

DISEASES OF *CORYDORAS AENEUS* SPECIES IN CAPTIVITY

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Abstract. In this material/paper, authors have reported diseases rarely encountered in aquariums, describing the parasite, symptomatology and clinical evolution as a result of treatment induced.

Keywords: diseases, parasite, exotic fish, Aquarium, Constanta, Romania.

Rezumat. Bolile speciei *Corydoras aeneus* în captivitate. În acest material, autorii au descris câteva (3) boli mai rar întâlnite în acvarii, descriindu-se parazitul, simptomatologia și evoluția clinică ca urmare a tratamentului indus.

Cuvinte cheie: boli, pești exotici, Acvariu, Constanța, România.

INTRODUCTION

Studies in the field have been made and others (RADULESCU et al., 1976, 1983; KASZONI ZOLTAN, 1976), studying the general diseases that occur in fish aquarium and not only, but a special attention was not given to such an exotic species as being an over benthonic been considered a "health" of aquariums, considered resistant or any available or easily replaced with another/individuals.

Because fish are susceptible to the disease in captivity and are often affected by the parasites belonging to different groups, their study presents a great theoretical and practical importance. In terms aquarium (closed circuit, limited space), the diseases fish are much more frequent than in nature even when taking important prophylactic measures.

MATERIAL AND METHODS OF WORK

Material was represented by 125 adult specimens (L = 5-6 cm.) freshwater exotic fish, family Callichthyidae, *Corydoras* genus, species *Corydoras aeneus*, Constanta Aquarium (Photo. A and B)



Photo A. Normal *Corydoras aeneus*
Foto. A. *Corydoras aeneus* normal



Photo B. Albinos *Corydoras aeneus*
Foto. A. *Corydoras aeneus* albinos

Working methods consisted in microscopic examinations, inseminations media culture sample to determine bacteria. The study was conducted over a period of 3 years and continued to limitation on the possible occurrence of diseases commonly found in aquariums.

As in most fish diseases, symptomatic can not be considered only specific guidance, laboratory investigations are required for diagnosis.

RESULTS AND DISCUSSION

Following the tests carried out (in the Institute of Research and Development Marina "Grigore Antipa", Constanta, in the period 2006 - 2008) to fish in the family Callichthyidae were disease showed the following:

1. NOCARDIOZA

Being an infectious disease, nocardioza is signalize both at freshwater tropical fish, as well as from marine fish in Europe, Asia and North America. Provocatives agencies are eubacteries of the genus *Nocardia* TREVISAN, 1889, the family Nocardiaceae.

Until now, are known as pathogenic to fish, two species of *Nocardia* N. Trevisan asteroids, and 1889 *N. kampfchi* TREVISAN, 1889.



Photo. nr. 1. *Nocardia* spp. (original).
Foto. nr. 1. *Nocardia* spp. (original).

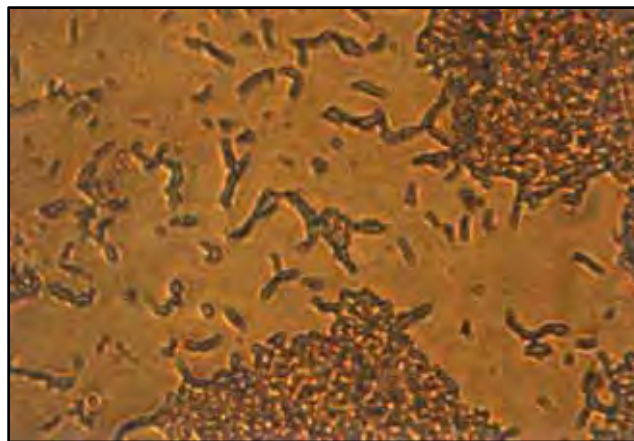


Photo. nr. 2. *Nocardia* spp. (original).
Foto. nr. 2. *Nocardia* spp. (original).

Natural sources of infection may be considered soil, vegetation and aquatic food contaminated. Once produced, infections remain localized level of skin but sometimes, and can affect internal organs. (MUNTEANU G. et al., 2000)

The clinically evolving chronic disease. Fishes show anorexia, lessening progressive, anaemia, infection and cankers of the skin dorsal region of the body, which can affect muscles and skeleton, inflation of abdomen, and the emergence of exoftalmia in granulems of mouth and gills the international front.

The disease usually has a weak power extension and only in exceptional character can gain an epizootic and ends with death affected copies.

The diagnosis is established by bacteriological examination. (MUNTEANU & BOGATU, 2003)

2. ASPERGILLOMICOZA

Aspergillomicoza is a fungus provoked of some fish species *Aspergillus*. The disease has been described by OLUFEMI, BE et al., 1986, in cultures of tilapia (*Oreochromis niloticus* L., 1758), (MUNTEANU & BOGATU, 2003).

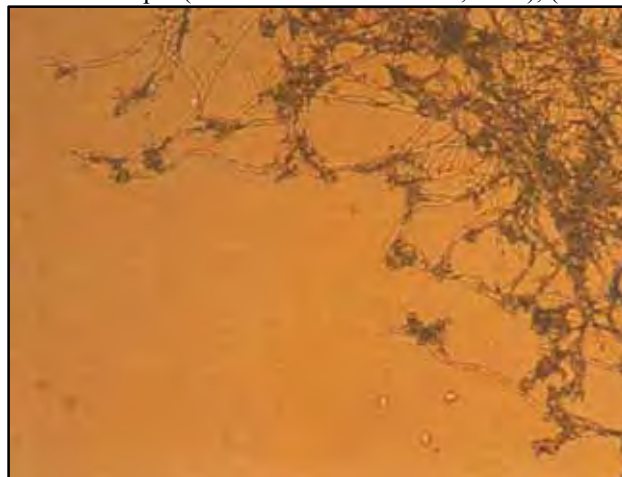


Photo. nr. 3. *Aspergillus* spp. (original).

The signs of clinical disease are inflation of abdomen, darkness of body colour, lethargy. In the body cavity is gathered liquid, and the outbreaks of liver necrosis.

In serious cases, a fund to stress over this, the death rate can increase sharply, reaching > 20% of the population affected. In light cases, losses are sporadic (RADULESCU et al., 1983).

3. TRICHODERMIAZA

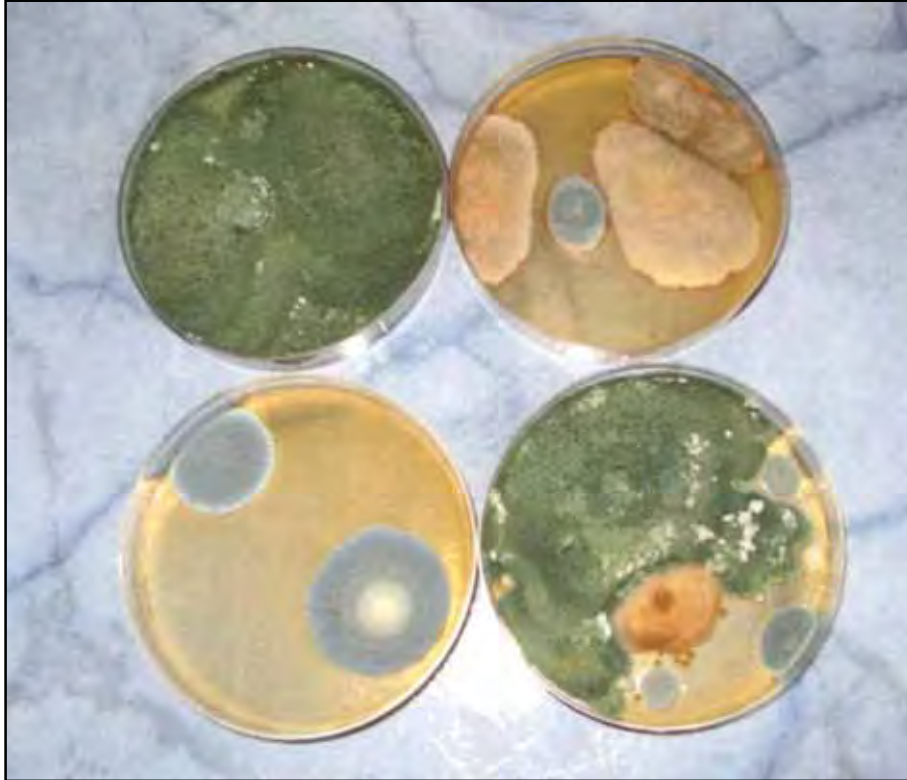


Photo.nr. 4. Microfungus parasites on tegument to *Corydoras* (*Penicillium*, *Aspergillus*, *Trichoderma*, *Trichophyton*) (original).
Foto nr. 4. Microciuperci parazite pe tegument la *Corydoras* (*Penicillium*, *Aspergillus*, *Trichoderma*, *Trichophyton*) (original).

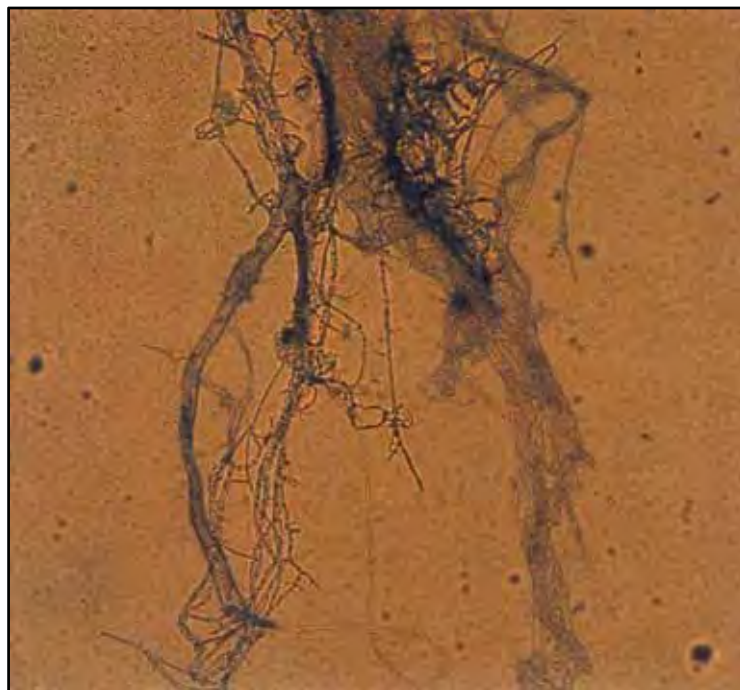


Photo. nr. 5. *Trichophyton* spp. – detail (original).

For treatment and prevention of these diseases have been taken some steps tested experimental and have made the following observations. (RADULESCU et al., 1983)

The treatments were performed in the use of various medicinal substances, the disease properly manifested, as follows:

- Although no measures have been developed for the prevention and treatment for Nocardioza, according to literature, tried a treatment oxitetraciclina: 10mg./kg.corp for 7 days. The results were satisfactory, but only for a short period of time; causing, after a short period, the death of diseased specimens;
- Aspergillomicoza, according to literature, therapy is not possible or no results satisfactory. Despite this fact, have to try a treatment with antibiotics (oxitetraciclina) (same quantity and the same time);
- Trichodermiaza, have found very little information about this fungus to fish, so she tried a treatment with Nistatin powder, 7 mg. / Kg.body for 7 days (www.doctorfungus.org; www.sfatulmedicului.ro).

CONCLUSIONS

All the bodies kept in captivity become sensitive to certain factors biotic and abiotic be exposed to disease. Parasitologicals are some of them. The work being aimed at assessing health *Corydoras aeneus* species, the family Callichthyidae (125 copies of adult 5-6 cm) of Constanta Aquarium.

Following laboratory analysis carried out, has been observed that:

- Have been identified a number of diseases of three species of *Corydoras aeneus*;
- Prognosis of the diseases was reserved for Nocardioza and serious to the other;
- Study of speciality literature was done in the help of identify solutions to prevent the disease but also treatments when they found the sickness is installed;
- Have been tested a few experimental treatments properly manifested the disease even when the literature is saying that no effective treatment or positive results, as follows:
 - Oxitetraciclina for Nocardioza results satisfactory during the brief time;
 - Aspergillomicoza, therapy is not possible, but we tried a oxitetraciclina treatment, with poor results;
 - Trichodermiaza, have found very little data from the literature, but we tried a treatment Nistatin powder.

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