Mem. Inst. Oswaldo Cruz, Rio de Janeiro, Vol. *87*, Suppl. I, 257-258, 1992

PERITONEAL AND VISCERAL CESTODE LARVAE IN BRAZILIAN FRESHWATER FISHES

GUIDO VIDAL SCHÄFFER; AMILCAR ARANDAS REGO/+ & GILBERTO CEZAR PAVANELLI*

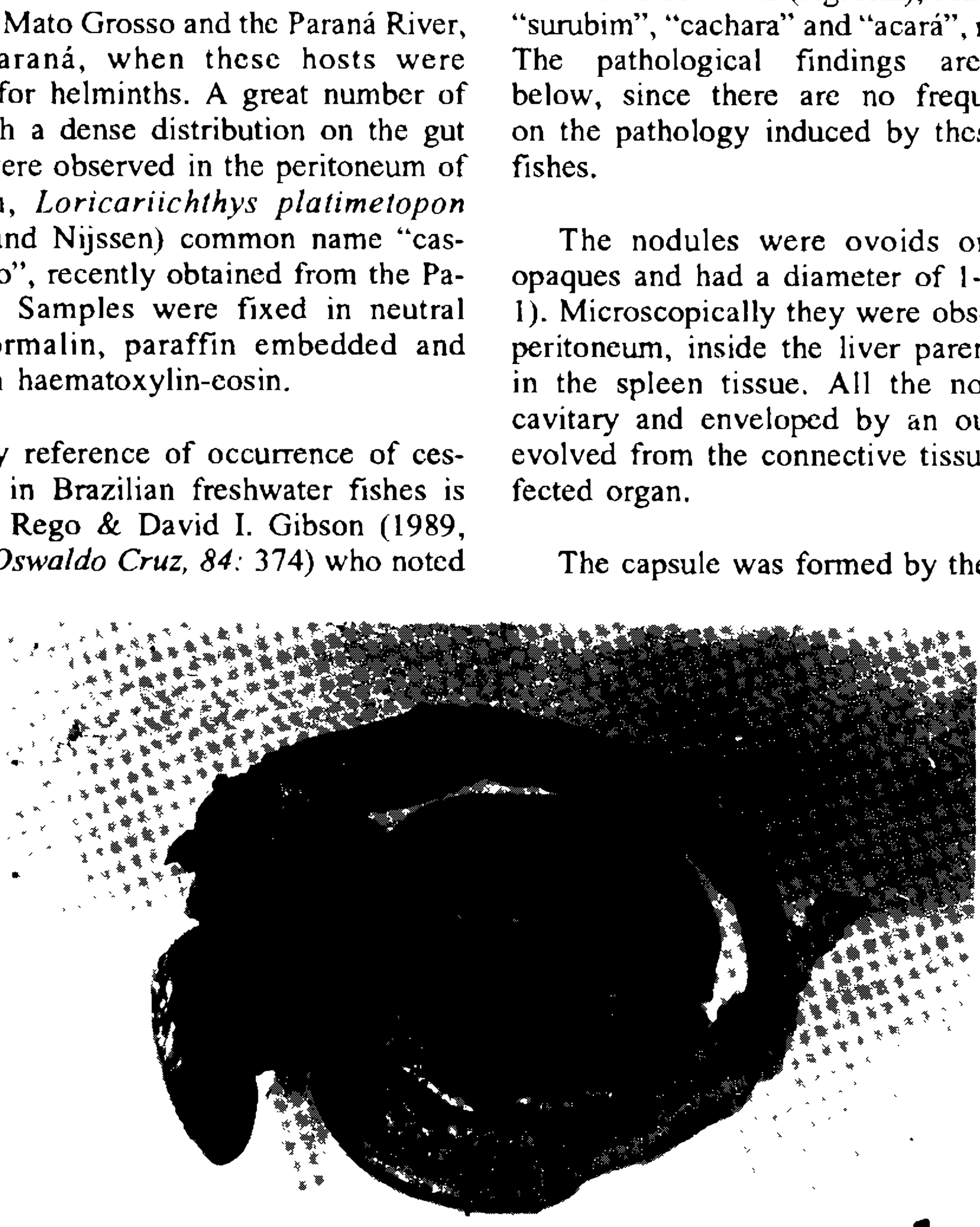
Departamento de Helmintologia, Instituto Oswaldo Cruz, Av. Brasil, 4365, 21045-900 Rio de Janeiro, RJ, Brasil
*Universidade Estadual de Maringá, NUPELIA, Caixa Postal 331, 87020 Maringá, PR, Brasil

Small nodules with cystic cestode larvae were frequently found in the peritoneum of fishes captured in the "Pantanal de Mato Grosso", state of Mato Grosso and the Paraná River, state of Paraná, when these hosts were necropsied for helminths. A great number of nodules with a dense distribution on the gut and liver, were observed in the peritoneum of a specimen, *Loricariichthys platimetopon* (Isbrucker and Nijssen) common name "cascudo chinelo", recently obtained from the Paraná River. Samples were fixed in neutral buffered formalin, paraffin embedded and stained with haematoxylin-eosin.

The only reference of occurrence of cestode larvae in Brazilian freshwater fishes is from A. A. Rego & David I. Gibson (1989, *Mem. Inst. Oswaldo Cruz, 84:* 374) who noted these larvae in the species *Pseudoplatystoma corruscans* (Agassiz), *P. fasciatus* (L.) and *Astronotus ocellatus* (Agassiz), common named "surubim", "cachara" and "acará", respectively. The pathological findings are described below, since there are no frequent reports on the pathology induced by these larvae in fishes.

The nodules were ovoids or spherical, opaques and had a diameter of 1-3 mm (Fig. 1). Microscopically they were observed in the peritoneum, inside the liver parenchyma and in the spleen tissue. All the nodules were cavitary and enveloped by an outer capsule evolved from the connective tissue of the affected organ.

The capsule was formed by the fibroblasts



1

Fig. 1: fish organs and the covering peritoneum. Arrows indicate parasite nodules. Natural size.

+Supported by CNPq.

Fig. 2: peritoneal nodule with a cystic cestode larva, H & E, x 280.

proliferation, concentrically arranged. One or more encysted larvae were seen inside the nodule. An abundant amorphous material was located between the larval cyst and the nodule capsule. Scolex with suckers were visible in the parasite cysts (Fig. 2). However, several nodules were replaced by granulomatous growings or, in a more advanced stage, by an eosinophilic amorphous mass. The inflammatory infiltrate was only noted in a few hepatic nodules.

According to A. A. Rego, these proteocephalids evidenced herein have a more invasive power than other previously described, which were superficially located in the tissue of the host. In the case of the experimental infections performed by Mead & Olsen (1971, *J. Parasit., 57:* 869-874), they observed that the larvae migration went through the intestine wall of the host and encysted in the peritoneum and other organs of the peritoneal cavity.

The larvae identification was not possible due to the actual development stage of the worm. Although a lot of adult proteocephalids species in fishes have been described in Brazil, a proper identification of larvae will only be possible through experimental methods. The frequent occurrence in nature of these cystic proteocephalids must be taken seriously into consideration. The fishes in which they are found are probably, paratenic hosts, allowing the spreading of proteocephalids species and the transfer to a suitable definitive host.

Acknowledgement: to Carlos Alberto Vasconcelos Freitas for the technical assistance.