

IXODES (ENDOPALPIGER) ZAGLOSSI, n. sp.
FROM THE LONG-BEAKED ECHIDNA OF NEW GUINEA
(ACARINA, IXODIDAE)

BY

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Among a few lots of New Guinea ticks received for identification from Mr. G. P. HOLLAND, Director, Entomology Research Institute, Canada Department of Agriculture, Ottawa, were 1 male and 9 females of the new species of *Ixodes*, subgenus *Endopalpiger* Schulze, 1935, described below. Measurements are in millimeters.

***Ixodes (Endopalpiger) zaglossi*, n. sp.**

Holotype. Female, from Wissel Lakes, Dutch New Guinea (near lat. 4° S, long. 136° E) May 1957, Dr. D. F. McMICHAEL, Australian Museum, Sydney, RML No. 34973. *Host* : *Zaglossus bruijnii* (long-beaked echidna), Australian Museum Catalog No. M 7955. In the Australian Museum, Sydney.

Allotype. Male, data as above. In the Australian Museum.

Paratypes. Eight females, data as above. Four in the Australian Museum ; 4 in the Rocky Mountain Laboratory.

Description of female. (Fig. 1, A-G). All available specimens apparently half to almost fully engorged. Legs light yellow brown, capitulum and scutum darker. Largest specimen (somewhat shrunken) 11.0 long by 7.0 wide ; holotype, about half engorged, 8.0 long by 4.2 wide.

Capitulum. Length from tips of palpi to tips of cornua, 0.72. Basis pentagonal, posterior margin between the short blunt cornua straight ; faint carinae extend anteromedially from cornua ; porose areas large, of irregular form and consisting of groups of large deep punctations, interval not depressed. Palps

with bases far apart ; segments 2 and 3 fused, club shaped, flattened ; palpiger extraordinarily developed dorsally, medially and ventrally, the anterior and medial portion partially covering and surrounding the swollen cheliceral sheaths, the

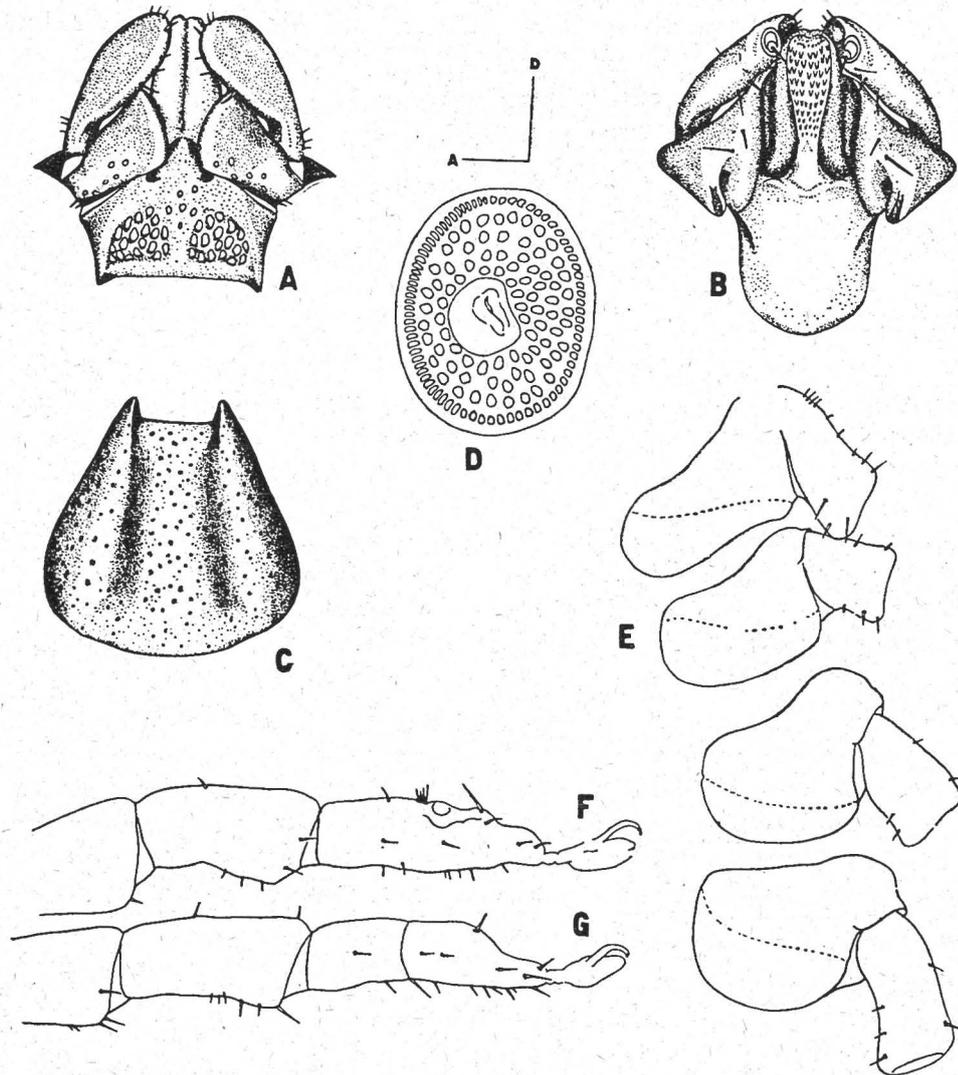


FIG. 1. — *Ixodes (Endopalpiger) zaglossi*, n. sp., female. A. Capitulum, dorsal. B. Capitulum, ventral. C. scutum. D. Spiracular plate. E. Coxae. F. Tarsus and metatarsus, leg. I. G. Tarsus and metatarsus, leg. IV.

ventral portion with lateral expansions visible in dorsal view, posterior margin notched and with a strong posteromedially directed process. Ventrally, basis posterior to palpigers about as broad as long, sides nearly parallel, broadly round-

ded posteriorly. Hypostome spatulate, notched apically, length of toothed portion 0.31; dentition variable, 3/3 to 4/4 with a corona of fine denticles.

Scutum. Slightly broader than long or as broad as long; holotype, length 1.44, width 1.52; paratypes, 1.42 to 1.52 in length by 1.52 to 1.59 in width, widest behind the middle; lateral margins nearly straight, diverging posteriorly, posterior margin broadly rounded; scapulae bluntly rounded; a mild carina extending from the scapulae to near the posterior margin, area laterad to carina sloping; cervical grooves broad, shallow, beginning at emargination and extending to near posterior margin, slightly convergent anteriorly then mildly divergent. Punctations small, inconspicuous, numerous, and rather uniformly distributed; hairs absent.

Legs. Moderate in size and length and with a few short fine hairs. Coxae unarmed, large, flattened and membranous posteriorly, the membranous portions (subcoxae) glabrous and strikingly evident as whitish areas in some specimens which are removed from alcohol and allowed to dry. No spurs on trochanters. Tarsi tapered stepwise; length of tarsus I 0.68, metatarsus 0.51; tarsus IV mildly humped, length 0.68, metatarsus 0.63. Pulvilli almost as long as the claws.

Spiracular plate. Elliptical, long axis transverse; ranging from 0.37 to 0.46 in length by 0.29 to 0.37 in width.

Genital aperture. Between coxae III.

Anal groove. Rounded in front of anus, only slightly convergent posteriorly.

Description of male. (Fig. 2, A-D). Length, tips of scapulae to posterior margin, 3.07; width 1.80, widest at about the middle, tapering to a rounded point posteriorly. Marginal folds very narrow.

Capitulum. Length, tips of palpi to posterior margin, 0.56. Basis pentagonal, lateral margins convergent posteriorly and slightly concave, posterior margin straight, cornua absent; surface flattened and with a group of large deep punctations in median field. Palps short, very broad, rounded apically; segments 2 and 3 fused. Palpiger much as in female but somewhat reduced dorsally. In ventral view, palpiger similar to that of female; lateral margins of basis a little convergent posteriorly; surface flattened anteriorly, becoming convex posteriorly. Hypostome spatulate, notched apically, dentition 3/3; length of toothed portion 0.21.

Scutum. Length 2.84; no lateral carinae; cervical grooves broad, shallow, divergent; emargination deep, scapulae blunt; punctations numerous, fine, uniformly distributed, sparser and smaller on the pseudoscutum; a few very short, fine hairs present.

Ventral plates. Median plate about twice as long as anal plate; adanals slightly wider in front; all plates finely and evenly punctate and with a few short fine hairs.

Legs. Much as in the female but relatively shorter and heavier; coxae overlapping; length of tarsus I 0.50, metatarsus 0.40, length of tarsus IV 0.56, metatarsus 0.44.

Spiracular plate. Suboval, long axis longitudinal, 0.35 in length.

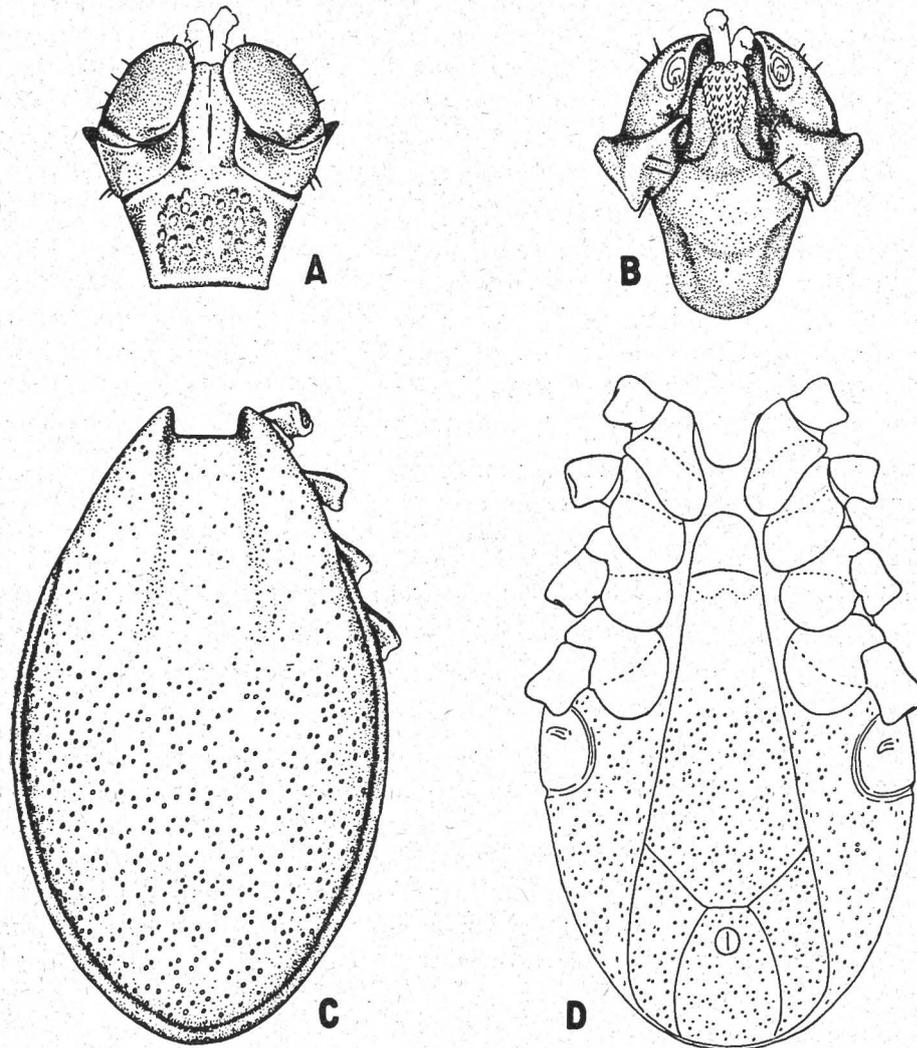


FIG. 2. — *Ixodes (Endopalpiger) zaglossi*, n. sp., male. A. Capitulum, dorsal. B. Capitulum, ventral. C. Scutum, dorsal. D. Coxae and ventral plates, ventral.

Genital aperture. Opposite anterior margin of coxae III. Posterior margin of genital apron undulate.

I. (E.) zaglossi n. sp. resembles *steini* Schulze, 1935 and *luxuriosus* Schulze, 1935, the two species of the subgenus previously known from New Guinea. Both

Schulze species are in the Rocky Mountain Laboratory collection. *I. steini* is represented by 2 partially engorged females labelled by SCHULZE as off *Phascolagale*, Weyland Mountains, New Guinea, Sept. 2, 1931, though he recorded only 1 female collected this date, and several females of this species off *Satanellus* (bandicoot), *Peroryctes* (bandicoot), *Phalanger* (cuscus) and *Hyomys* (rat), Mt. Dayman, Papua, and a female off *Echymipera* (bandicoot), Owi Island, Dutch New Guinea, are available for comparison with the new species. The latter differs from *steini* in being notably larger (e. g., scutum about 1.4 long by 1.5 wide vs. about 1.1 by 1.1 in *steini*), the scutal carinae are much broader and less elevated, and the posteroventral margin of the palpiger is deeply notched. The broad, low, scutal carinae and the absence of carinae on the basis capituli and palpiger dorsally distinguish the new species from *luxuriosus* in which the scutal and capitular carinae are exceptionally sharp and distinct as shown in SCHULZE's illustration (Fig. 34) of his species.

The female of the new species also resembles *I. (E.) tasmani* Neumann (restricted to Australia) but the portion of the basis capituli posterior to the palpigers, dorsally, is about twice as long as in *tasmani*, cornua and scutal carinae are present, and the punctations of the scutum are much smaller.

The male of *tasmani* was very briefly described by NUTTALL (1916) and though evidently quite similar it differs from the *zaglossi* male in having the hypostomal dentition 2/2 instead of 3/3. Males of *luxuriosus* and *steini* are unknown.

According to information received in a letter from Dr. J. W. EVANS, Director of the Australian Museum, the long-beaked echidna inhabits "the dense forests of birch and oak, particularly *Nothofagus* and *Castanopsis*, at altitudes from 4,000 to 6,000 feet. They lie up under rocks or in the roots of trees. They are mainly nocturnal, feed on termites and are considerably larger and more active than the short-beaked echidna, *Tachyglossus aculeatus*, which is found in southern New Guinea as well as in Australia and Tasmania".

The host on which the ticks were found was determined by Mr. B. J. MARLOW, Curator of Mammals at the Australian Museum.

Summary.

Described is *Ixodes (Endopalpiger) zaglossi* n. sp. off the long-beaked echidna, *Zaglossus bruijnii*, Wissel Lakes, Dutch New Guinea. Holotype female, allotype male, and paratype females deposited in the Australian Museum, Sydney; paratype females also deposited in the Rocky Mountain Laboratory, Hamilton, Montana. The new species is compared with *I. (E.) steini* Schulze, *I. (E.) luxuriosus* Schulze, and *I. (E.) tasmani* Neumann.

Acknowledgments.

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lity where it was collected, and to Dr. F. H. S. ROBERTS, Officer-in-Charge, Veterinary Parasitology Laboratory, Yeerongpilly, Queensland, Australia, who examined the specimens and agreed that they are a new species.

LITERATURE CITED

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