ALASKA STATE LEGISLATURE
HOUSE RESOURCES STANDING COMMITTEE
January 23, 2012
1:03 p.m.

MEMBERS PRESENT

Representative Eric Feige, Co-Chair
Representative Paul Seaton, Co-Chair
Representative Peggy Wilson, Vice Chair
Representative Alan Dick
Representative Neal Foster
Representative Bob Herron
Representative Cathy Engstrom Munoz
Representative Berta Gardner
Representative Scott Kawasaki

MEMBERS ABSENT

All members present

OTHER LEGISLATORS PRESENT

Representative Craig Johnson

COMMITTEE CALENDAR

OVERVIEW(S): UPDATE: INVASIVE SPECIES IN ALASKA AND AGENCY ACTION PLANS TO ADDRESS INVASIVE SPECIES

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

TAMMY DAVIS, Fishery Biologist
Division of Sport Fish
Alaska Department of Fish & Game (ADF&G)

Juneau, Alaska
POSITION STATEMENT: Presented a PowerPoint titled "Invasive Species Status Report 2012" and answered questions.

CHARLIE SWANTON, Director
Division of Sport Fish
Alaska Department of Fish & Game (ADF&G)
Juneau, Alaska
POSITION STATEMENT: Answered questions during the "Invasive Species Status Report 2012" presentation.

MARNIE CHAPMAN, Biologist
University of Alaska Southeast-Sitka Campus
Sitka, Alaska
POSITION STATEMENT: Presented a PowerPoint, "Didemnum vexillum (Dvex) in Sitka, AK," and answered questions.

BRIANNE BLACKBURN, Natural Resources Specialist
Invasive Weeds and Agricultural Pests Coordinator
Division of Agriculture
Department of Natural Resources (DNR)
Palmer, Alaska
POSITION STATEMENT: Presented a PowerPoint, "State of Alaska Invasive Species," and answered questions during the discussion.

ACTION NARRATIVE

1:03:37 PM

CO-CHAIR PAUL SEATON called the House Resources Standing Committee meeting to order at 1:03 p.m. Representatives Dick, Gardner, P. Wilson, Foster, Feige, and Seaton were present at the call to order. Representatives Kawasaki, Herron, and Munoz arrived as the meeting was in progress. Representative Johnson was also in attendance.

OVERVIEW(S): Update: Invasive Species in Alaska and Agency Action Plans to Address Invasive Species

1:03:46 PM

CO-CHAIR SEATON announced that the only order of business would be an update from the Alaska Department of Fish & Game (ADF&G) and the Department of Natural Resources' Division of Agriculture on invasive species in Alaska and action plans to address invasive species.

1:04:18 PM

TAMMY DAVIS, Fishery Biologist, Division of Sport Fish, Alaska Department of Fish & Game (ADF&G), confirmed that she was the Invasive Species Program project leader.

CHARLIE SWANTON, Director, Division of Sport Fish, Alaska Department of Fish & Game, established that the invasive species program was part of the Division of Sport Fish.

MS. DAVIS introduced a PowerPoint presentation, entitled "Invasive Species Status Report 2012" and directed attention to slide 2, "Overview." She summarized that she would be defining invasive species, the pathways into Alaska, species of concern for risk of introduction, and the species of special concern for their presence, with highlights on three specific species: Northern Pike, Didemnum Vexillum, and Elodea. She affirmed that she would discuss ADF&G's future goals in relation to these and other species.

1:07:03 PM

MS. DAVIS, calling attention to slide 3, "Invasive Species," explained that "an organism introduced outside its native range that can cause damage to environments, economic hardship to key industries, or pose a risk to human health is considered an invasive species." She clarified it must be non-native and pose a risk. She specified that for survival, a non-native species needed few predators, an agreeable habitat, an abundance of food, and the ability to out-compete other organisms in that environment.

MS. DAVIS presented slide 4, "Pathways for Introduction," and related that an escalation in the movement of goods and people

increased the potential for the introduction of non-native species. She stated that Southcentral Alaska had 165 lakes in which Northern Pike had been illegally introduced.

1:09:04 PM

MS. DAVIS, moving on to slide 5, "Invasive Species," disclosed that invasive species could out-compete native species for habitat, food, and space, degrade or destroy the habitats, and upset the ecosystem structure and function.

MS. DAVIS, reviewing slide 6, "Prevention," said that measures by the state to prevent non-native species included regulations prohibiting intentional transfer of live fish, wildlife and aquatic plants.

1:10:39 PM

CO-CHAIR FEIGE asked what penalties were involved.

MS. DAVIS responded that the penalty could range from a $100 fine to the cost of restoring the system.

CO-CHAIR FEIGE asked about the rate of prosecution.

MS. DAVIS replied that, as enforcement had its own challenges, there was currently no prosecution.

1:11:15 PM

MS. DAVIS emphasized that there were regulations about aquatic farming, and farm products, and that it was necessary to certify seed or spat imported for use in aquatic farm production.

CO-CHAIR SEATON asked if the prohibition on felt soled wading boots included the sale and importation.

MS. DAVIS replied that only the use in freshwater systems was prohibited.

CO-CHAIR SEATON asked about the rate of compliance.

MS. DAVIS indicated that this had only gone into effect on January 1, 2012.

1:12:19 PM

REPRESENTATIVE MUNOZ asked if work was being conducted with the nurseries to educate about the damage caused by specific plants.

MS. DAVIS replied that this was outside the jurisdiction of ADF&G.

MS. DAVIS continued the discussion on prevention with slide 7, which included information and identification.

1:13:27 PM

MS. DAVIS, in response to Co-Chair Seaton, stated that she was not aware of any boat cleaning restrictions in Kenai, although inspections of boats moving from one place to another was happening in the western states.

1:14:01 PM

REPRESENTATIVE DICK asked if giardia had existed in Alaska prior to the Vietnam War.

MS. DAVIS replied that she would research the question.

MR. SWANTON, in response to Representative Dick, opined that giardia was endemic to North America, and that it was typically around areas with beaver populations which acted as an intermediate host.

REPRESENTATIVE DICK offered his belief that giardia affected only urban visitors.

1:15:57 PM

REPRESENTATIVE MUNOZ asked for more information about the invasives in Sitka.

MS. DAVIS replied that more details would be forthcoming, and she clarified that it was not a plant, but an invertebrate.

1:16:27 PM

MS. DAVIS conveyed the "Prevention" information on slide 9, which included the Outreach collaboration with partners, and the prioritization of actions, based on species, pathways, capacity, and funding.

MS. DAVIS, calling attention to slide 10, "Aquatic Species of Concern: Risk of Introduction," reviewed the aquatic species of concern to the department, which included Atlantic salmon, European Green Crab, and tunicates.

MS. DAVIS, in response to Co-Chair Seaton, acknowledged that tunicates would be discussed by Marnie Chapman later in the meeting.

1:18:28 PM

MS. DAVIS, addressing slide 11, "Monitoring for Invasive Species," reported that ADF&G monitored through various programs, including Platewatch for the Pacific coast tunicate, and European green crab monitoring in Ketchikan, Homer, Sitka and other locations.

MS. DAVIS directed attention to the map on slide 12, "Monitoring," which depicted the Platewatch locations for tunicate monitoring. She observed that both Ketchikan and Sitka were positive for both species of the botryllid tunicate. She noted that the right side of slide 12 showed the native and non-native tunicates, as well as an example of a collection plate for tunicates.

1:21:11 PM

MS. DAVIS, specifying the green crab sampling locations on slide 13, "Monitoring," admitted that it was similar to a search for a needle in a haystack.

CO-CHAIR FEIGE, referencing slide 12, asked about the relative size of the tunicate.

MS. DAVIS explained that, in this slide, the tunicate was growing on an organism the size of a slug. She specified that the tunicate was a bit more viscous than slime.

MS. DAVIS passed around a jar containing tunicate samples.

1:23:11 PM

MS. DAVIS stressed the importance for constant monitoring for green crab as detection had been observed significantly closer to Alaska each year.

MS. DAVIS replied that concern was for the effect on Dungeness crab nursery sites, which were contiguous to green crab nurseries. She pointed out that adult green crabs were voracious predators.

1:24:41 PM

REPRESENTATIVE HERRON questioned whether there was any value to green crab.

MS. DAVIS pointed out that green crabs were not eaten in the British Isles, its native habitat.

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MS. DAVIS introduced slide 14, "Aquatic Species of Concern: Present in Alaska," and mentioned botryllid tunicates and didymosphenia geminata. She declared that although geminata were native in some low nutrient, cold, clear streams in Interior Alaska, there could be different effects if it was introduced to the coastal area fresh water systems. She mentioned that impact of the red-legged frog, introduced to Sitka by a well-intentioned teacher, was not yet known.

1:26:51 PM

MS. DAVIS, in response to Co-Chair Feige, reported that there had not been any prosecution of the Sitka teacher.

CO-CHAIR SEATON clarified that the introduction of the red-legged frog was not against the law at that time.

1:27:06 PM

REPRESENTATIVE GARDNER asked Ms. Davis if her funding requests included any monies for public service announcements (PSAs).

MS. DAVIS replied that the funding request included outreach, and that PSAs were included in that category. She noted that funding from Bureau of Land Management and U.S. Fish and Wildlife Service would support a broad media and education outreach campaign.

REPRESENTATIVE GARDNER asked if funding was a reason for the challenge to enforcement.

MS. DAVIS responded that she could not speak to that.

1:28:11 PM

MS. DAVIS clarified that Northern Pike were considered invasive when outside its native range. She also listed colonial tunicate and elodea, a freshwater weed, as species of concern.

MS. DAVIS directed attention to the map on slide 15, "Northern Pike: Native Range," which depicted the native and introduced ranges of Northern Pike.

MS. DAVIS moved on to slide 16, "Northern Pike," and stated that Northern Pike lived in calm, shallow waters with abundant aquatic vegetation, a habitat similar to that for salmon spawning. She called attention to the devastating effect from introduced northern pike to the native salmonids.

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REPRESENTATIVE DICK nominated that the pike, when uncontrolled, had also wiped out muskrat populations.

MS. DAVIS confirmed that both muskrats and ducks had been found in stomach contents of pike.

1:31:29 PM

MS. DAVIS compared slides 17 and 18, "Northern Pike: Consequences," which identified the drop off in native fisheries since the introduction of Northern Pike in Stormy Lake and Alexander Creek.

REPRESENTATIVE P. WILSON asked where Stormy Lake and Alexander Creek were located.

MS. DAVIS, referring to slide 20, "Alexander Lake/Alexander Creek," explained that these flowed into the Susitna River, about eight river miles above the delta into Cook Inlet. Ms. Davis stated that Stormy Lake was on the Kenai Peninsula.

MS. DAVIS, referring back to slide 18, said that the decline on Alexander Creek was similar to that on Stormy Lake.

1:34:20 PM

CO-CHAIR SEATON, referencing slide 18, asked if the harvest and the effort graphs could also be interpreted to indicate a decrease in effort resulted in a decrease in harvest.

MR. SWANTON replied that the graph was merely trying to depict that the abundance of king salmon in Alexander Creek had "precipitously decreased to the point now where there is no fishing." He elaborated that Alexander Creek was now closed to fishing, as there was a concern for the stock, and recovery work was underway.

1:35:43 PM

CO-CHAIR FEIGE asked if it was possible that, as people often went where the fishing was good, this could be the reason for the decline.

MR. SWANTON reflected that the increase of the northern pike population had resulted in the decrease of the king salmon population, which led to the decline of fishermen.

1:37:18 PM

MS. DAVIS, returning attention to slide 20, stated that pike were first found in Alexander Lake in the mid-1980s, but that, as pike moved down Alexander Creek in the early 1990s, a decline in the king salmon population occurred. She continued, noting that the Board of Fisheries closed the Alexander system to king salmon fishing in 2008. She reported that the legislature had allocated general funds to the Division of Sport Fish to study the Northern Pike in the Alexander system, which included aggressive control netting in the side channel sloughs, as well as in Alexander Creek. She noted that there would also be a study as to better understand the quantity of salmonids in the pike diet. She opined that heavy pressure on the pike population could lead to a restoration of the king salmon fishery.

1:40:19 PM

REPRESENTATIVE P. WILSON asked how, if no salmon were now there because they had been eaten by the pike and nothing was done to help them return, the system could be restored.

MS. DAVIS replied that the study would attempt to find out how many salmon were still reproducing in Sucker Creek, along Alexander Creek. She reflected that it was necessary to better understand the entire salmonid population.

1:41:50 PM

CO-CHAIR SEATON asked whether there was any monitor equipment on Alexander or Sucker Creeks.

MR. SWANTON pointed out that for most clear water systems the adult escapements were assessed by helicopter surveys, which were quite accurate for counting. He offered his opinion that 700 or 800 adults were still in the system. He explained the pressure that the Northern Pike gauntlet created for salmon smolt migration.

CO-CHAIR FEIGE commented that, as a pilot, he had dropped fishermen at Alexander Lake, and often fishermen had caught half a dozen pike before he was even able to take off. He concluded that there was a healthy pike population in that lake.

1:44:45 PM

MS. DAVIS, in response to Representative Wilson, confirmed that stocking salmon "would effectively be feeding the pike." She noted that some lakes in Southcentral were no longer being stocked because of this problem.

1:45:23 PM

MS. DAVIS returned attention to slide 21, "Northern Pike," and noted that some objectives of the project included large-scale gillnetting, documenting movement patterns, and monitoring salmonid populations in the drainage.

MS. DAVIS, addressing slide 22, "Northern Pike: What's Next," affirmed that Stormy Lake was another priority project for the study of pike. She said the first phase would be for permitting and public scoping, and the second phase would be investigating the feasibility of using rotenone, a chemical treatment. She confirmed that five other lakes had used this treatment with effective results; however, she noted that one of the lakes had a return of a pike population.

MS. DAVIS, discussing slide 23, "Stormy Lake and Swanson River Drainage," explained that the situation in Stormy Lake was similar to that in Alexander Lake. She expressed the desire to keep pike out of the Swanson River drainage.

1:48:06 PM

REPRESENTATIVE DICK offered his belief that pike spawn in creeks.

MS. DAVIS replied that telemetry surveys had been done on this system to learn more about pike movement.

CO-CHAIR SEATON asked if pike bounties had been offered.

MR. SWANTON opined that bounties had not been tried, but that even relaxed limits had not taken care of the problem. He shared that efforts were being concentrated on the pike spawning ground.

CO-CHAIR FEIGE asked for a definition of controlled netting.

MS. DAVIS replied that different systems used different types of nets, either gill nets or hoop nets, 24 hours a day for the month of May.

1:50:42 PM

MS. DAVIS, in response to Co-Chair Seaton, stated that 4008 pike were captured, and when the stomach contents were investigated, 273 salmonids were found.

MS. DAVIS, discussing slide 24, "Didemnum vexillum (D.vex)," indicated the picture of the colonial tunicate and, in response to Co-Chair Seaton, she pointed out the former aquaculture farm in the middle of the picture of Whiting Harbor, near Sitka. She said that Marnie Chapman was on-line to also answer questions.

1:52:50 PM

MS. DAVIS explained that ADF&G had hosted a marine invasive species bio blitz in Sitka, slide 25, "D. vex." She pointed out that the extensive growth of the tunicate did not allow the oysters to even be seen through the netting. She said that D. vex had potential effects on herring spawn, as it grew on seaweed, manmade materials, and the seafloor, and it smothered anything on which it grew.

1:55:13 PM

MS. DAVIS, in response to Representative P. Wilson, said that the aquaculture economy had been affected by D. vex. She explained that the D. vex fibers grow right into the net, and are difficult to remove. She pointed out that farmers spray the nets to remove it, but this often spreads the species because it reproduces asexually. She declared that D. vex had been found around the world.

REPRESENTATIVE P. WILSON observed that the spread of D. vex had covered miles and miles of the Eastern U.S. coastline.

MS. DAVIS reported that, over a very short period of time, the D. vex population expanded from a 20 mile radius in an area around the prime fishing area of Georges Bank, to an area greater than 100 square miles.

1:57:31 PM

CO-CHAIR FEIGE asked how to kill D. vex or prevent it from attaching.

MS. DAVIS replied that there was still a lot to learn, as there had not been any complete eradication success.

CO-CHAIR FEIGE asked if it was possible to kill the D. vex without killing the oysters in an oyster farm.

MS. DAVIS replied "no."

1:58:47 PM

MS. DAVIS reiterated that the species had been found in Whiting Harbor in June 2010, with identification confirmed in August. In late August, ADF&G, University of Alaska, and the Sitka tribe, had conducted a quick investigation of the aquatic farm and the sea floor below the sea farm, and realized that D. vex was growing everywhere that they looked.

MS. DAVIS stated that funding assistance from USFWS allowed for distribution assessments, investigation of control options, and the compilation of a response plan. She said that an immediate news release went to all the stakeholders. In January 2011, ADF&G commercial fisheries divers did a comprehensive survey of Whiting Harbor to determine the distribution of D. vex (slide 27, "D. vex: Distribution.").

2:01:54 PM

MS. DAVIS continued with slides 28 and 29, "D. vex," and conveyed that work had continued throughout 2011 with a rapid response team of invasive species experts comprised of state, local, federal, and tribal partners. In the summer 2011, the remaining lantern nets at the aquatic farm were bagged, pulled out of the water, put into polypropylene bags, and disposed of out of state. In October, when extreme weather broke apart the aquatic farm, the ADF&G Sitka office managed to gather as much of the debris as possible, put it into containers, and ship it out of state.

2:04:19 PM

CO-CHAIR FEIGE inquired as to what degree D. vex had contributed to the destruction of the aquatic farm.

REPRESENTATIVE P. WILSON, in response, said that it was in combination with the weather. She shared that in July the owner of the farm had not been allowed to go back into the farm to tighten things up because it could have caused further spreading with the use of any boats. At the time of the storm, one side had already sunk under water and the waves and water further softened the ropes, allowing about 100 bags to drop to the bottom. She suggested that the state needed to develop a rapid response system, as none of the departments had any funds to respond.

2:07:37 PM

MR. SWANTON pointed out that, although there were some legal aspects to contend with, the owner of this facility was under contract to secure his materials.

CO-CHAIR SEATON agreed there were always more pieces to the puzzle, and it could be addressed at a later time how the state should act to ensure that an invasive species did not get out of control.

2:08:54 PM

REPRESENTATIVE MUNOZ asked for an update to the situation in Sitka.

MS. DAVIS recounted that, although the aquatic farm was completely out of the water, a privately owned weather port was well infested and still on the water; there was still growth on the native substrate and there was a search for funding to find a means to eradicate it. Directing attention to slide 30 "D. vex: What is Next?" she said that the Smithsonian Environmental Research Center (SERC) was looking for funding to find feasible means for eradication.

2:09:42 PM

CO-CHAIR SEATON asked about the timeframe for Department of Environmental Conservation (DEC) and ADF&G to permit use of slow dissolving powdered chlorine for control, noting that this had been used in the fish plants as a disinfectant.

MS. DAVIS confirmed that the permitting would be a lengthy procedure, primarily because of federal permits and public scoping.

CO-CHAIR SEATON asked about the use in state waters.

MS. DAVIS explained that there were serious complexities. In further response to Co-Chair Seaton, agreed to prepare an outline paper for the committee.

2:12:09 PM

REPRESENTATIVE HERRON asked if ADF&G had a priority list for invasive levels.

MS. DAVIS observed that there was not a prioritized list.

REPRESENTATIVE HERRON asked if there should there be a list.

MS. DAVIS deferred to Dr. Swanton.

CO-CHAIR SEATON opined that this could be included in the outline paper.

2:13:05 PM

REPRESENTATIVE P. WILSON reflected that invasive species were often referred to in general terms. She requested that more information include the seriousness for potential spreading within Alaska, as well as the consequences and ramifications from this spread.

CO-CHAIR SEATON endorsed that Ms. Davis come back to the committee with this information, the direction to move forward and address the problems, and the best procedures to follow.

2:15:43 PM

REPRESENTATIVE MUNOZ asked to clarify that the Smithsonian Environmental Research Center (SERC) study would occur prior to a request to the legislature for funding for eradication.

MS. DAVIS replied that SERC had submitted a request for funding to the North Pacific Research Board.

MR. SWANTON informed the committee that research had been conducted on methods of control and eradication. He declared that ADF&G had submitted a capital request for $500,000 for this particular project, but that the means for eradication had not yet been determined.

2:17:32 PM

REPRESENTATIVE KAWASAKI asked if ADF&G had a comprehensive plan to address invasive species.

MS. DAVIS responded that ADF&G had an aquatic nuisance species management plan, written in 2002, and she opined that it needed to be updated.

REPRESENTATIVE KAWASAKI pondered whether, if there were no other comprehensive plan, the House Resources Standing Committee should address this need.

2:19:28 PM

MARNIE CHAPMAN, Biologist, University of Alaska Southeast-Sitka Campus, reported that she was at the Bioblitz when D. vex was discovered in Sitka, and since then she had been working with the rapid response team. She directed attention to her PowerPoint presentation entitled, "Didemnum vexillum (Dvex) in Sitka, AK".

MS. CHAPMAN, addressing slide 3, "Dvex in Sitka," said that there was concern about the explosive growth and potential for spread, and that she would address ways to reduce the possibilities for Dvex reintroduction.

2:21:03 PM

MS. CHAPMAN offered slide 4, "Growth Over 10 Week Period," which depicted various close up photos of netting. She reported that Dvex was a tunicate, an invertebrate and a member of the phylum Chordata, which included birds, amphibians, and fish. She said that it spread sexually, but that it also grew asexually. She shared that the asexual reproduction was astounding, as depicted on slides 5 - 9, which depicted photos of the Dvex growth in the netting from July 9 - September 1, 2011. She directed attention to slide 10, which compared photos of the netting on June 24 and September 11, 2011. She pointed to the tentacle growth which she explained would drop off and spread new colonies, shown on slide 11, "Dangles." She stated that these tentacles could grow one meter in two weeks.

2:23:10 PM

MS. CHAPMAN moved to slide 12, "Dangles attenuate and break free," and explained that the growth will get thin, break, and float away to new places, and then, slide 13, "Within a few days..." which depicted how the Dvex would start to do the same thing again. She stated that Dvex was a very impressive, very scary animal for its potential to spread.

MS. CHAPMAN shifted to slide 14, "Intertidal Dvex Sitka Alaska," and pointed out that it covered everything, including rocks and seaweed. She observed that it was "...habitat altering. We don't know exactly what it's going to do, but, it's clearly causing changes out there."

2:24:59 PM

MS. CHAPMAN spoke about slide 15, "Dvex in Sitka" and slide 16, "Whiting Harbor infestation." She said that there was concern for the deterioration of the Whiting Harbor docks, as this could spread the Dvex infestation. She offered her belief that the difficulties of prioritizing among multiple agencies had contributed to the escape of some of the dock structures, and she expressed a desire that this mistake would not be repeated. She emphasized the crucial need for identification and containment of invasive species.

2:27:00 PM

MS. CHAPMAN supplied slide 17, "Whiting Farm Deterioration," which compared pictures of the Whiting Farm dock structures in summer 2010 and September 26, 2011.

MS. CHAPMAN spoke about slide 18, "Eradication," and reiterated that SERC was testing various eradication methods, which included an application of salt.

MS. CHAPMAN directed attention to slide 19, "10% Acetic Acid," which displayed bits of netting containing Dvex. She explained the difficulties of keeping the salt application in place in a

marine environment. She reminded the committee that even while working on eradication, it was necessary to find a solution for containment.

2:29:14 PM

MS. CHAPMAN moved to slide 21, "Reduce possibilities for reintroduction" and noted that while ballast water, hull fouling, and controlling spat were all important, controlling the movement of docks and other floating infrastructure enabled the control of habitat. She questioned whether any legislation or public awareness was directed toward this as a control.

MS. CHAPMAN introduced slide 22, "Whiting docks pieced together from local and distant sources," which depicted the gathering of dock materials from far flung sources. She stressed the importance of controlling the dispersal of dock materials, and she pointed out that when a dock was decommissioned, its parts were sent all over.

2:31:00 PM

MS. CHAPMAN commenting on, slide 23, "Dvex in Sitka," and slide 24, "Learn more about the biology," emphasized the need to learn more about Dvex and its impacts.

MS. CHAPMAN shared slide 25, "Impacts for Sitka and Alaska are Unknown," and spoke about the possible impact on herring eggs, which were so important to the community of Sitka. She declared there was almost no information about herring eggs and Dvex.

MS. CHAPMAN concluded with slide 26, "Where do we go from here?" which was an aerial photo of Whiting Harbor. She emphasized the importance of containing Dvex within Whiting Harbor.

REPRESENTATIVE P. WILSON reiterated that "when those [Dvex] little strands get thin and they break off separately they can grow somewhere." She expressed her concern for the spread of Dvex, and suggested that a solution was necessary.

2:34:24 PM

BRIANNE BLACKBURN, Natural Resources Specialist, Invasive Weeds and Agricultural Pests Co-coordinator, Division of Agriculture, Department of Natural Resources (DNR), presented a PowerPoint, "State of Alaska Invasive Species," and directed attention to slide 2, "Invasive Species in Alaska," which included a general definition of an invasive species. She stated that the key point was for there to be an economic or environmental risk of harm by these organisms. She shared that, in Alaska, there was tracking of 332 non-native plants for potential invasiveness, even though only a very small percentage of non-native organisms would survive in Alaska, with even a smaller percentage exhibiting invasive behavior. She stated it was not practical to view all of these as invasive, hence the need to prioritize.

2:36:14 PM

MS. BLACKBURN confirmed that she most often worked with invasive plants. She listed the areas in which Division of Agriculture focused: inspect and grade agricultural products; regulate and control the entry and transport; control and eradicate the spread of pests; and, co-ordinate, plan, regulate, and review.

2:37:42 PM

REPRESENTATIVE KAWASAKI asked if pests included animals.

MS. BLACKBURN replied that DNR dealt with agricultural pests.

MS. BLACKBURN said that the coordination of projects with the partner groups was one of her major responsibilities.

MS. BLACKBURN moved on to slide 4, "Strategic Plan," and said that the plan was written to help guide the prevention and management of invasive species, and it included objectives and action strategies, annual priorities and goals, and an annual report.

MS. BLACKBURN continued on with slide 5, "Regulations." She referred to the bullet points of the law, and noted that these were the key focus components.

2:40:09 PM

REPRESENTATIVE P. WILSON, with regard to rapid response, asked if the Division of Agriculture could move more quickly than other departments.

MS. BLACKBURN replied that this was very relative, as rapid response depended on a lot of factors, including funding and clear authority. She relayed that her division focused on priorities to address what might arise. She affirmed that the challenges of permitting, land ownership, and multiple agencies did create delays.

2:41:55 PM

MS. BLACKBURN returned to slide 5, and stated that current regulations addressed seed laws, quarantine laws, and pest laws. She reported that, currently, there was an internal process of updating these regulations to make them more applicable to all invasive weeds and agricultural pests, beyond the current seed list. She added that another key element was to develop a process which included the agency partners.

2:43:04 PM

CO-CHAIR SEATON asked if the legislature needed to set out a list of prohibited species, or did DNR have regulatory authority to add additional plants to the prohibited list.

MS. BLACKBURN explained that the amendments being proposed to the regulations would address a process for DNR to update the list regionally, by which the public and conservation districts could be involved with the updates.

CO-CHAIR SEATON asked that the legislature be notified if a statutory change was necessary to authorize emergency or temporary use.

MS. BLACKBURN conveyed that the proposal was in the final stages of internal review.

2:44:53 PM

MS. BLACKBURN addressed slide 6, "Typical Species Invasion Curve," explaining that it defined a snapshot of invasive species behavior in a new environment. She noted that introduction was established when the species was brought into the state, and this began the lag phase, when early detection rapid response was critical. The next period - exponential growth - would differentiate an invasive species from a non-native species, and this was when it became very difficult and expensive to control and eradicate. She declared that during the next phase, carrying capacity, the species would reach its ecological amplitude, occupying all the available space with a maximum impact. She observed, at that point management goals shifted more toward control, and less toward eradication.

2:47:36 PM

MS. BLACKBURN directed attention to slide 7, "Projects," declaring that this was where the Division of Agriculture focused its time. She pointed to the geographic and climatic barriers that have helped protect Alaska. She touted outreach and education as the two starting places for early detection rapid response. She spoke about the weed free forage and gravel certifications. She pointed out that inventory and monitoring were important elements of control and management.

2:49:38 PM

MS. BLACKBURN moved on to slides 8 and 9, "Outreach & Education," and announced that the key really was rapid response. She said that information was forthcoming from states with similar climates. She listed Purple Loosestrife, Spotted Knapweed, and Giant Hogweed, and noted that all were found in limited populations in Alaska. She described the Giant Hogweed in Kake, the Purple Loosestrife in Anchorage, and the Spotted Knapweed in limited amounts in Alaska. She acknowledged that although dandelions were invasive, they were not a high priority.

2:52:31 PM

CO-CHAIR FEIGE asked what the most common vector was to get these plants into Alaska's environment.

MS. BLACKBURN replied that this was not a simple question but that nursery stock, vehicles, and float plane traffic were the common vectors. She described the efforts to raise awareness and limit the inflow. She mentioned Elodea, a common aquarium plant that had the potential to infect Alaska streams. She discussed the Spotted Knapweed program which had begun in 2009, with 23 known locations of less than one half acre, and through early detection and rapid response, had resulted in eradication to all but 7 known locations.

2:55:11 PM

REPRESENTATIVE P. WILSON asked if there were a variety of colors of Spotted Knapweed.

MS. BLACKBURN explained that this Knap species was most commonly pinkish-purple, but that there were other Knap species colors.

REPRESENTATIVE P. WILSON mused on its similar look to chicory.

MS. BLACKBURN reflected on the Knapweed education campaign, which included continual monitoring. She offered her belief that it was a good candidate for eradication in Alaska, especially given its economic impact in other states.

2:56:33 PM

REPRESENTATIVE MUNOZ asked about Japanese knotweed.

MS. BLACKBURN replied that the department was very aware of Japanese knotweed, as it was of particular impact in Southeast Alaska. She pointed out that her presentation was only on select species, and did not include the entire list of invasives.

MS. BLACKBURN, addressing spotted knapweed specifically, shared a message from a Division of Mining, Land and Water employee which lead to a previously unidentified population of spotted knapweed in the Matanuska-Susitna Valley. She noted that reported sightings often came from other departments.

2:58:14 PM

MS. BLACKBURN moved on to slide 10, "Horticultural Industry Coordination," and shared the common goal of building an industry consensus for regional issues, to better identify where outreach information should be provided.

MS. BLACKBURN, identifying slides 11 and 12, "Canada Thistle Containment, Anchorage," explained that this invasive was in the expanding growth stage, and that containment was focused in Anchorage, especially as Canada Thistle could damage the agriculture in the Mat-Su Valley and Kenai Peninsula. She explained some of the difficulties in manual removal of Canada Thistle. She noted that Department of Transportation & Public Facilities was helpful with the timing of maintenance mowing to keep seed production under control. She reported that the pursuit of permitting for herbicide application was underway with Department of Environmental Conservation.

3:01:02 PM

MS. BLACKBURN addressed slides 13-14, "Purple Loosestrife Eradication & Replacement," and stated that there was only one known infestation in Alaska, and it had been eradicated. She shared that Purple Loosestrife did persist in home gardens, and a directed, non-regulatory approach was being pursued with landowners for replacement with a non-invasive plant.

MS. BLACKBURN spoke about slide 15, "Elodea," and said that it had been identified 25 years prior in Eyak Lake, yet nothing had been done about it, and recently, Elodea had been identified in Chena Slough near Fairbanks. She stated that it was aggressive, degraded fish habitat, and reproduced by breaking apart and rooting. She pointed out that it was easily transported on the floats of planes, and would grow quickly. Elodea had a major

impact on salmon streams, as it would decrease water flow and increase sedimentation. She noted that extensive growth had recently been found in Delong Lake, Sand Lake, and Little Campbell Lake in the Anchorage area.

3:04:55 PM

MS. BLACKBURN shared that Elodea management and research was ongoing (slide 16) and included statewide coordination.

MS. BLACKBURN discussed slide 19, "Gravel Pit Surveys & Certification," declaring that this was a new program that would resemble the weed free forage program. She pointed to slide 20, "Weed Free Forage & Hay," and said that it coordinated with existing groups in the state that focused on the invasive issues listed on slide 21, "Coordination."

MS. BLACKBURN directed attention to slide 22 "Coordination AKEPIC (Natural Heritage Program)," which was a clearinghouse for information on locations of invasive plants.

3:06:36 PM

CO-CHAIR SEATON expressed his desire to work with Alaska Department of Fish & Game and Department of Natural Resources to develop a prioritization system.

REPRESENTATIVE HERRON asked if the draft for the departmental strategic plan for invasive plants had been adopted, and if this was the priority list.

MS. BLACKBURN explained that this plan was the process through which to prioritize.

3:07:50 PM

ADJOURNMENT

There being no further business before the committee, the House Resources Standing Committee meeting was adjourned at 3:07 p.m.