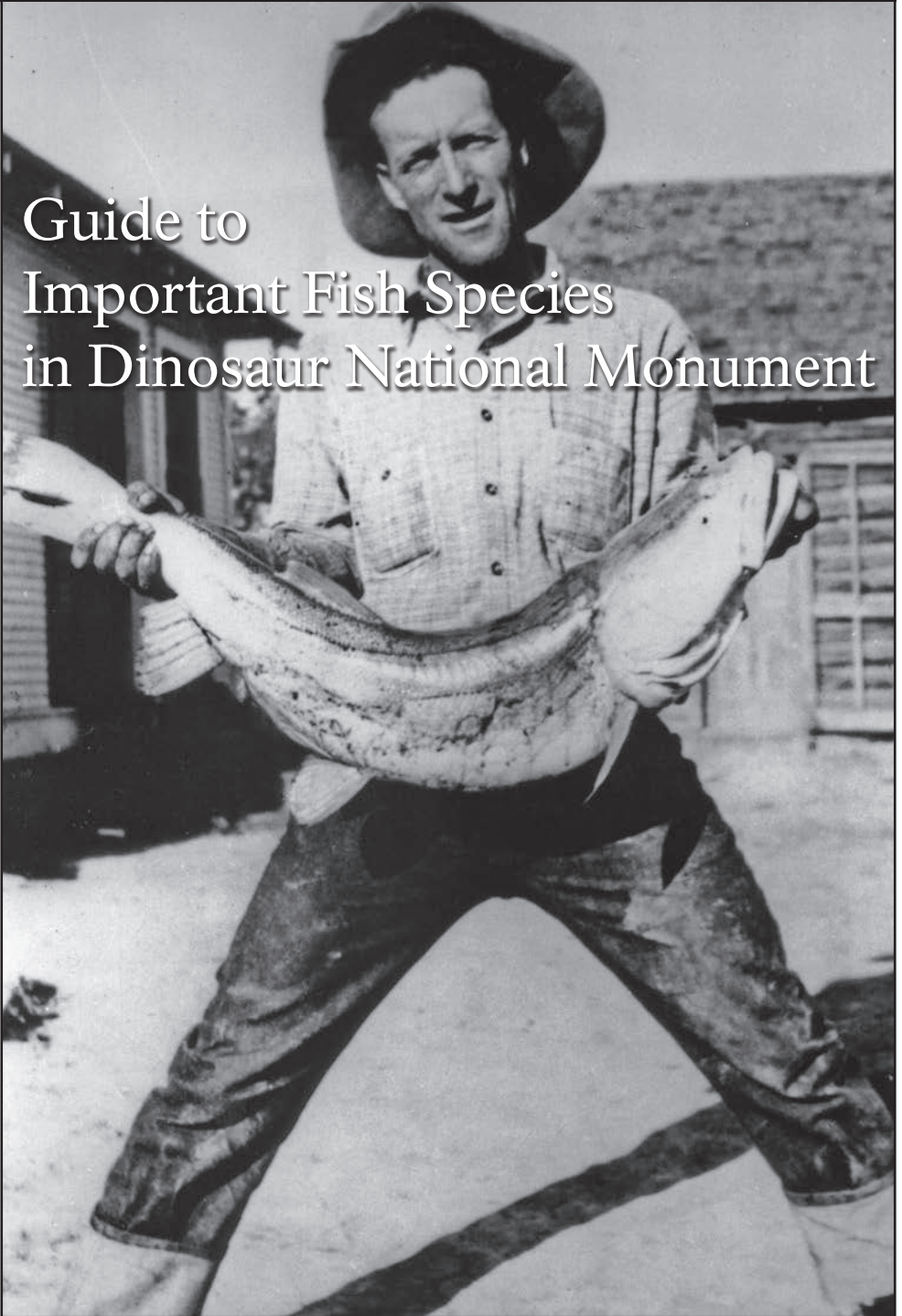


U.S. Fish & Wildlife Service
National Park Service
U.S. Department of the Interior



Guide to Important Fish Species in Dinosaur National Monument



This pamphlet is a joint project by the National Park Service and the U.S. Fish and Wildlife Service, both agencies of the Department of the Interior.

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Reports of captured burbot can be given to any Dinosaur National Monument ranger. (Please include information on the specific location.)

June 2014

ON THE COVER

**Sam Sewell holding a Colorado pikeminnow caught in the Green River, ca. 1928
Dinosaur National Monument Archives**

Why are these fish “important?”

Native species

Most of the native fish species described in this guide are unique to the Colorado River Basin, which includes the Green and Yampa rivers in Dinosaur National Monument. Others may occur in additional river systems, but represent important contributors to the river ecosystems in Dinosaur National Monument.

The natives found only in the Colorado River Basin have evolved specialized traits to survive in the difficult natural environments found in these rivers, which include highly variable seasonal flows and heavy sediment loads. With the dramatic changes that dams and water diversions have made in the hydrology of these rivers during the 20th century, most of these species are now severely reduced in range and population numbers. Some, such as the bonytail, are very close to extinction.

All of these native fish represent a unique and irreplaceable natural heritage. Fishermen can aid in the recovery of native fish species by IMMEDIATELY RELEASING unharmed any native fish caught in Dinosaur National Monument.

Introduced species

There are more introduced fish species in Dinosaur National Monument’s rivers than described in this guide, but those included are of particular concern for their contribution to the decline of native fish populations in the Colorado River Basin.

Most of these introduced species are voracious predators on native species. The catfish can have a different impact on the Colorado pikeminnow (itself a predator) because of its spiny fins. There have been many reports of pikeminnow found choked to death, with catfish wedged in their throats.

The introduction of these non-native species to the basin’s river environments has occasionally been by accident, but more frequently has been deliberate—often through misguided attempts to “improve” the fish populations in these rivers. Although nonnative fish cannot be legally stocked in Dinosaur National Monument, many have arrived here from up- or downstream.

Please DO NOT RELEASE any of the introduced species discussed in this guide back into the rivers, unless specifically required to do so by state regulations.

Fishermen are reminded that all fishing within Dinosaur National Monument is subject to state fishing regulations, including the possession of a current fishing license from the appropriate state.

Bonytail



Utah Division of Wildlife Resources

Native

- Federally listed as Endangered
- Relatively small eye and mouth for its overall size
- May have a small hump behind its head, or more often the head appears compressed
- Very thin tail fin attachment for the overall body size
- Please RELEASE UNHARMED immediately

The bonytail has experienced the most abrupt decline of all the large native fish species of the Colorado River Basin. After the construction of Hoover Dam on the lower Colorado River, the bonytail quickly disappeared from the lower Colorado River Basin.

Today the bonytail is extremely rare in the upper Colorado River Basin, and reproduction in wild populations is generally unsuccessful. Present populations are being maintained by restoration stocking programs.

Colorado Pikeminnow



M.T. Jones, USFWS

Native

- Federally listed as Endangered
- Most that are caught in Dinosaur National Monument are large (12–36 inches in length)
- Cylinder-shaped, silvery white body with gold flecks
- Large, fleshy lips with a split above the upper lip
- A compressed, somewhat flattened head with no teeth
- Single dorsal (top) fin is behind the midpoint of the body length
- Please RELEASE UNHARMED immediately

The Colorado pikeminnow is the largest minnow in North America. In the early 1900s it was known as a big, aggressive, and easily caught “sport” fish. In those times the Colorado pikeminnow was the top fish predator in the upper Colorado River Basin.

Historical accounts include descriptions of pikeminnows up to six feet long and weighing 80 pounds. Many earlier settlers also considered pikeminnows to be an abundant and valuable food source. Other common

names for the species have included “whitefish,” “white salmon,” and “squawfish.”

The Colorado pikeminnow is known for its long-distance spawning migrations of up to 200 miles. Today the Yampa River in Dinosaur National Monument includes important cobble spawning bars used by pikeminnow populations located throughout the Green River and its larger tributaries, such as the White River.

Humpback Chub



George Andrejko, USGS

Native

- Federally listed as Endangered
- Snout overhangs the mouth, like an “overbite”
- Hump behind the head is usually pronounced, more so than on the bonytail
- Tail fin attachment appears thin for the overall body size (up to 20 inches in length)
- Hump and other body parts lack scales, or the scales are very fine
- Please **RELEASE UNHARMED** immediately

A large member of the minnow family, humpback chub are very rare in Dinosaur National Monument today.

Larger populations are known to exist in the Desolation/Gray canyons downstream on the Green River, as well as in the Black Rocks/Westwater reach of the Colorado River. The largest known population is found

in the Grand Canyon near the confluence of the Colorado and Little Colorado rivers.

Because of the ruggedness of their whitewater canyon habitat, the humpback chub was the last of the native fish species in the Colorado River Basin to be scientifically described.

Roundtail Chub



M.T. Jones, USFWS

Native

- Listed as a Species of Concern in both Utah and Colorado
- Typically silvery gold, but will have a reddish-orange color in early summer when spawning
- Larger fish (over about 12 inches) can have a slight hump
- Often confused with Colorado pikeminnow or humpback chub
- Please RELEASE UNHARMED immediately

The roundtail chub is a large member of the minnow family. Roundtails eat small fish, crustaceans, and insects.

Although considered a “sport” fish in the past, because of its hardy fighting ability and willingness to take many of the same baits and lures as trout, roundtail populations throughout the Colorado River Basin are in decline,

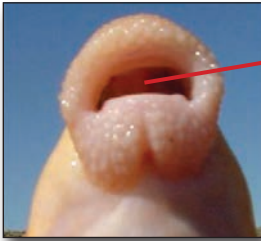
and are now considered a species of concern in both Utah and Colorado.

The roundtail chub is still common in the Yampa River and upper Whirlpool Canyon, so fishermen should anticipate the possibility of catching them in Dinosaur National Monument.

Flannelmouth Sucker



M.T. Jones, USFWS



Note the lack of a "scraper" in the mouth and the presence of large, fleshy lobes on the lower lip. Both lips are covered with small bumps. (Compare to the bluehead sucker.)

Native

- Listed as a Species of Concern in both Utah and Colorado
- Raised bumps are present along the anal fin and the lower edge of the tail fin when the flannelmouth is ready to spawn
- Please RELEASE UNHARMED immediately

Flannelmouth suckers are still widely distributed throughout their historic range in the upper Colorado River Basin, although their numbers are thought to be declining. In the lower Colorado River Basin their numbers and range have been severely reduced by dams and water diversion.

These are long-lived fish, with records of individuals living up to 30 years.

However, much having to do with their biology is still unclear. They appear to prefer warmer, slower moving waters, but generally avoid lakes and reservoirs.

Relatively healthy populations of flannelmouth suckers can still be found in both the Green and Yampa rivers in Dinosaur National Monument.

Bluehead Sucker



M.T. Jones, USFWS



Note the "scraper" in the mouth and lack of large fleshy lobes on the lower lip. (Compare to the flannelmouth sucker.)

Native

- Listed as a Species of Concern in both Utah and Colorado
- Please RELEASE UNHARMED immediately

Bluehead suckers occur in the Snake River and Lake Bonneville basins as well as the upper Colorado River Basin, but their numbers and distribution appear to be declining throughout their entire range. Recent research suggests they are found in only about 45 percent of their historic range in the upper Colorado Basin.

Blueheads feed primarily on algae, which they scrape off the surface of rocks with their specialized mouth parts. They spawn on gravel surfaces in the spring and early summer.

Populations of bluehead suckers can be found in both the Green and Yampa rivers.

Razorback Sucker



M.T. Jones, USFWS

Native

- Federally listed as Endangered
- Can be quite large, up to three feet in length
- Prominent razor ridge behind the head
- Yellowish green color with a purple/pink band along the mid line of the profile
- Please RELEASE UNHARMED immediately

Razorback suckers are one of the largest suckers in North America, and one of the most endangered. Historically they were widespread and abundant throughout the entire Colorado River Basin, but their numbers are now much reduced. Recovery efforts include supplementing wild populations by stocking.

Adult razorback suckers live in deep, relatively calm eddies and backwaters, but can migrate long distances during high spring flows to spawn and lay

eggs on cobble bars. After hatching, the larvae drift downstream to shallow, warmer floodplain habitats, where they remain for one to two years.

Important razorback spawning bars occur in Dinosaur National Monument, while the primary nursery habitat for juveniles occurs in the Green River reach between Jensen and Ouray. Adults are also known to overwinter in the Echo Park area.

Mottled Sculpin



J. Hawkins, CSU Larval Fish Lab

Native

- Broad, flat head; three to six inches long with a brown, mottled color
- Large, distinctive pectoral fins
- Usually observed in faster water, such as small riffles over gravel or cobble
- Fishermen are unlikely to hook a mottled sculpin, but if you do please **RELEASE UNHARMED**

The mottled sculpin looks like no other fish in Dinosaur National Monument. Sculpin eat mostly aquatic invertebrates and fish eggs, using their pectoral fins to “walk” along the stream bed while looking for prey.

Unlike most of the native fish in this guide, the mottled sculpin has a broad distribution in two disjunct regions of the United States and Canada—western populations are found

throughout the Rocky Mountain west and northwest, and into western Canada. Eastern populations are found from Labrador through the American Midwest to northern Georgia and Alabama.

Sculpin are typically associated with “trout streams” in much of their range, but are often found in the warmer water reaches of Dinosaur National Monument.

Smallmouth Bass



M.T. Jones, USFWS

Introduced

- Green or yellowish color with vertical bars
- No catch limits in either state from Dinosaur National Monument rivers
- It is **ILLEGAL** to return smallmouth bass to the river in Utah—and they are considered very good to eat

Smallmouth is the most commonly caught species of bass in Dinosaur National Monument. A member of the sunfish family originally found in upper Midwest and Canadian river systems, it has become an aggressive predator wherever it has been stocked in western river systems. Studies have linked native fish population declines to bass colonization in these ecosystems.

In 1992 a large influx of smallmouth

bass entered the Yampa River when the Elkhead Reservoir was partially drained for dam maintenance. The reservoir on this small Yampa tributary had previously been stocked with bass.

Smallmouth bass have been recognized as a major threat to native fish populations in Dinosaur National Monument. Today, smallmouth control is considered to be a high priority for native fish recovery efforts.

Burbot



Utah Division of Wildlife Resources



Distinctive single barbel (whisker) on the chin (“burbot” comes from the Latin *barba*, meaning “beard” or “whiskers”).

Introduced

- Has a green, eel-like appearance
- **Please report any capture locations!**
- No catch limits in either state from Dinosaur National Monument rivers
- It is **ILLEGAL** to return burbot to the river in Utah—and they are considered very good to eat

Burbot is native to circumpolar northern river systems. It was illegally stocked in the upper Green River, and has subsequently extended its range downstream into Flaming Gorge Reservoir.

Burbot is now the object of an annual “Burbot Bash” ice fishing event at the reservoir, promoted by Utah and Wyoming wildlife agencies and local communities.

Burbot are still extremely rare in Dinosaur National Monument, but are likely to become more common in the future.

Please report all burbot capture information to any Dinosaur National Monument or U.S. Fish and Wildlife personnel as soon as possible.

Carp



P. Williams, NPS

Introduced

- Large, prominent scales on a deep body, with a gray to yellowish green color
- Two fleshy barbels (whiskers)
- Prominent spine at the front of the dorsal (top) fin
- No catch limits in either state from Dinosaur National Monument rivers

The common, or European, carp was considered a popular food fish in the late 1800s, and so was widely stocked throughout the U.S. by federal and state fishery programs. Today it has fallen out of favor for eating, but is still known for providing a good fight when hooked.

Carp are often seen in Dinosaur National Monument's rivers, particularly when they are feeding at the surface—if you see yellow or pink lips gulping floating organic matter,

then you've seen a carp.

Carp are a problem because of their tendency to increase water turbidity by aggressively dislodging plants and rooting around in the substrate, causing a deterioration of habitat.

There is also some evidence that carp feed on the eggs of other fish species, and it has been suggested that this may have contributed to the decline of the razorback sucker in the Colorado River Basin.

Catfish



A. Webber, USFWS

Introduced

- The rear of the two dorsal (top) fins is distinctively adipose (fatty)
- No scales, smooth skin, and prominent barbels (whiskers)
- Prominent spines occur on both the dorsal and pectoral fins
- No catch limits in either state from Dinosaur National Monument rivers

Catfish were first introduced into the Colorado River Basin in the late 1800s.

They had become well established by the 1930s, when they may have contributed to the decline of Colorado pikeminnow. Pikeminnow are attracted to catfish as prey, but are not adapted to eating a fish with such prominent sharp dorsal and pectoral spines. Attempting to swallow a catfish can be fatal to a pikeminnow.

Studies also show that larger catfish (over about 16 inches) can be significant predators on other fish.

The channel catfish depicted here is the most common in Dinosaur National Monument, but occasionally black bullheads have also been caught.

Northern Pike



M.T. Jones, USFWS

Introduced

- Long, greenish cylindrical body, with a spotted pattern
- The single dorsal (top) fin is far back on the body, near the tail
- Can be very large—up to three feet or more
- Resembles an alligator with no legs and prominent teeth
- No catch limits in either state from Dinosaur National Monument rivers
- It is **ILLEGAL** to return northern pike to the river in Utah

Like the smallmouth bass, northern pike entered the Yampa River as an escapee from the Elkhead Reservoir on a tributary upstream of Dinosaur National Monument (although pike apparently escaped two decades earlier than the smallmouth). Pike have also been illegally stocked in the Stagecoach and Catamount reservoirs on the upper Yampa.

Northern pike are also present in the Green River from Browns Park downstream through Dinosaur National Monument and into the Ouray National Wildlife Refuge.

A voracious predator of other fish, northern pike are of concern because of their impact on native fish populations in the upper Colorado River Basin.

Brown Trout



P. Gallagher, FIN-UP Habitat Consultants, Inc.

Introduced

- A large dark spotting pattern accompanied by reddish dots helps to distinguish this trout species from other native and introduced trout
- Brown trout are subject to game fish regulations, including mandatory release of fish in excess of creel limits in both Utah and Colorado

Brown trout are native to Europe, but have been stocked in many river systems across North America for sport fishing. Although they can withstand warmer water temperatures than other trout species, they are restricted to the cool water reaches in Dinosaur National Monument—specifically the Canyon of Lodore and Jones Hole Creek. They are rarely found in the Green River downstream of the confluence with the Yampa River.

Adult brown trout are aggressive predators of native fish, and have been known to displace or prey upon native species in most areas of the United States where they have been stocked.

Brown trout have not been stocked in the Green River or Jones Hole Creek for many decades, but Dinosaur National Monument's populations remain self-sustaining. The brown trout is still considered a desirable game fish in these waters by the states of Utah and Colorado.

Walleye



M.T. Jones, USFWS

Introduced

- White to gray in color, with rough scales
- Large, prominent eye and teeth
- Two dorsal (top) fins with spines on the front dorsal fin
- No catch limits in either state from Dinosaur National Monument rivers
- It is **ILLEGAL** to return walleye to the river in Utah—and they are considered very good to eat

Walleye is a native to cold water rivers and lakes in Canada and the northern United States. It has been stocked in many reservoirs in the Rocky Mountain west, and has escaped into tributaries of the Green River. Walleye have also been caught in Stagecoach Reservoir on the upper Yampa River, presumably as the result of illegal stocking.

Walleye is an aggressive predator of other fish, and poses a threat to native fish recovery programs in the upper Colorado River Basin.

Walleye have been increasing in abundance over the last ten years, despite on-going removal efforts by state and federal agencies.

The Colorado River Basin



Illegal Stocking

It is illegal simply to transport live fish without proper permits in both Utah and Colorado. Releasing those fish into a different body of water from which they were taken is illegal stocking.

Illegal stocking can disrupt entire ecosystems, damage existing recreational fishing, introduce disease, and defeat the best efforts of expensive native fish recovery programs. The selfish actions of just one individual who presumes to “improve” the fishing in a river or reservoir can end

up diverting state and federal wildlife agency resources away from activities that could have actually benefited fishing, into extremely costly—and potentially perpetual—remediation programs.

Illegal stocking is punishable by fines up to \$5000 in both Utah and Colorado.

Additional penalties can include the loss of fishing privileges, as well as liability for the cost of eradication or removal of the introduced species.

PLEASE REPORT ALL ILLEGAL STOCKING

COLORADO

Contact Operation Game Thief at:

1-877-265-6648

or email game.thief@state.co.us

Utah

Contact the Utah Turn in a Poacher (UTiP) hotline at:

1-800-662-3337

or online wildlife.utah.gov/utip

Both states will honor your request for anonymity.