



# Scarabaeus

A NEWSLETTER FOR THOSE INTERESTED IN SCARABAEIDAE

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Since we mailed the last SCARABAEUS, we have received many requests that we publish our mailing list. Accordingly, with this number, we will begin to print the names and addresses to which SCARABAEUS is mailed. If you are aware of anyone who we miss in this list, please let us know, that we may add their names. The list is quite long, and so we will be printing the names in two numbers. This number contains the scarab workers with addresses outside of the United States. The next number will include all United States workers.

We have also received a large number of requests for back issues of SCARABAEUS, so much so that the original copies of a few numbers are exhausted. If anyone is still desirous of receiving back numbers, we will try to fill in by making xerox or similar copies.

We appreciate the kind response from many of the people receiving this newsletter for the first time. We would like to remind all readers that this newsletter is available to anyone who wishes to include notices for broad distribution. We are also looking for ideas for future numbers of SCARABAEUS. Please let us know if you have suggestions or comments. Also, please remember to send copies of your recent papers, for the "Recent Literature" section. We would like to have this as complete as possible.

## INTERNATIONAL CONGRESS OF ENTOMOLOGY

Taxonomic interest in dung beetles has always been rather keen and continuous since around 1825, with each generation of specialists producing significant contributions to scarabaeine classification. Interest among entomologists in the biology of these insects, however, has been uneven and irregular at best and has never really enjoyed a heyday until, perhaps, now. Wide interest in the behavior and ecology of coprophagous beetles was kindled only very recently (if less than 20 years ago is very recently) by two events: the publication in 1966 of "The Natural History of Dung Beetles..." by Gonzalo Halffter and Eric Matthews, and the establishment of the Australian (CSIRO) dung beetle research program. Today there are somewhere between 35 and 50 active students of the ecology and behavior of dung beetles, and at least as many others who, even though they specialize in the systematics of the group, nevertheless entertain more than a passing interest in their

biology. About 45 of these persons were fortunate enough to attend the 17th International Congress of Entomology, which convened in Hamburg, FRG, August 19-24, 1984.

Sixteen papers were presented at the Congress on various aspects of the biology of dung beetles. Eight comprised Symposium 6.2, "The Behavior and Ecology of Dung Beetles," organized and moderated by Dr. Orrey Young of the USDA:

"Diurnal and nocturnal flight activity of scarabaeine coprophages in tropical Africa"; Phillipe Walter, GABON.

"Perching behavior in a neotropical forest dung beetle community"; O. P. Young, USA.

"Field ecology and reproductive behavior of the dung beetle Kheper nigroaeneus in southern Africa"; Penelope Edwards, USA.

"Ecological evolution of dung beetle nesting behavior"; W. D. Edmonds, USA & Gonzalo Halffter, MEXICO.

"Local and regional species assemblages of Aphodius in Europe"; I. Hanski, FINLAND.

"Community structure and role in dung burial of forest and savannah Scarabaeidae dung beetles in the Ivory Coast"; Yves Cambefort, FRANCE.

"The effect of competition and habitat on the structure of dung beetle communities in southern Africa"; Bernard Doube, USA.

"Effects of adult size and feeding behavior of dung feeders in different soils at Rawalpindi, Pakistan"; A. Mohyuddin & R. Siddiqui, PAKISTAN.

Eight others appeared in regular sessions, one of which (R 6.7) was devoted almost entirely to dung beetles:

"Food and habitat selection of scarabaeid dung beetles"; S. Endrody-Younga, RSA.

"Flight activity, foraging behavior, and community structure among neotropical Scarabaeinae"; Bruce Gill, CANADA.

"Structure of a dung beetle community in Mexican tropical mountains"; Bert Kohlmann & S. Sanchez, MEXICO.

"Seasonal abundance of five common carrion beetles in a pasture field, San Cristobal, Venezuela"; Daniela Havranek, VENEZUELA.

"Winter survival of Onthophagus bonasus (F.) and O. gazella (F.) in three textural classes of soil"; James Hunter & Truman Fincher, USA.

"Succession of coprophilous entomofauna in cow droppings"; W. F. Wojcik, et al., POLAND.

"Kleptoparasitism of Aphodius coenosus in the nests of Typhaeus typhoeus

"Chemical communication in dung beetles (Scarabaeinae)"; B. V. Burger, et al., RSA.

Collectively, these papers illustrate well the international interest and the current research emphases upon dung beetle biology. SCARABAEUS readers desiring copies of the abstracts of these presentations or names and addresses of participants are invited to request them of W. D. Edmonds, Academic Affairs, California State Polytechnic University, Pomona, CA 91768-4016 USA. -WDE BOOK NOTICE

Dellacasa, G. 1983. Sistematica e nomenclatura degli Aphodiini italiani (Coleoptera Scarabaeidae: Aphodiinae). Monog. Museo Reg. Sci. Nat. Torino. pp. 1-463. 1002 illustrations. Price about \$30.00 U.S. Anyone who wishes to purchase this monograph should contact: Prof. Olinto Bortesi, Direttore, Museo Regionale di Scienze Naturali, Via Maria Vittoria 18 16123 Torino, ITALY

This is a well done publication, with much valuable information on Aphodius and related genera. A key to the subgenera and descriptions of many species which are introduced and widely distributed around the world make this useful to more than those interested in only the Italian or European faunas. Highly recommended.-ARH

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NOTICES

Dr. Riccardo Pittino would like to exchange, receive on loan for study or buy all World Coleoptera Aphodiidae of the tribe Psammodiini. Please contact him at the following address: Dr. Riccardo Pittino, Via Zezon 10, 20124 Milano, ITALY.

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WANTED--I would like a copy of the following paper:

Matthews, E. 1976. A Revision of the Scarabaeine Dung Beetles of Australia. III. Tribe Coprini. Aust. J. Zool. Suppl. Ser. 38:1-52. Please contact Alan R. Hardy at the address on the masthead.

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BOOK NOTICE

Halffter, G. & W. D. Edmonds. 1982. The Nesting Behavior of Dung Beetles (Scarabaeinae). An Ecological and Evotive Approach. Publication 10, Instituto de Ecologia, Mexico, D. F. 176 pp. \$40.00 in the U. S. and Canada, \$45.00 elsewhere. Order through Sra. P. Reidl M., Instituto de Ecologia, Apartado Postal 18-845, Delegacion Miguel Hidalgo, 11800, Mexico, D. F.

This beautiful book is a must for everyone interested in insect behavior. The authors bring to the reader the results of their decades of experience investigating Scarabaeinae beetle behavior, in a book that is well illustrated with over 140 generally high quality figures.

The approach, as indicated by the title, is from an ecological and evolutionary viewpoint. Chapters detailing nest construction and architecture, nesting behavior, and the structure of the reproductive

systems provide the basis for the discussion of the evolution of nesting behavior and sexual cooperation.

The format of the book is somewhat unusual, being 26 x 26 cm. (10" x 10"), but this allows detailed, larger than usual illustrations. Although published in Mexico, the book is in english.

Although the text is somewhat flawed by typographical errors (like the first edition of many works), and various reviewers (Ratcliffe, 1984, J. N. Y. Entomol. Soc. 91:512-515; Ball, 1983, Quest. Entomol. 19:491-493) have pointed out errors in approach and terminology, nevertheless the work is certain to be one of those important documents referred to for years, and considered an important milestone. As a guidepost as to what can be achieved by workers with the Coleoptera to uncover more than just morphological information, this work presents a substantial challenge.

Much could be said about this book, but the format of SCARABAEUS prevents lengthy reviews. I can only say that I recommend this book to all Coleopterists, and especially those who work with scarabs.--ARH

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As this edition of SCARABAEUS NEWSLETTER goes to the printer, we learn with great regret of the death of S. ENDRODI, of Budapest, just before Christmas. He was 82, and had been ill for a short time. We will try to publish more in a future SCARABAEUS.