Scientists Refining Crab-Rearing Technique

Tuesday, 15 November 2011

{audio}/images/stories/mp3/111115.king_crab_rearing.mp3{/audio}

Juvenile Blue King Crab. Photo Jim Swingle/AKCRRAB

Jay Barrett/KMXT

In the latest update from the king crab rearing program at the Alutiiq Pride Hatchery in Seward, researchers have been gauging survival rates based on population densities.

Ben Daly is an Alaska Sea Grant Program research biologist with the University of Alaska Fairbanks, based in Seward. He said that generally the lower the density, the higher the survival rate.

-- (Crab 1 39 sec "But, that doesn't mean ... magic combination of those things.")

The latest study showed Pribilof Blue King Crab had a survival rate of 85 percent when

reared at a density of 200 crab per square meter. Tests of survival at different densities have seen as many as 6,000 crab per square meter, and survival rates around 20 percent.

One factor affecting survival rates is the high level of cannibalism among the crab, especially at higher densities:

-- (Crab 2 38 sec "The juvenile are extremely ... in the wild, I would suspect.")

The AK-CRAB program is a joint venture by the Alaska Sea Grant College Program, UAF School of Fisheries, NOAA Fisheries, and the Alutiiq Pride Shellfish Hatchery, as well as community and industry groups. The ultimate goal is to some day restock depleted Kodiak Red King Crab and Pribilof Blue King Crab with hatchery-reared crab. Daly says the technology and technique is probably ready:

-- (Crab 3 38 sec "I would say the hatchery science ... are there, currently.")

Updates earlier this year have measured how seafloor terrain complexity affects predation on young crab by older ones, and how growth rates are affected by differing water temperatures. They found that the more complex seafloor environment reduced predation, and that young crab grew faster in warmer water.

###