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Acariasis, A New Parasitic Disease of Aquarium Fishes

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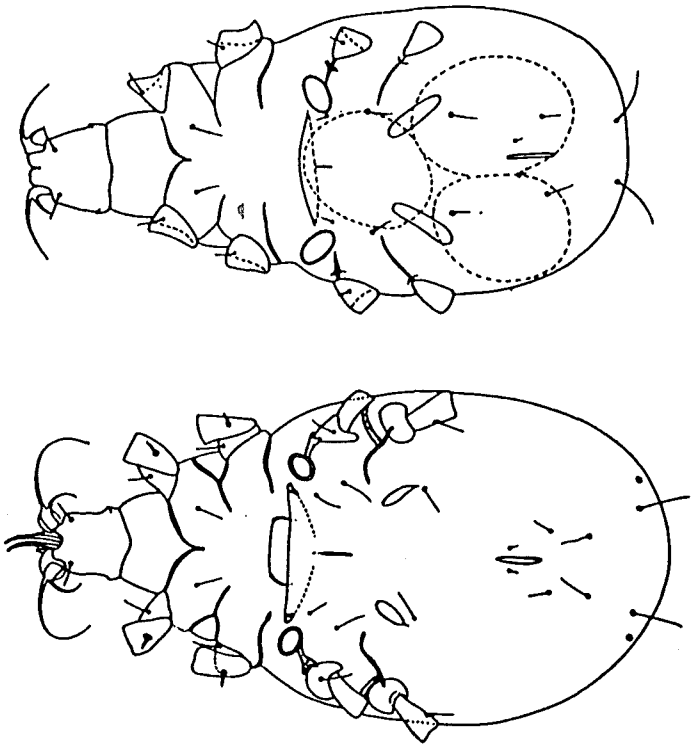

Top: *Histiostoma (Ichtanoetus) anguillarum*. Female in ventral view. From Fain and Belpaire, 1985. Bottom: *Histiostoma piscium*. Female in ventral view. From Fain and Lambrechts, 1985. Courtesy *Bull. Annls. Soc. r. belge. Ent.*

Until now, mites had never been associated with diseases of fishes. However, two recent observations have shown that mites of the family Anoetidae are capable of attaching to the gills or of invading the internal organs of aquarium fishes. The first case published is that of *Pangasius sutchi*, commonly known as the Siamese or iridescent shark. A fish of this species died at Antwerp, Belgium, after a captivity of ten years. The autopsy revealed the existence of extensive lesions in the swim bladder. The inner epithelium of this organ was altered and its lumen was filled with a gelatinous liquid containing numerous mites at all stages of development. These mites belonged to a new species of the genus *Histiostoma* described by Fain and Lambrechts (1985).

A second case of fish acariasis was observed shortly afterwards in Leuven, Belgium in a culture of young eels that had been maintained in tanks for two months. Mites at various stages of development were discovered fixed to the gills in around 80% of the fish. They belonged once more to a new species of the genus *Histiostoma*, distinct from the preceding species (Fain and Belpaire, 1985). Histological studies are in progress in order to determine the pathogenic role of these mites attached to the gills, but one can already imagine that their presence in large numbers could, by itself, cause respiratory problems.

Mites of the family Anoetidae generally live in humid environments, and a few species of the genus *Histiostoma* can live completely immersed in water. We believe that these mites are not strict parasites but that their presence in large numbers in aquaria is the cause of their attachment to fishes. This parasitism is probably frequent but had not been recognized earlier.

The aim of this note is to attract the attention of aquarists to this new disease. We advise them to systematically look for the presence of these mites in aquaria. To find them, remove the debris covering the bottom of the aquarium in which the mites probably live. The filters used should also be examined in certain cases. Samples taken for examination under the microscope should be preserved in ethyl alcohol at 75 to 80%.

We will examine samples or identify mites for those who wish. These can be sent to the following address: Dr. A. Fain, Institut Royal des Sciences naturelles de Belgique, 29 Rue Vautier, B-1040 Bruxelles, Belgium.

References

Fain, A. and L. Lambrechts. 1985. A new anoetid mite parasitic in the swim-bladder of the aquarium fish *Pangasius sutchi*. *Bull. Annls. Soc. r. belge Ent.*, 121:119-126.

Fain, A. and C. Belpaire. 1985. A new mite (Acari, Anoetidae) parasitizing the gills of young eels *Anguilla anguilla* (L).*Bull. Annls. Soc. r. belge Ent.*, 121:285.