

April 23, 2017

To: Representative Geran Tarr  
Representative Andy Josephson

Dear Ms. Tarr and Mr. Josephson,

As a professional fisheries biologist with a Ph.D. from UAF's Cooperative Fisheries and Wildlife Unit and 17 years' experience researching Alaskan salmon and their habitats, I'm writing to urge rejection of HB 107 in favor of the more cautious approach that marks Alaska's current policy. I recognize that poor salmon runs bring hardship to people and communities throughout Alaska, but rolling back safeguards and streamlining hatchery supplementation carry substantial risks to the long-term viability and productivity of Alaska's salmon populations.

One such risk is genetic changes that may reduce the fitness of salmon populations. Captive rearing disrupts the evolutionary processes that adapt salmon to their natural (and changing) environments. In essence, genes that favor survival in hatcheries are often disadvantageous in the wild, and the scientific literature is replete with examples of hatchery-induced changes such as altered developmental and growth rates, altered timing of spawning, reduced territoriality, and reduced predator avoidance. In the supplemental production schemes allowed under HB 107, hatchery fish will be free to spawn with wild fish and to spread maladaptive traits such as these within their populations.

Another risk is that fishing effort on hatchery salmon may overexploit the weakened wild portion of the run. This has potential to exacerbate population declines and further the risk of genetic changes.

The environmental and ecological processes that regulate salmon abundance and productivity are complicated and poorly understood. Periodic decreases in productivity are a hallmark of salmon populations, but so is resilience, and as long as habitat and genetic diversity remain intact salmon will bounce back.

Daniel Rinella  
Anchorage, Alaska