

Minutes

100th Meridian Initiative - Columbia River Basin Team Meeting

March 7, 2012

The Grove

Boise, Idaho

1. Introductions and Announcements: [See end of document for attendance list]

2. Comments and Approval of November Minutes: The final minutes from the November meeting can be found at http://www.100thmeridian.org/Columbia_RBT.asp

eDNA Working Group, Texas Workshop – P. Heimowitz (USFWS)

- Discussed current effort on coordination of environmental DNA research and its applications for detecting invasive and imperiled aquatic species. Presently eDNA is used mostly for Asian carp detection in the Great Lakes, but it may become the monitoring and evaluation tool of the future. Paul Heimowitz (USFWS) and Joanne Grady (USFWS) led a February conference call with a number of eDNA researchers to identify coordination needs, including a proposed workshop during 2012. Nobody has stepped in yet to specifically plan such a workshop, but some call participants are now developing materials to better document existing research projects. FWS regional geneticists are getting more involved in national coordination efforts for Asian carp eDNA and other applications.
- A Dreissena Mussel Early Detection Monitoring Methods and Quality Assurance Workshop was held on February 7-10, 2012, at Texas Christian University. (CRB attendees included Heimowitz, Wells, Phillips). The first workshop (7-8 February) focused on best analytical practices and the identification of quantitative larvae (veliger) detection limits for the available three primary analytical methods: 1) cross polarized light microscopy (CPLM), 2) image flow cytometry (IFC), and 3) Polymerase Chain Reaction (PCR)-based detection assays. The second workshop (9-10 February) examined the need for a laboratory accreditation program or a laboratory personnel certification program and the development of a roadmap for creating these programs in the Western region. <http://musselmonitoring.com/2012workshop.asp> (see bottom of page for executive summary of workshop)
- Workshop products included an offer by the Society of Freshwater Science to create a quagga veliger ID technician certification program (they currently have a similar program for invertebrate identification). The existing FWS-funded BOR project (QZAP funded) will also implement a pilot testing program in the coming year (similar to the previous double blind studies, but with the purpose of evaluating lab performance rather than research on existing capacity).
- B. Kibler mentioned issues with PCR analysis and decay rate of proteins; sensitivity of PCR is a key issue,
- Paul mentioned USFWS is funding an eDNA methods development project for New Zealand Mudsnaills. The FY 2013 proposed President's budget has funding for USFWS

fish tech centers for Asian carp eDNA detection programs that includes monitoring in the Columbia River.

- P. Mamer mentioned the use of PCR and qPCR as confirmation, managers need to use PCR results carefully as it is more of a surveillance tool, and is not a management tool
- Paul pointed out in the Great Lakes Asian carp Supreme Court case that eDNA detection results were cited as evidence regarding whether or not the species had already entered the Great Lakes.

WRP RFP for New Coordinator J. Grady (USFWS)

- Joanne described how USFWS Region VI will no longer staff the WRP and that in its place a coordinator will be sought through the RFP process. The RFP is expected to be sent out in April, with the goal of having a new WRP Coordinator on board by this summer.

Lake Mead (J. Ruff, NWPPC)

- The NWPPC has remained engaged in the dreissenid mussel issue and at their March meeting showed a sense of urgency on the issue. Council member Phil Rockefeller, chair of the NWPPC Fish and Wildlife Committee, has taken the lead in working with the state and federal agencies to see how the NWPPC can be supportive to ensure we keep these invasive mussels out of CRB water bodies. Issues at the forefront include the FY 2012 \$1 million appropriated for Lake Mead and making sure these funds are used appropriately to stop the mussels at the source and ensuring that our regional response is coordinated to protect our borders and the CRB from a mussel invasion. Information on state inspection sites has already been requested from each of the state agencies to document coverage and locations of highest priority. Jim said that the NWPPC will be going back to DC to lobby sometime this spring and the quagga issue would be on their agenda.
- C. Tate asked if the strategy is to protect CRB waters by intercepting boats at the state borders or at waterbodies?
- J. Ruff – Primarily at the state borders, which is why the Council asked each state to document its current state inspection sites.
- Paul discussed the FY 2012 DOI AIS budget for USFWS; funds were up \$585K compared to FY 2011, but directed to specific new priorities including watercraft decontamination. The AIS FY 2013 proposed budget provides increased funding for Asian carp by \$2.9 million, but it is countered by elimination of state AIS plan funding and cuts to programs like the 100th Meridian Initiative.
- Rep Eric Anderson of Idaho told the group that he had briefed Governor Otter on the quagga mussel issue the day before, and that discussions with Interior Secretary Salazar on this issue may be happening in the near future.
- B. Parker discussed CRITFC AIS efforts with recently received funds. There are currently no inspection of watercraft on CRITFC member reservations lands. CRITFC is also working within the Associated Tribes of Northwest Indians (ATNI) on AIS issues; ATNI passed a referendum on AIS recently.

- NISAW –Stephen, Amy and E. Anderson talked about NISAW (<http://www.nisaw.org/>) and the capitol hill briefings of western congressional folks. The lobbying effort was well received and all of the offices visited understood the Lake Mead threat. A follow up Congressional visit is being planned. Whether additional funding for Lake Mead and restored funding for implementing state AIS plans is forthcoming is unknown at this point. Stephen also discussed need for re-authorization of national AIS Act to include quagga and zebra mussels to assist western states with organic funding to support our prevention work.

State/B.C. Reports

Nevada –K. Vargas, NDOW (Phone)

- Nevada has had positive quagga veliger test results in 2 northern lakes (reservoirs):
 - Lahontan Reservoir is listed as “positive”, Rye patch is listed as “suspect.”
- State sticker fee program will start in January 2013 for boaters. Applying for additional funding from USFWS (sportfish restoration) for 2012-13 program
- Nevada officials are hopeful that boat inspection stations will be set up at Rye Patch, Lahontan and Wildhorse Reservoirs by mid-summer of this year. They will be operated 8 hours per day for 5 days per week. In 2013, NDOW expects to have four inspectors at Wildhorse Reservoir for a minimum of 8 hours per day, 7 days a week coverage beginning in May and ending after Labor Day. At this time, it is unclear how inspections at launch sites managed by the Shoshone Paiute Tribe will be handled this year.

Oregon – G. Dolphin (OMB), R. Boatner (ODFW)

- 2011 saw low compliance for boat sticker program; increased enforcement of sticker compliance is planned for 2012.
- PSU sampled for veligers in 2011 and will do so again in 2012
- There will be 4 watercraft border inspection stations operating beginning in May 2012: at I-5 POE near Ashland, at I-84 Baker Valley Rest Area, on U.S. 97 at the POE in Klamath Falls, on U.S. 101 near Brookings, and at the intersection of Hwy 20 and Hwy 395 near Hines.

Montana – L. Schroeer (MTFWP)

- MTFWP Inspection stations are planned to open in mid-May, operate through September, and be open 7 days a week for route 2 (Culbertson) , I-94 (Wibaux), I-15 (Lima), and I-90 (Lodgegrass). MTDA is also looking at a possible site eastbound on I-90 near MT/Idaho border.

B.C. Update – M. Herborg (B.C. Ministry of Environment)

- A non-profit is doing ANS outreach work (Kootenay Plant Council), an east Kootenay group also has established a decontamination station; other stations are possible.
- Veliger ID Tech is now onboard and expanded sampling and analysis is expected in 2012 within the Columbia River Basin.
- B.C. is developing a Rapid Response Plan, and there is the potential for holding a B.C. rapid response exercise in 2012, pending funding.

- B.C. is also developing a biological risk assessment for quagga/zebra mussels.
- More AIS regulation is a possibility in the Federal Fisheries Act reauthorization including strengthening mussel and Asian carp rules

Washington -- C. Klein (WDFW)

- Watercraft inspections will be similar to previous years and will be roving, concentrating inspections on busy (holiday) weekends; inspections will be focused near the state's eastern and southern borders.
- Idaho provides protection for WA as boats are intercepted by IDT

Idaho – A. Ferriter (IDA)

- Idaho began mandatory watercraft inspections in 2008; about \$850,000 is generated annually from boat sticker fees since 2009 for the boat inspection program.
- In 2009, Idaho intercepted three fouled boats; in 2010 we found 8 fouled boats; and last year Idaho inspectors intercepted 25 fouled watercraft.
- This year, IDA opened some of its watercraft inspection stations in February and we have already intercepted 4 fouled boats to date; two from the Great Lakes and two from Lake Mead.
- “Clean Drain Dry” postcard was sent to all registered boaters (with help from Dave Dahms IDPR).
- NZ mudsnails have been added to oversize permit language (as a banned ANS critter).
- There was discussion about the commercial transportation industry and need for other states to set up a system similar to Idaho's where commercial hauler information is passed between agencies, Idaho DOT also sends outreach materials to their hauler list about AIS.
- Amy said that commercially fouled boats can't be held by Idaho, but they work with Washington and Oregon to pass those boats off for decontaminations, and federal enforcement assistance on these commercially hauled boats would be most helpful; we need to make this enforcement a priority.
- Eric Anderson said that if these fouled boats were pathogens for salmon we would treat this differently – more as an emergency – we need haulers to take care of their boats, and they need to be notified on the AIS threat so they are more aware; maybe we need to consider setting up a fund so that people can get a reward for turning in bad operators, this contaminated boat issue needs to be fixed! It is too important for us to lose this battle in the Northwest.
- J Ruff said the recent issue of federally-owned (DHS) fouled watercraft intercepted in Idaho needs to be addressed
- Paul explained that FWS was still waiting for information on the DHS incident, and that once contact information was made available, his agency would attempt to follow up with DHS as a fellow federal agency in order to avoid a repeat.

- There was discussion on holding of contaminated boats and traffic patterns of contaminated watercraft and regional approach to watercraft interceptions
- J. Pettingill said that he is aware that some boats may wait for inspection stations to close before transiting
- Amy asked Paul about the current situation at Lake Mead NRA and the status of allocating the \$ 1 million appropriation.
- Paul responded that USFWS SW Region (led by Assistant Regional Director Mike Oetker) has the official lead to work with NPS and LMNRA on a plan for spending the funding.
- Amy said that timing is a concern and that IDA had provided initial comments on possible strategies for spending the funds
- Jeffrey asked what can we do to move this along?
- Paul mentioned that there are realistic constraints to spending all the money before boating season commences. He noted that in addition to voicing concerns to the local level (e.g. LMNRA) and top levels (e.g., Secretary of Interior), there is an opportunity to better engage the regional leadership of NPS for the region that covers LMNRA).
- Paul also brought up mussel viability as a growing issue that needs regional coordination, and the need for common procedures to document mussel viability in order to pursue federal enforcement under the Lacey Act.

Pet Vector

- Paul discussed the pet store vector and a recent conference call led by FWS to explore developing a regional approach to address this issue. Habitattitude (<http://www.habitattitude.net/>) hasn't caught on out here, but there are definitely opportunities to reduce the risk of this pathway through a regional outreach campaign.
- Amy said that their pet vector efforts have included outreach with Big Box stores and with “mom and pop” operations. Idaho has adopted the tagline “Don't Let it Loose, Idaho.” The logo is similar to what the Florida Everglades is using.
- Sam Chan discussed Sea Grant pet outreach efforts at supply house and pet stores as well as the schools, Sam showed a lengthy list of class room organisms – species are vague. Sam will send out a list to AIS coordinators of pets used in the classroom as reported by teachers. Teachers don't want critters banned, but they do want to know what critters are safe. One-half of animals come from biological supply stores and the other half from local pet stores. About 30 percent of teachers surveyed don't want to kill classroom pets after they are done with them (they would rather release animals or send pets home with students).
- Amy -- why can't we add illegal pets to the USGS site and maybe develop a white list?

- Sam yes, it would be helpful to develop a list of approved animals for school use but we also need to work with curriculum developers and supply houses. Supply houses are more difficult to work with as they want to make money, noted the crayfish example in WA, native crayfish are seasonal so it's difficult to supply to classrooms when they are needed.
- Sam showed the classroom pledge form and care sheet (see attachments at end of document).
- Paul talked about internet pet trade and the challenges there, and that FWS efforts within the larger regional campaign will be invested in part to address the internet component.

Aquatic Invasion Risk Prediction -- S. Chan (OSU) -- gave a presentation on the OSU Sea Grant project Aquatic Invasion Risk Prediction and the Economics of Early Detection and Rapid Response in the Pacific Northwest led by Dr. Gopinath. This project is developing an AIS invasion risk assessment model, which will have three components: 1) spatial dispersal risk; 2) estimated damages of AIS and expected management costs; and 3) an estimate of minimum total cost and damages to evaluate alternative management strategies. Sam mentioned with global warming we could see that higher water temps = more calcium retained = possibly better for mussel survival. Sam showed boat flow (boater movement) data that had been modeled and a map product -- "Relative Risk of AIS Habitat Suitability for New Zealand Mudsnaills." There was discussion on the boater flow data and the source of that data. Sam will follow up with the state AIS coordinators on this data.

Regulatory and Outreach Strategies for Aquatic Invasive Species (AIS) in Oregon – S. Chan and J. Lam (OSU, Phone) – Gave an update on the status of the project that has the following goals:

- What actions must be taken to increase effectiveness of AIS prevention programs?
- What changes to Oregon's constitution would need to be made to allow this effectiveness?
- Share findings with policy makers, implementers and boating interests to inform actions that lead to improvements in AIS prevention

A boater survey was conducted that included questions on boater knowledge of AIS inspection/regulations/preferences.

The final objective of this project will be to use findings to synthesize and facilitate workshops that engage policy decision makers, stakeholders (boating interests) and implementers leading to legislation/rules and for effective outreach/voluntary programs to minimize the risk AIS from boat and trailer movement. Deadline: June 30, 2012.

Attorney General Workshop –S. Chan – National Sea Grant and the WRP are planning a state attorney general workshop for Summer /Fall 2012 on AIS regulations (quagga centric). A steering group has been formed and additional grant money is being sought. More on this at the June meeting.

Digital Inspection Forms -- S. Cox (IDA) A. Simon (MobileDataForce) on digital inspection forms used by Idaho as part of their watercraft inspection program. Stephen said that the paper forms used by the IDA WI program were time consuming and difficult to read so he wrote a program that runs on the Windows Mobile platform and created digital inspection forms. Each station had a handheld data unit to enter in the information. These forms have dropdown menus alleviating the spelling issues. The data is downloaded weekly through email and compiled at the end of the season. Stephen was able to save 3 months' time by switching to this system. In 2011 they also implemented a "fast pass" or "Passport" system for repeat boat users. A passport is given to a boater coming through a station with a unique number assigned to it. This passport with the unique number is shown each time the boater enters a station speeding up the inspection process (less questions asked) making the boater happy. The fast pass system is especially useful for Washington boaters that go back and forth to Idaho. There was discussion about implementing a regional "Passport" system for the Northwest. The data Idaho collects includes where boaters are from and where are they going. Stephen summarized some of the data collected:

- Lots of boats coming from Southern Colorado area.
- FRI/SAT/SUN are the busiest, July 4th busiest weekend.
- Majority of boats caught in Idaho in 2011 were early in the year. About one-half were commercially hauled, most fouled boats going outside of ID as final destination (WA, BC,OR)
- 47K + boats inspected in 2011. Most boats going to Coeur D'Alene, Priest Lake and Pend Oreille
- Milfoil was found on 200 + boats

A. Simon then went over how the digital program works. Discussed challenges of paper forms (long turnaround times, human error). There company has been in business for 10 years, Talked of technical features of hand held units. Program works on hand-- held devices (android, mac, etc). Automatically syncs when there is WiFi.

IDA watercraft inspection data can be found at http://www.agri.idaho.gov/Categories/Environment/InvasiveSpeciesCouncil/Inspection_Stations_ALL.php

Hydrilla -- T. Wolff (IDA) -- gave a report on Hydrilla efforts in Idaho.

- First Identified in Idaho in November 2007
- ESA issues: Bruneau
- 2008 Engaged experts and partners, Map it, Get a plan, Treat before runoff, river injection in February 2008, Again in October, Backpack treatment in backwaters, Contracted diver, Hand removal, Estimated 50% reduction in biomass
- Exceptional collaboration with state federal agencies, private land owners

- 2010 Continued Treatment • Funded by BLM and USDA APHIS, Diver removal and spot herbicide treatment. Dedicated crew to the project in 2010, Map and remove all season long
- No Hydrilla found to date in CJ Strike Reservoir or in the Snake River
- 2011 Results: 74% reduction in occurrence from 2010 to 2011, No dense hydrilla areas were found by the end of 2011, Some areas have been hydrilla free for over 2 seasons.
- Boise Hydrilla Found in 400 yards of hot water ditch in Boise. No public access. Continued Hand removal. Aquarium release? Not found anywhere downstream.
- Treatment 2012: Crew of 4 dedicated for the season, Season-long survey and removal, Dredge operation, Continue survey of waters outside of known hydrilla area
- Hydrilla Lessons: Ask for help, Engage everyone early, Keep all options open, Adapt In it for the long haul
 - B. Kibler said that cooperation on the Bruneau work has been great

CRB Aquatic Plant Group Discussion, Priorities for 2012 -- T. Wolff (IDA)

Discussion then turned to adding an aquatic weed subgroup to CRB Team. Tom led the discussion why aquatic plants need to be an emphasis for the CRB Team. Reasons include:

- They are an invasive aquatic species.
- Their impacts can be significant.
- No existing group to facilitate coordination
- pathways are the same
- educational message is the same
- most that deal with aquatic plants want to know

Groups include State, Federal and Tribal weed management and lake protection programs County Weed Management Area's (CWMA), County Noxious Weed Managers, Lake Associations, Invasive Plant Committees, Watershed Groups, Basin Commissions, Local Invasive Taskforces, Nonprofits

Goals of a CRB Team weed subgroup could include:

- Improve communication on aquatic plant issues / management activities throughout the basin
 - Survey, treatment activities, education and prevention initiatives
 - Coordinate on regulatory issues
- Provide an outlet to integrate invasive species survey, education and prevention to local stakeholders

Tom requested that the CRB Team consider the following:

- Provide a platform for invasive aquatic plant coordination for the CRB.
- Provide an outlet to distribute information.
- Provide resources to allow local entities that are involved with aquatic weed control to become more educated & involved in other aquatic invasive species issues.
 - Local entities are dedicated to protecting their water

Tom mentioned examples of current weed projects in the Region including:

- Eastern Idaho CWMA's
- Flowering Rush
- Upper Columbia Basin CWMA
- BC Invasive Plant/Species Committees
- Flathead Lake treatment / prevention

J. Parson and E. Hanson (participating by phone) said that flowering rush is a species of concern in WA and ID. Eric said that weed control is led by the counties in Montana. Curley leaf pond weed was mentioned as another threat

The groups discussed the CRB Weed Team proposal and it was decided that a half day could be added to the current CRB format to include weed issues. Hopefully at the next meeting. Stephen will follow up with Tom on this.

Northern Pike -- D. Osterman (Kalispel Tribe) – Deane joined the meeting by phone. Looking to see how they can leverage resources for this interjurisdictional non-native threat. Northern Pike could threaten anadromous salmonids. They are responding by gill netting in Box Canyon Reservoir on Pend Oreille River, but there is controversy because a sport fishery has developed. A big water year is a concern because it could lead to further spread of pike downstream into salmonid habitat. Spread to Okanagan River also a concern Deane provided a fact sheet (see attachments below) and was invited back for a full presentation at the June meeting.

Ecotrust Decision Support Tool - P. Heimowitz (USFWS) noted that this system, which includes AIS as one influence on how watersheds are prioritized, is now being rolled out. One product derived from the new tool is a map showing the relative “invisibility” of subbasins in Oregon, Idaho, and Washington.

AG Workshop – S Chan -- National Sea Grant Law center wanting to sponsor a workshop on the topic with attorney generals around the state

Member briefings

- A. Sutlick (USACE) – still trying to do vulnerability assessments at the Corps’ hydropower projects, funding for these is tough to find from O&M funding but they are important to conduct. He also discussed the Corps’ public outreach and signage programs.
- S. Lund (BOR) – discussed vulnerability assessments at BOR projects and training f personnel at to do these assessments at Snake River projects. Their ARRA (stimulus) funding for monitoring has been used up, but that monitoring will continue with existing funds. The BOR SW technology center continues Zequanox and UV light filtration research.

- J. Ruff asked a question about Biobullets and what is going on in U.S. with this potential UK prevention technology?
 - Sam said that USGS had been working with Cambridge U researchers on this prevention technology.
- Robyn reported that Trevor Sheffels nutria research is continuing and Paul said that Jacoby Carter (USGS) is continuing to promote further nutria research in the Northwest, including efforts to model nutria population changes relative to climate shifts. It was noted that nutria (swamp rats) are moving eastward into the Columbia River basin. Nutria have a diurnal behavior because people are feeding them. However, they can carry many diseases.

Next meeting: June 6, 2012 in Portland Metro area.

ATTENDANCE LIST

Anderson	Eric	Idaho State House of Representative	
Bates	Dain	Idaho Power	dbates@idahopower.com
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Simon	Andy	MobileDataForce	
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Lam	Jennifer	OSU	lamj@onid.orst.edu
Grady	Joanne	USFWS	Joanne_Grady@fws.gov

Adopting a Classroom Animal

Pledge Form

By adopting this classroom animal, I hereby pledge to:

1. Never release or allow this animal to escape into the environment;
Releasing an animal can be harmful to both the animal and the environment. It may be illegal to release animals and plants in your state.*
2. Provide and properly care for the animal's essential needs (see animal care sheet on back);
3. Share this pledge with anyone else wishing to adopt this or another animal.

Date: _____

Species being adopted: _____

Student Signature: _____

Parent/Guardian (print name): _____

Parent/Guardian Signature: _____

Teacher (print name): _____

Teacher Signature: _____

*Please check with your state wildlife agency on the regulations of the classroom animal before adopting or visit www.iiseagrant.org/speciesregs to learn more about organisms' regulations in your state.

Adopting a Classroom Animal

Care Sheet

To provide the best care for the animal, the student, family, and/or teacher pledge to:

- A. Make sure the animal will be happy living in the classroom or home before adopting. (For example, are the needs and behavior of the animal well-matched with student or family health needs, student age and maturity, school policy, possible allergies, work schedule, or personality?);
- B. Provide food, water, and space of sufficient quantity and quality to support normal growth, exercise, healing, or maintenance of body weight;
- C. Provide confinement that prevents escape and provides an area free of excess food, fecal waste, or other contaminants that could harm the animal;
- D. Provide shelter from unfavorable conditions, predators, and injury; and
- E. Develop a plan for future care or disposition of the animal if it can no longer be cared for.

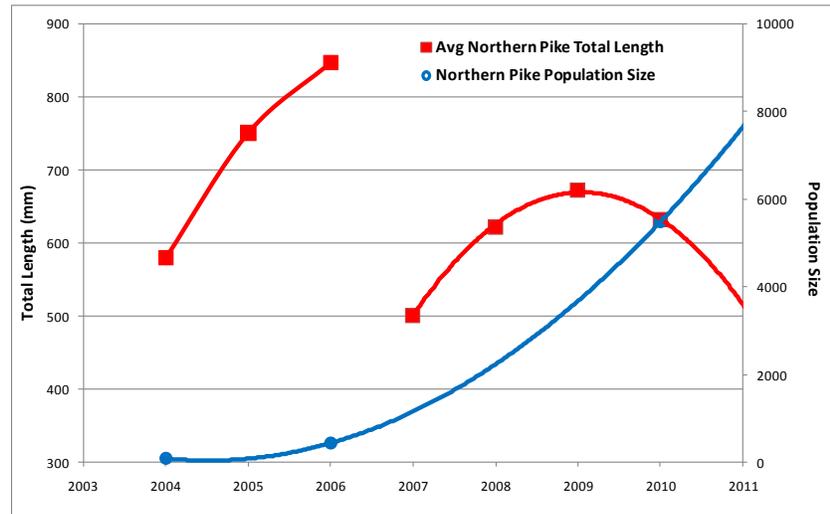
1. You may be able to return the animal to the point of purchase or donate to a pet store, university, or zoo.
2. Find the animal a home with a friend or another classroom (Make sure they take this pledge first!)
3. If you cannot find a new home for your animal and you want to consider euthanasia as an option, consult with a veterinarian. For more information, see the American Veterinary Medical Association (http://www.avma.org/issues/animal_welfare/euthanasia.pdf) or the Canadian Veterinary Medical Association (<http://canadianveterinarians.net/ShowText.aspx?ResourceID=34>) for humane options.

Invasive Northern Pike in Washington: The Kalispel Perspective

Status:

Northern pike (NP), first surveyed in Box Canyon Reservoir (BCR), Pend Oreille River (POR) WA, in 2004, have rapidly expanded in number and range within the reservoir and downstream.

- 2010, estimated population growth from a few hundred to over 5,500 adults (**likely >10,000 reservoir-wide**)
- Abundance of most **other species declining** significantly
- Significant increase in angler interest. Estimated increase effort between 1990-2010 from ~4,000 angler hours to ~76,000 angler hours.
- Northern pike size structure **decreasing in quality**, no longer a “Trophy” fishery = **stunting of population**.



Local / Regional Threats:

Northern pike **threaten local native species** and are a significant threat to **salmon/steelhead** fisheries in Washington State and the lower Columbia River.

- **Salmon/steelhead impacts** (tribal, commercial, recreational) wild and hatchery.
- Potential **undermining of significant investment** (>\$500,000,000) in new FERC Licenses for Box Canyon and Boundary Projects focused on restoring native fisheries (e.g., fish ladders, hatchery operations, habitat recovery)
- Native species recovery/conservation in POR (ESA listed and others)
- Impacts to Kalispel largemouth bass hatchery operations
- **Illegal introductions** to other waters (already occurred in Newman and Liberty Lakes in Spokane County)
- Population **stunting** (larger ecological impact)
- **Downstream movement** to Columbia River **imminent** and potentially **disastrous** (Okanogan River, John Day)

Kalispel Plans:

Continue providing leadership on the issue. Focus on long-term sustainable management of POR waters.

- Public Information/Education Campaign



- Declassify NP as a game fish and keep on WA invasive species list
- Monitor BCR NP population (SPIN gill nets) and warmwater fishery (netting, trapping, electrofishing)
- Explore methods to **drastically reduce** NP abundance in BCR (mechanical removal, angler incentive, derbies/tournaments, and liberalized regulations/mandatory retention)
- Seek funding to implement large-scale suppression/control program