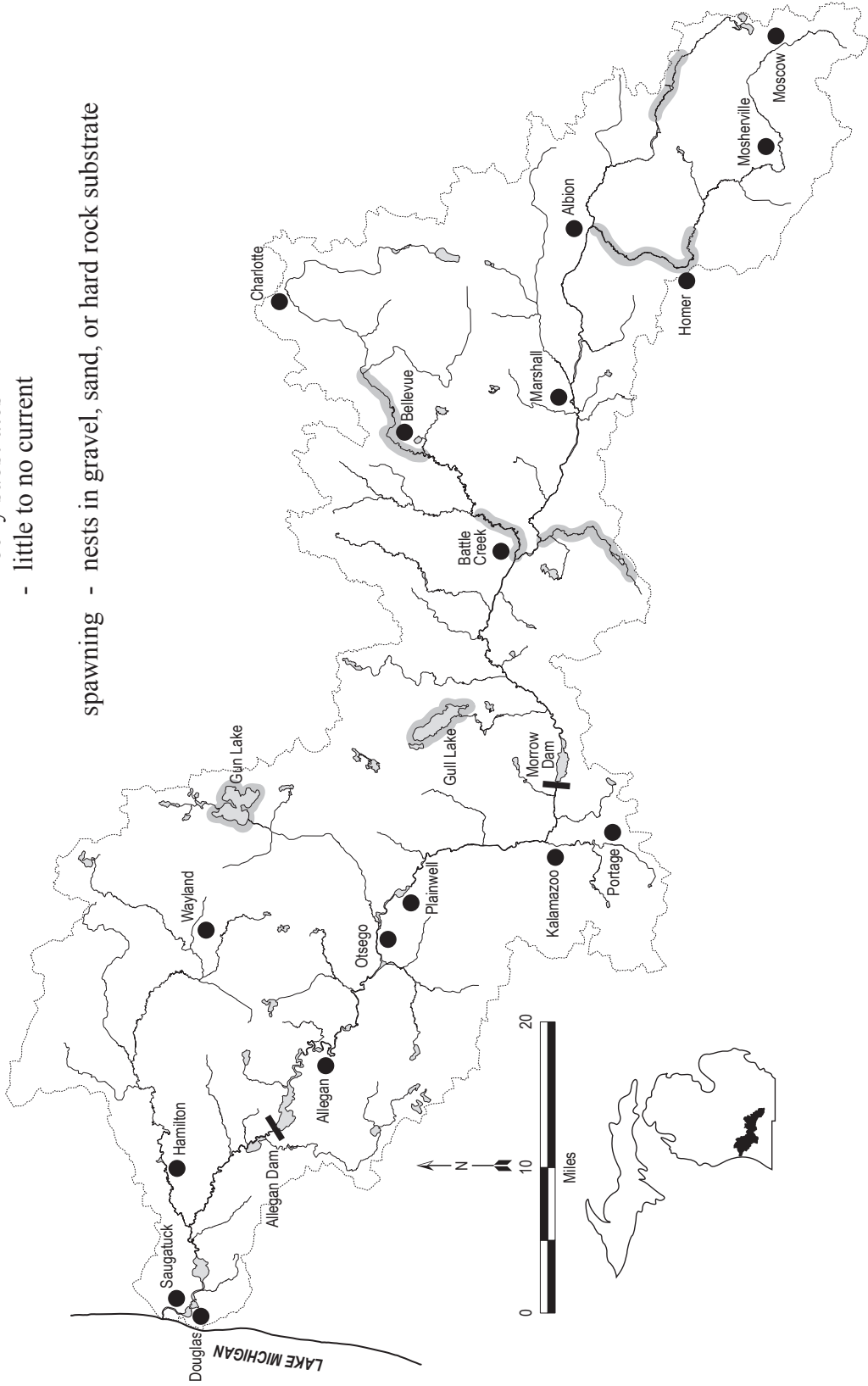


Northern longear sunfish (*Lepomis peltastes*)

Habitat:

- feeding - clear moderate-sized shallow streams with moderate vegetation
- rocky substrates
- little to no current

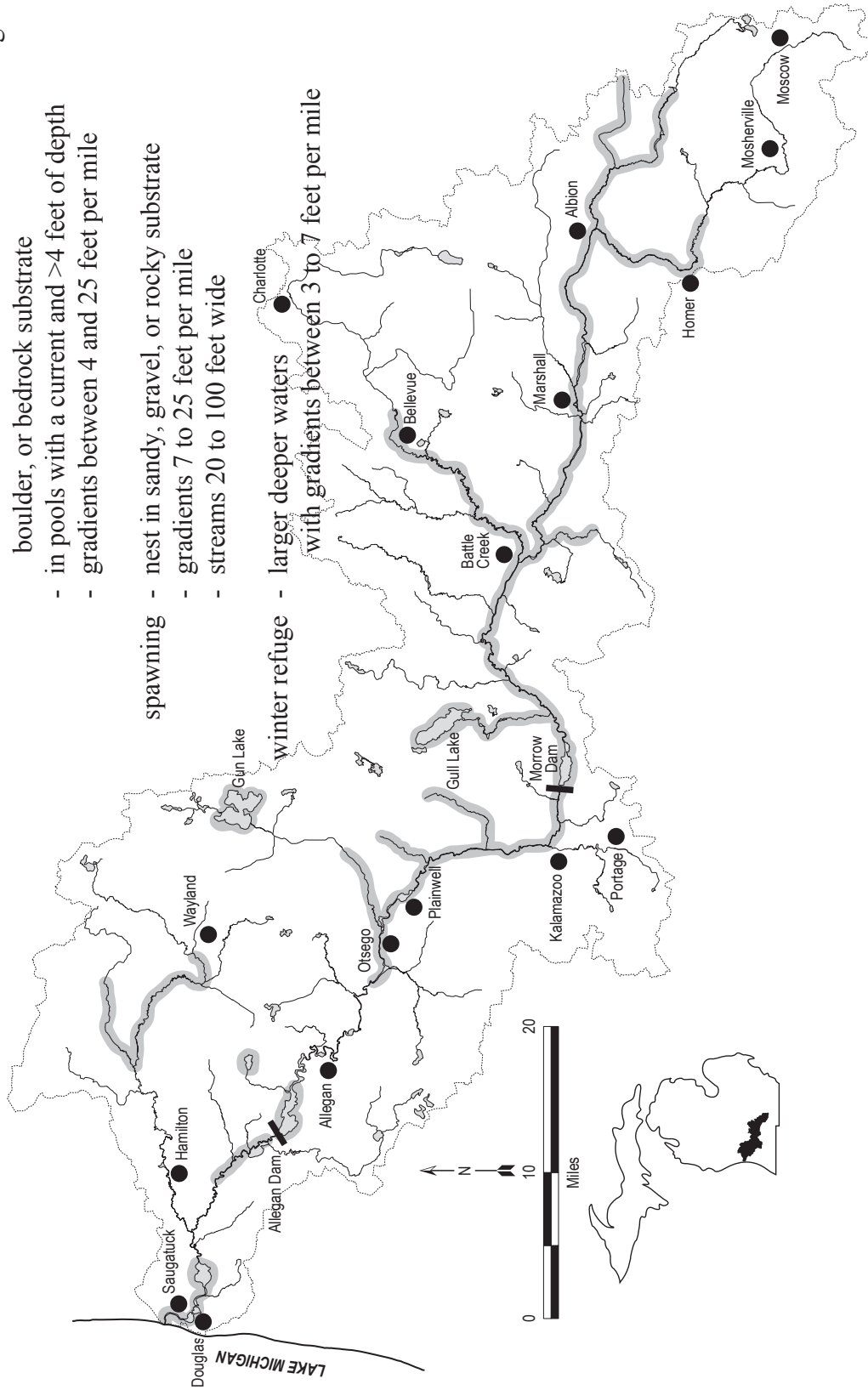
- spawning - nests in gravel, sand, or hard rock substrate



Smallmouth bass (*Micropterus dolomieu*)

Habitat:

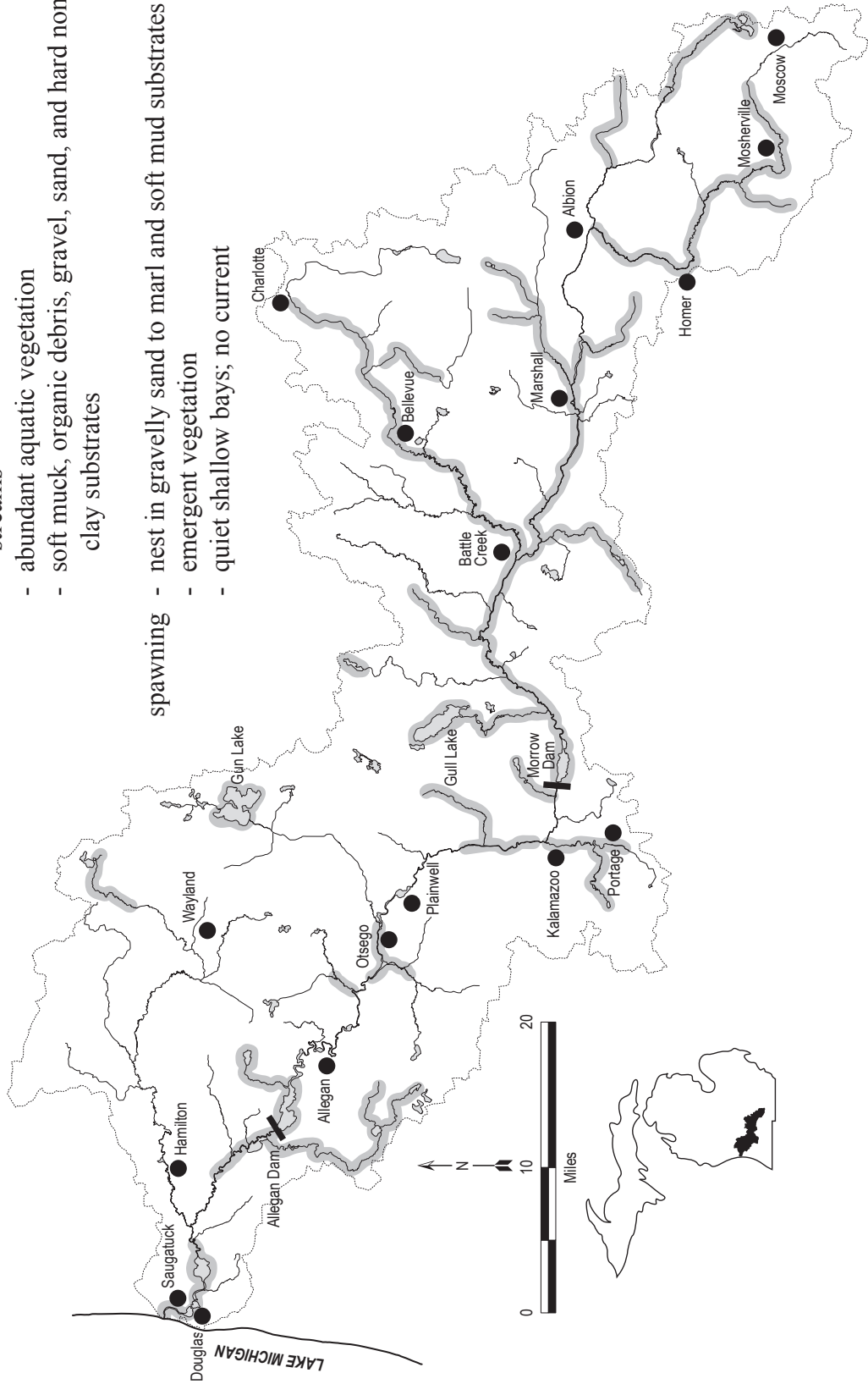
- feeding
 - clear, cool, deep lakes and rivers
 - streams where 40% consists of riffles over clean gravel, boulder, or bedrock substrate
 - in pools with a current and >4 feet of depth
 - gradients between 4 and 25 feet per mile
- spawning
 - nest in sandy, gravel, or rocky substrate
 - gradients 7 to 25 feet per mile
 - streams 20 to 100 feet wide
- winter refuge
 - larger deeper waters with gradients between 3 to 7 feet per mile



Largemouth bass (*Micropterus salmoides*)

Habitat:

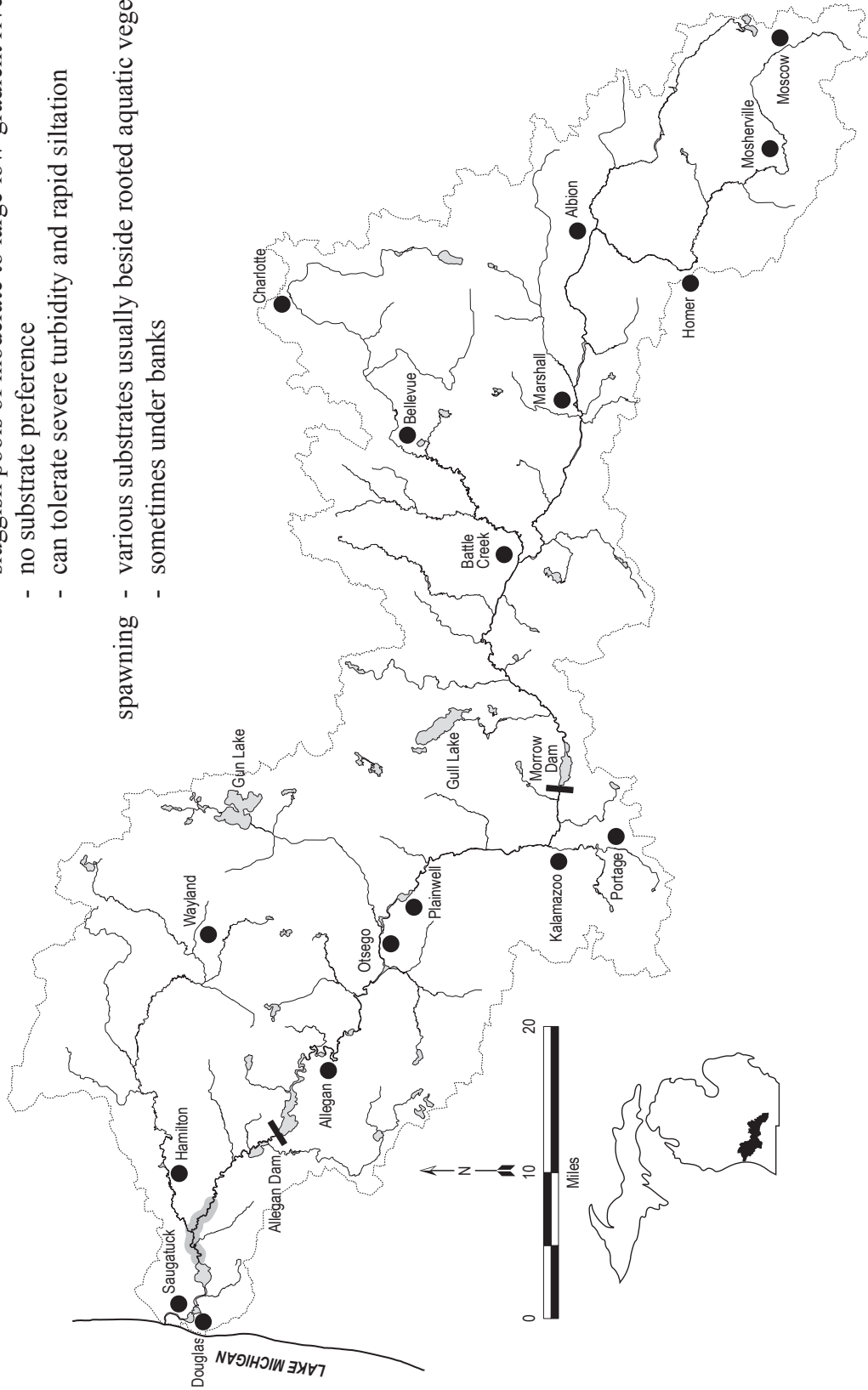
- feeding - non-flowing clear waters - lakes, impoundments, and pools of streams
 - abundant aquatic vegetation
 - soft muck, organic debris, gravel, sand, and hard non-flocculent clay substrates
-
- spawning - nest in gravelly sand to marl and soft mud substrates
 - emergent vegetation
 - quiet shallow bays; no current



White crappie (*Pomoxis annularis*)

Habitat:

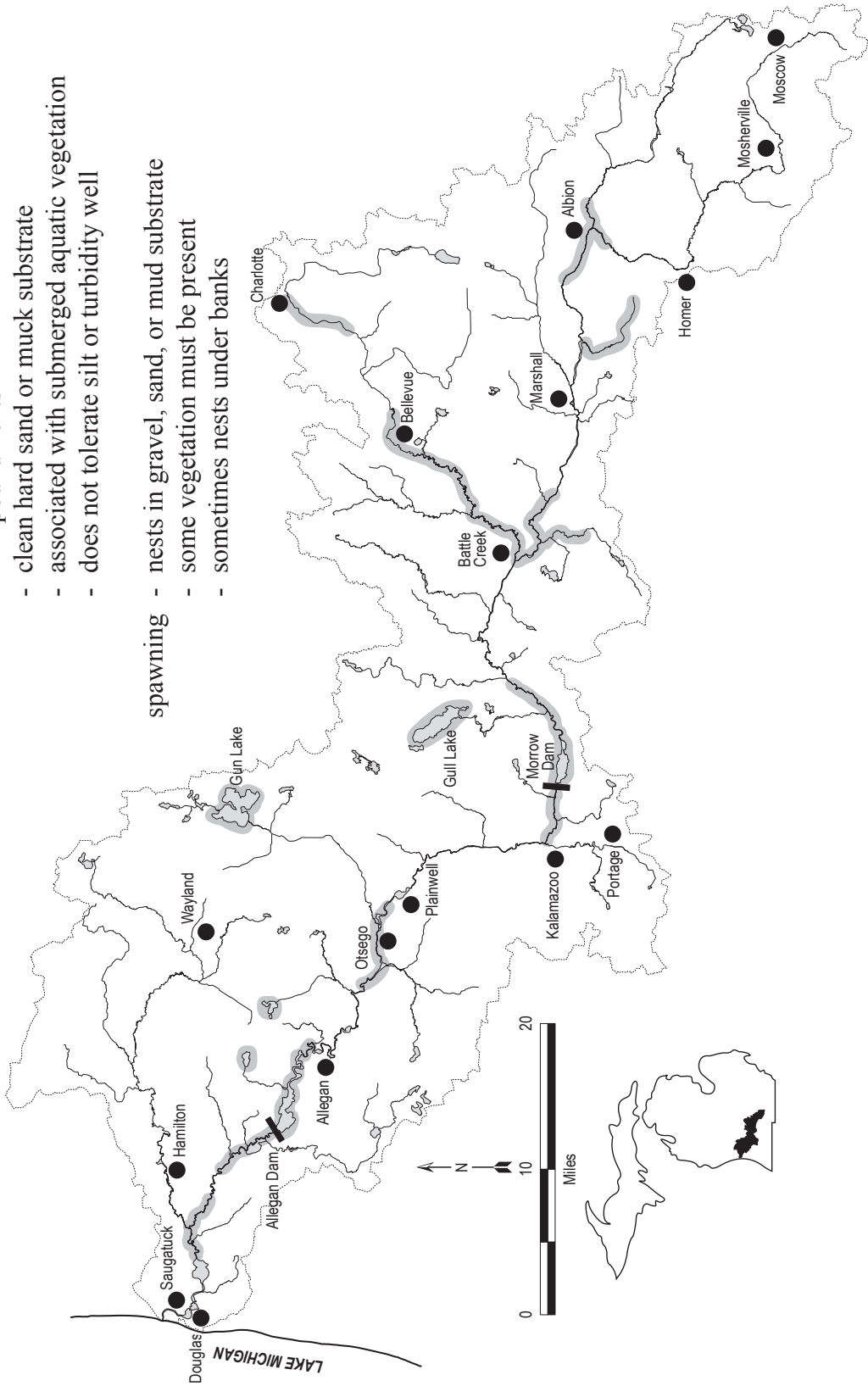
- feeding
 - lakes and impoundments >5 acres
 - sluggish pools of moderate to large low-gradient rivers
 - no substrate preference
 - can tolerate severe turbidity and rapid siltation
- spawning
 - various substrates usually beside rooted aquatic vegetation
 - sometimes under banks



Black crappie (*Pomoxis nigromaculatus*)

Habitat:

- feeding - larger clear non-silty low-gradient rivers; also in lakes and impoundments
 - clean hard sand or muck substrate
 - associated with submerged aquatic vegetation
 - does not tolerate silt or turbidity well
-
- spawning - nests in gravel, sand, or mud substrate
 - some vegetation must be present
 - sometimes nests under banks

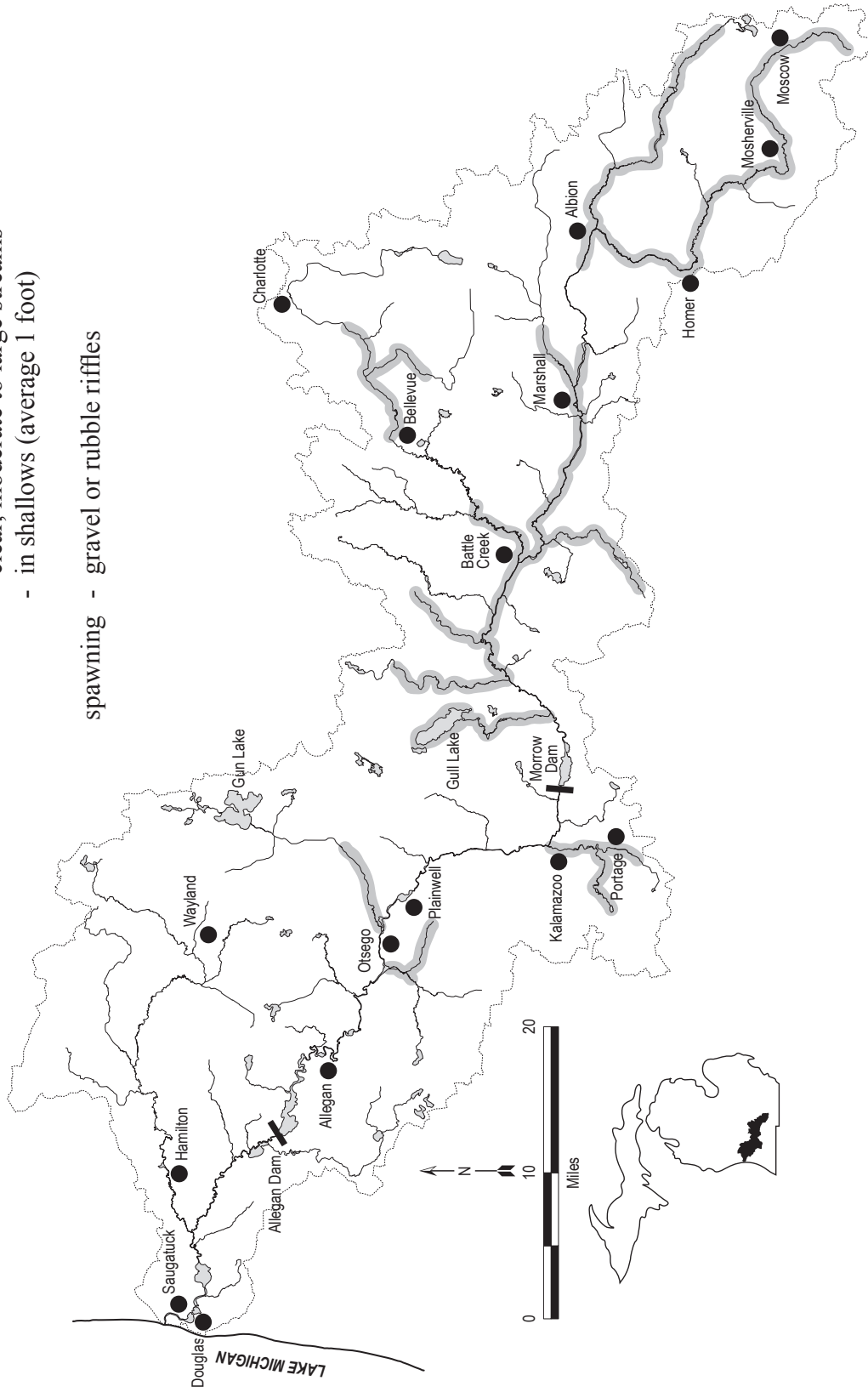


Rainbow darter (*Etheostoma caeruleum*)

Habitat:

- feeding - gravelly high gradient riffles
- clear, moderate to large streams
- in shallows (average 1 foot)

- spawning - gravel or rubble riffles

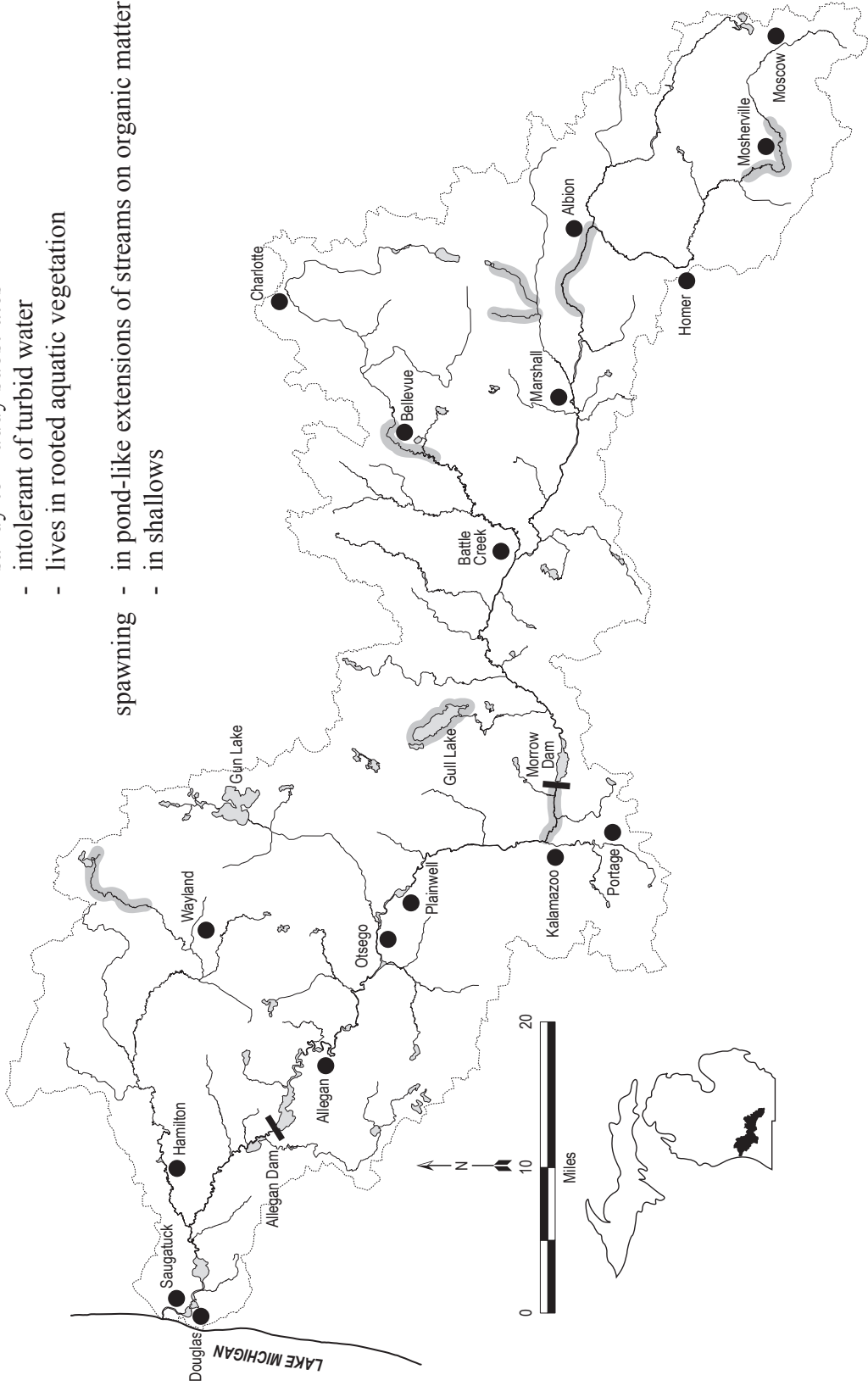


Iowa darter (*Etheostoma exile*)

Habitat:

- feeding - clear, slow moving streams and lakes
- sandy to muddy substrates
- intolerant of turbid water
- lives in rooted aquatic vegetation

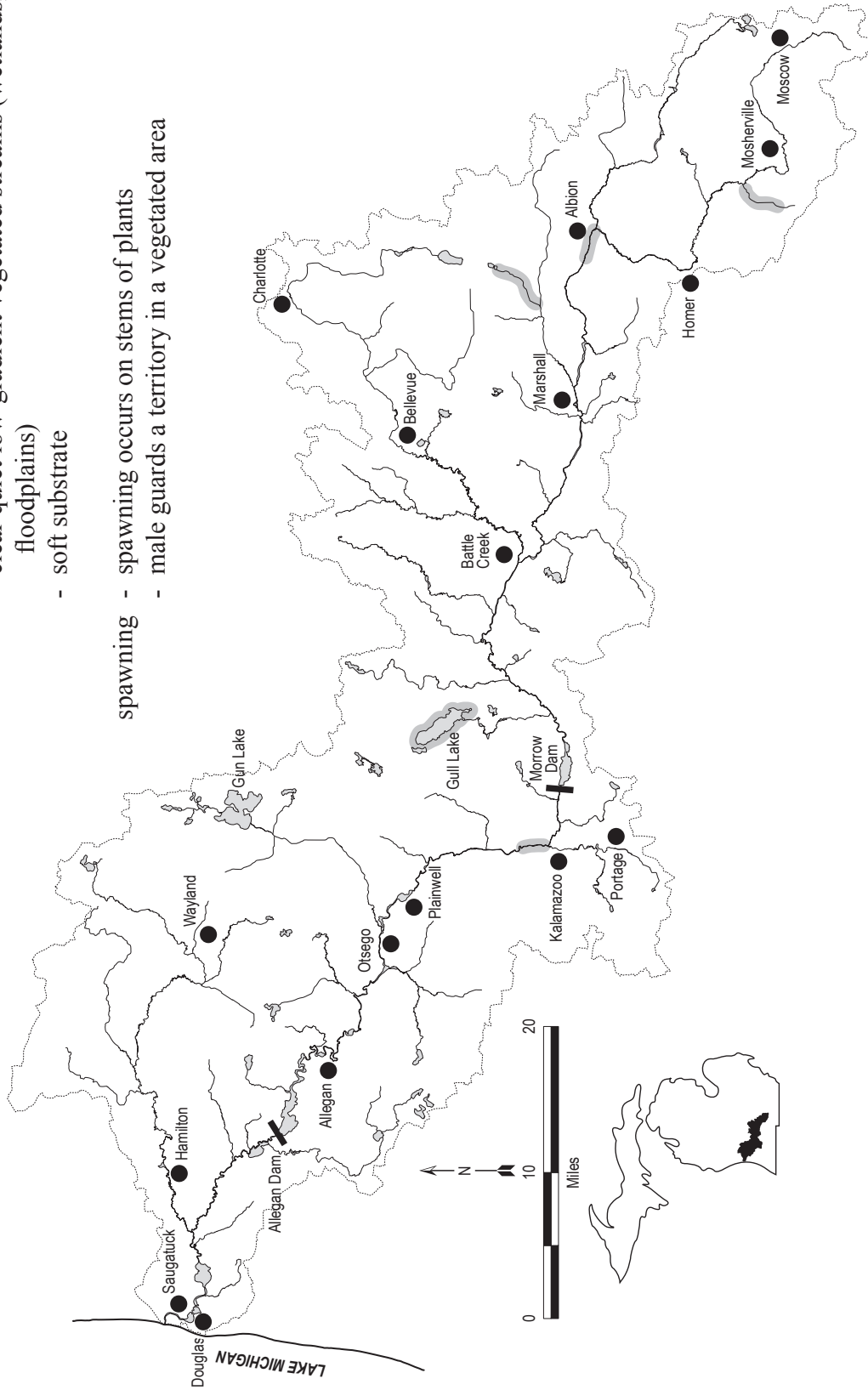
- spawning - in pond-like extensions of streams on organic matter or roots
- in shallows



Least darter (*Etheostoma microperca*)

Habitat:

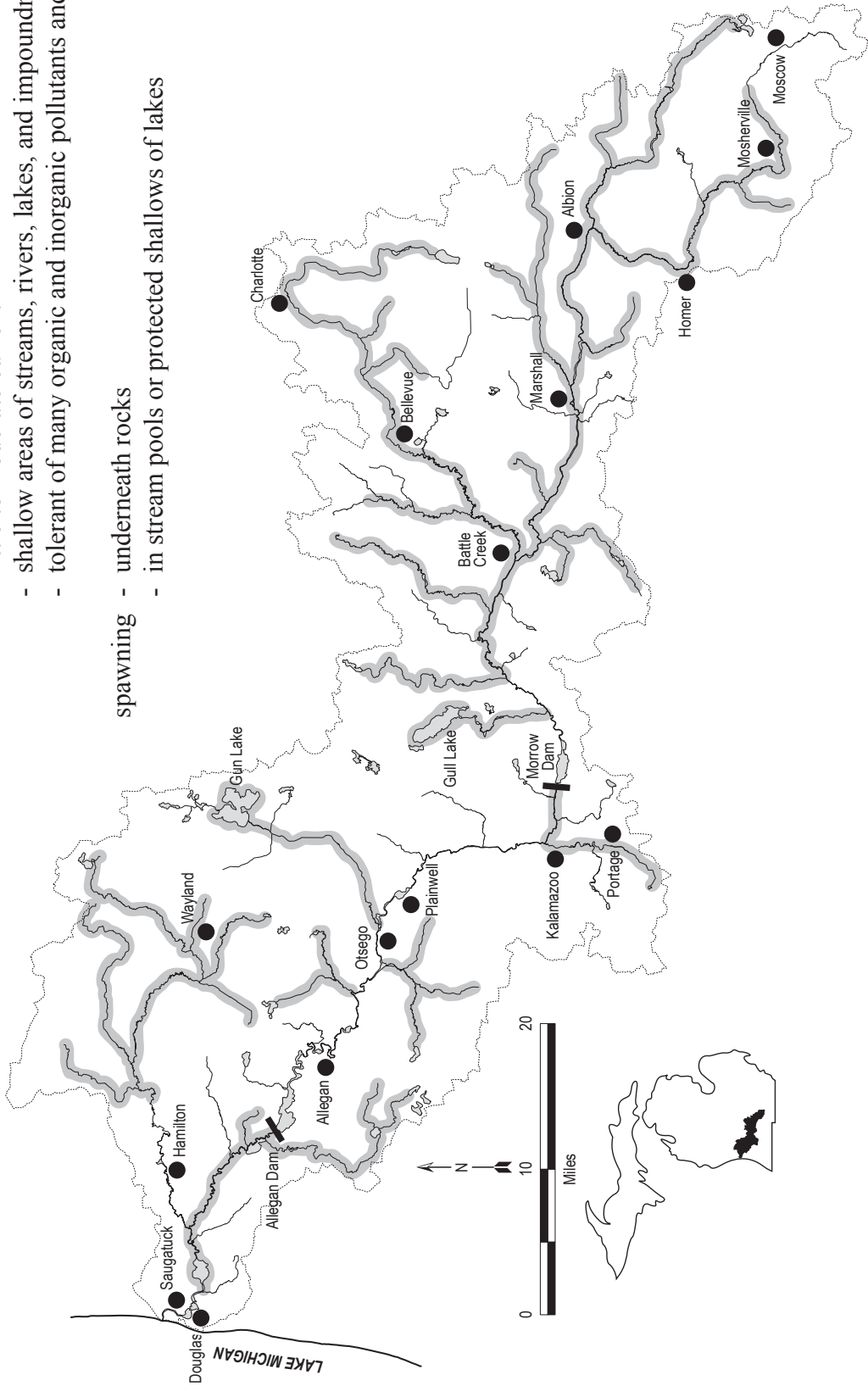
- feeding - moderate to warm temperature
 - clear quiet low-gradient vegetated streams (wetlands, floodplains)
 - soft substrate
-
- spawning - spawning occurs on stems of plants
 - male guards a territory in a vegetated area



Johnny darter (*Etheostoma nigrum*)

Habitat:

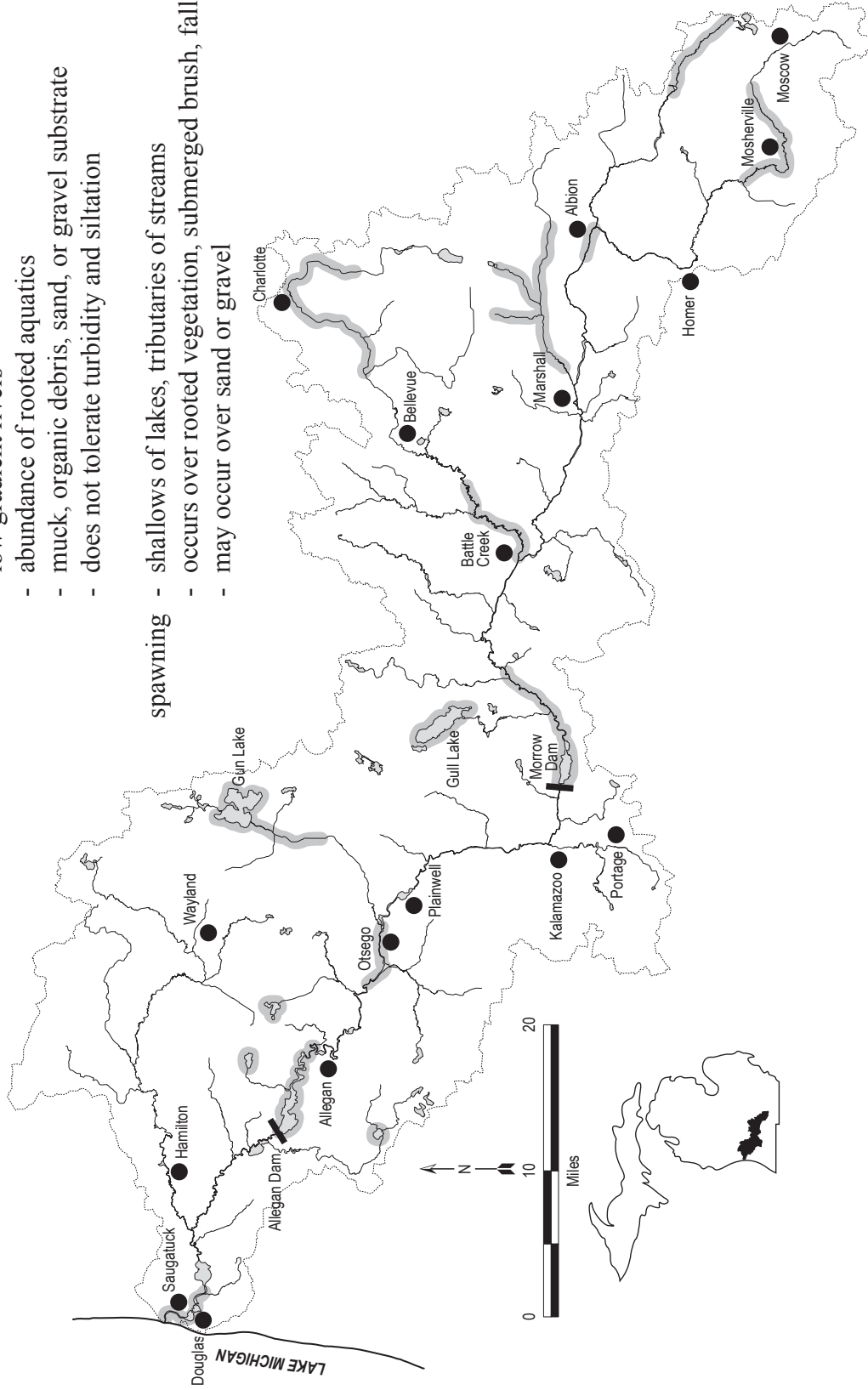
- feeding
 - sand and silt substrate
 - little to moderate current
 - shallow areas of streams, rivers, lakes, and impoundments
 - tolerant of many organic and inorganic pollutants and turbidity
- spawning
 - underneath rocks
 - in stream pools or protected shallows of lakes



Yellow perch (*Perca flavescens*)

Habitat:

- feeding - clear lakes and impoundments; also Lake Michigan
 - low gradient rivers
 - abundance of rooted aquatics
 - muck, organic debris, sand, or gravel substrate
 - does not tolerate turbidity and siltation
-
- spawning - shallows of lakes, tributaries of streams
 - occurs over rooted vegetation, submerged brush, fallen trees
 - may occur over sand or gravel

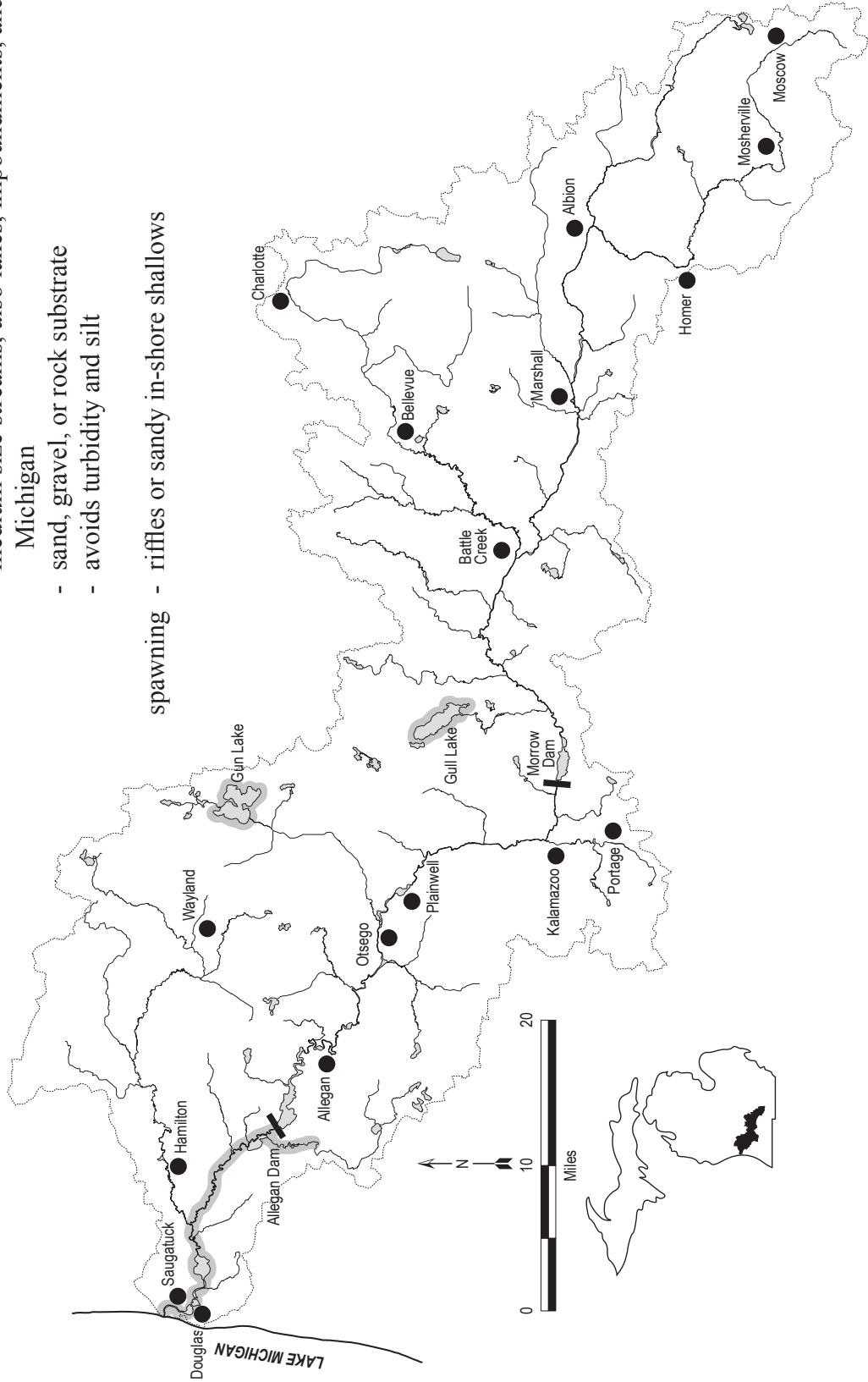


Northern logperch (*Percina caprodes semifasciata*)

Habitat:

- feeding - gravel riffles, deeper slower sections of rivers
- medium size streams; also lakes, impoundments, and Lake Michigan
- sand, gravel, or rock substrate
- avoids turbidity and silt

spawning - riffles or sandy in-shore shallows

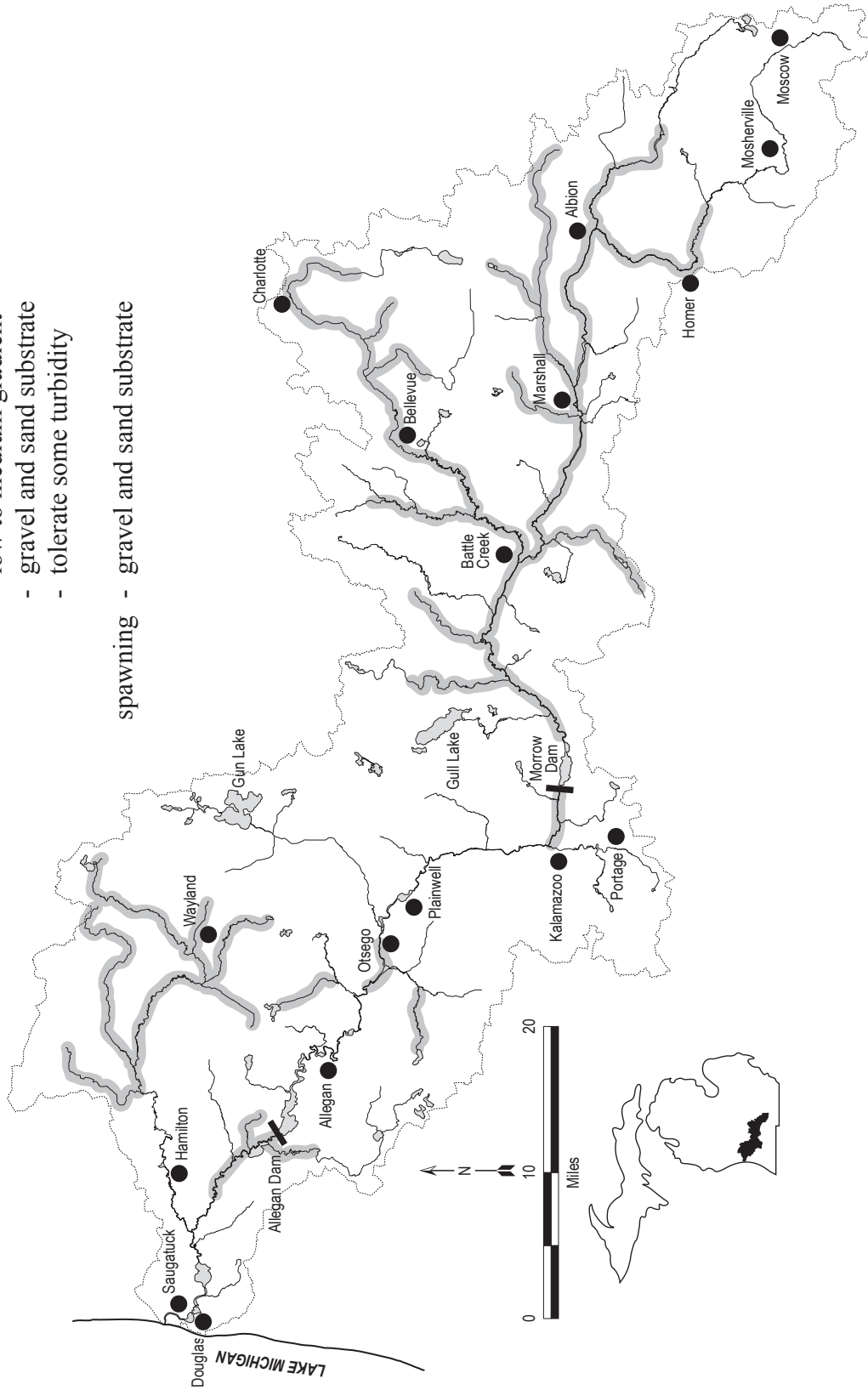


Blackside darter (*Percina maculata*)

Habitat:

- feeding - small to medium streams
- low to medium gradient
- gravel and sand substrate
- tolerate some turbidity

- spawning - gravel and sand substrate



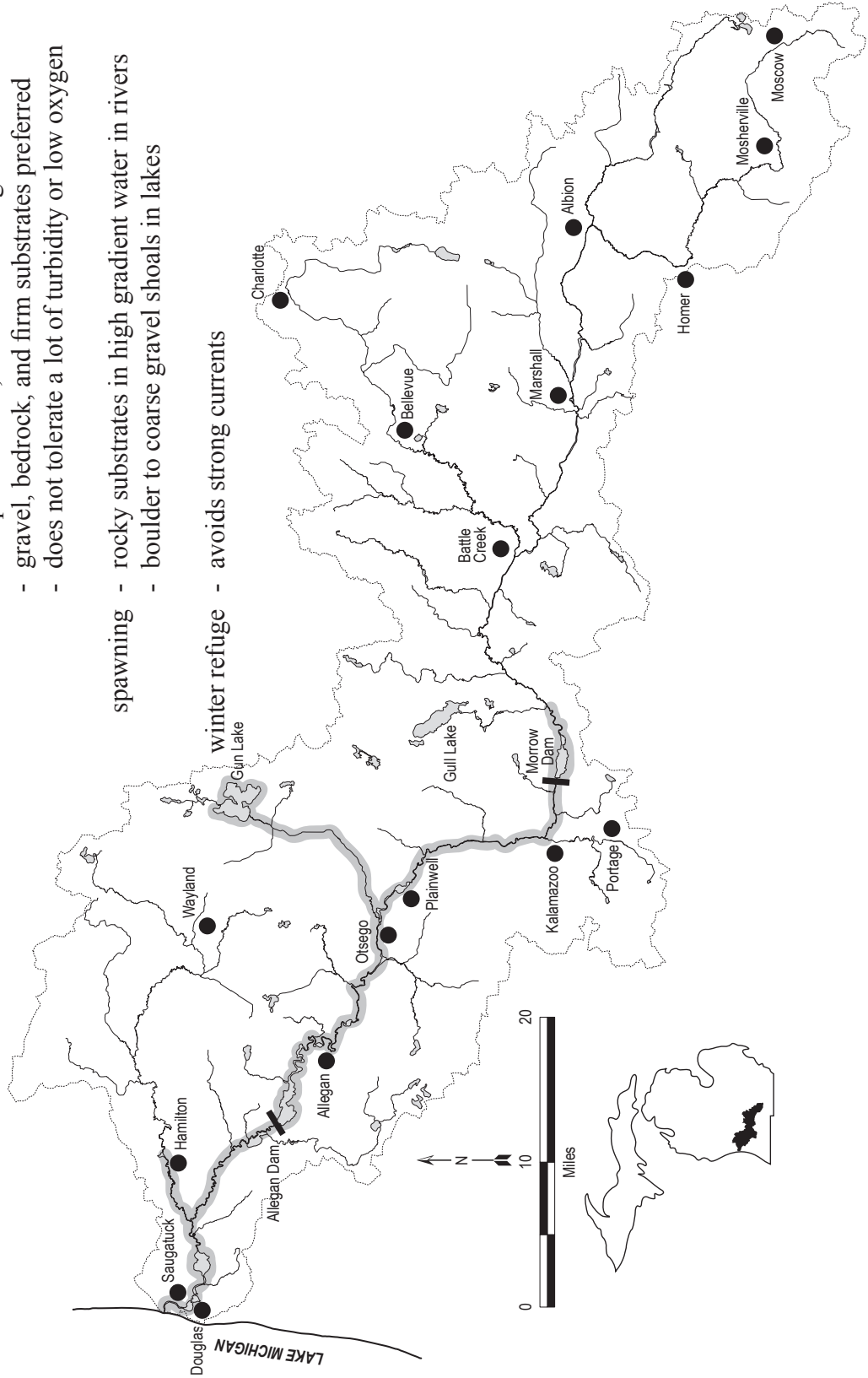
Walleye (*Sander vitreus*)

Habitat:

- feeding - larger, deeper streams and in large, shallow, turbid lakes and impoundments; also Lake Michigan
- gravel, bedrock, and firm substrates preferred
- does not tolerate a lot of turbidity or low oxygen

- spawning - rocky substrates in high gradient water in rivers
- boulder to coarse gravel shoals in lakes

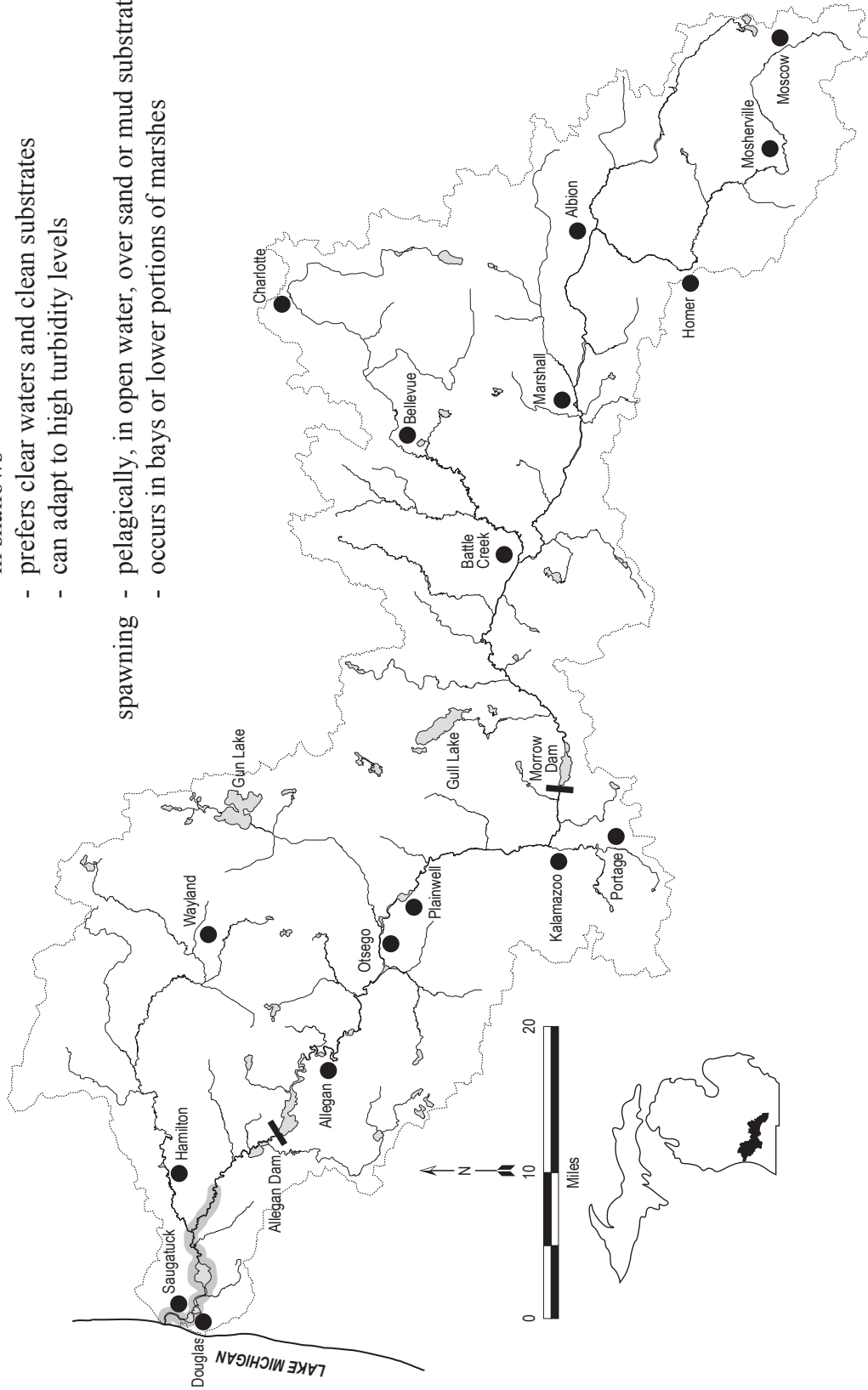
- winter refuge - avoids strong currents



Freshwater drum (*Aplodinotus grunniens*)

Habitat:

- feeding
 - deeper pools of rivers and Lake Michigan
 - in shallows
 - prefers clear waters and clean substrates
 - can adapt to high turbidity levels
- spawning
 - pelagically, in open water, over sand or mud substrate
 - occurs in bays or lower portions of marshes



Round goby (*Neogobius melanostomus*) - non-native species

Habitat:

feeding - rock, cobble, riprap, and vegetate areas of rivers and lakes
 - young found over sand substrate

spawning - rocky substrate with large interstitial spaces

winter refuge - rocky substrate with large interstitial spaces
 - deep water

