

YELLOW CREEK / MAHONING RIVER: A PLACE OF PIONEERING FISH STUDIES

LOOKING BACK ...

Just as the Mahoning River played an important role in the development of the steel industry by serving as the water supply for steel making processes, seldom acknowledged is the fact that it played a key role in what would later be recognized as a place where some of the first studies of fish biology in the United States would be conducted. The very area upon which you're standing is approximately the same area where early naturalists and Ichthyologists (Ichthyology - the study of fishes), Spencer F. Baird and Jared P. Kirtland, collected and identified several species of fishes that were unique to the North American continent. Their fish surveys were conducted between the years 1838 and 1854.

Two species, the Hornyhead Chub and Brook Stickleback, were first identified in the United States from Yellow Creek in Poland, Ohio. Other species including the Redside Dace, Variegated Darter, Spotted Darter, Ohio Streamline Chub, and Ohio Muskellunge were first collected from the nearby Mahoning River.

Jared Kirtland lived on a farm in Boardman Township during this time.

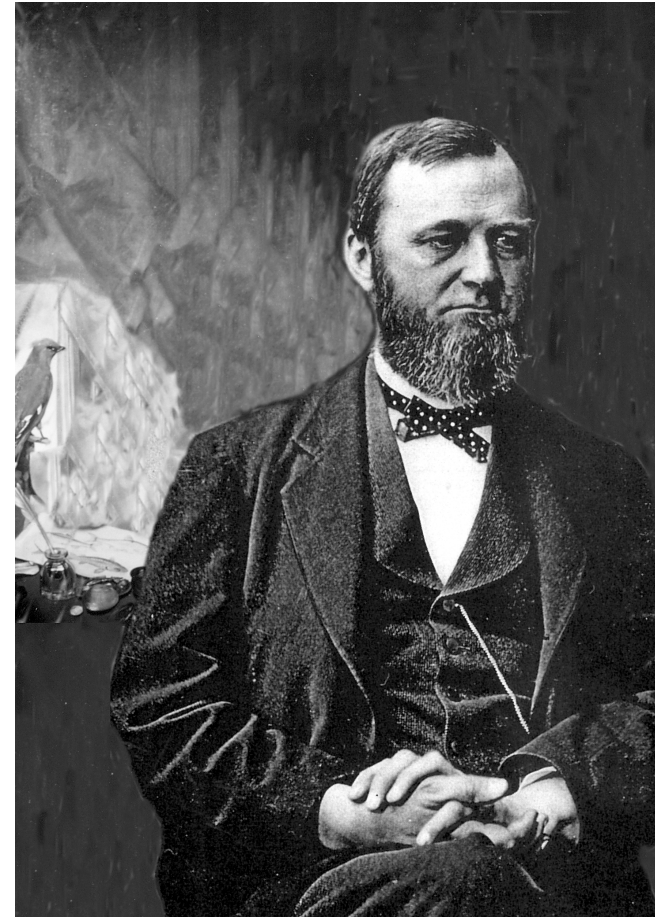
In August 1853, Baird and Kirtland collected and identified 41 species of fish from the Mahoning River and Yellow Creek. Spencer Baird and Jared Kirtland's work marked among the first identifications and discoveries of several native fishes in the United States.

TIMES HAVE CHANGED ...

This area of Yellow Creek, and the Mahoning River Watershed in general, has drastically changed since the days Baird and Kirtland first sampled these waters for fish. The changes have included everything from water pollution to losses and alterations of aquatic habitats. These changes were greatly attrib-

uted to the urban development of Mahoning Valley. As a result, many of the fishes that Baird and Kirtland encountered no longer exist in this area of Yellow Creek and the Mahoning River. Their decline or absence stems from many of these species being intolerant to the kind of encroachment on the stream and river that resulted in water degradation. Nevertheless, these fishes are still a part of our natural heritage, and their decline or absences should serve as a reminder of what can happen to water resources when our streams and rivers are abused.

Pictured below are some of the fishes Baird and Kirtland encountered in this area of Yellow Creek and the Mahoning River during their time spent here, as well as illustrations of fish species collected by the Ohio Environmental Protection Agency in 1994 from this area of Yellow Creek. The Ohio EPA has classified this as being an impaired fish community because the sensitive species collected by Baird and Kirtland in the mid-1800's no longer live in Yellow Creek. For the native fish of Yellow Creek, times have not changed for the better. Perhaps someday humans will find a way to restore the native fish community of Yellow Creek and the Mahoning River.



Spencer F. Baird



Jared P. Kirtland

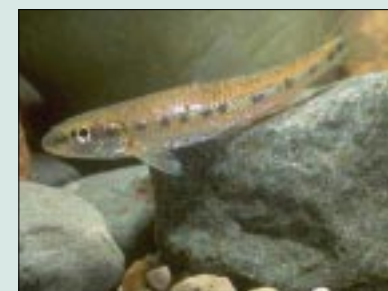
BAIRD & KIRTLAND'S FINDINGS - CIRCA 1838-1853



COMMON NAME: Redside Dace
SCIENTIFIC NAME: *Clinostomus elongatus*



COMMON NAME: Brook Stickleback
SCIENTIFIC NAME: *Culea inconstans*



COMMON NAME: Streamline Chub
SCIENTIFIC NAME: *Erimystax dissimilis*



COMMON NAME: Spotted Darter
SCIENTIFIC NAME: *Etheostoma maculatum*



COMMON NAME: Hornyhead Chub
SCIENTIFIC NAME: *Nocomis biguttatus*



COMMON NAME: Variegated Darter
SCIENTIFIC NAME: *Etheostoma variatum*

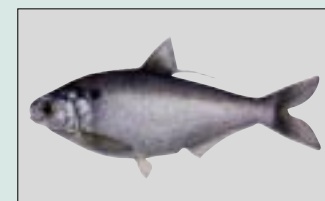


COMMON NAME: Central Mottled Sculpin
SCIENTIFIC NAME: *Cottus bairdi*



COMMON NAME: Ohio Muskellunge
SCIENTIFIC NAME: *Esox masquinongy*

EPA SURVEY IN 1994



COMMON NAME: Gizzard Shad
SCIENTIFIC NAME: *Dorosoma cepedianum*



COMMON NAME: Bluntnose Minnow
SCIENTIFIC NAME: *Pimephales notatus*



COMMON NAME: Creek Chub
SCIENTIFIC NAME: *Semotilus atromaculatus*



COMMON NAME: Fathead Minnow
SCIENTIFIC NAME: *Pimephales promelas*
* First recorded in Ohio by Kirtland at his Boardman farm.



COMMON NAME: Blacknose Dace
SCIENTIFIC NAME: *Rhinichthys atratulus*



COMMON NAME: White Sucker
SCIENTIFIC NAME: *Catostomus commersoni*



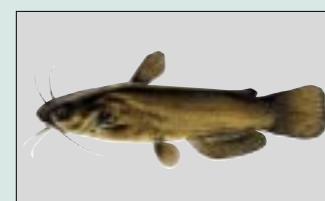
COMMON NAME: Greenside Darter
SCIENTIFIC NAME: *Etheostoma blennioides*



COMMON NAME: Central Stoneroller
SCIENTIFIC NAME: *Camptostoma anomalum*



COMMON NAME: Logperch Darter
SCIENTIFIC NAME: *Percina caprodes*



COMMON NAME: Yellow Bullhead
SCIENTIFIC NAME: *Ameiurus spp.*

SOURCES AND SPECIAL THANKS:

- Milton B. Trautman's *The Fishes of Ohio*
- Ohio Department of Natural Resources - Division of Natural Areas & Preserves
- The Mahoning River Consortium
- Ohio E.P.A. / Bob Davic
- The North American Native Fishes Association / Bill Roston, Rob Carillio, and Joe Tomelleri www.nanfa.org