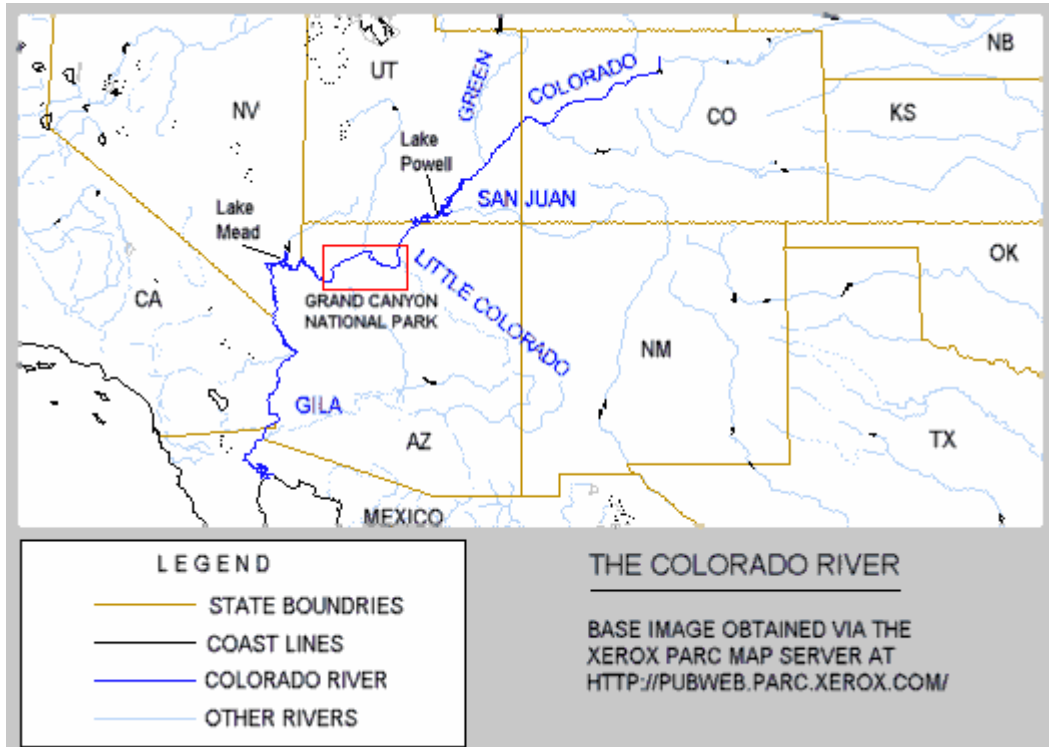


GRADE 5

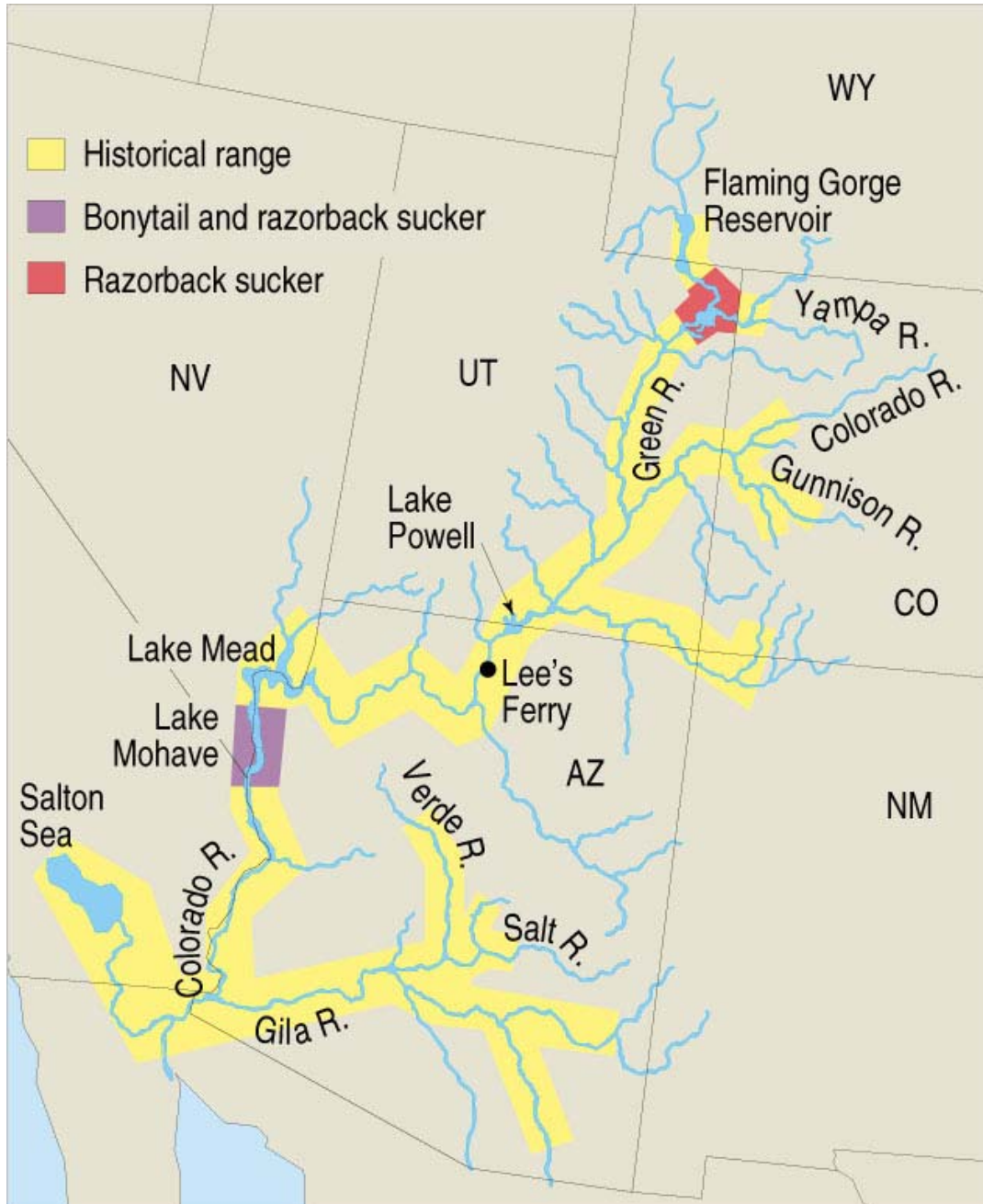
FINICKY FISH FINISH...LAST!

PRE-VISIT LESSONS • SUPPORT MATERIALS

Student Reference:
COLORADO RIVER SYSTEM MAP



Student Reference:
THEN AND NOW—HOMES OF THE
RAZORBACK SUCKER AND BONYTAIL CHUB



Historical range and current concentrations of bonytail and razorback sucker (Minckley and Deacon 1991). <http://biology.usgs.gov/s+t/noframe/r166.htm>

Teacher Reference: THE RAZORBACK SUCKER: A TEACHER READ ALOUD

Antonio de Espejo, traveling upstream on the Río Grande in 1582 from the present site of El Paso, Texas, wrote in his diary that he and his party encountered a village of upwards of one thousand Indians, who welcomed the Spanish with presents of mesquite and "many varieties of fish."

Fish are not part of our usual image of the desert. Indeed, when the sun blazes hot and the only water in sight is the deceptive shimmer of mirages, it is hard to imagine that any real water exists in the desert. But before the enormous changes brought about by dams, irrigation withdrawals, and wholesale lowering of groundwater levels, rivers did indeed run through the desert. A century ago or less, these same desert rivers offered such an abundant bounty that fish vendors hawked fresh catches on the streets of Phoenix, Bisbee, Albuquerque, and El Paso.

Each desert river system, isolated by the surrounding expanse of waterless landscape, evolved its own distinctive fish, from six-foot-long Colorado pikeminnow to tiny topminnows, and from archaic-looking shovel-nosed sturgeon to sleek trout. Each kind of fish fit a unique niche in its river system. One of the most unusual-looking products of this evolutionary interaction between fish and river is the razorback sucker.

Imagine a big fish, growing up to three feet long in its adulthood, with a body flattened from side to side. Its head is blunt, with a protuberant forward bulge, and underneath a small mouth sporting thick, warty lips. Behind its large eyes rises the reason for this odd fish's name: its back kinks upward in a narrow edge, just like the shape of an old-fashioned straight razor.

From the side, a razorback sucker looks quite bizarre, with its blunt-nosed head and high, humped back. But the fish is perfectly adapted for the habitat where it lives out its adult years: desert rivers. Its flattened body and knife-thin back hump act as a keel, helping the fish easily stay oriented in roaring currents. That tiny mouth with its thick lips vacuums up small bits of food, mainly fly and mosquito larvae, and algae from river-bottom rocks.

Razorback suckers can live to be forty or fifty years old. Once so abundant throughout the Colorado River system from southwestern Wyoming to the Gulf of California that they could be speared with pitchforks from irrigation canals, these keel-backed fish are now on the endangered species list, along with dozens of other desert fish species.

We cannot let razorback suckers and the other unique fish of desert rivers become extinct. For one thing, they each play a crucial part in their ecosystems. Razorback suckers, for instance, are important predators of flies and mosquitoes. For another, a desert without its fish and rivers is no fit place for humans, either.

Student Reference: RESEARCHING THE RAZORBACK SUCKER

ONLINE SOURCES OF GENERAL INFORMATION ABOUT THE RAZORBACK SUCKER

Nevada Department of Wildlife

The Nevada Department of Wildlife provides a fact sheet about the razorback sucker:
www.ndow.org/wild/animals/facts/fish_razorback_sucker.shtml

San Juan School District

San Juan Heritage site presents the intertwining elements that make up the San Juan county area, including the razorback sucker:
http://dine.sanjuan.k12.ut.us/heritage/land/animals/reptiles/razor_sucker.htm

Southern New Mexico Travel and Tourism

This link is the source of the Read-Aloud Pre-visit activity:
<http://www.southernnewmexico.com/Articles/Wildlife/TheRazorbackSuckerWildLiv.html>

Thinkquest

Thinkquest provides fast facts and information on diet, breeding, and conservation status of the razorback sucker at:
<http://library.thinkquest.org/2551/species/razorbacksucker.html>

U.S. Department of the Interior National Biological Service

Visit the National Biological Service web pages hosted by the U.S. Geological Service to read *Bonytail and Razorback Sucker in the Colorado River Basin* by Gordon Mueller of the National Biological Service and Paul Marsh of Arizona State University:
<http://biology.usgs.gov/s+t/noframe/r166.htm>

U.S. Fish and Wildlife Service

In addition to general information, this site also provides status of the species and recovery strategies and goals:
<http://coloradoriverrecovery.fws.gov/Crrzb.htm>

ONLINE SOURCES OF INFORMATION ABOUT RAZORBACK SUCKER RECOVERY AND RESEARCH

Arizona Game and Fish Department

www.gf.state.az.us/w_c/research_razorback.shtml

Bureau of Reclamation

www.usbr.gov/LC/region/pao/brochures/sucker.html

Southern Nevada Water Authority

www.snwa.com/html/env_razorback_sucker.html

Wild Fish Habitat Initiative

http://wildfish.montana.edu/Cases/browse_details.asp?ProjectID=58

U.S. Fish and Wildlife Service

<http://coloradoriverrecovery.fws.gov/Crrzb.htm>