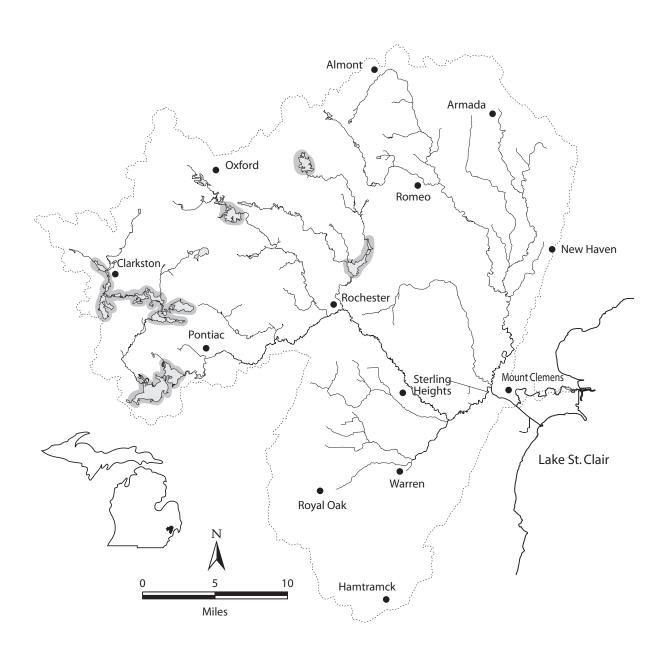
## **Sand shiner** *Notropis stramineus*

### 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*

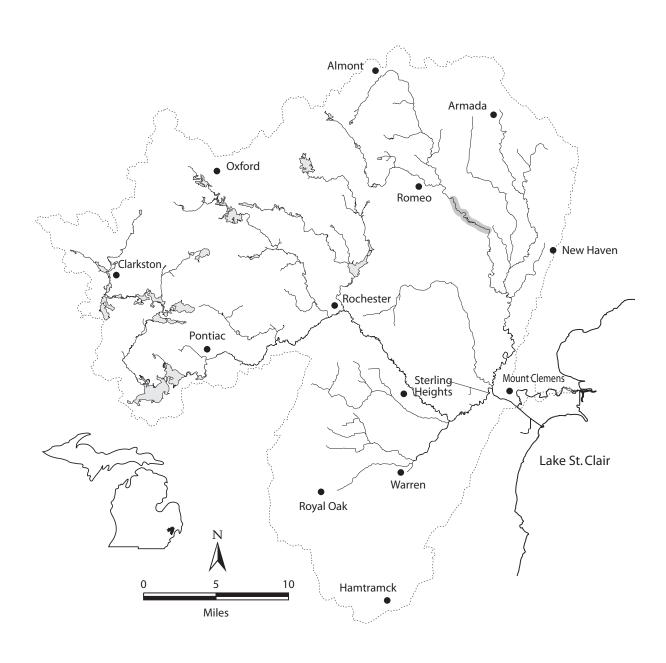
## Habitat:

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:

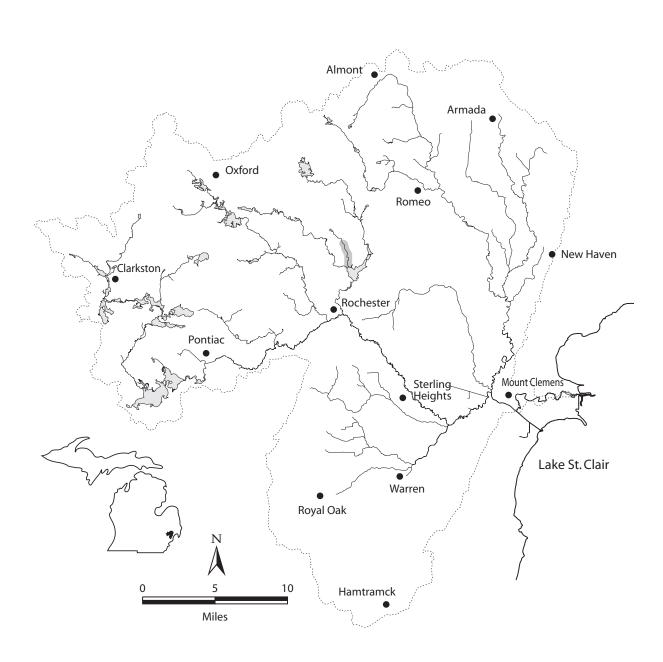
feeding - slow current

- 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

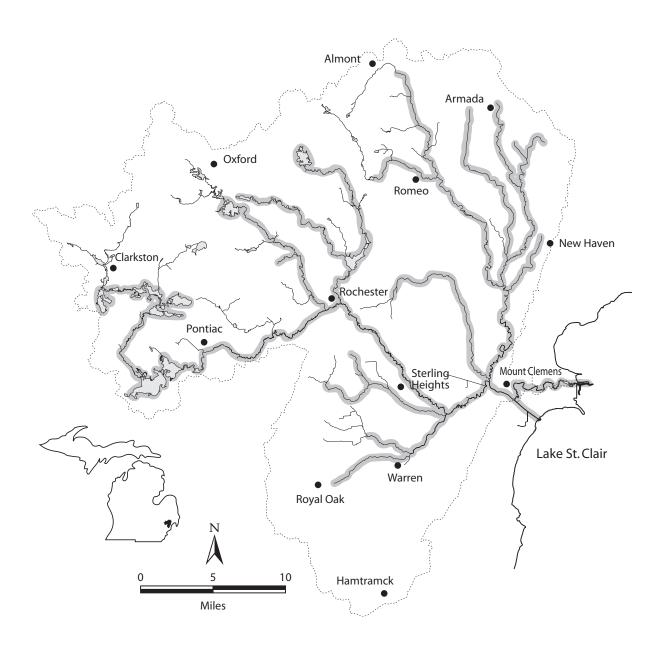
### Habitat:

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

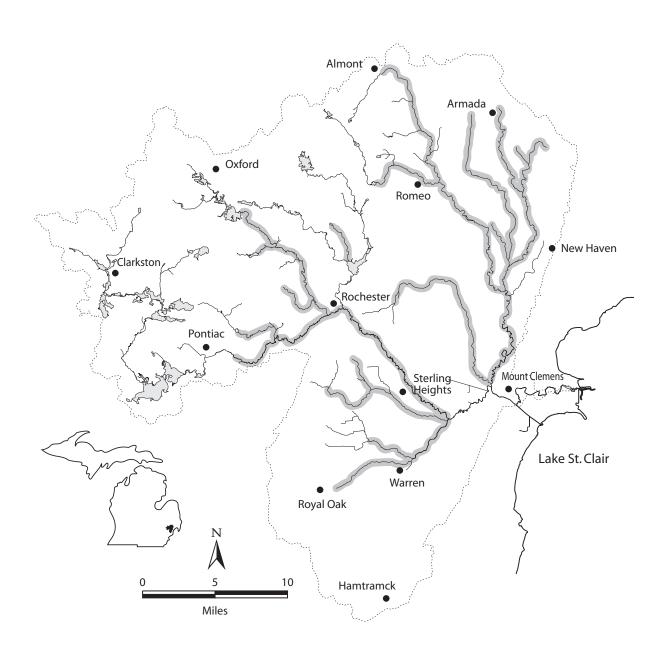
### Habitat:

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

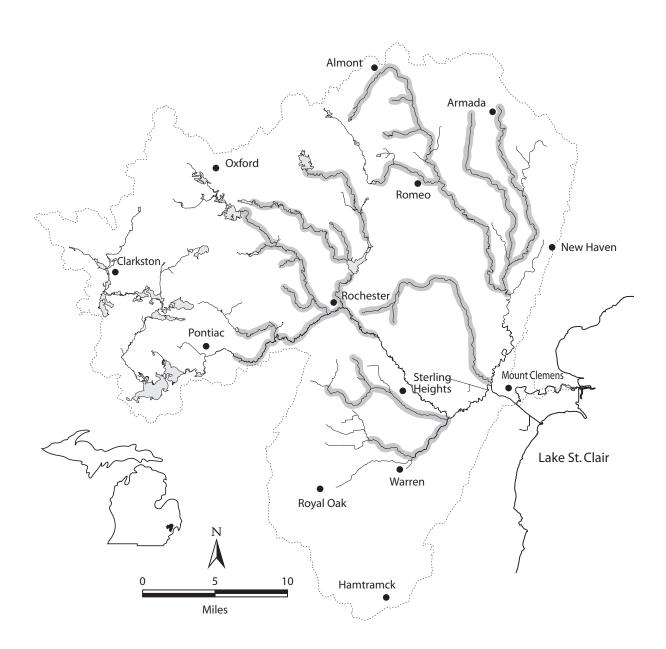
- sand and gravel substrate

- 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

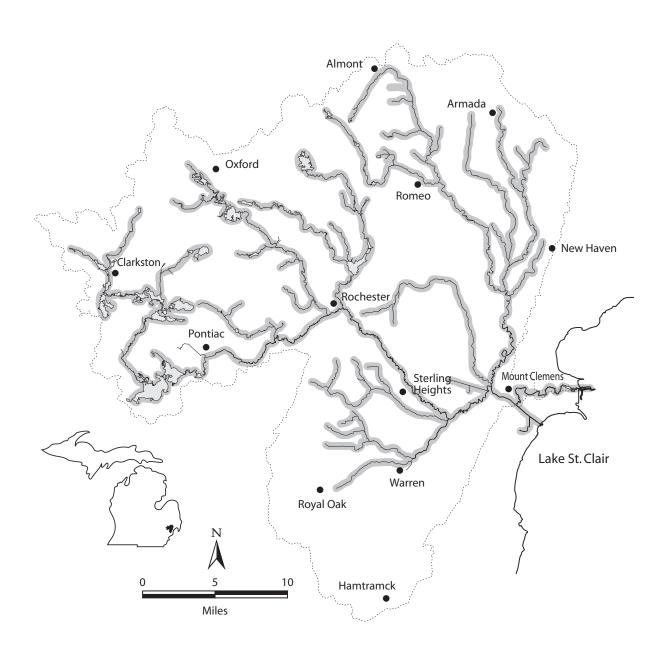
- can tolerate intermittent flows

- tolerates moderate turbidity

spawning - gravel nests

- low current

winter refuge - deeper pools and runs



## **Quillback** Carpoides cyprinus

# Habitat:

feeding - clear to turbid water

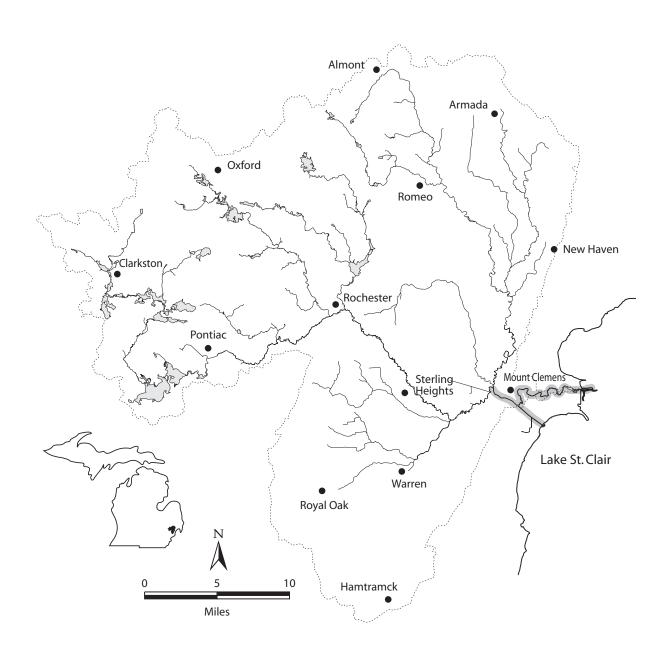
- Lake St. Clair

- 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



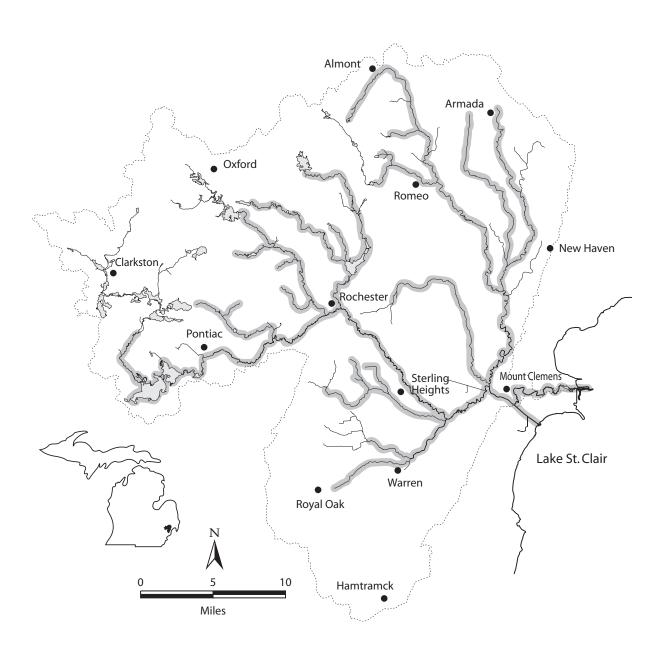
### White sucker Catostomus commersonii

### Habitat:

feeding - streams, rivers, lakes, and impoundments

- can inhabit highly turbid and polluted waters

spawning - quiet gravelly shallow areas of streams



## Lake chubsucker Erimyzon sucetta

### 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

