



VIRGIN RIVER P R O G R A M

SUMMER 2011 NEWSLETTER



Agencies work together for good of people and fish

By Ron Whitehead, Washington County Public Works Director

During the 2005 floods, homes were lost, river channels were significantly altered, vegetation was destroyed and wildlife and fish habitat was devastated. Washington County worked closely with NRCS at the time to locate areas throughout the County that would qualify for restoration under the Emergency Watershed Protection Program (EWP). Under this Program:

- streambanks were protected
- debris and tamarisk were removed from river channels and
- native vegetation was replanted.

In order for any work to be done in or near the river, Washington County needed to give timely notice to the Utah Division

of Wildlife Resources and the U.S. Fish & Wildlife Service that restoration work on the river was about to begin. Prior notification gave the agencies the time they needed to clear the fish out of the area to be affected.

In order to acquire the necessary permits and expedite the entire process to protect the fish, the Virgin River Program (Program) stepped in and acted as a liaison between the County and these agencies.

Six years later, the Program is still working closely with the County to make sure repairs can be made on local rivers when needed. The Program helps to facilitate the process, notifies the agencies

involved and then funds the salvage of fish so that repairs can be made.

The Program continues to be instrumental in the County's completion of streambank and property protection work and the County's involvement with revegetation and debris removal projects at Gunlock, Tobin Wash, Virgin, Rockville and Moody Wash.

When work has to be done in the river, the Program does not throw up obstacles. Instead, the Program partners up with the entity responsible for the project and works alongside them to make sure protocols are followed, wildlife and habitat are protected and that the work is done in a timely manner and without detriment to people or fish.

Collaboration and cooperation are the hallmarks of the Program, and its presence in our community has proved to be invaluable to Washington County.

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—Ron Whitehead

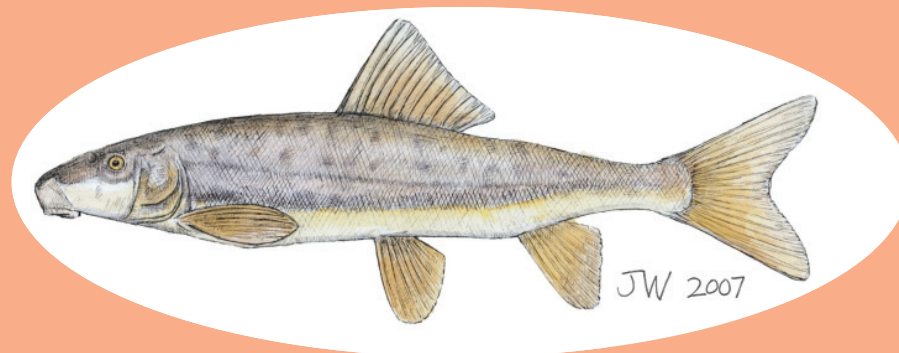


Flannemouth Sucker - Native Virgin River Fish

The flannemouth sucker is the largest native fish in the Virgin River, growing to over two feet in length and weighing over six pounds.

The flannemouth's thick fleshy lips contain taste buds that help it find food along the bottom of the river, including aquatic invertebrates, organic debris and algae.

Flannemouth suckers are found throughout the Virgin River, including the East and North Forks in Zion National Park. They prefer deep pools and sandy areas for much of the year, but congregate in large numbers in shallow gravel beds for spawning in the spring.



Fish hatchery enhances native fish population in Virgin River

By Ann Jensen, Washington County Water Conservancy District

Wahweap State Fish Hatchery, Utah’s only warmwater fish hatchery, opened its doors in 1972. At that time, the purpose of the hatchery was to stock striped bass in Lake Powell for recreational purposes. The actual stocking of the striped bass began in 1974.

Today Wahweap continues to work with sportfish such as wipers (cross between walleye and striped bass), channel catfish

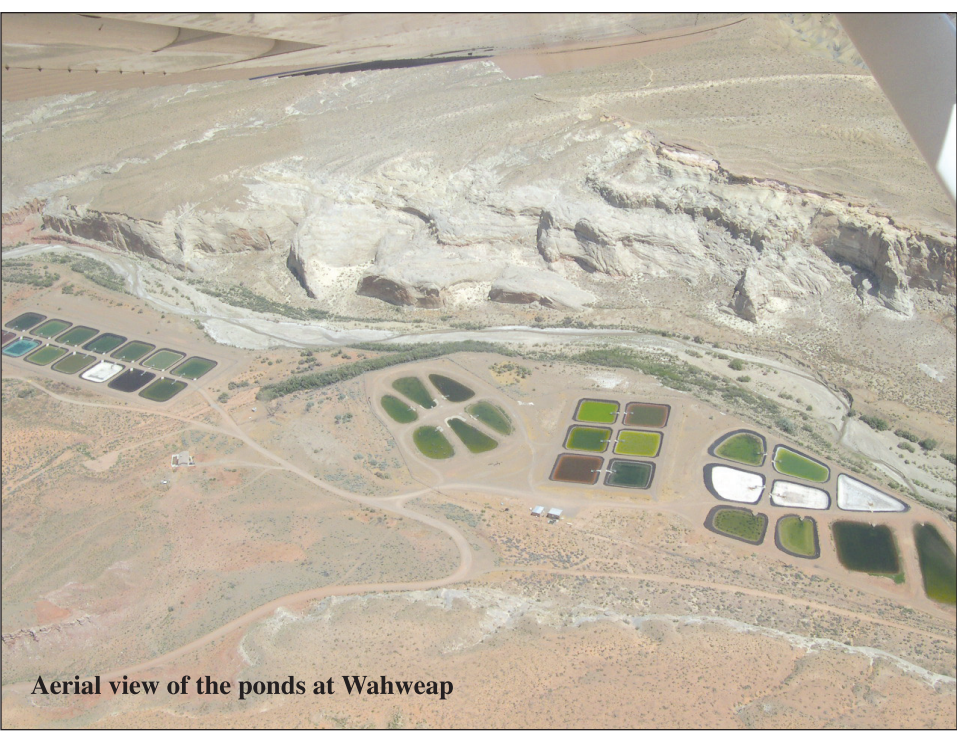
and tiger muskies. They also work with several species of endangered fish, including endangered fish in the Virgin River system – the woundfin and Virgin River chub.

The Virgin River Program (Program) has worked with Wahweap over the past 10 years. During many of these years, Wahweap held a brood stock or a backup supply of fish for the Program. If there happened to be a fish kill in the river or at other hatcheries, the brood stock could be used to produce young fish for stocking.

In March 2011, Wahweap provided 1,078 woundfin for stocking in the Virgin River above the Washington Fields Diversion and near Quail Creek. This was significant as these woundfin were substantially larger than any previously stocked from a hatchery facility. Over the years, Wahweap has supplied the Program with about 10,000 Virgin River chub for stocking in the Virgin River.

Wahweap Hatchery also conducts research on some of the Virgin River fish it holds. Feeding regimes, temperatures and pond density are manipulated to determine the conditions needed to increase the number of fish available for stocking in order that fish populations can be augmented and restored back in their natural habitat.

Wahweap is located by Big Water in Kane County, Utah near Lake Powell. The



Aerial view of the ponds at Wahweap



School of woundfin at Wahweap

hatchery sits on 265 acres. It currently has 35 ponds each varying in size from 0.26 to 0.88 surface acres. Wahweap is operated by two full-time and two part-time employees and is open year round. Tours are given to groups on a reservation basis. They host mostly school tours.

The Program plans to continue working

with Wahweap to enhance endangered fish populations in the Virgin River.

Information and photos
provided by Zane Olsen
Hatchery Manager

Fish populations considered good despite changes in numbers

By Rick Fridell, Utah Division of Wildlife Resources

Each spring and fall, the Utah Division of Wildlife Resources monitors fish between Pah Tempe and the Washington Fields Diversion. The fish are gathered in large nets and individually identified, counted and measured.

This year’s populations are a bit different than the previous two springs. Some species numbers are higher and others are lower. These numbers, both higher and lower, could be due to various factors, such as:

- sampling was conducted earlier and at higher flows than previous years due to the anticipated spring runoff
- cooler than normal temperatures and
- floodwaters that ravaged the river the previous December.

The woundfin count this year was the highest it has been since 2008.

Also seen were changes in the size of the fish, reflecting a good distribution of ages, which will be good for reproduction.

Spring Full Pass — Native Fish — March 2011

Woundfin	Virgin River Chub	Virgin Spinedace	Speckled Dace	Desert Sucker	Flannelmouth Sucker
358	236	272	1,752	1,112	177



Webb Hill fish barrier
after 2010 flood

Floodwaters bury Webb Hill Fish Barrier

By Steve Meisner, Local Virgin River Program Coordinator

Fish barriers are one of the tools used by the Virgin River Program (Program) to eradicate the red shiner, a non-native predator, in the Virgin River. Fish barriers are concrete walls in the river which create a small waterfall or drop to prevent unwanted fish from moving upstream. The barriers segment the river into manageable pieces for removal of unwanted invasive fish. The Program has strategically placed three barriers in the river in order to prevent non-native fish from moving upstream from Nevada/Arizona.

Webb Hill Fish Barrier

- This barrier is located in Bloomington just below the I-15 bridges near Walmart. It is not uncommon for Virgin River floods to cause both great erosion and also extensive sedimentation. At this site, the river deposited eight feet of sediment measured from the base of the barrier wall, so the top of the concrete wall was buried under four feet of river sediment. The Program is considering not restoring the Webb Hill fish barrier, due to the high cost of replacement and because

the Program has been successful in removing the red shiner from Utah.

Gorge Fish Barrier

- The most recent barrier was constructed on the Virgin River near the downstream end of the Virgin River gorge. This barrier functioned well during the flood event and suffered very minor damage.

Stateline Fish Barrier

- This barrier fared very well during the floods. There is concern, however, that the structure's design could allow non-native fish to bypass the barrier and move upstream under large flood conditions. The Program is investigating structure modifications to improve its function. Enhancement of this structure would minimize the need to replace the Webb Hill barrier.

At the height of the December 2010 flood, the Virgin River near Pineview Estates changed its course. The new river path destroyed about 200 feet of the Washington County Water Conservancy District's regional culinary waterline and bypassed the Johnson Diversion, which is

an irrigation diversion that also provides a valuable fish barrier. For about 10 days, the barrier was bypassed, allowing upstream passage and invasion by any fish moving upstream during the flood. Non-native fish have been successfully eradicated from the Washington Fields stretch of river since 2006.

In addition to the damages sustained to the fish barriers, the river also destroyed a recently completed habitat enhancement project for the endangered southwestern

willow flycatcher. Willow plantings at the project site, which had been nurtured over the past five years by the Program and the Johnson Family, were also swept away by the strong current.

Approximately \$300,000 worth of damage was sustained by the Program. Funds have been requested from FEMA to replace damaged structures. If FEMA funds are not forthcoming, the Program will have to find money within its own budget to make the needed repairs.



Webb Hill fish barrier
before 2010 flood

Native fish recovery and your aquarium

Not a match made in heaven

By Steve Meisner, Local Virgin River Program Coordinator

I have an aquarium. In fact, I have three aquariums.

Oftentimes people ask me what they can do with their “pet” fish if they don’t want them any longer. My first answer is **“do not put them in the river”** or other “natural” water body like a pond or a canal. The second answer is **“do not flush them unless they are dead.”**

The reason for my rather bossy,

seemingly callous reaction is that presently the Program is dealing with a few species that have made their way to the river through the pet trade. We have found cichlids in ponds and presently fathead minnows (*aka* rosy reds) in the Virgin and Santa Clara Rivers. All of these fish can prey upon or compete for habitat with the native fish of the Virgin River. Many of these pet fish may not

survive some of the harsher conditions found in Washington County rivers, but they can do a lot of damage before they pass on.

So what can you do with those fish if you don’t want them anymore? Grab a ziplock bag, put the fish in it, and throw it in the freezer for an hour. Take it out and throw it in the garbage. Just make sure your mom doesn’t find it first....



Calling all photographers

Just a reminder that the annual Virgin River Program photo contest is fast approaching. As in the past, all photos to be considered for the Program’s calendar will have to be submitted no later than September 30, 2011 and must have a

resolution minimum of 6 mega pixels.

Later this summer, the Program will post more information about the contest on its webpage at www.virginriverprogram.org.

This year’s winning photographer will receive an *iPod touch*.

VIRGIN RIVER PROGRAM WORD SEARCH

AQUATIC
BROOD
FATHEAD
FLOODWATERS
HATCHERY
PERMITS
POND
RESEARCH
RUNOFF
SAMPLING
SPAWN
SPECIES
WAHWEAP
WARMWATER
WOUNDFIN



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