SOUTH AFRICAN ACARINA I

NINE SPECIES OF THE SUB-FAMILY TETRANYCHINAE COLLECTED ON WILD PLANTS

by

MAGDALENA K. P. MEYER, ACARALOGIST,
Plant Protection Research Institute,
Department of Agricultural Technical Services, Pretoria

ABSTRACT

The five new species described and figured here, were collected on wild plants in two of the National Parks of South Africa. The species are: *Tetranychus pafuriensis, Oligonychus grewiae, Eotetranychus obtusus, Schizotetranychus protectus* and *S. nesbitti.*

New locality records are given for *Tetranychus neocaledonicus* André, *T. lombardinii* Baker & Pritchard, *Oligonychus hadrus* Pritchard & Baker and *O. grypus* Baker & Pritchard.

INTRODUCTION

The mites occurring on the indigenous plants of the Republic are, with few exceptions, still unknown. The National Parks, with their carefully preserved flora and fauna, are the obvious places to commence a study of these mites, and this article deals with some of the mites collected during surveys of the Kruger National Park and the Golden Gate Highland Park. Further surveys of the National Parks are planned for different seasons of the year.

Surveys of this type are essential since many of the phytophagous mites are not host-specific since and can equally easily attack cultivated plants. Three of the known species which are recorded here have previously been found damaging crops.

The holotypes and some of the paratypes have been deposited in the collection of the Acarology section of the Plant Protection Research Institute,

while the rest of the partypes have been deposited in the collection of the Kruger National Park at Skukuza.

ACKNOWLEDGEMENTS

The author wishes to record her gratitude to the National Parks Board for allowing her to carry out this survey. Thanks are due to Dr. N. J. van der Merwe, the Liaison Officer of the National Parks Board for his support. The author would also like to express her appreciation for the assistance given by Mr. A. M. Brynard and the officials of the Kruger National Park and the Golden Gate Highland Park. Sincere thanks are due to Dr. Edward W. Baker of the U.S. Department of Agriculture, Washington, D.C., for checking the manuscript.

Tetranychus pafuriensis n. sp.

(Figs. 1-17)

The aedeagus of *Tetranychus pafuriensis* resembles that of *T. mcdanieli* McGregor and *T. homorus* Pritchard and Baker very closely. However, it differs from these two species in that the peritreme ends in a simple bulb. Including *T. tumidosus* Baker & Pritchard, *T. pafuriensis* is the second species of this genus which does not have a distal hook.

Female (figs. 1-10).

Dimensions of holotype (the measurements following in parentheses are the variations in the paratypes): Length of body (including gnathosoma) 667 µ (500-); length (excluding gnathosoma) 543 µ (367-); breadth 333 µ (260); length of leg I 287 µ (300-); leg II 200 µ (233-); leg IIII 233 µ (254-); leg IV 200 µ (300-).

Dorsum.

The hysterosomal striae are transverse except for irregular striae between the inner sacrals (fig. 3). The lobes (fig. 1) on the striae are rounded with an occasional broad or small lobe among the typical semicircular lobes. The thirteen dorsal setae are much longer than the intervals between the bases of consecutive setae. These setae are long, slender and setose. The perfect and imperfect eye corneae are present on the propodosoma.

Venter.

The medioventral striae of the podosoma bear broad, rounded lobes (fig. 2). These lobes disappear towards the propodosoma.

Gnathosoma.

The palpus (fig. 4) is provided with a terminal sensillum which is about twice as long as broad. The peritreme (fig. 5) ends in a simple bulb. The mandibular plate is notched in front.

Legs.

Tibia I (fig. 6) bears one sensory and nine tactile setae; tarsus I has one sensory and four tactile setae proximal to the duplex setae. All the empodia (fig. 7) are provided with dorsal spurs which are about one fourth of the length of the proximoventral setae. Seven tactile setae are situated on tibia II (fig. 8); tarsus II has one sensory and three tactile setae proximal to the duplex setae. Tibia III (fig. 9) with six tactile setae; tarsus III with one sensory seta, two proximal ventral tactile setae, four mediodistal tactile setae and four distal tactile setae. Tibia IV (fig. 10) bears seven tactile setae while tarsus IV is provided with one sensory seta, two proximal ventral tactile setae, four mediodistal setae and four distal tactile setae.

Nympha.

The dorsal aspect of the nymph is similar to that of the female but smaller. The chaetotaxy of the tibiae and tarsi differs from that of the female as follows:—

> Tibia I with one sensory and seven tactile setae; tarsus I with one sensory and three tactile setae proximal to the duplexes; tibia II with five tactile setae; tarsus II with three tactile setae proximal to the duplex setae; tibia III with five tactile setae; tarsus III with one sensory seta, four mediodistal tactile setae and four distal tactile setae; tibia IV with five tactile setae; tarsus IV with four mediodistal and four distal tactile setae.

Larva.

The dorsum is similar to that of the female. However, the number of setae on the tibiae and tarsi of the legs is less than that on the corresponding segments of the female. Tibia I has one sensory and five tactile setae; tarsus I bears only one pair of duplex setae and has two tactile setae proximal to the duplex setae. Tibia II is provided with five tactile setae and tarsus I has two tactile setae proximal to the duplex setae. Tibia III has five tactile setae and tarsus III four mediodistal and two distal tactile setae.

Male (figs. 11-17).

Dimensions of allotype: Length of body (including gnathosoma) 487 μ (400-); length (excluding gnathosoma) 367 μ (300-); breadth 200 μ (173-); length of leg I 233 μ; leg II 200 μ; leg II 200 μ; leg IV 240 μ.

Aedeagus (fig. II).

The knob of the aedeagus forms a distinct angle with the axis of the shaft, and is about twice as long as the neck of the stem. The anterior portion of the knob is rounded while the posterior portion is in the form of a slender angulation reaching well beyond the level of the bend. The distal end of the posterior angulation is directed ventrad.

Gnathosoma.

The peritreme ends in a simple bulb. The terminal sensillum (fig. 12) is about two and a half times as long as broad.

Legs.

Four sensory and nine tactile setae are situated on tibia I (fig. 13) and tarsus I bears two sensory and four tactile setae proximal to the duplex setae.

Empodium 1 (fig. 1) has a medio-dorsal spur which is about half the length of the proximoventral spurs. Tibia II (fig. 15) is provided with seven tactile setae and tarsus II with one sensory and three tactile setae proximal to the duplexes. Tibia III (fig. 16) bears six tactile setae and tarsus III has one sensory seta, two posterior ventral tactile setae, four mediodistal tacitle setae and four distal tactile setae. Tibia IV (fig. 17) is provided with seven tactile setae and tarsus IV with one sensory seta, two posterior proximal ventral tactile setae, four mediodistal tactile setae and four distal tactile setae.

Ecological notes.

Tertanychus pafuriensis is green and feeds on the upper surface of the leaves. As a result of the activities of the mite the leaves have grey to silver spots.

The eggs of the mites are round and opaque. Large populations have been observed on the infested plants.

Habitat and locality.

One holotype female, 22 paratype females, three paratype nymphae, one allotype male, three paratype males and two paratype larvae from *Commicarpus fallacissimus* Heim *forma pilosa* Heim, Pafuri, 7 January 1964 (M. K. P. Meyer); 17 paratype females, 13 paratype males, 5 paratype nymphae, 11 paratype larvae from *Commicarpus fallacissimus* Heim *forma pilosa* Heim, near the Shingwidzi River (Grid N151 of the grid-map of the Kruger National Park), 13 January 1964 (M. K. P. Meyer); 12 paratype females, three paratype males, 14 paratype numphae and three paratype larvae from *Commicarpus fallacissimus* Heim *forma pilosa*, Pafuri, 8 January 1964 (P. Jordaan). Accession number AcY 64/19.

Tetranychus neocalidonicus André.

Tetranychus neocalidonicus André, 1933. Bull. Mus. Natl. Hist. Nat. (sér. 2) 5: 302.

Tetranychus neocalidonicus is known to occur in the warmer parts of the world. It is widely spread in Central Africa and the Rhodesia, where it causes damage to peaches, coconut, hydrangeas and various other hosts.

This species was found for the first time in South Africa on a wild plant near Fort Beaufort. It was collected in the Kruger National Park on *Solanum* sp., near the Ngwanetsi River on 29th September 1963 (M.K.P. Meyer).

Recently, it was also found damaging cotton in Mocambique.

Tetranychus lombardinii Baker & Pritchard.

Tetranychus lombardinii Baker & Pritchard, 1960, Hilgardia 29 (11): 551.

This species is widespread in Southern Africa where it causes damage to a great variety of culitvated plants. Cotton is one of its favourite hosts.

New records from the Kruger National Park are Skukuza rest camp, 2 October 1963 (G. G. van der Merwe), on *Sida cordifolia*. Specimens were also collected at Golden Gate Highland Park on *Chenopodium murale* L., 26 October 1963 (M. K. P. Meyer).

Oligonychus grewiae n sp.
(Figs. 18-30)

Oligonychus grewiae resembles O. *gossypii* (Zacher) and O. *licinus* Baker & Pritchard in that the dorsal integument of the female bears longitudinal striae both between the third pair of dorsocentral hysterosomals and between the inner sacrals, and that the dorsal margin of the distal part of the aedeagus is sigmoid. The distal tip of the aedeagus, however, is not deflexed but directed dorsally.

Female (figs. 18-23).

Dimensions of holotype (the measurements following in parentheses are the variations in the paratypes): Length of body (including gnathosoma) 577 µ (467-); length (excluding gnathosoma) 467 µ (400-); breadth 400 µ (347-); length of leg I 367 µ (433-); leg II 247 µ (267-); leg III 267 (300-); leg IV 333 µ (367-).

Dorsum.

The dorsal integument of the idiosoma is provided with transverse, lobed striae, except for longitudinal striae between the third pair of dorsocentral hysterosomals and between the inner sacrals. The lobes on the striae are relatively large, semicircular and fairly uniform. There are occasional narrow pointed lobes. The twelve dorsal setae are relatively long, slender and pubescent.

Gnathosoma.

The terminal sensillum of the palpus (fig. 18) is relatively broader than that of O. *gossypii* and O. *licinus*. It is little more than twice as long as broad. The peritreme (fig. 19) has a strong hook distally. The mandibular plate is rounded in front.

Legs.

Tibia I (fig. 20) bears one sensory and nine tactile setae; one sensory and four tactile setae are located on tarsus I proximal to the duplexes. Tibia II (fig. 21) has seven tactile setae while tarsus II has one sensory and three tactile setae, proximal to the duplex setae. Tibia III (fig. 22) is provided with six tactile setae and tarsus III with one sensory seta, two proximal ventral tactile setae, four mediodistal tactile setae and four distal tactile setae. Tibia IV (fig. 23) bears seven tactile setae; one sensory seta, two proximal ventral tactile setae, four mediodistal tactile setae and four distal tactile setae are situated on tarsus IV.

Nympha.

The dorsum is similar to that of the female. Tibia I is provided with one sensory and seven tactile setae and tarsus I with one sensory and three tactile setae proximal to the duplex setae. Tibia II has five tactile setae and two tactile setae are situated on tarsus II proximal to the duplex setae. Five tactile setae are located on tibia III and tarsus III has one sensory seta, four mediodistal tactile setae and four distal tactile setae. Tibia IV bears five tactile setae and tarsus IV is provided with one sensory seta, four mediodistal tactile setae and four distal tactile setae.

Male (figs. 24- 30).

Dimensions of allotype: Length of body (including gnathosoma) 400 μ (334-); length (excluding gnathosoma) 333 μ (380-); breadth 220 μ; length of leg I 267 μ; leg II 200 μ; leg III 200 μ; leg IV 254 μ.

Aedeagus (fig. 24).

The knob of the aedeagus is large and bears an acute anterior angulation while the posterior part is drawn out. The tip is directed dorsally.

Gnathosoma.

The palpus (fig. 25) is provided with a slender terminal sensillum which is about three times as long as broad.

Legs.

Tibia I (fig. 26) bears four sensory and nine tactile setae; tarsus I is attenuated and provided with three sensory and four tactile setae proximal to the duplex setae. The members of each pair of the duplexes are unequal in length. Empodium (fig. 27) has three pairs of proximoventral setae. Tibia II (fig. 28) has seven tactile setae; one sensory and three tactile setae are situated on tarsus II proximal to the duplexes. Tibia III (fig. 29) is provided with six tactile setae and tarsus III with one sensory seta, two proximal ventral tactile setae, four mediodistal tactile setae and four distal tactile setae. Tibia IV (fig. 30) bears seven tactile setae and tarsus IV has one sensory seta, two provimal ventral tactile setae, four mediodistal tactile setae and four distal tactile setae.

Ecological notes.

This species is dark red in colour and occurs mostly on the upper surface of the leaves. The injury caused by the mites first appears as pale, yellowish spots on each side of the nervure of the leaf. As the population increases the infested leaves turn brown and finally fall off. Large populations were observed and many of the *Grewia* spp. had already lost a lot of their leaves as a result of the activities of the mites.

Habitat and locality.

One holotype female, 13 paratype females, one allotype male and one paratype nympha from *Grewia* sp., the picnic spot near the Lower Sabie

road, 2 October 1963 (M. K. P. Meyer); 10 paratype female, one paratype male, and two paratype nymphae from *Grewia kwebensis* N.E. Br., Ngwanetsi Rivier, 27 September 1963 (M. K. P. Meyer); seven paratype females and five paratype nymphae from *Grewia* sp., grid S70 of grid-map of the Kruger National Park, 4 October 1963 (M. K. P. Meyer); four paratype females and five paratype nymphae from *Grewia* sp., grid S 103, 4 October 1963 (G. G. van der Merwe); 16 paratype females and six paratype males from *Grewia* sp., near Malelane rest camp, 3 October 1963 (M. K. P. Meyer); four paratype females from *Grewia messinica* Burtt Davy & Greenway, Ngwanetsi River, 27 September 1963 (M. K. P. Meyer). Accession number AcY 64/20.

Oligonychus hadrus Pritchard & Baker.

Oligonychus hadrus Pritchard & Baker, 1955, Pac. Coast Ent. Soc. Mem. 2: 369.

This species was described in 1955, from Pretoria, on *Combretum zeyheri*.

Collections from the Kruger National Park were made in grid N237 according to the grid-map of the Kruger National Park, on *C. imberbe* Wawra, 25 September 1963 (M. K. P. Meyer); Nwashitsumbe (grid N52), on *C. imberbe*, 22 September 1963 (M. K. P. Meyer); grid S43, on *Combretum* sp., 1 October 1963 (M. K. P. Meyer); the gorge of the Olifants River, on *Boscia transvaalensis*, 25 September 1963 (M. K. P. Meyer).

Oligonychus grypus Baker & Pritchard.

Oligonychus grypus Baker & Pritchard, 1960, Hilgardia 29(11): 526.

Baker & Pritchard described this species from the Belgian Congo on sugarcane and grass.

It was collected in the Kruger National Park on grass, at Kloppersfontein (grid N25), 9 January 1964 (M. K. P. Meyer).

Eotetranychus obtusus n. sp.

(Figs. 31-43)

The aedeagus of *Eotetranychus obtusus* resembles that of *E. kankitus* Ehara. However, the new species differs from the latter in the terminal sensillum of male palpus which is rudimentary and broader than long.

Male (figs. 31-37)

Aedeagus (fig. 31).

The shaft of the aedeagus rapidly narrows to the middle part where it bends downwards to form an angle of about 45 degrees; the distal part terminates in a blunt tip.

Gnathosoma.

The peritreme ends in a single-chambered bulb. The mandibular plate is rounded in front. According to Ehara (1955) the terminal sensillum of the male palpus of *E. kankitus* is well developed and much longer than broad, whereas the terminal sensillum of *E. obtusus* is rudimentary and broader than long. The mediodorsal, tapering sensilla of the last palpal segment (fig. 32) are about equal in length. The spindle-shaped proximo-dorsal sensillum is about three-quarters the length of the latter.

Legs.

Tibia I (fig. 32) bears four sensory and nine tactile setae (only three sensory setae could be detected on the tibia of the other leg of the holotype male); three sensory and four tactile setae are located on tarsus I proximal to the duplexes. Tibia II (fig. 34) is provided with eight tactile setae and tarsus II with one sensory and two tactile setae proximal to the duplex setae. Six tactile setae are situated on tibia III (fig. 35) and tarsus III bears one sensory seta, two proximal ventral tactile setae, four mediodistal tactile setae, and four distal tactile setae. Tibia IV (fig. 36) has seven tactile setae and tarsus IV has one sensory seta, two proximal ventral setae ,four mediodistal tactile setae and four distal tactile setae. Empodium I (fig. 37) is bifid and each of the sides is tridigitate; empodia II - IV have three pairs of fine hairs proximo-ventrally.

Female (figs. 38-43)

Dimensions of allotype (the measurements following in parentheses are the variations in the paratypes): Length of body (including gnathosoma) 413 μ (347-); length (excluding gnathosoma) 350 μ (300-); breadth 200 μ.

Dorsum.

The dorsum is provided with slender, pubescent setae which are much longer than the distances between the bases of consecutive setae. The hysterosomal striae between the dorsocentrals and the sacrals are transverse.

Venter.

The striae on the genital flap and the area immediately anterior are transverse.

Gnathosoma.

The peritreme (fig. 38) is slender and distally dilated in a simple bulb. The terminal sensillum (fig. 39) is twice as long as broad.

Legs.

Dorsoterminally, tarsus I (fig. 40) bears two sets of duplex setae which are adjacent; the distal members of the duplexes are unequal in length. One sensory seta and five tactile setae are located proximal to the duplex

setae; tibia I has one sensory and nine tactile setae. Tibia II (fig. 41) is provided with seven tactile setae and tarsus II with one sensory seta and three tactile setae proximal to the duplexes. Tibia III (fig. 42) has six tactile setae and tarsus III one sensory seta, two proximal ventral tactile setae, four mediodistal tactile setae and four distal tactile setae. Tibia IV (fig. 43) bears seven tactile setae and tarsus IV has one sensory seta, two proximal ventral tactile setae, four medio-distal tactile setae and four distal tactile setae.

Ecological notes.

Eotetranychus obtusus is light green in colour with dark spots on each side of the body. The eggs are round and pale green in colour. A very small population was present, which might have been due to the activities of the predacious species, *Agistemus africanus* (Meyer & Ryke).

Habitat and locality.

One holotype male, one allotype female and four paratype females from *Ficus sycomorus* L., Mlambane (grid S93) Kruger National Park. Collected by M. K. P. Meyer.

Accession number AcY 64/23.

Schizotetranychus protectus n.sp.
(Figs. 44-56)

This species is closely related to *Shizotetranychus ugarovi* Wainstein. The aedeagi of the two species are similar but *S. protectus* has a well-developed terminal sensillum on the male palpus while the male palpus in *S. ugarovi* is apparently devoid of a terminal sensillum.

Male (fgis. 44-51).

Dimensions of holotype: length of body (including gnatosoma 240 µ, length (excluding gnathosoma) 206 µ; breadth 167 µ; length of leg I 200 µ; leg II 133 µ; leg III 173 µ; leg IV 200 µ.

Aedeagus (fig. 44).

The shaft of the aedeagus gradually narrows and bends dorsally at an angle of about 45 degrees. The distal part is curved and has an acute anterior angulation while the tip tapers to a narrow point which is directed dorsally.

Gnathosoma.

The peritreme (fig. 45) is straight, ending in a simple chamber. The mandibular plate is edentate anteriorly. According to Wainstein (1960) the terminal sensillum of the palpus is absent in *S. ugarovi*. In this respect the male of *S. protectus* differs from the latter in having a terminal sensillum (fig. 46) which is about three times as long as broad. The mediodorsal

tapering sensilla and the spindle-shaped proximo-dorsal sensillum are about equal in length.

Legs.

Tibia I (fig. 47) is provided with four sensory and nine tactile setae and tarsus I with three sensory and four tactile setae proximal to the duplex setae. The distal member of the proximal pair of duplexes is about three-quarters the length of the distal member of the distal pair. Tibia II (fig. 48) bears seven tactile setae and tarsus II has one sensory and two tactile setae proximal to the duplexes. Tibia III (figs. 49) has seven tactile setae and tarsus III has one sensory seta, one proximal ventral tactile seta, four medio-distal tactile setae and four distal tactile setae.

Tibia IV (fig. 50) bears seven tactile setae and tarsus IV has one sensory seta, one proximal ventral tactile seta, four medio-distal tactile setae and four distal tactile setae. Empodium (fig. 51) bifid and with a fine dorsal hair on each of the clawlike members.

Female. Unknown.

Nympha (figs. 52-56).

Dimensions of nymph: Length (including gnathosoma) 333 μ; length (excluding gnathosoma) 267 μ; breadth 173 μ; length of leg I 147 μ; leg II 127 μ; leg III 133 μ; leg IV 140 μ.

Dorsum (fig. 52).

The dorsal integument is finely striated; the propodosoma with longitudinal striae and the hysterosoma with striae transverse. The thirteen pairs of setose setae (fig. 53) are shorter than the intervals between consecutive setae.

Gnathosoma.

Palpus (fig. 54) with terminal sensillum about three times as long as broad. Peritreme ends in a simple bulb.

Legs.

Tibia I (fig. 55) bears one sensory and five tactile setae. Dorsoterminally, tarsus I has two pairs of duplex setae which are adjacent; the distal member of one pair is about one-third the length of the distal member of the other pair.

Tibia II (fig. 56) is provided with five tactile setae and tarsus II with one tactile seta proximal to the duplexes. Five tactile setae are located on tibia III while four medio-distal and four distal tactile setae are situated on tarsus III. Tibia IV has five tactile setae and tarsus IV has six tactile setae distally.

Habitat and locality.

One holotype male, one paratype male and one paratype nympha from *Cliffortia linearifolia* E. & B., Golden Gate Highland Park, 24 October 1963 (M. K. P. Meyer), Accession number AcY 64/22.

Schizotetranychus nesbitti n. sp.
(Figs. 57-70)

The aedeagus of *Schizotetranychus nesbitti* differs from that of S. *spireafolia* Garman in having the bent portion relatively shorter. The female differs from that of the latter species by the presence of relatively longer dorsal setae and the presence of a very long tactile seta on tibia IV.

Female (figs. 57-64).

Dimensions of holotype: Length of body (including gnathosoma) 460 μ (00-)4; length (excluding gnathosoma) 347 μ (306-); breadth 207 μ (187-); length of leg I 200 μ; leg II 167 μ; leg III 187 μ; leg IV 207 μ.

Dorsum (fig. 57.)

The dorsal aspect resembles that of the female of S. *parasemus* Pritchard & Baker. The thirteen pairs of tapering setae are very long and setose; reaching nearly to the base of the second seta caudad. The propodosomal striae are longitudinal and the hysterosomal striae transverse.

Venter.

The striae on the genital flap and the area immediately anterior to it are transverse.

Gnathosoma.

In contrast to S. *parasemus* the terminal sensillum of the palpus (fig. 58) is about twice as long as broad and not four times. The medio-dorsal sensilla are slightly longer than the terminal sensillum while the fusiform proximo-dorsal sensillum is about as long as the terminal one. The peritreme (fig. 59) ends in a simple bulb. The mandibular plate is slightly cleft medio-dorsally.

Legs.

Tibia I (fig. 60) is provided with one sensory and eight tactile setae and tarsus I with one sensory and three tactile setae proximal to the duplexes. Tibia II (fig. 61) bears five tactile setae and tarsus II has one relatively long sensory seta and three tactile setae proximal to the duplexes. Five tactile setae are located on tibia III (fig. 62); tarsus III has one long slender sensory seta, one proximal ventral tactile and six distal tactile setae. Tibia IV (fig. 63) bears five tactile setae, one of which reaches past the tip of the tarsus. In this respect it differs from the females of S. *spireafolia* and S. *parasemus*. Tarsus IV is provided with one relatively long slender sensory, one proximo-ventral tactile and six distal tactile setae. Empodium (fig. 64) with each of the clawlike divisions bearing a pair of fine dorsal hairs.

Nympha.

The dorsal aspect of the nymph is similar to that of the female. The chaetotaxy of the legs are as follows: tibia I with one sensory and seven tactile setae; tarsus I with one sensory and three tactile setae proximal to

the duplex setae; tibia II with five tactile setae; tarsus II with three tactile setae; tibia III with five tactile setae; tarsus III with one sensory, one proximo-ventral and six distal tactile setae; tibia IV with five tactile setae; tarsus IV with one proximal ventral tactile and six distal tactile setae..

Male (figs. 65-70).

Dimensions of allotype: Length of body (including gnathosoma) 380 μ (340-); length (excluding gnathosoma) 300 μ (287-); breadth 167 μ (147-); length of leg I 187 μ (160-); leg II 160 μ (147-); leg IV 167 μ.

Aedeagus (fig. 65).

The shaft gradually narrows and bends upward at less than a right angle to form a sigmoid, acuminate tip.

Gnathosoma.

Palpus (fig. 66) with terminal sensillum twice as long as broad. The medio-dorsal sensilla and the proximo-dorsal sensillum are longer than the terminal sensillum. The spindle-shaped proximo-dorsal sensillum is slightly shorter than the medio-dorsal sensilla.

Legs.

Tibia I (fig. 67 bears two sensory setae ,one of which is about twice as long as the other one and eight tactile setae. Tarsus I has two sensory and three tactile setae proximal to the duplex setae. Tibia II (fig. 68) is provided with five tactile setae and tarsus II with one sensory and three tactile setae proximal to the duplexes. Tibia III (fig. 69) bears five tactile setae and tarsus III has one relatively long, slender sensory ,one proximo-ventral tactile and six distal tactile setae. Tibia IV (fig. 70) is provided with five tactile setae, one of which reaches to tip of the tarsus; tarsus IV bears one sensory, one proximo-ventral tactile and six distal tactile setae.

Ecological notes.

This species is light green in colour and has round opaque eggs. It causes white spots on the leaves of the grass. Judging from the symptoms a fairly large population was present.

Habitat and locality.

One holotype female, four paratype females, one paratype nympha, one allotype male and three paratype males from grass, Golden Gate Highland Park, 24 October 1963 (M. K. P. Meyer). Accession number AcY 64/21.

This species is named in honour of Dr. H. H. J. Nesbitt, Carleton University, Ottawa, Canada.

OPSOMMING

Vyf nuwe spesies van myte naamlik *Tetranychus pafuriensis, Oligonychus grewiae, Eotetranychus obtusus, Schizotranychus protectus* en *S. Nesbitti,* wat versamel is op inheemse plante in die Krugerwildtuin en die "Golden Gate" Hooglandpark, word beskrywe en geteken.

Vier bekende spesies, naamlik *Tetranychus neocalidonicus* André, *T. lombardinii* Baker & Pritchard, *Oligonychus hadrus* Pritchard & Baker en *O. grypus* Baker & Pritchard is vir die eerste keer in bogenoemde twee parke versamel. *Tetranychus lombardinii* en *T. neocalidonicus* val ook landbougewasse aan.

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LEGENDS TO THE FIGURES

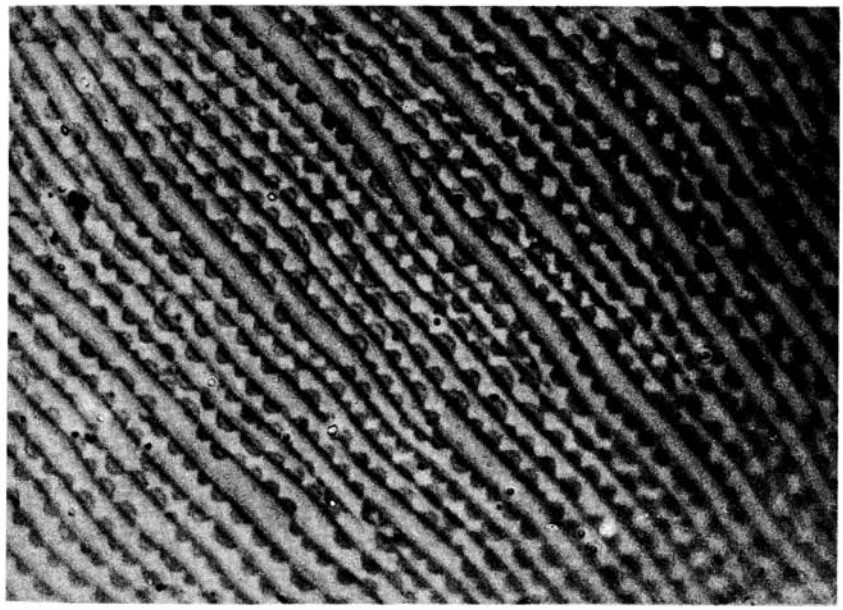
Figs. 1-17 — *Tetranychus pafuriensis* n. sp. 1, dorsal lobes of female; 2, ventral lobes of female; 3, posterior dorsal portion of hysterosoma of female showing striae pattern; 4, terminal segment of palpus of female; 5, peritreme of female; 6, tibia and tarsus I of female; 7, empodium I of female; 8, tibia and tarsus II of female; 9, tibia and tarsus III of female; 10, tibia and tarsus IV of female; 11, aedeagus of male; 12, terminal segment of palpus of male; 13, tibia and tarsus I of male; 14, empodium I of male; 15, tibia and tarsus II of male; 16, tibia and tarsus III of male; 17, tibia and tarsus IV of male.

Figs. 18-30 — *Oligonychus grewiae,* n. sp. 18, terminal segment of palpus of female; 19, peritreme of female; 20, tibia and tarsus I of female; 21, tibia and tarsus II of female; 22, tibia and tarsus III of female; 23, tibia and tarsus IV of female; 24, aedeagus of male; 25, terminal segment of palpus of male; 26, tibia and tarsus I of male; 27, empodium I of male; 28, tibia and tarsus II of male; 29, tibia and tarsus III of male; 30 tibia and tarsus IV of male.

Figs. 31-43 — *Eotetranychus obtusus,* n. sp. 31, aedeagus of male; 32, terminal segment of palpus of male; 33, tibia and tarsus I of male; 34, tibia and tarsus II of male; 35, tibia and tarsus III of male; 36, tibia and tarsus IV of male; 37, empodium I of male; 38, peritreme of female; 39, terminal segment of palpus of female; 40, tibia and tarsus I of female; 41, tibia and tarsus II of female; 42, tibia and tarsus III of female; 43, tibia and tarsus IV of female.

Figs. 44-56 — *Schizotetranychus protectus,* n. sp. 44, aedeagus of male; 45, peritreme of male; 46, terminal segment of palpus of male; 47, tibia and tarsus I of male; 48, tibia and tarsus II of male; 49, tibia and tarsus III of male; 50, tibia and tarsus IV of male; 51, empodium I of male; 52, dorsum of nymph; 53, dorsal seta of nymph; 54, terminal segment of nymph; 55, tibia and tarsus I of nymph; 56, tibia and tarsus II of nymph.

Figs. 57-70 — *Schizotetranychus nesbitti,* n. sp. 57, dorsum of female; 58, terminal segment of palpus of female; 59, peritreme of female; 60, tibia and tarsus I of female; 61, tibia and tarsus II of female; 62, tibia and tarsus III of female; 63, tibia and tarsus IV of female; 64, empodium I of female; 65, aedeagus of male; 66, terminal segment of palpus of male; 67, tibia and tarsus I of male; tibia and tarsus II of male; 69, tibia and tarsus III of male; 70, tibia and tarsus IV of male.



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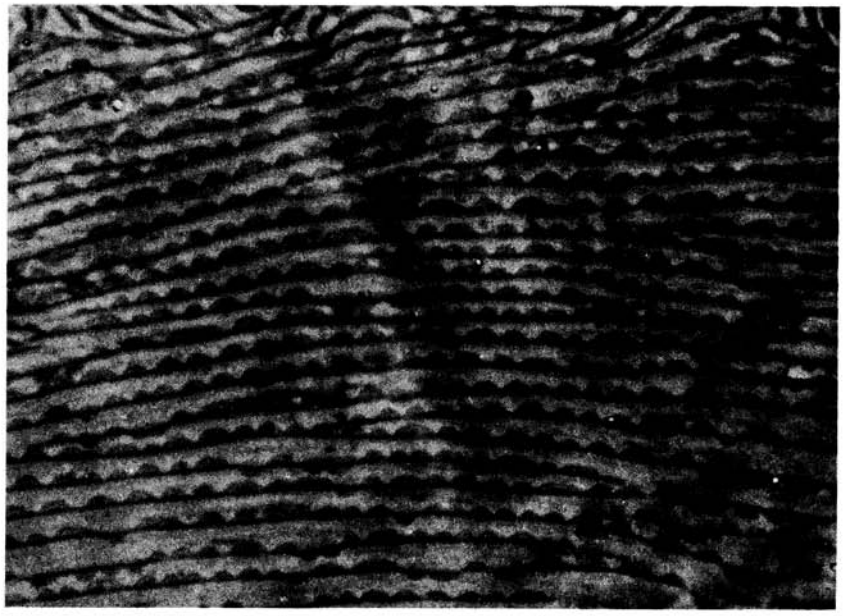

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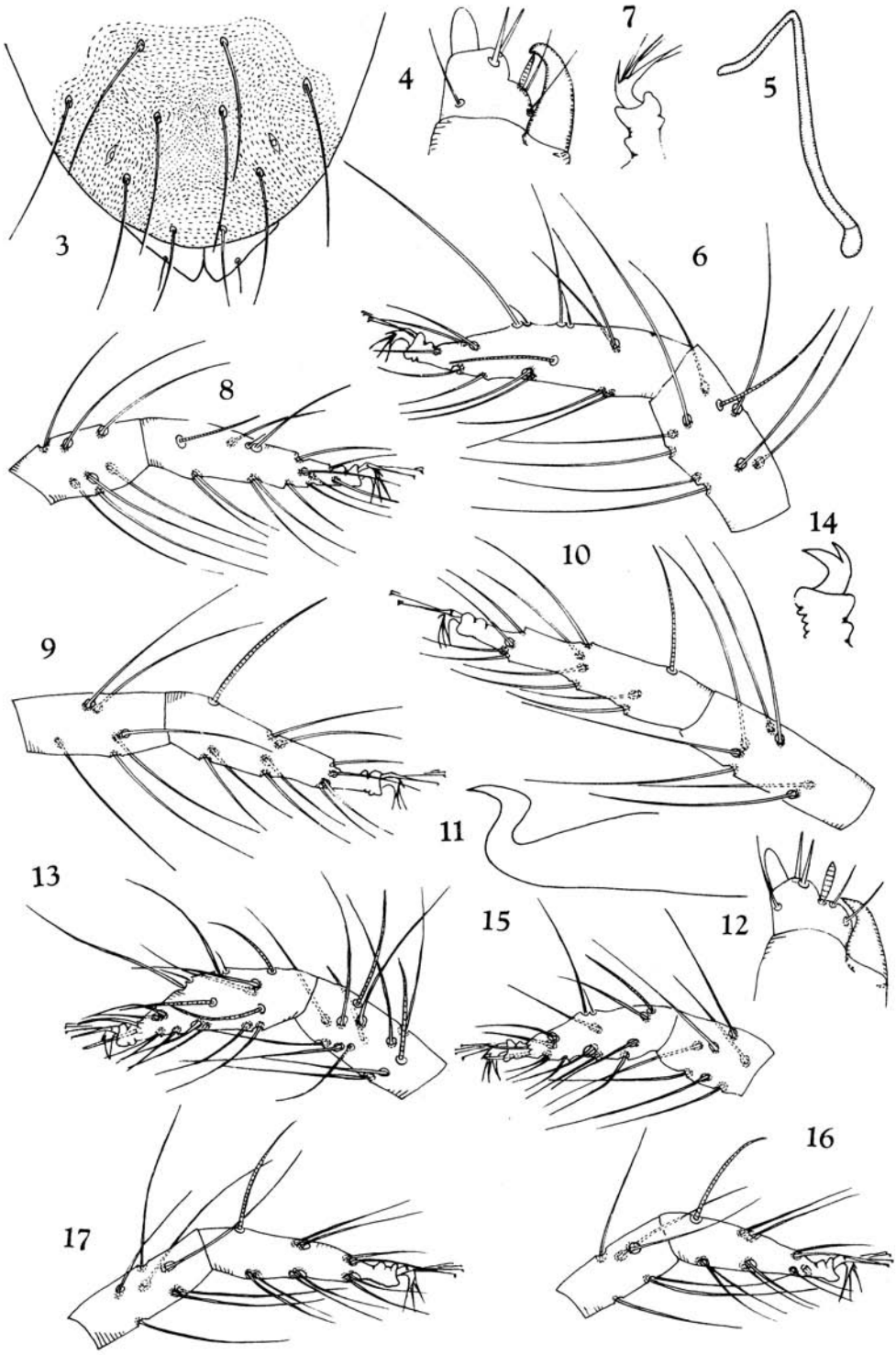
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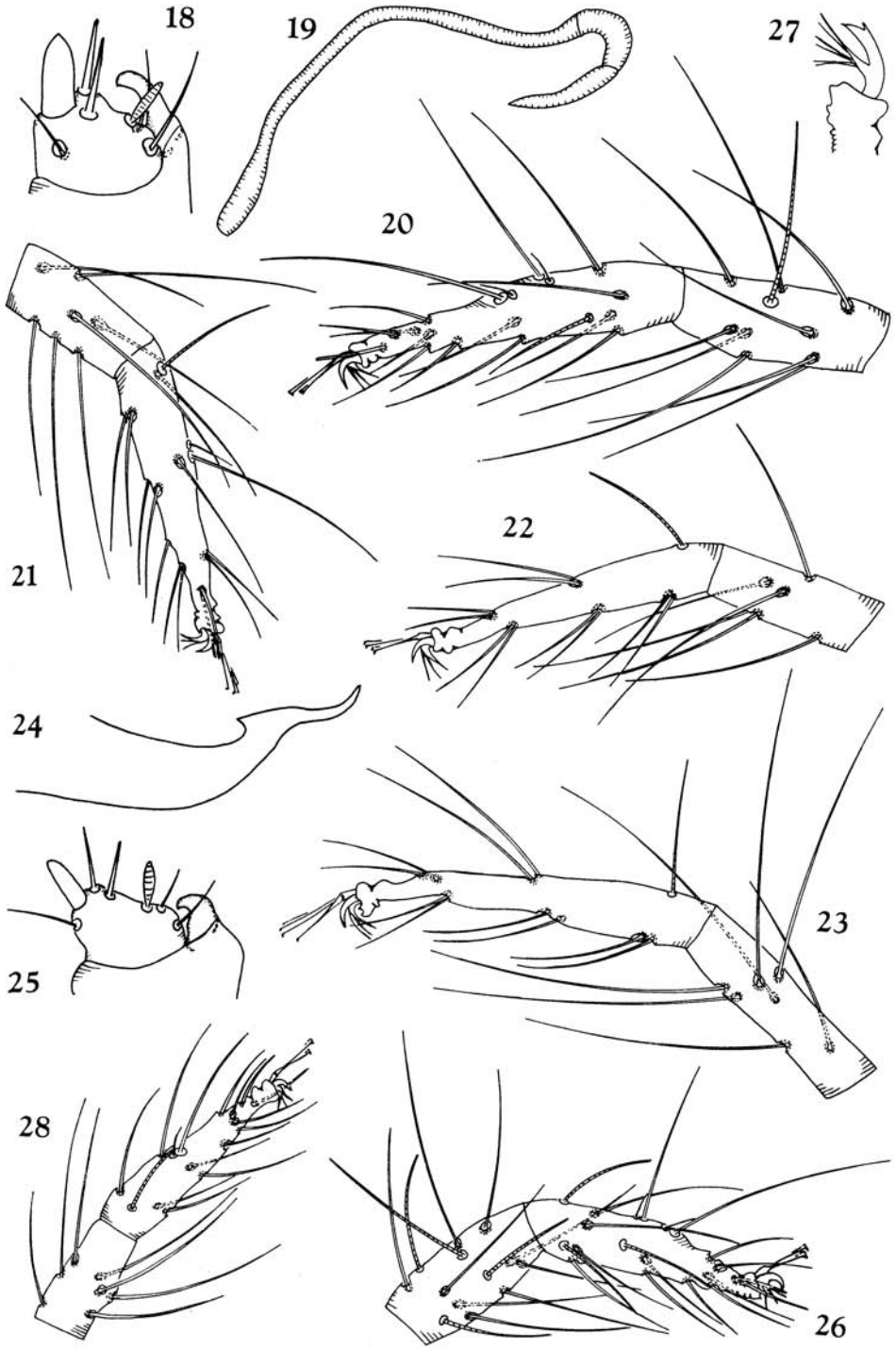
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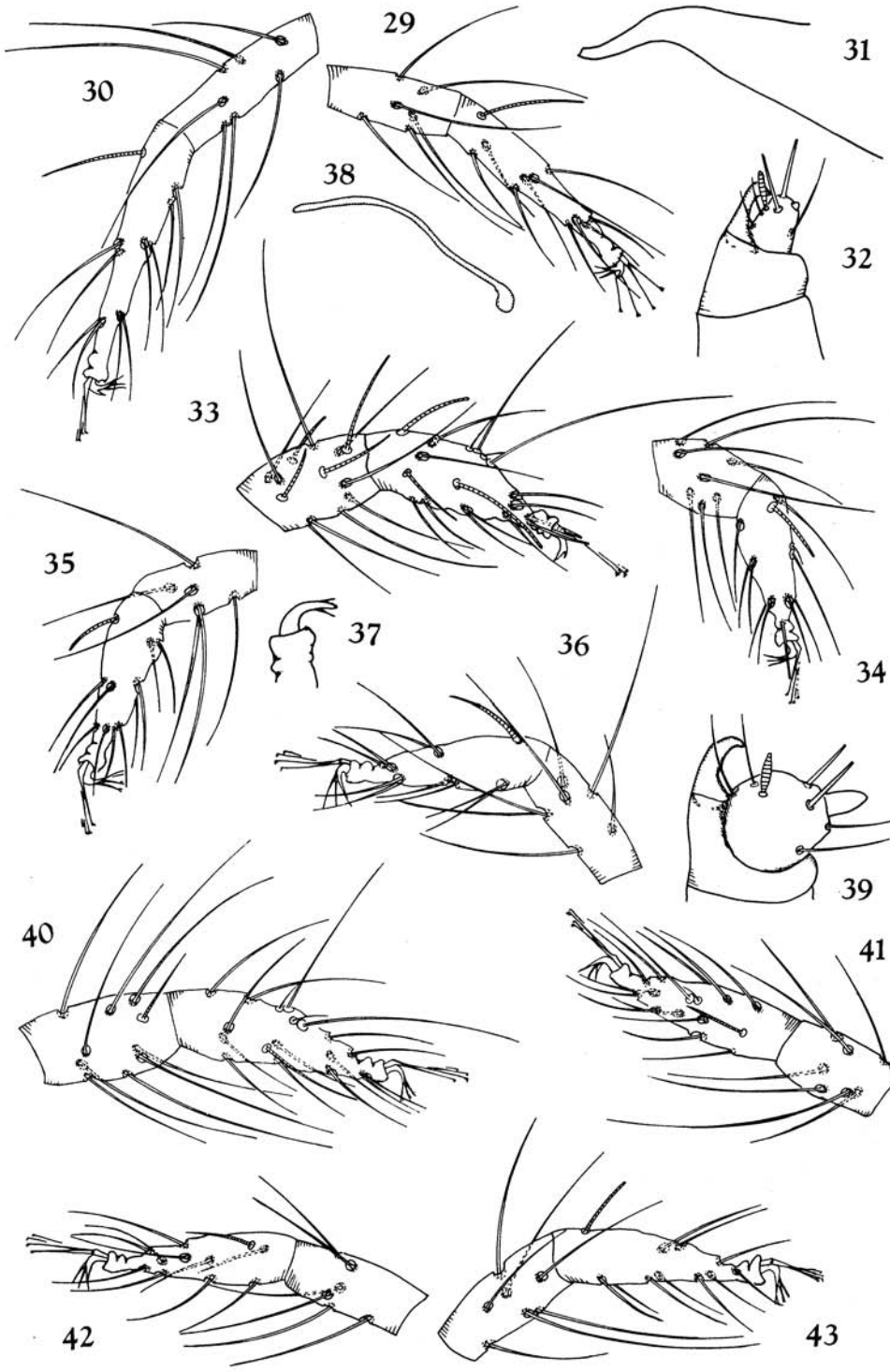
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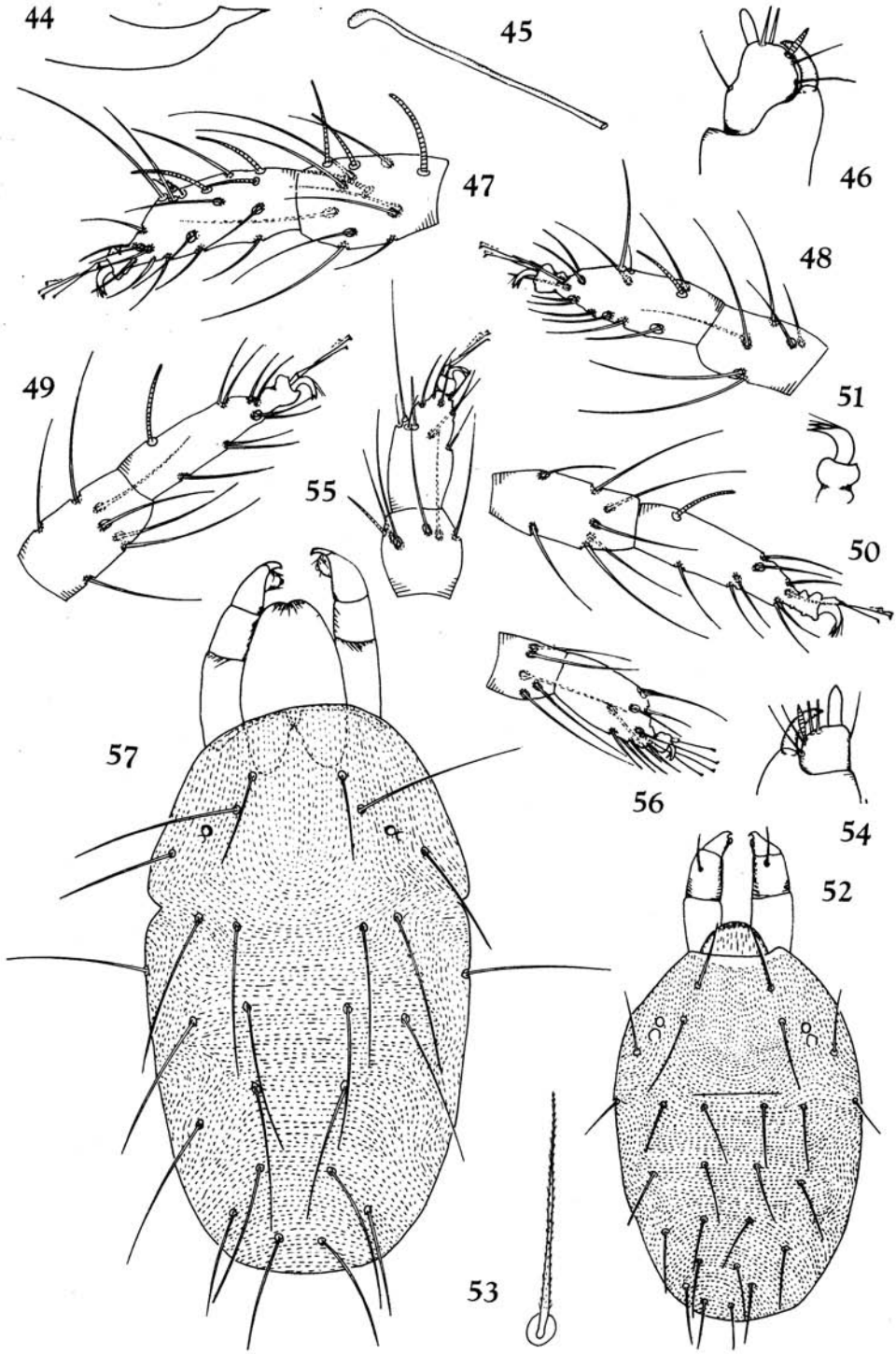
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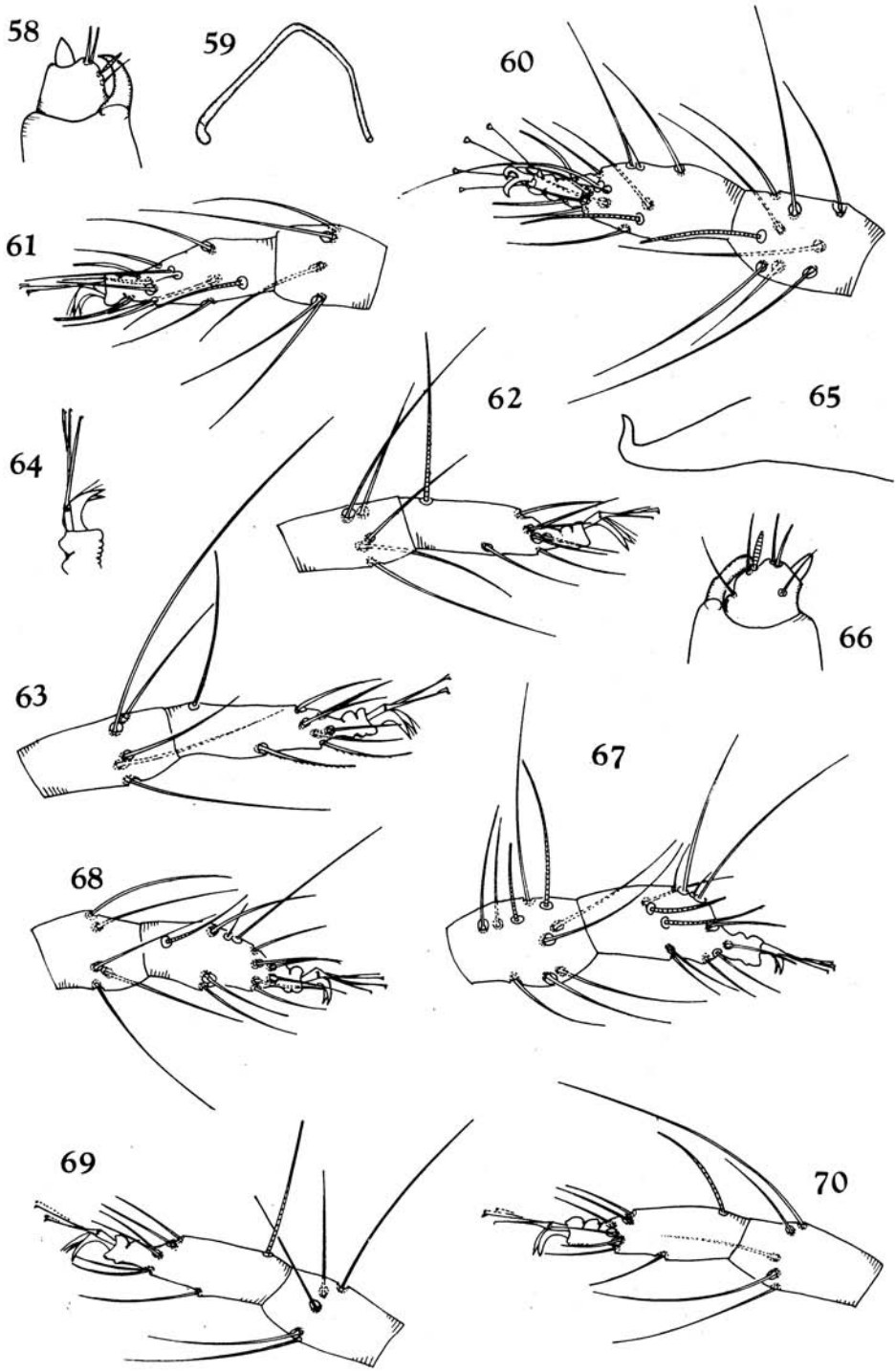
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