

April 7, 2011
Swan Ecosystem Center

Native Fish Committee Meeting

Participants: Jim Bower, DNRC; Andrea Stephens, NwC; Leo Rosenthal, FWP; Beth Gardner, Flathead NF; Larry Garlick, resident angler; Gordon Luikart, UM Flathead BioStation; SEC; Betsy Spettigue, SEC; Anne Dahl, SEC

GIS Westslope Cutthroat Mapping

Regional westslope cutthroat data is updated every few years with most current barrier information, historic distribution, current distribution, conservation populations.

The Swan Native Fish Committee is updating the Swan data, editing and tracking spatial and numerical data of cutthroat populations in a separate file to inform the next regional cutthroat update. The editing of the Swan River subset of the Regional database by the committee is probably unique in the state. As new stream lines with WCT distribution information are added in the future, the resolution of the Swan River subset may become finer than the Regional database. The information will be valuable for identifying priorities and tracking progress. The Swan database includes Beth's narratives of the individual populations. Next winter Jim will create a new table more specific to the Swan, including specific risks to populations, how many fish, etc.

There are 18 "conservation populations". Most have some genetic sampling but not all are current or with high confidence.. Most, but not all, populations are above barriers. Some "conservation populations" are 100% genetically pure. Some populations are partially pure but worth saving, for example Wolf and Kraft Creek.

11 out of 18 populations have recent samples (less than 15 years old) & had at least 25 fish
3 out of 18 populations have recent samples but few fish (lower confidence)
1 out of 18 populations has not been sampled since 1982
3 out of 18 populations have never been sampled.

The focus has been on the conservation populations for the Swan database. But all cutthroat data should be included in the Swan database.

Genetic health (diversity/inbreeding) and genetic purity (admixture from RBT) are both important questions/issues. Are the pure populations the "canary in the coal mine" or the resilient population?

Data distribution: Make the most current Swan westslope cutthroat map available in PDF to the public, with links to the short narrative descriptions, but not the complete dataset.

Beth and Jim: Pony, Herrick and Owl Creek data are still needed to complete the mapping.

Existing brook trout data includes M-Fish (Montana Fisheries Information System) and DNRC data. The M-Fish data is lower resolution than our Swan data. The Flathead NF has data that

hasn't been pulled together. It would be useful to have complete data for brooks and other fish to add to the Swan cutthroat database, but this is a lower priority.

Continue with the Swan higher resolution data assuming M-Fish data will catch up. The M-Fish process can accept the more specific data we provide.

All approved data collected in the Swan is sent automatically by FWP to M-Fish. All data collected locally needs to be reviewed annually with Jim Bower for the Swan database. **Jim** can maintain the GIS database, and Jim will send copies of the updated GIS files to Beth, Leo and Anne. He should be updated at least once/year in face-to-face interaction rather than have data emailed to him.

The name of our database: Swan Cutthroat Database.

Field Data Collection Summer 2011

Beth is hiring staff to sample three streams by electrofishing: Cedar, Piper, Kraft and maybe one more for the field work. The crews will collect samples for genetic testing.

Beth may also sample Groom Creek, if time permits.

Jim may be able to get out one day with Beth's crew. Jim will sample three DNRC creeks: Soup, NF and SF of Lost, and Whitetail Creeks. Jim will send his 2004 and 2006 samples to Gordon Luikart for analysis.

Jim won't sample the unusual, cold water cutthroat population above the natural barrier on Whitetail Creek. He doesn't want to disturb this already stressed population. DNRC is working to remove brook trout along 900 feet of good habitat below this natural barrier with the goal of allowing the upstream cutthroat population to join/enhance the cutthroat downstream. Jim will clip samples from the downstream population.

Andrea (NwC): Depending on funding Andrea and Adam Leiberg and a few interns (NwC alumni) will do electrofishing/sampling on the Swan River from Grey Wolf Lake down to the confluence with the Crystal-Lindbergh Creek—also between Crystal Lake and the cascade—and the inlets to Crystal from High Park and Lost Lakes. She will avoid the creek section between Lindbergh Lake and the cascade, as bull trout are known to inhabit this reach. Other high priorities for Andrea's group include Owl Creek and Lion Creek above the waterfall.

Leo will tackle the Wolf Creek and Sixmile Creek population.

Gordon may have one or two funded interns to help with sampling. Samplers are required to have collection permits with FWP. Northwest Connections and Beth might be able to use an intern. The intern(s) would help supplement crews and get more samples done quickly.

Goals of Genetic Sampling

Start with the known conservation populations to find out as much as possible rather than focus on looking for new populations. Get the larger spatial extent and get better genetics analysis.

Determine population genetic health: who's sick, who's well.

Determine similarities between and within populations. Gordon submitted an NSF grant proposal for genetics specificity.

Gordon: Ask Clint at USGS if he will include the Swan in his genetic surveys.

Look to Trout Unlimited for funds and volunteers. Form a Swan TU group. Paul Pochak is the Flathead TU president. **Larry will contact TU.**

Equipment for Electrofishing

Clint at USGS may have three shockers. **Beth** will ask if any can be available.

Shocker and associated equipment cost about \$10,000. The user must be trained and have boots and gloves. Also need dip nets at about \$200/each, batteries \$200/each. Batteries can be built for \$75 each. NwC will need to borrow a shocker.

Funding Ideas

Beth's grant applications: Great Northern Landscape Conservation Cooperative for Andrea (over \$60,000). She won't hear whether she was successful until late May. She is also applying to Missoula County RAC (\$10,000). She has included her projects through a CFLRP request (\$5,200).

Create an adopt-a-stream program to raise funds.

List match: Jim and Leo's 100 already collected samples can be considered match.

Go to BPA for funds; BPA needs to mitigate for Hungry Horse Dam and has a stake in the Swan with conservation easements in the Swan River State Forest area and Elk Creek.

Future Fisheries: See Six Mile below.

To be effective at raising funds, we need to articulate the mission.

Swan Native Fish Cutthroat Vision/Mission/Goals

Below are rough statements expressed at this and other meetings regarding purpose/intent/strategies of the Swan Native Fish Committee:

- Long-term maintenance of as many viable conservation populations as possible
- Maintaining the endemic expression—the Swan Valley's adapted populations
- Maintain resiliency of native populations.
- Maintain healthy natural and human systems.
- Understand the genetics and spatial habitat.
- Determine where to expand or stabilize.
- Maintain core populations.
- Look for opportunities to expand or re-found populations
- Keep investigating places that haven't been explored.

- What is the future vision? Is there a benefit to having more disconnected isolated populations? Or should the long-term goal be to reconnect these populations by removing barriers and reducing nonnative rainbow?

Anne will send out these statements asking committee members to consolidate them into statements all can agree to.

Six mile Creek

Six mile Estate owners want to patch up an ancient failing barrier on the creek to prevent flooding around the homes. Above the barrier is a 100 % pure westslope cutthroat population. The barrier appears to be keeping rainbow out.

Jim will look at the barrier site with **Leo** to estimate cost of replacing the barrier.

Plum Creek owns a significant upstream portion of Six Mile creek where Leo collected the samples in 2008. Leo also has samples collected in the 1980s. Both samples came back as pure westslope cutthroat trout. Leo took 30 samples in 2008.

We should do more surveys of the stream to see how many fish are there. **Leo** will investigate more this summer

We will consider applying for Future Fisheries funding to construct the barrier if the project has merit.

Swan Ecosystem Center could apply and administer the contracts. We will consider applying in time for the December 1, 2011 deadline.

If we fund the barrier the landowners will need to sign a long-term easement stating they will not remove the barrier. **Betsy** will look into easement language.

Get Plum Creek to sign on as match.