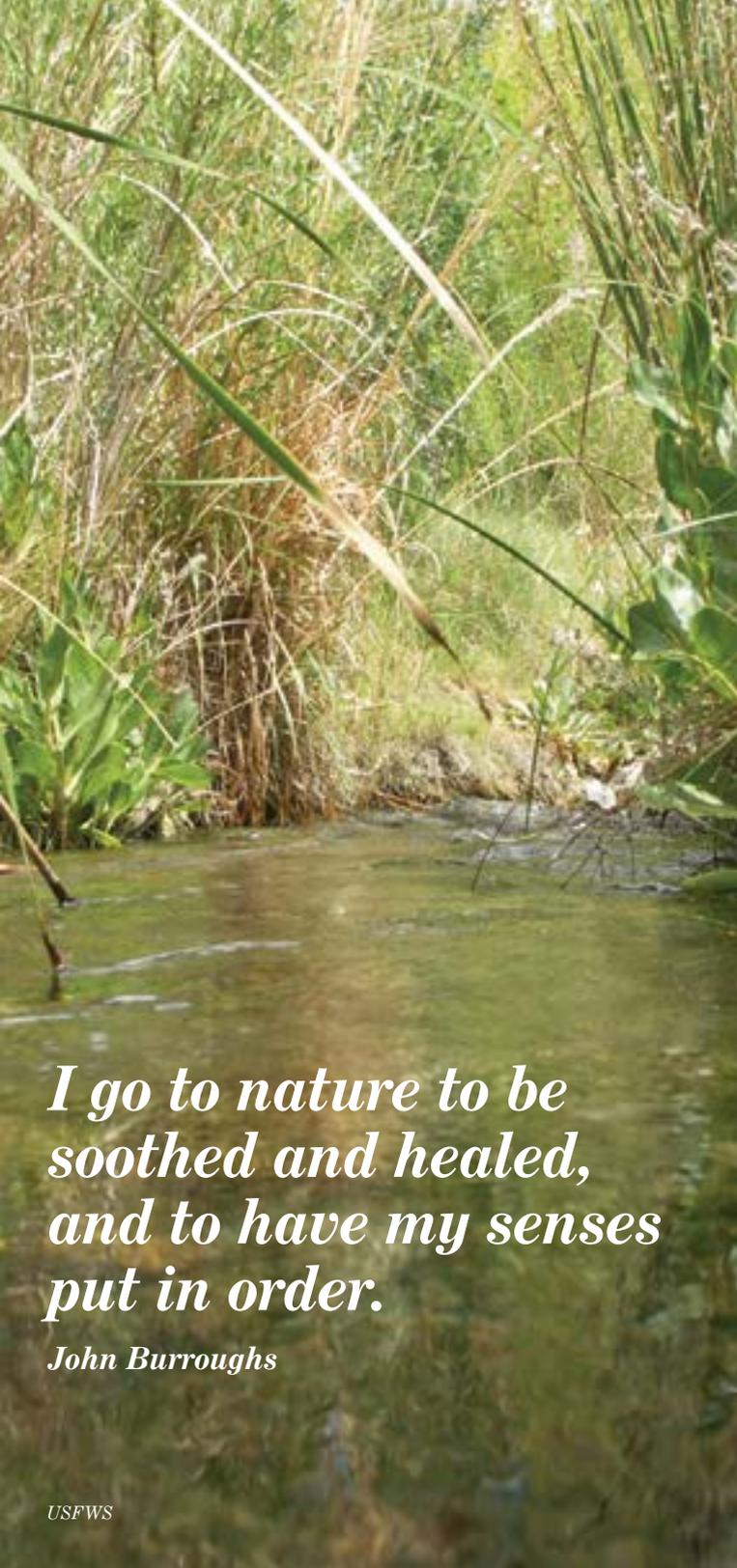


U.S. Fish & Wildlife Service

Moapa Valley

*National Wildlife
Refuge*





*I go to nature to be
soothed and healed,
and to have my senses
put in order.*

John Burroughs

USFWS

A Home for the Moapa Dace

The National Wildlife Refuge System consists of 150 million acres in 562 refuges throughout the United States. Refuges are managed by the U.S. Fish & Wildlife Service to conserve and protect America's fish, wildlife, plants, and their habitats. The Moapa Valley National Wildlife Refuge, established September 10, 1979, was the first refuge created for an endangered fish: the Moapa dace.



SMFWS
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Moapa dace

Moapa dace are *endemic* to Moapa Valley, which means the entire population are found here and nowhere else in the world. They are the only fish in the genus *Moapa*, which means they have no close relatives. Adult dace lay their eggs at springheads and use the warm spring water (88°) to incubate their eggs. After hatching, the juveniles have historically moved throughout the Muddy River stream system. When it was time to reproduce, they migrated back toward upstream areas. The full-grown dace are no longer than a human finger and are easily recognized by the black dot on their tails.



This Blue Goose, designed by J.N. Ding Darling, has become the symbol of the National Wildlife Refuge System.



*Moapa
pebblesnail*

With only four inches of rainfall per year, water is a precious resource in the hot and dry Mojave Desert. Three warm springheads are located within refuge boundaries. These springs are critical habitat for Moapa dace, Moapa White River springfish, Moapa pebblesnail, and Moapa riffle beetles, all of which are endemic to Moapa Valley.

A Rich History

History of the Moapa Valley

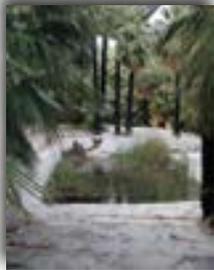


Southern Paiute children, 1873.

For many generations, the Nuwuvi (Southern Paiute and Chemehuevi Native Americans) have been part of the landscape now called Moapa Valley. Nuwuvi villages originally stretched from the Warm Springs area to the Virgin River. Here the people grew corn, sunflowers, and other crops in the floodplain nourished by the valley's springs. Today, the nearby Moapa Band of Paiutes continue Nuwuvi cultural traditions and maintain strong ties to the living landscape of people, wildlife, and plants. Their communities thrived with minimal impacts to wildlife before European Americans arrived.

The late 1800s brought European settlers to Moapa Valley. Several farms and ranches sprang up in the area. Throughout the early 1900s, small parcels of land were used to raise alfalfa and cotton and to breed cattle. The land was irrigated with water diverted from the natural spring systems. When the Moapa dace was first officially described by scientists in 1948, it was considered "rather common" in all pools and streams surveyed.

During the 1940s, Moapa Valley's extraordinary warm springs gained more and more popularity. Increasing numbers of locals and tourists visited the springs for camping, swimming, and bathing. As development continued through the 1950s, the springs were transformed into luxurious hot tubs and pools by entrepreneurial businessmen. From the 1950s to the 1970s, the 7-12 Warm Springs Resort featured a snack bar, two concrete swimming pools, and recreational vehicle hook-ups. When the resort went out of business in 1979, it was purchased at fair market value from a willing seller to form the refuge. At this time, there were no dace left on-site.



Abandoned concrete pools at Moapa Valley.

A Constant Struggle

Why are they endangered?



The Moapa Dace was listed on the very first Endangered Species Act list, alongside the grizzly bear and the Florida manatee.

Rehabilitating the Moapa Valley oasis is a difficult task. Once the refuge was established, the cement pools had to be demolished, the streambeds restored to their original paths, and the native vegetation re-seeded. The refuge's streams were repopulated using dace from other reaches of the Muddy River system.

Even though the Moapa dace are now federally protected, they face continuing threats to their survival. Since 2000, annual counts have fluctuated from 450 – 1900 dace. This is far below the 6000 needed for recovery as set by the Moapa Dace Recovery Plan for the Muddy River's aquatic species.

Most threats to the dace have come from past and recent human activities. Non-native palm trees, planted to shield early Western settlers from the powerful desert sun, have fueled intense fires that destroyed most habitat in their vicinity. Several non-native fish have been introduced to the Muddy River system. Not only did these fish bring in parasites, but they continue to compete with dace for food. Some non-native fish, such as tilapia, have also fed on the dace themselves.



Non-native tilapia, seen here, decimated the dace population in the late 1990s.

As the human population grows, so does their demand for water. This can result in less water overall, and it can cause the water to cool or pool in ways that favor invasive fish species over dace.

The US Fish & Wildlife Service works with local citizens, non-profit organizations, county, state, and federal officials to pull the Moapa Dace back from the brink of extinction. If we all continue to work together, Moapa Valley and its famous fish will once again flourish in safety.

Enjoy Your Stay



At only 116 acres in size, Moapa Valley NWR is perfect for a quick visit. Its most iconic feature is a stream channel window. Here, visitors can watch the endangered Moapa dace in their native habitat. Other endemic stream life, such as Moapa riffle beetles, Moapa pebblesnails, and Moapa White River springfish, can also be observed at the viewing window. Each of these unique animals lives only in the Moapa Valley stream system and nowhere else on Earth.

Moapa Valley NWR also features a picnic pavilion and several short trails perfect for observing birds and other wildlife. Over 150 bird species have been observed enjoying the Moapa Valley oasis.



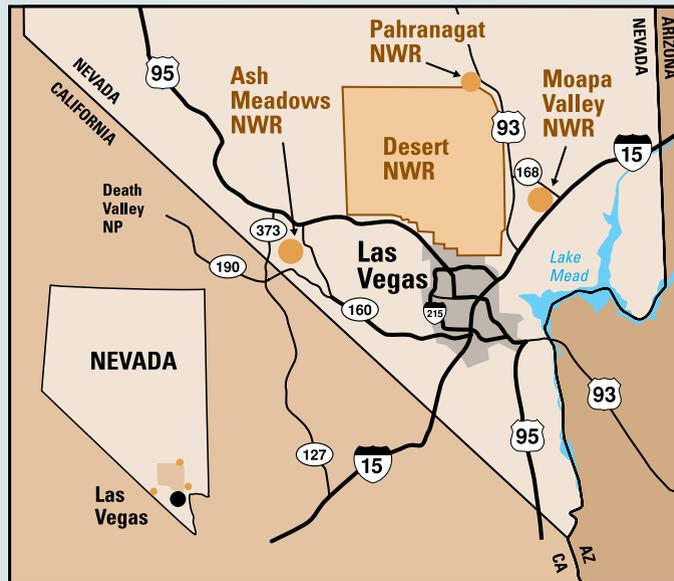
The refuge is adjacent to the Warm Springs Natural Area and is close to the Arrow Canyon Range. The Moapa Valley area offers numerous attractions, including Valley of Fire State Park, Lake Mead, Lost City Museum, Logandale Trails System and more.

Due to Moapa Valley National Wildlife Refuge's small size, fragile habitats, and ongoing restoration projects, public visiting hours are limited. The refuge is open sunrise to sunset Friday-Sunday from September through May. Weekday visits may be scheduled on request.

The 1/2 mile overlook trail leads to a spectacular view of the Moapa Valley.



Visit Nearby Refuges



National Wildlife Refuges of Southern Nevada

Desert National Wildlife Refuge



The largest refuge in the lower 48 states with over 1.6 million acres holds many opportunities. Drive through scenic desert bighorn sheep habitat, watch birds at Corn Creek, view the endangered Pahrump poolfish, hike in the backcountry or spend a night camping under the stars.
702/879 6110

Ash Meadows National Wildlife Refuge



© Tom Baugh

A haven for rare species, the 24,000 acres of spring-fed wetlands and alkaline desert uplands support a great number of endemic plants and animals. The refuge features boardwalks and trails leading visitors through diverse habitats to majestic spring pools. 775/372 5435

Pahrnatagat National Wildlife Refuge



Dave Menke/USFWS

Since 1963, Pahrnatagat has been managed for waterfowl and other migratory birds. As a home to several endangered species, the refuge is a wildlife treasure of unparalleled beauty. Hiking, camping, hunting, and fishing are available.
775/725 3417

**Moapa Valley National Wildlife Refuge
4001 W. Warm Springs Road
Moapa, NV 89025**

**Mailing address:
Moapa Valley National Wildlife Refuge
4701 N. Torrey Pines Dr.
Las Vegas, NV 89130
702/515 5450**

https://www.fws.gov/refuge/Moapa_Valley/

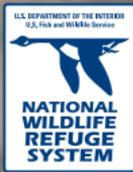
**Or, visit our Facebook page at:
<https://www.facebook.com/MoapaValleyNWR/>**

**Nevada Relay Service
TTY 1 800/326 6868
Voice 1 800/326 6888**

**Visit the U.S. Fish & Wildlife Service
on the internet at <http://www.fws.gov>**

**For Refuge information
1 800/344 WILD**

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request and/or receive
an alternative format
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Mark Hereford/USGS