

### Woundfin

(Plagopterus argentissimus) - Size: 4'' (10.2 cm)

One of the most rare species on earth, the endangered woundfin is found only in a small section of the Virgin River. Woundfin have large fins and scale-less, streamlined bodies that help them survive in swift, silty conditions. Although small, it is shark-like in both appearance and action as it feeds on small insects in shallow areas along the river. Woundfin live only one to two years and their survival depends upon sufficient flow within the river, especially during hot





## Virgin Spinedace

(Lepidomeda mollispinis) - Size: 5" (12.7 cm)

The Virgin spinedace looks, feeds, and behaves like a miniature trout. This silvery minnow gets its name from the sharp spiny rays in its dorsal fin. Virgin spinedace are found only in the Virgin River Basin. Unlike the woundfin and chub, which live only in the Virgin River, spinedace are also found throughout many tributary streams. Virgin spinedace prefer deep pools and runs and are at home in both clear and turbid water.

## Flannelmouth Sucker

(Catostomus latipinnis) - Size: 24" (64.8 cm)

The flannelmouth sucker is the largest native fish in the Virgin River, growing over two feet in length and weighing over six pounds. The flannelmouth'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. Flannelmouth suckers are usually found in deep sandy areas of the Virgin River, but large numbers congregate in shallow gravel beds for spawning in the spring.



## Virgin River Chub

(*Gila seminuda*) - Size: 18" (46.4 cm)

Rare and beautiful, this fish is the top native predator in the Virgin River. Chub are a fast streamlined fish with a sloped forehead, humped back, and thin rounded tail. The Virgin River chub feeds on small fish, insects, and plant matter. Chub prefer deep pools and runs with boulders and debris for cover. Virgin River chub were once an important food source for Native Americans and early pioneers. Now listed as an endangered species, the Virgin River chub is found only in the lower portions of the Virgin River system.





## Speckled Dace

(Rhinichthys osculus) - Size: 4" (10.2 cm)

One of the most widespread species in western North America, the speckled dace is found in large numbers throughout the Virgin River and its tributaries. Speckled dace prefer rocky areas but are comfortable living in all habitats and stream sizes. Speckled dace exhibit a kaleidoscope of shapes and colors across their range. Males display bright red 'lipstick' and red fins to attract mates during breeding season.

#### Desert Sucker

(Catostomus clarkii) - Size: 18" (46.4 cm)

The desert sucker gets its name from the way it feeds on aquatic vegetation and insects. It uses its thick cartilaginous lips to scrape and suck food from rocks and boulders along the bottom of the river. Desert suckers are very colorful during the spring spawning season, developing bright orange and black 'racing stripes' along their sides. Desert suckers are considered a sensitive species in Utah, where they are only found in the Virgin River and its tributaries.







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OF THE UTAH DIVISION OF WILDLIFE RESOURCES PREPARED BY RICK FRIDELL AND JON WAGNER



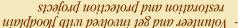


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Virgin River Program
Washington County Water Conservancy District
US Fish and Wildlife Service
Bureau of Land Management
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The Nature Conservancy
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Washington County Farm Bureau
Utah Water Research Laboratory
Arizona Department of Fish & Game
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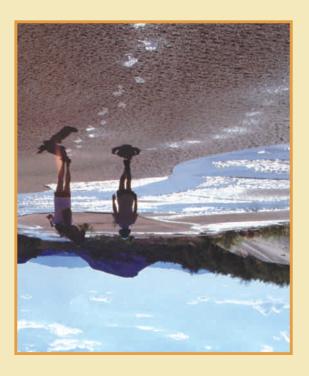


- Virgin River or nearby bodies of uater
- Do not release fish or other wildlife into the
- Support trails, parks and other green space initiatives along the Virgin River
- Conserve water, using water wisely ensures critical resources for fish and wildlife

#### WHAT YOU CAN DO TO HELP:

to come.

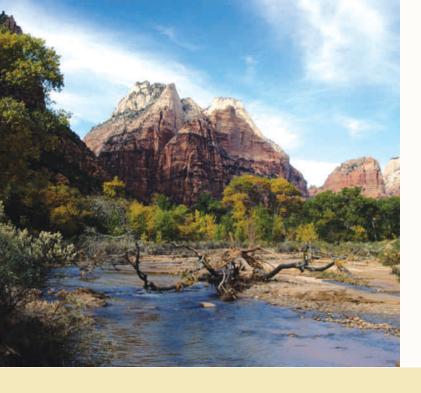
The Virgin River supplies water for humans and countless species of plants and wildlife. The river provides wildlife habitat and water, sustains the thriving communities along its course, and draws many visitors to the region. Remember, you are part of the Virgin River system too. With your help we can ensure the health of the Virgin River and all of its species for generations





and gentle stream flowing quietly under the desert sun. Afternoon clouds gather and build, in moments a thunderstorm transforms the clear and tranquil waters into a raging torrent the consistency of a chocolate milkshake. A flash flood on the Virgin River is an awe-inspiring sight of remarkable power, capable of uprooting trees and moving car-sized boulders. Within hours the churning waters subside leaving the river channel scoured and transformed. To most forms of life such an event is devastating, however, it's just another day to the native fishes of the Virgin River. These fish manage to make it through floods and other natural extremes, and can still thrive in the unpredictable and dynamic Virgin River.

Native fishes of the Virgin River have evolved and persisted for thousands of years despite the extreme conditions of their habitat. They must survive not only floods, but annual temperature swings of over 80 degrees, rapid changes in water quality, and the huge sediment loads carried by the Virgin River. Even during normal flow conditions, the Virgin River carries over a ton of sand and silt downstream every minute. The native fish have many adaptations to help them survive in this unique system; they are streamlined, have reduced scales, large fins, and can tolerate high temperatures.



# The Virgin River

fishes, including three that are found nowhere else in the world (woundfin, Virgin River chub, and Virgin spinedace). Many of the species are small, however, others such as flannelmouth and desert suckers can reach over two feet in length. The survival of Virgin River fishes is tied to an unpredictable annual water cycle. Reproduction is dependent upon adequate winter snowfall in the surrounding mountains. In the spring, runoff from melting snow triggers Virgin River fish to congregate and spawn. Even if conditions are favorable for spring spawning, the young fish must survive summer heat and drought. Summer low flow conditions, periods of extreme drought, and flash floods, all jeopardize the survival of the young fish. During this time they take refuge in pools, undercut banks, springs, seeps and other cool water inflows into the river. Life for these fishes

is dependent on 'good water years'. Adequate water supply equals a spike in their populations, poor water supply equals a drop in populations.

Even though Virgin River fishes are remarkably resilient to these natural fluctuations, their persistence hangs on a thread. Life in a desert stream is invariably tough, and survival is balanced on a thin line. Over the last 50 years, their populations have declined as they've struggled to adapt to new conditions. Human growth and development along the Virgin River has resulted in diversion of river flow, dewatering, and the introduction of non-

native fish and plants. Unfortunately, these increased pressures have tilted the balance and pushed many of the species to the brink of extinction.

A recent groundswell of cooperation between local, state, and federal entities provides hope for these species. The Virgin River Program is a mechanism to restore balance by protecting vi-

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tal habitat and recovering fish populations. With this partnership in place, local communities and the ancient inhabitants of the Virgin River can continue to live in harmony through flash floods and desert summers, for generations to come.