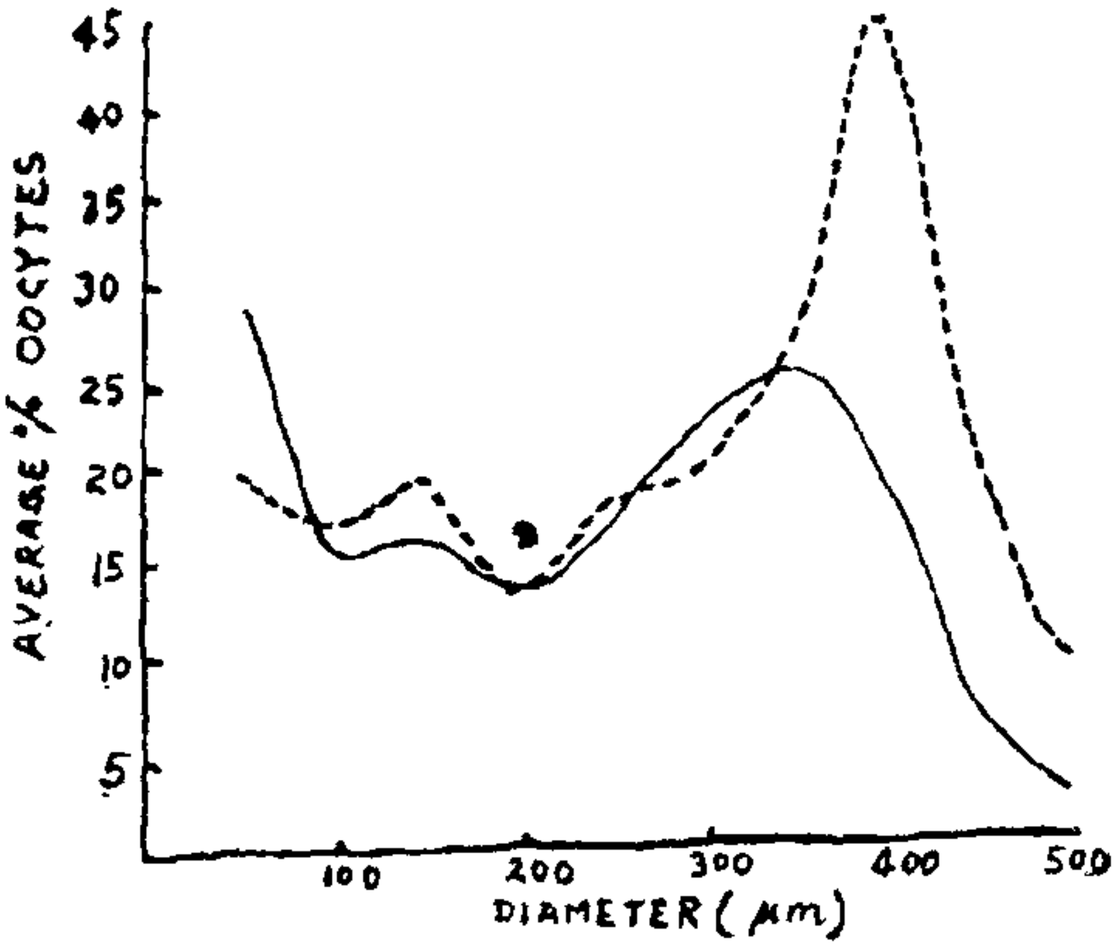

FIG. 1. Average of the per cent oocytes of different diameters in the ovary of *A. testudineus* observed from May to August. (——) Control; (– – – –) Lysine-arginine injected.

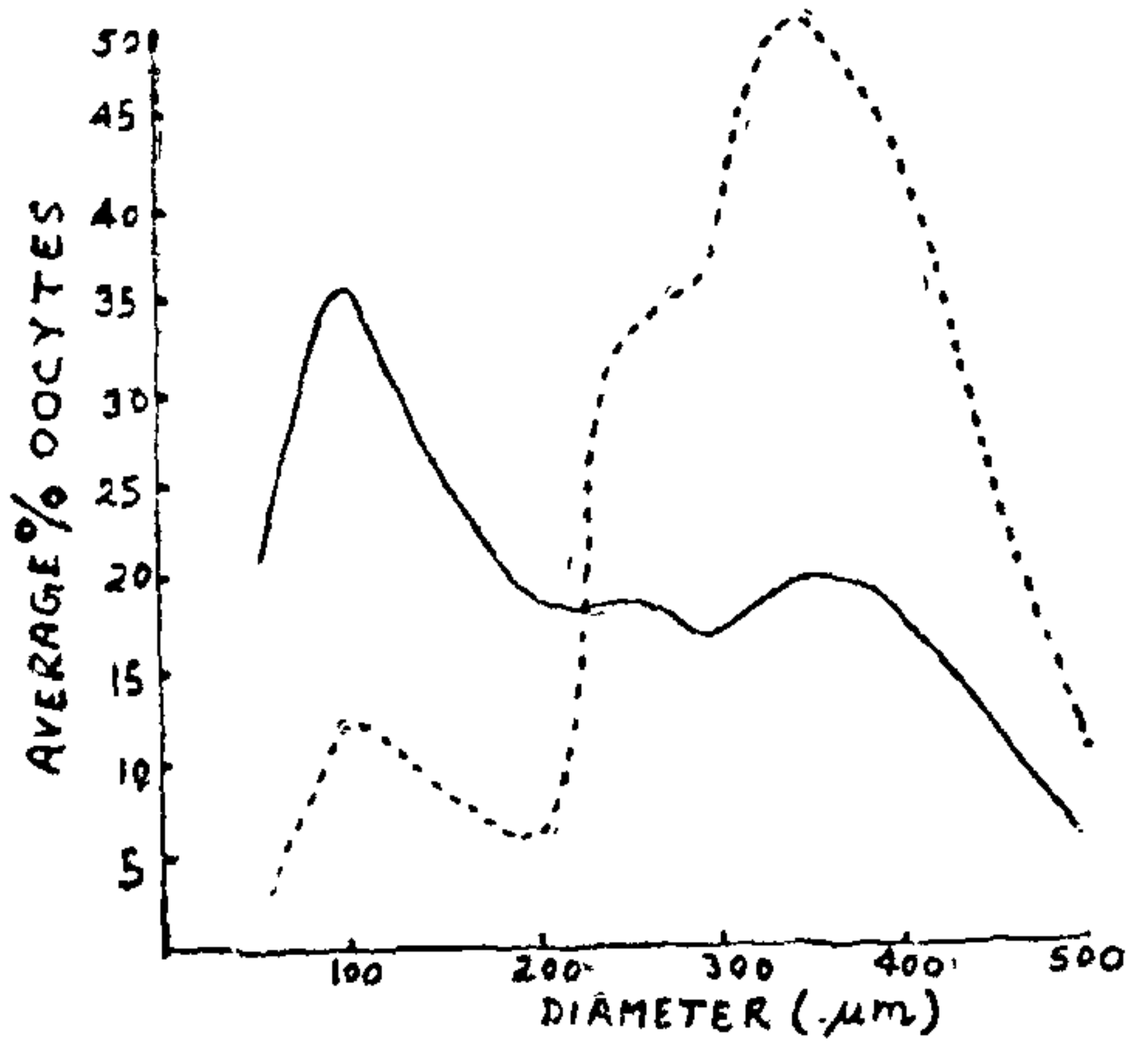

FIG. 2. Average of the per cent oocytes of different diameters in the ovary of *A. testudineus* observed from February to May. (——) Control; (– – – –) Glutathione injected.

role of lysine-arginine in promoting growth of the oocytes of 400–500 μm in diameter. High concentrations of the amino acids have been used in the present experiment and, therefore, the possibility of these amino acids playing a nutritive role in the development of oocytes cannot be ruled out. Glutathione injections too have caused a perceptible change in the growth of oocytes. In these fishes, oocytes up to 100 μm in diameter are much less in number than the control (Fig. 2). This is probably due to their development into oocytes of greater diameter. But the effect of glutathione appears to be more spread out as the oocytes of 250–500 μm in diameter in the experimental fish are significantly greater in number. It might be supposed that the effect of glutathione injection on oocyte growth is non-specific and nutritive. Responsiveness of these amino acids and glutathione to oocyte growth has been studied in intra-ovarian oocytes of 50–500 μm in diameter. Extruded oocytes, found frequently in the body cavity of females, have not been taken into account. When data on the diameter of uncut ovarian as well as ovulated oocytes are collected, the effect of lysine-arginine and glutathione injections can be determined with greater accuracy. Gonado-somatic index of the experimental fish was slightly higher but the increase was not statistically significant[8].

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RECORD OF *MYRMECOPHILA ALBICINCTA* VAR. *CONCOLOR* CHOPARD (ORTHOPTERA)

THE genus *Myrmecophila* Latreille (Gryllidae: Orthoptera) includes minute crickets that live in the nests of ants. Only three species of this genus are known from India (Wasmann[1], Schimmer[2] and Chopard[3]). These include *M. acervorum* Panz. from Orissa; *M. acervorum* var. *flavocincta* Wasm. from Kanara, S. India and *M. prenolepidis* Wasm. from Bombay, Khandala and Ahmednagar. Bradoo and Bradoo[4] reported a *Myrmecophila* sp. in association with the house ant *Monomorium indicum* Forel, from Abohar, Panjab. This cricket agrees with the description of *M. albicincta* var. *concolor* described

by Chopard[3] on the basis of a single male specimen, collected by N. Annandale from Simla. As the female of this species is so far unknown, it is described for the first time.

Myrmecophila albicincta var. *concolor* Chopard.

Female : (Fig. 1). Total length 3·0 mm; body chocolate-brown; cerci and hind femora darker. Head shape as shown in the figure, size 0·47 × 0·56 mm; eyes minute, black; the antennae cylindrical, filiform, shorter than the length of the body; basal segment wider than long, second longer and the remaining segments smaller, but apically indistinct. Thorax wider than long; pronotum largest, at least twice longer than mesonotum which bears a transverse whitish band; metanotum longer than mesonotum but smaller than the pronotum. Abdomen eleven segmented; anterior terga larger than the posterior. Genitalia represented by two small spoon-shaped projections, covered by a transparent cuticular sheath (Fig. 2). Each projection is gutter-shaped, with lateral margins upturned and irregular on the left side. Cerci vertical, many segmented, covered with dense pubescence; apically pointed. Legs, anterior and middle similar but hind legs larger and saltatorial; hind femur markedly swollen; tibia flattened, bearing a row of seven spines; metatarsus a little thicker, with only three spines, as shown in Fig. 1.

Males from our collection are similar to the specimen described by Chopard[3] from Simla. Total length 2·6 mm. General colour similar to that of the female but 10th abdominal tergite strongly notched anteriorly and divided into two similar hemitergites by a longitudinal suture (Fig. 3).

Material examined : One female type on slide, 15 *paratypes* and 7 nymphal stages in alcohol, collected on 10–8–1977, by B. L. Bradoo, from Chandigarh. 5 females and 25 nymphs were collected from Abohar, in association with *M. indicum*, on 18–8–1972. All the type specimens will be deposited in the Zoological Survey of India, Calcutta.

We record our thanks to Dr. B. Bolton, British Museum, Natural History, London, for the identifications.

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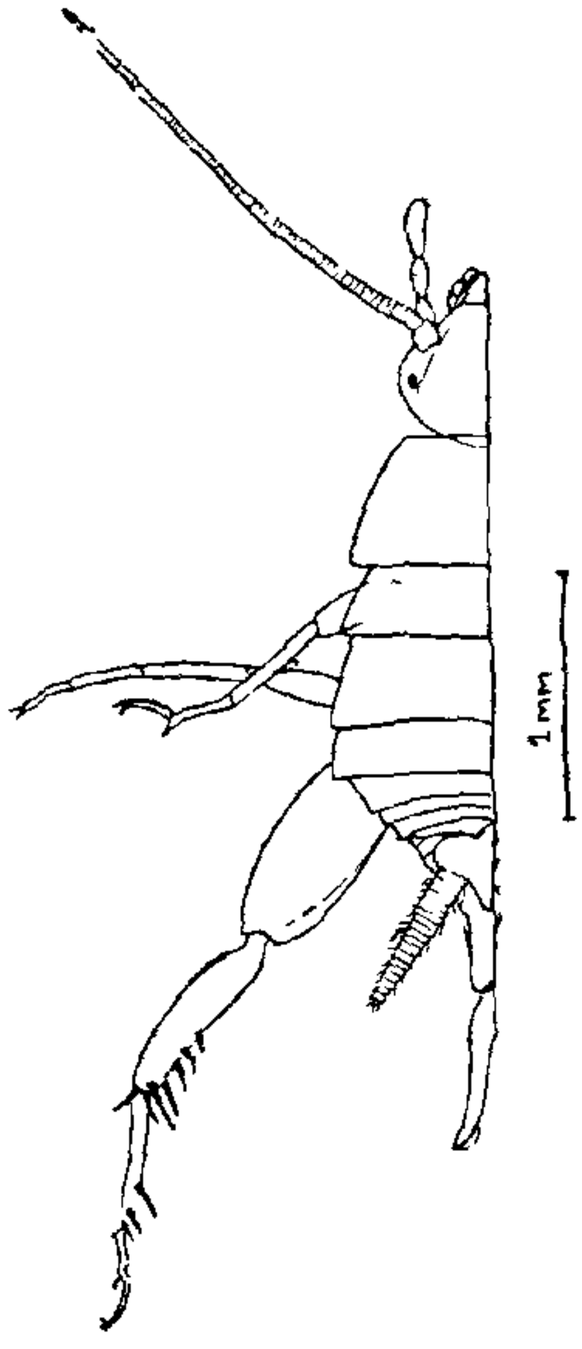

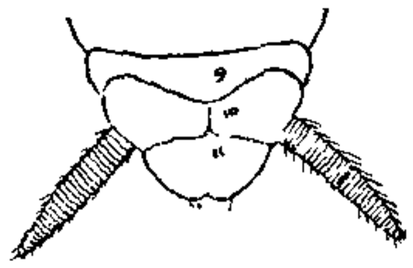

FIG. 3

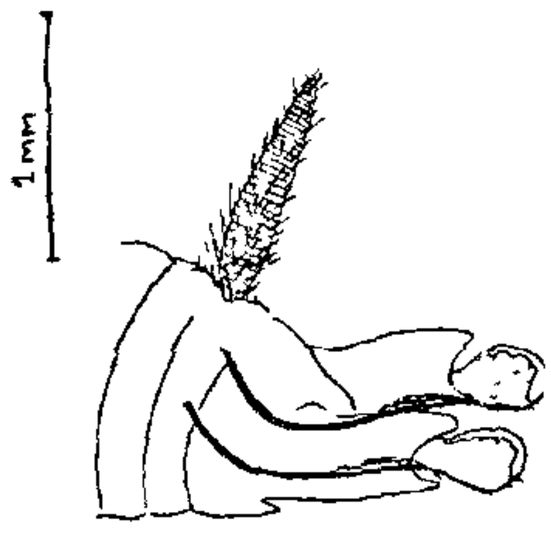

Fig. 1 Fig. 2

FIGS. 1–3

DISTRIBUTION OF GLYCOGEN IN THE NORMAL AND REGENERATED BARBEL OF THE FISH *HETEROPNEUSTES FOSSILIS* (BLOCH)

THE amount of glycogen necessary for actual tissue building in the repair phase is probably small, and some workers have failed to correlate glycogen-content with blastema formation or with proliferation. Regenerating blastema shows less amount of glycogen. It appears that the regenerating blastema does not depend upon a glycogen reservoir as a source of energy[1,2], and the energy needed for metabolic activities in blastema is provided through anaerobic respiration[2].

Glycogen distribution in regenerating systems has been investigated in various animals[3–7]. The present paper deals with the distribution of glycogen in the normal and regenerate barbels and regeneration blastema of fish *Heteropneustes Fossilis* (Bloch).

Fifteen fish were procured locally and kept in laboratory aquaria. Normal barbels from 5 fishes were cut and fixed in Bouin's fluid. The barbels of the remaining 10 fishes were amputed leaving half the length of the barbels. Amputated barbels of 5 fishes were removed (After 4 days) in which blastema formation had taken place. In remaining 5 fishes the amputated barbels were allowed to regenerate, and the regenerated barbels (fully formed after 30 days of