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NEW MITES OF THE FAMILY ERIOPHYIDAE FROM KENIA
(ACARI : ERIOPHYOIDAE)

BY B. A. ABOU-AWAD * and E. M. ELBANHAWY *

TAXONOMY ABSTRACT: The present work includes descriptions of two new eriophyid mites, *Acaricalus eriobotryae* sp. n. infesting *Eriobotrya japonica* Lindl., and *Vittacus bougainvilleae* sp. n. infesting *Bougainvillea glabra* var. *sandeina* Host. Also, *Notallus nerii* Keifer is recorded for the first time, infesting *Nerium oleander* Linn. Relationships of the new species with other related ones as well as nature of damages are discussed in depth.

TAXONOMIE RÉSUMÉ: Cet article décrit deux nouveaux eriophyides, *Acaricalus eriobotryae* n. sp. sur *Eriobotrya japonica* Lindl., *Vittacus bougainvilleae* n. sp. sur *Bougainvillea glabra* var. *sandeina*. Mention est faite de *Notallus nerii* Keifer récolté sur *Nerium oleander* Linn. Les relations taxonomiques des espèces nouvelles et les dommages qu’elles provoquent sont discutés.

Two species belonging to the genera *Acaricalus* Keifer (1940), and *Vittacus* Keifer (1969) are described and illustrated. So far, ten species are known from the first genus and two species from the second. The present work describes additional species to these genera. Type materials are in the author’s collection.

SUBFAMILY PHYLLOCOPTINAE NALEPA

*Acaricalus eriobotryae* sp. n.

(Fig. 1)

**Female.** 195-247.5 µm long, 57.5-62.5 µm wide; fusiform; flattened dorsoventrally; color light yellowish. Rostrum about 42 µm long, projecting down; chelicera about 35 µm long.

Dorsal shield 34 µm long, 55 µm wide, nearly oval; anterior lobe moderately broad. Shield area unornamented, with incomplete short median line; admedian lines little sinuate from the rear but complete and joined with the anterior lobe; submedian lines formed of broken lines on upper sides and irregular. Dorsal tubercles 22 µm apart, ahead of rear margin, longitudinal axis; dorsal setae 5 µm long, nearly fusiform in shape, projecting up and inward anteriorly. Forelegs 34 µm long; femur 10 µm long; genu 5.5 µm long, seta 22 µm long; tibia 7 µm long, seta absent; tarsus 6.5 µm long, outside seta about 25 µm long. Claw 9 µm long, curved, with slight knob at tip. Featherclaw divided, apparently 6-rayed on a side. Hindlegs 30 µm long; femur 9 µm long; genu 5 µm long, seta 7.5 µm long; tibia 6 µm seta absent; tarsus 6 µm long, outside seta 23 µm long. Claw 8.5 µm long, curved, with slight knob at tip. Coxae with faint

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broken lines; anterior coxae moderately connate centrally; coxal setae I wider apart than setae II; posterior coxae contiguous with anterior ones and each with a single seta, measuring about 33 µm long. Tergites with about 58 in number, mid ridge extending back to about 37th tergite; lateral ridges running down from behind dorsal tubercles and fading posteriorly, the central abdominal trough not clear. Microtubercles on tergites mainly on ridges; sternites about 67 in number, heavily tuberculated with microrounded tubercles resting on rear margins. Lateral seta 15 µm long, on about sternite 12 behind second coxae; 1st ventral seta 43 µm long, surpassing second ventral seta, on about sternite 24; 2nd ventral seta 40 µm long, on about sternite 41; 3rd ventral or telosomal seta 30 µm long, on 8th ring from rear. The thanosome with about 50 tergites and 59 sternites. Telosome with microstriations ventrally. Caudal seta about 59 µm; accessory seta absent. Female genitalia 16 µm long, 22 µm wide; coverflap with about 15 longitudinal ribs; seta 27 µm long, surpassing the first ventral seta, arising from clear tubercle.

**MALE.** 192.5-197.5 µm long, 52.5-57.5 µm wide; male genitalia 14 µm long, 20 µm wide; seta 26 µm long and surpassing the first ventral seta.

**TYPE LOCALITY:** Nairobi, Kenya. Collected March 15, 1986, (Holotype, allotype slides and 7 paratype slides).

**HOST:** Eriobotrya japonica Lindl. (Rosaceae).
**RELATION TO HOST:** The mites are vagrant among the dense compound hairs on the lower surfaces of the leaves. No symptoms of attack were noticed.

**REMARKS:** *A. eriobotryae* resembles *A. rhodaspris* Keifer (1964) and *A. paralobus* Keifer (1961). It is distinguished by the nature of shield design, in addition, tibia seta absent, 6-rayed of featherclaw, first ventral seta surpassing second ventral seta, and genital seta surpassing first ventral seta.

**Vittacus bougainvilleae** sp. n.

*(Fig. 2)*

**FEMALE.** 187.5-217.5 µm long, 45-55 µm wide; fusiform; light yellow in colour. Rostrum about 22 µm long, directed down, chelicera about 19 µm long, antapical seta 3 µm long. Shield 31 µm long, 42 µm wide, with slight anterior lobe over rostrum that comes to a small furrow U-shaped in lateral view. Shield design an indication of an incomplete broken median line into two parts, present near anterior lobe and on posterior of shield; two dashes connected between anterior part of median line and admedian lines; admedian lines sinuate, arising from near anterior tip of lobe, running backward and meeting rear shield margin; the two admedian lines connected by a short transverse line on posterior 0.33 part of shield; submedian lines irregular, one of them connected with dorsal tubercles on rear shield margin extending forward and meeting...

**Fig. 2:** *Vittacus bougainvilleae* sp. n.

V) Ventral view of adult mite; GM) Male genitalia; D) Dorsal view of adult mite; F) Featherclaw; DA) Dorsal view of anterior section of shield; SA) Side view of anterior section of mite; GFI) Female genitalia and coxe.
sides of shield forming a semi-subtriangular; side of shield with faint dashes; other details of shield design as in figure; dorsal tubercles on rear shield margin, 14 μm apart; dorsal setae 12 μm long, directing to rear. Forelegs 28 μm long, femur 7 μm long; genu 6 μm long, seta 17 μm long, tibia 5.5 μm long, seta 3.5 μm long; tarsus 5.5 μm long, outside seta about 17 μm long. Claw 8 μm long, curved, with slight knob at tip. Featherclaw 3-rayed. Hindlegs 25.5 μm long; femur 6.5 μm long; genu 5.5 μm long, seta 6 μm long, tibia 4 μm long, without seta; tarsus 5.5 μm long, outside seta about 17 μm long. Claw 8.8 μm long, curved, with slight knob at tip. Coxae blank, anterior coxae contiguous, each with two setae; coxal setae I wider apart than setae II; seta II at base of sternal ridge; seta of second coxa about 30 μm long. Abdominal thanosome with 18 moderately broad tergites and about 72 sternites; tergites without microtubercles but there are faint short longitudinal lines; microtubercles on sternites rounded, usually touching ring margins. All usual abdominal setae present; lateral thanosomal seta 15 μm long, above and behind genital seta, on about sternite 11 behind second coxae; 1st ventral seta 30 μm long, on sternite 26; 2nd ventral seta 11 μm long, on sternite 45; 3rd or telosomal seta 15 μm long, on 5th ring from rear. The thanosome with 13 tergites and about 67 sternites. Telosome with fine striations ventrally. Caudal setae 45 μm long; accessory seta absent. Female genitalia 16 μm long, 21 μm wide, 12 longitudinal scorelines; seta 17 μm long.

**Male.** 162.5 μm long, 40 μm wide, male genitalia 11 μm long, 14 μm wide, seta 12 μm long.

**Type Locality:** Nairobi, Kenya. Collected March 15, 1986 (Holotype, allotype slides and 9 paratype slides).

**Host:** Bougainvillea glabra var. sandeina Host. (Nyctaginaceae).

**Relation to Host:** The mites were found mainly on the lower surface of pink leaves of the flowers and rarely on normal plant leaves with numerous numbers causing slight wrinkle.

**Remarks:** Up till now, *Vittacus* as a genus includes only two species: *V. mansoni* Keifer (1969) on *Urtica ferox* Forst., New Zealand and *V. plucheae* Abou-Awad & Nasr (1986), on *Pluchea dioscoridis* L., Egypt. The new species, however, differs from them by a distinctive shield design, featherclaw, direction of dorsal tubercles and in the measurement of various structures.

_Notalius nerrii_ Keifer

This species is recorded for the first time in Kenya.

**Female.** 155-195 μm long, 47.5-52.5 μm wide. Rostrum 37 μm long. Shield 42 μm long, 45 μm wide, semicircular at two thirds, with acuminate anterior lobe over rostrum that comes to a sharp edge in lateral view. Dorsal tubercles 22 μm apart. Abdomen with 26 tergites after the 3 narrow anterior rings and about 62 sternites. First ventral seta 40 μm long, on sternite 20 and surpassing second ventral seta.

**Locality:** Nairobi, Kenya. Collected March 15, 1986.

**Host:** Nerium oleander L. (Apocynaceae).

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