

ON THE OCCURRENCE OF *LINOGNATHUS VITULI* (LINNAEUS)
(ANOPLURA : LINOGNATHIDAE) ON A GIANT SQUIRREL,
RATUFA INDICA FROM NORTH BENGAL

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INTRODUCTION

Linognathus vituli was first described by Linnaeus (1758) as a species of *Pediculus*. Later on various workers placed its under *Haematopinus* and *Trichaulus*. It was Enderlein (1905) who first rightly considered as a number of *Linognathus* and since then the generic status of the species has been in use. The lice was reported to infest the domestic cattle of Europe, North America, India (Ferris, 1932, 1951) and Wild Boar from Hungary (Dudich 1923). There had been no record on the occurrence of this species in mammal other than Cattle and Boar. During this investigation, the lice have been collected from giant squirrel from Jalpaiguri, North Bengal, India. The squirrel hosting this parasites in fair number should be considered as a new host of *Linognathus vituli* in India. In this paper, the revision of the description of the species has been made with addition of some new characters of taxonomic importance. The general morphology and usages in describing lice follows Kim and Emerson (1978).

***Linognathus vituli* (Linnaeus)**

Female : (Fig. 1) Total body length 2.46 mm. Head : (Fig. 2) Without eyes, elongate the forehead acutely conical, slightly shorter than hind head, which has the later margins straight and parallel ; entire head quite strongly sclerotic and pigmented with a darker longitudinal band long the lateral margin of the hind head. All typical head setae present ; ventral setae large, larger than dorsal side, ventral pre-antennal head setae (VPaHS) long, sutural head setae (SHS) 2 pairs ; supra antennal central head setae (SPAtCHS) small, dorsal Principal head setae (DPHS) long, dorsal marginal head setae (DMHS) 2-3 pairs. Antennae 5 segmented ; occipital apophyses (OA) not developed. Pharynx without brushes ; mouth parts reaching nearly to the posterior border of the thorax.

Thorax : Meso and meta thoracic phragmata well developed, notal pit indistinct. Sternal plate absent. Legs : Forelegs small and slender with acuminate claws, mid and hind legs subequal and larger than forelegs ; each with stout claw, tibial thumbs highly developed ; each with a spiniform seta ; one pair of mesothoracic spiracle. Dorsal principal thoracic setae (DPTS) medium sized, one pair. Abdomen : Membraneous, with no sternal and targal plates except genital and terminal segments. Paratergites

absent. Central abdominal setae (CAS) in two rows both dorsal and ventral side. In dorsal, anterior row having 3-5 setae, terminal with 2 setae, rest having 7-9 setae each. In ventral, anterior having 2-4 setae and remaining 9-11 setae each. 6 pairs of spiracles, with distinct internal ledges; a pair of each on segments 3-8.

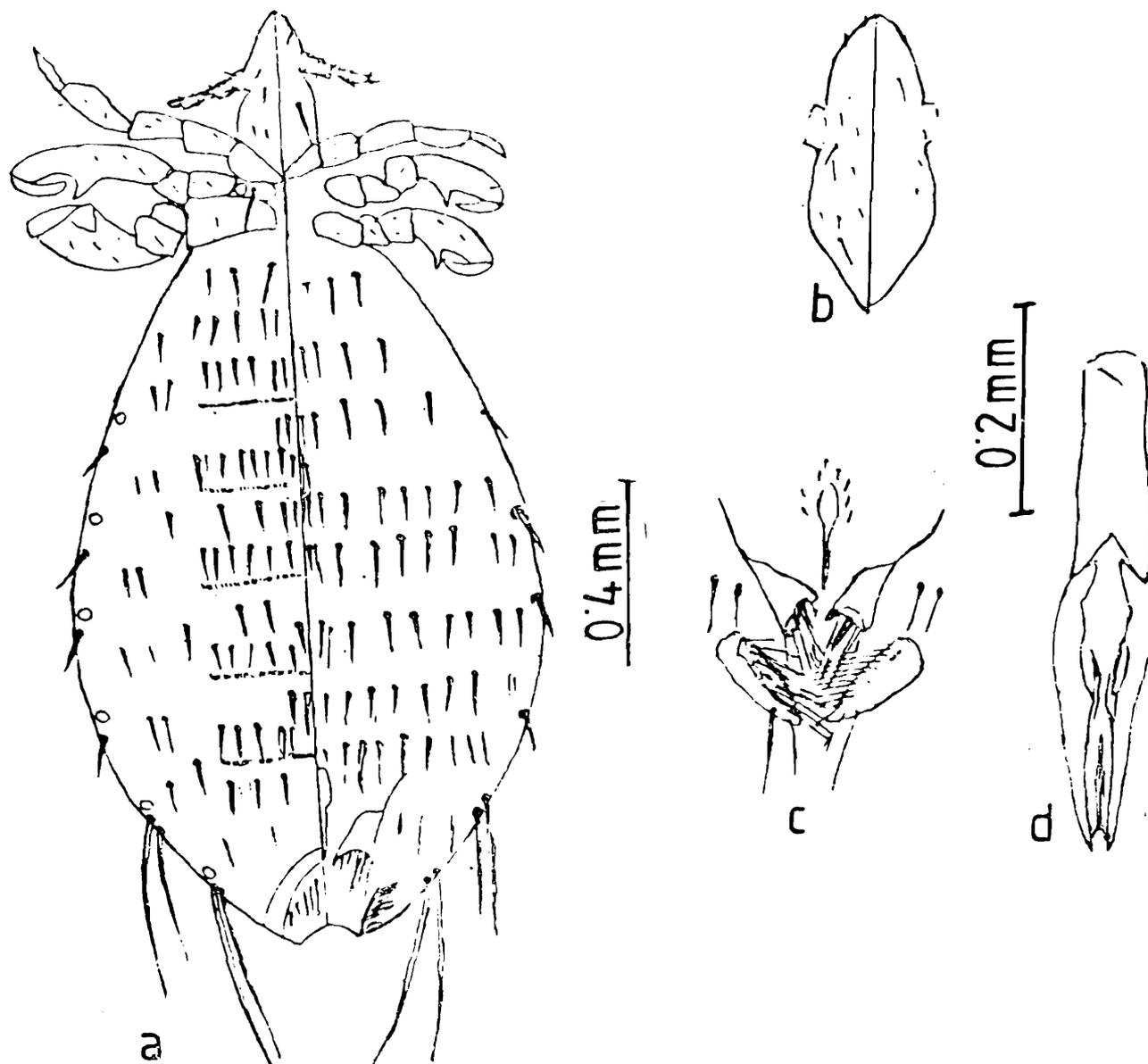


Fig. a. *Linognathus vituli* (Linnaeus), b. Head, c. Genitalia of Female, d. Genitalia of Male.

Genitalia : (Fig. 3) Gonopods very distinctive form, set close together, broad, with posterior margin emarginate and bearing a sclerotic hook at its inner angle.

Male : In general very similar to female. *Genitalia* : (Fig. 4) Parameters long and acutely tapering, almost entirely concealing the delicate, elongate, ring-like endodermal piece, basal apodeme longer than terminal complex; Pseudopenis small with slender arms, apex of the apodemes terminating in a single point.

Nymphs : Unknown.

Material examined : 5 ♀ ♀, 4 ♂ ♂.

Host : Giant squirrel, *Ratufa indica* (Erxleben).

Place of collection : Jainti, Jalpaiguri, 10.12.84.

Remarks : The present specimens correspond with those described by Ferris, 1932, 1951 from Europe, N. America, India and Wild Boar from Hungary by Dudich, 1923, but with following differences ; Head : VPahs long, SHS 2 pairs, SPAtCHS small, DPHS long ; DMHS 2-3 pairs. Thorax : MDHS one pair ; medium sized. Abdomen : CAS in two rows both dorsal and ventral side. In dorsal, anterior 3-5 setae, terminal with 2 setae, remaining having 7-9 setae each. In ventral, anterior 2-4 setae, remaining having 9-11 setae each.

SUMMARY

A new host Giant squirrel, is recorded from *Linognathus vituli* (Linnaeus) a parasite of common cattle for the first time. The morphology of the lice has also been described in details in this paper.

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