

**ALASKA STATE LEGISLATURE  
HOUSE SPECIAL COMMITTEE ON FISHERIES**

May 8, 2023

9:02 a.m.

**MEMBERS PRESENT**

Representative Sarah Vance, Chair  
Representative Kevin McCabe  
Representative CJ McCormick  
Representative Ben Carpenter  
Representative Louise Stutes  
Representative Rebecca Himschoot

**MEMBERS ABSENT**

Representative Craig Johnson

**COMMITTEE CALENDAR**

HOUSE BILL NO. 169

"An Act relating to certain fish; and establishing a fisheries rehabilitation permit."

- MOVED CSHB 169 (FSH) OUT OF COMMITTEE

**PREVIOUS COMMITTEE ACTION**

BILL: HB 169

SHORT TITLE: FISHERIES REHABILITATION PERMIT/PROJECT

SPONSOR(S): REPRESENTATIVE(S) CRONK

04/24/23	(H)	READ THE FIRST TIME - REFERRALS
04/24/23	(H)	FSH, RES
04/25/23	(H)	FSH AT 10:00 AM GRUENBERG 120
04/25/23	(H)	-- MEETING CANCELED --
04/27/23	(H)	FSH AT 10:00 AM GRUENBERG 120
04/27/23	(H)	Heard & Held
04/27/23	(H)	MINUTE (FSH)
05/08/23	(H)	FSH AT 9:00 AM GRUENBERG 120

**WITNESS REGISTER**

BILL THOMAS, representing self  
Haines, Alaska

**POSITION STATEMENT:** Testified in support of HB 169.

EMILY ANDERSON, Alaska Director  
Wild Salmon Center  
Anchorage, Alaska

**POSITION STATEMENT:** Testified in opposition to HB 169.

FLIP PRYOR, Aquaculture Section Chief  
Division of Commercial Fisheries  
Alaska Department of Fish and Game  
Juneau, Alaska

**POSITION STATEMENT:** Answered questions during the hearing on HB 169.

REPRESENTATIVE MIKE CRONK  
Alaska State Legislature  
Juneau, Alaska

**POSITION STATEMENT:** As the prime sponsor, answered questions on HB 169.

#### **ACTION NARRATIVE**

[9:02:55 AM](#)

**CHAIR SARAH VANCE** called the House Special Committee on Fisheries meeting to order at 9:02 a.m. Representatives Himschoot, McCormick, Stutes, McCabe, and Vance were present at the call to order. Representative Carpenter arrived as the meeting was in progress.

#### **HB 169-FISHERIES REHABILITATION PERMIT/PROJECT**

[9:03:32 AM](#)

CHAIR VANCE announced that the only order of business would be HOUSE BILL NO. 169, "An Act relating to certain fish; and establishing a fisheries rehabilitation permit."

[9:03:46 AM](#)

CHAIR VANCE opened public testimony on HB 169.

[9:04:11 AM](#)

BILL THOMAS, representing self, testified in support of HB 169. He stated that this year would be his fifty-fourth year as a gillnetter. He stated that he had spent eight years in the legislature. He expressed opposition to Amendment 1 because, without a time restriction, it would not get done. He expressed

support for Amendment 2 because the bill does not include clarification for Native Tribes. He noted that as a tribal council member he has seen incubation boxes, and they work. He further noted that the Alaska Department of Fish & Game (ADF&G) has an incubation box for king salmon in Haines; however, it has not been attended and has become plugged.

MR. THOMAS related that 15 years ago [as a legislator] he had introduced this to the Yukon River people, but they did not want anything to do with hatcheries. He expressed the opinion that incubation boxes are not hatcheries, and he urged that people be made aware of this. He noted that those who run hatcheries do not like incubation boxes because they do not have a good cost recovery, as there is no return from using the boxes. He expressed support for HB 169.

9:07:20 AM

EMILY ANDERSON, Alaska Director, Wild Salmon Center, testified in opposition to HB 169. She expressed the opinion that intentions are good behind the bill; however, rehabilitation of depleted fish populations using hatchery enhancement can have unintended consequences and make a dire situation much worse. She specified that while Alaska's careful approach to hatchery development is not perfect, the state's current fish enhancement and hatchery development policy seeks to segregate wild fish from hatchery fish, when possible, to avoid interbreeding, competition, and harvest management problems. The current law, she continued, also establishes safeguards to protect wild fish from disease and inbreeding. She added that Alaska's hatcheries are managed by professionals who work closely with pathologists to prevent disease outbreaks and geneticists to ensure inbreeding does not occur. She acknowledged that HB 169 would require the commissioner to determine that projects will not harm indigenous wild fish stocks; however, the problem is the lack of a requirement in the proposed legislation to segregate hatchery fish from wild fish. She maintained that HB 169 would not contain adequate safeguards to protect wild stocks.

MS. ANDERSON said Alaska's policy up to this point has avoided many of the pitfalls that hatchery schemes in the Lower 48 have experienced. For example, she stated, hatchery production in the Pacific Northwest has been used to enhance and rehabilitate salmon runs. But rather than supporting wild salmon recovery, she continued, the hatchery-development schemes have decreased the populations and only continue to drive these depleted wild salmon populations to the brink. She argued that HB 169 would

depart from Alaska's current policy and set up a scheme that mirrors the approach taken in the Lower 48, which specifically targets weak stocks. She said decades of scientific research indicate that fish rehabilitation projects which seek to restore depleted stocks only mask the problem and make it more difficult for wild stocks to recover. Rather than increasing numbers through hatchery rehabilitation, she urged that efforts be focused on habitat rehabilitation and strong mixed stock fisheries management to protect wild stocks and help them rebound.

[9:10:09 AM](#)

REPRESENTATIVE MCCABE questioned the term "inbreeding."

MS. ANDERSON replied that a scientist from the center would be better at explaining this, as she is not a salmon scientist. However, she explained, hatchery fish are genetically similar to each other because usually the same sperm from the male fish is used on the entire egg take. When these fish come back and breed with each other, she offered the understanding this is inbreeding, which is a concern because it reduces the fitness of the fish. If these fish come back and breed with wild salmon populations, the fitness of the wild fish would also be depleted, effecting their reproductive success over the long run.

[9:11:48 AM](#)

REPRESENTATIVE MCCABE expressed the opinion that two separate scientific things are being discussed. He suggested that Ms. Anderson is talking about big hatchery operations, while HB 169 is "wildly different." He related that at the Kodiak hatchery for example, [staff] would fly to the Fraser River where an egg take would be done and then the [fertilized eggs] would be brought to Kodiak where they were hatched in tanks. After this the fish were dispersed to different lakes, such as a lake on Afognak Island. He argued that this is different from what is proposed under HB 169. He explained that under the proposed legislation the fish would be taken from the river they have returned to. The egg and sperm would be taken, mixed, and the eggs would be buried in the same riverbed to develop.

MS. ANDERSON responded that these are common misperceptions. She explained that any time fish are taken out of the water and artificially propagated, it is the same type of situation as large hatcheries, because in a very short time span, fish are

being artificially helped, in theory, to be more successful in the rivers, while rapidly changing genetically, and this makes the fish less fit. She stated that there has been four decades of research indicating this has the same types of repercussions as other types of hatchery-enhancement systems. A new about-to-be-released study, she continued, has synthesized the last 40 years of this scientific information, and it demonstrates and indicates that rehabilitation of depleted stocks in many hatchery enhancement systems has not been effective. She offered to share the new study with the committee and to have one of the center's salmon scientists come testify before the committee.

[9:15:07 AM](#)

REPRESENTATIVE MCCABE commented that Alaska has used big hatcheries during the last 40 years, and this is not the kind of hatchery [being proposed in HB 169]. He related that he was involved in the transportation of hatchery egg take as well as dropping hatchery fish in the various lakes in the Kodiak region. He expressed uncertainty that there are 40 years of research [on the process described under HB 169].

CHAIR VANCE maintained that HB 169 would not create hatcheries, rather it would create rehabilitation permits, and these would be a very different make up.

[9:16:01 AM](#)

REPRESENTATIVE HIMSCHOOT requested that Ms. Anderson elaborate on the term "fitness."

MS. ANDERSON answered that "fitness" refers to the state of captive-born salmon producing significantly fewer offspring during their lifetime than their wild counterparts. She added that it has to do with their fitness related to reproduction in the long term. She explained that the reduced fitness in captive-born salmon results from rapid genetic adaptation to hatchery conditions, and this includes the conditions in incubation boxes outside of the natural conditions. These salmon would rapidly become more maladapted to life in the wild, and she suggested that just a single generation of captivity would produce a significant reduction in reproductive fitness.

CHAIR VANCE reminded committee members that Ms. Anderson stated for the record that she is not a fisheries biologist.

[9:17:42 AM](#)

CHAIR VANCE, after ascertaining that there was no one else who wished to testify, closed public testimony on HB 169.

[9:18:10 AM](#)

REPRESENTATIVE HIMSCHOOT asked whether a biologist from ADF&G was available to answer committee questions.

FLIP PRYOR, Aquaculture Section Chief, Division of Commercial Fisheries, Alaska Department of Fish and Game, confirmed that he is a fisheries biologist.

REPRESENTATIVE HIMSCHOOT requested that he speak to the fitness of hatchery raised fish.

MR. PRYOR noted that he is a fisheries biologist, not a geneticist. He explained that "fitness" is based on the number of offspring produced, and a "reduction in fitness" would mean there are less offspring than natural production. The concern, he said, is that if the returning adults interbreed, this will lead to even more fitness, and this would drop the whole population. He stated that HB 169 has provisions to mitigate this from happening. These mitigations are, as listed: the time is limited to five years, which is a single generation; the number of eggs is limited to [500,000]; and the fry would be released unfed. He noted that in a chum salmon hatchery project, a reasonable incremental increase is 20 million eggs. He further noted that the likelihood of an unfed fry returning as an adult is much smaller than a smolt program, and a smolt program is where domestication issues with the hatchery are seen. He stated that these fish keep coming back to the hatchery generation after generation, and this is how genes get built into a hatchery broodstock.

[9:20:31 AM](#)

REPRESENTATIVE HIMSCHOOT asked how Alaska's hatcheries maintain their stocks, given there is a loss of fitness in hatcheries.

MR. PRYOR confirmed there is a loss of fish; however, he related that after 30 years into Alaska's program, the years 2012 and 2013 saw the biggest returns ever. It is a very complex issue, he stated, and something else is going on besides a simple domestication issue within the hatcheries. He said results of the Hatchery Wild Interaction Study will be released within the

next two years, and this may help explain the situation. But, he surmised, the study will also create more questions.

[9:21:50 AM](#)

REPRESENTATIVE HIMSCHOOT agreed that science answers one question while generating more. She asked whether the bill specifies hand-creating eggs in the streambed or using incubation boxes.

MR. PRYOR answered that the bill would leave this open to the applicant to decide. If eggs are taken and then put into the streambed, he explained, the eggs would be subject to the same risks as wild fish, such as drought, freezing, or scouring from a flood. If the eggs are put into an incubation box or an incubator, he further explained, the fry would need to be released right away because the bill states that unfed fish must be released. Incubation boxes and incubators protect the eggs, he specified, so a higher number of fry will come out of these projects than if eggs are put in the gravel.

[9:23:19 AM](#)

REPRESENTATIVE HIMSCHOOT asked how an incubation box works. She further asked whether it must be tended by a human.

MR. PRYOR replied that it is gravity fed water through a box and generally upwellings, and usually they are not attended. Some sit in the creek, he explained, and in some, when the fry come up, the fry can volitionally feed into the creek, while others must be dumped at some point in the spring. He related that the US Forest Service ran a demonstration project for a streamside incubator, and this consisted of a five-gallon bucket which was plumbed to create upwelling. The agency spawned one pair of adults and put [the fertilized eggs] into the incubator at Douglas Island Pink and Chum, Inc. (DIPAC) until they "eyed," and then these eggs were put in the bucket until [the fry] volitionally fed out.

REPRESENTATIVE HIMSCHOOT surmised the fry could escape from the box or bucket without being released.

MR. PRYOR confirmed that in most cases it is volitional escape, but not when a count of the number of fry released is wanted. A counter could be used when the fry escapes, he continued, but these are low-tech programs which would unlikely be set up with something like this.

[9:25:21 AM](#)

REPRESENTATIVE HIMSCHOOT drew attention to page 2, lines 27-[30], which state:

- (A) subsistence and escapement goals have not been met;
- (B) there are no established escapement goals and local stakeholders have identified a decline in the number of the species of fish; or
- (C) the population of the species of fish is limited.

REPRESENTATIVE HIMSCHOOT asked if she is correct in understanding that this is not enhancement, but rather rehabilitation of a struggling population.

MR. PRYOR answered in the affirmative and stated that "enhancement" means increasing the run higher than natural production, while "restoration" means trying to bring a run up to natural production.

REPRESENTATIVE HIMSCHOOT asked how it will be known which streams qualify under these conditions listed in the bill. She further asked whether a biologist will be going to the stream.

MR. PRYOR replied that under HB 169, these permits would be reviewed by pathologists, geneticists, local biologists, the [Division of Sport Fish], and the [Division of Commercial Fisheries]. He said that in some cases the stock may be so low that ADF&G would not want to go in, or in a case where the stock is in danger of extinction, then maybe ADF&G would want to go in. He advised that this is done on a case-by-case basis, and ultimately the approval would be at the commissioner level.

[9:27:44 AM](#)

REPRESENTATIVE HIMSCHOOT expressed uneasiness about someone who is not adept with hatchery regulations going into a struggling stream. She asked whether it is correct that nothing in HB 169 would require a biologist to ever visit the stream or the project.

MR. PRYOR confirmed there is no requirement for an on-site visit in the proposed bill.

REPRESENTATIVE HIMSCHOOT brought attention to page 2, line 29 of the proposed legislation and asked whether she is correct in understanding that this language is looking at how many kinds of fish are in a stream.

MR. PRYOR responded that this is his interpretation; however, rehabilitation projects would be addressing specific species within a stream.

[9:29:11 AM](#)

REPRESENTATIVE MCCABE questioned whether the legislature directs any other requirements for ADF&G biologists. He surmised that the legislature's directives for such things, as to "monitor" a stream would be at a much higher management level as opposed to directing ADF&G biologists to "inspect" certain streams.

MR. PRYOR expressed uncertainty concerning direct requirements, such as [inspecting certain streams]. He said that the legislature did direct ADF&G to create the hatchery enhancement program through AS 60.10.375, and while this statute requires hatchery inspections, it is otherwise general.

[9:30:14 AM](#)

REPRESENTATIVE MCCABE expressed the opinion that [Alaska's] enhancement program involves full-blown hatcheries, which take the eggs, fertilize them, and put them in a tank. He continued that scientists then modify the DNA so the salmon cannot reproduce. He stated that it is a scientific large-scale program to enhance a run or to create a run, such as returns to the hatchery. He suggested that HB 169 is different and at a lower level, possibly done by citizens or local people. It has been described to him as taking a five-gallon bucket where eggs are stripped and fertilized. These eggs are then buried in the gravel bar or put in a box in the river where [the fry] feed, run, and then return. This is done locally and is rehabilitation, not enhancement, he asserted, and it is much closer to "Mother Nature." He surmised that ADF&G biologists would know how to do this, and Mr. Pryor is well qualified to establish a program like this without the legislature being involved in the day-to-day operation.

MR. PRYOR concurred, and he said that [Alaska's] hatchery programs are designed to enhance fisheries by putting fish on the fishing grounds to increase harvest above natural production. Whereas, he continued, HB 169 would create a

restoration project to bring runs up to natural production, and this would be on a much smaller scale. Regarding the provisions under HB 169, he said ADF&G is already reviewing and permitting through a different permit, which is an aquatic resource permit. This permit is already available to higher education institutions and to entities by cooperative agreements. He maintained that HB 169 is not an ADF&G bill. He asserted that ADF&G is neutral on this issue and does not have any "red flags," because the department is already doing what the bill would create.

[9:32:43 AM](#)

CHAIR VANCE requested Mr. Pryor speak to the successes the department has seen concerning rehabilitation of the resource.

MR. PRYOR deferred to Sam Raybung, [Director, Division of Commercial Fisheries], as he would have examples for the committee. He said ADF&G has cooperative agreement programs with different entities that are taking fish and seeing returns.

CHAIR VANCE recommended that the committee be able to connect with people who have a long history in this business.

[9:33:57 AM](#)

The committee took a brief at-ease.

[9:34:03 AM](#)

CHAIR VANCE invited the offering of amendments to HB 169.

[9:34:58 AM](#)

REPRESENTATIVE STUTES moved to adopt Amendment 1 to HB 169, labeled, 33-LS0763\A.2, Bullard, 5/4/23, which read:

Page 3, line 1, following "harm":  
Insert "local wild"

Page 4, lines 5 - 6:  
Delete "If the commissioner fails to act within that period, the application is approved and the department shall issue a permit."

Page 4, following line 18, insert a new subsection to read:

"(j) The commissioner may modify, suspend, or revoke a permit issued under this section for cause. If a permittee violates this section, the commissioner may, after providing the permittee notice and an opportunity to be heard, suspend or revoke a permit issued under this section."

Reletter the following subsection accordingly.

REPRESENTATIVE CARPENTER objected for the purpose of discussion.

REPRESENTATIVE STUTES noted that she worked with the sponsor and with ADF&G; therefore, Amendment 1 is a friendly amendment. She explained that Amendment 1 proposes to insert on page 3, line 1, the words "local wild" after the word "harm". The language would then read, "will not harm local wild fish stocks". The second part of Amendment 1, she explained, proposes to delete the language from page 4, lines 5-6, because the department will use due diligence to the best of its ability, and she is concerned that if this language is kept in the bill the department may automatically say no to issuing a permit if it is close to the timeline and forced to decide. Regarding the [new subsection] proposed for insertion on page 4, line 18, she reiterated that she spoke with both the sponsor and ADF&G on this.

[9:37:19 AM](#)

REPRESENTATIVE CARPENTER removed his objection to Amendment 1. There being no further objection, Amendment 1 was adopted.

[9:37:32 AM](#)

REPRESENTATIVE HIMSCHOOT moved to adopt Amendment 2 to HB 169, as amended, labeled, 33-LS0763\A.5, Bullard, 5/4/23, which read:

Page 4, line 21, following "venture,":  
Insert "tribe,"

REPRESENTATIVE MCCABE objected.

[9:37:32 AM](#)

REPRESENTATIVE HIMSCHOOT explained Amendment 2. She expressed the understanding that the Native Tribes are, as a rule, recognized as government or governmental entities. However, she

continued, specifically adding "tribe" to the bill would remove any question.

[9:38:13 AM](#)

REPRESENTATIVE STUTES asked whether the bill sponsor has been spoken to or has any objection to Amendment 2.

REPRESENTATIVE HIMSCHOOT replied that she failed to speak with the bill sponsor.

CHAIR VANCE recounted that last year, the legislature passed a bill to formally recognize the federally recognized Tribes, so this dispute has been resolved because they are now recognized by all the branches of government. She asked whether Representative Himschoot still wants to insert the word "tribe."

REPRESENTATIVE HIMSCHOOT confirmed it is still her will.

[9:39:09 AM](#)

REPRESENTATIVE MIKE CRONK, Alaska State Legislature, as prime sponsor of HB 169, expressed the opinion that Amendment 2 is a friendly amendment.

[9:39:21 AM](#)

REPRESENTATIVE CARPENTER maintained his objection.

A roll call vote was taken. Representatives McCormick, Stutes, Carpenter, Himschoot, and Vance voted in favor of adopting Amendment 2 to HB 169, as amended. Representative McCabe voted against it. Therefore, Amendment 2 was adopted by a vote of 5-1.

[9:40:06 AM](#)

REPRESENTATIVE CRONK thanked the committee. He reminded members that the proposed bill was brought to the legislature a few years ago but died with the advent of the COVID-19 pandemic. He advised that HB 169 would help rehabilitate salmon runs, specifically king runs on the Yukon River and Kuskokwim River, where there has been no subsistence fishing for several years. It is not a scheme, he stressed, and full-blown hatcheries will not be built on rivers. This would allow the same eggs and sperm of the salmon already in the river to be put into the river.

[9:41:46 AM](#)

REPRESENTATIVE STUTES expressed excitement about the bill and praised the sponsor.

REPRESENTATIVE MCCORMICK thanked the sponsor for bringing forth HB 169. He expressed the hope that the projects will be done responsibly; however, there are some situations this may not work, he cautioned, and there is some cause for concern. He urged that the fisheries be treated very delicately.

[9:42:50 AM](#)

REPRESENTATIVE MCCABE moved to report HB 169, as amended, from committee with individual recommendations and the accompanying fiscal notes. There being no objection, CSHB 169(FSH) was moved from the House Special Committee on Fisheries.

[9:43:37 AM](#)

#### **ADJOURNMENT**

There being no further business before the committee, the House Special Committee on Fisheries meeting was adjourned at 9:43 a.m.