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
Northern redbelly dace *Phoxinus eos*

**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
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
Western blacknose dace *Rhinichthys obtusus*

**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
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
Clinton River Assessment Appendix

**Quillback** *Carpoides cyprinus*

**Habitat:**
- feeding - clear to turbid water
  - Lake St. Clair
  - sand, sandy gravel, sandy silt, or clay-silt substrate
  - medium- to low-gradient rivers and streams; also lakes and sloughs

- spawning - streams or overflow areas of bends of rivers or bays of lakes
  - scatter eggs over sand or mud substrate
White sucker *Catostomus commersonii*

**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