North Pacific Research Board: Format for Semiannual Progress Reports

Project #: R0316

Title: EFH for Blue King Crab *Paralithodes platypus*: Development of larval cultivation techniques

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Project Summary: The ultimate goal of this effort is to understand the relationship between Essential Fish Habitat (EFH) for "overfished" Pribilof Islands blue king crab (BKC) and survival in the first year of life. The first year's goals will be to develop techniques for cultivation of BKC larvae, verify our ability to raise them in the laboratory, and determine the optimum conditions for cultivation. Subsequent years work will focus on settlement behavior and habitat selection, survival of larval and juvenile BKC, and competitive interactions with juvenile red king crab.

Progress Summary: Our first goal was to capture, and return alive to Kodiak, 6 adult female BKC with fertilized eggs that will hatch next spring. As a result of combined efforts by personnel aboard ongoing research cruises in the Pribilof Islands, a number of BKC were captured in July 2003. A total of 23 crab were shipped from Dutch Harbor to Kodiak, including 8 gravid females, 6 males, and 9 old-shell females. The latter are in their off-year of biennial spawning, and will not produce another egg clutch until spring 2004, but may be useful for hatching studies in 2005. Five of the crab died en route, and three more died while being held at ambient temperature (10 C) temporarily. Due to delays in spending authority, we were unable to purchase additional chillers prior to receiving the crab, but additional chillers have now been ordered, and should be installed by the end of July. We currently have 7 gravid females, 3 males, and 6 old-shell females. All crabs will be held at 6 C until hatching, which should occur in March or April of 2004.