White sucker \textit{(Catostomus commersonii)}

Habitat:

- feeding - streams, rivers, lakes, and impoundments
- can inhabit highly turbid and polluted waters
- spawning - quiet gravelly shallow areas of 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
Bullhead spp. (*Ameiurus spp.*)

**Habitat:**
- feeding - larger streams and rivers, lakes and impoundments
- abundant aquatic vegetation
- tolerant of pollution and low transparency
- tolerant of warm water, low oxygen, and high carbon dioxide
- common in winterkill lakes

winter refuge - in muddy bottoms
**Channel catfish (Ictalurus punctatus)**

**Habitat:**

- **feeding** - moderately-clear, deeper waters of rivers, lakes, and impoundments
- sand, gravel, or rubble substrate
- low to moderate gradient

- **spawning** - secluded semi-dark areas such as holes, under banks, log jams, or rocks
Northern pike (*Esox lucius*)

**Habitat:**
- feeding  - cool to moderately warm streams, rivers, lakes, and impoundments
  - vegetation in slow to moderate current
- spawning  - submerged vegetation with slow current in shallow water
**Muskellunge** (*Esox masquinongy*)

**Habitat:**

- **feeding** - warm, heavily vegetated lakes, stumpy weedy bays, and slow heavily vegetated medium to large rivers
- shallow cool water
- tolerant of low oxygen

- **spawning** - clear shallow waters (15-20”) in heavily vegetated areas
**Tiger muskellunge** (*Esox masquinongy x E. lucius*)

**Habitat:**
- **feeding** - intermediate between muskellunge and northern pike
- **spawning** - hybrid species; muskellunge x northern pike
  - occasionally produced in wild, but most often from hatcheries
  - males are sterile, females may be fertile
Central mudminnow (*Umbra limi*)

**Habitat:**

- feeding - undisturbed clear, low-gradient streams or rivers and lakes and impoundments
- organic debris, muck, or peat substrates
- aquatic vegetation

- spawning - floodplain areas, on vegetation
Lake herring \{Cisco\} \{(Coregonus artedi)\} - threatened

Habitat:

- feeding - deep cool lakes, preferably oligotrophic
- spawning - usually in lakes
  - 3 to 6 feet of water with no vegetation
  - often over gravel or stony substrate
Pink salmon (*Oncorhynchus gorbuscha*)

**Habitat:**

- **feeding** - large cold deep lakes - Lake Michigan
- **spawning** - gravel substrate in rivers
  - female prepares and guards nest until death
Coho salmon (*Oncorhynchus kisutch*)

**Habitat:**

- **feeding**
  - adults: Lake Michigan
  - young: shallow gravel substrate in cold streams, later into pools

- **spawning**
  - cold streams and rivers
  - swifter water of shallow gravelly substrate
Rainbow trout \textit{(Oncorhynchus mykiss)}

\textbf{Habitat:}

- feeding - cold clear water of rivers and Lake Michigan
- moderate current

- spawning - gravelly riffles above a pool
- smaller tributaries
Chinook salmon (*Oncorhynchus tshawyscha*)

**Habitat:**
- feeding - adults: Lake Michigan
  - young: shallow gravel substrate in cool streams, later into pools
- spawning - gravelly substrate in cool streams