



VIRGIN RIVER P R O G R A M

SUMMER 2012 NEWSLETTER



Water needs of humans and fish main focus of Reed Harris' career

In July 2012, Reed Harris retired as Director of the Virgin River Program (Program). Reed served in this position for 12 years.

Armed with a Bachelors and a Masters degree from Utah State University in Fishery Science, Reed began his career working with wildlife in 1967. His years of service were spent with the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service, Bureau of Reclamation, and the Utah Department of Natural Resources.

Reed likes to tell the story about the beginning of his career in fish biology. He was working on Lake Powell when he looked down and saw a fish caught in a gill net. He pulled it out of the water. It was an amazing dinosaur-like fish about 24 inches long with a big hump on its back. It was a razorback sucker. That encounter steered him toward work in native fish recovery.

When beginning his work with the USFWS, Reed was already aware of the precarious position of another fish - the June Sucker. The June Sucker, named for its spawning run during the month of June, is endemic to Utah Lake

and the Provo River. It was listed as an endangered species in 1986.

In 2000, when he left federal employment, Reed began working with the Utah Department of Natural Resources. The Virgin River and June

Sucker programs were just getting started. Both of these recovery programs were formalized in 2002. Reed was hired to help establish and develop programs that centered on recovery of the June Sucker and Virgin River fishes. These were implementation programs. They took recovery plans that had been out there for 20 years and put actions on the ground. The goal was to work together with various agencies and with

the public to try to find a balance between species recovery and water development. "Species recovery and water development have to reach a balance - neither one can be approached at the exclusion of the other" states Reed. This balance was to become the underlying objective of both programs.

In his work with recovery over the past 11 years, he has come to believe that the Endangered Species Act ought to drive both sides to the middle. "You

have to fulfill peoples' needs while at the same time protecting sensitive and listed species."

When the Program began in 2002, two general Program goals loomed large -

- recover, enhance, conserve and protect native species in the Virgin River and
- enhance the ability to provide water for human needs.

Much of the specific goals addressed in the annual Work Plan have been met as of 2012 such as:

- getting rid of the nonnative red shiner in Utah
- building fish screens that would keep native fish in the river instead of having them diverted into farm fields
- working with hatcheries to provide a fixed budget so that stocks could be maintained and fish could be put back in the wild
- improving habitat so that fish can survive, *i.e.*, getting water back into the stream especially during the heat of summer and
- developing outreach and education programs.

Reed has seen more progress in the last 10 years of his career than over the previous 30 years. According to Reed, the "upper part of the Virgin River now consists primarily of native fish. Through education people now look differently upon the Virgin River and its native fishes."

Reed credits a lot of the gains that have been made to the Washington County Water Conservancy District, the Central Utah Water Conservancy District and former State Senator Tom Hatch. These entities worked hard to establish the Endangered Species Mitigation Fund (ESMF). When all is said and done, people want to protect endangered species. When funds are available, problems can be worked through leaving time to focus on the broader aspects of fish recovery.

Reed believes that if, after 10 years in existence, the Program can

- complete nonnative removal to the Gorge barrier
- keep water temperatures down
- maintain sufficient water in the stream
- work to protect habitat in the 100-year floodplain for flycatchers and
- help people find win-win solutions to environmental issues,

recovery efforts will continue and native fish will thrive.

During most of his career, Reed could be found working with endangered species in conjunction with water development. He believes that, as long as people work together, the needs of both local residents and fish can be met. Reed's contribution to the Program over the past 10 years has been invaluable.

After 40 years of dedicated service to wildlife, Reed is looking forward to spending more time with his wife, kids and grandkids. He also hopes to travel.



Reed Harris
*Retired Director of the
Virgin River Program*

New director no stranger to Virgin River Program



Henry Maddux
*New Director of the
Virgin River Program*

Between 2000 and 2006, Henry Maddux helped establish the Virgin River Program.

After spending the last six years working for the U.S. Fish and Wildlife Service (USFWS) in Colorado, Henry is back to fill the position of Program Director.

As a young man at Rick's College, Henry Maddux was given an English assignment. He was to choose a topic and then write a paper. The topic he chose was fish. By the time the assignment was completed, Henry was fascinated by fish.

The next step along his career path found him earning his Bachelor of

Science degree in Fish and Wildlife from the University of Arizona and his Masters of Science in Fisheries from South Dakota State University.

In 1991, Henry went to work for the USFWS as a Senior Aquatic scientist in the Utah Ecological Services Office. While serving in that position, he worked on developing the Program.

Henry believes that the Program has greatly benefitted Washington County (County). He says that it "uses a common sense approach to try to balance the needs of the County along with the needs of local native species and their habitat. It has been instrumental in getting people to work

together instead of being at odds with one another over competing needs."

Henry would like to see the Program continue to recover endangered species (woundfin, Virgin River chub, and Southwestern Willow Flycatcher) to the extent that they can be taken off the endangered species list.

Working with the County has always been a priority of the Program. Henry would like to see "collaboration continue to make sure water needs are met and that the economy is not hindered by endangered species issues."

The Program is happy to have Henry back!

Rotenone treatment extends downstream in 2012

In the early 1980s, red shiner entered the Utah portion of the Virgin River by swimming upstream from Lake Mead. Until November 2007, red shiner was the most common fish in the Virgin River near St. George.

In order to remove red shiner, the Utah Division of Wildlife Resources and the Virgin River Program have used the chemical rotenone. In 2008, as a result of these treatments, the Virgin River was free of red shiner. However, due to the 2010 floods and the higher than average runoff at that time, red shiner has again surfaced.

Another nonnative fish, the fathead minnow, has also found its way into the Virgin River.

Due to the presence of these nonnative species, both the Virgin and Santa Clara rivers will be treated with rotenone this coming fall. Because the state of Arizona has lifted its ban on the use of rotenone, the Program has asked and received permission to move forward with planning for the proposed rotenone treatment that will go down into the Arizona reach of the Virgin River.

Rotenone has been used on a number of different lakes and reservoirs in Utah (Strawberry Reservoir) and is a safe means of fish management.

Additional information is available on the Virgin River Program website at <http://www.virginriverprogram.org/>.



Endangered woundfin

Why work to remove nonnatives from local rivers?

Why go to all the trouble to make sure nonnative fish species do not inhabit our rivers? Three of the main reasons include the fact that nonnative fish species like the red shiner can

- harm native fishes by competing for food and space
- directly prey upon native fish larvae and
- introduce parasitic organisms which contributes to the death of the native fish.

When even one native species is removed from an area, natural interactions are disrupted and the ability of another species to survive is decreased.

Over a period of just three years from 1984 through 1987, the woundfin population rapidly declined as red shiner population escalated.

- August 1984 - 99.9% of the fish above the Virgin River Gorge were native fish.
- October 1984 - woundfin comprised 54% of the total fish population between the Gorge and Washington Fields Diversion.
- October 1987 - woundfin numbers dropped to only 15% of the fish population.
- October 1987 - nonnative red shiner numbers climbed to 59% of the total fish population.

Native fish cannot thrive and persist in the presence of these invasive fish. Unless the Division of Wildlife Resources and the Virgin River Program and its partners continue to monitor and treat the river to rid it of nonnative species, nonnatives could easily and quickly take over again.



Fathead minnow

Research could provide answers to fish kill



Fish killed by ash from upstream fires

Desert Research Institute (DRI) has been hired by the Virgin River Program to conduct research.

In 1959, an act of the Nevada Legislature created a division of the University of Nevada specifically committed to research. Within this division, a group of scientists and academic leaders then formed the Desert Research Institute that was to study Nevada's arid land resources.

Eventually, DRI expanded its research to include environmental issues on a global scale.

The Program contracted with DRI to evaluate impacts of range fires on native fish in the Virgin River.

The study will evaluate the polluted water coming from precipitation on large burn areas. Researchers will look at the ash-laden water and determine the effect upon Virgin River fishes. The

research could provide answers to the severe fish kill that occurred when an intense summer thunderstorm washed ash and debris from the recently burned North Creek watershed downstream into the Virgin River.

DRI had previously conducted some research in the Santa Clara drainage that looked at expected increased flood sizes that resulted from widespread wild fires on that watershed.

New nonnative species threatens local watershed

Arundo, also known as wild cane, is a nonnative plant introduced by Spanish settlers to the western United States. It is a perennial grass that looks a lot like bamboo, can grow more than 20 feet tall and thrives in almost any kind of soil – from very wet to very dry.

This plant has been found in various locations in Washington County. As a nonnative species, it has negative impacts on local soils, water and wildlife. For instance:

- Watersheds with significant amounts of Arundo may see reduced surface flows.
- Since it spreads so rapidly and has a huge root system, it will choke out native riparian vegetation thereby removing critical habitat for birds, fish and other wildlife.
- Additional studies are needed, but the few studies that have been completed found that the amount of water used by this plant is considerable.

The Washington County Water Conservancy District received a grant from the Utah Department of Agriculture and Food (UDAF) as part of UDAF's prevention of invasive species program. With this funding, work can begin on removal of Arundo in the Virgin River basin. The work will be done by the American Conservation Experience (ACE). ACE will cut down the plants and apply a herbicide.

If anyone has Arundo on their property and is interested in having it removed, contact Steve Meisner at smmeisner@utah.gov.



Arundo or wild cane



Photo by Brad Campbell

Education weeks scheduled for coming school year

Each year the Virgin River Program dedicates four weeks toward helping Washington County K-12 students understand the Virgin River, its tributaries and its wildlife with special emphasis on endangered species recovery efforts.

Letters will soon be mailed to schools throughout the county giving the teachers the opportunity to sign their class up to participate in this educational event.

Education weeks for the 2012-2013 school year are scheduled as follows:

- September 4-7, 2012
- December 3-7, 2012
- February 4-8, 2013
- April 8-12, 2013

For more information, contact Melinda Bennion at 435-879-8694.

Annual Virgin River Program photo contest in progress

The 2012 Virgin River Program Calendar Contest is now open!!

All photos to be considered for the Program's 2013 calendar must be submitted by September 30, 2012. Each photo must have a minimum resolution of 6 mega pixels.

Photos should showcase various aspects of the Virgin River Basin including landscape, wildlife, seasons, the river and all of its uses.

For guidelines and information on the contest, log on to the Program's webpage at www.virginriverprogram.org.

This year's winning photographer will receive an *iPod Touch*.

Public meeting to be held regarding planned river treatment

The Virgin River Program, in conjunction with the Arizona Game and Fish Department, will hold a public meeting on Wednesday, August 22, 2012, concerning the proposed rotenone treatment to remove nonnative red shiner in the Virgin River Gorge.

WHERE:

Washington County Water Conservancy District
533 E Waterworks Drive – St. George, UT 84770

DATE:

August 22, 2012

TIME:

6:00 – 7:30 p.m.

The treatment is planned for the fall of 2012.



VIRGIN RIVER
P R O G R A M

Virgin River Program Newsletter Summer 2012

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Program Signatory Partners

Washington County Water Conservancy District

U.S. Fish and Wildlife Service

Utah Department of Natural Resources

U.S. National Park Service

U.S. Bureau of Land Management

U.S. Forest Service

Dixie Conservation District

Washington County Farm Bureau

The Nature Conservancy

VIRGIN RIVER PROGRAM WORD SEARCH



chemical
divert
drainage
habitat
native
program
protect
razorback
recover
research
species
status
Virgin River
wildlife
woundfin

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