

A Tick New to South Africa.

By G. A. H. BEDFORD, F.E.S.

Ornithodoros megnini, Dugès (1881).

Argas megnini, Dugès (1881).

Argas americana, Packard (1893).

Rhynchoprium spinosum, Marx (1895).

Ornithodoros megnini (Dugès), Neumann (1896).

The Spinose Ear Tick.

Adults.—They can easily be distinguished from all other species of *Ornithodoros* found in South Africa by the integument not being mammillated.

Capitulum small and short, with numerous hairs at the dorsal base, and two post-hypostomal hairs.

Hypostome unarmed, broad at the base, rounded at the extremity.

Digit, the external article with superior tooth slightly projecting, inferior tooth large; the dorsal process thick, provided with four teeth, the two terminal ones larger than the two intermediate ones.

Palpi thick, with broad, short articles, and with numerous hairs, especially on the first article.

Body, colour brown to slate, yellow between the post-anal grooves. Panduriform (fiddle-shaped), narrower in front, posterior broadly rounded, broadest at legs II. or III., constricted behind legs IV.

Integument, the whole surface being granulated, with small circular pits, with a short, light bristle in the centre of each. Reticulate fossettes occupying the dorsal and ventral depressions; also a few scattered ones. Between the post-anal grooves there are extremely small and crowded spines.

Dorsum, with symmetrical depressions:

On the anterior half on each side of the median a longitudinal groove which is interrupted in the middle, two more posteriorly to these, and two lateral ones in a line with the latter ones.

On the posterior half a long median groove, which is divided by an arciform groove at the junction of its middle and posterior thirds, and another arciform groove on the posterior border.

Venter.—Supra-coxal and coxal folds broad. Pre-anal groove absent. The first post-anal groove straight and joining the coxal groove. The true post-anal groove near the posterior border. Median anal groove broad.

Eyes absent.

Spiracles circular.

Anus, the frame broader than long, with four short hairs on each valve.

Legs.—Pale yellow in colour.

Size.—Females 5 to 10 mm. long, 3 to 5 mm. wide; the males somewhat smaller.

Nymphs.—May be distinguished by the integument being beset with spines, directed posteriorly, on the dorsal and ventral surfaces. There are a pair of horns extending laterally to legs III. and IV., which are not so distinct in the engorged nymphs.

Colour, white when unengorged, reddish when slightly engorged, turning to slate when partly, and yellowish brown when fully engorged.

Size, 3-9 mm. long, 2-6 mm. wide.

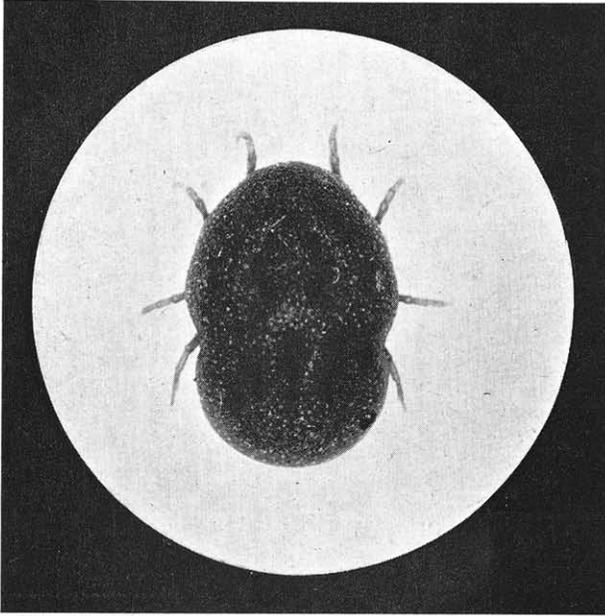
Larvæ (unengorged) may be recognised by the integument being fairly striated, bristle-like hairs issuing from striae. When engorged they are unable to move, this being the pupa-like stage. They are egg-shaped in form. Colour yellow. Size 2-4 mm.

The Life History has been worked out by Hooker as follows:—

The *larvæ* hatch out after 11 days in summer; they then enter the ears of the host and gorge themselves; after five days they moult upon the host, and the *nymphs* continue feeding sometimes for months. They then drop off, and crawl up several feet from the ground and secrete themselves in cracks and crevices of posts, gates, etc., where they change to *adults* after about 7 days. They then fertilize and the females commence ovipositing, after which they die. Unfertilized females are able to live a long time but do not lay eggs. It is not necessary for the adults to nourish themselves before copulating and ovipositing, as they are able to store up enough food in the nymph stage. Hooker believes that the adults never feed. This, as far as we know is correct, because adults have never been found on a host, and as the hypostome is unarmed, and the capitulum very small they are most probably unable to feed. The writer put some adults in the ear of a calf, but they all died within 5 days.

Hosts.—They were found in the ears of cows at Vryburg, and sheep at Fauresmith, where the natives call them Koning der Luizen—King of the Lice—but have also been found in the ears of the horse, ass, dog, and occasionally man in other countries.

Habitat.—Vryburg, Bechuanaland, Fauresmith, Orange Free State, Sudan, United States, Mexico.



Ornithodoros megnini, Dugès. Adult. Dorsal surface.

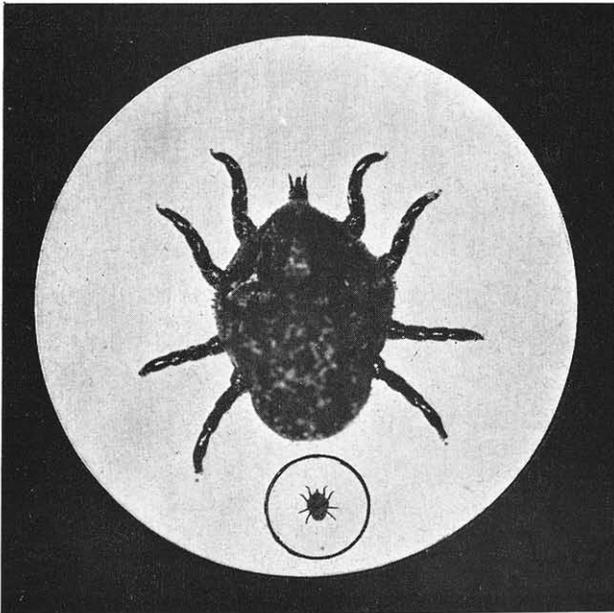


Plate No. 37.] *Ornithodoros megnini*, Dugès. Nymph. Dorsal surface.
Enlarged and natural size.