephalis nemesis. While these are admittedly striking examples, and there are many others, such as Colias eurytheme, Zerene caesonia, Pieris protodice, Papilio marcellus, Phyciodes tharos, and many southwestern butterflies, with no hesitation it can be said that these seasonal forms should not receive Latin names and be considered in our zoological nomenclature. When it is desirable to designate these broods of the same insect, merely call them: gen. vern. (spring), gen. aest. (summer), gen. autum. (fall), and gen. hiem. (winter). Or if the broods do not follow seasons, designate them as: gen. I., gen. II., gen. III., gen. IV., etc. The only infra-specific categories which deserve Latin names are those which are concerned directly in speciation. Geographic races, and ecological forms are so concerned. Seasonal forms and polymorphic forms (Colias white females) certainly are not, although their relative proportions in the population may be characteristics of different races.

We are very sorry that our planned schedule for the series of articles on Life History Studies has necessarily been changed. We expect to have most of the articles written by specialists, and due to too short notice they were unable to write what we needed in time for numbers 2, 3, and 4 of the NEWS. Eventually the series will go ahead as planned. Meanwhile, in order to give you the necessary information for preserving immature stages of any rare or little-known species you find this summer, the article on page 31 was prepared.

C.F. dos Passos, A.C. Frederick, and W.P. Rogers took a cooperative collecting trip to Vermont at the end of May in search of Erora laeta. However, the New England weather thwarted the attempt by remaining cold and cloudy throughout their 3-day stay at the locality.

THE LEPIDOPTERISTS' NEWS is the monthly newsletter of The Lepidopterists' Society. Membership in the Society is open to anyone interested in the study of butterflies and moths. The dues are \$1.00 per year, and the NEWS is sent to all members. Please make checks and money orders payable to: Charles L. Remington, Treas. Address all communications to P.O. Box 104, Cambridge 38, Massachusetts.