

Acarology Bulletin

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A Newsletter of the **SYSTEMATIC AND APPLIED ACAROLOGY SOCIETY**

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Acarological News

SYMPOSIA OF XIIth INTERNATIONAL CONGRESS OF ACAROLOGY

Amsterdam, The Netherlands, 21–26 August 2006

Mon 21, Auditorium

MITES AND TICKS AS MODELS FOR POPULATION DYNAMICAL STUDIES

Organizer: Arne Janssen (University of Amsterdam, The Netherlands)

14:00–14:40 Matthew P. Ayres, Nicholas A. Friedenbergh, Richard W. Hofstetter, Maria J. Lombardero, Kier D. Klepzig, John C. Moser (Dartmouth College, Hanover, New Hampshire, USA) PHORETIC MITES AND THE POPULATION DYNAMICS OF BARK BEETLES

14:40–15:20 Marta Montserrat, Reinier HilleRisLambers, Sara Magalhães, Maurice W. Sabelis, André M. de Roos, Arne Janssen (University of Amsterdam, The Netherlands) COMMUNITY STRUCTURE IN A SIMPLE FOOD WEB WITH RECIPROCAL INTRAGUILD PREDATION

16:00–16:40 Tessa van der Hammen, Marta Montserrat, Arne Janssen (University of Amsterdam, The Netherlands) RESOURCE COMPETITION AND SPATIAL DISTRIBUTION OF PREDATORY MITES

16:40–17:20 Gösta Nachman (University of Copenhagen, Denmark) THE FUNCTIONAL RESPONSE OF *PHYTOSEIULUS PERSIMILIS* AT THE PLANT SCALE

Tue 22, Auditorium

PHYLOGENY AND EVOLUTION OF THE ACARI

Organizers: Maria Navajas (INRA, Montferrier sur Lez, France), Hans Klompen (Ohio State University, Columbus, USA)

09:00–09:20 Ethan Kane (USDA-ARS, Beltsville, MD, USA) PHYLOGENY OF THE TENUIPALPIDAE (TETRANYCHOIDEA) BASED ON SETAL CHARACTERS WITH A CRITICAL REVIEW OF THE RECOGNIZED SUBFAMILIES AND TRIBES

09:20–09:40 Kimiko Okabe, Shun'ichi Makino (Forestry & Forest Products Research Institute, Norin Kenkyu-danchi, Ibaraki, Japan) COEVOLUTION BETWEEN *ALLODYNTERUS* WASPS AND *ENSLINIELLA* MITES BASED ON MORPHOLOGY OF ACARINARIA

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- 09:40–10:00 Hans Klompen (Ohio State University, Columbus, USA) TICKS, HOLOTHYRIDS AND THE EVOLUTION OF PARASITISM
- 10:00–10:20 Ina Schaefer, Katja Domes, Mark Maraun, Stefan Scheu (Darmstadt University of Technology, Germany) DATING THE ORIGIN OF ORIBATID MITES USING A MOLECULAR APPROACH (18S rDNA)
- 11:00–11:20 Tselila Ben-David, Uri Gerson, Shai Morin (Hebrew University of Jerusalem, Israel) NEW SEQUENCES IN RIBOSOMAL DNA OF THE TWO-SPOTTED SPIDER MITE IN ISRAEL
- 11:20–12:00 Lorenza Beati (Georgia Southern University, Statesboro, USA) TICKS AND PATHOGENS: AN EVOLUTIONARY PERSPECTIVE
- 14:00–14:40 Catherine A. Hill, Nick S. Geraci, Janice Pagel VanZee, Jason S. Walling, Jeffrey J. Stuart, Stephen K. Wikel, Vishvanath M. Nene, Felix D. Guerrero (Purdue University, West Lafayette, Indiana, USA) GENOME ORGANIZATION OF PROSTRATE AND METASTRIATE TICKS
- 14:40–15:20 Ashley P.G. Dowling (University of Kentucky, Lexington, USA) SYSTEMATICS, GENOMICS, AND THE EVOLUTION OF PARASITISM WITHIN DERMANYSSOIDEA (MESOSTIGMATA)
- 16:00–16:40 Mark Maraun, Katja Domes, Stefan Scheu, Roy A. Norton (Technische Universität Darmstadt, Darmstadt, Germany) THE EVOLUTION OF REPRODUCTIVE SYSTEMS AND FEEDING HABITS IN MITES FROM A PHYLOGENETIC PERSPECTIVE
- 16:40–17:20 Pavel Klimov, Barry M. OConnor (University of Michigan, Ann Arbor, USA) MONOPHYLY OF PSOROPTIDIA (ASTIGMATA) AND THE ORIGIN OF MAMMALIAN PARASITES: EVIDENCE FROM MULTIPLE GENES

Wed 23, Auditorium

BIOLOGICAL CONTROL

- Organizers: Rachid Hanna (International Institute for Tropical Agriculture, Cotonou, Benin), David G. James (Washington State University, Prosser, USA)
- 09:00–09:20 Markus Knapp, Gilberto J. de Moraes, Komi K.M. Fiaboe, Imeuda P. Furtado (International Centre of Insect Physiology and Ecology, Nairobi, Kenya) BIOLOGICAL CONTROL OF *TETRANYCHUS EVANSI* IN AFRICA
- 09:20–09:40 Karel Bolckmans (Koppert BV, Berkel en Rodenrijs, The Netherlands) BIOCONTROL OF MULTIPLE PESTS IN GLASSHOUSES WITH *AMBLYSEIUS SWIRSKII*
- 09:40–10:00 Tim Grout, Eddie Ueckermann (Citrus Research International, Nelspruit, South Africa) MANAGING MITES ON CITRUS IN AFRICA

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- 10:00–10:20 Mohammed Badii, L.J. Peña, G. Ponce, J. Landeros (UANL, San Nicolas, N.L. Mexico) BIOLOGICAL CONTROL POTENTIAL OF *EUSEIUS MESEMBRINUS* ON CITRUS
- 11:00–11:20 Carlo Duso, Serge Kreiter, Marie-Stephane Garcin, Alberto Pozzebon, Valeria Malagnini (University of Padova, Italy) BIOLOGICAL CONTROL OF MITES IN EUROPEAN VINEYARDS WITH EMPHASIS ON THE ROLE OF NATURAL VEGETATION
- 11:20–11:40 Noubar Bostanian, Gaettan Racette, Jacques Lasnier (Agriculture & Agri-Food Canada, Quebec, Canada) BIOCONTROL OF PHYTOPHAGOUS MITES IN QUEBEC APPLE ORCHARDS
- 11:40–12:00 Paul C.J. van Rijn (Netherlands Institute of Ecology, Heteren, The Netherlands) PLANT-PROVIDED FOOD FOR PREDATORS AND BIOLOGICAL CONTROL OF MITE PESTS
- 14:00–14:40 James McMurtry (Sunriver, Oregon, USA) CONCEPTS OF CLASSIFICATION OF THE PHYTOSEIIDAE: RELEVANCE TO BIOLOGICAL CONTROL OF MITES
- 14:40–15:20 Frank Zalom (University of California, Davis, USA) INTEGRATING PESTICIDES AND BIOCONTROL OF MITES
- 16:00–16:40 David James, Sandra Castle del Conte, Tanya S. Price, Tessa R. Grasswitz, Lawrence C. Wright, Victor Reyna, Oscar Garicia, Joe Perez (Washington State University, Prosser, USA) MANIPULATING PLANT-ARTHROPOD CONVERSATIONS TO IMPROVE CONSERVATION BIOLOGICAL CONTROL OF MITES
- 16:40–17:20 Rachid Hanna, Alexis Onzo, J. Steve Yaninek, Muaka Toko, Gilberto J. de Moraes, Maurice W. Sabelis, Marcel Dicke, Ignace Zannou, Desire Gnanvossou, Fabien Hountondji, Nazer Famah, Christine Zundel (International Institute for Tropical Agriculture, Cotonou, Benin) CLASSICAL BIOLOGICAL CONTROL OF CASSAVA GREEN MITES IN AFRICA—PRESENT STATUS AND LESSONS LEARNED

Thu 24, Auditorium

PHYSIOLOGY, BIOCHEMISTRY AND MOLECULAR BIOLOGY OF TICKS

Organizers: Lewis B. Coons (University of Memphis, Memphis, USA), Daniel Sonenshine (Old Dominion University, Norfolk, USA)

- 09:00–09:20 Andrew Y. Li (USDA-ARS, Kerrville, Texas, USA) ELECTROPHYSIOLOGY AND PHARMACOLOGICAL MODULATION OF

THE PHARYNGEAL PUMP AND FEEDING IN *AMBLIYOMMA AMERICANUM*

- 09:20–09:40 L. Grubhoffer, M. Vancova, O. Hajdusek, V. Kovar, N. Rudenko (University of South Bohemia, České Budějovice, Czech Republic) GLYCOBIOLOGY OF THE SHEEP TICK, *IXODES RICINUS*: GLYCANS, LECTINS AND CHITINASES
- 09:40–10:00 R. Michael Roe, Sayed M.S. Khalil, Laura A. Jeffers, Robert D. Mitchell, Charles S. Apperson, Daniel E. Sonenshine (North Carolina State University, Raleigh, USA) HORMONAL REGULATION OF REPRODUCTION IN TICKS: A NEW PERSPECTIVE
- 10:00–10:20 Jennifer Anderson, Daniel E. Sonenshine, Jesus Valenzuela (National Institute of Allergy and Infectious Diseases, NIH, Rockville, Maryland, USA) EXPLORING THE TRANSCRIPTOME OF THE MIDGUT OF THE TICKS *DERMACENTOR VARIABILIS*
- 11:00–11:20 Judith Cole, Zachary Nahmias, Derrick Butler, Carolyn Kramer, Lewis B. Coons (University of Memphis, Memphis, Tennessee, USA) REGULATION OF HOST CELL SIGNALING IN THE TICK FEEDING LESION
- 11:20–11:40 Robert Blaudow, Judy Cole, Lewis Coons (University of Memphis, Memphis, Tennessee, USA) CYCLIC NUCLEOTIDE CROSS-REGULATION IN SALIVARY GLAND HOMOGENATES OF PARTIALLY FED FEMALE *DERMACENTOR VARIABILIS*
- 11:40–12:00 S.A. Lees, K. Lees, S.A.M. Martin, D.J. Woods, Alan S. Bowman (University of Aberdeen, Scotland, UK) IDENTIFYING DRUG TARGETS IN TICKS: A TALE OF TWO TISSUES
- 14:00–14:40 Patricia Nuttall (NERC Centre for Ecology and Hydrology, Oxford, UK) DRUGS FROM TICKS
- 14:40–15:20 Yoshiro Nakajima, DeMar Taylor, Minoru Yamakawa (University of Tsukuba, Japan) DEFENSIN GENES AND THEIR REGULATION IN *ORNITHODOROS MOUBATA* (ARGASIDAE)
- 16:00–16:40 Miles Nunn, Pietro Roversi, Guido Paesen, Olga Lissina, Nurfilza Ahmat, Patricia Nuttall, Susan Lea (NERC Centre for Ecology and Hydrology, Oxford, UK) MECHANISMS OF COMPLEMENT INHIBITION BY FEEDING TICKS
- 16:40–17:20 Guido Paesen (NERC Centre for Ecology and Hydrology, Oxford, UK) TICK LIPOCALINS

Fri 25, Auditorium

CHEMICAL ECOLOGY OF MITES AND TICKS

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- Organizers: David G. James (Washington State University, Washington, USA), Junji Takabayashi (Kyoto University, Otsu, Shiga, Japan)
- 09:00–09:20 Günther Rasputnig (Karl-Franzens-University, Graz, Austria) THE SCENTED MITES—OIL GLAND SECRETIONS IN ORIBATIDA
- 09:20–09:40 Daniel E. Sonenshine (Old Dominion University, Norfolk, Virginia, USA) MATING BEHAVIOR IN THE BLACK-LEGGED TICK, *IXODES SCAPULARIS*: EVIDENCE FOR A SEX PHEROMONE AND ITS CHEMICAL CHARACTERISTICS
- 09:40–10:00 Ryo Matsushima, Rika Ozawa, Masayoshi Uefune, Tetsuo Gotoh, Junji Takabayashi (Center for Ecological Research, Kyoto University, Otsu, Shiga, Japan) INTRASPECIFIC VARIATION IN THE KANZAWA SPIDER MITE DIFFERENTIALLY AFFECTS THE INDUCED DEFENSE RESPONSE IN LIMA BEAN PLANTS
- 10:00–10:20 Merijn R. Kant, Maurice W. Sabelis, Michel A. Haring, Robert C. Schuurink (University of Amsterdam, The Netherlands) INTRASPECIFIC VARIATION IN *TETRANYCHUS URTICAE* DETERMINES THE MODE AND ACTION OF INDUCED TOMATO DEFENSES
- 11:00–11:20 Yasuyuki Choh (Center for Ecological Research, Kyoto University, Otsu, Shiga, Japan) HERBIVORE-INDUCED PLANT VOLATILES PRIME TWO INDIRECT DEFENCES IN LIMA BEAN PLANTS
- 11:20–11:40 Mor Grinberg, Jeyasankar Alagarmalai, Eric Palevsky, Rafael Perl-Treves, Victoria Soroker (The Volcani Center, Bet Dagan, Israel) ROLE OF JASMONIC ACID SIGNALING IN TOMATO DEFENSE AGAINST BROAD MITE, *POLYPHAGOTARSONEMUS LATUS* (TARSONEMIDAE)
- 11:40–12:00 Michiel van Wijk, Paulien A. de Bruijn, Maurice W. Sabelis (University of Amsterdam, The Netherlands) THE ROLE AND THE CONSEQUENCES OF LEARNING IN OLFACTORY INFORMATION PROCESSING
- 14:00–14:40 Patrick M. Guerin (University of Neuchâtel, Switzerland) LESSONS FROM RESEARCH IN TICK CHEMICAL ECOLOGY
- 14:40–15:20 Nyanie S. Aratchige, Izabela Lesna, Cor G.M. Conijn, Merijn Kant, Robert Schuurink, Maurice W. Sabelis (University of Amsterdam, The Netherlands) ETHYLENE MEDIATES ATTRACTIVENESS AND ACCESSIBILITY OF TULIP BULBS TO PREDATORY MITES
- 16:00–16:40 Iris Kappers, Asaph Aharoni, Maarten Jongsma, Marcel Dicke, Harro Bouwmeester (Plant Research International, Wageningen, The Netherlands) METABOLIC ENGINEERING OF TERPENE BIOSYNTHESIS AND CONSEQUENCES FOR PLANT-MITE INTERACTION

16:40–17:20 Marcel Dicke, Jetske G. de Boer, Conny Schütte, Paul Grostal (University of Wageningen, The Netherlands) THE ECOLOGY OF B.O. IN PLANT-MITE SYSTEMS

<http://www.acarology.org/~ica2006/>

ACAROLOGY SUMMER PROGRAM 2006

The Ohio State University in Columbus, Ohio

SOIL ACAROLOGY (July 3–July 21, 2006)

This three-week workshop will concentrate on the Acari associated with soil and litter. Week one will be devoted to Mesostigmata and Endeostigmata, the second week on Oribatida and the third week on Prostigmata. The main emphasis will be on identification and systematics of both adults and immatures, but this course will have a strong secondary emphasis on ecology and life-history.

MEDICAL - VETERINARY ACAROLOGY (July 10–July 21, 2006)

This two-week workshop will review the various Acari associated with humans and domestic animals. One week will concentrate on ticks (Ixodida), while the remaining time will be on all the other groups of mites. In addition to the standard emphasis of identification, "tick week" will include extensive discussions of disease transmission. The "mite week" will include discussions of various Mesostigmata and Astigmatid, including feather mites and dust mites, Trombiculoidea (chiggers), and miscellaneous Prostigmata.

New Books & CDs

Weigmann, G., Alberti, G., Wohltmann, A. & Ragusa, S. (2005) *Acarine Biodiversity in the Natural and Human Sphere*. Proceedings 5th Symposium European Association of Acarologists, 2004, Berlin. In: *Phytophaga*, 14 (2004), 1–765.

Fan, Q.-H. & Zhang, Z.-Q. (2005) *Raphignathoidea (Acari: Prostigmata)*. Fauna of New Zealand 52, Manaaki Whenua Press. 400 pp.

Keys to world families and genera of Raphignathoidea

Review of taxonomy, biology, and ecology of world Raphignathoidea

Full descriptions of 76 NZ species (21 new species) belonging to 20 genera (1 new genus) and 5 families with taxonomic references, habitats, and distribution of each species.

Weigmann, G. (2006) *Hornmilben (Oribatida)*. In: Dahl, Die Tierwelt Deutschlands, Bd. 76. Verlag Goecke & Evers, Keltern, 520 pp.

The last complete textbook of oribatid mites from Germany is 75 years old (Willmann 1931). This contribution deals with the identification of oribatid mites (Acari: Oribatida) of Germany and the adjacent regions of the neighbouring countries. The keys comprise 84 families with more than 190 genera. About 520 species from German areas are described for which chorological and ecological data are given. Altogether about 620 species are treated including those which have been found up to now in the adjacent regions, only. The keys are illustrated by 234 tables with informative line drawings. The book is written in German; the appendix presents a family key in English. The book includes two chapters (Damaeidae, Oppiidae) written by Ladislav Miko.

Schultz, G.W., Robbins, R.G., & Hil, D.W. (2006) *Interactive Program for Teaching Tick Morphology*.

The Defense Pest Management Information Analysis Center (DPMIAC) of the United States announces the availability of a new CD entitled *Interactive Program for Teaching Tick Morphology*. This educational teaching tool is designed to provide a self-paced course of instruction that will enable medical personnel to confidently identify ticks in the absence of a professional tick taxonomist. The program comprises five parts: a tutorial in tick morphology, demonstrations in identifying ticks by an expert, student identification practice sessions, a glossary of tick morphology, and a collection of tick identification keys.

Contents of Journals

Acarologia

Volume 45, Number 2–3, Apr–Sept 2005 (for Apr–Sept 2004)

Moraza, M.L. & Peña, M.A. (2005) The family Pachylaelapidae Vitzthum, 1931 on Tenerife Island (Canary Islands) with description of seven new species of the genus *Pachylaelaps* (Acari, Mesostigmata: Pachylaelapidae). 45(2–3), 103–129.

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- Furtado, I., Kreiter, S., Moraes Gilberto, J. de, Tixier, M.-S., Flechtmann, C.H.W. & Knapp, M. (2005) Plant mites (Acari) from Northeastern Brazil, with descriptions of two new species of the family Phytoseiidae (Mesostigmata). 45(2–3), 131–143.
- Barbar, Z., Tixier, M.-S., Kreiter, S. & Cheval, B. (2005) Diversity of phytoseiid mites in uncultivated area adjacent to vineyards: a case study in the south of France. 45(2–3), 145–154.
- Haloti, S., Glida, H., Niogret, J., Janati-Idrissi, A., Bertrand, M. & Lumaret, J.P. (2005) Acariens Macrochelidae (Acari: Mesostigmata) phorétiques d’Afrique: *Macrochelides coprophies* du Maroc. 45(2–3), 155–159.
- Beard, J.J., Fan, Q.-H. & Walter, D.E. (2005) A new genus and two new species of Tenuipalpidae (Prostigmata: Tetranychoida) from an Australian sedge. 45(2–3), 161–181.
- Chakrabarti, S. & Chakrabarti, S. (2005) Population dynamics and diurnal activity of *Acalitus hibisci* Mondal & Chakrabarti (Acari: Eriophyoidea). 45(2–3), 183–189.
- Momen, F.M. (2005) A new mite of the subfamily Tydeinae (Acari: Actinedida: Tydeidae) from Egypt. 45(2–3), 189–192.
- Ueckermann, E.A. & Koç, K. (2005) Authorship of superfamily Raphignathoidea (Acari: Actinedida). 45(2–3), 193–194.
- Koç, K. & Kara, M. (2005) Two new species of Raphignathoidea (Acari: Raphignathidae: Camerobiidae) from Turkey. 45(2–3), 195–202.
- Xia, B., Liang, G. & Zhu, Z. (2005) A new species of the genus *Prosocheyla* Volgin (Acari: Cheyletidae) with a key to the known world species. 45(2–3), 203–206.
- Bochkov, A.V., Klimov, P.B. & OConnor, B.M. (2005) Fur-mites of the genus *Atopomelus* Trouessart, 1918 (Acari: Atopomelidae): life-cycle, phylogeny, and host parasite-associations. 45(2–3), 207–241.

Experimental and Applied Acarology

Volume 38, Number 1, January 2006

- Skoracka, Anna; Kuczyński, Lechosław (2006) Is the cereal rust mite, *Abacarus hystrix* really a generalist?—Testing colonization performance on novel hosts. 38(1), 1–13.
- Ozman-Sullivan, Sebahat (2006) Life history of *Kampimodromus aberrans* as a predator of *Phytoptus avellanae* (Acari: Phytoseiidae, Phytoptidae). 38(1), 15–23.

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- Vis, Raf; Moraes, Gilberto; Bellini, Marcos (2006) Effect of air humidity on the egg viability of predatory mites (Acari: Phytoseiidae, Stigmaeidae) common on rubber trees in Brazil. 38(1), 25–32.
- Çakmak, Ibrahim; Janssen, Arne; Sabelis, Maurice (2006) Intraguild interactions between the predatory mites *Neoseiulus californicus* and *Phytoseiulus persimilis*. 38(1), 33–46.
- Teglas, Mike; Foley, Janet (2006) Differences in the transmissibility of two anaplasma phagocytophilum strains by the north American tick vector species, *Ixodes pacificus* and *Ixodes scapularis* (Acari: Ixodidae). 38(1), 47–58.
- Pietzsch, Maaïke; Quest, Robert; Hillyard, Paul; Medlock, Jolyon; Leach, Steve (2006) Importation of exotic ticks into the United Kingdom via the international trade in reptiles. 38(1), 59–65.
- Yamane, Itsuro; Nishiguchi, Akiko; Kobayashi, Sota; Zeniya, Yumie (2006) Cross-sectional survey of ixodid tick species on grazing cattle in Japan. 38(1), 67–74(8).
- Torina, Alessandra; Khoury, Cristina; Caracappa, Santo; Maroli, Michele (2006) Ticks infesting livestock on farms in western Sicily, Italy. 38(1), 75–86(12).

Volume 38, Numbers 2–3, February 2006

- Nachman, Gösta (2006) The effects of prey patchiness, predator aggregation, and mutual interference on the functional response of *Phytoseiulus persimilis* feeding on *Tetranychus urticae* (Acari: Phytoseiidae, Tetranychidae). 38(2–3), 87–111.
- Meng, Rui-Xia; Janssen, Arne; Nomikou, Maria; Zhang, Qing-Wen; Sabelis, Maurice (2006) Previous and present diets of mitepredators affect antipredator behaviour of whitefly prey. 38(2–3), 113–124.
- Obrist, Lena; Klein, Heiri; Dutton, Anna; Bigler, Franz (2006) Assessing the effects of Bt maize on the predatory mite *Neoseiulus cucumeris*. 38(2–3), 125–139.
- Holt, Kiffnie; Opit, George; Nechols, James; Margolies, David (2006) Testing for non-target effects of spinosad on twospotted spider mites and their predator *Phytoseiulus persimilis* under greenhouse conditions. 38(2–3), 141–149.
- Suh, Eunho; Koh, Sang-Hyun; Lee, Joon-Ho; Shin, Key-Il; Cho, Kijong (2006) Evaluation of resistance pattern to Fenpyroximate and Pyridaben in *Tetranychus urticae* collected from greenhouses and apple orchards using lethal concentration-slope relationship. 38(2–3), 151–165.
- Thind, B.; Ford, H. (2006) Laboratory studies on the use of two new arenas to evaluate the impact of the predatory mites *Blattisocius tarsalis* and *Cheyletus eruditus* on residual populations of the stored product mite *Acarus siro*. 38(2–3), 167–180.

- Reeves, Will; Dowling, Ashley; Dasch, Gregory (2006) Rickettsial agents from parasitic Dermanssoidea (Acari: Mesostigmata). 38(2–3), 181–188.
- Mtambo, Jupiter; Bortel, Wim; Madder, Maxime; Roelants, Patricia; Backeljau, Thierry (2006) Comparison of preservation methods of *Rhipicephalus appendiculatus* (Acari: Ixodidae) for reliable DNA amplification by PCR. 38(2–3), 189–199.
- Uspensky, Igor; Kovalevskii, Yuri; Korenberg, Edward (2006) Physiological Age of field-collected female Taiga Ticks, *Ixodes persulcatus* (Acari: Ixodidae), and their infection with *Borrelia burgdorferi* sensu lato. 38(2–3), 201–209.
- Maranga, R.; Hassanali, A.; Kaaya, G.; Mueke, J. (2006) Performance of a prototype baited-trap in attracting and infecting the tick *Amblyomma variegatum* (Acari: Ixodidae) in field experiments. 38(2–3), 211–218.
- Estrada-Peña, A.; Bouattour, A.; Camicas, J.; Guglielmone, A.; Horak, I.; Jongejan, F.; Latif, A.; Pegram, R.; Walker, A. (2006) The known distribution and ecological preferences of the tick subgenus *Boophilus* (Acari: Ixodidae) in Africa and Latin America. 38(2–3), 219–235.

Systematic and Applied Acarology

Volume 11, Number 1, March 2006

- A.C.G. HEATH (2006) A reptile tick, *Aponomma sphenodonti* Dumbleton (Acari: Ixodidae), parasitic on the tuatara, *Sphenodon punctatus* Gray (Reptilia: Rhyncocephalia), in New Zealand: observations on its life history and biology. 11(1), 3–12.
- XIAN-GUO GUO, TI-JUN QIAN, XING-YUAN MENG, WEN-GE DONG, WU-XIANG SHI & DIAN WU (2006) Preliminary analysis of chigger communities associated with house rats (*Rattus flavipectus*) from six counties in Yunnan, China. 11(1), 13–21.
- R.H. ANDREWS, I. BEVERIDGE, C.M. BULL, N.B. CHILTON, B. DIXON & T. PETNEY (2006) Systematic status of *Aponomma tachyglossi* Roberts (Acari: Ixodidae) from echidnas, *Tachyglossus aculeatus*, from Queensland, Australia. . 11(1), 23–39.
- MATIAS P. J. SZABÓ, MARCELO B. LABRUNA, ALEXANDRE VOGLIOTTI & JOSÉ MAURÍCIO B. DUARTE (2006) Ticks (Acari: Ixodidae) on small red brocket deer (*Mazama bororo* Duarte) along deer trails in the Atlantic rain forest of southeastern Brazil. 11(1), 41–45.

- CARMEN GUZMÁN-CORNEJO, TILA M. PÉREZ, SANTIAGO NAVA & ALBERTO A. GUGLIELMONE (2006) Confirmation of the presence of *Amblyomma triste* Koch, 1844 (Acari: Ixodidae) in Mexico. 11(1), 47–50.
- ALI BAYAN & BASHAR MERHEB (2006) Descriptions of two new phytoseiid mites (Acari: Mesostigmata: Gamasina) found in a grapevine orchard from Lebanon. 11(1), 51–56.
- A. ARILLO & L. S. SUBQAS (2006) Redescription of the longest-legged oribatid mite, *Metabelbella phalangioides* (Michael, 1890) com. nov., a species from Algeria and Southern Spain (Acariformes: Oribatida: Damaeidae). 11(1), 57–62.
- M. HAMID BASHIR & M. AFZAL (2006) A new species of the genus *Cunaxa* (Acarina: Cunaxidae) from Pakistan. 11(1), 63–68.
- F. FARAJI & E. A. UECKERMANN (2006) A new species of *Stigmaeus* Koch from Iran (Acari: Stigmaeidae). 11(1), 69–72.
- VLADIMIR PESIC, ALIREZA SABOORI, MAHDIEH ASADI & MAHDI JALAEIAN (2006) New records of water mites (Acari: Hydrachnidia) from Khorassan Province (Iran), with the description of one new species. 11(1), 73–82.
- RYSZARD HAITLINGER (2006) Eight new species and new records of mites (Acari: Prostigmata: Erythraeidae, Trombidiidae, Johnstonianidae) from China including Macao. 11(1), 83–105.
- RYSZARD HAITLINGER (2006) New records of mites (Acari: Prostigmata: Erythraeidae, Trombidiidae) from Samos, Greece, with descriptions of six new species. 11(1), 107–123.
- JAIME G. MAYORAL & PABLO BARRANCO (2006) The first report of nymphal stage of the genus *Abalakeus* Southcott, 1994 from Spain. 11(1), 125–128.

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