Alaska Department of Fish and Game Boards Support Section P.O. Box 115526, Juneau, AK 99811-5526

Re; Support for Proposal 112, 5 AAC 27.185. Management plan for herring spawn on kelp in pounds fisheries in Sections 3-B, 12-A, and 13-C, and District 7.

Dear Chairman Jensen and Board of Fisheries Members,

There are two methods now allowed in Alaska for producing Herring Roe-on-Kelp, closed pounding and open pounding. Both methods hang Kelp in suspension and allow the herring to spawn on the kelp. Closed pounds have a net enclosure in which the herring and kelp are placed in. Open pounds have no net enclosure and the fish are free to swim away. Given the choice, the more "green" method is open pounds.

Prince William Sound had the first spawn-on-kelp herring fishery and it lasted until the Exxon Valdez oil spill. South Eastern Alaska, Herring pound spawn-on-kelp fisheries were allowed by regulation in Craig-Klawock, Ernest Sound, Tenakee Inlet, and Hoonah Sound. Only in Craig/Klawock is the fishery still going on.

Closed pounds are destroying the biomass. It wasn't planned, but evolved over time into something that indeed, is destroying the fishery. Where fisheries were, they are no more. It's only a matter of time and the Craig/Klawock fishery will not have a biomass large enough to continue having a HROK fishery.

Both open and closed pounds are allowed in all areas. Closed pounding is the dominate pound used because it allows the possibility of thicker egg coverage, without the work needed by open pounding to produce the same product. More weight, equals more money. The product is sold by weight but regulated by kelp blades. To get the egg coverage one needs, the fish need to be enclosed and stressed to spawn. By adding more fish then would naturally spawn on the kelp, fishermen can produce more weight.

What's wrong with Closed Pounding Herring in Alaska?

- 1. All fisheries managed properly in the world are based on weight. The rules for extraction from the biomass have no relation with weight in the Alaska HROK fisheries. Indeed the measurement for taking from the biomass is the number of leafs or fronds placed into the closed pound or open pound. The fishermen have the incentive to produce the thickest egg coverage on the kelp because he is going to be paid by the weight. But the State doesn't manage by weight. It manages by leaf count.
- 2. In the 2015 Craig/Klawock fishery the allowed biomass weight to be used in the HROK fishery was 394 tons of herring available for use. Using the ADFG ratio from the open pound experiment in Sitka, .273, the harvest should not have exceeded 107.5 tons. We know herring are killed in closed pounds and they spawn on the netting, so the ratio of .273 is high. But, because ADFG management does not consider the metric of weight, who knows the extraction from the biomass.
- The fishermen are allowed to add fish for four days and keep them in the pound for seven days.They are allowed to release fish from the pound during this period but if they do they are not to

fish for herring or add kelp to the pound. The fish upon entering the pound are in stress and those ripe will spawn on the kelp. With each addition of fish the layers of eggs will build on the kelp. Add more fish, stress, more eggs on the kelp. This works good until you get to much fish in the pond. With too much fish they start to boil. When they boil they lose scales. Scales in the eggs on the kelp downgrades the product to a lesser value. So, release the fish that have spawned and add more. The rules don't allow this, but boiling fish means less money.

- 4. Eggs on the walls of the ponds equates to how much spawning biomass? Dead herring are pushed through the mort tube built into the bottom of the net. How much biomass weight goes through the tube? These metrics are part of extraction from the biomass and they seem to be not accounted for because the metric of weight is not used.
- 5. Stress in herring makes them susceptible to VHS virus. Herring losing their scales makes life harder. Anything that causes herring to spawn unnaturally is not good. Closed pounding herring is not good.

Proposal 112 wants the harvest management of herring pounds to be based on weight not kelp blade numbers. It promotes the use of open pounds and wants the use of closed pounds stopped. Using open pounds allows the fish to spawn naturally and swim away. Open pounding doesn't stress the fish, doesn't scale them, doesn't waste the eggs on the containment net, doesn't induce VHS virus, doesn't "boil" the fish and the .273% weight of harvest is based on science. Support proposal 112.

Thank you for the opportunity to tell you my thoughts, Best regards,

Joe Lindholm

PS: I Have been a Sitka permit owner / participator in the SE Herring roe fishery for over 30 yrs and I participated in the "experimental" open pound fishery which was a huge success.