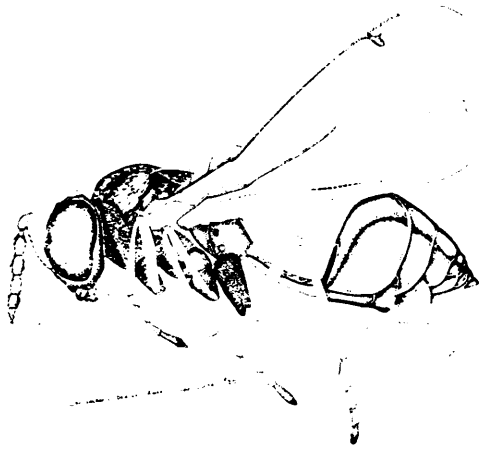
# CHALCID FORUM

**No. 8 Jan.1987**

**A Forum to Promote Communication Among Chalcid Workers**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## EDITORS' NOTES

As our illustrious co-editors, Eric Grissell and Mike Schauff mentioned in the previous issue, main editorial duties for CHALCID FORUM have been transferred to Ottawa for the next couple of years. Please note this change and send all newsletter-related materials to one of the editors at Biosystematics Research Centre. We know that we speak for all readers of CHALCID FORUM when we congratulate Eric and Mike for their initiative in starting this newsletter and for the excellent job they have done over the past four years in preparing and generating interest in CHALCID FORUM.

We expect to maintain the format of previous issues of CHALCID FORUM except that the section on recent literature will be included as a separate for those who wish to build a separate reference file. You will note that RECENT LITERATURE is considerably more exhaustive than in previous issues. We are using a computer-search printout service for titles, which includes papers on host records, life history, biology, biological control studies, etc. We hope that this more inclusive listing of recent literature will benefit the readers of CHALCID FORUM. However, because it is much more time-consuming to generate this list, we expect something in return. We expect readers of CHALCID FORUM to send us reprints of their newly published papers, or if these are unavailable then the publication citation so that we are at least aware of the paper. In future issues we <u>will not</u> include citations for publictions of individuals on the mailing list of CHALCID FORUM <u>until we either receive a reprint or citation of the publication</u>.

With this issue we include a questionaire that should be completed and returned before June 1, 1987. The information requested will be used to issue a new and improved mailing list. To increase the information value of the list we want also to include data on the primary interests or expertise of each individual, plus a telephone number that can be used to contact the individual at work (amateurs, retirees or others not affiliated with an institution are not required to give their home phone number if they so wish). The mailing list of CHALCID FORUM is continually growing so that it is becoming more and more expensive to produce and distribute. If you do not fill out and return the questionaire we can only assume that you are no longer really interested in the newsletter. Hence, we will remove your name from the mailing list for subsequent issues (libraries excepted).

Obviously we can not force you to submit articles for CHALCID FORUM, but remember, this is a NEWSletter. Readers, we included, **ARE INTERESTED** in hearing about new projects, about progess (or lack of it) in ongoing projects, about museum, conference or collecting trips, about chalcidological "peeves", problems or accomplishments, about personal good tidings (e.g., marriages, births) - let us know that you are alive! We particulary want to emphasize this point for the non-taxonomists in our readership. Most submissions for CHALCID FORUM are from taxonomists. Those who want the newsletter because they are interested in the more applied aspects of chalcidology, such as biological control, or because they use chalcidoids in behavioural or other basic biological studies, or simply because they have a general interest in Hymenoptera, don't just sit back - **CONTRIBUTE** - let us know what you are up to!!! One thing we would like to know, would it be useful and/or possible to prepare a list of which chalcidoids are being cultured, and where, to facilitate potential exchange of living material for biological study and biological control programs? Also, would individuals be willing to list chalcidoids that they have reared or cultured in the past so that they could be contacted by others for their experience and advice?

Finally, we want to thank Christer Hansson for the fine illustration of *Chyrsocharus bedius* (Walker) used for this issue's masthead. We only have one more illustration for the next issue, so anyone with a favorite chalcidoid send us a drawing. We also thank Gene Bisdee (BRC) for help in production and distribution of this issue.

## RESEARCH NEWS

Lonny Coote (Dept. Entom., Royal Ontario Musuem, Toronto, ON, Canada M5S 2C6).

I am working on a Ph.D. program at the University of Toronto/Royal Ontario Museum under the supervision of Dr. D. Chris Darling. My research involves revision of New World *Elasmus* Westwood, of which there are currently 31 described species. This genus has been placed in its own (monogeneric) family, as a subfamily of the Eulophidae, and has been allied with the eriaporine aphelinids (*Euryischia* and *Myiocnema* and related genera) (see, "Of Aphelinids and Elasmus" by Mike Schauff, CHALCID FORUM no. 4). Riek has recently divided the Australian species into *Elasmus* and *Austelasmus*. Detailed character analysis of *Elasmus*, the Eulophidae, and the Aphelinidae will hopefully determine the correct phylogenetic placement of *Elasmus*. In addition, I plan to address the significance of the expanded hind coxae of *Elasmus* and allied genera. I am also interested in comparative morphology in Hymenoptera as a whole and will be working on a couple of projects in this area. In the future I would like to concentrate on the eulophine genera of Eulophidae.

Chris Darling (Dept. Entom., Royal Ontario Museum, Toronto, ON, Canada M5S 2C6).

Mr Ling Zuo-pei, a M.Sc.-level entomologist on the staff of the Sichuan Natural Resource Institute, Chengdu, Peoples Republic of China, recently arrived in Toronto and will be spending most of 1987 at the Royal Ontario Museum as a visiting scholar. His background is in the systematics of the Pentatomidae and he is currently developing with me a programme to increase his expertise on the taxonomy of the Chalcidoidea. Mr. Ling is currently acquainting himself with the genera of Chalcididae and will move on to consider other families in the future.

On returing to Chengdu he will direct the work of two entomologists and develop a reference collection of parasitic Hymenoptera. Chengdu is in the heart of panda country and entomological collections from this region are extremely rare. During his sojourn in Toronto methods of collecting and specimen preparation will be discussed and a reference collection will be assembled.

I am actively trying to assemble reprints and reference materials for Mr. Ling's institution. Reprints are a scarce commodity in the PRC. Any assistance that you could provide would be most appreciated. Please send the materials to me at the address given above. Thank you.

Hassan A. Dawah (University College, Cardiff, Wales, U. K.).

I have recently received my Ph.D. on "Biology and Taxonomy of some Chalcidoidea associated with Gramineae". I have finished a manuscript on "*Eurytoma*, *Tetramesa* (Eurytomidae), *Chlorocytus* (Pteromalidae), *Pediobius* (Eulophidae), and Community Structure of the *Tetramesa*-Parasitoid Guild Food Chain on Gramineae".

Huan Da-wei (Inst. Zoology, Academia Sinica, 7 Zhongguancun Lu, Haitien, Beijing, Peoples Republic of China).

I am studying in the Institute of Zoology of Academia Sinica for my doctorate under the guidance of Prof. Zhu Hong-fu and Prof. Liao Ding-shi. My thesis is about the systematics of chinese Pteromalidae. The year before last year [1985], I graduated from the graduate school of the University of Science and Technology of China with an M.Sc. I wish to avail myself of this opportunity to extend heartfelt thanks to the following chalcidologists: Dr. K.-Johan Hedqvist, Dr. Z. Bouček, Dr. L. De Santis, Dr. M.W.R. de V. Graham, Dr. K. Kamijo and Dr. S.I. Farooqi who sent me a lot of their papers which are helpful to me.

I will also be glad to send them and other chalcidologists who are interested in chinese Chalcidoidea my reprints to be published in following years. It is excellent to exchange specimens, especially pteromalids, torymids, eurytomids, perilampids and chalcidids between other countries and China.

Gary Gibson (BRC, Ottawa).

Marcus Graham's comment that he collected a female of *Oodera formosa* (Giraud) in Western Europe [see TRAVEL REPORTS] prompts me to write that this enigmatic cleonymine has apparently been accidentally introduced and successfully established into the eastern United States. In 1969 Dr. Henry Hespenheide (Dept. Biology, Univ. California, Los Angeles, CA 90024) reared 100+ individuals from branches of an ornamental honey locust tree (*Gleditsia triacanthos* L.) from Merchantville, New Jersey. Most of the specimens were reared from branches of relatively smaller diameter, from which he also reared large numbers of the buprestid beetles *Agrilus egeniformis* Champlain & Knull and *A. fallax* Say, and smaller numbers of a clytine cerambycid (H. Hespenheide, *in litt.*) [for methods of rearing see Hespenheide, H. A., 1969, "Larval feeding site of species of *Agrilus* (Coleoptera) using a common host plant", Oikos 20: 558-561]. More recently, David Smith (USNM, Washington, DC) caught 2 females in a malaise trap in Virginia (Fairfax Co., nr. Annadale, 1-2 July 1983). Specimens from Dr. Hespenheide's rearings are in the USNM and CNC collections, as are one female each from Dr. Smith's trapping.

Marcus Graham (5 Salisbury Crescent, Oxford, OX2 7TJ, U. K.).

My paper on reclassification of the European Tetrastichinae is now in press and should be published next year [1987]. Thanks to all who have helped in various ways.

Postscript: I am overwhelmed with commitments for the forseeable future, so please, do not send material or requests for identifications - sorry!

Paul Hanson (Dept. Entom., Oregon State Univ., Corvallis, OR 97331).

I have just accepted a position at the Universidad de Costa Rica, teaching and conducting research in biological control. This position begins July 1987, but I hope to move to San Jose (actually San Pedro, a suburb) in April to become more fluent in Spanish - I have to present intelligible lectures in July! Before leaving I have numerous loose ends to tie up, like *Ormyrus*. I suspect that I will need a few months to acclimatize, but once established I will enthusiastically seek collaboration with any interested readers of CHALCID FORUM. I especially hope to do a lot of rearing from both crop and native plants.

I would like to compile keys to central american parasitic Hymenoptera written in Spanish, similar to "Introduccion al estudio de los Himenopteros de Cuba" by Pastor Alayo and Luis Hernandez (1978). I will happily coauthor such endeavors with those willing to contribute. My goal is to compile from existing taxonomic publications illustrated keys to the genera known from Central America. Such an initial step hopefully would facilitate discovery of additional records. I am also interested in cooperating in tropical biological control programs.

[Paul neglects to inform readers of CHALCID FORUM that he recently was granted his Ph.D. by the University of Oregon. We the editors, having known Paul for some time, wish to congratulate him not only on this accomplishment, but also on finding a position so quickly - an increasingly rare event! We wish him nothing but the best in Costa Rica and assure him all possible assistance and cooperation (once we get over our envy).]

John Heraty (Dept. Entom., Texas A&M Univ., College Station, TX, USA 77843).

I have relocated from Ontario [University of Guelph] to Texas A&M where I will be continuing my studies of the Eucharitidae under the watchful eye of Jim Woolley. My Ph.D. research will be dealing primarily with the genus *Orasema*, on a world-wide basis. I would like to see any material belonging to this or other genus of eucharitid for loan, exchange or simply identification. Information on the habits observed upon collection or especially host plants used for oviposition would be greatly appreciated.

Beche Lal (Division of Plant Quarantine, National Bureau of Plant Genetic Resources, I.A.R.I. campus, New Dehlhi, India).

Group of principal taxonomic interest: phytophagous seed inhabiting chalcidoids on a world basis; other groups of taxonomic interest: bruchids and moths; past and present research: 1) taxonomic studies of seed inhabiting chalcidoids from India (Ph.D. problem, P.G. School, I.A.R.I., New Delhi), 2) study of the Hymenoptera insects intercepted during course of examination of seeds and seedling materials in International Exchange of Germplasm.

Lin Nai-quan (Institute of Biological Control, Fujian Agricultural College, Peoples Republic of China).

I'm currently working on the systematics of both Trichogrammatidae and Mymaridae for my Ph.D. dissertation under the direction of Prof. Chao Xiu-fu. In recent years I have collected more than 20,000 specimens of Trichogrammatidae and 12,000 specimens of Mymaridae from paddy fields and their adjacent environments, citrus orchards, tea gardens and Wuyishan Nature Reserve, etc. in Fujian Province, south China. Most were collected by means of a sweep net and rearing various host eggs. After a preliminary examination of about 15,000 specimens of Trichogrammatidae and about 8,000 specimens of Mymaridae, it has been found that there are about 15 genera of Trichogrammatidae and 13 genera of Mymaridae occurring in this area.

The genera of Trichogrammatidae thus far known from Fujian are: *Aphelinoidea, Chaetostricha, Epoligosita, Japania, Lathromeris, Lathromeroidea, Megaphragma, Oligosita, Paracentrobia, Poropoea, Probrachista, Trichogramma, Tumidiclava, Ufens* and *Xiphogramma*. Of these, the genera *Tumidiclava* and *Xiphogramma* are recorded for the first time from China. The genera *Aphelinoidea, Chaetostricha, Epoligosita, Lathromeris, Lathromeroidea, Megaphragma, Probrachista* and *Ufens*, heretofore known from Taiwan Island, are recorded for the first time from mainland China.

The genera of Mymaridae are: *Alaptus, Anagrus, Anaphes, Arescon, Camptoptera, Gonatocerus, Litus, Mymar, Narayanella, Ooctonus, Polynema, Stephanodes* and *Stethynium*. Among these, the genera *Anagrus, Anaphes, Camptoptera, Gonatocerus, Mymar* and *Stephanodes* had been previously reported from China. All others are first records for our country. The genera *Camptoptera, Mymar*, and *Stephanodes*, heretofore known from Taiwan Island, are reported for the first time from mainland China.

Besides the Trichogrammatidae and Mymaridae mentioned above, it's worth mentioning that 5 females of *Palaeomymar* (Mymarommatidae) have been found in Fujian. This is the first record of this group of insects for China [see HONORARY CHALCIDOID section].

E. Sugonyaev (Zool. Inst., Academy of Sciences, Leningrad, USSR).

Recently I published my last monograph "Chalcid-Wasps, Parasites of Soft Scales of the USSR Fauna. Complex Research of Host-Parasite Systems on Insects", "Nauka" Publ. House, Leningrad, 1984, 231pp. Currently I am ending my North American cycle of papers on some of the New World's Encyrtidae. Besides, my postgraduate student Natasha Voinovich and I research adaptations to parasitism and seasonal development of chalcidoid parasites of soft scales in the arctic region of the USSR. I want to study in the future such adaptations of chalcid-wasps infesting soft scales in the tropics. My long term interest is the elaboration of general conception of formation and evolution of a community of parasitic species on their host, soft scales, in the Northern Hemisphere.

I am also working on: 1) taxonomy of Tetracampidae (Mongolocampinae) [see HELP!], 2) the genus *Trichogramma*, 3) some problems of biological control of soft scales, and 4) biocenological basis of integrated pest management.

Stefan Vidal (Zoologisches Institute & Museum, Universitat Hamburg, Hamburg, West Germany).

I am just finishing my Ph.D. on the population ecology of some leafmining species on willows (*Salix* spp.) in West Germany. My taxonomical interest is therefore directed to eulophids, especially those parasitizing miners on plants. With a colleague of mine in Poland I am preparing a paper on parasites of lepidopterous leafminers in Poland. On the other hand, I am now collecting material for a revision of Palaearctic species of *Achrysocharoides*, with special attention on that what I call the *A. splendens*-aggregation. The collection of additional material will probably last next year. Furthermore, I am preparing a paper on geographical and host induced variability in *Sympiesis sericeicornis* Nees. Finally, a paper on adaptative characters in eulophids is accepted in Zool. J. Linn. Soc. and will be published perhaps at the end of this year [1986]. I am also interested in Torymidae (especially *Torymus* spp. with its interesting morphological variability) and Pteromalidae.

Mohammad Yousaf (Dept. Zoology, Aligarh Muslim Univ., Aligarh, India).

Group of principal taxonomic interest: Trichogrammatidae; other groups of taxonomic interest: Mymaridae; additional areas of interest: biological control.

Publications:

Yousuf, M. and S.A. Shafee. 1984. First report of *Zaga* Girault and *Oligositoides* Doutt (Hymenoptera: Trichogrammatidae) from India, with descriptions of three new species. Bull. Soc. ent. Suisse.

_____. 1984. Species of *Oligosita* Walker (Hymenoptera: Trichogrammatidae) from India. Indian J. Syst. Ent. 1(1): 15-22.

_____. 1984. First report of *Paruscanoidea* and *Haeckeliania* (Hymenoptera: Trichogrammatidae) from India, with descriptions of two new species. Indian J. Syst. Ent. 1(2): 35-38.

_____. 1985a. New species of the genera *Neocentrobiella* and *Neolathromera* (Trichogrammatidae: Chalcidoidea) from India. Indian J. Syst. Ent. 2(2): 31-34.

_____. 1985b. Descriptions of two new species of Trichogrammatidae (Chalcidoidea) from India. Bull. Soc. ent. Suisse 58: 299-302.

_____. 1985c. Descriptions of two new species of Trichogrammatidae (Hymenoptera: Chalcidoidea) from India. Bull. Soc. ent. Suisse 50: 303-305.

_____. 1986. Catalogue of genus-group names of world Trichogrammatidae (Hymenoptera). Indian J. Syst. Ent. 3(1): 13-27.

## FORUM

The GREAT DEBATE concerning endings of family-group names and of the 'proper' spelling of anellus/annellus, initiated in CHALCID FORUM nos. 6 and 7, respectively, rages on with two submissions by Marcus Graham. Unlike he, I feel somewhat mischievious and dare to stoke the fires of controversy by also reprinting four letters from the "Pet Peeve Department" of SPHECOS, our sister newsletter for aculeate wasp researchers that is edited by Arnold Menke. Thanks to Arnold for allowing us to use these. I look forward to the views of fellow chalcidologists concerning the pros and cons of 'thorax' *vs.* 'mesosoma' and 'abdomen' *vs.* 'metasoma' *vs.* 'gaster', raised in the four letters.

### Much ado about nothing; or, -gasterinae vs -gastrinae

by M.W.R. de V. Graham
5 Salisbury Crescent, Oxford OX2 7TJ, U.K.

With reference to letters about family-group names formed from genus-names ending in gaster, included in Nos. 6 and 7 of CHALCID FORUM, it is clear to me that both forms ending in -gasteridae and -gastridae, are equally admissible, with similar renderings of subfamily and tribal names, as pointed out by Dr. Bouček. I feel that Dr. Steyskal carries the principle of obtaining 'stability and universality' too far. Certainly it is essential to have uniformity in family, subfamily and tribal endings (-idae, -inae, -ini). However, in names including -gaster, that is not part of the ending there seems no reason to demand uniformity in its treatment any more than for part of a word not constituting its ending.

### An anellus is an annellus is an annellus?
### or,
### A rose by any other name

by M.W.R. de V. Graham

Excuse my parody of Gertrude Stein! Whilst not wishing to stoke any fire of controversy, I should like to add a few remarks to the letters on the above subject which have already appeared in CHALCID FORUM.

Possibly I have been slightly unconventional in consistently using the spelling 'anellus'. However, I believe that the only person to be in error was the author of the 'anonymous review' referred to in Chris Darling's letter in No. 7 of CHALCID FORUM. In fact the spelling 'anellus' appears to have a perfectly respectable ancestry. I grew up when Latin was obligatory for many exams and two relics of that period in the form of Latin dictionaries survive on my shelves. Both cite the form 'anellus'; one of them includes also 'annellus' but the other does not! Classical usage, as with a number of other words, was not rigid. The form anellus evidently gave rise to such forms in the Romance languages as Italian and Provençal 'anello', Spanish 'anillo', Occitan and Portuguese 'anel', although French has 'anneau'.

Having made this point, I turn to what seem to be matters of more importance in Michael Schauff's letter in the same issue. Although I, in common with a number of other chalcid workers, have used phrases like 'antennae with 3 anelli and 5 funicular segments' it was with the knowledge that there appeared to be no absolute distinction between anelli and funicular segments. Admittedly it would have been better had one made this point clear in discussion. At the same time such expressions as the above are useful and concise, which is the reason why they have been so much used.

When preparing my revision of European Tetrastichinae (now in press) I found a problem regarding the numbering of antennal segments. In most species the female antenna has 3 'funicular segments' whilst that of the male has 4. I am reasonably satisfied about the ground plan of the Tetrastichinae antenna and, working from this, it seems clear that the 'first funicular segment' of females is homologous with the 'second funicular segment' of males. I tried a system of numbering in which homologous segments of both sexes would have corresponding numbers, but found this likely to be confusing because the anelli were usually so difficult to see individually that incorrect numbering was likely to occur. In my revision I illustrate a number of variations of the anelli and briefly discuss the probable course of their evolution. Transformation of a 'funicular segment' into an 'anellus' can evidently occur quite rapidly in some cases, which supports Michael Schauff's opinion that too much emphasis may have been placed on numbers of antennal segments for distinguishing taxa.

## Numbering of antennal segments

by Gary Gibson (BRC)

I greatly empathize with the problems encountered by Marcus Graham in describing and numbering antennal segments/articles/antennomeres in tetrastichines. I also have the problem of when or what is an anellus/ring-segment in eupelmids. In some the anellus is classically ring-like, so much so that in a few it can be overlooked, whereas in others it is similar to any other funicular segment. On top of that the clava/club of females can be 1, 2 or 3 'segmented' depending on whether it is subdivided by 0, 1 or 2 sutures, which may or may not be perceptible depending on the magnification used and the angle of light. Some eupelmids also have lost one or more funicular segments, so that the total number of segments can vary between higher taxa, or be the same, but with different components. Luckily, the clava/club is always compact, so that I arbitrarily define it as the "ultimate article, which may or may not be differentiated from the preceding antennomeres by being larger in size or by being subdivided into 2 or 3 antennomeres by transverse sutures". I also refer to each antennomere simply by number, beginning with the scape as "A1". Hence the term "scape" is not used, nor is "anellus", which is "A3". Furthermore, I arbitrarily define the funicle as "all antennomeres between A3 and the clava". This method works for my particular descriptive problems and purposes. However, it

introduces yet another descriptive method into the magnificent world of chalcidology, a world already repleat with numerous terms for the same structures and methods of handling the same or similar problem. Perhaps such inconsistencies between authors is not a significant problem, yet it seems to me that they impede one of the basic aims of writing, accurate and clear communication. Furthermore, the number of inconsistencies found in the chalcidological literature seems to be increasing rather than decreasing with more and more study of the group. Is this a problem, and if so are their any solutions?

## PROSOMA ANYONE?

(by Arnold Menke, Syst. Ent. Lab., USNM, Washington, D.C. 20560)
(reprinted from SPHECOS no. 12, June 1986, p. 3)

Many hymenopterists these days, especially bee workers (look out Menke), use the terms mesosoma and metasoma for the definitive thorax and abdomen, respectively. But they don't call the head the prosoma - this is all a bit absurd, or at least inconsistent. While it is true that the "thorax" includes the first abdominal segment, for purposes of taxonomy it is still the definitive thorax. Why bother with mesosoma and metasoma if you aren't going to go all the way and call the head the prosoma?

## Prosoma Revisited

(reprinted from SPHECOS no. 13, Nov. 1986, p. 16)

Roy Snelling (Dept. of Entomology, Natural History Museum of Los Angeles Co., 900 Esposition Blvd., Los Angeles CA 90007).

Prosoma? Hah! Head is quite good enough, thank you. Yes, there is a growing trend among bee people, especially, to use mesosoma and metasoma, respectively, in preference to the more traditional thorax and abdomen. I suspose it's because the "thorax" is not the thorax and the "abdomen" is not the abdomen, as you point out. And, while the use of "head" rather than prosoma is inconsistent, it is consistent with the fact that our nomenclature for insect morphology is not consistent. We freely mix terms that include Latin, Greek, and English (Of course, the latter changes if you are French, German, Italian, etc.), so where's the beef? We all manage to figure it out, even so. Be thankful you're not working on ants, with a funiculus, epinotum, gaster, truncus, alitrunk, etc. It all gets rather confusing, but does keep life from getting too dull. I don't think bee people are "beeing" absurd, they are just normal.

Jun'ichi Kojima (4-8-6 Zushi, Zushi-shi 249, Japan).

I was interested in your note titled "prosoma anyone?" in the Pet Peeve Department. I prefer to call the definitive abdomen the metasoma for several reasons. Most morphologists (e.g. Snodgrass) use the term "abdomen" for the definitive abdomen + propodeum. Then if someone writes "abdominal segment II elongate basally", I cannot immediately know what segment he wished to indicate with "abdominal segment II". Is it

metasomal segment I or II? An alternative might be to use "gaster" as you do and I did. But, what is the gaster? Ant workers call the segment behind the petiole the gaster. I think the metasoma is the most clearly defined term for the definitive abdomen. For consistency I will use the term mesosoma, but I won't use the term prosoma because the head is the head.

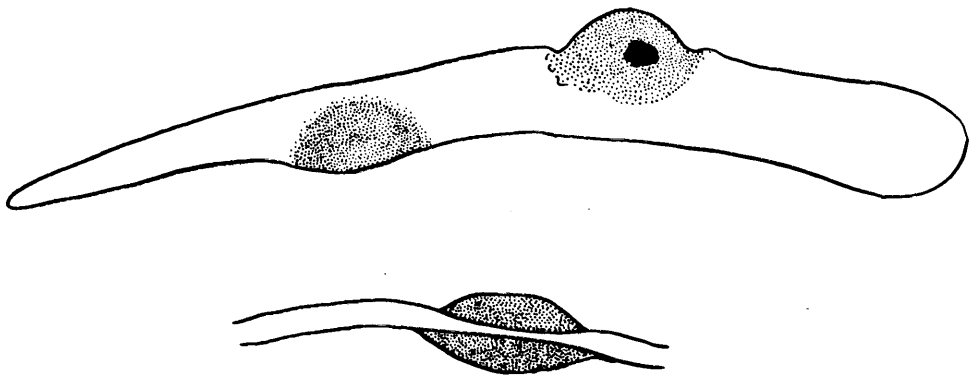
Jacques Bitsch (Université Paul Sabatier, 118 rte de Narbonne, 31062 Toulouse Cedex, France).

Head, thorax and abdomen, terms commonly used in insect morphology, do not mandate the same composition for each of these body parts among different groups. They are only descriptive terms and they do not prejudge the exact number of segments (that may be determined by embryological investigations). This is a general principle in comparative morphology; for example, the vertebrate "head" does not have the same composition in fishes and mammals. That is why - in my opinion - the common terms head, thorax and abdomen, can still be used in Hymenoptera, even if the "thorax" includes the first (embryological) abdominal segment and if the "abdomen" really begins with the second abdominal segment. Everyone knows these facts and I believe that use of these terms poses no difficulty. This was also the opinion of the great hymenopterist J. de Beaumont. The terms "prosoma", "mesosoma" and "metasoma" are more generally used in arthropod groups, such as the Arachnida. Of course, they could also be used for insects, but what would be the utility of this change? Perhaps European entomologists are a conservative people?

## HELP!

E. Sugonyaev (Zool. Inst., Acad. of Sciences, 199034, Leningrad, USSR).

First, I appeal to colleagues who work in the Middle East and North Africa to turn their attention to the investigation of chalcid-wasps from the subfamily Mongolocampinae, which form little galls on leaves of *Nitraria* (Nitrariacea) (Fig.), a small bush with silver stems, thorns and oblong, succulent leaves, which grows in salt-desert and is usually along sea coasts. In order to rear adult insects it is essential to collect leaves with mature galls and put them into vials. I should like to identify species of all Mongolocampinae.



Second, who knows the location of the type of *Trichogramma cacoecia* Marchal. I should be very grateful for information.

Jane Borges Pinheiro (Programa Nacional de Melhoramento da Cana-de-Açucar, I.A.A. PLANALSUCAR, Cx. Postal, 158-ARARAS-SP-BRASIL, CEP 13.600).

PLANALSUCAR (The National Program of Sugarcane Breeding) through the Entomology Section, has been developing several research projects with the objective of controlling the main pests of this culture.

We are now engaged in the organization of a collection of arthropods occurring in sugarcane. This material has been collected mainly through entomological nets, light, pheromone and pitfall traps.

Whenever possible, we have asked the help of specialists for identification of the material. We would like the help of any readers of CHALCID FORUM who are willing to identify chalcidoids in groups of their interest or expertise. Those who are willing to do so, please write to me at the above address so that we can have the insects to be identified sent to you as soon as possible. Thank you.

## HONORARY CHALCIDOIDS

by J. Huber and G. Gibson

The family Mymarommatidae consists of rare, minute wasps that were placed in the Chalcidoidea until recently. Because we no longer consider mymarommatids to belong to the Chalcidoidea (see Gibson, 1986, Can. Ent. 118: 205-240), but still admire their elegance and tenacity for survival throughout the ages, we feel forced to designate them here as HONORARY CHALCIDOIDS.

One of the greatest challenges is to find the hosts of members of Mymarommatidae, so we challenge chalcidologists to put their collective noses to the ground and find a host before the end of this millenium. There are some tantalizing bits of evidence that suggest where to look. One specimen emerged from a bracket fungus collected in the USA. Several other specimens were extracted by Berlese funnel from sifted soil from under *Buxus* (Switzerland), and floodwater debris near a stream (Greece). Many specimens have been collected in yellow pan traps (Japan, Sulawesi, P. R. China, France). Most collections are from deciduous tropical or temperate forests, i. e. in relatively moist and shaded conditions.

We have published or unpublished records of mymarommatids from the following places: Argentina, Australia, Belgium, Brazil, Canada, Denmark, England, France, Greece, Hawaii, Indonesia (Sulawesi), Japan, Nepal, New Zealand, P. R. China, Philippines, Switzerland, Thailand, Trinidad, U.S.A. and Zaire. Thus, they are widespread on all continents and any chalcidologist anywhere is likely to come across them.

## COLLECTIONS

AMERICAN ENTOMOLOGICAL INSTITUTE (3005 SW 56th Ave., Gainesville, FL, USA 32608) by John LaSalle (Dept. Entom., Univ. California, Riverside, CA, USA 92521).

Henry and Marjorie Townes have recently moved their American Entomological Institute to Gainesville, Florida. The Institute consists of two buildings which total over 6,000 square feet and contain office space for 13 workers, as well as the collection (1.5 million specimens) and a research library. The buildings are situated on an 8.6 acre parcel of land, which is mostly wooded, and adjoined by a smaller parcel of land where Henry and Marjorie live. Collecting on the property is quite good, and during the two months I stayed there (March-April) I was getting thousands of Hymenoptera per week out of malaise traps, pan traps, and by sweeping. There is a lovely network of paths on the property which allow collectors to stroll around the property, sweeping and servicing traps.

Permanent research staff at AEI currently consists of Henry and Marjorie, and Virendra and Santosh Gupta. David Wahl presently has a two-year appointment at the AEI under a NSF grant studying Ichneumonidae, and Bill Mason [recently retired from BRC] will be spending winters at AEI working on Braconidae and evolution of Hymenoptera [summers will be spent in Ottawa]. The holdings of the AEI have been augmented by the Gupta collection, and the Shenefelt collection of Braconidae.

The AEI Collection is a truly impressive Hymenoptera collection. Of course, the main strength is in Ichneumonidae, however there is a good representation of all groups. The Chalcidoidea are the weakest part of the collection, yet there is still some very good material, with quite a few gems to be found among the exotic specimens. There are about 20,000 chalcidoids, with the largest groups being the Pteromalidae (approx. 4,500), Chalcididae (approx. 4,500) and Eulophidae (approx. 2,500). Collections are worldwide in representation, but there are large amounts of material from a few areas: Malaysia, Taiwan, Costa Rica, Brazil, New Guinea. Material has all been sorted to at least subfamily, and in many cases further.

The AEI has now entered an extremely active phase of growth. Although some groups have been a bit slighted in the past, an effort is being made to improve all areas of the collection, and bring the rest of the groups of Hymenoptera up to the level of the ichneumonid collection. The AEI has an excellent library encompassing all groups and contains the complete works of many hymenopterists (Shenefelt's extensive collection of literature on Braconidae was recently added to this library). Since the AEI is currently the only institute devoted entirely to Hymenoptera systematics, it is worthy of a certain amount of support on the part of us hymenopterists. Henry and Marjorie would be grateful if we could all put the AEI on our mailing lists, and try to get them copies of our back reprints if still available.

Finally, those of us who knew that Henry was experiencing health problems will be pleased to know that he has been making remarkable progress and has now made almost a complete recovery [to the relief of us all - good going Henry!].

Terrestrial Invertebrate Fauna of the Wagner Natural Area (Albert T. Finnamore, Curator, Invert. Zool., Provincial Museum of Alberta, 12845 - 102nd Ave., Edmonton, Alberta, Canada T5N 0M6).

The Wagner Natural Area, a rich calcareous mixed peatland, located 4 miles west of Edmonton was the site chosen for an intensive study of the invertebrate fauna of peatlands. Data obtained in the Wagner study will eventually be used as part of a taxonomic and ecological conspectus of peatland arthropods of Canada, a project coordinated through the Biological Survey of Canada.

The peatland complex is mixed, with pools of spring-fed water, marl flats, carpets of brown moss and other plants characteristic of alkaline fens giving way to hummocks of sphagnum and other acid tolerant plants, especially shrubs and black spruce characteristic of nutrient poor bogs. The resulting mosaic of habitats gives the Wagner Natural Area one of the more uniquely complex floras and probably faunas in the province. In addition it should be borne in mind that the Area represents the successional begining of a process that could eventually result in a sphagnum bog formation with acidic conditions. Because of this any fauna collected at Wagner have considerable value in understanding the faunal succession, if any, that follows the ageing of these peatlands.

Pan traps were used to sample the fauna because of their ability to collect species more likely to be permanent bog and fen residents. The traps covered 8 locations comprising a transect of habitats from water edge to spruce forest. Traps at each site were replicated in triplicate to provide a total of 24 traps, each trap being sampled periodically from May to the end of September, 1985.

Of the Chalcidoidea, only the mymarids are completely mounted and sorted to family. A total of 2,725 mymarids were collected from 240 samples. Thus far 213 samples, representing 2,342 other chalcidoids, have also been mounted, leaving 27 samples yet to be mounted. Based on the percent of the mymarid fauna we project that once the final 27 samples are mounted a total of 5,364 chalcidoids (2725 mymarids + 2,639 other chalcidoids) will result. This means that mymarids constitute an astonishing 50.8% of all Chalcidoidea collected from the mixed peatland.

[The 2,725 mymarids collected by A. Finnamore at the Wagner bog were determined to belong to 13 genera, as listed below:

*Gonatocernus litoralis* group (501)
*G. ater* group (31)
*G. sulphuripes* group (118)
*Erythmelus* (15)
*Dicopus* (1)
*Ooctonus* (17)
*Camptoptera* (3)
*Cleruchus* (1)
*Anagrus* (464)
*Polynema* (699)
*Anaphes* (732)
*Litus* (5)
*Mymar* (7)
*Ptilomymar* (16)
*Alaptus* (115)

As usual, the catch was dominated (about 93%) by the 4 big genera, *Gonatocerus*, *Polynema*, *Anaphes* and *Anagrus*. The large number of *Anaphes* is due to the trapping method employed (yellow pan traps). Other collecting methods (e.g. sweep nets) would rarely yield more than a few *Anaphes* - John Huber, BRC.]

## TRAVEL REPORTS

Marcus Graham (Oxford, England). The Graham ménage (Marcus and Nora) spent 6 weeks in Madeira in July-August 1985 and were able to visit some remote localities and add several more chalcid species to the Madeiran list (a few names to science; descriptions in Graham, 1986, and in press). This summer we were in Provence again. It was very hot and excessively dry, with some severe forest fires and farmers worried because the herbage was burnt up. These weather conditions seemed to favour the Chalcididae and Eupelmidae [hurrah! - GAPG] particularly. Amongst several uncommon things I took a female *Oodera formosa* (Pteromalidae) which in western Europe seems to turn up 'once in a blue moon'. Also two or three Pteromalidae which puzzle me and which I shall have to scrutinize this winter. Nora spent an uncomfortable fortnight from a dog bite - luckily no more serious effects and for a while both of us went about bearing unsightly swellings from Hymenoptera stings (how humiliating !) but we are undeterred.

John Huber (BRC, Ottawa). In January I spent 3 days visiting the Naturhistorisches Museum in Vienna, studying parts of the Soyka collection of Mymaridae. I briefly looked over the rest of the chalcidoid collection to see what there was, which I summarize below. The Vienna collection of chalcidoids is a very important one mainly because it contains Förster's and Soyka's collections.

The entire Hymenoptera collection is under the care of Dr. M. Fischer, an authority on braconids and the only hymenopterist employed at the museum. Dr. Fischer has compiled a typewritten, loose-leaf index for much of the Hymenoptera collection, in which the exact location (drawer number and row or slide number) of each species is listed alphabetically by species. Thus if one knows what species one is looking for it is very easy to find it in the collection. A generic index is also provided giving the general location (drawer numbers) of a particular genus. This index includes separate sections for the Chalcidoidea (except Soyka's Mymaridae and Trichogrammatidae, and 1 aphelinid), Mymaridae (including Trichogrammatidae), and the cynipoids, proctotrupoids, ichneumonoids, pompiloids and vespids.

The Soyka collection is on slides in 19 slide boxes. Most of the slides are there but a few appear to be missing (I did not have the time to check to see exactly what was missing). The slides are all in good condition but some care is needed in handling because a few of the slide labels are beginning to peel off.

The pinned collection of chalcidoids consists of 129 large drawers. Most of the specimens appear to be old (mainly Förster specimens I think) and are mounted on minuten nadeln on polyporous strips on pins. Specimens are pinned directly into the drawers, hence one has to remove the drawer and take it to one's work space to study a particular specimen, and then be very careful about putting it back where it was to avoid placing the specimen back under the wrong species name. Many of the drawers are packed full of specimens but this is by no means

always the case, e.g. the single drawer of Signiphoridae (as Thysanidae) contains only 2 specimens (det. as *Rosanoviella frequentior*).

The breakdown of families by number of drawers is:

| | | |
|---|---|---|
| Mymaridae (1) | Agaonidae (1) | Leucospidae (2) |
| Chalcididae (11) | Eucharitidae (2) | Perilampidae (5) |
| Torymidae (22) | Eurytomidae (12) | Eupelmidae (4) |
| Cleonyminae (2) | Encyrtidae (17) | Miscogasterinae (8) |
| Pteromalinae (23) | Elasmidae (1) | Eulophidae (21) |
| Aphelinidae (1) | | |

Although there are a couple of dissecting microscopes available for visitors I would advise anyone wanting to study the chalcidoid collection to bring their own microscope and light source.

While I was in Vienna the weather was cold (-5 to -10 Celcius) but there was only a little snow. I left the city by train on January 11, only 2 days before the big blizzard and cold spell hit the city (and much of Europe). Had I been there a couple of more days I am sure that I would have had ample time to examine all of Soyka's collection. That is, if I could have reached the museum from my hotel, which was 20 minutes away by tram.

For those who have not been to Vienna it is well worth taking some time to visit the large numbers of historic buildings and museums there. Public transport is cheap (get a 3-day tourist pass for all trams, buses and the subway in any tobacconist in the city), food is good and accomodation is reasonable.

## ETCETERA

Entomological Society of America, 1986 National Conference (Gary Gibson, BRC).

The annual meetings of the Entomological Society of America were held in Reno, Nevada, December 7-11. The meetings were unusually interesting this year because of the number of chalcidologists who managed to attend, get together, drink, and generally "shoot the breeze", "chew the fat", "b. s.", etc. (= "technological transfer" for any administrators who might be reading this). Along with myself, those attending were Chris Darling, Jim De Giulio, Paul Hanson, Steve Heydon, John LaSalle, Mike Schauff, Anura Wijesekara, Jim Woolley and Gregory Zolnerowich. Paul gave a seminar titled "Systematics and host associations of *Ormyrus* spp.", Steve a seminar titled "Value of the petiole in systematics of the miscogasterine Pteromalidae", and Mike a poster presentation titled "Taxonomy and identification of the hymenopterous parasitoids of citrus weevil eggs".

Also a highlight of the meetings was a get-together of the International Society of Hymenopterists. Scheduling of the get-together by the ESA was atrocious because the hym. society meetings conflicted with a symposium on "Biological Diversity Studies in Mesoamerica". However, we still managed to attract 26 attendees. Undoubtedly the most

important outcome of the meetings was an initiative to establish a publication journal for the Society. The following resolution was proposed:

> "Whereas many members of the International Society of Hymenopterists have expressed an interest in a journal for the Society, be it resolved that a committee of members will be formed to determine the feasibility of such a journal and report their findings to the officers of the Society and the members. The charge of the committee will include:
>
> 1) determination of options available to the Society for the production of a journal, including potential publishers, journal format and frequency, and so forth;
>
> 2) formation of an editorial board to ensure broad international and interdisciplinary representation; and
>
> 3) nomination of an editor to be submitted to the members."

Following unanimous acceptance of the resolution, the following volunteered to serve on the committee: James Carpenter (Museum of Comparative Zoology, Harvard Univ., Cambridge, MA 02138), George Eickwort (Dept. Entom., Cornell Univ., Ithaca, NY 14853), Henry Hermann (Dept. Entom., Univ. Georgia, Athens, GA 30602), Jim Johnson (Dept. Entom., Univ. Missouri, Columbia, MO 65211), Norman Johnson (Dept. Entom., Ohio State Univ., Columbus, OH 43210), and Mike Schauff (Syst. Entom. Lab., USDA, c/o U.S. National Museum NHB 168, Washington, D.C. 20560). Readers of CHALCID FORUM who have suggestions, who would be willing to assist the committee or the journal in some manner, or who wish to make their views known about establishment of a journal for the Hymenopterists Society should contact one of the committee members (perhaps the highly esteemed chalcidologist on the committee, Michael Schauff ?).

Also discussed was the Society sponsored symposium proposed for the XVIII International Congress of Entomology, to be held in Vancouver, British Columbia, Canada, July 3-9, 1988 [see notice of Congress in this issue]. The symposium has yet to be approved by the organizing committee of the Congress, but the Society has submitted the following topic, "Biology of Insect Parasitoids from a Phylogenetic Perspective". Mike Sharkey and Monty Wood (BRC, Ottawa) are charged with organizing the symposium. They inform me that if anyone is interested in participating in the symposium they should submit a tentative title (if possible by February 20th) to them for consideration. They are particularly interested in topics that are broadly comparative in nature. The address for Drs. Sharkey and Wood is:

Biosystematic Research Center
Agriculture Canada, Research Branch
K. W. Neatby Building
Ottawa, Ontario, Canada
K1A 0C6 [Telephone: (613) 996-1665]

Finally, it was announced that the "Directory of Hymenopterists of the World", produced by the Society, had been mailed to Society members. The directory is 37 pages in length and lists the names, addresses and

groups and/or topics of primary interest for 1240 professional and amateur hymenopterists from throughout the world; included is a geographical index. The directory was sent free of charge to paid-up members of the Society. Readers of CHALCID FORUM who are not yet members of the International Society of Hymenopterists, but who would like to be and receive a copy of the Directory should send their dues (US $5.00) to the treasurer of the Society, our own Jim Woolley (Dept. Entom., Texas A&M Univ., College Station, TX, USA 77843). Readers in countries with currency exchange restrictions may request a waiver for the dues.

Light entertainment was provided at the Society meetings by James Carpenter and Chris Darling, each of whom presented a slide show on their respective collecting trips to South Africa and Peru. Both Jim and Chris proved that it is a small world.

Next year's ESA meeting will be held in Boston, Massachusetts and Jim Carpenter has indicated that the Museum of Comparative Zoology will host an open house for the Hymenopterists Society. Hence, next year's meetings should be Greeeeat!!

Index to Hosts of Hymenoptera with Special Reference to Families and Order.

Jeff Miller (Dept. Entom., Oregon State Univ., Corvallis, OR, USA 97331) has produced a 94 page booklet giving the family and ordinal names for hosts listed in the "Catalog of Hymenoptera in America North of Mexico", Krombein *et al.*, Smithsonian Inst. Pr., 1979. For us non-renaissance taxonomists a problem with the catalog's host list is that it only gives genus and species, thereby often necessitating furious scurryings to various reference texts to find the order and family of a particular host. Jeff's booklet solves this annoying problem. Jeff will mail this booklet to you for US $5.00 per booklet plus US $2.50 per shipment. He produced the booklet privately and must therefore charge this to cover the costs of production and shipping.

Blue Mountain Field Station, Irish Town, Jamaica, West Indies.

Open all year round this newly built station offers facilities and accommodation for professional and amateur biologists, geologists and workers in all areas of terrestrial ecology and entomology. It is situated at 2800 ft. in the foothills of the Blue Mountains. It comprises 600 sq. ft. of laboratory and study space, has 60 ft. of bench length, electricity and water, and essential equipment such as stereomicroscopes.

Adjacent to the laboratory are 3 separate and self-contained apartments each capable of accommodating 6 people. Separate patios and a large, outdoor dining area command magnificent views over Kingston (13 mi. distant by road), its harbour, Henry Morgan's old city of Port Royal, and a coastal scenery stretching 50 miles to the west. To the east there are views towards Dallas Mountain, Guava Ridge and Blue Mountain itself. The situation is a perfect compromise between the remoteness of the central mountains (where facilities are poor) and the long distance of

the coastal towns (like Kingston) to the terrestrial habitats in the montane forests.

The all-in fees for accomodation, meals, laboratory facilities and transport to and from the airport are $40.00 per person per day, with a minimum booking of 7 days.

Further enquiries should be made to: Dr. Brian Freeman, Reader in Animal Ecology, Department of Zoology, University of the West Indies, Kingston 7, Jamaica.

Y.E.S. (Youth/Amateur Entomologist Organization) International Entomology Resource Guide.

This 32 page booklet lists 130 companies and individuals offering entomology equipment, supplies, services, preserved specimens, live arthropods, books, audio-visual educational material, and gift and novelty items. The booklet can be purchased for US $3.00 by writing to Y.E.S. International Headquarters, Dept. of Entomology, Michigan State Univ., East Lansing, MI, USA 48824-1115.

Research Newsletters in the Life Sciences: their scope, advantages and future. H. V. Wyatt. British Library R. & D. Report No. 5897; 77 pages double space typing plus 25 pages of tables and 1 graph. Obtainable from:

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