

## **Epizootic lobster shell disease Massachusetts and Maine frequency and future economic projections**

Epizootic shell disease appeared in Rhode Island in 1995 and since then, has spread northward around Cape Cod, MA and into the Gulf of Maine. Shell disease has become increasingly common, affecting 42.9% of all lobsters in 2001 caught off of Rhode Island. In August and September of 2015, commercially caught lobsters were observed for any signs of shell disease in both Buzzard's Bay, MA and off the coast of Harpswell, ME. Overall incidence rates and severity of disease were calculated in each location. The sex and size of lobsters with shell disease were recorded. Compared to previous studies, the incidence rates in all disease severity categories was low, possibly because lobsters typically molt between August and October. An economic analysis was performed to estimate the effect shell disease could have on the Maine economy if it were to become more prevalent. If shell disease was present in Maine at the same rate as it is in Massachusetts, the Maine economy could conservatively lose up to \$16 million, a 28% loss that would have a devastate the commercial lobster industry.