DURHAM, N.H. – The New Hampshire Industrial Research Center at the University of New Hampshire has awarded a $60,000 grant to a Portsmouth company that is working with a zoology professor to improve the commercial cod industry and substantially expand economic opportunities for fishermen.

GreatBay Aquaculture is the only commercial marine hatchery producing flounder and cod in the United States, competing with Canada, Norway and the United Kingdom in cod production, and Korea, China and Japan in flounder production. The company is concentrating its commercial efforts in New England on cod, which represents a much larger market than flounder.

The grant, which supports a two-year $120,000 joint study with David Berlinsky, assistant professor of zoology, will focus on understanding, quantifying and reducing stress during transport, transfer, grading and inoculation activities.

“ If this project is successful, GreatBay Aquaculture believes it can grow its cod production to 3,000 tons within five years, creating 20 to 30 jobs, sales of more than $12 million, and profits of more than $2 million,” GreatBay Aquaculture co-founder George Nardi said. “Given the ratio of fishing industry workers to fishermen, we can project a substantial impact on the state economy.”

Nardi believes the research undertaken at the Great Bay facility and at UNH will further the understanding of stress, leading to improved production performance.

“ GreatBay would like to produce the highest quality juveniles available. To do this we have to understand stress and how this impacts the fish. It’s our job to reduce stress and to produce healthy juveniles for the developing industry. Such a juvenile will perform better during grow-out, have higher survival and represent ultimately the best value and quality available for the consumer,” Berlinsky said.

Most commercial salmon sold in the state comes from aquaculture. In Europe, aquaculture provides about 50 percent of fish sold.

“ The New Hampshire fishing industry is an important part of our economy. Many people do not realize that only 10 percent of its jobs are at sea. Processing, distribution and retail make up 90 percent of the jobs. Over-fishing has reduced the supply of fish and has led to federal restrictions on the harvest of natural fish. Aquaculture now provides an increasing fraction of fish to support the fishing industry,” said Henry Mullaney, executive director of the NHIRC.

Located at UNH, the NHIRC was created in 1991 by the New Hampshire Legislature to provide a mechanism to promote applied and basic scientific, engineering, and associated marketing research and technological transfer to support improvements and efficiencies in the New Hampshire industrial and business community. The NHIRC is funded by the state of New Hampshire through its Department of Resources and Economic Development.