

NOTE

Dermocystidiosis induced by the parasite *Dermocystidium* sp. in the ornamental fish *Paracheirodon axelrodi*

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Abstract

The Rio Negro floodplain (tributary of the Amazon River) is a natural habitat of the cardinal tetra *Paracheirodon axelrodi*. In home aquaria, this species has high vulnerability to superficial infections and is affected by the protist *Dermocystidium*. Protist cysts were located in the dermis causing lesions reaching the epidermis. We observed that a few weeks after the introduction of new wild ornamental fish (mostly *Hemigrammus* sp. or *Hyphessobrycon* sp.) into established home aquaria, the cardinal tetra fish became infected, suggesting that the new fish could have acted as carriers.

The Amazon basin contains the world's highest diversity of freshwater fishes (Chao, 2001). In this habitat, the so-called "tetras" can be found; they are native small freshwater fishes belonging to the family Characidae. Many of these specimens are extremely popular for home aquaria, as they are brightly colored and easy to keep in captivity. More than 50 species from the Rio Negro floodplain (tributary of the Amazon River) are used as ornamental fish (Prang, 2007), but the cardinal tetra (*Paracheirodon axelrodi* (Schultz, 1956)), constitutes more than 80% of the total catch (Chao, 2001; Zehev et al., 2015).

In Argentina *P. axelrodi* is the largely imported fish (34.33%), while *Paracheirodon* sp. is the 4th in respect to fish export (Panné Huidobro, 2015). Most of the ornamental fish caught in wild environments are subject to injury during capture, placed in stressful conditions during transportation and are not quarantined for the proper amount of time to prevent the introduction of transmissible pathogens and the emergence of infectious diseases after they arrive at different pet shops to be sold (Doyle et al., 1996; Kim et al., 2002).

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