

MARICULTURE COMMITTEE

J. E. Stewart  
Report for 1985



BELGIUM

(Dr. P. Sorgeloos)

In 1985, the following activities were carried out at the Artemia Reference Centre - State University of Ghent, Belgium:

- continued research in Belgium on Artemia strain characterization; intensive production techniques for adult biomass, nauplii and cysts; cross breeding and quantitative heritability; enhancement of nutritional quality through bioencapsulation in nauplii and adults;
- organization of the 4th International Artemia Training Course (Ghent, July 15 to August 14, 1985) attended by 35 trainees from 20 different countries (mainly third world countries);
- co-organization of the 2nd International Artemia Symposium (Antwerp, September 1-5, 1985) attended by 250 participants from 40 countries;
- start of cooperative project in Thailand with the Kasetsart University, Bangkok, through the Belgian Administration for Development Cooperation; set up National Artemia Reference Center; improved Artemia production in solar saltponds, optimization of the use of Artemia in local fish and shrimp farming;
- assistance in the organization of a national Artemia workshop at the Shandong College of Oceanography, Qingdao (China, May 10-15, 1985);
- characterization of natural sources of Artemia from Tunisia; cooperation project of the Belgian Administration for Development Cooperation and the "Institut Scientifique et Technique d'Océanographie et de Pêche";
- long-term training in Artemia techniques of students from Peru, Brazil, Indonesia, Tunisia and Vietnam;

- successful introduction/demonstration of Artemia production in small saltworks near Malindi in Kenya; cooperative project with the Kenya Marine Fisheries and Research Institute sponsored by the Belgian Administration for Development Cooperation.

(F. Redant)

Fisheries Research Station

Nothing to report for 1985.

CANADA

(James E. Stewart)

ATLANTIC - R. E. Drinnan

Salmonids

Demonstration and Development Farm

A Salmonid Demonstration and Development Farm has been established by the Department of Fisheries and Oceans in southern New Brunswick, to meet the technology development needs of the rapidly expanding Atlantic salmon sea-cage culture industry in the Bay of Fundy. The facilities consist of a two-acre shore site, office and laboratory building and an adjacent sea cage site using Jamek and local cage designs. The initial experimental program includes comparative studies on the growth performance of diet formulations, of 1+ and 2+ smolts and of different fish densities, and the effectiveness of various husbandry practices. The farm will also participate in the broodstock selection activities of the Salmon Genetics Research Program in St. Andrews.

Department of Fisheries and Oceans

Disease:

Bacterial Kidney Disease (BKD) is seen as an emerging problem affecting Atlantic salmon smolts in New Brunswick. The disease manifests itself clinically in fish in fresh water, but causes particular problems when smolts are moved to marine cage sites. The disease is transmitted from broodstock in marine sites through the egg to be resident in progeny in fresh water. Transmission is difficult to control because the agent is transmitted in the yolk and is not affected by normal disinfection procedures. A control strategy, originally devised for west coast salmon, was evaluated in 1984 & 1985. This involved monthly injections of brood fish with an antibiotic, erythromycin phosphate, and subsequent monitoring of reproductive fluids by sensitive serological methods which screen out eggs from infected fish. Progeny are being monitored over a two-year program and the results to date appear promising.