



Dunstaffnage Marine Laboratory, Oban, Scotland.

Major new EU Aquaculture-Environment Research Project begins

The kick-off meeting for a major new EU funded research project was held in January at Dunstaffnage Marine Laboratory, Scotland. The full title is 'Development of monitoring guidelines and modelling tools for environmental effects from Mediterranean aquaculture' but will be known as MERAMED. The aims are to investigate and develop scientifically validated methods for monitoring marine fish cage farms in the eastern Mediterranean.

As the Salmon industry has developed in northern Europe, Canada, Tasmania and recently in Chile, considerable efforts have been made to assess the interactions between aquaculture and the environment. This has resulted in the development of a number of prediction models, environmental guidelines and environmental monitoring procedures. These tools are primarily oriented toward salmon farming and are generally applicable to the environmental conditions in areas favourable for salmon culture (i.e. cool productive northern temperate waters).

In the last decade, the culture of sea bass and gilthead sea bream has grown exponentially in the warm, oligotrophic waters of the eastern Mediterranean. However little is known about the environmental impact. The few studies that have been undertaken suggest that the impact of mariculture in the Mediterranean is less than for salmon farming in Northern Europe, probably due to the higher water temperatures and the consumption of excess fed by wild fish which are abundant around the cages. Therefore, the continued expansion of Mediterranean aquaculture needs to be controlled and monitored in order to ensure a sustainable development and to consider aspects of an integrated coastal zone management,

including the interests of nature conservation, tourism and fisheries.

The EU funded project will initially undertake, in 2001, a rapid environmental field survey of 7 to 8 cage farms in Greece to assess the differences in impacts between large and small units, sheltered and exposed sites, weak and strong currents, etc. This will be followed up in the second and third years with more detailed surveys on 3 cage farms.

The researchers will adapt the environmental monitoring methods and techniques developed in Norway, Scotland and elsewhere to the conditions and type of farms found in the Mediterranean. They will investigate the effect of the wild fish that are found around cages. They will also develop computer models to predict the impact of farms based on environmental and production data. The international team intends to develop cost effective methods for monitoring that will give the farmers a better understanding of the environmental interactions between their farm and the environment, and that will support sustainable development of Mediterranean aquaculture in the future.

The research will be carried out by 5 partners, Akvaplan-niva AS, Norway, Seas Ltd., Scotland, Institute of Marine Biology of Crete, Greece, Dunstaffnage Marine Laboratory, Scotland, and Institute of Marine Research of Kiel, Germany. Akvaplan-niva will coordinate the programme, from its offices in both Tromsø Norway and Athens. Further information about the project and partners can be found at the web site at www.meramed.com, or contact Patrick White at Akvaplan-niva's Athens office at (+30) 1807 5090.