

# Acarology Bulletin

The Newsletter of the SYSTEMATIC AND APPLIED ACAROLGY SOCIETY

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## *In this issue.....*

- 14 Acarological News
- 14 2003 ASA Annual Meeting
- 14 Current Advance in Acarol.
- 17 Ticks and mites as vectors of new and re-emerging diseases
- 18 15th International Plant Protection Congress
- 19 Member news
- 19 international workshop on coconut mite
- 20 New Book
- 20 Insect Molecular Genetics
- 21 Contents of Journals
- 21 Exp. & Appl. Acarol.
- 21 Vol. 27, No. 3, 4, 2002
- 22 Int. J. Acarol.
- 22 Vol. 29, No. 1 (Mar 2003)
- 23 Vol. 29, No. 2 (Jun. 2003)

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**ACAROLOGICAL NEWS**

**The 2003 Acarological Society of America (ASA) Annual Meeting** will be held on Sunday, October 26, 2003 in Cincinnati, Ohio as part of the Entomological Society of America Annual Meeting. The following are scheduled programs:

**Morning Session****"Current Advances in Acarology"**

ASA Submitted Papers - Tentative Program

**Moderators:**

**Dr. Angela M. James**, USDA, APHIS, VS, CEAH, 2150 Centre Ave, Bldg B 2W4, Fort Collins, CO 80526-8117

**Dr. H. Joel Hutcheson**, Arthropod-borne and Infectious Diseases Laboratory (AIDL), Foothills Research Campus, Colorado State University, Fort Collins, CO 80523-1692

8:00: **Introduction** Angela M. James, USDA, APHIS, VS, CEAH, Fort Collins, CO

8:03: **Site specificity of Macronyssid mites on two species of vespertilionid bats in Indiana.** Christopher M. Ritzi\*, Department of Life Sciences, Indiana State University, Terre Haute, IN 47809

8:15: **Structure and elevational differentiation of small mammal parasite communities in West Kalimantan, Indonesia.** Barry M. OConnor\* and Antonia J. Gorog, Museum of Zoology and Department of Ecology and Evolutionary Biology, University of Michigan, Ann Arbor, MI 48109-1079

8:27: **Using herbivore-induced volatiles to enhance biological control of spider mites.** David G. James\*, Irrigated Agriculture Research and Extension Center, Washington State University, 24106 North Bunn Road, Prosser, WA 99350

8:39: **System approach to mite complex in Korean apple orchards.** Chuleui Jung\*, Entomology Program, Seoul National University, Suwon 441-744 Korea

**8:51: Study of some plant essences as natural control of *Varroa* mite.**

Ardeshir Ariana\*, Rahim Ebadi and Gholamhosein Tahmasebi, Iran Animal Science Research Institute, Karaj, Iran, Department of Plant Protection, College of Agriculture, Isfahan University of Technology, Isfahan, Iran

**9:03: Mate guarding in the Histiostomatidae (Acari: Astigmata).**

Norman J. Fashing\*, Department of Biology, College of William and Mary, Williamsburg, VA 23187-8795

**9:15: Multivariate species discrimination in the mite genus *Chaetodactylus* (Acari: Chaetodactylidae) associated with bees of the genus *Lithurgus* (Hymenoptera: Megachilidae) in North America.**

Pavel B. Klimov\* and Barry M. OConnor, University of Michigan, Museum of Zoology, 1109 Geddes Ave., Ann Arbor, Michigan 48109-1079

**9:27: First results of phylogenetic study of family Sejidae (Acari: Mesostigmata) based on morphological and molecular data.**

Mariam Lekveishvili\*, The Ohio State University, Museum of Biological Diversity, The Acarology Laboratory, 1315 Kinnear Rd, Columbus, Ohio 43212-1192

**9:39: Development of new nuclear protein-encoding genes for tick molecular phylogenetic analysis.**

Quentin Fang\*, Guang Xu, James Keirans, and Lance Durden, Georgia Southern University, Department of Biology, Statesboro, Georgia 30460-8042

**9:51: Taxonomy in the digital age.**

Michael McAloon\*, 75 N Eagleville Rd U-43, Department of Ecology and Evolutionary Biology, University of Connecticut

**10:03-10:18: Break****10:18: Does infection make tick hungrier? Effect of *Anaplasma phagocytophilum* infection on the questing behavior of *Ixodes scapularis*.**

Danielle Ross\* and Michael L. Levin, Viral and Rickettsial Zoonoses Branch, Division of Viral and Rickettsial Diseases, Centers for Disease Control and Prevention, 1600 Clifton Road, MS G-13, Atlanta, Georgia 30333

10:30: **Avian tick paralysis in the southeastern United States.** Gary R. Mullen\* and Renee R. Anderson, Department of Entomology and Plant Pathology, 301 Funchess Hall, Auburn University, AL 36849-5413

10:42: **Impact on tick abundance and parasitism in *Ixodes scapularis* (Acari: Ixodidae) by *Ixodiphagus hookeri* (Hymenoptera: Encyrtidae) with the reduction of white-tailed deer.** Kirby C. Stafford III\*, Department of Forestry and Horticulture, Connecticut Agricultural Experiment Station, 123 Huntington Street, Box 1106, New Haven, CT 06504

10:54: **Biological and molecular characterization of the rickettsiae present in *Ixodes* spp. ticks.** Jennilee Robinson\*, O. Ereemeeva, O. Mediannikov, N. Tokarevich, Michael Levin, and Gregory Dasch, Viral and Rickettsial Zoonoses Branch, Mail Stop G13, Division of Viral and Rickettsial Diseases, Centers for Disease Control and Prevention, 1600 Clifton Rd., N.E., Atlanta, GA 30333

11:06: **8-Br-cGMP is involved in fluid uptake isolated salivary glands of partially fed female *Dermacentor variabilis*.** Robert A. Blaudow\* and Lewis B. Coons, Microbiology and Molecular Cell Sciences, The University of Memphis, Memphis, TN 38152

11:18: **DNA vaccination of Balb/c mice using the tick salivary gland gene for Calreticulin.** Mohamed E. Selim\* and G.R. Needham, Desert Research Center, Animal Health Department, Mathaf El-Mataria St, Mataria, Cairo, Egypt 11753; Acarology Laboratory, The Ohio State University, 484 W12th Ave., Columbus, OH 43210-1292

11:30: **Partial characterization of an immunoglobulin binding receptor in *Dermacentor variabilis* salivary glands.** Richard P. Cotton\* and Lewis B. Coons, Microbiology and Molecular Cell Sciences, The University of Memphis, Memphis, TN 38152

**Afternoon Session****"Ticks and Mites as Vectors of New and Re-Emerging Diseases"**

ASA Formal Seminar - Tentative Program

(Several acarine transmitted diseases of serious importance threaten human and animal health as well as our agriculture. This symposium provides a review of some of the more important problems that occur or are emerging)

**Moderators:**

**Carl C. Childers**, University of Florida, Citrus Research & Education Center, 700 Experiment Station Road, Lake Alfred, FL 33850.

**Douglas E. Norris**, The W. Harry Feinstone Department of Molecular Microbiology and Immunology, Bloomberg School of Public Health, Johns Hopkins University, 615 N. Wolfe Street/Room E5008, Baltimore, MD 21205.

1:00: **Host-parasite-pathogen interactions between bees, mites and viruses.** Brenda V. Ball, Plant and Invertebrate Ecology Division, Rothamstead Research, Harpenden, Herts. AL5 2JQ, United Kingdom.

1:30: **Molecular evidence for transmission of Kashmir bee virus in honey bee colonies by the ectoparasitic mite, *Varroa destructor*.** Judy Chen, Bee Research Laboratory, USDA-ARS, BARC-East Bldg. 476, Beltsville, MD 20705.

2:00: **Citrus leprosis, an emerging disease vectored by *Brevipalpus* mites.** Jose Carlos Rodrigues and Carl C. Childers, University of Florida, Citrus Research & Education Center, 700 Experiment Station Road, Lake Alfred, FL 33850.

2:30: **Biological and molecular aspects of rickettsial maintenance and transmission on ticks.** Kevin Macaluso, Department of Microbiology and Immunology, School of Medicine, University of Maryland, Baltimore, Bressler Research Bldg/Room 13-009, 655 West Baltimore Street, Baltimore, MD 21201.

3:00: **Break**

3:15: **Antigenic profile of *Ixodes scapularis* salivary gland proteins: A potential biomarker for exposure to Lyme disease vectors.** Jennifer Anderson, Johns Hopkins Bloomberg School of Public Health, The W. Harry Feinstone Department of Molecular Microbiology and Immunology, The Johns Hopkins Malaria Research Institute, 615 N. Wolfe Street, Baltimore, MD 21205. .

3:45: **Variation among populations of *Dermacentor andersoni* in vector competence for *Anaplasma marginale*.** Glen Scoles, USDA-ARS, Animal Disease Research Unit 3003 ADBF, Washington State University, PO Box 646630, Pullman, WA 99164-6630

4:15: **Detection of human ehrlichiosis agents in ticks collected from southeastern United States.** Quentin Fang and Lance Durden, Department of Biology, PO Box 8042, Georgia Southern University, Statesboro, GA 30460-8042

5:00: **Business Meeting**

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The Organizing Committee of **the 15th International Plant Protection Congress (15th IPPC)**, for the sake of the health and the safety of all participants and in view of present uncertainty of the Severe Acute Respiratory Syndrome (SARS) in China, has made the decision to postpone the 15th IPPC.

To prevent the conflict from the dates of other international congresses in plant protection to be held next year, the Organizing Committee have carefully checked scientific calendar of 2004 and discussed with International Association for the Plant Protection Sciences (IAPPS) for the proper date and with Beijing International Convention Center (BICC) for the availability of the venue. The new date for the Congress will be on **May 11-16, 2004**.

The 15th IPPC is not only the first international plant protection Congress in the 21st Century, but also the first to be sponsored by the International Association for Plant Protection Sciences (IAPPS) and organized by the China Society of Plant Protection. It is well known that China, the hosting country, has an ancient culture and agricultural history dating back thousands of years.

According to historical records, the earliest mention of insect control is found in the Zhou Dynasty, ca. 3,000 years ago. The struggle between ancient

Chinese farmers and harmful insect pests has continued to the present day. In recent years, however, the Chinese government has paid great attention to modern plant protection science and technology and has achieved notable success in controlling important insects and diseases such as the migratory locust, armyworm and wheat rust, among others. China is proud of its achievement in using 7 percent of the world cultivated land to feed 22 percent of the world population. Needless to say, modern plant protection has played an important role in increasing agricultural production to this level.

For more information about the congress, please visit the website <http://www.ipmchina.net/ippc>

**Dr. Kerwin Hyland**, Professor Emeritus of Biological Sciences, University of Rhode Island and his wife Irene Hyland recently visited **Dr. Renjie Hu**, his formerly student and his wife, Bei Zheng and daughter, Kathy Hu, in Southern California. They spent wonderful time together reviewing and discussing research projects and life in general.

**Dr. Qinghai Fan** (Fujian Agriocultural and Forestry University, China) recently joined **Dr. Zhi-Qiang Zhang's** mite research team (Landcare Research, Auckland, New Zealand) to work on a project on the systematics of *Rhizoglyphus* in Australia and New Zealand. He will be in Auckland for six months from February. Qinghai and Zhi-Qiang are also working together on a volume on Raphignathoidea of New Zealand.

**Dr. Indrajith Wickramananda**, Senior Entomologist, Coconut Research Institute, Sri Lanka, recently wrote the following message to Dr. Ting-Kui Qin regarding the coconut mite workshop and proceedings:

Proceedings of the International Workshop on Coconut Mite *Aceria guerreronis* Held at the coconut research Institute Sri Lanka 6-8 Jan 2000.

An international workshop on coconut mite, *Aceria guerreronis* was held at the Coconut Research Institute, Lunuwila from 6th to 8th January, 2000. It was organized by the Coconut Research Institute of Sri Lanka and sponsored by the CRI and United Nations Development Programme and the institute.

The objectives of the workshop were to review the current knowledge of the pest, to formulate a research programme and alert Asia and Pacific countries on the possible threat of the pest in their countries in future.

The workshop was attended by 6 Indian participants, 3 invited foreign experts and local scientists. The workshop programme consisted of 5 sessions and a field tour to affected areas.

A limited number of copies of the proceedings of this workshop is now available at the Coconut Research Institute, Sri Lanka. The publication is a handy collection of articles such as country reports from Sri Lanka, India and Tanzania which cover the present status of the damage, imposed control measures, research findings and ongoing research activities. Also it contains papers presented by experts of various aspects of coconut mite (i.e. Non chemical control (D. Moore, CABI Bioscience, UK), Special considerations in applied ecological research (T. Perring, University of California, USA), Use of predatory mites for biological control (G. J. de Moraes, University of Sao Paulo Brazil) and Biological control coconut mite with the fungus *Hirsutella thompsonii*. (R. I. Cabrera Cabrera, Institute of Citrus and other Fruits Research Havana Cuba)

Price of a copy 10\$ inclusive postage

No of pages 117

Number of papers 11

Those who wish to receive a copy please make your request with the payment to:

Director

Coconut Research Institute

Lunuwila

61150 Sri Lanka

### NEW BOOK

The second edition of **Insect Molecular Genetics: An Introduction to Principles and Applications** by M.A. Hoy, ISBN 0-12-357031-X, is now available from Academic Press/Elsevier for \$79.95. This 560-page book can be ordered at:

1-800-545-2522 (USA)

or at [www.elsevier.com](http://www.elsevier.com) (USA)

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**CONTENTS OF JOURNALS****Experimental and Applied Acarology****Vol. 27, No. 3, 2002**

**Elliot, S.L., Mumford, J.D., de Moraes, G.L., and Sabelis, M.W.** Age-dependent rates of infection of Cassava green mites by a fungal pathogen in Brazil. 169-180

**Pree, D.J., Bittner, L.A., and Whitty, K.J.** Characterization of resistance to Clofentezine in populations of European red mite from orchards in Ontario. 181-193

**Martin, S.J., Elzen, P.J., and Rubink, W.R.** Effect of acaricide resistance on reproductive ability of the honey bee mite, *Varroa destructor*. 195-207

**Madder, M., Speybroeck, N., Brandt, J., Tirry, L., Hodek, I., and Berkvens, D.** Geographic variation in diapause response of adult *Rhipicephalus appendiculatus* ticks. 209-221

**Borges, L.M.F., Eiras, A.E., Ferri, P.H., and Lôbo, A.C.C.** The role of 2,6-dichlorophenol as sex pheromone of the tropical horse tick *Anocentor nitens* (Acari: Ixodidae). 223-230

**Mans, B.J., Louw, A.I., and Neitz, A.W.H.** Disaggregation of aggregated platelets by savignygrin, a  $\alpha_{IIb}\beta_3$  antagonist from *Ornithodoros savignyi*. 231-239

**Martins, J.R., Evans, D.E., Ceresér, V.H., and Corrêa, B.I.** Partial strategic tick control within a herd of European breed cattle in the State of Rio Grande do Sul, Southern Brazil. 241-251

Acarology: Proceedings of the 10th International Congress (Book Review). 253-255

**No. 27, No. 4, 2002**

**Smith, B.P. and J. Hagman.** Experimental evidence for a female sex pheromone in *Arrenurus manubriator* (Acari: Hydrachnida; Arrenuridae). 257

**Woertz, J.R., K.A. Kinney, N.J.R. Kraakman, W.N.M. van Heiningen,**

**M.H.A. van Eekert, and J.W. van Groenestijn.** Mite growth on fungus under various environmental conditions and its potential application to biofilters. 265

**Fourie, L.J., T. Meintjes, D.J. Kok, and I.G. Horak.** The growth of sheep scab lesions in relation to sheep breed and time of the year. 277

**Badejo, M. A., J. A. A. Espindola, J. G. M. Guerra, A. M. de Aquino, and M. E. F. Correa.** Soil oribatid mite communities under three species of legumes in an ultisol in Brazil. 283

**Hosseini, M., B. Hatami, and A. Saboori.** Host preference by *Allothrombium pulvinum* (Acari: Trombidiidae) larvae on aphids: *Macrosiphum rosae*, *Aphis gossypii* and *Hyalopterus amygdali* (Homoptera: Aphididae). 297

**Bynum, Jr., E.D. and T.L. Archer.** Susceptibility of populations of Banks grass mites (Acari: Tetranychidae) suspected of developing bifenthrin resistance from three maize fields. 303

**De Rycke, P.H., J. J. Joubert, S. H. Hosseinian, and F. J. Jacobs.** The possible role of *Varroa destructor* in the spreading of American foulbrood among apiaries. 313

**Ariana, A., R. Ebadi, and G. Tahmasebi.** Laboratory evaluation of some plant essences to control *Varroa destructor* (Acari: Varroidae). 319

**Vaughan, J.A., D. E. Sonenshine, and A. F. Azad.** Kinetics of ingested host immunoglobulin G in hemolymph and whole body homogenates during nymphal development of *Dermacentor variabilis* and *Ixodes scapularis* ticks (Acari: Ixodidae). 329

### **International Journal of Acarology**

**Vol 29, No. 1, Mar. 2003**

A revision of the subfamily Amblyseiiinae Muma (Acari: Phytoseiidae): Part I. Neosiulini new tribe. D.A. Chant & J.A. McMurtry ... pp3-46

A new genus and species of phytoseiid mite (Acari: Phytoseiidae) from Brazil. G.J. De Moraes, J.A. McMurtry and J.L. De C. Mineiro... pp 47-54

A new species of *Macronyssus* Kolenati, 1858 (Acari: Macronyssidae) from leisler's bat, *Nyctalus leisleri* Kuhl, 1818 (Mammalia: Chiroptera) in Germany. A. Fain, G. Walter & M. Heddergott ... pp55-61

*Ixodes* (*Ixodes*) *dicei*, a new tick species (Acari: Ixodida: Ixodidae) from a lagomorph in a restricted high-altitude habitat in Talamanca, Costa Rica. J.E. Keirains & S. Ajohda... pp 63-67.

Two new species of chiggers (Acari: Leeuwenhoekiiidae) from bats collected in the Kanneliya Forest Reserve of Sri Lanka. W.A. Brown, P.V. Udagama-Randeniya & S.S. Seneviratne... pp 69-73

Two new species of a new genus of Tetranychidae (Acari: Prostigmata) from south Tunisia. P. Auger & C.H.W. Flechtmann... pp 75-80

A new mite from an arboreal ant (Formicidae: *Polyrachis* sp.): *Myrmozercon iainkayo* n. sp. (Mesostigmata: Laelapidae). D. E. Walter ... pp 81-85

Identification of hydrocarbons that protect ticks againsts fire ants, but not lizards, in an allomonal defense secretion (Acari: Ixodidae). J.A. Yoder & J.L. Domingus...pp. 87-91

Claire Athias-Henriot - A biography. V. Prasad ... pp 93-94.

**Vol. 29, No. 2, Jun. 2002**

A new species of *Apodontopus* (Acari: Atsigmata: Chortoglyphidae) from the yellow-bellied marmot, *Marmota flaviventris* (Rodentia: Sciuridae) in eastern Washington, USA, with observations on its pathology. G.W. Krantz, B.M. OConnor, W.J. Foreyt & A. Fain... pp. 95-105

A new genus and species of hypoaspidine mite (Acari: Laelapidae) associated with a night-flying xylocopinine carpenter bee (Hymenoptera: Apidae: *Xylocopa*) in Thailand. L.A. Royce & G.W. Krantz... pp. 107-111.

Two new species of *Neoseiulus* Hughes (Acari: Phytoseiidae) from Brazil. A.C. Lofego & G.J. De Moraes...pp 113-117

A new species of the genus *Metacheyletia* Fain, 1972 (Acari: Cheyletidae) parasitizing *Serinus mozambicus* (Passeriformes Fringillidae) in central Africa. A. Fain & A.V. Bochkov ... pp 119-121.

Observations on the Pyroglyphidae (Acari: Astigmata) with description of a new genus and species from *Cygnus melanocoryphus* (Molina) (Aves: Anatidae). Fain & A.V. Bochkov ... pp 123-126

A new genus and species of mite (Acari: Trombididae) ecotoparasitic on thrips in Iran. A. Saboori, H. Hajiqanbar & K.H. Irani-Nejad... pp127-132.

New record of *Sinobryobia* (Acari: Tetranychidae: Bryobiinae) in Australia with description of a new species. J.J. Beard ... pp 133-138.

Potential to control *Varroa* mites (Acari: Varroidae) using checmical ecology. J.A. Yoder & D. Dammataro .. pp 139-143

Variation in the flagellin gene detected by heteroduplex mobility assay of five *Borrelia burgdorferi* sensus lato strain isolated from ticks (Acari: Ixodidae) collected in Missouri, USA. T. M. Kollars, Jr., J.H. Oliver, Jr. & K. Wongkalan...pp. 145-147.

Phytoseiid mites of Canary Islands (Acari: Phytoseiidae): 1. Gran Canaria Island. F. Ferragutt & M.A. Peña-Estévez... pp149-170

Obituary - J. Schwoerbel. R. Gerecke .. pp 171-174

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