

should be possible to secure a large-scale production of ergot.

Department of Botany,  
Central College,  
Bangalore,  
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M. J. THIRUMALACHAR.

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### OBSERVATIONS ON TWO MAMMALIAN COCCIDIA

In June 1943, I found some fresh oocysts from the rectal contents of the rabbit *Lepus* sp. and the common Indian goat *Caprahircus* Linn.; both the hosts were collected from the suburbs of Calcutta. The oocysts of the rabbit when fully matured were found to be identical with *Eimeria stiedæ* (Lindemann, 1865), while those of the goat were found to be synonymous with *Eimeria faurei* (Moussu and Marotel, 1901).

*E. stiedæ* is being reported for the first time from India. *E. faurei*, though reported before from Indian sheep by Baldrey<sup>1</sup> (1906), the Indian goat *C. hircus* is added as a new host of this parasite.

The oocysts of *E. stiedæ*, measuring 30.2—37.4  $\mu$  by 22—26.4  $\mu$ , are ovoid in shape, light-brown in colour and flattened at one pole, as stated by previous workers. A micropyle is present at the flattened end of the oocysts. There is a well-defined spherical oocystic residual body about 1  $\mu$  in diameter. The sporocysts and the sporozoites have the same form and measurements as given by the previous authors. A residual body is also present in the sporocysts.

The oocysts of *E. faurei*, measuring 26.4—30.8  $\mu$  by 22—24.2  $\mu$ , are ovoid in shape and brownish in colour. There is a micropyle closed by a cap at one end of the oocyst. Wenyon<sup>2</sup> (1926) states that the oocystic residuum may or may not be present, but I could not find any oocystic residuum at any stage of development of the oocyst though a sporocystic residual body is present, as stated by him. A micropyle is present at the pointed end of each of the sporocysts and sporozoites have the same features as stated by previous observers.

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Zoological Laboratory,  
University of Calcutta,  
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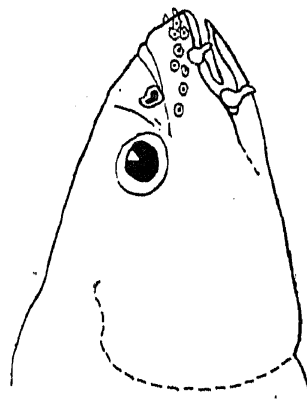
AMIYA BHUSAN KAR.

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### SEXUAL DIMORPHISM IN *SCHIZOTHORAX LONGIPINNIS* HECKEL

In a collection of fishes made from the Dal Lake, Kashmir, in August 1938, there are numerous immature specimens of *S. longipinnis*

Heckel, besides four full-grown specimens of the same species. Two of the four specimens possess smooth-skinned heads while the other two could be marked out by the presence of tubercles on the snouts and comparatively lean bodies. The tubercles are arranged in two groups, one on either side of the mid-dorsal line. On dissection it was found that both the smooth-skinned specimens are females possessing well-developed ova, while the tuberculated ones are males. The bigger male has 29 such tubercles while the smaller one possesses only 14. From the above observation it can be concluded that at the time of maturity the males of *S. longipinnis* develop "nuptial organs" which become more pronounced as the breeding season approaches.



Head of a male specimen of *Schizothorax longipinnis* Heckel, showing tubercles on the snout. ca. Nat. size.

There does not seem to be any appreciable difference in the length of the fins in the two sexes. Since the specimens have been preserved in formalin, the exact coloration could not be noted.

The largest specimen in the collection is a male measuring 322.0 mm., while in female measuring only 249.1 mm. in length.

Department of Zoology,  
Panjab University,  
October 26, 1943.

NAZIR AHMAD.

### A PROBABLE INSTANCE OF RECAPITULATION IN DECAPOD LARVÆ

In a paper published in 1937 on decapod larvæ from the Madras plankton<sup>1</sup> I had stated that the last two larval stages of *Albunea* possessed 12 and 13 gills respectively. Since the number in the adults is 10, I had ventured to state that this may be an instance of recapitulation of an ancestral character. Only two specimens belonging to the last stage were available at that time, so that the observation could not be confirmed then.

Recently I have been able to obtain several specimens belonging to both stages and on examination my previous observation has been found to be correct. It can, therefore, be definitely stated that the presence of a larger number of gills in these larvæ is a normal character and not an occasional abnormality.

In the corresponding stages of a closely related form, viz., *Emerita*, the number of gills