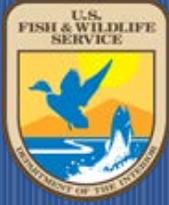


Montana Fish and Wildlife Conservation Office



BILLINGS – BOZEMAN – GREAT FALLS –
LEWISTOWN

May 2015

Tribal Coordination and Assistance

The federal government has a unique and distinctive political relationship with federally recognized Indian tribes resulting in a special federal trust responsibility, involving the legal responsibilities and obligations of the United States toward Indian tribes and the application of fiduciary standards of due care with respect to Indian lands, tribal trust resources and the exercise of tribal rights.

The U.S. Fish and Wildlife Service, as a bureau of the Department of the Interior, has a mandated obligation to ensure that the federal Indian trust responsibility is fulfilled.

Part of the ongoing efforts of the Montana Fish and Wildlife Conservation Office (MTFWCO) is to work with Montana Tribes to provide technical assistance with natural resources related issues.

During May, MTFWCO biologists met with the Blackfeet Fish and Wildlife Department Director to discuss and answer questions about the St. Mary Bull Trout Recovery Unit Implementation Plan and other fishery management issues.

Additionally, MTFWCO staff conducted a site visit to Medicine Stab Lake to assess the shorelines

for the presence of potential vegetative aquatic invasive species that may have resulted from the release of aquarium fish into the lake.

No aquatic invasive wetland plants were observed and staff plan to return later in the growing season for a follow-up survey when the temperatures warm up.

Finally, the Fish and Wildlife Department Director sought our input on the AIS check station near Browning, MT.

A long-standing partnership



The origins of the Montana FWCO date back to 1962 when the office was established by order of President John F. Kennedy to provide fishery management assistance to the nearby Blackfeet Indian Reservation.

Today, the Blackfeet Tribe has its own [Fish and Wildlife Department](#), Fish and Wildlife Code of Regulations, and offers some spectacular hunting and fishing opportunities for Tribal and non-Tribal Members alike.



Red Rock Lakes NWR:

May was a busy month at Red Rock Lakes National Wildlife Refuge as the non-native hybridized Yellowstone Cutthroat Trout removal project wound down and a new multi-year project on Elk Springs Creek ramped up.

Non-Native Fish Removal-

May concluded our third year of a planned 5- year effort to evaluate the efficacy of using a weir and trap to remove non-native hybridized Yellowstone Cutthroat Trout (YCT) from Red Rock Creek. During our 2015 efforts, we caught 781 YCT this year at the trap. Of these, 111 male cutthroat trout were relocated to Widgeon Pond for recreational fishing opportunities, 46 males were marked with FLOY tags and released to estimate cutthroat abundance upstream from the trap, and the remaining 624 fish were euthanized and donated to local food banks.

Despite the trap being installed 17 days earlier this year, approximately half as many fish were trapped compared to 2014. It appears

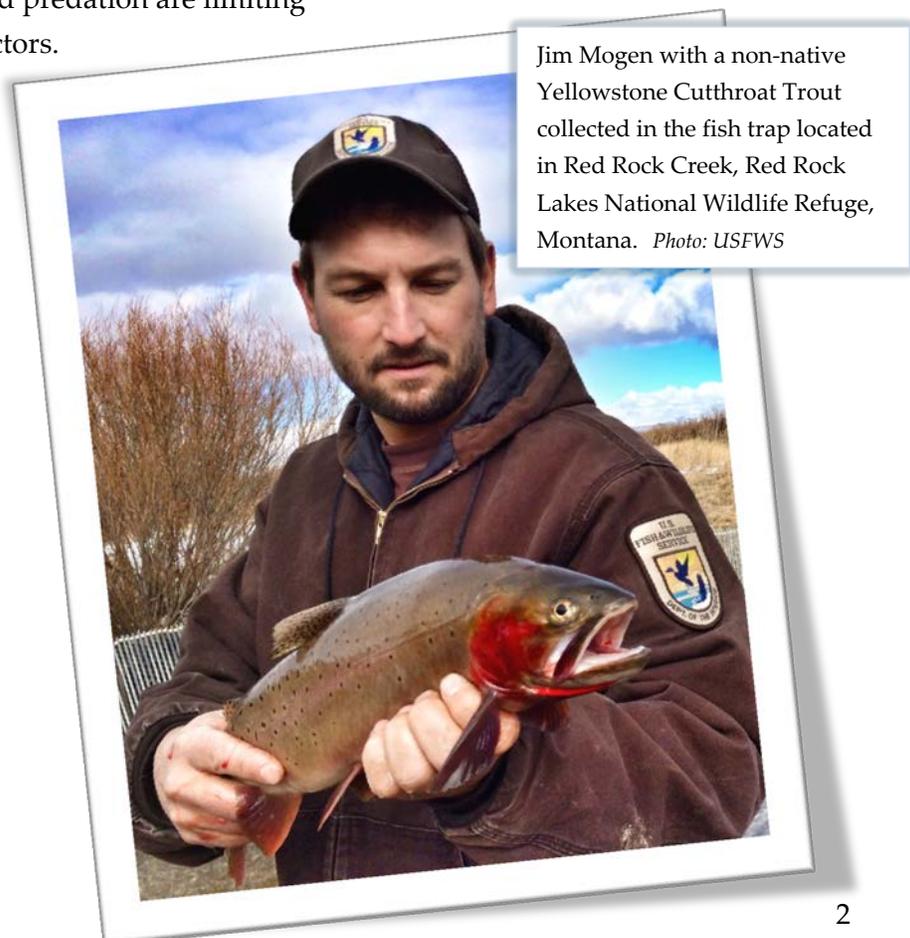
that suppression efforts are reducing population abundance. We will be evaluating cutthroat growth rates to determine how the population structure might be altered by suppression efforts.

Additionally, we collected otoliths from a sub-sample of euthanized cutthroat trout to determine age-length relationships. Initial analysis of allometric growth show no significant change since suppression has begun. Age-length information will also be used to better inform Arctic grayling abundance modeling where competition and predation are limiting factors.

Elk Springs Creek-

This year we are initiating a multi-year project to better understand how past anthropogenic changes may have affected Arctic grayling use of Elk Springs Creek.

Once a historically important spawning tributary for Arctic grayling, Elk Springs Creek is eerily devoid of this species today. The prevailing hypothesis relates to an early 1900s re-routing of the streams course to flow into Swan Lake and then out to Upper Red rock Lake.



Jim Mogen with a non-native Yellowstone Cutthroat Trout collected in the fish trap located in Red Rock Creek, Red Rock Lakes National Wildlife Refuge, Montana. Photo: USFWS

*Red Rock Lakes NWR
(cont.):*

The study efforts include early larval drift evaluations as well as young-of-year movement within the Elk Springs Creek system to assess if immigration, emigration, or both are limiting.

Working in partnership with Red Rock Lakes National Wildlife Refuge and Montana Fish Wildlife and Parks, we utilized remote site incubators (RSI) to begin rearing about 32,000 grayling eggs. Emergent fry will be followed to gain insights into larval drift behavior.

In order to further understand Arctic grayling early life-history behavior in this system, approximately 33 yearling grayling, the result of last year's RSI efforts, were implanted with PIT (passive integrated transponder) tags. These tags, coupled with PIT tag reading arrays at strategic locations will provide valuable insights into yearling movements and behavior.

Jason Marsh setting up and fine-tuning the PIT tag reading array on Picnic Creek near its confluence with Elk Springs Creek. *Photo: USFWS*

These efforts are part of the preliminary data collection efforts necessary to allow the Montana FWCO to assist the refuge with subsequent monitoring of a planned effort to restore Elk Springs Creek into its historical channel to improve/restore connectivity to Upper Red Rock Lake.

Collecting eggs from an Arctic grayling. Once fertilized the eggs will be placed into remote site incubators where hatched larvae will be released into Elk Springs Creek. *Photo: USFWS*



Air Force and USFWS collaborate on Natural Resource Management under the Sikes Act

Malmstrom Air Force Base is an approximately 3,500 acre installation located east of Great Falls, Montana. Within the exterior perimeter of this base, there are residential areas, roads, and other developed areas essential to the Air Force's mission. The non-developed portion of the base is approximately 2,000 acres of herbaceous vegetation that includes seven invasive species on the State of Montana's designated weed and pest list. Partnering with the Air Force, the Montana Fish and Wildlife Conservation Office initiated herbicide application efforts to help control many of these invasive species.

Invasive plants may be one of the most significant impacts to native ecosystems in the nation. Controlling these species often requires a multi-faceted approach.

Our initial efforts in May were to treat high-priority infested areas with herbicides.

Additional herbicide applications will occur throughout the summer and early fall. Subsequent work will involve slowly converting areas to native vegetation.

In May, MTFWCO biologist began the initial weed spraying efforts targeting Leafy spurge (*Euphorbia esula*) and Whitetop (*Cardaria draba*).



Is this Robbin Wagner suiting up to be the next "human cannonball" or rather an example of appropriate personal protective equipment associated with herbicide application from an ATV? Photo: USFWS



Josh Melton making final adjustments to spray-tank prior to herbicide application. Photo: USFWS

Air Force and USFWS collaboration (cont.):

In addition to noxious weeds, Malmstrom Air Force Base also supports some other unwanted guests.

Powwow Pond is a small impoundment that we maintain for recreational fishing opportunities for base personnel. Over the years, a population of Goldfish (*Carassius auratus*) has become established; the likely result of aquaria releases when airmen transfer to a different base.

Our approach to managing this infestation has included a combination of fish toxicant application, biological control by introducing Largemouth Bass (*Micropterus salmoides*), and physical removal via electrofishing.

In May, MTFWCO staff initiated targeted electrofishing efforts during the Goldfish 'breeding season'.



Goldfish in Powwow Pond, Malmstrom Air Force Base, Montana.
Photo: Elin Pierce/USFWS

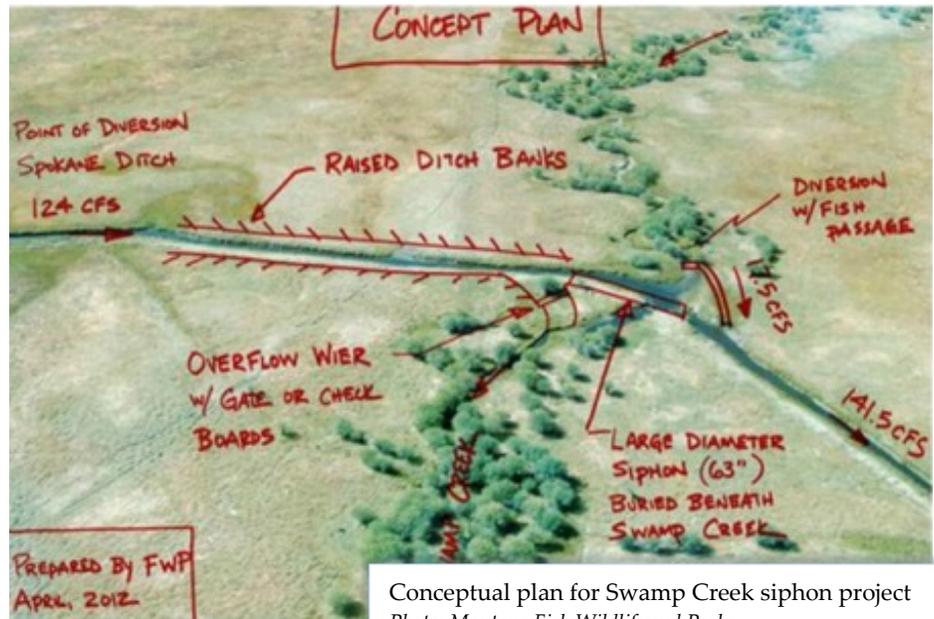


Montana FWCO staff, Elin Pierce, (left), Robbin Wagner (middle), and Josh Melton (right) with electrofishing boat prior to Goldfish collection efforts. Photo: USFWS

Fish Passage on Swamp Creek, MT to improve access for Arctic Grayling

Working with our Partners for Fish and Wildlife Program and Montana Fish Wildlife and Parks, a siphon was installed to route Spokane Ditch under Swamp Creek. Completed in the fall of 2014, the siphon was put into official service in early May. This reconfiguration of the irrigation system removed a migratory barrier on Swamp Creek in the Big Hole River watershed.

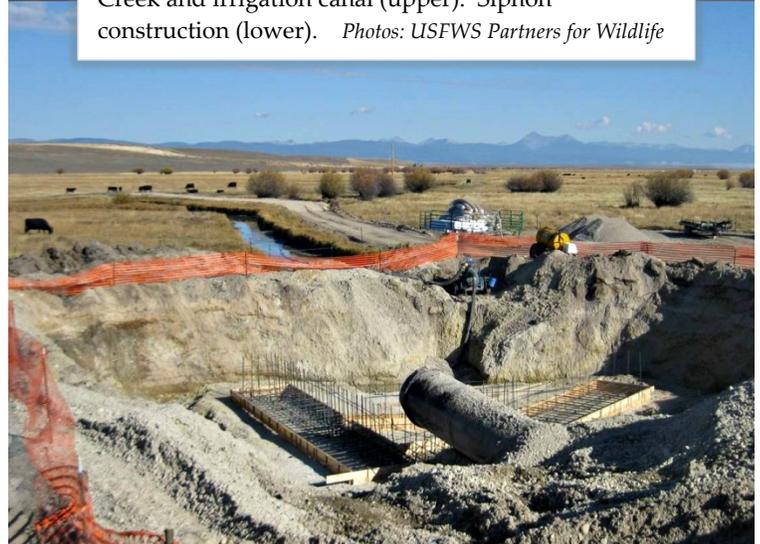
This project restored access to approximately 12 miles of stream habitats and will improve instream flows in Swamp Creek.



Conceptual plan for Swamp Creek siphon project
Photo: Montana Fish Wildlife and Parks



Former diversion barrier at intersection of Swamp Creek and irrigation canal (upper). Siphon construction (lower). Photos: USFWS Partners for Wildlife



National Fish Passage Program



The [National Fish Passage Program](#) (NFPP) is a voluntary, non-regulatory initiative in the U.S. Fish and Wildlife Service that provides financial and technical assistance to remove or bypass artificial migratory barriers to help improve population levels.

If you want more information or are interested in partnering on a Montana NFPP eligible project, please contact George Jordan, Montana FWCO project leader.



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