

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

March 11, 2021  
11:03 a.m.

**MEMBERS PRESENT**

Representative Geran Tarr, Chair  
Representative Louise Stutes, Vice Chair  
Representative Jonathan Kreiss-Tomkins  
Representative Andi Story  
Representative Dan Ortiz  
Representative Sarah Vance  
Representative Kevin McCabe

**MEMBERS ABSENT**

All members present

**COMMITTEE CALENDAR**

HOUSE BILL NO. 54

"An Act establishing the Alaska Invasive Species Council in the Department of Fish and Game; relating to management of invasive species; relating to invasive species management decals; and providing for an effective date."

- HEARD & HELD

**PREVIOUS COMMITTEE ACTION**

BILL: HB 54

SHORT TITLE: INVASIVE SPECIES MANAGEMENT

SPONSOR(S): FISHERIES

02/18/21	(H)	PREFILE RELEASED 1/15/21
02/18/21	(H)	READ THE FIRST TIME - REFERRALS
02/18/21	(H)	RES, FSH
02/24/21	(H)	RES REFERRAL MOVED TO AFTER FSH
02/24/21	(H)	BILL REPRINTED
03/11/21	(H)	FSH AT 11:00 AM GRUENBERG 120

**WITNESS REGISTER**

DANIELLE VERNA, Secretary  
Alaska Invasive Species Partnership (AKISP)  
Cordova, Alaska

**POSITION STATEMENT:** During the hearing on HB 54, gave a PowerPoint presentation describing the Alaska Invasive Species Partnership.

AARON MARTIN, Program Coordinator  
Alaska Regional Invasive Species  
U.S. Fish and Wildlife Service  
U.S. Department of the Interior  
Anchorage, Alaska

**POSITION STATEMENT:** During the hearing on HB 54, gave a presentation, entitled "Preserving Alaska's resources by managing invasive species," dated 3/11/21.

LISA KA'AIHUE, Special Projects Manager  
Cook Inlet Aquaculture Association  
Kenai, Alaska

**POSITION STATEMENT:** Provided testimony in support of HB 54.

TAMMY DAVIS, Coordinator  
Alaska Invasive Species Program  
Alaska Department of Fish and Game (ADF&G)  
Juneau, Alaska

**POSITION STATEMENT:** During the hearing on HB 54, gave a PowerPoint presentation, entitled "Department of Fish and Game Invasive Species Program Report: 2021," dated 3/11/21.

#### **ACTION NARRATIVE**

[11:03:24 AM](#)

**CHAIR TARR** called the House Special Committee on Fisheries meeting to order at 11:03 a.m. Representatives Kreiss-Tomkins, Story, Ortiz, Vance, McCabe, and Tarr were present at the call to order. Representative Stutes arrived as the meeting was in progress.

**CHAIR TARR**, prior to introducing the scheduled agenda item, asked Representative Ortiz for a motion to reassign sponsorship for a group of bills.

**REPRESENTATIVE ORTIZ** moved that prime sponsorship of HB 54, HB 26, and HB 28 be that of the House Special Committee on Fisheries. [No objection was stated.]

**CHAIR TARR** explained what would happen next in the process would be a motion on the House floor to "switch those sponsorships."

## HB 54-INVASIVE SPECIES MANAGEMENT

[Contains discussion of HB 26 and HB 28]

[11:05:28 AM](#)

CHAIR TARR announced that the only order of business would be HOUSE BILL NO. 54, "An Act establishing the Alaska Invasive Species Council in the Department of Fish and Game; relating to management of invasive species; relating to invasive species management decals; and providing for an effective date."

CHAIR TARR remarked that working with all stakeholders results in the best legislation, and stakeholders have been engaged in the formation of this bill over the last four years. She described a Fall 2019 work session that was attended by scientists, float plane operators, fishing industry members, staff from the Department of Natural Resources (DNR), staff from the Alaska Department of Fish & Game (ADF&G), representatives from soil and water conservation districts, and tourism industry members, among others. She said many threats exist from changing climate and water conditions, arctic shipping, ballast water in oil rigs, and visitors to the state.

CHAIR TARR stated that HB 54 would create the Alaska Invasive Species Council. She stressed the importance of coordinating [mitigation and management] efforts to provide effective results and best use of available funding. She encouraged members to investigate the stakeholder information and committee packet materials to gain an understanding of the groups involved and how they coordinate for best results.

[11:09:48 AM](#)

DANIELLE VERNA, Secretary, Alaska Invasive Species Partnership (AKISP), gave a PowerPoint presentation describing the Alaska Invasive Species Partnership ("the partnership"). She turned to the first slide and specified that the partnership is an informal group comprised of individuals from agencies and organizations throughout Alaska. She said the partnership recognizes Alaska's vulnerability to invasive species and its goals of coordination, cooperation, and action aimed to prevent the introduction of new invasive species and to reduce the impacts of existing invasive species. She added that the partnership provides leadership and support to stakeholders, including members of the public. She explained that invasive species affect land, freshwater, and marine environments

throughout the state. She relayed that the partnership has goals to include additional stakeholders to provide input and coordinated responses.

MS. VERNA showed the second slide which listed the partnership's board of directors. She said members of the board consist of individuals from nonprofit, Native, academic, state, and federal entities, and board members serve two-year terms.

[11:12:43 AM](#)

MS. VERNA referred to the third slide which listed the standing committees within the partnership as follows: Elodea, Northern Pike, Marine, Government Relations, Workshop Planning, and Outreach & Education.

MS. VERNA directed attention to the fourth and last slide which listed the avenues of outreach conducted by the partnership. She offered to provide additional information to the committee about the partnership's ongoing activities and outreach and said all are welcome to participate in the partnership. Ms. Verna acknowledged the passion and work being done by members and stakeholders and closed her remarks by adding that invasive species are a continually evolving, active threat.

[11:15:26 AM](#)

REPRESENTATIVE ORTIZ asked whether the biggest challenges associated with invasive species are those on land or those in water.

MS. VERNA answered that the threats are equal among different biomes, and that terrestrial and aquatic biomes share common threats, such as that from elodea. She explained that elodea is an aquatic plant which arrives [in Alaska] by terrestrial vectors such as boats transported behind vehicles, and elodea [negatively] affects the invertebrate species in streams, which can, in turn, affect salmon.

[11:17:09 AM](#)

REPRESENTATIVE STUTES asked what invasive species, other than elodea and northern pike, fall under the marine category.

MS. VERNA replied that there is particular concern with [the introduction] of European green crabs and other organisms

including algae. She explained that the species can be brought into the state through marine and terrestrial vectors.

[11:18:15 AM](#)

AARON MARTIN, Program Coordinator, Alaska Regional Invasive Species, U.S. Fish and Wildlife Service, U.S. Department of the Interior, gave a PowerPoint presentation, entitled "Preserving Alaska's resources by managing invasive species," dated 3/11/21. He noted that AIS, the acronym for Alaska Invasive Species, would be used frequently. He drew attention to the second slide, which read:

- Infrastructure:
  - Hydropower facilities:  
21% of the state's power
  - Watercraft:  
68,616 registered watercraft (1/every 9 Alaskans)  
\$587M annual economic impact
  - Floatplanes:  
114 floatplane bases (40% of all towns)  
Lake Hood floatplane base  
\$56 Million (labor + economic activity)
- Food security and industries
  - Sport fishing - \$2.4B
  - Salmon commercial fisheries - \$4.2B
  - 229 Federally recognized tribes, 12 ANCs
  - Hunting and wildlife viewing - \$7.5B

MR. MARTIN explained that elodea and zebra mussels can have an economic impact and restrict access to lakes and river systems.

MR. MARTIN referred to the map of Alaska on the third slide which depicted the density, distribution, and diversity of invasive species. He explained that Alaska is on the low end of aquatic and terrestrial invasive species and suggested it [is in the state's best interest] to keep the numbers of AIS low and be able to eradicate new AIS quickly.

MR. MARTIN turned to the graph on the fourth slide and explained that Alaska enjoys its position further left [relative to other states] on the "invasion curve" related to freshwater and marine environments. He credited the partnership with being able to act quickly to take measures to eradicate new AIS. He suggested that the key takeaway from the slide is the illustration that as

AIS becomes more established and moves up the invasion curve, the cost of eradication along with the costs to ecosystems and economies rises significantly.

[11:21:28 AM](#)

MR. MARTIN spoke to the photographs of zebra mussels and quagga mussels on the fifth slide. He stated that these species foul infrastructures, including water distribution systems, and said utilities can be seriously impacted. He added that recreational activities and property values may also suffer as a result, which has occurred in the Great Lakes. He cautioned that salmon and trout can also be affected.

MR. MARTIN displayed the sixth slide which depicted a map of the U.S. illustrating the spread and establishment of zebra and quagga mussels via commercial shipping routes. He next referred to the seventh slide and explained that containment efforts have been made by state, tribal, and federal entities along with marina operators and other industry members. He said the area outlined in red shows the Columbia Basin Watershed boundary and the markers within the boundary show inspection sites and decontamination sites. He stated that these inspection and decontamination sites do not extend to Alaska, though coordination and communication to that end is taking place.

[11:24:57 AM](#)

MR. MARTIN drew attention to the eighth slide, which read:

Results

- Research suggests high habitat suitability for invasive mollusks.
- No confirmed reports of invasive mollusks in the wild.
  - o Smith et al. 2005
  - o D. Bogan 2012 - AKISP presentation Kodiak 2012

MR. MARTIN continued to the ninth slide regarding boat inspections for quagga and zebra mussels, which read:

- Alaska has 3 native mussels and 21% of state's power comes from hydropower facilities.
- 226 watercraft inspected (2017-19) at Alcan Port of Entry:

- o 70% not inspected in route, 30% inspected in-route
  - o 38% coming from a state with Q/Z mussels, 62% coming from states without
- No live mussels detected yet, but...
  - Currently assessing other critical control points in BC, WA, and OR.

MR. MARTIN drew attention to the second bullet point on the ninth slide and said no live mussels have been found. However, he continued, in 2019 a watercraft from the Great Lakes was found covered in dead zebra mussels and it required mitigation measures that included a high-pressure rinse with 120-degree water and intricate cleaning. He said the service would be offered May through August this year.

[11:27:36 AM](#)

REPRESENTATIVE MCCABE asked whether the inspections include looking at both boats and trailers.

MR. MARTIN answered yes, boats and trailers are inspected for zebra and quagga mussels as well as other AIS, inside and out.

[11:28:24 AM](#)

MR. MARTIN addressed the tenth slide which illustrated a Public Service Announcement (PSA) issued by the U.S. Fish and Wildlife Service (USFWS) regarding zebra mussels found in moss balls sold at pet stores. He explained that the USFWS has coordinated with state agencies, pet store industries, and other federal agencies to ascertain how long this may have been happening and how many items have been sold. He noted that zebra mussels have been found in moss balls in Alaska, and that all moss balls have been collected through efforts by staff at DNR and ADF&G.

[11:30:02 AM](#)

REPRESENTATIVE ORTIZ observed the PSA states that zebra mussels are the most destructive invasive species in North America. He asked where zebra mussels originated, if not North America.

MR. MARTIN answered that zebra and quagga mussels are native to the Black Sea and Caspian Sea in Eastern Europe, and the moss balls imported to the U.S. had originated from that region. He

added that other invasive species may also exist in the moss balls, and efforts are underway to identify and destroy them.

[11:31:09 AM](#)

REPRESENTATIVE VANCE asked whether there existed any regulation to control or prevent the shipping of online purchases of contaminated moss balls to Alaska.

MR. MARTIN explained that the USFWS is working with online retailers such as Amazon, Etsy, Petco, and PetSmart and that the retailers have taken the items off their online catalogues or should have. He added that the state has been working to identify and quarantine merchandise that may contain elodea or other invasive aquatic plants, and to prohibit future sales.

[11:32:13 AM](#)

MR. MARTIN resumed his presentation and brought attention to the eleventh slide entitled, "Originating locations of watercraft crossing into AK, summer 2017-2019." He explained that the slide illustrates the interconnectedness of infested waterbodies and that AIS may arrive via boats, fishing gear, and waders, having traveled from other states to Alaska.

MR. MARTIN directed attention to the twelfth and thirteenth slides entitled, "Prevention and Eradication: Elodea," which read:

- Background:
  - Alaska's 1st submerged aquatic invasive plant  
Native to the Pacific Northwest and New England
  - Introduced through aquarium dumps
- Impacts:
  - Habitat degradation/ loss for fish and wetland obligate species
  - Reduced biodiversity, fishing opportunities, floatplane and watercraft safety
  - Increased sedimentation
- Economic analysis:
  - Impact Potential: Annual loss of \$159M to the sockeye salmon fisheries if not stopped (Schwoerer et al 2019).

- o Ship-borne AIS impacts in the Great Lakes: Annual cumulative loss of \$138M/year to sportfishing, commercial fishing and water use. (Rothlisberger et al 2019).

MR. Martin turned to the map of Alaska on the fourteenth slide entitled, "Known Elodea Infestations in Alaska." He explained where eradication processes are taking place in the state.

[11:36:31 AM](#)

REPRESENTATIVE KREISS-TOMKINS asked what entities and to what proportion each entity is involved in eradicating AIS.

MR. MARTIN answered that the USFWS provides financial and "boots on the ground" efforts, the soil and water conservation districts provides leadership in the Interior and on the Kenai Peninsula, and DNR and ADF&G contribute to eradication efforts. He said all parties contribute equitably. He pointed out that additional resources are needed because elodea is costly and difficult to locate and has been found in new areas. He further added that Cook Inlet Aquaculture Association, Tyonek Tribal Conservation District, and Manley Hot Springs Village are other examples of participants.

REPRESENTATIVE KREISS-TOMKINS surmised that each effort is coordinated on an ad-hoc basis. He asked whether the USFWS has a dedicated budget for invasive eradication.

MR. MARTIN answered that there is no dedicated USFWS budget for eradication. He said allocated funds are received from headquarters for the prevention, early detection, and rapid response activities that have been identified by working closely with partners throughout Alaska. He advised that a federal rapid response fund and a state rapid response fund are necessary because taking funding from one critical project to address an infestation before it gets too much bigger leaves [his agency] with less. He added that moving forward on the other critical pieces cannot happen because of being reactionary on this other side.

[11:39:16 AM](#)

CHAIR TARR noted HB 54 would also create a response fund, although the bill would not fund it. She requested Mr. Martin to describe a year-by-year example of an elodea infestation.

MR. MARTIN responded that a good example is the Alexander Lake infestation. He explained the eradication project was initially estimated to cost \$90,000 per year for three years, but due to planning processes and the lack of partnership, compounded by staff turnover in multiple agencies, the project slipped for over a year and a half. He said the project has now amplified and is a multi-million-dollar eradication project, plus it possibly led to the infestation of nearby Sucker Lake. In Interior Alaska, he added, three new infestations were found last year; one being Harding Lake with elodea estimated to be present in 40 of the lake's 800 acres. He advised that now is the time to address it with early intervention efforts at a cost of a few hundred thousand dollars, thereby averting a whole lake, multi-million-dollar eradication effort.

[11:41:03 AM](#)

MR. MARTIN resumed his presentation. He moved to the fifteenth slide and explained the map illustrates current habitat suitability across Alaska for elodea. The "hotter" the color, he said, the more suitable the environment for elodea to become established. He added that if the models are correct the water systems in Alaska will be warming up and [elodea will spread].

MR. MARTIN stated that the sixteenth slide entitled, "Freshwater Vectors - Floatplanes," is tied to the floatplane risk assessment by Dr. Schwoerer et al. He said the slide shows how connected Alaska is through the floatplane industry. He noted that the "hotter" the color of each line, the more frequent that travel point. He explained that these vector analyses help with prioritizing where prevention efforts should be focused as well as area protection efforts. Efforts have been expanded around the Bristol Bay area, he continued, in recognition of how much traffic there is from Anchorage and the Kenai Peninsula to Wood-Tikchik [State Park], Togiak National Wildlife Refuge, and other lake systems near Bristol Bay.

[11:42:32 AM](#)

MR. MARTIN addressed the seventeenth, eighteenth, and nineteenth slides all entitled, "Prevention and Preparedness: European Green Crabs." Speaking to the seventeenth slide, he pointed out that European green crabs, native to Western Europe, are categorized among the top 100 worst marine invasive species in the world. He explained that this crab harms native crustaceans by eating and outcompeting them and this crab damages estuaries by eroding and digging into mudbanks, which are a delicate

environment used by freshwater and marine juvenile fish. He said this crab has become established throughout the western coastline [of the U.S.] and is moving north.

MR. MARTIN spoke to the eighteenth slide and specified that the USFWS has coordinated with multiple agencies and industry to conduct a risk analysis to understand how ships move and the level of risk for introduction [of European green crabs] through human-created pathways. He stated that the "hotter" the color or the hotter the area the more frequently [the shipping route] is used. He pointed out that Dutch Harbor is among the busiest ports in North America with boats coming directly from Southeast Asia and North Asia, as well as some of the most infested ports and bays in North America like San Francisco Bay, Tacoma, and the Seattle area.

MR. MARTIN showed the nineteenth slide and explained that these marine shipping pathways bring ballast water as well as critters living on the hulls of the boats. He directed attention to the illustrations and said that Alaskan ports are above the dashed line and below the line are the ports from which these boats are coming - the bigger the line the more frequent the traffic. He pointed out that Alaska is hyper-connected to places that are highly infested for marine invaders.

[11:44:51 AM](#)

MR. MARTIN moved to the twentieth slide entitled, "Key Takeaways," and stated that Alaska's way of life and its industries are at risk from the arrival of invasive species. He said the goal is to keep the distribution, density, and diversity of invasive species low so there is a chance to eradicate them before they become so hyper-established that it is unfeasible. He said it is essential to solidify this foundation of the existing partnership to increase awareness and prevention about the issue and to build on the organization and capacity among this partnership. Each entity has one or two people fully dedicated to this, he advised, and oftentimes the partnership gets pulled from one house fire to another, which is not a sustainable way to operate on such an important topic.

[11:46:14 AM](#)

CHAIR TARR complimented the research and presentations. She invited the next witness to begin.

[11:46:46 AM](#)

LISA KA'AIHUE, Special Projects Manager, Cook Inlet Aquaculture Association, stated she serves as the chair of the board of directors for the Alaska Invasive Species Partnership. She thanked Ms. Verna for describing the partnership and Mr. Martin for describing the invasive species issues facing Alaska and what is at stake for the state. She said she will focus on why the partnership supports HB 54 and will address the two main pieces of the bill - establishment of an Alaska Invasive Species Council and a rapid response fund.

MS. KA'AIHUE stated that the proposed council is needed because the partnership is informal and dependent on volunteers to push forward with invasive species initiatives. She said the partnership has been successful but can only do so much to move forward with invasive species issues and cannot compel agencies and stakeholders to participate. She specified that an advisory council to the Alaska Department of Fish and Game (ADF&G), comprised of members from state, federal, local, regional, and tribal governments, and non-governmental organizations (NGOs) and industry, would provide a venue for regular communication. The result, she continued, would be consistent statewide priorities, efficient management approaches, and common messaging to prevent the introduction and spread of invasive species in Alaska.

MS. KA'AIHUE allowed a council may seem like another level of bureaucracy but said it would ensure resources and funds are used in a coordinated fashion across governmental agencies and departments. A council, she stated, would break organizational silos that are inherent when organizations have their own missions combined with limited resources. Staying proactive by creating this broad council, she continued, would ensure that limited resources are used efficiently and with a high probability of success against the potentially devastating invasive species that Alaska is facing. The Alaska Invasive Species Partnership will do everything it can as volunteers to support the council, she advised, and will offer its experience with input on strategic planning along with providing issue-specific expertise.

MS. KA'AIHUE expressed the partnership's support for a rapid response fund as outlined in HB 54. She said this would allow ADF&G to make appropriations to the fund in the future. She added that prevention is the best strategy for stopping harmful invasive species, but that preventing introduction is not always possible. She stated that a rapid response fund would increase

the likelihood of successful eradication of invasive species so that Alaska would not be dealing with multi-million-dollar management problems later.

MS. KA'AIHUE stated she is partial to salmon given the industry she works in. She drew attention to the only slide in her presentation, which depicted a northern pike from Alexander Creek with a "belly full of salmon fry." She advised that wherever invasive pike are found in Southcentral Alaska, the pike's bellies are full of salmon or whatever resident species are left over after the favored food of salmon has been consumed. "Can you imagine Southcentral Alaska without salmon?" she asked. She said this is a critical example of why HB 54 is needed since Alaska defines itself by its natural resources.

[11:51:08 AM](#)

REPRESENTATIVE KREISS-TOMKINS expressed his surprise at learning from the committee packet information that pike are native to many Bristol Bay watersheds. He asked what it is about Southcentral watersheds that pike are so destructive whereas there seems to be equilibrium in the ecosystem with salmon in Bristol Bay watersheds.

MS. KA'AIHUE offered her understanding that pike and salmon evolved together north of the Alaska Range, but when pike were introduced to Southcentral it was a totally new inland species and because the pike and salmon did not evolve together there, the predatory pike took over. She deferred to the next witness, Ms. Davis, to address the topic further.

[11:52:41 AM](#)

TAMMY DAVIS, Coordinator, Alaska Invasive Species Program, Alaska Department of Fish and Game (ADF&G), during the hearing on HB 54, gave a PowerPoint presentation, entitled "Department of Fish and Game Invasive Species Program Report: 2021," dated 3/11/21. She displayed slide 2, "Invasive Species Costs," and this slide reiterates the points brought up by the previous speakers to instill the grave threats that invasive species pose to Alaska's fisheries, recreation, means of transportation, and to Alaska's economies that rely on healthy fisheries, clean water, and environmental resources.

MS. DAVIS moved to slide 3, "Invasive Species," and defined invasive species as a non-native organism that is introduced into an ecosystem where it can cause harm to the environment,

economies, and human health. She related that ADF&G's invasive species program strives for high caliber invasive species management based on the best available science and technology to protect, maintain, and improve the native fish, game, and aquatic plant resources of the state and their habitats, along with the economic and well-being interests of Alaskans. She said the department does this through collaboration with an array of partners, and added that work and investment continue, most notably the strategic and successful eradication of northern pike in Southcentral Alaska. The department has outstanding biologists, she continued, and ADF&G supports and grows its community-based early detection monitoring work with citizen scientists and agency staff, including marine monitoring for European green crabs. That model, she noted, has been expanded to fresh water to find what has yet to be detected and to prepare for what may be coming. She said strong relationships have been established with stakeholders. She pointed out that reporting and strategic planning are essential for success, and strategic plans are being actively updated.

MS. DAVIS showed slide 4, "Timeline of Invasive Species Events," and reported that in the past 11 years the number and diversity of non-indigenous species released into [Alaska's] waters has more than doubled compared to the past 40 years. This was expected to be a growing problem, she said, because invasive species are spread to Alaska through expanding transportation pathways, such as more vessels and people into the Arctic, and through the global distribution of goods. She said projects to eradicate invasive species infestations that originated from illegal release require expertise, collaboration with other agencies and landowners, and reallocation of staff time and financial resources over years. These projects are costly, she advised, but necessary to reduce the chance of further spread, to restore valuable habitats, and to reestablish or improve fishing opportunities. She stressed that to efficiently use funds and avoid environmental and economic impacts, rapid response and preventing new introductions is crucial.

[11:56:53 AM](#)

MS. DAVIS provided a review of some of the infestation projects that ADF&G has addressed. She stated that northern pike, slides 5 and 6, were first released into the Yentna River drainage during the 1950s, with drastic impacts on native fish. She said ADF&G has had successful projects over the years and is still working hard to protect salmon fisheries in Southcentral Alaska. She explained that response decisions differ within the region

based on what is feasible for specific water bodies. She noted that Anchorage and Kenai Peninsula waters were prioritized for early eradication projects over the past 10 years because those lakes were accessible and eradication possible. Ms. Davis reported that application of the aquatic pesticide rotenone has eradicated pike from 23 water bodies. She noted that infestations in the Matanuska-Susitna (Mat-Sue) Valley are widespread, especially in the west side tributary drainages like Alexander Creek where salmon populations have been decimated. She explained that preventing new introductions, eradication where possible, and suppression via targeted gillnetting is being used in this case to reduce pike populations and increase survival potential for juvenile salmonids. She said research includes collaboration with universities and federal agencies to prevent pike from moving into new waters, to understand pike movements and predation impacts, and to determine where populations originated.

MS. DAVIS moved to slide 7 and reported that yellow perch are found in an unnamed lake on the Kenai Peninsula in 2000, the first fish introduced to Alaska waters that were not native to the state. She related that ADF&G used rotenone, with help from the Minnesota Department of Natural Resources, to remove all yellow perch and that none have been found since that removal.

MS. DAVIS, in reference to the earlier question about northern pike from Representative Kreiss-Tomkins, confirmed that northern pike were native to most of Alaska but were introduced into the Southcentral region where they were not native.

[11:59:22 AM](#)

MS. DAVIS spoke to slide 8, "Dvex." She said *Didemnum vexillum* (Dvex), an invasive colonial sea squirt, was found at an oyster farm in Sitka's Whiting Harbor during the inaugural Marine Invasive Species Bioblitz in 2010. The oyster farm was visited, she explained, because aquaculture is both negatively affected by invasive species and a common pathway for spread. The entire oyster farm was infested, as was the Whiting Harbor seabed, she reported. Despite removal of all infrastructure from the area and ADF&G's collaboration with partners in novel research to eliminate and control the tunicate, it remains established on the seafloor. She added that Whiting Harbor would be surveyed again this year.

MS. DAVIS displayed slide 9 and said muskellunge, also known as muskies, are in the same family as northern pike. She related

that in 2018 during a pike eradication treatment on the Kenai Peninsula, eight unusual looking pike were recovered, and DNA testing confirmed the fish to be muskies. Based on the age of the fish and anecdotal information, she continued, the fish were likely released in 2012. She added that this species could have dire impacts to salmon fisheries and stocked fish populations.

MS. DAVIS addressed slide 10, "Largemouth Bass." She stated that in 2018 a Sand Lake angler caught a fish he couldn't identify; DNA identified the fish as a largemouth bass. She pointed out that largemouth bass are native to northern Midwest states and Canadian provinces and are voracious predators that have led to local extinction of several fish populations where they have been introduced.

MS. DAVIS turned to slide 11 and said another surprise in 2018 was the illegal introduction of fathead minnows to a small water body on the Kenai Peninsula. The pond was drained and treated with rotenone in 2019, she related, and ADF&G's pathologist found that the minnows were carrying a parasite that could be harmful to native fish.

[12:02:10 PM](#)

MS. DAVIS showed slide 12, "GOLDFISH," and noted that 2018 was a big year for invasive species detections; goldfish were also reported that year in Cuddy Pond in Midtown Anchorage. She related that manual methods were not effective in controlling the problem, so ADF&G requested and received an emergency exemption from the Department of Environmental Conservation (DEC) to apply rotenone, removing over 10,000 goldfish.

MS. DAVIS referred to slide 13, "RAINBOW TROUT," and stated that last year rainbow trout were illegally imported from a hatchery in Oregon and released. Unlike most illegal introductions, she noted, the release of those trout into a Kenai water body resulted in a law enforcement citation from a successful partnership between ADF&G and Alaska Wildlife Troopers.

MS. DAVIS discussed slide 14, "ZEBRA MUSSELS." She specified that Alaska is facing a considerable threat from this species, and it was unexpected to find that the aquatic plant trade is a pathway for zebra mussels. According to the Pacific States Marine Fisheries Commission (PSMFC), she related, the estimated cost of failing to prevent an invasion of zebra mussels and quagga mussels into the Columbia River Basin, which includes waters located in the Pacific Northwest states and British

Columbia, would exceed \$500 million. She added that states in the region are currently spending \$13.2 million per year on prevention efforts, including watercraft inspections.

MS. DAVIS concluded her presentation with slide 15, "INVASIVE SPECIES REPORTING." She said ADF&G hosts online smartphone and telephonic options for reporting invasive species. She pointed out that when an organism is reported for which ADF&G does not have jurisdiction, the department shares that report with its identified partners.

[12:04:32 PM](#)

REPRESENTATIVE KREISS-TOMKINS asked whether Ms. Davis is still ADF&G's only staff exclusively dedicated to invasive species.

MS. DAVIS replied, "Yes, with a caveat," and noted that ADF&G's Region 2 office has staff who are focused on northern pike.

REPRESENTATIVE KREISS-TOMKINS asked why northern pike are so much more of a malevolent ecosystem force in Southcentral Alaska relevant to the rest of Alaska.

MS. DAVIS responded that salmon and northern pike evolved together where the pike are native. In addition, she continued, Southcentral has much shallower and slower moving systems and many side water sloughs where vegetation is perfect for northern pike reproduction.

[12:06:01 PM](#)

REPRESENTATIVE KREISS-TOMKINS inquired about the extent to which ADF&G could ascertain the source of an invasive species introduction down to a specific person or event.

MS. DAVIS answered that because of new technology, particularly environmental DNA, fish can be tied back to home waters. For example, she said, the rainbow trout were tied back to Oregon. In another introduction, she continued, it was determined that the fish originated in the Midwest but in that situation ADF&G was unable to work with the troopers to follow through on any sort of citation.

REPRESENTATIVE KREISS-TOMKINS, in relation to going forward with HB 54, inquired about whether criminal penalties exist for the introduction of invasive species. He further inquired about

whether there is a way to get some revenue in the bill given it is a classic "ounce of prevention is a pound of cure" situation.

CHAIR TARR responded that there is some good news to report but in the interest of time she is saving it until the next meeting.

[12:08:50 PM](#)

REPRESENTATIVE STORY noted that when children learn something they pass it on to their parents. She asked about efforts that the partnership and ADF&G are undertaking to reach young kids.

MS. DAVIS replied that direct interaction with children is occurring in the Kachemak Bay area where the Kachemak Bay National Estuarine Research Reserve does early detection monitoring with students, and it is also occurring in Sitka. A challenge, she pointed out, is that kids are out of school during the period in which most of the trapping events occur.

MR. MARTIN added that the partnership developed a communication strategy in which key audiences were identified, and one of those main audiences is teachers, educators, and students. He said current efforts include the development of educational toolkits for distribution in classrooms and visitor centers throughout the state.

[12:11:00 PM](#)

CHAIR TARR thanked the speakers for their presentations. [HB 54 was held over.]

[12:11:46 PM](#)

#### **ADJOURNMENT**

There being no further business before the committee, the House Special Committee on Fisheries meeting was adjourned at 12:12 p.m.