2011 Edition

Wyoming Game and Fish Department

Casper Region Angler Newsletter

Inside this issue:

Special points of interest:

- What's new at Speas?
- How are trout doing in the Casper Region?
- Alcova Reservoir walleye
- Monitoring the effects of the Glendo walleye regulation
- High water in the river and reservoirs

Aquatic Invasive Species

Thank you for the support we received in our first year of the Aquatic Invasive Species program. In the Casper Region 8,796 inspections were conducted on six waters. Statewide, over 40,000 watercraft were inspected on 37 waters during the summer. The good news, we did not encounter any live Aquatic Invasive Species. Sampling for larval mussels was conducted on 44 waters where introduction of mussels would be the most likely and all the samples were negative. Do we still need to be concerned? Absolutely! Dead mussels were found on three boats that had been in Lake Mead, Nevada. Decontaminations were conducted on 26 boats based on the potential risk of carrying invasive species. Boats from 49 states and three Canadian Providences came through the check stations in Wyoming last summer. Thirty one states currently have zebra and/or quagga mussels and we inspected boats from every one of the states.

We are very fortunate to have begun a prevention program before mussels are present in our state. Plans are underway to conduct the same amount of effort this summer as last season to help prevent the introduction of aquatic invasive species. Obviously we will not be able to inspect every boat prior to launching, but with your help the threat to Wyoming can be greatly reduced. Please help protect your waters: **DRAIN** - All water must be drained from your watercraft. This includes the ballast, bilge, live well, and motor. Leave wet compartments open. Drain water from any buckets or other gear you have also. **CLEAN** – Remove all plants, mud and debris from your equipment and watercraft. **DRY** – Dry your watercraft or equipment for at least 5 days in the summer, 18 days in the spring or fall, or 3 days in winter during freezing temperatures.

Fishing Regulations

Several possible changes are being discussed as part of the 2012-2013 fishing regulations process. We are attempting to clarify and simplify statewide creel limits. Proposals include separating out statewide stream and lake creel limits, a statewide change in the brook trout length limit, lake trout creel limit and a reduction in the whitefish creel limit. Additional language is being proposed to clarify the intent of our live baitfish regulations and fishing contests. After public meetings and a public comment period, the Game and Fish Commission will act on the proposed changes in July.

Information is posted on our web page: http://gf.state.wy.us/. Any changes will go into effect on January 1, 2012. It is always a good idea to check the fishing regulation prior to going fishing, and it is even more important at the start of the two year regulation cycle.

Fish Culture Feature

Dan Speas Rearing Station and Hatchery

The upgrade to Dan Speas Rearing Station located southwest of Casper at Bessemer Bend began with the purchase of additional land in 2004. Actual construction began five years ago and this summer the upgrade will be completed with the addition of another house and hatchery building. The first lot of trout eggs will be in the new hatchery building this fall and the Dan Speas Rearing Station will become the Dan Speas Fish Hatchery.

Gordon Townsend, station superintendent, and his crew have maintained fish production during the entire construction period. The logistical issues associated with raising fish in a construction area are staggering and we all appreciate their effort. As the largest fish production facility in Wyoming, fish production from "Speas" is critical to maintain the fisheries in some of the largest and most popular waters in Wyoming including Seminoe, Pathfinder and Alcova reservoirs.

New hatchery building at Speas

A new hatchery facility at Speas will increase our ability to produce fish statewide. Hatchery space and timing have been a bottleneck for our entire culture system.

Funds to build the hatchery were part of Wyoming's contribution to the Platte River Recovery Implementation Program. The hatchery facility at Speas will allow the culture system to increase production and respond faster if necessary to address changes in habitat in the North Platte System.

Firehole Rainbow Trout

Just the name suggests there should be something a little special about this rainbow. If you have read past issues of our news letter you may recall we have been conducting studies with our Eagle Lake and Firehole River strains of rainbow trout. Studies were done in the Miracle Mile and Cardwell reaches of the North Platte River. Our studies have been completed and based on them; we now use Firehole Rainbows where we stock the North Platte River.

Fishery biologists have been interested in a "river strain" of rainbow trout for stocking tailwaters, like the Miracle Mile, for some time. Results of a study we conducted in the mid 1990s demonstrated the Eagle Lake strain performed better than other available rainbow strains in the North Platte. However, the Eagle Lake strain was thought to be a lake strain because it originated from Eagle Lake in California. Rainbows in the Firehole River in Yellowstone National Park were selected as candidates for a river strain brood stock because they are a non migrating population, in a river and were assumed genetically pure rainbows. A genetic evaluation in 1996 confirmed the population to be genetically pure coastal rainbow.

Firehole River, Yellowstone National Park

Much of the Firehole River was without fish until the early 1900s. The first record of rainbow trout being stocked into the Firehole River was in 1929. The river was stocked almost every year from 1929 to 1955, when stocking ceased in most of the Park. In the spring of 1998, rainbow trout were collected for disease samples and 275 were taken to the University of Wyoming Biology Laboratory (Red Buttes) in Laramie. The fish remained in the lab until they were cleared of disease and other aquatic invasive species and were then moved to our Tensleep Fish Hatchery. A total of 562 wild rainbows were obtained from the Firehole River and used to develop our brood stock.

The brood stock is now located at our Tillett Springs Rearing Station and the first spawn was in December of 2000. Approximately 3,300 three and four year old rainbows are maintained for egg production. Eggs are collected from three and four year old females and fertilized with three year old males. The brood stock now has the ability to produce over a million eggs. Our culture personnel developed a brood stock management plan and keep meticulous records of the pairings of brood fish to insure genetic purity. A genetic evaluation of the brood stock conducted in 2005 found the same results as with the wild population in 1996. Simply put, the rainbows stocked from our brood stock are genetically identical to the wild rainbows inhabiting the Firehole River in Yellowstone National Park.

The North Platte - Gray Reef

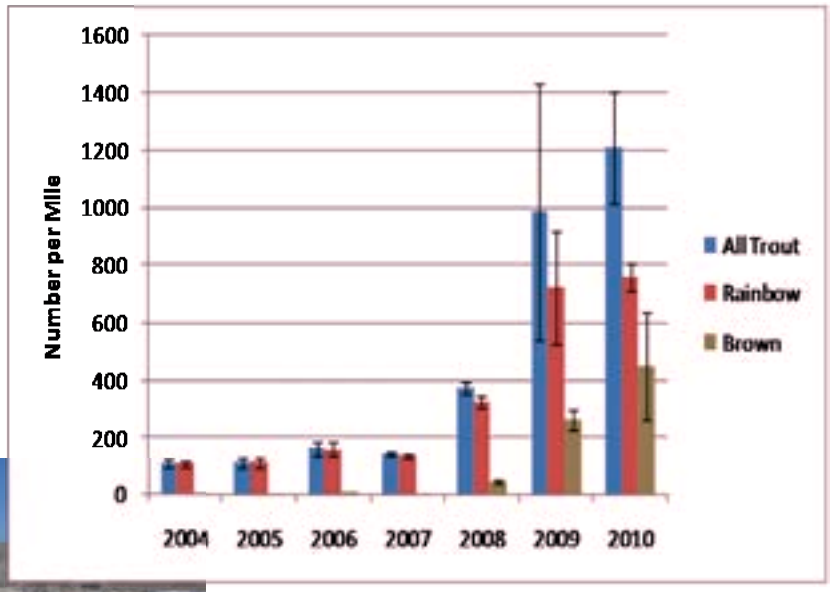
Population estimates conducted in October 2010 show the population increased significantly compared to 2009 estimates and were 3,333 trout per mile and 3,328 pounds of trout per mile. The reason for the increased population is due to better than average reproduction in 2009 with over 60% of the fish being one year old fish (9-12 inches in October). There were few fish in the 13-17 inch range as expected due to poor spawning conditions in 2007 and 2008 with these two year-classes combined being only 360 fish per mile. Two large year-classes from 2005 and 2006 are currently driving the fishery with 670 fish per mile, many of which are larger than 20 inches.

High water in 2010 may have discouraged some anglers but it was very beneficial to the trout population. The extended high flows resulted in a thorough cleaning of spawning gravels and provided ample backwater and side channel habitat for juvenile trout. Cleaner gravel also means more food for trout. When silt and sand is flushed out of gravel, the result is more surface area for benthic invertebrates such as stonefly and mayfly nymphs, resulting in increased production of these insects. The last time there were high water years on the Platte (mid 1980's) the trout population responded with exceptionally large year-classes. While we cannot accurately estimate the strength of a year-class until they reach age 1, we noticed many more young of the year trout last fall while electrofishing than normal. In all likelihood the 2010 year-class was exceptional and we have every reason to believe 2011 will be an excellent year as well.

One unwelcome surprise we received while electrofishing last fall were two largemouth bass captured just below the Gray Reef boat ramp. These fish were likely the result of an illegal introduction. Fortunately, as a tailwater, Gray Reef temperatures are too cold to be suitable habitat for largemouth bass. Nevertheless, the discovery reiterates the point that there are some selfish anglers who will risk ruining a world class fishery so that they may have their favorite species closer to home. Anyone with any information about this or any other illegal fish stocking is encouraged to call the Game and Fish Department's stop poaching hotline at 1-877-WGFD-TIP.

The North Platte—Cardwell

Cardwell – The trout population in the Cardwell reach of the North Platte River between Pathfinder and Alcova reservoirs had 1,200 trout per mile representing 1,630 pounds of trout per mile in September 2010. The number of brown trout in this reach increased substantially indicating excellent natural recruitment over the last two years.



Big water will be the theme again this summer with flows already in excess of 3,000 cfs as of May 1, 2011. While the big water makes fishing this reach more challenging, last year proved it is beneficial for the trout population.

We had some concerns that the high flows released from Pathfinder in 2010 would damage the nested channel constructed to provide optimal trout habitat at the typical 75 cubic feet per second (cfs) flow. We conducted channel measurements this spring in March and determined the channel had not changed much even though over 5,000 cfs passed through this reach in June and July 2010. The biggest change was that some of the spawning gravel was moved, but the river actually deposited most of the gravel it moved into a new gravel bar which was providing excellent spawning habitat as of early April. The bulk of the spawning gravels placed in 2009 remained in place and were used by browns last fall and rainbows this spring.

The North Platte—Miracle Mile

Trout numbers at the Miracle Mile are the highest they have been since the late 1990s. In 2010 we estimated 4,096 trout per mile in this reach of the North Platte River. Brown trout numbers are up 238% - 400% compared to estimates from 2000-2004. The trout population is currently made up of roughly 51% rainbow trout and 49% brown trout. Less than 1% are cutthroat trout. Rainbows averaged 11.7 inches and browns averaged 10.9 inches. Many trout in the Miracle Mile migrate from Pathfinder Reservoir. The high water levels in the reservoir have increased trout body condition and growth in both the reservoir and the Miracle Mile.

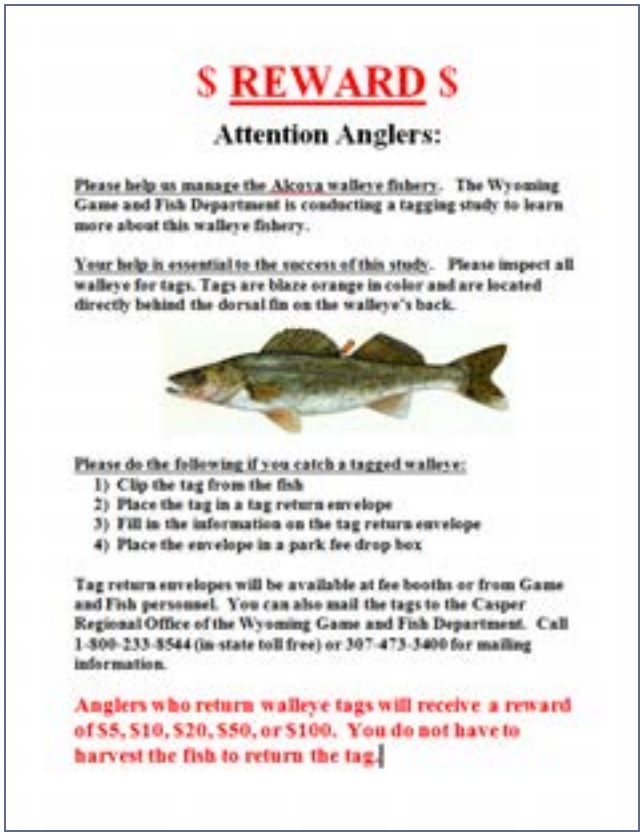
The browns are back at the Miracle Mile

A 29 inch Miracle Mile brown trout

During the month of June, flows in the Miracle Mile exceeded 10,000 cubic feet per second (cfs) for six days. For comparison, typical base flow in the Mile is 500 cfs. Anglers reported doing quite well at the Mile during these high flows. With the deep snowpack in the mountains, it is likely that the Miracle Mile will experience high flows again this year.

Alcova Reservoir

The trout population in Alcova Reservoir is not meeting our management objectives for catch rate. Studies conducted in 1995 and 1996, showed the optimal stocking rate for Alcova was 95,000 9-inch rainbow trout. Since then, the walleye population has greatly increased in numbers with many walleye growing to impressive size. Current modeling of various parameters and how they affect rainbow trout catch rate shows that while the number and size of rainbows stocked impacts trout catch rate, the number of walleye greater than 20 inches has a stronger negative effect on trout catch rate than size and number stocked alone. In 2010, 16% of the walleye population was greater than 20 inches and 43% of the walleye were just under 20 inches last fall meaning they will hit 20 inches this spring.



$ REWARD $

Attention Anglers:

Please help us manage the Alcova walleye fishery. The Wyoming Game and Fish Department is conducting a tagging study to learn more about this walleye fishery.

Your help is essential to the success of this study. Please inspect all walleye for tags. Tags are blaze orange in color and are located directly behind the dorsal fin on the walleye's back.

Please do the following if you catch a tagged walleye:

1) Clip the tag from the fish
2) Place the tag in a tag return envelope
3) Fill in the information on the tag return envelope
4) Place the envelope in a park fee drop box

Tag return envelopes will be available at fee booths or from Game and Fish personnel. You can also mail the tags to the Casper Regional Office of the Wyoming Game and Fish Department. Call 1-800-233-8544 (in-state toll free) or 307-473-3400 for mailing information.

Anglers who return walleye tags will receive a reward of $5, $10, $20, $50, or $100. You do not have to harvest the fish to return the tag.

We are initiating a study into walleye mortality on Alcova Reservoir this spring. We are in the process of tagging walleye in the reservoir. The tags are bright orange and located just behind the dorsal fin. Anglers catching a tagged walleye are requested to place the tag into a tag return envelope and either drop into one of the fee boxes located around the lake or return to the Wyoming Game and Fish, Casper Regional Office. Tag return envelopes will be available at fee booths around Alcova and from Game and Fish personnel. The tags are worth $5, $10, $20, $50 or $100. Anglers returning a tag will be mailed a check and receive a letter describing when and where the fish was tagged.

Glendo Reservoir

Like other reservoirs in the North Platte River system, Glendo Reservoir was very full in 2010. Water storage was 180% of average in June and 150% of average in July. The high water in Glendo resulted in the closure of some campsites and boat ramps. However, the park remained open all summer. With above average snowpack in the mountains and relatively full reservoirs, Glendo will again be very full in 2011.

Walleye—The Glendo Reservoir population was dominated by fish less than 15 inches in 2010. Our annual sampling indicated a relative lack of 15 to 18 inch walleye. This lack was due to a weak 2007 year-class. The 2008 year-class appears to be strong, so 15 to 18 inch walleye should be abundant in 2011. Average length was 14.1 inches. The largest walleye we captured was 29.3 inches and just under 8 pounds.

Channel Catfish—Catfish continue to persist in low numbers in Glendo Reservoir. Catch rate of channel cats in our netting surveys has declined since 2002. The low numbers are the result of not stocking from 2001-2004 during a study of natural catfish recruitment in the Glendo Reservoir-North Platte River system. This study indicated that Glendo and the river upstream naturally produce very few channel catfish. Thus, the catfish fishery is dependent on stocking. Channel catfish stocking resumed from 2005 -2008, but because of shortages in the states where we obtain catfish, fewer and smaller catfish were stocked in this period compared to the years prior to 2000. Unfortunately, the catfish stocked 2005-2008 have yet to contribute significantly to the fishery. Because of the lack of young catfish, average length in our netting survey was 25.4 inches and average weight was a whopping 7.26 pounds.

Regulations

Glendo Reservoir Minimum Walleye Length Limit

As of 2010 all walleye less than 15 inches caught at Glendo Reservoir are to be released immediately. The goal of this regulation is to increase the average size of walleyes in the population, including those harvested by anglers. The Game and Fish is monitoring the effects of this regulation, in part, through annual creel surveys. These surveys are conducted May-June and are used to evaluate catch rates, harvest rates, and lengths of harvested fish.

Prior to the minimum length limit, 30% of harvested walleyes were under 15 inches long. As you would expect, the minimum length limit reduced the harvest rate of anglers in 2010, but increased the average size of harvested walleyes. The average length of harvested walleyes was 17.9 inches in our 2010 creel surveys compared to 16.1 inches in years before the length limit. Although changes in angler harvest have been immediately apparent, the effects of the length limit on the walleye population itself will take longer to detect. We will continue to monitor the effects of the Glendo walleye length limit through annual netting and creel surveys.

Please remember that as part of the minimum length limit, walleye must be kept whole (gills and entrails may be removed) until the angler is off the water or ice and done fishing for the day. Anglers are encouraged to see the Fishing Regulations for details.

Yellow Perch—The Glendo Reservoir yellow perch population goes up and down in abundance in a cycle of about two years. This pattern is typical of a population whose abundance is influenced by the abundance of its predators (i.e. walleye in Glendo). Perch numbers were up in 2010 compared to 2008 and 2009. Based on the two year cycle, perch abundance should continue to increase in 2011. Perch will also likely benefit from all of the submerged vegetation (their preferred spawning habitat) caused by the high water at Glendo.

Pathfinder Reservoir

Pathfinder Reservoir filled in 2010 and spilled for 17 days during late June and early July. Water storage during 2010 averaged 80% of capacity. High water levels benefit the growth of Pathfinder Reservoir fishes in a few ways. The clearer water increases the production of plankton, making the whole reservoir ecosystem more productive. Clear water also helps rainbow trout see their invertebrate prey. This increase in food availability allows the rainbows to put more energy into growth. The newly flooded vegetation around the reservoir provides additional habitat for forage fish. These forage fish are a large part of the diet of walleye and brown trout.

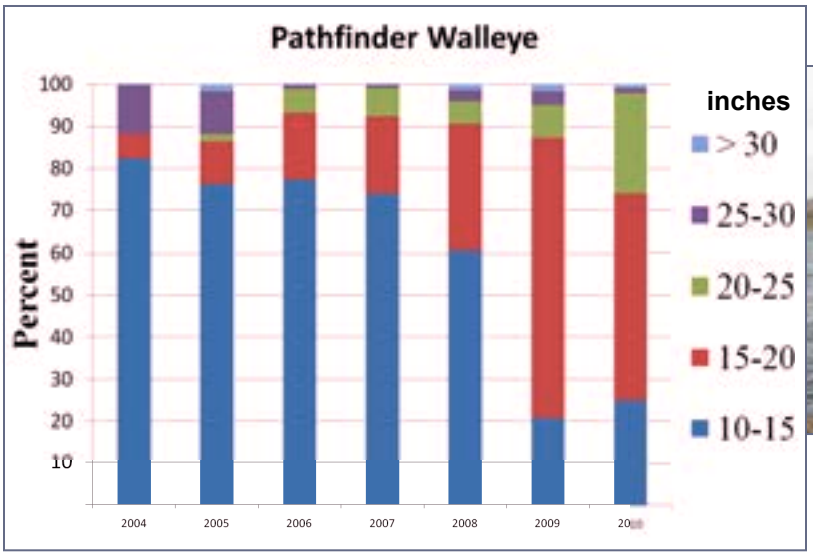
In 2010, we conducted our annual netting surveys in the spring for trout and in the fall for walleyes.

Trout

The body condition of rainbow trout was the best it has been in the last ten years. The rainbows averaged 15.5 inches in the spring. By our fall surveys, 28% of rainbow trout were over 20 inches. In our fall netting average weight for a rainbow was 2.5 pounds. Browns averaged 16.4 inches in the spring and 20.5 inches in the fall. Average weight of the brown trout we captured in the fall was 3.9 pounds.

Walleye

The Pathfinder Reservoir walleye population is dominated by fish larger than 15 inches (see graph below). Like the trout, walleyes were in the best body condition we have seen in years. However, anglers have reported that catching walleyes at Pathfinder has been difficult. This has also been the case in past years with high Pathfinder Reservoir water levels. As walleyes gorge on abundant forage fishes, they are less likely to bite on anglers' baits and lures.



Seminoe Reservoir

Excellent walleye recruitment in 2005 and 2006 has resulted in good numbers of 14-16 inch walleye as reflected in our fall 2010 gill net surveys. Walleye anglers in 2011 should see increased catches of 16 to 18 inch walleye compared to the previous 3 years. The number of 18-22 inch walleye is lower than normal due to poor recruitment in 2003 and 2004. Lower than normal recruitment was also evident in 2007 and

2008, meaning the number of walleye less than 15 inches will be much lower than what was present during the previous three years. This likely means walleye anglers will have to work a bit harder to find fish this summer but will be rewarded with larger than average walleye for this reservoir. The reservoir continues to harbor some really large walleye with several fish as large as 15 pounds captured.

Stocking larger than normal rainbows in 2009, proved beneficial to the Seminoe trout population. The rainbows were around 11 inches when stocked in October. While the trout population was below objective when we conducted our trout netting in June, increased stocking in 2010, coupled with the large size of 2009 stocked fish and a full reservoir means the trout population should be in excellent shape for 2011.

Dome Rock Reservoir

Snake River cutthroat trout are more abundant than ever in Dome Rock Reservoir. The large population is due to the high survival of fish stocked in 2009. Typically, Dome Rock Reservoir is stocked with about 400 Snake River cutthroat that are between 4-5 inches on average. In 2009, the 400 fish stocked were 10 inches on average. At the time of our 2010 sampling, these fish had grown to about 14 inches. In fact, 75% of the population exceeded 14 inches in length. The cutthroat were also in excellent body condition. If you fish Dome Rock, remember it is managed under a "trophy" regulation where the limit is one trout (all trout less than 20 inches must be released), fishing is permitted by the use of artificial flies
and lures only.

Don't Move a Mussel

BEFORE YOU LAUNCH IN ANY WATER,

protect your water resource and boat motor from invasive zebra and quagga mussels by doing a

SELF-CHECK

Follow these simple steps to protect your waters:

✓**DRAIN** All water must be drained from your boat. This includes the ballast, bilge, livewell and motor. Leave wet compartments open.

✓**CLEAN** Remove all plants, mud and debris from equipment and boat.

✓**DRY** Dry your boat or equipment 5 days in the summer, 18 days spring/fall or 3 days of freezing.

Help protect Wyoming's waters by making sure you Don't Move a Mussel!

Please contact the Wyoming Game and Fish Department if you see attached mussels on your equipment or in Wyoming waters. We can provide more information and assistance in removal. Call 1-877-WGFD-AIS - (877-943-3247)

WYOMING GAME & FISH DEPARTMENT
"Conserving Wildlife - Serving People"

STOP AQUATIC HITCHHIKERS!

Watercraft **MUST** have a Wyoming Aquatic Invasive Species Decal **to launch**.

Wyoming Game and Fish Department
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Fax: 307-473-3433

WE'RE ON THE WEB!
HTTP://GF.STATE.WY.US/
YOU CAN ALSO FIND US AT:

"Conserving Wildlife — Serving People"

Fisheries Management in the Casper Region

Projects in 2011:

We will be conducting our annual gill net surveys on Alcova, Pathfinder and Seminoe in May and September and Glendo in August.
North Platte River trout population estimates at Cardwell, Robertson Road, and Big Muddy will be conducted.
Creel survey information on Seminoe, Pathfinder and Alcova will be collected to gauge angler catch rates and satisfaction with these fisheries
We will be surveying small stream fisheries and habitat in the North Laramie Range and Seminoe Mountains.
AIS inspection stations on regional reservoirs will be run much like last year.
We will be electrofishing in the fall to evaluate the timing spawning movements of fish moving out of Pathfinder Reservoir.
We will be relocating beaver to Bolton Creek and assisting with riparian enhancement.
Surveys for channel catfish and native nongame species in the North Platte River between Dave Johnston power plant and Glendo will be conducted.

The Casper Fisheries management crew consists of regional fisheries supervisor Al Conder and fisheries biologists Matt Hahn and Nathan Cook . The regional Aquatic Habitat Biologist position is vacant.

Regional Supervisor Al Conder

Fisheries Biologist Matt Hahn

Fisheries Biologist Nathan Cook