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ACTUAL PROBLEMS IN FISH PARASITOLOGY

Abstracts of papers and posters

September 27 — October 3, 1987 TIHANY Hungary CERATOMYXA SPP. INFECTIONS IN WILD AND CULTURED SEA BASS /DICENTRARCHUS LABRAX/

Alvarez-Pellitero, Ma.P., Gonzalez-Lanza, Ma.C.

Instituto de Acuicultura Torre de la Sal /C.S.I.C./, Ribera de Cabanes, Castellón, Spain

We examined 101 Dicentrarchus labrax /3-5 years old/ sampled monthly during 1986 near the Mediterranean Coast, and 61 cultured ones /0+ - 4 years old/ maintained in running sea water /SW 37.8 % salinity/ at natural temperature.

Trophozoites, sporoblasts and spores of two Ceratomyxa spp. were found in the gall bladder. Infection prevalences in wild fishes were 13.8 % for Ceratomyxa sp. 1 and 9.9 % for Ceratomyxa sp. 2, and mean intensities /semiquantitatively evaluated/ ++ and +++, respectively.

In culture conditions, both myxosporidans were also found, even in fishes obtained and reared in captivity. Infection prevalence and intensity were clearly higher for Ceratomyxa sp. 1 /48 % and +++/.

The myxosporidans seem to exhibit seasonal variations. Ceratomyxa sp. 1 showed maximum prevalence in February both in wild and cultured fishes, infection levels were maximum in winter and early spring and minimum in summer. Ceratomyxa sp. 2 was only found in spring and summer.

Prevalence of Ceratomyxa sp. 1 tends first to rise with fish age and length, but decreases again in oldest fish. As for Ceratomyxa sp. 2, only 3 year-old fishes were parasitized and prevalence clearly decreased with the fish length.

Cultured fishes younger than 1 year were never found parasitized and, for the remaining age groups, prevalence was also lower in oldest fishes.

No clear host sex influence was observed.

Therefore, Ceratomyxa spp. can reach high infection levels in cultured sea bass and the probably source of infection for artificially reared fish is the water supply. Further research is needed on the life cycle and pathogenicity of these Myxosporidans, for assessing the real repercussion of their infection on the culture, and providing adequate measures of prevention and control.