ASSOCIATION FOR TROPICAL LEPIDOPTERA

NOTES

December 2005

REGARDING THE NEOTROPICAL BUTTERFLY CHECKLIST

There has been considerable interest in any comments I might have about the ATL Checklist (Lamas, ed. 2004. Atlas of Neotropical Lepidoptera. Checklist: Part 4A); my first inclination was not to make any response but it did occur to me that not doing so can also lead to further misunderstandings. Therefore I make a few comments below.

The stories of professional and inter-personal problems among taxonomic workers are well known in our science (see Nabokov's Blues [Zoland, 1999; McGraw-Hill, 2000], for instance); they often result because soft sciences like systematics, where there are really no robust or universal criteria for objective "proof" or debate, often end up boiling down to "story-telling" (as in the "just-so stories" of classical biogeography, for instance) and which "expert" ends up telling the story. The current situation is also one that has been long-running and is more of a sociological phenomenon than something anyone should take too seriously. One of the problems is that, although one scientific criterion is to always entertain alternative explanations, this has seldom been done by some. In all the "stories" in which I, or certain colleagues, have been criticized (if not occasionally "demonized"), there have always been alternative explanations. Alpha taxonomy (especially a fine-grained approach) is bound to cover extensive territory and thus is open to error especially by pioneer workers; materials and specimens have been circulated among myriad colleagues, reviewers, artists, photographers, etc., thus creating ample opportunities for collating (and other) errors. I imagine every worker has their "horror stories" in this category (they have certainly candidly communicated the same to me, usually with a laugh or two). Similarly, sometimes specimens have been examined only from drawings or photos, when international or local mailing laws were a problem regarding the circulation of actual specimens; old data is a problem; old specimens from many of the old museums create problems (some have been re-labelled over time; others have been patched or mended etc.). It is true that, early-on, I was rather naïve about accepting the authenticity of some data or specimens at face value. I corrected that leaning by the mid- or late 1980s and certainly by the 1990's. Still, some mistakes were made.

As is well known, unfair or biased critiques of my work have often required written retractions by others (as in two cases in the News of the Lepidopterists' Society). Hindsight from 2005 is easy, but if we go back 25 years to when many of us were just dealing with the giant grade "Thecla", it was a very different story. So, I prefer the view that much of what has happened is a sociological phenomenon typical of science for many decades. This phenomenon is pretty much what led me to drop out of the enterprise a few years ago, especially since there was compelling conservation and other work to do. One could unnecessarily argue over lumping and splitting for many years. (cont. p. 3)



2005 PRESIDENTIAL ADDRESS: Dr. Kyu-Tek Park

It was a great honor for me to be recommended and elected as a President of ATL in 2005. However, I did not have a chance to attend any meetings or talk with our members this year, due to my residence being far away in South Korea. Even so late in the year, I would like to thank all of you who are working for Lepidoptera in different areas of the world, for your contributions to maintain the exchange of scientific information.

Ever since the first appearance of living organisms on Earth, numerous known and unknown species have evolved and disappeared. Many small organisms on the planet, such as insects, have perished without us knowing the species names and their biological roles in the ecosystem. The loss of species changes the structure and function of the ecosystem, and the disruption of biodiversity will be accelerated if we fail to protect and preserve the life-support system. Environmental conditions are a very important factor in maintaining and stabilizing the ecosystem, and as a result, determining the success or the failure of species.

As we all know, our world has undergone dramatic changes since human beings got the power to manipulate our environment. The rapid and mass environmental changes caused by the explosion of the human population and industrialization have destabilized the ecosystem and caused mass extinction of species. No country is now insulated from global environmental changes. For these changes, natural scientists, including taxonomists and biologists, are absolutely needed. However, the taxonomists for organisms are, unfortunately, loosing their positions for their work, and now taxonomists have almost become an "extinct species" everywhere in the world.

We — all of us — are workers for Lepidoptera, or at least have common interests in moths or butterflies. They are the second largest group of insects, numbering perhaps more than 200,000 species, occurring from the extreme arctic to the tropical rain (cont. p. 3)

ATL NOTES

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TO OUR READERS

Members should note the important message from our 2005 ATL President. One really does wonder, as often discussed among circles of professional taxonomists of Lepidoptera and other insects, who will work on our insects in the future and name all the many 1000s of species yet unnamed or even undiscovered. Fewer and fewer taxonomists are still at work and their average age is increasing every year. New students are recruited every year, but even those who persist and remain in taxonomy (rather than drift to the popular fields, like DNA studies, or switch to better-paying fields, like medicine), are too few to treat all the families even of Lepidoptera that need workers. For example, there is no specialist currently working on Neotropical Gelechiidae, nor has there been in the last 70 years, other than those making isolated descriptions of new species. One can list many families for which there is no specialist anywhere. Even important families, like Gelechiidae just mentioned, or even Pyralidae, have too few or no workers for vast regions. Europe. Japan, and Korea, are the only regions of the world fairly wellknown. In North America, there remain many undescribed species among the moths, while in the tropics worldwide, almost every other small moth is a new species. Of course, there is a large cadre of researchers for butterflies, but butterflies are only 9% of the vast biodiversity of Lepidoptera. Clearly, we need more students, but we also need funding for them and jobs after they have their degrees in hand.

J. B. Heppner

ATL ANNUAL MEETING - 2006

June 15-18: Gainesville, Florida (joint meeting with the Lepidopterists' Society and the Southern Lepidopterists' Society). Contact Dr. Thomas C. Emmel about arrangements or talks: (352) 392-5894.

ATL TRIPS: 2006

CHILE, 28 Jan-11 Feb 2006 (nearly sold out)

We fly Miami to Concepción (via Santiago); return is from Puerto Montt. Cost is \$1750, plus airfare. Guide is Prof. Angulo (Concepción). JAPAN, 20-30 May 2006 (nearly sold out)

The trip to Japan will start at Atlanta with the non-stop flight to Osaka. Cost is \$2100, plus airfare. Guide is Prof. Hirowatari (Osaka). CHINA (Yunnan and Sichuan), 23 Sep-8 Oct 2006 (few seats available)

A photographic tour of Yunnan and Sichuan. We fly from Atlanta to Kunming, via Hong Kong, then on to Chengdu in Sichuan. Cost is \$1950 plus airfare. Guide is H.-Y. Wang.

NOTE: ATL tours 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 tour 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. Participants get to experience field work as researchers do, but follow their own interests of sampling or photography as they wish.

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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PRESIDENTIAL ADDRESS - 2005 (from p. 1)

forests, and even in the most arid deserts. Most of the butterflies and larger moths in the world are better researched and known, but many of the small moths still remain or are secluded beyond our interests, without discovery or naming. For example, in my group, the family Lecithoceridae, it has been known to include about 900 species. Since before 1930, the early workers, including Meyrick, discovered less than 600 of these species, mostly in the Oriental region. A further 300 species have been described during the last 70 years, but by only two or three specialists. Especially in the Oriental region, as well as Neotropical region, only few taxonomists are now working with Microlepidoptera. Furthermore, we do not know any possibility of who will take over their activities in the future.

I hope for more positive cooperation among members of ATL, spreading all over the world, so diversity researches on Lepidoptera could be more strongly enhanced in the future. As President of ATL in 2005, I also wish all of you to have a Merry Christmas and a Happy New Year.

Prof. Kyu-Tek Park Chuncheon, South Korea

ATL CHANGES AND AMATEURS

The recent rantings of Phil Schappert, Lepidopterists' Society News editor (actually ex-editor, since luckily for the Lepidopterists' Society, he has moved on), have been against ATL and its change to uniform member dues. What has ATL done? We have actually modernized the journals policy such that all members pay a single dues amount and receive all journals. Simple. It is interesting that most other societies, including the Lepidopterists' Society, do not allow members to choose what publications they receive: all the members pay one dues amount and receive all journals. Simple. ATL has merely done the same and stopped the cumbersome procedure to have members choose different journals, some taking only Holarctic Lepidoptera, some taking only Tropical Lepidoptera, some taking only Lepidoptera News, and some taking all the journals. This quadruple choice-system was confusing to many members, as well as a headache to try and keep straight on the ATL mailing list. Now, ATL members pay a single dues amount and receive all journals. Simple. Schappert cannot accept needed change and just rants about ATL changing policy, as if he lost his marbles.

It is of little use or interest to continue a dialogue with someone as illogical as Schappert, but his switch in rantings to his new agenda — anti-amateur collecting — is more disturbing than his illogical anti-ATL stand. Schappert's new agenda is to call amateur recreational butterfly collectors immoral. Now, amateur collectors are the main base of the Lepidopterists's Society, as well as in most other Lepidoptera societies around the world. To attack the core membership of an organization, like Schappert has done, seems even more illogical than his words against ATL policy changes, besides being way off base. It has been proven time and again that amateur collectors (not commercial harvesters) have no significant impact on Lepidoptera populations, neither moths nor butterflies. Endangered species are under protection, so they are not involved in any case.

Amateurs, in fact, are the mainstay of museum collections, since more specimens needed for research have come from amateur recreational collectors over the past 250 years than the handful of professional researchers during that same time could ever have hoped to have collected. Schappert needs to re-examine his logic and stop telling amateurs they are immoral for collecting butterflies as a hobby. Research is fine, but recreational collecting is also no problem, and most amateurs know to deposit their collections in a museum when they are ready to do so. To say that recreational collecting is immoral only further alienates school kids from taking up collecting, and provides further "evidence" for those who do not understand insect biology and think butterfly collecting is harmful. We need more amateur Lepidoptera collectors, not fewer. In many countries of the world, there is not even a single resident butterfly collector making observations and taking specimens that could eventually be studied by someone in the future.

NEOTROPICAL CATALOG (from p. 1)

I do have one advantage in my work with colleagues, and that is that I have personally seen and personally dissected most of the syntypes of most of the Eumaeini taxa in many of the major European museums (and at least at the American Museum and many other USA institutions). I prefer this experience over that of others who perhaps have seen only random photos among many syntypes, etc., or received second-hand reports from colleagues.

Colleagues who have worked with me know that I am exceedingly careful, contrary to what is said by others (most of whom have never worked with me). Exceedingly careful does not mean that mistakes are not made, but I have never taken a cavalier approach to taxonomic work, which the long list of workers who have worked and co-authored with me would certainly seem to attest.

There are, of course, many positive things to be said about the Checklist the ATL has produced and this must not be overlooked; all the contributors deserve congratulations and are owed a debt by the lepidopterological community. The weaknesses that I particularly see result from the following:

(a) weakness in properly recognizing biologically or ecologically isolated taxa that are often well known to local workers on the ground (and about which data is available) (as in the bicolorlheodes group of Strymon, or the southern South American members of various Calycopis taxa). The problem groups are well known to many workers on the ground and many of them will, accordingly, not accept these highly synonymized results. Similar situations are well known in Nearctic groups, like Lethe and Celastrina etc. and certainly also occur in the neotropics.

(b) information loss due to mega-lumping, as in omnibus *Callophrys*, omnibus *Calycopis*, etc. Many of the synonymized genera in those and other groups are simply monophyletic subgroups of the more generalized name, not simply "synonyms". I feel much of this will be reversed in the future as there is a demand for more information content in a classification.

(c) continued confusion regarding types in groups where lectotypes have not been designated and where historical syntype series are not the same biological entity.

(d) weakness in understanding the difference between "clades" and "grades". Many of the taxa (like "species" in Calycopis) are grades (groupings of somewhat similar specimens that likely are not the same biological species [when constellations of characters, internal and external, are considered]). Many of the "casual synonymies" in the list, useful to arranging museum trays but perhaps not reflecting actual conditions on the ground, simply ignore such character constellation problems and reduce taxa on which numerous authors did rather meticulous work to just being the same as an older name. On the ground, locally, workers are going to immediately find problems with many of these. Similarly, many of the "nomina dubia" are specimens with radical morphologies that cannot simply be ignored unless the interpretation of "individual variation" is tremendously stretched. For instance, I don't think it ["individual variation"] can include differences in presence or absence of radical tergal modification, as in the present list's synonymies in omnibus Calycopis ["caulonia" for instance], to give only one example, or "grade species" that include tremendous general color differences among and between the sexes (e.g. mixes of sexual dimorphism, as in the current Calycopis list, as in "caulonia" and others). The occurrence of a radically different morphology within butterflies or moths that externally look quite alike would seem to me to be well known among lepidopterists. In fact, when some workers run across it, they call it (as least in humorous correspondence with me) "the Kurt Johnson effect" or "Kurt Johnson problem".

(e) more new synonyms may result from future workers because, as local and regional scientists distinguish biologically and/or ecologically isolated "sibling species" (or "cryptic species") and name these, some may well be among the many synonymized names of me and colleagues (the latter who were often local workers who called my attention to the situation in the first place); because of the information loss problem, it

is likely new synonyms may result.

The idea that I, or I and colleagues, have not assessed varation is lame; one should take a look at my work on *Lycaena* or *Archaeopre-pona*, not to mention on many Eumaeini and the well known "trail of vials on pins" left at many many museums. My approach has been finegrained, but aware of the reality of variation (which is not to say that I have not been wrong in some cases; I have been).

Lastly, there has been some criticism of me (in letters, reviews, etc.) because I not only work in science but also in cross-cultural and interreligious work, particularly through many organs of the United Nations (and some of these positions, along with some in conservation, are rather "prestigious"). I mention it because from time to time non-scientific colleagues receive letters from persons unknown to them critical of me and suggesting they might think twice about working with me (it is possible such concerns are authentic but that does not necessarily make them true). Similarly, sometimes my non-scientific interests are used to suggest I am not a serious scientist (as came up in some reviews of Nabokov's Blues). I need to point out that I understand very clearly what science is and is not; this is why I make a welcome contribution in many of my current activities in conservation and cross-cultural and interreligious work.

To clarify things as regards religious interest, I classify myself generally as a non-theist (not a "theist" in the narrow classical sense) and my particular expertise in the last few years has been in Buddhism, Hinduism and their connection to the Judaeo-Christian contemplative experience. Accordingly, I am not a creationist by classical notion. There is absolutely no need to dilute what we know of evolution, from the strict scientific enterprise, with "intrusions" from religious or metaphysical thought: they are two different universes of discourse. Science needs to remain "pure science" (especially in the technical and medical sciences; obviously, for the sake of predictable and repeatable results). Fortunately, for those who want to explore wider areas of thinking, there are many systems models that allow for a rich understanding of the contextualities and differences in "universe of discourse" between science and religion (see, for instance, the work of the Santa Fe Institute with regard to modern systems models and philosophical views involving "teleology"). Again, I mention it because, with regard to these nonscientific activities, I have found it annoying that often I have to be secretive about some of this work because I have had experiences that when positions and affiliations are known, letters sometimes arrive to superiors suggesting that I am actually some kind of scoundrel. Luckily, it has never turned out to be a big problem and has tended to occur less often in the last few years.

I hope the above comments are helpful for those who are curious about my own "take" on the ATL Checklist and some of the comments therein about me and my work. My comments above are not meant to be accusative toward any person or group.

Kurt Johnson New York, NY

MEMBER COMMENTS

In an impressive report on his extensive field work, Dr. Gary Noel Ross' article (2001: Butterflies of the Wah'Kon-Tah Prairie. *Holarctic Lepid.* 8, no. 1-2) contains errors of fact regarding butterfly observations by Scott Swengel and myself. In no way detracting from his article, I correct these here.

Ross (2001) attributes all our observations on our Missouri 4th of July butterfly counts held 1993-1999 (reports cited in Ross 2001) to Wah-Kon-Tah Prairie. The 1993 report states the three prairies we visited on this count: Mo-Ko, Monegaw, and Wah-Kon-Tah. Locality names are as per the Missouri Dept. of Conservation's Public Prairie Guide published during that time period; since then, Mo-Ko has been joined to Wah-Kon-Tah, but for specificity, I treat them distinctly here.

Although count rules do not require the same sites to be visited each year, we did. Unless the count compiler provides locality information in the field notes, and we did not, count results must be attributed to the 15-mile diameter count circle. Our Marine Blue and Dotted Skipper observations in Ross' (2001) Table were at Monegaw; we never saw these species at Wah-Kon-Tah or Mo-Ko.

We did not find all 731 Regal Fritillaries on our 16 June 1998 count at Wah-Kon-Tah. We found 203 in 1.825 hr of surveying there (111/hr), compared to 346/hr at Mo-Ko and 230/hr at Monegaw. In our 7 years of counts, Wah-Kon-Tah averaged 157/hr, Mo-Ko 266/hr, and Monegaw 178/hr. Tim Orwig's Northern Loess Hills count holds the single-site Regal density record published in the count report: in the field notes for his 25 July 1995 count, he reported 906 in 1.25 hr (725/hr) in a 30 ac hay prairie. While densities can vary due to number of people counting and differing approaches to reduce double- and/or under-counting, that still would have been a marvelous sight!

We share Dr. Ross' concern, and enthusiasm, for such marvelous populations of Regal Fritillaries to continue to exist. We commend him for his work to that end.

Ann B. Swengel Baraboo, Wisconsin

NEW BOOKS

THE BUTTERFLIES OF LADAK (N.-W. INDIA)

by V. V. Tshikolovets

2005. Brno. 176pp (30 pl.) (8 x 11.5 in). Cloth. 89.00 Euro.

This full-color work continues the author's series of butterfly faunal treatments for Central Asian regions. The 30 color plates are very sharp and clear, illustrating the variations for the 92 species found in Ladak (altogether 1470 individual specimens are illustrated, plus habitat views). Each species has a detailed text, along with a distribution map for the area covered. As in his previous works, the author has personally also collected in the region, so knows the area first-hand.

Association for Tropical Lepidoptera

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