

ON SOME ORIBATID MITES FROM JAVA — PART II

BY Marie HAMMER *

Dolicheremaeus variolobatus n. sp. ; fig. 12.

Length about 1.10. Colour light brown.

■ *Prodorsum* : Lamellar setae considerably longer than rostral setae, finely barbed, very thin at the tips which meet in a curve in front of the rostrum. Interlamellar setae are twice as long as their mutual distance, stiff and distinctly barbed. Spa.1 with straight outer margin, reaching the insertion of the rostral setae. Lateral to lamellae there are dark brown ridges. Lamellae very narrow, converging anteriorly. Lamellar tip thin. Between the lamellae, the integument is wrinkled, folded, this area being limited laterally by irregular undulating lines, separated from the lamellae by a distance half as long as the width of the wrinkled area. Ventral pseudostigmatic plates large, rounded at lateral tips, fig. 12 a. Pseudostigmata almost covered by dorsal pseudostigmatic plates. Sensillus is very slender bacilli-form. The head is only slightly thicker than the stalk, ending in a thin tip, which is apparently bifid, fig. 12 b. No interlamellar wrinkles. Lateral prodorsal condyles small, with rounded border. Median prodorsal condyles semilunar, twice as broad as co.pl. (hence the specific name). Co.pm are separated by a short distance only and almost touch each other at the base. Figure 12 c-d shows variations in the shape of condyles.

■ *Notogaster* : Oval. Anterior border straight. Surface coarsely punctate and foveolate. The foveae are densely set along the lateral and posterior borders, absent in a narrow belt behind the anterior border. They are often confluent, forming folds ;

these are few beyond the marginal ridge, which is an undulating line from ta, continuing all the way round. Lateral notogastral condyles are short like co.pl., slightly angular with a flat anterior border. The median notogastral condyles are flat crests, hardly reaching beyond the anterior border of the notogaster, separated by a distance as long as the condyles. See the variation in shape of these condyles, fig. 12 c-d. Ten pairs of stiff, thick notogastral setae, which are approximately equally long and distinctly barbed. The setae p1 are as long as their mutual distance. The distance p1-p1 is longer than p1-p2 and equal to p2-p3 and p3-r3. Glandular opening located behind im at a short distance in front of ti, but farther laterally. Ih is situated off ms, ips¹ between r3 and p3, and ip between p2 and p3.

■ *Epimeral region* : Apo.2 and apo.sj. well developed, not meeting those from the opposite side in the middle line, fig. 12 e. Sternal ridge very short. Epimeral setal formula 3 : 1 : 3 : 3. The setae are bent, thick and roughened.

■ *Anogenital region* : Genital plates blackish-brown. Genital setae rather long. Aggenital setae very thin and rather long. Anal setae distinctly barbed. Anal plates finely foveolate, anterior part smooth. Adanal setae slightly thicker than anal setae, distinctly barbed. The distance ad3-ad3 is longer than ad2-ad2. Iad located obliquely between ad3 and an2. Ventral plate punctate and foveolate.

■ *Legs* : Type of ultimate setae L-S-S-S. 102 (1), 108 (1), 111 (1).

* In figs. 12 and 18 ips and ip have been exchanged.

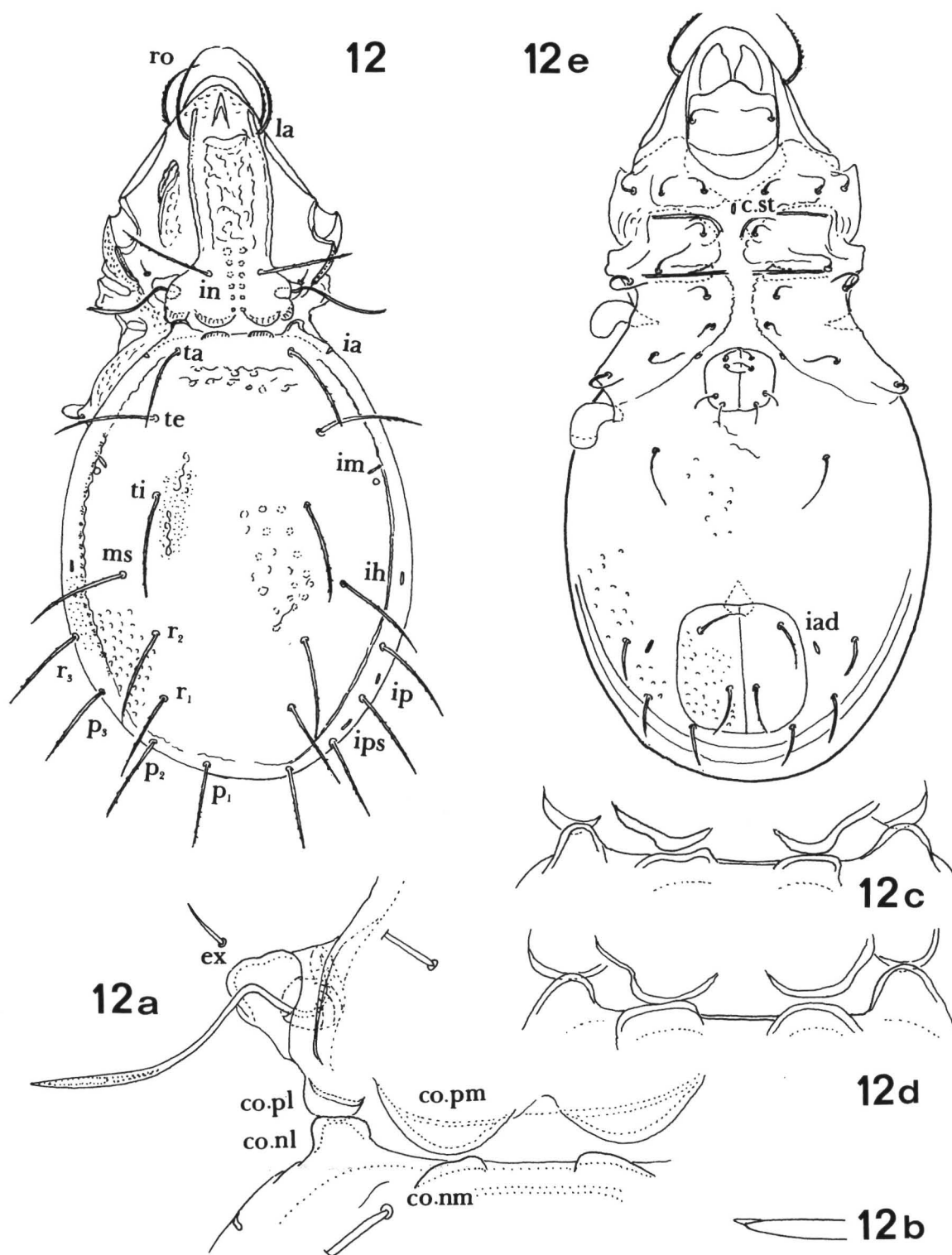


FIG. 12 : *Dolicheremaeus variolobatus* n. sp.

12 a) sensillus and surroundings ; 12 b) tip of sensillus ; 12 c, d) variation of condyles ; 12 e) ventral view.

Dolicheremaeus pannosus n. sp., fig. 13.

Length about 0.87 mm. Colour light brown.

■ *Prodorsum* : Rostrum broad, triangular, foveolate. Rostral setae shorter than lamellar setae and more distinctly barbed. Interlamellar setae more than twice as long as their mutual distance, stiff and barbed. Spa.1 with straight outer border, reaching the insertion of the rostral setae. Dark brown spots lateral to the lamellae, with distinct lateral ridge. Lamellae with longest mutual distance in the middle, slightly converging anteriorly. Lamellar tips show short transverse lines because of foveolation. The space between the lamellae displays folds and wrinkles, ragged (hence the specific name; *pannosus* = ragged). Dorsal pseudostigmatic plates cover the pseudostigmata. Ventral pseudostigmatic plates rounded laterally with a broad margin. Sensillus has a swollen head, ending in two small sharp tips, fig. 13 a. Interlamellar ridges surround the interlamellar setae anteriorly and laterally, continuing backwards to the lateral margin of co.pm. There are some short ridges farther laterally. Lateral prodorsal condyles short, narrow and angular, not reaching as far back as co.pm., which are broader with a rounded margin, separated by a short distance.

■ *Notogaster* : Oval. Anterior border short, slightly concave. Surface punctate and irregularly foveolate, the foveae often confluent. The punctation arranged more or less round the foveae, sometimes forming a regular network. The marginal ridge is an undulating line, running approximately from *te* to *p3*. Lateral notogastral condyles small, irregular, triangular. Median notogastral condyles very irregular with ridges and wrinkles, located rather close together and very variable in shape, fig. 13 c-d. Ten pairs of stiff, distinctly barbed notogastral setae, which are approximately uniformly long, almost as long as the distance *r2-r2*, and always reach beyond the insertion of the following one by a good distance. *Ta* is located rather far anteriorly. The distance *p1-p1* is twice as long as *p1-p2*. *Gla* situated

immediately behind *im*. The latter on a level between *te* and *ti*, *ih* off *ms*, *ips* between *r3* and *p3*, and *ip* between *p2* and *p3*.

■ *Epimeral region* : *Apo.2* and *apo.sj* do not meet those from the opposite side, fig. 13 b. No sternal ridge. Epimeral setal formula 3 : 1 : 3 : 3, all setae rather long.

■ *Anogenital region* : Genital plates brown and smooth. Genital setae rather long. Aggenital setae very long (on the right side located far laterally on the type specimen). Anal and adanal setae long, stiff and barbed. Anal setae thinner than adanal setae. The distance *ad2-ad2* is a little shorter than *ad3-ad3*. *Iad* located obliquely to anal margin, removed a short distance from the latter. Ventral plate foveolate.

■ *Legs* : Type of ultimate setae L-L-S-S. 13 (1), 155 (1), 156 (1), 158 (1).

Dolicheremaeus duplicarinatus n. sp.; fig. 14.

Length about 0.93 mm. Colour light brown.

■ *Prodorsum* : Lamellar setae much longer than rostral setae, weakly barbed, the tip bent medially. Interlamellar setae rather short, hardly twice as long as their mutual distance, stiff and barbed. Spa.1 very narrow anteriorly, almost reaching the insertion of the rostral setae. The lamellae converge slightly anteriorly, tips rough. The space between the lamellae is punctate and foveolate, regularly in the anterior half, very irregularly in the posterior half in front of the interlamellar setae. Dorsal pseudostigmatic plates cover most of the pseudostigmata. Ventral pseudostigmatic plates with triangular, rounded lateral tip, fig. 14 a. Sensillus has a rather thick swollen head, bifid at tip. Faint interlamellar wrinkles both in front of the insertion of the interlamellar setae and laterally to the latter. Lateral prodorsal condyles short, apparently with a double margin, fig. 14 a (hence the specific name). Median prodorsal condyles longer than the former, separated by a distance as long as the condyles, and apparently fastened to a thick curved ridge.

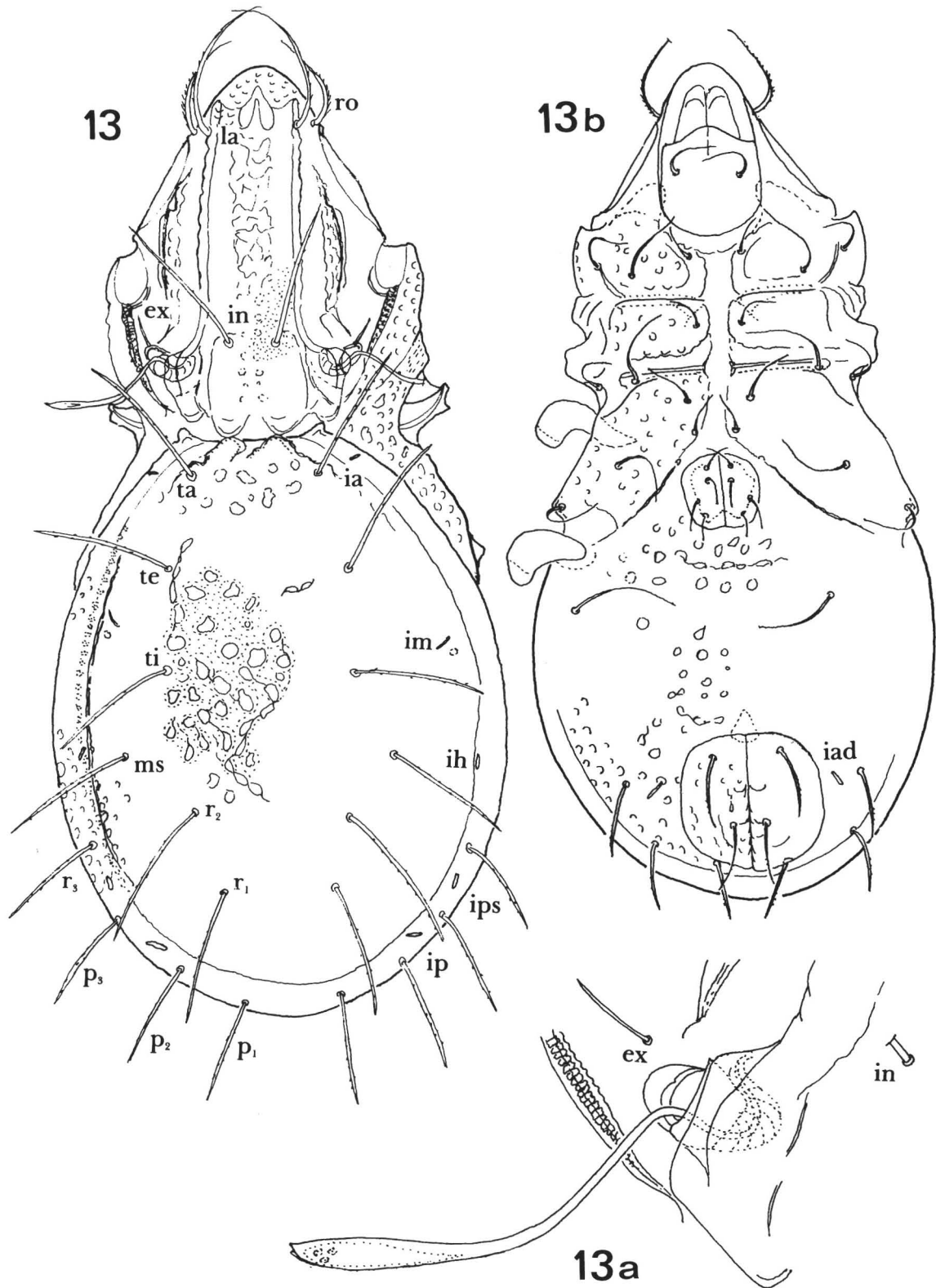


FIG. 13 : *Dolicheremaeus pannosus* n.sp.
13 a) sensillus and surroundings ; 13 b) ventral view.

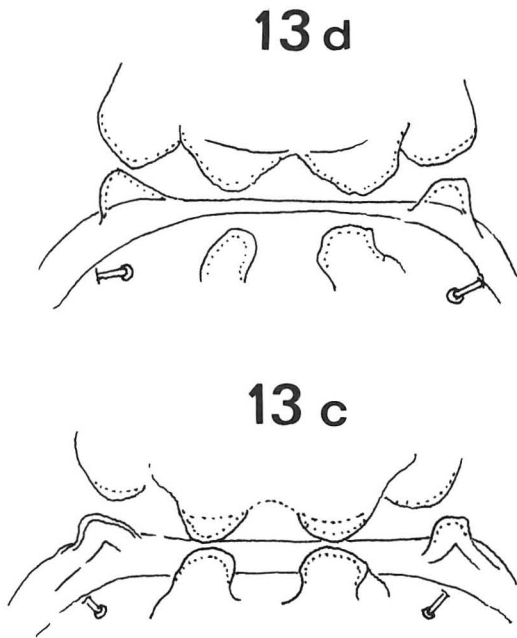


FIG. 13 (continuation) : *Dolicheremaeus pannosus* n. sp.
13 c) variation of condyles ; 13 d) idem.

Between the lateral and the median condyles, at a deeper level there is a ridge continuing below co.pm.

■ *Notogaster* : Oval, longer than broad. Anterior border almost straight. Surface finely punctate and foveolate. The foveae are densely set along the lateral and posterior borders, more scattered in the dorsal middle area. They are also present along the outer border, but absent in a punctate marginal zone lateral to the marginal ridge. Foveae often confluent, forming wrinkles. The marginal ridge is present almost all the way round, absent anteriorly approximately to im. Lateral notogastral condyles irregular, flat, triangular. Median notogastral condyles likewise flat, inconspicuous, irregular, rounded at tip with margins continuing backwards ; separated by a distance longer than the width of the condyles. Ten pairs of approximately equally long, stiff and distinctly barbed setae. R3 slightly shorter, r1 a little longer than the remainder. Gla located behind im. Fissures ia situated off ta, im on a level between te and ti, ih on a level between ti and ms, ips in front of r3, and ip between p2 and p3.

■ *Epimeral region* : Apo.2 and apo.sj well developed, not meeting those from the other side, fig. 14 b. Sternal ridge short, but distinct. Epimeral setal formula 3 : 1 : 3 : 3.

■ *Anogenital region* : Genital aperture surrounded by wrinkles. Genital plates smooth. Aggenital setae long and thin. Anal plates foveolate, especially posteriorly. Anal setae thinner than adanal setae. The latter distinctly barbed. Iad located obliquely midway between ad3 and lateral border of anal aperture. Ventral plate foveolate.

■ *Legs* : Type of ultimate setae L-L-L-L. 23 (1), 24 (1), 25 (1).

Dolicheremaeus malangensis n. sp. ; fig. 15.

Length about 0.51 mm. Colour yellowish light brown.

■ *Prodorsum* : Rostral and lamellar setae relatively short, both densely barbed. Interlamellar setae short, about twice as long as their mutual distance, stiff and slightly roughened. Spa.1 not reaching the insertion of the rostral setae. Lamellae broad, almost parallel. Lamellar tip projecting beyond the border of the rostrum, with short ridges running medially. Dorsal pseudostigmatic plates cover the pseudostigmata. Ventral pseudostigmatic plates short, with a notch in the anterior margin. Sensillus has a swollen head, bifid at tip, fig. 15 a-c. Interlamellar wrinkles absent. Lateral prodorsal condyles very broad, tongue-shaped, covering anterior part of co.nl. Median prodorsal condyles broad, conical, separated by a distance longer than the width of the condyles.

■ *Notogaster* : Twice as long as the length of the anterior border. The latter is slightly concave. Surface coarsely punctate. Marginal ridge very narrow, present only anteriorly, ending a short distance in front of gla. Lateral notogastral condyles rounded, triangular. Median notogastral condyles rounded, as long as broad, i.e., much longer than the corresponding prodor-

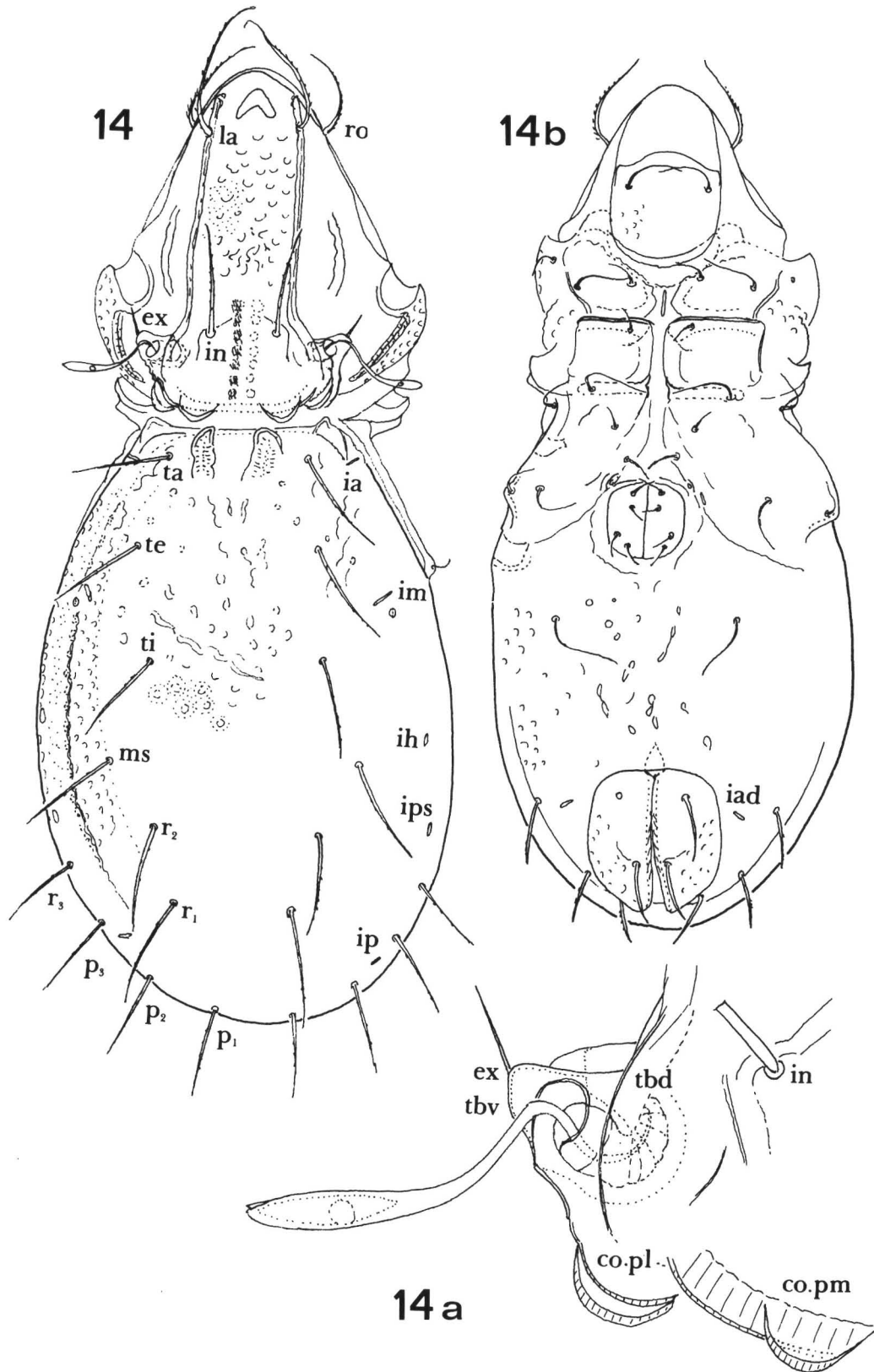


FIG. 14 : *Dolicheremaeus duplicarinatus* n. sp.
14 a) sensillus and surroundings ; 14 b) ventral view.

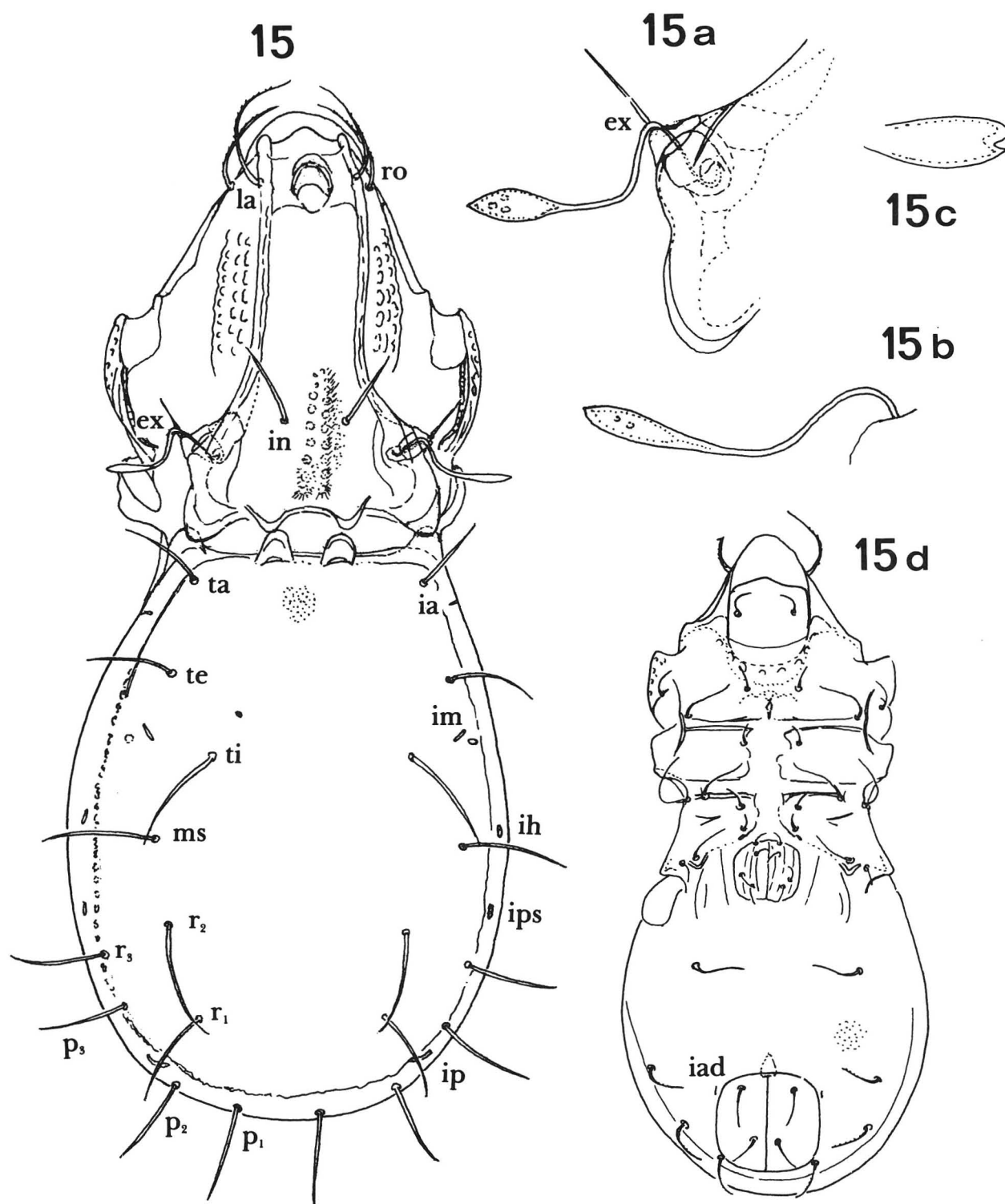


FIG. 15 : *Dolicheremaeus malangensis* n. sp.

15 a) sensillus and surroundings ; 15 b) sensillus ; 15 c) tip of sensillus ; 15 d) ventral view.

sal condyles. They are separated by a distance equal to the width of the condyles and issue from behind the anterior border of the notogaster. Ten pairs of rather thin, slightly curved and faintly roughened setae, very thin at base. They are approximately equally long, most of them as long as the distance ti-ms. Glandular opening located laterally to im, on a level with ti. The fissures ih is situated off ms, ips in front of r3, and ip in front of p2.

■ *Epimeral region* : Apo.2 and apo.sj well developed, not meeting those from the opposite side, fig. 15 d. Apo.3 faintly developed, in the form of short lines. A very short sternal ridge is present. Epimeral setal formula 3 : 1 : 3 : 3. 1b is located close to apo.2. 4a and 4c situated close together.

■ *Anogenital region* : Genital plates faintly striped. A few chitinous lines lateral to the genital aperture. Aggenital setae thinner than anal and adanal setae, which all are roughened. The distance ad3-ad3 is longer than ad2-ad2. Iad small, aligned close to the lateral margin of the anal aperture. Ventral plate punctate.

■ *Legs* : Type of ultimate setae L-L-L-L.
101 (1), 105 (1), 106 (1), 109 (5), 111 (1), 112 (1), 117 (1), 121 (1).

***Dolicheremaeus nasalis* n. sp. ; fig. 16.**

Length about 0.55 mm. Colour yellowish.

■ *Prodorsum* : Rostrum with a small "nose" (hence the specific name). Rostral setae short, not reaching beyond the tip of the rostrum. Lamellar setae a little longer. Interlamellar setae more than twice as long as their mutual distance, distinctly barbed and dull at tip. Spa.1 almost reaching the insertion of the rostral setae. Dorsal pseudostigmatic plates cover the pseudostigmata. Ventral pseudostigmatic plates are short, triangular. Exopseudostigmatic setae thin. Sensillus is long, directed outwards, thereafter backwards. The head compressed, distally it is obliquely cut off, ending in a long anterior tip and apparently two short posterior tips, fig. 16 a-b. No inter-

lamellar wrinkles. The lateral prodorsal condyles and the median condyles are almost alike-broad, semicircular, the median ones separated by a short distance.

■ *Notogaster* : Oval. The posterior end is rounded, the anterior border straight. Surface punctate and foveolate, the foveae being of different sizes. No marginal ridge. The lateral notogastral condyles are triangular. The median notogastral condyles are very indistinct, if present at all. There is a broad anterior margin, furthermore two faint lateral ridges and hardly discernible median borders. Ten pairs of approximately equally long, very characteristic notogastral setae set with long barbs and having the tip cut off, i.e., very dull. Glandular opening located between te and im. Im situated off ti, ih medially to r3 with a branched figure at a deeper level. Ips is located between r3 and p3, ip between p2 and p3.

■ *Epimeral region* : Apo.2 and apo.sj well developed, the former almost meeting in the middle line, fig. 16 c.

Apo.sj separated by a longer distance. Apo.3 short. Sternal ridge short. Epimeral setal formula 3 : 1 : 3 : 3. 1a, 2a and 3a are short and barbed. 1b, 3b, 4b and 4c are longer and much thinner.

■ *Anogenital region* : Genital aperture with thick margin. Four pairs of rather thin genital setae. Aggenital setae long, their proximal half much thicker than their distal half, which is curved. Anal and adanal setae thick, distinctly barbed, dull at tip (like the notogastral setae). The distance ad2-ad2 is shorter than ad3-ad3. Iad very small, located close to the lateral margin of the anal aperture, off an2. Ventral plate coarsely punctate and irregularly foveolate.

■ *Legs* : Type of ultimate setae L-L-S-S.
13 (1).

***Spinotocepheus* n. gen.**

Rostral, lamellar and interlamellar setae relatively short ; spa.1 short ; spine on pseudostigma ;

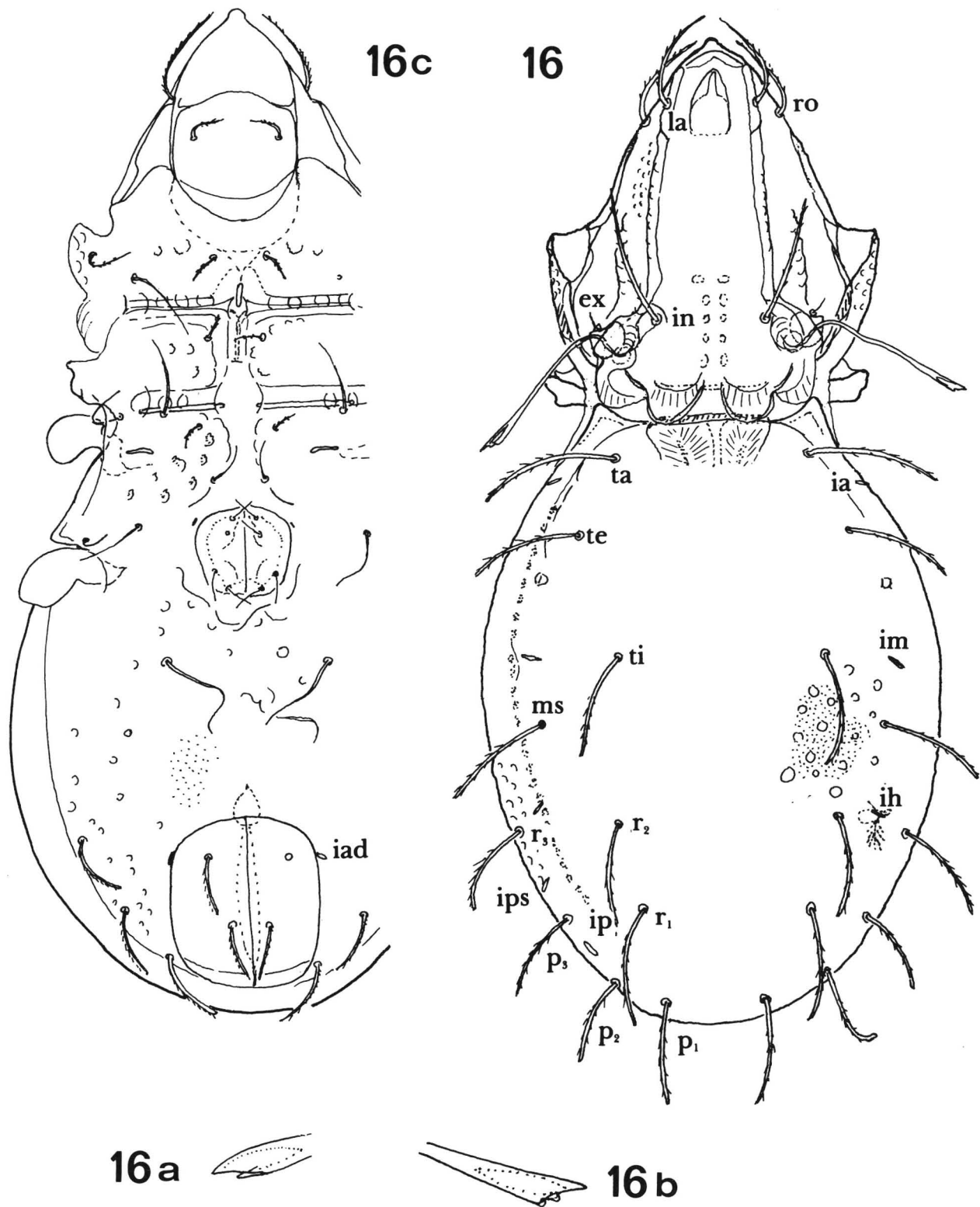


FIG. 16 : *Dolicheremaeus nasalis* n. sp.
16 a) tip of sensillus ; 16 b) idem ; 16 c) ventral view.

sensillus fusiform, bifid at tip; four pairs of condyles; ten pairs of notogastral setae; ips in front of r3; sternal ridge present; apo.3 present; 4a and 4c close together; genital plates striped; ultimate setae long. Type species:

***Spinotocepheus javensis* n. sp.; fig. 17.**

Length about 0.51 mm. Colour yellowish light brown.

■ **Prodorsum** : Rostrum triangular, the surrounding membrane broadly rounded. Rostral and lamellar setae approximately equally long, reaching only a little beyond the rostrum. Interlamellar setae located rather close together, i.e., removed from the lamellae, about twice as long as their mutual distance, slightly roughened and dull at tip. Lamellae slightly converge anteriorly. A short ridge runs medially from the thin lamellar tip meeting the opposite one in front of a light spot. Spa.1 short, not reaching the insertion of the rostral setae. Dorsal pseudostigmatic plates cover the pseudostigmata. Ventral pseudostigmatic plates are rounded laterally. A strong spine projects from the border of the pseudostigma, laterally it reaches beyond the ventral pseudostigmatic plate, fig. 17 a. Sensillus has a swollen head, which is slightly bifid or trident at the tip, fig. 17 a, c. Exopseudostigmatic setae thick, roughened. No interlamellar wrinkles. Lateral prodorsal condyles broadly rounded. Median prodorsal condyles short, semicircular, separated by a distance corresponding to the width of a condyle.

■ **Notogaster** : Elongate. Anterior border straight and long. Surface densely punctate. No marginal ridge. Lateral notogastral condyles broadly rounded. Median notogastral condyles narrow, rounded at tip, closer together than co.pm. and separated by a distance corresponding to the width of the condyles. Ten pairs of approximately equally long, thick, roughened notogastral setae, dull at tip. Ta is situated a short distance behind co.nl. and usually directed forwards. Ti and r2 often bent medially. Glandular opening located on a level with ti. Fissures ia is situated

in the lateral margin behind ta, im between te and ti, ih off ms, ips between ih and r3, and ip in front of p2.

■ **Epimeral region** : Apo.2 and apo.sj distinctly developed, not meeting those from the opposite side, fig. 17 b. Apo.3 short. Sternal ridge very short. Epimeral setal formula 3 : 1 : 3 : 3. The medial setae are short. 4a and 4c are situated rather close together.

■ **Anogenital region** : Genital plates striped. Four pairs of moderately long genital setae. On either side of the genital aperture there are two curved, almost parallel lines. Aggenital setae short and barbed. Anal aperture with parallel sides. Two pairs of rather short anal setae. Adanal setae slightly erect and therefore shortened in fig. 17 b, barbed. The distance ad3-ad3 is longer than ad2-ad2. Iad short, aligned close to the lateral margin of the anal aperture. Ventral plate punctate.

■ **Legs** : Type of ultimate setae L-L-L-L. Figures 17 d-g show Legs I-IV.

4 (1), 11 (1), 148 (1), 151 (1), 159 (3), 179 (1), 184 (1), 197 (1).

The following three species have so many characteristics in common with *Spinotocepheus javensis* that only the most important features will be described.

***Spinotocepheus tjibodensis* n. sp.; fig. 18.**

Length about 0.53 mm. Colour yellowish light brown.

■ **Prodorsum** : Spots lateral to the lamellae are very distinct. Interlamellar setae rather thin.

Sensillus is very slender, bifid at tip, fig. 18 a. Ventral pseudostigmatic plates indistinct. Fairly short spine on the pseudostigmata. Short interlamellar wrinkles. Lateral prodorsal condyles broadly rounded. Median prodorsal condyles flat, slightly semilunar, separated by a distance almost corresponding to the width of the condyles.

■ **Notogaster** : Almost as broad as it is long. Anterior border straight. Surface densely punctate.

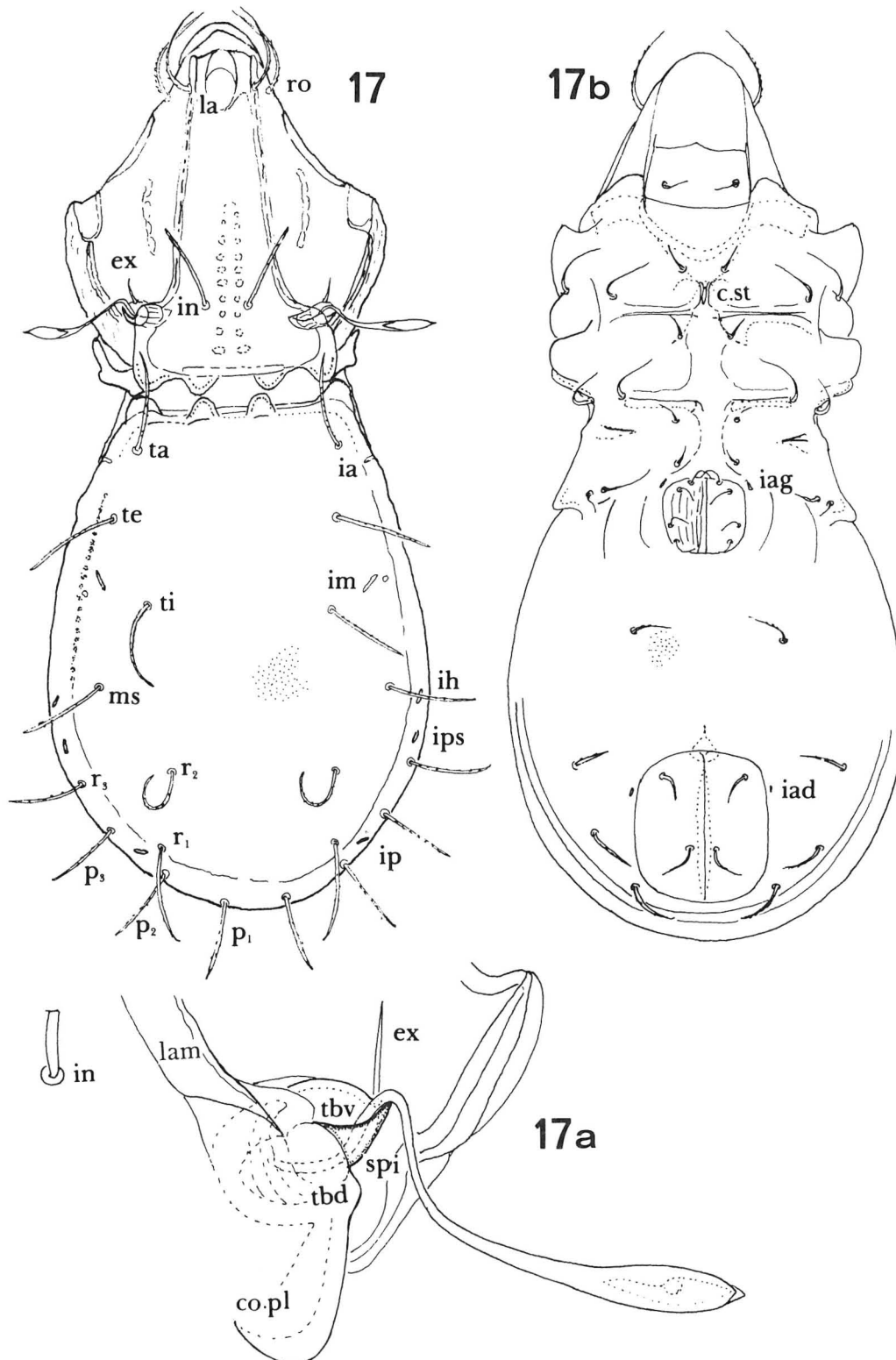


FIG. 17 : *Spinothocepeus javensis* n. g., n. sp.
17 a) right sensillus and surroundings ; 17 b) ventral view.

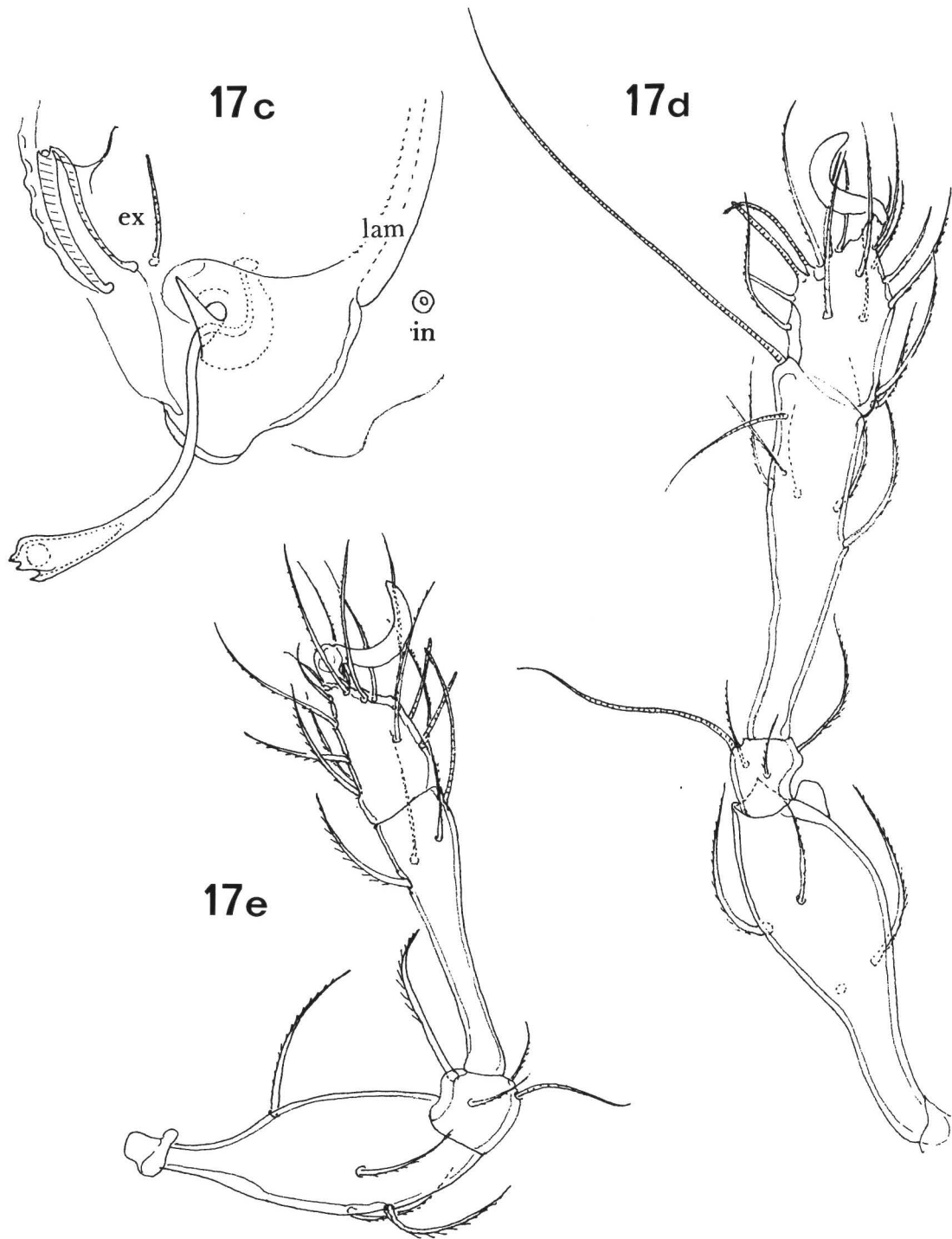


FIG. 17 (continuation) : *Spinotocepheus javensis* n. g., n. sp.
17 c) left sensillus and surroundings ; 17 d) leg I ; 17 e) leg II.

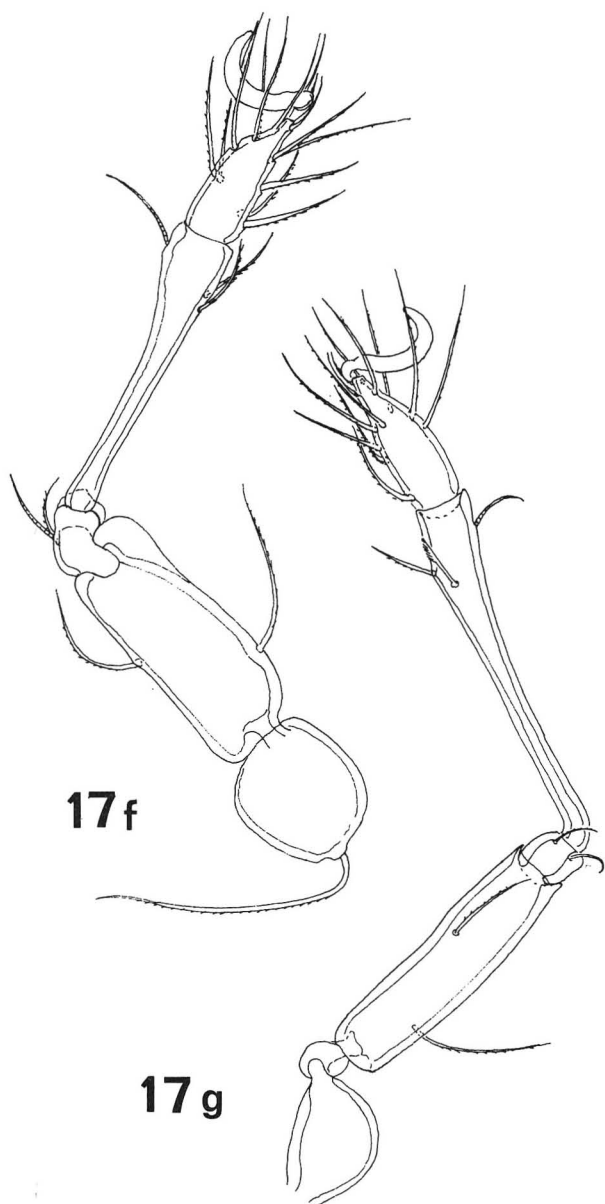


FIG. 17 (continuation) : *Spinotocepheus javensis* n. g., n. sp.
17 f) leg III ; 17 g) leg IV.

tate. Furthermore many wrinkles with a double contour between which there are small transparent drops like beads on a string. Transparent drops are also found outside the wrinkles. Lateral notogastral condyles broad, triangular, lateral side rounded. Median notogastral condyles triangular with broad base, sloping laterally, separated by a distance longer than that between co.pm. Notogastral roughened. R1 and r2 longer than the remainder, about as long as the distance r1-r1.

R3 the shortest. The distance p1-p1 shorter than p1-p2 and p2-p3, and approximately equal to p3-r3. The fissures ih and ips are located rather close together in front of r3. Gla is located laterally to im.

■ *Epimeral region* : Apo.2 and apo.sj well developed, apo.3 indistinct, fig. 18 b. Sternal ridge very short. All epimeral setae rather short. 4b located within an angular frame.

■ *Anogenital region* : Three wrinkles on either side of the genital aperture. The punctation of the ventral surface is in streaks. Aggenital, anal and adanal setae resemble those of the preceding species.

223 (1).

***Spinotocepheus foveolatus* n. sp. ; fig. 19.**

Length about 0.56 mm. Colour yellowish light brown.

■ *Prodorsum* : Sensillus has a slightly swollen head, very pointed at the tip, which is bifid, fig. 19 a. The pseudostigmatic spine is very strong. Ventral pseudostigmatic plates have a notch in the anterior margin. Dorsal pseudostigmatic plates cover the pseudostigmata. No interlamellar wrinkles. Lateral prodorsal condyles are tongue-shaped. Median prodorsal condyles are triangular, the medial border reaching halfway to the interlamellar setae. Separated by a distance as long as the width of the condyles.

■ *Notogaster* : Only a little longer than broad. Anterior border straight. Surface finely punctate and foveolate, foveae absent along the outer border and immediately behind the anterior border. Lateral notogastral condyles are very large, conically-triangular. Median notogastral condyles narrow, especially at the base, slightly angular. They are located at some distance behind the anterior margin of the notogaster, and separated by a distance one and a half times their width. Notogastral setae equally long and slightly barbed. The distance p1-p1 is the same as p1-p2, longer than p2-p3. Fissures are located as those of the

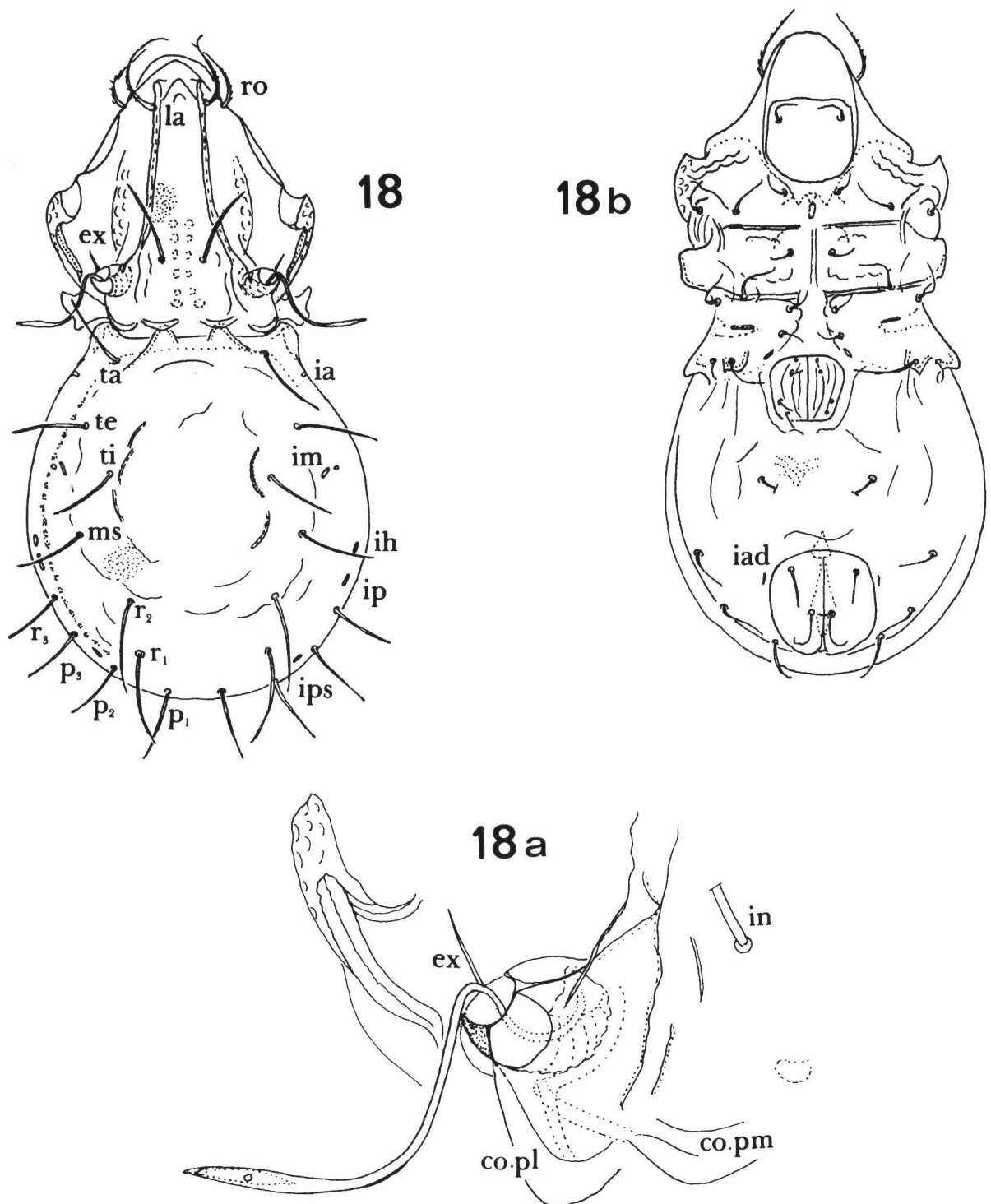


FIG. 18 : *Spinotocepeus tjibodensis* n. sp.
18 a) sensillus and surroundings ; 18 b) ventral view.

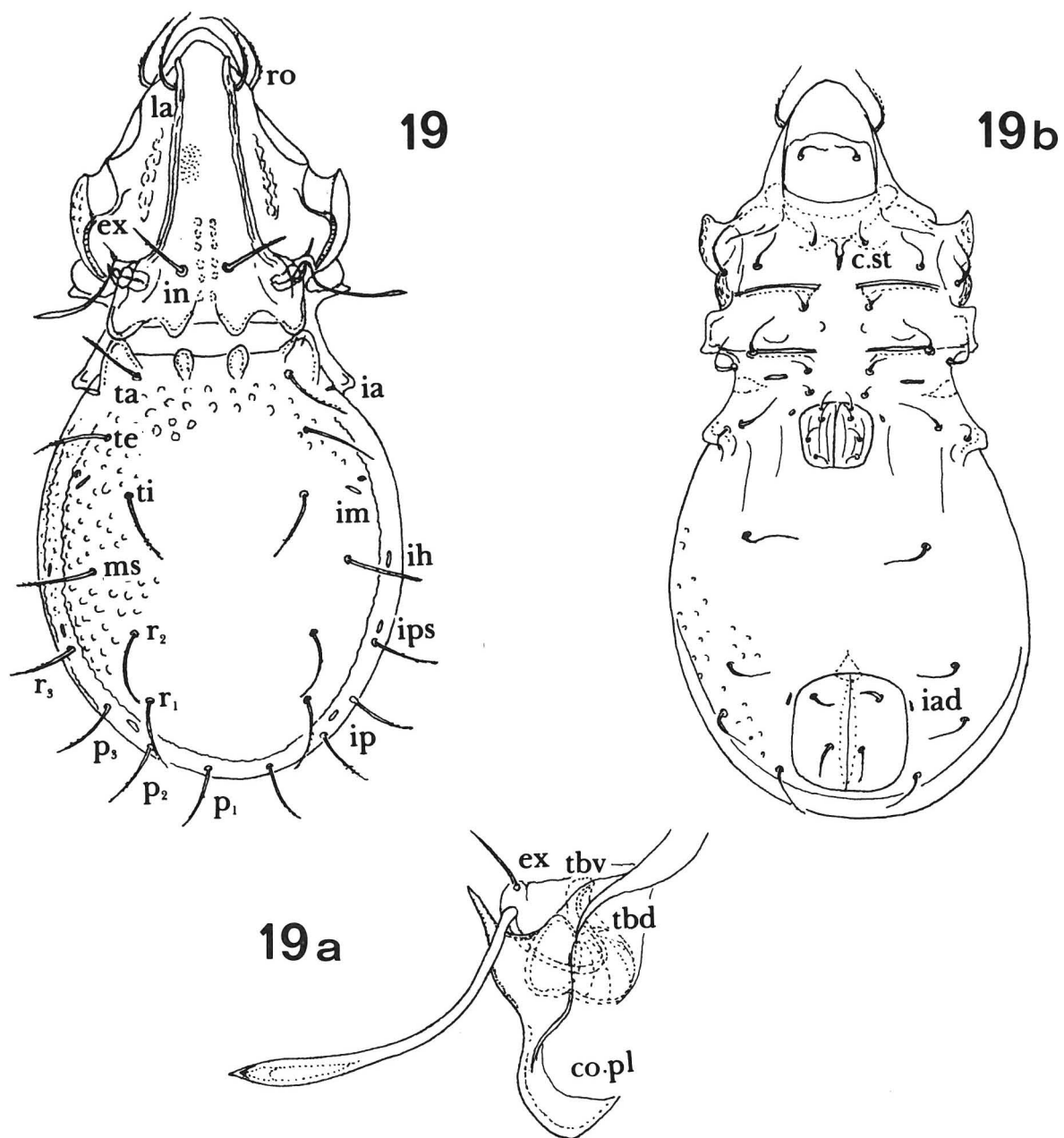


FIG. 19 : *Spinotocepheus foveolatus* n. sp.
19 a) sensillus and surroundings ; 19 b) ventral view.

preceding species, but *ih* and *ips* have a longer mutual distance. Glandular opening in front of *im*.

■ *Epimeral region* : *Apo.2* and *apo.sj* well developed, separated from those of the opposite side by a good distance. fig. 19 b. *Apo.3* short, but distinct. Sternal ridge very small. Medial epimeral setae short.

■ *Anogenital region* : Lateral to the genital aperture there are two lines or thin ridges. Aggenital setae are thick as the adanal setae, perhaps slightly barbed. The distance *ad2-ad2* equal to *ad3-ad3*. Ventral plate foveolate.

225 (1).

***Spinotocepheus nigromaculatus* n. sp. ; fig. 20.**

Length about 0,54 mm. Colour yellowish light brown.

■ *Prodorsum* : The distance between the lamellae is much shorter anteriorly than posteriorly. Blackish lateral margins on the light spots lateral to the lamellae (hence the specific name). The ventral pseudostigmatic plates have a notch off the exopseudostigmatic setae. Sensillus has a swollen head ending in two small tips, fig. 20 a.

Pseudostigmatic spine rather short. Lateral prodorsal condyles are of elongated tongue shape. Median prodorsal condyles very short, connected by a curved ridge.

■ *Notogaster* : Almost as broad as long. Anterior border straight. Surface finely punctate in streaks. Lateral notogastral condyles broad, triangular, sloping medially. Median notogastral condyles irregular, rough, with steep medial margin, sloping lateral margin. They are found on a ridge behind the lateral notogastral condyles and are separated by a distance half as long as the width of the condyles. Notogastral setae are approximately equally long, *r1* and *r2* perhaps slightly longer than the others. They are very thin at the base, slightly roughened and dull at the tip. Glandular opening located close behind *im*. Fissures located as those of the species described previously.

■ *Epimeral region* : *Apo.2* and *apo.sj* well developed, fig. 20 b. *Apo.3* indistinct. Epimeral setae short and crooked.

■ *Anogenital region* : Two faint lines on either side of the genital aperture. Genital setae crooked. Anal and adanal setae weakly barbed. Ventral plate finely punctate.

148 (3), 183 (1), 232 (1).

EPILOHMANNIDAE

***Epilohmannoides wallworki* n, sp. ; fig. 21.**

Length of notogaster about 0.22 mm. Length of prodorsum about 0.12 mm. Colour yellowish, legs greyish.

■ *Prodorsum* : The anterior margin is strongly pointed, with small teeth laterally, fig. 21 a. Rostral setae are rather thin, and at least twice as long as their mutual distance. They are situated close together. The left seta is inserted slightly anteriorly to the right one. A very distinct striped transverse band is behind the rostral setae. Lamellar setae inserted on the posterior half of the pro-

dorsum. They are curved backwards, minutely barbed, and about as long as the rostral setae. Anterior and posterior exopseudostigmatic setae are inserted close together, lateral to the pseudostigmata. The posterior seta is the shorter. Interlamellar setae, inserted at the base of the pseudostigmata, are thick, minutely barbed and about three quarters as long as their mutual distance. Sensillus is long, the stalk continuing through the clavate head, which is set with a few barbs, suspended by a membrane, fig. 21 b.

■ *Notogaster* : slightly arched, its anterior border straight. There are 14 pairs of setae. All

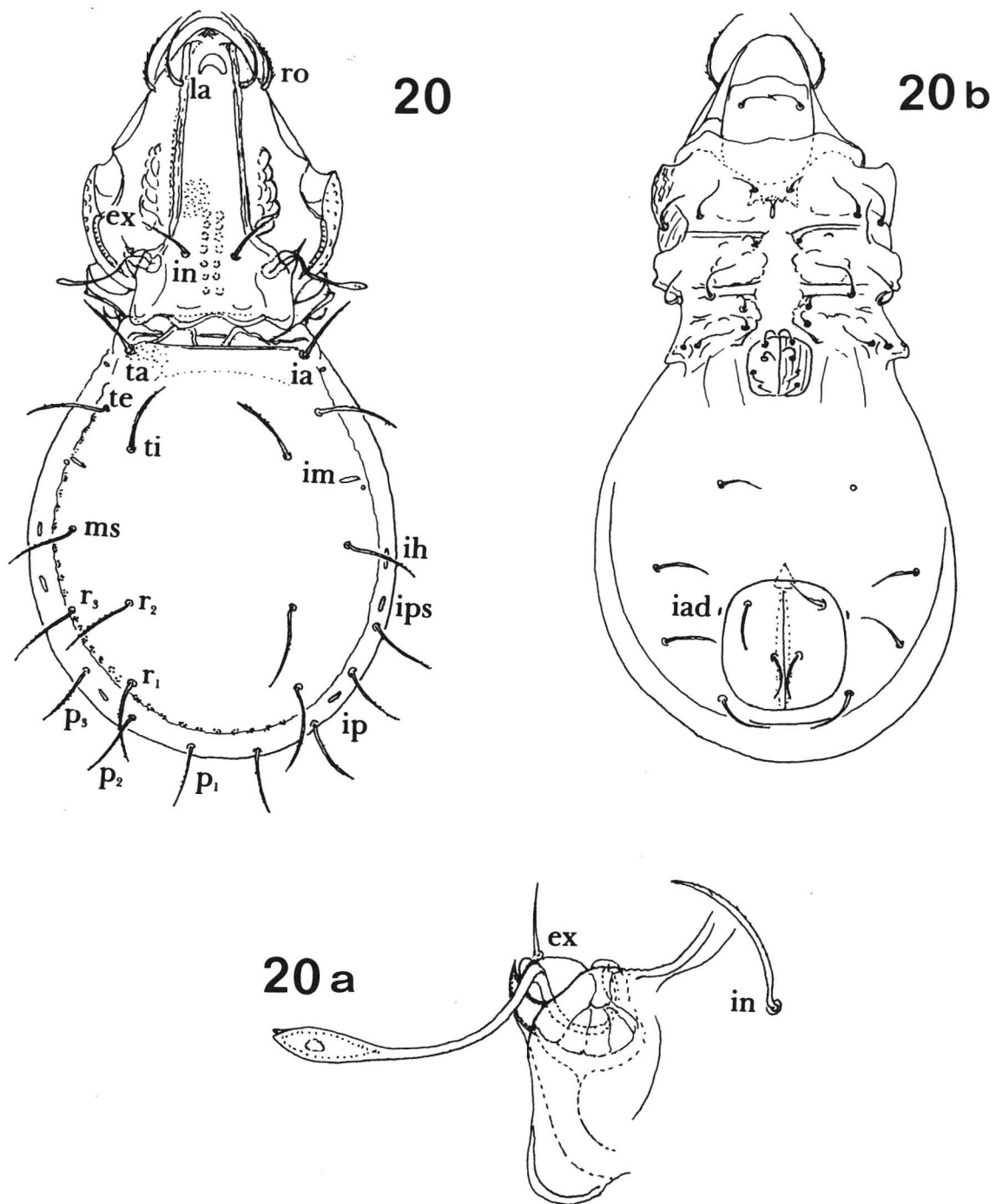


FIG. 20 : *Spinotocepheus nigromaculatus* n. sp.
20 a) sensillus and surroundings ; 20 b) ventral view.

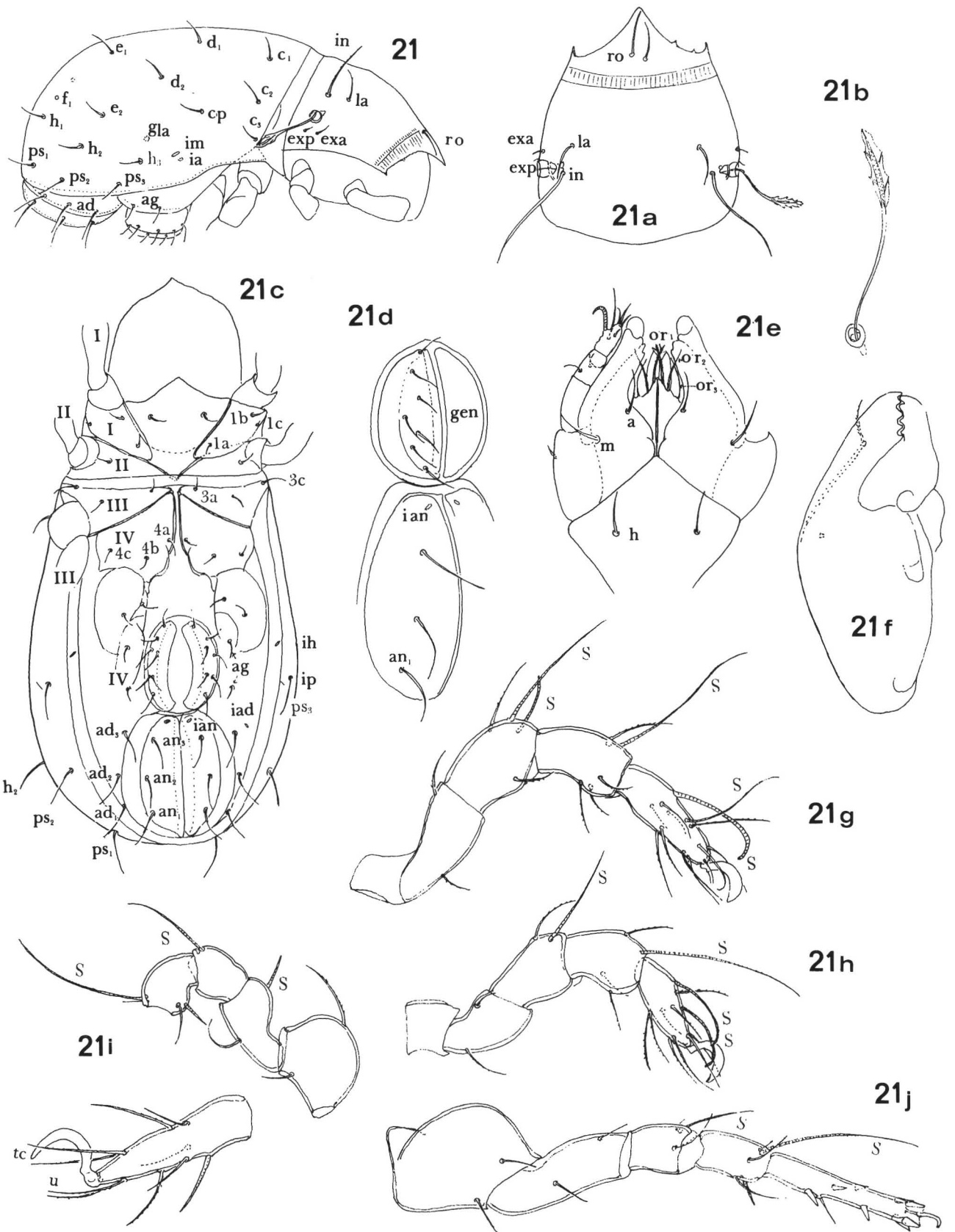


FIG. 21 : *Epilohmannoides wallworki* n. sp., lateral view.

21 a) prodorsum in dorsal view ; 21 b) sensillus ; 21 c) ventral view ; 21 d) anogenital region ; 21 e) infracapitulum ; 21 f) mandible ;
21 g-j) legs I-IV.

the setae are short, of the same length and curved backwards. Setae f1 are only represented by their insertion pore. Four pairs of fissures present, i.e., ia, im, ih and ip, the latter two can only be seen in a ventral view. Ia and im are located close together in front of seta h3. The aperture of the lateral abdominal gland is distinct, located medially to seta h3.

■ *Epimeral region* : Epimeral ridges I do not meet in the middle line, fig. 21 c. Epimeral ridges II form a V-shaped figure, separating coxisterna II, which are very narrow medially. Coxisterna II are separated from coxisterna III by the ventro-sejugal depression. Coxisterna III just meet in a point in the middle line, being triangular. Coxisterna IV are broad, irregular, separated from each other by a narrow space medially. Coxisternal setal formula is 3 : 1 : 3 : 3.

■ *Anogenital region* : Genital aperture oval, each plate bearing 7 approximately equally long setae, i.e., three medial setae and four located farther laterally, fig. 21 d. There are two pairs of rather short aggenital setae located laterally to the genital aperture. No transverse suture behind the genital aperture. Anal aperture oval, longer than the genital aperture, touching the latter. Three pairs of anal and three pairs of adanal setae, longer than the genital setae. Iad is located in front of ad3, ian in front of an3.

Figure 21 e shows the infracapitulum. The palp is composed of three joints, the proximal one apparently without setae. The solenidion of the distal joint is thick and strongly bent. Orl is densely barbed, bifid, or2 barbed and or3 much thinner and apparently smooth. Figure 21 f shows the mandible.

■ *Legs* : Figures 21 g-j show Legs I-IV (the first two drawn *in situ*). There may be more setae than shown, but I am unable to discern them. Femur III has a dorsal spine, Tibia III and Tarsus III each have a ventral spine. Tibia IV has a ventral spine, and Tarsus IV many very short, thick spines. Genu I bears two solenidia, Genus II-IV each one solenidion. Tibiae I-IV each have one solenidion. Tarsus I has two (three ?) solenidia, Tarsus II two solenidia. Tarsus III-IV have no solenidia. Some of the solenidia may be coupled with minute setae, but I am unable to confirm this. Famulus was not observed. All tarsi have one claw.

This species is named after my good friend and colleague, Dr. J. A. WALLWORK, London. 162 (1), 180 (1).

■ *Remarks* : The new species differs from *E. terrae* Jacot, 1936 by its smooth integument, the prodorsal transverse band, shorter setae on the palp and the legs, and shorter spines on Tarsus IV.

ORIPODIDAE

Truncopes pyriformis n. sp. ; fig. 22.

Length about 0.34 mm. Colour light brown.

■ *Prodorsum* : The anterior border of the rostrum has an incurvation at the middle. Rostral, lamellar and interlamellar setae are approximately equally long, i.e., as long as the distance between the rostral setae. The latter are thin, finely barbed. Lamellar setae are thicker and more densely set with barbs. Interlamellar setae are very thick throughout and very coarsely barbed. The integument is smooth. The border of the

pseudostigmata just projects beyond the anterior border of the notogaster. Sensillus is broad, pear-shaped (hence the specific name).

■ *Notogaster* : Anterior border straight. Anterior border of the pteromorphae almost straight, projecting and separated from the posterior part of the pteromorphae by an oblique ridge issuing near the pseudostigmata. The anterior half of the notogaster is broader than the posterior half. The posterior border is rounded with faint edges off ip and p1. Ten pairs of equally long, smooth, curved notogastral setae. Im located in front

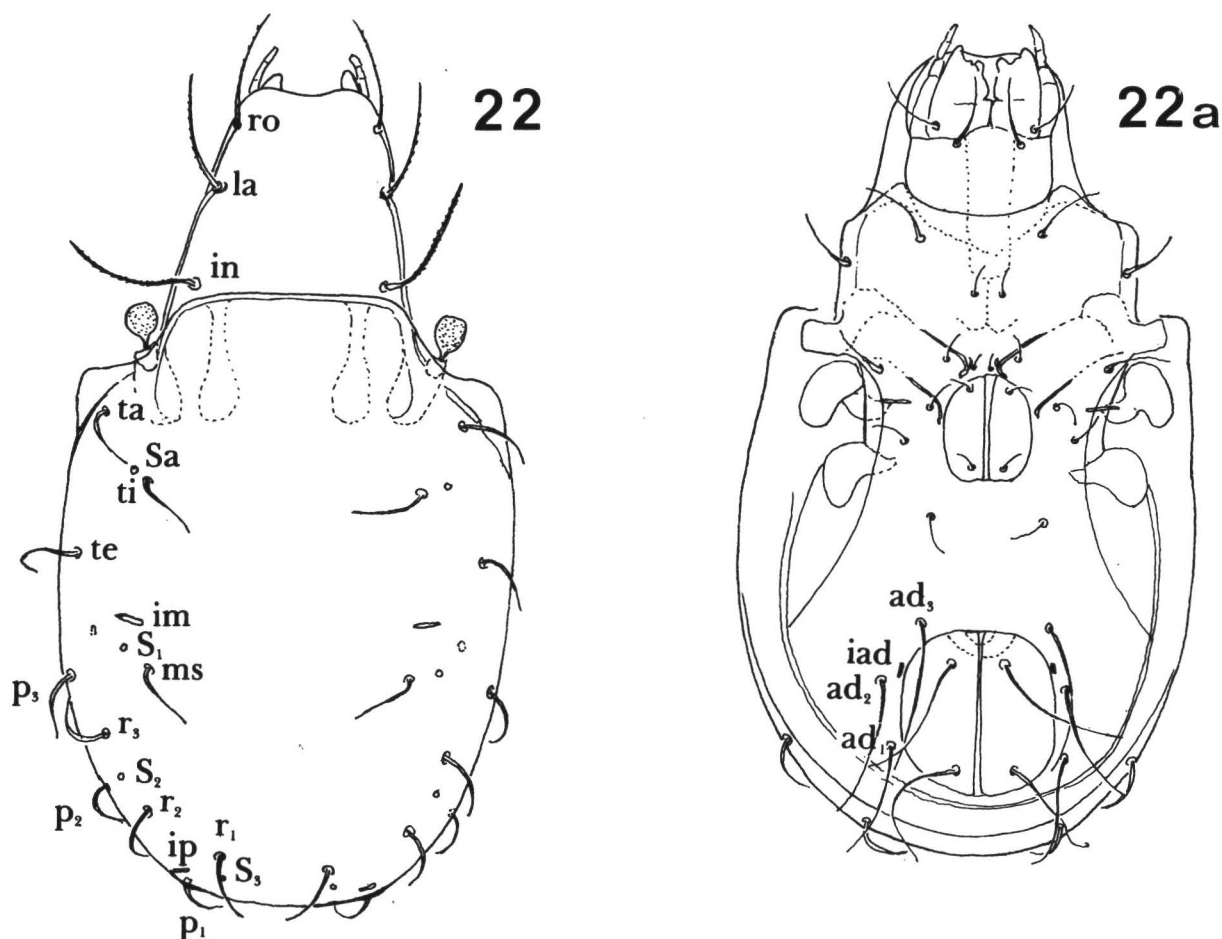


FIG. 22 : *Truncopes pyriformis* n. sp.
22 a) ventral view.

of ms, ip in front of p1. The integument is smooth.

■ *Epimeral region* : Apo.2 and apo.sj parallel, the medial parts of both developed to the genital aperture. Apo-3 short. Epimeral setal formula is 3 : 1 : 2 : 2 (I am unable to see others). The epimeral setae are very thin, more or less erect, their length is therefore difficult to tell.

■ *Anogenital region* : Genital aperture with two pairs of setae, one seta at either end of the plates, fig. 22 a. Aggenital setae apparently longer than the genital setae and smooth. Anal and adanal setae very long and thin, most of them projecting beyond the posterior border of the ventral plate. Ad3 are preanal, ad2 are located at a short distance behind iad, and ad1 at the

latero-posterior corner of the anal aperture. The integument of the ventral plate is smooth.

■ *Legs* : with three equally thick claws.
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