Update on Fish Disease Situation in the Mediterranean Basin

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UPDATE ON FISH DISEASE SITUATION IN THE MEDITERRANEAN BASIN

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Abstract:

The Mediterranean basin represents an interesting area for aquaculture. Over than historically established salmonid (rainbow trout, brook trout and charr) and carp farming, Mariculture (sea cages aquaculture) has developed fast in the last 20 years and the production is extimated not to be around 1,5 Million Tonns per year (FIGIS 2011).

The aim of this work is to start and establish a platform to share information and communicate between authorities and stakeholders in order to target the main sanitary issues in the basin and focus future research activities on these topics.

A simple questionnaire asking to rank the three most important diseases for marine and fresh water sector was delivered to a panel of 20 experts.

13 questionnaires were delivered for Saltwater Aquaculture, while 10 questionnaires were filled for freshwater environment. Data are here presented according to the ranking.

Marine Environment:

- Viral disease: 8 out of 13 experts listed VER as the most important disease in the Mediterranean, with some specific request for development of a commercial vaccine and certification of diagnostics methods through a specific ringtest.

- Bacterial diseases: the disease characterized by highest impact is Tenacibaculosis, old known vibriosis and pasteurellosis remain main characters in Med. Mariculture.

- Parasitic disease: emerging high impact for enteromyxosis, isopods and monogenean (*Cryptocarion irritans and Amyloodinium ocellatum*) and gill flukes (*Diplectanum aequans and Sparicotyle chrysophrii*) mainly present in inland farms (earth ponds and concrete tanks based).

- Unknown aetiology: Winter Syndrome, a dismetabolic disease, is considered to produce huge impact in Seabream fish farming not because of mortality, normally ranging from 5 to 15% in 1 year old fish but for the growth reduction. Petequial rash syndrome appears in sea bream.

Fresh water environment:

- Bacterial disease: RTFS Rainbow trout fry syndrome (RTFS) responsible for significant mortalities in rainbow trout (O. mykiss), during juvenile stages, particularly if not treated promptly becoming a limiting constraint for trout farming development requiring the need of an efficacious vaccine. Forunculosis causing high damage both to rainbow trout and other salmonids (salmo trutta, salvelinus fontinalis, salvelinus alpinus). Lactococcosis in rainbow trout reared with warm water temperature (>16°C) in market size.

- Viral disease: including fish rhabdoviruses (IHN and VHS) but also IPN and Salmonid Alphavirus.

- Emerging unknown aetiology disease: RTGE and Red Mark Syndrome are becoming more and more important .