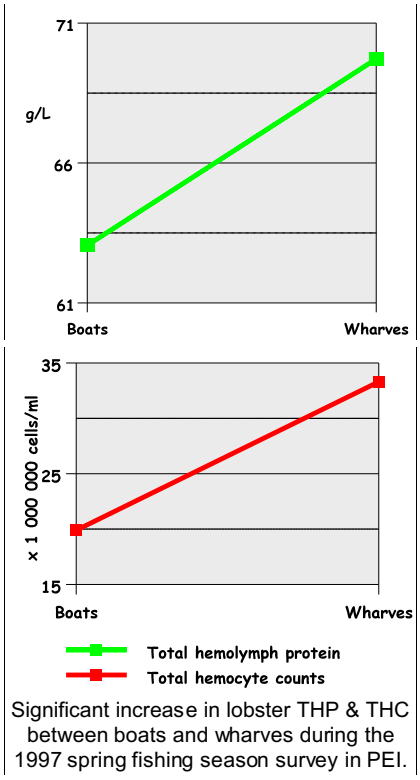
All About Lobster Health

Physiological Dehydration

In a study conducted in 1997 in Prince Edward Island, over 2,000 lobsters landed from 64 boats at 14 different fishing ports were physically examined. Hemolymph (lobster blood) was sampled on 775 lobsters on board fishing boats; total hemolymph protein (THP) and total hemocyte (lobster blood cell) counts (THC) were measured to estimate lobster health. Hemolymph was also re-sampled at the fishing ports and upon arrival at the processing plants.

There was evidence that lobsters kept out of the water on board fishing boats (ie, dry live-tank) suffered from a condition called ***Physiological Dehydration.*** If kept out of the water for extended periods, lobsters can lose considerable amounts of body fluids. This loss of fluid can translate into hemo-concentration, resulting in higher THC. Dehydrated lobsters, because they are physiologically stressed, do not travel and ship as well as 'normal' lobsters. This makes comparisons between groups of lobsters difficult to interpret with health indicators such as THP or THC. Spraying lobsters with seawater on board fishing boats or during transportation should protect them against Dehydration through evaporation, and may also help replace some of the body fluid lost through excretion.[1]



Significant increase in lobster THP & THC between boats and wharves during the 1997 spring fishing season survey in PEI.

The influence of Dehydration on hemolymph parameters, and possible correlations between these hemolymph parameters and the stages of the molt cycle, gender, and the reproduction cycle require further investigations to make accurate conclusions.

[1] Newsom et al. 1994. Osmotic responses of red swamp crawfish to trapping, sorting and storage in a cooler. J Aquat Anim Health. 6: 183-185.

➪ ***Lobster fishers and shippers are encouraged to maintain lobsters in a cool and wet environment as long as possible.***

➪ ***Lobster buyers, pound operators and processors should be encouraged to utilize health indicators such as THP and THC to assess physiological stress; caution is advised when comparing groups of shipments of different origins or landed at different times.***

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