



Article

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First report of *Epistylis unioi* Gong 1986 (Sessilida: Epistylididae) infecting fry of *Pelteobagrus fulvidraco* in Hubei, China

MING LI¹, WEIDONG LI¹, XIANPING GE^{2,5}, CHONG WANG^{3,5}, LIN ZHANG⁴, FENG HUANG¹ & HUIYU LIU¹

¹ Hubei Key Laboratory of Animal Nutrition and Feed Science, Wuhan Polytechnic University, Wuhan 430023, China

² Key Laboratory of Genetic Breeding and Aquaculture Biology of Freshwater Fishes, Freshwater Fisheries Research Center, Chinese Academy of Fishery Science, Ministry of Agriculture, Wuxi 214081, China

³ Institute of Hydroecology, Ministry of Water Resources & Chinese Academy of Sciences, Wuhan 430079, China

⁴ Yangtze River Fisheries Research Institute, Chinese Academy of Fishery Science, Wuhan 430223, China

⁵ Corresponding authors. E-mail: gexp@ffrc.cn; wangchong@mail.ihe.ac.cn

Abstract

The peritrich *Epistylis unioi* Gong, 1986 was collected from fry of *Pelteobagrus fulvidraco* during parasite surveys at Honghu Lake Fish Hatchery, Hubei Province, central China in May 2010 and redescribed. Some revisions were done based on live, silver-impregnated, and SEM specimens. The zooid is elongated and somewhat vase-like in shape, measuring 56–88 × 22–38 μm in vivo. A single contractile vacuole is apically located slightly below the peristome disc. The macronucleus is horseshoe-shaped, always transversely situated at the foreside of the body. Haplokinety (H) and polykinety (Po) complete one and one-half circuits on the peristome before entering the infundibulum, with a distal kinetal fragment present at the distal end. Silverline system consists of 37–45 pellicular striations between peristome and aboral trochal band (TB), and of 26–33 between TB and scopula. Colony is asymmetrically and dichotomously branched, usually with only two levels of branches. In addition, the telotrochs of *E. unioi* were also observed and its structures were described herein. Besides, obvious skin lesions caused by the ringlike base of *E. unioi* were detected and the relationship between these epizooites and their hosts was briefly discussed as well.

Key words: *Epistylis unioi*, peritrich, infraciliature, skin lesions

Introduction

Species of the genus *Epistylis* Ehrenberg, 1830 are sessile peritrichs, that live as epibionts on a variety of species of aquatic invertebrates and vertebrates from marine, and limnetic habitats, such as sponges, cnidarians, arthropods, molluscs, fish, tadpoles, and freshwater turtles (Adalgisa *et al.* 2010; Corliss, 1979; Fernandez-Leborans & Tato-Porto, 2002; Foissner *et al.*, 1992, 1999; Goodrich & Jahn, 1943; Laird, 1959). They are commonly identified by their colonial habit; noncontractile, regularly dichotomously branched stalk; well-defined peristomial lip, and less than 3 turns of peristomial cilia (Fernández-Leborans & Tato-Porto 2000; Foissner *et al.* 1992; Ma & Overstreet 2006; Qi *et al.* 2009).

Epistylis unioi was first discovered and named by Gong (1986) from the gills of a freshwater shellfish, *Unio douglasiae* Griffith & Pidgeon, 1833. After simple morphological information provided by Gong (1986), no further data about this *Epistylis* were reported. However, the previous morphological data are incomplete and the important information of its infraciliature and silverline system is still unknown. So, it is necessary to do some revision on its important taxonomic structures. In the present study, new light and scanning electron microscopic data were provided and the relationship between these epizooites and their hosts was discussed briefly as well.