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reproduction in any medium, provided the original author and source are credited.
ABSTRACT — Mite fauna of the United Arab Emirates (UAE) is poorly studied. Based on published works, only 26 species (representing three orders, 18 families and 24 genera) were previously reported from coleopteran insects, plants, leaf litter and soil. This paper reports 11 new records of mites from the emirate of Dubai. A checklist of the taxa reported from the UAE to date is presented.

KEYWORDS — Acari; mites; new records; United Arab Emirates; checklist

INTRODUCTION

Faunistic studies on mites of the United Arab Emirates (UAE) are limited. Twenty six species (15 known species, five new to science described from the UAE and six unidentified species) have been reported in previous publications (Vine and Al Abed, 1996; Gassouma, 2005; Environment Agency Abu Dhabi, 2008; Ueckermann, 2008; Den Heyer, 2009; Mahunka, 2009; Al-Deeb and Enan, 2010; Al-Deeb et al., 2011, 2012; Kontschán, 2011). These mites belong to three orders, 18 families and 24 genera (Table 1).

To my knowledge, there is no taxonomic information source that contains the mite fauna of the UAE. To establish a baseline and enhance knowledge for further work, this paper presents a checklist of mites reported from UAE so far and new mite records.

MATERIALS AND METHODS

Samplings were made in January, 2013, from the emirate of Dubai. Mites were sampled by using specialized hand-held aspirators (BioQuip®, CA, USA) after modifying the collecting chamber by adding a small piece of light cloth. Mite specimens were preserved in plastic vials containing ethyl alcohol (70%) and then transferred to the Department of Plant Protection, Assiut University, Egypt for examination. Mites were cleared in lactophenol, mounted in Hoyer’s medium and studied under a research microscope (BH-2, Olympus®, Japan).

The main classification works used for the identification of mite taxa were as follows: Anystidae (Otto, 1999), Blattisociidae (Evans and Hyatt, 1960; Christian and Karg, 2006), Caligonellidae (Swift, 1996), Cheyletidae (Ehara, 1962; Fain et al., 2002), Eupodidae (Olivier and Theron, 1997), Phytoseiidae (Olivier and Theron, 1997), Phytoseiidae (Chant and McMurtry, 2007), Tetramychidae (Jeppson et al., 1975) and Tydeidae (André, 1980, 2005;
## Table 1: Checklist of mites reported from United Arab Emirates so far. * New records

| Order           | Family       | Species                                        | Plant or insect host/habitat | Reference                  |
|-----------------|--------------|------------------------------------------------|------------------------------|-----------------------------|
| Mesostigmata    | Blattisociidae | *Cheiroseius nepalensis* (Evans and Hyatt, 1960)* | *Cynodon dactylon* L. (Poaceae) | Present study              |
|                 |              | *Lasioneius youcefi* Athias-Henriot, 1959*     | *C. dactylon*                | Present study              |
| Laelapidae      |              | *Hypospis rhinocerotis* Oudemans, 1925         | *O. a. arabicus*              | Al-Deeb *et al.* 2012      |
| Phytoseiidae    |              | *Cycloneurops negevi* (Swirski and Amitai, 1961)* | *C. dactylon*                | Present study              |
|                 |              | *Neoseiulus makuwa* (Ehara, 1972)*             | *Senecio* sp. (Aizoaceae)    | Present study              |
|                 |              | *Proprioseiops asetus* (Chant, 1959)*          | *C. dactylon*                | Present study              |
| Trachyuropodidae|              | *Leonardiella harteni* Kontschán, 2011         | Leaf litter                  | Kontschán 2011             |
| Uropodidae      |              | *Curculanoetus sp.* (Olivier, 1790) (Curculionidae) | *Rhyssochorus ferrugineus* | Al-Deeb *et al.* 2011      |
|                 |              | *Urooeoela sp.*                               | *R. ferrugineus*             | Al-Deeb *et al.* 2011      |
|                 |              | *Uropoda orbicularis* (Müller, 1776)          | *R. ferrugineus*             | Al-Deeb *et al.* 2011      |
| Sarcoptiformes   | Acaridae     | *Sancassania sp.*                              | *Oryctes agamemnon arabicus* Fairmaire, 1896 (Scarabaeidae) | Al-Deeb *et al.* 2012      |
|                 |              | *Sancassania sp.*                              | *O. agamemnon*               | Al-Deeb & Enan 2010        |
| Epilohmanniidae |              | *Epilohmannia cylindrica cylindrica* (Berlese, 1904) | Leaf litter                  | Mahunka 2009               |
|                 |              | *Pilogalumna arabica* Bayoumi and Al-Khalifa, 1986 | Leaf litter                  | Mahunka 2009               |
| Galumnidae      |              | *Haplozetidae*                                 | Leaf litter                  | Mahunka 2009               |
|                 |              | *Proterribates capitatus* Berlese, 1908         | Leaf litter                  | Mahunka 2009               |
| Oribatulidae    |              | *Zyggoribatula mabar* Mahunka, 2000            | Leaf litter                  | Mahunka 2009               |
|                 |              | *Z. sharjah* Mahunka, 2009                     | Leaf litter; humid soil; in a pitfall trap | Mahunka 2009               |
| Scheloribatidae |              | *Scheloribates sacculipunctatus* Mahunka, 2009 | Leaf litter                  | Mahunka 2009               |
| Scutoverticidae |              | *Ethiovertex vanhartenii* Mahunka, 2009         | In a pitfall trap            | Mahunka 2009               |
| Tectocepheidae  |              | *Tectocepheus velatus* (Michael, 1880)         | Humid soil                   | Mahunka 2009               |
| Tegoribatidae   |              | *Hypozetes imitator* Balogh, 1959              | In a pitfall trap            | Mahunka 2009               |
| Order          | Family          | Species                  | Plant or insect host/habitat | Reference |
|---------------|-----------------|--------------------------|------------------------------|-----------|
| Trombidiformes| Anystidae       | Paratarsotomus *sp.*     | Convolvulus arvensis L. (Convolvulaceae) | Present study |
|               |                 |                          |                              |           |
|               | Caligonellidae  | Molothrognathus *sp.*    | C. dactylone                | Present study |
|               |                 | Neognathus harteni       | Leaf litter                 | Ueckermann 2008 |
|               |                 | Heniccheyletia bakeri    | C. arvensis                 | Present study |
|               | Cheyletidae     | Hemicheyletia bakeri     | C. arvensis                 | Present study |
|               | Cunaxidae       | Colosciurus simplex      | Leaf litter                 | Den Heyer 2009 |
|               |                 | Cunaxa capreolus (Berlese, 1890) | Leaf litter/in a light trap | Den Heyer 2009 |
|               | Eupodidae       | Eupodes *sp.*            | C. arvensis                 | Present study |
|               | Tenuipalpidae   | Raoiella indica Hirst    | P. dactylifera              | Gassouma 2005 |
|               |                 | Tenuipalpus eriophyoides | P. dactylifera              | Gassouma 2005 |
|               | Tetranychidae   | Eutetranychus orientalis | Chenopodium murale L. (Amaranthaceae) | Present study |
|               |                 | Oligonychus aphisaticus  | Phoenix dactylifera L. (Areaceae) | Gassouma 2005 |
|               |                 | Tetranyczus urticae Koch, 1836 | Greenhouse vegetables (tomatoes and cucumbers) | Environment Agency Abu Dhabi 2008 |
|               | Trombiculidae   | Trombiculus *sp.*        | Not specified               | Environment Agency Abu Dhabi 2008 |
|               | Trombidiidae    | Dinothrombium *sp.*      | Soil                        | Vine & Al Abed 1996 |
|               | Tydeidae        | Tydeus *sp.*             | Lantana camara L. (Verbenaceae) | Present study |

Kaźmierski, 1998). The voucher material, preserved as slide-mounted specimens, is deposited in the Department of Plant Protection, Faculty of Agriculture, Assiut University, Egypt.

RESULTS

New Records

Order Mesostigmata

Family Blattisociidae Garman, 1948

For a long time, acarologists agreed that *Cheiroseius* Berlese, 1916 and *Lasioseius* Berlese, 1916 belong to family Ascidae (Lindquist and Evans, 1965; Halliday et al., 1998) while recently they were transferred to Blattisociidae (Lindquist et al., 2009). Lindquist and Moraza (2010) presented a revised family diagnosis with a key to world genera. In this paper, the new concept of Lindquist et al. (2009) for blattisociid mites was followed. This is the first report of this family from the UAE.

*Cheiroseius nepalensis* (Evans and Hyatt, 1960)

Material examined — Four females, Dubai, 12 Jan. 2013, 25°07’ N, 55°06’ E, alt. 13 m, on Bermuda grass, *Cynodon dactylon* L. (Poaceae) close to soil surface.
Remarks — Mites of the genus *Cheiroseius* are known to feed on collembolans (Collembola) (Halliday *et al.*, 1998). The present specimens of *C. nepalensis* (Evans and Hyatt, 1960) were found in association with high populations of collembolans and thrips. This is the first report of this species from the UAE.

Distribution — China (Zhang and Fan, 2010), Hungary (Salamane and Kontschán, 2005), Iran (Jalaeian *et al.*, 2004), Philippines (Raros and Raros, 1999) and Taiwan (Xiong, 1989).

*Lasioseius youcefi* Athias-Henriot, 1959

Material examined — Twenty females and five males, Dubai, 15 Jan. 2013, 25°06’ N, 55°08’ E, alt. 122 m, on *C. dactylon*.

Remarks — Mites of the genus *Lasioseius* occur in various habitats such as plants, soil and leaf litter (Halliday *et al.*, 1998). The original collection of *L. youcefi* was collected from wet mosses in Algeria (Athias-Henriot, 1959). Walter and Lindquist (1989) redescribed and presented diagnoses for *L. berlesei* (Oudemans, 1938), *L. youcefi* and *L. confluus* Evans, 1958 on the basis of the spermatheca. The species *L. youcefi* belongs to the subgenus *cuspiacus* Christian and Karg, 2006, which includes species having mostly acicular dorsal setae and a smaller number of pectinate setae. This is the first report of this species from the UAE.

Distribution — Africa (Athias-Henriot, 1959), Asia (Ishikawa, 1969), Europe (Westerboer, 1963) and North America (Chant, 1963).

Family Phytoseiidae Berlese, 1916

*Cynoseius negevi* (Swirski and Amitai, 1961)

Material examined — Twenty five females and 10 males, Dubai, 15 Jan. 2013, 25°06’ N, 55°08’ E, alt. 145 m, on *C. dactylon*.

Remarks — *Cynoseius negevi* (Swirski and Amitai, 1961) was originally described from Israel, on date palm, *Phoenix dactylifera* L. (Arecaceae) (Swirski and Amitai 1961). According to Chant and McMurtry (2007), the genus *Cynoseius* contains two species, *C. negevi* and *C. muntius* (Schicha and Corpuz-Raros), the latter described from Philippines, on *Shorea guiso* (Blanco) Blume (Dipterocarpaceae). This is the first report of this species from the UAE.

Distribution — *Cynoseius negevi* has been essentially reported from the Mediterranean area, Egypt (El Badry, 1967a), Israel (Swirski and Amitai, 1961), Oman (Hountondji *et al.*, 2010), Pakistan (Muma, 1967), Saudi Arabia (Negm *et al.*, 2012b) and Sudan (El Badry, 1967b).

*Neoseiulus makuwa* (Ehara, 1972)

Material examined — Two females, Dubai, 15 Jan. 2013, 25°06’ N, 55°08’ E, alt. 145 m, on Sea-purslanes, *Sesuvium* sp. (Aizoaceae).

Remarks — The type specimens of *Neoseiulus makuwa* were found on *Cucumis melo* var. *makuwa* at Kita-usa, USA, Oita, Kyushu, Japan (Ehara 1972). The two collected females completely fit the original description of Ehara (1972) and the redescription given by Zannou *et al.* (2006), who reported one female in Africa (Cameroon), on *Ageratum conyzoides* L. (Asteraceae). This is the first record of this species in UAE.

Distribution — It was reported from Saudi Arabia in the Middle East (Negm *et al.*, 2012a). It has also been recorded in Cameroon, China, Indonesia (Sumatra), Japan, South Korea and Taiwan (Ehara and Amano 2004; Moraes *et al.* 2004).

*Proprioseiopsis asetus* (Chant, 1959)

Material examined — Three females, Dubai, 15 Jan. 2013, 25°06’ N, 55°08’ E, alt. 122 m, on *C. dactylon*.

Remarks — The original description of *Proprioseiopsis asetus* is based on material collected on apple, at Kearneysville, West Virginia, USA (Chant 1959). Muma *et al.* (1970) recorded this species from Florida. This is the first record of this species in UAE. Distribution — This species was reported from Saudi Arabia in the Middle East (Negm *et al.*, 2012a). It is otherwise known from Brazil, Galapagos, Hawaii, Jamaica, Mexico, Taiwan and USA (Moraes *et al.* 2004).
Order Trombidiformes

Family Cheyletidae Leach, 1815

*Hemicheyletia bakeri* (Ehara, 1962)

Material examined — Five females, Dubai, 12 Jan. 2013, 25°06' N, 55°09' E, alt. 7 m, on *C. arvensis*.

Remarks — This species was described from Rose mallow, *Hibiscus rose-sinensis* (Malvaceae) in a greenhouse in Sapporo, Hokkaido, Japan (Ehara, 1962). It was found predating on citrus red mite, *Panonychus citri* (McGregor) in Ehime prefecture of Japan (Razaq *et al.*, 2001). This is the first report of the family Cheyletidae from the UAE.

Distribution — Australia (Gerson, 1994), Israel (Gerson, 1967), Pakistan (Qayyum and Chaudhri, 1979), Philippines (Corpuz-Raros, 1972) and USA (Muma, 1964).

Family Tetranychidae Donnadieu, 1875

*Eutetranychus orientalis* (Klein, 1936)

Material examined — Two females, Dubai, 12 Jan. 2013, 25°06' N, 55°08' E, alt. 145 m, on Nettle-leaved goosefoot, *Chenopodium murale* L. (Amaranthaceae).

Remarks — The oriental red mite, *Eutetranychus orientalis*, primarily a pest of citrus, is reported from many parts of the world. This is the first report of this species from the UAE.

Distribution — Cosmopolitan.

Four other species of the families, Anystidae Oudemans, 1936 — genus *Paratarsotomus*; Caligonellidae Grandjean, 1944 – genus *Molothrognathus*; Eupodidae Koch, 1842 – genus *Eupodes*; Tydeidae Kramer, 1877 – genus *Tydeus*, were herein first recorded from UAE. It has been difficult to determine the species names because of poor taxonomic competences and the few specimens collected for these groups. However, further collaborations with World Acarologists would be very expected to identify these mites. The material examined is as follows:

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**CONCLUSION**

Thirty seven mite species (including 10 unidentified species) have been reported from UAE so far. The mite fauna of this country is still poorly known and it is expected to contain much more species that have to be discovered.

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**REFERENCES**

Al-Deeb M.A., Enan M.R. 2010 — First record of a phoretic astigmatid mite (Sancassania sp.; Acaridae: Astigmata) on *Oryctes agamemnon* (Coleoptera: Scarabaeidae) in UAE — Internat. J. Agric. Biol., 12: 157-160.
Al-Deeb M.A., Muzaffar S.B., Sharif E.M. 2012 — Interactions between phoretic mites and the Arabian rhinoceros beetle, Oryctes agamemnon arabicus — J. Ins. Sci., 12(128): 1-14.

Al-Deeb M.A., Muzaffar S.B., Abagula A.M., Sharif E.M. 2011 — Distribution and abundance of phoretic mites (Astigmata, Mesostigmata) on Rhyncophorus ferrugineus (Coleoptera: Cucuclionidae) — Fla. Entomol., 94(4): 748-755. doi:10.1653/024.094.0403

André H.M. 2005 — In search of the true Tydeus (Acari, Tydeidae) — J. Nat. Hist., 39(13): 975-1001. doi:10.1080/00222930400002838

Athias-Henriot C. 1959 — Phytoseiidae et Aceosejidae (Acari, Gamasina) d’Algerie. III. Contribution aux Aceosejinae — Bull. Soc. Hist. Nat. Afr. N., 50: 138-195.

Chant D.A. 1959 — Phytoseiid mites (Acara, Phytoseiidae) Part I. Bionomics of seven species in Southeastern England. Part II. A taxonomic review of the family Phytoseiidae, with descriptions of 38 new species — Can. Entomol., 91(suppl. 12): 1-166.

Chant D.A. 1963 — The subfamily Blattisocinae Garman (=Aceoseinai Evans) (Acari, Blattisociidae Garman) (=Aceoseiidae Baker and Wharton) in North America, with descriptions of new species — Can. J. Zool., 41: 243-305. doi:10.1139/z63-025

Chant D.A., McMurtry J.A. 2007 — Illustrated keys and diagnoses for the genera and subgenera of the Phytoseiidae of the world (Acari: Mesostigmata). West Bloomfield, Michigan: Indira Publishing House. pp. 219.

Christian A., Karg W. 2006 — The predatory mite genus Lasioseius Berlese, 1916 (Acari: Gamasina) — Abh. Ber. Naturkundemus. Görlitz, 77(2): 99-250.

Corpuz-Raros L.A. 1972 — Systematic studies of Philippine cheyletid mites. I. Preliminary report of species mainly from Laguna — The Philippine Entomologist, 72: 247-271.

Den Heyer J. 2009 — Order Prostigmata, family Cunaxidae — In: van Harten A. (Ed). Arthropod fauna of the UAE, volume 2. Abu Dhabi: Dar Al Ummah Printing, Publishing and Advertising. p. 17-25.

Ehara S. 1962 — Mites of greenhouse plants in Hokkaido, with a new species of Cheyletidae. — Annotationes Zoologicae Japonenses, 35(2): 106-111.

Ehara S. 1972 — Some phytoseiid mites from Japan, with descriptions of thirteen new species (Acara: Mesostigmata) — Mushi, 46: 137-173.

Ehara S., Amano H. 2004 — Checklist and keys to Japanese Amblyseiinae (Acari: Gamasina: Phytoseiidae) — J. Acarol. Soc. Japan, 13: 1-30. doi:10.2300/acari.13.1

El Badry E.A. 1967a — Five new phytoseiid mites from U.A.R., with collection notes on three other species (Acara: Phytoseiidae) — Indian J. Entomol., 29: 177-184.

El Badry E.A. 1967b — Three new species of phytoseid mites preying on the cotton white fly, Bemisia tabaci in the Sudan (Acara: Phytoseiidae) — The Entomologist, 100: 106-111.

Environment Agency Abu Dhabi. 2008 — Terrestrial environments of Abu Dhabi emirate, United Arab Emirates — Abu Dhabi Global Environmental Data Initiative.

Evans G.O., Hyatt K.H. 1960 — A revision of the Platyselaeinae (Mesostigmata: Aceosejidae) based on material in the collections of the British Museum (Natural History) — Bull. British Museum, Natural History, Zool., 6: 27-101.

Fain A., Bochkov A.V., Corpuz-Raros L.A. 2002 — A revision of the Hemicheyletia generic group (Acara: Cheyletidae) — Bull. Inst. R. Sc. Natur. Belgique, Entomologie, 72: 27-66.

Gassouna M.S. 2005 — Pests of the date palm [Internet] — [15 September 2013]. Available from: (http://ecoport.org/ep?SearchType=slideshowView&slideshowId=133&chkRequired=Y)

Gerson U. 1967 — Some cheyletid and pseudocheyletid mites from Israel — Acarologia, 10: 359-369.

Gerson U. 1994 — The Australian Cheyletidae (Acari: Prostigmata) — Invert. Tax., 8: 435-437. doi:10.1071/IT9940435

Halliday R.B., Walter D.E., Lindquist E.E. 1998 — Revision of the Australian Ascidae (Acarina: Mesostigmata) — Invert. Tax., 12: 1-54. doi:10.2300/acari.13.1

Hountondji F.C.C., Moraes G.J. de, Al-Zawamri H. 2010 — Mites (Acari) on coconut, date palm and associated plants in Oman — Syst. Appl. Acarol., 15: 228-234.

Ishikawa K. 1969 — Taxonomic investigations on free living mites in the subalpine forest on Shiga heights IBP area. I. Mesostigmata. Part I — Bull. Nat. Sci. Mus. Tokyo, 12(1): 39-64.

Jalaeian M., Saboori A., Seyedoleslami H. 2004 — Introduction of some genera and species of mesostigmatic mites to the fauna of Iran — Proceedings of the 16th Plant Protection Congress, Tabriz, Iran, 1: 254.

Jeppson L.R., Keifer H.H., Baker E.W. 1975 — Mites injurious to economic plants. Berkeley (USA): University of California Press. pp. 614.

Kaźmierski A. 1998 — Tydeinae of the world: generic relationships, new and redescribed taxa and keys to all
species. A revision of the subfamilies Petydinae and Tydeinae (Acari: Actinedida: Tydeidae) — part IV — Acta Zoologica Cracoviensia, 41: 283-455.

Klein H.Z. 1936 — Contributions to the knowledge of the red spiders in Palestine. I. The Oriental red spider, Anychus orientalis Zacher. II. The common red spider, Epitetranychus althea v. Hainstein — Bulletin Israël Agric. Res. Stn. Rehovot, 21: 3-36, 37-63.

Kontschán J. 2011 — Order Mesosigmata, family Trachypodidae — In: van Harten A. (Ed). Arthropod fauna of the UAE, volume 4. Abu Dhabi: Dar Al Ummah Printing, Publishing and Advertising. p. 29-32.

Lindquist E.E., Evans G.O. 1965 — Taxonomic concepts in the Ascidiae, with a modified setal nomenclature for the idiosoma of the Gamasina (Acarina: Mesostigmata) — Memoirs of the Entomological Society of Canada No. 47, 64 pp.

Lindquist E.E., Moraza M.L. 2010 — Revised diagnosis of the family Blattisocidae (Acari: Mesostigmata: Phytoseioidae), with a key to its genera and description of a new fungus-inhabiting genus from Costa Rica — Zootaxa, 2479: 1-21.

Lindquist E.E., Krantz G.W., Walter D.E. 2009 — Life history and behaviour of mites in the genus Tarsotomus — Invert. Tax., 13: 749-803.

Lindquist E.E., Evans G.O. 1965 — Taxonomic concepts in the Ascidiae, with a modified setal nomenclature for the idiosoma of the Gamasina (Acarina: Mesostigmata) — Memoirs of the Entomological Society of Canada No. 47, 64 pp.

Mahunka S. 2009 — Oribatid mites from the Arabian Peninsula, including further records from Socotra (Acari: Oribatida). (Acarologica Genavensia CXII) — Rev. Suis. Zool. 116(2): 257-274.

Moraes G.J. de, McMurtry J.A., Denmark H.A., Campos C.B. 2004 — A revised catalog of the mite family Phytoseiidae — Zootaxa, 434: 1-494.

Muma M.H. 1964 — Cheyletidae (Acarina: Trombidiiformes) associated with citrus in Florida — Fla. Entomol., 47: 239-253. doi:10.2307/3493742

Muma M.H. 1967 — New Phytoseiidae (Acarina: Mesostigmata) from southern Asia — Fla. Entomol., 50: 267-280. doi:10.2307/3493156

Muma M.H., Denmark H.A., De Leon D. 1970 — Phytoseid mites of Florida, arthropods of Florida and neighboring land areas — Florida Department of Agriculture and Consumer Services, Gainesville. 150pp.

Negm M.W., Alatawi F.J., Aldryhim Y.N. 2012a — A new species of Neoseiulus Hughes, with records of seven species of predatory mites associated with date palm in Saudi Arabia (Acari: Phytoseiidae) — Zootaxa, 3356: 57-64.

Negm M.W., Alatawi F.J., Aldryhim Y.N. 2012b — Incidence of predatory phytoseid mites in Saudi Arabia: new records and a key to the Saudi Arabian species (Acari: Mesostigmata: Gamasina: Phytoseiidae) — Syst. Appl. Acarol., 17(3): 261-268.

Olivier P.A.S., Theron P.D. 1997 — The genus Eupodes Koch, 1835 (Acari: Prostigmata: Eupodidae) from southern African soil and vegetation. Part I: Characterisation of the genus, designation of the type species and descriptions of three new species — Koedoe, 40: 1-17.

Ott J.C. 1999 — The taxonomy of Tarsotomus Berlese and Paratarsotomus Kuznetsov (Acarina: Anystidae: Erythracarinae) with observations on the natural history of Tarsotomus — Invert. Tax., 13: 749-803.

Qayyum H.A., Chaudhri W.M. 1979 — Mites of the genus Hemicheyletia (Acarina: Cheyletidae) described from Pakistan — Pak. J. Zool., 11: 167-172.

Raros L.A.C., Raros R.S. 1999 — Philippine mites associated with rice and rice litter with notes on their abundance and diversity — The Philippine Entomologist, 13(2): 113-127.

Swift S.F. 1996 — Hawaiian Raphignathoidea: Family Caligoniidae (Acari: Prostigmata), with description of five new taxa and a key to genera and species — Ann. Entomol. Soc. America, 89: 313-327.

Swirski E., Amitai S. 1961 — Some phytoseid mites (Acarina: Phytoseiidae) of Israel, with a description of two new species — Israel J. Agric. Res., 11: 193-202.

Ueckermann E.A. 2008 — Order Prostigmata, family Caligoniidae — In: van Harten A. (Ed). Arthropod fauna of the UAE, volume 1. Abu Dhabi: Dar Al Ummah Printing, Publishing and Advertising. p. 33-38.

Vine P., Al Abed I. (Eds). 1996 — Natural Emirates: wildlife and environment of the United Arab Emirates. London: Trident Press. pp. 243.

Walter D.E., Lindquist E.E. 1989 — Life history and behavior of mites in the genus Lasiusinus (Acari, Mesostigmata, Ascidae) from grassland soils in Colorado, with taxonomic notes and description of a new species — Can. J. Zool., 67: 2797-2813. doi:10.1139/z89-396

Westerboer I. 1963 — Die Familie Podocinidae Berlese 1916 — In: Stammer H.J. (Ed). Beiträge zur Systematik und Ökologie Mitteleuropäischer Acarina. Band II. Mesostigmata. Leipzig: Akademische Verlagsgesellschaft Geest and Portig K.-G. p. 179-450.
Negm M.W.

Xiong Z.Y. 1989 — Taiwan paddy and upland arable weeds mites first reported — China Special Issue No. Insects Mites Ticks First Symposium, 3: 1-35.

Zannou I.D., Moraes G.J. de, Ueckermann E.A., Oliveira A.R., Yaninek J.S., Hanna R. 2006 — Phytoseiid mites of the genus Neoseiulus Hughes (Acari: Phytoseiidae) from sub-Saharan Africa — Internat. J. Acarol., 32: 241-276. doi:10.1080/01647950608684467

Zhang Z.-Q., Fan Q.-H. 2010 — Blattisociidae of China: a review, with a checklist — Zoosymposia, 4: 280-287.

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