

## Intestinal lesions in grasscarp *Ctenopharyngodon idella* (Valenciennes) infected with *Balantidium ctenopharyngodonis* Chen.

KÁLMÁN MOLNÁR AND MIKLÓS REINHARDT, *Veterinary Medical Research Institute, Hungarian Academy of Sciences, Budapest, and Veterinary Institute, Kaposvár, Hungary*

**Abstract.** The protozoan *Balantidium ctenopharyngodonis* is a common intestinal commensal of two-summer and older grasscarp, but it may occasionally become pathogenic under the influence of certain predisposing factors. Outbreaks of enteritis complicated by excess multiplication of balantidia occurred among the two-summer and three-summer grasscarp stock in two pond farms during the autumn and winter. Fishes in the terminal stage of disease showed hyperaemia and inflammation of the mucosa over the entire gut. In the posterior 10-12 cm of the gut a dense creamy exudate coated the mucosa. Large numbers of balantidia were found in the exudate and between the mucosal folds there were excoriations, the size of a pin-head, obviously caused by the parasites. Histological examination revealed a loss of superficial epithelium and ulcerations in the grooves between folds.

### Introduction

Species of *Balantidium* are common intestinal parasites of both vertebrate and invertebrate animals. Fish balantidia were described originally from hosts indigenous in far-eastern rivers (Chen 1955; Ha Ky 1969), but recently *Balantidium ctenopharyngodonis* Chen, 1955 has been introduced into European habitats as a result of grasscarp *Ctenopharyngodon idella* (Valenciennes) importation (Musselius & Strelkov 1968; Molnár 1971). Since no precise information was available on the pathogenicity of *B. ctenopharyngodonis* grasscarp naturally infected by the parasite were studied in this laboratory for gross and microscopic lesions.

### Materials and methods

The investigations were commenced in December, 1975, when balantidiosis was suspected as the cause of mass losses occurring in cultured grasscarp populations.

In a pond farm, a considerable part of the two-summer and three-summer grasscarp stock died of the condition. At the time of the examination many fish were

Correspondence: Dr K. Molnár, Veterinary Medical Research Institute, Hungarian Academy of Sciences, H-1581 Budapest, P.O.B. 18, XIV. Hungária krt. 21.

0140-7775/78/0400-0151 \$02.00 © 1978 Blackwell Scientific Publications

