



Acarology Bulletin



Newsletter of the **SYSTEMATIC & APPLIED ACAROLOGY SOCIETY**

Message from Editor

Dear colleagues:

In the last issue of the *Acarology Bulletin*, Dr. Zhi-Qiang Zhang, president of the SAAS, informed all of you that he has decided to step down as editor of the newsletter and will focus his efforts on other duties within the society. As his successor to the post, I would like to take this opportunity to thank Dr. Zhang for his intelligence and dedication which have made the newsletter such a success. I also want to assure our members that the editors will strive to maintain Dr. Zhang's high standards for the newsletter.

As you all have witnessed, the newsletter has provided the members of our society with useful and interesting items, as well as a forum for information exchange. The continued success of the newsletter is a direct result of the enthusiastic support from our members. I, thus, encourage all our members to be actively involved in the production of the newsletter by making contributions (Chinese text is acceptable). The editors also welcome comments and suggestions that would enhance the newsletter in any way. Let us work together to assure that we will continue to have a newsletter that the membership of the SAAS can be proud of. □ □ □ □ □

□ □ □ □ Renjie Hu □
□ □ □ □ Editor



In this issue.....

- 13 Message from the Editor
- 14 Acarology and member news
- 16 Taxonomic studies of eriophyoids in China
- 19 OSU Summer acarology courses
- 20 Contents of Internat. J. Acarol.
- 20 Contents of Acarologia
- 20 Contents of Syst. Appl. Acarol.
- 21 Contents of Exp. Appl. Acarol.
- 22 New books
- 22 Book review
- 22 An opportunity of PhD study in UK
- 23 New members of SAAS
- 24 Application form for SAAS
- 24 About the *Acarology Bulletin*

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Acarology and member news

The First Symposium of the Systematic and Applied Acarology Society is scheduled for 5-8 October 1998 in Shanghai, China. Systematic and applied acarologists throughout the world, whether members of SAAS or not, are invited to participate in this international symposium. The official language of the symposium is English. The deadline for submitting abstracts of talks and posters will be 1 April 1998. The registration fee is \$200 (\$250 after 1 April 1998). Members in PRC should write to Dr. Hong about fees in Yuan. Anyone interested in attending this symposium should fill out the following form and return it to: Dr. Xiaoyue Hong, Secretary SAAS, Department of Plant Protection, Nanjing Agricultural University, Nanjing (FAX: 0086-25-4431492; E-mail: dzx@njau.edu.cn).

_____ I wish to attend this symposium and receive further information..

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International Congress of Acarology: If you wish to receive the first circular and further information of the 10th International Congress of Acarology, please contact the Australian Convention and Travel Service at the address below and ask to be put on the list to receive the second circular.

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SIALF organizes in BANYULS (France) in 1997 a colloquium
LES ACARIENS PARASITES : Aspects fondamentaux et appliques.
(Parasitic mites : fundamental and applied aspects) 29/09/97 - 04/10/97
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Zhi-Qiang Zhang visited Malaysia during 9-18 March 1997. He gave an invited seminar on the biology of the Trombidiidae in a "Symposium on Mites of Medical and Agricultural Importance" organized by the Plant Protection Society of Malaysia on 10 March in Kuala Lumpur. He lectured at the "International Course on Phytophagous and Predatory Mites: Identification, Biology and Control" during 11-15 March at the training centre of Malaysian Agricultural Research and Development Institute at Serdang. This is the first international course on mites in the Southeast Asia. The course was attended by 20 participants from Bangladesh, Thailand, Laos, Vietnam, Indonesia, Singapore and Malaysia.

Renjie Hu visited Shanghai, China during Dec. 16, 1996 through Jan. 16, 1997. He returned to Fudan University and met with SAAS members, Profs. Lairong Liang, Qianhong Wu, Huiqin Dong, Chenye Hu, and Yanyun Yang. During the meeting, future research collaborations and various aspects of the society were discussed. He also visited Shanghai Institute of Entomology and met with Prof. Xiangxiong Zhu and Mr. Shenghao Hu,

exchanging information on advances in the research projects. In addition, He and Dr. Xiaoyue Hong discussed society issues over the phone. Both of them were confident that the society is heading in the right direction to achieve its mission of promoting the development of acarology in China and fostering collaboration between Chinese acarologists and their colleagues throughout the world.

Other research activities and news in China:

Investigation has been conducted in order to determine the main host animal and transmission vector of Lyme disease in Fujian Province, East China. Four strains of *Borrelia burgdorferi* have been isolated from the tick, *Ixodes granulatus* Supinon and rats, *Rattus confucianus* and *R. norvegicus*. These are thought to be the main transmission vectors and host animals in Fujian Province. (PANG, Liang, CHEN, Zhenguang, HUANG, Yaoping & et al. 1996. Chinese Journal of Vector Biology and Control, 7, 437-439).

Seven mite species were found in the imported pines from the North Korea by Ji'an Health Quarantine Station in Jilin Province, Northeast China. They are *Macrocheles peniculatus* Berlese, *M. insignitus* Berlese, *Lasioseius jilinensis* Ma, *Haemolaelaps casalis* (Berlese), *Eury-parasitus emarginatus* Koch and two species in the genus *Parasitus* (CUI, Shijin, LIU, Zhenguo, LI, Guocai & LIU, Yudong. 1996. Chinese Journal of Vector Biology and Control, 7, 463).

The gamasid mites in Helongjiang Province, Northeast China have been investigated for forty years. Sixty-two species were reported. They belong to Laelapidae (16 species), Haemogamasidae (12 species), Dermanyssidae (10 species), Macrochelidae (3 species), Parasitidae (4 species), Aceosejiidae (3 species), Rhodacaridae (1 species), Pachylaelaptidae (1 species), Phytoseiidae (12 species).

(ZHAO, Yong, ZHANG, Lina, WANG, Yu, FENG, Bo & MA, Liming. 1996. Chinese Journal of Vector Biology and Control, 7, 477-480).

Chinese Plant Protection Internet Station (IPM CHINA) was jointly sponsored by the Plant Protection Institute of CAAS, Chinese Plant Protection Society and the Department of Plant Protection, China Agricultural University in January this year. The station will provide information on plant protection for researchers, teachers, extension workers in mainland China. Anyone who is interested in this station can contact Mr. CHENG Dengfa (chengdf@public.east.cn.net) or Mr. PENG Yufa (yufapeng@public.east.cn.net) or webmaster@ipmchina.cn.net for more information.

Rice leaf oribatid mites (*Eupelops* sp.) were first reported in Waxian city, Sichuan Province, China in 1977. They were reported to damage the rice leaf. Prof. Yunrui LI of Southwest Agricultural University at Chongqing, China suspects the above report. He thinks that the mites might not be *Eupelops* sp, and the species found on rice leaf might not be the pest. He hopes more research should be done before the conclusion is drawn. (Entomological Knowledge, 1997, 34(1),60-61).

Corn red spider mites including *Tetranychus truncatus* and *Tetranychus cinnabarinus* occurred in North Liaoning Province in 1996. The mites had not occurred in the area for more than 20 years. The mites also occurred in Shangzhou city, Henan Province in 1996. (Plant Protection Technology and Extension, 1997, 17(1): 40).

Suggestion: Addition of Chinese Acarologists column in Acarology Bulletin to introduce the old generation of famous Chinese acarologists to the world. Only one acarologist will be introduced in one issue. Candidates may include Jie-Liu XIN, Guofan DENG, Longshui LI, Tinghuan WEN, Enpei MA, Huifu WANG, Suigong YIN, Tsan HUANG and others.

Taxonomic studies of eriophyoid mites in China

Last year, there was great progress in the taxonomic study of eriophyoid mites in China. Acarologists in both mainland China and Chinese Taiwan achieved great success compared with previous years, and the exchange of scholarly achievements between the two sides went smoothly and frequently. The quality of the research projects on the mites has reached high levels and attracted attention from scientific communities around world. The following is a brief summary of last year's major research findings on the eriophyoid mites in China.

1. *New descriptions and new records*

One new genus, one new subgenus, 19 new species and four new records were reported from China. Dr. Kun-Wei HUANG of National Museum of Natural Science of Taiwan described one new genus, one new subgenus and four new species, and Prof. Jan BOCZEK described three new species from Taiwan (Huang & Boczek, 1996). Prof. Tsan HUANG, Dr. Chin-Fah WANG of National Chung Hsing University of Taiwan and Dr. Kun-Wei HUANG described four new species and one new record from Taiwan (Huang *et al.*, 1996). Prof. Haiyuan KUANG and his associates Mr. Jian ZHAO, Prof. Guoji GONG and Mr. Suigai WEI of Nanjing Agricultural University described eight new species and reported two new records from mainland China (Kuang & Gong, 1996; Zhao & Kuang, 1996; Wei & Kuang, 1996). In addition, Dr. Xiaoyue HONG proposed a new name, *Knorella thailandica* for *Knorella bambusae* Chandrapatya (HONG, 1996).

The following is the list of names, hosts and localities of new eriophyoid mite species and new records found in China last year. They are arranged alphabetically.

Abacarus oplismeni Kuang & Gong. ex *Optismenus undulatifolius* in Jiangsu (Rugao City).

Aceria dendranthemae Zhao & Kuang. ex *Dendranthem nanjingensis* in Jiangsu (Nanjing City).

Aceria granati (Canestrini & Masalongo). ex *Prunus granatum* in Sichuan (Ya'an City).

Aceria indigoferae (Nalepa). ex *Indigofera pseudotinctoria* in Zhejiang (Quzhou City). New record in China.

Aceria pteridii Kuang & Gong. ex *Pteridium* sp. in Guangxi (Guilin City).

Aceria pterocaryae Kuang & Gong. ex *Pterocarya stenoptera* in Guangxi (Yangsu County) and Zhejiang (Jinhua City).

Aceria zhejiangensis Zhao & Kuang. ex *Rhus chinensis* in Zhejiang (Jiande City).

Aculops mumis Kuang & Gong. ex *Prunus mumae* in Jiangsu (Nanjing City).

Colopadacus millettiae Huang, Huang & Wang. ex *Millettia pulchra* in Taiwan (Kukuan, Taichung).

Cosella longana Huang, Huang & Wang. ex *Euphoria longana* in Taiwan (Puli, Nantou).

Cosella rubi Huang, Huang & Wang. ex *Rubus lambertianus* in Taiwan (Hoping, Taichung).

Eptrimerus yunbimus Huang. ex *Juniperus chinensis* in Taiwan (Alishan, Chiai).

Knorella thailandica Hong. ex *Bambusa* sp. in Thailand (Nonthaburi).

Levonga randiae Wei & Kuang. ex *Randia cochinchinensis* in Guangxi (Long'an County).

Rhynacus sargentodoxae Wei & Kuang. ex *Sargentodoxa cuneata* in Guangxi (Long'an County).

Nalepella tisamae Huang. ex *Tsuga chinensis* in Taiwan (Alishan, Chiai).

Pentaporca Huang. Type species: *Pentaporca taiwanensis* Huang. ex *Tsuga chinensis* in Taiwan (Alishan, Chiai).

Phyllocoptes limsamus Boczek. ex *Abies kawakamii* in Taiwan (Alishan, Chiai).

Setoptus (Orientis) Huang, subgenus. Type species: *Setoptus (Orientis) inaequalis* Huang. ex *Tsuga chinensis* in Taiwan (Alishan, Chiai).

Setoptus (Orientis) inusitatus Boczek. ex *Tsuga chinensis* in Taiwan (Alishan, Chiai).

Setoptus undatus Boczek. ex *Tsuga chinensis* in Taiwan (Alishan, Chiai).

Spinacus longinquus Huang, Huang & Wang. ex *Mangifera indica* in Taiwan (Tapu, Chiai)

Spinacus pagonis Keifer. ex *Mangifera indica* in Taiwan (Tapu, Chiai), new record in China.

Trisetacus distinctus Smith. ex *Juniperus chinensis* in Taiwan (Alishan, Chiai), new record in China.

2. Morphometric analysis

Three species of eriophyoid mites on the same host *Mangifera indica* were collected by Dr. Kun-Wei HUANG, Prof. Tsan HUANG and Dr. Chin-Fah WANG, and were identified as *Cisaberoptus kenyae* Keifer, *Spinacus pagonis* Keifer and *Spinacus longinquus* Huang, Huang & Wang. Since the latter two species are similar to each other, morphometric analyses were used to discriminate them. Distances between homologous structures (microtubercles) were measured, and the ratios of these variables were calculated. Cluster analysis, principal component analysis, minimum spanning tree and Burnaby's method were used. It was found that males are distinguishable from females by size variables; *Spinacus longinquus* is separated from *Spinacus pagonis* by shape variables, and the same variables could not be used to distinguish differences in sex and age of the two species. The major differences between the latter two species are the length of dorsal setae, the distances between the 3rd coxal tubercles, and the distance between the 3rd ventral tubercles (Huang *et al.*, 1996).

Morphometrics provides another way to distinguish the eriophyoid mites by analysis of assembled variables. According to the authors, it is useful to make morphometric measurements of eriophyoid mites, because the microtubercles of eriophyoid mites are the homolog. It may also be of practical value in the taxonomy of eriophyoid mites.

3. Cladistic research

Cladistic research was conducted by Dr. Xiaoyue HONG and Dr. Zhi-Qiang ZHANG on both the tribe and the superfamily levels (Hong & Zhang, 1996b & 1996c). The tribe Cecidophyini contains 9 genera and 64 species and occurs throughout the world. The phylogenetic relationships among these genera were analysed based on a total of twenty-one characters which were polarized by comparison with *Phytoptus*, *Phylocoptes*, *Eriophyes* and *Colomerus*. Two distinct clades were revealed: clade A: (*Achaetocptes*, *Johmella*, *Cecidophyes*, *Coptophylla*, *Glyptacus*, *Chreacidus*, *Cecidophyopsis*), and clade B (*Dechela*, *Neserella*). The pattern of geographic distribution and mite-host plant relationships of the tribe were described and discussed.

Furthermore, a cladistic analysis of relationships at the generic level was carried out for the Eriophyoidea. The analysis was based on a total of 35 characters drawn from the examination of investigated specimens and original descriptions of species in 17 genera examined. These characters were polarized by comparison with the generalized Tydeidae, which was chosen as the outgroup. PAUP was used. It was found that the Phytoptidae is paraphyletic, whereas the Eriophyidae (Sierraphytoptus) and the Diptilomiopidae are both monophyletic. The current classification system within the Eriophyoidea were appraised, with suggestions on further study on the phylogeny of the superfamily, and on the revision of the classification systems to reflect the natural relationships at the familial and generic levels.

4. Monograph and doctoral dissertation

"The Eriophyoid Mites of China: An Illustrated Catalog and Identification Keys (Acari: Prostigmata: Eriophyoidea)" by Dr. Xiaoyue HONG and Dr. Zhi-Qiang ZHANG was published by Associated Publishers in April 1996 (Hong & Zhang, 1996a). It deals with the eriophyoids of China. The catalog

comprises 205 species belonging to 3 families, 9 subfamilies and 77 genera. Illustrations of 190 species are given. Identification keys to the families, subfamilies, tribes, genera and species are included, followed by a list of references and a taxonomic as well as a host plant index. This book together with the book "Acari: Eriophyoidea (1)" (Kuang, 1995) is very useful in helping to know the eriophyoid mite fauna in mainland China.

Doctoral dissertation "A taxonomic study of Eriophyidae of Taiwan (Acarina: Eriophyoidea)" by Dr. Kun-Wei HUANG is the systematic research on the aerified mite fauna in Taiwan, and is also the first doctoral dissertation on the eriophyoid mite fauna in China (Huang, 1996). The work is tremendous and consists of two parts. The first part is the traditional taxonomy, describing 143 species, of which 16 genera and 109 species are new and 2 species are new records from Taiwan. The second part deals with the cladistics. A total of 121 species were selected, twenty-three characters were treated as unnurtured. The results showed that the Eriophyidae of Taiwan could be divided into three holophyletic groups. These three holophyletic groups are not consistent with the traditional taxonomic system. Also, the origin and average diversification rate of eriophyoid mites were inferred based on the fossil, morphology, host plant, classification system, and plate tectonics evidence, and by means of principle of evolutionary continuous dictomony. The author deduced that the eriophoid mites originated at about 280 (million) years ago on *Laurasia* and the average diversification rate is 0.18 per million years.

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Xiaoyue HONG

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Ohio State University Acarology Summer Courses 1997

Course fees:

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- * Agricultural Acarology (2 wks) \$1000
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\$400 - Introductory Acarology
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Email: Needham.1@osu.edu

Klompen.1@osu.edu

OR

Registration Deadline: June 2

Introductory acarology June 23 - 28

This intensive one-week workshop presents an overview of the identification, systematics, and biology of the major groups of Acari. A second emphasis is techniques (study, collecting, preservation) used in acarology. The course is designed as either a stand alone course or as an introduction for the novice to prepare for the other, more specialized workshop units (Klompen).

Agricultural acarology June 30 - July 11

This intensive two-week course reviews the mites, pests and predators, associated with crops, ornamental plants, and stored products with an emphasis on identification and classification. These mites are of major importance in agriculture worldwide. Problems associated with the frequent deve-

lopment of acaricide resistance and the options for use of mites in biocontrol will be discussed. Week One will treat the Phytoseiidae (DAVID EVANS WALTER, University of Queensland, Australia), Eriophyoidea (JIM AMRINE, West Virginia University), and Tetranychoidae (CAL WELBOURN, Florida Dept. Agriculture & DANA WRENSCH, OSU). Week Two focuses on Tarsonemida and Parasitengone (WELBOURN), stored product mites (BARRY OCONNOR, University of Michigan) & miscellaneous Prostigmata (JOHN KETHLEY, Field Museum of Natural History-Chicago).

Scholarships:

Hoogstraal Fund at OSU: Family and friends of the late Harry Hoogstraal have established an endow fund at OSU to honor his outstanding career, which included 5 yrs of teaching in the Workshop (1977-81). This \$600 scholarship is to encourage participation by young scholars, who also have financial need. Applicants bring the following to OSU: 1) A letter by the student giving background, interests and accomplishments (publications, presentations, grants) with a description of how attending the Acarology Summer Program will augment their career in Acarology. 2) The student's advisor should send a letter that relates the scholarly potential of the applicant in Acarology, and document the financial need. The student should turn in these materials upon arrival at the workshop. Announcement of the recipient will be made at the conclusion of the Workshop.

Johnston Fund at OSU: Limited financial assistance may be available to graduate students or international participants from the D.E. Johnston Memorial Fund. Assistance will be in the form of partial waiver of registration only. Travel or per diem funds are not available. A written statement of need and how the workshop will augment their career is required for consideration.

Current contents of acarological journals

International Journal of Acarology

Vol. 22, No. 4, December, 1996

Kolodochka, L. A. & Denmark, H. A. Revision of the genus *Okiseius* Ehara (Acari: Phytoseiidae). 231-251.

Southcott, R.V. On some Australian and other larval Callidosomatinae (Acari: Erythraeidae). 253-278.

Whitney, J. & James, D. G. The phytoseiid fauna of grapevines in Australia. 279-284.

Anderson, T. M. & Smith, I. M. *Arrenurus hamrumi* (Hydrachnida: Arrenuridae), a new species of water mite from rangeland springs in central Oregon. 285-290.

Koc, K. & Ayyildiz, N. A new species of *Neophyllobius* Berlese (Acari: Camerobiidae) from Turkey. 291-294.

Amrine, J. W., Jr. & Stasny, T. A. Correlation to the catalog of the Eriophyoidea (Acarina: Prostigmata) of the world. 295-304.

Hatzinikolis, E. N. & Panou, H. N. Two new species of Bryobia (Acari: Tetranychidae) from moss in Greece. 305-310.

Acarologia

Vol. 37, No. 4, 1996

Urhan, R. & Ayyildiz, N. Three new species of the genus *Prozercon* Sellnick (Acari, Zerconidae) from Turkey. 259-267

Wisniewski, J. & Hirschmann. Neue mit *Uropoda helicopraxis* (Oudemans, 1901) (Acarina, Uropodina) verwandte Arten aus Asien, Amerika und Europa. 269-274

Bartsch, I. *Werthella ampliata* n. sp., a new psammophilous halacarid mite (Acari: Halacaridae: Copidognathinae) from Western Australia. 275-280

Momen, F. M. & Lundqvist, L. Taxonomy of non-*Tydeus* genera of the mite family Tydeidae (Acari: Prostigmata) from moss, lichens and trees in southern Sweden. 281-297

Southcott, R. V. The ecology, life-history and morphometrics of the Australian chigger mite *Eutrombicula samboni* (Womersley) (Acarina: Trombiculidae). 99-316

Jin, D. C. & Wiles, P. R. New species of *Arrenurus* Dugès (Acari: Hydrarachnida: Arrenuridae) from China and first records of watermites from Laos. 317-344

Behan-Pelletier, V. M. *Naiazetes reevesi* n. g., n. sp. (Acari: Oribatida: Zetomimidae) from semi-aquatic habitats of eastern North America. 345-355

Martínez, P. A., Fernández, N. A. & Monetti, L. N. La famille Oripodidae dans la République d'Argentine. I. *Parapirnodus prosopis* n. sp. 357-362

Systematic & Applied Acarology

Forthcoming papers in Vol. 2. July 1997

Zhang, P.-H. et al. Detection of *Borrelia burgdorferi* DNA by PCR in potential tick vectors of China

Yao, W.-B., Y.-P. Li & Z.-J. Jiang. Purification and partial properties of vitellins from the tick *Haemaphysalis longicornis* (Acari: Ixodidae).

Guo, F.-Y., X.-P. Deng & Z.-M. Zhao. Most Effective Determination of Glutathion-S-Aromatic groups Transferases of *Tetranychus cinnabarinus*.

R.-J. Hu & K. E. Hyland. Prevalence and seasonal activity of the wasp parasitoid, *Ixodiphagus hookeri* (Hymenoptera: Encyrtidae) in its tick host, *Ixodes scapularis* (Acari: Ixodidae).

Ali, O., R. Dunne & P. Brennan. Biological control of the scarid fly, *Lycoriella solani* by the predatory mite, *Hypoaspis miles* in mushroom crops.

Tamai, M. A., G. J. De Moraes et al. Suitability of *Brevipalpus obovatus* as prey to *Neoseiulus idaeus* (Acari: Tenuipalpidae, Phytoseiidae) on cassava.

Zhang, Z.-Q. Attachment sites of *Allothrombium pulvinum* larvae (Acari: Trombidiidae) ectoparasitic on aphid hosts.

Wu, W.N. A review of taxonomic studies of the genus *Phytoseius* (Acari: Phytoseiidae) from China.

Jin, D.-C., L.-S. Li & R. Wiles. The structure and evolution of male cauda and petiole with a cladistic analysis of Chinese species of the genus *Arrenurus* (Acari: Arrenuridae).

Fan, Q.-H. & Y. Chen. The genus *Storchia*, with the description of a new species (Acari: Prostigmata: Stigmaeidae).

Lin, J.-Z. A new species of the genus *Scirula* from Fujian, China (Acari: Cunaxidae).

Experimental & Applied Acarology
Vol. 20, No. 12, December, 1996

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Peavey, C. A. & Lane, R. S. Field and Laboratory studies on the timing of oviposition and hatching of the western black-legged tick, *Ixodes pacificus* (Acari: Ixodidae). 695.

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Vol. 21 No. 1, January 1997

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Bergermann, S., Schol, H, Gobel, E. & Gothe, R. Morphology of the eyes in adult *Hyalomma truncatum* ticks (Acari: Ixodidae). 21.

Moreno, J. A. & Estrada-Pena, A. Prevalence and seasonal activity of *Ixodes ricinus* (Acari: Ixodidae) on domestic ruminants of the Basque Country, Spain. 41.

Shatrov, A. B. The ultrastructure of haemocytes in trombiculid mites (Acariformes: Trombiculidae). 49.

Volume 21 No. 2 1997

Monetti, L. N. & Croft, B. A. Mating, cross-mating and related behaviours of *Neoseiulus californicus* and *Neoseiulus*

fallacis (Acari: Phytoseiidae). 67

James, D. G. Imidacloprid increases egg production in *Amblyseius victoriensis* (Acari: Phytoseiidae). 75

Zacharda, M. & Hluchy. Biological control of the two-spotted spider mite *Tetranychus urticae* on strawberries by the predatory phytoseiid mite *Typhlodromus pyri* (Acari, Tetranychidae, Phytoseiidae). 83

Barre, N., Garris, G. I. & Lorvelec, O. Field sampling of the tick *Amblyomma variegatum* (Acari: Ixodidae) on pastures in Guadeloupe; attraction of CO₂ and/or tick pheromone and conditions of use. 95

Dawes-Gromadzki, T. Z. & Bull, C. M. Ant predation on different life stages of two Australian ticks. 109

Mwangi, E. N., Hassan, S. M., Kaaya, G. P. & Essuman, S. The impact of *Ixodiphagus hookeri*, a tick parasitoid, on *Amblyomma variegatum* (Acari: Ixodidae) in a field trial in Kenya. 117

Volume 21 No. 3, 1997

Schausberger, P. Inter- and intraspecific predation on immatures by adult females in Euseius finlandicus, *Typhlodromus pyri* and *Kampimodrmus aberrans* (Acari: Phytoseiidae). 131

Hoffmann, A. A., Porter, S. & Kovacs, I. The response of the major crop and pasture pest, the red-legged earth mite (*Halotydeus destructor*) to pesticides: dose-response curves and evidence for tolerance. 151

Herron, G. A., Learmonth, S. E., Rophail, J. & Barchia, I. Clofentazine and fenbutatin oxide resistance in the two-spotted spider mite, *Tetranychus urticae* Koch (Acari: Tetranychidae) from deciduous fruit tree orchards in Western Australia. 163

Grout, T. G., Richards, G. I. & Stephen, P. R. Further non-target effects of citrus pesticides on *Euseius addoensis* and *Euseius citri* (Acari: Phytoseiidae). 171

Mathee, S., Meltzer, D. G. A. & Horak, I. G. Sites of attachment and density assessment of ixodid ticks (Acari: Ixodidae) on impala (*Aepyceros melampus*). 179

New Books



Principles of Plant Acarology. By S. Ehara & N. Shinkaji (1996) Zenkoku Noson Kyoiku Kyokai, Tokyo, 6500 Yen. viii+420 pp.

Plant Mites of Japan in Colors. S. Ehara (1993) Zenkoku Noson Kyoiku Kyokai, Tokyo, 13000 Yen. vi+298 pp.

Untersuchungen über Wassermilben der Familie Hydrphyantidae (Acari, Actinedida) in der Westpalaearktis. By R. Gerecke (1996) Arch. Hydrobiol. Suppl. 77 Heft 3/4. In German with English abstract. 86 figs. 352 pp. DM 140.

Gallmilben an Obstgewächsen — Morphologie un Symptomatologie. By J. Schliesske (1995) Schriftenreihe der Deutschen Phyto-medizinischen Gesellschaft Band 5. 288 pp. DM 48.

A new volume, entitled "**Porose integumental organs of oribatid mites (Acari, Oribatida)**" and edited by Gerd Alberti and Roy A. Norton, has been published as Heft 146 of *Zoologica* (143 pages, 74 plates, 2 tables). The three included parts present: 1) an overview of the types and distribution of such organs; 2) new data on their fine structure obtained by electron microscopic methods; and 3) an analysis from evolutionary and ecological perspectives. It can be obtained from E. Schweizerbart'sche Verlagsbuchhandlung, Johannesstr. 3A, D-70176 Stuttgart, Germany. The price is 194 DM, payable also in US dollars or English pounds.

An opportunity for PhD study in UK

A PhD studentship is available for a project looking at andropolymerism in mites. If you are looking for a PhD place and is either interested in mites (or other invertebrates) and/or life-history evolution/behavioural ecology please contact Dr Benton at the following address.

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Book Review



Eriophyoid mites of the United States. (1996) by Baker, E.W., Kono, T., Amrine, J.W., Jr., Delfinado-Baker, M.D., & Stasny, T.N. Indira Publishing House, USA, ISBN: 0-930337-15-8. US\$ 166.00

This multi-authored volume is a compilation of information on the eriophyoid mites of the United States. It is a comprehensive guide to 635 species with illustrations, many of which are H.H. Keifer's.

The book starts with a brief introduction to the eriophyoid mites and discussion on how eriophyoids should be collected and preserved for study. This is followed by descriptions of the external morphology of these mites. Although the standardized acariform terminology and notations of Grandjean are introduced and compared with the old ones used by Keifer and others, they are not used in the descriptions of the species in the book. There is a useful section on the deutogeny in these mites and a list of known deutogynous species in the US is given. The section on classification presents a synopsis of the familial classification of the superfamily. This is followed by an alphabetical list of eriophyoid genera, giving information such as author and date, familial level assignment, reference, type species, host plant, geographic location of type species and etymology. The section on host plants and eriophyoid mites is the major part of the book and consists of ca. 92% of the entire 394-page book. Host plants are arranged alphabetically by their generic names. For each host species, its eriophyoid mites are described with taxonomic references, habitats, distribution in the US and (sometimes) discussion. Illustrations of each species are provided conveniently on opposite pages. The book ends with a full list of references, a list of host plants by family and an index to taxa.

This book summarizes information scattered in many journals/books and is a very useful guide to taxonomic information of eriophyoid mites of the US. This guide could have been more valuable if the authors had studied the type specimens of the concerned species, especially those poorly described ones.

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