IOWADOT

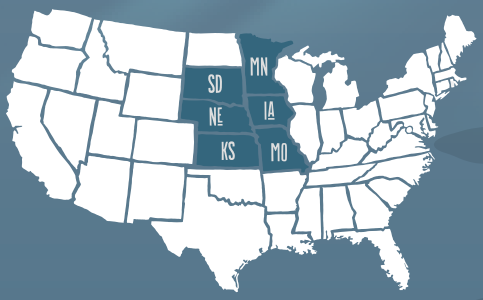
NOV. 21, 2017

TOPEKA SHINER

A MINNOW YOU NEED TO KNOW FOR YOUR IOWA DOT CONSTRUCTION PROJECT

ISN'T IT JUST A FISH?

Originally, Topeka shiners (*Notropis topeka*) inhabited most, if not all of Iowa, Kansas, Minnesota, Missouri, Nebraska, and South Dakota.



70% POPULATION DECLINE

OVER THE PAST 50 YEARS

Habitat destruction and pollution are thought to have caused this decline, leading to small isolated populations.

In an effort to avoid extinction, the Topeka shiner was listed as a federally endangered species in Dec. 1998.

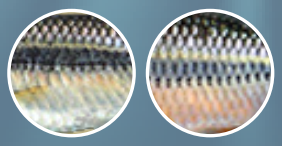
Suitable habitat for these animals is considered to be small or mid-sized prairie streams with good water quality and cool or moderate temperatures. In Iowa, they are often found in oxbows and off-channel pools.

CRITICAL HABITAT

The map to the right shows the areas that have been designated critical habitat for Topeka shiners by the U.S. Fish and Wildlife Service.

The watersheds included are the Raccoon River, Boone River, and Rock River. Roadways in these designated areas need to take the potential for the presence of Topeka shiners into consideration.

IDENTIFYING A TOPEKA SHINER



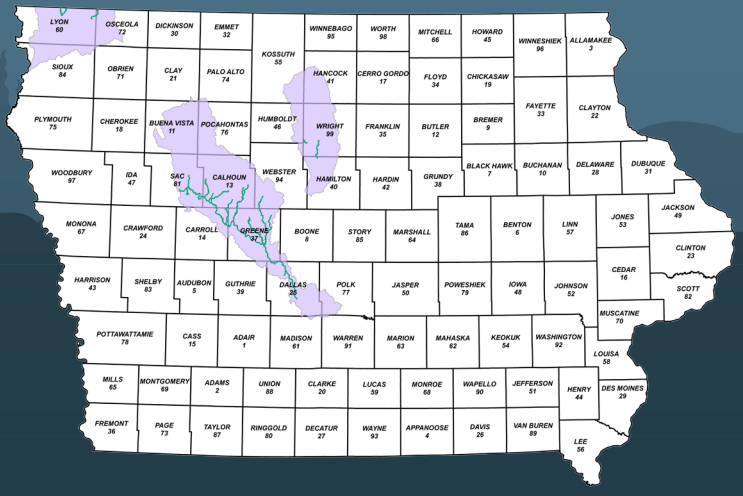
SILVERY-GREEN COLOR may have orange shading.

actual size

LESS THAN 3 IN. LONG

Dark stripe from the back of the head to the start of the dorsal fin.

Dusky stripe that runs the length of its body Above this stripe, the scales have a dark outline, below this stripe they are bright with no outline.



IOWA DOT SPECIFICATIONS

There are many best management practices set forth as an ideal and not all are feasible when it comes to implementation on construction sites. However, DOT has several practical BMP regarding roadway projects in Topeka shiner watersheds that are required for the protection of the species according to specification 1107.18.B.3:

A. Sweepings, washings, treatment chemicals, or grouting and bonding materials cannot be placed in the stream or any location where there is potential for pollutants to be washed into the stream by runoff.

B. No project activity will be permitted in the stream during peak spawning season: May 15 through July 31. This includes construction or removal of temporary crossings, causeways, and weirs. Those already in place may remain.

C. Appropriate temporary erosion control measures will be placed within one week of land disturbance at the project site and should be properly maintained for the duration of the project.

D. All areas stripped of vegetation as a result of construction activities will be reseeded with permanent vegetation within one month of the completion of the project.

E. Sand or gravel will not be taken from the site for the purpose of mixing with concrete or asphalt unless there is documented permission.

F. Special attention will be taken to protect any off channel wetlands, pools, oxbows, or meanders that are present near the project site.

G. Any storage or staging facilities for petroleum products, fuels, and chemicals required for construction activities will be located and protected in a way that prevents accidental spills from entering any waterways. In the event of a spill, state and federal procedures should be followed.

A few others that would be easy for personnel to keep in mind, but aren't required by the specification book are as follows:

- Establish a basic awareness with those involved.
- Avoid removal of vegetation. If it is necessary, do so gradually as needed.
- Avoid the operation of motorized vehicles or equipment in the stream; conduct as much from the streambanks as possible.
- If equipment is to be used in the stream, make sure that it is free of any potential pollutants.
- Material and debris should be prevented from falling into the water, and should be retrieved if they do.

SUCCESSFUL MITIGATION EXAMPLES

For all applicable roadway projects, Topeka Shiner issues are identified early so contractors can plan to follow best management practices set forth by the Iowa DOT.

In 2008, a bridge replacement project in Sac County crossed Cedar Creek, which is in the Raccoon River Watershed and listed as critical Topeka Shiner habitat by the U.S. Fish and Wildlife Service. This construction project was able to continue per plan by placing a temporary crossing prior to May 15th. This allowed work for the bridge replacement to continue between May 15th and July 31st without disrupting the spawning season of the fish. The crossing could then be removed after July 31st. According to those involved, it required some coordination, but wasn't difficult.

Another example occured during the construction of the bridge over the Raccoon River in Sac County on U.S. 20. Specifications 1107.18.B.3 A-G were followed without impacts to the project schedule. In the image below, the onsite contractor installed the yellow temporary floating silt fence to meet specification C, which calls for proper temporary erosion control.

IOWA DOT

FOR FURTHER QUESTIONS AND INFORMATION
CONTACT THE OFFICE OF LOCATION AND ENVIRONMENT AT 515-239-1225