Ask the lobster doc

by Diane Cowan, PhD
Senior Scientist, The Lobster Conservancy, <www.lobsters.org>
This column provides lobster health and handling information. If you have questions or concerns, contact Cowan at (207) 832-8224 or e-mail <dcowan@lobsters.org>.

Monitoring finds record juveniles

The Lobster Conservancy's (TLC) Juvenile Lobster Monitoring Program (JLMP) is in its twelfth year. The JLMP measures the health and productivity of lobster nursery habitats over space and time, by measuring abundance and distribution of juvenile lobsters (see Ask the Lobster Doc, CFN February 2004). Currently, five TLC staff and more than 90 volunteers monitor 28 sites monthly along the coastlines of Maine, New Hampshire, and Massachusetts.

The 2004 season has started off with a bang, with many lobsters showing up at most monitoring sites in June, most notably where abundance has been historically low.

On Chebeague Island in Casco Bay, where abundance over the last four years has averaged 0.13 lobsters/m^2 (3.3'x3.3'), volunteers found 20 lobsters in 20 square meters, *i.e.*, 1 lobster/m^2. This is seven times the average abundance, and twice as high as Chebeague volunteers have ever seen!

Similarly in South Thomaston, a "low density" site in Penobscot Bay, average densities over the last five years have been 0.13 lobsters/m^2. In June, volunteers were ecstatic to find 0.6 lobsters/m^2, almost five times their average. Their highest abundance measured previously was only 0.4 lobsters/m^2 and that was four years ago.

Sara Ellis photo

A handful of lobsters with the largest about 15 mm CL, just over 1/2" CL or 1-3/4" overall length.

June 2004 looked bright even to volunteers accustomed to seeing higher densities. In Marblehead, MA — one of TLC's top ranking monitoring sites since its establishment in 2000 — June's density of 2.3 lobsters/m^2 was twice the average, and rivaled the site's record of 2.5 lobsters/m^2.

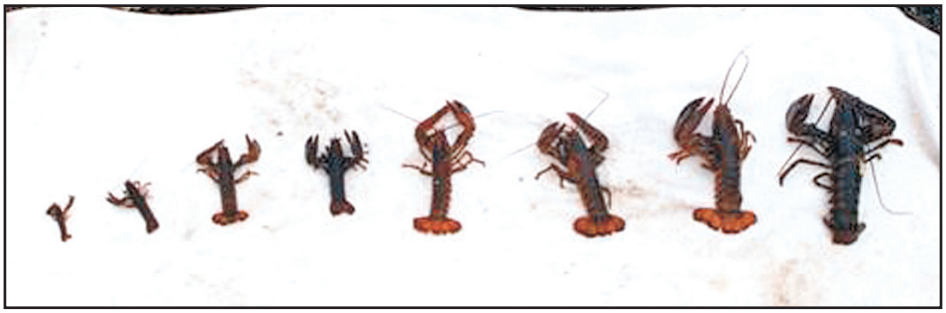
So who are these lobsters and where are they coming from? In June in South Thomaston and Chebeague, one lobster was 17mm in carapace length (CL), while others ranged between 25 and 65mm CL (1mm=.04"). Tagging studies by TLC's Diane Cowan have shown that the 17mm CL lobster is within 1 year old, while the others are between 2 and 6 years old. To borrow an old expression, these lobsters weren't born yesterday!

Some of them even hatched between 1998 and 2000, when few newly settled lobsters were detected by scientists in Penobscot Bay, leading to dire predictions of a decline in local lobster stocks. These JLMP surveys don't suggest any such declines.

Our work also suggests young lobsters can make larger scale movements than previously thought, since individuals are showing up in places they haven't been seen before.

Many thanks to TLC's dedicated volunteers, especially those who have been faithfully recording lobsters at "low density" sites. Their hard work is paying off in ways we are just beginning to understand.

Sara Ellis



Diane Cowan photo

The lobsters on the towel range in size from about 17-45 mm carapace length (or almost 3/4" CL to 1-3/4" CL), which translates into age 1-4. None of the lobsters on the towel are near legal size (the biggest is only about 5" in total length). The largest lobsters from June monitoring were 65 mm CL, or about two or so molts below minimum legal size of 3-1/4".

Sara Ellis is the executive director of The Lobster Conservancy. For more information on TLC's Juvenile Lobster Monitoring Program, contact Ellis at (207) 832-8224 or e-mail < sellis@lobsters.org>.