

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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August, 1947

In another month or two most collectors will have to interrupt collecting until next spring, and will begin tallying their available bartering material for a busy exchange season. In the hope of facilitating your correspondence and exchanging, the Lepidopterists' Society will prepare the annual up-to-date list of members, addresses, and specialties, to be mailed with the October NEWS. The original plan was for December, but such a late date would be less desirable from the viewpoint of exchanging. If you find October the best, it will become the regular time for distribution of the annual membership list. With the exchange season approaching, now is the time to send in your insert for the "Notices by Members" column. At this time of year we will be glad to expand it to two or even three pages.

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Perusal of American entomological journals which were appearing about twenty or thirty years ago has reminded us of a trend which we are sorry to see. These older numbers contain numerous advertisements in the exchange columns of moth and butterfly eggs and cocoons and chrysalids, offered for exchange or sale. At least one prominent society actually sold pupae reared by its members, to build a fund for a specific purpose. Articles published in the journals by such enthusiasts as Rowley, of Louisiana, Missouri, comprised annual accounts of the recent season's larva collecting. Current journals show current trends in rarely having any notice offering living pupae. Perhaps the improved roads and almost universal possession of automobiles has lured collectors out into the "choice" hunting grounds for quick trips and furious net-swinging, and a lack of interest in their local fauna has resulted. Intensive collecting in one region for several years usually leads to interest in rearing and life history studies.

The NEWS proposes to lend enthusiastic support to any efforts to rear Lepidoptera to the pupal stage for exchanging or selling, and offers its pages for advertisements of this sort. We know that many members would buy or exchange for living pupae, so we urge anyone with the inclination for rearing to exploit the condition. If pupae are to be reared for exchange or sale, it is essential that they be labeled with the locality from which the parents were taken. Specimens obtained from pupae should have cabinet value equal to any other specimens of the same species. In addition, a breeder will not be successful in selling material unless the prices are reasonable. The ridiculously high prices now being asked by the few remaining dealers undoubtedly dampens the interest of prospective buyers. So get out the rearing cages and stock up. Good data and fair prices will assure you of plenty of Lepidopterists' Society business.

4. The Butterflies of California

by John A. Comstock*

Approximately 436 species and subspecies are given in Comstock's Butterflies of California - nearly thirty percent of the presently known North American butterfly fauna, as listed in the 1938 McDunnough Checklist. This high degree of representation in one state has given the book a prominent place in Lepidoptera literature, a position well justified by its other qualities.

The 63 colored plates and the generous attention devoted to the early stages, a specialty of Dr. Comstock, are very useful. In the plates, generally of excellent quality, are to be found examples of virtually every valid form and most of the aberrations occurring in California, many taken from types. In addition, for each specimen illustrated, full data are given as to place and date of capture.

Information on the early stages of a very large number of species is given in the form of host plants and excellent figures of the egg, larva, and pupa. Dr. Comstock, with the aid of Commander C.M. Dammers, has since added materially to the number of California species thus known, in the pages of the Bulletin of the Southern California Academy of Science.

In the text, though descriptions are brief, the habitat, approximate dates of appearance, and general range are usually given, and in the case of very local butterflies, often the exact locality.

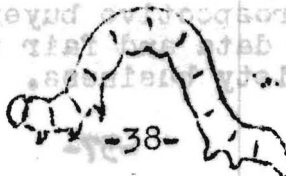
At the close of the book there are: a complete check list including varietals and synonyms; maps showing the counties and life zones of California; information on the capture, preservation, arrangement, storage and exchange of specimens; an unfortunately brief discussion of leading periodicals with addresses; a short description of the grosser anatomy of butterflies; a reprinting (with original references) of the author's published papers to 1927.

Criticism of the book may be directed at the inordinate amount of space given to the descriptions and depictions of aberrations--space that might have been devoted much more profitably to other material. Further, the absence of such valuable aids as keys, bibliographic references, and anatomical characters of families, has somewhat hindered its general usefulness.

Though in his introduction Dr. Comstock says that it is primarily intended for "the nature lover" the acid test of time has proven its great value to the veteran student as well. It is possible to identify quite accurately by means of the plates most species of far Western butterflies.

Harry K. Clench

*Published in 1927 by Dr. J.A. Comstock, Los Angeles, California. 334 pp., 63 color plates, 84 text illus. Listed by Sherman, 132 Primrose Ave., Mt. Vernon, N.Y., at \$15.00.



BRIEF BIOGRAPHIES

4. Alpheus Spring Packard, Jr. (1839-1905)

The rapid development of the biological sciences in the 19th century was at the same time the result and the opportunity for the contributions of the great naturalists of that period. The exiguity of scientific knowledge made it possible for one man to delve into many fields, with significant consequences. A distinctive example of this type of naturalist is A.S. Packard. Although most of his work was in entomology, he also contributed to other branches of systematic, structural, and economic zoology, and to geology, paleontology anthropology, and embryology.

Packard was born in Brunswick, Maine, on Feb. 19, 1839, of a distinguished lineage of scholars. It was at Bowdoin that Packard commenced his higher education, and when still a junior in college he added fuel to the fire of his enthusiasm by joining a scientific expedition to Greenland and Labrador. From 1861 to 1864, after obtaining an A.B. degree from Bowdoin, he studied under the illustrious Louis Agassiz at Harvard University. While there he assisted Samuel Scudder in the Insect Dept. of the Museum of Comparative Zoology, specializing in Lepidoptera, and became acting curator from 1862-3. Soon after his discharge from war service, he became librarian and acting custodian of the Boston Society of Natural History, again in close contact with Scudder. In 1867 he married Elizabeth Debby of Salem, and they later had three children.

Well fitted by his training under Agassiz, Packard entered in 1867 upon professional activities at the Essex Institute in Salem, Mass. which soon was absorbed by the Peabody Academy of Science, and Packard assumed the position of curator of invertebrates and later Director. The leading publication of his day, the American Naturalist, had its inception at Salem during this time, with Packard as editor, a post he held for over 20 years. While he was with the Peabody Academy he lectured on entomology at several colleges in the region. Having worked with Agassiz at the famous summer school of biology, Packard also founded such an organization at Salem after Agassiz died. In 1878 he accepted an appointment to a professorship at Brown University, where he lectured in zoology and other scientific fields until his death on February 14, 1905. Among academic degrees he held were an S.B., M.A., M.D., and an honorary Ph.D. and LL.D.

Packard's great contributions to entomology were marked especially by his several textbooks, bringing together the available knowledge for the student, layman, and professional entomologist. His Guide to the Study of Insects had 8 editions in 15 years, and A Textbook of Entomology was for many years the best general book on the subject. Work on Lepidoptera, both taxonomic and morphological, penetrated into many families, his larger works being a monograph on Geometridae and the two parts of his famous Memoir of the National Academy--"Monograph of the bombycine moths of America north of Mexico, including their transformations and origin of the larval markings." His pioneering in the field led to his recognition by scientific societies all over the world. He became a fellow of the National Academy of Science, and of the Linnean Society of London, and an honorary president of the French Association for the Advancement of Science. Altogether his published works amounted to over 400, a lasting monument to his immense enthusiasm and ambition to contribute to the progress of zoology.

Jeanne E. Remington

25. Bell, Ernest L. "A New Species of Hesperidae (Lepidoptera, Rhopalocera) from Venezuela." Zoologica, N.Y. Zool. Soc., vol. 32: pp. 67-68, 1 fig. May 8, 1947. Describes new species: Yanguna flemingi (Pyrrhopyginae), reared from pupa found at Caripito, Venezuela. Brief description, male genitalia figured. Pupal skin kept and described. Species named for collector.

26. Carpenter, G.D. Hale "Capture of butterflies in great numbers by the grass Setaria verticillata (L.) Beauv. in East Africa." Proc. Royal Ent. Soc. London, vol. 21: pp. 49-50. Sept. 16, 1946. Reports a natural "butterfly trap". The grass, Setaria, had caught thousands of butterflies by means of barbed bristles on the inflorescence. The principal victim was Acraea zetes, all males. A number of A. orina were caught in separate clumps, as were a very few specimens of a Papilio, Danaus, and two pierids. Various suggestions are given as to why the butterflies got into the inescapable grass. The most probable one is that one insect would be "caught inadvertently by the grass, and others would be attracted to it by vision." The collector, T.H.E. Jackson, considers this mass destruction a regular occurrence in Kenya.

27. Dickson, C.G.C. "The life-history of Phasis thysbe L. var. nigricens Aur. (Lepidoptera, Lycaenidae)." Journ. Ent. Society S. Africa, vol. 9: pp. 178-192, 23 figs. Feb. 28, 1947. Gives a very thorough description of egg, all 7 instars of larva, pupa, distribution, and habits, with figures of all stages and many magnified details. Var. nigricens compared with typical thysbe and P. palmus eggs, larvae, etc. A model of excellent life history study of the kind urgently needed for American Lepidoptera, and achievable by many Lep. Soc. members who are willing to be painstaking and thorough.

28. Forbes, W.T.M. "Buckeyes and Wegener." The Entomologist, vol. 80: pp. 56-58. March, 1947. Dr. Forbes of Cornell Univ., makes conclusions on zoogeography and geology based on the valves of the male genitalia in the genus Precis (Junonia). The 2 New World species, P. lavinia and P. vestina, are closely related to each other and distinctly different from the 5 Old World spp., in which the African species are closer to the European than to the American spp. He believes that the American ancestors came in through the Bering Straits to Alaska. The Atlantic rift is placed in or just prior to the Triassic, and is said to be much older than the Africa-Eurasia separation.

29. Gerould, John H. "Hybridization and Female Albinism in Colias philodice and C. eurytheme. A New Hampshire Survey in 1943 with Subsequent Data." Annals, Ent. Soc. of America, vol. 39: pp. 383-396. Sept., 1946. Professor Gerould has made the pioneer contributions to American butterfly genetics during the past 25 years. The present paper reports field surveys interpreted through his knowledge of Colias genetics. He has given careful records of the spread of C. eurytheme into New Hampshire and the dynamic effects on C. philodice. Apparently eurytheme males regularly prefer to mate with eurytheme females and "interspecific" matings are rare, especially where both species are abundant. He maintains that philodice and eurytheme should be considered different species which are hybridizing extensively at present. (We believe that Hovanitz proved their distinctness on the fundamental sterility basis without acknowledging the species separation.) Gerould also

questions, with clear reasoning, the correctness of lumping these American Colias under chrysotheme, typically a Palearctic insect, as advocated by Hagen(1883), Elwes(1884), Clark(1941), and Hovanitz(1943,etc.). Until chrysotheme can be interbred with eurytheme and philodice, there seems to be no sound course other than to consider it a different species.

30. Howes, W. George "Lepidoptera Collecting at the Homer, with Descriptions of New Species." Transactions, Royal Soc. of New Zealand, vol.76:pp.139-147, pls.8,9. Sept.,1946. This follows an earlier paper (1943), which gave a list of macrolepidoptera taken in the Homer district of New Zealand. The present paper is primarily the list of 128 species of microlepidoptera taken. Also gives some new records of macros. Describes as new: Aletia nobilia (Phalaen.), Xanthorhoe frigida (Geometr.), Proteodes smithi, Scoparia valenter-nota & S. claranota (Pyal.). Photographs of n. spp. given. Checklist gives no authorities for spp.! No collecting dates listed. Among butterflies, Erebia pluto, Vanessa gonerilla, and Chrysophanus (Lycaena) boldenarum mentioned as common (all three are also in Holarctic genera).

31. Munro, H.K. "A lengthened pupal period for a moth." Journ.Ent.Soc. S.Africa, vol.9:p.235. Feb.28,1947. Records emergence of Ludia delegorguei female after 4 years as pupa, and another female pupa still alive after 4 yrs. Two males emerged 1 and 2 years after pupation. How many members have discarded cocoons which failed to hatch after one year? Such notes as this are interesting and valuable.

32. Rau, Phil "Butterfly Aggregations in Temperate Regions." Annals, Ent.Soc. of America, vol.40:pp.13-14. March,1947. Presents valuable data on "about twenty-five aggregations of four species of butterflies" (Phyciodes tharos, Eurema lisa, Phoebis eubule, and Everes comyntas) observed one afternoon in a St. Louis County (Mo.) creek bed. All four species are very gregarious. P. tharos and E. comyntas kept strictly to themselves. Groups of E. lisa included smaller numbers of P. eubule. A faulty conclusion is reached because Mr. Rau, being unfamiliar with butterfly taxonomy, mistakenly placed P. eubule in the Papilionidae, rather than Pieridae! Every butterfly collector is well-acquainted with these mud-puddle aggregations and would contribute useful knowledge by carefully recording observations in a large number of cases. There is great doubt as to the plausibility of Mr. Rau's statement that butterfly "predilection for sociability may yet prove to be one of the early steps in the scheme of evolution of social life among insects."

33. Rindge, F.H. "Designation and Distribution of Types of Nepticula braunella Jones." Pan-Pacific Entomologist, vol.23:p.25. Jan., 1947. Jones had neglected to include type data or to designate types in describing N. braunella. The Jones collection is now at the Univ. of Calif. (Berkeley). Rindge designates types and notes the distribution of paratypes to several museums. This species was omitted from the 1939 McDunnough Checklist. Members will wish to add it.

C.L.R.



The first month of our Thysanura and Entotrophi collecting trip has presented several opportunities to visit Lep. Sec. members, and we even managed to collect a few interesting Lepidoptera along the way.

At Cornell we received from Prof. W.T.M. Forbes a number of helpful comments on tightening up the NEWS. Prof. Forbes' second part of his 'Lepidoptera of N.Y. State' will be published shortly. J.G. Franclemont is continuing his researches on moths at the University. R.L. Chermock is preparing a taxonomic revision of the genus Limenitis (Basilarchia and Heterochroa), to be completed in the fall, when he expects to receive his Ph.D., and take up a position with a southern university. He is also revising two other Satyrid genera, Cercyonis and Euptychia. We were glad to meet Ross Arnett, editor of the COLEOPTERISTS' BULLETIN, and to exchange ideas with him.

At the U.S. Nat. Museum in Washington we renewed acquaintance with Dr. Austin H. Clark, who has surmounted a recent illness, and looks very well. His friend, Carroll Wood, told us that Clark's 'Butterflies of Virginia', comparable to the excellent 'Butterflies of the District of Columbia', should be published soon. W.D. Field, whom the writer knew at Camp Plauché, La., during the war, was rearranging the Papilio collection in the museum. Probably by now he has transferred from the Dept. Agric. to the Nat. Museum staff.

We arrived in the Great Smoky Mts. too early for Speyeria diana, the prize butterfly of the region. The Chief Naturalist, Arthur Stupka, has a good start toward an insect collection. Last year he took some fine Arctiidae at high altitudes. The collection also includes a good male of Eroria laeta, taken in the Smokies.

The Ozarks of Missouri were having a good Lepidoptera year. Around the mouth of Big Spring, almost in the spray, we took 2 fresh Caleph. muticum, a few Feniseca tarquinius, and several other species. This is the southernmost capture we have made of C. muticum.

Texas was our collecting ground for several days. It was interesting to find the giant noctuid, Thysania zenobia, common at lights and resting under rock ledges. In Big Bend Nat. Park Hemiargus (Echinargus) isola and another Hemiargus were abundant, along with a Chlosyne, Pap. daunus, Dan. berenice, Limenitis bredowii and L. astyanax, Eurema gundlachia and nicippe, 2 spp. of Phoebis, Str. melinus, and other widespread butterflies. We took a single Strymon entirely strange to us. It would be hard to call many of the Pap. polyxenes of the Big Bend or Carlsbad anything but race americus.

In the High Rockies of Colorado collecting has been excellent, as always. The season is at least two weeks later than we have ever before seen it. It is quite surprising to find Euchloe ausonides coloradensis and E. sara julia still fresh in mid-July, and plenty of Incisalia and a Callophrys still flying. The snowy late spring nearly ruined Bill Hammer's earlier trip here, though Don Eff and Bill took 92 Euphydryas capella in one afternoon. We have been collecting in our old favorite spots with P.S. Remington of St. Louis and Don Eff, of Boulder, Colo. We spent part of one day with the V. Nabokovs of Cambridge, Mass., in the famous Tolland sphagnum bogs, taking plenty of Boloria selene (myrina) tollandensis and some B. frigga sagata. Two days later, with PSR and Don Eff, we also found B. aphirape alticola there. Don snagged a couple of Pap. indra and we have several fine P. brucei. Nabokov reported taking a large number of the rare Mitoura spinetorum on the road near Estes Park early in the morning. He has also taken more Eupithecia for Dr. McDunnough. He finds Colorado much richer than Utah.

C.L. REMINGTON

FOSSIL LEPIDOPTERA

by C.L. Remington

The "Natural Classification" so diligently sought by the great Lepidopterists, as well as other zoologists and botanists, can be approached not only by the study of homologies of the structures of the living species, but also through a study of the fossil record. Lepidopterists are rarely aware of the existence of fossils of their group.

Samuel Scudder, a great paleoentomologist as well as Lepidopterist, studied the fossil butterflies. Meyrick, and recently Rebel (1934, '35) and Kusnezov (1941) have studied the moths. However, the knowledge of the Tertiary Lepidoptera, like most Tertiary insects, needs revision to bring it in line with recent work on the living species.

Dr. R.J. Tillyard, probably the greatest student of insect evolution who has ever lived, believed the first true Lepidoptera separated from the Trichoptera (caddis-flies) in the Upper Triassic Age (about 160 million years ago). The great development of the moths and butterflies occurred in the Cretaceous (130 to 66 million years ago), concurrently with the development of the flowering plants, which now form the food of most Lepidoptera larvae. Tillyard concluded that the Rhopalocera (butterflies) are a group well separated from all other Lepidoptera, arising in the Lower or Middle Cretaceous (100 million years ago).

The oldest known Lepidoptera actually represented by fossils are Psychidae from the Eocene Green River Shales (bottom of the Tertiary - 60 million years old). The remarkable Baltic Amber, in which are preserved insects in fossil pine resin with every detail visible, has yielded Micropterygidae, Eriocraniidae, Incurvariidae, Tineidae, Lyonetidae, Cecophoridae, Gelechiidae, Tortricidae, Pyralidae, Psychidae, and an uncertain lycaenid. The Baltic Amber is now considered to be Oligocene (40 million yrs. old), but is claimed by Kusnezov to be Eocene (60 million yrs. old). At any rate, Lepidoptera were well-developed then, and in many cases the present genera had already evolved 50,000,000 years ago. The Baltic Amber contains only small insects, so although the butterflies and larger moths were undoubtedly abundant by the Oligocene, they are absent from the Amber.

From the higher Tertiary beds of Aix and Radoboj in Europe and Florissant of Colorado have come several butterflies, by far the finest being the world-famous specimen of Scudder's Prodryas persephone from the Florissant. This specimen is so perfectly preserved that the details of the antennae, palpi, thorax, abdomen, and wing markings are clearly visible. Even the form of the scales can be seen under the microscope! The writer recently examined the type specimen, through the kindness of Professor F.M. Carpenter, and was amazed at the perfection of this rock fossil at least 30 million years old. The families of butterflies of the Tertiary include the Parnassiidae, Pieridae, Satyridae, Nymphalidae, Libytheidae, Lycaenidae, and Hesperidae. The moths have not yet been studied carefully.

The most significant fact for Lepidoptera evolution is that the morphologically primitive families, such as Micropterygidae and Eriocraniidae, are well-represented in the fossil record, whereas the highest families are rare or absent. The discovery of middle or lower Cretaceous Lepidoptera fossils will be illuminating in testing the validity of phylogeny based on morphological homologies.

COMMENT FROM PROFESSOR FORBES

One of the most helpful letters we have received since establishing the NEWS came recently from Prof. W.T.M. Forbes, of Cornell University. He very validly points out a few errors in the NEWS and adds such a host of valuable bits of information that we wondered about the most effective way to make them available to the members of the Society. Direct quotes under specific subjects probably set the comments off so that members can use them as supplements to our coverage in the July NEWS.

1. HANDLING SPECIMENS (see p. 26) "If one must use chloroform, acetic ether, carbon tet., etc., it should be put in a vial inserted in the cork, so that the fluid will not touch the specimens. Use a cork borer the right size, make a hole through the cork and insert a small (perhaps 1 dr.) vial, upside down. Fill this with absorbent cotton and the killing fluid can be poured on the cotton and will not drip down into the bottle. The same rig is useful with ether only for stupefying females you want to look over and perhaps save for eggs. Leave them in till stupefied, but still kicking a little, roll them out and transfer to a cardboard box or the cyanide as the case requires. In this case the bottle must be aired when not in use or the ether may decompose and become deadly. I find ether unsafe for killing, -too many recover, especially at high altitudes. I had to use it in Switzerland and the ether would sometimes boil in the supply vial when I took the cork out.

"Don't paper specimens the same day, especially after chloroform, AC-Eth or C-tet. Leave in a relaxing jar and fix up the next morning, after the rigor has passed off. Even delicate colors or green moths will not fade if the specimens had not dried before going into the jar."

"Members of the 'smaller' skippers must often be cut across the metapleura with a lance-needle to release the hind wing muscles, which will sometimes remain cramped no matter what you do. I find even the smallest butterflies O.K. from papers, but it is best to use a fairly large paper and put several in a paper." (A host of Lep.Soc. members will rise up in indignation on this one point. Most exchanging collectors consider the correspondent sloppy if he puts more than one in an envelope, and most have received boxes with numerous broken antennae, palpi, legs, and even wings because of this method.-C.L.R.) "Moths are O.K. well below the limit you give so far as size is concerned (again several to a paper); but thick bodied types, even much larger should be field pinned if possible on account of the tegulae and thoracic tufting, which may never come back into position with a papered specimen. But the main reason for field pinning is to make it possible to sort your catch before mounting. When collecting for your own mounting later (not where the papered material is to be used directly in exchange etc.) it is best to pack two to a paper, with wings overlapping and bodies away from each other; it makes packing of the papers easier and reduces danger of crushing. There are several kinds of 'glassine' envelopes, and one kind is all right. But the only test is the relaxing jar; put one in and if it is limp but not sticky next morning it is reasonably safe to use, and makes sorting of material easier. Still I agree with you that absorbent paper is the thing to recommend. For small things a double triangle (toilet paper folded together with newspaper or the like, with the tissue paper inside) is sometimes useful."

2. HOLLAND'S BOOK (see p. 27). "I agree on the 'Butterfly Book'. Did you know that the publishers refused colored plates and Holland paid for them himself at \$75. each? The plates added in the 'new edition' cost

(cont. on p. 46)

MISCELLANY

Collecting seems to be poor throughout the entire East. Here in the vicinity of Boston we can speak from experience. Scarcely an Incisalia was seen the whole spring, and Lycaenopsis pseudargiolus (lucia or marginata), usually very thick, was encountered in the form of a single female! P. rapae and several spp. of Erynnis have had the fields and woods nearly to themselves. Others report the same situation. Dr. E. Munroe, of Quebec, reports the worst collecting in over 50 years, though he adds that he has taken a few interesting things: Deidamia inscriptum (new to the province), P. rapae var. novangliae, and others. In contrast, the West seems to be enjoying good collecting everywhere, as you have probably already noted in our article on page 42 of this issue.

Another new author for the NEWS, with her first article in this number, is Mrs. Jeanne E. Remington, wife of one of your co-editors. Specializing in Gall Insects, she hopes to give us for a later issue an article on gall-making Lepidoptera.

Although we have made no effort to expand our subscriptions to include countries outside of North America, we can now report 4 for England, 2 for France, 1 for Honduras and an exchange offer from Sweden. With the exception of the last, they are all gift subscriptions, from friends here. This might serve as a tip to some of you other Lep. Soc. members who have correspondents abroad that may be interested in getting the NEWS. Just send us name and address and a dollar, and we will enter them on our list, and see that they get the NEWS promptly, as well as a notification of the donor.

In the second number of the NEWS, on page 21, we mentioned the theft of a number of butterflies from several Australian Museums. On almost the same day that that number was mailed we got our copy of TIME (June 2), and on page 38 found an elaboration of the same incident, which fills in some interesting gaps in the story. For those who may not have seen it: 1) the collector's name is given--Colin W. Wyatt (we prefer the term collector--he IS a Lepidopterist); 2) several species are mentioned: Adaluma urumelia, Ogyris zozine splendida, the Diana Moonbeam (Philiris d. diana)--all Lycaenidae, and no others are mentioned! 3) cause: a wrecked marriage!

Those of you engaged in the breeding of Lepidoptera will be interested to learn of a new type of breeding cage now on the market, of metal and plastic construction. The cage comes in several sizes, from a maximum of 10" to a minimum of 4". Other sizes and types can be made to individual specifications. For details write Bio Metal Associates, Box 346, Beverly Hills, California.

In one of the next two issues we will present a much enlarged list of the Board of Specialists (see the June NEWS).

him 2 or 3 times as much. I think a new 'Butterfly' and 'Moth Book' should use the old plates, with a new text, but it might not be easy for a new writer to match his style. Most of us are either sloppy or dry." (The dryness of present-day scientific papers is a "pet-peeve" of ours, and we expect to say more on the subject later.--Eds.).

3. LITERATURE REVIEWS (see pp. in each issue), "I wonder that so many editors cry out for more illustration, but always charge the authors extra for them, even in the case (line cuts), where they really cost hardly more per page than text. Journals in other fields do not do this. They either include simple figures in the article as a matter of course, or else view them as unimportant,--only entomological editors seem to be so inconsistent as to ask for them and charge extra." (The NEWS editors are looking forward hopefully to an endowed fund to finance illustrations in the Lep. Soc. journal for research papers when the propitious time for founding that journal arrives.)

4. PRESERVING EARLY STAGES (see p. 31). Prof. Forbes gives a detailed, complicated set of instructions for preserving larvae. This will be included in a later issue of the NEWS, but most collectors will find our method on p. 31 the most practical. "As to pupae I usually advise saving the emerged shells. The structures are always clear, and the determination surer than a field-found pupa can ever be. I admit parasitized ones, if the parasite came out the side, make the finest specimens. I consider there is no excuse for a man who is rearing material to throw away all the pupa shells."

5. HINTON (see p. 33). Prof. Forbes disagrees with Hinton, feeling that he overlooks or undervalues too many important characters. Prof. Forbes pointed out some weak spots in Hinton's arguments to the senior editor in a most convincing manner on the latter's visit to Ithaca in June.

6. ON SPHINGIDS OVER WATER (see p. 34). "I once saw a sphinx in South America behaving as Nabokov's populi did, so far as I could see; I assumed it was drinking, but it was flying back and forth just above the water surface. I did not catch it but think it was a Perigonia,...certainly not a Smerinthine."

7. Prof. Forbes states his viewpoint on nameability below the rank of species in a rather orthodox system undoubtedly used by most of the older butterfly taxonomists, and in many ways firmly revised since the genetical explanations for phenotypic variation have been made known, and we are omitting his full statement from this issue. However, the following statement will probably be agreed with by all conservative taxonomists, and needs emphasis: "On the other hand I don't think races should be named unless they are at least 90% identifiable without the locality label (perhaps 75% in the special case where a monograph of the whole variation of a species is being made)."

Our warmest thanks go to Prof. Forbes for his contribution.

A series of unforeseen events and the summer-long absence of one editor have resulted in the long delay in completing and mailing No.4 of the NEWS. We are hurrying it off now with apologies for its lateness and the out-of-date quality of some previously mimeographed pages. Expect No.5 after several days and a return to schedule with No.6. CIR

NOTICES BY MEMBERS

Members are invited to contribute to this page any special requests. There will be no cost for inserting notices. Unless withdrawn sooner by the contributor, each notice will be carried for three consecutive numbers. If the notice is to be continued, the contributor must again submit it, with new wording. Please try to make the wording interesting, to improve the chances of its success. There will be no limit set on length of notices, but overly verbose ones may be rewritten to economize on space. Your needs have an excellent chance of being met through this column, so submit your notice now.

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. Hoeck, 301 East Armour Avenue, Milwaukee 7, Wisconsin.

EREDIA, CENEIS, & BRENTHIS, ETC. from Arctic Canada for sale at reasonable prices. R.J. Fitch, Rivercourse P.O., via Lloydminster, Sask.

Gatocalas 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.

You are invited to place your name in the Scientists' Directory. Names classified and listed by groups and covering all lines of nature and science, amateur and professional. No charge for listing. SCIENTISTS' DIRECTORY, Box 1344, Hartford 1, Connecticut.

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IF YOU BUY, SELL, OR DETERMINE MATERIAL SENT TO YOU FOR DETERMINATION, put your name in the SERVICE DIRECTORY. This covers specimens, equipment, and supplies for nature lovers and scientists. Box 1344, Hartford 1, Conn.

Butterflies of genus INCISALIA desired for examination, exchange, or purchase, from ALL PARTS OF NORTH AMERICA, for taxonomic revision now in preparation. Harry K. Clench, 48 Avon Hill St., Cambridge 40, Mass.

PLEASE NOTIFY THE NEWS OF CHANGE OF ADDRESS



ENGLISH BUTTERFLIES. 272 specimens of 65 species (total English species: 72), set Engl. style (low). Will give these to anyone who will pay postage and return boxes promptly, as I need space in my cabinet. Arthur D. Hall, Great Village, Nova Scotia, CANADA.

FOR SALE. Eight glass-topped wood insect cases, 12 x 16 x 2 $\frac{1}{2}$ ", very slightly used. \$40.00. Roderick R. Irwin, 1005 S. Bloomington St., Streator, Illinois.

WANTED: Satyridae of the genus Minois from all parts of North America, esp. M. damel. Exchange or examination, for purposes of a revision. Ralph L. Chermock, Dept. Entomology, Cornell Univ., Ithaca, New York.

WANTED: N. Am. butterflies, all groups. Buy or exchange. Have many rare N. Am. and tropical spp. I particularly desire arctic material. Robert G. Wind, Rt. 1, Box 145, Livermore, California.

In the May NEWS we requested authors of papers on Lepidoptera to send us a few reprints of each paper for distribution to members requesting them. Understandably, several members have written asking to be placed on a permanent mailing list for any of these reprints we receive. We regret that we will not be able to handle the distribution in this manner, in fairness to all the members and because of the limited number of reprints which will be available. Any separates which we receive will be mentioned in the NEWS and will be distributed among members requesting them in the fairest way we can devise.

Your travelling editor this summer is covering a good bit of ground. For those of you wishing to contact him, here is a list of dates and addresses:

Aug. 1	1324 Panchita Place, Santa Barbara, Calif.
Aug. 8	Eureka, Calif. (Gen. Del.)
Aug. 22	c/o J.C. Hopfinger, Brewster, Washington
Aug. 29	Yellowstone Nat. Park (Gen. Del.)
Sept. 14	5570 Etzel Ave., St. Louis 12, Missouri
Later	Home port: Biology Laboratories, Harvard, Cambridge, Mass

The "Whistling Moth", Hectasia fenestrata Bois., an agaristid of Australia, is so named because of the clear whistling sound produced in flight by a ribbed membranous area on the fore wings.

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.