

DESCRIPTION OF TWO NEW SPECIES
OF AFRICAN TICKS

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BY

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Rhipicephalus duttoni, n. sp. (Neumann)

MALE.—Body, narrow in front, broadest (1·85 mm.) a little posterior to the middle, length with rostrum 3·55 mm. *Scutum* slightly convex, chestnut-brown without spots, abdomen does not extend beyond its margins; cervical grooves are very broad, shallow, and form elongated depressions, they are not punctated and are continued posteriorly by a narrow superficial groove which extends beyond the middle point of the length; marginal grooves broad, shallow, slightly and finely punctated, commencing almost immediately behind the eyes and terminating in the groove which separates

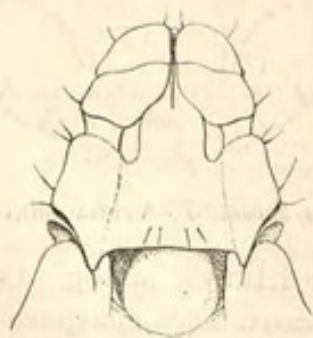


FIG. 22.—*Rhipicephalus duttoni*, ♂. Rostrum. $\times 45$.

the two last from the following festoon; punctations irregular, coarsest in front, fine and superficial over the remainder of the surface; behind are three wide, shallow, unpunctated longitudinal grooves, the middle one being the longest; festoons longer than they are broad, slightly punctated, normal. *Eyes* flat, yellowish, large, marginal. *Ventral surface* reddish-brown, covered by rather long and abundant whitish hairs. *Anus* anterior to the middle of the

length of the adanal shields; adanal shields have the shape of a scalene triangle and so form a long internal posterior spine (the internal edge is longest, it is rectilinear in its anterior half but is concave behind; the external edge is slightly convex; the posterior edge is concave and bordered by punctations); the outer shields are replaced by a prominent, non-chitinous fold; no caudal prolongation but a chitinous thickening on the median festoon. Peritremes narrow, whitish, comma-shaped with the point bent back towards the dorsal surface. Rostrum 0.6 mm. long, dorsal base almost twice as broad (0.6 mm.) as long, lateral angles at about the middle of the length, posterior angles quite prominent. Hypostome very slightly spatulated, has six rows of teeth. Palps as broad as long, flattened dorsally; second segment scarcely longer than the third and retracted into a blunt point dorsally at its

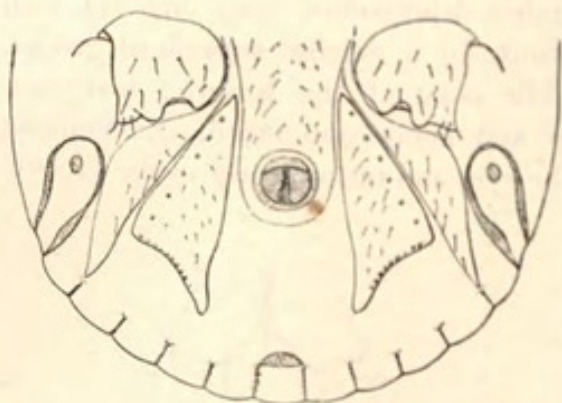


FIG. 23.—*Rhipicephalus duttoni*, ♂. Ventral surface of posterior extremity. $\times 33$.

posterior border. Legs relatively strong. Coxae covered with long white hairs; anterior summit much elongated and conspicuous on the dorsal surface as an auricle, two very long spines; on the posterior borders of the second and third an external spine, flat, as broad as long; fourth divided at posterior border into two broad flat spines. Tarsi of medium size, have two terminal successive spurs; caruncles large.

FEMALE unknown.

A single male was taken on a bovine at Zambie together with females of *Margaropus annulatus*.

This species is dedicated in honour of our late colleague Dr. J. Everett Dutton.

Rhipicephalus longus, n. sp. (Neumann)

MALE.—Body narrow in front, sides subrectilinear, length with rostrum 4.1 mm.; broadest (2.15 mm.) towards the posterior third. *Scutum* almost flat, dark chestnut-brown, without spots; along the posterior festoons the abdomen extends beyond its margin; cervical grooves, very short and deep; marginal grooves deep, narrow, each occupied by a row of punctations, commencing a little behind the eyes, ending at the posterior border of the penultimate festoon, and are continued forward, and especially inwards, by a row of coarse, scattered punctations; punctations irregular, abundant in the space enclosed between the marginal grooves and the punctated anterior prolongation; they are regular in size and distribution anteriorly in

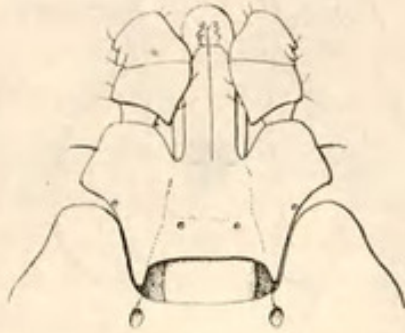


FIG. 24.—*Rhipicephalus longus*, ♂. Rostrum. $\times 45$.

the space corresponding to the female scutum, and they exist with the same appearances in the posterior part of the scutum, but they become scanty and finer in the neighbourhood of the marginal grooves and their punctated anterior prolongations; the marginal border is smooth save in the scapular angles which are hollowed by six to eight larger punctations; posterior festoons longer than they are wide, almost smooth, followed by short abdominal festoons. *Eyes* flat, yellowish, of medium size, marginal with a coarse tangential punctation at the internal edge. *Ventral surface* reddish brown, with a few short hairs. *Anus* at about the middle of the length of the adanal shields; adanal shields long, semilunar (the inner edge concave, the external and the posterior convex) with fairly heavy punctations on their surface; external shields replaced by a prominent non-chitinous fold; festoons subrectangular, sharply defined; no caudal prolonga-

tion. Peritremes whitish, broad, comma-shaped, with point curved towards the dorsal surface. *Rostrum*, length 0.7 mm., dorsal base more than twice as broad as it is long, lateral angles very prominent at about the anterior third of the length, posterior angles quite prominent. Hypostome slightly spatulated, with six rows of teeth. Palps hardly longer than they are broad, flattened dorsally with the second segment a little longer than the third and shortened in a blunt point posteriorly at its inner border. *Legs* relatively strong. Coxae with long scattered hairs; first with anterior summit not prolonged nor visible on the dorsal surface, has two very long spines;

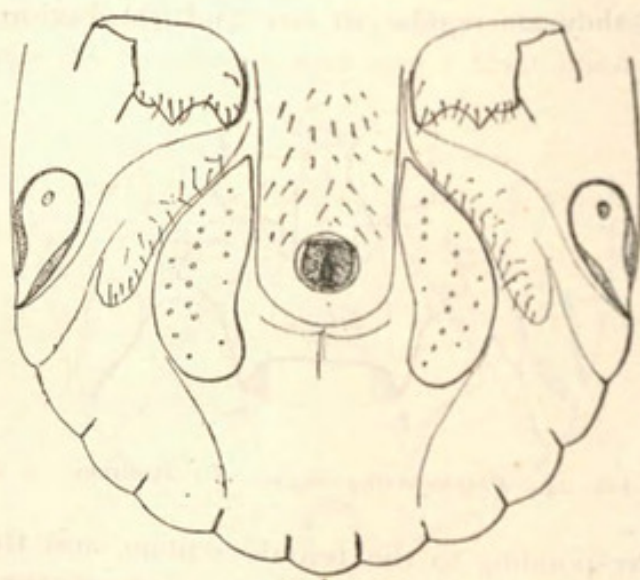


FIG. 25.—*Rhipicephalus longus*, ♂. Ventral surface of posterior extremity. $\times 35$.

second, third and fourth with posterior border incurved to form two short spines, the inner being wide, flat and blunt, the outer narrow and sharp. Tarsi of medium length with two terminal successive spurs; caruncles medium size.

FEMALE unknown.

Locality:—Diagnosis established from a male taken on a bovine at Kasongo (April).

Rhipicephalus duttoni and *R. longus* are placed in the following manner in the table of differentiation of males of the various species of *Rhipicephalus*.

1. { Eyes flat.—2.
Eyes prominent.
2. { Marginal groove well marked.—3.
Marginal groove absent.
3. { Dorsal scutum uniformly brown.—4.
Dorsal scutum black and white.—*R. pulchellus*.
4. { Adanal shields not prolonged to a point (posterior border straight or convex).—5.
Adanal shields prolonged in one or two points (posterior border concave).—12.
5. { Posterior border of the body not prolonged nor furnished with a caudal prolongation.—6.
Posterior border of the body furnished with three prolongations.—*R. supertritus*.
6. { Adanal shields triangular or subtriangular (internal edge straight or slightly concave).—7.
Adanal shields sickle-shaped (their inner border very concave, the two others forming a single regular curve).—*R. haemaphysaloides*.
7. { Marginal groove deep, long, commencing near the eyes.—8.
Marginal groove superficial, short, commencing at the middle of the length of the body.—*R. ziemanni*.
8. { Dorsal scutum with scattered punctations.—9.
Dorsal scutum with numerous, serried, punctations.
9. { Dorsal scutum with unequal, very evident, irregularly distributed punctations.—10.
Dorsal scutum with large, equal punctations arranged in longitudinal lines with or without additional fine and hardly visible punctations.—*R. simus*.
10. { Coxae I, with or without a short prolongation in front, not visible from the dorsal surface.—11.
Coxae I, with a long anterior prolongation, visible from the dorsal surface.—*R. appendiculatus*.

11. { Dorsal scutum with mixed punctation, regularly distributed.
 —*R. sanguineus*.
 { Dorsal scutum with medium-sized uniform punctations between
 the marginal grooves, rare in their neighbourhood, none
 on the edge, large ones on the scapular angles.—
 R. longus.
12. { Anal shields with a single (or principal) internal point.—13.
 { Anal shields with an external point.—*R. lunulatus*.
13. { Coxae I, without visible prolongations from the dorsal
 surface; adanal shields with two points.—*R. armatus*.
 { Coxae I, with prolongations visible from the dorsal surface;
 adanal shields with one point.—*R. duttoni*.



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