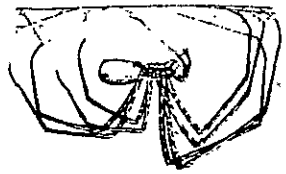
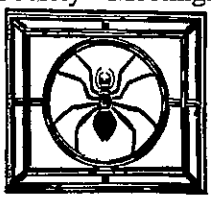
AMERICAN ARACHNOLOGY

THE NEWSLETTER OF THE AMERICAN ARACHNOLOGICAL SOCIETY

No. 35 — April 1987



American Arachnological Society Meetings



Harvard University 1987

16-20 June 1987

Host: Dr. Herbert W. Levi, Invertebrate Department, Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts 02138. Office phone (617) 495-2472.

Calendar

15 June, registration 4-8 pm, Dept. of Invertebrates, MCZ, 26 Oxford Street. (If you wish to stay in the dorm, you must arrive before 8 pm.) 8pm: social in the Science Center Cafe.

16 June, registration continues at 8 am.-10 am. Opening Session, Room A, Science Center. Afternoon, presented papers. Evening social at Science Center Cafe.

17 June, presented papers morning and afternoon. Symposium session, Spider Silk Glands and their Products. Evening films and videos.

18 June, presented papers, business meeting. Evening: Boston harbor cruise and buffet.

19 June, field trip to New Hampshire.

20 June, field trip to Martha's Vineyard.

Registration materials for this year's meetings have been sent to those who returned the pre-registration form that appeared in the fall newsletter (and was sent separately to foreign members). Although the 15 April deadline for receipt of abstracts of papers to be presented at the meeting will have passed by newsletter distribution time, those still interested in attending the meeting should contact the host as soon as possible.

SOCIETY ELECTIONS

This year a new President-elect, Treasurer, and a new Board of Directors member will be elected. Brief bibliographies of each candidate appear below. In addition, changes (underlined) in four by-laws and one article of the Constitution have been recommended by the Executive Committee. These are listed after the candidates bibliographies. A ballot is provided in the center of your newsletter (members residing outside of the U.S. will receive election materials separately). Please mark your ballot and return it to: Dr. James Carrel, Division of Biological Sciences, 105 Tucker Hall, University of Missouri-Columbia, Columbia, Missouri 65211. Ballots should be mailed no later than 18 May 1987.

President-Elect

Allen R. Brady

Education:
B.S. Secondary Education, University of Houston, 1955.
M.S. Biology, University of Houston, 1959.
Ph.D. Biology, Harvard University, 1964

IN THIS ISSUE --

AMERICAN ARACHNOLOGY is the newsletter of the American Arachnological Society and is sent only to society members. For information on membership, write: Dr. Norman I. Platnick, Membership Secretary, American Arachnological Society, Department of Entomology, The American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024, USA. Members of the Society also receive the JOURNAL OF ARACHNOLOGY.

Submission of items for AMERICAN ARACHNOLOGY or other correspondence concerning the newsletter should be directed to the editor, Dr. James W. Berry, Department of Biology, Butler University, Indianapolis, Indiana 46208, USA. Deadline for receipt for material for the fall issue of the newsletter is 24 September and for the spring issue, 24 March.

Job Experience:
Harvard University, Teaching Fellow, 1959-61.
Albion College, Assistant Professor, 1965-66.
Hope College, Assistant-Full Professor, 1966-present; Chairman, 1980-83.
University of Florida, Visiting Professor, 1972-73.

Professional Societies:
American Arachnological Society, American Society of Zoologists, Cambridge Entomological Club, Sigma Xi, Society of Systematic Zoologists.

Awards and Honors:
Predoctoral Fellowship, NIH, 1961-63; Sloan P. Kettering Teaching Internship, 1964-65; Who's Who in American Educators, 1973; Who's Who in the Midwest, 1973; American Men and Women of Science, 1963-present; National Science Foundation Research Grants, 1969-73, 1978-80.

Selected Publications in last 5 years:

Bultman, T. L., G. W. Uetz, and A. R. Brady. 1982. A comparison of cursorial spider communities along a successional gradient. J. Arachnol. 10:23-33.

Brady, A. R. 1983. Systematic problems in the *Lycosa helluo* species group (Araneae: Lycosidae). Amer. Arachnol. 28:7.

----------. 1984. A comparison of the new genus *Glycosa* with other large North American lycosids. Amer. Arachnol. 30:9-10.

----------. 1986. Nearctic species on the wolf spider genus *Gladicosa* (Araneae: Lycosidae). Psyche (in press).

George W. Uetz

Education:
B. A. Biology, Albion College, 1968.
M.S. Entomology and Applied Ecology, University of Delaware, 1970.
Ph.D. Biology with Ecology Specialization, University of Illinois, 1976.

Job Experience:
University of Delaware, Graduate Research Assistant, 1968-70.
Sanford Preparatory School, Biology Teacher, 1970-72.
University of Illinois, Graduate Research Assistant, 1972-73; Principal Investigator, Invertebrate Study Component, Springer-Sangamon Environmental Research Project, 1973-75; Graduate Teaching Assistant, 1975-76.
University of Cincinnati, Assistant-Associate Professor, 1976-present.

Professional Societies:
American Association for the Advancement of Science, American Arachnological Society, American Society of Zoologists, Animal Behavior Society, British Ecological Society, Cambridge Entomological Society, Ecological Society of America, Entomological Society of America, Ohio Academy of Science, Sigma Xi.

Awards and Honors:
Beta Beta Beta, 1967; Omicron Delta Kappa, 1969; Sigma Xi Distinguished Research Award, 1982; Associate Curator of Entomology, Cincinnati Museum of Natural History, 1977-85; National Geographic Society Research Grants, 1978-79, 1985-86; Electric Power Research Institute Grant, 1978-80; American Philosophical Society Grants, 1979, 1982.

Selected Publication in last 5 years:

Stratton, G. E. and G. W. Uetz. 1981. Acoustic communication and reproductive isolation in two species of wolf spiders (Araneae: Lycosidae). Science 214:575-577.

Uetz, G. W., T. C. Kane, and G. Stratton. 1982. Variation in the social grouping tendency of a communal web-building spider. Science 217:547-549.

---------- and G. E. Stratton. 1983. Communication in spiders. Endeavor 7:13-18.

----------. 1983. Sociable spiders. Nat. Hist. 92:62-69.

Stratton, G. E. and G. W. Uetz. 1986. The inheritance of courtship behavior and its role as a reproductive isolating mechanism in two species of *Schizocosa* wolf spiders (Araneae: Lycosidae). Evolution 40:129-141.

Benton, M. J. and G. W. Uetz. 1986. Variation in the life-history characteristics over a clinal gradient in three populations of a communal orb-weaving spider. Oecologia 68:395-399.

---------- and K. R. Cangialosi. 1986. Genetic differences in social behavior and spacing in populations of *Metepeira spinipes* F. O. Pickard-Cambridge (Araneae: Araneidae), a communal-territorial orb weaver. J. Arachnol. 14:159-173.

Treasurer

Ann L. Rypstra

Education:
A.B. Hope College, Holland, MI, 1975
Ph.D. The Pennsylvania State University, 1982. Dissertation Title: A Community Analysis of the Web-Building Spiders in Temperate and Tropical Forests with Emphasis on the Relationships between Foraging Activities, Prey Abundance and Habitat Structure.

Job Experience:
The University of Michigan, Research Technician, 1975-76
The Pennsylvania State University, Graduate Fellow, 1976-1982
Peruvian Safaris, Naturalist, 1979
Miami University of Ohio, Hamilton Campus, Assistant Professor of Zoology, 1982-present

Professional Societies:
American Arachnological Society, American Society of Naturalists, Association for the Study of Evolution, Association for Women in Science, American Association for Higher Education, Ecological Society of America, International Congress of Arachnologists, Ohio Academy of Science, Phi Beta Kappa, Sigma Xi

Awards and Honors:
Research proposals funded in last four years from National Science Foundation, National Museum of Natural History, National Geographic Society, Sigma Xi, Faculty Research Committee (Miami University). Alumni Teaching Scholar (Lilly Foundation) 1985-86, Patterson Research Fellowship 1981-82, Graduate Teaching Honors, College of Science, Penn State University 1981.

Selected Publications in last 5 years:

Rypstra, A.L. 1982. Building a better insect trap: an experimental investigation of prey capture in a variety of spider webs. Oecologia (Berl) 52:31-36.

--- 1983. The role of food and space in limiting web-spider densities; a test using field enclosures. Oecologia (Berl) 59:312-314.

--- 1984. A relative measure of predation on web-spiders in temperate and tropical forests. Oikos 43:129-132.

--- 1985. Aggregations of *Nephila clavipes* (L.)(Araneae; Araneidae) in relation to prey abundance. J. Arachnol. 13:71-78.

--- 1986. Web-spiders in temperate and tropical forests: relative abundance and environmental correlates. Am. Midl. Nat. 115:42-51.

--- 1986. High prey abundance and a reduction in cannibalism: the first step to sociality in spiders. J. Arachnol. 14:193-200.

--- and T. G. Gregg. 1986. Facultative carnivory in *Drosophila hydei*. Drosophila Information Service 63:116-117.

Gail E. Stratton

Education:
B. A. Carleton College 1976
M.S. University of Cincinnati 1979
Ph.D. University of Cincinnati 1982

Job Experience:
University of Cincinnati, Research and Teaching Assistant, 1977-1982
Ohio State University, University Postdoctoral Fellow, 1982-1983
Bradley University, Assistant Professor of Biology, 1983-1985
Albion College, Assistant Professor of Biology, 1985-present

Professional Societies:
American Arachnological Society (Editorial Board of Journal), British Arachnological Society, C.I.D.A., American Society of Zoologists, American Association for the Advancement of Science, Animal Behaviour Society, Sigma Xi, The Society for the Study of Evolution, Michigan Entomological Society, The Nature Conservancy.

Awards and Honors:
Isabel and Mary Neff Scholarship, the University of Cincinnati, 1979-1980; Summer Research Fellowship, the University of Cincinnati, 1979-1981; University Postdoctoral Fellowship, Ohio State University 1982-1983; Grants from Sigma Xi, Bradley Board for Research and Creativity, Cottrell Research Corporation, and Albion College Faculty Development.

Selected Publications from last 5 years:

Stratton, G. E. and G. W. Uetz. 1981. Acoustic communication and reproductive isolation in two species of wolf spiders (Araneae; Lycosidae) Science 214:575-576.

Uetz, G. W., T. C. Kane, and G. E. Stratton. 1982. Geographic variation in the social grouping tendency of a colonial web building spider. Science 217:547-549.
Stratton, G. E. and G. W. Uetz. 1983. Communication via substratum coupled stridulation and reproductive isolation in wolf spiders. Anim. Behav. 31:164-172.
Stratton, G. E. 1984. Differences in maturation rates of *Schizocosa ocreata, Schizocosa rovneri*, their F1, F2 hybrids and backcross progeny. Bull. Brit. Arach. Soc. 6:193-199.
---------- 1985. Introduction to behavioral studies of wolf spiders. Revue Arachnologicque. 6:57-70.
Stratton, G. E. and G. W. Uetz. 1986. The inheritance of courtship behavior and its role as a reproductive isolating mechanism in two species of *Schizocosa* wolf spiders. Evolution 40:129-141.

Director

James C. Cokendolpher

Education:
A.A.S.C.T. Chemistry, Midwestern State University, 1976.
B.S. Biology, Midwestern State University, 1976.
M.S. Biology, Midwestern State University, 1978.

Job Experience:
Texas Tech University, Research Assistant, 1978-80.
Texas Tech University, Technician II, 1980-present.

Professional Societies:
American Arachnological Society, American Association for Zoological Nomenclature, Arachnological Society of East Asia, Australasian Arachnological Society, British Arachnological Society, Entomological Society of America, Guild of Natural Science Illustrators, International Carnivorous Plant Society, New York Entomological Society.

Awards and Honors:
Assistant Editor, The Journal of Arachnology, 1984-86; Nominations Committee, American Arachnological Society, 1983, 1985 (Chairman); Exline-Frizzell Grant-in-aid for Arachnological Research, California Academy of Sciences, 1984, 1986; Research Associate, Florida State Collection of Arthropods, Gainesville, 1979-present.

Selected Publications in last 5 years:

Jennings, D. T., M. W. Housewart, and J. C. Cokendolpher. 1984. Phalangids (Arachnida: Opiliones) associated with strip clearcut and dense spruce-fir forest of Maine. Environ. Entomol. 13:1306-1311.
Cokendolpher, J. C. and D. Lanfranco-L. 1985. Opiliones from the Cape Horn Archipelago: new southern records for harvestmen. J. Arachnol. 13:311-319.
---------- and W. F. Rapp. 1985. *Leiobunum lineatum*: a synonym of *Leiobunum creatatum* (Opiliones: Gagrellidae). J. Arachnol. 13:347-354.
Ekpa, O., J. W. Wheeler, J. C. Cokendolpher, and R. M. Duffield. 1985. Ketones and alcohols in the defensive secretion of *Leiobunum townsendi* Weed and a review of the known exocrine secretions of Palpatores (Arachnida: Opiliones). Comp. Biochem. Physiol. 81B: 555-557.
Jones, S. R. and J. C. Cokendolpher. 1985. Spermatogenesis in the harvestman *Vonones sayi* (Simon)(Opiliones: Cosmetidae). Bull. British Arachnol. Soc. 6:403-413.
Redell, J. R. and J. C. Cokendolpher. 1985. Redescription of *Trithyreus grassi* (Thorell)(Arachnida: Schizomida: Schizomidae). Oriental Insects 18:43-52.
Cokendolpher, J. C. and S. A. Stockwell. 1986. A new species of harvestman from Arizona (Arachnida: Opiliones: Palpatores: (*Dalquestia*). Southwest. Nat. 31:49-53.
Francke, O. F., J. C. Cokendolpher, and L. R. Potts. 1986. Supercooling studies of North American fire ants (Hymenoptera, Formicidae). Southwest. Nat. 31:87-94.

Matthew H. Greenstone

Education:
B.S. Biological Sciences, Cornell University, 1967.
Ph.D. Zoology, University of California at Berkeley, 1976.

Job Experience:
University of California at Berkeley, Graduate Teaching Assistant, 1971-74; State University of New York, Stony Brook, Visiting Assistant Professor, 1976-77; University of California at Irvine, Lecturer, 1977-80; Organization for Tropical Studies, Costa Rica, Visiting Faculty Member, 1980; University of Florida, Assistant Research Scientist, 1980-82; U.S.D.A. Biological Control of Insects Research Laboratory, Columbia, Missouri, Supervisory Research Entomologist, 1982-present; University of Missouri-Columbia, Adjunct Associate Professor, 1984-present.

Professional Societies:
American Arachnological society, American Association for the Advancement of Science, British Arachnological society, Ecological Society of America, Entomological Society of America, International Organization for Biological Control, Kansas Entomological Society, C. V. Riley Entomological Society.

Awards and Honors:
Chancellor's Fellowship in Zoology, University of California at Berkeley, 1974-75; National Science Foundation Research Grant, 1974-75; National Geographic Society Research Grant, 1979-80; U.S.D.A. Competitive Research Grant, 1986-88; Nominations Committee, American Arachnological Society, 1985-86 (Chairman, 1986); Exline-Frizzell Grants-in-aid Committee, American Arachnological Society, 1986-88.

Selected Publications in last 5 years:

Greenstone, M. H. 1983. An enzyme-linked immunosorbent assay for the *Amblyospora* of *Culex salinarius* (Microspora: Amblyosporidae). J. Invertebr. Pathol. 41:250-255.
----------. 1983. Site-specificity and site-tenacity in a wolf spider: a serological dietary analysis. Oecologia 56:79-83.
----------. 1984. Determinants of web spider species diversity: vegetation structural diversity vs. prey availability. Oecologia 62:299-304.
----------, C. E. Morgan, and A. L. Hultsch. 1985. Ballooning methodology: equations for estimating masses of sticky-trapped spiders. J. Arachnol. 13:225-230.
----------, A. L. Hultsch, and C. E. Morgan. 1985. Effects of method and time of preservation on volumetric mass estimates of spiders (Araneae). J. Arachnol. 13:406-408.
Coyle, F. A., M. H. Greenstone, A. L. Hultsch, and C. E. Morgan. 1985. Ballooning mygalomorphs: estimates of the masses of *Sphodros* and *Ummidia* ballooners (Araneae: Atypidae: Ctenizidae). J. Arachnol. 13:291-296.
----------. C. E. Morgan, and A. L. Hultsch. 1985. Spider ballooning: development and evaluation of field trapping methods (Araneae). J. Arachnol. 13:337-345.

SUGGESTED CHANGES IN THE BY-LAWS:

ARTICLE I, Section 8:
A class of Honorary Membership shall be established to acknowledge arachnologists who have achieved a high level of eminence on the basis of significant research contributions. After being nominated, an individual may be elected by a two-thirds vote of the Executive Committee. The number of Honorary Members is not to exceed 5% of the total membership. A list of these Honorary Members is to be published in each issue of The journal of Arachnology.

ARTICLE II, Section 5:
An elected officer or member of the Board of Directors may be renominated, but only the Secretary and Treasurer may serve for more than two consecutive terms in the same office.

ARTICLE II, Section 11:
Election of Officers and the Board of Directors shall be as provided for in Art.II, Sec. 4 of these By-Laws. Appointment of a three-member Nominating Committee shall be made by the President and announced at the annual business meeting. The nominees must indicate to the Nominating Committee their willingness to serve if elected. Mail-in ballots, which shall be included in the following year's Spring issue of the Newsletter, shall be returned to the Nominating Committee for counting. Write-ins on ballots will be permitted. Election results will be announced at the annual business meeting. Newly elected officers shall take office on the first day of September of the year in which they are elected.

ARTICLE IV, Section 4:
Honorary Membership will be gratis and must be bestowed by a two-thirds vote of the Executive Committee.

SUGGESTED CHANGE IN THE CONSTITUTION:

ARTICLE V, Section 3:
Officers appointed by the President, with approval of the other members of the Executive Committee, shall include the Editor, Membership Secretary, and Archivist.

NOTICES AND REQUESTS

NEW ASSOCIATE EDITOR OF THE JOA

After serving as Associate Editor of The Journal of Arachnology for several years, Bill Peck will be turning over his duties to Jerry Rovner. Those of us who submitted papers to the journal during Bill's tenure have appreciated the care he gave our manuscripts and his helpfulness in correcting our ignorance of some aspects of the instructions to Authors or our use of inappropriate abbreviations in journal citations. Beginning 1 May 1987, all manuscripts submitted to the Journal should be sent to: Dr. Jerome S. Rovner, Department of Zoological Sciences, Ohio University, Irvine Hall, Athens, Ohio 45701,USA.

NEW EDITOR OF THE NEWSLETTER

This is the last issue of the Newsletter that will be prepared under the direction of your current editor. Dr. James W. Berry will be the society's new secretary and the new editor of AMERICAN ARACHNOLOGY. All future newsletter items and related correspondence should be sent to him at: Department of Biology, Butler University, Indianapolis, Indiana 46208, U.S.A.

RECENT I.C.Z.N. OPINION

The following opinions, rulings of the International Commission on Zoological Nomenclature, have been published in volume 43, part 2, of the *Bulletin of Zoological Nomenclature* (9 July 1986):

Opinion No. 1394 (p. 144): *Centrurus limpidus* Karsch, 1879 and *Centruroides ornatus* Pocock, 1902 (Arachnida, Scorpiones): conserved.

TRIBUTE TO OSCAR FRANCKE

In recognition of 10 years service as editor of the Journal of Arachnology, the American Arachnology Society presented Oscar Francke with a plaque whose inscription reads:

"The American Arachnological society gratefully acknowledges the indispensable service of Oscar Francke as editor-in-chief of the Journal of Arachnology (1976-1986). His dedication and tireless labor established our journal as the major reporter of arachnological research in the world."

MARIE HARM 1903-1986

Dr. Marie Harm died in Dessau, D.D.R. on 8 December 1986 at the age of 83. She began publishing on spider morphology and systematics in 1931 and during the past seventeen years devoted her efforts to the study of European Salticidae.

SUPPLEMENT TO BRIGNOLI'S CATALOGUE OF THE ARANEAE

A supplement to Paolo Brignoli's "A Catalogue of the Araneae Described Between 1940 and 1981" (Manchester University Press, 1983) is being prepared under the joint auspices of Manchester University Press and the British Arachnological Society. The supplement, which will cover literature published from 1981 through 1987, will be compiled by Norman Platnick (Department of Entomology, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024 USA). Arachnologists worldwide are asked to aid in this effort by bringing to Dr. Platnick's attention (1) any omissions, of taxa or publications, they have noted in Brignoli's volume, and (2) any recent publications that may inadvertently have been omitted from C.I.D.A.'s "Liste Travaux" for the relevant years.

AMERICAN SPIDERS AVAILABLE

Willis Gertsch has purchased the remaining copies of his 274 page book, *AMERICAN SPIDERS* (2nd edition, 1979) and will sell them at $15.00 a copy to interested parties. This book is now out of print and will not be reprinted by the publisher. Those interested should write: Dr. Willis J. Gertsch, P. O. Box 157, Portal, Arizona 85632, U.S.A.

OPILIONID PHOTOGRAPHS WANTED

Bill Shear and Jochen Martens are planning to write a book on "The Biology of Opiliones," and would like to obtain photographs or color slides of opilionids. These will be copied using a process that does not endanger the originals and the originals returned to the lender. If a photographer has a large collection of such pictures, a list would be sufficient and very helpful. Please send photos to: Dr. William A. Shear, Department of Biology, Hampden-Sydney College, Hampden-Sydney, Virginia 23943.

BOOK WANTED

Bill Shear wishes to buy a copy of the Roewer Folifugae volume of Klassen und Ordungen des Tierreich (1934), if such is available at a reasonable price. Please write him at: Department of Biology, Hampden-Sydney College, Hampden-Sydney, Virginia 23943.

BOOK REVIEW

Spinnenfauna gestern und heute by Jörg Wunderlich, (Fossile Spinnen in Bernstein und ihre heute lebenden Verwandten.) 283 pp., 1986. Erich Bauer Verlag-bei Quelle Mayer, Wiesbaden.

The volume is divided into six chapters. An introduction discusses origin and age of Baltic and Dominican amber and Dominican copal. The first chapter lists the families, subfamilies and genera present in Baltic and Dominican amber. The second discusses conclusions that can be drawn from the finds: climates, relationship of faunas, zoogeography, survival and habits of fossil spiders. The third deals with the similarities of fossil and present-day nesticids. The fourth discusses the survival of amber spiders: are present-day spider species found in amber? The relationship of recent to fossil spiders of seven families is considered: Oonopidae, Dictynidae, Agelenidae, Theridiidae (*Episinus* and *Dipoena* species), Araneidae *sensu lato*., Linyphiidae and Salticidae. Males of five *Nephila* species have been found in Dominican amber, but there is only one Recent one.

The fifth chapter discusses orb weaver relationships. Some arachnologist will be delighted with eight cladograms of possible choices, some resembling recent Coddington (1986) cladograms. Perhaps the araneoid phylogeny is less controversial than thought. The last chapter has an index of new synonymies and new descriptions. Numerous family, generic, and species names of fossil spiders of Petrunkevitch are synonymized. There are 124 pages of illustrations and photographs, many in color. Genitalia of Recent and new fossil spiders are illustrated. Only adult spiders are described as new, and only if the genitalia could be illustrated. The extraction of biological generalities from the material on hand is exemplary. There are English language abstracts. This volume seems very competent and one looks forward to the two forthcoming volumes, one on Dominican amber and the other on Baltic amber.

Reference Cited

Coddington, J. 1986. the monophyletic origin of the orb web *in* Shear, W. A. ed. Spiders, Webs, Behavior and Evolution. Stanford Univ. Press. pp. 329-363.

Herbert W. Levi
Museum of Comparative Zoology
Harvard University
Cambridge, MA 02138

THE AMERICAN ARACHNOLOGICAL SOCIETY
Department of Biology Norman V. Horner, Treasurer
Midwestern State University, Wichita Falls, Texas 76308

FINANCIAL STATEMENT 1986

Balance Brought Forward from Dec 31, 1985 Statement		$ 5,534.68
DEPOSITS		
Credit for Outstanding Check	$ 28.25	
Back Issues of JOA	450.00	
Dues Collections	19,214.94	
Interest on CDs	994.87	
Book Sales	2,295.87	
Deposit of CD	5,000.00	
Return Issue Mailing	35.00	
Donations to Society	146.00	
Reprints	74.36	
Loans from Bank	8,500.00	
Page Charges	200.00	
	$36,939.29	
Subtotal		42,473.97
DISBURSEMENTS		
Postage & Shipping	1,048.10	
Supplies	171.80	
Dues to Organizations (BAS, ASEA, CIDA RA)	4,545.00	
American Society Systematics	125.00	
Newsletter Printing	316.00	
Journal Printing	20,983.17	
Filing Fee	12.50	
Bank Charges (Collection Fees)	46.19	
Honoraniums for JOA Editor	500.00	
" " Asst. Editor	500.00	
Travel Exp. for Asst. Editor (National Meeting)	300.00	
Travel Exp. for Editor (Texas Tech)	523.87	
Travel Exp. for Editor (National Meeting)	300.00	
Book Cost (Adv. & Illust.)	35.00	
Returned Check	88.00	
Bank Loans	8,500.00	
Interest on Loans	90.83	
Subtotal	38,085.46	-38,085.46
Bank Balance		$ 4,388.51
Certificate of Deposit #13290		10,000.00
Total Assets		$14,388.51

Norman Horner, Treasurer

RESEARCH REPORTS

Bruce Cutler
1966 Eustis Street
Lauderdale, Minnesota 55113
November 23, 1986

Between moving, see new address above, my regular job and part-time work, it has been difficult to get much work done on arachnids lately. I seem to have amassed a large amount of data on phenology, habitat associations, natural history, etc. with little time to pull this material together. It will all get out eventually, but slowly.

Taxonomic work proceeds with the final revised copy of the manuscript revising *Synageles* of the New World on its way to Bill Peck. I also have completed manuscripts on Middle American *Synemosyna*, and New World *Chalcoscirtus*. I am in the last stages of revising *Peckhamia*, an amazingly difficult process. Males can be discerned to species by consistent genitalic characteristics, but females are another matter. In certain species, size differences in different areas are on the order of 3 - 5 X with variable coloration details and actual development, possibly related to different ant models.

Natural history-phenology material gathered include: vegetation inhabiting spiders in an oak savanna in eastern Minnesota, and in a western Minnesota prairie, spider use of old seed pods of *Penstemon grandiflorus*. With Dan Jennings I have collaborative studies on the natural history of *Metaphidippus arizonensis* in AZ & MN, spiders of black spruce, habitat preferences of Minnesota *Metaphidippus*, and a list of the crab spiders of Ramsey Co., Minnesota.

Other material to be worked up include a study in cold tolerance of Minnesota *Metaphidippus* with William Schmidt, transmission electron microscopic study of *Phidippus* epidermis, and determination of a large collection of salticids from Panama collected by Wolfgang Nentwig.

I have restricted my actual data collecting greatly due to other more pressing needs. I am still collecting salticid eggs for a study on egg chorion microspheres by scanning electron microscopy, and collecting material for a natural history of *Synemosyna formica*. I would appreciate observations of others concerning this species. This summer I came across egg predation in cocoons of *Dictyna coloradoensis* by a species of chalcidoid (possibly *Eupteromalus*) which offers interesting possibilities for field manipulation.

Having been interested in amber spiders for several years I have accumulated numerous specimens, but because of the difficulties of gathering material from many different sources, including those overseas, I have refrained from any serious work up to now. One thing that continues to puzzle me is the absence of any antlike spiders from the large numbers of spider specimens from the Dominican Republic amber.

Jim Berry
Department of Biological Sciences
Butler University
Indianapolis, IN 46208

Joe Beatty
Department of Zoology
Southern Illinois University
Carbondale, Illinois 62901

In 1968 we began studying the biogeography and ecology of Pacific Island spiders. Our first trip was to the Marshall Islands (Eniwetok, Kwajalein and Majuro) and most of our work has been in Micronesia, so far. A trip planned for early 1987 to the Marquesas Islands, Cook Islands and Fiji should complete the field work in the islands. Jim and Betsy are leaving

for the Cook Islands right after Christmas, and Joe will join them in February.

We have been sharing all aspects of the work, but Jim is most interested in ecology and Joe in taxonomy. Our collecting has shown that there are more species of spiders on the small islands, especially the atolls, than is usually thought. We have collected 150 species from the small area of the Palau Islands, as compared with the 170 species that have been reported from all the Hawaiian Islands. Previous lists of species from Pacific atolls have included a maximum of only about 15 species, while we found 37-43 on each of the Marshall Island atolls we visited.

So far we have collected approximately 360 species (15,000 specimens). Obviously, there is more work to be done on this material than we will be able to do, and we are quite willing to lend portions of it to others who may be interested. Because of the assistance we have received from their staff, and our feeling that the material should be in a museum in the Pacific area, we have promised all type specimens from our collection to the Bishop Museum.

The collection is entirely sorted to the species level, and most are identified to genus. In the araneids, for example, we have 60 unidentified species, but only about 10 are not assigned to a genus. The araneids, theridiids and salticids are the major groups, totalling about 50% of the collection.

Two of the groups we have found of special interest so far are the genus *Paratheuma*, and the mygalomorphs. The Pacific species of *Paratheuma* (described in the genus *Swainsia*) is found in coral rubble at the high water mark on many Pacific islands, like the Caribbean *Paratheuma* which we have found in the Florida Keys. The latter is the first record of the family Desidae in the United States. We have prepared a paper on *paratheuma* and are working on another on the life history of the Florida species, *P. insulana*.

The mygalomorphs have proved to be more common and widespread in the islands than we expected from literature reports. A small tarantula is one of the commoner spiders on Ponape, and we have taken another mygalomorph even as far out in the islands as Eniwetok. The latter may well be introduced, however.

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What I really wanted to do was to learn something about spider taxonomy. From a distance I have always been fascinated by classification but have no background in the area. As an optometrist, and later as someone trained to do research in the visual system, I had never been even close to finding out how taxa are put together. So off I went to the annual meeting in Ohio (1983). There, Jerry Rovner did a beautiful job at making an outsider feel comfortable, and very rapidly I was able to meet the worthies in the field. I have been to every annual meeting since, and have learned a lot.

Once I got talking to what were now my fellow arachnologists I rapidly learned that although I was not expected to know anything about taxonomy, I was expected to know something about the spider visual system. Every conversation which started on classification seemed to finish in the visual system. Well, it was flattering to be considered an expert, so when I returned from Ohio, I started reading the literature.

Color vision was interesting. In order to address the question I had to learn something about the spectral sensitivity of spiders. Before even beginning experiments in color vision the influence of brightness has to be ruled out. This is necessary to insure that the animal makes distinctions on the basis of color. So I became interested in establishing what colors (wavelengths) appeared brightest to a spider when the energy content was the same. Or to put it the other way around, what energy was required at different wavelengths in order to produce the same threshold response. Some very impressive work has been done on electrophysiologically-determined spectral sensitivity, but I wanted to work on the whole spider, and use some aspect of its behavior. If you want to find out what a spider sees, you ask it.

With two young arachnologists Iain Wilson and Kate Wilson, I spent a happy Summer running *Maevia inclemens* (Salticidae) through a T-Maze and attempting to train the spider to distinguish brightness from darkness. Although this was beginning to work, it was extremely time consuming and there was a conflicting need for Iain and Kate to begin school as the Summer drew to an end. Later Alan Peaslee joined the Department of Physiological Optics as a graduate student, and expressed a willingness to work in this area. Together Alan and I developed a technique for measuring spectral sensitivity which was not only less time-consuming, but relied on an oculomotor reflex which did not have to be trained. Anyone interested in this work can find the abstracts from the annual meetings in Los Angeles (1985) and St. Louis (1986), and also the Annual Meeting of the Association for Research in Vision and Ophthalmology(1). A full length paper will be sent for review at the end of this summer, and should be published in 1988.

As for taxonomy, we are still working on it. There might be a mystery here in Alabama. I have never seen the dimorphic male of *Maevia inclemens* in Jefferson County or Shelby County. In fact, Iain and Kate have been offered a reward of $5 if they can collect a living specimen. They know what a *Maevia* habitat looks like, and they can recognize a male and female. This will be our third Summer of looking for this animal. There must be one out there.

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COMMENTS ON ARACHNID NOMENCLATURE

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While there is agreement that each animal species should have one scientific name and only one, changes in generic placement as a result of phylogenetic studies and name changes due to synonymies (finding several names in use for the same animal), are unavoidable. An American species, for example, may turn out to be identical with a European one. In this case, if the European name is older, it has to be used. In spiders, the male and the female of a species may be known under different names; again, the older name has to be used. However, changes that result when literature searches turn up older, unused names can be avoided.

At the 15th International Congress of Zoology in London in 1958, a new Code of Zoological Nomenclature was adopted. At the time, there were several well-known zoologists on the Commission (E. Mayr, N. R. Stoll, P. Bonnet, R. L. Usinger, W. Lemche, G. G. Simpson, C. C. Hubbs, and G. Owen Evans). At the Congress (which I attended) there was pressure for action to prevent unneeded name changes. Such changes are attempted by amateurs and unfortunately by some professionals who believe that finding an older name is the height of scientific achievement. Perhaps the most important Article, overwhelmingly adopted by the Congress, was a statute of limitation (Art. 23b) preventing a name unused for 50 years from replacing a currently used name.

But when the Code was published in 1961, Article 23b was not clear at all and was misinterpreted by some to state that names not used for 50 years became invalid! Was it sabotage? The Commission was undecided as to what to do. An attempt was made to clarify (1962 in Washington). A later Congress (1972 in Monaco) spelled out Article 23b but made it nonautomatic: the case of finding an older name upsetting one in use has to be submitted to the Commission for suppression. In the meanwhile, usage could continue (Anon, 1974).

A new version of the Code (1985), unfortunately more complex than the previous one, has Art. 23b renumbered to become Art. 79c. It calls for the senior name to be suppressed "if [it has] not . . . been used as a valid name during the immediately preceding fifty years . . . and if the junior name has been applied to a particular taxon as its presumably valid name, by at least 5 different authors and in at least 10 publications during the same period." While the petition is being made, accustomed usage continues (Art. 80a). Catalog citation is not usage.

Despite the deficiencies in the wording of the Statute of Limitations, there has been a decline in name switching due to "discovery" of an older synonym. Perhaps peer pressure, competition for grants, and prepublication review of papers have contributed to the decline, or perhaps it has simply become unfashionable. The fact that there is a Code of Nomenclature with the purpose "to promote stability and universality in scientific names of animals" (Preamble) is easily overlooked by young taxonomists eager to publish. And what is easier than finding an older name with unspecific description and no surviving type? (Types were not established consistently for new names until after the turn of the century, after the first International Code of Nomenclature.)

While individual articles of the Code are occasionally cited out of context to support the change of an established name, such attempts contravene the purpose of the Code. There are, of course, uncertain and doubtful cases.

Unfortunately, there are many old names out there, names that are difficult and subjective to interpret. In particular, Walckenaer's 1841 names for spiders seem ubiquitous. (Walckenaer's collection is lost, perhaps within the Paris Museum.)

Arachnologists should also know that since 1948 the Commission has permitted the use of Clerck's names of spiders to be used. Clerck published

just before Linneaus's 10th edition in 1758, the start of binomial nomenclature.

Also there are Official Lists of Specific Names, Generic Names and Family Names of animals (the result of past Opinions and Decisions by the Commission) and lists of invalid names (that have been rejected.)

One new way of documenting usage of names, important when asking that an unused senior synonym be suppressed, is by making a computer search of titles in the library. It worked surprisingly well when I recently requested preservation of the names *Robertus* and *Argyrodes*. *Robertus* and *Argyrodes* won out over the names that might be senior synonyms. (Preservation was originally requested in 1962 but no action was taken by the Commission since a procedural mistake had been made. The request was resubmitted in 1985.) To facilitate such a computer search of titles for valid names, it is advisable not to use a name considered invalid because it is a junior synonym or a doubtful name in the title of an article.

Another wrong idea frequently encountered (and unfortunately encouraged by some entomological journals) is that the author of a scientific name of a taxon is part of the name. It is not; the author's name is part of the citation (ICZN Art. 51, Appendix E9-11) and thus does not belong in a title (CBE, 1983, p. 186) and does not have to be repeated throughout the text.

To summarize: It is worthwhile for arachnologists to become acquainted with the Code of Zoological Nomenclature. The purpose of the Code, as stated in the Preamble, is to preserve stability and universality of names, not to promote a search for the oldest name or to credit the oldest author, as thought by some. The CBE style manual, fifth edition has additional valuable information.

I thank J. Coddington for valuable comments.

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SPIDERS IMPLICATED IN HUMAN ENVENOMATIONS

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The excellent article on "The Myth of the Brown Recluse Spider" by Dr. Kunkel in the March 15, 1985, issue and the comments by Dr. Lash in the July 15, 1985, issue point out, once again, present shortcomings in diagnosing Loxosceles (brown or violin spider) bites, as well as the legal issues in which we sometimes become embroiled. The original listing of differential diagnoses noted by Dr. Kunkel was presented before the American Arachnological Society by Russell in 1982 and was based on a review of approximately 600 "spider bites" seen between 1950 and 1980.

In approximately 80% of the final diagnoses, the bites were thought to be caused by arthropods or the widow, crab, or wolf spiders. Further examination of the data indicated that about 10% were probably due to Loxosceles bites, principally *L. reclusa, L. deserta, L. arizonica, L. apache*, and *L. devia*. The remaining cases were due to unrelated disease states, as Dr. Kunkel has indicated. Dr. Lash adds warfarin poisoning. I wish to add several more that have come to my attention during the past five years: periarteritis nodosa, lymphomatoid papulosis, pyoderma gangrenosum, keratin cell mediated response to a fungus, and sporotrichosis - I am indebted to Dr. Ronald Hansen and Dr. Willis Wingert for calling several of these misdiagnosed disease states to my attention.

The readiness with which some physicians blame spiders for sundry disease states and bites needs to be reexamined. This is particularly true in those areas where Loxosceles does not exist. At least 60% of all consultations on Loxosceles bites referred to me between 1970 and 1985 were from areas in which the spider is not found. The interested reader is referred to the fine work of Gertsch and Ennik, published in the *Bulletin of the American Museum of Natural History* (vol. 175, p. 263), for distribution data on these arachnids.

In addition, the frequency with which physicians identify spiders as "insects" in the literature - and in the courts - is good evidence that some of us are not familiar with the diversity of arthropods. Finally, the hysteria elicited over spider bites, particularly by the media, has gone a long way to complicate the issue for both physicians and arachnologists, or arenologists. It is little wonder that the editor of *American Arachnologist* titled a paper "Spiders Get the Bum Rap."

Perhaps this is the proper time to list those spiders that have been implicated in envenomations on man. Many of these spiders were identified by myself, W. J. Gertsch, or V. A. Roth after bites that elicited sufficient symptoms or signs to warrant medical attention. Some spiders were identified by other workers after known bites and there is reasonable evidence to suggest they can be of medical importance. Unfortunately, the evidence for the medical importance of still other spiders in the list is circumstantial or questionable, either because the person reporting the bite was not trained in medicine and may not have been able to distinguish between a sensitivity reaction or a secondary infection and an envenomation, or because the writer was not trained in the identification of the offending culprit. In spite of those shortcomings, however, the list seems reasonably complete.

Genera and distribution of spiders known to inflict significant bites on humans

Genus	Family	Common name	Distribution
Aganippe species	Idiopidae (formerly Ctenizidae)	trap-door spider	Australia
Araneus species	Araneidae	orbweaver	worldwide
Arbanitis species	Idiopidae (formerly Ctenizidae)	trap-door spider	Australia, East Indies
Argiope species	Araneidae	orbweaver	worldwide
Atrax species	Hexathelida (formerly Macrothelinae)	funnel-web spider	Australia, Tasmania
Bothriocyrtum species	Ctenizidae	trap-door spider	California
Cheiracanthium species	Clubionidae	running spider or sac spider	Europe, North Africa, Orient, North America
Cupiennius species	Ctenidae	banana spider	Central and South America, West Indies
Diallomus species (formerly Elassoctenus)	Zoridae (formerly Ctenidae)	Zorid (formerly Ctenid)	Australia
Drassodes species	Gnaphosidae	running spider	worldwide
Dysdera species	Dysderidae	dysderid	Eastern Hemisphere, Americas
Filistata species	Filistatidae	hackled-band spider	temperate and tropical zones worldwide
Harpactirella species	Theraphosidae	trap-door spider	South Africa
Hermeas species (formerly Dyarcyops)	Idiopidae (formerly Ctenizidae)	trap-door spider	Australia, New Zealand
Heteropoda species	Sparassidae	giant crab spider	tropical zones worldwide
Isopoda species	Sparassidae	giant crab spider	Australia, New Guinea, East Indies
Ixeuticus species	Desidae (formerly Amaurobiidae)	desid (formerly amourobiid	New Zealand, Southern California
Lampona species	Gnaphosidae	running spider	Australia, New Zealand
Latrodectus species	Theridiidae	widow spider	temperate and tropical regions worldwide
Liocranoides species	Clubionidae	running spider	Appalachia and California
Loxosceles species	Loxoscelidae	brown or violin spider	Americas, Africa, Europe, Australis, Pacific Islands
Lycosa species	Lycosidae	wolf spider	worldwide
Missulena species	Actinopodidae	trap-door spider	Australia
Misumenoides species	Thomisidae	crab spider	North and South America
Miturga species	Miturgidae	running spider	Australia

Mopsus species	Salticidae	jumping spider	Australia
Neoscona species	Araneidae	orbweaver	worldwide
Olios species	Sparassidae	giant crab spider	North and South America
Pamphobeteus species	Theraphosidae	tarantula	South America
Peucetia species	Oxyopidae	lynx spider	worldwide
Phidippus species	Salticidae	jumping spider	worldwide
Phoneutria species	Ctenidae	hunting spider	Central and South America (has been transported to other areas)
Rheostica species (formerly Aphonopelma)	Theraphosidae	tarantula	North America
Selenocosmia species	Theraphosidae	tarantula	East Indies, India, Australia
Steatoda species (Teutana, Asagena, and Lithyphantes are low Steatoda)	Theridiidae	tangleweb weaver, false black widow	worldwide
Thiodina species	Salticidae	jumping spider	Americas
Trechona species	Diplluridae	funnel-web spider	Central and South America
Ummidia species	Ctenizidae	trap-door spider	North and Central America

YET ANOTHER NOTION ABOUT THE COURTSHIP OF SPIDERS

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Why is the courting behavior of male spiders so ornate and often species-characteristic? Almost any review of this question (e.g. Robinson & Robinson 1980. Pacif. In. Monogr. no. 36) will point to three basic hypotheses which have remained little changed since about the start of this century:

1. Courtship inhibits the female's predatory drive in the proximity of a very edible animal of about the right size.
2. It stimulates the female to accept the male as a mate.
3. It allows the female to recognize the male's species-identity, so that she does not waste reproductive investment on a heterospecific.

There is no reason why courtship must serve just one of these functions, and all three hypotheses may be correct to one extent or another. Still, it is not pointless to try to identify one or another as the limiting factor in the evolution of courtship in a particular lineage, the one factor which really makes the difference. My purpose here is not exactly to contribute to a resolution of this question, at least not directly. Rather, I want to call attention to an additional hypothesis which I have not seen mentioned in the spider literature.

Zahavi's (1977 pp. 253-59- *In*: Stonehouse & Perrins, eds., *Evolutionary Ecology*. Macmillan) "fox-fox" hypothesis is a wonderfully imaginative attempt to account for the loud food-begging ruckus of nestling birds. The idea is that the nestling blackmails its parents to quiet it with food, by threatening to call a predator's attention to its family.

By analogy, the relative conspicuousness of a courting male spider might be seen as sexual blackmail. "If you agree to mate with me", he is saying, "we can start the quiet business of sperm transfer. Otherwise I'll keep running about and waving flags until you give in. Certainly, a predator might get me, but it might well get you at the same time. Is it worth the risk?"

Do I believe all this? On the contrary, it seems wildly improbable. Similarly, of the many references I have seen to the fox-fox hypothesis, none treats it as a likely explanation for nestling begging (e.g. Dawkins 1976. *The Selfish Gene*. Oxford U.P.). Why, then, is it so often cited? I think it is because, like many of Zahavi's ideas, a) it flies in the face of how we think nature works, and yet b) there is nothing quite impossible in it. Its power lies in the challenge to say exactly why it is wrong. One cannot dismiss Zahavi as one does, for example, Immanuel Velikovsky.

By analogy, a) a male spider is almost certainly exceptionally conspicuous when courting, b) this must also call some attention to the (often larger) female, c) a mating pair is immobile and not especially conspicuous, and d) a male could raise the stakes by making his display more flamboyant.

I myself don't believe any of this has shaped the evolution of courtship in spiders. But I could be wrong.

A CANADIAN GLIMPSE OF AUSTRALIAN SPIDERS

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To me, the Australian spiders always have had a strange fascination. Tales of their poisonous nature have come my way on several occasions. Stories of the poisonous nature of the Red-back spider are many, but on arrival in Australia, I found that the Funnel-web spider is even more dangerous than the Red-back. It is reported that since the advent of the production of antivenenes by the Commonwealth Serum Laboratories, deaths from bites by these poisonous spiders no longer occur.

My wife and I arrived in Sydney, New South Wales on November 19th, 1986, armed with names of Australian Arachnologists. The first was Mr. Mike Gray, of the Australian Museum in Sydney. The second was Dr. Robert Raven, of the Queensland Museum in Brisbane, Queensland. We called on Mr. Gray in the Australian Museum on a Friday afternoon. He showed me a mounted specimen of the Red-back spider *Latrodectus hasseltii*. It belongs to the same genus as the Black Widow spider of North America, and the Katipo spider of New Zealand. As in the Black Widow spider, the female Red-back is much larger than the male. The female may be from 6-12 mm in length, whereas the male is only about 3 mm long. The female Red-back is known by its black-brown colour, and by the red stripe on the typically rounded abdomen (back). Like the Black Widow, it has the "hour-glass" mark on the venter. The female stays in the tangled web, and builds up to seven egg sacs per year, each containing up to 150 eggs.

The bite of the Red-back is not always dangerous. Its effects depend on the amount of venom injected at the time of the bite. When sufficient venom is injected, the bite is usually immediately painful, after which sweating, shivering and muscular weakness may occur.

Mr. Gray showed me the Sydney-Funnel-web spider, *Atrax robustus*, in the Australian Museum in Sydney, but I did not realize that the spider was usually dangerous until I saw it in Brisbane. At the Queensland Museum in Brisbane, Dr. Raven, whom I was visiting, put the tip of a pencil into a jar with one, which immediately reared up, raising its fangs like parallel daggers. I could see the droplet of venom on the tip of each fang! I was told that the spiders are very aggressive, and I was convinced of it by the action of that individual. The male, unlike the Red-back male is more dangerous than the female, and has venom 3-5 times more toxic. The sexes are of approximately the same size, but the male may be distinguished from the female by its legs, which are longer and more slender. "*Atrax*, the funnel-web spider, is a 'trap-door spider' that spins a silken tube which has no trap door covering it" (3). Another species, *Atrax formidabilis*, is found in damp places such as holes in trees in rain forests, from Brisbane in the north to Melbourne in the south, each of the Dividing Range, and in western Tasmania. The chelicerae of the spider are large, protruding in front of the cephalothorax, and have large fangs folded underneath. When in the striking position, the cephalothorax is raised and the fangs presented straight forward.

Female funnel-web spiders remain in their funnels, but the male, as is usual with male spiders when mature, wander in search of females. During this period of wandering, they may enter houses and tents, and seek refuge in clothing. It is when the unsuspecting person dons the clothing that bites occur. Symptoms of bites are severe pain followed by numbness of the affected parts. Vomiting, sweating and muscular cramps may follow.

Antivenenes are prepared by collecting the poisons from the spiders and injecting into horses, followed by extraction and purification. Venom from the Funnel-web spiders is collected by encouraging the spiders to assume the striking position, and collecting the poison from the ends of the fangs. This is done about once a month for individual spiders. Venom from the Red-back spiders is collected by removing the poison sacs from the killed females.

I did not go prepared for spider hunting in Australia. While in Brisbane on the way to Cairns, I spoke to Dr. Raven by telephone. When he heard that I was going to Cairns, he asked me to look for a spider called *Portia*, which he said could be found in the Cairns area. This is a web building Salticid that lives on other spiders. I failed to find one for him, but I did find a nice colony of the garden spider, *Argiope*. Back in Brisbane, at the Botanical Gardens, I found a very large colony of a spider that spins two horizontal webs with interconnecting snare lines. Dr. Raven thinks that the spider would be *Cryptophora moluccensis*, family Araneidae. While strolling along the water front at Port MacQuarrie, we found a large orb-web in a bush. When I touched the web, a large Araneid spider rushed out of her retreat to investigate. I was able to take a good photograph of this interesting large spider. On Kangaroo Island, I found a Daddy-long-legs spider *Pholcus phalanioides*, and in Adelaide, I found a communal spider in a shed. It spins a cobweb, with individuals of different sizes living together

in the same web. At rest, they look like pieces of detritus. One has but to touch the web, and they would start to move around. This was most curious to me. From my description of the spider, Dr. Raven thought that it would be *Zosis geniculatus* (Oliver).

Surprisingly, I found rather few spiders in Australia. But then I spent little time actually looking for them. I enjoyed my brief stay there, and the contacts with the Arachnologists. I was told that there may be many undescribed species in the country, a carrot that might lure me back 'down under'.

Information sources:

1. Australian Spiders in Colour. Mascard.
2. The Red-back Spider. Information sheet 84/13, The Queensland Museum.
3. Funnel-web Spiders (*Atrax* spp.). Information sheet 84/12, The Queensland Museum.
4. Private communications. Dr. Robert Raven, and Dr. C. D. Dondale.

SPIDER TAXONOMISTS

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Several times in the past while working on the tedious side of spider taxonomy, getting the correct authors and dates after the species names, it occurred to me that there is much human interest and the like in the story of the years and the describers of spiders. Because taxonomy seems at times a dreary, uninspiring activity, I thought it worth while to liven it a bit and, at the same time, to give a rather interesting story of one of its faces by tabulating the describers of a particular taxon. I thought of discussing a particular family or the spiders of a particular region. Then a copy of Levi & Field's Spiders of Wisconsin (1954) came to hand and I discovered the following about the list. 1) There were 392 species described. 2) These were originally described by forty different independent taxonomists and four two-author-teams. This immediately emphasized an interesting point: apparently cooperation among taxonomists was not common in the Olden Days. It was not until 1925 when Crosby and Bishop described a species, which was subsequently found to inhabit Wisconsin, that we find two people describing one species. Possibly we should include here Peckhams, husband and wife, who described a few salticids around the turn of the century. However, even with this inclusion there is over a hundred years of describing before one of the species shows the results of a cooperative taxonomy.

Upon further examination, I found that there were two conspicuous peaks in the number of new species described: one in the 1830's and 1840's and another in the 1880's and 1890's. The following table, divided into 25 year intervals, emphasizes this fact.

1755-1780 -	19 species described
1781-1805 -	7 species described
1806-1830 -	2 species described
1831-1855 -	115 species described
1856-1880 -	31 species described
1881-1905 -	134 species described
1906-1930 -	45 species described
1931-1955 -	38 species described

The first peak is explained largely by the activity of Hentz and Walckenaer. They were the first great describers of American species. Of the Wisconsin species they described 95, most of them during these two decades - so that 85 of the 115 species of that time are due to these two men's efforts. All but 20 of the spiders of the 1880's and 1890's were described by three men: Emerton (66), Banks (28), and Keyserling (20). From 1905 until about 1920 the descriptions are sporadic with as many as 14 species described in one year and none in many of the years. Since 1930 there has been a steady flow of descriptions.

Next we might look at some of the recent war years (since in earlier years there were too few describers to be much affected by wars). From 1862-1866 we find there were no American describers at work. From 1914 to 1918 only Emerton, who was 67 at the time, was carrying on this "nonessential" work of taxonomy - the younger men couldn't be spared? From 1941 thru 1945 again we see no new spiders of Wisconsin being described - most of us were then busy at other things whether we would or no.

Finally, the spiders now found in Wisconsin owe their original description to 43 different men of at least seven nationalities. Sixteen of them were Americans, ten were born in Germany (later some of these became Americans). Seven, (and non-taxonomist might think this strange) were Swedish. Five were French, three English, and one each Belgian and Danish. Our Wisconsin spiders were really described by an international lot. The chronology of nationalities tells us an interesting story. Many might expect that our earliest described spiders would not go back prior to 1758. However, in 1757, Clerck, a Swede did such an excellent job of describing species that we accept his names even though they pre-date the 10th Edition of Linnaeus' *Systema Natura*. Until 1800 all but one or two Wisconsin species were described by Swedes. Linnaeus apparently set the fad for Swedish naturalists and they set the pace even for spiders. For the next thirty years the Swedes and French held sway and then in 1831 and 1832 a German and later naturalized American, Nicholas Hentz, showed what we could do. From then until about 1875 our spiders were being described mostly by the accurate Germans. But in 1875 America began to come into its own -- to do its own business as it were, with John Emerton, who at 28, began to describe spiders mainly of the American Continent. He didn't stop until his death at age 84 in 1931 when he had described more spiders later to be found in Wisconsin than anyone else -- a total of 91 species of those 392. From 1880 until the present all spiders of Wisconsin were described by Americans except for one naturalized American, George Marx, and an Englishman, Frederic Octavius Pickard-Cambridge. When totaled, however, we find that the Americans have really describeded most of the American spiders, as 250 of the Wisconsin species were originally described by Americans, 49 by Germans, 43 by French, about 26 by English, 23 by Swedish, and one each by a Belgian and a Dane. The Europeans, however, must be given credit for the starting of this long 200 years of spider description that led to the present Wisconsin list.

SPIDER GENERA OF NORTH AMERICA

Copies of Vincent Roth's Spider Genera of North America, published by the American Arachnology Society, are still available. This 176 page identification manual provides illustrated keys to the 55 families and roughly 500 genera of spiders known to occur in the United States and Canada. Current taxonomic references are provided for each family.

Spider Genera of North America sells for $10.00 U.S. if pre-paid or $12.00 if you wish to be billed or are using a purchase order. It is available from: Dr. Jon Reiskind, American Arachnological Society, Department of Zoology, University of Florida, Gainesville, Florida 32611, U.S.A.

Tarantula rescued — by firefighters

CAMBER, England — Firefighters rescued a pet tarantula that was overcome by smoke in a burning bungalow at Camber on the south England coast. The fire brigade said it found the large black poisonous spider motionless in its smoke-filled glass tank Sunday and revived it with compressed air. "The spider didn't appear to be moving so we gingerly maneuvered an air bottle from a breathing mask into its tank to clear the fumes," said fire station officer Brian Pope.

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