

**ALASKA STATE LEGISLATURE**  
**SENATE RESOURCES STANDING COMMITTEE**

March 10, 2025

3:30 p.m.

**MEMBERS PRESENT**

Senator Cathy Giessel, Chair  
Senator Bill Wielechowski, Vice Chair  
Senator Matt Claman  
Senator Forrest Dunbar  
Senator Scott Kawasaki  
Senator Shelley Hughes  
Senator Robert Myers

**MEMBERS ABSENT**

All members present

**COMMITTEE CALENDAR**

SENATE BILL NO. 97

"An Act establishing a big game guide concession area permit program on land in the state; relating to the duties of the Big Game Commercial Services Board, the Board of Game, the Department of Fish and Game, and the Department of Natural Resources; requiring the Board of Game to establish an initial big game guide concession area; and providing for an effective date."

- HEARD & HELD

SENATE BILL NO. 108

"An Act relating to finfish farms and finfish farm products; and providing for an effective date."

- HEARD & HELD

**PREVIOUS COMMITTEE ACTION**

BILL: SB 97

SHORT TITLE: BIG GAME PERMIT PROGRAM

SPONSOR(s): RESOURCES

02/12/25	(S)	READ THE FIRST TIME - REFERRALS
02/12/25	(S)	RES, FIN

02/28/25 (S) RES AT 3:30 PM BUTROVICH 205  
02/28/25 (S) -- MEETING CANCELED --  
03/05/25 (S) PRIME SPONSOR CHANGED - SENATE  
RESOURCES COMMITTEE  
03/05/25 (S) REPLACED SENATE RULES COMMITTEE  
03/10/25 (S) RES AT 3:30 PM BUTROVICH 205

BILL: SB 108

SHORT TITLE: FINFISH FARMS AND PRODUCTS

SPONSOR(s): RULES BY REQUEST OF THE GOVERNOR

02/24/25 (S) READ THE FIRST TIME - REFERRALS  
02/24/25 (S) RES, FIN  
03/10/25 (S) RES AT 3:30 PM BUTROVICH 205

**WITNESS REGISTER**

INTIMAYO HARBISON, Staff  
Senator Cathy Giessel  
Alaska State Legislature  
Juneau, Alaska

**POSITION STATEMENT:** Co-presented SB 97 on behalf of the sponsor.

EMMA TORKELSON, Staff  
Senator Robert Kaufman  
Alaska State Legislature  
Juneau, Alaska

**POSITION STATEMENT:** Co-presented SB 97.

SONJA KAWASAKI, Legal Counsel  
Senate Majority Caucus  
Alaska State Legislature  
Juneau, Alaska

**POSITION STATEMENT:** Answered questions on SB 97.

JASON BUNCH, Outgoing Chair  
Alaska Big Game Commercial Services Board (BGCSB)  
Kodiak, Alaska

**POSITION STATEMENT:** Gave invited testimony in support of SB 97.

DOUG VINCENT-LANG, Commissioner  
Alaska Department of Fish and Game (ADF&G)  
Juneau, Alaska

**POSITION STATEMENT:** Answered questions on SB 97.

AARON BLOOMQUIST, Chairman  
Big Game Commercial Services Board

Palmer, Alaska

**POSITION STATEMENT:** Testified in support of SB 97.

MARK RICHARDS, Executive Director  
Resident Hunters of Alaska  
Fairbanks, Alaska

**POSITION STATEMENT:** Testified in opposition to SB 97.

DOUG VINCENT-LANG, Commissioner  
Alaska Department of Fish and Game (ADF&G)  
Juneau, Alaska

**POSITION STATEMENT:** Presented SB 108 sponsored by the Rules Committee by request of the governor.

Joseph Felkl, Legislative Liaison  
Commissioner's Office  
Alaska Department of Fish and Game (ADF&G)  
Juneau, Alaska

**POSITION STATEMENT:** Answered questions on SB 108.

JOHNNY FISHMONGER, Executive Director  
Wild Salmon Nation  
King Salmon, Alaska

Testified in opposition to SB 108

**POSITION STATEMENT:** Testified in opposition to SB 108.

JILL WEITZ, Government Affairs Liaison  
Central Council of Tlingit and Haida Indian Tribes of Alaska  
Juneau, Alaska

**POSITION STATEMENT:** Testified in opposition to SB 108.

MELANIE BROWN, representing self  
Juneau, Alaska

**POSITION STATEMENT:** Testified in opposition to SB 108.

ADAM CUTHRIELL, representing self  
Girdwood, Alaska

**POSITION STATEMENT:** Testified in opposition to SB 108.

SUSAN GEORGINA STEVENS, representing self  
Wrangell, Alaska

**POSITION STATEMENT:** Testified in opposition to SB 108.

MATTHEW JONES, representing self  
Save Our Salmon  
Anchorage, Alaska

**POSITION STATEMENT:** Testified in opposition to SB 108.

NORMAN PILLEN, President  
Seafood Producers Cooperative  
Sitka, Alaska

**POSITION STATEMENT:** Testified in opposition to SB 108.

JUDITH PHILLIPS, representing self  
Kodiak, Alaska

**POSITION STATEMENT:** Testified in opposition to SB 108.

#### **ACTION NARRATIVE**

[3:30:10 PM](#)

CHAIR GIESSEL called the Senate Resources Standing Committee meeting to order at 3:30 p.m. Present at the call to order were Senators Myers, Kawasaki, Dunbar, Hughes, Wielechowski and Chair Giessel. Senator Claman arrived shortly thereafter.

#### **SB 97-BIG GAME PERMIT PROGRAM**

[3:30:55 PM](#)

CHAIR GIESSEL announced the consideration of SENATE BILL NO. 97 "An Act establishing a big game guide concession area permit program on land in the state; relating to the duties of the Big Game Commercial Services Board, the Board of Game, the Department of Fish and Game, and the Department of Natural Resources; requiring the Board of Game to establish an initial big game guide concession area; and providing for an effective date."

[3:31:30 PM](#)

INTIMAYO HARBISON, Staff, Senator Cathy Giessel, Alaska State Legislature, Juneau, Alaska, co-presented SB 97 on behalf of the sponsor. He invited Emma Torkelson to introduce SB 97.

[3:31:41 PM](#)

SENATOR CLAMAN arrived.

[3:32:04 PM](#)

EMMA TORKELSON, Staff, Senator Robert Kaufman, Alaska State Legislature, Juneau, Alaska, co-presented SB 97, formerly offered by Senator Kaufman [as Senate Bill 189]. She explained that SB 97 addressed long-standing problems for commercial big-game hunting guides operating on Alaska state land. After a state-run system was struck down in 1988, a federal guide concession program was instituted, leaving state lands without a guide concession program. She said this led to overcrowding and

competition in certain areas that harmed guides, clients, businesses, and wildlife resources. SB 97, first passed [as Senate Bill 189] in 2024, created a guide concession program for one problem area on state land, with the option to expand later. She said the program functions like a lease, limiting the number of guide permits in a defined area and using competitive selection, term limits, transfer rules, enforcement provisions, and equitable fees.

[3:34:16 PM](#)

MS. TORKELSON said the guide concession program was designed to meet Alaska Supreme Court requirements, mirrored the successful federal model, and incorporated recommendations from the 2023 guide concessions work group. She deferred technical questions to Jason Bunch, the work group's chair.

[3:35:05 PM](#)

SENATOR CLAMAN asked for confirmation that SB 97 was identical to Senate Bill 189, passed in 2024.

[3:35:12 PM](#)

MS. TORKELSON affirmed that SB 97 was identical to Senate Bill 189.

[3:35:16 PM](#)

CHAIR GIESSEL asked for an explanation of the need for the committee to hear SB 97/Senate Bill 189 again.

[3:35:25 PM](#)

MS. TORKELSON deferred to Ms. Kawasaki.

[3:35:50 PM](#)

SONJA KAWASAKI, Legal Counsel, Senate Majority Caucus, Alaska State Legislature, Juneau, Alaska, said SB 97 would reenact parts of Senate Bill 189 that created the big game concession area permit program. She said SB 97 was intended as a technical fix to ensure the program remained valid because Senate Bill 189 was being challenged in court for allegedly violating Alaska's constitutional single-subject rule. By reenacting the relevant provisions of Senate Bill 189 separately, the big game concession area permit program would stand on its own and could potentially render the lawsuit moot. She said the lawsuit was filed in November 2024, the state responded in January 2025, and the next step was a trial-setting conference scheduled for May 12, 2025.

[3:37:39 PM](#)

CHAIR GIESSEL clarified that SENATE BILL 189 contained the [Big Game Guide] concession and it also contained the renewal of three regulatory boards, and legislation regarding child care. Consequently, the assertion was made that SENATE BILL 189 violated the single subject law [in Alaska's constitution]. She said this was why SB 97 was before the committee.

[3:38:09 PM](#)

SENATOR MYERS noted the previous concession program was invalidated by the Supreme Court in [1988]. He asked why that program was invalidated and why the program put forth in SB 97 was constitutional.

[3:38:37 PM](#)

CHAIR GIESSEL noted possible expert resources available online.

[3:39:08 PM](#)

MS. KAWASAKI said she was not familiar with the prior legislation that was alleged to be in violation of the [state] constitution. She offered to report back to the committee.

[3:39:33 PM](#)

CHAIR GIESSEL suggested that forthcoming testimony may provide answers.

[3:39:43 PM](#)

CHAIR GIESSEL announced invited testimony on SB 97.

[3:40:09 PM](#)

JASON BUNCH, Outgoing Chair, Alaska Big Game Commercial Services Board (BGCSB), Kodiak, Alaska, gave invited testimony in support of SB 97. He explained the Big Game Commercial Services Board long lacked a tool to manage the number of guides in specific areas of Alaska, unlike federal land managers who successfully used concession systems for decades. He said the work group included state agency representatives, guides, and a public member. They held 16 public meetings and developed the concession program enacted in Senate Bill 189 and presented again in SB 97. He acknowledged the working group's unintentional oversight - that they did not consult with large neighboring private landowners.

MR. BUNCH said the working group designed the big game concession guide program to comply with the [1988] Owsichek ruling and is confident the program itself is defensible. However, he said the current law was vulnerable due to the ongoing Eastman single-subject litigation. Because of that legal

uncertainty, the [Big Game Commercial Services Board] determined they could not responsibly proceed without passing SB 97 to solidify the program. He urged the committee to pass SB 97 as written, emphasizing the extensive collaboration behind it.

[3:42:35 PM](#)

SENATOR MYERS reiterated his question. He noted the Alaska Supreme Court 1988 decision to invalidate the previous iteration of the big game guide concession program and asked why the earlier program was invalidated and why the [Big Game Commercial Services Board working group] found the program provided by SB 97 was different and why they expected it to survive court scrutiny.

[3:42:58 PM](#)

MR. BUNCH said the previous program was challenged in the supreme court and failed the tests of common use and equal access. He said the case highlighted that concessions were constitutional and legal if done under the lease authorities of Department of Natural Resources (DNR) with equal opportunity. He said the working group endeavored to address and correct features of the program according to the weaknesses revealed in the Owischek decision.

[3:44:17 PM](#)

CHAIR GIESSEL requested ADF&G Commissioner Vincent-Lang to come forward to answer questions on SB 97.

[3:44:34 PM](#)

CHAIR GIESSEL noted reports that the sheep population in Alaska was declining. She asked how a guide concession program would affect those populations.

[3:44:54 PM](#)

DOUG VINCENT-LANG, Commissioner, Alaska Department of Fish and Game (ADF&G), Juneau, Alaska, affirmed that sheep populations were challenged across the state and there were limited hunting opportunities. He said SB 97 would give regulators a tool to limit the number of guides operating in a given area. He noted that the number of guides operating on federal land were limited and the only open-entry [hunting] areas were on state land. As a result, highly used areas like 19C have heavy use with many guides. He said limiting the number of guides would limit non-resident hunting in the area and allow more opportunity for residents. He said this could also be done by instituting drawing permits.

[3:45:42 PM](#)

SENATOR MYERS asked why the state did not just use draw permits.

[3:45:49 PM](#)

COMMISSIONER VINCENT-LANG noted that some hunters needed a guide to hunt sheep. He said using draw permits without a limited-entry program for guides would still result in an uncompetitive number of guides in the area. He said there could be a combination of [draw permits and limited-entry guides] but limiting guides would be necessary to reduce the competition for resident hunters.

[3:46:19 PM](#)

SENATOR MYERS asked whether limiting the number of permits would limit the number of guides.

[3:46:31 PM](#)

COMMISSIONER VINCENT-LANG said resident and non-resident hunters often need guides to hunt sheep and limiting the number of guides would reduce the hunting competition.

[3:47:11 PM](#)

SENATOR MYERS noted that SB 97 did not specify sheep. He asked whether it would apply to moose, caribou, black bear, grizzly bear, etc.

[3:47:34 PM](#)

COMMISSIONER VINCENT-LANG affirmed that [similar legislation] was used currently on federal lands on Kodiak Island. He said there were still questions about how many permits should go to non-resident hunters, but [hunting pressure] could still be managed [effectively] by limiting the number of guides in the landscape. He emphasized that guide programs enhance the guides' sense of stewardship for the resource. He said the only areas currently open for guiding were state lands.

[3:48:20 PM](#)

SENATOR MYERS asked how the federal guiding programs that limited guides had affected the price for guiding services in those program areas.

COMMISSIONER VINCENT-LANG deferred the question to the Big Game Commercial Services Board.

[3:48:42 PM](#)

COMMISSIONER VINCENT-LANG said the Owischek decision determined that the state could not grant long-term, non-competitive leases

to individuals. Previously, guide areas were being issued and sold without competition. SB 97 would restore the earlier, successful structure but make it compliant by requiring competitive allocation and limiting permit duration to 10-year terms, after which guides must reapply, ensuring privileges are not permanent and remain consistent with Owischek criteria.

[3:49:29 PM](#)

SENATOR MYERS said he would like to learn how programs limiting the number of guides affected the cost of guide services.

[3:49:46 PM](#)

CHAIR GIESSEL said the chair of the Big Game Commercial Services Board would be testifying.

[3:49:53 PM](#)

CHAIR GIESSEL concluded invited testimony on SB 97.

[3:50:00 PM](#)

CHAIR GIESSEL opened public testimony on SB 97.

[3:50:29 PM](#)

Insufficient audio connection.

[3:51:11 PM](#)

AARON BLOOMQUIST, Chairman, Big Game Commercial Services Board, Palmer, Alaska, introduced himself and testified in support of SB 97. He said the Big Game Commercial Services Board and the Board of Game long sought a state-land guide concession program, and they were pleased to see progress. He said the Big Game Commercial Services Board had no effective tools to reduce guide conflict without harming the small businesses. He reported that conflict among guides was especially high on state lands without concessions, and drawing permits did not resolve these issues. He said, in some areas, they worsen conflict, for example in Units 14C, 13D, and on the Kodiak road system. He opined that the problem wasn't too many guides overall because the industry shrank by about one-third since 2005 due to retirements and tougher entry requirements, high-quality areas still generate heavy competition and conflict. He praised SB 97 for its extensive public input and expert involvement, expressing confidence that it would provide an effective, balanced solution.

[3:54:23 PM](#)

SENATOR MYERS asked whether the prices for and quality of guide services was affected by guide concession programs.

[3:54:53 PM](#)

MR. BLOOMQUIST explained that in sheep hunting, his area of expertise, clients preferred guides who held federal concessions because they associated them with higher-quality, conflict-free hunts. He said prices were not always higher, but concessions provided a strong marketing advantage. He said many hunters viewed federal concessions in Alaska or exclusive concessions in Canada as the best options, since those systems guaranteed exclusive operating areas. As a result, he said having a concession offered a clear business and marketing benefit for guides.

[3:56:18 PM](#)

SENATOR MYERS noted that when legislation granted a monopoly, for example in the case of a utility, there would be heavy regulation of the prices. He asked whether similar price controls were intended to be included in SB 97, like other economic monopolies in the state.

[3:57:08 PM](#)

MR. BLOOMQUIST argued that guide concessions would not create a monopoly, noting that Alaska had 220-250 registered guides, each operating as an independent business. He said about half already worked in exclusive federal concessions, where competition remained strong and market forces controlled pricing. He emphasized that recent price increases, such as the 30-40 percent rise in sheep hunt prices after severe winters in 2019-2020, were driven by supply and demand across North America, not by concessions. He maintained that the industry would remain market driven and would not require price controls.

[3:58:32 PM](#)

SENATOR MYERS noted recent concern over transferability of exclusive fishing licenses, suggesting that a power imbalance and unequal access resulted. He asked whether transferability provisions of SB 97 were likely to be problematic.

[3:59:13 PM](#)

MR. BLOOMQUIST compared transferability rules across agencies. He said National Park Service concessions could generally be bought and sold if the buyer was a qualified, licensed guide. Fish and Wildlife Service concessions were also transferable but only after the holder operated them for more than a decade. He noted concerns that transferable rights in commercial fisheries were sometimes sold out of state, but emphasized that in guiding most federal concessions, about 89 percent in past analyses,

were owned by Alaskans, partly because running remote operations from outside the state was difficult. He argued that allowing transferability in guide concessions would help maintain long-term, family-run businesses.

[4:01:38 PM](#)

SENATOR MYERS raised a concern about the "power of the default" regarding the 10-year permit system proposed by SB 97. He acknowledged that permits couldn't be renewed without a new open, competitive process, but wondered whether incumbents might retain their permits simply because no one challenged them. He noted that a lack of competing applications or limited public comment, unless a major violation occurred, could allow the existing permit holder to keep the concession by default, potentially enabling an informal "good old boy" dynamic.

[4:02:36 PM](#)

MR. BLOOMQUIST noted similar provisions in the federal programs. He said the National Park Service offered operators an "earned renewal" option that allowed them to match a competing proposal. He said this reflected the Park Service's preference for long-term operators who met performance standards. In contrast, he said the U.S. Fish and Wildlife Service concessions often changed hands and said a recent reallocation allowed many new entrants to successfully gain areas. He noted that SB 97 included provisions that support opportunities for new entrants and allowed applicants to demonstrate they can provide better stewardship. He observed that the details of the program were yet to be crafted and emphasized that periodic competition for state lands and wildlife, both public trust resources, ensured that the best-qualified operators were selected.

[4:05:15 PM](#)

MARK RICHARDS, Executive Director, Resident Hunters of Alaska, Fairbanks, Alaska, testified in opposition to SB 97. He said SB 97 attempted to limit guide numbers on state lands and address a long-standing problem that has caused conflicts among hunters and biological strain on wildlife. He noted that warnings about overcrowding date back at least 17 years but said neither the Big Game Commercial Services Board nor the Board of Game had taken meaningful action. Instead, he said both boards relied solely on a guide concession program as the solution and have refused to limit either guides or nonresident hunters. He argued that the real issue was the Board of Game allowing unlimited opportunities for nonresident hunters who must hire guides, which in turn drives up guide numbers. He criticized the Big Game Commercial Services Board for continuing to test and add

new guides despite known problems, and for refusing to restrict guides to fewer guide use areas, which, he argued, could have been done decades ago after the Owsichek decision. He claimed SB 97 had serious flaws, which he said must be fixed:

- DNR should not regulate guides.
- The transferability clause was illegal because the Owsichek decision prohibited treating exclusive guide areas as private property that can be sold.
- A change inherited from Senate Bill 253 would allow guides to hold three regular guide use areas plus three concession areas.

MR. RICHARDS concluded by expressing deep frustration with apparent inaction and urged meaningful changes.

[4:10:16 PM](#)

CHAIR GIESSEL closed public testimony on SB 97.

[4:10:35 PM](#)

MR. HARBISON summarized the sectional analysis for SB 97.

[Original punctuation provided.]

#### **Sectional Analysis SB 97**

"An Act establishing a big game guide concession area permit program on land in the state; relating to the duties of the Big Game Commercial Services Board, the Board of Game, the Department of Fish and Game, and the Department of Natural Resources; requiring the Board of Game to establish an initial big game guide concession area; and providing for an effective date"

**Section 1:** Amends the duties of the Big Game Commercial Services Board (BGCSB) in AS 08.54.600(a) to authorize their role in the establishment of big game guide concession areas.

[4:10:55 PM](#)

MR. HARBISON continued to summarize the sectional analysis for SB 97:

**Section 2: Creates new section AS 16.05.262 empowering the Board of Game (BOG) to oversee the process of determining which game management units or subunits**

**will adopt a big game guide concession area permit program.**

Requires a proposal be first submitted to the BOG nominating a game management unit or subunit for the guide concession program. After a public comment period, the BOG in consultation with the BGCSB, Department of Natural Resources (DNR), the Department of Fish and Game (DF&G), may approve that proposal. Their approval process must take into consideration that establishing the area supports the conservation and management of the state's land and big game resources, aides the enforcement of big game hunting laws, and is in the public interest. If the BOG approves an application, they will determine the number of full and limited concession area permits that will be granted in a given big game guide concession area.

Further, section 2 prohibits the combination of more than three existing guide use areas into a single big game guide concession area and includes definition references.

[4:11:12 PM](#)

MR. HARBISON continued to summarize the sectional analysis for SB 97:

**Section 3: Creates new section AS 38.05.022 empowering the Department of Natural Resources (DNR) to administer the implementation of the big game guide concession area permit program on land approved by the BOG.**

Outlines that the overarching goals of the guide concession program are to encourage long-term minded conservation, enhance customer experience, reduce user conflicts, and ensure responsible, professional, economically guiding industry.

Establishes the features of the guide concession program permits:

1. All permits are awarded an open, public, and competitive process.
2. A guide may not hold more than three concession permits at a time.
3. Permits are valid for 10 years.

4. Permits may not be extended or renewed without the same open, public, and competitive process.
5. Permits may be transferred to another individual based on conditions set in regulation that are consistent with the overarching goals of the guide concession program.
6. If the terms of statute or regulation are violated, permit may be suspended or revoked after the permit holder has been given written notice and opportunity to be heard.

Section 3 further empowers the DNR, in consultation with the BOG, DF&G, and BGCSB, to adopt the necessary regulations including the qualifications for full and limited concession permits, process for issuing the permits, and the collection of fees; grants DNR or their designee the authority to enforce the terms of this program; allows DNR to keep confidential any proprietary, commercial, and financial information provided by concession permit applicants; and includes definitions.

[4:11:31 PM](#)

MR. HARBISON continued to summarize the sectional analysis for SB 97:

**Section 4, Uncodified Law:** In order to establish the first big game guide concession area and permit program, the BOG will select one game management unit or subunit that would most benefit from the implementation of the guide concession program.

**Section 5, Uncodified Law:** Transitional language allowing the guide concession program to extend to new game management units and subunits after the first one has been implemented for at least three (3) years.

**Section 6:** Sets an immediate effective date.

[4:12:41 PM](#)

CHAIR GIESSEL held SB 97 in committee.

### **SB 108-FINFISH FARMS AND PRODUCTS**

[4:12:50 PM](#)

CHAIR GIESSEL announced the consideration of SENATE BILL NO. 108

"An Act relating to finfish farms and finfish farm products; and providing for an effective date."

[4:13:34 PM](#)

DOUG VINCENT-LANG, Commissioner, Alaska Department of Fish and Game (ADF&G), Juneau, Alaska, presented SB 108, sponsored by the Rules Committee by request of the governor.

[4:13:45 PM](#)

COMMISSIONER VINCENT-LANG moved to and narrated slide 2:

[Original punctuation provided.]

### **History of Finfish Farming in Alaska**

In the late 1980s and early 1990s, salmon farming in other parts of the world was done almost exclusively offshore in large net pens.

Given Alaska's strong wild salmon stocks, concerns were raised over farmed salmon competing for market share with wild salmon fisheries.

In 1990, the Alaska Legislature preemptively passed a ban on commercial salmon and other finfish farming under AS 16.40.210.

COMMISSIONER VINCENT-LANG noted that this ban was the reason salmon was not included in SB 108.

[Slide 2 includes a photo with the caption: A pioneering Norwegian fish farm in 1972/Wikimedia Commons]

[4:14:31 PM](#)

COMMISSIONER VINCENT-LANG moved to and narrated slide 3. He said the main advantage of on-shore aquaculture was isolation from wild stocks. He said Norway was the global leader in farmed fish technology and production and that the industry was growing rapidly. He said there were already many on-shore fish farms under consideration, under construction or already producing in the United States:

[Original punctuation provided.]

### **Present Day & New Technology**

Today, technology has rapidly advanced to the point where companies are now raising and harvesting commercial quantities of fish in large shore-based facilities.

### **Fish farms moving onshore**

Land-based fish farming offers many benefits to both the fish and the environment. In traditional offshore farms, the fish are vulnerable to sea lice infestation and infectious diseases. Modern land-based aquaculture systems are able to offer local fish products in landlocked countries.

Article published on Phys.org

### **The Future of Aquaculture: How Sustainable Fish Farming is Transforming the Seafood Industry**

August 26, 2024

Article published on Global Seafoods North America

### **Analytics, genetics tech chart new direction for aquaculture**

February 16, 2022 By Nestor Arellano

Article published on Aquaculture North America

[4:15:17 PM](#)

COMMISSIONER VINCENT-LANG moved to and narrated slide 4. He said the system on the slide provided continuously recircled and filtered water within the facility, reducing water usage and minimizing discharge. He said the technology allowed for precise control over the water quality parameters, providing optimal conditions for fish growth:

[Original punctuation provided.]

### **Present Day & New Technology**

Technological advancements are transforming onshore fish farming into a more efficient, sustainable, and humane industry.

[Slide 4 includes a conceptual diagram and description of: Digital Twin, a breakthrough for intensive aquaculture, by Davide Ciravolo - April 24, 2024 in Innovation News]

## **Recirculating Aquaculture Systems (RAS)**

### **Advanced Sensor Technologies**

#### **Digital Twin Technology**

COMMISSIONER VINCENT-LANG explained that Digital Twin systems and advanced fish-monitoring sensors enabled real-time oversight of fish farms, early detection of health issues, and more efficient operations. He said these technologies could create new opportunities for Alaska.

[4:16:38 PM](#)

COMMISSIONER VINCENT-LANG moved to and narrated slide 5:

[Original punctuation provided.]

#### **Overview of SB 108**

##### **What does the bill do?**

- Authorizes onshore farming of non-salmon finfish in approved land-based facilities in Alaska
- Limited to inland, closed-system water body enclosed within a natural or artificial escape-proof barrier
- Allows for a wide range of possible farming opportunities for different fish species such as trout, char, and grayling
- ADF&G Commissioner has the authority to determine what finfish can and cannot be farmed in Alaska and may add additional permitting restrictions for certain species

[Slide 5 includes a photo with the caption: Indoor fish farm facility. Credit: Shutterstock/Anirut Krisanakul]

[4:17:19 PM](#)

COMMISSIONER VINCENT-LANG moved to and narrated slide 6:

[Original punctuation provided.]

#### **SB 108 Additional Safeguards**

- Offshore fish farming will continue to be banned to prevent any potential impacts on Alaska's wild fish and fisheries
- All fish kept at or sold from a finfish farm must be triploid (sterile)
- Fish farming activities must meet all existing policies, including Fish Transport Permits and Fish Health policies
- Facilities and products are subject to Department of Environmental Conservation regulations and permitting

[Slide 6 includes photos with the caption: Icy Waters Arctic Charr Fish Farm in Whitehorse. Pictures courtesy of DCCED Deputy Commissioner Anna Latham]

[4:18:00 PM](#)

COMMISSIONER VINCENT-LANG moved to and narrated slide 7:

[Original punctuation provided.]

#### **Benefits of Finfish Farming**

- Food Security: continuation of Alaska's efforts to enhance food security for residents.
- Fishing Opportunity: stocking activities would encourage Alaskans to engage in additional recreational fishing.
- Economic Growth: introduces a new industry to Alaska, creating jobs and diversifying our economy.

[Slide 7 includes a photo with the caption: Icy Waters Arctic Charr Fish Farm in Whitehorse. Pictures courtesy of DCCED Deputy Commissioner Anna Latham]

[4:18:47 PM](#)

COMMISSIONER VINCENT-LANG moved to and narrated slide 8:

[Original punctuation provided.]

#### **Considerations**

Some Alaskans have reservations about farmed fish, a perspective rooted in our culture

- Farmed fish products are increasing outside of Alaska, presenting a challenge to our fisheries
- The key question is whether we choose to engage this development or continue to overlook these products that already exist in Alaska's markets
- If we address this issue, we must do so thoughtfully and safely in a manner that ensures Alaska's wild stock fisheries remain viable in the marketplace
- This legislation is a starting point to begin these discussions

[Slide 8 includes a photo with the caption: Icy Waters Arctic Charr Fish Farm in Whitehorse. Pictures courtesy of DCCED Deputy Commissioner Anna Latham]

[4:19:46 PM](#)

COMMISSIONER VINCENT-LANG moved to slide 9, Questions?, concluding the presentation on SB 108. Before taking questions, he emphasized that Alaska already practiced forms of aquatic farming like fish farming and had the expertise to expand. He said the current cost to produce hatchery rainbow trout was about \$4.50 each, but current laws prevented exploring fish farming's feasibility. He advocated for lifting the ban and allowing Alaska to assess viable species and methods, participate in a growing multibillion-dollar industry, boost food security, and support the economy while protecting wild fish.

[4:21:02 PM](#)

SENATOR DUNBAR asked to return to slide 7. He noted confusion about terminology and said earlier legislation used the term "salmon" legally applied to all salmonids, including trout and char. He noted that SB 108 also banned farming of "salmon," yet the presentation featured an Arctic char farm in Whitehorse. He asked whether char was considered a salmonid under SB 108, whether the ban was intended to include char, and why a char farm was highlighted—whether because char was biologically a salmonid or simply because char farming was more practical in the Yukon Territory.

[4:22:56 PM](#)

Joseph Felkl, Legislative Liaison, Commissioner's Office, Alaska Department of Fish and Game (ADF&G), Juneau, Alaska, answered that salmon would normally be included among bony fish species. He emphasized that Pink Salmon, Chum salmon, Sockeye salmon, Coho salmon, Chinook salmon or Atlantic salmon were all excluded by statute, [AS 16.40.230 (1)].

[4:23:35 PM](#)

SENATOR DUNBAR asked whether the photo [slide 7] of a char was an Atlantic salmon.

COMMISSIONER VINCENT-LANG answered that it was not.

[4:23:43 PM](#)

SENATOR DUNBAR said it was his understanding that char farming was closely related to salmon farming and asked whether char farming would be allowed by SB 108.

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COMMISSIONER VINCENT-LANG said it would up to the [Alaska Department of Fish and Game (ADF&G)] commissioner to determine whether char farming would be permitted.

[4:24:05 PM](#)

SENATOR WIELECHOWSKI noted all pictures were indoors. He asked whether SB 108 would also apply to ponds, rivers, etc. that don't connect to salmon bearing streams.

COMMISSIONER VINCENT-LANG affirmed that the facility would have to be enclosed and unavailable to connect to an anadromous waterway.

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COMMISSIONER VINCENT-LANG said it would be possible for a hydroponic facility with an adjacent pond to use the pond [for fish farming] as long as [the pond] was enclosed.

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SENATOR WIELECHOWSKI expressed concern and pointed to numerous examples of ecological harm from invasive or escaped species in U.S. waters, such as sea lampreys and Asian carp in the Great Lakes and escaped farmed rainbow trout from net-pen aquaculture in Lake Huron competing with wild trout. He questioned the reliability of using sterile triploid fish in aquaculture, noting studies showing that triploids were not always 100 percent sterile and that some had successfully reproduced.

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COMMISSIONER VINCENT-LANG acknowledged instances of tilapia or catfish escaping and reproducing. He said, as commissioner, he would exercise extreme caution about allowing [tilapia and catfish] in outdoor ponds in Alaska.

[4:26:02 PM](#)

SENATOR WIELECHOWSKI noted mention of tilapia by the governor and expressed concern about reports of parasites and disease that could potentially pose a risk to native species. He also mentioned that antibiotics were used to treat [tilapia]. He asked whether SB 108 addressed the use of antibiotics for farmed fish.

[4:26:34 PM](#)

COMMISSIONER VINCENT-LANG said there was not anything [about antibiotics in SB 108. He emphasized that any fish sold would have to be certified healthy by the Department of Environmental Conservation. He recounted an example of an aquaponics operator in the Mat-Su Valley who was allowed to keep tilapia in a fully enclosed Conex system but was prohibited from selling them. He explained that, even in highly secure indoor facilities with minimal escape risk, regulations restrict the sale of fish.

[4:27:36 PM](#)

SENATOR MYERS noted the mention of farmed fish currently being sold in Alaska stores. He asked which species were coming in to the state to be sold and whether an annual estimate of the value of those sales was available.

COMMISSIONER VINCENT-LANG said he did not have a list of the species coming in to the state for sale but had seen a video by the governor which mentioned several. He said the question was whether the preference was to continue importing fish to Alaska or grow them in state. He said he did not know the value of the market.

[4:28:31 PM](#)

SENATOR MYERS asked about the value of shellfish sold in Alaska and what percentage of the shellfish sold in the state was farmed in-state.

[4:28:54 PM](#)

COMMISSIONER VINCENT-LANG said he did not know but would provide the percentage and value of in-state shellfish to the committee.

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SENATOR DUNBAR argued that while SB 108 specifically [banned salmonids from farming], many other fish that resemble salmon would still be allowed. He suggested that if the intent was to prevent farming of salmon or salmon-like species, it may need a broader exception or ban like the legislation passed in 2024.

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COMMISSIONER VINCENT-LANG observed a quandary - that Alaska's fish-growing experience was mostly with salmon and trout through sport-fish hatchery programs, but other species that pose less environmental risk—like catfish or tilapia—would likely be grown in enclosed hydroponic systems, where escapees wouldn't survive or reproduce. However, Alaska had little experience with these species, and it was unclear whether raising them would be economically viable. He emphasized that the bans prevented testing economic feasibility. He said SB 108 would simply create an opportunity for Alaskans to try. He advocated for safe, contained aquaculture and opposition to offshore fish farming, and noted that salmon farming remained excluded to avoid competition with wild salmon, while farming trout would be allowed because Alaska already had experience raising them and they were available in the market.

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SENATOR KAWASAKI observed that there were almost 29,000 species in the Osteichthyes class of finfish. He asked how ADF&G would examine requests for a particular species in relation to where it would be contained, for example in a lake or in a private holding situation.

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COMMISSIONER VINCENT-LANG explained that regulators would treat farmed fish similarly to how they evaluate fish stocked in private ponds under the fish transport permit (FTP) process: they assess whether fish could escape, require triploid (sterile) fish if there is any risk, and block permits if fish show signs of disease. He said species like tilapia wouldn't survive in Alaska outdoors and would need indoor hydroponic systems. He said the viability of growing such species depended on energy, feed, and labor costs.

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SENATOR KAWASAKI noted that SB 108 specified that all finfish acquired, purchased, offered to purchase, transferred, or possessed would be triploid. He asked for clarification.

COMMISSIONER VINCENT-LANG concurred that SB 108 required that all species be triploid. He said he was referring to legislation passed in 2024 that allowed residents to keep fish in a private pond for their own purposes. He emphasized that they would not be able to sell those fish but could have them for food security.

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SENATOR KAWASAKI asked how regulators would determine whether a site had adequate positive control or natural or artificial barriers to prevent fish escapes. He raised the example of lakes in flood zones, noting that species such as pike likely spread during flooding. He asked how regulations would address situations where flooding could connect isolated waters to rivers and allow fish to escape.

COMMISSIONER VINCENT-LANG said escape prevention would likely mirror the containment methods used for sewage treatment ponds: engineered dike systems with double barriers so that if one fails, another remains. He emphasized that SB 108 was not intended to threaten wild fisheries or compete with Alaska's wild seafood industry. He suggested that effective containment designs, drawn from water-treatment facilities and fish farming facilities in other countries, would guide permitting decisions. He said he expected most new operations to begin as enclosed hydroponic systems.

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SENATOR KAWASAKI asked whether the administration would be amenable to establishing sideboards that specifically define and address positive control.

COMMISSIONER VINCENT-LANG said SB 108 was intended to open the discussion [about finfish farming in Alaska]. He said the administration would certainly welcome any insights or thoughts.

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SENATOR KAWASAKI noted that there was a current steelhead population in Alaska and that steelhead were known to mix interspecies with other types of trout. He asked how that would be prevented and noted the value of preserving the natural steelhead population.

COMMISSIONER VINCENT-LANG concurred. He noted that steelhead in Alaska likely escaped from farm pens in river systems or offshore, which were not supported by SB 108. He explained that growing steelhead to a catchable size in Alaska required heated water and likely an indoor environment. He suggested that offshore farming could significantly reduce costs for a statewide hatchery.

[4:36:39 PM](#)

SENATOR CLAMAN asked whether businesses had asked for legislation like SB 108 or if ADF&G was promoting it in hopes of attracting commercial interest.

COMMISSIONER VINCENT-LANG responded that aside from the case of a man raising tilapia in a hydroponic facility, which he said the state had to shut down, there had not been anyone actively seeking immediate approval to start such operations. However, he noted increasing interest related to food security, especially after COVID-19, and a broader global trend toward expanding farmed fish production. He emphasized that aquaculture is growing worldwide and competing with Alaska's wild fisheries, and the state must decide whether to continue prohibiting it or open the door to using Alaska's clean water and workforce to participate in that market.

[4:38:04 PM](#)

SENATOR CLAMAN recent legislation to allow limited stocking of lakes with fish. He asked whether anyone had done any of the stocking authorized by that legislation.

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COMMISSIONER VINCENT-LANG said there was interest from people who want to buy fish for stocking, but private nonprofit (PNP) hatcheries hadn't created a way to sell fish to them. He said the Kodiak hatchery was exploring whether producing extra fish for sale could be economically viable, but currently no PNP hatchery has stepped forward to meet the demand.

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SENATOR MYERS noted ban on farming fish for food. He asked whether someone could sell fish as pets, for example, the person who raised goldfish in his hydroponic system.

COMMISSIONER VINCENT-LANG answered that the current ban prohibited the sale of farmed fish.

[4:39:40 PM](#)

SENATOR HUGHES appreciated innovative ideas that could improve Alaska's food security. She acknowledged that many Alaskans naturally preferred wild fish and were culturally resistant to fish farming. She shared anecdotes about how common fish farming was in other states, like Arkansas and South Carolina, though she personally did not prefer farmed fish. She pointed to Alaska's current challenges with salmon shortages and the importance of preventing the spread of disease or interactions with wild stocks if aquaculture were allowed. She asked how fish

were made triploid (sterile) and what processes and oversight would ensure they remained sterile, given concerns that, in other states, sterility requirements weren't always achieved.

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COMMISSIONER VINCENT-LANG recalled from a hatchery tour that sterility was created by temperature-shocking the eggs, producing triploid (sterile) fish. Afterward, hatcheries tested samples to confirm they were fully triploid. He said the sterility rate must be 100 percent for the fish to be released. He said this method was used in Anchorage and Fairbanks hatcheries, where nearly all fish stocked in local lakes for recreation are triploid.

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CHAIR GIESSEL thanked the commissioner for the SB 108 presentation.

[4:43:17 PM](#)

CHAIR GIESSEL opened public testimony on SB 108.

[4:43:47 PM](#)

JOHNNY FISHMONGER, Executive Director, Wild Salmon Nation, King Salmon, Alaska, testified in opposition to SB 108. He said he had been fishing in Alaska since 1981 and emphasized that Alaska's waters remain among the last pristine places for wild fish. He warned that multinational aquaculture companies were eager to expand into Alaska and was grateful the state had prevented offshore finfish farming. He argued that the core issue was economic: Alaska fisheries faced historically low prices, and introducing more farmed fish would further harm small, family-run wild fisheries. He noted that when global farmed salmon production surpassed wild salmon in 1993, it dealt a major blow to Alaska's jobs, tax revenue, and fisheries.

[4:46:26 PM](#)

JILL WEITZ, Government Affairs Liaison, Central Council of Tlingit and Haida Indian Tribes of Alaska, Juneau, Alaska, testified in opposition to SB108. She argued that SB 108 introduced unnecessary risks to water and air quality from waste, feed, antibiotics, and pesticides used in fish farming. She expressed concern that SB 108 could allow non-native species to be farmed, strain already limited regulatory resources, undermine local fishing families and traditional ways of life, and open the door to salmon farming. She cited harms from fish farming to salmon and ecosystems in Canada. She emphasized Tlingit and Haida's commitment to supporting sustainable wild

fisheries with the Alaska Department of Fish and Game and urged the committee to reject SB 108.

[4:48:53 PM](#)

MELANIE BROWN, representing self, Juneau, Alaska, testified in opposition to SB 108. She said she operated a set-net site in Bristol Bay since 1979. She recalled that finfish farming previously undercut the earnings of independent fishermen just as they were beginning to make a living wage. Allowing fish farming in Alaska felt insulting to her and she said it would further damage the economics of the fishing profession as well as weaken the Alaska brand of "wild, natural, sustainable" seafood as it was promoted by the Alaska Seafood Marketing Institute (ASMI). She noted that Alaska lacked the processing capacity to fully process its wild catch; most Bristol Bay salmon were only headed and gutted before being shipped overseas. She raised doubts that the state could process farmed fish and argued that if processing capacity existed for farmed fish, it should instead be used to process Alaska's existing wild stocks, improving food security and supporting the wild fish industry.

[4:51:16 PM](#)

ADAM CUTHRIELL, representing self, Girdwood, Alaska, testified in opposition to SB 108. He said he was a fly-fishing guide who worked across Alaska. He argued that fish farming was contrary to Alaska's identity and would endanger native wild fish, which he said were the reason people traveled to Alaska. He emphasized that strong Fish & Game management and healthy wild stocks made Alaska fishing destinations globally unique. He pointed out that sport fishing and recreational tourism generated billions of dollars and supported many jobs in Alaska. He urged the committee to oppose SB 108.

[4:52:45 PM](#)

SUSAN GEORGINA STEVENS, representing self, Wrangell, Alaska, testified in opposition to SB 108. She cited an article by Jay Bergquist and S. Gunnarsson on the environmental and ethical impacts of finfish aquaculture. According to the article, numerous studies showed that fish farming harmed both the environment and the farmed fish themselves. The research identified five major areas of negative impact: declines in wild fish populations, waste and chemical pollution, habitat loss, disease transmission, and the introduction of exotic species. She argued that these well-documented harms provided strong reasons for the committee to reject SB 108.

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MATTHEW JONES, representing self, Anchorage, Alaska, testified in opposition to SB 108. He said salmon farming contradicted the values and policies that make Alaska unique. He noted that no members of the public testified in favor of SB 108 and stressed that while fish farming may create some jobs, it could also threaten many existing ones if farmed fish escape or spread disease, especially given Alaska's already stressed wild stocks. He pointed out that tourism alone supported about 48,000 jobs, many tied to healthy wild fisheries. He argued that policymakers should focus on urgent issues like bycatch, which was killing large numbers of salmon, rather than pursuing fish farming. He urged the committee to consider the severe risks and restore public trust by prioritizing the protection of Alaska's native fish.

[4:57:11 PM](#)

NORMAN PILLEN, President, Seafood Producers Cooperative, Sitka, Alaska, testified in opposition to SB 108. He said members of the cooperative processed all five species of Pacific salmon and argued that global fish farming already dominated the market, with farmed salmon making up over 90 percent of world production. He said large volumes were imported into the U.S. and said this competition depressed prices. Although SB 108 excluded salmon farming, he opined that allowing farming of species like steelhead or trout would still compete with wild salmon and eventually lead to pressure to allow farmed salmon. He argued that this would harm Alaska's wild fisheries, which the state has long supported.

[4:59:41 PM](#)

JUDITH PHILLIPS, representing self, Kodiak, Alaska, testified in opposition to SB 108. She acknowledged the commissioner's argument that fish farming was expanding globally, but maintained that SB 108 posed serious risks to Alaska's wild fish stocks and that fish farming was simply too dangerous to pursue, even with proposed enforcement measures. She cautioned against opening the door to future salmon farming. She thanked the committee for their careful consideration and urged them to reject SB 108.

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CHAIR GIESSEL held SB 108 in committee.

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There being no further business to come before the committee,  
Chair Giessel adjourned the Senate Resources Standing Committee  
meeting at 5:01 p.m.