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❄️ S E A S O N S ❄️ G R E E T

8th ICWL Well Attended!

The AVC Lobster Science Centre, at the Atlantic Veterinary College, University of Prince Edward Island, in collaboration with the Prince Edward Island Department of Fisheries & Aquaculture, recently hosted the 8th International Conference & Workshop on Lobster Biology & Management (ICWL) at the Delta Prince Edward hotel in Charlottetown, PEI. The ICWL, held this past September 23-28, was extremely well attended with over 275 scientists, fishery managers, processors, government representatives, and industry representatives from more than 20 different countries participating in this week long event.

The 8th ICWL definitely continued the tradition established through the previous 7 conferences, with high-quality scientific oral and poster presentations and mingling of scientists, managers, academia, and industry representatives in a friendly, informal and enjoyable atmosphere. The Conference was opened by the Honorable Allan Campbell, Minister of the PEI Department of Fisheries & Aquaculture, followed by words of welcome from Dr. Timothy Ogilvie, Dean of the Atlantic Veterinary College at the University of Prince Edward Island. Dr. Peter Lawton, Director, Centre for Marine Biodiversity, at Fisheries & Oceans Canada was the ICWL keynote speaker and set the tone for an entertaining conference by putting on a furry lobster hat for a portion of his presentation!

The 8th ICWL had an amazing 154 oral presentations and close to 60 posters. A special Lobster Behaviour Symposium was also organised and consisted of contributed presentations and invited talks to highlight the 40 years of achievement in this specific area by Prof. William Herrnkind, who is now retiring. Have you ever wondered how the lobster fishery is managed in other parts of the world?

To answer this question, the ICWL included a special Industry Day session that focussed on lobsters fisheries from the perspectives of managers and industry from Canada, USA, Australia, Europe, South Africa and New Zealand. This Industry Day proved to be very successful with over 100 attendees and even featured a public address over lunch from Dr. Wendy Watson-Wright, the Assistant Deputy Minister, Science Sector of DFO. Trevor Corson, author of "The Secret Life of Lobsters" was the special guest speaker at the ICWL banquet dinner. Not only did he give a few anecdotes about the research he did for his book, but his skills as a stand-up comedian were just what was needed to set the tone for an entertaining evening! The banquet also featured a dory filled with over 225 kg of cooked lobsters in the middle of the buffet service table; what's a lobster meeting without a lobster feed?!

The 8th ICWL Organising Committee would like to acknowledge the following sponsors of the workshop, without whom this event would not have been possible; Darden Restaurants, Canadian Gold Seafood Company, Orion Seafood International, Nova Scotia Department of Agriculture & Fisheries, NSERC Atlantic, PEI Fishermen's Association, Clearwater Seafood, PEI Business Development, Ocean Choice International, Millbrook First Nation, Atlantic Veterinary College, Ferguson's Lobster Pound Co., Tasmanian Aquaculture & Fisheries Institute, Bigelow Laboratory for Ocean Sciences, Lobster on the Wharf, University of Prince Edward Island, Sea Grant Florida, Sea Grant Connecticut, Sea Grant Woods Hole, Murphy Group of Restaurants, Fisherman's Market, and the PEI Department of Tourism. The host sponsors for the ICWL were the AVC Lobster Science Centre and the PEI Department of Fisheries & Aquaculture. ~ *Jean Lavallée, Research Scientist, AVCLSC*

Moult & Quality Monitoring in LFAs 33/34 (Update at November 2007)

Monitoring of lobster blood protein levels, shell hardness and molt stage has now been ongoing since the summer 2004 with pre-season, during and post-season sampling. The monitoring currently includes 18 areas in LFAs 33/34 with close to 52,000 lobsters sampled to date. The information collected for this project is available on the Internet and allows people to look at lobster sex, size, blood protein, molt stage and shell hardness by sampling location or dates.

What can we expect from the 2007 fall season? Although this monitoring project is still in its infancy in terms of predictive value, we have looked at the information collected so far and tried to see if we could predict with some level of

certainty what will be coming out of the water comes the last week of November. *Based on the pre-season sampling, it seems that this coming season should be very similar to the 2006 fall commercial season in terms of quality and soft-shelled lobsters.*

When comparing the 2006 with the 2007 pre-season sampling, we notice that most locations have very similar numbers. Some of the locations that are standing out in terms of average blood protein levels being higher than last year include Argyle Inshore, Bay of Fundy and Sambro. A decrease in the proportion of lobsters with soft shell was also observed in our sampling in Argyle Inshore and the Bay of Fundy, as well as in St Mary's Bay and Port Latour. Finally, our latest sampling in St Mary's Bay and Sambro demonstrated a higher proportion of lobsters in active pre-molt; it is expected that these lobsters will be molting shortly and therefore, could show up as soft shell lobsters if caught at the opening of the commercial season. Note: Although only the latest sampling dates are shown here, the overall pattern throughout the year for the parameters monitored was considered when predicting the quality of the LFAs 33/34 2007 fall season. However, confidence is highest for those locations where sampling was done closest to the season start.

This information was prepared by the AVC Lobster Science Centre (AVCLSC) in collaboration with Fisheries & Oceans Canada. For more information on this project, visit WWW.LOBSTERSCIENCE.CA/MOLT ~ *Jean Lavallée, Research Scientist, AVCLSC*

Moult & Quality: 2nd Phase Begun

The second phase of the Moult & Quality project has begun with successful sampling trips to Howard's Cove, PE and Port Latour, NS. On these trips data such as Carapace length, sex, shell hardness, pleopod staging, Brix indices, collection of haemolymph, and plasma samples were completed. The results of these trips, along with others, will help set a baseline of lobster health in the region going forward. It will also be used in genetic and biochemical research projects throughout the region and abroad. I would like to extend thanks to Mr. Shawn Cook and crew of the Sea Prowler in Howard's Cove and as well the crew of the Little Lady in Port Latour. ~ *Brad Bernard, Field Technician, AVCLSC*

Sample Collection: Biochemistry Panels

Sample collection for the Biochemistry Panel component of the Atlantic Lobster Moult and Quality (ALMQ) project has begun. The Biochemistry component will document the changes in a variety of parameters in lobster hemolymph (blood) that occur over the course of the year. Determining what is 'normal' will help us with our studies of different lobster diseases. Technicians, Brad Bernard and Adam Acorn, went out with samplers collecting data for the SW Nova Scotia Moult & Quality program in LFA 33 in October and will resume sample collection when the fishing season opens in November/December. With assistance from a local fisherman, we were also able to collect our first set of data from lobsters in the Northumberland Strait (LFA 25). Sampling in the Northumberland Strait will resume in the spring. The hemolymph samples are analysed in the Diagnostic Services laboratory at the Atlantic Veterinary College in a manner similar to blood samples from dogs, cats, rabbits, and other animals. A small subgroup of the hemolymph samples were also sent to our collaborator Dr. Ernie Chang at the University of California Davis, at the Bodega Marine Laboratory, for measurement of crustacean hyperglycemic hormone (CHH) levels. CHH is involved in regulation of hemolymph glucose ('blood sugar') levels and is being investigated for its role as a 'stress hormone' in crustaceans such as the American lobster. ~ *Andrea Battison, Research Scientist, AVCLSC*

Successful Workshop on Bitter Crab Disease

An International Bitter Crab Disease Workshop was held in Charlottetown, PEI on September 19-22, 2007. Overall, the Bitter Crab Disease Workshop was highly successful with 26 invited speakers from around the world, presenting state-of-the-art information and opinions on a relatively newly emerging disease of crustaceans, Bitter Crab Disease. Sessions focussed on invertebrate pathology, dinoflagellate ecology, host biology, disease modelling, genetics and crustacean management, pertinent to Bitter Crab Disease. There were an additional 30 attendees, from academia, government agencies and industry, with representatives from Canada (provinces of Prince Edward Island, Newfoundland and Labrador, and Quebec), United States (states of Alaska, Arizona, Maryland, Virginia, Georgia, Mississippi and Washington), Norway, Sweden, Ireland, Scotland, England, Greenland, Denmark and Australia. Additional to the five modules on Fisheries, Parasite Ecology, Host Biology, Molecular Biology and Pathobiology, there was a very enlightening industry session, Impact of Disease on Commercial Crustacean Fisheries. A special speaker was Dr. Franck Berthe, Animal Health Welfare Panel, European Food Safety Authority, who provided an overview of the

World Organization for Animal Health and its role in aquatic animal diseases. The discussions at the Summary Sessions were recorded and summarized by Ms R. Allain, Fisheries and Oceans Canada, and Ms. V. Lowe, National Oceanic and Atmospheric Administration (NOAA) (US). The intent is that the Co-Chairs, F. Morado (NOAA) and R. Cawthorn (AVC Lobster Science Centre) will prepare a summary paper for publication.

Details at: www.LobsterScience.ca / BCDworkshop

~ *Rick Cawthorn, Research Scientist, AVCLSC*

Popular Website: www.LobsterScience.ca

The AVCLSC has an interactive & dynamic website which has proven to be a significant source of information and a general resource for many. Visitors to the AVCLSC website can submit their own question.

On-site Services

To ensure that lobster products are of the utmost quality, the AVCLSC offers health management services to deal with lobster health & disease. The AVCLSC responds to clinical service demands with site visits, sampling, diagnostics, and recommendations to help ensure that lobster health remains as high as possible. These clinical services are available regionally, nationally or internationally. To learn more about these services, call today! (902) 628-4392

Send comments using Email (Lobster@upe.ca), telephone (902-894-2884), or fax (902-894-2885). Up-to-date information can also be found on our website: www.LobsterScience.ca