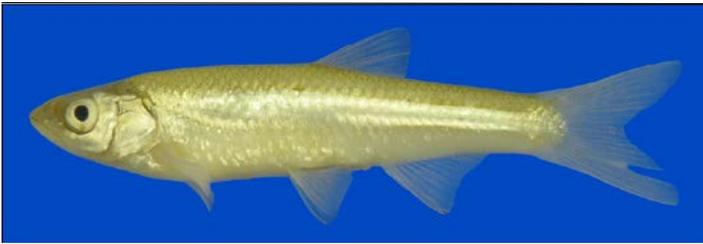




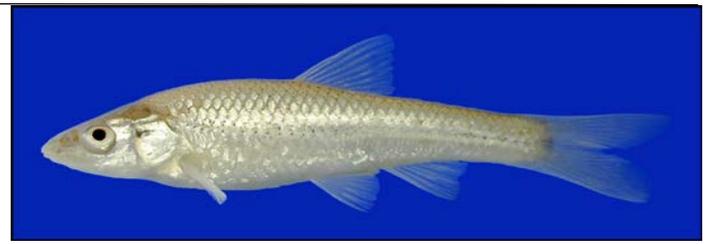
U.S. Fish & Wildlife Service

Sharpnose Shiner and Smalleye Shiner

Arlington, Texas Ecological Services Field Office



Sharpnose Shiner
Notropis oxyrinchus



Smalleye Shiner
Notropis buccula

Photo Credit: Chad Thomas, Texas State University

Description

The sharpnose and smalleye shiners are small (~2 in. overall length) minnows native to Texas belonging to the Cyprinidae family. The sharpnose shiner is typically olive colored on top and silver-white with a faint stripe on the sides. The smalleye shiner, when compared to the sharpnose shiner, has lighter white scales. Both species are usually found in shallow river reaches of the Upper Brazos River and its major tributaries with sandy bottoms.

Distribution

Historically, the sharpnose shiner occurred within the Brazos, Wichita, and Colorado Rivers. The smalleye shiner is native to the Brazos River. These two minnows are currently restricted to segments of the upper Brazos River system upstream of Possum Kingdom Reservoir. Much of this area is designated as critical habitat for both species.

Life History

The smalleye and sharpnose shiners are broadcast spawners, releasing eggs and sperm into the water where fertilization occurs. The semi-buoyant eggs drift in the water column for one or two days prior to hatching. Once the eggs are fertilized

and become larva, it takes an additional 3 days to become free swimming juvenile fish. Young fish move to eddies, mouths of tributaries, and margins of the river where stream velocity is slower and food is more abundant. It is estimated that both species need at least 171 miles of continuous free-flowing riverine habitat to complete all life stages.



Brazos River
(Photo Credit: USFWS)

Both the sharpnose and the smalleye shiners spawn between the months of April and September. For successful spawning, smalleye shiner and sharpnose shiner need a minimum average spawning river flow of 227 and 92 cubic feet/second, respectively. Increased flow from seasonal storms stimulate the shiners to reproduce. When flows drop below these levels, eggs drifting in the water column settle to the bottom of the

river and are covered with silt and debris and are no longer viable. Both species have a short life span, generally 2 years.

Diet

The diet of sharpnose and smalleye shiners consists primarily of invertebrates. They also consume plant material and loose particles of decomposed materials along the river. It has also been suggested that they forage among sediments on the river bottom all year around.

Conservation

Both the sharpnose and the smalleye shiner were listed as endangered on August 4th, 2014 under the Endangered Species

Act. The main threat they face is habitat loss and fragmentation. Low water crossings, dams and fences can create migration barriers. This can lead to loss of reproductive success or ability to move up and down stream. Activities that degrade water quality, such as the discharge of industrial or municipal wastewater, can adversely affect fish survival and stream health. Reductions in stream flow caused by droughts, water impoundments, and

depletion of the water table from water wells and irrigation can lead to habitat loss.

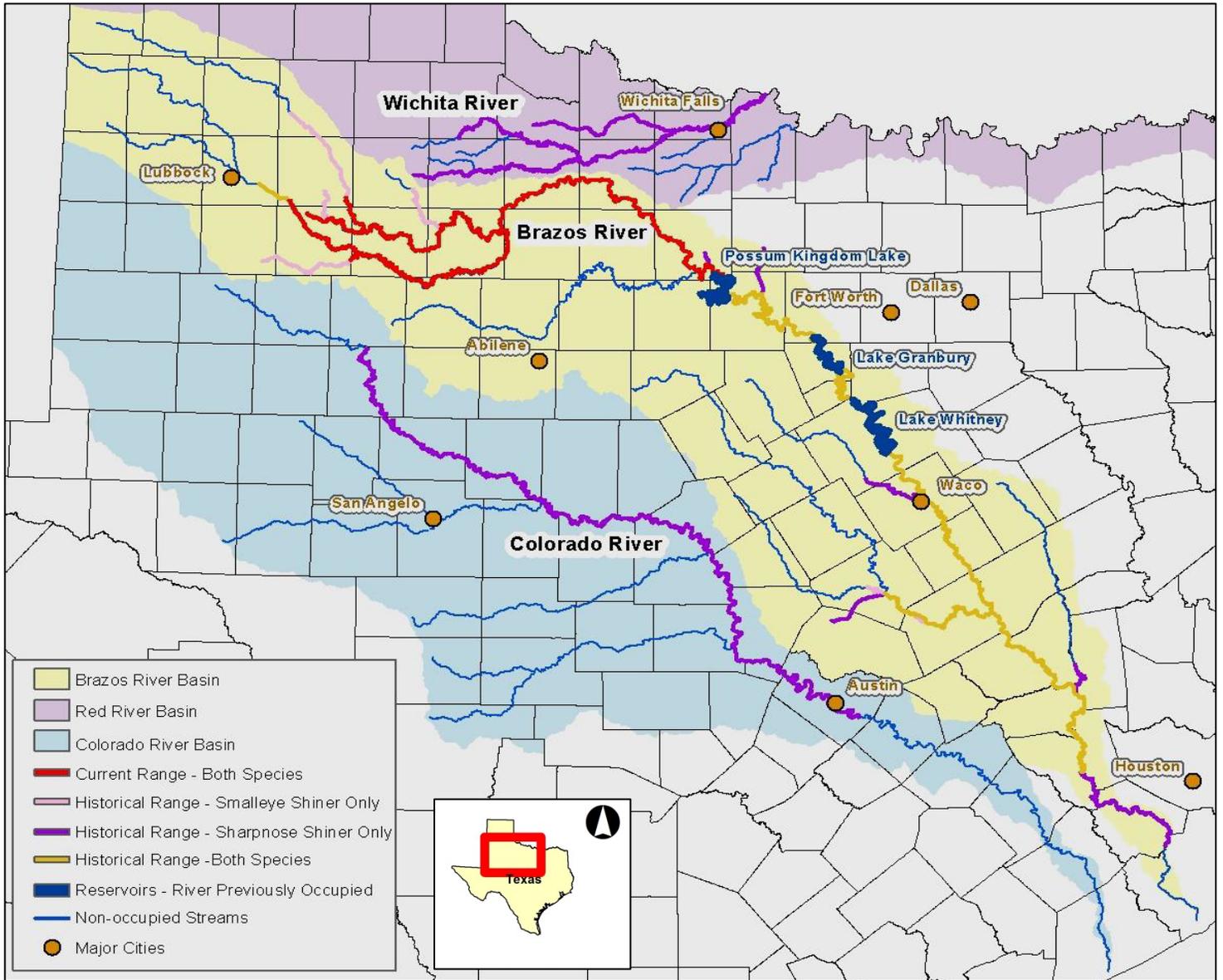
References

U.S. Fish and Wildlife Service. 2015. Smalleye and Sharpnose Recovery Outline.

For Further Information

U.S. Fish and Wildlife Service
Ecological Services Field Office,
2005 NE Green Oaks Blvd., Suite 140
Arlington, Texas 76006

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Range of the Sharpnose and Smalleye Shiners