

HAMULI

The Newsletter of the International Society of Hymenopterists



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Masembu River flowing from the Mekongga Mountain range.

Insects of Mekongga Mountain in Southeastern Sulawesi

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Since 2009, staff members of the Bohart Museum of Entomology and of the Indonesian Institute of Science (LIPI) have been working in Sulawesi as collaborators on a grant funded by the International Cooperative Biodiversity Group, managed by the U.S. National Institutes of Health. The grant has two components, a biodiversity of the insects and other invertebrates, birds, mammals, reptiles, fish, amphibians and plants of Mekongga Mountain in south-eastern Sulawesi, and bioprospecting for microbes producing compounds of pharmaceutical or industrial importance. LIPI and Bohart staff are working on the biodiversity component of the project.

Sulawesi is one of the most poorly known tropical regions in the world. It dominates the region known as Wallacea and is the third largest of Indonesia's over 17,000

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President's message

By: Mike Sharkey, president, International Society of Hymenopterists, University of Kentucky

Greetings everyone. First some information on the student travel awards. We, the executive of ISH, have discussed the idea of student awards for some time and have decided to offer travel awards. The first round of these was for students to attend the International Congress of Entomology (ICE) in Seoul, Korea. We are offering one award for \$2,000, one for \$1,000, and two for \$500. The only requirement was that students must be members of the Society. Note that the membership cost for students is now only \$15 (+\$2 if you use PayPal), so for those of you with students, please encourage them to join. Through our endowment funds we are also sponsoring a \$2,500 student award to support graduate research. More details on how to apply for the awards are on pg.10. Please disseminate this information as widely as possible.

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Machu Picchu. Photo by Alan Cordero.
http://www.flickr.com/photos/alan_bw/6079720523/

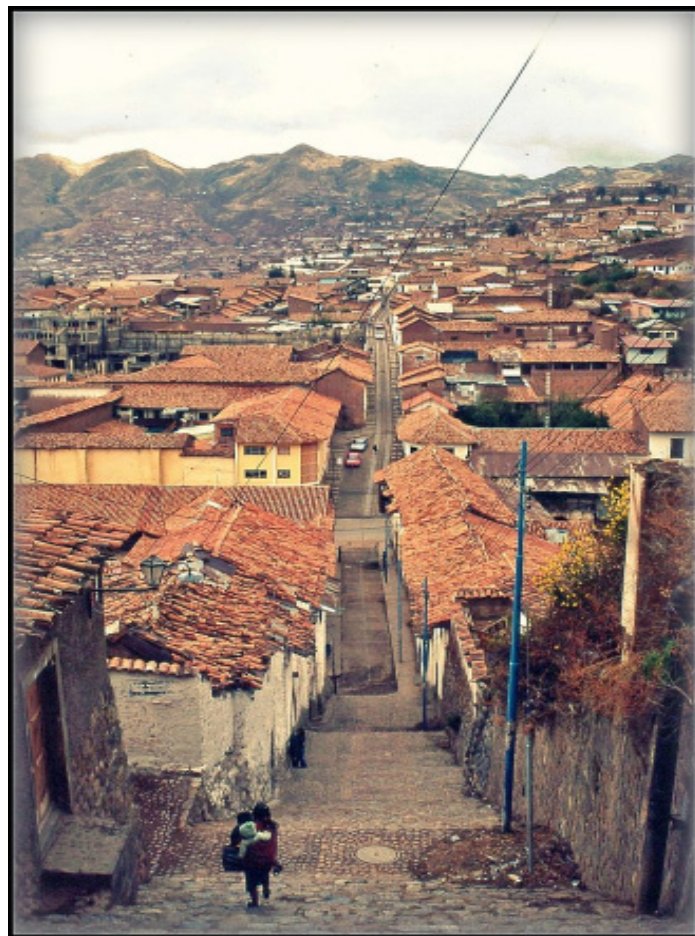
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The second bit of news concerns the next quadrennial meeting of the Society. Numerous groups showed interest in hosting the meeting, and I wish to especially thank George Japoshvili who put an excellent proposal together to host the meeting in Georgia. We had a strong preference for a site in Latin America because the ISH meeting has never been held there. I am happy to announce that the next meeting will take place in late June, 2014, in Cusco, Peru. June 24th is the date of the biggest celebration in Cusco, the “Inti Raymi”, or Festival of the Sun. So we will meet directly after this when prices are lower. Cusco is located in southeastern Peru, at an altitude of 3,400 m. and is often referred to as the “archaeological capital of the Americas”. The famous Inca site of Machu Pichu is 120 km northwest of Cusco and it will be one of the tour destinations available to participants. There will also be collecting trips organized to areas around Cusco.

The organizers and co-organizers are: Frank Azorsa Salazar: Centro de Ecología y Biodiversidad - CEBIO, Lima - Peru. Dr Gerardo Lamas, Entomology Department. Natural History Museum, San Marcos University,

Lima - Peru. Dr. Eric Yabar: Entomology Department. San Antonio Abad University, Cusco – Peru. Alfredo Giraldo: Agrarian University, Lima - Peru. Work at the Natural History Museums in Lima and Cusco can be pre-arranged through Drs. Lamas (paititia@yahoo.com) and Yabar (e_yabar@yahoo.com).

All of these details and more will be repeated in a forthcoming formal announcement.❖



Streets of Cusco, Peru. Photo by Martinica.
<http://www.flickr.com/photos/excursions2/3289758021/>

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See last page for submission instructions. Deadline for the first issue is January 15, while the deadline for the second issue is July 15. Articles appearing herein should not be considered published for the purposes of zoological nomenclature.

find us on the Web: <http://hymenopterists.org>

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islands. This island is the most biologically unusual in Asia. Sulawesi has one of the highest percentages of endemic species in the world, rivaling the floras and faunas of Australia, New Guinea, and Madagascar. More than 60% of the plants and animals are found nowhere else on earth and the number of species new to science is probably more than 30% of the fauna. This may be because Sulawesi never merged with any continental land mass and was instead formed by the collision of the Australian, Indian and Eurasian geological plates and limited volcanic activity.

As a consequence of these geological origins, the different “legs” of the island have very different faunas. The northern “leg” of the island, which has been collected to some extent, shares many faunal elements with Borneo. The southeastern “leg”, where we’ve been working, has never been collected. The insect fauna there seems to share some limited relationships with New Guinea.

Mekongga Mountain is part of a larger mountain range north of the city of Kolaka. The mountain rises to an alti-



Mekongga cloud forest, 1700m.



New species of Crabronidae

Preliminary list of Hymenoptera identified from Mekongga Mountain.

1. Agaonidae: many spp.
2. Ampulicidae: *Trirogma* sp., *Dolichurus* sp.
3. Apidae: *Amegilla* sp., *Apis cerana* Fabricius, *Apis dorsata* Fabricius, *Hylaeus* sp., *Nomada* sp., *Thyreus* sp., *Xylocopa* spp., *Ceratina* spp.
4. Argidae: *Cibdela* sp.
5. Bethyridae: many spp.
6. Braconidae: many spp.
7. Ceraphronidae: many spp.
8. Chalcididae: *Haltichella* sp.
9. Chrysididae: *Hedychrum* sp., *Chrysis* sp., *Stilbum cyanurum* (Förster), *Trichrysis* sp.
10. Crabronidae: *Tachytes* sp., *Ectemnius* sp., *Megadalaria* n. sp., *Bembicinus* spp., *Cerceris* spp., *Bembix* sp.
11. Diapriidae: many spp.
12. Dryinidae: many spp.
13. Encyrtidae: many spp.
14. Eucharitidae
15. Eucollidae: *Gronotoma* sp.
16. Eulophidae: *Pediobius* spp., *Allophomorpheta* sp., *Euplectrus* sp., *Pedobius* spp., *Aprostocetus* spp., *Phiglaio* spp., *Stenomesisus* spp., *Tetrastichus* spp., *Entedon* sp., *Elasmus* sp.
17. Eupelmidae: many spp.
18. Eurytomidae: many spp.
19. Evaniidae: many spp.
20. Formicidae: many spp., including *Echinopla* sp.
21. Gasteruptionidae: several spp.
22. Halictidae: *Nomia* spp.
23. Ichneumonidae: MANY spp.
24. Leucospidae: 2 spp.
25. Megachilidae: several spp.
26. Mutillidae: many spp.
27. Mymaridae: many spp.
28. Platygasteridae: many spp.
29. Pompilidae: many spp.
30. Pteromalidae: many spp.
31. Scelionidae: many spp., including *Platyscelio* spp., *Telenomus* spp.
32. Scoliididae: *Campsomeris* spp., *Scolia* spp.
33. Sphecidae: *Ammophila* spp., *Isodontia* sp., *Sceliphron* spp., *Sphex* spp.
34. Stephanidae: several spp.
35. Tenthredinidae: several spp.
36. Tiphidae: *Tiphia* & *Methocha*
37. Thysanidae: several spp.
38. Torymidae: several spp.
39. Trigonalidae: *Lycogaster celebesiensis* (Szepligeti)
40. Vespidae: *Acarozumia* sp., *Allorhynchium* spp., *Antepipona* sp., *Anterhynchium* spp., *Apodynerus* spp., *Delta* spp., *Eumenes* spp., *Eustenogaster* spp., *Lissodynerus* sp., *Odynerus* spp., *Parapolybia* sp., *Phimenes* spp., *Polistes* spp., *Pseudemenes* sp., *Rhopalidia* spp., *Rhynchium* spp., *Stenancistrocerus* sp., *Subancistrocerus* sp., *Vespa affinis* (Linnaeus), *Vespa fervida* Smith, *Vespa tropica* (Linnaeus)

tude of nearly 3,000m. We have sampled five transects at each of six altitudes: 100m, 600m, 900m, 1500m, 2000m and 2700m. Each transect had four Malaise traps. In addition, our crews also did net collecting.

The mountain was extensively logged forty years ago, so most of the lower elevation forest is second growth. The vegetation changes dramatically by altitude. Below 1000m the forest is dominated by about 30 species of figs, 12

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*Cibdela* n. sp. (Argidae)*Amegilla* sp.

Mekongga Mountain at 1600m.

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species of bamboo and cocoa plantations. By 1500m the figs and bamboo are gone and the forest is dominated by *Lithocarpus*, ratan palm and *Pandanus*. From 2000–2700m the forest is dominated by *Lithocarpus*, *Rhododendron* and other boreal elements.

We have literally thousands of Hymenoptera collected from this project to identify. Easily half of the hymenopteran species from this site are new, and in the small bodied groups, Proctotrupoidea and Chalcidoidea in particular, the percentage new is undoubtedly much higher. However, even in the larger wasps and bees, a number of spectacular new species have been recognized. ❖

Format for Type Material (especially primary types) and Material Examined sections of taxonomic papers

By: John Huber, Canadian National Collection of Insects, Arachnids and Nematodes, Ottawa, ON, Canada

Basic philosophy and general comments

A basic tenet of science that distinguishes it from non-science is that of repeatability. In taxonomy that means two kinds of data need to be carefully and completely reported. This is necessary for other taxonomists, present or future, to be able to repeat the research, if desired. After studying the same material, and any additional material, subsequent authors will arrive at certain conclusions, and these may either agree or disagree with the original author's conclusions. But if subsequent authors cannot repeat the research, i.e., they cannot study the same specimens as previous workers did, then the original work is simply not scientific. Moreover, any conclusions arrived at by subsequent authors cannot be compared or contrasted meaningfully with the original author's conclusions because the research is based on different material. This means, of course, that the specimens themselves should be preserved carefully for subsequent workers to examine. Specimens that are the basis for taxonomic papers sooner or later (preferably immediately after publication) should be deposited in reputable public institutions where they are, or should be, available for study by other scientists.

Two kinds of data must be reported in taxonomic papers. These two kinds are fundamentally different from each other, so it is important not to mix them. To do so means that the researcher has not really thought about why they

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are different and the different purposes they serve.

1. The first kind is data associated with the specimen itself, i.e. collection locality, latitude/longitude, altitude, date, collector, host or host plant if available, and collection method. These data are given on a label pinned with the specimen or in the same vial as a liquid preserved specimen. It is the kind of data that gives the specimen scientific value. Without it, the specimen is scientifically worthless, though it might still be nice to keep as an object of beauty. Sometimes, specimens without data might be shown to be of great scientific worth because external evidence strongly indicates they are type specimens or other historically important specimens. Collection labels on specimens should be presented in a clear, logical and uniform way so anyone can understand them. Rational for this can be found at <http://www.biology.ualberta.ca/bsc.cbchome.htm>

2. The second, very different, type of data is the kind that is essential to address repeatability in science (see above). This is the number and, if possible, the sex of the specimens studied and, **most importantly**, the depository of the specimen(s), in particular the primary type specimen. If the specimen is a primary type it should be so designated with a red label and the word “Holotype, Lectotype or Neotype” on it. These ‘repeatability’ data logically should go as one unit, and logically should be separated from the first kind of data, i.e., that associated with a given specimen or specimens.

Another tenet of science is, or should be, to communicate results in the most user-friendly way possible while at the same time maintaining truthfulness and accuracy. Scientists should not work only for themselves but should try to publish their results so others can easily use them. An effort should therefore be made to present taxonomic results in the best way possible for others to use. Thus, the purpose of a Material Examined section is to synthesize and clarify the data and present it in such a way that the user can understand it and retrieve it easily. If the label data of a particular specimen (other than the primary type specimen) is not quoted exactly in the Material Examined section, that is all right. Instead, a rigorous and clear method of presenting the data should be given, primarily for the benefit of the user. How many people will want to track down a particular specimen, other than a primary type, and compare its data label with the way the data were presented in the paper? Probably none. But how many people will want a logical and clear summary of data from the specimens examined that they can use for producing distribution maps or for other purposes such as quickly finding a given locality? Perhaps many. So a clear and logical for-

mat for presentation of locality information, instead of just quoting all data exactly as given on the specimen labels, is much to be preferred. Taxonomists should think carefully about data presentation in the Material Examined section of their papers for the benefit of the user, not just for themselves. The simplest and best way, even if it requires more work by the taxonomist, is to organize the data alphabetically by country and then by lesser political unit within country. Even when several levels of political unit within a given country exist, no more than two levels above the exact collecting locality need to be included, e.g., for the USA, the two levels would be state and county. Hopefully, these units are reasonably stable, though depending on country they may occasionally change. Often, only one lower political level is needed, e.g., for France, the Department is needed. Different fonts and use of bold and italics help indicate the different levels being used and allow for quick retrieval by eye. Incidentally, the current use of databases accessible via the Web or otherwise is not an excuse to present data in a sloppy manner. Even if latitude and longitude are provided on a label, this does not obviate the usefulness of providing at least one level of lower political unit.

The primary type is so important in taxonomy (it is, after all, the name bearer, i.e., the objective standard for a species name) that the information associated with it should be placed in its own paragraph, i.e., separated from secondary types or other material examined. Primary type data reported in taxonomic papers should consist of two, equally important parts: a) kind of type, sex, depository, b) collection data and other specimen labels, quoted verbatim.

For example, the first paragraph of the Material Examined section under a new species should begin with: kind of primary type (holotype, lectotype, etc.), sex (m or f*), depository acronym (in parentheses), and exact quote (use quotation marks) of the data on each label, including the primary type label added once the specimen is designated as a primary type. Note that type 2 data, i.e. kind of specimen (in the case of primary types), sex and depository [e.g., holotype female (USNM)] is grouped together **first**, and separated completely from type 1 data, i.e., the collecting event data, which comes **second**. This is because the kind and depository of the primary type is paramount; its data is less important since its type locality should be found in the original description.

For specimens other than primary types, type 2 data should be grouped at the end of the collecting event data recorded on a specimen label, whether secondary type or

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* Editor's note: male and female symbols were replaced with m and f.

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specimen in general. E.g., Paratypes: xx females, xx males (list depositories here if not given individually after each specimen or group of specimens). **CANADA. Ontario.** Simcoe Co.: same data as holotype (3f, 2m, CNC); Midland, 3.vi.2011, T. J. Rebut, (5f, CNC); Grey Co.: Owen Sound, i-8.vi.1999, J. Cumming (3f, BMNH). **COSTA RICA. Puntarenas.** Nicoya, 17.ix.2003, X. Cruz (5f, 4m, CAS); Zurquí de Moravia, 18.ix.1993, P. Hanson (3f, INBio). **Alajuela.** Peñas Blancas, 20-30.ii.1984, P. Mason (4f, INBio). **HAWAIIAN ISLANDS. Hawaii.** Volcano Nat. Park, 20.xi.1989, J.C. Allen (48f, USNM). **JAPAN. Kyushu.** Kagoshima: Kaseda, 9-16.vii.2005, L. Masner (1f, YUGK).

For clarity, secondary type data (paratypes, allotype) should be placed in a separate paragraph after the primary type data. The data may or may not be quoted exactly as on the data labels, depending on the number of specimens and localities represented. The data should at least be given in a logical order. If the depository of each specimen is not given after the specimen, then the list of depository acronyms should be given at the beginning, in parentheses, right after the total number and sex of the paratypes.

If the species is being newly described, primary and secondary type data should be segregated from non-type data (if for some reason some specimens are not being included as types). If the species is being re-described, the data for specimens collected subsequent to those examined at the time of original description should be placed in a Material Examined section. This is perhaps best kept separate from a Type Material section. **CAPITALS** (bold face, preferably), **bold-face**, and *italics* may be used to distinguish up to three political units above the exact collection locality, as illustrated above. This helps the reader quickly find countries, and lesser political units within countries. While some workers may like to state whether a political unit is a state, province, department, county, prefecture, canton, oblast', rayon, or whatever the unit is called, this usually is superfluous and need not be included.

Anyone who has worked with museum specimens will understand (and often be frustrated by) the tremendous variety and format of data labels on specimens they encounter for study. Often, interpreting label data to make sense of it may take considerable time. This is all the more reason for presenting the published data in a consistent and logical format so readers of the taxonomic paper don't have to repeat all the deciphering themselves.

Today, taxonomists may decide it is not worth the effort providing a Material Examined section. They may just enter all locality data from examined specimens (other than primary type data, which must be published) in a

spreadsheet and post it on the web for the user to find and interpret (using the url provided). This puts the onus on the user to look for the data. The writer believes that such data should be an integral part of a taxonomic paper. ❖

Hymenoptera in the Russian Far East

By: John Huber, *Canadian National Collection of Insects, Arachnids and Nematodes, Ottawa, ON, Canada*; A. S. Lelej, *Institute of Biology and Soil Science, Russian Academy of Sciences, Vladivostok-22, 690022, Russia*

This article was written in order to draw the attention of North American Hymenopterists to an important series on the insects of the Russian Far East (RFE), published between 1986 and 2011. Storozhenko et al. (2002) and Lelej and Storozhenko (2010) summarized the contents of these volumes in English, so many North American insect taxonomists may already be aware of this comprehensive synthesis. Unfortunately for most of us in North America, the series itself is in Russian. The Hymenoptera (except for Cynipoidea) and some non-Hymenoptera are covered in Vol. 4, parts 1–5, published from 1995–2007. Ichneumonoidea, Aculeata and Symphyta appear to be complete. The Chalcidoidea are not as well covered (Pteromalidae not covered). The chapters are essentially in the form of illustrated keys, with new species described at appropriate places. Family introductions and an overview of the order (biology and morphology) are given. With an estimated 9000 species (Table 1) this is the largest order for RFE, representing almost 29% of estimated 31,500 species that occur there. The series is particularly important for North American taxonomists/biologists for a couple of reasons:

1. The RFE fauna closely resembles that of the northern part of the Nearctic fauna (particularly of Alaska and Yukon) because of its similar latitude (42–71°N) and climate, and vegetation consisting of tundra, boreal coniferous forest [taiga] and, in the south, mixed deciduous/coniferous forest. The northeastern part of RFE (Chukotka and Kamchatka) is by far the closest part of the Palaearctic region to North America. In the Pleistocene, RFE and Alaska were connected by land, and large parts on either side of the present-day Bering Sea were unglaciated, presumably with relatively unrestricted interchange of populations and species adapted to the essentially treeless Beringian area, now under the Bering and Chukchi Seas. So it is likely that many species are the same on either side. Various chapters (only two on Hymenoptera—ants and other Aculeata) in the Fauna of the Yukon book (Danks, H.V. and Downes, continued—

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J.A. 1997. Insects of the Yukon. *Biological Survey of Canada Monograph Series* No. 2, Ottawa. 1034 pp.) discussed similarities between the two faunas, with examples. Taxonomists describing species from northwestern North America must take into account the species described in the RFE series to reduce the likelihood of producing synonyms (the reverse, of course, must be done by Russian taxonomists).

2. While most insects alien to North America once came mainly from Europe, in recent decades a higher percentage has been coming from Asia. Some major pests are included. If classical biological control is to be attempted against these pests, then some knowledge of their parasitoids is needed. Many may have been keyed or described in the RFE series. Even if their hosts are not yet known, North American taxonomists should be able to identify them, as necessary, and translations of the keys and descriptions of new species would be very useful (the same could be said of publications in Chinese, Japanese, and Korean, and for the same reasons.) The volume contents (Hymenoptera chapters only) are:

IV part 1. Hymenoptera (including morphology, immature stages, phylogeny, key to families); Renyxidae; Embolemidae; Bethylidae; Sapygidae; Scoliidae; Tiphidae; Mutillidae; Pompilidae; Vespidae; Formicidae; Sphecidae (s.l.); Colletidae; Andrenidae; Melittidae; Ctenoplectridae; Megachilidae; Anthophoridae; Apidae.

IV part 2. Trigonalidae, Stephanidae, Megaspilidae; Ceraphronidae; Aulacidae; Gasteruptionidae; Evanidae; Diapriidae; Scelionidae; Platygasteridae; Chalcididae; Leucospidae; Perilampidae; Eucharitidae; Eupelmidae; Encyrtidae; Eurytomidae; Torymidae; Ormyridae; Tetracampidae; Eulophidae; Aphelinidae; Trichogrammatidae (Trichogramma); Signiphoridae.

IV part 3. Braconidae (23 subfamilies); Megalynidae; Heloridae; Roproniidae; Proctotrupidae; Vanhorniidae; Mymarommatidae; Bethylidae (addition); Sierolomorphidae; Sphecidae (addition).

IV part 4. Braconidae (five subfamilies); Paxylommidae; Proctorenyxidae (replacement name); Proctotrupidae; Mymarommatidae; Tetracampidae; Eulophidae; Elasmidae; Mymaridae; Mutillidae (addition); Pompilidae (addition).

IV part 5. Braconidae (three subfamilies); Aphidiidae; Ichneumonidae (26 subfamilies); Apoidea (general); Halictidae; Colletidae; Andrenidae (addition); Melittidae; Megachilidae; Apidae; Symphyta (Argidae, Cimbicidae, Diprionidae, Tenthredinidae, Siricidae, Xiphydriidae, and Cephidae listed; Xyelidae, Pamphiliidae, Megalodontesidae, Blastocotomidae, and Orussidae keyed); Mymarommatidae (addition), Trichogrammatidae; Sphecidae (addition); Chrysididae (listed).

The following information will be useful for those wishing to order the RFE books:

The price of each volume is 40 US\$ + postage (\$15 by surface or \$20 by air mail).

The price of set (5 volumes) containing the Hymenoptera chapters is \$175 US + postage (\$45 by surface or \$65 by air mail). Contact e-mails: proshchalikin@biosoil.ru; lelej@biosoil.ru.

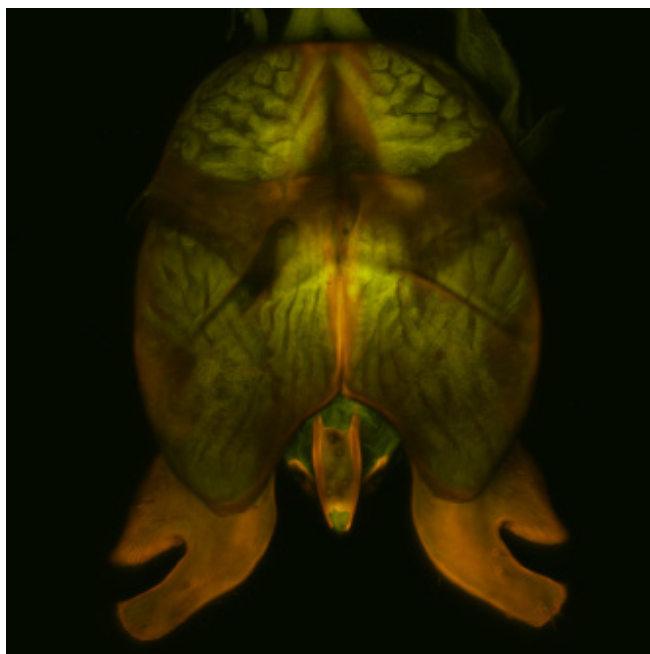
Hymenoptera data from the “Key to the insects of Russian Far East”. Vol. IV. pt. 1-5. (1995-2007).

Hymenoptera is largest insect order in the Russian Far East, where 73 families are distributed. Estimated number of species is no less than 9000 (Storozhenko et al., 2002; Lelej & Storozhenko, 2010). The data on Symphyta are taken from Taeger et al. 2010.

For both genera and species, the number before the / is the number keyed and the number after the / is the number recorded from the Russian Far East (RFE). For some groups (Braconidae, Aphidiidae, Chalcididae, Eurytomidae, Crabronidae, Halictidae, etc.) more genera and species are keyed than are actually recorded from RFE, and Halictidae is covered for the entire Palaearctic region. There are two reasons for that: 1) the study of the insect fauna of

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Name the structure and taxon (answer on pg. 20)



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RFE is not competed and it is expected that species which are distributed in the neighboring regions of Russia (Transbaicalia, East Siberia) and neighboring countries (Japan, Korea, China) will also be recorded eventually from RFE (for most of the families the fauna of RFE has been revised first); 2) if the group studied is well known, the inclusion of additional species enlarges the keyed area. In the Eastern Palaearctic, such keys are unique and should be useful for many taxonomists.

Order **Hymenoptera**: Genera: 1524 keyed/1462 in RFE. Species: 8854 keyed/7444 in RFE.

Suborder **Symphyla** (119/127 genera, 666/750 species)

1. Family Xyelidae (3/3 genera, 7/7 species)
2. Family Pamphiliidae (6/6 genera, 56/57 species)
3. Family Megalodontesidae (1/1 genus, 1/1 species)
4. Family Argidae (4/4 genera, 33/38 species)
5. Family Blasticotomidae (2/2 genera, 3/3 species)
6. Family Cimbicidae (10/8 genera, 45/47 species)
7. Family Diprionidae (3/4 genera, 8/8 species)
8. Family Tenthredinidae (76/85 genera, 475/548 species)
9. Family Siricidae (5/5 genera, 13/12 species)
10. Family Xiphydriidae (4/4 genera, 13/16 species)
11. Family Cephidae (4/4 genera, 11/12 species)
12. Family Orussidae (1/1 genus, 1/1 species)

Suborder **Apocrita** (1405/1335 genera, 8188/6694 species)

13. Family Trigonalidae (Trigonalidae) (4/4 genera, 8/8 species)
14. Family Megalynidae (2/0 genera, 2/0 species)
15. Family Stephanidae (4/0 genera, 16/0 species)
16. Family Megaspilidae (8/7 genera, 31/24 species)
17. Family Ceraphronidae (4/4 genera, 25/22 species)
18. Family Aulacidae (3/3 genera, 5/5 species)
19. Family Gasteruptionidae (1/1 genus, 8/8 species)
20. Family Evanidae (4/0 genera, 4/0 species)
21. Family Heloridae (1/1 genus, 3/3 species)
22. Family Ropronidae (1/1 genus, 8/2 species)
23. Family Proctorenyxidae (Renyxidae) (1/1 genus, 1/1 species)
24. Family Proctotrupidae (13/13 genera, 47/51 species)
25. Family Vanhorniidae (1/1 genus, 3/1 species)
26. Family Diapriidae (55/55 genera, 0/7 species)
27. Family Scelionidae (31/31 genera, 215/206 species)
28. Family Platygasteridae (23/23 genera, 0/4 species)
29. Family Mymaromatidae (2/2 genera, 3/2 species)
30. Family Ibalidae (0/1 genus, 0/3 species)
31. Family Liopteridae (0/1 genus, 0/1 species)
32. Family Figitidae (0/19 genera, 0/39 species)
33. Family Cynipidae (0/14 genera, 0/30 species)
34. Family Chalcididae (28/9 genera, 48/15 species)
35. Family Leucospidae (4/1 genus, 7/2 species)
36. Family Perilampidae (4/3 genera, 21/17 species)
37. Family Eucharitidae (2/2 genera, 8/2 species)
38. Family Pteromalidae (0/56 genera, 0/90 species)
39. Family Eupelmidae (16/16 genera, 5/7 species)
40. Family Encyrtidae (87/87 genera, 270/270 species)
41. Family Eurytomidae (5/5 genera, 112/62 species)
42. Family Torymidae (8/8 genera, 0/32 species)
43. Family Ormyridae (1/1 genus, 3/3 species)
44. Family Tetracampidae (9/4 genera, 6/6 species)
45. Family Eulophidae (72/56 genera, 587/402 species)
46. Family Aphelinidae (18/18 genera, 105/55 species)
47. Family Trichogrammatidae (26/3 genera, 81/13 species)
48. Family Signiphoridae (4/0 genera, 0/0 species)
49. Family Mymaridae (25/25 genera, 0/62 species)

50. Family Ichneumonidae (345/404 genera, 1223/1741 species)
51. Family Paxylomatidae (3/3 genera, 10/7 species)
52. Family Braconidae (296/209 genera, 3031/2300 species)
53. Family Aphididae (33/18 genera, 169/74 species)
54. Family Dryinidae (19/9 genera, 47/17 species)
55. Family Embolemidae (1/1 genus, 3/1 species)
56. Family Bethyidae (11/11 genera, 14/14 species)
57. Family Chrysididae (17/15 genera, 132/50 species)
58. Family Sapygidae (2/2 genera, 3/3 species)
59. Family Scoliidae (2/2 genera, 7/7 species)
60. Family Tiphidae (4/2 genera, 14/11 species)
61. Family Mutillidae (8/6 genera, 16/8 species)
62. Family Sierolomorphidae (1/1 genus, 2/1 species)
63. Family Pompilidae (25/25 genera, 120/107 species)
64. Family Vespidae (25/17 genera, 118/77 species)
65. Family Formicidae (24/24 genera, 79/79 species)
66. Family Sphecidae (7/7 genera, 14/14 species)
67. Family Crabronidae (55/50 genera, 332/255 species)
68. Family Colletidae (2/2 genera, 30/30 species)
69. Family Andrenidae (3/3 genera, 78/78 species)
70. Family Halictidae (23/16 genera, 950/200 species)
71. Family Melittidae (3/3 genera, 9/9 species)
72. Family Megachilidae (12/12 genera, 64/64 species)
73. Family Apidae (incl. Ctenoplectridae, Anthophoridae, (17/17 genera 90/90 species)

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Want to join ISH? Forget to renew this year?
<http://hymenopterists.org/purchase.php>

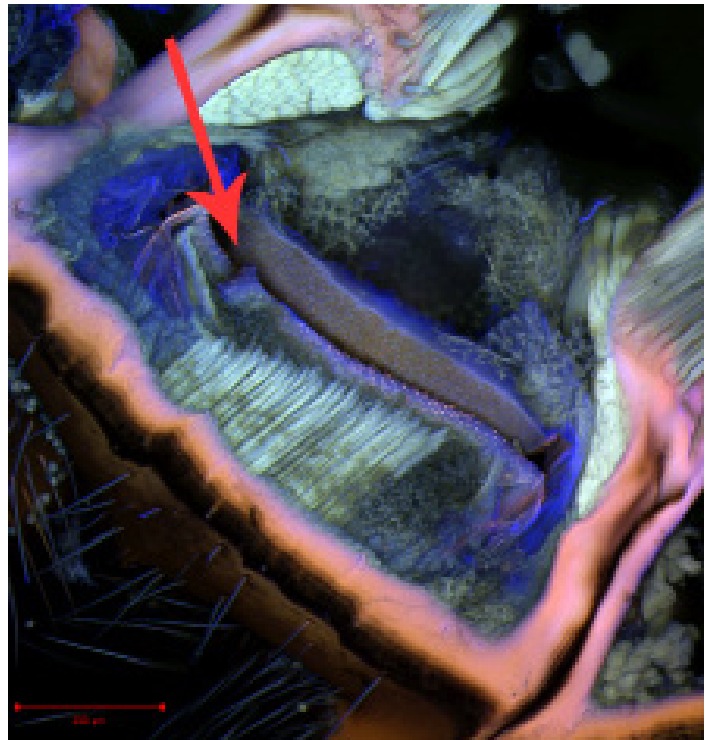
HYM Course 2012, at Tovetorp Zoological Research Station, Sweden

By: Bob Kula, Matt Buffington, Mike Gates, USDA Systematic Entomology Lab, and the other HYM Course instructors

We are pleased to announce the fourth offering of HYM Course (<http://hymcourse.org/>), scheduled for August 5–12, 2012 at Tovetorp Zoological Research Station, Sweden (<http://www.zoologi.su.se/tovetorp/>). The main objective of HYM Course is to provide participants with knowledge and experience in identifying parasitic and predatory wasps, sawflies, wood wasps, bees, and ants. Information on natural history is also presented, and that information is reinforced with fieldwork. Techniques used to collect, rear, preserve, and curate specimens are presented in a hands-on manner to allow participants to learn directly by doing.

The course is limited to 25 participants. **Applications are due March 2, 2012.** Students in Sweden are eligible for financial aid through the Swedish Taxonomy Initiative. Please visit the HYM Course website (<http://hymcourse.org/>) for details, including information on how to apply, costs for taking the course, and logistics of travel to and within Sweden. We look forward to seeing you there! ❖

Lessons in Hymenoptera Morphology



Name: infrabuccal pouch

Unique identifier: http://purl.obolibrary.org/obo/HAO_0001563

Concept: The pouch that is situated on the hypopharyngeal wall, distally of the sitophore.

Comments: The infrabuccal pouch varies in size in Hymenoptera. The instance above belongs to an *Acanthinevania ensign* wasp (Evaniidae) and is relatively large! It is formed from an invagination of the basal region of the hypopharynx and may function as a compressor for food or refuse (Snodgrass 1956, Vilhelmsen 1996, Krenn et al. 2005) and working space for the mandibles (Beutel & Vilhelmsen, 2007). The image was taken using confocal laser scanning microscopy at North Carolina State University, from a midpoint coronal section of the head.

References:

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THE HYM COURSE



WASP, BEE, and ANT collection, identification, & natural history

Visit <http://hymcourse.org/>

What: One week course on collection, identification, classification, & natural history of wasps, bees, and ants.

Where: Tovetorp Zoological Research Station, Sweden.

When: August 5-12, 2012.

Who: Students, researchers, applied entomologists—anyone with a need to identify Hymenoptera is encouraged to apply.

General Questions? Contact:
Dr. Robert Kula, SEL-ARS-USDA
c/o Smithsonian Institution, NMNH, NHB 168
10th & Constitution Ave. N.W., Washington DC 20560
202-633-4558, Robert.Kula@ars.usda.gov

Application Questions? Contact:
Dr. David Wahl, American Entomological Institute
3005 SW 56th Ave., Gainesville, FL 32608-5047
Telephone/FAX: 352-377-6458
aei@aei.cfcxmail.com





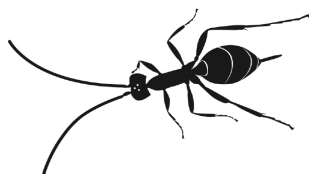

Call for *Gelis* (Ichneumonidae)

By: Ika Österblad, University of Helsinki, Department of Biosciences, P.O. Box 65 FI-00014 Helsinki, Finland

You have seen them, you know they are adorable (especially wingless females which have a distinct and sympathetic appearance).

Gelis (Ichneumonidae: Cryptinae) is a large genus with worldwide distribution and a rather wide host range. For my MSc, I'm going to study the evolutionary history of the genus, with respect to host shifts, through a partial phylogeny. Focusing on the palearctic, I am nevertheless interested in samples from wherever.

For the time being, it doesn't matter whether the species identity and host are unknown – I just hope to get somewhat more diversity than offered by the animals at hand (collected mainly in Sweden, by the Swedish Malaise Trap Project, and in Finland). Winged as well as apterous individuals are welcome. As molecular methods will be used, samples should be fit for sequencing, preferably collected and kept in pure ethanol. Sequencing is scheduled for February/March. If you wish to contribute, any samples (even if there's but a single one to send) would be received with gratitude! (ika.osterblad@helsinki.fi) ♦



A Cryptinesque

*Now what's that odour?
Seems familiar, somehow.
It so stirs my feelers and—well—
if it ain't the smell of deepest childhood;*

*The scent of silk that still lingered upon me
as I stretched my legs and pumped my veins
and set out to find the right meat.
Ages ago, it seems. Must be hours upon hours.*

*Ah. It grows stronger now, the smell,
and with it grows the urge:
to prod, to penetrate, to place treasure
within.*

— Anonymous ISH member

Want to join ISH? Forget to renew this year? See page 35 for the membership form, or try the easy PayPal way!
<http://hymenopterists.org/purchase.php>

Announcing the ISH Endowment Student Award

By: Jim Woolley and Brad Vinson, Texas A&M University;
Andy Austin, University of Adelaide

The Executive Committee of ISH has approved a recommendation from the ISH Endowment Committee to make available funds from the Endowment for a new ISH Endowment Student Award. Please note that this is a different and separate award from the Student Travel Awards, already announced by the Society for this year's ICE in Daegu, Korea.

We now solicit applications for the ISH Endowment Student Award, and an official announcement is attached (one can also read details on the ISH blog:

<http://hymenopterists.blogspot.com/>

Applicants should follow the instructions posted in the attached award announcement and submit applications electronically to Andy Deans, Secretary, ISH (adeans@gmail.com). Applications should clearly indicate that they are for the ISH Endowment Student Award.

Deadline for submission: February 15, 2012

Key differences between the ISH Endowment Student Award and the ISH Student Travel Award:

- 1 - Applicants for the ISH Endowment Student Award may or may not be Student Members of ISH.
- 2 - The ISH Endowment Student award may be used for any purpose that makes a contribution to a student's research, including attendance at a conference, fieldwork, direct research costs, or purchase of equipment.
- 3 - In this first competition, the Society wishes to encourage applicants from countries *other* than the 30 most developed countries recognized by the U.N. Development Program (see the announcement for a list of these countries).
- 4 - The awards may be up to US\$2500.

Thanks to all of you, and best wishes for 2012! ♦

NIPPON no HACHI

By: Hege Vårdal, *Naturhistoriska riksmuseet/Swedish Museum of Natural History, Stockholm, Sweden*; Julia Stigenberg; Rikio Matsumoto; Keizo Takasuka

Plans for a collecting trip to Japan started to form after the International Congress of Hymenopterists in Kőszeg in Hungary in 2010, where Julia Stigenberg and Hege Vårdal from the Swedish Museum of Natural History first met Rikio Matsumoto from Osaka Museum of Natural History and Keizo Takasuka from Ehime University, the best guides we could ever wish for. Sitting there in the moat of the castle in Kőszeg, drinking and eating traditional Swedish midsummer food with these new friends of ours, neither of us knew that we would meet again in less than a year.

What started as a simple question from Julia and Hege to some wasp researchers in Japan about good sites to collect insects very soon resulted in a complete schedule for a two-week collecting trip to three different areas in south-western Japan. Julia and Hege were completely overwhelmed by the hospitality and friendliness they were met with, and hope and expect to reciprocate when all of our amazing hosts decide to come and visit Sweden.

The planned dates of arrival for the Scandinavians were barely two months after one of the most devastating

natural disasters in Japan's history, the severe earthquake followed by a tsunami that left large parts of the eastern coast of north Honshu in ruins. We still decided to follow through with our plans as friends and colleagues told us that the planned collecting sites were more or less unaffected by the disaster.

The rain poured down on Fukuoka city, Kyushu, as we arrived on May 10 on the fastest train in the world, the Shinkansen bullet train, giving us a poor chance of admiring the beautiful landscape. Most hosts would cancel any planned field trips in that kind of weather, but Profes-

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Figure 2. Aburayama, Fukuoka Prefecture, Kyushu: Happy first collecting day in heavy rain. From left: Professor Yoshihisa Abe, Tatsuya Ide, Julia Stigenberg, Hege Vårdal, Rikio Matsumoto, Nakatada Wachi (Kazunori Matsuo is the photographer).



Figure 3. Arima-fuji, Hyōgo Prefecture: Kyohei Watanabe, Shunpei Fujie and Julia Stigenberg studying *Vespa mandarinia japonica* up close (Photo: Hege Vårdal).

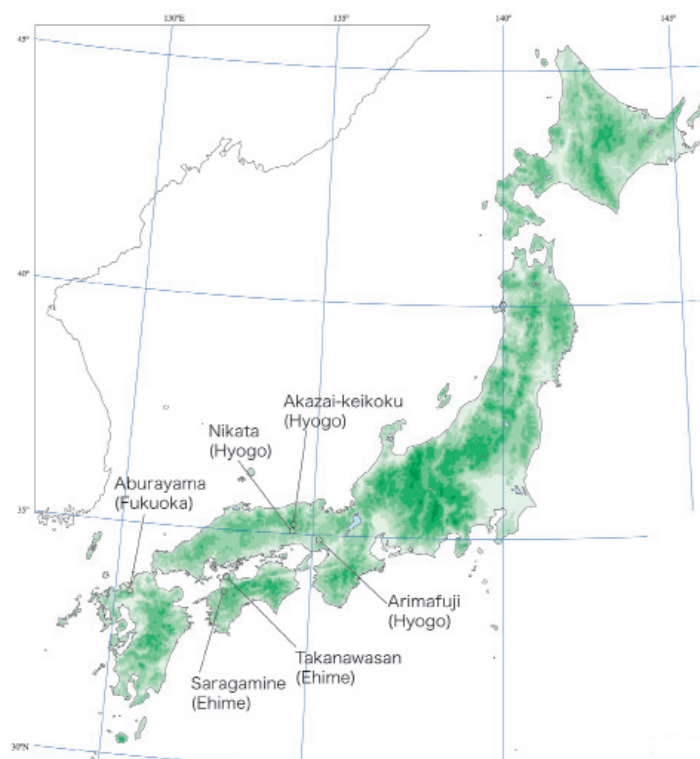


Figure 1. Map of our collecting sites in Japan.

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sor Yoshihisa Abe, his PhD student Tatsuya Ide from the Biosystematics Laboratory, graduate school of Social and Cultural Studies, the PhD students Kazunori Matsuo from the Entomological Laboratory, graduate school of Bio-resource and Bioenvironmental Sciences and Nakatada Wachi at the graduate school of System Life Sciences at Kyushu University, and Rikio, nevertheless took out the Scandinavians in the field and we had a wonderful day in Aburayama (meaning “Oil Mountain”) just south of the city. Our hosts showed us the galls of the newly described *Plagiotrochus masudai* Ide Wachi & Abe (Cynipidae) on the evergreen oak (*Cyclobalanopsis glauca*), as well as that of *Dryocosmos kuriphilus* on *Castanea* sp., the only gall wasp considered a serious pest. During our short stay in Kyushu, we also had the chance to visit the newly built facilities housing the faculty of Social and Cultural Studies as well as the Kyushu University Museum before traveling northeast to the Kobe-region, which was our base for the next field days.

During the field days in the Hyôgo Prefecture region, Professor Kaoru Maeto, PhD students Kyohei Watanabe and Shunpei Fujie from Kobe University, as well as Riko and Keizo, accompanied Julia, Hege and Niclas Eklund in the field. We visited Arima-fuji Park north of Kobe. It was still quite humid and we saw lots of frogs and toads. This was also a good spot for plant galls, especially the oaks of the species *Quercus serrate*, which were heavily infested with cynipid galls like the large apple-like galls of *Biorhiza nawai*, the thistle-like galls of *Andricus mukaigawae*, as well as the smaller but even more abundant leaf galls of *Andricus moriokae*. Of other Hymenoptera, we found large numbers of *Symmorphus decens* and *S. apiciornatus* and



Figure 4. Akazai-keikoku, Hyôgo Prefecture: The beautiful Akazai Ravine (Photo: Hege Vårdal).



Figure 5. Akazai-keikoku, Hyôgo Prefecture: *Ibalia aprilina* Kerrich 1973 (Ibaliidae, Cynipoidea) caught in rather untraditional trap (Photo: Emma Wahlberg).



Figure 6. Nikata, Hyôgo Prefecture: From left: Rikio Matsumoto, Niclas Eklund, Hege Vårdal, Keizo Takasuka, Julia Stigenberg, Professor Kaoru Maeto, Kyohei Watanabe, Shunpei Fujie (Photo: Rikio Matsumoto).

their chrysidid parasitoids on straw roofs of one of the park shelters, as well as queens of the giant Asian hornet (*Vespa mandarinia japonica*) which were caught in nets, anesthetized with ice spray before being photographed (see photo of Julia & Kyohei) and put in our largest killing jar with ethyl acetate. Kyohei and Shunpei were excellent collectors and kindly donated their catches to us.

The next few days were spent in Shisô-shi and Sayô-chô districts, and we noted that most of the areas where we collected were at higher altitude. We learned that the original forest (deciduous trees) had very often been replaced with Japanese Cedar (*Cryptomeria japonica*) that was used for house building because of the light wood. These forestry plantations probably have affected the diversity of species considerably.

In the beautiful Akazai Ravine, about 90 km northeast

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of Kobe, we saw the damages of a storm that occurred a couple of years ago. The storm had initiated massive landslides bringing huge amounts of debris, trees and animals like spotted deer (*Cervus nippon*) down the very steep mountain sides. Surprisingly, we found crabs (*Geothelphusa dehaani*) under logs, as well as the red-sided watersnake (*Rhabdophis tigrinus*) and striped snake (*Elaphe quadrivirgata*). One of the most interesting finds was the *Ibalia aprilina* (Cynipoidea) that was handpicked by Julia from Hege's hair. At night, we put up a light trap further down the Ravine, and although it was a little cold and we mostly had caddisflies (Trichoptera) and non-biting midges (Chironomidae: Diptera) at the light, we had an excellent picnic-night tasting a lot of Japanese specialties.

We then travelled a little southwest into the Sayô-chô district where we collected in a rich meadow with some water-filled ditches in Nikata where we caught large waterscorpions (Nepidae) as well as beautiful red-bellied newts (*Cynops pyrrhogaster*). Some of us even spotted and picked up the cute baby of the very venomous red-sided water snake (*Rhabdophis tigrinus*). The effect of the venom has been described like this: "Death may occur from shock due to massive internal bleeding, renal failure, cerebral haemorrhage, or other related causes" (Goris & Maeda, 2004:243). Fortunately it did not bite. In a close-by area with rice fields, the water-filled ditches next to the rice fields contained endangered giant water bugs of the family Belostomatidae (*Lethocerus deyrollei*) which is the largest

heteropteran insect (up to 6.5 cm in length) and feeds on frogs like *Hyla japonica* and *Rana nigromaculata*.

The Scandinavians were on a tight schedule and had to part ways with their new friends in Kobe and continued southwest together with Keizo to his beautiful home island, Shikoku. We collected in the Matsuyama-shi and Tôon-shi districts in Ehime Prefecture in the northwestern parts of Shikoku. Mostly we collected by net or by hand, but we also had a Malaise trap in Ehime University Forest. We also put up light traps on Mount Takanawa and close to Saragamine Range Prefectural Park. Saragamine is a wonderful mountain forest at about 1250 meters above sea level. One of the most memorable moments was when

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Haiku

by Hege Vårdal

Aburayama
Heavy May downpour
Overflowing senses

Arimafuji Park
Hornet queens out searching
So are we

Akazai ravine
Ibalia collected in collector's hair
Unlikely catch

Nikata
Rice field's giant toebiters
Bite the dust

Saragamine
Frog orchestra in rock cavities
Lunamoth's captivating dance



Figure 7. Saragamine, Ehime Prefecture, Shikoku: View from Mt. Saragamine (Photo: Julia Stigenberg).



Figure 8. Saragamine, Ehime Prefecture, Shikoku. Niclas, Julia and Keizo are searching for source of sound and finding frog eggs.



Figure 9. Saragamine, Ehime Prefecture, Shikoku: Japanese Luna moth locally known as oomizuao (*Actia artemis* (Saturniidae)) caught in the light trap (Photo: Hege Vårdal).

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we heard a noise that obviously came from an animal. It sounded like a wild boar or deer, but turned out to be Tago's brown frog (*Rana tagoi*) living in moist rock cavities giving their calls an incredible resonance.

This was the last of our collecting days in Japan, and Julia and Hege were both very happy to have experienced the spring in this amazing country and very grateful to all the Japanese colleagues, who not only took us out in their own cars and spent many days with us in the exciting collecting spots, but also invited us to their homes for wonderful meals. Thank you all for these amazing weeks in May.

The material that was taken back to the Swedish Museum of Natural History has now been sorted into about 450 fractions and for Hymenoptera into families or subfamilies and is being sent out for identifications to experts that we know. Please feel free to contact us if you would like to look at particular families of this material. ♦

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JOURNAL OF
Hymenoptera
RESEARCH
International Society of Hymenopterists

A peer-reviewed open-access journal

Editor's report: An update on the *Journal of Hymenoptera Research*

By: Stefan Schmidt, Zoologische Staatssammlung, Munich, Germany

Firstly and most importantly, this year we will break even financially. At the end of 2011, and one year after the *Journal of Hymenoptera Research* moved to a new publisher and changed its publication model, there will be 364 published pages in four issues. The number of published pages is above the ten-year average (306 pages, vol. 10-19, 2001-2010). Since July 2011, the *Journal of Hymenoptera Research* is completely available in electronic format through the Biodiversity Heritage Library.

The introduction of the open access publication model came with several changes. One important difference compared to the previous model is that issues are now published at irregular intervals. Furthermore, the size of an

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issue is, with about 80 pages, smaller than before (but can be much larger if needed, see No. 22 with 140 pages), and the number of issues per year is not fixed. This flexibility is an advantage over the traditional publication model because it allows for shorter manuscript turnover times. Last but not least, all articles are available for download from the publisher's website on the day of publication.

Members (and non-members) have several options to be informed about new releases of *JHR* and other journals of the publisher like *Zookeys*, *BioRisk*, and *Phytokeys*. This requires a subscription to web services like RSS and email alerts that are offered by Pensoft. In addition, the publication of new issues is accompanied by simultaneous release notes on Twitter, Facebook, and Mendeley. Again, this requires the reader to be members of these social networks. Articles are indexed by Google Scholar and the Zoological Record, and harvested by aggregators like Species-ID and Plazi. Copy the following link in your favourite feed reader like Google Reader, My Yahoo or Bloglines to receive a RSS feed when new articles are published: <http://www.pensoft.net/rss/rsscust.php?r=l&t=l&c=l&j=10l&AB1=&AB2=&AB3=1&>. Email alerts can be customized through the Pensoft website ("Email/Alerts") by limiting the search to certain subjects, specific taxa, or biogeographical regions.

An important consequence for ISH members of the journal going open access is that the membership does not automatically include a printed copy of the journal. The publisher produces a certain number of printed copies to meet the requirements of the Code of Zoological Nomenclature. Readers who wish to have a printed copy can order reprints from the publisher's website (either whole issues or reprints of individual articles). ISH members have the option to obtain physical copies of the journal at a significantly reduced rate. The membership dues for members who wish to receive printed copies currently is \$90 (+postage) for regular members. This includes the regular fee of \$45 plus an additional \$45 for the hard copy of *JHR*, plus postage (\$12/volume to Europe, \$15 to the rest of the world). The rate for institutional subscribers is \$120 per year plus postage.

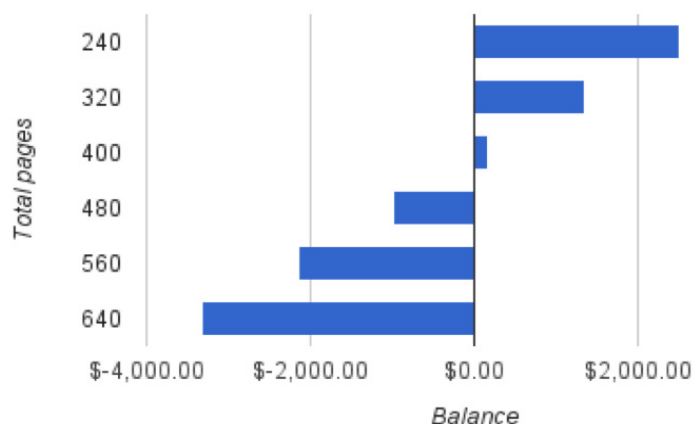
The current arrangement in terms of physical copies is a great benefit for members. However, it is not a sustainable solution if page numbers will increase in following years, as to be expected when looking at the development of the journal. The calculation currently is based on a publication volume of 400 pages in 5 issues. The graph below shows the annual balance in relation to the number of published pages, indicating that page numbers over 400 will cause a

significant debt.

Sending all issues in a single shipment at the end of the year will reduce costs. The last issue for this year will be published in mid November at latest, printed copies are expected to go out end of November, and members and institutional subscribers will receive their copies in December.

A single shipment of printed copies will take the number of issues out of the equation and hence reduce costs, but it doesn't make a difference to the situation depicted in the graph. The thread of slipping into the red could be prevented if members would purchase printed copies directly from the publisher. The Pensoft website facilitates an online ordering system that allows purchasing complete issues or individual articles using print-on-demand functionality. For institutional subscribers, a subscription model similar to the one that is in place for *Zookeys* could be installed. For *Zookeys*, Pensoft offers a subscription flat-rate. If the total value of printed issues exceeds this sum within a calendar year, all subsequent issues within the same year will be provided free of charge.

A list of frequently asked questions relating to the journal was created to address questions that seem to rise frequently and that are obviously in need of clarification. ♦



JHR statistics for volume 2011

Manuscript submissions: 47

Manuscripts rejected: 10 (21%)

Published pages: 364

Color pages: 131

Issues: 4

Published articles: 21

Pages per article: 1-10 (6), 11-20 (9), 20-30 (4), 30-60 (1), 60-100 (1), >100(0)

Webmaster's report

By: Katja Seltsmann, American Museum of Natural History

Since the last issue of *Hamuli* we had over 3,000 novel visitors to the hymenopterists.org website. The new traffic might be due to an increasing number of referrals from other pertinent sites including waspweb.org, pensoft.net, amnh.org, and Wikipedia. We even had 16 Facebook referrals! Linking to the ISH site is a great way to grow the organization's presence. Please continue to link us on your webpages. Also, there are a few new items of note on the membership renewal page (hymenopterists.org/purchase.php). First, there is a link to the Sponsorship Request Form. ISH now has a Sponsorship Request Form for individuals unable to pay for membership. The process of sponsorship is anonymous. Once the form is filled out and reviewed by the executive committee, the sponsee will be notified that they are being sponsored so they can access the member database and other membership privileges. Secondly, the price for student membership has changed—for the better—and are now only \$17.00, including the PayPal transaction fee. ♦

Secretary's report

By: Andy Deans, North Carolina State University

Below are the minutes I wrote at the last business meeting; you'll recognize many of the items (e.g., student awards info), almost all of which I'd classify as 'new business', on other pages of this issue of *Hamuli*, which means we're starting to act on our ideas!

ISH Business meeting Entomological Society of America 12 November 2011 (22 in attendance)

I. Incentivizing student membership

Problem: There is a broad perception that membership in ISH doesn't provide any benefit to students, especially now that the Journal is open access and not included in the dues. As evidence for this perception one needs only to look at our student membership numbers: 12 in 2011.

Solution 1: We will create four student travel awards for the ICE next year (between \$500-2000 each) and anticipate offering student travel awards for the ICH and ICE in future years. The funding will come from the general operating budget. (See Student Awards, below)

Solution 2: We anticipate making next year's ISH symposium student-centric. There will be (cash, perhaps) prizes for the best talk(s).

Solution 3: We anticipate adding an executive position for students, which should give them a high-level voice.

Solution 4: Targeted communication from the president (and others) will be aimed at encouraging professors to recruit their students as ISH members.

Solution 5: The executive has decided to lower the student dues to \$15 per year. We should acknowledge that all of this goes into student awards.

Solution 6: The Society will add a button on the membership website that will facilitate the recruitment of sponsored members (required to be from a country other than the UN's 30 most developed).

Solution 7: The Society will create a small set of invited memberships for high performing non-members.

Solution 8: (for increasing all membership) Make cards/brochures to distribute during ESA and other meetings.

II. ICH in Cusco, Peru

Save the date: late June 2014

ISH will follow-up on whatever needs to be done regarding facilities reservation.

Student travel awards will be available (perhaps up to \$2000), and there will be student prizes for talks.

Registration fees will be split: members and non-members (this one will be higher, such that it includes the cost of dues for ISH).

III. Student Awards

A. ICE travel awards - Four travel awards to be available for the International Congress of Entomology in Daegu, Korea. The announcement will go out by November 22, 2011, with anticipated due date of December 31, 2011 and notification date of January 15, 2012. Applicants will submit a 2-page proposal that outlines:

1) Intellectual merit – A summary of the talk to be presented, including relevance to the field of Hymenoptera research.

2) Broader impacts – How travel to the ICE will be a transformative experience for the student (opportunities to collaborate, network, collect important specimens, etc.)

3) Other funding – Please indicate whether you have additional funding or the option to acquire matching funds.

4) Letter from advisor – This letter should be short and serves to verify the student's research and enrollment in a graduate program.

All applicants are required to be student members of

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ISH. Awardees are required to give a talk and are strongly encouraged to attend the ISH business meeting. A list of alternative sources of funding will also be created and availed to the membership.

B. Other awards – it was mentioned that we should consider approaching industry for support.

IV. JHR

Time to jettison the paper copy? Very soon this will be costing the Society money. A new model will be proposed at the ICE, which will likely include an option for members to purchase paper copies directly from the publisher. The model will be open for discussion (how many people would be affected?).

V. Tasks for the Executive

President – Needs to look into awards; which ones (medal, service) are due and do we need nominating committees? Follow-up on whatever needs to be done regarding facilities reservation.

Treasurer – Get clarification about last issue in 2011.

Editor – There was a question about how many manuscripts were submitted, rejected, etc. Can we negotiate with Pensoft for a different formatting for large monographs, one that could reduce the page number?

Secretary – Add want ads to *Hamuli*. Create new email list for *JHR* article announcements. Draft awards announcement.

Webmaster – Will look into an automatic email that is generated in January to remind people of membership dues. Possible to add a sponsored membership request button (Google form) to membership page, with counter.

In the Secretary's report at the ISH business meeting, I also reported on our 2011 membership numbers: there were **218 members** overall, 39 of which were institutional, and, as mentioned in the minutes, only 12 were students.

Finally, I should report on the fascinating line-up of talks that were given prior to the ISH business meeting:

1:35 - Benjamin Wipfler and Rolf G. Beutel, Innovative morphological methods and their contribution to the placement of Hymenoptera

1:55 - Andy Deans et al., New tools for deploying the HAO

2:15 - John Heraty, Ant lust - tales of their eucharitid parasitoids

2:35 - Sébastien Patiny, Supermatrix - supertree analysis of

the bee phylogeny

2:55 - Mike Sharkey, HymATOI results

3:15 - Phylogeny Roundtable: Where do we go from here?

3:35 - Business meeting

4:35 - Foraging and pollination

Next year's ESA ISH symposium will be entirely student-centric, including a competition for best presentation. We'll post a lot more information through the Society's email list and through the ISH blog. Watch hymenopterists.org for more details, and we hope to see you in Knoxville, TN this year! ❖

Treasurer's report

By: Craig Brabant, University of Wisconsin

Income and expenses, as presented at the ISH symposium at the Entomological Society of America meeting (November, 2011, Reno, Nevada), are outlined below. ❖

Income	2011	2010
Regular members	\$7,378.00	\$8,076.42
Students	\$780.00	\$729.24
Institutions	\$3,126.00	\$1,405.75
Life members	\$0.00	\$1,501.50
Page charges	\$3006.35*	\$6,114.89
Misc. pubs	\$350.00	\$644.50
Back issues	\$377.00	\$90.20
Taxapad	\$930.00	\$461.50
Interest	\$33.73	\$26.04
Donations	\$300.00	\$507.52
Totals:	\$16,281.08	\$19,557.56

Expenses	2011	2010
JHR	\$15,158.38*	\$17,414.86
CC processing	\$480.95	\$397.98
Bank fees	\$91.32	\$95.00
PayPal fees	214.11	\$1,622.75
Misc. postage	285.26	??
ESA business mtg.	~\$550.00	\$526.78
Ichneum. Taxapad	\$837.00	\$460.00
Totals:	\$17,617.12	\$20,517.37

Travels in Peru

John Heraty, University of California, Riverside

The quadrennial meeting for ISH will be in Cusco (=Cuzco), Peru in 2014. Over the past two years, I had two collecting trips to Peru, both times passing through this glorious city. I thought that it would be good to prepare the readers with a few comments about visiting Peru and some potential places to collect or visit.

Cusco is located at about 3400 m (>11,000 ft). This hits you like a sledge hammer when you get off the plane from Lima (especially after spending the entire night in the Lima airport on your layover – don't use the airport wireless, we got a credit card number stolen on the first trip). We did take Acetazolamide (antidiuretic drug) to compensate for the Cusco altitude, but the tradeoff is an irritating tingling sensation, and worse still the effect on the taste of beer! Even with the pills, the best thing is to just chill and walk slowly for the first few days, especially up all of the many staircases. Cusco is a fantastic city with many wonderful places to eat and visit. It is a mix of classical Spanish and Incan architecture. The food is fantastic, especially if you can get away from the tourist center. My colleague did get a phone 'picked' from her bag, and this was away from the downtown and close to the University, but otherwise it is a very safe city, especially in the downtown areas.

Of course, we were not there for touring. Collecting permits were relatively straightforward to arrange with the help of Erik Yabar at the Universidad Nacional de San Antonio Abad del Cusco. We focused on collecting in four different areas and four different elevations. Three research stations were on our agenda, all belonging to the Amazon Conservation Association (ACA). These all have good housing, three meals a day, electricity (most of the time), internet and trails. The stations have both a tourist and a cheaper researcher or student rate. Our visits were in November and December at the beginning of the rainy season. Both times, we were very lucky and had lots of good time for collecting.

1) Los Amigos Biological Station (12°34'09"S 70°06'00"W, ~250m elevation). Located about a 1 hour car ride and a 4 hour boat trip up the Madre de Dios from Puerto Maldonado, this is a great lowland research station with over 60 miles of well-marked trails covering a variety of habitats. If you are interested in howler monkeys, hoatzins and caimans, this is the place. There are special research rates, and the boat trip is cheap (~\$35 US per person) if you can arrange it with the station's boat visits (otherwise fairly costly, ~\$400 per group one way). The facilities are great and include a small library, research



laboratories, microscopes and a canopy tower. About 30 years ago the station was a gold mining camp, so it is still a secondary forest with open canopy, but the accessible forest and scrub was diverse with lots of great chalcidoids.

2) Villa Carmen Research Station (12°53'07"S 71°23'48"W, ~520 m) is just outside of Pillcopata on the eastern slope of the Andes and the base of the Kosñipata Valley. The station is relatively new with access only from Cusco by car (or bus). A car and driver from Cusco is about \$140 US for each day (2 day trip for a driver to go down and return to Cusco), so it is expensive, but given the road, and the cliff edges, it is nice to have a driver that knows what they are doing (sort of). The bus is only 40 sols if you want to try it. The drive is not for the faint of heart – lots of washouts and some pretty spectacular drop offs (literally). Once you get there, the station has 24-hour electricity, a good system of wet trails (bring boots), with a range of elevation up to 750 m and river access. The large mammals are well hidden, but it has lots of macaws and other birdlife.

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3) Wayqecha Biological Station (13°10'25"S 71°35'23"W, 2900 m) with scrub *Myrsina* dominated cloud forest, epiphyte encrusted upper montane forest, and a short hike to the upper elevation Puna (>3000m). The station is about 4 hours from Cusco, and a one day car and driver will do to get you there or back. The facilities were the most modern and luxurious (new cabins with a balcony overlooking the Kosñipata Valley) and remote. There is a great network of trails, but these are all high elevation, and even after a week at Pillcopata, it was a killer to go down to 2500 m and back up again. Electricity is limited to 6-9 PM, but they do have internet. A real surprise at this elevation was discovering *Orasema* (Eucharitidae), likely a parasitoid of *Pheidole*, ovipositing on leaves of *Myrsina*, which were turned brown by the numerous oviposition punctures.

For details on staying at any of the above stations, contact Anna Maria Chevarria (achevarria@conservacionamazonica.org). We also collected at several localities around the Sacred Valley near Cusco (2900-3900 m) on day trips from Cusco. It is rather dry and Mediterranean habitat type, with lots of cacti and succulents but with a few riverine valleys that were more productive. There is a nice epiphytic montane forest worth visiting on the narrow Putucusi trail (13°09'12"S 72°31'39"W, 2100 m) near Aguas Calientes (and Machu Picchu). Advice for tourists coming by train for Machu Picchu? Get your ticket the night before and prepare to line up for the buses at 4 AM. It is worth it.

My recommendations for preparatory reading? One River by Wade Davis and The White Rock by Hugh Thompson. I hope to see you all there in 2014! ❖



Kosñipata Valley from Waqecha, and the road to Pillcopata

Hamuli editor's report

By: Andy Deans, North Carolina State University until June 30, 2012; moving to Penn State University in July 2012

This is now the fourth issue of *Hamuli* that I've assembled, and, as I've stated before, the experience has vastly exceeded all my original expectations. Given that we're a diverse group of biologists, with broad interests and experiences, it shouldn't be a surprise that we have little trouble filling the pages of our Society newsletter. I'm grateful for all the contributors, for writing compelling articles, submitting beautiful photos, and for submitting some truly great creative works on top of all their serious Hymenoptera research notes! Thank you for making this endeavor so fun and so relevant to our development as a society.

A few notes to think about in the months between now and our next issue: **1)** We can always use short content to fill in gaps between longer stories - a photo with a caption, a poem, a joke, a brief announcement, etc. **2)** We can always use *longer* stories as well, especially fun articles that include lots of photos! A newsletter with compelling content is so much more interesting to read than one that is all business. **3)** We've toyed with the idea of adding a specimen 'want ad' or classifieds section. I'm happy to add these as stories for now, but if we get a critical mass I could always create a new section for 'specimen exchange'. **4)** Finally, I am putting out a request for feedback, especially as it concerns the layout. It's come to my attention that the two-column spread is difficult to read for those of you who read this newsletter on a computer screen (or maybe tablets). Would you like to see everything published in a single continuous column? How do you read *Hamuli*? Do you print it out or read on the screen? Do you use an iPad or other tablet computer? Maybe we'll try an experiment with the next issue!

Finally I just want to report that *Hamuli* finally has an ISSN number. We're an official publication now!

Thanks again for your support and content. I'm always available for feedback should you have concerns about how this newsletter is published. Wishing you the best in 2012! ❖

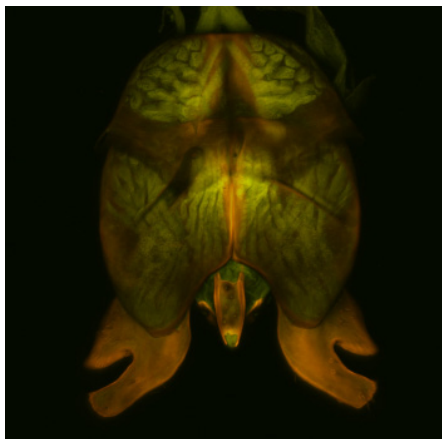
Struggling to find anything interesting to do on the 'net? Want to help someone gather data about how taxonomists perceive the changes relative to their work in the past few years? Please help us participating in a short survey:

<http://tinyurl.com/taxonsurvey>

Name the structure and taxon

(answer from page 7)

Answer to 'Name the structure and taxon':
 Confocal laser scanning micrograph of
 the male genitalia of *Conostigmus trian-*
gularis (Thomson 1858) (Cerambycidae:
 Megaspilidae) in dorsal view.

**Authors' Instructions**

Have an article, note, opinion piece, news item, story, photo, poem, joke, or other item you'd like to publish in *Hamuli*? **Current members** of the International Society of Hymenopterists are welcome to submit materials for publication at **no cost**. Just send your text to the editor (adeans@gmail.com) as .rtf or .doc files, and please send include images as separate .jpg or .tif files (*i.e.*, not embedded in the word processing file). Make sure images are of a reasonable resolution: larger than 500 x 375 pixels, with a resolution of 72 pixels per inch (or 28 pixels per cm).

Not a member of ISH? No problem! You can use the form below to become a member, or you can visit our website (<http://hymenopterists.org>) to join / pay dues electronically.

Don't want to become a member, but you still want to publish in *Hamuli*? Or perhaps you want to advertise in *Hamuli*? Still not a problem! Just send an email to the editor (adeans@gmail.com) for an estimate.

2012 Membership Information (visit *hymenopterists.org* for more options!)

- [] \$15 Student (requires signature of advisor: _____)
 [] \$45 Regular
 [] \$5 Family member (requires association with another member: _____)
 [] \$750 Life

Fees listed in US\$. Checks should be made out to *International Society of Hymenopterists*. For payment by credit card please add \$1.50 processing fee.

Name: _____
 Address: _____

Phone: _____
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