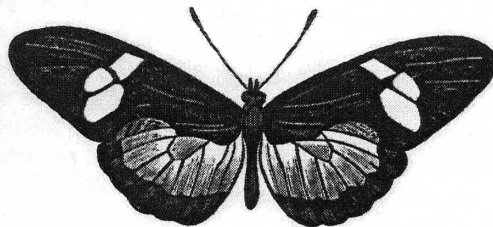


ASSOCIATION FOR TROPICAL LEPIDOPTERA

NOTES



September 2006

NEOTROPICAL LEPIDOPTERA - 1981

Twenty-five years have passed now since a group of us participated in the first symposium on Neotropical Lepidoptera. In 1981, the meeting was held at the 4th Congress of Latin American Entomology, in Maracay, Venezuela. Your ATL Executive Director and Founder was among a small group of researchers who met that July, with Gerardo Lamas, of Peru, as organizer and moderator. Since then there have been two further Neotropical symposia, plus a butterfly symposium this past June in Gainesville.

With the passing of 25 years, it is a good time to reflect on what was planned and where we are today. During the first symposium, in June 1981, the principal researchers attending included Dr. Keith S. Brown, Jr., Univ. Estadual de Campinas, Campinas, Brazil; Dr. Mirna Casagrande, Pd. Jesus Moure, and Dr. Olaf Mielke, of the Univ. Federal de Parana, Curitiba, Brazil; Dr. Gerardo Lamas, Museo de Historia Natural, Lima Peru; Dr. John B. Heppner, Smithsonian Institution, Washington, DC (now at the Florida State Collection of Arthropods, Gainesville, FL); Dr. Lee D. Miller, Allyn Museum, Sarasota, FL (now at the McGuire Center for Lepidoptera and Biodiversity, Gainesville, FL); Dr. Miguel Moreno, Museo Ecuatoriano de Ciencias Naturales, Quito, Ecuador; and Dr. Malcolm Scoble and Allan Watson, Natural History Museum, London, England. We had four main talks: I gave a summary of the new Atlas of Neotropical Lepidoptera project, plus another talk on the research status of Neotropical microlepidoptera. Allan Watson reported on the research status of Neotropical macroheterocera, and Gerardo Lamas gave a summary of the research status of Neotropical butterflies. During the rest of the meeting days, we had many discussions on future work needed and projects.

Much was planned in 1981, but as we know, without any substantial funding, little of an organized program has been accomplished in the past 25 years. We have mostly continued our progress on Lepidoptera studies for the Neotropics, as indeed for the rest of the world, much as was done since 1758, as isolated haphazard individual studies of various random groups. The Atlas of Neotropical Lepidoptera is a case in point: the original plan was for cooperative funding from New World nations, including the United States and other willing partners, to jointly fund the project based on their respective wealth as measured by their GNP. Ideally, this would have produced enough funding for many researchers to be hired to study and describe much of our fauna in the Neotropics, with particular study of all Neotropical types in world museums, such that the known species could all be accurately documented and further taxa could be described more easily. Some support was received, from such institutes as the national museums in Bolivia, Costa Rica, and Ecuador, the government of Bermuda, and a scientific foundation in the Netherlands for research support in Surinam. However, the major nations in the region would not approve the project nor give any funding, so only the few catalogs that have come out thus far have been completed to date. NSF in Washington also had no vision in those years for large projects in entomology, but now does have some programs for large or global projects, yet with still inadequate funding for many such projects.

The original plan was thought unworkable by critics, since poor

nations would not contribute (although Bolivia did so right away), and some thought only a small region could be done. For example, it was thought by some that Costa Rica could be documented more easily. I noted at the time that such a project for a small region would not work because perhaps half the species found in Costa Rica also are distributed into the Amazon, and since many of the old names were described from Amazon specimens, one would have to examine all the types of Amazon fauna anyway, just to study little Costa Rica. Thus, it made much better sense to do the whole fauna at one time. My views have since been proven correct, since while some studies have been accomplished for Costa Rican Lepidoptera, the fundamental plan for this region has bogged down precisely for the reason that I noted in 1981, namely, that many of the types were Amazonian and have to be examined anyway, just as for the project for the entire Neotropics, and still there is no funding to examine all the types.

The future still presents the same problems in 2006 as in 1981, but adequate funding can indeed still produce the results the 1981 vision had contemplated. Had we gotten full funding for the Atlas project (originally projected at about \$225,000 per year, for researchers, photographers, and technicians), we today would have most of our original goals already met, with illustrated catalogs of all described species, allowing much of the fauna to be identified and to also be able to note which specimens in hand are undescribed. One easily thinks that the yearly cost noted above is a vast sum over 25 years, but consider how many students would be trained by now, how many new researchers we would now have in 2006, how much more of the fauna we would know, plus many other benefits of knowing our fauna. Ironically, in Costa Rica nearly the same amount has been spent on Lepidoptera studies these 25 years as was projected for the Atlas project for all of the Neotropics. Nonetheless, we certainly need more survey expeditions to all regions of Latin America, even if research funding is still difficult to obtain for insect projects.

J. B. Heppner

JAPAN 2006

The May-June 2006 ATL trip went to central Japan, or Nippon as the Japanese call their land; or, the land of the dragonfly, as the nickname of Japan is translated. This was a two-week trip to Kansai, as the region around Osaka, Kyoto, and Nagoya is called. The Japan group arrived in Osaka on May 21 from various points. Our host in Japan was Dr. Toshiya Hirowatari, professor of entomology at Osaka Prefecture University, in Sakai, a district of southern Osaka. He and his graduate students helped with the trip throughout Kansai for two weeks and a further two weeks during my extended stay in Japan. Our stay in Japan was with mostly good weather, since the heavy summer rains do not begin until mid-June in central Japan. Japan has many interesting butterflies and moths, so the trip enabled the group to sample some of this fauna.

In 2006, spring was about two weeks late in Kansai, so we were able to find more of the spring fliers than expected. [cont. p. 3]

ATL NOTES

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September 2006

No. 3

TO OUR READERS

Yes, with your member support we do have several issues ready to be printed, so we steadily are reducing the cover date discrepancy and soon will again be up-to-date. We have a lot of loyal members, which is what every society needs to continue. Take the time to send in your annual dues payment, so you can support ATL and so we can produce our journals more rapidly.

Keep in mind also the ATL trips. We have the best program available for exotic travel to see and study butterflies and moths, with specialist leadership, local expert guides, and trip support for each location. ATL trips are much like Earth Watch trips, where you can join in on a specialist field expedition and work alongside with the researchers, plus have local guides who know the best places in each region we go to.

J. B. Heppner
Editor

ATL ANNUAL MEETING - 2007

October 2007 (dates to be set): Gainesville, Florida (joint meeting with the Southern Lepidopterists' Society). Call Dr. Heppner for details about the 2007 meeting.

ATL TRIPS: 2006-07

GUATEMALA, 15-21/30 Sep 2006 (space still available)

The trip starts in Flores, in the Petén, until 21 Sep, for a repeat of the popular 2005 ATL trip. Cost is \$850, plus airfare. The trip can be extended to include the Quetzal Reserve until 24 Sep, and for sites in western Guatemala until 30 Sep, for added cost (approx. \$125 per day). CHILE, 2-24 March 2007

We fly to Santiago and drive to northern Chile for specialized study of rare Andean blues and other lepidopterans. Cost is \$3,200 plus airfare. No interest in this trip so far but if you want to see rare blues from the Andes, then this is the trip to take. Dr. Benyamini, from Israel, will be leading this trip, and he is the world expert of this group for the Andes. GUATEMALA, 2-10 June 2007

We repeat our trip again in the late spring when rains start, a time of massive emergence of moths and butterflies. We go to Flores and western mountains. Cost approx. \$1,150, plus airfare.

ROMANIA, 1-15 July 2007

We visit the Carpathian Mts. and Transylvania. We are organizing this trip tentatively with the Romanian Lepid. Society, in Cluj. Anyone interested in *Erebia* butterflies and other Carpathian species will not want to miss this trip, clearly something closer to home for our many European members. Cost is approx. \$1,850 plus airfare. We stay one day and night in Vienna on the way to Cluj. Members in Europe can also go by train and meet us in Cluj for lower cost.

NOTE: ATL trips allow members and friends to fly in from other cities as well and meet at the destination city, if so desired. Members from Europe, for example, can join a trip by flying a route that is convenient for their destination. Each participant books their own flights from recommended routes, so insurance and airline mileage can be obtained. ATL handles all in-country arrangements.

The Association for Tropical Lepidoptera, Inc., is a non-profit organization for the support of research on the biology, systematics, and conservation of tropical and subtropical Lepidoptera of the world. Funding for the Association helps to support research projects, field studies, and publications on tropical and subtropical Lepidoptera. The Association was organized in 1989 in Florida as a tax-exempt corporation under Section 501(c)3 of the IRS Code and is a publicly supported organization as defined in Sections 170(b)(1)(vi) and 509(a). Contributions are tax deductible in the United States.

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15 August 2006

JAPAN 2006 (cont. from p. 1)

For example, the large brahmaea moth, *Brahmaea wallichii* (Brahmaeidae), was still flying in the first mountain area we visited south of Osaka. These mountains are in Nara Prefecture, where we stayed at Wasamatayama lodge, at about 1100m elevation. This area still has some good mixed deciduous and coniferous forest on the mountains. Much of Japan, especially in central Japan, is cut over and replanted in Japanese cedar (*Cryptomeria*) and related trees. They are native trees, but being monocultures grown from previously denuded hills, there is little fauna to be found there. However, in many places one finds secondary mixed forest of many species of oaks, maples, beech, and other deciduous trees, producing a varied insect fauna, and showing one what most of central Japan used to look like.

After Nara, we proceeded to Aichi Prefecture, east of Nagoya. During this travel we made a stop at the home of my friend, Prof. Yutaka Arita, near Nagoya, where he is a professor at Meijo University, already for many years now. He took us all in as guests and our group had a major Japanese banquet that evening, one of the trip highlights. In Aichi the next day, we started our stay at Kira-ramo-sato lodge, where some old growth beech forest is still to be found. Moths came in very well, but the weather turned rainy the last day, so butterfly collecting was poor. During these days, however, we made one day-trip to a nearby valley and rice fields, Nagura, which turned up many surprises, like *Parnassius* butterflies among the rice fields. The common *Parnassius glacialis* was abundant. The other Japanese *Parnassius* fly further north and in Hokkaido.

After Aichi, we went to Nagano Prefecture for added days of the trip, but some of the group departed and returned to Osaka for the flight home. The rest of us stayed at a mountain lodge west of Matsumoto, among the high mountains of the Japanese Alps. We were at about 1400m elevation but some of the peaks go to over 3000m. Nights were cool but many interesting moths were found. Those of us after day-flying moths, as well as butterflies, also could find a range of species at different altitudes, since as one went higher, the season became progressively more spring-like. Getting to the area, we stopped at Matsumoto city hospital, since one of the students had gotten a moth in his ear that had to be removed. Such are the hazards of moth collecting.

By June 6, the last group members departed Osaka, and I remained for additional days for collecting in Hyogo, Kyoto, Osaka, and Wakayama Prefectures. We had a short stay in Hyogo Prefecture, which is west of Osaka. In central Hyogo, a mountain lodge offered some good collecting, but much of this region is cedar monoculture. We returned to Osaka by way of western Kyoto Prefecture, and also had a day at Mikusa Mountain, famous for having populations of the rare lycaenids now restricted to Mikusa-san in northern Osaka Prefecture. I did not see any on the survey day, when a group of collectors from Osaka come each year to monitor the population on Mikusa-san, but Dr. Hirowatari gave me two specimens the group had caught for the FSCA collection. Most of these rare lycaenids are only monitored and not collected each year, so the population can increase. Needless to say, the main reason these species are so rare now, is no doubt due to the few remnants of good habitat remaining, primarily only on this mountain, now surrounded by development outgrowing from the huge Osaka-Kobe metropolitan area, home to over 11 million Japanese (the Tokyo-Yokohama region has about 30 million inhabitants).

We had a couple of days at Mino Park, a district of northwestern Osaka, where the Mino Park Insectarium is also located. This is an island of natural forest overlooking Osaka: one can collect butterflies and moths in natural forest and look out to see the high rises of downtown Osaka. On 11 June we then proceeded with our final week, collecting in Wakayama Prefecture, which is south of Osaka and encompasses most of the Kii Peninsula. Japan is very mountainous but Wakayama is almost all mountains, and much of it still in good forest. We first stayed at Kawayu Hot Springs and collected there and in nearby canyons. As in other regions of Japan, there are monocultures of planted cedar, but good

forest can also be found in more remote areas. Most of Wakayama is not high, perhaps averaging about 300m elevation, but there are many mountains that are over 1000m and some up to 1950m. We then took the central road south through many canyons and over ridges, until we reached the southernmost end of the peninsula, at Ohshima Island. The island is subtropical even though it is so far north, with palm trees and other tropical plants normally only found on southern Kyushu. The moths are likewise of many different species. Kyoto University runs a small research station here, allowing us to stay within their forested enclave on the island. The final days were then spent a bit further north, at the Hokkaido University Forest Station, Wakayama Branch, at Hirai. Around Hirai is some good forest but most of the university lands are managed forest plots to study forestry procedures and tree growth. They do maintain about 70 hectares of original old growth forest, however, so the Lepidoptera fauna is exceptional there. While at Hirai, we had the only major monsoonal-type rain, practically a small typhoon, with 24-hours of rain that made the rivers in the area come up to their upper banks. The next day was full sun again for our last day of collecting.

Anyone interested in Japanese Lepidoptera certainly should visit Kansai, but even more natural habitats are to be found in northern Honshu and Hokkaido. Nonetheless, with good guides one can find ample natural habitat even near cities, as for example, at Mino Park, right overlooking Osaka. Also, my friends at the National Science Museum, in Tokyo, have found 663 species of moths in the gardens of the Imperial Palace, in the middle of Tokyo. Remote areas of Japan certainly still harbor undescribed species, especially among the micro-moths. Japan is like England, perhaps among the best known of any land in terms of the Lepidoptera there, but still every year a few more species are described from Japan, now getting up to a faunal total of about 5,000 species. Japan is about the size of California, Oregon, and Washington, combined, but further north, so this number of species is quite diverse for a temperate region.

J. B. Heppner

USEFULNESS, COST, AND FUTURE OF SCIENTIFIC JOURNALS

Now that ATL has a number of issues in press and is rapidly catching up with its publication schedule for *Tropical Lepidoptera* and *Holarctic Lepidoptera*, it is worthwhile for all of us as ATL members (and non-members) to reassess where we stand on the matters of society membership and journal subscriptions. Here are a few thoughts to contemplate, stimulated in part by a recent article on scholarly journals and their rapidly rising cost to research libraries (Wysocki, 2005. *Wall Street Journal*, 245(100):1-8. May 23, 2005).

1. Why have a Scientific Society today?

Scientific societies were started centuries ago as regional associations of naturalists who desired the opportunity to gather regularly in meetings to discuss and share their findings and common interests. As postal systems developed, printed journals and newsletters mailed to all members became a useful way to share these original findings and contemplative discourses to both those who could attend locally available meetings and those correspondents living at greater distances. To ensure some degree of quality and instill some degree of selection among a range of submissions, editors eventually added associate editors and editorial boards and reviewers to help them eliminate the less adequate papers and keep the most worthy and meritorious submissions for publications.

To many society members, the quality and interest of the society's publications became of key importance to retaining their interest in membership, and society meetings were commonly reduced in frequency to larger, annual events by the mid 20th century. Today, successful specialty societies such as ATL or the Lepidopterists' Society attract 50-200 members or more to annual meetings, while societies with a broader range of interests (from "Evolution" to "Advancement of Science") may draw 500 to over 10,000 attendees. Just as they did in centuries past,

societies serve the function of bringing people of common interests together to exchange ideas, share experiences, and return home with renewed enthusiasm and stimulated thoughts on many subjects.

2. Why print a journal, instead of an electronic version alone?

With the advent of the Internet Era just 15 years ago, some scholars have suggested that scholarly journals be free and accessible in electronic format to everyone on the Web. This group believes that "hefty subscription fees for journals are blocking scientific progress" and that academics should "have full access to timely literature," with no control over information contained in scholarly publishing on the Web.

In large part, this debating point has emerged as a result of consolidation of the publishing of many scientific journals by a few giant international journal publishers. Reed Elsevier is an Anglo-Dutch giant that publishes 1,800 periodicals, at a profit margin of 30% or more (Wysocki, 2005). Elsevier's Cell Press unit billed the University of California at San Francisco over \$91,000 for one year of subscriptions to six biology journals, causing two scientists at that medical school to call in October 2003 for a worldwide boycott of those Elsevier journals. In fact, the university was paying Elsevier \$10.3 million a year for print and on-line subscriptions to most of Elsevier's 1,800 journals. Other UC campuses joined the boycott, resulting in Elsevier giving the university a 25% price reduction to "only" \$7.7 million a year for 1,200 Elsevier periodicals. One way to stop this exorbitant price-gouging is for scientists to refuse to publish their papers in such journals.

Why do scientists want printed journals so much? Most societies realize that giving away content online is not a viable business model, because real costs besides printing bills are involved in putting out reputable journals (see point 3 below). Most society members like to have a hard copy of the journal and articles therein to peruse, review, compare, dissect, and refer to repeatedly, and especially if color figures are included, hard copies comprise a valuable permanent reference to have in one's library. They are also grateful for on-line copies that are usually made available some time after the print version is published, but printed copies or reprints or xerox copies are still the handiest way to spread a lot of previous authors' contributions out on a desk and refer to repeatedly, while writing a grant proposal, or a new paper's discussion section, a thesis or dissertation, or a society talk.

3. Why are costs "so high" today?

Alan Leshner, executive publisher of the journal *Science* for the American Association for the Advancement of Science, states that his journal "gets 12,000 submissions and publishes 800 articles a year [in 52 issues!] on a \$10 million editorial budget. That averages more than \$10,000 per published article [average length about 2 pages!], a high number because of the costs associated with handling the unusually large number of submissions the journal receives." Wysocki (2005) goes on to say that "Industry experts say typical per-article costs are between \$3,000 and \$4,000."

What does it cost to publish one of ATL's journals? Today, it costs about \$3,200 - \$4,800 to actually print a 32-48 page issue in color, or

about \$100 per page (black-and-white sections, or issues like *Lepidoptera News*, can be done for only ca. \$35 per page or less). Add to the printer's bill the cost of shipping from the printing plant to Gainesville, and the cost of mailing envelopes and high U.S. postage rates, and another \$1,800 per issue is tallied up. The domestic and overseas ATL membership are about equally divided, yet about three-fourths of the postal bill for each issue is needed for the overseas mailings; thus, the postage surcharge for overseas members exists to help offset this expense. The cost in time of the Editor, Associate Editor, and dozens of peer reviewers each year is real but untallied, since this is voluntary work (at *Science* and many journals as well as at Elsevier, etc., of course, the editorial staff is salaried to do this work, an additional real cost). Pre-press work on the text is supplemented by scanning images and laying out plates (in earlier years, this could amount to another \$2,000 per issue for ATL, when we still did film scans through specialized vendors).

What would it cost to publish electronically? Well, the monetary cost to publish in a reputable, refereed journal is covered by the author's direct payment. Berkeley Electronic Press, publisher of 25 on-line scholarly journals, charges about \$300 to the author for an article, and the Press publishes for internet-only distribution. In London, BioMed Central publishes more than 100 scholarly journals available free to the public via the Internet. Individual authors are charged a processing charge of about \$850 per article. The Public Library of Science charges authors a fee of \$1,500 and distributes its PLS Biology journal contents free on the Internet. Interestingly, young scientists striving to win tenure and needing to gain exposure in big-name journals usually opt to publish in a printed journal. The date of description of new taxa of animals and plants is legally recognized when the printed journal is first received (and date-stamped) by leading science libraries, and the first published printed description validates that new name for taxonomists, another important consideration when deciding where to publish one's work.

4. Conclusions

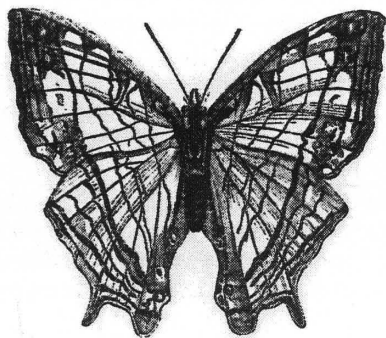
Societies still have an important role to play in science today, and publishing a printed journal is one of the most effective ways to inform members of advances in their field of interest. The Internet cannot substitute for either the society structure or the value presented to the reader by a printed journal, at least not yet. ATL looks pretty good, in fact it is a great bargain (at \$75 a year when pre-paid before December 31 each year), in comparison to the great majority of subscription deals available today from the giant publishers who have taken over many of the professional journals around the world. When authors likewise choose to publish in society-based journals and not those published by the media giants, they help to control the prices of scientific journals for both the author and the subscriber, while ensuring that their contributions reach the audience most directly concerned with and appreciative of their contents.

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