FOLIA PARASITOLOGICA (PRAHA) 26: 33–34, 1979.

CERCARIA TORREI SP. N. FROM FRESHWATER SNAIL POTAMOPYRVUS CORONATUS IN CUBA

In cooperation with the Biological Institute of the Cuban Academy of Sciences, freshwater snails were collected in pasturelands in the vicinity of Havana and examined for the presence of trematode larval stages. Two of the 2 440 examined specimens (i.e. 0.08 %) of *Potamopyrvus coronatus* (Pfeiffer, 1840) of the family Truncatellidae harboured large-tailed cercariae without cephalic spines developing in rediae. This cercaria was named *Cercaria torrei* in honour of Carlos de la Torre, a prominent Cuban zoologist.

The body of the cercaria (Fig. 1 A, B) is 0.182–0.230 mm long and 0.084–0.113 mm wide. The terminal oral sucker measures 0.040 × × 0.040 mm and ten refractile structures are arranged in one row on its anterior margin. The collar and collar spines are absent. The prepharynx is wide and pyriform, pharynx measures 0.020 × 0.010 mm. The oesophagus and intestinal caeca are absent. The ventral sucker, measuring 0.036 × 0.036 mm, is situated on posterior end of body, 0.150–0.170 mm from anterior end. Its posterior margin adheres to the excretory bladder. Two main collecting ducts filled with refractile excretory granules open into the

excretory bladder. The excretory bladder is two-chambered; the anterior, rectangular chamber in the body empties into the posterior, triangular chamber in the tail. Seven flame cells are present on each side of the body. The dorsal side of the body is filled with cystogenic gland cells with rod-like structures. The genital rudiment is C-shaped. The tegument of the body is high and granulated.

The tail is well developed (Fig. 1A) and measures 1.4 mm in length and 0.084 mm in width. It is brown in colour and the pigment in small granules is uniformly distributed. The triangular excretory vesicle in the anterior end of the tail is surrounded by a rim of dense tissue terminating posteriorly in a short, narrow process. Fourteen large, light, triangular cells are situated in the axis of the tail. The cercaria is phototropic.

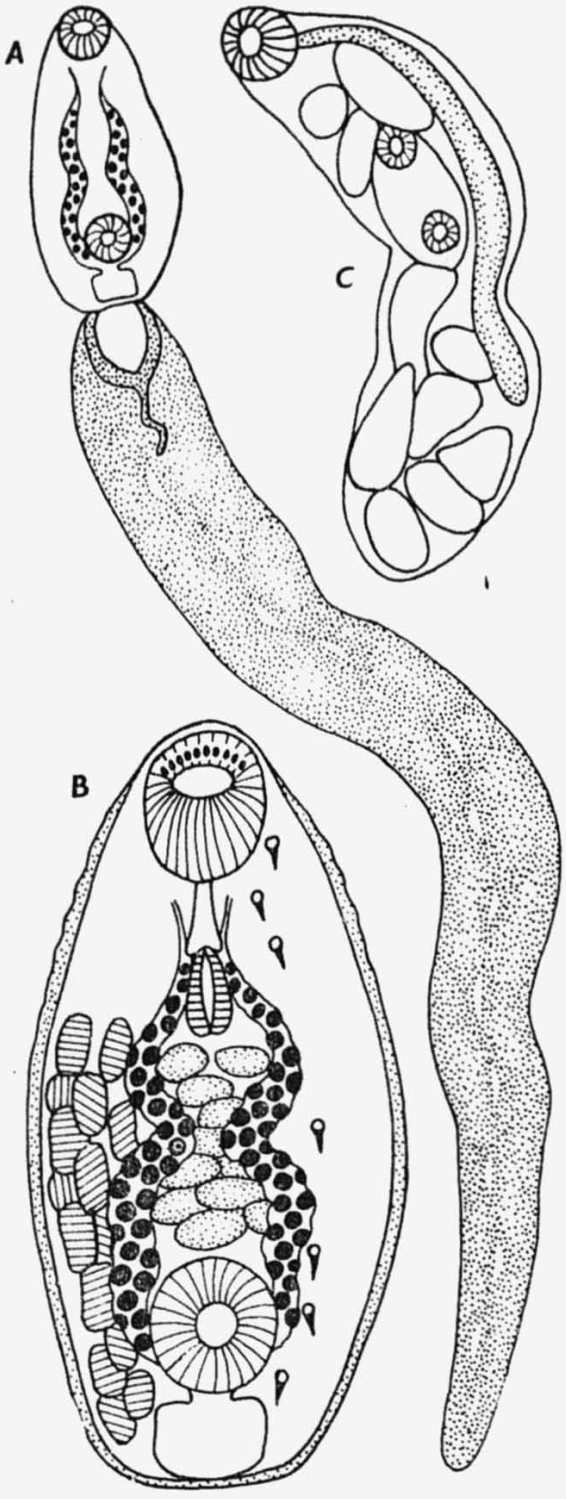

Fig. 1. *Cercaria torrei* sp. n.
A — cercaria, B — body of cercaria, C — redia

The rediae (Fig. 1C) are colourless and measure 0.770 mm in length and 0.160 mm in width. The pharynx measures 0.063 × 0.056 mm. The intestine reaches to 2/3 of redia length.

This cercaria differs from all of the large-tailed cercariae without cephalic spines described so far. Until recently, these types of cercariae have been regarded as larval stages of Psilostomatidae. However, some recent papers (Olenev A. V., Dobrovolsky A. A., Ekolog. eksper. parazit. 1: 73—96, 1975) show that some cercariae of the family Echinostomatidae belong to this group. The generally recognized criterion that the cercariae of Echinostomatidae must possess cephalic spines has become questionable, since these spines are absent in the cercariae of some species of the genus *Echinochasmus* and develop only in metacercariae. Until the whole life-cycle is elucidated, it cannot be decided to which family *Cercaria torrei* belongs.

Cercaria torrei sp.n. most closely resembles *C. pyrgophspiralis* Nasir et Diaz, 1973 described from the snail *Pyrgophorus* cf. *spiralis* from Venezuela (Nasir P., Diaz M. Z., Riv. parassitol. 34: 1—44, 1973). It differs from this cercaria in the number of flame cells, absence of spines in ventral sucker and absence of oesophagus and intestinal ceaca. The cercaria described by us also resembles *C. illecebrosa* Lee et Seo, 1959 (Trans. Amer. microsc. Soc. 79: 215—219, 1959) from which it differs in the number of flame cells, absence of spines in ventral sucker, and in the presence of refractile excretory granules. Compared to *C. ameeli* Hedrick, 1943, and *C. limosae* Hedrick, 1943 (J. Parasitol. 29: 182—186, 1943), *C. torrei* sp. n. differs in the presence of refractile excretory granules and absence of oesophagus and intestinal caeca. It differs also from *C. oedematocauda* Byrd et Reiber, 1940 (Report of Reelfoot Lake Biol. Sta. 4: 132—156, 1940) in the number of flame cells and absence of oesophagus and intestine. From *C. rhionica* VII Olenev et Dobrowolski, 1975 it differs in the shape of tail end, number of flame cells, absence of spines in ventral sucker, absence of oesophagus and intestinal caeca and in that it does not form "Rattenkönig". The new species also differs from all cercariae mentioned by Yamaguti (A synoptical review of life histories of digenetic Trematodes of Vertebrates, Keigaku Publishing Co., Tokyo, Japan, 1975).

Z. ŽĎÁRSKÁ,
Institute of Parasitology,
Czechoslovak Academy of Sciences,
Prague