

CHALCID FORUM

No. 1 SEPTEMBER 1983

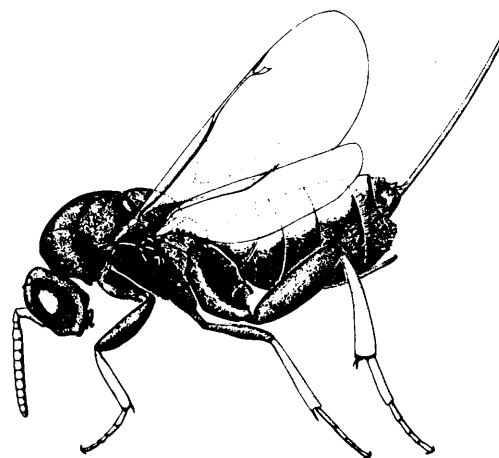
A Forum to Promote Communication
Among Chalcid Workers

EDITORS:

E. E. Grissell
Michael E. Schauff
Gary Gibson

Mailing Address:

*Systematic Entomology Laboratory
USDA, ARS, c/o U. S. National
Museum, Washington, D. C. 20560*



Monodontomerus obscurus Westwood

EDITORS' NOTES

We believe the time has arrived for an international vehicle for communication among chalcid workers. After considerable deliberation, we are launching this forum to promote the exchange of ideas and information among our rapidly growing ranks. We do this with the knowledge that ultimately this forum will be only as useful as the readers permit it to be. Therefore, the responsibility for its continuation must rest largely with the readers. We trust that an open means of exchange, available to all interested workers, will provide the stimulus necessary to keep the lines of communication open. Whether or not this is true should become apparent in the next year or so.

With the first edition of the chalcid forum, we are including a list of workers from all over the world to whom this issue is being sent. Our primary goal, at least at first, is to reach systematists with an active interest in the taxonomy of Chalcidoidea. We ask those of you who receive this mailing to check over the names and addresses and provide us with corrections and additions wherever possible. Please forgive us if we have made mistakes in your address or left one of our colleagues off the list (we nearly forgot to include ourselves in the list the first time around!). We will be glad to add any corrections or additions to the next issue of the forum (January 1984). After several issues have been sent, and the new data has been added, we hope to publish a complete directory of world chalcid workers, including cross references by geographic region and taxonomic interests. Your input is necessary for this and we have prepared a short form at the end of this issue for your use. Please fill it out and send it to us along with any other information which you think might be of interest.

While we have emphasized that Chalcid Forum is mainly intended as a vehicle for the exchange of information among chalcid systematists, we realize that there is a close affinity between chalcid workers and many biocontrol workers, and that the difference between the two is often barely distinguishable. In addition, there are a number of workers in closely allied groups of parasitic Hymenoptera who might have a peripheral interest in what is going on among the

ranks of chalcid workers. We would like to apologize in advance to all these people for not including them on our mailing list. We have had to start somewhere, and we have chosen to start with those who have demonstrated that the Chalcidoidea is their first (or nearly first) priority. Anyone who wishes to be added to our mailing list will be added upon request, or as suggested by other readers. Unfortunately, there is a limit to our resources and we cannot guarantee that we will be able to accommodate everyone, although we will try.

The remainder of this issue is set up in the format which we propose to use in upcoming issues. The purpose of each section is explained and your contributions for future issues are eagerly solicited. We will also be glad to entertain suggestions for additions or deletions of sections, so please tell us what you want. We hope to let the majority rule (unless, of course, the editors disagree!!).

RESEARCH NEWS

This section is designed for each of us to explain our current lines of research. We feel it is essential that we each be aware of what the other is doing. We hope that this information will enable us to proceed rationally towards solving problems that have not been addressed, and at the same time alert us to workers who are active in the same areas. We need to encourage cooperation in some areas and to demonstrate the need for research in others. For this first issue we have solicited input from a number of Nearctic workers as a means of providing examples of the kind of information that we would like to have and to provide us with a starting point. We hope that all of our co-workers will take this opportunity to furnish us with a short description of their current research and plans for the future. If everyone cooperates, it will take several issues to get all of this in print, but it will be included as soon as we can get to it. For now, we will operate on a first come first served basis. So if you wish to see your response in print soon, get it to us fast!!

Addresses for all of the workers cited below are supplied in the "List of Chalcid Workers" at the end of this issue.

JAMES WOOLEY.--At present, I am completing a revision of the Signiphoridae of the New World. This will treat the New World species and include an analysis of the higher classification from a phylogenetic perspective. Numerical methods have been used to some extent in working out the alpha taxonomy. I plan to continue working with the signiphorids and hope to finish up the family on a world basis in the next few years. I also intend to begin work in the Encyrtidae and am currently considering a project in the Copidosomatini. This may involve a review of the world genera, followed by revisions of selected genera. I also plan to continue a long term study of the phylogenetic relationships of encyrtid genera and tribes. I am also interested in classical biological control and the study of chromosomes (for biosystematic purposes and as a way to investigate thelytoky and deuterotoky). [Editors' note: As of Sept. 1 Jim will be moving to Texas A&M University at College Station as the new chalcid systematist.]

D. CHRIS DARLING.-- Much of my current research concerns the family Perilampidae. My dissertation contains a review of the New World Euperilampus and the Indo-Pacific genus Krombeinius, in addition to a comparative study of the morphology of the planidial larvae of Perilampidae and Eucharitidae (with John Heraty) and an analysis of the morphology of the labrum in the two

families. The labrum study is a subset of a larger project dealing with the labrum in the Hymenoptera, and will consider the implications of this structure on the current accepted (or at least followed) higher classification. A revision of New World Perilampus is nearing completion. In addition, species groups of Perilampus are being defined on a world basis as a prelude to my future revisionary work. Rearing programs and general collecting has resulted in a personal collection of about 10,000 chalcidoids, most of which were critical point dried. This material is available for study and is currently sorted to family. [Editors' note: Also as of Sept. 1. Chris will be joining the faculty of Oregon State University at Corvallis as their new systematist.]

MIKE SCHAUFF.--I have just finished a revision of the Holarctic genera of the Mymaridae, which should be published later this year. I hope to continue working on mymarids and am planning on revising a couple of North American genera. In addition, I am working on a couple of projects in the Eulophidae. In particular, I am revising the New World species of Paracrias, starting a revision of North American species of Elachertus, and trying to get a grip on the relationships of Nearctic genera of Eulophinae (in the broad sense). I am also interested in the "hard bodied" entedontines such as Horismenus and Pediobius.

JOHN LASALLE.--I am finishing my dissertation on the New World Tanaostigmatidae, and am currently devoting most of my time to this project. I have a broad interest in all chalcidoid groups (particularly tetrastichine eulophids), as well as in the design of collecting equipment and the improvement of collecting techniques.

ERIC GRISSELL.--In the Pteromalidae a review of Holarctic Rhopalicus and Dinotiscus is now in proof, a manuscript on the genus Erixestus has been completed (with L. Desantis) and the New World Chalcedectinae are under revision (with Z. Boucek). I am currently working on a revision of the genera of monodontomerine torymids with a world catalog to species and a review of the New World species.

STEVE HEYDON.--I am currently finishing my Master's thesis which is a revision of the Nearctic Sphegigasterini. I will begin a study of the Miscogasterini for my Ph.D. this fall. I am also working toward a key to the pteromaline genera of North America, as currently understood. I am also interested in biochemical systematics and am trying to develop a technique suitable for use in taxonomic studies of parasitic Hymenoptera. I am also conducting an electrophoretic survey of some sawfly species (we have found levels of variability close to that of Drosophila in a species of Euura, which is much higher than that for previously studied Hymenoptera).

GARY GIBSON.--I have four projects in progress: 1) a comparative study throughout Hymenoptera of selected external and internal thoracic characters of potential phylogenetic value. 2) analysis of monophyly of chalcidoids relative to relationships of Mymaridae and Mymarommatidae. 3) revision of genera and extant species of Mymarommatidae (with Carl Yoshimoto) and 4) thesis related study on functional morphology, systematics, and higher classification of Eupelmidae.

JOHN HUBER.--I am currently revising the genus Gonatocerus (Mymaridae) for America North of Mexico. As it is a large genus, I may have to restrict myself to only one or two species groups and finish the rest at a later date. I am also interested in Mymaridae in general.

PAUL HANSON.--I am revising the genus Ormyrus for my dissertation.

JEFF HALSTEAD.--I am presently working on a revision of the subfamily Haltichellinae for my master's degree. Plans for future taxonomic and biological work center on continue studies in the Chalcididae, with emphasis on Haltichellinae.

GARY COUCH.--Presently, I am revising the side species group of Spilochalcis in North America. This has principally involved using a classical morphological approach to define taxa. It also includes development of a computer program to outline the degree of intra and interspecific variation, correcting the application of specific names, and writing a key. I am also experimenting with a biochemical technique, cuticular hydrocarbon analysis, which can be used to discriminate between sibling species. I hope to continue on and to examine the Neotropical species of Spilochalcis, as well as the remainder of the North American species.

WILLIAM GREGORY.--My primary interest is in biological control, however, I am interested in Aphytis biosystematics and aphelinid taxonomy in general.

CARL YOSHIMOTO.--For the past several year, I have been working on the genera of New World Mymaridae. The revision includes 78 genera and subgenera with keys to males and females. Gary Gibson and I are working on a review of Mymaromidae including the description of 3 new species from the New World. Currently, I am working on the genera of New World Eulophidae.

KEVIN THORPE.--My current research interests are in the biosystematics of the genus Trichogramma. I am presently working with cultures of 20 Trichogramma species from North America, 15 of which were collected near Beltsville, Maryland. In conjunction with morphological studies, I am establishing crossing relationships among the species, and am attempting to evaluate the efficacy of several of the species for biological control programs. I have initiated some studies of the ecological relationships among the 15 sympatric species in Beltsville, and plan to continue this line of research along with traditional taxonomic studies of the group.

AKEY HUNG.--I have been using cross-breeding experiments, isozyme and karyotype analyses to study the biosystematics of the genus Trichogramma and Pediobius foveolatus. Linkage analysis of isozyme loci in Trichogramma pretiosum will be carried out within two years. Using Brachymeria intermedia, I am also developing chromosome banding techniques for chalcidoids.

JOHN HERATY.--I am presently occupied working on the systematics of the Eucharitinae (Eucharitidae) of North America for my master's degree. I am also undertaking studies on the comparative morphology of the first instar larvae of the eucharitids and perilampids.

BIBLIOGRAPHY

In this section we will be reporting on recent literature. We hope that this will be of use to some workers who do not have immediate access to bibliographic searching systems or large libraries. While we do use a computer-originated literature searching service, papers are often not cited for several months (or years) after they are published. It takes even more time for us to receive actual copies of these publications from the literature

service. Therefore, anything you can do to get reprints of your recent papers to us will be greatly appreciated and will help expedite the process. All papers sent to us will be cited in Chalcid Forum and will be placed in the extensive chalcid literature file of the U.S. National Museum. A short summary will be provided only for works on large groups and regions. We do not yet know how extensive this section will prove to be. It will at least list major works of regional interest (revisions, catalogs, biological works). However, as we have mentioned before, we do have limitations and we cannot guarantee to cite every paper published on chalcids. Working together with systematists from around the world and in conjunction with our literature service we hope to strive for completeness. It is worth a try!!

We will start this section off with two major papers of world-wide interest. The first is a revision of the genera of the Aphelinidae of the world. As luck would have it, the second paper is also a revision of the aphelinid genera of the world. Funny how that works out, but perhaps it illustrates the need for increased communication (and cooperation) among our ranks.

Hayat, M. 1983. The genera of Aphelinidae of the World. Syst. Entomol. 8:63-102 (158 figs.). Forty eight valid genera are recognized, including 3 new ones (Encarsiella, Hirtaphelinus, and Samariola), 13 genera are synonymized, there is a key to genera, discussions of each genus, numbers of species, and distributions.

Jasnosh, V.A. 1983. A review of the aphelinid genera of the world. I. A key to the genera. Rev. Entomol. LXII:157-171 (42 figs.) (in Russian). Keys for 45 genera are given; 1 genus is synonymized; discussions of each genus apparently will appear in the next installment.

NECROLOGY (Obituaries)

This section is self-explanatory, and we are happy to report that we have nothing to report. Let's keep it that way.

FORUM

This section is reserved for the thoughts and opinions of chalcid workers everywhere. It is a "Letters to the Editor" type of section and you may write what you wish. Remember, however, that your comments will be open to public debate, so be forewarned that what you say may come back to haunt you! The editors reserve the right to select material for appropriateness and edit if necessary. Please keep your contributions to one or two typed pages.

ETCETERA

In this section we will put everything that doesn't seem to fit anywhere else: reports on collecting methods and trips, interesting museum finds, requests for hard to find literature and specimens, specimen exchanges, and so on. Herewith we have provided some "etcetera" for your pleasure.

Contest: We have been exceptionally dull in selecting a name for our forum, so we are asking for suggestions for a more imaginative name which might be more appropriate or distinguished than the one we have chosen. First prize will be a genuine Girault mounted slide, second prize will be two slides, third prize you don't want to know about. Seriously, there are no prizes, but your reward will be to see your "name" in lights.

Masthead: Those of you who recognize the chalcid (Torymidae: Monodontomerus obscurus) on the front of this issue are certainly to be congratulated. It was drawn by Mrs. Mary Lou Cooley of the USDA Systematic Entomology Lab, Washington, D.C. It is neither a case of chauvinism nor a cavalier attitude that prompts us to use a torymid, it is merely expedient (that is, it was the first thing we easily could lay our hands upon). In future issues we plan to rotate mastheads using any habitus drawing of a chalcid which is of good quality and can be reduced to fit the space. So get your quills ready and draw up a chalcid or two. We would prefer to receive camera-ready copy of the appropriate size, but we will accept (and return) all original artwork.

Search for types: John Huber (address in list) requests information for the whereabouts of 6 of Girault's types of Gonatocerus (Mymaridae). "The following primary types are supposed to be in the Illinois State Natural History Survey, Urbana, Illinois, but are not. I would like to take this opportunity to ask any reader if they know where they are and contact either me or Donald Webb, the collection curator at Urbana, if they find them. The types were not listed in either Frison's (1927) or Webb's (1980) lists of types in the Illinois State Natural History Survey so Girault himself may have done something with them. The species and type numbers are: G. brunneus tenuipennis (44214), aureus (44215), maximus (44217), brunneus (44237), maga (44239), and maevius (1692). All these species were described from Illinois and are represented by unique specimens (i.e. holotypes). The type of G. aureus is on the same slide as that of Anaphes sinipennis (type no. 44224)."

News from the USNM: Mike Schauff has recently joined the staff of the USDA Systematic Entomology Lab at the USNM as the units second chalcid specialist. Mike has been put in charge of identifications and collections for the families Eulophidae, Encyrtidae, Eupelmidae, Aphelinidae, Mymaridae, and Signiphoridae. All requests for loans and so on for these groups should now be addressed to him. Eric Grissell will continue to handle the other families.

Hymenoptera Symposium at Detroit: Approval has been given for the presentation of a symposium on Hymenoptera systematics at the annual meeting of the Entomological Society of America in Detroit (Nov. 28- Dec.2). Two papers on chalcidoidea are scheduled. Gary Gibson will speak on the monophyly of the Chalcidoidea and Mike Schauff will review his recent work on the classification of mymarid genera. Other talks will include recent research on morphological problems, evolution of anthophorid bees, New World Symphyta, cladistics and the aculeates, a cladistic reclassification of the Hymenoptera, and genera of euphorine braconids.

MAILING LIST

(List of Chalcid Workers)

These people have received (we hope) the first issue of CHALCID FORUM. Please check your address and send us whatever corrections are necessary. Also, please send us the names of any additional workers whom we have missed.

Dr. V.C. Abdurahiman
Department of Zoology
University of Calicut
P.O. Box 673635
Kerala
India_

Dr. Mon Mohan Agarwal
Department of Zoology
Aligarh Muslim University
Aligarh 202001, U.P.
India_

Dr. S. Mashhood Alam
Department of Zoology
Aligarh Muslim University
Aligarh 202001, U.P.
India_

Dr. R.R. Askew
Department of Zoology
University of Manchester
Manchester
England_

Dr. J. van den Assem
Department of Zoology
Der Rijksuniversiteit Te Leiden
Kaiserstraat 63, Postbus 9516
2300 RA Leiden
Nederlands_

Dr. John W. Beardsley
Department of Entomology
3050 Maile Way Rm. 310
University of Hawaii
Honolulu, HI. 96822
U.S.A._

Dr Zdenek Boucek
Commonwealth Institute of Entomology
c/o British Museum of Natural History
Cromwell Road
London SW7 5BD
England_

Dr. B.D. Burks
Star Route 1
Box41
Sedona, AZ. 86336
U.S.A_

Dr. Mary Carver
CSIRO
Department of Entomology
P.O. Box 1700
Canberra City, ACT 2601
Australia_

Center for Parasitic Hymenoptera
University of Florida
E103 Doyle Conner Bldg.
1911 S.W. 34th Street
Gainesville, FL. 32602
U.S.A._

Dr. M.F. Claridge
Department of Zoology
University College
Cathays Park
P.O. Box 78
Cardiff CF1 1XL
England_

Mr. Gary Couch
Department of Entomology
University of Massachusetts
Amherst, Mass. 01003
U.S.A._

Dr. E.C. Dahms
Queensland Museum
Gregory Terrace
Fortitude Valley
Brisbane,
Australia 4006_

Mr. D.C. Darling
Department of Entomology
Cornell University
Ithaca, New York 14853
U.S.A._

Dr. Paul DeBach
Division of Biological Control
Department of Entomology
University of California
Riverside, California 92521
U.S.A._

Dr. V. Delucchi
Ecole Polytechnique Federal
Universitatstrasse 2
Zurich
Switzerland_

Dr. Luis De Santis
Facultad de Ciencias Naturales
y Museo de La Plata
Universidad Nacional de la Plata
1900 La Plata,
Argentina_

Dr. Paul Dessart
Institut Royal des Sciences Naturelles
de Belgique
29 Rue Vautier
B-1040 Brussels
Belgium

Dr. G. Domenichini
Istituto di Entomologia Agraria
Universita degli Studi
Via Celoria 2
Milan
Italy_

Dr. Patricio Fidalgo
Fundacion Miguel Lillo
Miguel Lillo 251
4000-S.M. de Tucuman
Tucuman,
Argentina_

Dr. Dan Gerling
Department of Zoology
University of Tel Aviv
Ramat Aviv, Tel Aviv
Israel_

Mr. Gary Gibson
Department of Entomology
University of Alberta
Edmonton, Alberta T6G 2E3
Canada_

Mr. A. Gonzalez
Division of Biological Control
Department of Entomology
University of California
Riverside, California 92521
U.S.A._

Dr. Gordon Gordh
Division of Biological Control
Department of Entomology
University of California
Riverside, California 92521
U.S.A._

Dr. M.W.R. de V. Graham
5, Salisbury Crescent
Oxford OX2 7TG
England_

Mr. W.A. Gregory
Department of Entomology
University of California
Riverside, Ca. 92521
U.S.A._

Dr. E.E. Grissell
USDA,ARS
Systematic Entomology Lab
c/o U.S. National Museum
NHB 168
Washington, D.C. 20560
U.S.A. _

Dr. A. Habu
Division of Entomology
National Institute of Agricultural
Services
Nishigohara, Kito-ku
Japan_

Mr. Jeff Halstead
Department of Biology
California State University, Fresno
Fresno, California 93740
U.S.A._

Mr. Michael R. Hamersley
103 Botany and Zoology Building
1735 Neil Ave.
Columbus, OH 43210
U.S.A._

Mr. Paul Hanson
Department of Entomology
Oregon State University
Corvallis, Oregon 97331
U.S.A._

Mr. Christer Hansson
Zoological Institute
Helgonavagen 3
S-223 62 Lund
Sweden_

Dr. Mohammed Hayat
Department of Zoology
Aligarh Muslim University
Aligarh 202001, U.P.
India

Dr. Karl-Johan Hedqvist
Swedish National Science
Research Council
c/o Entomology Section
Swedish Museum of Natural History
S-10405 Stockholm
Sweden_

Mr. John Heraty
Department of Environmental Biology
University of Quelph
Quelph, Ontario N1G 2W1
Canada_

Mr. Steve Heydon
Illinois Inst. of Natural Resources
Section of Faunistic Surveys
602 Peabody
Champaign, IL. 61820
U.S.A._

Dr. Lars Huggert
Alidbacken 9
S-902 41 Umea
Sweden_

Dr. Akey Hung
Beneficial Insect Intro. Lab.
USDA-ARS, Bldg. 417, BARC East
Beltsville, Md. 20705
U.S.A._

Dr. V.A. Jashnosh
Georgian Institute for Plant
Protection
380079 Tbilisi, Georgia
Chavchvadze 17
USSR_

Dr. M. Joseph
Department of Zoology
University of Calicut
P.O. Box 673635
Kerala,
India_

Dr. K. Kamijo
Hokkaido Forest Experiment Station.
Bibai, Hokkaido 079-01
Japan_

Dr. G.J. Kerrich
Department of Entomology
British Museum of Natural History
Cromwell Road
London SW7 5BD
England_

Dr. Mohammed Younus Khan
Department of Zoology
Aligarh Muslim University
Aligarh 202001, U.P.
India_

Dr. V.V. Kostyukov
All Union Institute for the Biological
Method of Plant Protection
Kishinev, Moldavian S.S.R.
USSR_

Mr. John LaSalle
Division of Biological Control
Department of Entomology
University of California
Riverside, California 92521
U.S.A._

Prof. Li Xueliu
Department of Plant Protection
Zhejiang Agricultural University
Hangzhou
People's Republic of China_

Mr. Liao Ding-shi
Institute of Zoology
Department of Insect Taxonomy
and Faunology
Academia Sinica
Beijing
Peoples Republic of China_

Dr. K.S. Lin
Department of Applied Zoology
Taiwan Agricultural Research Institute
Wufeng, Taichung Hsien
Taiwan 431
Rep. of China_

Dr. G. Mathys, Secretary-General
International Organization for
Biological Control
1, Rue Le Notre
Fr.-75016 Paris
France_

Dr. M.S. Mani
School of Entomology
St. John's College
Agra 282002
India_

Dr. Jeff Miller
Department of Entomology
Oregon State University
Corvallis, Oregon 97331
U.S.A._

Dr. M.K. Mukerjee
School of Entomology
St. John's College
Agra-282002
India_

Dr. S.N. Myartseva
Institute of Zoology
Turkemenian Academy of Sciences
Ashkabad
USSR_

Dr. Sudha Nagarkatti
National Center for Biological Control
Indian Institute of Horticultural Research
142-III Main Road
Gangenhally Layout
Bangalore 5600332
India_

Dr. T.C. Narendran
Department of Zoology
University of Calicut
P.O.Box 673635
India_

Dr. I. Naumann
CSIRO
Department of Entomology
P.O. Box 1700
Canberra City, ACT 2601
Australia_

Dr. John Noyes
Department of Entomology
British Museum of Natural History
Cromwell Road
London SW7 5BD
England_

Dr. E.R. Oatman
Division of Biological Control
Department of Entomology
University of California
Riverside, California 92521
U.S.A._

Dr. J.C. Paik
Department of Entomology
Institute of Agricultural Sciences
Office of Rural Development
Suweon 170
Korea_

Prof. Pang Xiongfei
Department of Plant Protection
South China Agricultural College
Guangzhou
People's Republic of China_

Dr. John Pinto
Division of Biological Control
Department of Entomology
University of California
Riverside, California 92521
U.S.A._

Mr. G. Platner
Division of Biological Control
Department of Entomology
University of California
Riverside, California 92521
U.S.A._

Dr. G.L. Prinsloo
Plant Protection Research Institute
Dept. Agricultural & Technical Services
Private Bag X134
Pretoria
South Africa_

Dr. Qui Shibang, Chief
Biological Control Laboratory
Chinese Academy of Agricultural
Sciences
Beijing
People's Republic of China_

Dr. A.P. Rasnitsyn
Institute of Paleontology
Academy of Sciences USSR
Lenin's Prospect 33
Moscow V-71
USSR_

Mr. Ren Hui
Guangdong Entomological Institute
87 Xingang Road
Guangzhou, 510081
People's Republic of China_

Dr. Tova Rivnay
1 Goldberg Street
Rehovot 76283
Israel_

Mr. Mike Rose
Division of Biological Control
Department of Entomology
University of California
Riverside, California 92521
U.S.A._

Dr. David Rosen
Department of Entomology
Faculty of Agriculture
Hebrew University
P.O. Box 12
Rehovot,
Israel_

Mr. L.P. Rozanov
Uzbek Quarantine Laboratory
Tashkent, Uzbekistan
USSR_

Dr. K.A. Sahad
c/o Prof. Y. Hirashima
Entomology Laboratory
Faculty of Agriculture
Kyushu University 46-01
Fukuoka 812
Japan_

Dr. Michael E. Schauff
USDA,ARS
Systematic Entomology Lab
c/o U.S. National Museum, NHB 168
Washington, D.C. 20560
U.S.A._

Dr. S. Adam Shaffee
Department of Zoology
Aligarh Muslim University
Aligarh 202001, U.P.
India_

Mr. Shi Da-san
Shanghai Institute of Entomology
Academia Sinica
225 Chingqing Road (South)
Shanghai 200025
People's Republic of China_

Ms. N. Sorokina
All Union Plant Protection Inst.
Popbelskii Chanssee 3
Pushkin 6
Leningrad
USSR_

Dr. J.R. Steffan
c/o Museum National d'Histoire Naturelle
Entomologie Generale et Applique
45 Rue de Buffon
75005 Paris
France_

Dr. Nadezhda Storozheva
Zoological Institute, USSR
Academy of Sciences
Leningrad 199164
USSR_

Dr. B.R. Subba Rao
Commonwealth Institute of Entomolgy
c/o British Museum of Natural History
Cromwell Road
London SW7 5BD
England_

Dr. E.S. Sugonyayev
Zoological Institute
USSR Academy of Sciences
Leningrad V-164
USSR_

Dr. Per Sveum
Saupstadsringen 65B
N-7078
Saupstad
Norway_

Dr. T. Tachikawa
Entomology Laboratory
Faculty of Agriculture
Ehime University
5-7 Tarumi, Matsuyama City
Shokoku
Japan_

Mr. Kevin Thorpe
Department of Entomology
University of Maryland
College Park, Md. 20742
U.S.A._

Dr. V.A. Trjapitzin
Zoological Institute
Academy of Sciences, USSR
Leningrad,
USSR B-164_

Dr. Errol Valentine
DSIR
Entomology Division
Private Bag, Auckland
New Zealand_

Mr. M. Verma
Department of Zoology
Aligarh Muslim University
Aligarh 202001, U.P.
India_

Dr. M.D. Zerova
Institute of Zoology of the Science
Academy of the Ukraine
Kiev, Lenina Str. 15
USSR_

Dr. G. Viggiani
Istituto di Entomologia Agraria
Dell Università de Napoli
80055 Portici
Italy_

Mr. D.L. Vincent
Beneficial Insect Intro. Lab.
USDA-ARS Bldg. 417, BARC East
Beltsville, Md. 20705
U.S.A._

Dr. J. Voegelé
Station Biologique Zoologie et
de Lutte
Centre de Reserches
Institut National de la Recherche
Agronomique
Antibes 06602
France_

Mr. A. Watsham
St. Ignatius College
P.O. Box 1780
Harare City
Zimbabwe_

Dr. J.T. Weibes
Rijksmuseum van Natuurlijke
Histoire
Raamsteeg 2, Leiden
Netherlands_

Mr. James Woolley
Division of Biological Control
Department of Entomology
University of California
Riverside, California 92521
U.S.A._

Dr. K. Yasumatsu
Entomology Laboratory
Kyushu University
Kukuoka
Japan_

Dr. Carl Yoshimoto
Entomology Research Institute
Research Branch, Agriculture
Ottawa, Ontario KIA OC6
Canada_