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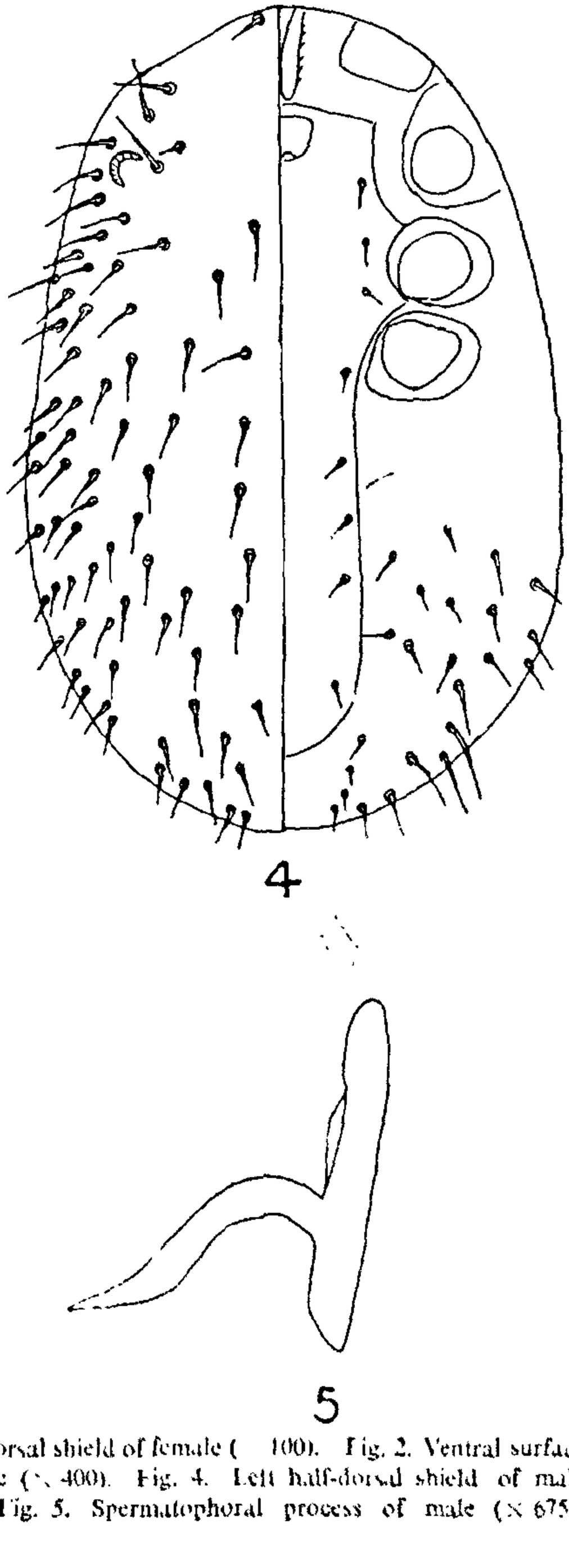
A NEW SPECIES OF BLOOD SUCKING MITE (ACARINA) FROM INDIA

No species of the genus *Liponyssoides* is known from India though this group of mites is of significant importance as it parasitizes animals and human beings. In this note a new species of this genus is being, described basing on the collection from West Bengal.

Liponyssoides bengalensis sp. nov. (Figs. 1–5)

Female : Chelicera elongate, both digits long and pointed, pilus dentilis absent. Palp trochanter with 2-tined apotele. Dorsal shield 742 μ long, 382 μ wide with 19 pairs of setae, penultimate setae at the posteriormost end being minute. Unsclerotized integu-



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FIGS. 1–5. *Liponyssoides bengalensis* sp. nov. Fig. 1. Dorsal shield of female (100). Fig. 2. Ventral surface of female (in part, × 100). Fig. 3. Chelicera of female (× 400). Fig. 4. Left half-dorsal shield of male (× 100); right half-ventral surface of male (× 100). Fig. 5. Spermatophoral process of male (× 675).

ment striated and bears setae. Tritosternum with hyaline border, base 157 μ long, 135 μ wide, lacina 108 μ long and pubescent. Sternal shield 157 μ long, 135 μ wide, reticulate bearing three pairs of setae and a pair of long projections on its posterior margin. Genital shield tapering posteriorly with a pair of genital setae, genital shield 112 μ wide. Anal shield with para and postanal setae being unequal. Peritreme extends little beyond coxae III, peritrematal shield free anteriorly.

Chaetotaxy of legs normal. Length/width (in μ) of leg segments :

	I	II	III	IV
genu	155/67	121/63	126/49	180/54
tibia	157/63	126/58	58/45	63/40
tarsus	247/40	180/45	193/36	247/28

Coxae II with strong spine anteriorly.

Male : Cheliceral digits edentate. Dorsal shield 877 μ long. Chaetotaxy more or less as in female. Unsclerotized integument of dorsum bears setae. Base of tritosternum 90 μ long, lacina pubescent. Holoventral shield 697 μ long, 180 μ wide, para and postanal setae almost of equal length. Peritreme extends upto coxa II, peritrematal shield free anteriorly and fused posteriorly with podal shield of coxa II. Chaetotexy of male normal. Length/width (in μ) of leg segments :—

	I	II	III	IV
genu	135/58	168/67	99/50	94/40
tibia	135/50	99/54	54/36	49/40
tarsus	135/36	148/32	117/29	144/27

Holotype : Female and one paratype male, India, West Bengal, Suri Vidyasagar College campus from soil debris on 3. vi. 1973 (coll. S. K. Banerjee), to be deposited in Zoological Survey of India, Calcutta. This mite was reported to bite on leg and sucking blood of the collector.

Remarks : This species is easily recognised from the other known species of this genus by the pit like highly developed anterior lateral structure in the dorsal plate of the male. Besides, the projections on the posterior margin of the sternal shield of female are also very distinctive.

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EFFECT OF LYSINE-ARGININE AND GLUTATHIONE ON THE GROWTH OF OOCYTES OF THE FISH *ANABAS TESTUDINEUS* (BLOCH)

LYSINE and arginine are among the essential amino acids for trout and salmon[1–3]. These two amino acids have also been shown to play some role in sexual maturation[4], reproduction[5], and weight gain during pregnancy in mammals. Glutathione, which is a widely distributed intracellular tripeptide, is used for the translocation of amino acids across the cell membrane[6]. In this work, we report the effect of intraperitoneal injections of lysine-arginine and glutathione on oocyte and ovarian growth of the climbing perch, *Anabas testudineus* (Bloch). As the breeding season of *A. testudineus* extends from May to August[9], the effect of lysine-arginine injections was observed during this season. But glutathione was injected during the pre-breeding period (February–May).

Apparently healthy specimens of *A. testudineus* were collected every month from nearby ponds and three groups of fishes of the length 12–16 cm were maintained in the laboratory. Each member of a group of four fishes was intraperitoneally injected with 2 mg of glutathione dissolved in 0·5 ml distilled water. Similarly another group of four fishes was intraperitoneally injected with 0·5 ml (4 mg/ml) of aqueous solution of 1 : 1 lysine and arginine (w/w). These injections were given every alternate day. A third group of fish served as the control. After 15 injections, the fishes were sacrificed. The ovary of each fish was removed and weighed to the nearest mg. It was cut out into anterior, middle, and posterior parts and fixed for 12 h in Carnoy's fluid for histological examination. Serial sections (6 μm) of the pieces of all the control and experimental fish were stained with haematoxylin-eosin and the oocyte diameter was measured by means of ocular micrometer at an interval of 50 μm.

Results of the present study indicate that oocytes of 400–500 μm in diameter are much greater in number in the fish injected with lysine-arginine (Fig. 1). The present study, however, cannot determine the exact