

NEWS

of the LEPIDOPTERISTS' SOCIETY

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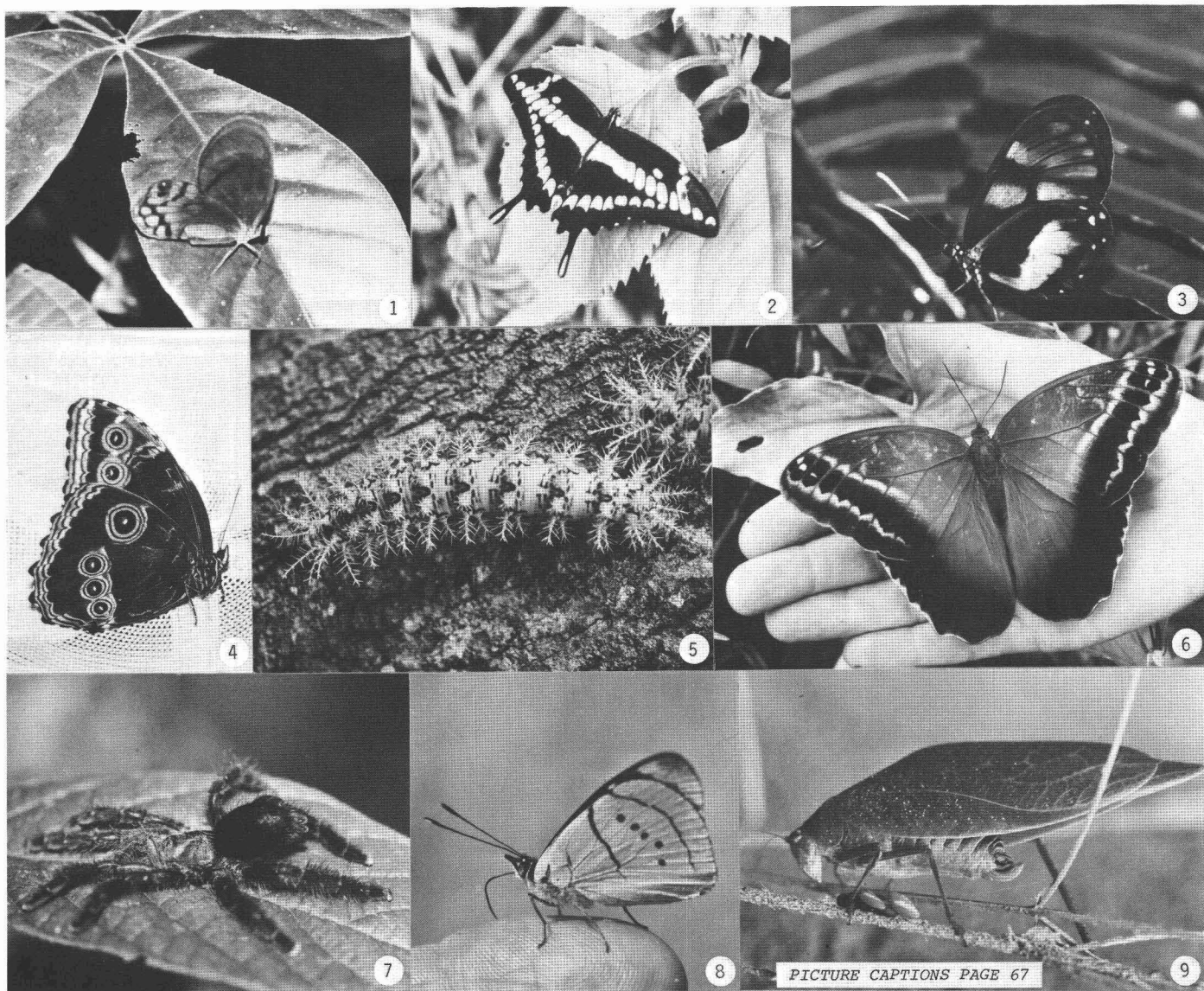
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ECUADOR — IT TAKES ALL KINDS!

ECUADOR!.....

Following the Annual Meeting in Gainesville, some eighty-odd members proceeded to Ecuador organized into four groups, two on 22 June and two on 23 June. Tom Em-mel planned the itineraries, and Holbrook Travel, of Gainesville, made the travel arrangements — and neither need take credit for some of the unscheduled features detailed below!

Tom led Group I himself, with Keith Brown guiding Group II; Stan Nicolay was responsible for Group III, and Julian Donahue for IV. A selected reporter for each group produced the following accounts — presented in no particular order because the numbers were of no particular significance.

GROUP III:

Groups III and IV arrived in Quito on Monday morning, 23 June, after an all-night bus and airplane trip from Gainesville, Florida. We flew directly to Coca in the Amazon basin, after clearing customs and waiting for our Condor Airlines flight over the Andes. It was an exciting flight: straight up and straight down, somehow stopping short of the end of a very short runway in the rainforest surrounding Coca.

A bus from the "Francisco de Orellana" flotel met us and took us to what was to be our home on the water for the next four days. The flotel had luxurious accommodations for a jungle cruise, but we began to have doubts about the food the next morning when we suspected that our eggs had been basted with diesel fuel. Our suspicions were confirmed when the following evening almost everyone on board came down with what we called "Orellana's Ordeal", only to be confused with the well-known "Montezuma's Revenge" of Mexico. The chef was tried informally by the members of Groups III and IV: we could not agree on the punishment of a long walk on a short gangplank, but we did agree to recommend that one of the "Orellana's" four stars be eliminated from the Michelin Restaurant Guide. The crew on the "Orellana" were friendly and courteous and did their best to accommodate the "mariposeras", as they called us.

Our first experience with Amazon Basin butterflies occurred the first afternoon when we were put ashore a few kilometers below Coca, in a banana plantation. A bewildering variety of species greeted us, and in moments collectors were yelling, "there goes a big one", or "a long-wing", a "black one", "blue one" or "green one". As novices in the jungle, that's about as close as we came to scientific identification, other than perhaps calling something a *Papilio*, a pierid, or a nymphalid, and then you were never sure you were not looking at a mimic of something.

That evening the "Francisco de Orellana" docked at Primavera, a ranching operation on the Rio Napo; from here excursion canoes from the flotel took us into the rainforest to collect.

The first trip was to the Linguistics Center at Limoncocha, where we preceded Group I, which arrived by air several hours later. Collecting at Limoncocha was good, with an abundance of sunshine for most of the day. Here we saw our first *Morphos*, and a few of us even managed to capture some.

That evening we had a ranch dinner served at Primavera. The food was delicious, featuring heart of palm salad and other delicacies, some indefinable. The meat dish was excellent. The next day some of Group III stayed at Primavera to collect and saw a hunting party return in the afternoon with about a dozen monkeys. After that, we wondered exactly what species of protein we had eaten the previous evening!

Collecting trips were also made to Taracoa Lake, just across the Rio Napo from Primavera. In spite of the rain, many specimens were collected, then displayed, identified, and reidentified at our evening social hours on the top deck of the flotel.

We returned to Coca on Friday, 27 June, for a flight

back to Quito, then boarded a bus to Banos, which is at 1700 meters above sea level on the east slopes of the Andes in a area where the tropical forest and grassland plateau merge. We stayed in a delightful hotel at Banos, where we were served in a formal dining room on crystal and china by white jacketed waiters. The atmosphere seemed wierdly contradictory to our attire of collecting clothes and jungle boots. A trip was made down the Pastaza River canyon to Rio Topo where excellent butterfly habitat occurs, but we were plagued with rain. The following day we left for Puyo, which is down the Pastaza canyon into the Amazon Basin at about 1500 meters elevation. We met Group IV en route and stopped for a few moments to exchange collecting notes. After settling into the hotel at Puyo, we made walking excursions into the surrounding town and river area.

On Monday, 30 June, we took our bus to an area 25 km. n.e. of town, where Stan Nicolay said that three years earlier you could walk to the rain forest in five minutes. So much clearing has been done in the interim that it took us over an hour to get into the forest. We had a full day of sun and an excellent day of collecting.

The following day we returned to Quito and stopped again at Rio Topo for collecting but were again rained out. That evening we settled in the Santa Maria Hotel and many of us had dinner in a fine French restaurant owned and operated by Lep. Society member Nadia Venedicoff. We all "pigged out", and gave thanks that the chef of the "Francisco de Orellana" was far away on the Napo River.

Our last day of collecting was at Tinalandia, a resort area on the western slopes of the Andes in a very fine tropical area. Many of us felt this was the best collecting of the entire trip. The weather cooperated, and thousands of butterflies returned with us to Quito.

The final day in Quito was spent shopping and getting our treasures packed for the trip home.

Special thanks from group III go to our leader, Stan Nicolay. Stan's genuine concern for our well-being, his friendliness and leadership, earned him the gratitude of us all. It was difficult for us ex-GI's in the group not to spit-shine our jungle boots each morning and stand in-spection out of respect for our "Colonel".

The Indefatigable Collecting Award for Group III goes to Jim Maudsley and John Brockway, hereafter referred to as the Dynamic Duo. We figured that special treats were in store for us all when, the first night out on the flotel, their banana, beer, and yeast bait exploded all over their cabin in the middle of the night. From that time on the *Morphos* and *Caligos* attacked them en masse whenever they entered the rainforest. At Puyo, arising at 4 a.m., they brought back over a hundred sphingids, saturniids, and other large moths from the street lights in town.

The Bravery Award for Group III goes to Janet Codor, who is a biochemist for the FDA but still ate the food on the "Francisco de Orellana".

The Group Comedian Award goes to Irving Finkelstein, who kept all of us in fits of laughter with his dry wit. After his bout with "Orellana's Ordeal", such comments as "if the human body is 80% water, then most of me is on the way to the Amazon" never ceased for the entire trip.

Abner Tower is given the Survivor Award. No matter where we stopped, Abner found a bottle of cold beer in less than three minutes.

Lastly, a big "Gracias!" to the wonderful and kind people of Ecuador who made our stay in their country a wonderful experience for all of us.Jim Mori.

GROUP IV:

June 22. Butterflies in the rain. Anticipation. Picnic to Miami. Growing acquaintances. With the arrival of the bus the bar-b-que ended quickly. Though the weather was improving, our equatorial destiny was upon us. Frisbees, volley balls, even nets were dropped, luggage claimed and loaded. Unceremoniously ordered off the bus for photographs. Reload and on our way through nearly

six hours of rain to Miami. Bus talk, when not sleeping, ranged from the fatness of the rainbow, to racquet ball, to the logistics of 40 people in a jungle trail. For those who have travelled much, the assistance of Pat at the Miami airport was recognised as invaluable. She gladly answered every one of our questions and made special arrangements for us whenever necessary. At the unholy hour of 3:30 a.m. we left for Ecuador, treated by the lights of Miami, Cuba, coastal Colombia, and by a beautiful fireworks display of lightning beyond and below us. Talk dwindled as people dozed.

June 23. Tired but elated. Excited. Overwhelmed. Worn from our almost sleepless night, were herded easily through the formalities at Quito with the help of Giovanna Holbrook. Interrupted only by a confrontation with the Ecuadorian military regarding a member of the group in Ecuadorian military uniform, semi-patiently grouped on the airport floor we waited for the next leg of our journey. Over the Andes and down into the Amazon basin in a surprisingly spacious and comfortable Condor. Stuffing into the bus, with the human overflow piling on top, down to the riverfront and to the boat. Thus the frantic first experience for many lepidopterists in the American tropics began — gardens and forest at the docks were alive with fresh Anartia, ithomiines, and other species. Of course edginess and nerves were a little exposed, as we adjusted to the inevitable Latin American experience of — nothing ever goes off exactly as expected. Orientation, dinner, rooms, and off to the bush in Johnson-powered dugout canoes. Though a few stayed on the boat, most went off on their first Amazonian collecting foray. The trails, banana plantations, yuca gardens, hut garbage piles were alive with the swish-swish of nets. Though most stayed fairly close together, an amazing amount of courtesy was demonstrated, characterized by a moment when Irving quietly backed off as Ruth began to stalk a brassolid, and commended her for her success. Gifts of specimens were seen: one gave a heliconiid to another, having caught it after the latter had missed it; Steve Spomer gave away an 8" green and pink grasshopper; Dave B. found a large beetle he didn't want. Leaf-cutting ants were studied, and the habits of tropical butterflies were learned. For many this was a first experience, a living one, of life forms only seen in books and museums. Large doses of disbelief were rampant — am I really here doing this? I have dreamed of this all my life. Am I really here? Flocks of green parrots screaming overhead at sunset. Proliferation of sunshine and low forest butterflies. Brilliant red flowering trees. Giovanna's self-confident help and leadership.

June 24. Morpho, Nessaea, Papilio, Phoebis. Contrast — dugout canoe to the mission station at Limoncocha, where the only breeze was the prop-wash of a DC-3 as it took off from this remote landing strip. Stan seeking old trails; the encroachment of civilization; Dave B. netting one of the first Morphos of the trip; George Christy collecting with his camera midst the mission compound, "taking" leps without their ever knowing it; Kathy and Julian on a tiny forest trail near a spring "calling" brilliant orchid bees with eucalyptus oil. Sunstroke resulting in intravenous treatment for one, reminding us that the greatest danger to us was not beasties but exposure — something lepidopterists must learn from the arctic to the equator. Tired, dehydrated, tingling, we went back to our houseboat. In the evening to be treated by Giovanna to a banquet at Primavera.

June 25. Deep. Majestic. The first experience for many of the tall canopy virgin jungle. Trails and clearings between the river and a lake. Julian's butterfly traps. Irving patrolling every trail you looked down. Gordon in the forest off every trail you walked down. Gloria appearing to be pulled by her net in a mad dash. All of us incited to enthusiasm as Joanna simply stepped out of the canoe and swept up a Caligo, which was bigger than any envelope she had brought along. Horribly beautiful experience of looking out over the canopy and down the trunk of a tree more than 200 feet, having climbed a scaffold built around the tree. Butterflies dancing in the

pouring rain — riodinids that mimic heliconians. Pierella, Callitaera and other forest floor prizes challenging everyone. Urine deposits granted Gordon a fine Papilio; occasional frantic panic touched many on occasion as the giant flash of blue came by. Be it the hors d'oeuvres or the afternoon chicken, or what, stomach distress began that evening, was spreading badly by next morning, and was rampant by the next afternoon.

June 26. Seeking (knowing what was there). In the rain (collecting, and riding for hours in the powered canoes). Horribly sick from food poisoning (not dysentery), some would have been hospitalized at home, even most of the flotel staff was out of commission, most lepidopterists wobbly, but cautiously heading for the jungle again. Regrettably, it is the violent, seriously debilitating sickness which most on the flotel will mention first. But we went. Part went back to the spots of the previous day, others penetrated the jungle on the Primavera side of the river. During rainshowers the crew on the lake trail turning the "lunchroom" into a recuperating room, in distress sprawled on tables and benches. A Morpho flies into the enclosure, ignores Richard Cramer's attempts at capture, and leaves by the same door. How such a large butterfly with such little wing movement — experienced many times by many. Then two hours up-river in one of the most unique sights: two giant dugout canoes with big Johnson motors in the pouring rain covered by a canopy of assorted umbrellas in a part of the world where civilization as we know it is totally non-existent. Most took a passing look at supper and joined in the evening slide program before heading for the lights or bed.

June 27. Precipice. Washed-out roads through the night. To Coca. The garbage/food truck: we thought it was the first, but it was the second. Waiting — of course. The little Condor to Quito, and the group divides for our Puyo-Banos experiences. This group went on through the night down a 3/4-lane dirt mountain road along the cliffs in the rain through washed-out roads, past land-slides, stalled trucks. But first we had to go back and find Karl. After a rest stop he was noticed missing, found standing high on a schoolhouse wall at roadside. A near midnight supper, very satisfied with the leadership of Fernando, one whom we came to see not only as a guide, but also as a friend. Puyo.

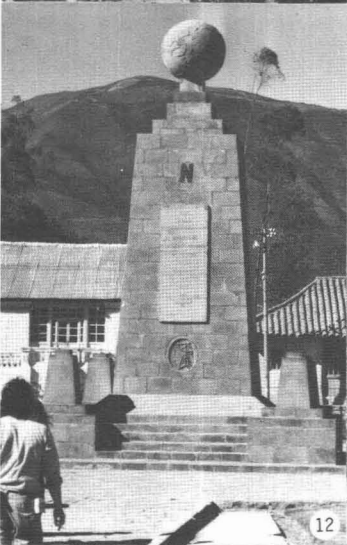
June 28. Frustration. "Pink glasswing". Coordination of our efforts, long hot hikes through a sugar plantation, Jim Brock searching for missing Gloria in a tea plantation, reluctantly cooperative weather; but still we returned to our rooms with our papered or photographed prizes. Papilionids, brilliant satyrids, Adelpha, riodinids, heliconians, Callicore, Anartia, hesperiids, and on and on. Though others who have spent months in Amazonia have never seen a snake, little Ruth saw her second one in a week — 10 feet long (3½'). Some wandered the forests, others wandered the tea plantations, yet others wandered the roads. The latter is where you almost always could find Charlie Zeiger with his bait pail.

June 29. In the canopy; the church; on the trail; in the village. Joanne Zeiger, Eloise Hawks and others explored the village on the mountainside between Puyo and Banos, were touched by the simplicity of the church, the curious enthusiasm of the people in the tiny restaurant. But here, as in most places, lepidopterists popped off the bus and into the bush like oil hitting water, dispersed in all directions. David Hawkes, still not recovered from our Napo sickness, had a satisfying day as did most of us. Some found bait spots left by the other group and literally harvested. Charlie Stevens ambled up and down the mountainsides sampling the fauna of different altitudes and mini-environments; Gordon, like many others worked his way into hopefully likely places seeking the treasures to be found. Dave B. picked a spot where a road cut on a wooded cliff side actually provided a netting spot where he could reach out over the canopy. Here as in many places we were enthralled by the living lepidopterological forms and their patterns of flight and behaviors. Sumptuous accommodations at refreshing Banos.

June 30. Exotics. Mud-puddling Phoebis. Marco, a

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local collector, took us to a known spot and again we scattered. Heliconius, Prepona, Callicore, Catagramma, Perisama, Adelpha, Dryas, day-flying moths, Victorina, Thecla, Phoebis, Anartia, and on and on. Here success was widespread. Those that wandered some forest trails found a lepidoptera void, where others like Kinch and especially Ruth experienced them all. Again, netless and camera-heavy George recorded the living forms from unbelievably close range. Again at the end of the day, pampered by unbelievably personal care at the hotel in Banos.

July 1. The people. New wool. Used baskets, Travel and market days. Homespun and woven wool. It possessed most of us and then we possessed it. On to the market place for the local people with foods and mixtures and implements totally alien to our experience. Wool for sale here too, with coarse or fineness in bargaining. The Earlys even got down to whether or not to include a ball point pen in their final payment for purchase. Quito and the city, hotel Americanized, altitude sickness hitting some and actually hospitalizing Charlie Zeiger. Again a reminder that it is not the tiny or the big beasts that tropical travelers need to concern themselves with, so much as the sunshine, the temperature, and the altitude, and the extremes with which they are unaccustomed. However, at 11,000', though breathing hard, Bob Barth, our giant with the long reach, managed to net a small number of very desirable alpine pierids.

July 2. Abundance. Which one next. Tanalandia. Other groups had days here. We had but one and made the most of it. The western slope of the Andes. Some still not recovered from the sickness on the river, but going as strongly as possible. Where other days many would look for the next lep, here most had the dilemma of "which one next?". Different forms in all groups on this side of the Andes; the challenges of the Hamadryas and Smyrna were added to our experiences. Some wandered to golf course and mountainsides, others stood in the same spot all day. The visual experience of a foot-long female walking stick overwhelmed all of us. But indicative of the leadership of Stan during the whole trip, and the reverence for the living forms around us (even though we captured many things to bring home), Stan released it as we began our journey up the mountain back to Quito. Some that evening went banqueting and discoing, others had a leisurely supper at the hotel.

July 3. Lounging. Window shopping. Some relaxed at the hotel. Others rode to the equator. Gordon, Ruth, Dave, Bob, and Karl wandered downtown, and ran into Charlie and Joanne, Irving and others, each alone and together touching the city briefly before we returned home. Later Stan showed us one of the finest shops in Quito with exquisite hand-made products; then onto our final packing before the airport. The final visions of the trip were found while dozing on the floor of the Miami Airport from 11 p.m. to 6 a.m. that night. Familiar faces could be found in corners and, yes, even under the couches. However, sprawled on the rug was one being to whom we all owed our appreciation for this experience. Under the newspaper was the face of Tom Emmel. Sincerely and genuinely — Thanks, Tom, from all of us.

.....Dave Bouton.

GROUP I:

Group I of the Ecuador juggernaut was led by the perpetrator of the whole venture, Dr. Tom Emmel of the University of Florida. Most of our crowd did not meet until it was time to gather at the Miami airport on the night of Monday, June 23. Beside Tom there were Andy Beck, Dave Bigelow, Patsy, Chip, and Dan Bogar, Tim Cashatt, Charlie and Chuck Covell, Jeff Glasberg and Jane Scott, John Glasser, Jim Nation, John Pasko, Jeff & Barbara Price, Les Warren, and Howard Weems with his wife Camilla and daughter Brenda. Baggage checked and other preliminaries taken care of, we boarded for the night flight to Quito. I was in a daze most of the way, tired from collecting that day on Dave Bagget's field trip to Shell

Bluff, Florida, and from riding to Miami from Gainesville on the bus.

Then we were circling Quito, where the sun was shining through clouds and fog with a beautiful effect. Clearing customs, we hurriedly changed some money into Ecuadorian suces (equal to about 4¢ US), and then Groups I and II parted, our group walking to a nearby shed where personnel of the Summer Institute of Linguistics, a branch of the Wycliffe Bible Translators, weighed us and our gear for the flight aboard a DC-3 to Limoncocha in Napo Province. Soon we were walking up the steeply-slanting aisle of the 1941-vintage aircraft, and found seats. As we flew eastward we could see snow-capped Mt. Cayambe rising above the clouds. We inhaled oxygen through rubber tubing before descending below the clouds to see the jungle stretching endlessly beneath us. Finally we saw some cleared areas and huts, then the missionary base of Limoncocha with its grass airstrip near the Rio Napo. Our landing was smooth — the pilot was a veteran JAARS (Jungle Air and Radio Service) flier, and the Limoncocha run is routine. These pilots and radio operators are the vital link between the translators with their support personnel in the Third World jungles, and the more civilized world.

After landing, we were taken on a flatbed trailer pulled by a tractor to our quarters. We were briefed on meals, clinic, swimming (in the nearby lake: piranhas and caymans near shore, so take a dugout canoe to the raft; don't fear the electric eels and the freshwater stingrays, as they stay on the bottom out deep!), and other local knowledge. And then it was time to grab net and collecting bag and, for most of us, try our first tropical butterfly collecting. Right away the butterflies appeared to be abundant, ubiquitous, and fascinating. The two commonest species soon became a bother: Anartia amathea, and a local variety of what looked like Euptychia hermes. So our trivia-sorters had to work overtime to separate the new and different species from these two, which had a way of masquerading as other species upon first sighting.

Aside from these, however, just about every species encountered was different and new to most of us. New, that is, in the sense of seeing the living, flying butterfly known before only as a purchased "oh, my!" specimen or picture in a book. An appreciation of the difficulty of capture was developed: where once we did not know which were the easy marks and which the rare or fast flying prizes, now these species had new qualities as we saw and collected them ourselves.

After the first afternoon, most of the daytime at Limoncocha was rainy or cloudy, reducing the butterflies on the wing to a steady stream instead of a mighty profusion. Still, we did fairly well, even in the rain (I took my only Morpho in a drenching downpour along a nature trail through the jungle). To extend the disappointment for those of us interested in blacklighting for moths, it cleared up at sundown and a full moon shone through the night. Blacklighting at Limoncocha was extremely unrewarding.

Some members of the group brought to mealtime stories of special places and means for successful collecting. Dave Bigelow found that the cow dung in a far pasture yielded many interesting species, particularly the "88" butterflies of the genus Diaethra; the jungle trails were the haunts of Pierella and the transparent Cithaerias spp., as well as a profusion of Heliconius and Ithomia spp. and their relatives. Some of the group contracted with Quichua Indians for a ride down the Rio Napo in a large dugout canoe and were taken to a good Morpho spot in an Indian Village. Mainly, though, as we slowly walked the dirt streets among the houses and other buildings of Limoncocha, exciting butterflies flew by, lit on plants around us, or flew up startled from a rotting banana or a bit of animal excrement. Hairstreaks had to be sought out, but were rewarding for their beauty. Fast-flying Nymphalidae, such as Hamadryas or Nessaea spp., usually presented a chase as they winged past. And the skippers were everywhere in mind-boggling variety. Many of these were dull, so were not high on the priority list

of many of us.

The Indian people, who come to Limoncocha to learn Spanish and the written form of their own language, plus skills such as carpentry and simple machinery repair, were everywhere, and usually were ready with a smiling "Buenas Dias" when we encountered them. The children were happy and friendly, and some of them cashed in on the sudden bonanza of selling a butterfly or moth wrapped in a banana leaf for a sucre to the eager gringo. Before we left, many of us visited the small room by the airfield where various Indian crafts such as blowguns, pottery, net bags, necklaces (made with colored beans, pods, and iridescent beetle elytra), and other items were available, the proceeds of sales going to the clinic fund at Limoncocha. Then, on the morning of 27 June, we boarded the DC-3 again and had a bumpy ride back to Quito.

At Quito Groups I and II crossed paths briefly, and there were hurried exchanges of local knowledge gained at Limoncocha and at Tinalandia, from which Group II had just returned. The best spots for various species were revealed to those about to go to the other place, and so we departed for Tinalandia aboard a bus. Then followed three hours of interesting panorama of Ecuadorian life and scenery. All kinds of activity could be seen in the streets and outskirts of Quito, and along the curving mountain road towards the western coast. In the distance white-capped Mt. Cotopaxi soared over 19,000 feet. People along the roadside were selling cooked food, repairing autos, making furniture, and playing soccer on tiny hillside fields. Finally, late in the afternoon, we arrived at Hotel Tinalandia, and settled in for a three-day stay.

The resort was located along the highway towards the sea, and consisted of a dining room and some cottages near the road, and more quarters and a golf course about half a mile by curving cobble road up the hill. Some of us stayed up top, and either walked down to meals, or rode a van sent up for us. That first day we had just time for a quick look for butterflies close to home before supper; then we found that blacklighting was excellent, despite the bright moon. While only a few of us were interested in collecting moths, everyone enjoyed seeing the great variety of Lepidoptera and other insects which came to the sheets placed near the upper quarters by Cashatt, Glasser, Covell, and Weems. Limited by time for preparing specimens and boxes to cart them home it, we were very choosy about what we took. Special interests such as Cashatt's (Pyralidae, Chrysauginae) and Covell's (Geometridae, Sterrhinae) were well represented at the lights.

After breakfast on the 28th we went our various ways in groups of two or three to try the spots our Group II friends had trailblazed. Some of us worked along the edges of the golf course, and the pastures beyond; others tried the nature trail, and the pipeline area across the road and river (which we crossed on a swinging bridge). Weather was better for us here, and the pace of discovery quickened. A few *Morphos* were encountered, with the help of bits of blue cloth pinned to hat or net. Owl butterflies were taken on the golf course at dusk, or at banana bait. By about 6:30 p.m. I was exhausted and headed from the pipeline area back to the dining room building to cool off with "Dos cervezas" from the bar. At 7:00 p.m. people began to gather for dinner, but my son Chuck was not among them. Then began the most horrifying experience of my life, as I began searching the trails with the help of a machete-swinging Indian employee of the hotel, and the rest of the group spread out, all of us calling "Chuck!". I did little collecting that night, as Chuck did not come in from the jungle. One of our party had seen him about 4:00 and he had indicated he was headed out to the west. After a fitful night of worry, I went searching again. Then, when about to go down to the dining room in the van, we got word from below that he had come in. He had gotten off the trail and into a rushing stream when darkness came, so he spent the night on a huge boulder, warding off the cold with a covering of leaves. Thus after the heights of one of my most exciting collecting days ever, the pits of fear. But fortun-

ately Chuck got back safely with only a few scratches, and our group could get back to normal (they were prepared to help search for Chuck — not what they had gone to Ecuador to do!).

The next two days were filled with collecting, each person trying to choose which spot might be most productive. Each evening at the candle-lit dinner table we reported our captures, and near misses. Techniques and observations were shared. John Pasko finally caught a *Morpho* and was elated, even though his capture was a real rag. I had one especially fruitful afternoon for hairstreaks along the golf course, and took a perfect *Arcas imperialis*. Jeff Glasberg was our hairstreak expert and identified a number of our species for us. He was also ready to strike a deal when something especially useful in his research turned up in someone's daily bag. I don't know how many species we took, but it was over a hundred of butterflies alone. Some of us had other objectives. Andy Beck and John Glasser homed in on Coleoptera, and Howard Weems would take anything in sight, but particularly flower flies (Syrphidae). We exposed a lot of film, and should have quite a program if we pooled our slides. We were burning the candle at both ends, collecting by day and night as well. Then it was time to go.

On the way back to Quito, our bus made a detour up the old dirt road which once was the only road from Quito to Tinalandia. We stopped for a couple of hours at a bend in the road 12.8 km. from the paved road, and there John Pasko got his fill of *Morpho* collecting, as did several others in the group. By this time the food or water at Tinalandia had bestowed "Montezuma's Revenge" on a few of our number, so not everyone collected with great vigor at this spot. Finally, after returning to the main road, we made a short stop at the breathtaking waterfall at Napac, where *Eumaeus minyas* was a prize for this reporter. Then it was on to Quito, where we rolled into the Guest House of the Summer Institute of Linguistics, and enjoyed a meal and an evening program about the Institute's work among the Indian people. The Institute personnel were very hospitable, and we were impressed with the dedicated work they are doing. They had a laundromat, too, which was most welcome.

The next day, July 2, some of Groups I and II combined for a bus trip to the environs of Mt. Cotopaxi. Although the mountain was impressive from close up, we were not allowed to collect in that part of the National Park; it was both chilly and windy, and only a few butterflies were seen. Farther down, outside the restricted area, we did stop for a couple of hours, and took about a dozen butterfly species, which were not common. These were high elevation pierids, hairstreaks, blues, coppers, nymphalids, and skippers, none of which we had taken in the rain forest habitats.

It was July 3 and departure day. Some of the S. I. L. people took some of us shopping in Quito, where bargains were to be had in woven wall hangings, sweaters, ponchos, ceramics, and other crafts. A shop sponsored by the Peace Corps was particularly good. After lunch, we boarded the bus for the airport, made one more shopping stop, and then it was time to board the plane for Miami. Our plane had a short stop in Ecuador's largest city, Guayaquil, then headed north. I suspect that some, like me, are still recovering and savoring the experience — and have hardly begun to spread the specimens.

I regret that this report does not say more about the other members in Group I. We were very busy collecting, and some humorous and memorable experiences of others in our crowd bear telling. Perhaps their stories can be told in later issues. For me the friendship of my fellow adventurers, and the people we met in Ecuador, were just as enjoyable as the breathtaking scenery and fantastic collecting. Thanks, Tom, for making it possible, affordable, and terrific.

.....Charlie Covell.

GROUP II:

The Group I-II bus departure for Miami was delayed slightly while Tom Emmel responded to a hurry-up call to

buy frozen turkeys for the Limoncocha Mission. Noteworthy details of the bus trip included celebration of their 30th wedding anniversary by Camilla and Howard Weems (scratch one bottle of champagne), and the start of their honeymoon for Paula and Mike Plagens. In Miami our efforts to obtain Ecuadorian currency were thwarted: Groups III and IV had cleaned out the money-changers the night before.

The trip through customs in Quito presented a demonstration of how the knowledgeable Ecuadorian makes his way home — sacrificing one of his treasures to the pocket of the inspector, so the rest may go unnoted. After a few anxieties over missing luggage we boarded a bus, baggage stacked on top, and began the hour-long chore of leaving Quito, south along the Pan-American Highway. As we rattled along, playing "chicken" with every pedestrian and passing vehicle, we followed a route which seemed to include innumerable 180 and 270 degree turns. (If you wish to consign me to a fate worse than death, just put me in a car and tell me to find my way across Quito.) Fernando, our most agreeable guide, explained a few of the problems of the local motorist: a minimum of \$10,000 to buy a car, hundreds of dollars for the driver's license, numerous roadblocks to check licensure — but gasoline for twenty cents a gallon! Ecuador exports oil, producing 200,000 barrels a day.

Having escaped Quito, we took the beautifully engineered road to Tinalandia, through the western Andean cloud-forest. Our first significant stop was below the Napac waterfall, at a roadside where we were exposed to our first tropical butterflies: but most of our nets were still irretrievably sequestered in the baggage. We milled about, grinding our teeth, snapping shutters, and drooling. Jo Brewer, who had a blue lure wrapped about her hat, was promptly accosted by a male *Morpho*, but the most any of us could do was wave it good-bye.

Within a few more miles we reached Hotel Tinalandia, heard the ground rules re drinking-water, meals, etc., ate a welcome lunch, broke out our equipment, and dispersed over the slopes, many of which tipped 60 degrees or more. Each of us will tell the best place to collect: edge of golf-course, pasture, stream-side, jungle trail, dooryard and cattle-shed, etc., etc. Even walking along the highway yielded good-quality road-kills. Most sites had too many UFO's to choose from, all seen through a blur of *Anartias*, so much so that the lower densities at later collecting sites seemed almost a relief — making observation of individual behavior easier. High and low points of collecting were netting *Hamadryas* off the back of my leg (twice), and watching a *Caligo* walk out from under my net (twice).

But compared with the frequency of butterflies in the daytime, the number and variety of moths at the blacklights could almost be called obscene. Keep your mouth closed, or you'll inhale them. Collect only for a few hours, or you'll spend all day tomorrow papering them. Easy on the sphingids: one of them takes as much box space as 20 little clearwings. Only two or three of a species, or you'll have no envelopes or boxes for the rest of the trip. Sampling different hours of the night paid off, especially for the crepuscular skippers just before dawn. Bait traps, however, were disappointing.

The weather treated us well, and the cuisine fairly well. Only two of our number were totally liquidated by the "tourista", and they lived to smile again.

The trip to Limoncocha was in two sections: Peter Eliazar and our baggage (only 20 lbs. per capita) in one flight in the early a.m., and the rest of us, weighed to the last ounce, when we reached Quito in the early afternoon. While the DC-3 takes off with difficulty in the thin, warmed air of early afternoon from 9200' Quito airport, once airborne we rose to 18,000' in only eleven minutes, topped the eastern Andes with volcanoes puncturing the cloud cover, and settled gradually through diminishing clouds to the jungles of Amazonia, a view of the sinuous Rio Coca, and a soft landing on the Limoncocha airstrip.

At Limoncocha the terrain was blessedly horizontal

and the weather largely sunny, contrary to the dire predictions of our Group I predecessors. We experienced but one ten-minute downpour, during which a passing *Urania* was preserved for posterity, and a young Indian was photographed en route to church in his Batman raincoat. Bands of army ants traversed our path (or we, theirs) at several points; more impressive were the two-way streams of leaf-cutting ants on their pounded earthen highways. The finding of banana leaves with their top edges neatly scalloped completed the supply-end of the picture. Bob Park's find of dozens of spiny, sausage-sized hemileucine larvae resting on a tree-trunk left us frustrated over being unable to rear them out, or even find their foodplant (all adjacent vegetation was refused). A giant damselfly designed for the Carboniferous eluded capture. Fallen fruit in the midst of the jungle yielded *Morphos* to the Prestons and a few other lucky souls. The butterflies, so adequately described by previous reporters, were not only netted and baited, but plucked from the surface of streams and purloined from passing ants.

The menu of the Mission included several tasty items new to us, including peanut soup and boiled unripe papaya served as a vegetable. On Sunday, when the Mission employees did not work, we had the pleasure of being invited to the homes of some of the staff for dinner, our half of the group enjoying roast beef, breadfruit, and ice cream sundaes at the home of the Misses Caroline Orr and Lois Pederson. Meanwhile Paul Pfenniger, eschewing the feast, spent his day contemplating the carcass of a cow and harvesting numerous spectacular *Nymphalidae*.

Before returning to Quito 30 June we stocked up on Indian artifacts at the local shop: Cofan necklaces, Cayapa baskets, and Waorani blowguns. As the group emplaned, Paul panted up, proclaiming the news that his bagged *Caligo* had produced forty ova, and our leader emerged dripping from the jungle, strode across the airstrip, and leapt aboard, having utilized every last minute of field time. As we flew back over the Andes, your reporter was reminded of the physics of gases under pressure, as his half-filled canteen discharged itself quietly into his lap.

At Quito, where the less stalwart among us learned to move slowly in deference to the altitude, we were hosted for three days by Gene Smith and his family and associates at the Instituto Lingüístico de Verano. There Bill Eddy, who had carved the Limoncocha Mission out of the jungle over 25 years ago, explained to us the origins of the Wycliffe Bible Translators, who have become a major force in enabling the Indian tribes to learn to compete in the modern world without being engulfed by it.

From Quito we took day trips, on July 1 to the Chiriboga pumping station at 2000 m. on the western slopes of the Andes. We marvelled at the skills of our bus driver, who could rattle us over an unpaved, one-lane winding mountain road, one hand on the horn (a chain dangling from the ceiling), the other on the wheel (question which was the more important?), manoeuvring us past dump-trucks and even bull-dozers, always on the outside, of course. The Chiriboga bugs were less numerous than at Tinalandia, but no less inviting, and included several small moths masquerading as *ithomiines* and *riodinids*.

July 2 Groups I and II merged and split, some going back to the west slopes, and some to the Cotopaxi National Park. When a park guard at the entrance told us that we could not collect and demanded that we leave our nets with him, Ton convinced him that he should not want to take responsibility for so much valuable equipment! So we kept our nets, but the question was academic: in a thirty-mile wind at 13,000' we were in no shape to run down any passing butterflies, and the only things I actually saw flying were two bees and a cow-chip! But the view of 19,000' snow-covered Cotopaxi volcano was spectacular, contrasting with the dark, jagged profile of Sinchalagua across the lake. Later, collecting in an uncontrolled area lower down yielded a number of desirable species, making the day worthwhile.

Many of the group devoted the entire final day to souvenir hunting, but a few of us went north to the Equa-

tor Monument. Rather than be diverted by the new tourist-trap monument at the old site, we went a few miles farther on, under the guidance of some local hitch-hikers, to the spot where the old monument has been attractively placed in the square of the town of Calacali (Arctic Circle last year, Equator this year, where will it end?). As we returned toward Quito, we digressed onto a four-lane highway, still under construction, which preceeds to the edge of the Pululagua caldera and terminates in — nothing, not even a barrier. Fifteen hundred feet below is a flat plain covered with cornfields. We could get no information as to the ultimate destination of the road (but Group III may wish to consider it with regard to the Orellana's chef). The collecting was excellent: butterflies nectaring on freshly spilled concrete, and numerous lycenids, skippers, and sulfurs in the adjacent pastures.

Back to Quito, to pack and say good-bye to our gracious hosts, a whirl through some craft shops, onto the multicolored Ecuatoriana plane for Miami — only to have a let-down in Guayaquil, where they packed us into a group of gift-shops for an hour and a quarter, hoping (rather unsuccessfully) to separate us from some cash. As we prepared to land in Miami four hours later, the stewardesses flitted up and down the aisle spraying cans of air freshener. We wondered if this was routine procedure, or a special gesture in deference to the seventy-five steamy "mariposeras" on board.

All hands were outspoken in their praise of Keith Brown's leadership of our group: patiently answering our endless questions, introducing us to the most productive collecting areas and techniques, attempting to determine hundreds of specimens each night, and maintaining an air of confidence and cheer throughout. Good collecting? Superb. But best of all were the good times with old friends and new friends. Was this the best trip ever? The question is not important — it was as great as the Alaska trip, and should hold its own alongside any yet to be planned.Dave Winter.

Annual Meeting Report

MINUTES OF THE 31st ANNUAL MEETING
OF THE LEPIDOPTERISTS' SOCIETY
Gainesville, Florida, 19-22 June 1980

The 31st Annual Meeting of The Lepidopterists' Society was held on the campus of The University of Florida, Gainesville, 19-22 June 1980.

President Theodore D. Sargent presided over a combined meeting of the Executive Council and the Editorial Board in room 357 of the J. Wayne Reitz Union on Thursday afternoon, 19 June.

On Thursday evening, a Brooks Range Reunion, reception, and slide fest were held at the Florida State Museum, while an open house of the Neotropical butterfly collections was held in the Department of Zoology, Bartram Hall.

The formal program began at 9:11 a.m. on Friday, 20 June, in the auditorium of the J. Wayne Reitz Union, with approximately 100 persons present, Thomas C. Emmel presiding. Dr. Robert A. Bryan, Vice President for Academic Affairs, welcomed the Society to the University of Florida.

Following a few announcements and introductions by Dale H. Habeck, President Sargent presented the gavel of office to President-Elect Dr. Carlos R. Beutelspacher B., who would be unable to attend the business meeting on 22 June, when he assumes office as President. Dr. Beutelspacher expressed his pleasure at being elected to this office, and welcomed the Society to a joint meeting with the Sociedad Mexicana de Lepidopterología next year in Mexico.

Charles V. Covell, Jr., presided over the opening session of the following contributed papers:

"Collecting in the Florida Keys: The Past 20 Years," Charles V. Covell, Jr., University of Louisville, Louisville, Kentucky.

"Relict Butterflies in Southwestern Desert Mountains," Clifford D. Ferris, University of Wyoming, Laramie.

"The Butterfly Fauna of the Tunica Hill Region of Louisiana," Michael L. Israel, Louisiana State University, Baton Rouge.

"Taxonomic Notes on Certain Rocky Mountain Skippers (Hesperiidae)," Ray E. Stanford, Denver, Colorado.

Following a brief coffee break, Boyce A. Drummond III presided over a Symposium on Neotropical Lepidoptera, consisting of the following presentations:

"Historical and Ecological Factors in Biogeographical Patterns of Neotropical Lepidoptera," Keith S. Brown, Jr., Universidade Estadual de Campinas, São Paulo, Brasil, and Cornell University, Ithaca, New York (the 1980 Karl Jordan Lecture).

"The affinities of the Neotropical Satyridae," Lee D. Miller, Allyn Museum of Entomology, Sarasota, Florida.

After adjourning for the group photograph and lunch, Boyce A. Drummond III presided over the continuation of the Symposium on Neotropical Lepidoptera, with the following papers:

"Evolution of Reproductive Isolation Between *Anartia amathea* and *A. fatima* (Nymphalidae)," Robert E. Silberglied, Harvard University and Smithsonian Tropical Research Institute, Panama.

"Community Ecology of Rain Forest Butterflies," Boyce A. Drummond III, Illinois State University, Normal.

"The Effect of Environmental Disturbance Upon a Tropical Butterfly Population," William S. Blau, North Carolina State University, Raleigh.

"Neotropical Arctiid and Ctenuchid Moths Attracted to Flowers and Withered Foliage: Some Examples and a Plea for Additional Records," Julian P. Donahue, Natural History Museum of Los Angeles County, Los Angeles, California.

"Taxonomy and Biology of the Genus *Hamadryas*," Dale W. Jenkins, Sarasota, Florida.

"Disruptive Coloration: Field Experiments Using High-resolution Mark-recapture and Wing-damage Data," Robert E. Silberglied, Harvard University and Smithsonian Tropical Research Institute, Panama.

"Population Ecology and Laboratory Culture Techniques for Neotropical *Parides* Swallowtails: An Introduction to a Useful and Novel Experimental System of Forest Aposematic Butterflies," Keith S. Brown, Jr., A. J. Damman and P. P. Feeny, Cornell University, Ithaca, New York.

"Collecting Localities in Ecuador," Stanley S. Nicolay, Virginia Beach, Virginia.

The Symposium adjourned at 5:28 p.m., after which a briefing was held for participants in the forthcoming expedition to Ecuador.

Friday evening's activities commenced at 6 p.m. with a Social Hour at the Chi Phi Fraternity House, followed by a group dinner in the Reitz Union Ballroom. Following dinner, Thomas C. Emmel of The University of Florida presented a slide and music program entitled "The Pursuit of Butterflies and Moths: A Photographic Tour Around the World," after which the Florida Division of Plant Industry hosted an open house at the Florida State Collection of Arthropods on S.W. 34th Street.

On Saturday morning, 21 June, Lincoln P. Brower presided over two papers rescheduled from the preceding day:

"Ecology of Saturniid Moths in Mexico City," Dale W. Jenkins, Sarasota, Florida.

"Chromosomal and Phenetic Evolution in Galapagos Butterflies," Thomas C. Emmel, University of Florida, Gainesville.

Dr. Brower then chaired A Symposium on the Migration of Lepidoptera, with the following papers:

"Overwintering Ecology of the Monarch Butterfly. I. Environmental Characteristics of the Overwintering Sites and Their Relationships to the Monarchs' Behavior,"



William H. Calvert, Amherst College, Amherst, Massachusetts, and University of Florida, Gainesville.

"Overwintering Ecology of the Monarch Butterfly.

II. Perils to Survival During the Overwintering Period." Lincoln Pierson Brower, Amherst College, Amherst, Massachusetts and University of Florida, Gainesville.

"Butterfly Migrations Through Northern Florida," Thomas J. Walker, University of Florida, Gainesville.

"Mediterranean Climate and Butterfly Migration: An Overview of the California Fauna," Arthur M. Shapiro, University of California, Davis (read by Boyce A. Drummond III).

"Hilltopping in Southern Arizona Butterflies," Michael J. Plagens, University of Arizona, Tucson.

Following a luncheon recess, Julian P. Donahue presided over the Saturday afternoon session of contributed papers:

"Analysis of Immature Survivorship for a Monarch Population in Wisconsin," Susan Sullivan Borkin, Milwaukee Public Museum, Milwaukee, Wisconsin.

"Some Factors Influencing Voltinism in Temperate Zone Lepidoptera," Dale F. Schweitzer, Hamden, Connecticut.

"Development of Lepidoptera in Altitude Chambers," William E. Miller, North Central Forest Experiment Station, St. Paul, Minnesota.

"Interspecific Hybridization Between the *Limenitis arthemis-astyanax* Complex X *L. lorquini*," Austin P. Platt, University of Maryland Baltimore County, Catonsville.

"A survey of the Chrysauginae (Pyrilidae) of North America North of Mexico," Everett D. Cashatt, Illinois State Museum, Springfield.

"Important New Lepidoptera Records in Colorado and Wyoming," Karolis Bagdonas, University of Wyoming, Laramie.

"Amazon Lepidoptera Expeditions," Richard Ryel, International Nature Expeditions, Birmingham, Alabama.

The chairman concluded the session by thanking Peter Eliazer (projectionist) and Jim Nation (lighting) for their assistance.

The program continued at 4 p.m. with two concurrent workshops:

REARING OF LEPIDOPTERA, with presentations on:

"The Larvae of *Catocala* moths," by Dave Baggett, Jacksonville, Florida (with Rick Gilmore and Steve Roman);

"Breeding and Hybridization Work with Lepidoptera, Including Hand-pairing Techniques," by Charles G. Oliver, Edward C. Trax Laboratory, Scottdale, Pennsylvania; and

"Freeze-drying of Lepidoptera Larvae," by Jiles P. Harrell II, North Carolina Freeze-dry Company, Jackson, North Carolina.

WORKSHOP ON MICROLEPIDOPTERA, with a presentation entitled:

"Techniques for Working with Microlepidoptera," by Ronald W. Hodges, U.S.D.A. Systematic Entomology Laboratory, Beltsville, Maryland.

After the workshops, transportation was provided to take participants to the Social Hour and Annual Banquet at the Holiday Inn West. After dinner, President Theodore D. Sargent presented the Karl Jordan Medal to Dr. Keith S. Brown, Jr., of the Universidade Estadual de Campinas, Campinas, São Paulo, Brasil, for his outstanding contribution to the taxonomy, ecology, and zoogeography of the Heliconiinae and Ithomiinae. The festive evening concluded with the ever-popular drawing for door prizes, conducted by Charles V. Covell, Jr.

On Sunday morning, 22 June, the meeting continued at 9:16 a.m. with a general session of contributed papers, chaired by Stanley S. Nicolay:

"Altering *Catocala* Hindwings: A Field Experiment," Theodore D. Sargent, University of Massachusetts, Amherst.

"Lycaenid 'False-head' Hypothesis and Wing Pattern Variation," Robert Robbins, Smithsonian Tropical Research Institute, Panama, and East Rockaway, New York.

"An Elaboration of the General Scheme of the Dis-

tribution of Butterfly Behavioral Patterns Over the World: The Properties of Nine Intergrade or 'Blend Zone' Groups," Benjamin H. Landing, Los Angeles, California.

"Territorial Behavior in Brown Elfin Butterflies: Individual Variation," Robert Robbins, East Rockaway, New York.

"Do Skippers Belong to the Same System of Behavioral Class Distributions as the Other Butterflies?," Benjamin H. Landing, Los Angeles, California.

"Lepidoptera and the Biological Control of Weeds," Gary R. Buckingham, U.S.D.A., Gainesville, Florida.

At 11:20 a.m., President Theodore D. Sargent called the Annual Society Business Meeting to order, with 75 persons present. President Sargent announced several actions taken by the Executive Council earlier in the meeting: (1) a committee of museum curators and other professionals, amateurs, conservationists, and others has been formed to draft a collecting "code" and/or "guidelines" for the Society, as a result of the mandate received in returns of the Endangered Species Questionnaire; (2) a committee has been formed (John Burns, Arthur Shapiro, Robert Pyle, James Scott, Jacqueline Miller) to work on the standardization of the common names of North American butterflies; (3) Ray Stanford has been appointed to replace Charles Covell as the Society's liaison with the Office of Endangered Species, U.S. Fish and Wildlife Service.

Ron Leuschner summarized the Treasurer's report, which showed a 1979 deficit of \$4,280.25, and a projected 1980 deficit of \$3,850.00. In order to keep pace with expenses, the Executive Council has established a new dues schedule effective 1 January 1981: Student, \$12.00; Regular, \$18.00; Sustaining, \$25.00; Institutional, \$25.00. There has been no change in the lump-sum Life Membership fee of \$250.00.

C. V. Covell announced that Memoir No. 2, the Miller-Brown Catalog-Checklist of North American butterflies, is due to be published in October 1980. The names will be in conformity with those in the forthcoming *Moths of American North of Mexico* checklist. Ordering information will appear in the *News*.

The Search Committee for a new Editor of the *Journal* (R. W. Hodges, J. A. Powell, T. D. Sargent) announced that Dr. Thomas D. Eichlin has accepted the position, effective 1 January 1981. There were thanks and applause for retiring Editor Austin P. Platt.

Future meeting sites were announced: Mexico (1981); Laramie, Wyoming (late July, 1982); Ohio (1983).

The Nominating Committee (Lee D. Miller, Chairman, Floyd Preston, F. S. Chew) presented the tentative slate of nominees, subject to acceptance by the nominees.

Boyce Drummond presented the resolutions (text follows the minutes).

Journal Editor Austin P. Platt thanked Frances S. Chew, Managing Editor, reviewers of manuscripts, and all others involved for their assistance during his tenure as Editor.

There being no further business, the meeting adjourned at 11:50 a.m. Post-meeting activities included a picnic at Lake Wauberg, local field trips, and an 80-member collecting expedition to Ecuador.

Respectfully submitted,

Julian P. Donahue
Julian P. Donahue, Secretary

RESOLUTIONS PRESENTED AT THE 31st ANNUAL MEETING

(Resolutions Committee:

Boyce Drummond, S. S. Nicolay, Austin Platt)

I. Whereas, the 31st Annual Meeting of The Lepidopterists' Society, held the 19th-22nd of June, 1980, in Gainesville, Florida, has been highly successful and

thoroughly enjoyed by all in attendance, we wish to acknowledge, with sincere gratitude, the exceptional hospitality extended to our membership by the University of Florida, and the careful organization and planning of the meetings by members of the Department of Zoology and Department of Entomology and Nematology of said University, and by members of the Florida Department of Agriculture and Consumer Services, who, through their many courtesies, have made these meetings a most memorable occasion for us all.

II. Therefore, be it resolved that our debt of gratitude be extended to Dale H. Habeck, of the Department of Entomology and Nematology, and to all those who aided him in his efforts as Planning Coordinator, for their thoughtful attention to the innumerable details involving our collective needs for food and drink, shelter for evening retirement, places of communal gathering, and transportation among these many amenities during our stay in Gainesville.

III. And, be it further resolved that our enjoyment of these meetings has been greatly increased by the efforts of those who kindly handled local arrangements, including Howard and Camilla Weems, and Benjamin Gregory, who made available for viewing the Lepidoptera in the Florida State Collection of Arthropods, sponsored a pleasant social hour of bibulous activities at the Chi Phi Fraternity House prior to the banquet at the Reitz Union Ballroom; Debbie Holt and her assistants, who steadfastly and pleasantly directed the registration activities throughout the meeting; and Esta Belcher, who carefully transferred our Society's Logo to the tee-shirts that will serve as sartorial reminders of this enjoyable meeting, and who prepared and labeled the group photograph, a visual remembrance of our gathering.

IV. And, be it further resolved that Frank W. Mead and Allan J. Wilkening of the Division of Plant Industry, who labored long and hard preparing exhibits of Lepidoptera for our viewing and enjoyment at the Doyle Connor Building, deserve our fullest gratitude for their efforts.

V. And, be it further resolved that the Annual Banquet Luau held at the Holiday Inn was surely a high point of the Meetings, with Charlie Covell, Jr., presiding over the Ritual of the Door Prizes in his inimitable style.

VI. And, be it further resolved that our deepest gratitude and utmost appreciation be extended to Thomas C. Emmel, and his assistants in the Department of Zoology, for their meticulous planning and careful preparations that led to an exciting array of excellent papers in the invited symposia and the contributed paper sessions. Special thanks are made to Peter Eliazer for skillfully and patiently operating the slide projector; to Dave Baggett for arranging the local field trips; and to Tom Emmel and Holbrook Travel for arranging the spectacular lepidopterists' expedition to Ecuador following the meeting. Tom Emmel's after dinner presentation of color slides and music was a spiritual evocation of the pursuit of butterflies around the world that left us all (in the words of C. S. Lewis) "surprized by joy."

These resolutions were accepted by acclamation and the Secretary is directed to write letters of appreciation as he deems appropriate.

Further resolutions were proposed from the floor, to wit:

1. That the greetings and best wishes of the Society be extended to George Rawson and Cyril dos Passos on the recent occasion of their 90th birthdays and in honor of their long, active, and productive careers. Passed by acclamation.

2. That The Lepidopterists' Society continue to support the selection of native species of Lepidoptera as State Insects. Motion carried by show of hands.

3. And that all outgoing officers be thanked for their interest, help, and dedication to the Society. Passed by acclamation.



Notices

ENTOMOLOGICAL MEETING NOTICE.....

A joint meeting of the IV Congreso Latinoamericano de Entomologia, VI Congreso Venezolano de Entomologia, II Congreso de la Sociedad Panamericana de Acridiologia, and the I Simposio de Lepidopterologia Neotropical, will convene in Maracay, State of Aragua, Venezuela, 5-10 July 1981.

An extensive scientific program is being planned which will include several paper sessions alternated with symposia and conferences. In addition to these activities, there will be educational, artistic, and commercial exhibits related to insects.

The organizing committee invites all persons interested in entomology to participate in and contribute to this scientific event.

Further information may be requested from:
Secretario General, IV Congreso Latinoamericano de Entomologia
Instituto de Zoologia Agricola
Apartado 4579
Maracay 2101-A, Estado Aragua
VENEZUELA

KARL JORDAN MEDAL NOMINATIONS.....

The Karl Jordan Medal, an award established by Mr. A. C. Allyn in celebration of the 25th anniversary of the Lepidopterists' Society in 1972, is given through the Society in recognition of outstanding original research, especially in the fields of morphology, taxonomy, zoogeography, and "natural history". Further criteria for the award are outlined in the JOURNAL (26:207-209). Nominations are now being received for consideration by the committee in 1981.

J. Y. Miller

XERCES SOCIETY RESEARCH GRANTS OFFERED.....

The Xerces Society, an international non-profit scientific organization, offers modest grants to support scientific research related to conservation of terrestrial arthropods. Proposals explicitly focused on potential endangered species, or management of terrestrial arthropod populations and their habitats will be given preference. Grants will usually be several hundred dollars US. Young investigators and those without formal professional affiliation are encouraged to apply. Deadline for 1981 proposals is 30 January 1981. For further information, write Dr. Francie Chew, Xerces Grants Committee, c/o Department of Biology, Tufts University, Medford, MA 02155, USA.

1980 SEASON SUMMARY INSTRUCTIONS.....

Members' contributions to the 1980 Season Summary must be in the hands of the Zone Coordinators no later than 31 January 1981 (since the coordinator must have the zone report compiled and in the hands of the editor of the NEWS by 28 February). For the butterflies please follow the names in the 1980 Butterfly Catalogue-Checklist (see page 46 of the NEWS); for the moths use M.O.N.A. where possible, otherwise the old McDunnough List, or any available group revisions.

Please cull your own reports, limiting them to such

species as are unusual in the area, new records, range extensions, new food-plant associations, new life history details, predation observations, etc. The "what-I-did-on-my-vacation" list makes unnecessary work for the coordinator.

The addresses of the coordinators are as follows:

- 1: SOUTHWEST (AZ, NV, CA, plus HI): Robert L. Langston, 31 Windsor Ave., Kensington, CA 94708.
- 2: PACIFIC NORTHWEST (OR, WA, ID, B.C.): Jon Shepard, RR#2, Nelson, B.C., CANADA.
- 3: ROCKY MOUNTAIN REGION: (Alta., MT, WY, UT, CO, NM): Ray Stanford, 720 Fairfax St., Denver, CO 80220.
- 4: GREAT PLAINS (Sask., Man., ND, SD, NB, KS, OK, TX): Hugh A. Freeman, 1605 Lewis Dr., Garland, TX 75041
- 5: EASTERN MIDWEST (MN, WS, MI, IA, IL, IN, OH, MO, KY, WV): Mogens C. Nielsen, 3415 Overlea Drive, Lansing, MI 48917.
- 6: SOUTHEAST (AR, LA, TN, MS, AL, FL, GA, NC, SC, VA): Dave Baggett, 8442 Thor St., Jacksonville, FL 32216.
- 7: NORTHEAST (so. Quebec, Maritimes, New England, NY, NJ, PA, DE, MD, DC): Dave Winter, 257 Common St., Dedham, MA 02026.
- 8: FAR NORTH (Siberia, AK, no. Canada, Newfoundland, Greenland): Kenelm W. Philip, Inst. Arct. Biol., Univ. of Alaska, Fairbanks, AK 99701.
- 9: NORTHERN NEOTROPICS (Mexico, C.A., Antilles): Eduardo C. Welling M., Apartado Postal 701, Merida, Yucatan, MEXICO.
- 10: SOUTH AMERICA: Boyce A. Drummond, III, Dept. Biol. Sci., Illinois State University, Normal, IL 61761.
- 11: ONTARIO: Q. F. Hess, 11 Esgore Drive, Toronto, Ont., M5M 3P9, CANADA.

After a conversation with Boyce Drummond, the new Coordinator for Zone 10, it was concluded that contributors who have complete confidence in the validity of their determinations should report records of significant species as such. Others, particularly transient collectors, should limit themselves to reporting dates, with number of species per family for each locality, to avoid putting on record determinations which may be dubious and which the coordinator will have no opportunity to verify. At the same time, this approach will give other collectors, or specialists, an opportunity to follow up on material of interest. The same approach would be reasonable for Zone 9. (Feedback from the July/Aug article, p. 49, has thus far been in general agreement with this approach.)

COLLECTING POLICY COMMITTEE.....

At the 1979 Executive Council Meeting in Fairbanks the results of the questionnaire regarding lepidoptera conservation and the Federal Endangered Species Act were reported, indicating that 88% of the membership who responded favored formal action by the Society in establishing guidelines for collecting, for preservation and disposition of collections, etc.

At the 1980 meeting in Gainesville, President Ted Sargent appointed the following committee to carry out this mandate and to prepare a report for the 1981 Executive Council Meeting:

Members:	Consultants:
Dave Baggett	Dick Arnold
Keith Brown	Ian Common
Jim Merritt	Charlie Covell
Lee Miller	Bob Silberglied
Mo Nielsen	(others, as members
Ken Philip	may suggest)
Bob Pyle	
Dave Winter (chairman)	

The Committee will welcome input from Society members with regard to this subject. Please direct all correspondence to the chairman at 257 Common Street, Dedham, Mass. 20206.

TOURS DESIGNED FOR LEPIDOPTERISTS.....

Due to increasing interest on the part of many lepidopterists either to collect or to observe and photograph lepidoptera in their natural environment, in countries other than the United States, an organization, International Nature Expeditions, has been established to provide opportunities to do just that. Many persons have desired such experiences but have been reluctant to strike off on their own into a country strange to them, and pay the prices for regular fare and lodging. International Nature Expeditions is offering tours especially to lepidopterists (although other naturalists may attend) every four months. Time of year, location, accommodations, tour leadership, are all chosen carefully to provide the best experiences. The first offerings will both be in Peru, one in September, one in December. Future trips will be to other parts of tropical America, Africa, Indonesia, and Nepal. Though in the field lepidopterists are an independent lot, there will be experienced personnel on all trips to assist in whatever way necessary. Adequate material will be available prior to each tour indicating what to expect and what will be unique to that area. Participants and interested persons are invited to indicate areas of the world they might like to visit, in order that the possibilities may be investigated. International Nature Expeditions is at #217 NyPenn Trade Center, 435 Main St., Johnson City, New York 13790 USA.

EXPEDITION PARTICIPANTS WANTED.....

A collecting and biological expedition to New Guinea is being planned for 1982 (probably not during June-Aug.) and interested persons are asked to contact me regarding the trip. Expedition headquarters would be at the Wau Research Station, Papua. Participants are desired to share expenses. Volunteers to pin insects are also needed; such volunteers would still have some time available for their own interests. Contact Dr. J. B. Heppner, Dept. of Entomology, Smithsonian Institution, Washington, DC 20560.

SUPPLEMENTARY GROUP PICTURE.....

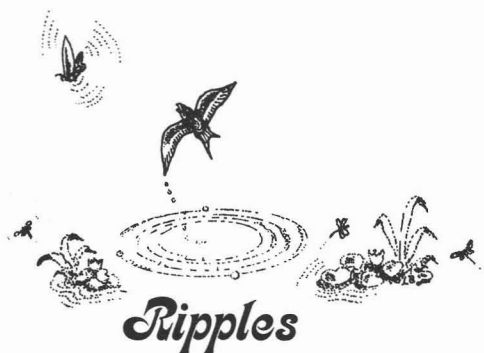
The supplementary group picture of those participants of the Annual Meeting who missed the regular group photograph is gone forever, for reasons not clear. It went into Steve Roman's camera, but apparently never came out. Sorry, Vernon!

LOOKING FOR A SPECIAL GIFT?

Have you a friend who has a special interest in butterflies and/or moths? The next time you are searching for an original gift idea for this special person, consider a gift membership in the Lepidopterists' Society. It costs only \$18 for a gift that will be enjoyed throughout the year. Please send orders to Ron Leuschner, Treasurer (address on back cover), who will notify your recipient. J. Y. Miller, Membership Committee

COLOR TRANSPARENCIES SOUGHT.....

The publishers of The World Book Encyclopedia are revising their article on BUTTERFLY and their annual, The Bug Book. They request that photographers having color transparencies of butterflies and other insects send lists of available material (not the slides); subjects should be in natural settings, ideally displaying such activities as feeding, mating, etc. Contact with accomplished illustrators is also sought. Rates or terms for reproduction should be quoted. Credits will be given. Address responses to Jo Anne Martinkus, Photographs Editor, World Book-Childcraft International, Inc., Merchandise Mart Plaza, Chicago, IL 60654.



Dear Ripple:

I was collecting hymenoptera at the Running Creek Field Station, 7 mi. w. of Elbert, Elbert Co., Colorado 12 June this year. In an open pine-juniper woodland on the rim of a shallow canyon in Castle Rock Conglomerate I found considerable Eriogonum umbellatum just coming into flower. As usual, the heads were attracting numerous female Euphilotes enoptes ancilla (B. & McD.). On one head was a common crab-spider (prob. female of Misumena calycina (Linn.) = M. vatia (Clerck, 1757) according to Gertsch, Bull. AMNH 76:314-318, 1939). It snapped up a landing Euphilotes female. That is not unusual. What happened thereafter was. The spider had a lifeline attached to a branch of the ponderosa pine overshadowing the plants. It was not visible. As soon as the butterfly had been paralyzed, up the lifeline the spider went, prey in mouth. It didn't get more than two feet up the line when I netted both. In time the two will be sent to the Allyn Museum, the spider on a card on the pin of the butterfly. (F. Martin Brown, 6715 S. Marksheffel Rd., Colorado Springs, CO 80911.)

Dear Ripple:

I don't know if such constitutes a record, but a Rothschildia jorulla (referred to as R. guerreronis by Lemaire of France) captured on 11 July, with ova on 12 July, produced larvae that spun cocoons on 11 August. Larvae fed exclusively on Schinus molle (pepper tree) and cocoons were somewhat smaller than usual. (R. L. Halbert, Jocotepec, Jalisco, MEXICO.)

Dear Ripple:

It would seem to be worth recording the capture of two gynandromorphs of Colias meadii in s.w. Alberta in July 1980.

The first may well be unique, in as much as the left forewing is male, the left hindwing one-third male and two-thirds female, right forewing female, and right hindwing male. Gynandromorphs are of extreme rarity in all Colias but this must be of even greater scarcity.

The second is left forewing three-fourths female, the rest male. The other wings are all male.

It would be interesting to know if any similar specimens are in existence. (John Johnstone, Dickson Hill Road, RR2, Markham, Ontario, CANADA.)

Dear Jo:

I think the Ripples column in the NEWS would be an appropriate place to tell members about a species of Saturniidae from Taiwan which I am sure many have purchased for their collections and which is now widely known and being sold under the wrong name. I refer to Actias heterogyna Mell, a species a bit smaller than our Luna Moth, having pale green females and yellow males with brown markings. It is figured in Seitz, vol. 10, plate 55Ba. The species is sold by every dealer who lists it as Actias sinensis (Walker). The latter is rare in collections, coming from farther west into China and also from north-eastern Assam, according to Seitz, vol.2, plate 33b. The two species do not look very much alike and the error is obvious.

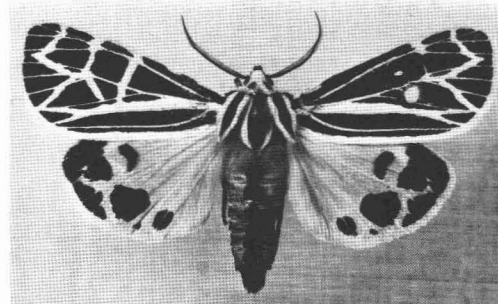
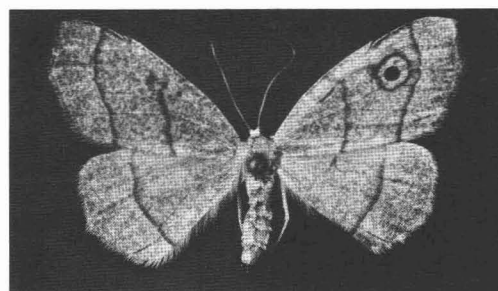
One could argue that the present error should be con-

tinued on dealers' lists so that collectors will not order material expecting a species different from what they already have. Still, I wanted to take this opportunity to attempt to reduce this widespread error. (Richard S. Peigler, Dept. Entomolo., Texas A&M Univ., College Station TX 77843.)

Dear Ripple:

I am sending a specimen caught on 4 June 1980 in Vicksburg, Warren Co., Mississippi. It is a geo, probably Lambdina, but whether fiscellaria Gn. (5146), ferraria Hbn. (5149), or pultaria Gn. (5150) will remain for someone else, probably Fred Rindge, to say.

The reason I send it to you is because of the 1.5 mm. hole in the right forewing. Holes in lepidoptera wings are not an infrequently observed feature, but this one is different from anything I ever saw or read about. Here we have a nice round hole with smooth edges, that must have been created at a time in the metamorphosis of the creature when there was a feed-back mechanism at work between the hole-forming process and the pattern-forming process, such that one, in effect, said to the other, "If you make a hole, I'll draw a circle around it"; or "if I draw a circle out there, you make a hole in it." Or if it isn't like that, what did go on? I'd like comments. (Bryant Mather, 213 Mt. Salus Drive, Clinton, MS 39056.)



Above is illustrated the geometrid in question, and also a specimen of Apantesis intermedia taken in Westwood, Mass., 4 Sept. 1970, which shows a similar hole and absence of most of the discal bar and pm line.

Microscopic examination of Bryant Mather's specimen shows that the "circle" is actually a loop with a constricted neck, the pm line having been "dragged" proximally. A possible explanation is that some external sharp object impinged upon the soft, freshly-formed pupa as the wing anlage was enlarging, puncturing the wing distal to the pm line, but "snagging" the line around it and attaining a more proximal position as the wing-bud reached full size and the pupa matured. The insult was not severe enough to interfere with subsequent eclosion. (D.W.)

Dear Jo:

I have been a member of the Society for less than two years, and in that time I have learned a lot about Lepidoptera — at least it seems like a lot to me even though I have barely scratched the surface of the field. In short, I am an amateur, and I will in all probability remain one.

I have no facts and figures, but I am sure there are others in the Society, like me, who would like to move beyond mere collecting for display purposes. The problem

is that we have lots of questions and very few answers! Sometimes the available literature is helpful, sometimes it is confusing, and often it is simply incomplete.

What I'd like to see (and I'd like to hear if others agree with me) is a column in the NEWS aimed at the serious amateur who wants to learn and contribute. Perhaps it could be a question and answer format, or more guest editorials like the excellent one by Dave Baggett in the May/June issue.

If we of the rank and file are to be of value to the Society, then we must be helped and guided to that end. Is there an "old hand" out there somewhere willing to take up the challenge? (G. William Lacey, 16-1 Copeley Hill, Charlottesville, VA 22903.)

(Ed. note: "Life Histories Anonymous", appearing from time to time and listing organisms needing further work on immature stages, is aimed to this end. We welcome questions; hopefully we shall be able to provide answers!)



Research Notices

❖ WANTED: collection records with all available data and current storage location for any of the following rare species which have been collected in TEXAS. Both private and museum records, any place in the world, are URGENTLY NEEDED for inclusion in "The Butterflies and Skippers of Texas". It is doubtful that more than one example of any of these species will be found in any collection.

NYMPHALIDAE

Dryadula phaetusa
Phyciodes polyca
Chlosyne erodyle
Hypanartia lethe
Diaethria asteria
 or *anna*
Smyrna karwinskii
Historis acheronta
Historis odius

LYCAENIDAE

Eumaeus minyas

HESPERIIDAE

Pyrrhopyge araxes arizonae
Phocides urania (or *texana*)
Proteides mercurius
Spathilepia colonia
Gorgythion beggiana vox
Callimormus saturnus
Yvretta subreticulata
Hesperia dacota
Hesperia sassacus
Polites coras
Amblyscirtes fimbriata
Thespieus macareus

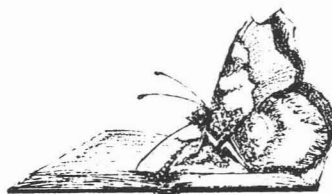
Roy O. Kendall, 5598 Mt. McKinley Dr. NE, San Antonio, TX 78251, USA.

❖ WANTED: Information about all aspects of the study of Lepidoptera, especially MICROLEPIDOPTERA. Would also like to establish an exchange of material, and if possible, verification of material identified by us. Bil. Victor Olvera Olmas, Chapingo, MEXICO. (This translation of a request from a non-member was submitted by John C. Downey)

❖ DATA NEEDED: If you have collected *Erebus odora* in Florida, would like to know foodplants, regions, and collecting techniques; also wish papered specimens. Correspondence is welcomed. Thomas Regenhart, A-035022, P.O. Box 488, Box H-52, Polk City, FL 33868.

❖ WANTED: Dates and localities needed for *Papilio aristodemus ponceanus* sightings in the Florida Keys. Estimates of numbers observed also sought. Particular emphasis on the period from 1950 to the present, but all information will be appreciated and acknowledged. Data will be used in study of *ponceanus* habitat requirements, and to document changes in distribution and abundance.

Gerold Morrison, Div. of Wildlife, Florida Game & Fresh Water Fish Commission, 620 S. Meridian, St., Tallahassee, FL 32301.



Books

Memoir of the Life and Works of Edward Newman, by his son, Thomas Prichard Newman, 1876. Facsimile Reprint (Classica Entomologia No. 6), 1980, E. W. Classey, Ltd. 36 pages. \$2.00.

This brief biography presents a living picture of a man who spent the first three-quarters of the nineteenth century enjoying the observation of all things botanical and zoological, in writing and publishing the observations of himself and others in a fashion intelligible to the layman as well as the scientist, and particularly, in fostering the development of young people in their studies of natural history. His career of fifty years as editor, successively, of "Entomological Magazine", "Entomologist", "Zoologist" (33 years), and concurrently "Entomologist" again in his last decade, was without precedent.

The student of the history of entomology is well served by the republication of this memoir, which makes one envy those fortunate enough to have known Mr. Newman.

Butterflies of Oregon, by Ernst Dornfeld. 275 pages, 45 drawings, 45 b/w and 4 color photos, Timber Press, 1980. Cloth, \$24.95.

Contents include sections on physiography and distribution, biology, taxonomy, collecting, rearing, and photography, as well as a systematic account of the butterflies, and distributional data.

BUY, SELL, EXCHANGE.....

Items submitted for inclusion in this section are dealt with in the manner explained on page 8 of the 1980 NEWS (Jan/Feb issue). Please note that it was decided several years ago to exclude prices from the printed notices, except for the prices of lists. "SASE" calls for a self-addressed stamped envelope. Notices will be entered once, unless entry in two successive issues is requested.

WANTED: Wish to purchase *H. cecropia* cocoons. Please contact me with quantity available and price. Arthur W. Good, 3330 Russell Ave., Parma, OH 44134.

FOR SALE: World-wide insect collection, mostly lepidoptera and coleoptera; 116 glass-topped cases in cabinets. Letting go because of age, after 40 years of collecting. Sharpe Osmundson, Route 1, Box 1230, Baxter, TN 38544.

FOR SALE: butterflies from Ontario, Manitoba, Alberta, & B.C. List on request. Norman A. Tremblay, Shadow Lake Road 9, Norland, Ont. KOM 2L0 CANADA.

For Sale & Exchange: finest selection butterflies, arctic, alpine, Canadian & Alaskan species, including *Parnassius*, *Papilio*, *Colias*, *Oeneis*, *Erebia*, & *Boloria*. Some rarities I believe never offered before. John Johnstone, Dickson Hill Rd., RR 2, Markham, Ont., CANADA. Tel. 416-640-1772.

WANTED: *Alcidis aurora* & *zodiaca*, also any worldwide Lycaenidae; will buy or exchange. Bruce E. Ellis, 3817 Schiller Ave., Cleveland, OH 44109.

WANTED: *Agrias* other than the most common varieties. Will purchase, or exchange any other genus. All correspondence answered. Robert E. Aronheim, P.O. Box 239, Middlebury, CT 06762 USA.

FOR SALE: exotic *Papilio* & birdwings worldwide, mostly rare; or will trade for hard-to-get *Papilio* from S.Am. & S. Africa. Write or call for full information. Vir-

gil Warczynski, 1804 Fitzhugh St., Bay City, MI 48706, USA. Tel. 517-892-6375.

WANTED: information on breeding and rearing US Saturniidae & Papilionidae, esp. hand-pairing, hybridizing, sleeving of larvae, larval foodplants, etc. Also needed, records of *P. cresphontes* in Illinois for distributional study. Welcome correspondence with collectors in France who have material for sale/exchange. Nathan Chasteen, Rt. 1 Box 40, 2929 Henry Rd., Prophetstown, IL 61277.

FOR SALE: superb glass and wood display cases, 12x18x2½" o.d., foam pinning bottoms, slightly used but in top condition. Write for prices. R. E. Aronheim, P.O. Box 239, Middlebury, CT 06762.

FOR SALE: quantities of *A. polyphemus* cocoons, healthy outdoor bred Wisconsin stock. Tom Kral, Rt 2 Box 648, Necedah, WI 54646 USA.

FOR EXCHANGE ONLY: papered *Agrias narcissus* for *Papilio indra martini*, *P. i. minori*, & *P. i. kaibabensis*. Wanted A-1 material only. Other *Agrias* occasionally available. S. K. Dvorak, 4323 Oxford St., La Mesa, CA 92041.

FOR SALE: live cocoons & papered specimens of *A. polyphemus*, *H. gloveri*, *H. cecropia* & certain *Hyalophora* hybrids. SASE for list. Will trade for live cocoons of *H. columbia* & *H. rubra*. Carita Hamblin Bates, P.O. Box 3133, Eldorado Springs, CO 80025.

FOR SALE OR EXCHANGE: *Parnassius phoebus montanulus*, *Colias m. meadii*, *Boloria eunomia ursadentis*, *Oeneis melissa bearii*, *O. a. alberta*, *Erebia theano ethela*, *E. callias* and other Montana butterflies. Steve Kohler, Forest Insect & Disease Section, Dept. Nat. Res. & Conservation, 2705 Spurgin Rd., Missoula, MT 59801.

WANTED: Female *Morpho cypris*, the brown form and also the blue and yellow form; must be perfect, good color, full body parts; will purchase. Jon P. Detore, 2400-52 St., St. Petersburg, FL 33710.

MEMBERS' COMMERCIAL NOTICES.....

H. F. WONG, M/S Deco Enterprise, 100A, 1st Floor, Jalan Simpang. P.O. Box 155, Taiping, MALAYSIA: offering free catalog of butterflies & beetles from Malaysia, Indonesia, & the Philippines.

TRANSWORLD BUTTERFLY COMPANY, POB 14, Reigate, Surrey, ENGLAND: buy and sell pupae, papered lepidoptera; sell books, equipment. Catalogue \$1 cash, mailing list (10 issues) \$5 cash or \$7 check.

ENTOMOLOGICAL REPRINT SPECIALISTS, P.O. Box 77224, Dockweiler Station, Los Angeles, CA 90007 USA: on hand for immediate shipment: D'Abrera, Butterflies of the World, Australian Region, 2nd ed., \$87.50; Pinhey, Moths of Southern Africa, \$41.25, Moeck, Geographic Variability in *Speyeria* \$3.50; Comstock, Butterflies of the American Tropics: *Anaea*, \$30.00; Pinratana, Butterflies in Thailand, Vol. I, \$8.75; Howe, Butterflies of North America, \$39.75; Tamanuki, Beautiful Beetles of the World, \$57.50. Add \$1.50 for first and 75¢ for each additional book; Calif. residents add local sales tax. MRS. CHANG PI-TZU, P.O. Box 873, Taipei, TAIWAN: Formosan livestock; Formosan butterflies, moths, and beetles.

NEW MEMBERS.....

CALLARMAN, JOHN A.: 1122 Maple, Mount Vernon, IL 62864

CARRIG, WILLIAM: 313 15th St., Buffalo, NY 14213

CLIFTON, Mrs. C.C., JR.: 1847 State St., New Orleans, LA 70118

CONSTANTINO CH., EMILIO: E.A.P. Apartado 93, Tegucigalpa, HONDURAS, C.A.

COOK, STEPHEN R.: 301 Pinegate Cr. #11, Chapel Hill, NC 27514

DAVIS, Prof. JOHN D.: 222 11th St. S, Columbus, MS 39701

GATES, RICHARD W., JR.: 1034 Nacion Ave., Chula Vista, CA 92011

HATFIELD, RAY: 420 Cedar Ave., Laurel, MT 59044

HODGES, ELAINE R.: Smithsonian Inst., NHB W 622, Washing-

ton, DC 20560

HOLLAND, FREDERICK WM.: 9870 Edisto Way, Baltimore, MD 21220

JACKSON, RICHARD H.: P.O. Box 931, Eustis, FL 32726

MANN, JOHN R.: 94 Elm St., Cortland, NY 13045

PARKINSON, DAVID: 369 Colusa Ave., Kensington, CA 94707

SCHABER, BURTON D.: Res. #3, Research Sta., Lethbridge, Alberta, CANADA, T1J 4B1

SLATER, CHARLES B.: P.O. Box 411, Central City, CO 80427

SNOW, RAY: Star Route #2, Box 35, Watford City, ND 58854

TURRENT, RAFAEL: Cascado No. 180, Pedregal de San Angel, Mexico 20, D. F., MEXICO.

WATANABE, TAKASHI: Toshiba America, Inc., 82 Totowa Rd., Wayne, NJ 07470

WARCZYNSKI, VIRGIL: 1804 Fitzhugh St., Bay City, MI 48706

ADDRESS CHANGES.....

ALTIC, STEPHEN: 26065 Cambridge Lane #8-203, Warrensville Heights, OH 44128

BALOGH, GEORGE J.: 7438 Grant Village Dr., Apt. D, St. Louis, MO 63123

BRIDGES, CHARLES A.: 502 W. Main, Apt 231, Urbana, IL 61801

CICERO, JOE: Dept. of Entomology, Univ. of Arizona, Tucson, AZ 85721

DOUGLAS, MALCOLM G.: 5902 Holm Ave., Los Angeles, CA 90056

DZIENCIO, PHILIP: 837 W. Mellowood Dr., Indianapolis, IN 46217

GAGE, ED: P.O. Box 241, Pipe Creek, TX 78063

GLUCK, WILLIAM: 1006 N. 10th St., Fargo, ND 58102

IANNI, CHARLES G.: Box 81171, Cleveland, OH 44181

PETR, DANIEL: 46100 Camrose Ave., Challiwick, B.C., CANADA V2P 3R2

PRICE, ROBERT A.: 1021A Oakland Ave., Piedmont, CA 94611

SPELMAN, MORRIS: c/o Pines Hotel, S. Fallsburg, NY 12779

TREMBLAY, NORMAN A.: Shadow Lake Rd. 9, Norland, Ontario, CANADA KOM 2L0

WEHLING, WAYNE: 143 Hawthorne, Pullman, WA 99163

WILSON, ROBERT L.: 306 Ferry St., Malden, MA 02148

YOUNG, ROBERT, DDS: 1030 Andrews Hwy. # 207, Midland, TX 79701

PICTURE CAPTIONS.....

FRONT PAGE: 1-*Cithaerias* sp.; 2-*Papilio thoas*; 3-*Ithomiine* sp.; 4-*Morpho peleides*; 5-*Hemileucine* larva; 6-*Caligo* sp.; 7-*Tarantula*; 8-*Callicore* sp.; 9-Katydid (? *Microrocentrum* sp.). (Accuracy not guaranteed!)

ECUADOR PAGE 56: 10-*Ficus* in Tinalandia pasture; 11-Mt. Sinchalagua, with "dry" lake at 13,000' in Cotopaxi Nat. Pk.; 12-Equator Monument, Calacali; 13-Pat Dooley, not trusting her fan; 14-Grp. III & IV at Coca Airport; 15-Rio Coca; 16-the infamous "Francisco de Orellana"; 17-butterfly heaven, Tinalandia; 18-countryside s. of Quito; 19-Tim Cashatt & friend; 20- Grp. III & IV meet between Puyo & Banos; 21-dining room crew & children, Tinalandia; 22-C. Coveill collecting; 23-Keith Brown in action; 24-Batman of Limoncocha.

GAINESVILLE PAGE 61: 25-new President Carlos Beutelspacher; 26-Jackie Miller wins big; 27-P. Russel, sorry (?who), V. Brou, S. Russell, T. Sorri; 28-T. Sargent, A. Platt, R. Leuschner; 29-Dale & Mrs. Habeck; 30-C. & D. Currutt; 31-L. Brower, S. Jacobs; 32-B. & S. Early; 33-non-member, assimilated into the Society; 34-President T. Sargent presenting Jordan Medal to K. Brown; 35-D. Baggett, A. E. Brower; 36-J. Brown, R. Parks, J. & G. Mori; 37- M. & P. Plagens, R. Bernath, S. Hughes, R. Pyle; 38-K. Bagdonas, F. & J. Preston, J. Donahue.

PICTURE CREDITS.....

Jo Brewer: 1-5, 7-9, 17, 21-22, 24, 30. Tim Cashatt: 19. Ben Landing: 26, 29. Jim Mori: 6, 13-14, 16, 20. Ray Stanford: 34. Dave Winter: 10-12, 15, 18, 23, 25, 27-28. 31-33, 35-38.

from: The Lepidopterists' Society
Department of Biology
University of Louisville
Louisville, Kentucky 40208, USA

Supplement to
Journal of the Lepidopterists' Society
Vol. 34, No. 2, May 1980

ADDRESS CORRECTION REQUESTED

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DEADLINES: Material submitted for inclusion in a particular issue of the NEWS should reach the NEWS EDITOR no later than the 15th of the preceding even-numbered month. Reports for the SEASON SUMMARY must reach the ZONE COORDINATORS (listed on front cover) no later than 31 January.

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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 (\$13.00 US), together with mailing address and areas of interest in Lepidoptera. Student and retired memberships are also available. Remittances must be in U.S. dollars, payable to the Lepidopterists' Society. All members (except retired) will receive the JOURNAL (published quarterly) and the NEWS (published bimonthly). A biennial membership list will comprise the last issue of the NEWS in even numbered years.

Information on membership may be obtained from the TREASURER, Ron Leuschner, 1900 John St., Manhattan Beach, Cal., 90266, USA. Changes of address must be sent to the TREASURER, and only when the changes are permanent or long-term.

Other information about the Society may be obtained from the SECRETARY, Julian P. Donahue, Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, Cal., 90007. Please notify him of any additions or changes of interest to be published in the membership list.

Manuscripts submitted for publication in the JOURNAL are to be sent to the JOURNAL EDITOR, Dr. Austin A. Platt, Department of Biological Sciences, UMBC, 5401 Wilkens Ave., Catonsville, Maryland 21228, USA. See the inside back cover of a recent issue of the JOURNAL for editorial policies.

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AVAILABLE PUBLICATIONS OF THE SOCIETY.....

CATALOGUE-CHECKLIST OF THE BUTTERFLIES OF NORTH AMERICA NORTH OF MEXICO, (Memoir No. 2): includes references to original descriptions and locations of type specimens. Members and subscribers, \$10 cloth, \$5 paper; non-members \$17 cloth, \$8.50 paper, postpaid.

COMMEMORATIVE VOLUME, 1947-1972: a 25-year review of the Society's organization, personnel, and activities; biographical sketches; JOURNAL indices by author, subject, and taxon; clothbound. Members and subscribers \$6, non-members \$10, postpaid.

BACK ISSUES of the JOURNAL and of the NEWS of the Lepidopterists' Society: most back issues of the JOURNAL are available, and a few recent issues of the NEWS. See back of JOURNAL mailing label for details, or write C. Covell, Memoirs Editor, address below.

ORDER FROM: Dr. C. V. Covell, Jr., Department of Biology, University of Louisville, Louisville, KY 40208, USA.