River chub (*Nocomis micropogon*)

**Habitat:**
- feeding - moderate to large streams
- moderate to high gradient
- gravel, boulder, or bedrock substrate
- little to no aquatic vegetation
- cannot tolerate turbidity or siltation
Golden shiner (*Notemigonus crysoleucas*)

**Habitat:**

- feeding  -  lakes and impoundments and quiet pools of low gradient streams
-  -  clear shallow water
-  -  heavy vegetation

- spawning  -  vegetation
Pugnose shiner (*Notropis anogenus*) - rare

**Habitat:**

- feeding - very clear water of lakes, impoundments, and low-gradient streams
- aquatic vegetation
- clean sand, marl, or organic debris substrate
- extremely intolerant of turbidity
Emerald shiner (*Notropis atherinoides*)

**Habitat:**
- **feeding** - open-large stream channels and Lake Erie
  - low to moderate gradient
  - range of turbidites and bottom types
  - midwater or surface preferred, substrate of little importance
  - avoids rooted vegetation

- **spawning** - sand or firm mud substrate or gravel shoals
Silverjaw minnow (*Notropis buccatus*) - rare

**Habitat:**
- Feeding: small, clear, shallow streams
- Sand substrate
- Moderate gradient
- High tolerance to turbidity and domestic and industrial pollutants

![Huron River Watershed Map](image-url)
Bigmouth shiner (*Notropis dorsalis*) - rare

**Habitat:**

- feeding - small clear streams
- good flows
- sand or gravel substrate
- open water, free from vegetation
Blacknose shiner (*Notropis heterolepis*)

**Habitat:**

- **feeding** - clear lakes, impoundments, and pools of small, clear, low gradient streams
- aquatic vegetation
- clean sand, gravel, marl, muck, peat, or organic debris substrate
- cannot tolerate much turbidity, much siltation, or loss of aquatic vegetation

- **spawning** - sandy substrate
Blackchin shiner (*Notropis heterodon*)

**Habitat:**
- feeding - lakes, impoundments, and quiet pools in streams and rivers
- clear water
- clean sand, gravel, or organic debris substrate
- dense beds of submerged aquatic vegetation
- cannot tolerate turbidity, silt, or loss of aquatic vegetation
**Spottail shiner** (*Notropis hudsonius*)

**Habitat:**

- **feeding** - large rivers, lakes, and impoundments
  - firm sand and gravel substrate
  - low current
  - sparse to moderate vegetation
  - avoids turbidity

- **spawning** - over sandy shoals or gravelly riffles
  - near the mouths of small streams
Silver shiner (*Notropis photogenis*) - threatened

**Habitat:**
- feeding - moderate to large sized streams
- clear water with moderate to high gradients
- gravel and boulder substrate
- riffles and swifter eddies and currents of pools
- does not like silt substrate or rooted aquatic vegetation
Rosyface shiner (*Notropis rubellus*)

**Habitat:**
- **feeding** - moderate sized streams
  - moderate to high gradient
  - gravel or sand substrate; intolerant of silt substrate
  - clear water; intolerant of turbidity
- **spawning** - on nests of horneyhead chub, chesnut lamprey, and redhorses
  - sandy-gravel, gravel or bedrock substrate
  - shallow high gradient water
Sand shiner (*Notropis stramineus*)

**Habitat:**
- feeding - sand and gravel substrate
- shallow pools in medium size streams, lakes, and impoundments
- clear water and low gradient
- rooted aquatic vegetation preferred
- tolerant of some inorganic pollutants provided substrate is not covered

spawning - clean gravel or sand substrate
Mimic shiner (*Notropis volucellus*)

**Habitat:**

- feeding  - pools and backwater of streams, moderately weedy lakes and impoundments
- quiet or still water
- clear shallow water

- spawning  - aquatic vegetation necessary
**Pugnose minnow** (*Opsopoeodus emiliae*) - rare

**Habitat:**
- feeding - clear vegetated rivers
- - low current
- - sand or mud substrates
- - intolerant of turbidity
Northern redbelly dace (*Phoxinus eos*) - rare

**Habitat:**

- **feeding** - slow current
  - in boggy lakes and streams
  - detritus or silt substrate
  - clear to slightly turbid water

- **spawning** - filamentous algae needed for egg deposition
Southern redbelly dace (*Phoxinus erythrogaster*) - threatened

**Habitat:**

- feeding: cool, clear, silt-free small to medium streams
- cut banks overhung by vegetation
- gravel substrate
- instream aquatic vegetation rare or absent

- spawning: gravelly riffles
- eggs scattered in crevices and in other species nests
**Bluntnose minnow** (*Pimephales notatus*)

**Habitat:**
- **feeding** - quiet pools and backwaters of medium to large streams, lakes, and impoundments
- clear warm water
- some aquatic vegetation
- firm substrates
- tolerates all gradients, turbidity, organic and inorganic pollutants

- **spawning** - eggs deposited on the underside of flat stones or objects
- nests in sand or gravel substrate
Fathead minnow (*Pimephales promelas*)

**Habitat:**

- **feeding** - pools of small streams, lakes, and impoundments
  - tolerant of turbidity, high temperatures, and low oxygen

- **spawning** - on underside of objects in water 2 to 3 feet deep
  - prefer sand, marl, or gravel substrate
**Blacknose dace** (*Rhinichthys atratulus*)

**Habitat:**
- **feeding** - moderate to high gradient streams
- sand and gravel substrate
- clear cool water in pools with deep holes and undercut banks
- does not tolerate turbidity and silt well
- **spawning** - riffles with gravel substrate and fast current
- **winter refuge** - larger waters

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**Huron River Watershed**

- Milford
- Dexter
- Ann Arbor
- Ypsilanti
- Belleville
- Flat Rock
- Pinckney
- South Lyon

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Lake Erie
**Creek chub** *(Semotilus atromaculatus)*

**Habitat:**
- **feeding** - streams, rivers, or shore waters of lakes and impoundments
  - can tolerate intermittent flows
  - tolerates moderate turbidity
- **spawning** - gravel nests
  - low current
- **winter refuge** - deeper pools and runs
White sucker (*Catostomus commersoni*)

**Habitat:**
- **feeding** - streams, rivers, lakes, and impoundments
  - can inhabit highly turbid and polluted waters
- **spawning** - quiet gravelly shallow areas of streams
Lake chubsucker (*Erimyzon sugetta*)

**Habitat:**
- feeding - larger clear streams, rivers, lakes, and impoundments
  - cannot tolerate turbid water
  - low gradient
  - prefers dense vegetation over substrate of sand or silt mixed with organic debris
- spawning - small clear streams with moderate to high gradient
  - sand or gravel substrate; no clayey silt
Northern hog sucker (*Hypentelium nigricans*)

**Habitat:**

- **feeding**
  - gravel or rubble substrate
  - riffles and adjacent pools of warm shallow streams
  - clear water
  - doesn’t like turbidity or siltation
  - avoids profuse amounts of aquatic vegetation

- **spawning**
  - riffles
  - shallow gravel substrate
  - high gradient

- **winter refuge**
  - deeper quieter pools

**HURON RIVER WATERSHED**

**Lake Erie**
Spotted sucker (*Minytrema melanops*)

**Habitat:**
- feeding: clear warm rivers (pools, backwaters) with little current
  - abundant vegetation
  - soft substrate with organic debris
  - intolerant of turbidity
- spawning: riffles
Black redhorse (*Moxostoma duquesnei*) - declining

**Habitat:**

- **feeding** - gravel substrate
- clear water, intolerant of siltation, turbidity, and low gradients
- medium size streams
- cooler swifter streams and short rocky pools with current

- **spawning** - gravelly riffles

- **winter refuge** - deeper holes
Golden redhorse (*Moxostoma erythrurum*)

**Habitat:**
- feeding - warm medium gradient streams and rivers
  - clear riffly streams
  - medium size streams and rivers
  - tolerates some turbidity and silt
- spawning - shallow gravelly riffles
- winter refuge - larger streams
Shorthead redhorse (*Moxostoma macrolepidotum*)

**Habitat:**

- **feeding** - downstream sections of large rivers, lakes, and impoundments
  - rocky substrates
  - swift water near riffles
  - clear to slightly turbid water

- **spawning** - gravelly riffles in smaller feeder streams
**Greater redhorse** (*Moxostoma valenciennesi*) - rare

**Habitat:**

- **feeding** - large clear streams
  - clean sand, gravel, or boulder substrate
  - intolerant of excessive turbidity and chemical pollutants

- **spawning** - moderately rapid current
Black bullhead (*Ameiurus melas*)

**Habitat:**

- **feeding** - turbid water
- silt bottom
- low gradient small to medium streams, pools, and headwaters of large rivers; also in lakes and impoundments
- can tolerate very warm water and very low dissolved oxygen

- **spawning** - nest in moderate to heavy vegetation or woody debris and under overhanging banks
Yellow bullhead (*Ameiurus natalis*)

**Habitat:**

- feeding - clear flowing water
- heavy vegetation
- low gradient streams, lakes, and impoundments
- tolerant of low oxygen

- spawning - nest under a stream bank or near stones or stumps