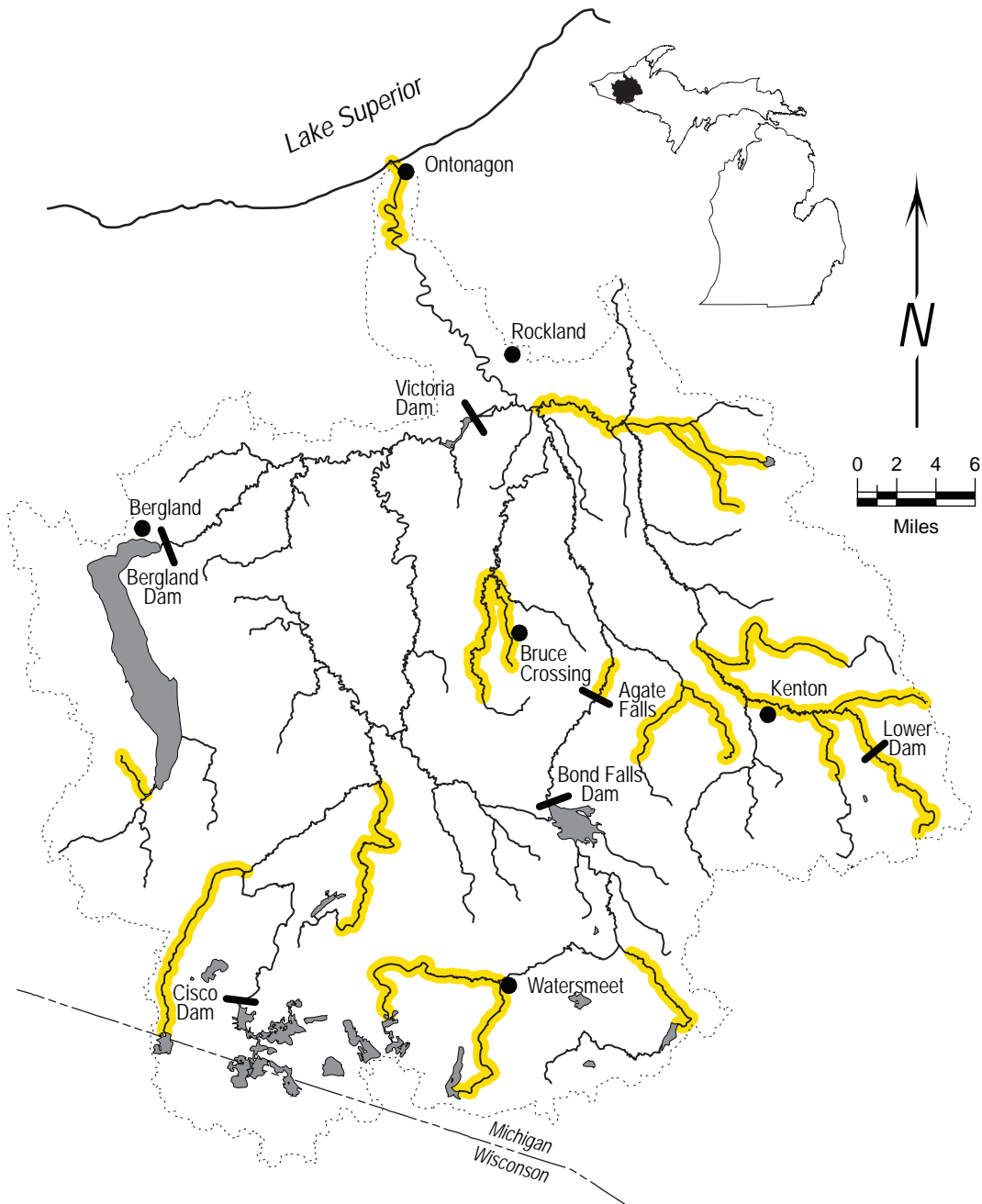


Slimy sculpin *Cottus cognatus*

Habitat:

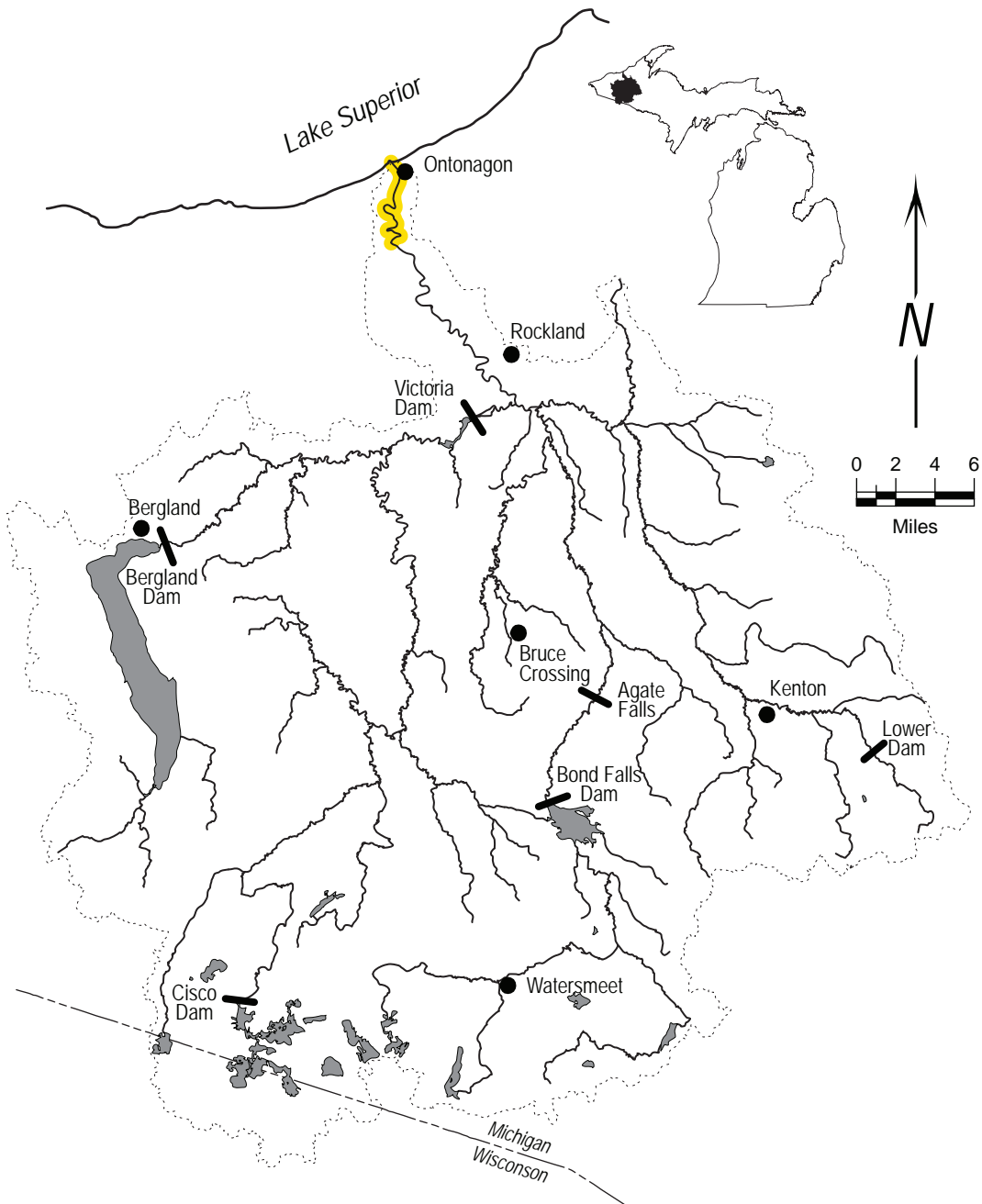
- feeding - cool lakes, impoundments, rivers, and streams
- gravel or rock substrate
- spawning - nest in shallow areas of lakes
- gravel substrate or rock ledge
- male parental care



Spoonhead sculpin *Cottus ricei* – special concern

Habitat:

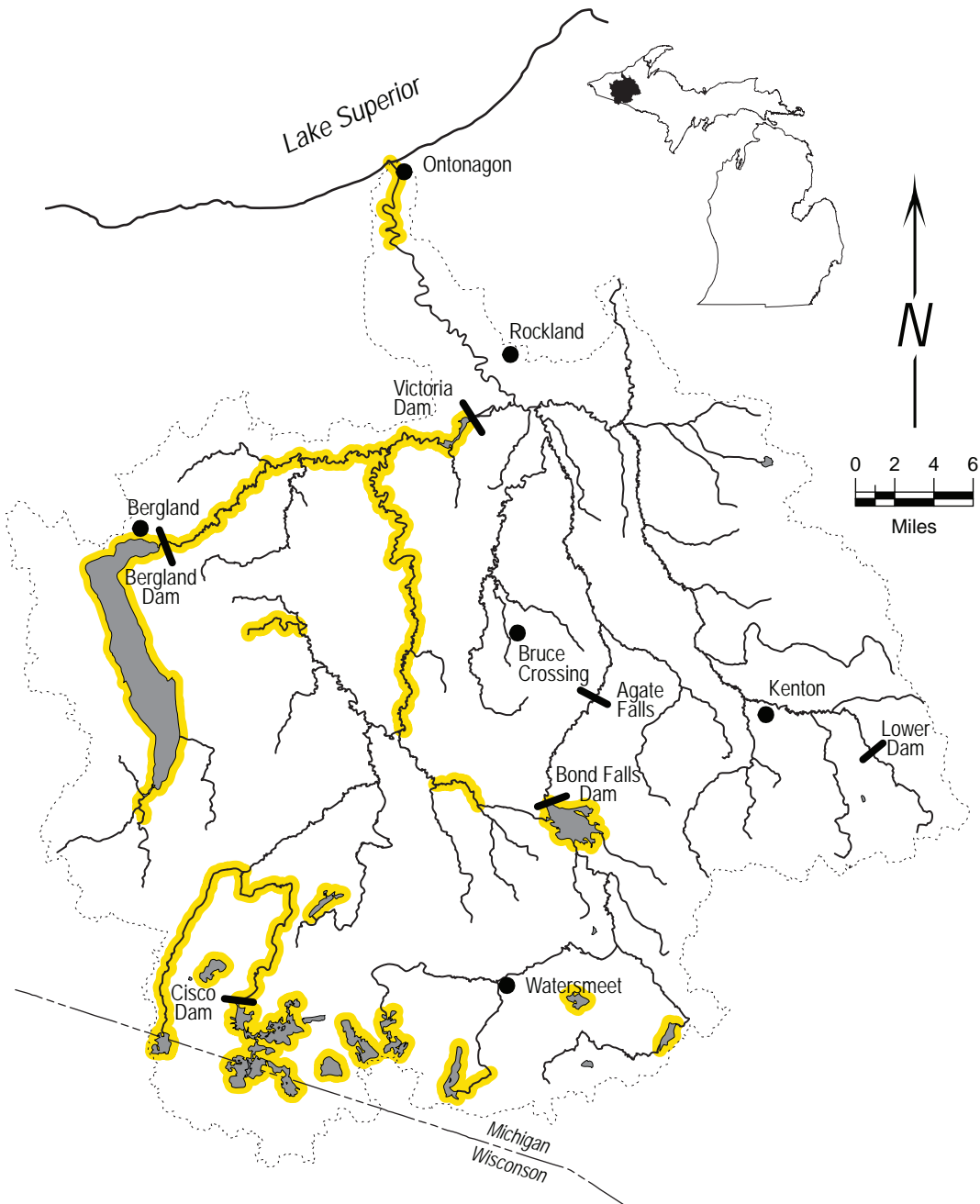
- moderately deep water in Great Lakes;
- larger rivers and swift streams also in turbid water



Rock bass *Ambloplites rupestris*

Habitat:

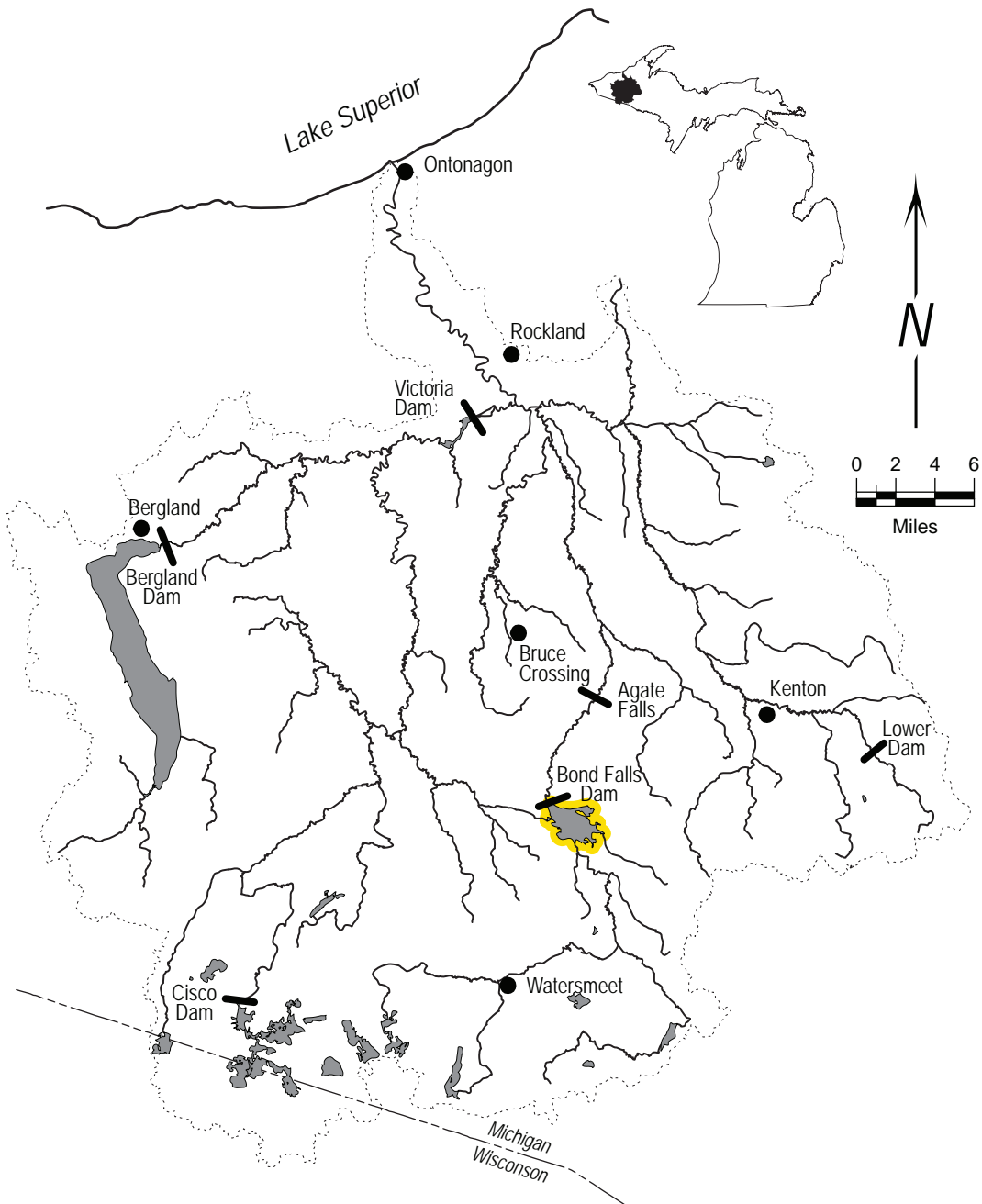
- feeding - clear, cool streams, rivers, and lakes
- rocky to sand substrate
- woody or vegetative cover
- spawning - sand or gravel nests
- shallow water
- winter refuge - deep water



Green sunfish *Lepomis cyanellus*

Habitat:

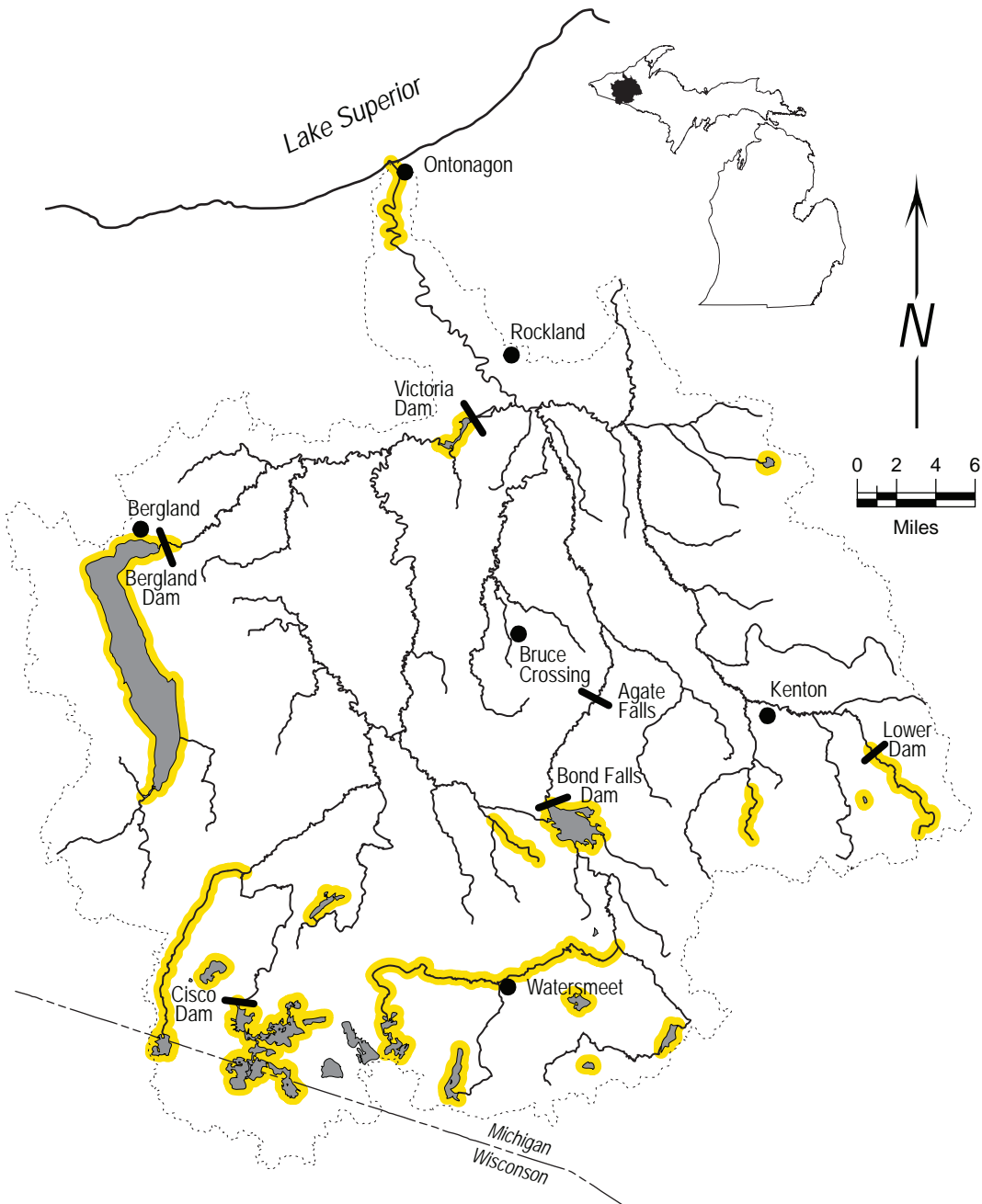
- feeding - impoundments and lakes, and low-current streams and rivers
- no substrate preference
- spawning - nests in shallow areas sheltered by rocks, logs, or aquatic vegetation



Pumpkinseed *Lepomis gibbosus*

Habitat:

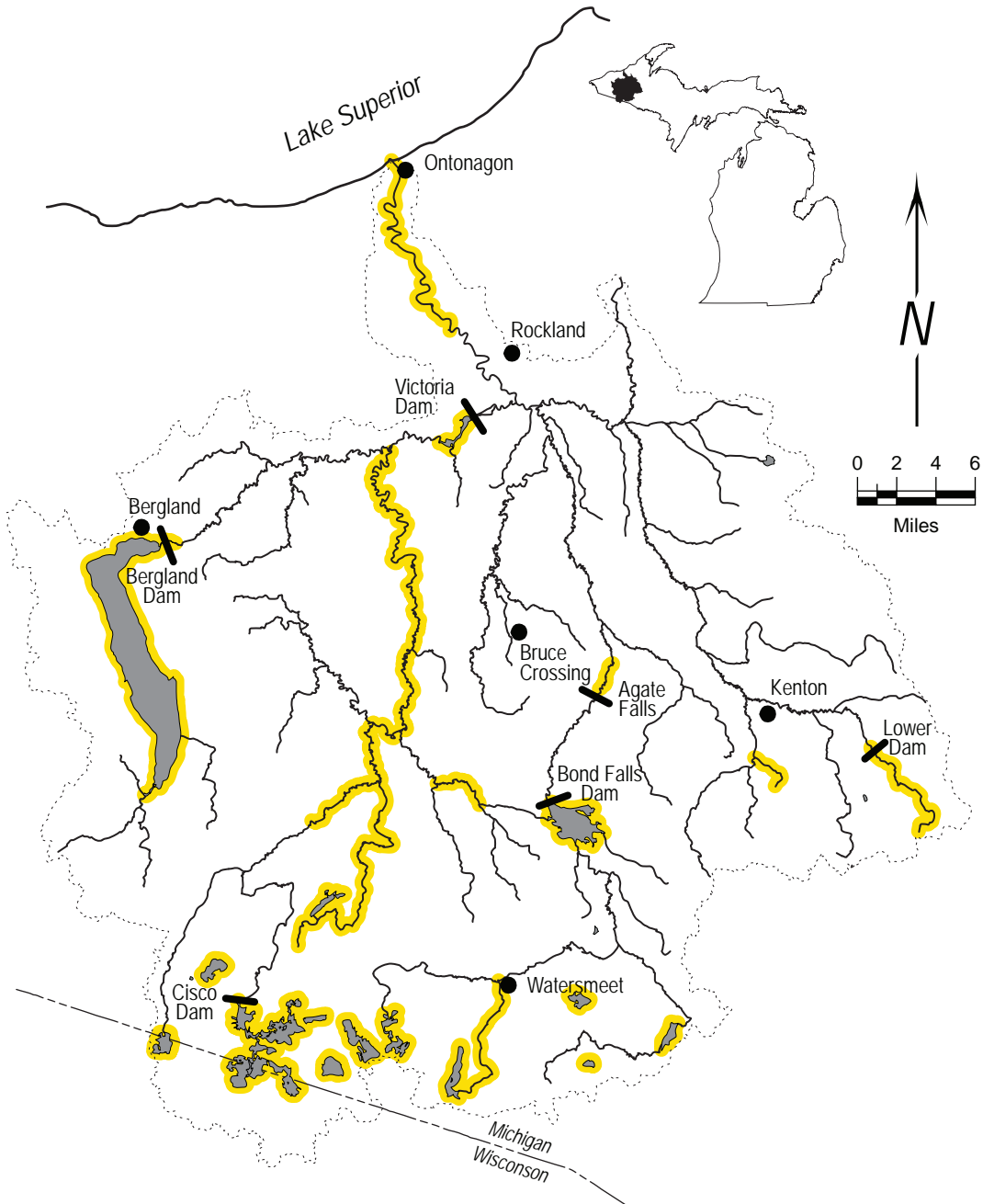
- feeding - non-flowing clear water in streams and rivers; also lakes and impoundments
- muck or sand partly covered with organic debris substrate
- dense beds of submerged aquatic vegetation
- spawning - nest in sand, gravel, or rock substrate
- in shallow water near submerged vegetation



Bluegill *Lepomis macrochirus*

Habitat:

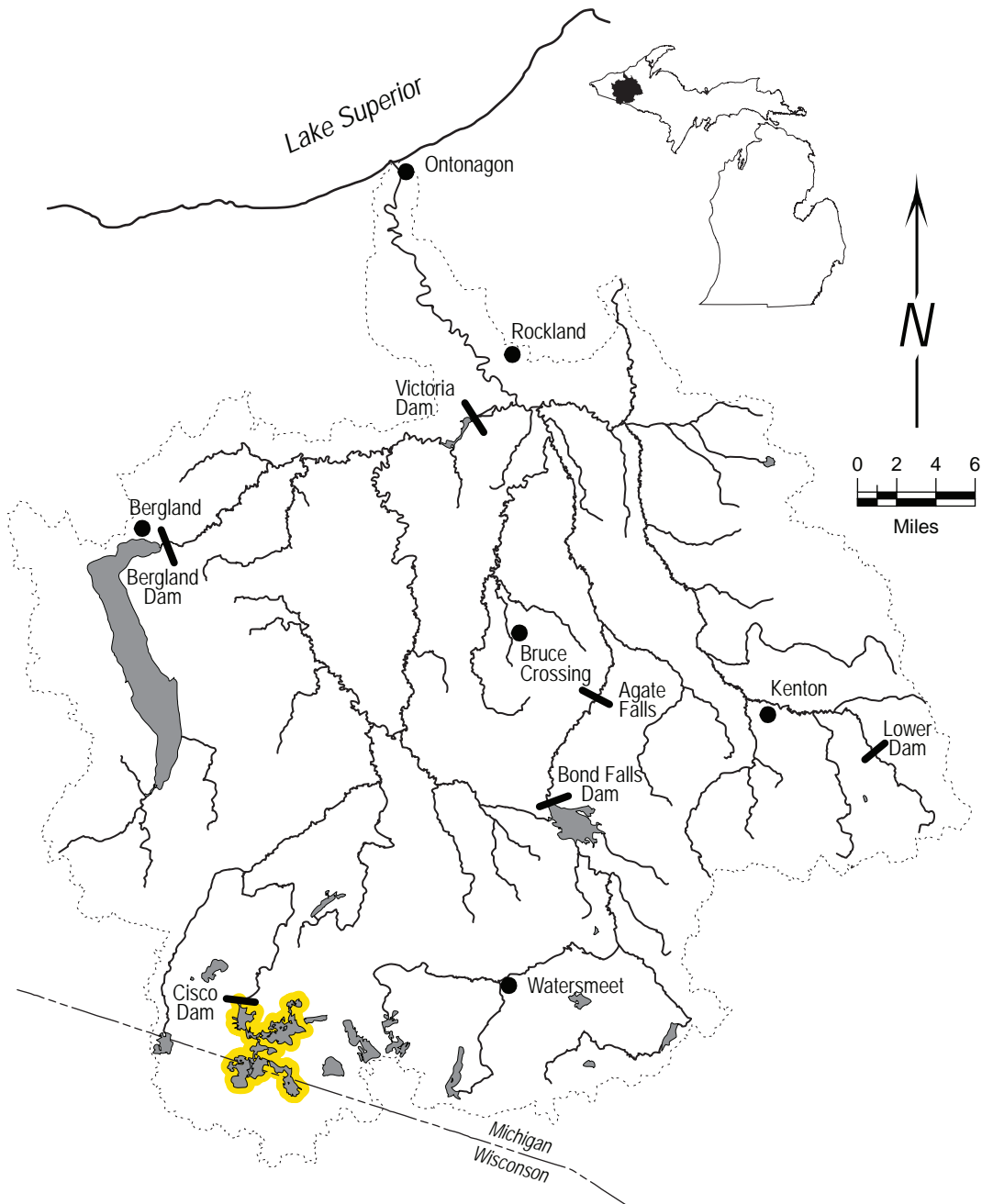
- feeding - non-flowing clear streams and rivers; also lakes and impoundments
- sand, gravel, or muck containing organic debris substrate
- scattered beds of aquatic vegetation
- cannot tolerate low oxygen or continuous high turbidity and siltation
- spawning - nests in firm substrate of gravel, sand, or mud
- winter refuge - deep water



Northern longear sunfish *Lepomis peltastes*

Habitat:

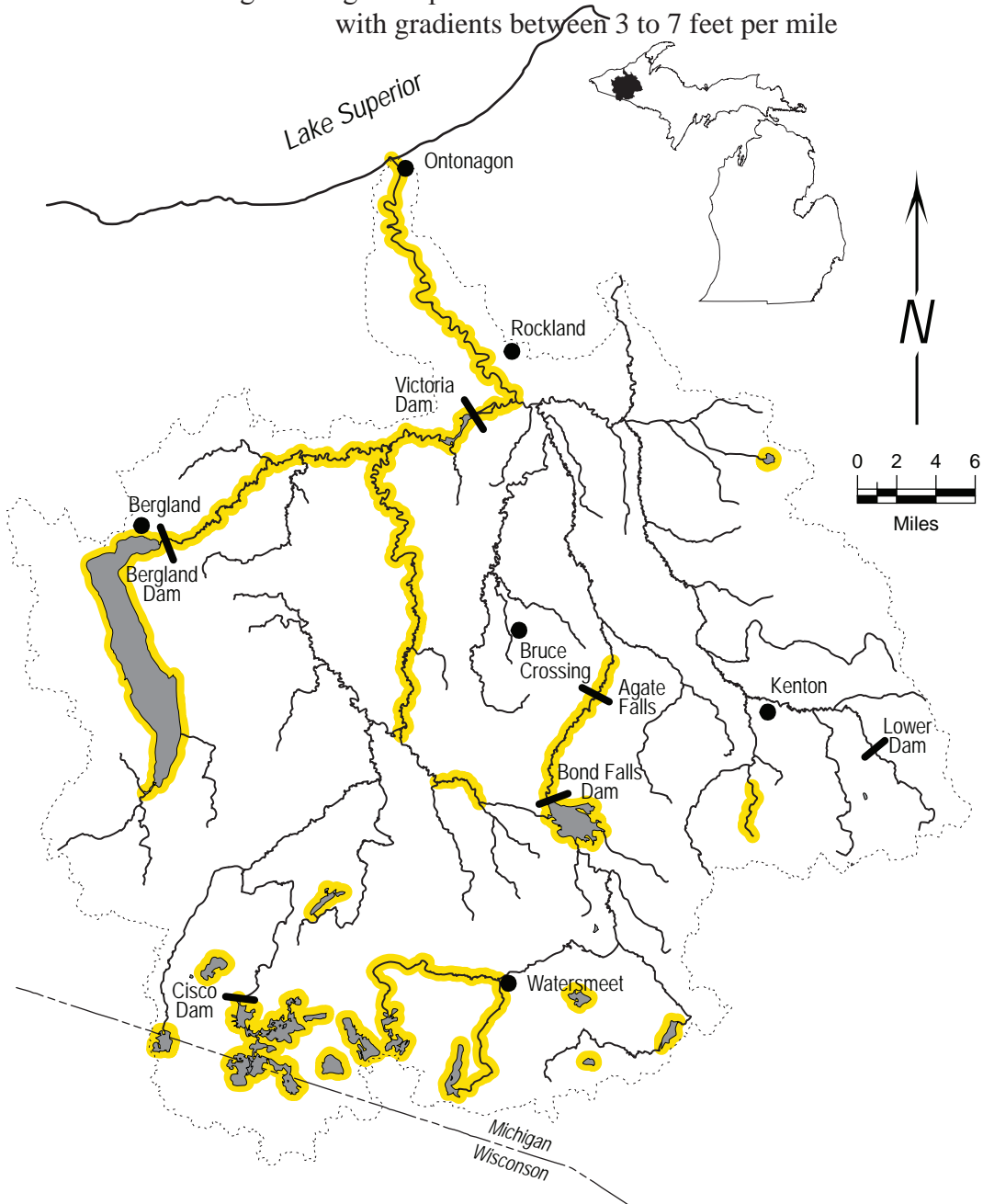
- feeding - clear moderate-sized shallow streams with moderate vegetation
- rocky substrates
- little to no current
- spawning - nests in gravel, sand, or hard rock substrate



Smallmouth bass *Micropterus dolomieu*

Habitat:

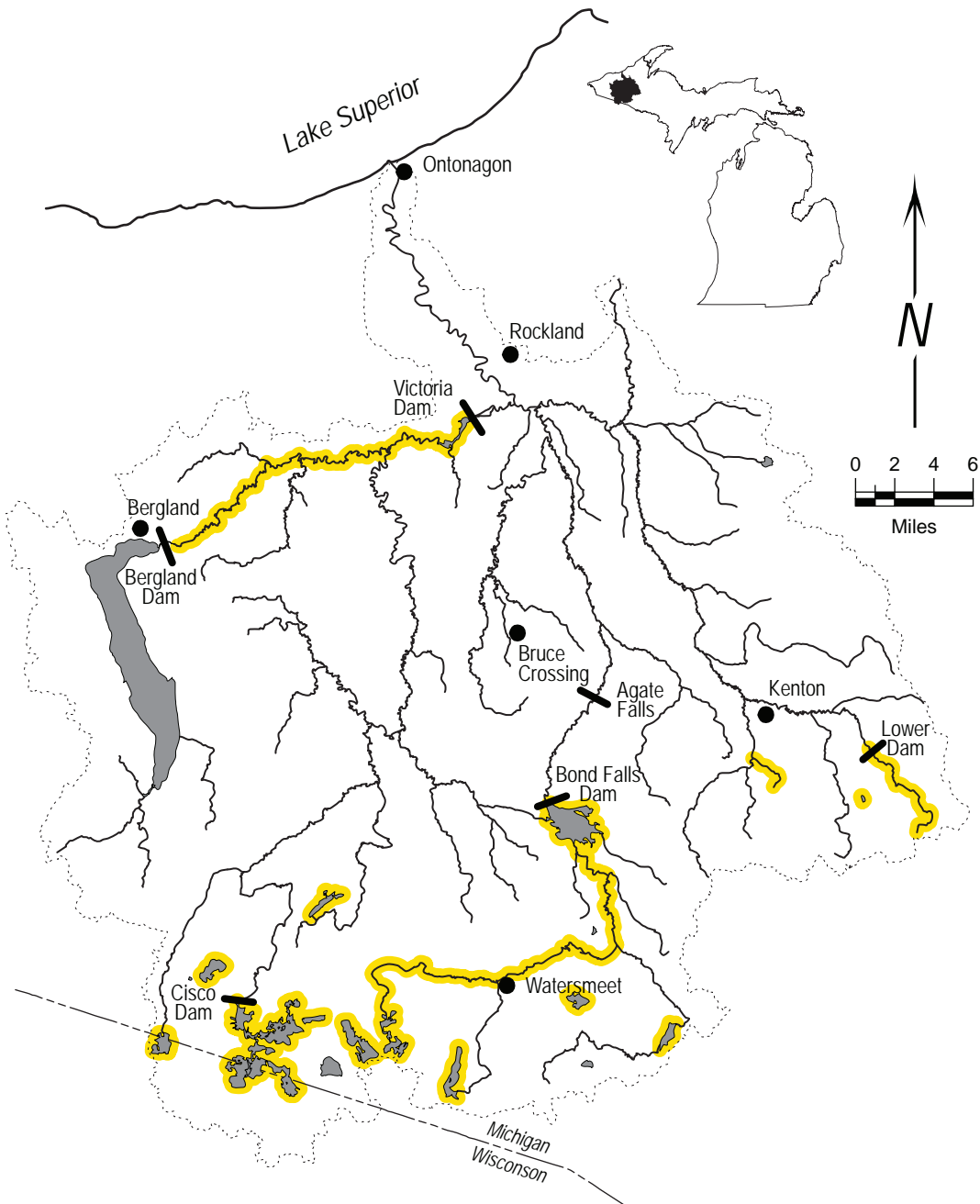
- feeding - clear, cool, deep lakes and rivers
- streams where 40% consists of riffles over clean gravel, boulder, or bedrock substrate
- in pools with a current and >4 feet of depth
- gradients between 4 and 25 feet per mile
- spawning - nest in sandy, gravel, or rocky substrate
- gradients 7 to 25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

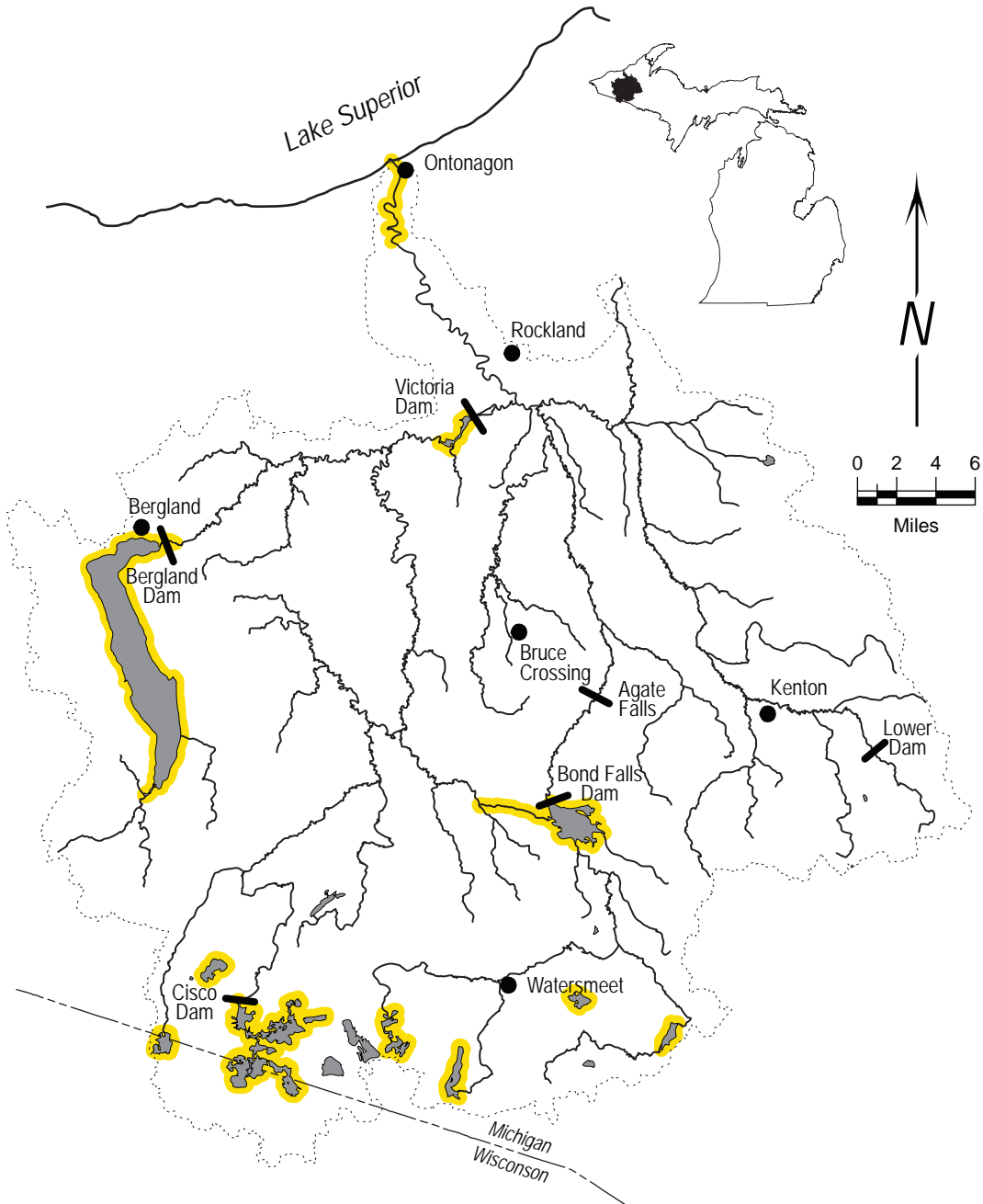
- feeding - non-flowing clear waters - lakes, impoundments, and pools of streams
- abundant aquatic vegetation
- soft muck, organic debris, gravel, sand, and hard non-flocculent clay substrates
- spawning - nest in gravelly sand to marl and soft mud substrates
- emergent vegetation
- quiet shallow bays;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



Black crappie *Pomoxis nigromaculatus*

Habitat:

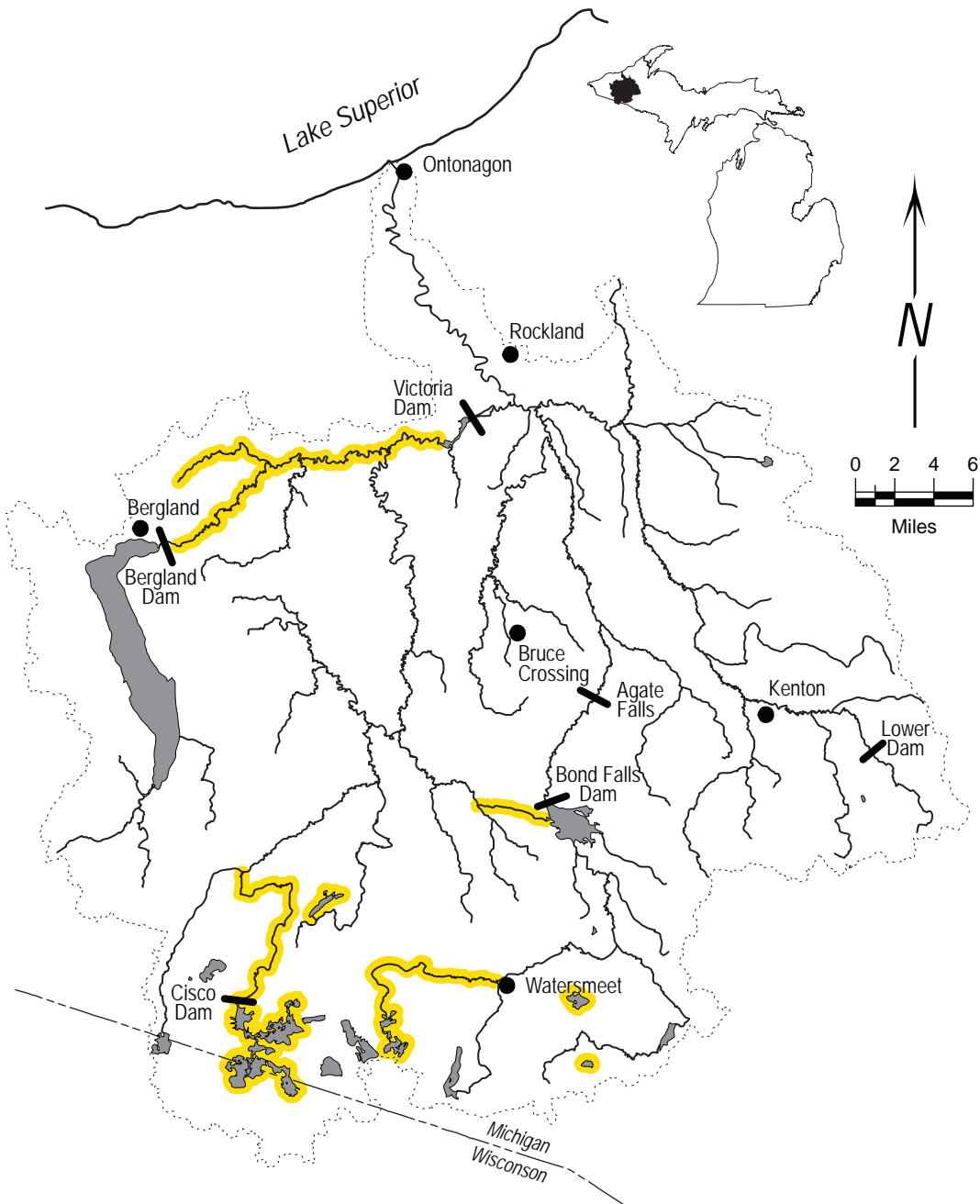
- feeding - larger clear non-silty low-gradient rivers; also in lakes and impoundments
 - clean hard sand or muck substrate
 - associated with submerged aquatic vegetation
 - does not tolerate silt or turbidity well
- spawning - nests in gravel, sand, or mud substrate
 - some vegetation must be present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



Iowa darter *Etheostoma exile*

Habitat:

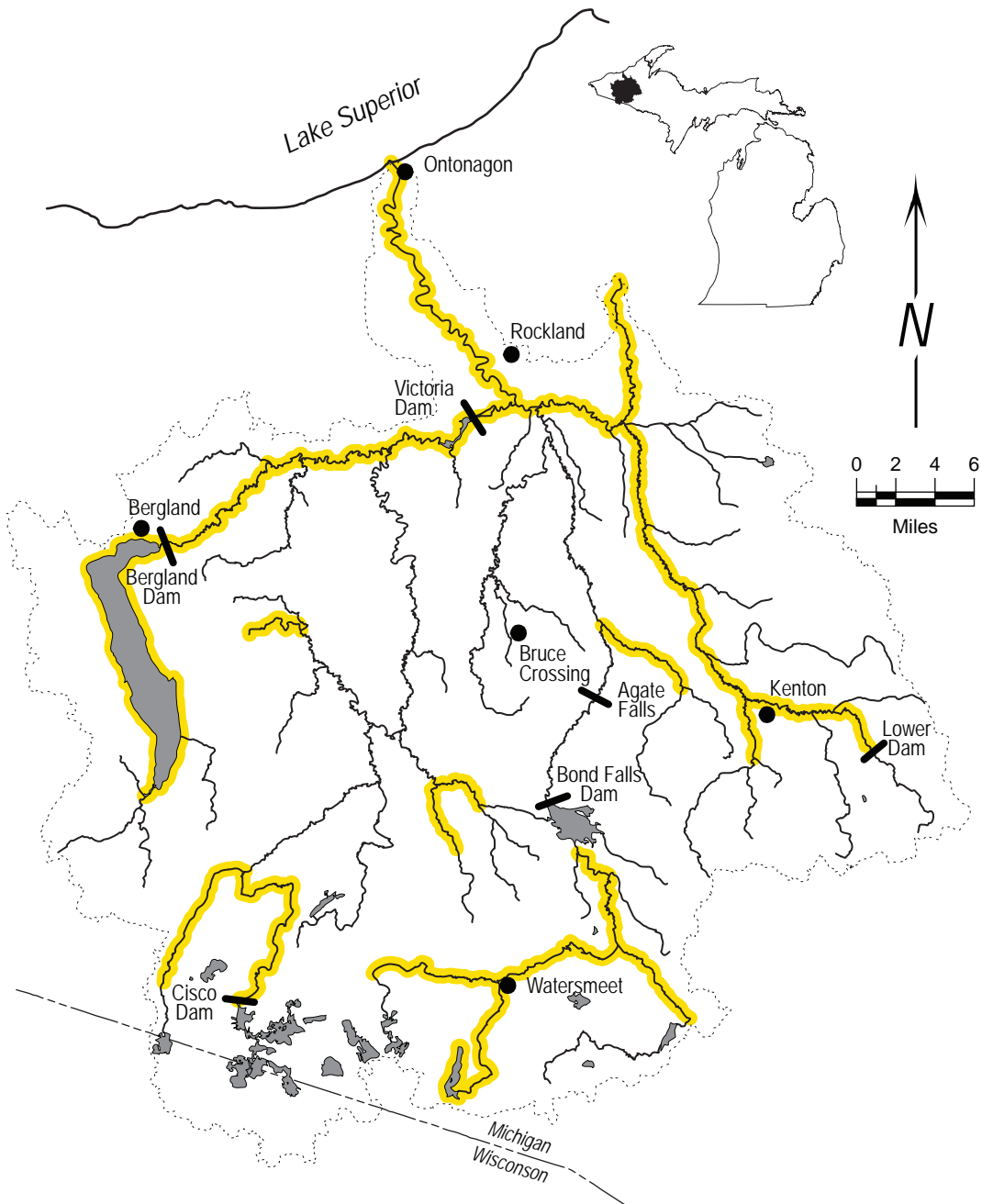
- feeding - clear, slow moving streams and lakes
- sandy to muddy substrates
- intolerant of turbid water
- lives in rooted aquatic vegetation
- spawning - in pond-like extensions of streams on organic matter or roots
- in shallows



Johnny darter *Etheostoma nigrum*

Habitat:

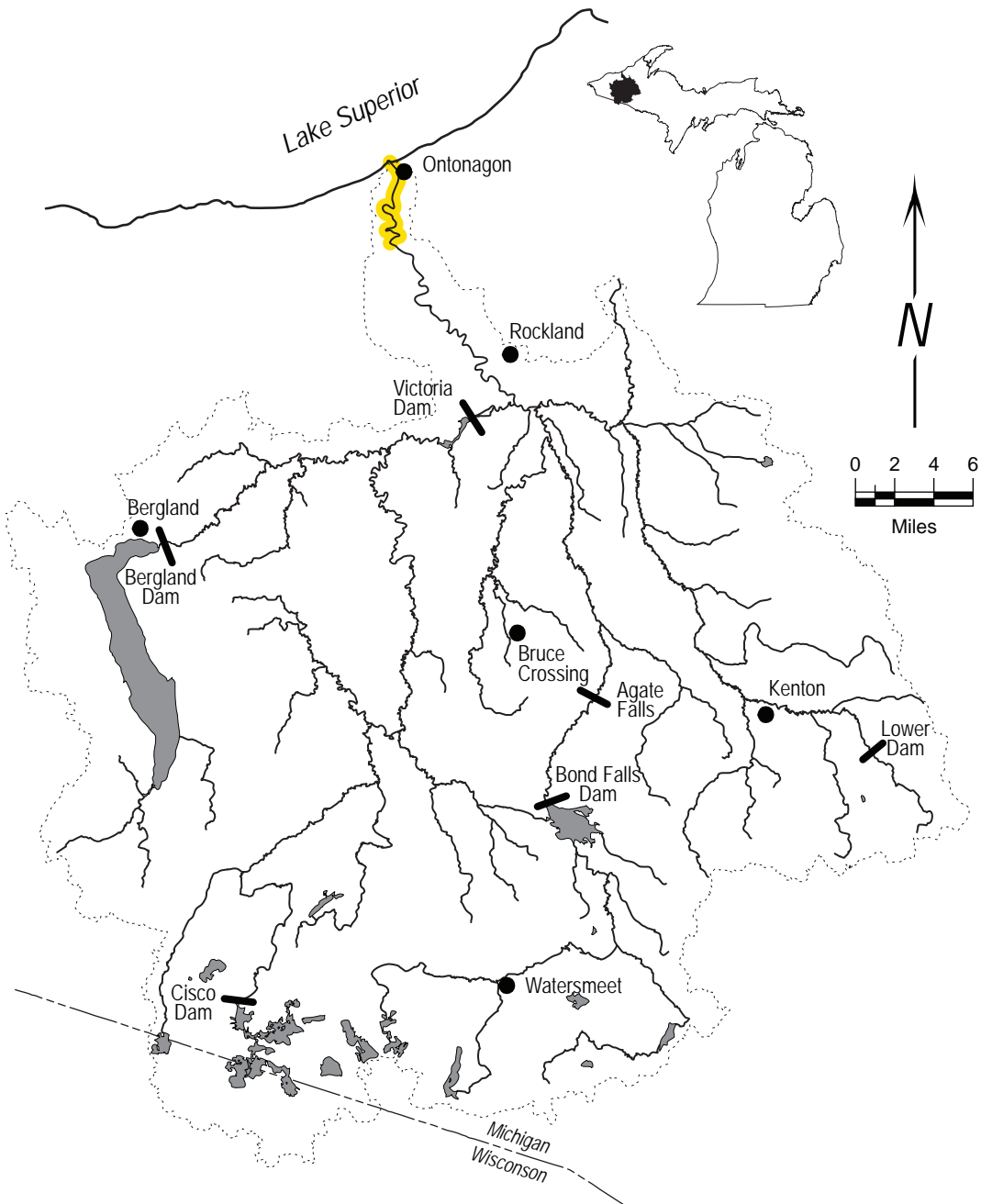
- feeding - sand and silt substrate
- little to moderate current
- shallow areas of streams, rivers, lakes, and impoundments
- tolerant of many organic and inorganic pollutants and turbidity
- spawning - underneath rocks
- in stream pools or protected shallows of lakes



Ruffe *Gymnocephalus cernuus*

Habitat:

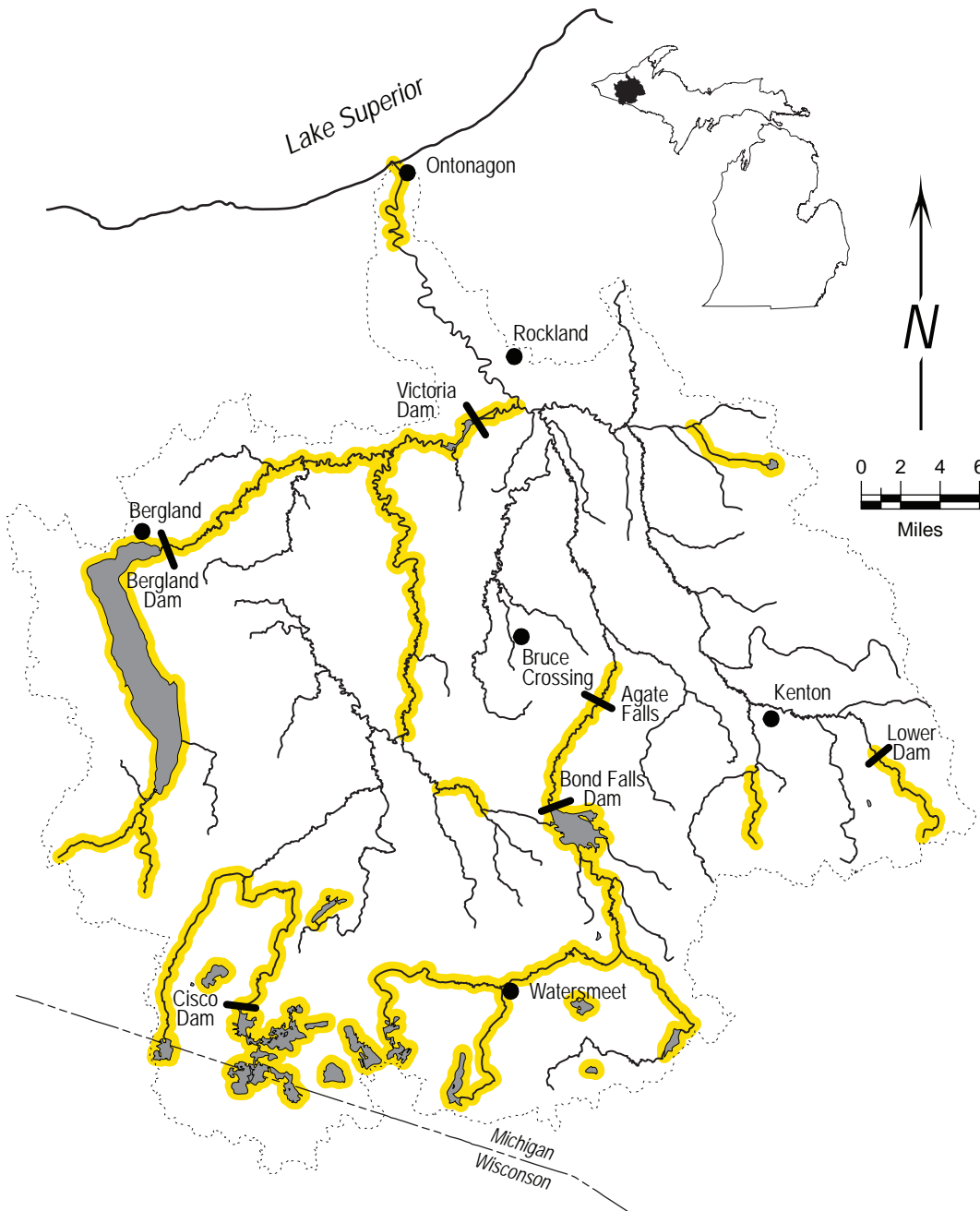
- feeding - shallow waters at night
- soft bottoms and no vegetation
- spawning - warm shallows of turbid lakes with soft bottoms
- little or no vegetation present
- slow-moving water
- winter refuge - deeper water



Yellow perch *Perca flavescens*

Habitat:

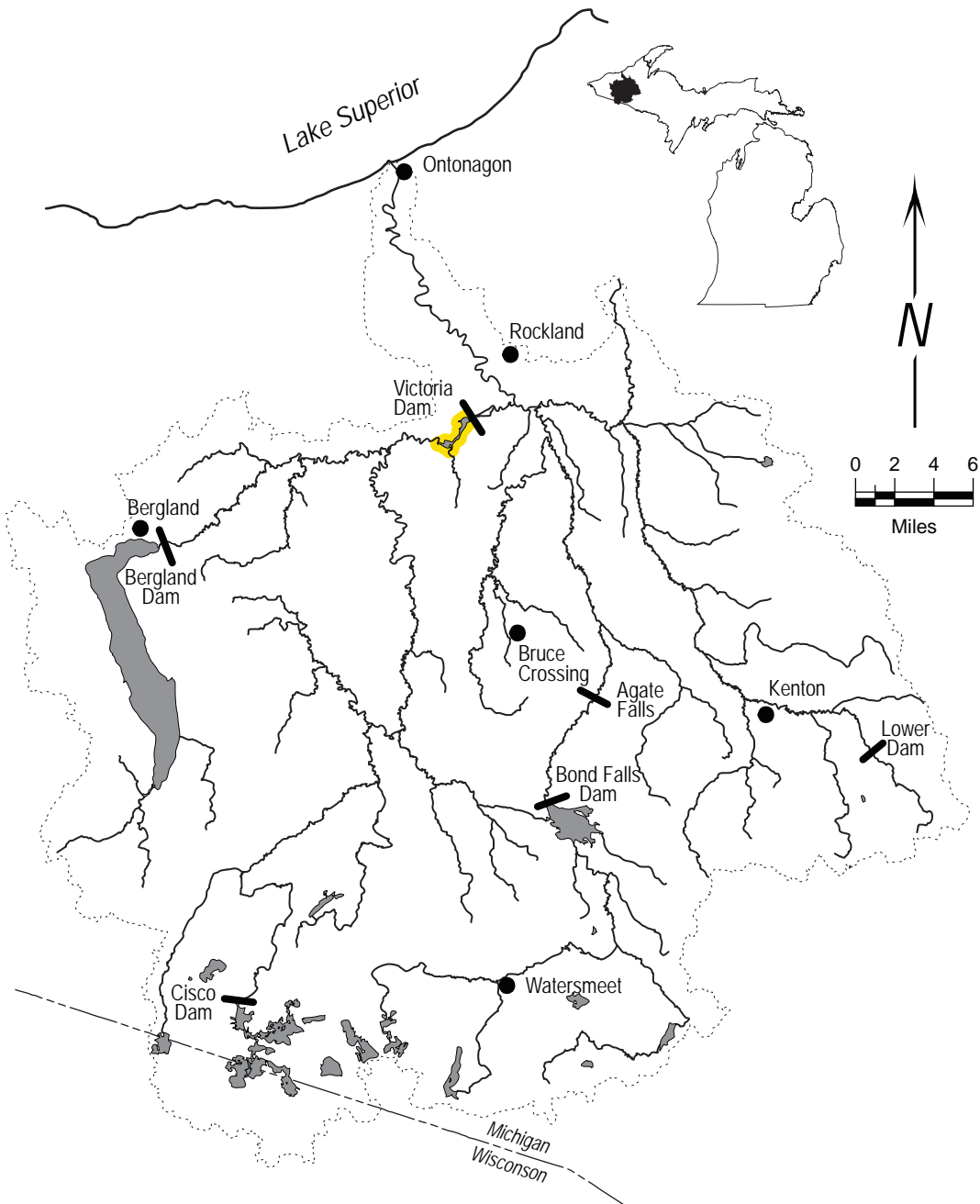
- feeding - clear lakes and impoundments; also Lake Superior
- low gradient rivers
- abundance of rooted aquatics
- muck, organic debris, sand, or gravel substrate
- does not tolerate turbidity and siltation
- spawning - shallows of lakes, tributaries of streams
- occurs over rooted vegetation, submerged 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 Superior
- sand, gravel, or rock substrate
- avoids turbidity and silt
- spawning - riffles or sandy in-shore shallows



Walleye *Sander vitreus*

Habitat:

- feeding - larger, deeper streams and in large, shallow, turbid lakes and impoundments; also Lake Superior
- 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

