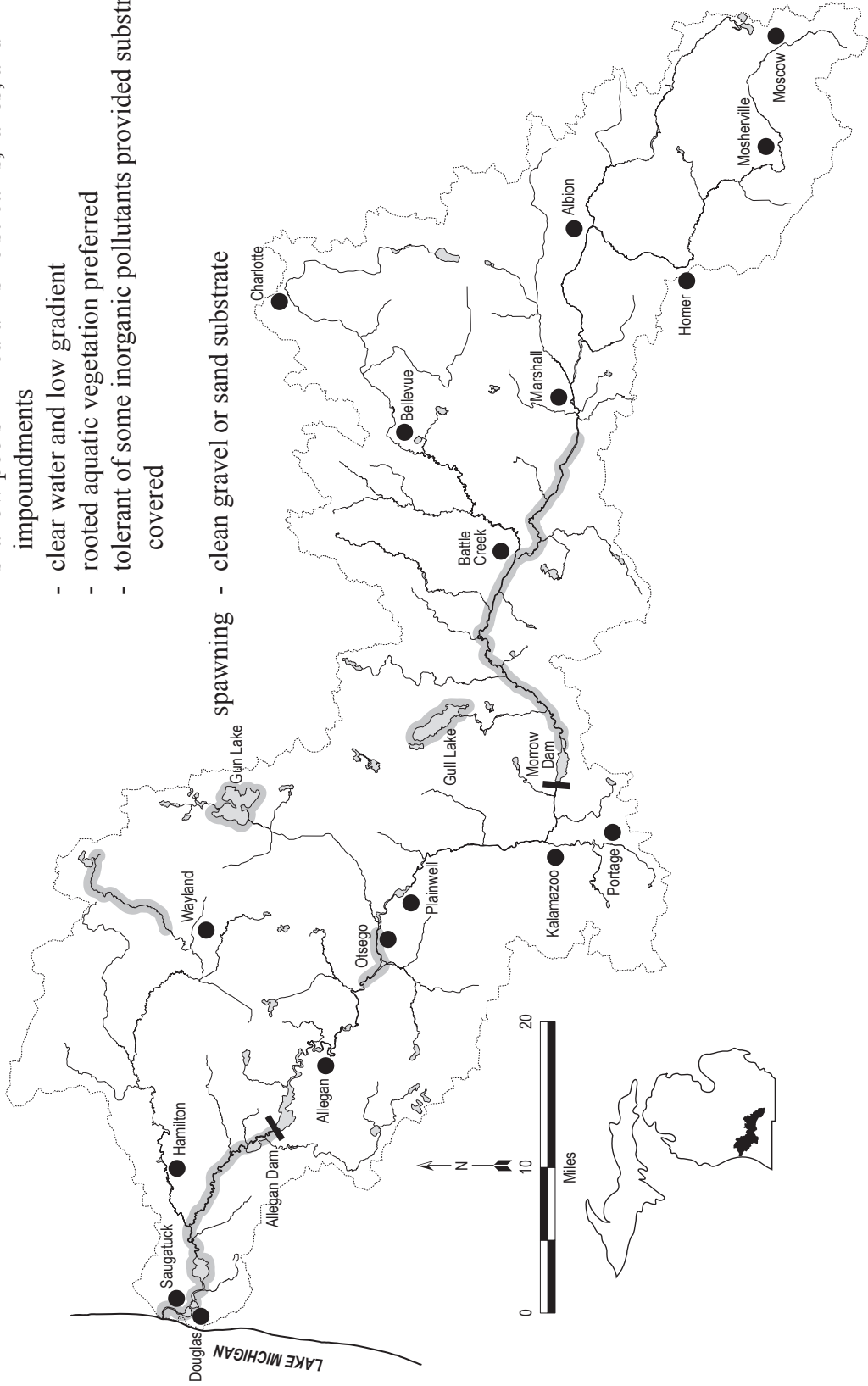


**Sand shiner (*Notropis stramineus*)**

**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

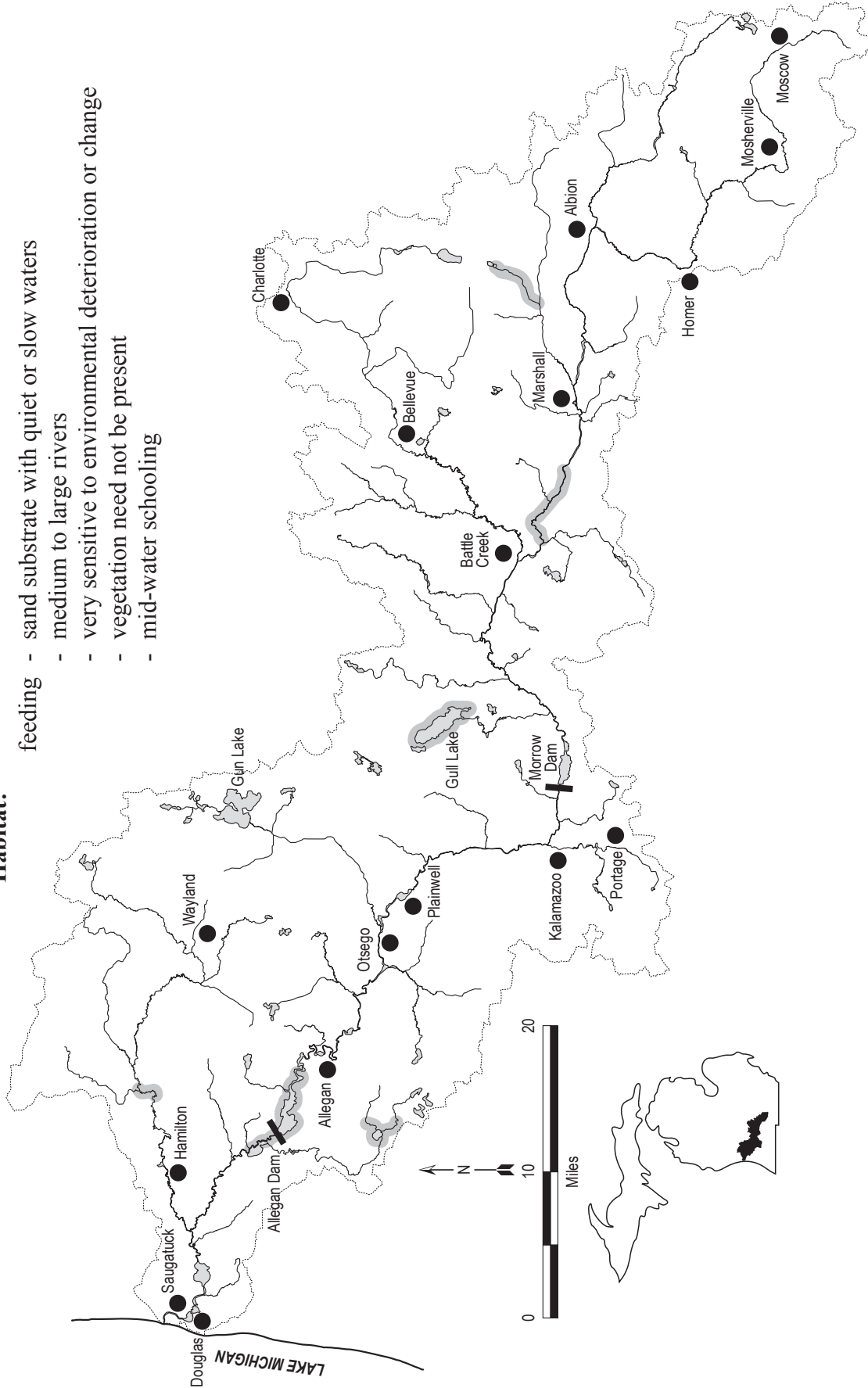


spawning - clean gravel or sand substrate

**Weed shiner (*Notropis texanus*) - extirpated**

**Habitat:**

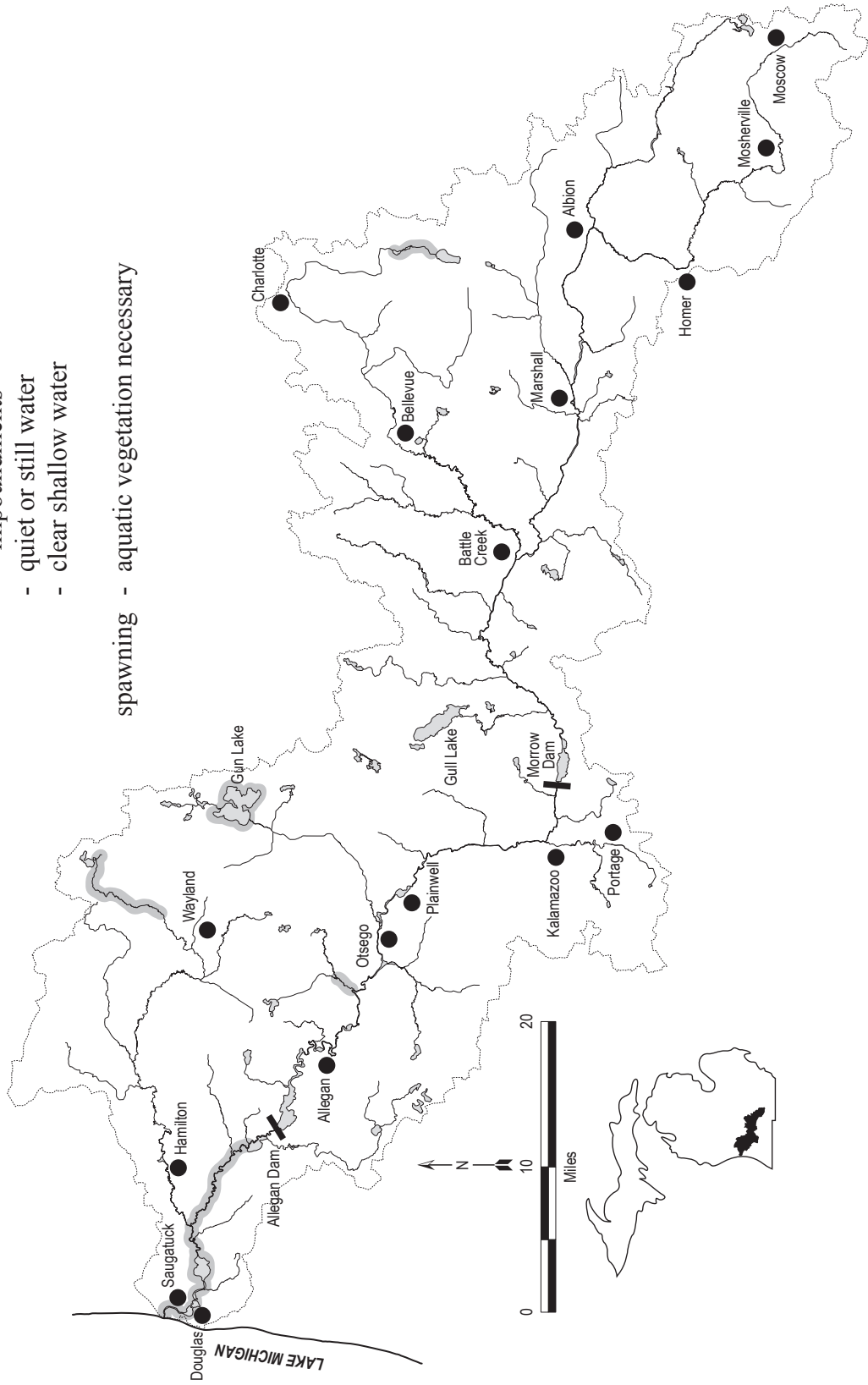
- feeding - sand substrate with quiet or slow waters
- medium to large rivers
- very sensitive to environmental deterioration or change
- vegetation need not be present
- mid-water schooling



**Mimic shiner (*Notropis volucellus*)**

**Habitat:**

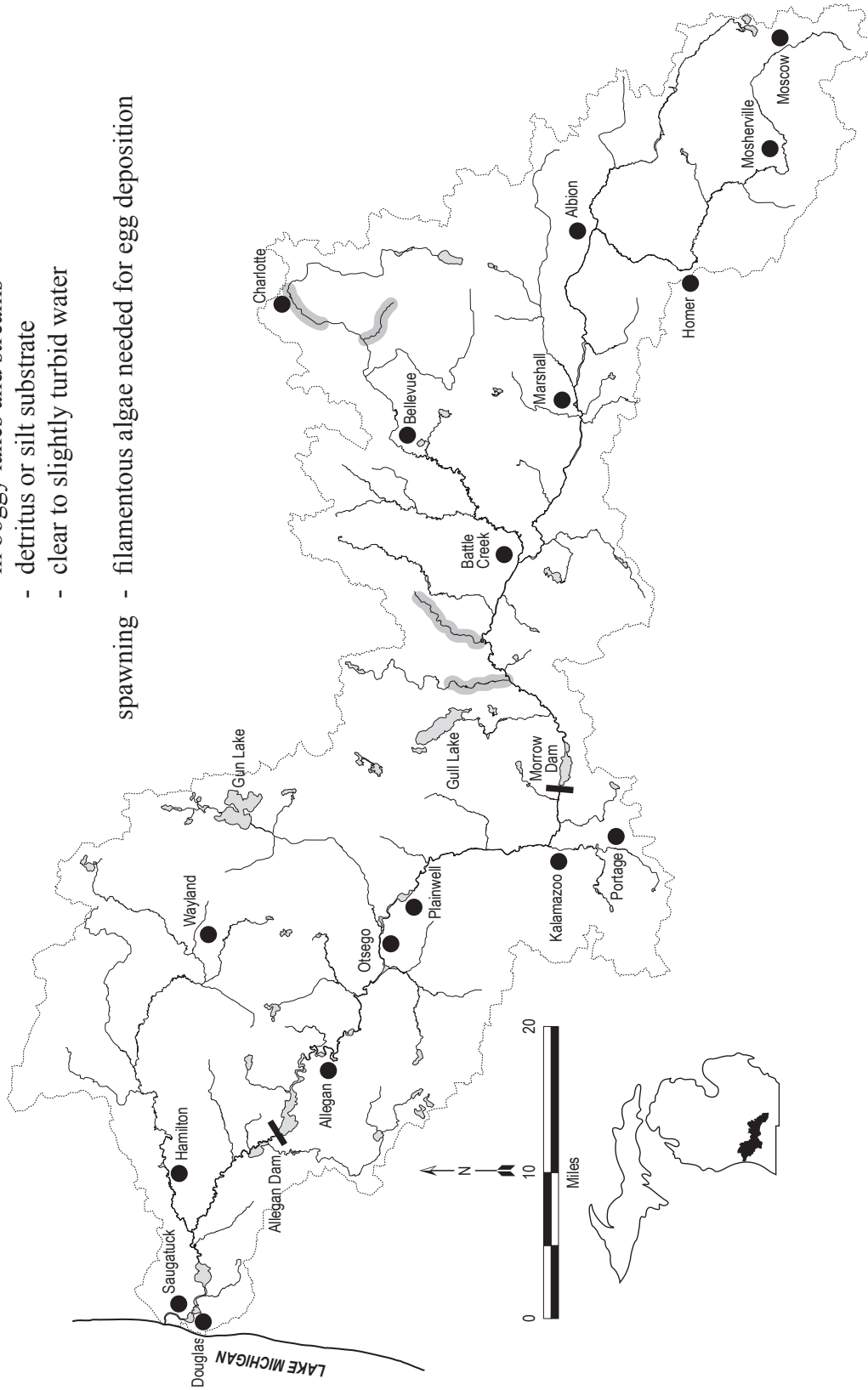
- feeding - pools and backwater of streams, moderately weedy lakes and impoundments
- quiet or still water
- clear shallow water
  
- spawning - aquatic vegetation necessary



Northern redbelly dace (*Phoxinus eos*)

**Habitat:**

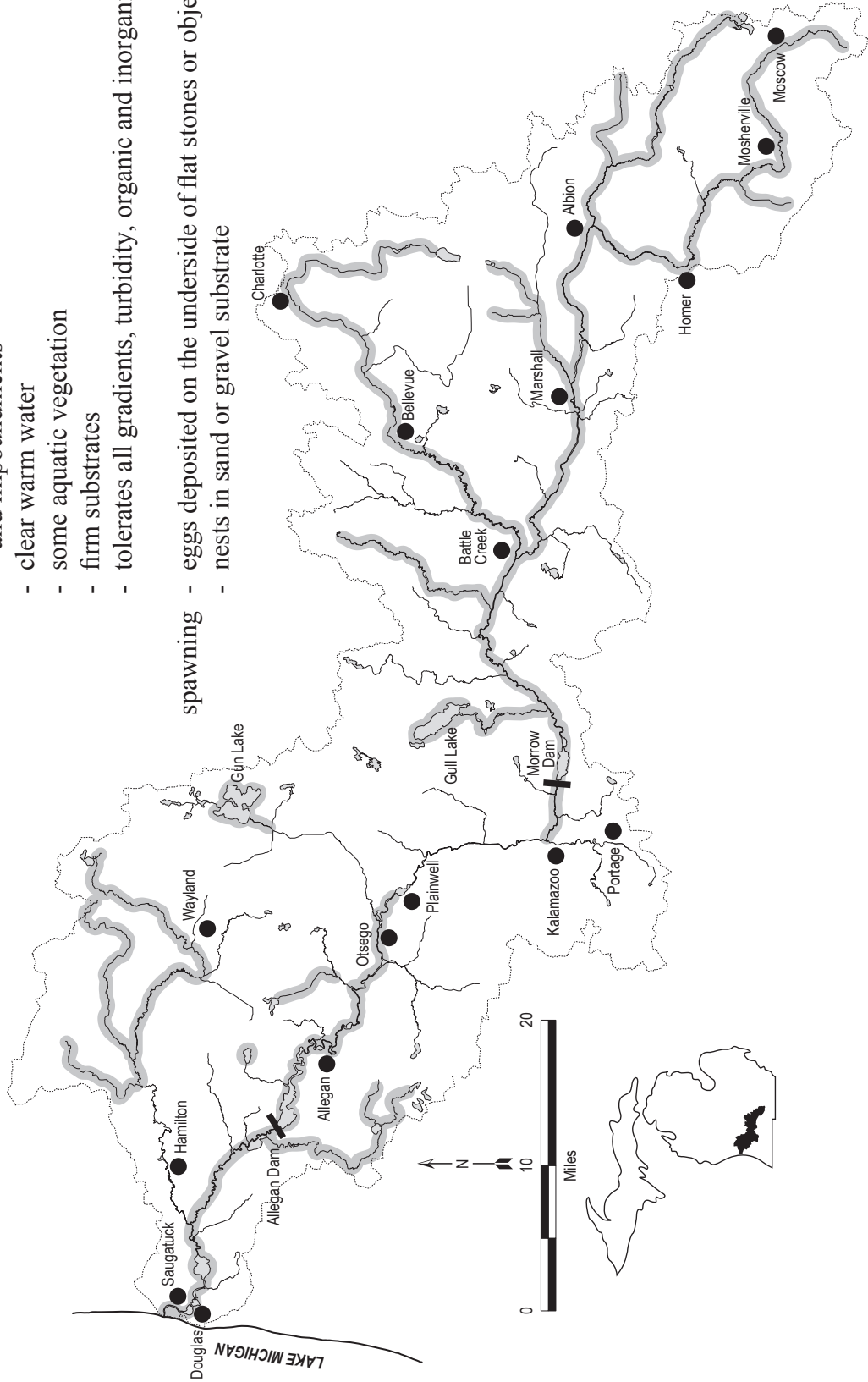
- feeding - slow current
  - in boggy lakes and streams
  - detritus or silt substrate
  - clear to slightly turbid water
- 
- spawning - filamentous algae needed for egg deposition



**Bluntnose minnow (*Pimephales notatus*)**

**Habitat:**

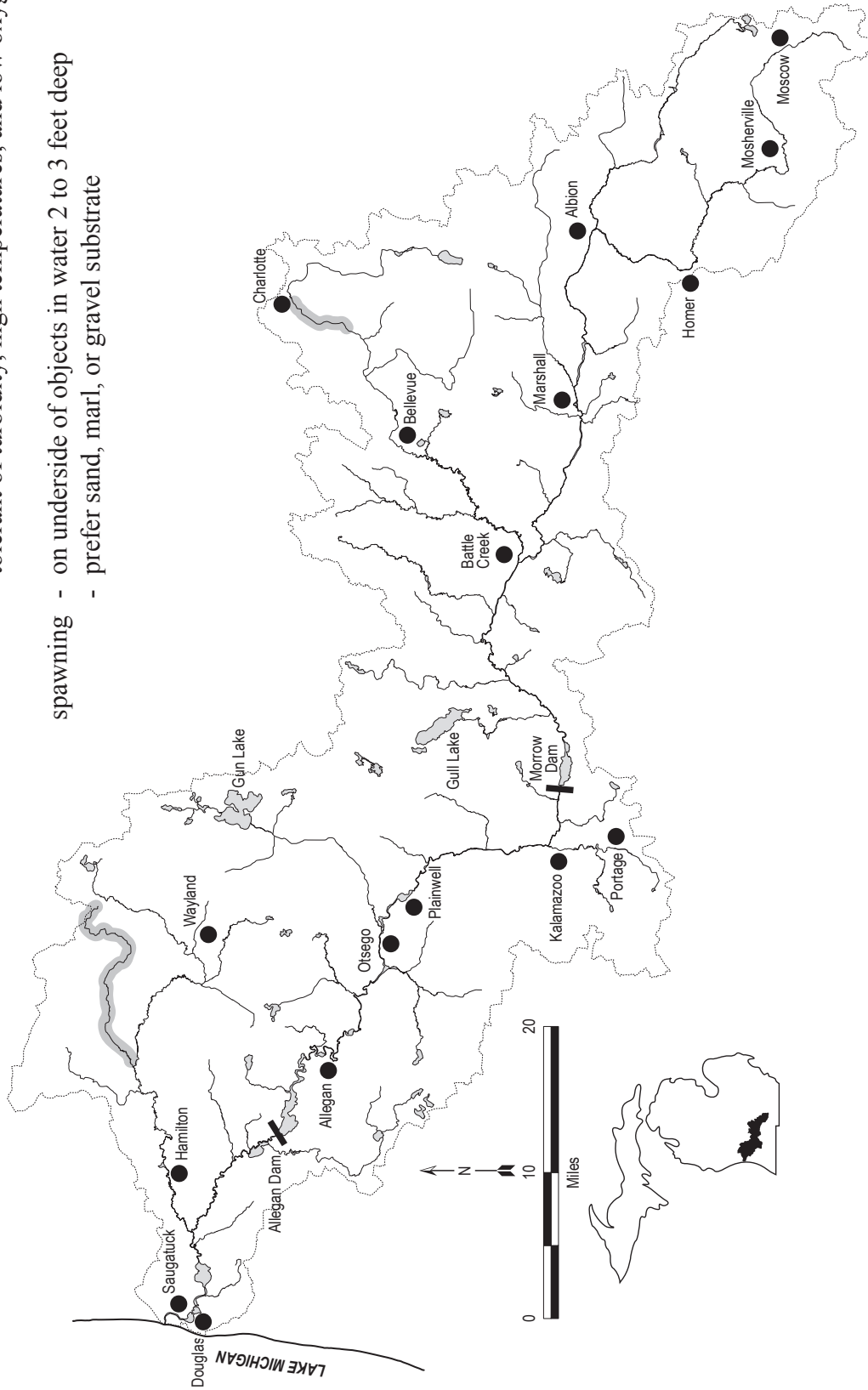
- feeding - quiet pools and backwaters of medium to large streams, lakes, and impoundments
- clear warm water
- some aquatic vegetation
- firm substrates
- tolerates all gradients, turbidity, organic and inorganic pollutants
- spawning - eggs deposited on the underside of flat stones or objects
- nests in sand or gravel substrate



**Fathead minnow (*Pimephales promelas*)**

**Habitat:**

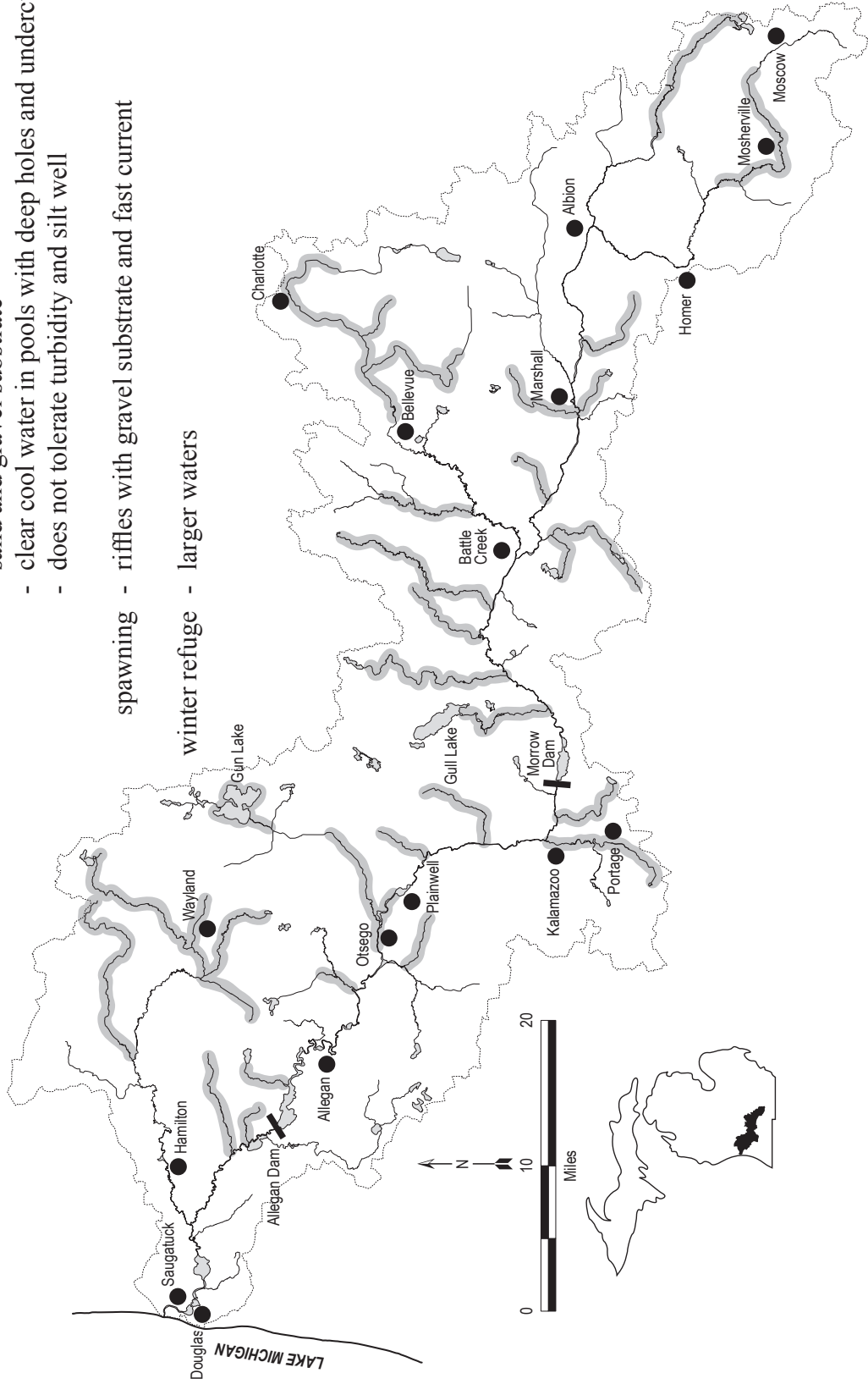
- feeding - pools of small streams, lakes, and impoundments
- tolerant of turbidity, high temperatures, and low oxygen
- spawning - on underside of objects in water 2 to 3 feet deep
- prefer sand, marl, or gravel substrate



**Western blacknose dace (*Rhinichthys obtusus*)**

**Habitat:**

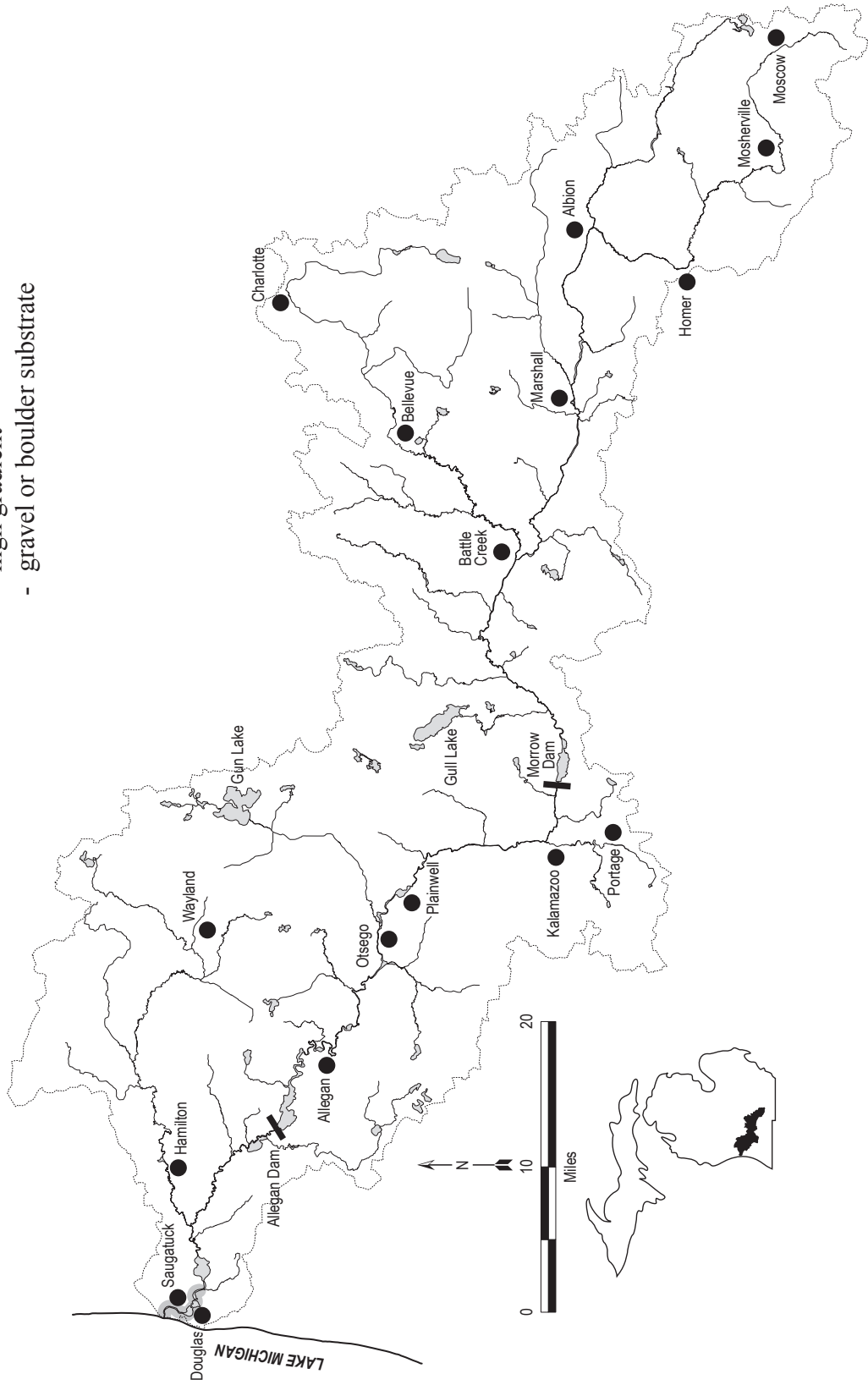
- feeding - moderate to high gradient streams
  - sand and gravel substrate
  - clear cool water in pools with deep holes and undercut banks
  - does not tolerate turbidity and silt well
- 
- spawning - riffles with gravel substrate and fast current
- 
- winter refuge - larger waters



**Longnose dace (*Rhinichthys cataractae*)**

**Habitat:**

- lakes and streams
- high gradient
- gravel or boulder substrate

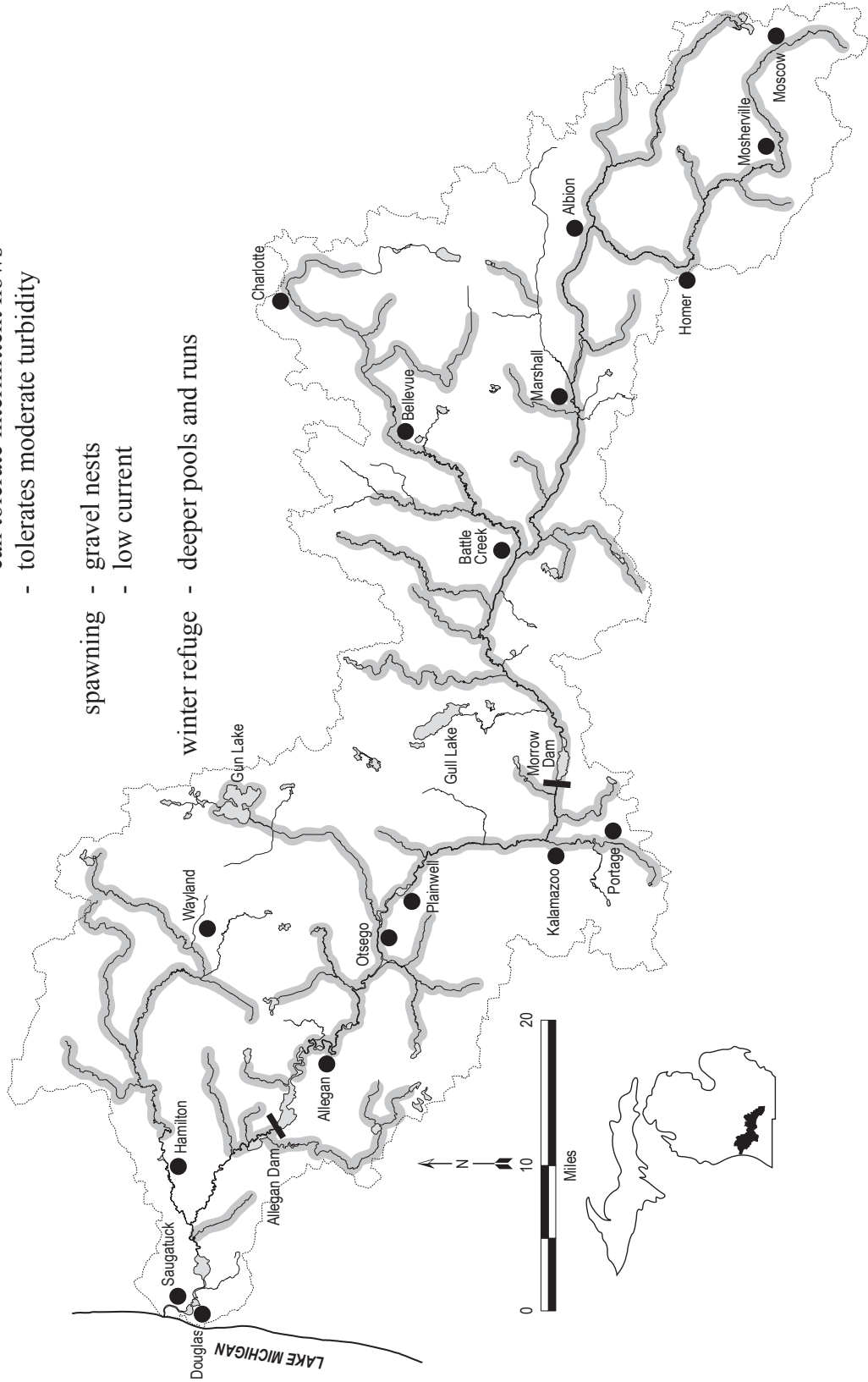




**Creek chub (*Semotilus atromaculatus*)**

**Habitat:**

- streams, rivers, or shore waters of lakes and impoundments
  - can tolerate intermittent flows
  - tolerates moderate turbidity
- 
- gravel nests
  - low current
- 
- deeper pools and runs



**Quillback (*Carpoides cyprinus*)**

**Habitat:**

- feeding - clear to turbid water  
 - Lake Michigan
- 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

