Ceratomyxa thunni sp. n. (Myxozoa: Ceratomyxidae) in Atlantic northern bluefin tuna (Thunnus thynnus) caught in the Adriatic Sea, Island of Jabuka

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Abstract

A new species of coelozoic myxozoan, *Ceratomyxa thunni*, was isolated from gall bladders of young wild Atlantic northern bluefin tuna (*Thunnus thynnus* Linnaeus, 1758), caught in the Adriatic Sea, Island of Jabuka (type locality). The prevalence was 23.3 % with low intensity (1–5 spores per microscope field at magnification of 400 x), inducing no pathological changes in the gall bladder epithelium. Light and TEM microscopy of spores revealed that this new species differs from other marine *Ceratomyxa* in morphology and size; the length of spores is 3.4–4.3 μm, thickness 11.6–15.3 μm and polar capsules 1.3 x 1.6 μm. A distinctive characteristic is densely self-coiled polar filaments. Spores are small, slightly semilunar or elongated with arcuate edges. Early forms are shorter, clubber, thicker, paniform, with slightly convex or blunt edges. Mature spores are slimmer, elongated, concave at the posterior margin, with edges finishing slightly sharper, semilunar in appearance. Bluefin tuna is a new host for this genus.

Key words: Myxozoa, Ceratomyxa genus, C. thunni sp. n., bluefin tuna, Adriatic Sea, gall bladder

Introduction

The genus *Ceratomyxa* Thélohan, 1892 comprises 135 nominal species (Lom and Dyková 1992), with only few of marked importance for the health in cage-reared fish. The only freshwater species that causes a severe infection is *Ceratomyxa shasta* in the gut of salmonids (Wales and Wolf 1955). Also it is the first *Ceratomyxa* species for which it was revealed that a freshwater polychaete alternate host is required for the completion of its life cycle (Bartholomew *et al.* 1997).

In Mediterranean finfish rearing facilities Ceratomyxa labracis, C. diplodae and C.