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“News, research updates, and information on lobsters and the lobster industry.”

Published by the Lobster Institute

“Protecting and conserving the lobster resource, and enhancing lobstering as an industry...and a way of life.”

Long Island Sound Lobstermen Establish Fund to Support the Lobster Institute

The *Long Island Sound Lobster Fund* has been established at the University of Maine Foundation for the benefit of the Lobster Institute at the University of Maine, Orono, Maine. This fund was established with a gift to the Institute's C.O.R.E. Campaign from the Connecticut and New York lobstermen from Long Island Sound. These lobstermen experienced a tragic loss of the lobster stocks in Long Island Sound in 1999, which decimated the industry and greatly impacted the lives of the more than 450 lobstermen and their families.

Many lobstermen believed the cause of the fishery's collapse was due in large part to the aerial spraying of pesticides in the area around the sound. Officials from the Long Island Sound lobster industry brought suit against Cheminova, Clarke Mosquito Control Products, Inc. and Agrevo Environmental Health, Inc. claiming that these companies improperly used pesticides, causing damage to the Long Island Sound fishery. The case was settled, with the final disbursement of settlement funds to lobstermen occurring earlier this year. The lobstermen insisted that \$100,000 to support the Lobster Institute be written into the court settlement, in recognition of the actions of the Lobster Institute as one of the first scientific organization to respond to the crisis, and of their ongoing efforts in support of the lobstermen of Long Island Sound and elsewhere. According to Nick Crismale, president of the Connecticut Commercial Lobstermen's Association, "It was the Lobster Institute that was the first to take us seriously when we thought there might be a link between the lobster die-off and the heavy spraying of pesticides to control West Nile Virus. The Institute helped us find the right research reports and gain the knowledge to back our concerns. The Lobster Institute has a real concern for lobstermen as well as for the lobster resource. They do their best, with limited funding, to get the science we need to better understand lobsters and what affects them, so we can

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A continuing "did you know" series featuring historical highlights of Lobster Institute research and accomplishments.



Twenty Years of Service

Did you know that dedicated volunteers are the backbone of the Lobster Institute? In its 20-year history, the Institute has been fortunate to have many volunteers who have participated in research projects and/or have led the Institute as members of its Board of Advisors. Loyalty is a hallmark of Lobster Institute volunteers. The Institute has had just 2 chairmen of its Board of Advisors: Ed Blackmore of Stonington, Maine serving for the first 10 years, and Bill Adler of Green Harbor, Massachusetts serving for the second 10 – a position he still holds. Herb Hodgkins of Hancock, Maine has been the only vice chair the Institute's Board has known.

The celebration of the 20th anniversary of the Lobster Institute continues in this edition, with highlights of the third five years (1997-2001). See research of note on page 3, and see page 4 for a continuation of our series of milestones in Lobster Institute history ❄

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Long Island Sound Lobster Fund

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secure our lobster resource and make better management decisions. They were there for us and we thought this was something we could do for them in return.”



A ceremonial check presentation took place on August 15 at lobsterman Bart Mansi's Guilford Lobster Pound in Connecticut, where fishermen presented \$100,000 to Dr. Bob Bayer, the executive director of the Lobster

Institute (see photo above). Also at that time, a document officially establishing the *Long Island Sound Lobster Fund* was signed. The purpose of the endowed *Fund* is to help ensure that the Lobster Institute is always available to respond to the needs of lobstermen and pursue the necessary research to safeguard the lobster resource while maintaining a vital fishery. Others interested in preserving the health of the lobster resource and the integrity of its marine environment are welcome to contribute to the Long Island Sound Lobster Fund, or to create an endowed fund of their own through the Lobster Institute's C.O.R.E. Campaign. The Campaign's goal is to secure the conservation, outreach, research, and education programs of the Lobster Institute...for the future of the lobster industry. For information, contact Cathy Billings at 207-581-2751 or email cathy.billings@umit.maine.edu. Or visit www.lobsterinstitute.org. ☞

Lobster Institute to Benefit from a Bequest to Establish a Product Development Fund

A University of Maine alumnus and savvy businessman with a penchant for tinkering has established a fund at the University of Maine Foundation to support creative students who are developing new products. “I want students to think of new inventions,” says Perry Hunter, who graduated in 1952 with a degree in economics, and now lives in Stonington, Maine. “Every day there are new things that can be developed – inventions that people can dream up to make life easier and better.” The Perry Hunter Product Development Fund was established through a bequest, and will provide awards to innovative UMaine students to cover research, marketing and prototype expenses. First preference will be given to students working on products related to enhancing the lobster industry or those designed to protect the marine environment. Dr. Bob Bayer, executive director of the Lobster Institute praised Hunter for “giving back to his community” by directing

his gift toward students whose projects could benefit the lobster industry. “This fund will allow UMaine students working with the Lobster Institute to use their creative ideas and energy to find ways to get the most out of the lobster resource, or perhaps to improve the safety of people who lobster on the ocean, or any of a number of innovations that might advance the lobster industry,” said Bayer. This is the first time a bequest is being used to fund Lobster Institute projects. Others interested in contributing to the Institute through their estate planning may contact Cathy Billings at 207-581-2751. ☞

Alternative Lobster Bait Moves Out of the Lab and Into the Marketplace

The Lobster Institute has worked with a variety of individuals and companies over the years to make a safe and effective alternative bait available to the lobster industry. That has now happened, with an announcement from Saltwater Marketing and Blue Seal Feeds that they will introduce *Clawdia's Secret™*, a lobster “bait booster”, in September 2007. *Clawdia's Secret™* was developed over the past two years through a series of formulation tests conducted with a select group of Maine and Canadian lobstermen. The Lobster Institute obtained Northeast Consortium funding to help defray lost opportunity costs that the lobstermen might have incurred for participating in testing this product.

Additionally, Dr. Bob Bayer, lead researcher with the Lobster Institute, was instrumental in helping Saltwater and Blue Seal to identify the lobster attractants and environmentally friendly binding materials that are the backbone of “*Clawdia's Secret.*” This lobster “bait booster” is made from all natural from the sea ingredients and also contains vitamins and minerals. According to Saltwater and Blue Seal, testing results indicate that when it is used in a 50/50 combination with regular fish, catch results are equal to or better than regular bait used alone. For more information, contact Pat Pinto, President of Saltwater Marketing at (207) 321-2109 or by e-mail at ppinto@saltwatermarketing.com.

The Institute has and will continue to support other alternative bait research and development efforts geared towards addressing this important marketplace need. ☞



Check out the Lobster Institute website at www.lobsterinstitute.org, providing the definitive site for lobster information with nearly 200 links.





Contact us at 207-581-2751 if you would like to sponsor our “Research Report” and see your logo here!

RESEARCH REPORT

Readers may contact the Lobster Institute for more detailed information on any of these projects.

❖ **Medicated Feed Trials Conducted** (A follow-up to the article in the Winter 2007 issue of the Lobster Bulletin entitled “Lobster Health Monitoring Project Initiated.”) – A pilot study in six tidal lobster pounds in the Fall of 2006 attempted to identify any factors that could be contributing to the loss of lobsters during impoundment. A gram-negative bacterium, *Photobacterium indicum*, was detected in approximately 3% of the population and in nearly 100% of weak and dead lobsters. The causative agent of Gaffkemia, *Aerococcus viridans* (“red tail” disease), was not detected at the level tested. Study participants Deborah Bouchard; David Basti, DVM, Kenneth Hoyt; Bob Bayer, Ph.D.; and William Congleton, Ph.D., working through the Maine Aquatic Animal Health Lab and the Lobster Institute, continued this study in December 2006 with the assistance of Look’s Lobster Pound in Jonesport, Maine. A random sample of 150 lobsters was selected, in which 9 infected individuals (6%) were detected. An extralabel antibiotic feed trial was conducted using Oxytetracycline (methodology available upon request). At the end of a 14-day trial, 20 lobsters were randomly selected to test for the presence of Oxytetracycline. Twenty out of 20 tested

positive for Oxytetracycline at levels greater than 30 PPB (parts per billion). This indicates that lobsters were eating the medicated feed, or had residual levels of Oxytetracycline. Out of 150 additional randomly selected lobsters, 3 individuals (2%) were infected with *Photobacterium indicum*. Statistical analysis indicated that there is a 30% probability that the difference between the presence of the bacteria before treatment and after treatment could have been due to chance alone. There is a 70% probability that the antibiotic had an effect on the prevalence of bacteria. The scientific community requires a >95% probability that there is a difference in the prevalence of bacteria in the two samples (before and after) due to the antibiotic. It was also determined that the bacterium may not be a pathogen of healthy lobsters, but may be opportunistic, that is take advantage of weakened or injured lobsters. Additionally, findings indicate that due to the bacteriostatic nature of Oxytetracycline, the dosage frequency should be increased. This may be impractical in a large-scale aquaculture setting. Further, results showed residual levels of Oxytetracycline were present (> 2.0 ppm (parts per million)) up to 80 days after the antibiotic trial ended, most likely due to low water temperature. ❧

Celebrating the Lobster Institute’s 20th Anniversary Research Highlights in the Third Five Years: 1997-2001



1997

Tested breaking strength of rope for “whale friendly” trap lines.



1998

Researched disease prevention methods for pounded lobsters.



1999

Responded to lobster mortality event in Long Island Sound.



2000

Prototype development of value-added lobster products, including extruded snack foods.



2001

Worked with FDA researchers to determine the role of *Vibrio tuvialis* in limp lobster disease.

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LOBSTER INSTITUTE

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The Lobster Institute Celebrates Its 20th Anniversary: 1987 – 2007

Milestones through the Third Five Years

1997

- ❖ William Adler becomes only the second Chairman of the Lobster Institute Board of Advisors, replacing Ed Blackmore who served for the Institute's first ten years.
- ❖ The Lobster Institute co-sponsors the first Lobster Summit held at the Maine Fishermen's Forum.

1998

- ❖ The Friends of the Lobster Institute is formed to help raise awareness of and funds for the Lobster Institute.

1999

- ❖ The Lobster Institute is called upon by the lobstermen of Connecticut and New York to investigate the lobster die-off in Long Island Sound.
- ❖ The Institute partners in the formation of the Cranberry Point Lobster Seafood Development Center in Gouldsboro, Maine.

This is the third in a series of four articles celebrating the Institute's twenty years of service to the lobster industry. Look for the final five years of highlights in our next issue in 2007, as well as profiles of and quotes from key Lobster Institute leaders over the years.

2000

- ❖ Lobster Cam is launched – a live video feed to the Internet from a lobster trap.
- ❖ The Lobster Institute initiates its first comprehensive strategic planning process.

2001

- ❖ The Lobster Institute hosts its first Lobster College.
- ❖ A research field station is re-established at Tidal Falls in Hancock, Maine – with cooperation from the Frenchman Bay Conservancy.

Herb Hodgkins of Hancock, Maine is one of the Lobster Institute's longest-standing volunteers. He has served as Vice-Chair of the Institute's Board of Advisors since its formation in 1987. In his own words, "The overall comprehensive benefits of the Lobster Institute are enormous for the North American Lobster Industry. Its broad representation from the lobster producing areas greatly enhances knowledge in economics, education and research."

