

Kitoi Bay Produces One Million Pink Salmon Fry

JUNEAU — About one million sockeye and pink salmon fry were produced by the gravel incubators at the Kitoi Bay hatchery on Afognak Island this year, the Department of Fish and Game reported recently.

The six gravel incubators at the Kitoi hatchery were planted with about 1.13 million salmon eggs last fall and biologists estimate that survival to the fry stage will reach 90 per cent.

This is the second year of successful operation for the pilot facility at Kitoi. In 1973, three incubators at the station produced 371,000 pink salmon fry while a fourth unit produced 146,000 sockeye fry.

The gravel incubation project, operated by the fisheries rehabilitation enhancement and development division of the Department of Fish and Game, is designed to evaluate the feasibility of this technique for enhancement of the salmon runs of Alaska.

Experience has shown that survival from egg to fry in gravel incubators is routinely four to 10 times greater than survival in the natural state. Marine survival of these fry is nearly equivalent to that of wild fry.

"Gravel incubation of salmon eggs produces superior quality fry which are larger and stronger than those hatched in conventional tray incubators, and thus are more likely to survive to return as mature fish," says Bob Roys, director of the fisheries rehabilitation, enhancement and development division.

"The results of both the Kitoi and Auke Creek (Southeastern Alaska) pilot incubation projects have been promising and we are optimistic about future development and the practical application of gravel incubation technology in Alaska. We are pushing ahead rapidly on the development of six gravel incubation production systems in Southeastern, Cook Inlet, Bristol Bay,

Prince William Sound and Kodiak. Furthermore, we are initiating water source and biological investigations to determine other suitable sites in the state," he added.

Fry were marked at the Kitoi hatchery this spring to determine the number of adult pink salmon that will return to the hatchery and the creek.

In marking the fish, technicians clipped fins from 30,000 trough-reared fry, 39,000 fry from gravel incubators and 7,000 wild fry from the crowd. Technicians using illuminated magnifiers, necessary because of the small size of the fish, can each fin-clip approximately 400-500 fry per hour.

The number of marked returning adult salmon will provide the biologists with reliable information to evaluate the efficiency of the gravel incubators compared to hatchery troughs and the natural stream environment.