

The Lepidopterists' News

THE MONTHLY PERIODICAL OF THE LEPIDOPTERISTS' SOCIETY

c/o Osborn Zoological Laboratory, Yale University, New Haven 11, Connecticut, U. S. A.

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A VISIT TO THE HOME OF THE LATE WILLIAM HENRY EDWARDS AT COALBURG, WEST VIRGINIA

by Cyril F. dos Passos
Mendham, New Jersey

Early in 1948 a letter was received from Dr. Roy Bird Cook, Secretary of the West Virginia Board of Pharmacy, Charleston, West Virginia, concerning some manuscripts of William Henry Edwards (1822-1909). As is well known, Edwards, who spent many years of his life at Coalburg, was the author of that exquisite three volume work on the Butterflies of North America, and one of the leading lepidopterists of the Nineteenth Century. A short sketch of his life was published in The Lepidopterists' News (vol.1: p.8; 1947).

Dr. Cook's letter lead to considerable correspondence with him, and later with Mrs. John Augustine Willis of Coalburg, a granddaughter of Edwards, during which it developed that there was considerable unpublished material in Charleston and Coalburg relative to the entomological activities of Edwards. The upshot of the matter was that it seemed highly desirable to visit those places and examine the material firsthand. No opportunity arose to make the trip until this year.

On the afternoon of April 11 I arrived in Charleston and soon thereafter received a visit from Dr. Cook at my hotel. Together we went to the State Capitol Building where a large part of the Edwards' material is housed in the Library of the State Department of Archives and History, of which Mrs. Cook is the Directress. There I met Miss Miriam Woods, Librarian, who kindly showed me the Edwards' treasures. These are kept in the Document Section of the Department of Archives and History, having been given to the Library by the late William Seymour Edwards, only son of Edwards. They consist of some twenty-one entomological journals and notebooks to which there are three volumes of indexes. These are all bound in their original red leather bindings and record almost all of Edwards' observations, especially in rearing butterflies, between 1858 and 1894. Prior to the former date Edwards' interest had been chiefly in birds, and it was not until he was about thirty-six years of age that he turned to butterflies in earnest. In addition there are nine scrapbooks, mostly devoted to butterflies, about three hundred and fifty letters written to Edwards by lepidopterists from all over the world, and a number of miscellaneous books and papers. Truly, these apparently heretofore unrevealed documents are most valuable sources of information for the students of Lepidoptera.

Early the next morning Dr. Cook called for me and took me to Coalburg, which is about ten miles from Charleston. There I was received by Mrs. Willis in the house Edwards built when he moved there in 1869. The house is situated at the mouth of a wooded ravine where the land slopes gently in front to the Kanawha River. The first settlers had cleared away several acres, leaving a few large trees, but the forest covered the mountain down to the clearing. Edwards' home had a natural setting of mountain, hillside and river. I was shown through the rambling, white, two story frame house which has changed but little since it was built, except in the way of modernization. The Edwards were intent upon making their new home as beautiful as the one they had left on the Hudson. They laid out their garden carefully with beds and borders of old-fashioned flowers, roses and gay annuals to attract the butterflies, while fruit trees, berry bushes and a vegetable garden were planted on the hillside and at the river bottom. The view from the house up and down the valley and across the river is beautiful.



Behind the house rise the hills - rather steeply - and the land grades off rapidly on either side. It is in these hills that the coal seams were discovered that first brought Edwards to this section. The original coal mine still belongs to the family, Mr. John A. Willis being the President of the Coalburgh-Kanawha Mining Company which operates the property.

dos Passos: EDWARDS' HOME- cont.

During the morning Mrs. Willis permitted me to examine some unpublished manuscripts of Edwards, his last journal, and some books from his library, among which is a beautifully bound three volume set of the Tenth Edition of Linnaeus' Systema Naturae. Later we were joined by Mrs. Willis' daughter, Miss Anne Edwards Willis, and at luncheon by Mrs. Willis' husband. After lunch Mr. Willis took me to see the mine and its tipples, then by automobile up the valley to admire the views and see one of the dams constructed on the Kanawha River in aid of navigation. That evening we were joined at dinner by Mr. and Mrs. John A. Willis, Jr., son and daughter-in-law of my host and hostess, and talked of Edwards and the early days in that section of the country. Previously I had met young Mr. and Mrs. Willis' two charming children, Charlotte and Douglas, great-great-grandchildren of Edwards.

After dinner Dr. and Mrs. Cook called and took me back to my hotel where, before going to sleep, I enjoyed reliving in my mind the experiences of the day - one that will be long remembered with deep gratitude to Dr. and Mrs. Cook and Mr. and Mrs. Willis and their family for their generous hospitality. Perhaps at a later date I may have something more to say concerning some of the manuscripts examined while at Coalburg.

On the way to Charleston by automobile, along the main highway, U.S. Route 21/60, west of Cedar Grove on the Kanawha River opposite Coalburg, a state marker has been erected reading -

"Coalburg

Here was home of W.H. Edwards, naturalist and explorer, who led important expeditions to the Amazon in 1846 and was one of the leading authorities on butterflies and moths. He was a descendant of the renowned Jonathan Edwards",

from which spot one obtains a delightful view of the Edwards' home in its charming setting.

DANAUS RECORDS FOR "THE NEARCTIC BUTTERFLIES"

The Coordinating Editor, F. Martin Brown, requested records on Danaus and reported on the progress of response from Society members (Lep. News, vol.2: p.101; vol.3: pp.13,27). On our recent trip to Colorado, I visited Mr. Brown and saw his tabulations of the interesting Danaus records which have been submitted. However, I was impressed by the large gaps for D. plexippus, gaps which could easily be filled from the data labels on specimens in the collections of Society members. So I urge all members who have not yet sent records to Mr. Brown to do so before October 15 of this year. Please include dates of capture and try to give the county as well as exact locality. Of course, all records of Danaus from North America are welcome, but particularly for D. plexippus, the common and wide-ranging Monarch.

C.L.R.

RECORDS ON PAPILIO FLYWAYS

by Teiso Esaki
Fukuoka, Japan

The notes on the "Papilio Flyways" of Messrs. Ehrlich (Lep. News, vol.2: p.92) and Klotz (vol.3: p.25) recalled to me some earlier references of the similar habit demonstrated by several Japanese species of Papilio. The earliest record may be traced back as early as in 1908. Miyake wrote (Trans. Ent. Soc. Japan, vol.2: pp.128-129; 1908), "many Papilio species use 'flyways' flying to and fro the same route. This habit is especially conspicuous in Papilio helemus. This butterfly flies early in the morning and towards the evening and is rarely met with on the wing during daytime. When it flies it uses always a definite route in either direction." Doi published (Insect World, vol.24: p.30; 1920) a note under the title, "On the 'butterfly way' " and described his observation on Papilio maacki made in Fushun, S. Manchuria. He observed on August 3, 1919, on a hill near Fushun the above-mentioned butterfly flying from northwest to southeast over the hill in the morning and to the reciprocal direction at 2 o'clock in the afternoon. He observed the same fact on the following day. He added some other observations on similar habit of Argynnis and Melitaea made in Korea. Okazaki gave some notes on the similar habit of Papilio observed by Satake in Japan (Insect World, vol.24: pp.102-103; 1920). Hamaguchi published notes on his careful observations on Papilio helemus made in Kochi, Shikoku, Japan (Insect World, vol.27: pp.298-302; 1923). He noticed that the flyway of the butterfly was definite every year in the same locality, unless obstacles occurred on the way. According to his many years' observations most individuals (82-83%) of Papilio helemus went in the morning and back in the afternoon the same route every day. He gave detailed notes on the variability of the route according to the location of flowers on the way to be visited by the butterfly, the seasonal difference (spring and summer generations), and on the special behavior of the "patrol butterfly", by which the author meant one or two butterflies which flew earliest in the morning every day.

This habit was since then often quoted in guide-books of insect collecting in Japan and became fairly popular among butterfly hunters. They enjoy sometimes the "sitting collection" on the butterfly route in order to catch gorgeous swallowtails which may otherwise be rather difficult to capture.



BUTTERFLIES OF THE MALAY PENINSULA

A welcome correction must be made in my short obituary (Lep. News 2: p.79; 1948) of A. Steven Corbet, D.Sc., late Lepidopterist of the British Museum and well-known specialist of Malayan Rhopalocera. Mr. M.W.F. Tweedy, Director of the Raffles Museum, Singapore, kindly informs me that the 2nd Edition of Corbet & Pendlebury's book "Butterflies of Malay Peninsula" had been finished before Mr. Corbet's decease and that the complete manuscript has been entrusted with Mr. Tweedy. The book will be published in due course.

A. Diakonoff
Zoölogisch Museum, Buitensorg, Java

A LIGHT TRAP FOR INSECTS*

by C.B. Williams, Sc.D.
Rothamsted Experimental Station
Harpenden, England

In 1923 I designed a light trap for insects, particularly for use in the Egyptian Desert. Since then a number have been made, with small modification leading to simplicity in structure, but without altering the basic design.

One has been in use at this Experimental Station, about 25 miles north of London, every night for four years before the war and every night for three years - now just starting its fourth year - since the war. Others have been in use in different parts of Britain, in East Africa, in South Africa and in Belgian Congo.

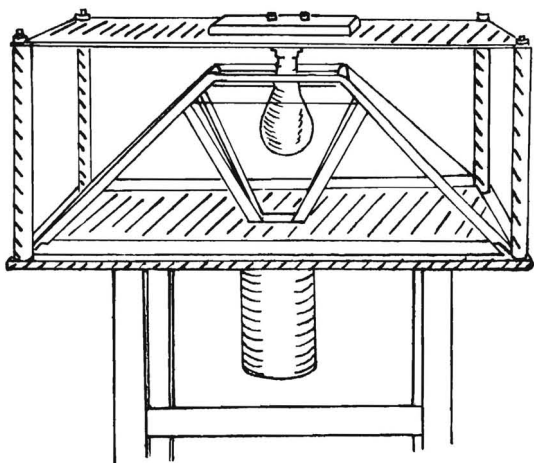


Figure 1

In the one in continuous use at Rothamsted we caught in the first four years about 853,000 insects of which about 740,000 (86.7%) were Diptera; 88,000 (10.3%) Lepidoptera; 14,800 (1.7%) Rhynchota; 6,000 (0.8%) Hymenoptera; 2,000 (0.26%) Coleoptera; 1,250 Psocoptera, 322 Neuroptera, 256 Trichoptera; 274 Thysanoptera and 10 Ephemeroptera. It will be seen that under our local Ecological correction (including very little standing or running water) all but 3% of the catches were Diptera and Lepidoptera.

Among about 15,600 macrolepidoptera which were identified there were included 240 species, which is over one third of the total number of species of these families known to occur in Britain. Since the war the number of species in the single trap, never moved from its original location, has risen to about 275.

*Ed. Note: When Dr. Williams provided us with a few separates of his recent paper on the Rothamsted Trap, we offered them to Society members. The demand so quickly consumed the available separates that we asked Dr. Williams to provide us with an abbreviated version of the description of his famous trap for the *News*. The present account was his prompt and gracious response. C.L.R.

So the trap has been well tested and has been found to be satisfactory, but of course is not beyond further improvement.

The general principle is that a bright light - (electric acetylene, or gasoline vapour) is surrounded on all four sides by sloping glass plates which lead the flying insect first into an enclosed space round the lamp and then into a killing bottle below the light (see fig. 1).

Once the basic plan has been grasped, the details can be varied to suit local conditions. If electricity is available it is a simple matter to construct a trap round an electric bulb of the desired size and with a suitable sized killing bottle. We have had traps with a 1000 watt bulb, but most of the work has been done with lights of 200 watts.

The trap with the 200 watt bulb is approximately 22 inches square and 10 inches from the base to the roof. The sizes of the glasses used to make them are shown in figure 2. The glasses have been fixed in various ways; metal frames, adhesive tape, or wooden triangles may be placed diagonally at each corner to support the inner and outer glasses. Ordinary adhesive tape will last a week or two, and if varnished, will survive several months.

All parts of the trap should be blackened and no light should escape through the killing bottle below.

For the killing bottle we use 2 lb. fruit bottling jars, but bigger or smaller could be adapted. The largest moths we get here are Sphingidae up to about 4 1/2 inches across the wing, but of course if one was expecting many *Erebus odora* a small barrel might be more suitable.

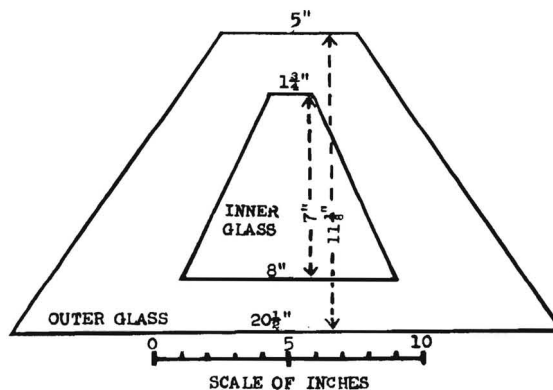


Figure 2

For killing agent we have used sodium cyanide, calcium cyanide, carbon tetrachloride, and tetrachloroethane. The latter is very satisfactory but requires care in using as inhaling continuously small doses may be injurious to health. If the killing bottle is

in good condition 99% of the Lepidoptera should be in a fit condition to identify. The main trouble is with large beetles which are difficult to kill and which in walking round may damage the other insects in the killing bottle, especially the Lepidoptera.

I hope this year to experiment with "dry ice" (solid CO₂) as a killing agent. I think even large beetles should stop crawling at temperatures below zero.

A friend of mine has no killing bottle to his trap, but a large box with the inside painted white. The moths settle on the sides of the box and are examined (with certain obvious precautions) the next day. In this way only the desired specimens are killed and the other liberated.

Full details and photographs of various forms of the trap have been published in the Bull. Ent. Res., vol.15 (1924): p.57; in the Trans. R. Ent. Soc. London, vol.83 (1935): p.523; and in the Proc. R. Ent. Soc. London (A), vol.23 (1948): p.80. A record of the total number of insects caught each night for four years will be found in the Proc. R. Ent. Soc. London, vol.15 (1940): p.78.

One of our traps was fitted with eight killing bottles on a turn table, and by means of a clock each was exposed for one eighth of the period from 1/2 hour after sunset to 1/2 hour before sunrise. From this it was possible to say at which period of the night different species entered the trap. Details of this trap and some results will be found in the Trans.R.Ent.Soc.London, vol.83 (1935): p.523.



PALEARCTIC LEPIDOPTERA GENITALIA AND OVA TO BE FIGURED

The able editor of Lambillionea, M. Lucien Berger of Brussels, recently announced a new plan whereby that periodical will publish a very long series of photomicrographs of the genitalia of the Palearctic Lepidoptera. They will not be present in a tight systematic sequence but rather will appear according to the groups completed by their respective authors. The first 9 species figured, the first section of Geometridae appear in Nos. 3-4 of Volume 49 of Lambillionea and the first preparator is F. Richard, remembered by Lep. News readers as the author of the article we translated in part on getting ♀ butterflies to oviposit in captivity (Lep. News, vol.2: p.74; 1948).

A second valuable series which commenced in the next issue of Lambillionea (Nos.5-6) is devoted to illustrating the ova of Lepidoptera. The author, L. Sarlet, presents excellent drawings of ova of 9 Nymphalidae (Argynninae) and 7 Satyridae.

Our hearty congratulations to the editors of Lambillionea for their decision that the time has come "no longer to figure only minor forms" of Lepidoptera. Lepidopterists in all parts of the world will find these two series of value for comparisons.

C.L. Remington

PAPILIO PUPA EMERGING AFTER TWO WINTERS.- In the fall of 1947 I received in trade with Prof. Macy, Reed College, Oregon, several chrysalids of Papilio zelicaon. Three did not hatch so I just left them in a jar, and this spring (1949) I watered them and chrysalids of P. troilus and placed over a stove pilot light to force early hatching. One TWO-YEAR OLD P. zelicaon hatched on Feb. 24th to our amazement! The other 2 chrysalids still look as though they are alive.

Vonta P. Hynes
Battle Creek, Mich.

LIZARD CATCHES UNDERWING MOTH.- Early in May I caught a flash of a moving red object under a shrub in my garden. This proved to be a Catocala ultronis in the mouth of a lizard. On being disturbed the lizard dropped the moth. When mounted the insect was almost a perfect specimen.

W.M. Davidson
Orlando, Fla.



PERSONALIA

PROF. W.T.M. FORBES has been visiting various institutions studying material for the next section of The Lepidoptera of New York and Neighboring States. He spent several days at the Museum of Comparative Zoology at Harvard College and later planned a month at the Canadian National Collection at Ottawa. The third part, on the Noctuidae (=Phalaenidae) will probably go to the printer next summer (1950) and will be issued about a year later.

M. S.G. KIRIAKOFF has been made an associate of the Belgian National Fund for Scientific Research and as a consequence will be enabled to pursue on a larger scale his investigations of the tympanic organs of Lepidoptera.

We learned with regret of the passing on March 20th, 1949, of DR. EUGENE E. GLOOR, of Watsonville, California, a Sustaining Member of the Lepidopterists' Society. He was a physician who had a large general collection of Lepidoptera and was known for his interest in helping children with entomological hobbies.

J. DONALD EFF, active Colorado collector, has had a number of visiting lepidopterists at Boulder this year, including MAJOR S.S. NICOLAY of Pensacola, Florida, A.H. MOECK of Milwaukee, Wisconsin, RAY ROMINE of Marion, Ohio, and P.S., C.L., and JEANNE E. REMINGTON of St. Louis, Missouri, and New Haven, Connecticut. He joined the Remingtons in a return trip to the now-famous Rabbit Ears Pass in search of more Speyeria egleis secreta. Eff, F. MARTIN BROWN, and REV. B. ROTGER are planning a revised check-list of the butterflies of Colorado.

MRS. MARGARET M. CARY of Philadelphia, Pennsylvania, and J.W. CADBURY of Pemberton, New Jersey, have returned from a highly successful trip to Venezuela for the purpose of studying Sphingidae. They met PROF. RENÉ LICHY at Caracas, but academic duties prevented him from joining them in the field.

A LIST SUPPLEMENTING BATES' "BUTTERFLIES OF CUBA"*

by Salvador Luis de la Torre y Callejas
Matanzas, Cuba

1. Papilio (Pterourus) troilus ilioneus J.E. Smith.
Collected in Cojimar, Havana Province (May 30, 1931).
2. Papilio (Heraclides) andraemon hernandezii Torre.
Captured in Ampliación de Almendares, Havana, in Matanzas, and other localities, and described as a new subspecies by Dr. Ricardo de la Torre in December, 1936.
3. Ascia monuste monuste (Linne').
This name was placed by Bates as a synonym of Pieris phileta phileta (= Ascia monuste subotea) which has been collected by us in Bellamar beach, Matanzas Province (in May, 1944, and in October and November, 1947).
4. Ascia monuste phileta (Fabricius).
This name also was placed by Bates as a synonym of Pieris phileta phileta (= Ascia monuste subotea). It is this subspecies that appears more frequently in Florida, and which I have collected in Bellamar beach, Matanzas, (November, 1947) and in Versailles, Matanzas, (July, 1940).
5. Eurema (Pyrisitia) dina citrina (Poey).
The names citrina and laras were placed by Bates as synonyms of dina dina. Afterwards he considered laras as a distinct species; but we consider laras as a synonym of citrina, which is possibly a seasonal form of dina.
6. Eurema (Eurema) daira sbricola (Poey).
This is the winter form of daira, which was placed by Bates as a synonym of palmira (summer form of daira).
7. Eurema (Eurema) elathea cubana (Herrich-Schäffer).
We think according to observations of Mr. Pastor Alayo that cubana is a seasonal form of elathea, which flies in summer, near the sea. Alayo collected many specimens in Siboney beach, Oriente Province.
8. Danaus (Dicos) plexippus megalippe (Hübner).
Collected on the San Juan River, Matanzas Province (August and October, 1940).
9. Danaus (Dicos) plexippus portorricensis Clark.
Collected in the Loma del Gato, and Renté, Oriente Province (summer of 1942; summer of 1947).
10. Danaus (Danaus) gilippus strigosa (H.W. Bates).
Captured in Versailles, Matanzas Province, and in the Bosque de la Habana (July, 1940).
11. Danaus (Danaus) gilippus gilippina (Hoffmann).
Collected in Santiago de Cuba, Oriente Province.
12. Danaus (Danaus) gresinus montesuma Talbot.
Captured near San Cristóbal, Pinar del Rio Province (spring of 1932 and autumn of 1933) and in the Yumuri valley, Matanzas Province.
13. Calisto sintheus sintheus Bates.
Found at elevations between 2750 ft. and 3325 ft. on the Loma del Gato, Oriente Province (1932).
14. Calisto sintheus muripetens Bates.
Collected in Trinidad Mountains (May, 1932 and May, 1936).
15. Calisto delos Bates.
Found on the Pico Turquino, Oriente Province (1932 and 1935).
16. Heliconius (Heliconius) charithonius punctatus Hall.
Collected in Matanzas on several occasions.
17. Agraulis vanillae nigrior Michener.
Captured in Cojimar, Havana Province (Aug., 1945).
18. Euptoieta claudia (Cramer).
Captured in Bellamar beach, Matanzas Province (spring of 1935 and summer of 1947), in Oriente Province, and in other localities of Cuba.
19. Polygonia interrogationis fabricii (Edwards).
Collected in Bellamar beach, Matanzas Province (summer of 1941).
20. Hamadryas amphione mexicana (Lucas).
Taken in Rangel, Pinar del Rio Province (Aug., 1934).
21. Hamadryas ferax diasia (Fruhstorfer).
Collected in Santiago de Cuba, Oriente Province (December, 1946).
22. Limenitis archippus floridensis (Strecker).
Collected in the Cotorro, Havana Province (August 7, 1933).
23. Libytheana bachmani bachmani (Kirtland).
Collected in Marianao, Havana Province (summer, 1933) and Cojimar, Havana Province (Oct., 1934).
24. Thecla limenia Hewitson.
This name was placed by Bates as a synonym of Strymon columella (= Thecla columella), but Comstock & Huntington have demonstrated that both are distinct species. We have several specimens collected in Oriente.
25. Choranthus radians ammonia (Plöts).
Captured in Rancho Mundito, Pinar del Rio Province (July, 1947), in Santiago de las Vegas, Havana Province (May, 1947), and in Bellamar beach, Matanzas Province (Sept., 1947).

SOME SPECIES COLLECTED OR OBSERVED IN CUBA
THAT WERE CITED BY BATES AS DOUBTFUL:

26. Pieris protodice protodice Boisduval & Leconte.
Collected in the Almendares river, Havana Province (spring of 1933), and in the Cotorro, Havana Province (summer of 1933).
27. Atrytone singularis singularis (Herrich-Schäffer).
Collected in abundance in Siboney, Oriente Province (July, 1943 and Aug., 1944).
28. Philaethria dido (Clerck).
Observed by Dr. Ricardo de la Torre in Havana Province.

An important notice concerning the recovery in Kansas in 1948 of a marked specimen of Anaea andria, the Goatweed Butterfly, appeared in the November, 1948, issue of the Lep. News. We have received no response thus far as to the individual and place of marking. This is a very important record and we are eager to discover the origin of the specimen. It was marked by removing scales to leave numbers and letters clearly visible. Anyone who can help discover the marker will merit the warm gratitude of all migration students. The marked Anaea is now in the hands of the Lep. News editor.

*Bates, Marston, "The Butterflies of Cuba", Bull. Mus. Comp. Zool., vol. 78: pp. 63-258; February, 1935.

REVIEW OF VOLUME I OF HAYWARD'S
RHOPALOCERA OF ARGENTINA*

The long-awaited publication of this first in a series of eight planned volumes on Argentine butterflies is even more elegant than expected. Few, if any, of the dozens of large and exquisite books on Lepidoptera surpass the beauty of Professor Hayward's first volume. The book looks more like the finest works of the Eighteenth Century than the crowded, imperfectly colored volumes to which we are accustomed today. The size of the pages is about 10" x 14". The text pages have broad margins, comfortably large type, and a wide assortment of type forms to make it easy to move quickly from page to page to find any one kind of information. The first twelve plates have clear, crisp line drawings, and the last fifteen are plates in full color of startling perfection, unlike some of the plates in recent works by Seitz, Holland, and others. The Hayward figures are well spaced, so that a crowded appearance is avoided and yet space is not wasted. The paper is heavy and of excellent quality. The cloth binding appears to be tough and long-lasting.

These aspects of materials and workmanship, while not related to an evaluation of the science in the book, will be important to anyone contemplating the large outlay of funds required to purchase it.

The scientific excellence of the volume appears fully as great as its technical excellence. This "Tomus Primus" covers the subfamilies Pyrrhopyginae and Pyrginae of the family Hesperidae, but it also introduces the Lepidoptera, with brief accounts of the morphology and metamorphoses and keys to the suborders and divisions, the superfamilies of Rhopalocera, the families of Hesperioidea (Hayward accepts as full families the Euschemonidae, Megathymidae, and Hesperidae), and the subfamilies of Hesperidae (Pyrrhopyginae, Ismeninae, Pyrginae, Hesperinae) of the world. Hayward treats 11 genera and 28 species of Pyrrhopyginae (11 are in *Pyrrhopyge*) and 51 genera and 167 species of Pyrginae. Apparently all the species are figured, 166 both by ♂ genitalia and in color, 8 only by the ♂ genitalia, and 22 only by adults in color.

Professor Hayward gives keys to the Argentinian genera, based on the males, and wherever there are two or more Argentinian forms in a genus, there is also a key to the forms. For each genus and species and higher category there is a detailed bibliographic synonymy. The original descriptions of all categories are reproduced in the original language. Then follow a redescription in Spanish, notes on the geographic distribution with specific Argentinian localities, and host plants and biological information if known. A particularly pleasing feature is the etymological derivation of nearly every generic and specific name.

* Lep. Soc members who wish to purchase this expensive and beautiful volume may order through the *Lep. News* office and will thereby permit Argentinian entomologists to purchase needed literature in the U.S.A. in spite of the soft currency barrier. Exchange rates are still being arranged; so an exact price in dollars is not yet known as this issue goes to press.

The plates are followed by a bibliography and five useful indices, to: main sections; genera and higher categories; species and lower categories; host plants; and species figured.

Only two criticisms occur to the reviewer in examining this wholly satisfying blend of art and science. First, the explanations of figures on the plates are very difficult to read when the user is looking up a particular figure; it seems probable that clear printing of these names would not detract from the beauty of the plate make-up. Second, there is surprisingly little information on the biology of the species; possibly time has not permitted much attention to life histories, host plants, ecological relationships, and so on, but this volume certainly compares unfavorably with nearly all other butterfly books in this one respect.

C.L. Remington

RESEARCH REQUESTS

MIGRATING MONARCHS

Dr. P.H.H. Gray, of Macdonald College, Quebec, Canada, is marking *Danaus plexippus* for the autumn southward flight by means of holes punched in the wings. Other marking experiments are also being tried, and North American collectors are urged to watch all Monarchs for indications of markings. Any recoveries can be reported to the *Lep. News* editor and will be traced as quickly as possible.

SPHINX CANADENSIS & EUPHYDRYAS LARVAE

Information needed on *Sphinx* (= *Hyloicus*) *canadensis* Bdv. All *Lep. News* readers having specimens please send complete information from data labels (a post card will do). All records will be published and collectors acknowledged.

Occupied webs of hibernating larvae of Western North American *Euphydryas* sought for hybridisation studies. Will exchange webs full of *E. phaeton* larvae if desired.

C.L. Remington, Osborn Zoological Laboratory, Yale University, New Haven 11, Conn.

ERRATUM: In the Phylogenetic Chart of the Orders of Insects (*Lep. News*, vol.3: 47) the Order Psocoptera was inadvertently omitted. It was included in the explanatory text (p.45) as the tenth order. PSOCOPTERA should be inserted in the chart at the end of a long branch originating near the base of the Thysanoptera branch.

C.L.R.

PLEASE NOTIFY THE NEWS EDITORS
OF CHANGES OF ADDRESS PROMPTLY

LETTERS TO THE EDITOR

Department of Entomology
British Museum (Natural History)
Cromwell Road, London S.W. 7
23rd. June 1949

The Editor
The Lepidopterists' News

Sir,

As one of the "alternates" who attended every meeting of the International Commission on Zoological Nomenclature held during the Zoological Congress in Paris last July, may I congratulate you on publishing the very welcome letter from Mr. dos Passos which appeared in your February issue. I have been greatly disturbed by the adverse criticisms and more particularly by the rumours of such criticism current in entomological circles, concerning the conduct of those meetings and therefore the forthright endorsement of the manner in which the Paris proceedings were conducted, by a man of such wide experience of the conduct of affairs in that larger world outside our special interests, is very valuable.

It is I think true to say that all of us who attended those meetings, commissioners, alternates, or plain members of the Congress, were imbued with an intense desire to 'get on', to show zoologists that the Commission was by no means dead (I seem to remember a wartime movement to supplant it), to wipe off clogging arrears, to put its own house in order and if possible to do something about bringing the Rules up-to-date. How was all this to be done in a week? It was no surprise to me that not a dissentient voice was raised when the Secretary proposed, following the precedent of 1935, that we should suspend the Commission's Bye laws for the duration of the meeting. That done the path was clear; we realised that there might well be pitfalls in this path, that we might well make mistakes. However, as a properly constituted and responsible body (not, Mr. Editor, "a small, unrepresentative and... insufficiently informed group of individuals") having the full power and authority of the Commission, it was our duty to take these risks. We proceeded, with digressions now and then, on the principle of agreeing unanimously everything we could, most of us readily compromising upon minor issues in order to achieve major results, withdrawing items upon which it became quickly apparent either that the information available was not complete or that such a conflict of opinion obtained that little hope of quick agreement existed. As just one example of the action taken on a matter of some importance I will refer to the conflict between the proponents of strict priority and their opponents who favoured a far greater use of suspension of the rules than is at present employed. Very strong feeling existed, in Washington at least, in favour of the strictest priority but, although in my view equally strong and much more broadly based expression was given to the opposite view by Scandinavian and British Zoologists present at Paris, some of whom would even advocate an almost arbitrary fixation of names throughout whole Orders, by suspension of the Rules, it was decided

to refer the matter back for further consideration. Had a vote been taken, the advocates of the strictest priority would certainly have been defeated.

In your editorial comments, Mr. Editor, I am very glad to read your reference to the "especially strong agitation to amend the Rules, adjust the conflicts which had arisen from contradictory Opinions and incorporate rules for the omitted points". You go on to state, quite correctly that "Dr. Sabrosky has been one of the leaders in this endeavor". Now it seems to me very odd that, if this is all true, as I certainly believe it to be, the very criticism being levelled so insistently against the Paris commission is that they actually had the temerity to do those very things! Temerity is indeed the right word, for whoever will attempt to "re write" the Rules knows full well that he can never satisfy everybody, that always there will be a bee in somebody's bonnet that can't be stilled. However, the Commission having taken its decision was confronted with the question of how to give effect to it. Four days remained. Could the Commission literally rewrite the Rules in four days? Impossible. After 50 years of argument the Rules are still not right. The only practical thing was to decide in principle what was to be done and to arrange for somebody to do it. This we did; and our action, having been accepted by Congress, cannot be set aside except by the next Congress.

The position now is that nothing further can be done until the new edition of the Rules has been published; and it is a sheer waste of time and energy to argue about what has been or might have been done or not done until this takes place. Neither the Commission nor Congress itself can clothe the rules with the authority of the law, so arguments about legality are irrelevant; only their acceptance by zoologists can give them any semblance of authority, and only their use by zoologists can lead to their final adoption, for I cannot believe that any body of scientific men would consent to be bound by rules which are repugnant to them. Let us therefore await these Rules with patience and forbearance; the more we argue about the Paris meeting the longer shall we have to wait for the results of that meeting. I am content to be judged on those results.

Yours sincerely,

N.D. Riley

Laboratoire voor Zoologie
Universiteit te Gent
Gent, Belgium

Editor
The Lepidopterists' News

Dear Sir:

Since you have honored my paper "A Classification of the Lepidoptera and related groups" with a review in the Lep. News 3: p.50, I hope you will allow me to make a few remarks regarding one or two points in your criticism.

Kiriakoff: LETTER- cont.

First, I cannot see why giving names to NEW CATEGORIES must be considered as a "deplorable nomenclatural procedure". If you have in view the names labelled in your review as "nov.", the use of new names in those cases was unavoidable, since, as far as I am aware, the superordinal category has never been used. Should I have given new names to existing categories (i.e. those used in recent classifications: suborders, families &c.) or even to new groupings bearing a rank equivalent to that of one of those categories, - I certainly would have been guilty of using a deplorable procedure. This, however, is not the case when a hitherto unused category comes into the play. I certainly agree with your general views on the question; but I think they do not apply in the present case.

Secondly, I cannot agree that any "superorder" containing Mecoptera must include also the Diptera. The latter certainly are near relatives of the former; but, in my opinion, Lepidoptera and Trichoptera are still closer related to the Mecoptera. Accordingly, I unite these three groups as a superorder, the latter being the next "upper" category. My paper only dealt with the Lepidoptera-group; so I put their more distant relatives aside; but, should I have had in view a more general classification, I would have arranged all the above groups in a single taxonomic unit above the superorder, comprising two superorders, one with the Mecoptera, Trichoptera and Lepidoptera, the other with the Diptera and Siphonaptera, although the latter are sometimes put apart and form a superorder of their own.

Thirdly, the fact that the Caddis-flies and the Lepidoptera have been for so long considered orders, should not prevent one from trying to establish more exactly their respective taxonomic values. I, for one, think that the characters differentiating them are of subordinal value. There are other instances when considerations of long standing on the taxonomic value of a group have been modified. Let me take a significant example. In the same issue of the NEWS (45-47), you have given a review of insect-orders; the 8th order is that of the Orthoptera, including Grasshoppers, Grylloblattids, Roaches, Praying Mantids, Walking Sticks &c. In Martynov's classification (in Trav. Inst. Paléont. Ac. Sci. U.R.S.S., 7/4, 1938), used (with a few modifications) by Jeanne in the new "Traité de Zoologie", T.ix, 1949, Roaches and Mantids form the order Dictyoptera of the superorder Blattopteroidea; Grasshoppers (order Orthoptera), Grylloblattids (order Notoptera), Walking Sticks (order Cheloptera) and the Embiids (order Embioptera) the superorder Orthopteroidea. I have gone into some detail to show that my arrangement does not differ from the classical one much more than Martynov's one does.

I must emphasize that I have tried to exteriorize in my arrangement the gradations of differentiating characters between the various groups, and to assign each of the latter a position in accordance with the importance of the said characters.

Very sincerely yours,

(signed) S.G. Kiriakoff

ATLAS DES LÉPIDOPTÈRES DE FRANCE- III

The third and final part of the "Atlas des Lépidoptères de France, Belgique, Suisse" has now appeared. (See review of the second part in Lep. News, vol.2: p.88; 1948.) This third fascicle, like the second, is by Claude Herbulot. It includes the families Geometridae, Lasiocampidae, Zygaenidae, Pyralidae, Pterophoridae, Tortricidae, Orneodidae, Aegeriidae, Tineidae, Incurvariidae, Tischeriidae, Stigmellidae (=Nepticulidae), Hepiolidae, Eriocraniidae, and Micropterygidae. These are extremely broad families, made very inclusive to simplify the Atlas. Herbulot makes it clear that his "Tineidae", for example, may actually be divided into as many as twenty families for France, alone.

The text includes about 400 species, of which only 121 are in the "Microlepidoptera". This exaggerated treatment of Geometridae, Lasiocampidae, and Zygaenidae (with 22 of the 35 French zygaenids!) is justified by the author in three ways: 1) the book is intended primarily to aid amateurs, who usually are most concerned with the "Macros"; 2) the proportion of species included in Fascicle II for each family was maintained for the three families of Macros left for Fascicle III; 3) the Micros are relatively rarely taken and must be reared to develop a worthwhile collection. However, it is disappointing to find that some families which are very popular with amateur moth collectors are not given more extensive attention. Only 4 of the 37 Aegeriidae in France are mentioned, and only 3 of the 82 Pterophoridae!

There are twelve colored plates and their figures are superb - remarkably so for an inexpensive work. The eleven plates of adult moths by R. Préchac, a talented illustrator, contain 167 species of Geometridae, 15 Lasiocampidae, 16 spectacular Zygaenidae, and 112 species of Micros. The locality and date of each specimen figured are precisely noted. The last plate shows 26 larvae. The colored illustrations alone are well worth the price of the book. Aside from these plates there are text figures of venation and a full page showing the eighth ventral abdominal plate of males of 25 species of Eupithecia. Herbulot thus makes available to the French amateurs a rather easily used diagnostic genitalic character usually regarded as the tool only of the specialist.

In the text are given for each species: the distribution in France, Belgium, and Switzerland; the flight period; and the larval food and season. For the few species not figured there are brief descriptions. Each family is simply characterized and keys to subfamilies are included. For every family there is a note of the number of species in the world and the number of species and genera in France.

Now that the "Atlas des Lépidoptères" has been completed, Lep. News readers may wish to obtain the set. Each fascicle is available for 480 French francs from: N. Boubée & Cie., 3, place St-André-des-Arts, Paris (VI^e), FRANCE. The fascicles are as follows:

Fasc.I (1944) RHOPALOCÈRES, by F. LeCerf.
Fasc.II (1948) and III (1949) HÉTÉROCÈRES, by C. Herbulot.

C.L. Remington

RECENT LITERATURE ON LEPIDOPTERA

155. Berger, L.-A., "Un nouveau *Cosymbia*." *Lambillon-ea*, vol.49: pp.33-34, 1 fig. Apr. 1949. Describes as new Geometrid *C. delaeveri* (Membre, Belgium) differing from *C. ruficiliaria* only in ♂ genitalia, which are figured. Location of type not given. (C.R.)
156. Beuret, Henry, "Lycaenidologische Notizen (Lep.) (Ein Beitrag zum Problem der Nomina nuda)." *Mitt. Münchner Ent. Gesell.*, vol.34: pp.363-386. 1944 [1 Dec. 1948]. Places definitely several infra-specific names of European Blues and Coppers. Extensive bibliography. (C.R.)
157. Blackwelder, R.E., "Bibliographia." *Coleop. Bull.*, vol.3: pp.25-29. 22 Apr. 1949. A valuable extensive list of important sources of bibliographic information on insects, with emphasis on Coleoptera. (C.R.)
158. Bourgogne, Jean, "Les transformations subies par le fourreau de certains Psychidae pendant la croissance de la chenille (Lep.)." (In French.) *Bull. Soc. Ent. France*, 1948: pp.130-133, 7 figs. Detailed account of processes of covering cases by "bagworms"-*Fumea casta* and *F. crassiorella*. (C.R.)
159. Bourgogne, Jean, "Les *Parnassius* des montagnes francaises." (In French.) *Entomologiste*, vol.5: pp. 5-10, 4 figs. Feb. 1949. Semi-popular account, with figures, of *P. apollo*, *P. phoebus*, *P. mnemosyne* in France. (C.R.)
160. Bourgogne, Jean, "Observations sur l'instinct des chenilles de Psychidae (Lep.)." (In French.) *Bull. Soc. Ent. France*, 1949: pp.49-52. Apr. 1949. Report on experiments with "bagworms", *Fumea casta*, *F. crassiorella*, and *Acanthopsyche atra*, showing that the instinctive habit pattern in constructing cases are fairly rigid but are flexible in certain aspects of selection of materials. (C.R.)
161. Chermock, Ralph L., "Two new satyrids from North America." *Can. Ent.*, vol.80: pp.172-173. "1948" [1949]. Describes *Minois meadi mexicana* from Chihuahua, Mexico, types in the Carnegie Museum, and sinks *M. m. melania* Wind as a synonym of *M. m. meadi* (Edwards); also describes *Euptychia rubricata chenevorum* from Madera Canyon, Santa Rita Mountains, Pima Co., Ariz., and other localities in that state, location of types not stated, and sinks *E. r. smithorum* Wind as a synonym of *E. r. rubricata* (Edwards). (C.d.P.)
162. De Laever, E., "Trachea furva Schiff." *Lambillon-ea*, vol.49: pp.43-44. June 1949. Verifies occurrence in Belgium. (C.R.)
163. Emmet, A.M., "More Butterflies of the Arakan Coast." *Journ. Bombay Nat. Hist. Soc.*, vol.48: pp.62-74. Dec. 1948. Supplements earlier list by Gladman (same journal, vol.46). Records 111 more spp. and gives more notes on 29 from Gladman's list. Total in both lists: 270 spp. (72 Lycaenidae, 59 Hesperidae, 48 Nymphalidae, etc.)! (C.R.)
164. Evans, W.H., "Some New Hesperidae (Lepidoptera) from Africa." *Ann. & Mag. Nat. Hist.*, vol.2(ser.12), no.13: pp.54-56, pl.IV. 26 Apr. 1949. Describes as new: *Celaenorhynchus kimboza* (Uluguru Mts., Tanganyika); *Sarangese gaerdesi* (Abenab, S.W. Africa); *Goryxra kalinsu* (Kalinsu, Uganda); *Pelopidas fenta* ssp. *barnesi* (Vumba, S. Rhodesia). Brief descriptions, only fair photos of types, sketches of ♂ genitalia, but no figure of *barnesi*. Types in Brit. Mus. (C.R.)
165. Evans, William H., "The Mystery of the Black Powder." *Nature Mag.*, vol.41: pp.97-98, 1 photo. Feb. 1948. Careful account of emergence of *Hemaris senta* ("Clearwing Sphinx Moth") full scaled and of loss of most scales with first flutter. Some other biological notes. Good photo of scaled and unscaled adults and pupa case. (C.R.)
166. Fales, John H., "Monarch Butterfly Migrating in Botetourt County, Virginia." *Ent. News*, vol.60: p.68. Mar. 1949. Records flight on 28 Sept. 1941, near Roanoke, Va., with 7 per minute crossing road. (C.R.)
167. Fleming, Henry, "The Pericopidae (Moths) of Kartabo, British Guiana, and Caripito, Venezuela." *Zoologica (N.Y.)*, vol.34: pp.19-20. 16 May 1949. Describes as new: *Pericopsis catilina angustilineata* (Caripito). Also records 10 other spp. Sinks *Dyascema brotes* as synonym of *Pericopsis g. catilina*. (C.R.)
168. Forster, Walter, "Beiträge zur Kenntnis der ostasiatischen *Ypthima*-Arten (Lep. Satyrid.)." *Mitt. Münchner Ent. Gesell.*, vol.34: pp.472-492, pls.30-33. 1944 [1 Dec. 1948]. Describes as new from China: *Ypthima melli* (Likiang, N. Yunnan); *Y. pseudodromon* (Likiang, N. Yunnan); *Y. methora* ssp. *microphthalmia* (Likiang, N. Yunnan); *Y. sakra* ssp. *leechi* (Kunkalashan, Szechwan); *Y. conjuncta* ssp. *luxurians* (Kuatun, Fukien); *Y. sordida* ssp. *tsinlingi* (Tsinlingshan, S. Shensi); *Y. sodia* ssp. *tapaishani* (Tsinlingshan, S. Shensi) and *septentrionalis* (Mienshan, Shensi). Type of *leechi* in Munich State Collection; all others in König Museum, Bonn. Notes on other Chinese *Ypthima*. Fine photos of upper and under sides of all new forms and *Y. avanta*, *Y. sodia* & ssp. *albescens*, *Y. argus* sp. *hyampeia*, *Y. newara* ssp. *sarcopoea*, *Y. sordida*, *Y. lycus*, *Y. obscura*, *Y. giris*, *Y. dromon*, *Y. phania*. (C.R.)
169. Frings, Hubert & Mable Frings, "The Loci of Contact Chemoreceptors in Insects. A Review With New Evidence." *Amer. Midland Nat.*, vol.41: pp.602-658, 9 figs. May 1949. Reviews evidence of sense of taste in insects. Report new experiments on 23 spp. of insects, including *Pieris rapae* and *Colias philodice* adults, and *Danaus plexippus* larvae and adults. Distinct taste organs found on middle tarsi and proboscis of adults of all 3 spp., on fore tarsi of *P. rapae* and *C. philodice*, and on tips of labium and max. palpi of *D. plexippus* larvae. Tarsal and proboscis sensilla of *P. rapae* and *D. plexippus* described and figured. Extensive bibliography. (C.R.)
170. Garth, John S., "Studies in Arizona Lepidoptera. I. A new subspecies of *Speyeria atlantis* (Edwards) from the Kaibab Plateau, Grand Canyon National Park." *Bull. So. Calif. Acad. Sci.*, vol.48: pp.1-4, pl.1. 20 June 1949. Describes as new *S. atlantis* ssp. *schellbachi* (Grand Canyon, Coconino Co., Ariz.), with fine photos of both sexes. Types in coll. Allan Hancock Foundation, Univ. S. Calif. (C.R.)
171. Hatch, Melville H., "The 'Compleat' Taxonomist." *Coleop. Bull.*, vol.2: pp.71-72. Oct. 1948. A brief outline of some considerations important to the modern taxonomist. (C.R.)
172. Hayward, Kenneth John, "Insecta, Lepidoptera (Rhopalocera), familia Hesperidarum, subfamiliae Pyrrhopyginarum et Pyrginarum." (In Spanish), toms I of *Genera et Species Animalium Argentinorum*; 389 pp., 12 pls. uncol., 15 pls. col.; Buenos Aires; Fundacion Miguel Lillo; 1948. See review on page 66, above. (C.R.)
173. Hemming, Francis, "Important Advances in Zoological Nomenclature Achieved at the Thirteenth International Congress of Zoology." *Coleop. Bull.*, vol.2: pp.52-55. "June" 1948. An outline by Secretary Hemming of actions taken by the much discussed 1948 meeting of the Int. Commission on Zoological Nomenclature. (C.R.)
174. Holik, Otto, "Beiträge zur Kenntnis der Zygänen Südosteuropas. (Lep.)." *Mitt. Münchner Ent. Gesell.*, vol.34: pp.387-417. 1944 [1 Dec. 1948]. Distributional records on *Zygaena angelicae*, *Z. transalpina*, *ephaltes* (with new races *tymphrestica* from Velunchi, Greece, and *retyesati* from Retyesat Mts., Transsylvania. (C.R.)

175. Jaynes, H.A. & C.F. Speers, "Biological and Ecological Studies of the Spruce Budworm." Journ. Econ. Ent., vol.42: pp.221-225. Apr. 1949. "Preliminary report" on life history of "Archips fumiferana." (C.R.)
176. Kiriakoff, S.G., "Over de Phylogenie van de Thyretidae fam. nov. (Lepidoptera)." (In Dutch.) Natuurwet. Tijdschr., vol.30: pp.3-10, 1 pl., 1 fig. 30 Mar. 1949. Erects new family THYRETIDAE for African former Ctenuchidae on basis of tympanal organs of the "type à tymbale". Maintains tympanal organs require split of old Superfamily "Noctuoidea" into NOTODONTOIDEA (former "Trifids" and Thyretidae) and PHALAEENOIDEA (former "Quadrids"). Disagrees with Richards (1932) view that Dca is annectant between the two groups. Gives drawings of tympanal organs of Ctenuchidae, Thyretidae, Notodontidae. It is regrettable that the erection of a new family is in a paper in the Flemish language rather than in one more wide-spread. (C.R.)
177. Knaben, Nils, "Eupithecia fennoscandica n.sp. (Lepid., Geometridae)." (In English.) Ent. Tidskr., vol.70: pp.77-81, 2 figs., pl.1. 5 May 1949. Describes as new E. fennoscandica (Saana, Finland). Related to E. undata of Alps. Figures ♂ & ♀ genitalia of fennoscandica and undata; photos of adults of both. (C.R.)
178. Laird, M., "A Migration of Papilio browni (Lepidoptera) observed at Jacquot Bay, New Britain." Proc. R. Ent. Soc. Lond. (A), vol.24: pp.32-34, 1 fig. 15 Mar. 1949.
179. de Lesse, H., "Recherches en dehors des chemins battus. Contribution à l'étude des Rhopalocères du département de la Drôme." (In French.) Lambillionea, vol.48: pp.59-64; vol.49: pp.8-14; 24-30. Aug. 1948, Feb., Apr. 1949. Annotated check-list of butterflies of Drôme Prov. and vicinity. (C.R.)
180. Munroe, Eugene G., "An Unnoticed Character in the Saturniidae (Lepidoptera)." Ent. News, vol.60: pp.60-65. Mar. 1949. Discusses valuable characters in subventral series of spines in larval saturniids. Gives chart of spines on 9 Citheroniidae, 11 Hemileucinae, 3 Ludiinae, 13 Bunaeinae, 18 Saturniinae. Suggests Bunaeinae very primitive; Citheroniinae primitive and near Hemileucinae, Ludiinae perhaps near Saturniinae. (C.R.)
181. Nordström, Frithiof, "Tva för landet nya Eupithecia-arter." (In Swedish.) Ent. Tidskr., vol.70: p. 113. 5 May 1949. Brief note. (C.R.)
182. Pence, Roy J., "A Photomicrographic Study of the Wings of Lepidoptera." Turtlex News, vol.27: pp.141-142, 4 figs. June 1949. Brief discussion, with fine photomicrographs of scales of Danaus plexippus, of wing scales. (C.R.)
183. Richard, F., "La première planche de Genitalia." Lambillionea, vol.49: pp.39-40, pl.1. Apr. 1949. The first of what will be a series of plates giving photos of genitalia of Palearctic Lepidoptera. Figures 2 Brephinae, 5 Oenochrominae, 2 Hemitheinae (Geometridae). (C.R.)
184. Richard, F., "Eupithecia scopariata Rbr. Espèce à rayer de la faune belge." Lambillionea, vol.49: pp. 42-43. June 1949. E. "scopariata" recorded from Belgium only in 1859 dissected and proves actually to be E. dodoneata. (C.R.)
185. Rindge, Frederick H., "Observations on the Life History of Chlorosea banksaria Sperry (Lepidoptera: Geometridae)." Pan-Pacific Ent., vol.25: pp.24-26. Jan. 1949. Very detailed descriptions of last 2 larval instars and pupa. Host- Ceanothus thyrsiflorus. (C.R.)
186. Sarlet, L., "Les premières planches d'oeufs de Lépidoptères." Lambillionea, vol.49: pp.59-60, pls. 2-3. June 1949. Good detailed drawings of ova of "Brenthis" aphirape, B. selene, B. suphrosyne, B. arsilache, B. dia, Argynnis lathonia, Arg. aglaia, Arg. cydippe, Arg. niobe, Agapetes galathea, Pararge aegeria, P. megera, Aphantopus hyperantus, Maniola jurtina, Coenonympha iphis, C. pamphilus. (C.R.)
187. Sevastopulo, D.G., "Some Suggestions for Entomological Work in India." Journ. Bombay Nat. Hist. Soc., vol.48: pp.75-92. Dec. 1948. Fine analysis of problems needing study, primarily with butterflies. (C.R.)
188. Sperry, John L., "Southwestern Geometrid Notes and new Species." Bull. So. Calif. Acad. Sci., vol.48: pp.7-12. 20 June 1949. Describes as new in great detail: Semiothisa fieldi "var." comstocki (Independence, Calif.); Nepterota dorotheata (Sta. Rita Mts., Ariz.); Azelina waltonaria (Chiricahua Mts., Ariz.). No figures; genitalia not mentioned. Types of comstocki and dorotheata in Los Angeles Co. Mus.; type of altonaria in Sperry Coll. (C.R.)
189. Steinhaus, Edward A. & Clarence G. Thompson, "Preliminary Field Tests Using a Polyhedrosis Virus to Control the Alfalfa Caterpillar." Journ. Econ. Ent., vol.42: pp.301-305, 4 figs. Apr. 1949. Find dissemination of virus disease as spray markedly reduces even small populations of Colias eurytheme. (C.R.)
190. Tilden, J.W., "A Note on Caicella mysis (Dyar) with a Figure of the Male Genitalia." Bull. So. Calif. Acad. Sci., vol.48: pp.4-6, pls.2,3. 20 June 1948. Fine photos of upperside and ♂ genitalia, though latter too reduced, of topotype. Apparently this is first specimen recorded since types. (C.R.)
191. Tilden, J.W., "Notes on Parasites of Certain Microlepidoptera (Gracilaridae)." Pan-Pacific Ent., vol. 25: pp.27-28. Jan. 1949. Lists parasites and host plants of Lithocolletis nemoris, L. agrifoliella, Gracilaria reticulata, with some biological notes. (C.R.)
192. Tilden, J.W., "Occurrences of Diurnal Lepidoptera at Light." Pan-Pacific Ent., vol.25: pp.94-96. Apr. 1949. Records at light: Poanes melane, Ochlodes agricola, O. sylvanoides, Vanessa cardui, V. caryae, Colias eurytheme. (C.R.)
193. Viète, P., "Note sur quelques Eriocraniidae nord-américains." Lambillionea, vol.49: pp.30-32, 3 figs. Apr. 1949. Describes new genus ERIOCRANIELLA (type- aurosparsella), shows venation of aurosparsella, 2 other genera; gives key to the 5 genera of Eriocraniidae (N. American?). Places griseocapitella in genus Dyseriocrania. Finds Mnemonica luteiceps (Wlk.) of Meyrick is actually a Tineid, not Eriocraniid! (C.R.)
194. Warnecke, G., "Schmetterlinge mit Verbreitungsgrenzen in Schleswig-Holstein und im Niederelbegebiet." (In German.) Mitt. Faunistischen Arbeitsgem., vol.1 (n.s.): pp.55-58, 67-68. June/July, Aug./Sept. 1948. Discusses spread in range of 73 spp. of Lepidoptera in north-central Germany. (C.R.)
195. Warnecke, Georg, "Seltene Schmetterlinge von Elsdorf (Kr. Rendsburg) in der Sammlung Jürgen Mahrt in Elsdorf." (In German.) Mitt. Faunistischen Arbeitsgem., vol.2 (n.s.): pp.9-11. 1949. Records 24 unusual spp. of butterflies and moths in Mahrt collection from Elsdorf, Germany. (C.R.)
196. Wellington, W.G., "The light reactions of the spruce budworm, Choristoneura fumiferana Clemens (Lepidoptera Tortricidae)." Can. Ent., vol.80: pp.56-82, 3 figs. "1948" [1949]. Reports part of an elaborate investigation designed to provide data for development of studies of effect of weather and climate upon the spruce budworm, an important pest of coniferous trees, which comprise the pulpwood stands of the forests of northeastern North America. (C.d.P.)



NOTICES BY MEMBERS

All members may use this column to advertise their offerings and needs in Lepidoptera. There is no cost for this service. Unless withdrawn sooner by the member, each notice will appear in THREE issues.

For sale or exchange- KANSAS BUTTERFLIES AND MOTHS, esp. Papilionidae, Pieridae, Nymphalidae, Hesperidae; HETEROCERA: Sphingidae, Saturniidae, Arctiidae, Noctuidae, Catocalinae and Geometridae. Mounted or papered. William Howe, 822 E. 11th St., Ottawa, Kans.

Student entomologists collecting in southern Arizona in August wish to contact persons who will purchase specimens and thus help cover expenses. The material will be named and prepared as desired. Rudolf Mattoni, Div. of Botany, Univ. of Calif., Los Angeles 24, Calif.

Will exchange 800 freshly emerged perfect specimens of EUPHYDRYAS EDITHA TAYLORI for common Papilio and Parnassius in similar condition. Any species or forms acceptable. D.P. Frechin, 1504 N. Lafayette, Bremerton, Wash.

Butterflies of Florida, Georgia, and the Carolinas for exchange or sale. H.L. King, 2021 Rivermont Ave., Lynchburg, Virginia.

Have few pairs of Argema mittrei from Madagascar for exchange for Papilio specimens, preferably of Africa or Australia. Have also beetles (Buprestidae and Cetonidae from Madagascar) in exchange for tropical butterflies. A. Glans, 289 E. 98th St., Brooklyn 12, N.Y.

Calif. Academy of Science drawers, for sale and immediate delivery, 19 by 17 inches O.D. glass topped, composition bottom, clear lacquer finish. This is the new standard. \$5.25 ea. \$60.00 doz. Bio Metal Associates, P.O. Box 346, Beverly Hills, Calif.

Duplicates for exchange - butterflies from European Alps, Pyrenees, Lapland, Mediterranean, Atlas Mts., N. Africa, Alberta. British moths, also local races British butterflies. Desiderata - many N. American spp., chiefly alpine, arctic, desert & Gulf States. Correspondence welcomed. Colin W. Wyatt, Cobbeys, Farnham, Surrey, ENGLAND.

Wanted: thirty thousand butterflies and moths from all over the world. Small or large lots. Ben Karp, 3148 Foothill Blvd., La Crescenta, Calif.

Wanted to buy: Dyar's "Classification of Lepidopterous Larvae"; Rothschild & Jordan's "A Revision of the Lepidopterous Family Sphingidae" (Nov. Zool. 1903); Scudder's "The Butterflies of New England". Peter Boone, R.F.D. 3, Box #172, Princeton, N.J.

FOR SALE: THE "LIBRA-MOUNT"; a double-Riker-type mount in Book Form. Ruggedly built. Send for descriptive leaflet. Will consider exchange for Macro-Rhopalocera from all parts of the world, especially Papilio, Morpho, Ornithoptera, etc. Arthur Gatti, 63 W. 7th St., Mt. Vernon, N.Y.

SWISS BUTTERFLIES offered in exchange for species from elsewhere. Dr. A. Lorenz, Kasernenstrasse, Herisau, SWITZERLAND.

Would like to exchange butterflies, large moths, and beetles of the world. Have many duplicates, including several thousand from tropics, with full data. Will be pleased to answer all correspondence. G.F. Schirmer, 2912 N. 45th St., Milwaukee 10, Wis.

For sale: Boloria, Erebia, Oeneis & other Arctic and Far Northern species. Prices nominal. R.J. Fitch, Rivercourse P.O., via Lloydminster, Sask., CANADA.

JAPANESE MOTHS offered in exchange for those of America and other countries, - especially Geometridae, Pyralidae, Sphingidae, and Noctuidae. Prof. Masao Azuma, Kōyō High School, Imasu, Nishinomiya, Hyogo Pref., JAPAN, or 1644, Rinkelji, Arima, Kobe, JAPAN.

COLLECTION OF BUTTERFLIES & MOTHS for sale reasonably. World-wide in scope, but strongest in U.S.A. (esp. Colo., N. Mex., Ariz.) and European forms; emphasis on Noctuidae, Tortricidae, Nymphalidae, Hesperidae. Collection spread on pins, and many unidentified papered specimens, all with full data. Collection to be sold as a whole. Sumie E. Wiegand, 2617 W. Sterner St., Philadelphia 32, Pa.

MICROLEPIDOPTERISTS! Wish to exchange: dried leaves containing insect MINES (all orders) accompanied by name of host plant (and of insect, if possible) and locality, etc. Offer European leaf-mines of Lepidoptera (and other orders if wanted). Exchange also in fruit-flies (Trypetidae). Dr. E.M. Hering, Reichensteiner Weg 21, Berlin-Dahlem (American Sector), GERMANY.



LIVING MATERIAL



The News will welcome especially notices concerning the exchange or sale of Lepidoptera eggs, larvae, and pupae, hoping to revive the old interest in rearing and to re-emphasize the importance of studying the immature stages. Contributors are urged to include accurate locality data with all material sent.

Limited number of cocoons of Platysamia survalus, hybrid cecropia-survalus, & columbia-cecropia offered in exchange for other living pupae, esp. Callosamia angulifera, Eupackardia calleta, Citheronia regalis. D.P. Frechin, 1504 N. Lafayette, Bremerton, Wash.

LIVING COCOONS OF INDIAN SATURNIID MOTHS FOR SALE. Please send U.S. Dept. Agric. importation permit with orders from U.S.A. (see Lep. News 3: p.13). Remittance must accompany orders.

Attacus edwardsii - 50¢; A. Cynthia - 12¢; Actias selene - 20¢; Loepa katinka - 20¢; Saturnia grotei - 12¢; Antheraea mylitta - 40¢. Himalayan Butterfly Co., Shillong, Khasi Hills, INDIA.

Wish to buy, exchange, or sell living Lepidoptera ova; Pseudohasis eglanterina ova especially desired. Mrs. Hazel Chase, 272 N. Union St., Galion, Ohio.

QUESTIONS AND ANSWERS

Q. "Does the autumnal 'rosa' form of Zerene cesaonia Stoll occur in the male as well as the female?"

A. Yes, but there is less of the rose tint than in the female. It is not a sharply defined seasonal form, but essentially statistical.

Q. "How nearly complete now is Seitz' project on Macrolepidoptera of the World? Which volumes are not finished yet? Have you heard of any current plans to complete the series?"

A. Vols. 1-4 (Palearctic) are complete, also the rest of the butterflies (vols. 5, 9, 13) and the Indaustralian and African "Bombyces" (vols. 10, 14). Vol. 6 (American Bombyces) is complete except a few plates and the index, and there is some hope of its completion. My information is that a few more fragments may come out, especially where groups are almost complete, and that a good many plates were saved but that most of the text was lost during the war. Of the supplement (only Palearctic) three volumes are complete, but the Geometridae only about two-thirds done. The remaining volumes (Exotic Noctuidae and Geometridae) are in various stages of incompleteness.

W.T.M. Forbes



CHECKLIST OF DEALERS

D.G. Shappirio is assembling for the Lep. News a list of addresses of dealers and commercial collectors of insects, particularly those outside North America. This can be a significant aid to individuals needing to obtain specimens for scientific purposes from countries outside their own. Readers of the News are urged to send on postcards or letters all addresses known to them, in order to make the list as complete as possible. A few months will be allowed in order that members outside North America may reply. Mr. Shappirio's address is:

4811 17th St., N.W.
Washington 11, D.C.



REPRINTS AVAILABLE

A few copies of 3 papers by Hiroshi Inoue are available to Lep. Soc. members who write the Associate Editor. They are: "Miscellaneous Notes on the Japanese Geometridae", Pts. I & III (Entom. World, vol. 10: pp. 228-232; 1942; and Trans. Kansai Ent. Soc., vol. 14: pp. 72-83; 1944); and "Notes on Some Japanese Geometridae" (Trans. Kansai Ent. Soc., vol. 14: pp. 60-71). The latter describes new genera and species of Hemitheinae and Sterrhinae. U.S.A. members please send postage; all others merely need request the papers.



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NEW MEMBERS

- Ballard, W.F.R., East Middle Patent Rd., Greenwich, Conn.
Berg, George H., 5724 Painters St., New Orleans, La. RHOP: esp. Papilionidae of world. Coll. Ex. Buy.
Bullis, Peter E., 239 West Rock Ave., New Haven, Conn. RHOP. Coll. Ex.
Epstein, Hans J., 65 Walker St., Cambridge 38, Mass. RHOP: esp. Papilionidae. MACRO: esp. Spingidae. Coll. Ex. Buy. Sell.
Hellman, Mr. & Mrs. E.A., Annank. 2F, Helsinki, FINLAND. RHOP: esp. Apollo, Pieris, Argynnis, Brenthis, Lycaena, Acronycta, etc. MACRO. MICRO. Coll. Ex. Sell.
Jennings, Dean, 2825 Louisiana, Longview, Wash.
Murchie, William R., Box 203, Sharon, Pa. RHOP. Coll. Ex.
Saley, Betty, 628 Fairbrook, Northville, Mich.
Wyatt, Colin W., Cobbetts, Farnham, Surrey, ENGLAND. Palearctic & Nearctic RHOP: esp. Alpine & Arctic spp. Coll. Ex. Buy. Sell.

DECEASED

Gloor, Eugene E. (Dr.). (California)

THE LEPIDOPTERISTS' NEWS
The monthly periodical of the Lepidopterists' Society
Membership is open to all persons interested in any aspect of the study of butterflies and moths. The 1949 dues, including subscription to the NEWS, are \$2.00 for Regular Membership and \$4.00 or more for Sustaining Membership. Please make remittances payable to Charles L. Remington. Price for Vol. 2 is \$2.00. No complete sets of Vol. 1 are available.