



**THREE NEW SPECIES OF *TRICHODECTES* FROM  
*CEPHALOPHUS MONTICOLA* AND *PROCAVIA*  
*CAPENSIS* FROM SOUTH AFRICA.**

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(With Plate II.)

*Trichodectes bedfordi*, n.sp. Plate II, figs. 1-3.

NUMEROUS males and females collected from a Blue Duiker (*Cephalophus* (Guebei) *monticola*) at Ngome Forest, Mt Ngwibi, Natal, by Mr J. Tustin.

**Female.** Total length 1.73 mm., length of head 0.37 mm., length of prothorax 0.09 mm., length of metathorax 0.11 mm., length of abdomen 1.16 mm. Width of head 0.30 mm., width of prothorax 0.25 mm., width of metathorax 0.30 mm., width of abdomen 0.42 mm.

**Head.** Longer than broad. Forehead elongated with a moderately deep median notch, which has a deep marginal band of chestnut-brown chitin divided into two parts by a narrow median longitudinal split, and produced into prominent trabecula-like processes in front of each antenna. General colour of head a pale yellowish-brown, with deep chestnut mandibles and bands. Antennal sinuses rather small and shallow. Ocular projections extending only very slightly beyond the temples, which are rounded. Temples with two short widely spaced hairs. Occipital margin slightly convex, rounded at the points where it is met by the faint occipital bands. Antennal bands of medium width, not reaching the base of the antennae, and tapering towards the anterior margin of the head, then broadening out into a wide clear space, interrupted by a deep narrow longitudinal line. Occipital bands joining the antennal bands just in front of the trabecula-like processes. Antenna long and narrow, extending well beyond the posterior margin of the head; third joint the longest; first and second joints of equal length. Eye pronounced. On the dorsal surface of the forehead there are three short pustulated hairs situated in a straight transverse line on each side near the antero-lateral margin of the head.

**Thorax.** Same colour as the head. Pronotum bare, with sides diverging, and a broad chestnut band at the lateral margins. Metathorax as wide as

the head, sides diverging, and rounded at the postero-lateral margins, with a broad band at the lateral margins and three small pustulated hairs on each side in a transverse line near the postero-lateral margins.

*Abdomen.* Elongated and narrow, white in colour, with crenulated lateral margins. Segments widely diverging towards postero-lateral borders, and with a yellowish-brown transverse band on the dorsal surface of each segment. On the dorsal surface, at the posterior margin of the band on first segment, one short pustulated hair on each side of the meson; last segment bilobed at the apex, with three to four median hairs on each lobe, and with a pair of short pustulated hairs situated on each side just within the lateral margin, and another pair mid-way between these towards the posterior indentation; remaining segments with a transverse row of minute pustulated hairs; segments two to seven with a small spiracle at each lateral angle.

**Male.** Total length 1.56 mm., length of head 0.40 mm., length of prothorax 0.07 mm., length of metathorax 0.14 mm., length of abdomen 0.95 mm. Width of head 0.28 mm., width of prothorax 0.22 mm., width of metathorax 0.26 mm., width of abdomen 0.43 mm.

*Head.* With the median notch deeper than that of the female. Antennal sinuses deep. Ocular projections small, not well defined. Temples narrow, smoothly rounded. Occipital margin markedly convex, emarginate where it is met by the occipital bands. Eye pronounced. Antennae large, and backward pointing, reaching the metathorax; the first joint large and wide (saculated) longer than the second and third joints combined; second and third joints of approximately equal length; on the upper surface of the first joint of the antenna, a longitudinal row of eight small pustulated hairs one beside the other, and extending from the proximal to the distal extremity: third joint slightly curved, and at the distal end two or three short stout dark-brown denticles. Mandibles situated well forward on the head.

*Abdomen.* Closely resembles the female in general outline, with the last segment oval, and having a row of medium sized hairs at the tip. On the dorsal surface, the transverse brown bands of segments four to seven are deeper (somewhat telescopic in appearance), and with well marked projecting somewhat rounded edges almost reaching the spiracles at the lateral angles. (Fig. 3 gives an excellent representation of these bands.)

*Genitalia.* Very conspicuous. The basal plate longer than the parameres, and consisting of two thickly-chitinised bars slightly thickened and rounded at their posterior end. Parameres long and narrow, of even thickness throughout their length (concavo-convex in shape), and markedly diverging posteriorly. Penis long and stout. Beneath the penis a wedge-shaped plate with the posterior end bifid. (Plate II, fig. 3.)

This species would seem to be closely allied to *Tr. lineatus* n.sp., described by Bedford in Part II, *Anop. from South African Hosts* (1920). The shape, however, of the abdominal segments of both male and female, and

terminal segment and genitalia of the male enables this species to be readily distinguished from that described by him.

My thanks are due to Mr G. A. H. Bedford of the Veterinary Research Laboratories, Onderstepoort, Pretoria, for the kindly help and assistance which he has always been most ready to give me, and I have great pleasure in naming this species after him.

*Trichodectes lindfieldi* n.sp. Plate II, figs. 4-6.

Numerous males and females taken from a Cape Hyrax (*Procavia capensis*) shot at Mtabamhlope, Estcourt District, Natal, by Mr P. Barnes.

**Female.** Total length 1.47 mm., length of head 0.43 mm., length of prothorax 0.12 mm., length of metathorax 0.15 mm., length of abdomen 0.77 mm. Width of head across temples 0.42 mm., width of prothorax 0.30 mm., width of metathorax 0.40 mm., width of abdomen, at third segment 0.71 mm.

**Head.** Light yellowish-brown. Almost as broad as long. Forehead dome-shaped, emarginated in front, with the sides slightly convex, and produced with a prominent trabecula-like process in front of each antenna. Antennal bands narrow and dark, terminating approximately midway between the anterior margin of the head and the trabecula-like processes. Frontal sinus deep, semicircular in section, with a marginal band of dark brown chitin divided into two parts by a median longitudinal narrow space; one hair situated on each side just within the emargination. Antennal sinuses small and shallow with rounded inner margin. On each side of the forehead, there are three hairs, one in front, one in the middle, and one above the antennal sinus. Ocular projections prominent, extending well beyond the temples which are rounded. Occipital margin slightly convex, very slightly emarginate at the points where it is met by the occipital bands. Temples rounded with a narrow dark marginal band and three short marginal hairs. Occipital bands conspicuous, connected at their bases by a broad band, and meeting the antennal bands just above the trabecula-like processes. Antennae long and slender, reaching beyond the posterior margin of the head; the third segment the longest with four minute hairs; first and second segments of equal length each with two short hairs. On the dorsal surface of the forehead there is a semicircular row of six small pustulated hairs; and below this semicircular row one small hair on either side just within the antero-lateral border; also two small and two medium hairs situated in a line with the trabecula-like processes. On the hind-head a semicircular row of four short hairs in the middle, and two on each temple.

**Prothorax.** Much broader than long, with a broad marginal band of deep chestnut-brown; lateral margins almost parallel, the posterior margin markedly convex, with medium postero-lateral emarginations, and one short pustulated hair on each side of the meson near the anterior margin.

**Mesothorax.** With three pustulated hairs on the dorsal surface.

*Metathorax.* Wider than prothorax, with prominent projecting lateral angles reaching nearly as far as the postero-lateral angles of the first abdominal segment. On the dorsal surface two longish hairs at each lateral angle, and a row of fourteen small hairs along the posterior margin. Posterior margin markedly concave.

*Abdomen.* Crenate, somewhat longer than wide, widest at the third segment, with a median dark transverse band on all the segments. On the first three segments there is a large dark brown pleurite on each side, these are succeeded on the remaining segments by a smaller pleurite of the same colour. On the dorsal surface, the first segment has two pairs of small pustulated hairs on each side of the meson near the anterior margin, and twelve hairs in a row along the posterior margin; second segment with a transverse row of twenty small pustulated hairs along the posterior margin; and a lateral group of five hairs. Above, and on the inner side of this lateral group, there is a further distinct separate group of three hairs; third segment with a transverse row of twenty hairs along the posterior margin, a lateral group of five hairs, and on the inner side above each lateral group, a further group of five hairs; fourth segment with a row of twenty-four pustulated hairs, a lateral group of three hairs, and on the inner side of this group a pair of hairs; fifth segment with a transverse row of twenty-four pustulated hairs, and a pair of hairs just within the lateral margin; sixth segment with a continuous row of thirty-six pustulated hairs; seventh segment with a row of twenty-four hairs; last segment bilobed at the apex, with a transverse row of twelve hairs, and two small and two longish hairs on each lobe.

On the ventral surface segments one and two each with a row of twelve hairs; segment three with a row of fourteen hairs; segment four with a transverse row of thirty-two hairs divided into three groups, the median group consisting of twenty hairs, and each lateral group of six hairs; segment five with a row of thirty hairs, the median group consisting of twenty hairs, and each lateral group of five hairs; segment six with a row of twenty-eight hairs, the median group of twenty hairs, and each lateral group of four hairs; seventh segment with a pair of small pustulated hairs at each lateral margin; last segment with nine to ten minute pustulated hairs scattered on each side of the meson.

**Male.** Total length 1.52 mm., length of head 0.39 mm., length of prothorax 0.12 mm., length of metathorax 0.15 mm., length of abdomen 0.86 mm. Width of head across temples 0.39 mm., width of prothorax 0.28 mm., width of metathorax 0.35 mm., width of abdomen at third segment 0.63 mm.

*Head.* The general outline of the head mostly resembles that of the female. The antennal sinuses are deeper and wider. Ocular projections scarcely visible. Temples bluntly rounded, meeting the occipital margin at an angle. At the posterior margin of the temples there is a small prominent chitinated protuberance (absent in the female). Antennal bands broader than in the

female, becoming fused into the occipital bands in front of the trabecula-like processes. Antennae large, and directed backwards, reaching well beyond the occipital margin of the head; the first segment broad, and longer than the second and third combined; second segment longer than the third. On the hind-head a semicircular row of four small pustulated hairs, and three on each temple.

*Prothorax.* With lateral angles bluntly rounded.

*Abdomen.* Oval, widest across the third segment. Resembles the female in regard to colour, shape of pleurites, etc. On the dorsal surface, last segment with a semicircular row of twelve pustulated hairs, and two small hairs at the posterior margin.

*Genitalia.* Conspicuous, the basal plate consisting of two chitinous bars considerably longer than the parameres. Parameres consist of short bands, broad at the base where they are rounded, and narrowing posteriorly, becoming fused at the tip. Penis short and stout. Beneath the penis, an elongated plate with proximal end rounded. (Plate II, fig. 6.)

*Trichodectes serraticus* n.sp. Plate II, figs. 7-9.

Several males and females taken in company with the previous species from a Cape Hyrax (*Procavia capensis*), shot at Mtabamhlope, Estcourt District, Natal by Mr P. Barnes.

**Female.** Total length 1.25 mm., length of head 0.33 mm., length of prothorax 0.09 mm., length of metathorax 0.12 mm., length of abdomen 0.71 mm. Width of head 0.33 mm., width of prothorax 0.22 mm., width of metathorax 0.23 mm., width of abdomen 0.49 mm.

*Head.* Light yellowish-brown, as broad as long. Forehead rounded, with four hairs on each side and a long shallow median notch produced into a medium trabecula-like process in front of each antenna. Antennal bands dark, narrow at their base, broadening out into a deep serrated band of dark brown towards the centre of the forehead. Ocular projections pronounced extending well beyond the temples which are rounded. Occipital margin slightly convex. Temples rounded, with a narrow dark marginal band, and with three short pustulated hairs on each side. Occipital bands narrow, connected at their bases by a broad, dark brown band, and meeting the antennal bands in front of the trabecula-like processes. Antennae long and narrow, reaching just beyond the posterior margin of the head; third joint the longest, with three small hairs; second joint nearly as long as the first, and each bearing two small pustulated hairs. Eye pronounced. On the dorsal surface of the forehead, there are four small hairs on each side situated just within the antero-lateral margin. On the hind-head a small pustulated hair on each side close to the ocular projection, and a semicircular row of six small hairs near the posterior margin of the head.

*Prothorax.* More than twice as broad as long, with lateral bands of dark

brown; marginal band faint and interrupted in the middle. Posterior margin very slightly convex, becoming deeply curved towards the lateral margins, which are slightly rounded.

*Metathorax.* Slightly wider, and longer than the prothorax, the lateral margins curved and bordered with a narrow dark band, the posterior margin slightly convex.

*Abdomen.* Oval in shape, broadest at third segment, whitish in colour, with a small brown transverse band on the dorsal surface of segments 1-6; seventh segment with the transverse band involving the whole of the segment. On the dorsal surface, first segment bare, with a deep marginal band of dark brown; second segment with a median group of four hairs widely spaced, and one pair at each lateral margin; third segment with twenty pustulated hairs; fourth segment with a row of sixteen pustulated hairs; fifth segment with a row of fourteen pustulated hairs; sixth segment with a row of fourteen hairs and two short hairs at the angle of the postero-lateral margin; seventh segment with a semicircular row of twelve pustulated hairs; last segment bilobed at the apex, with a row of eight pustulated hairs, and two short hairs on each lobe.

**Male.** Total length 1.16 mm., length of head 0.30 mm., length of prothorax 0.11 mm., length of metathorax 0.12 mm., length of abdomen 0.63 mm. Width of head 0.30 mm., width of prothorax 0.21 mm., width of metathorax 0.22 mm., width of abdomen 0.40 mm.

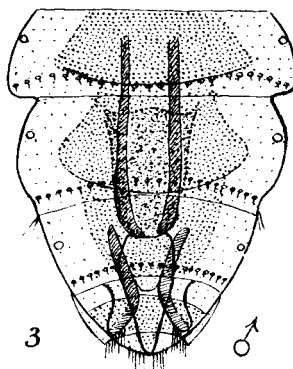
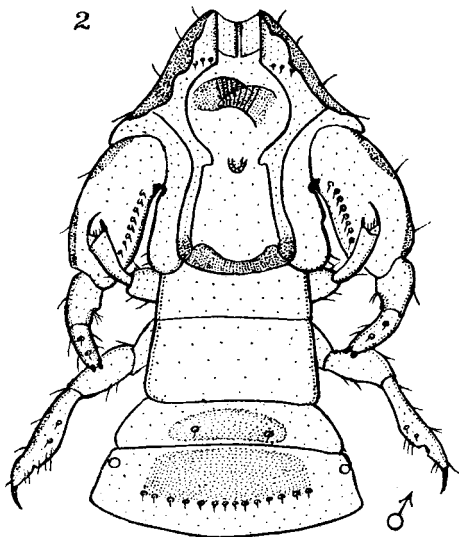
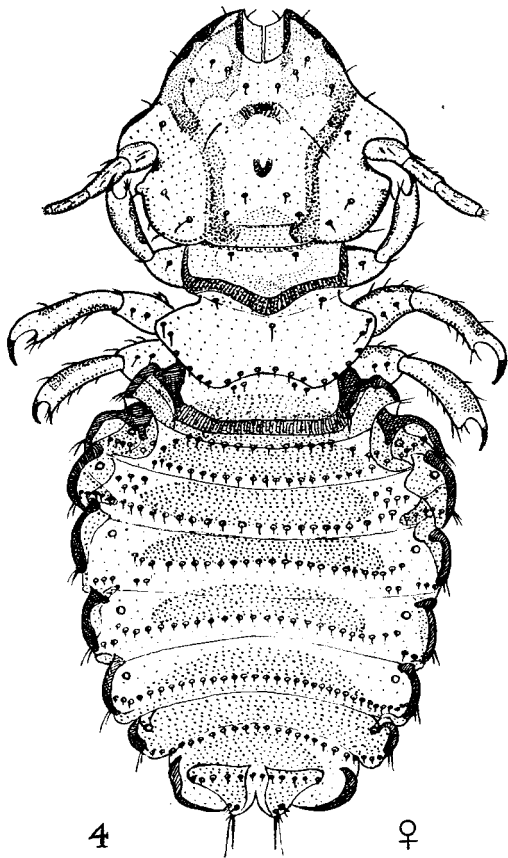
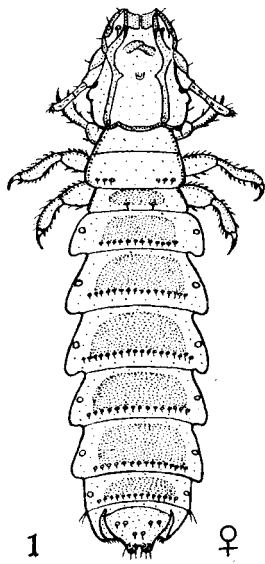
*Head.* The head generally resembles the female in outline, except that the antennal sinuses are much wider. Ocular projections extremely small. Antennae large and backward pointing, extending well beyond the occipital margin of the head, the first segment large and broad; second segment practically the same length as the first; the third segment the longest. On the dorsal surface of the head, a row of six small pustulated hairs close to the anterior margin, two small hairs situated in the centre of the head, mid-way between the bases of the antennae and the ocular projections, and a group of three to four hairs on the temples.

*Prothorax.* Produced sharply posteriorly, with a deep emargination at the posterior margin; lateral margins slightly rounded.

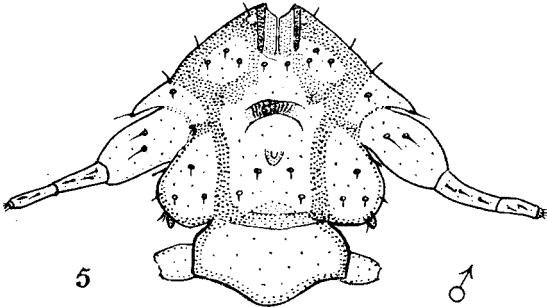
*Abdomen.* Oval, widest across the fourth segment. First segment entirely lacking the deep marginal broad band of the female; a brown transverse band on the dorsal surface of segments one to five; segments six to eight with an irregularly shaped and fused transverse band; last segment oval, with five to six short hairs along the posterior margin; first segment with a row of eight hairs; second segment with a row of fourteen hairs; third segment with a row of sixteen hairs; fourth segment with an unevenly spaced row of fourteen hairs; fifth and sixth segments with a row of fifteen to seventeen hairs; last segment with a closely set row of ten hairs.

*Genitalia.* Conspicuous, as shown in Plate II, fig. 9.



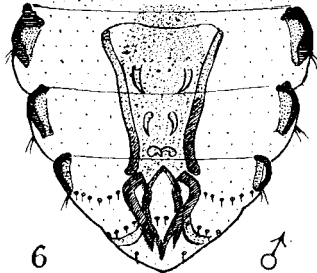






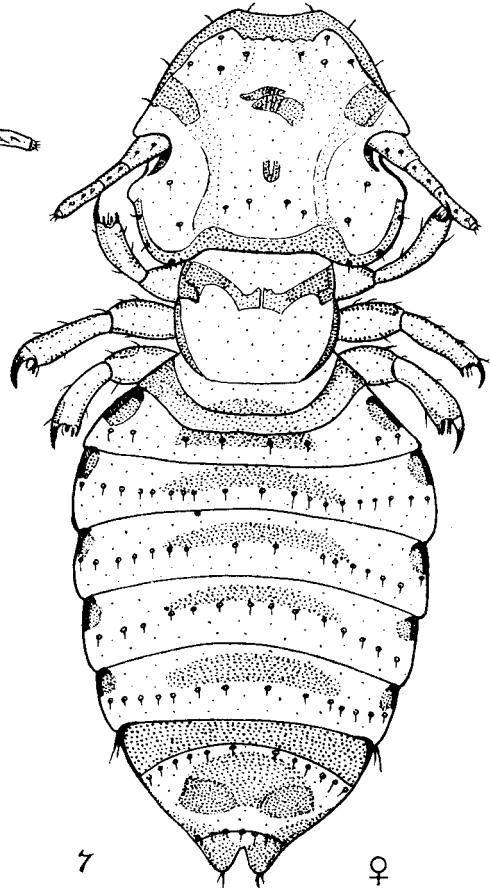
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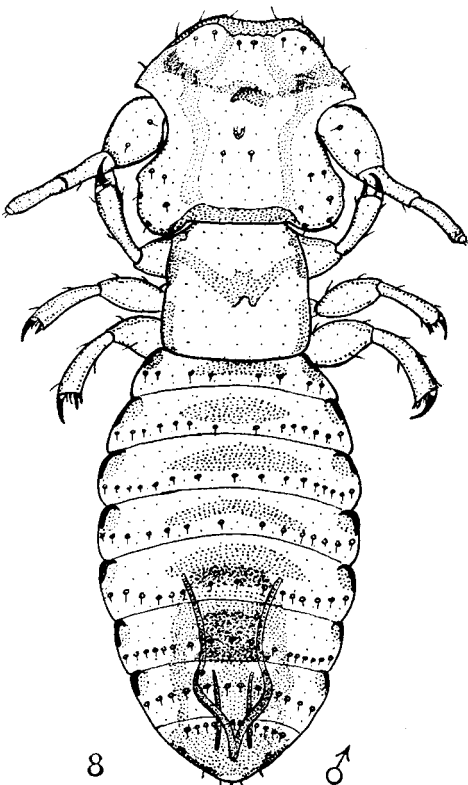
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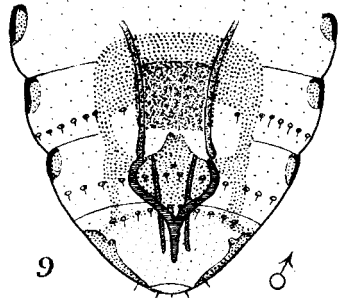
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