



NEWS

of the LEPIDOPTERISTS' SOCIETY

Editorial Committee of the NEWS

EDITOR: Ron Leuschner, 1900 John St., Manhattan Beach, CA. 90266, USA

SPREADING BOARD: Dr. Charles V. Covell, Jr., Dept. of Biology, Univ. of Louisville, Louisville, KY. 40208, U.S.A.

Jo Brewer
J. Donald Eff
Thomas C. Emmel
H. A. Freeman

L. Paul Grey
Robert L. Langston
F. Bryant Mather
M. C. Nielsen

K. W. Philip
Jon H. Shepard
E. C. Welling M.

1975 Field Season Summary, Concluded

ZONE 8: THE FAR NORTH: ALASKA, NORTHERN CANADA, AND GREENLAND. Coordinator: Kenelm W. Philip. Contributors: J. Belicek, J. Ebner, C.D. Ferris, I. Lawless, S. Mihok, D. Oosting, D. Parshall, D.R. Paulson, J.W. & H.I. Tilden, K. Philip and collectors for the Alaska Lepidoptera Survey.

Once again there was increased collecting activity in the Arctic, and this report covers a wide longitudinal range. Previously unreported localities or species are emphasized; collecting is by ALS volunteers where not noted.

Note regarding Alaska Lepidoptera Survey: Most collecting in the Canadian Arctic Archipelago has been concentrated on Baffin and Ellesmere Islands, and the western islands are still poorly known. In particular, Banks and Victoria Islands have been neglected (CNC holdings of butterflies from those islands approximately 225 and 375 specimens respectively). A comparison between the butterflies of Victoria Island and the Arctic Coastal Plain in Alaska was needed to test some recent ideas on arctic faunal zonation; and since previous Victoria Island localities were coastal, an inland site was selected in the Kuujjua River valley on the Diamond Jenness Peninsula, NW Victoria Island. A joint U.S./Canadian expedition was arranged (K. Philip for the ALS; D. and G. Wood collecting Diptera and general insects for the Biosystematics Research Institute, Agriculture Canada, Ottawa) with funding from the National Geographic Society and logistic support from the Polar Continental Shelf Project (Energy, Mines and Resources, Canada). Transportation was by scheduled airline to Holman, and by helicopter to the Kuujjua River. Five and one-half weeks were spent in the field, and despite exceedingly poor weather (collecting possible on parts of 18 days only) 785 butterflies and 136 moths were taken for the ALS. See below for species list.

ALS volunteer collectors brought in over 2800 specimens from 80 localities in Alaska and northern Canada, and UV light traps continued to operate in Glennallen and Fairbanks. The 1975 total input was 4800 specimens, leaving the ALS collection at 48,800 specimens at the end of its sixth year. Cooperation of the IBPN, Magadan, Siberia is continuing, and a batch of 500+ specimens from the Okhotsk-Kolyma Plateau, Magadanskaya Oblast' is undergoing clearance for shipment to Fairbanks.

NEWFOUNDLAND

Ferris sent in a detailed report on his collecting in Newfoundland Island and Labrador (note Newfoundland Province includes both these areas), which is summarized below. **WEATHER:** Central and western Newfoundland Island was very hot, with a dry spell (numerous forest fires) from 9 June to the third week in July. Gander came within 4 hours of the record for total July sunlight. Labrador began to run 80 and 90 degree temperatures on 1 July, with 107°F recorded in Goose Bay 19 July. Nain had good weather 12-18 July, but conditions then began to deteriorate until planes were grounded from 25-31 July.

Newfoundland Island: ☆ Highway 1, S of Glenwood, 7 July. *Colias p. philodice*, *Phyc. tharos arcticus*, *Coen. tullia macisaaci*. ☆ Junction Highways 1 & 340, 7 July. *Papilio brevicauda* (sight), *Celastrina argiolus*, *P. tharos arcticus*, *Bol. selene atrocotalis*. For both above localities, many sight records for *Pap. glaucus canadensis* along road. ☆ Highway 1, 2.8 miles S of Mummichog Park, 8-9 July. *P. brevicauda* (common, but males worn), *P. glaucus canadensis*, *Col. pelidne labradorensis* (common), *Lyc. argyrognomon aster*, *B. selene atrocotalis*, *Spey. atlantis novascotiae*, *C. tullia macisaaci* (common). ☆ Highway 1, at View Hill, 9 July. *Col. interior* (males common), *L. argy. aster*, *Lyc. epixanthe* (males fresh), *P. tharos arcticus*, *C. t. macisaaci*. ☆ Old Highway 430, about 10 miles N of junction with Highway 1, 10 July. *Pap. brevicauda*, *P. glaucus canadensis* (sight), *C. interior*, *C. argiolus*, *Nym. milberti viola*, *Poly. faunus arcticus*, *P. progne*, *B. selene atrocotalis*, *S. atlantis novascotiae* (sight), *C. t. macisaaci*. ☆ Reidville, 10 July. *Lim. arthemis*, *C. t. macisaaci*.

Labrador: ☆ Happy Valley, near Goose Bay, 11 July. *Cart. palaemon mesapano*, *C. interior*, *C. argiolus*, *N. antiopa*, *Poly. gracilis*, *B. selene atrocotalis*, *B. freija*. ☆ Nain, 13-25 July. *Hesperia manitoba borealis*, *C. palaemon mesapano* (sight), *Col. pelidne labradorensis*, *C. n. nastes* (common), *Pleb. aquilo* (common), *B. selene atrocotalis*, *B. freija*, *B. titania boisduvalii*, *B. chariclea* ssp., *B. eunomia tricarlis*, *Oeneis taygete*. *Bol. polaris* and *Oen. jutta* were neither seen nor expected on this odd-numbered year.

Ferris added: *Pap. brevicauda* appeared widely distributed in central and western Newfoundland Island. Throughout the

province butterflies occurred in local 'pockets' rather than being generally distributed as in many other arctic areas, and appeared to skip many areas of apparently suitable habitat. *Oeneis melissa* was not found at Nain despite its previous records (1936-46). *Colias nastes* and *Pleb. aquilo* are threatened at Nain by destruction of habitat (now the town dump!), and in general the butterfly habitats in and around Nain are disappearing fast. Hopedale, Davis Inlet and Makkovik appear unsuitable for butterflies, and Schefferville and Fort Chimo (the latter with an unreliable air service) should be investigated. Ferris offers to correspond about travel, housing, etc. with anyone planning collecting in the province of Newfoundland.

NORTHWEST TERRITORIES

WEATHER: Belicek reported normal conditions for the Mackenzie valley, with rain in late July and August which ended collecting. NW Victoria Island (Holman and the Kuujua valley) had atrocious weather which began about a week after the first butterflies emerged and lasted, with a few short breaks, until the end of the flight season. Paulson reported good weather at Cambridge Bay (SE Victoria Island) from 21 June to 10 July (while 4 July was the last day of the stable clear 'spring' weather in the Kuujua valley). ☆ DISPERSAL FLIGHT: *Eulype hastata* reached NW Victoria Island. Its previous northern limit in the N.W.T. was Coppermine. See Alaska section for discussion. ☆ RANGE EXTENSIONS: Belicek reports a census of *Lim. arthemis* which shows it to be widely distributed west of the 100th meridian, and north to treeline (thus including the Mackenzie delta). ☆ LIFE HISTORIES: Early instar *Boloria* were abundant in the Kuujua valley, feeding on *Dryas integrifolia*. A late instar larva which appeared to be the same species pupated and yielded a female *B. polaris* (which was by far the most abundant species in the region)—but this larva was not observed feeding (although it pupated on *D. integrifolia*). Since there was no other species of *Boloria* with comparable abundance in that habitat, *Dryas integrifolia* would appear to be the foodplant for *B. polaris* on Victoria Island. ☆ NEW COLLECTING LOCALITIES: Holman (Victoria Island, on the N side of Prince Albert Sound) appears to be a rather lush area considering its latitude. Records in the CNC show that all 15 species of butterflies known from Victoria Island have been taken at Holman. It can be reached by scheduled air service from Yellowknife (two flights a week, exact timing subject to somewhat capricious variation). The flight season was well under way by 24 June. The Kuujua River valley (NW Victoria Island, 71°17'N, 114°0.5'W) is at first sight an appallingly bleak and desolate area, with barren stony clay flats the major element in the landscape. Sedge meadows in depressions, south slopes of hills under snowbanks, and talus slopes at hill summits proved to support flourishing populations of 13 species of butterflies, including a striking dark form of *Boloria frieja* which flew in scree and blockfield.

Baffin Island: Frobisher Bay, 5-31 July. Ebner reports: *Col. hecla*, *C. palaeno* (older records called this *C. pelidne*), *C. nastes*, *Lyc. phlaeas feildeni*, *Pleb. aquilo*, *Bol. improba*, *B. polaris*, *B. frieja*, *B. chariclea*, *Oen. polixenes*, *Erebia rossii*.

Victoria Island: ☆ Holman, 24 June. *Col. thula/nastes* (sight), *B. polaris*, *B. frieja*, *Oeneis bore*. ☆ Kuujua River, 25 June to 1 August. *C. hecla*, *C. thula*, *C. nastes*, *L. phlaeas*, *Agr. aquilo*, *B. frigga*, *B. polaris*, *B. frieja*, *B. chariclea*, *Oen. bore*, *O. melissa*, *O. polixenes*, *E. fasciata*, *Pararctia lapponica*,

Apantesis quensellii?, *Byrdia rossi*, *Aspilates* sp., *Eulype hastata*, other as yet undetermined moths. ☆ Cambridge Bay, 21 June to 10 July. Paulson reports: *C. hecla*, *C. thula/nastes*, *L. phlaeas*, *A. aquilo*, *B. frigga*, *B. polaris*, *B. chariclea*, *O. melissa*, *O. polixenes*.

District of Mackenzie: ☆ Police Bay, near Reliance, Great Slave Lake, 18 May to 12 June. Parshall and Oosting report: *C. hecla* (including form *pallida*), *Euchloe creusa* (common), *Inc. polios*, *Ev. amyntula*, *C. argiolus*, *N. antiopa*, *P. progne*, *B. frieja*. ☆ Heart Lake, near Hay River (mile 81 MacKenzie Highway, 60°45'N, 116°40'W), 27 May to 17 August. Mihok reports: *Erynnis persius*, *Col. christina*, *Inc. augustinus*, *I. polios*, *Ev. amyntula*, *Gl. lygdamus*, *C. argiolus*, *N. milberti*, *N. vau-album*, *Phy. campestris*, *B. frieja*, *B. titania*, *Oen. macounii*, *O. chryxus*, *E. disa*. ☆ Godlin Lakes, Mackenzie Mountains (63°48'N, 128°46'W), 26 June to 12 August. Oosting reports: *P. napi*, *C. hecla*, *C. gigantea*, *C. palaeno*, *C. nastes*, *E. creusa*, *Ly. argyrognomon*, *V. optilete*, *G. lygdamus*, *B. frieja*, *B. chariclea/titania*, *E. disa*, *E. magdalena*, *E. fasciata*.

YUKON TERRITORY

Firth River, at Sheep Creek, British Mountains, 25 June to 20 July. Oosting reports: *P. sisymbrii*, *P. napi*, *C. hecla*, *C. gigantea*, *C. palaeno*, *E. creusa*, *V. optilete*, *B. chariclea*, *O. uhleri*, *O. bore*, *O. melissa*, *O. polixenes*, *E. rossii*, *E. mackinleyensis*, *E. fasciata*, *E. discoidalis*, *E. youngi*. ☆ Stewart Crossing vicinity, Klondike Highway (miles 89 and 132), 20-21 June. Parshall reports: *Hesp. comma*, *C. hecla*, *C. palaeno*, *E. creusa*, *P. campestris*, *O. chryxus*, *O. jutta*, *Erebia disa*. ☆ Dempster Highway, mile 45.5, 21 June. Parshall reports: *Pyr. centaureae*, *Pieris napi*, *C. argiolus*, *Bol. frigga*, *B. polaris*, *B. frieja*, *B. chariclea*, *Oeneis taygete*, *Erebia rossii*, *E. disa*, *E. fasciata*, *E. theano*. ☆ Whitehorse, 3-10 July. Lawless reports: *P. napi*, *C. pelidne?*, *L. argyrognomon*, *Pl. saepiolus*, *A. aquilo*, *E. amyntula*, *P. campestris*, *Oeneis chryxus*. ☆ Carcross, 6 July. Lawless reports the following species additional to those listed in the 1974 Annual Summary: *Ly. dorcas*, *P. campestris*, *Bol. frieja*.

The remaining Yukon Territory localities were collected by the Tildens, who spent most of the summer in Alaska and the Yukon Territory. ☆ Destruction Bay, Kluane Lake (mile 1083 Alaska Highway), 15 July. *H. manitoba*, *Pieris occidentalis*, *Colias palaeno*, *L. argyrognomon*, *P. saepiolus*, *C. kodiak*, *Bol. chariclea*. ☆ Alaska Highway, mile 1180, 14 July. *H. manitoba*, *C. philodice*, *C. gigantea*, *C. christina*, *C. palaeno*, *Ly. dorcas*, *L. argyrognomon*, *P. saepiolus*, *V. optilete*, *P. campestris*, *Boloria titania*, *B. chariclea*, *C. kodiak*, *Oeneis jutta*, *Erebia theano*. Some of the above species, plus *Oeneis bore*, were obtained at miles 1167-68 Alaska Highway on the same day. ☆ Aishihik Road, mile 995.2 Alaska Highway, 16 July. *H. manitoba*, *Polites draco*, *Py. centaureae*, *P. occidentalis*, *C. philodice*, *C. gigantea*, *C. christina*, *L. dorcas*, *L. argyrognomon*, *A. aquilo*, *P. campestris*, *Euph. anicia*, *Oeneis chryxus*, *O. uhleri*. ☆ Dezadeash River, mile 158.7 Haines Highway, 17 July. *C. philodice*, *C. christina*, *L. argyrognomon*, *A. aquilo*, *P. campestris*, *Euph. anicia*, *C. kodiak*. ☆ Haines Highway, mile 140, 17 July. *H. manitoba*, *Pol. draco*, *P. occidentalis*, *C. philodice*, *L. mariposa*, *Pl. saepiolus*, *L. argyrognomon*, *P. campestris*, *Spey. mormonia*, *C. kodiak*, *Erebia epipsodea*. ☆ Haines Highway, mile 101, 18 July. *H. manitoba*, *Py. centaureae*, *P. napi*, *C. philodice*, *L. argyrognomon*, *P. saepiolus*, *P. campestris*, *Bol. frieja*, *B. titania*, *B. chariclea*, *B. eunomia*, *Spey. mormonia*, *C. kodiak*, *Oeneis bore*, *Erebia epipsodea*.

ALASKA

WEATHER: Slightly late spring both in Interior and on North Slope, with summer conditions generally normal. ☆ **RANGE EXTENSIONS:** *Acerbia alpina* from Meade River (110 miles NE of nearest previous locality on the Utukok River). This very rare (in collections) moth is apparently widely distributed in northern Alaska. *Euphydryas anicia* and *Oeneis chryxus* from Kathul Mountain (on the N bank of the Yukon River between the Nation and Kandik Rivers). This record for these two species is 50 miles NW of their nearest previous locality at Eagle. The only other Alaskan records for these species are: 'Alfred Creek' (probably the Alfred Creek in the Talkeetna Mountains), 1922 for *E. anicia*; Black Rapids in the Alaska Range, 1971 for *O. chryxus* (collected by Ferris). Kathul Mountain would appear to warrant further collecting. ☆ **NOTABLE CAPTURES:** *Parnassius phoebus apricatus* on a ridge near Uganik Lake, Kodiak Island. This is the second year that this butterfly has turned up at this locality, so it would appear to be well established. ☆ **UNUSUAL ABUNDANCE AND DISPERSAL FLIGHT:** For the second consecutive year, the moth *Eulype hastata* had an outbreak in Interior Alaska, with over 2 million acres of birch defoliated along the Yukon, Tanana, and Susitna Rivers. Presumably related to this population peak, there was a remarkable northward dispersal in early summer. In northern Alaska *E. hastata* was found on the lower Kongakut River, and at Anaktuvuk Pass, Prudhoe Bay (abundant), Meade River (abundant), and even at Cape Simpson and Barrow. The real surprise was its occurrence for a few days after a period of south wind in NW Victoria Island, N.W.T.

North Slope: ☆ Meade River, 6-23 July. Additional species (see 1971 Annual Summary): *A. aquilo*, *Ap. quensellii*, *Acerbia alpina*, *E. hastata*. ☆ Lower Kongakut River (extreme NE Alaska), 6-8 July. *P. occidentalis*, *Colias hecla*, *Bol. polaris*, *B. frieja*, *Oeneis bore*, *O. melissa*, *O. polixenes*, *Erebica rossii*, *E. disa*, *E. fasciata*, *E. theano*, *E. youngi*, *E. dabanensis*?. ☆ Toolik Lake (N of Galbraith Lake), 14 July. *Pap. machaon*, *P. napi*, *Colias thula/nastes*, *Bol. improba*, *B. chariclea*, *C. kodiak*, *Oeneis bore*, *Erebica rossii*, *E. youngi*. Also one specimen of an undetermined arctiid moth (*Orodemnia*? sp.) which is apparently conspecific with two earlier (1972) specimens from Noluck Lake. ☆ Oksrukuyik (Sagavanirktok River at Ribdon River), 13-15 June. *Parn. eversmanni*, *Pap. machaon*, *E. creusa*, *Bol. frieja*, *Oeneis bore*, *Erebica rossii*, *E. disa*, *E. theano*.

West Central Alaska: ☆ Kigluaik Mountains, Seward Peninsula (64°50'N, 165°42-59'W), 27-31 July. *Parn. phoebus*, *Colias hecla*, *C. palaeno*, *C. nastes*, *Boloria napaea*, *B. chariclea*, *C. kodiak*. ☆ Willow Bay, Seward Peninsula (S side of Kotzebue Sound just E of Deering), 4 July to 21 August. *Pap. machaon*, *P. napi*, *Colias palaeno*, *Boloria frigga*, *B. improba*, *B. chariclea*, *C. kodiak*, *Oeneis bore*, *O. melissa*, *O. polixenes*, *Erebica rossii*, *E. disa*. ☆ Old Chevak, 16 June to 23 July. *Col. palaeno*, *N. antiopa*, *Erebica rossii*. ☆ Shageluk, 9-14 June. Additional species: *Oeneis jutta*.

Southwest Alaska: ☆ Wood River Lakes (Agulowak River & Bumyok Ridge), 6 July to 3 August. *Papilio machaon*, *Pieris napi*, *Colias palaeno*, *Pl. parthenos*. ☆ Adak, 24 August. *Heptamelus* sp.

Interior Alaska: ☆ Sheenjek River, 4 June to 17 July. *H. manitoba*, *P. eversmanni*, *P. occidentalis*, *P. napi*, *Colias hecla*, *C. boothii*?, *C. gigantea*, *C. palaeno*, *C. nastes*, *L. argyrognomon*, *G. lygdamus*, *V. optilete*, *Bol. napaea*, *B. improba*, *B. polaris*, *B. frieja*, *B. chariclea*, *Oeneis bore*, *O. po-*

lixenes, *Erebica rossii*, *E. disa*, *E. fasciata*, *E. youngi*, *E. dabanensis*?. ☆ Kathul Mountain, 29 June to 10 August. *Pap. glaucus*, *P. napi*, *C. philodice*, *C. gigantea*, *A. aquilo*, *E. amyntula*, *Lim. arthemis*, *P. campestris*, *Euph. anicia*, *Bol. distincta*, *Oeneis chryxus*, *Erebica theano*, *E. epipsodea*. ☆ Kandik River, 30 June to 3 August. *L. arthemis*, *P. campestris*, *C. kodiak*, *Oeneis bore*, *O. jutta*. ☆ Johnson River, mile 1380 Alaska Highway, 22 July to 29 August. *H. manitoba*, *C. philodice*, *L. dorcas*, *L. argyrognomon*, *E. amyntula*, *L. arthemis*, *N. antiopa*, *Pol. faunus*, *P. campestris*, *Bol. titania*. ☆ Healy vicinity, 26 June. Parshall reports: *P. napi*, *Colias hecla/boothii*, *C. palaeno*, *E. creusa*, *G. lygdamus*, *Bol. frigga*, *B. chariclea*, *C. kodiak*, *Oeneis taygete/bore*, *O. jutta*, *Erebica disa*, *E. discoidalis*, *E. theano*. ☆ Parshall and the Tildens collected Eagle Summit and Central. No additional species were obtained, but most of the previously recorded species for these sites were found (except *Boloria distincta* at Eagle Summit). The Tildens also collected Murphy and Ester Domes, Goldstream valley, and College and Fairbanks vicinities, again finding most of the known species. They submitted a 9-page report on their collecting in Alaska and the Yukon Territory, so some records are omitted here. Copies of the complete report may be obtained from the Coordinator.

The remaining localities in Interior Alaska were collected by the Tildens: ☆ Circle Hot Springs, 20 June and 1 July. *H. manitoba*, *Colias hecla*?, *C. christina*, *C. palaeno*, *E. ausonides*, *L. argyrognomon*, *L. arthemis*, *P. faunus*, *Boloria frigga*, *B. frieja*, *B. chariclea*, *B. eunomia*, *C. kodiak*, *Oeneis bore*, *O. jutta*, *Erebica disa*. ☆ Birch Creek vicinity (mile 137 and 153 Steese Highway), 18-19 June. *H. manitoba*, *C. palaemon*, *Er. persius*, *Pap. glaucus*, *P. occidentalis*, *P. napi*, *Colias hecla*, *C. philodice*, *C. palaeno*, *E. ausonides*, *L. argyrognomon*, *P. saepiolus*, *G. lygdamus*, *P. campestris*, *Bol. chariclea*, *B. eunomia*, *Oeneis bore*, *O. jutta*, *Erebica disa*. ☆ Steese Highway, mile 90.2, 17 June to 3 July. *P. centaureae*, *Par. eversmanni*, *P. occidentalis*, *P. napi*, *Colias palaeno*, *E. creusa*, *L. argyrognomon*, *P. saepiolus*, *V. optilete*, *G. lygdamus*, *Bol. frieja*, *B. chariclea*, *B. eunomia*, *Oeneis bore*, *O. jutta*, *O. polixenes*, *Erebica disa*, *E. discoidalis*, *E. theano* (common), *E. youngi*.

Southcentral Alaska: ☆ Glennallen, 10 May to 19 September. Additional species: *V. optilete*, *P. faunus*. Glennallen is now up to 25 species of butterflies. ☆ McCarthy/Kennicott, 8-10 July. *Er. persius*, *Pap. glaucus*, *P. napi*, *C. philodice*, *P. saepiolus*, *E. amyntula*, *Erebica youngi*. ☆ Slime Creek at Nenana River (just N of Panorama Mountain, Denali Highway), 27 July. Parshall reports: *P. eversmanni*, *Bol. polaris*, *B. frieja*, *B. chariclea*, *Oeneis taygete/bore*, *Erebica fasciata*. ☆ Seldovia Bay, 16 July to 5 August. *C. palaemon*, *Pap. machaon*, *P. napi*, *Bol. selene*, *N. milberti*. ☆ Uganik Lake vicinity, Kodiak Island, 3-19 August. *P. phoebus apricatus*, *N. milberti*. ☆ Olga Bay, Kodiak Island, 1 August. *P. napi*, *C. kodiak*. ☆ Sundstrom Island (just S of Kodiak Island), 9 August, *P. napi*.

The remaining localities in Southcentral Alaska were collected by the Tildens: ☆ Denali Highway, mile 14, 10-11 July. *P. eversmanni* (common), *Pap. machaon* (common), *P. occidentalis*, *Colias hecla*, *C. palaeno*, *V. optilete*, *Bol. napaea*, *B. polaris*, *B. chariclea*, *B. eunomia*, *C. kodiak*, *Oen. bore*, *O. polixenes*?, *Erebica rossii*, *E. fasciata*. ☆ Maclaren Summit (mile 35.2 Denali Highway), 10 July. *Pap. machaon*, *Col. palaeno*, *V. optilete*, *Bol. chariclea*, *C. kodiak*, *Oeneis bore*, *O. polixenes*, *Erebica rossii*. ☆ Susitna River, mile 77 Denali Highway, 9 July. *C. palaeno*, *V. optilete*, *Bol. chariclea* (common),

(Concluded on Page 5)

THE SPREADING BOARD

By C. V. Covell, Jr.

One of the biggest problems for the amateur collector is the procuring of KILLING AGENTS to be used in killing jars. I received a letter from Mr. E. A. Froemel, 1469 28th Ave., Columbus, NEBRASKA 68601, expressing his frustration with this problem. Federal laws have in recent years dried up the sources many amateurs have used to get cyanide, carbon tetrachloride, ether, chloroform, and ethyl acetate (the chemicals most commonly used to charge killing jars). While biologists, doctors, and other "professionals" can order any of these from supply companies, the lone amateur without "connections" has a real problem.

One of our graduate students recently succeeded in buying a can of diethyl ether from a drugstore. If this can be done in your area, this substance has the advantage of killing quickly while not tightening wing muscles. However, it is highly volatile and therefore explosive, while also anesthetic to humans. Furthermore, it evaporates so readily that one must constantly re-charge a killing jar. If a container is carried into the field with liquid ether, be sure not to let it get too hot; it could explode—or at least blow its stopper.

I would like to hear from you members as to how you solve the problem of getting killing agents, and what you prefer to use. I'll write up the results later on.

The subject of DEGREASING OILY SPECIMENS was also brought up by Froemel, who uses white gas in a pinch as a killing agent, but finds it works well for de-greasing. Here is part of a letter from Dr. Cliff Ferris, P.O. Box 3351, Univ. Station, Laramie, WYOMING 82070, regarding this subject:

"You might be interested in the following from *Lepidoptera* (Boston Entomological Club publication) vol. 2, no. 3, March 15, 1918, p. 22:

Question Box

'Q. What is the best method for degreasing specimens?

'A. Place the specimens in benzine and leave them well-covered for two weeks. Then dry and do not use the benzine again.

G. R.

'A. Cover the specimens with gasoline [white gas, I presume] and leave for twenty-four hours. If the spots are not removed, repeat the operation, then place the specimen, with its whole undersurface touching, on plaster of paris and leave one hour. Remove plaster with camel's hair brush.

W. R.'

I might suggest a *safer and alternative solvent to ether*. I use either *tetrachlorethylene* or *trichloroethylene* (dry cleaning and industrial degreasing solvents). The method works best with *spread* specimens. The solvent is placed about 2 inches deep in a wide-mouth bottle. The specimen can be floated in the solvent for 24-48 hours (or longer if necessary). The jar should be tightly capped. Upon removal from the solvent, the fore wing tips can be held against a piece of blotting paper or other absorbent material with the specimen tilted forward. This permits the excess solvent to run off and be absorbed. Allow the specimen to air dry.

With regard to the use of plaster of paris mentioned above, I would think that Fuller's earth might be a better absorbent to use. It is frequently used to absorb grease from clothing, etc.

In degreasing sometimes curious results can occur. Recently I degreased a *Megathymus* specimen that had been obtained in an exchange with a museum. Because of the amount of grease on the wings, I did not examine the specimen carefully. When I went to retrieve it from the solvent, I noticed several wing pieces floating on the surface. Except for a few chips, the specimen was in good condition. Sometime in its past history, someone had carefully glued to the under surface of the wings pieces from another specimen to give a perfect image. The solvent dissolved the glue and the ruse was unmasked."

Ferris also responded to the last SPREADING BOARD bit on repairing specimens, mentioning his article on page 5 of the July 15, 1973, NEWS. Sorry to have forgotten to refer to it, Cliff!

Dr. Donald C. Nicholson, 811 11th St., Rock Island, ILLINOIS 61201, sent me a copy of an illustrated newspaper article about his collection. He successfully mounts his butterflies in between layers of plastic sheeting for effective display. Anyone interested in the technique might like to write him.

XERCES BUTTERFLY COUNT CORRECTION

The announcement in the last News was prepared from the preceeding year's instructions. This year the procedure has been revised so that counts may be conducted whenever conditions are best for a particular area. Over the years, the count data will furnish a valuable picture of changing butterfly populations. The more people who participate, the more interesting and complete the results will be. Anyone wishing to conduct or take part in a count anytime this summer should send a stamped, self-addressed envelope to Mary Hathaway, Box 123, Durham, N.H. 03824, U.S.A.

RECENT DEATH

On 4 May, Dr. Richard B. Dominick died of an apparent heart attack at the Wedge Plantation in McClellanville, South Carolina, at age 56. Dr. Dominick will long be remembered not only as an enthusiastic collector, but also as patron and co-founder of the "Moths of America North of Mexico" series. A complete obituary will appear later in the Journal.

SIX BUTTERFLIES BECOME ENDANGERED SPECIES

The six California butterflies listed in 1976 News 1 (Page 6) have now become official endangered (sub-) species, subject to full federal protection and regulations. In addition to becoming the first Lepidoptera so designated, there are other unique aspects of this act in that it is apparently retro-active. Instead of attempting a probably inadequate explanation, the editor requests an article for the News from someone in the government (Paul Opler, are you listening?) telling what the act provides and how it affects the collector. For those who would like to consult the source themselves, see Federal Register Vol. 41, No. 106 dated 1 June 1976, Pp. 22041-4. The act became effective on 8 June.

ZONE 8 (Continued from Page 3):

Oen. bore, *O. polixenes*. ☆ Cantwell vicinity, mile 125 Denali Highway, 8 July. *P. napi*, *Col. philodice*, *C. palaeno*, *V. optilete*, *G. lygdamus*, *Bol. chariclea*, *C. kodiak*, *Oen. bore*, *E. disa*. ☆ Mentasta Junction, mile 81.4 Glenn Highway, 12 July. *Pyr. centaureae*, *Colias hecla*, *C. palaeno*, *L. argyrognomon*, *V. optilete*, *Bol. chariclea*, *P. campestris*, *C. kodiak*, *Oeneis jutta*. ☆ Glenn Highway, mile 14.6, 12 July. *P. napi*, *Colias gigantea*, *L. argyrognomon*, *Pl. saepiolus*, *V. optilete*, *E. amyn-tula*, *P. campestris*, *Bol. chariclea*, *C. kodiak*.

Southeast Alaska: Pelican, 16 August. *P. napi*. ☆ Skagway, 11 July. Additional species: *Agr. aquilo*.



A REVIEW OF THE RHOPALOCERA DIRECTORY

Compiled by John R. Beattie, published by JB Indexes.

Many lepidopterists have spent countless hours pouring through individual annual volumes of *Zoological Record* for published accounts of particular butterfly and moth species. Now at one stroke and in one compact, highly usable format, John Beattie has provided a complete index to all the Rhopalocera literature in the world that was published between 1834 and 1971. He plans to follow this work with one on Heterocera.

The volume begins with a detailed explanation of how to

use the *Directory with Zoological Record* (1864-1971) and its analogous predecessor, *Berichteuber . . . Entomologie* (1834-1863). One then can easily proceed into the completely alphabetized main section of 128,000 entries (32,400 genus-group names plus 96,400 species-group names). Supplement I has about 5,000 genera sorted to family (I may note parenthetically that this list includes, of course, all published names listed in the *Record*, etc.; today, there are actually about 1,165 recognized genera among the true butterflies of Papilionoidea, and about 530 recognized genera among the skip-pers or Hesperoidea.) Supplement II has 36,700 genus and species names which allow one to locate names misspelled in the published literature. With a prepublication copy of A-C names in the main section, Boyce Drummond and I had no difficulty in locating with great rapidity a series of ithomiine genera and species citations in actual *Zoological Record* volumes in our U.F. library. The system of checking for erroneously spelled names worked superbly.

This new book represents a truly outstanding contribution to the study of Lepidoptera, both for the innovative concept and for the astonishingly useful organization of the vast quantity of literature herein indexed. The work could well be the most important systematic reference source ever published for scientists working with butterflies. Every serious lepidopterist, professional entomologist, and university or museum library will require a copy of this Directory.

Thomas C. Emmel, University of Florida, Gainesville, Florida

BOOK NOTICES:

THE BIRDWING BUTTERFLIES OF THE WORLD, by Bernard D'Abrera. Available now. Comprehensive coverage of all species and races of Ornithoptera, Trogonoptera, and Troides. All species and 90% of the races are discussed and illustrated, including aberrant forms. Some genitalic drawings. All illustrations (except drawings) in full color. Many photographs of live insects in nature, all stages. Complete taxonomic revision. Approx. 268 pages, hard covers in linen, laminated dust jacket, size 11½ x 14 inches. Due to distribution difficulties, the author is making his work directly available from his agent. Price \$50 (Australian) plus \$12 for insurance and surface-air lift postage (14-17 days to N. Amer.). Copies will be autographed and numbered to 500. Contact: L. M. Stokes, Hill House, Highview Road, Ferny Creek, Victoria 3786, AUSTRALIA.

BUTTERFLIES IN THAILAND: Vol.1—Papilionidae/Danaidae, 1973, 93 p., 88 color illus.; Vol.2—Pieridae/Amathusiidae, 1975, 69 p., 128 color illus. Each volume, \$3.55 BRICOUX, Le genre *Zerynthia*, 1975, 83 p., 18 pl., 7 photo, \$13.50 VERITY, Var. geog. et saisonn. papillons diurnes France, Vol.1, 200 p., \$13.50 Postage extra. Many other books, antiq., catalogs free on request. Sciences Nat, 45, rue des Alouettes 75019 Paris, FRANCE

MANUAL OF SCIENTIFIC ILLUSTRATION, Charles S. Papp, 1976, 350 pp., 1400 figures. Original 1968 edition, a standard text, is now enlarged, with new chapters on photography, cover design and book manufacture. 8½ x 11, a sturdy paperback edition. Pre-publ. \$17.50 plus postage, includes "Magic of Color Printing", a \$7.50 value bonus with 120 pp. and 91 color illus. After July 1976 publication, \$22.50 plus postage. Mr. Charles S. Papp, P.O. Box 28718, Sacramento, CAL. 95828, USA

JAMAICA AND ITS BUTTERFLIES, price halved to only \$22.00; D'Abrera, BIRDWING BUTTERFLIES OF THE WORLD, 1975, 260 p., over 300 life-sized color photos, lim. ed. \$65; Fleming, BUTTERFLIES OF WEST MALAYSIA AND SINGAPORE, 1975, 2 vols., \$47; Heath, MOTHS & BUTTERFLIES OF GR. BRIT./IRELAND, Vol. I, Micropterigidae to Heliozelidae, 1976, price reduced to \$39.95; Pinhey, MOTHS OF SO. AFRICA, 1975, 273 p., 63 color plates w/1182 species, \$39.95. Postpaid if check accompanies order. Calif. residents please add sales tax. Entomological Reprint Specialists, P.O. Box 77224, Dockweiler Station, Los Angeles, CA. 90007, U.S.A.

LEGION OF NIGHT—THE UNDERWING MOTHS, T. D. Sargent, 1976, 224 pp., illus., cloth. All aspects of *Catocala* in eastern N. Amer. are covered, from collecting methods to rearing. Eight color plates are supplemented with many drawings and photos. List price, \$15 (\$13.50 with Order Form). Please enclose payment, will be sent postpaid. Univ. of Massachusetts Press, P.O. Box 429, Amherst, MASS. 01002, U.S.A.

RHOPALOCERA DIRECTORY, by John R. Beattie. First volume of projected *Insecta Directory*. (See review elsewhere in this issue.) A computerized index to all generic and specific butterfly names in the *Zoo. Record* 1864-1971 and in *Ber. uber . . . Ent.* 1834-1863. Special supplemental sort for locating names misspelled in the literature. Offset or quality photo copy reproduction. Sturdy paperback, 169723 entries, 365 pages, 8½" x 11". \$40.00 to libraries, \$30.00 to individuals. Free 10-day examination without obligation: JB Indexes, 2377 Virginia Street, Berkeley, CA 94709, U.S.A.

RESEARCH REQUESTS:

- Wanted for host specificity comparisons: Live ova and larvae of *Strymon melinus* (any population). Any rearing records or data specifically stating the abundance of host plants also useful. All contributions and correspondence acknowledged. Glenn A. Gorelick (Biology), Citrus College, 18824 E. Foothill Blvd., Azusa, CALIF. 91702, U.S.A.
- Need living material, prefer pupae, of *Pieris napi oleracea* and *venosa* for continuing experimental work on *Pieris* relationships. Please write beforehand. S.R.Bowden, 53 Crouch Hall Lane, Redbourn, Herts, ENGLAND
- Wanted for systematics study: pupae of any Birdwing species—*Troides*, *Ornithoptera*, and esp. *Trogonoptera* and *Ripponia*. Also wanted, pupae of any *Morpho*. These need not be live; empty pupal cases will do. Michael Parsons, Hurst Lodge, Hurst Lane, Egham, Surrey, ENGLAND TW20 8QJ
- Want records of *Podosesia syringae* (Sesiidae). This clearwing, the Lilac or Ash Borer, is widely distributed east of the Rockies. Esp. interested in late summer and fall records. F. F. Purrington, Dept. of Entomology, OARDC, Wooster, OHIO 44691, U.S.A.
- Want information on determining sex of saturniid larvae for research project. Please write if you have a method. Thomas A. Miller, USAMBRDL, Fort Detrick, MD. 21701, U.S.A.
- Want to borrow specimens of *Acroncosa* (Phycitinae) a small pyralid with white FW transversed by two orange lines. Found in SW U.S. Contact Dr. Carl Goodpasture, C/O Julian Donahue, Dept. of Entomology, L.A. County Museum, 900 Exposition Blvd., Los Angeles, CA. 90007, U.S.A.

NOTICES:

Members of the Lepidopterists' Society are invited to use this section free of charge to advertise their needs and offerings in Lepidoptera. We cannot guarantee any notices, but all are expected to be made in good faith. Please be brief, clear, and check spelling. Notices will be limited to 2 appearances. The Editor reserves the right to alter or reject unsuitable copy.

EXCHANGE: Lepidoptera from Oklahoma for other U.S. material. Send list of offerata. Larry Robinson, 8271-B South Yorktown Ct., Tulsa, OKLA. 74135, USA

EXCHANGE: Midwest U.S. butterflies with anyone anywhere. Newell Schwamberger, 9265 Airport Hwy., Monclove, OHIO 43542.

WANTED: All living material of american Lepidoptera for scientific studies. Want information on rearing *Danaus plexippus* on cabbage. Angelo Santin, 11 rue Ch.Vaillant, 77680—Roissy-en-Brie, FRANCE

FOR SALE: Beetles: *Dicronorhina derbyana*, S.W.A., green with white stripes, 3-4 cm., males \$7, fem. \$5. *Eudicella smithi*, S.W.A., green, males \$6, fem. \$5. Also other medium beetles \$2, small \$1. Please add \$2 for Air Mail postage. Sometimes Lepidoptera, state wants. W. Henning, Box 1584, Johannesburg 2000, SOUTH AFRICA

WANTED: Clearwing moths (*Aegeriidae*), wasp-like moths with boring larvae, worldwide interest. Good prices paid for papered/set adults or live pupae. Need complete data. John Holoyda, 2819 N. Marmora Ave., Chicago, ILL. 60634, U.S.A.

WANTED: *Phoebis avellaneda*, *Pap. gundlachianus*, *Orn. lydius* & *croesus*, *Thaumantis diores*, *Cethosia lechenaulti*, and *Taenaris butleri*. Will buy or exchange. B. E. Ellis, 3176 West 50 St., Cleveland, OHIO 44102, U.S.A.

FOR SALE: Poplar Shadowboxes, 11 x 13 x 2, antiqued gold. Shipped completely assembled with glass and backing, just add your favorite specimens. \$17.50 postpaid in cont. U.S. Natural History Displays, P.O. Box 826, Beaufort, N.CAR. 28516, U.S.A.

WANTED: *Agrias stuarti*, *beatifica*, *hewitsonius*, *paulus*, *tapajonus* (female), *dubiosa*, *porphyronis*. Will pay best prevailing price, or exchange rare *Agrias*. Robert E. Aronheim, P.O. Box 239, Middlebury, CONN. 06762, U.S.A.

FOR SALE: New Timber ent. cabinets, 5 and 10 drawer units, drawers 27 x 24 x 2, suits continental pins. Naphtha cell around the perimeter. Get details and photo from J. K. Guyomar, 789 Grassdale Rd., Gumdale 4154, AUSTRALIA

FOR SALE: Riker mounts, some never used, all excellent condition, with and without cotton. Qtys. to 1000 in these sizes, in.: \$1.00 each: 5x6, 6.5x8.5, 8x12. \$2.00 each: 10x12, 12x16, 9.5x12.5 (deep style). 10% discount for orders over 25. Ms. Susan Borkin, Dept. Invert. Zoology, Milwaukee Public Museum, 800 W Wells St., Milwaukee, WI. 53233,

WANTED: Correspondence with those interested in gardens to attract butterflies and/or butterfly farming. Need information on plants for nectar sources and larval foodplants. All letters answered. Pat Purdy, 2825 Sand Rd. NE, Roanoke, VA. 24012, U.S.A.

FOR SALE: Ent. News ('36-'59); Bull. Brk. Ent. Soc. ('36-'65); Proc. Ent. Soc. Ontario ('37-'66); Packard's Monog. on Notod. & Saturniidae; Field's Kansas Butt.; Dyar's Lep. of Panama (1914); Comstock's Lep. of Puerto Rico ('44); Forbes' Lep. of NY, Pt. 2; Tutt's Brit. Lep. V. 4 (Sphingidae). M. C. Nielsen, 3415 Overlea Dr., Lansing, MI. 48917, U.S.A.

FOR SALE: Papered *M. gryneus sweadneri* (50¢ M, 75¢ F); *Pap. polydamus lucayus* (\$1 M, \$1.25 F). Butt. of Australia by Comm./Waterh., 1972, \$30. Butt. of Va., Clark '51, \$10. Butt. Britain & Europe, Higgins/Riley, \$8. Butterflies, Ford, \$8. Insect Book, Howard, 1910, \$8. Butterfly & Moth Book, E. Rob.-Miller, \$5. Mimicry, Carp./Ford, '33, \$3. Mimicry in Butt., Punnett, '15, \$8 (slides of 9 plates, \$4). Butt. of Genus *Coenonympha*, Davenport, \$4. Med. Ent., Riley/Joh., \$5. Appl. Ent., Fernald, \$5. Evolution in *Erynnis*, Burns, \$3. Insect Phys., Wigglesworth, \$7. Dr. George W. Rawson, 603 Faulkner St, New Smyrna Beach, FLA. 32069, U.S.A.

- FOR SALE OR TRADE: One pair of *Ornith. paradisea* in Riker mount, from my own collection, A-1 condition. Trade preferred. Mary Anne Jasinski, 2020 Burlington Ave.-North St. Petersburg, FLA. 33713, USA
- FOR SALE: Preserved in 70% isopropyl alcohol: *Pieris rapae*, mixed June beetles, and Japanese beetles. J. Smoglinski, 2705 Hiester Blvd., West Lawn, PA. 19609, USA
- FOR SALE: Living pupae of *Pachysphinx modesta* (60¢), *Anisota virginienensis* (40¢), *D. myron*, *P. myops*, *P. excaecata*, *Cr. juglandis*, *Cer. undulosa* (all 30¢). Mr. William Houtz, R.D. #1, Box 581, Pine Grove, PA. 17963, USA
- FOR SALE: Many Formosan butterflies, moths, beetles, cicadas, dragonflies, and other dried insects for collection and art work. Mrs. Chang Pi-Tzu, P.O. Box 873, Taipei, TAIWAN (FORMOSA).
- WANTED: Butterflies, beetles and other large insects in lots. Worldwide interests, esp. S. American and African fauna. Send list of prices to M.N. Claude Jasmin, 880 Des Zouaves, Quebec, Quebec, CANADA G1R 3J1
- FOR SALE: Butterflies from E. Canada incl. arctic species. Choice rarities from Jamaica and S. America. All A1, papered, with full data. Limited quantities. Lists on requests. J. Johnstone, Dickson Hill Road, R.R. 2, Markham, Ontario, CANADA
- EXCHANGE: Want conscientious contacts for *Catocala*. Can supply A-1 specimens of Michigan *Catocala* with full data, plus other rarities (*Hesperia*, *E. mitchelli*, *C. muticum*) for like quality western or southern *Catocala*, this fall. Wayne A. Miller, 1491 North Hills Drive, Kalamazoo, MICH. 49007, USA
- FOR SALE: Colorful Philippine and Indo-australasia butterflies at \$100 per 1000-piece box, air mail postpaid. One box limit. Joris Trading Co., Boac, Marinduque, PHILIPPINES
- FOR SALE OR TRADE: Ova, pupae, papered specimens of rare Sphingidae, worldwide Saturniidae, and local butterflies. Write for free list. WANTED TO BUY: Living material of any species. Good prices paid. All letters acknowledged. Ray Adams, Carretera Principal 139, Tamaraceite, LAS PALMAS DE GRAN CANARIA (SPAIN)
- WANTED: McD. Checklist, Part 2; Microlep. (1939). Clean copy preferred. John B. Heppner, Dept. of Entomology, Univ. of Florida, Gainesville, Fla. 32611, USA
- EXCHANGE: Many species of U.S. butterflies to trade with other U.S. and Canadian collectors. William B. Wright, 18 Clinton Place, Woodcliff Lake, N.J. 07675, USA
- WANTED: Mid-Continent Lepidoptera Series No. 34-49, microfiche of Edwards' Butterflies of N. America, V. 1-3. Must be negatives, not positives. C. F. dos Passos, Washington Corners, Mendham, N.J. 07945, U.S.A.
- EXCHANGE: Rare Rhopalocera and Zygaenae from Europe, N. Africa and Asia for butterflies from U.R.S.S., China, Pakistan, Nepal and N. Canada. Jean-Claude Weiss; 26, rue E. Zola, 57300 Hagondange, FRANCE
- EXCHANGE OR BUY: *B. distincta*, *Parnassius*, *Colias*, and live material of moths and butterflies. Need ova or cocoons of *E. calleta*. Offer *G. isabellae* and other European insects, or purchase. All letters answered. J. Kruger, Danziger Str. 14, 4020 Mettmann, WEST GERMANY
- EXCHANGE: Wild caught, papered *Automeris zephyria* for N. Amer. Rhopalocera, particularly Theclinae. Ova occasionally available. Charles A. Bridges, Sunspot, N.MEX. 88349, U.S.A.
- WANTED: Clean copies of McD. Checklist Part 2 (Micro's) and Tietz Lepid. of Pennsylvania (1952). Stephan Goldstein, M.I.T. Room 35-011, 77 Massachusetts Ave., Cambridge, MA. 02139, U.S.A.
- EXCHANGE: Verity's Farfalle Diurne d'Italia, V. 1-4 (V. 4 without plates), newly bound, good condition for Clarke's Types of Microlep. described by E. Meyrick in Br. Museum. Dr. Vitor Osmar Becker, EMBRAPA-CPAC, Caixa postal 07 0084, 70.000 — Brasilia, DF. — BRASIL
- FOR SALE: Most species of butterflies (skippers special request only) of British Columbia, Yukon Terr., and Alaska. Also photos of living and dead specimens. Will collect on request. Price list and current stock list available now. C. S. Guppy, 4120 St. Georges Ave., North Vancouver, B.C. V7N 1W8, CANADA
- FOR SALE: All Lepidoptera; new and used entomological books. 44 page color catalogue covers over 1000 species of Lepidoptera plus 10 supplementary lists each year for \$6.00; catalogue only for \$3.50. Your "want lists" invited. The Saruman Museum, Beckley, Rye, Sussex, ENGLAND TN31 6SB
- FOR SALE: Large selection of West Malaysian butterflies and moths for collectors or art work. Also beetles, cicadas, scorpions, and many other exotic insects. B. L. Gooi, P. O. Box 9, Tanah Rata, Cameron Highlands, WEST MALAYSIA
- FOR SALE: 10 glassstopped drawers, unfinished redwood, 16½ x 19 x 2-1/8, brass pull, \$80 plus shipping costs. R. Rahn, 3214 W. Springdale Ave., Wausau, WI. 54401, U.S.A.
- FOR SALE: Seitz' Macrolep. of World Vol. 13 (African Rhop.), English text, including plates, \$500. Holland's Butterfly Book, 1920, \$15; Moth Book, 1937, \$15. Monograph of *Erebia*, Warren; Amer. Hesperidae Pt. 2 Br. Mus., Evans; other books, prices on request. Thomas W. Davies, 791 Elsie Ave., San Leandro, CA. 94577, U.S.A.
- FOR SALE: Lep. News, 1971 through 1975, \$10, postage extra. D. L. Baber, 1511 Drake Ave., Burlingame, CA. 94010, U.S.A.
- WANTED: Collectors to supply large quantities of Lepidoptera, good condition w/data, all families esp. *Papilio*, *Morpho*, *Brasiliidae*, *Heliconidae*, *Nymphalidae*, *Saturniidae*, *Sphingidae*, world-wide. Also ova and pupae. Will buy or exchange. Please write with offerata, present and future. All letters answered. K. Thorne, Mill Street, Delaware, Ontario, CANADA N0L 1E0

from: THE LEPIDOPTERISTS' SOCIETY

Department of Biology
University of Louisville
Louisville, Kentucky 40208, U.S.A.

Forwarding and Return Postage Guaranteed

Non-profit Org.
BULK RATE
U. S. POSTAGE
PAID
Permit No. 31033
Los Angeles, Ca.

MR. J. DONALD EFF
445 THERESA DRIVE
FAIRVIEW ESTATES
BOULDER, COLORADO 80302

Memoirs of the Lepidopterists' Society, Number 1 (Feb., 1964)

A SYNONYMIC LIST OF THE NEARCTIC RHOPALOCERA, by C. F. dos Passos

Price:

Society Members, paper covers, Addenda et Corrigenda (revisions of Melitaeinae and portions of Lycaenidae supplied separately), \$5; non-members, \$7.50.

Send to **Memoirs** Editor Dr. Charles V. Covell Jr., Dept. of Biology, Univ. of Louisville, Louisville, Ky. 40208, U.S.A.

INFORMATION ABOUT THE SOCIETY

Membership in the Lepidopterists' Society is open to all persons interested in any aspect of Lepidopterology. Prospective members should send the **Treasurer** the full dues for the current year (\$13, U.S.A.) together with full address and areas of interest in Lepidoptera. Remittances in dollars (U.S.A.) should be made payable to The Lepidopterists' Society. All members will receive the **JOURNAL** (published quarterly) and the **NEWS** (published bimonthly). A biennial membership list will comprise one issue of the **NEWS** in even-numbered years. Back issues of the **JOURNAL** may be purchased from the **TREASURER**.

Information on membership may be obtained from the **TREASURER**, Dr. John M. Snider, 3520 Muldae Ave., San Pedro, CALIF. 90732, U.S.A. Changes of address must be sent to him alone, and only when changes are permanent or very long-term.

Other information about the Society may be obtained from the **SECRETARY**, Dr. Lee D. Miller, Allyn Museum of Entomology, 3701 Bay Shore Rd., Sarasota, FLA. 33580, U.S.A.

Manuscripts for publication in the **JOURNAL** are to be sent to the Editor, Dr. George L. Godfrey, Illinois Natural History Survey, Natural Resources Bldg., Urbana, ILL. 61801, U.S.A. See the inside back cover of a copy of the **JOURNAL** for editorial policies.

Items for inclusion in the **NEWS** should be sent to the Editor, Ron Leuschner, 1900 John St., Manhattan Beach, CA. 90266, U.S.A.