

gland-like areas, much resembling the small mucus glands of the dermis, are noticed in the epidermis of this form. The epidermis has no vascular supply of its own in the form of capillaries.

### Protozoa

#### 11. Studies on the Coccidia of Indian birds.

M. CHAKRAVARTY and A. B. KAR, Calcutta.

This paper embodies the results of our observations on four new species of coccidia belonging to the genera *Dorisiella*, *Isospora*, and *Eimeria*. Four new forms have been added to *Dorisiella haveni* Chakravarty and Kar.

#### 12. Studies on Haemosporidia from Indian birds.

M. CHAKRAVARTY and A. B. KAR, Calcutta.

The authors have described in this paper three new species of haemosporidians, one of which belong to the genus *Haemoproteus*, and the other two to the genus *Plasmodium*. *Haemoproteus danilewskyi* (Grassi and Feletti) has been reported for the first time from this part of India.

### Coelenterata

#### 13. Medusae of Travancore and their correlation with inshore fishing.

K. K. NAIR, Trivandrum.

Fifty-one species of medusae have been recorded from the Travancore coast. Of these forty species belong to the order Hydromedusae and eleven to Scyphomedusae. The Hydromedusae are usually small. They form an important constituent of the plankton during certain seasons. Their food consists of mainly small plankton organisms and pelagic fish eggs. They affect the fisheries by destroying pelagic fish eggs and plankton organisms which form the food of small fishes. The number of species of Scyphomedusae is comparatively small, but it is seen that paucity of species is more than compensated by multitude of individuals. The Scyphomedusae include many large species like *Dactylometra quinquecirrha*, *Cyanea purpurea* and *Crambionella orisini* which appear in large swarms during certain months. They are voracious carnivores with decided preference for small fishes. For example the stomach contents of a single specimen of *Dactylometra quinquecirrha* once revealed two hundred and thirty-nine fish larvae and young fish. Their appearance in coastal waters coincides with the season which is favourable for shore seine fishing.

### Helminthology

#### 14. The commonest amphistome of domestic animals in the Central Provinces and its intermediate host.

G. D. BHALLERAO, Izatnagar.

The commonest amphistome encountered in goats, sheep and cattle in the Central Provinces is *Cotylophoron cotylophorum*. With a view to determining the intermediate host of the fluke, five species of commonly occurring snails in the provinces were examined. Of these *Indoplanorbis exustus* was found to be heavily infected with amphistome cercaria and the intensity of infection in these snails was as high as 80 per cent. The cercaria emanating from the molluscs were allowed to encyst on *juar* and *ber* leaves and were fed to two goats and two calves which were previously determined to be free from amphistome infection. The goats died of pneumonia within a fortnight of the infection, but there was no mishap in the calves. The autopsy of one of the calves after ten weeks revealed a large number of immature *C. cotylophorum*, while mature flukes were recovered from the other which was killed about six months after the infection. It is thus proved that the intermediate host of *C. cotylophorum* in the Central Provinces is *Indoplanorbis exustus*.

The details of the experiment and the identity of the cercaria concerned are discussed in the paper.