

## Professor at the University of New Brunswick becomes President of the International Seaweed Association

**D**r. Thierry Chopin, Professor of Marine Biology at the University of New Brunswick in Saint John, became President of the International Seaweed Association (ISA) during the 19<sup>th</sup> International Seaweed Symposium, held in Kobe, Japan, March 26-31, 2007.

The ISA is an international organization dedicated to the encouragement of research, development and commercialization of seaweeds and seaweed products.

The mission of the ISA is to promote applied phycology (the study of algae) on a global basis, and to stimulate interactions among researchers and industrialists involved in basic and applied biology, ecophysiology, biochemistry, molecular biology, biotechnology, responsible resource management and conservation, and cultivation and processing of seaweeds (the macroscopic algae living in seawater) and their products.

The origin of the ISA and its series of symposia have, in fact, a lot to do with Canada, says Chopin. It goes back to World War II, when the interruption of commercial shipping routes emphasized the worldwide need for gelling, thickening, binding, emulsifying, suspending, clarifying, protecting and stabilizing agents, which, until then, had come mostly from Japan. The search for these products led to the global investigation of their sources, seaweeds, and the realization that little was known about their geographical and quantitative distribution, composition and properties. The first conference on the utilization of seaweeds was held at Dalhousie University, in Halifax, in September 1948. Soon thereafter the ISA began holding symposia every three years and all over the world; the last one in Kobe was the 19<sup>th</sup>. As the commercial potential of seaweeds transformed into realities in extremely varied applications (from your orange juice in the morning to your toothpaste in the evening, through the coating of the goblets at the water fountain in your office), it became obvious that harvesting of wild beds of seaweeds would soon not be enough to secure the increasing need for raw materials and large scale aquaculture of seaweeds emerged in the 1970's.



*You might remember that Thierry Chopin (left) was co-chairman of the Programme Committee for the Aquaculture Europe 2003 Conference*

Presently, 92 % of the world's seaweed supplies come from cultivation and the seaweed aquaculture production (11.3 million tonnes worth US\$5.7 billion) represents 45.9 % of the total mariculture production. Molluscs represent 43.0 % and finfish only 8.9 %. So, in many parts of the world, aquaculture is not synonymous with salmon aquaculture, as so often perceived in the western world. If, until the 1990's, the seaweed industry was dominated by the production of

additives - such as agars, carrageenans and alginates used extensively in the food, brewing, textile, paint, photography, ceramic, paper coating, welding, drilling, bacterial and pharmaceutical, etc. industries - now seaweeds for direct human consumption (nori for wrapping sushi and the sea-vegetables kombu and wakame) are the main sources of revenues, comments Chopin. The sector of the industry manufacturing soil additives, agrichemicals (fertilizers and biostimulants), animal feeds, pharmaceuticals, nutraceuticals, functional foods, botanicals, cosmeceuticals, pigments, bioactive compounds, antiviral agents, etc. is also now in full development and considerable biotechnological advances have been made in the last decades.

Chopin is involved with the cultivation of the large brown seaweeds, known as kelps, to develop integrated multi-trophic aquaculture (IMTA) systems in which salmon, mussels and kelps are co-cultivated to bring a balanced ecosystem approach to aquaculture. IMTA is based on an age-old, common sense, recycling and farming practice in which the by-products from one species become inputs for another: fed aquaculture of fish is combined with inorganic extractive aquaculture of seaweeds and organic extractive aquaculture of shellfish to bring environmental sustainability, economic diversification and social acceptability. This R&D project, funded between 2001 and 2006 by AquaNet, the Canadian Network of Centres of Excellence for Aquaculture, and the New Brunswick Innovation Foundation, is now gearing towards the "C" (commercialization), with the support of the Atlantic Canada Opportunities Agency, and is a collaboration between scientists at UNB Saint John and the DFO St. Andrews Biological Station, the industrial partners Cooke



Thierry Chopin (second from right) harvesting kelp.

Aquaculture Inc. and Acadian Seaplants Limited (one of the largest commercial seaweed growers/processors outside of Asia), the Canadian Food Inspection Agency, Environment Canada and the New Brunswick Department of Agriculture and Aquaculture.

Becoming the President of the International Seaweed Association for the next three years (after three years as its President-Elect) is both a great honour and responsibility, says Chopin. It is a recognition from both my academic peers and the seaweed industrial sector. The Symposium

in Kobe, attended by 535 participants from 46 countries, showed how lively and how truly international in scope the seaweed research and industry community is. The trade show associated with the Symposium opened the eyes of many Westerners. Seaweed applications are so numerous. Japanese eat seaweeds every day at breakfast, lunch and supper, not in large quantities each time, but multiplied by 128 million people and you quickly get many tonnes, says Chopin... Japanese people have a healthy diet; maybe one day the Western World will wake up!

## NEW GLOBAL AQUATIC VETERINARY ASSOCIATION FORMED

Emerging from the needs of a large number of veterinarians already involved in aquatic animal medicine, a new veterinary organization has been formed, initially doing business under the name **Aquatic Veterinary Association**. The need for the organization is compounded by the demands from owners of companion aquatic animals, aquatic food species producers, industries such as aquaculture, and governments for veterinary assistance in aquatic animal health and welfare, public health and seafood safety.

“Formalizing a group to address the concerns of aquatic veterinary medical practitioners under an

organized, incorporated and registered non-profit professional association will help elevate aquatic veterinary medicine from a niche area of the veterinary sciences to a well recognized discipline within the profession” says Dr. Peter Merrill who is serving as the Association’s interim President. “We hope this organization will cater to the needs of an estimated 5,000–10,000 aquatic veterinarians world-wide, and indirectly to those who seek their expertise”, he adds.

*Further details on the association can be found on its website: [www.AquaVets.org](http://www.AquaVets.org)*