



# STATE OF MICHIGAN DEPARTMENT OF NATURAL RESOURCES

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FR20 Appendix

June 2017

## Grand River Assessment Appendix

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and  
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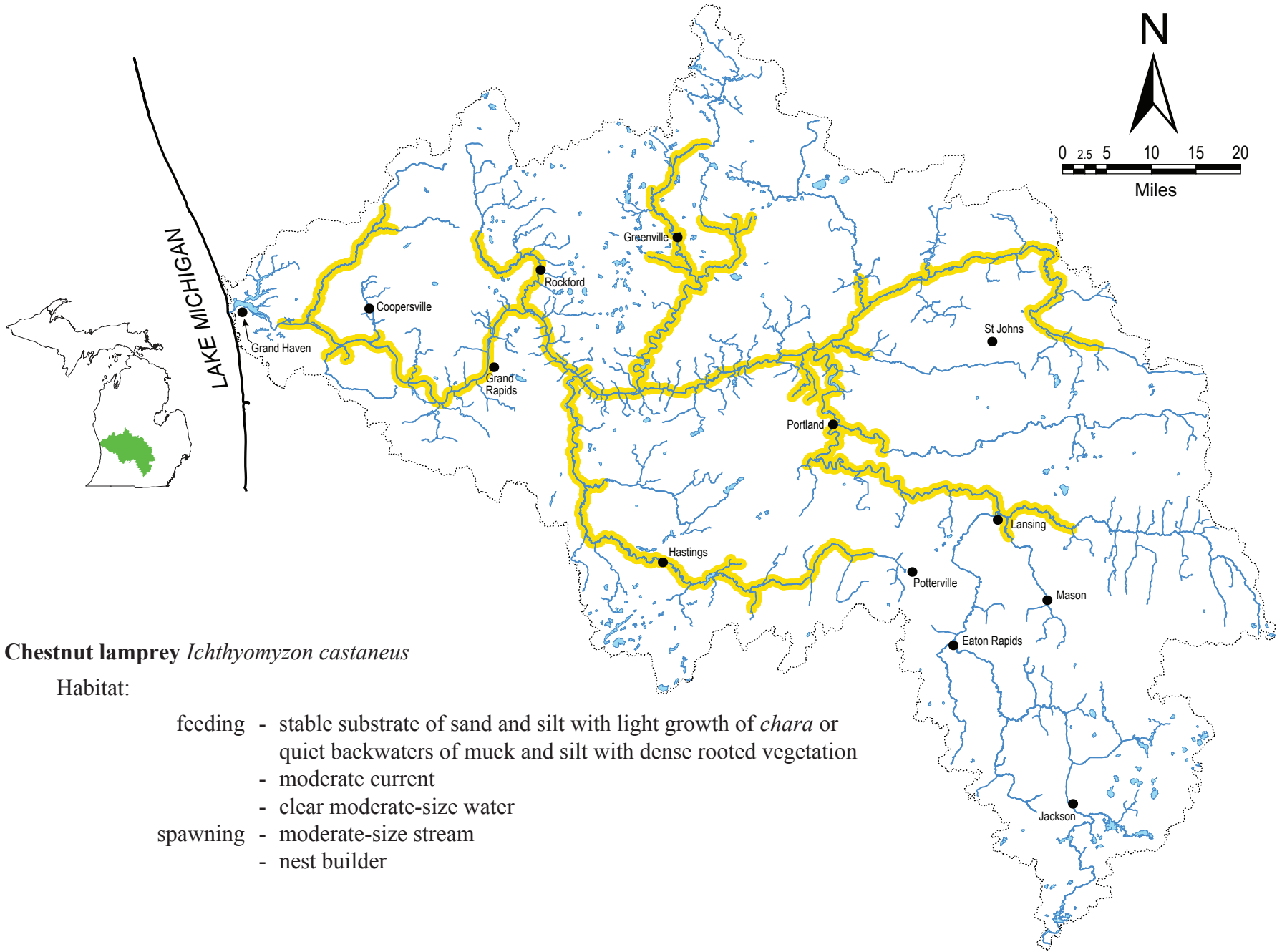
Appendix A

This appendix contains maps of known past and present fish distributions within the Grand River watershed. The distributions of fish species were compiled from records located at the University of Michigan's Museums Fisheries Library, Michigan Department of Natural Resources' Institute for Fisheries Research and Southern Lake Michigan Management Unit offices, and reports from the Michigan Department of Environmental Quality. Scientific names and phylogenetic order follow Names of Michigan Fishes (Latta and Hay-Chmielewski 2002). Species that are listed under Michigan's Endangered Species Act (Part 365, Endangered Species Protection, of the Natural Resource and Environmental Protection Act, Act 451 of the Public Acts of 1994), their status follows their scientific name. Categories are threatened, endangered, extirpated or extinct.

Habitat descriptions were compiled from The Fishes of Ohio (Trautman 1982), Freshwater Fishes of Canada (Scott and Crossman 1973), Fishes of Wisconsin (Becker 1983), Fishes of Missouri (Pflieger 1975), and revised Fishes of the Great Lakes Region (Smith 2004).

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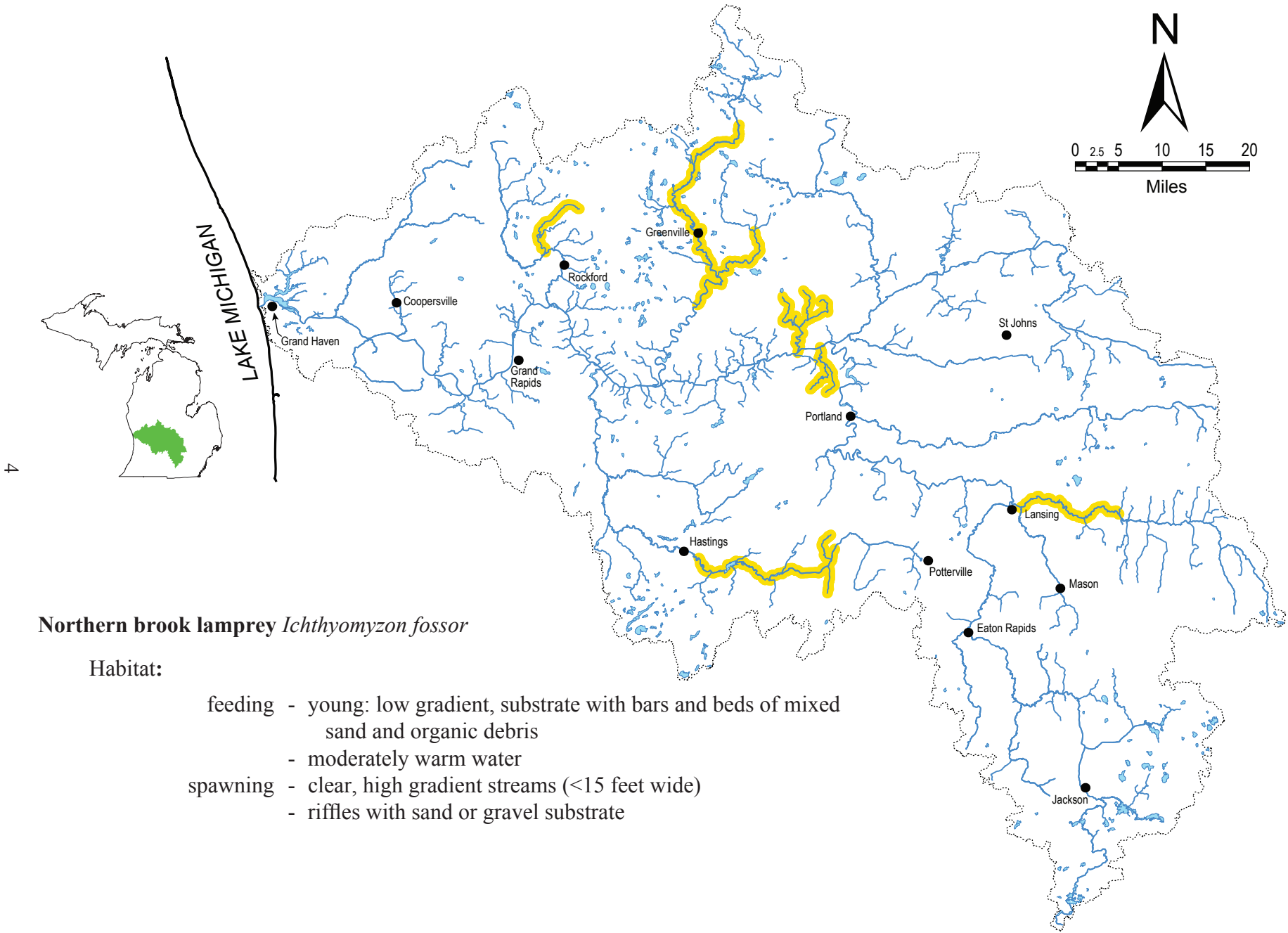
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**Chestnut lamprey *Ichthyomyzon castaneus***

Habitat:

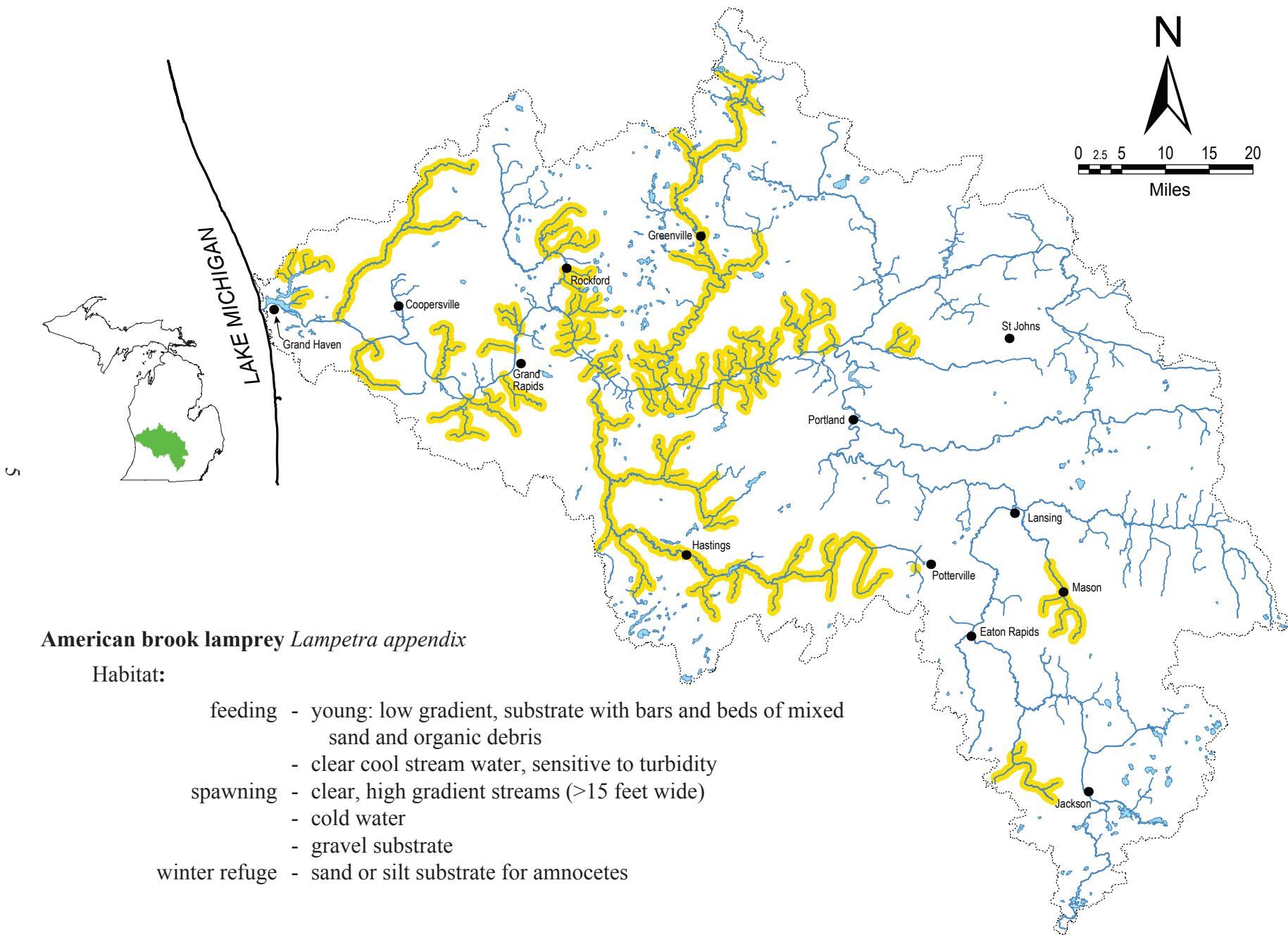
- feeding - stable substrate of sand and silt with light growth of *chara* or quiet backwaters of muck and silt with dense rooted vegetation
- moderate current
- clear moderate-size water
- spawning - moderate-size stream
- nest builder



**Northern brook lamprey *Ichthyomyzon fossor***

**Habitat:**

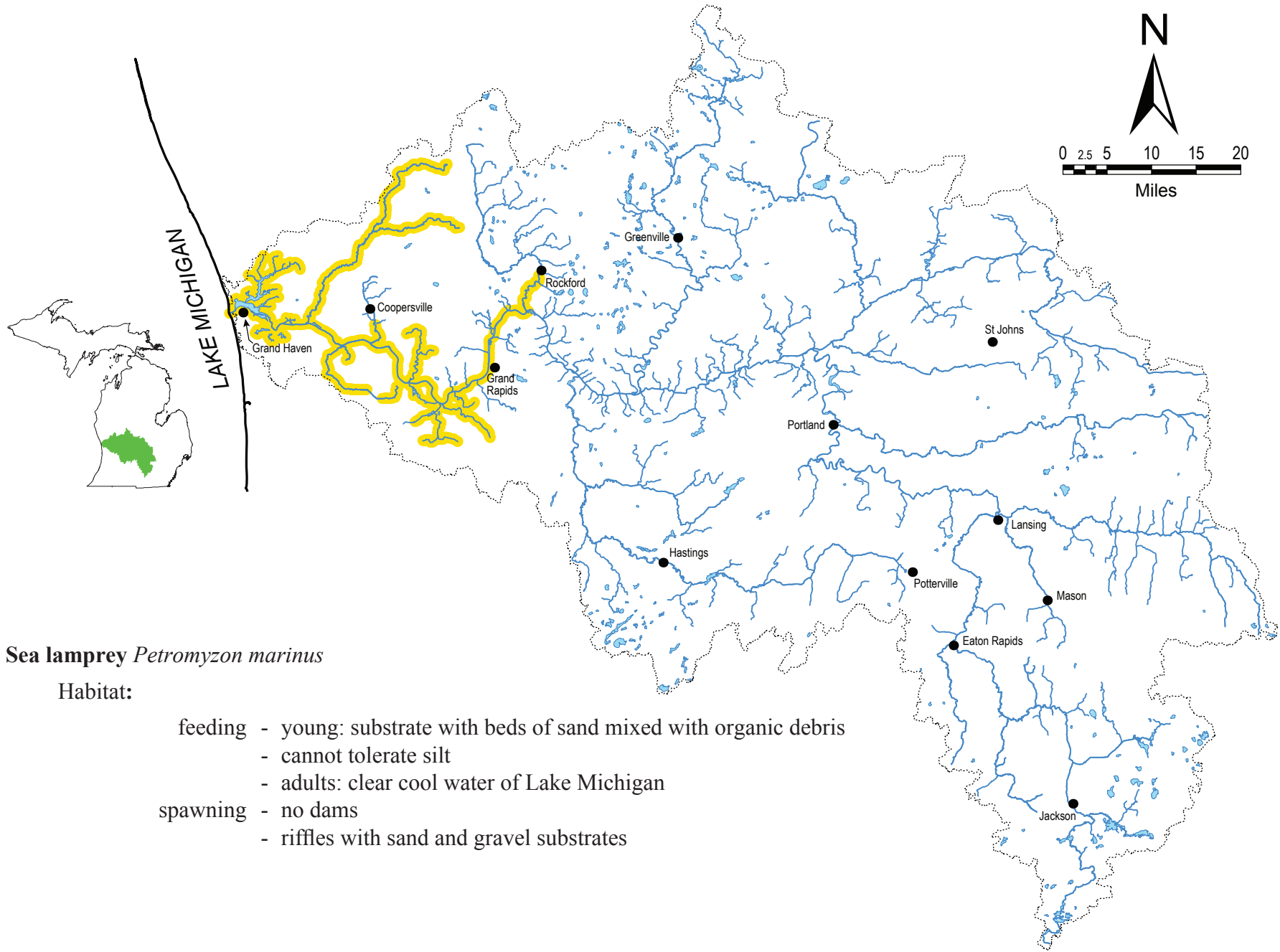
- feeding - young: low gradient, substrate with bars and beds of mixed sand and organic debris
- moderately warm water
- spawning - clear, high gradient streams (<15 feet wide)
- riffles with sand or gravel substrate



**American brook lamprey *Lampetra appendix***

**Habitat:**

- feeding - young: low gradient, substrate with bars and beds of mixed sand and organic debris
- clear cool stream water, sensitive to turbidity
- spawning - clear, high gradient streams (>15 feet wide)
- cold water
- gravel substrate
- winter refuge - sand or silt substrate for ammocetes



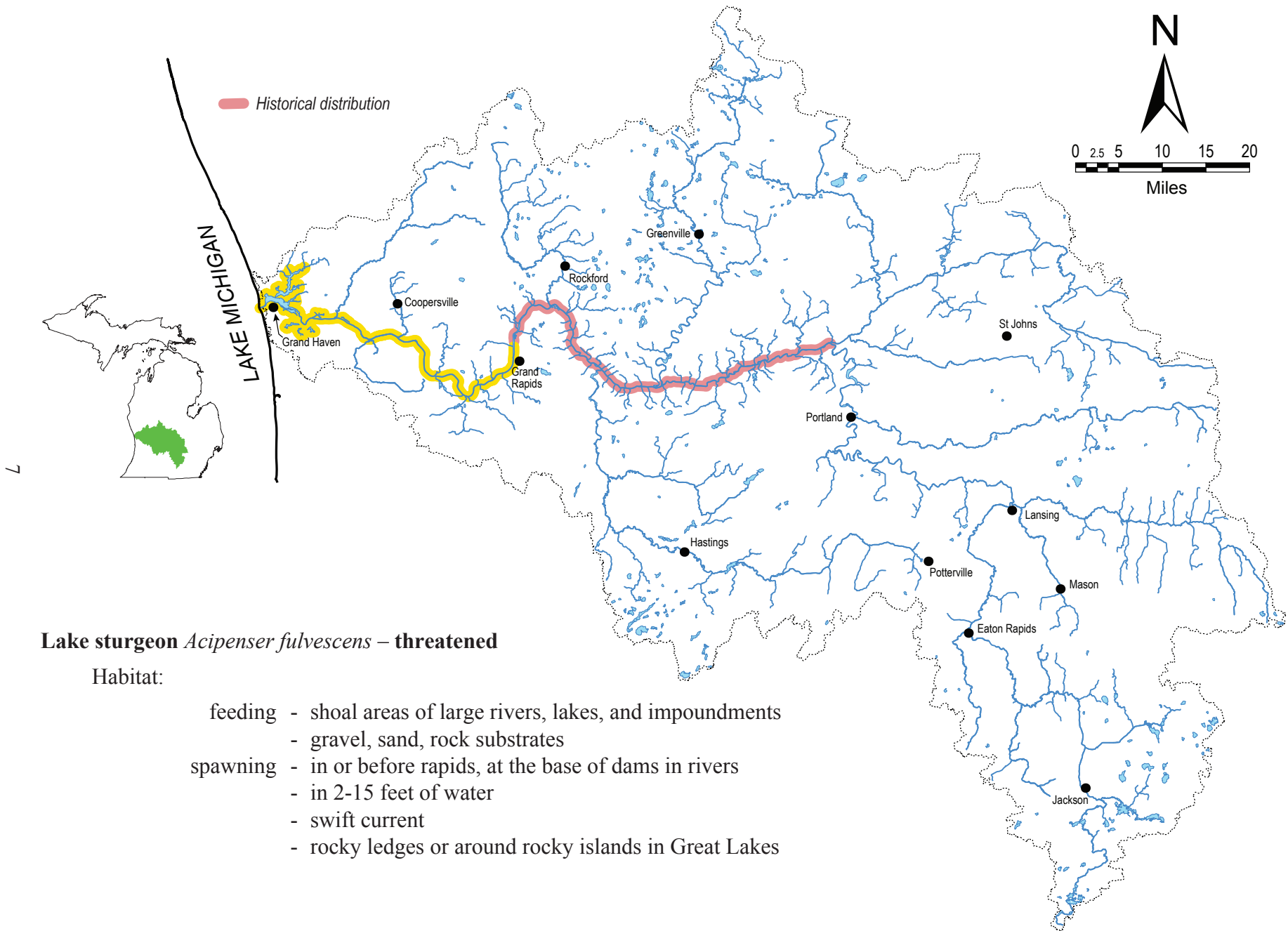
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**Sea lamprey *Petromyzon marinus***

**Habitat:**

- feeding - young: substrate with beds of sand mixed with organic debris
- cannot tolerate silt
- adults: clear cool water of Lake Michigan
- spawning - no dams
- riffles with sand and gravel substrates

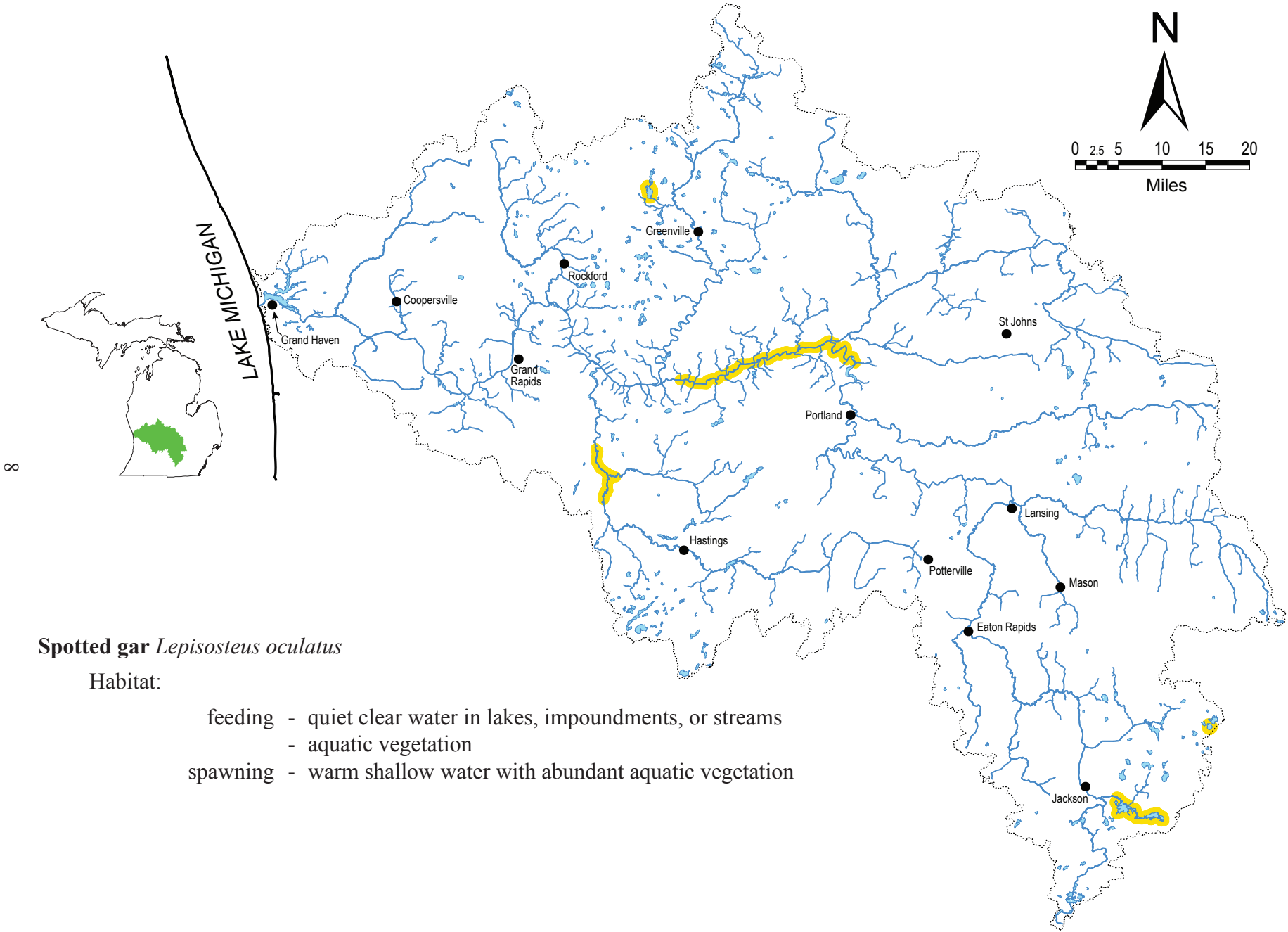




**Lake sturgeon *Acipenser fulvescens* – threatened**

**Habitat:**

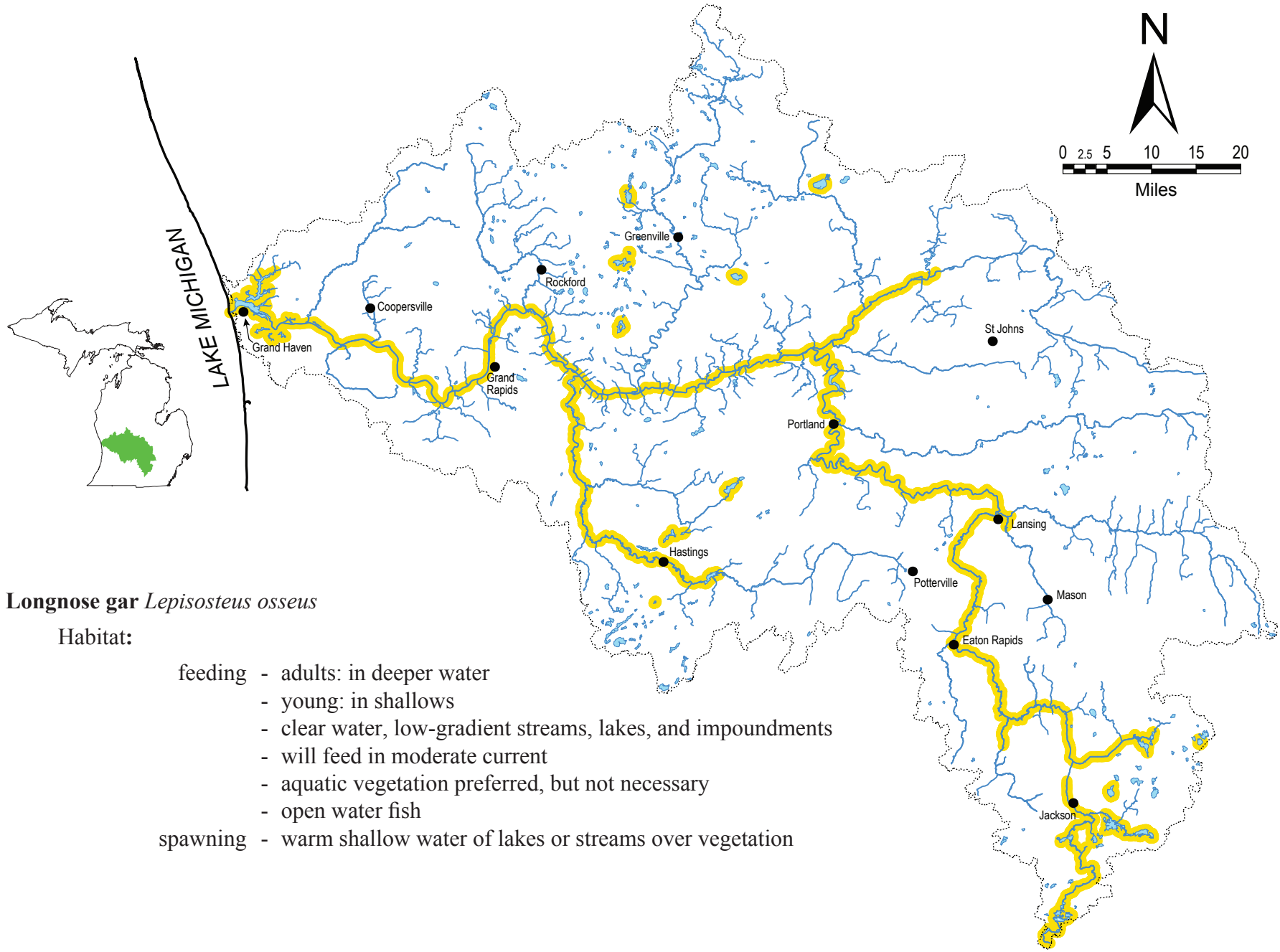
- feeding - shoal areas of large rivers, lakes, and impoundments
- gravel, sand, rock substrates
- spawning - in or before rapids, at the base of dams in rivers
- in 2-15 feet of water
- swift current
- rocky ledges or around rocky islands in Great Lakes



**Spotted gar** *Lepisosteus oculatus*

Habitat:

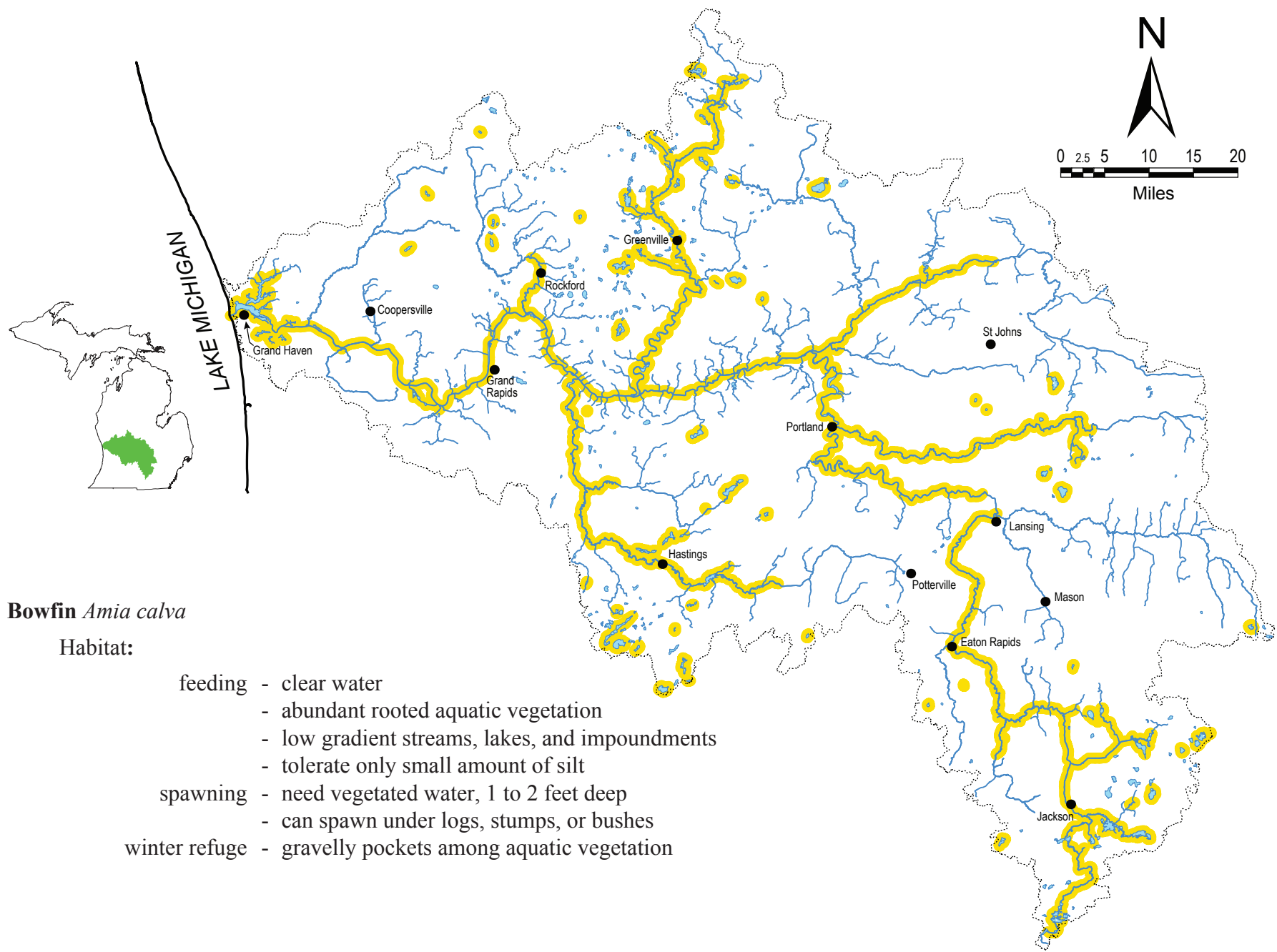
- feeding - quiet clear water in lakes, impoundments, or streams
- aquatic vegetation
- spawning - warm shallow water with abundant aquatic vegetation



**Longnose gar** *Lepisosteus osseus*

**Habitat:**

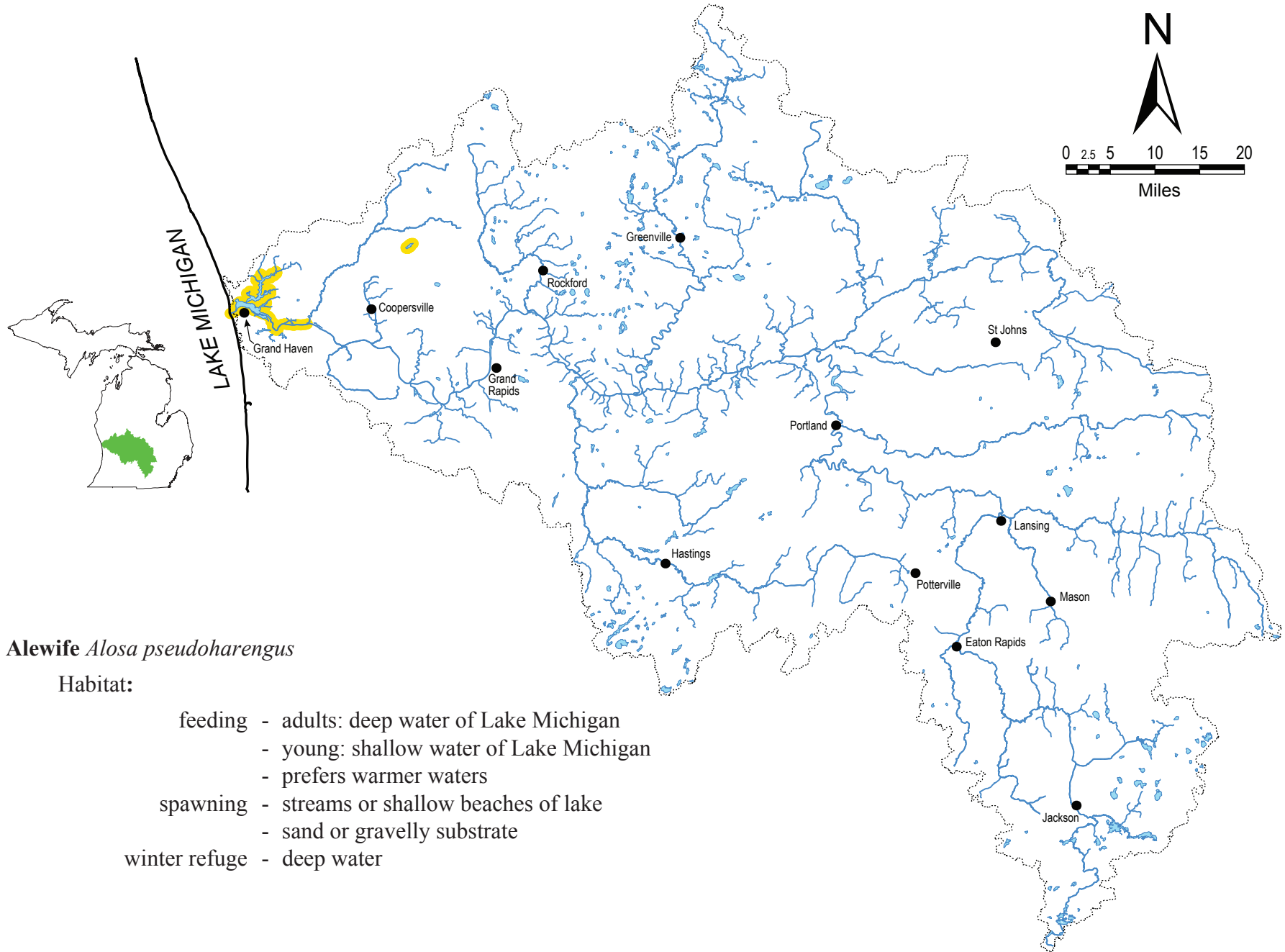
- feeding - adults: in deeper water
- young: in shallows
- clear water, low-gradient streams, lakes, and impoundments
- will feed in moderate current
- aquatic vegetation preferred, but not necessary
- open water fish
- spawning - warm shallow water of lakes or streams over vegetation



**Bowfin** *Amia calva*

Habitat:

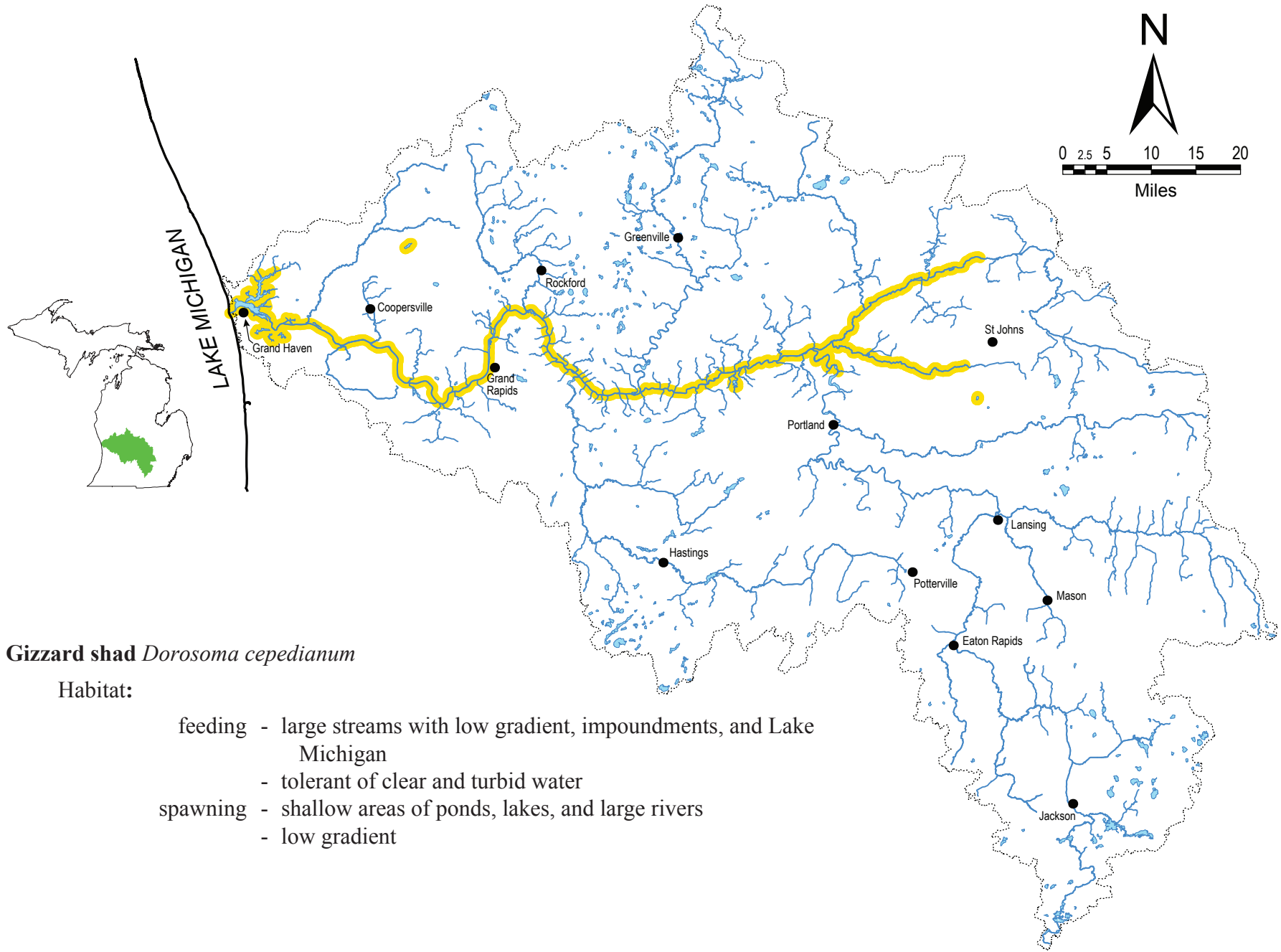
- feeding - clear water
- abundant rooted aquatic vegetation
- low gradient streams, lakes, and impoundments
- tolerate only small amount of silt
- spawning - need vegetated water, 1 to 2 feet deep
- can spawn under logs, stumps, or bushes
- winter refuge - gravelly pockets among aquatic vegetation



**Alewife *Alosa pseudoharengus***

**Habitat:**

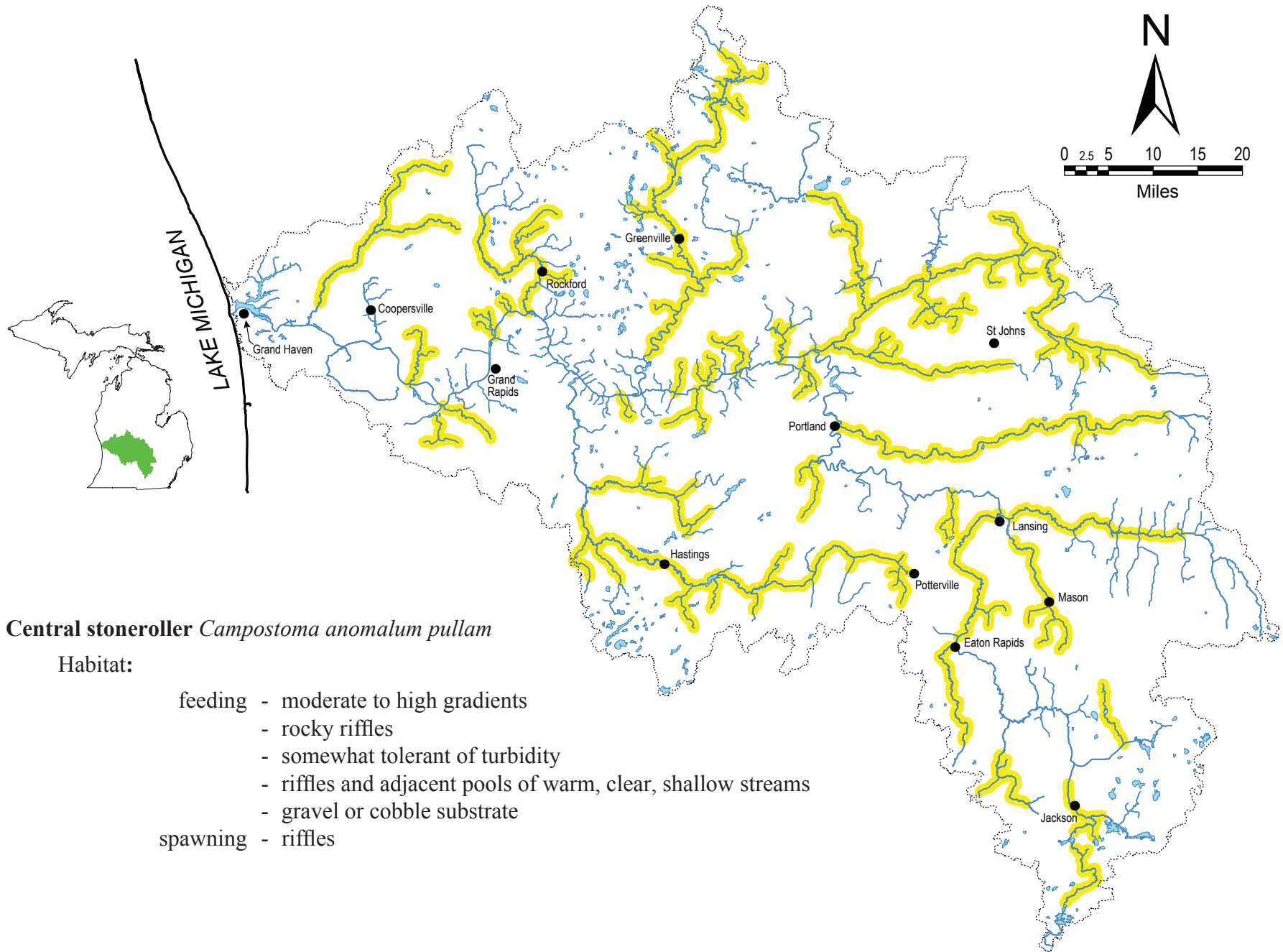
- feeding - adults: deep water of Lake Michigan
- young: shallow water of Lake Michigan
- prefers warmer waters
- spawning - streams or shallow beaches of lake
- sand or gravelly substrate
- winter refuge - deep water



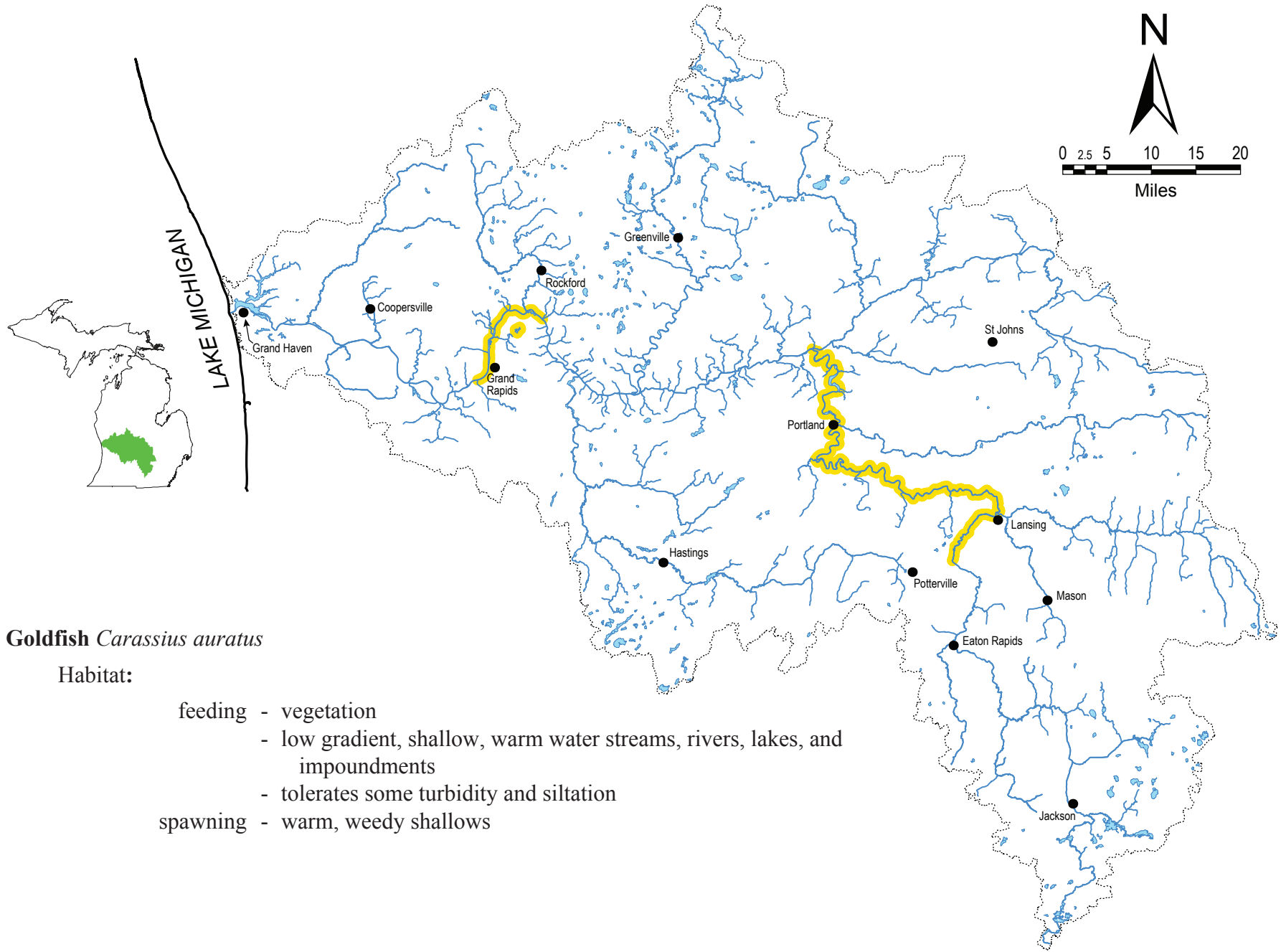
**Gizzard shad** *Dorosoma cepedianum*

Habitat:

- feeding - large streams with low gradient, impoundments, and Lake Michigan
- tolerant of clear and turbid water
- spawning - shallow areas of ponds, lakes, and large rivers
- low gradient





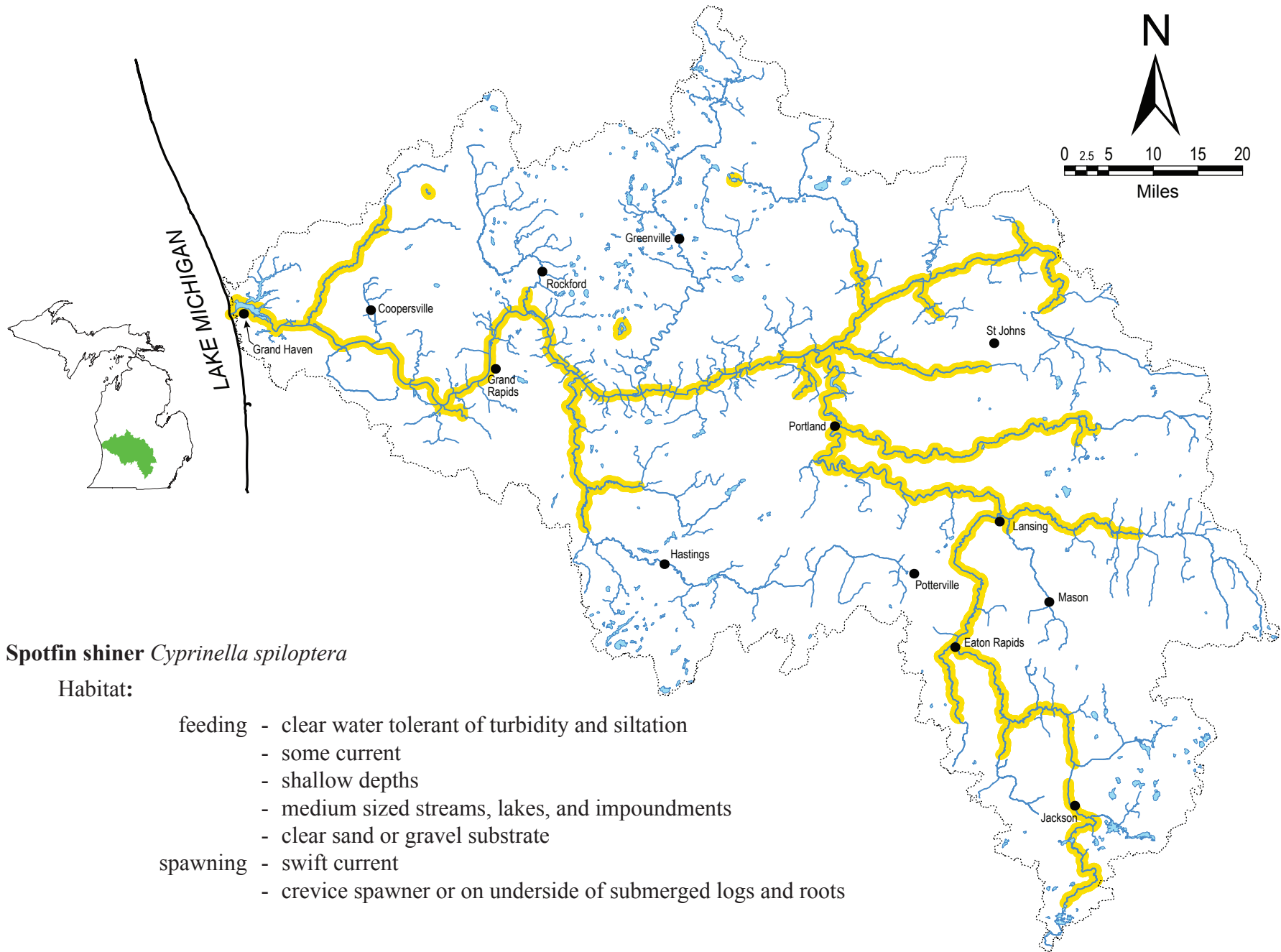


**Goldfish** *Carassius auratus*

Habitat:

- feeding - vegetation
- low gradient, shallow, warm water streams, rivers, lakes, and impoundments
- tolerates some turbidity and siltation
- spawning - warm, weedy shallows

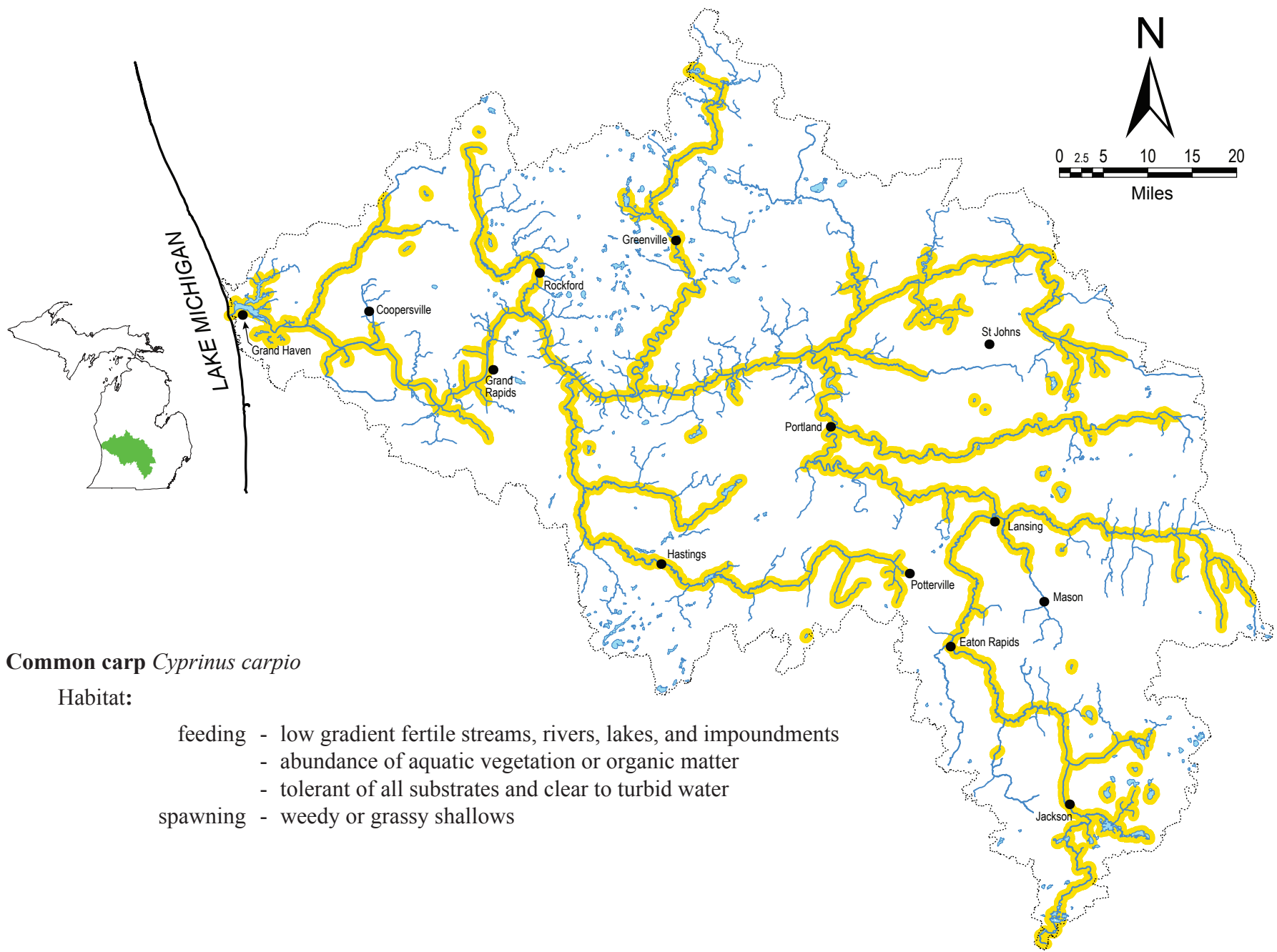




### Spotfin shiner *Cyprinella spiloptera*

#### Habitat:

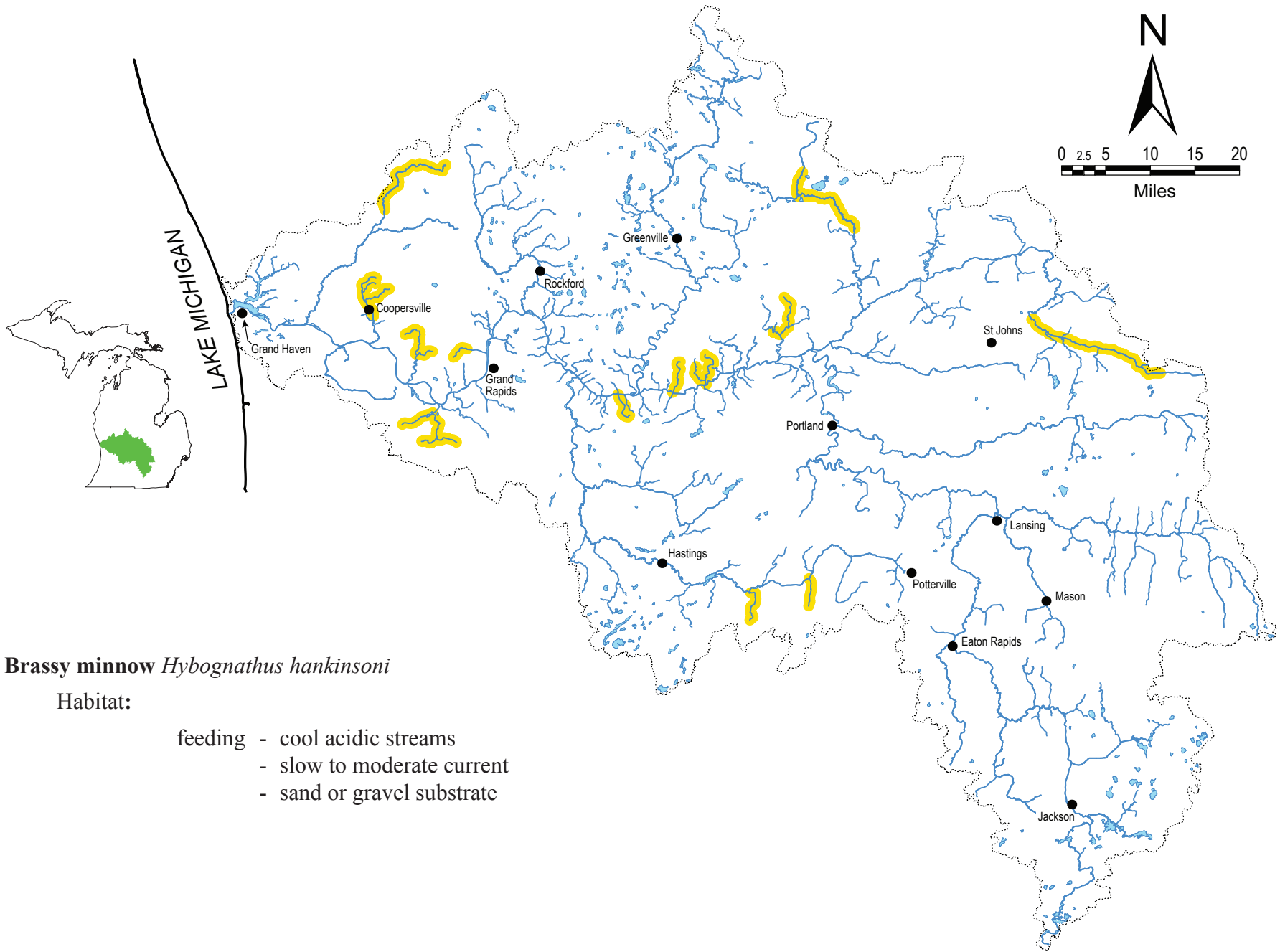
- feeding - clear water tolerant of turbidity and siltation
- some current
- shallow depths
- medium sized streams, lakes, and impoundments
- spawning - clear sand or gravel substrate
- swift current
- crevice spawner or on underside of submerged logs and roots



**Common carp** *Cyprinus carpio*

Habitat:

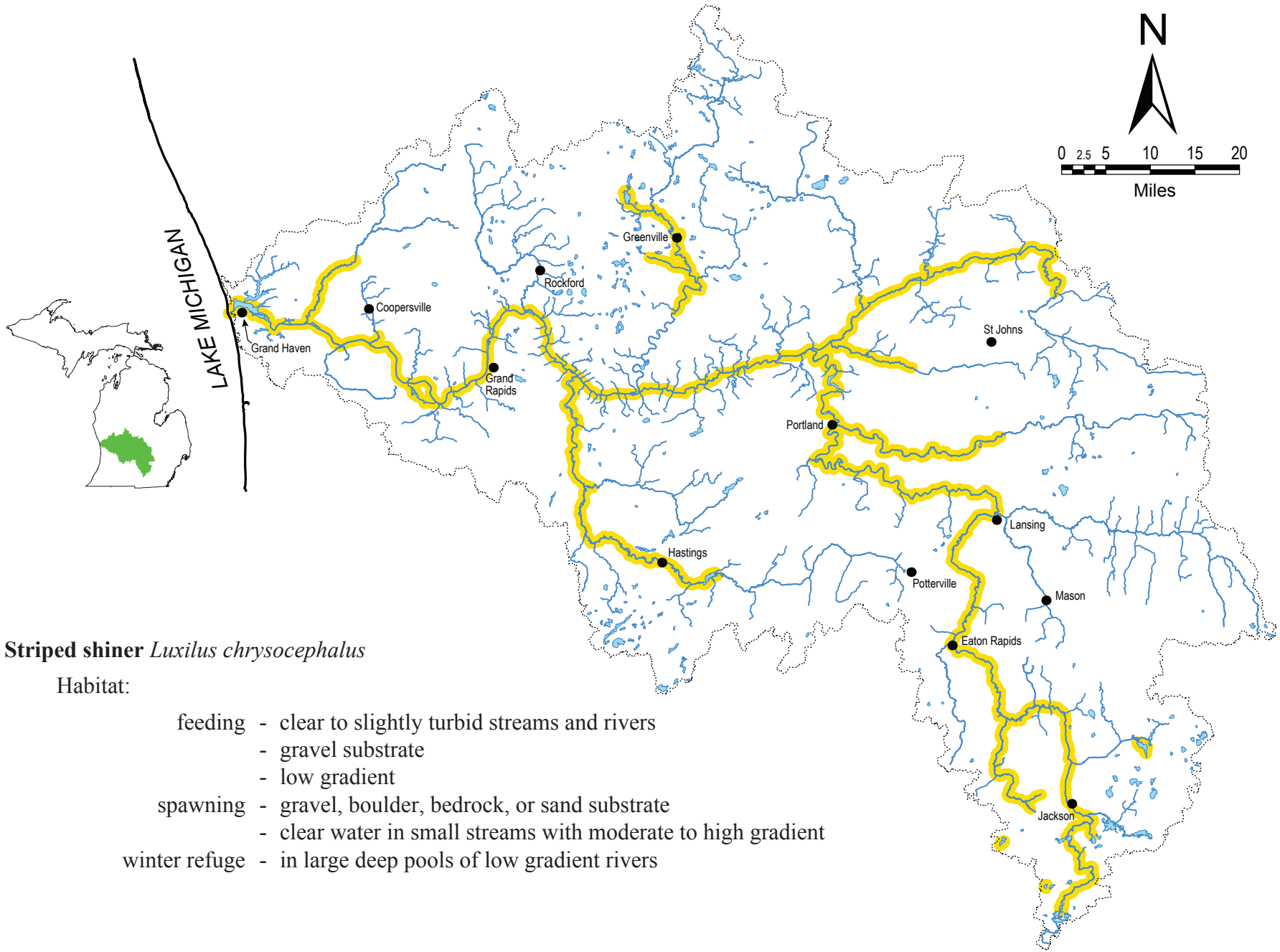
- feeding - low gradient fertile streams, rivers, lakes, and impoundments
- abundance of aquatic vegetation or organic matter
- tolerant of all substrates and clear to turbid water
- spawning - weedy or grassy shallows



**Brassy minnow** *Hybognathus hankinsoni*

Habitat:

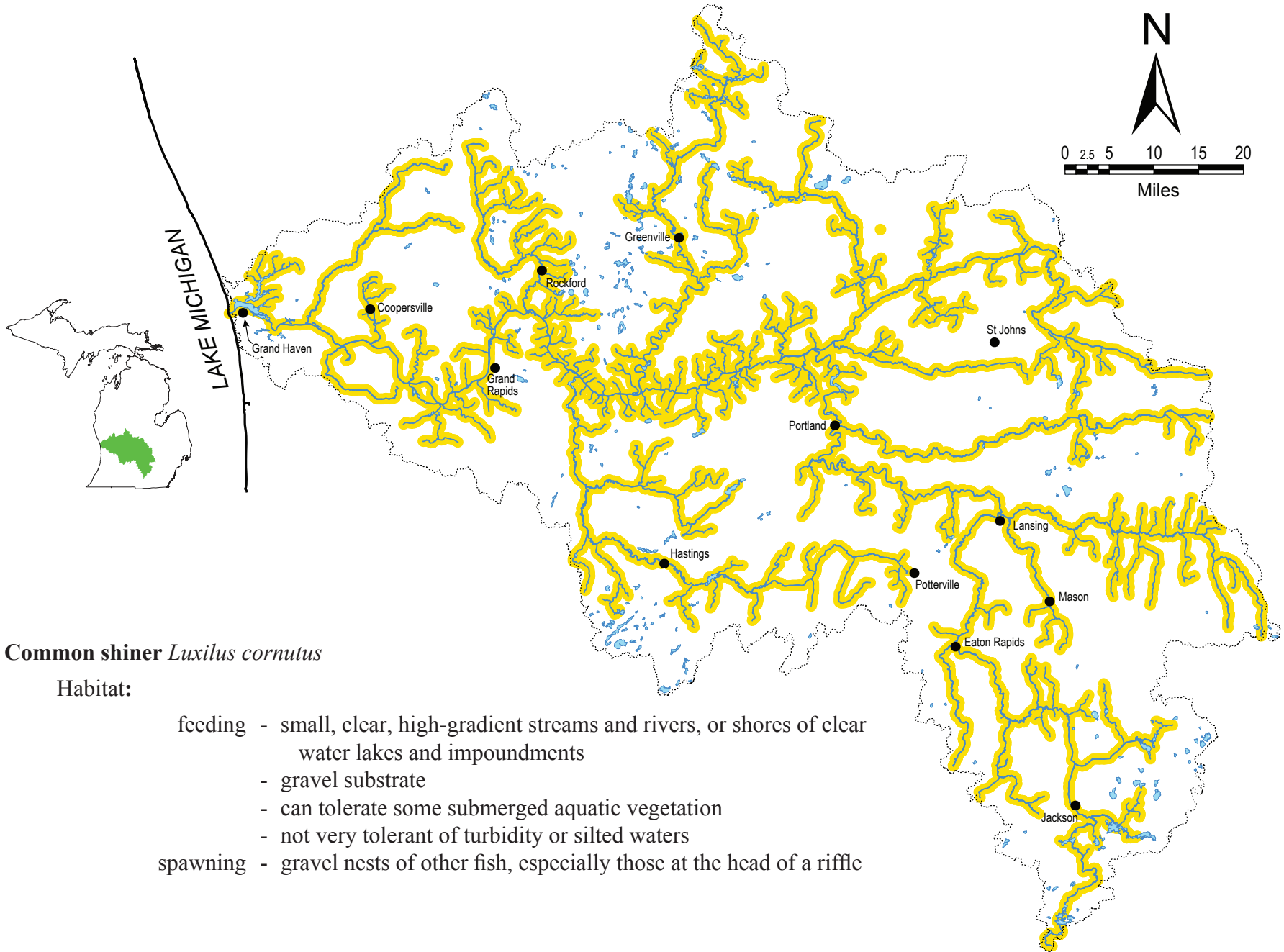
- feeding - cool acidic streams
- slow to moderate current
- sand or gravel substrate



**Striped shiner** *Luxilus chrysocephalus*

Habitat:

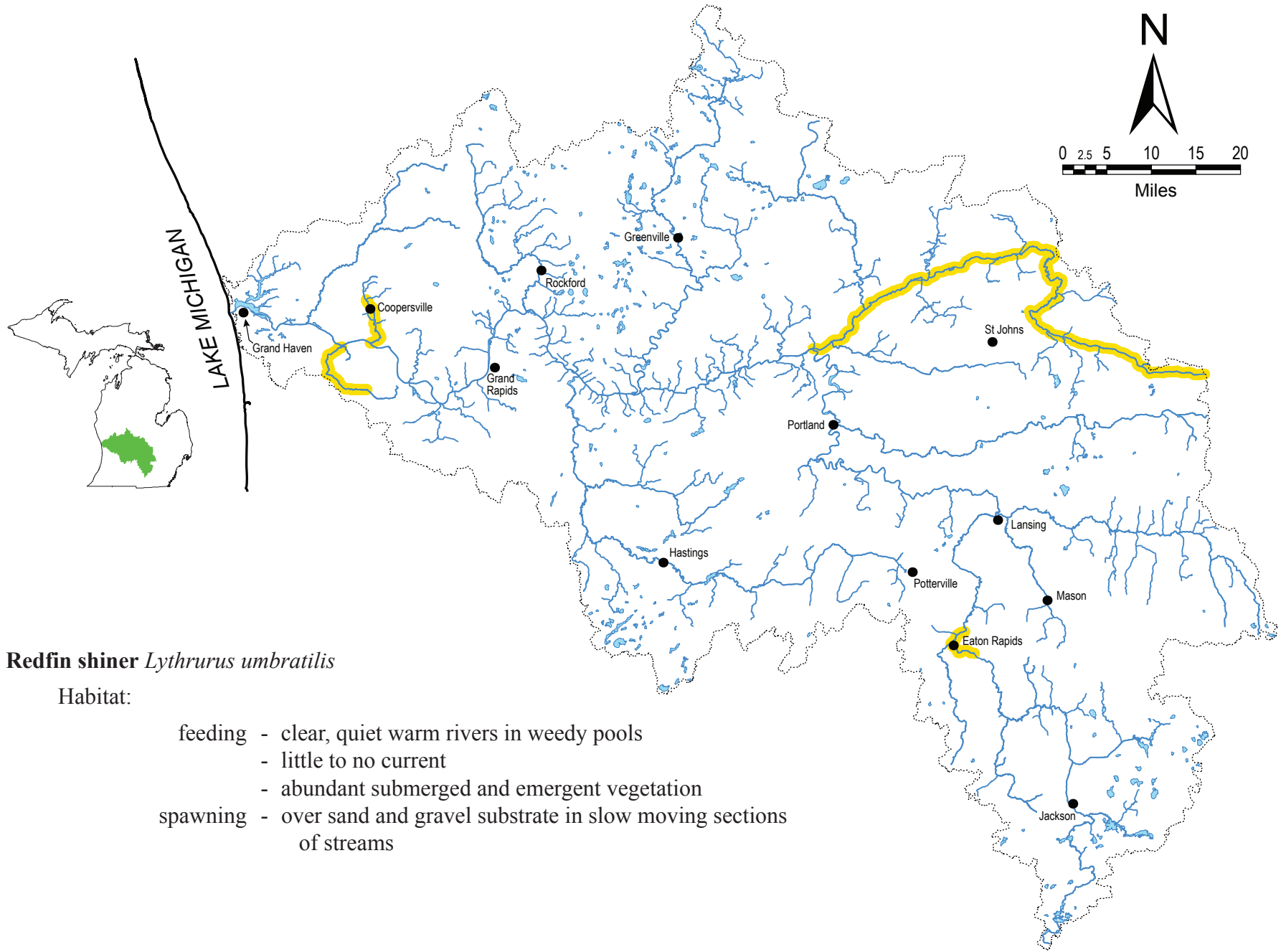
- feeding - clear to slightly turbid streams and rivers
  - gravel substrate
  - low gradient
- spawning - gravel, boulder, bedrock, or sand substrate
  - clear water in small streams with moderate to high gradient
- winter refuge - in large deep pools of low gradient rivers



**Common shiner *Luxilus cornutus***

**Habitat:**

- feeding - small, clear, high-gradient streams and rivers, or shores of clear water lakes and impoundments
- gravel substrate
- can tolerate some submerged aquatic vegetation
- not very tolerant of turbidity or silted waters
- spawning - gravel nests of other fish, especially those at the head of a riffle



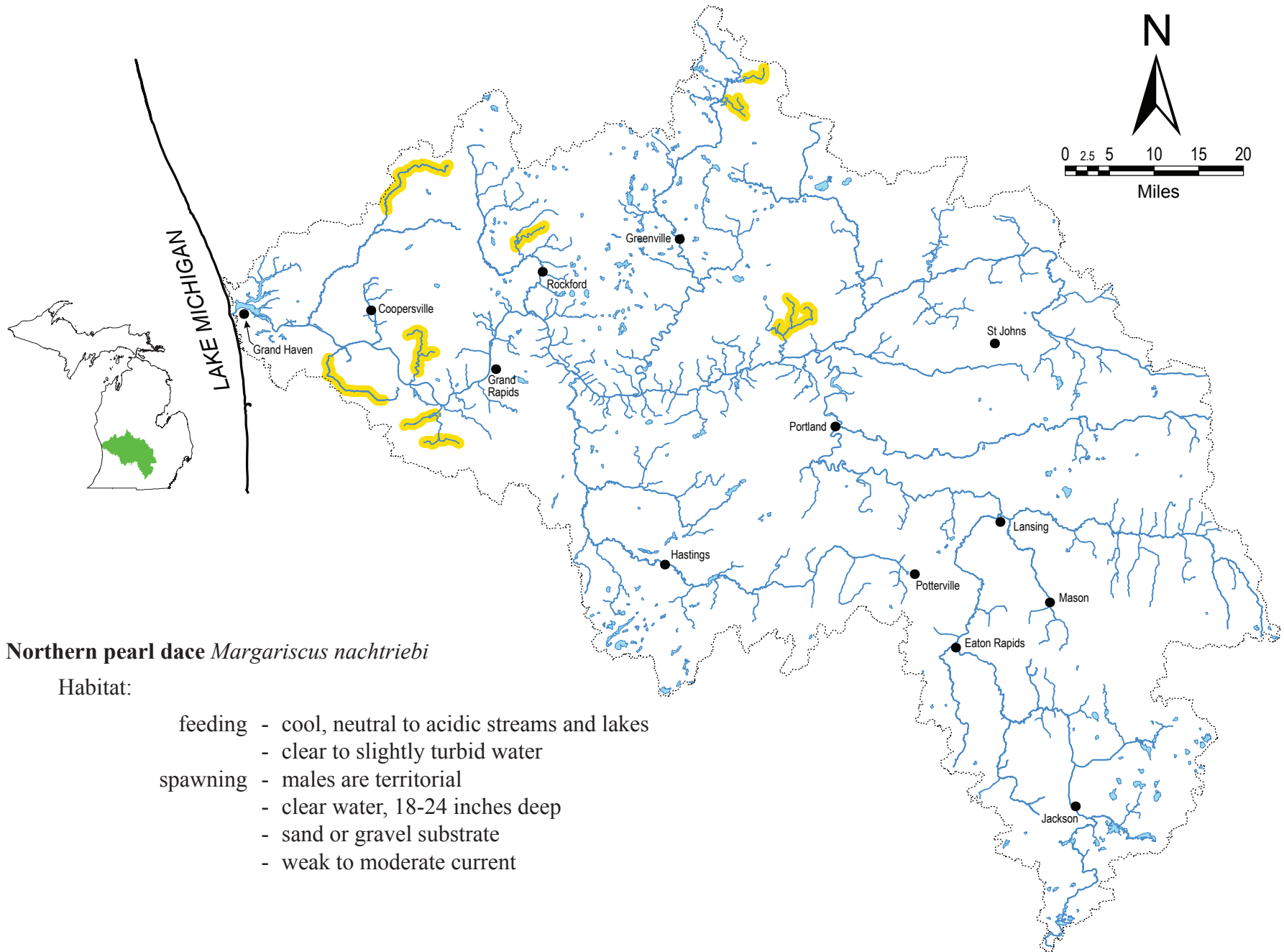
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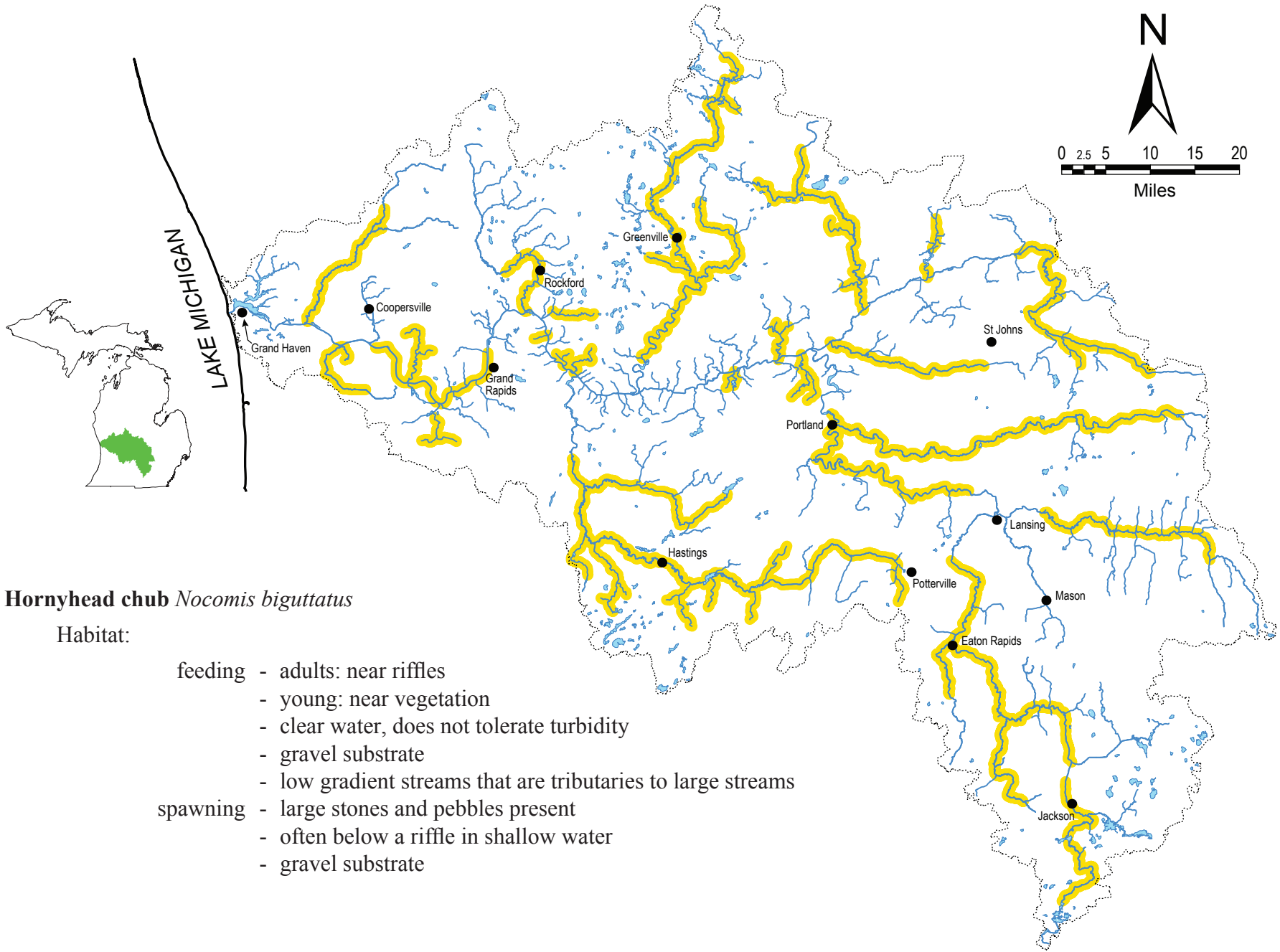
**Redfin shiner** *Lythrurus umbratilis*

Habitat:

- feeding - clear, quiet warm rivers in weedy pools
- little to no current
- abundant submerged and emergent vegetation
- spawning - over sand and gravel substrate in slow moving sections of streams





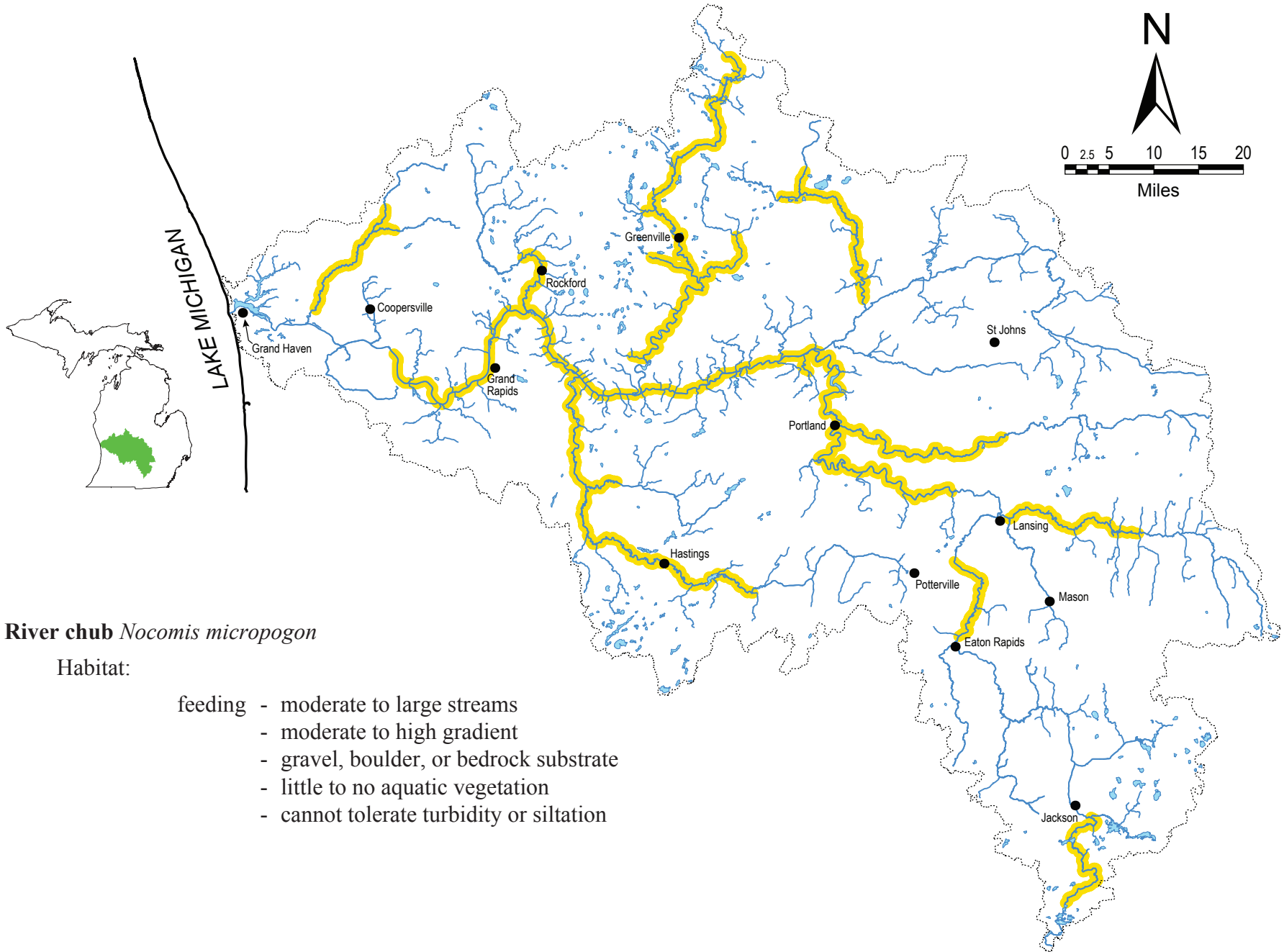


**Hornyhead chub** *Nocomis biguttatus*

Habitat:

- feeding - adults: near riffles
- young: near vegetation
- clear water, does not tolerate turbidity
- gravel substrate
- low gradient streams that are tributaries to large streams
- spawning - large stones and pebbles present
- often below a riffle in shallow water
- gravel substrate

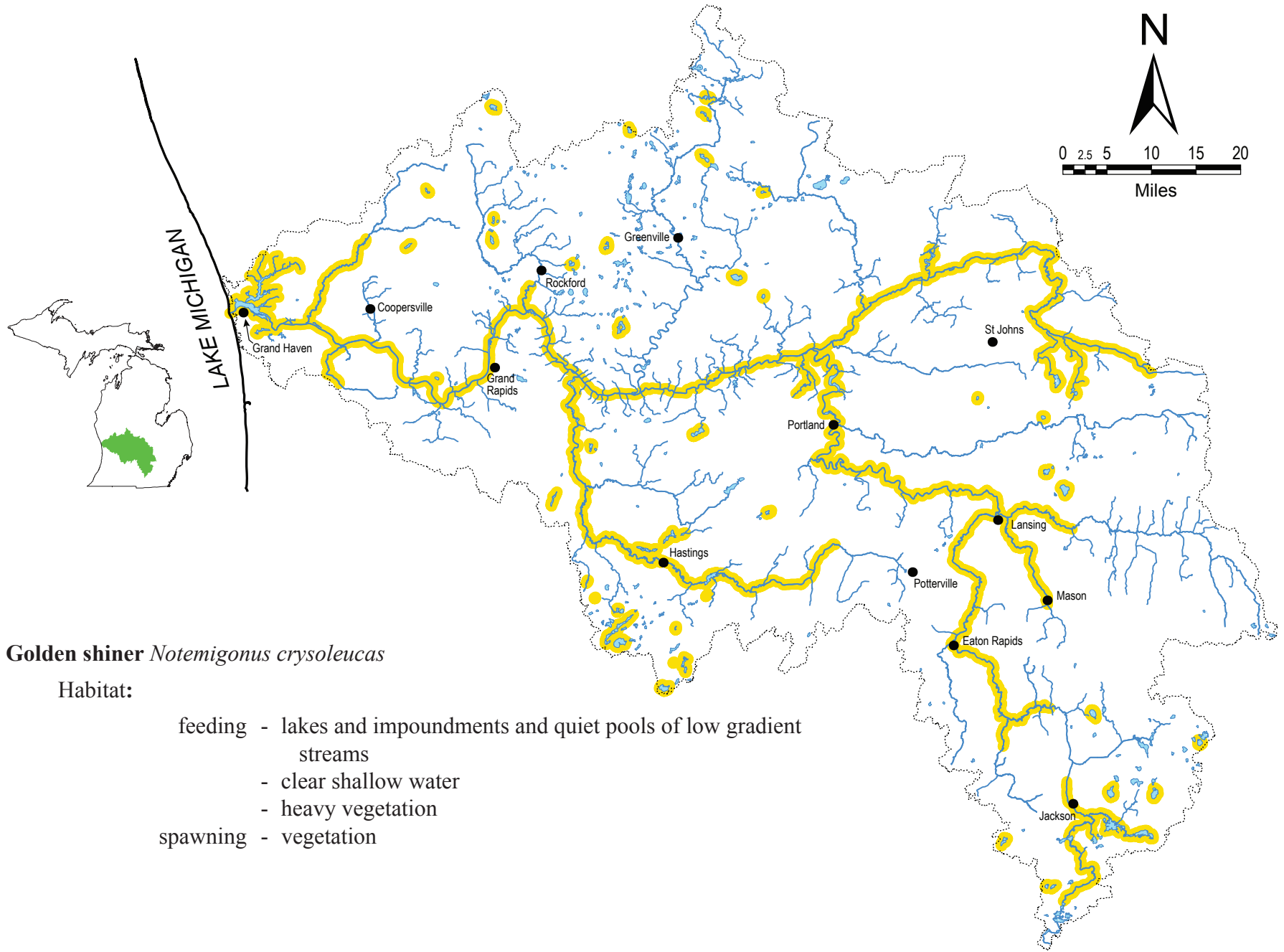




**River chub** *Nocomis micropogon*

Habitat:

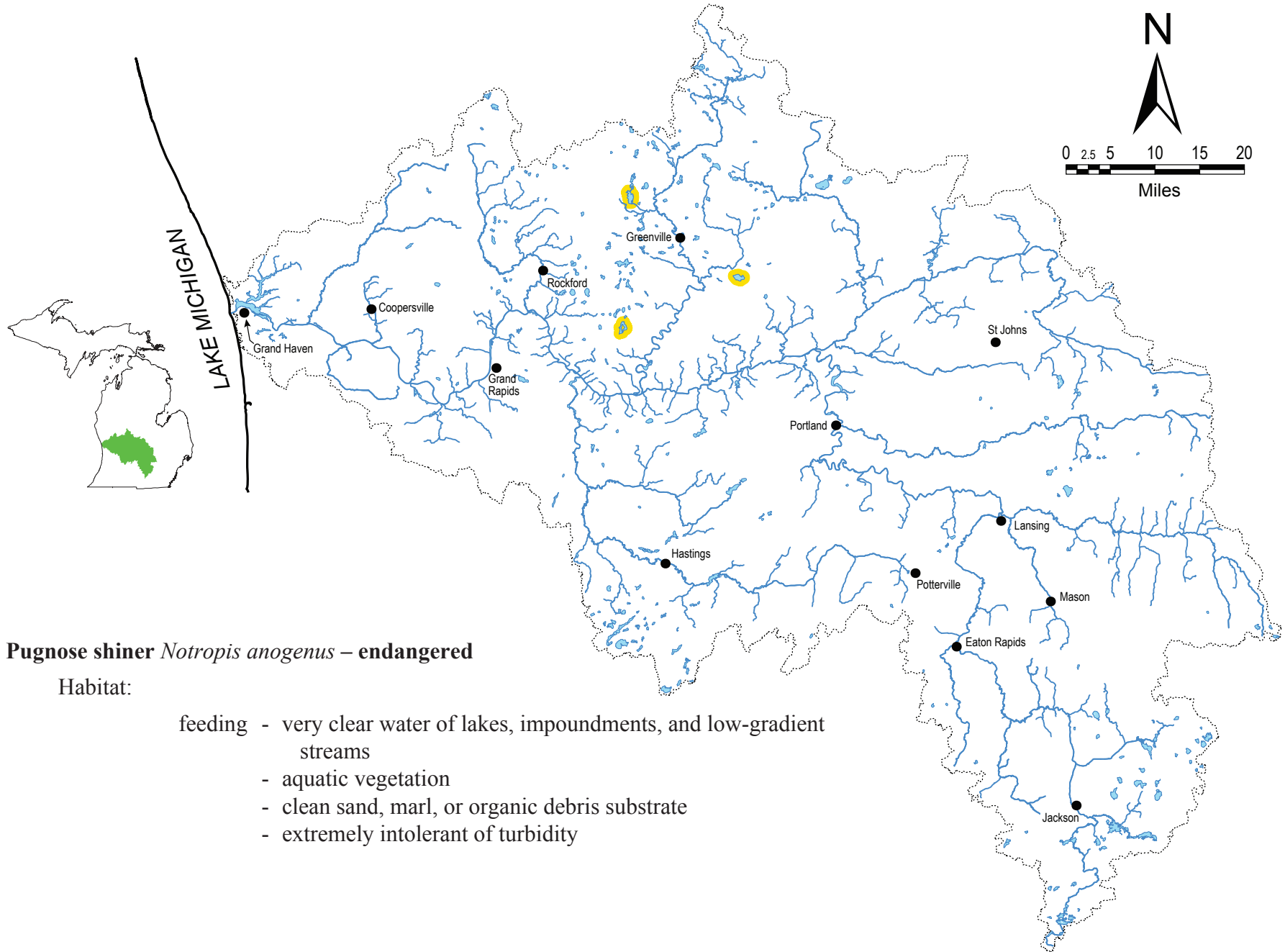
- feeding - moderate to large streams
- moderate to high gradient
- gravel, boulder, or bedrock substrate
- little to no aquatic vegetation
- cannot tolerate turbidity or siltation



**Golden shiner** *Notemigonus crysoleucas*

Habitat:

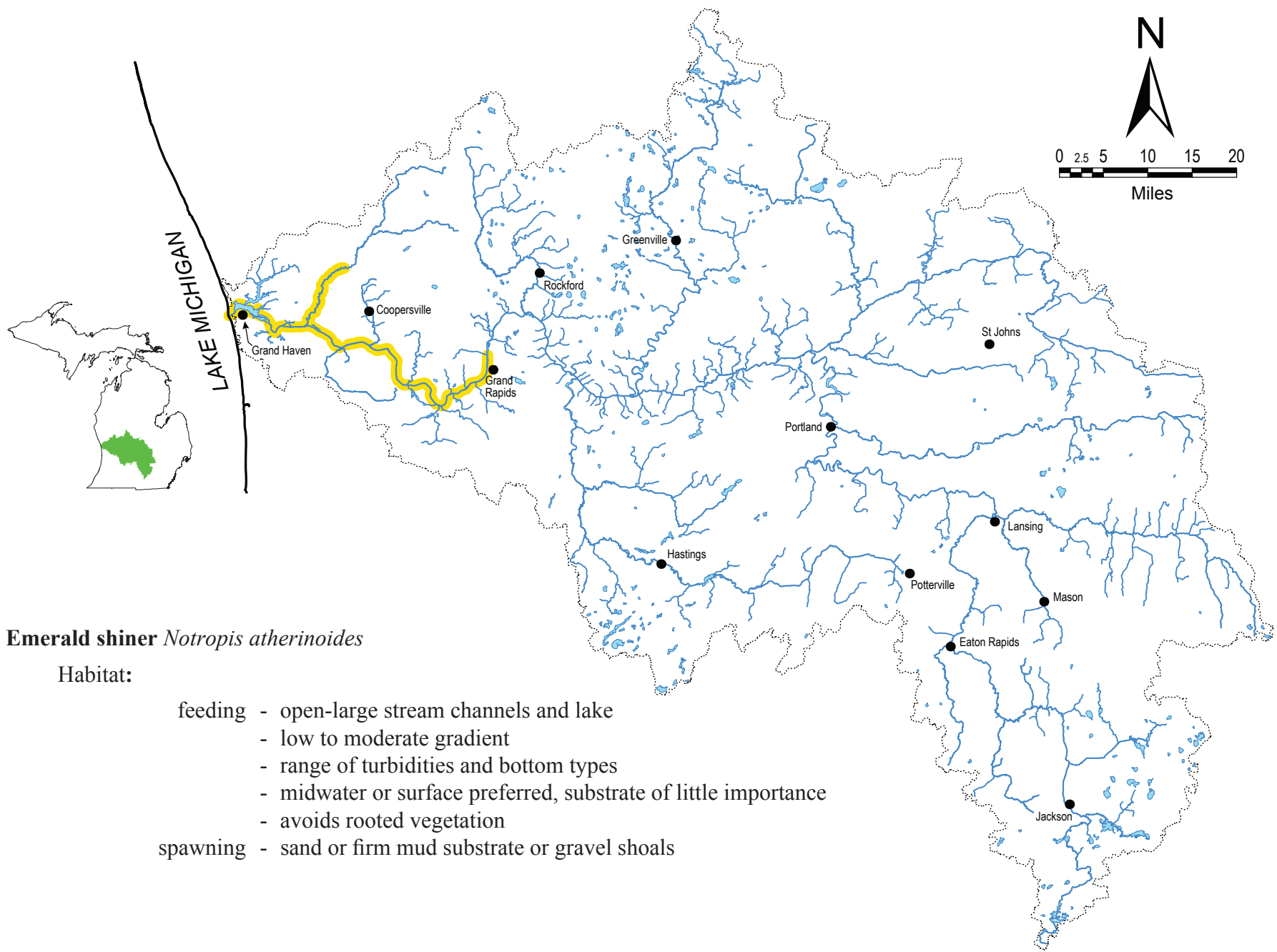
- feeding - lakes and impoundments and quiet pools of low gradient streams
- clear shallow water
- heavy vegetation
- spawning - vegetation



**Pugnose shiner *Notropis anogenus* – endangered**

Habitat:

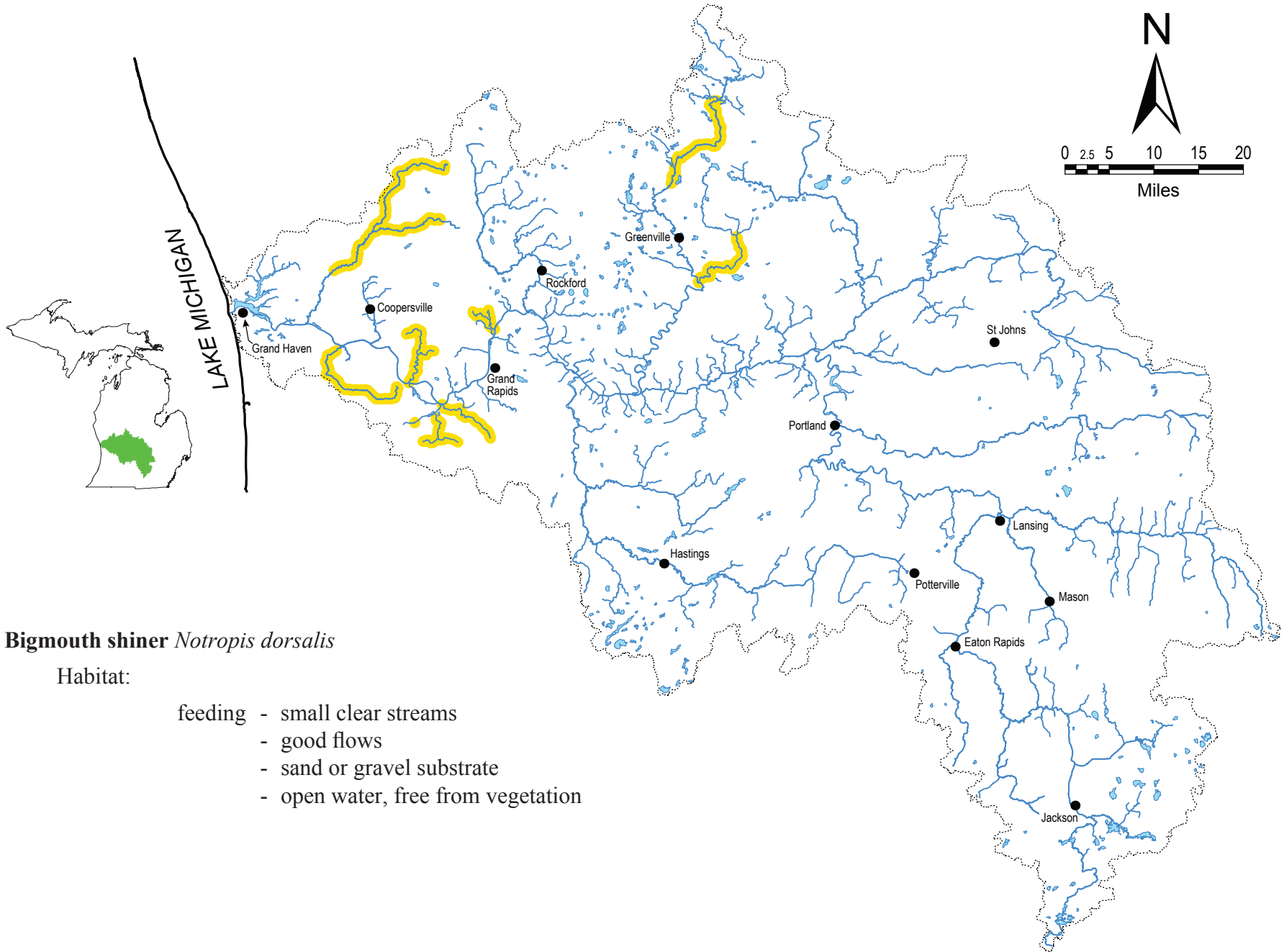
- feeding - very clear water of lakes, impoundments, and low-gradient streams
- aquatic vegetation
- clean sand, marl, or organic debris substrate
- extremely intolerant of turbidity



**Emerald shiner** *Notropis atherinoides*

Habitat:

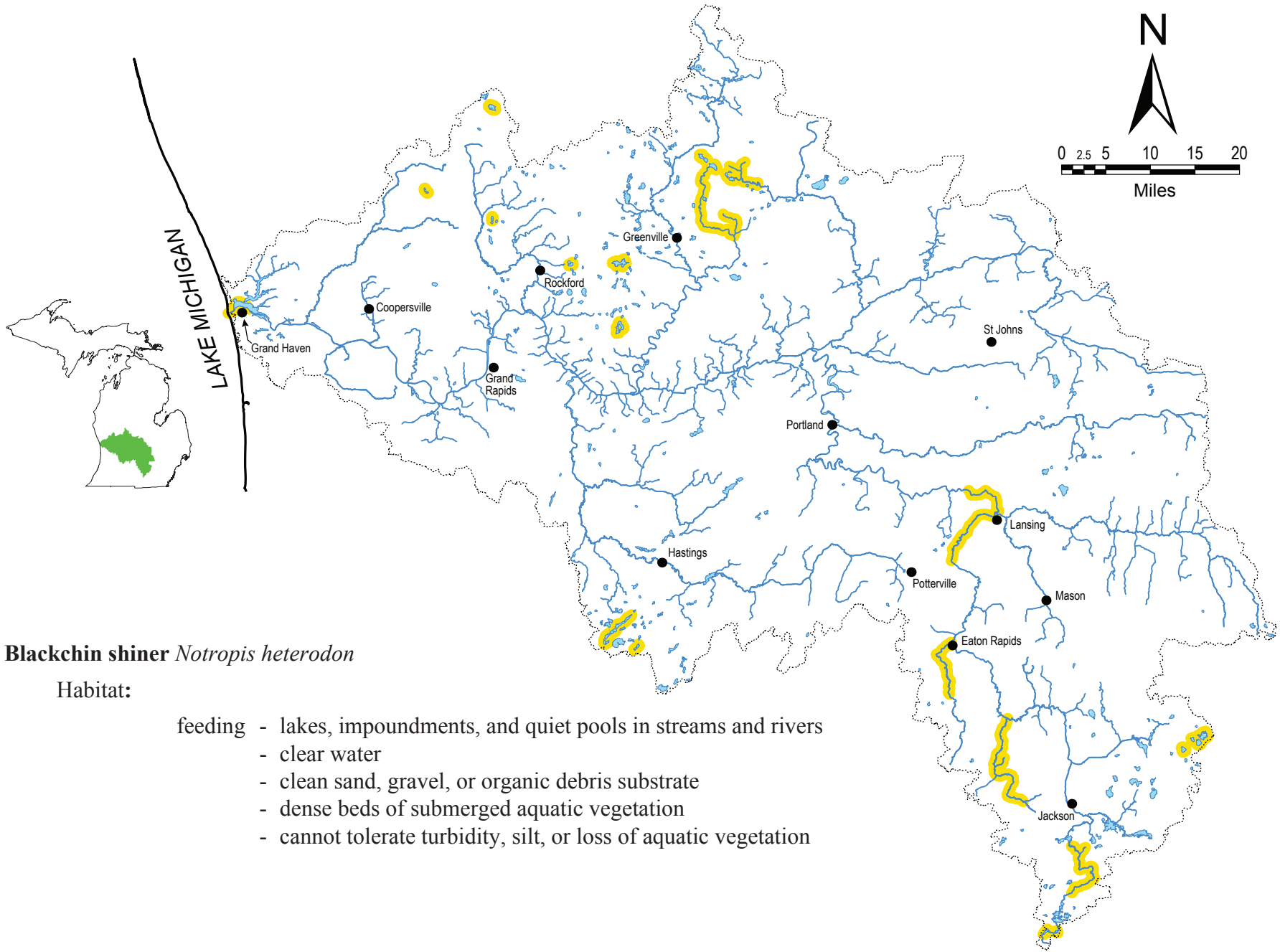
- feeding - open-large stream channels and lake
- low to moderate gradient
- range of turbidities and bottom types
- midwater or surface preferred, substrate of little importance
- avoids rooted vegetation
- spawning - sand or firm mud substrate or gravel shoals



**Bigmouth shiner *Notropis dorsalis***

Habitat:

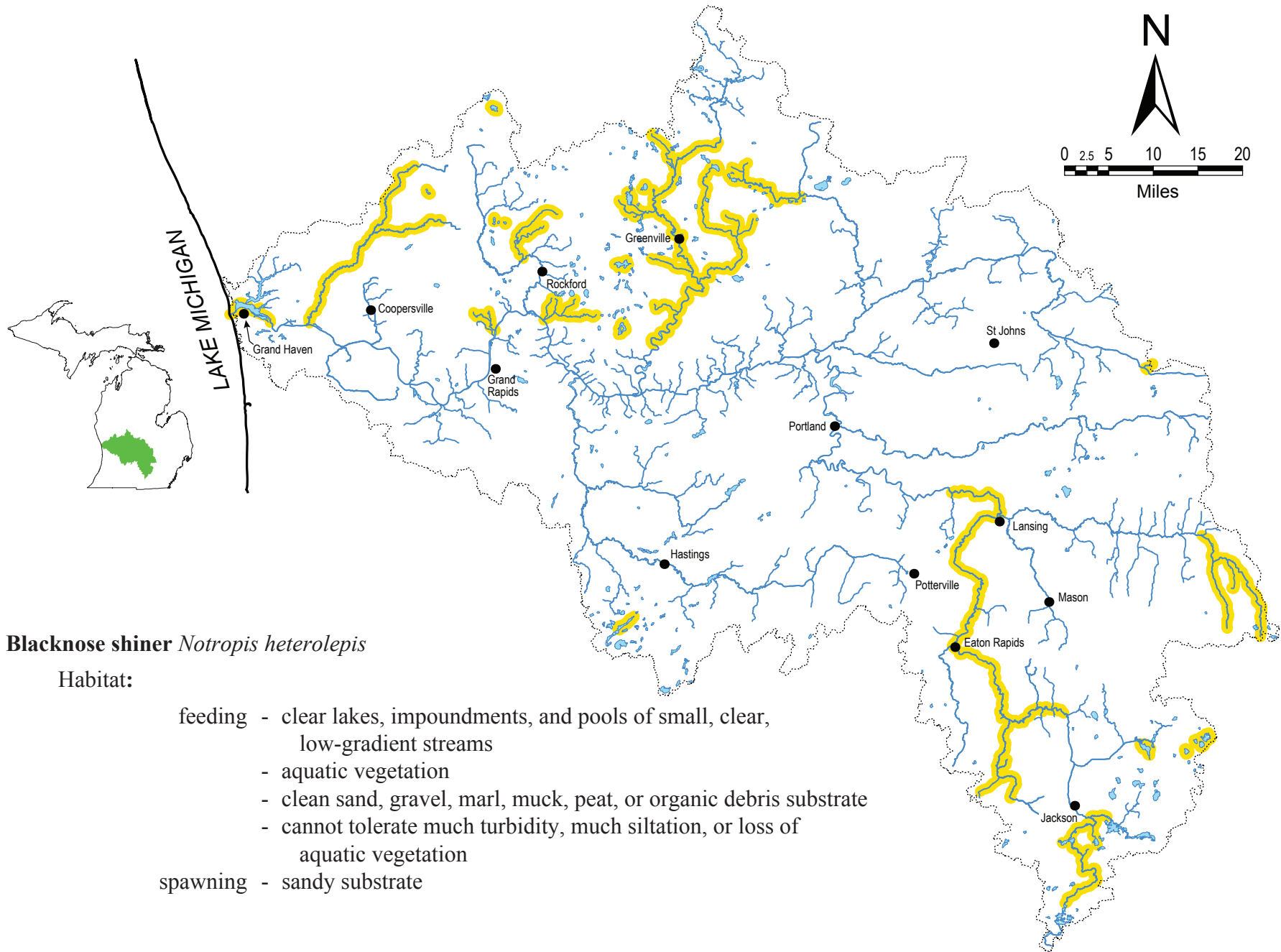
- feeding - small clear streams
- good flows
- sand or gravel substrate
- open water, free from vegetation



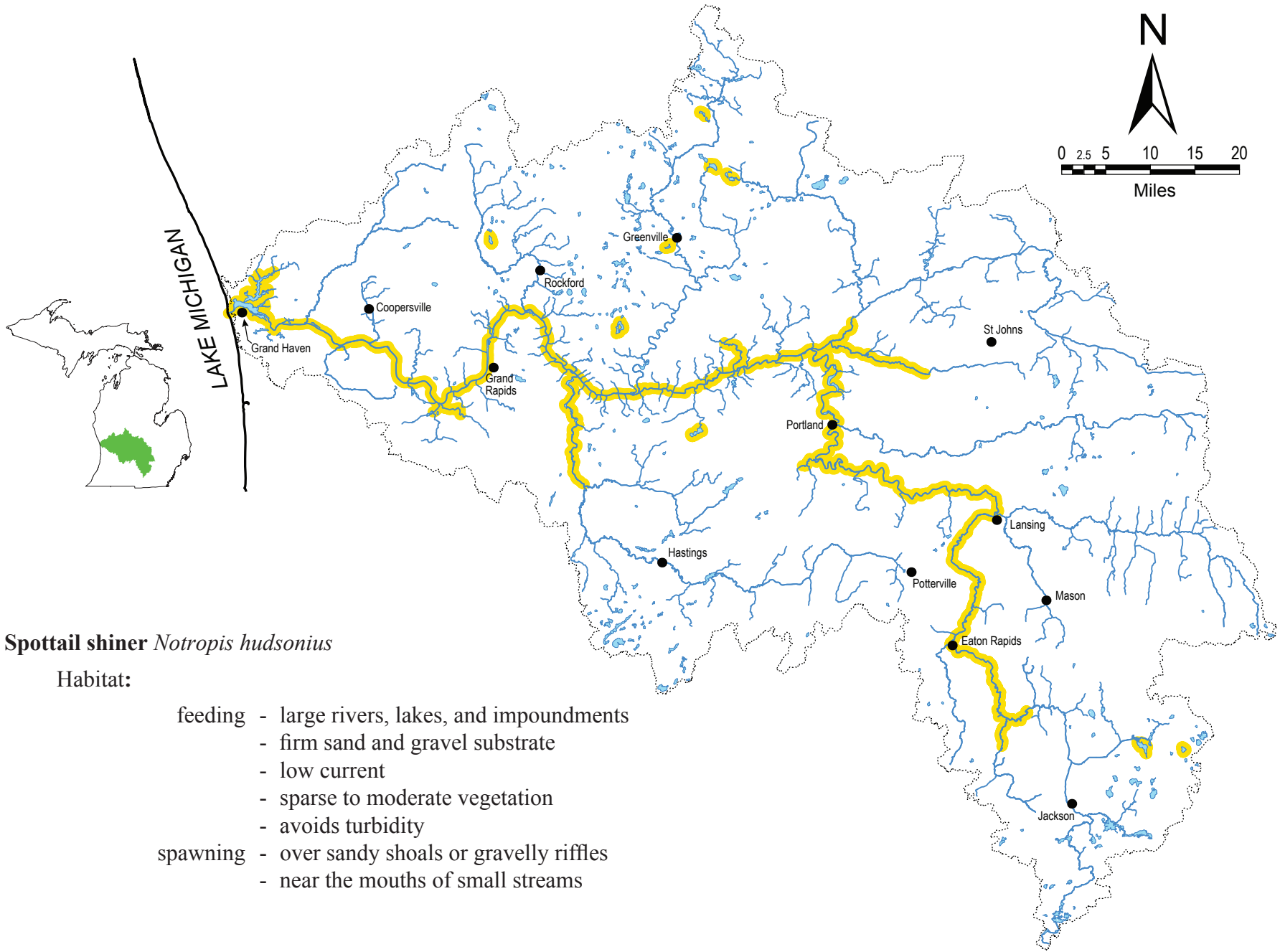
**Blackchin shiner** *Notropis heterodon*

Habitat:

- feeding - lakes, impoundments, and quiet pools in streams and rivers
- clear water
- clean sand, gravel, or organic debris substrate
- dense beds of submerged aquatic vegetation
- cannot tolerate turbidity, silt, or loss of aquatic vegetation







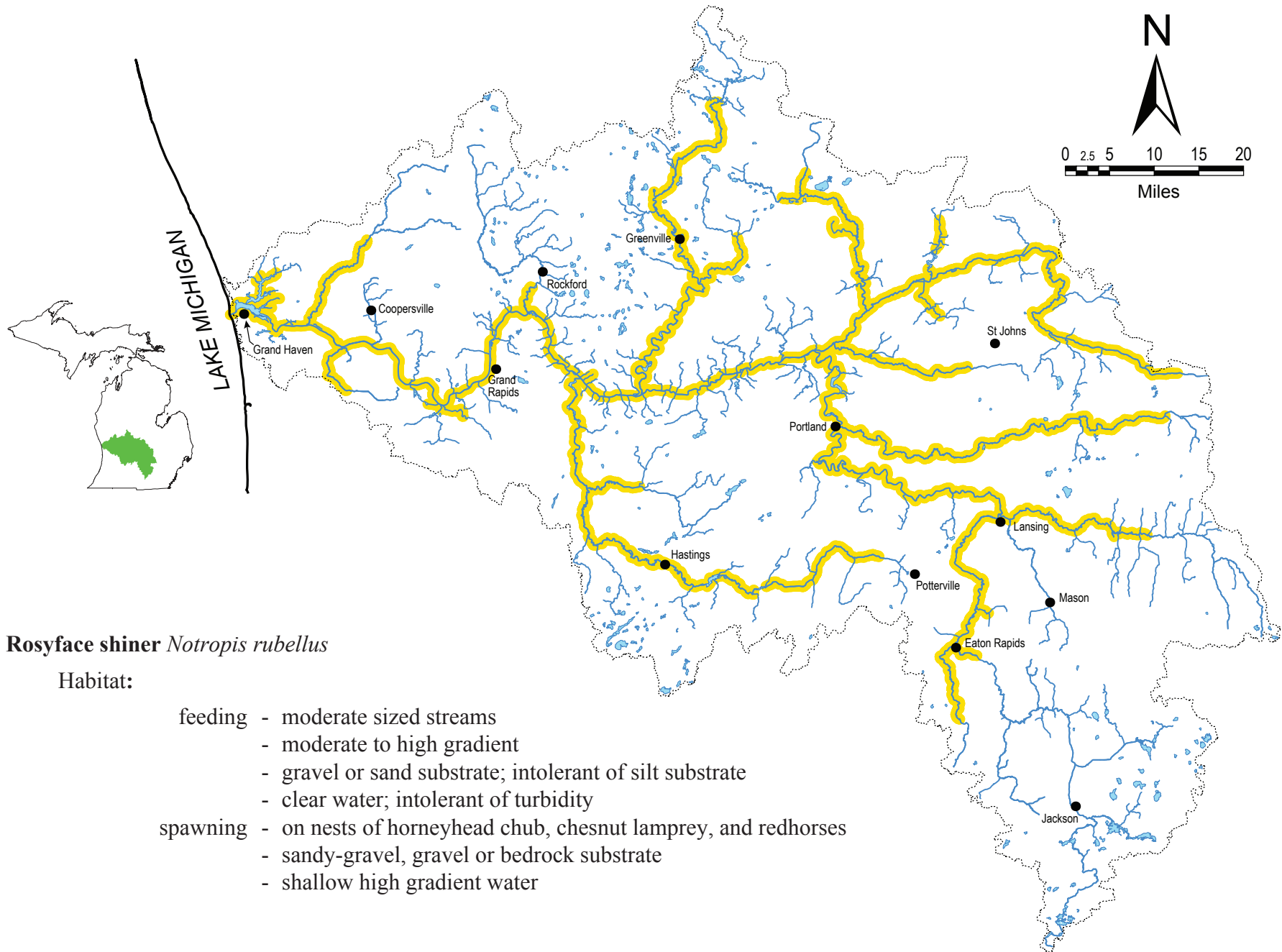
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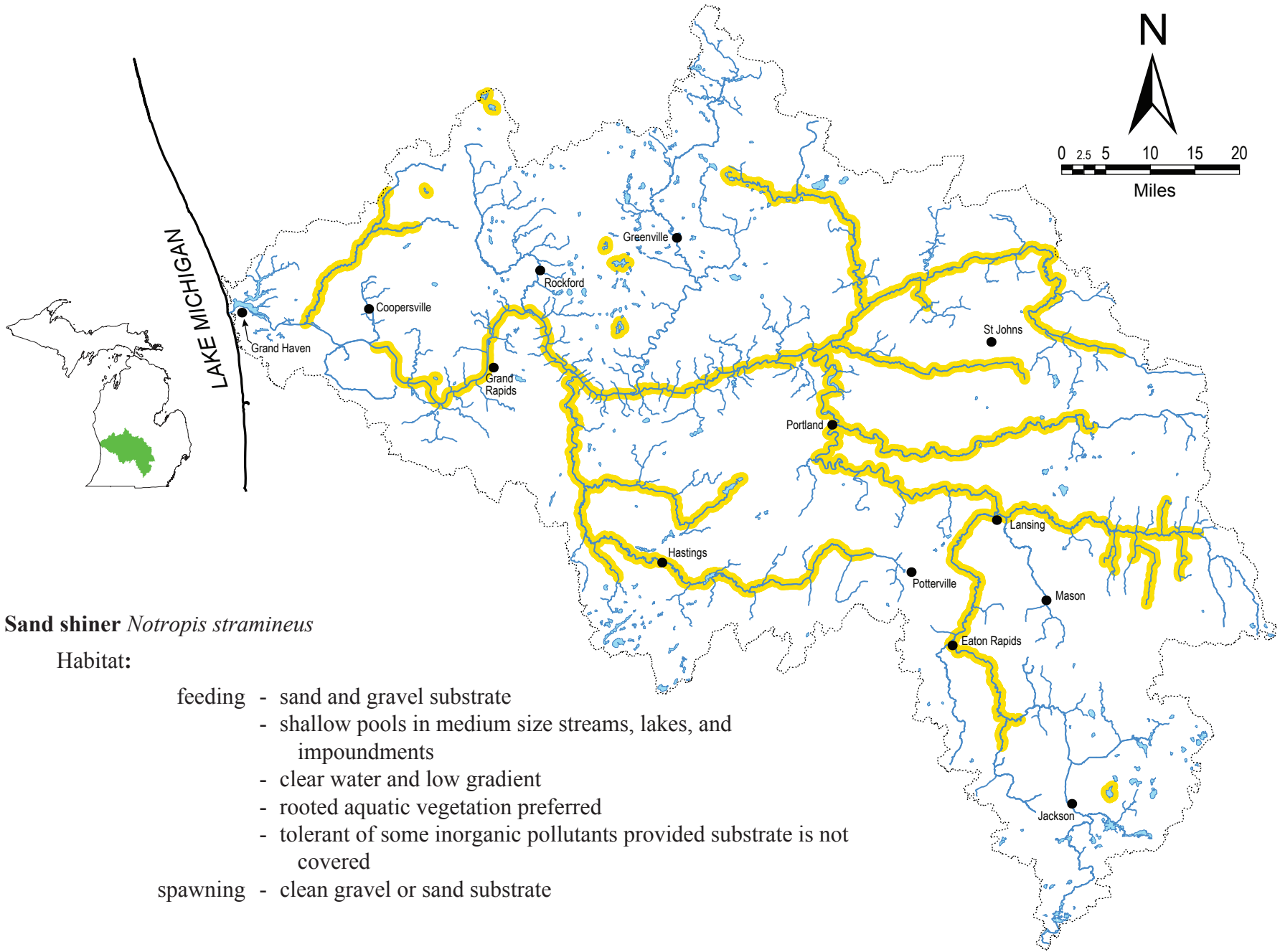
**Spottail shiner** *Notropis hudsonius*

Habitat:

- feeding - large rivers, lakes, and impoundments
- firm sand and gravel substrate
- low current
- sparse to moderate vegetation
- avoids turbidity
- spawning - over sandy shoals or gravelly riffles
- near the mouths of small streams



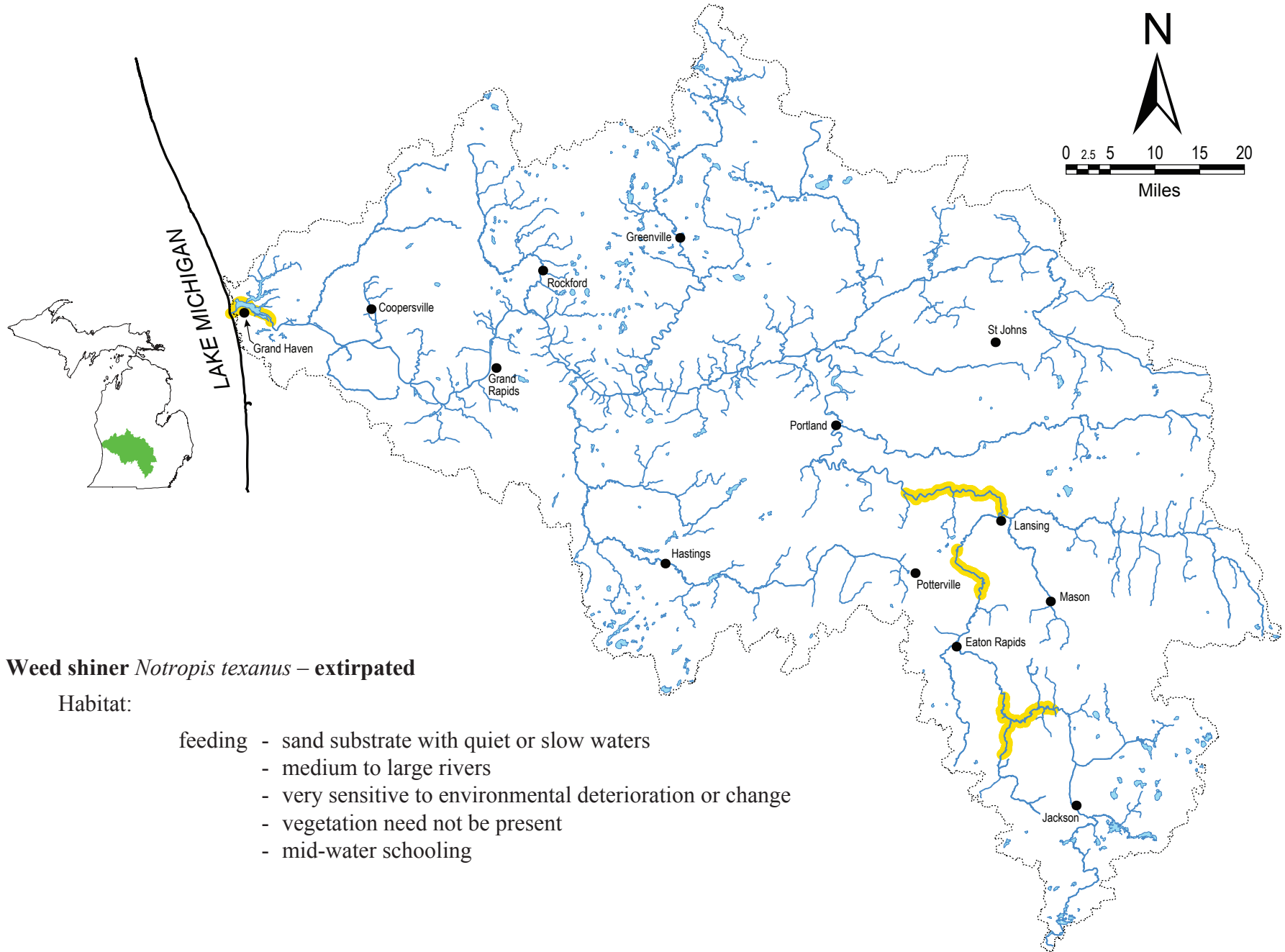




**Sand shiner** *Notropis stramineus*

Habitat:

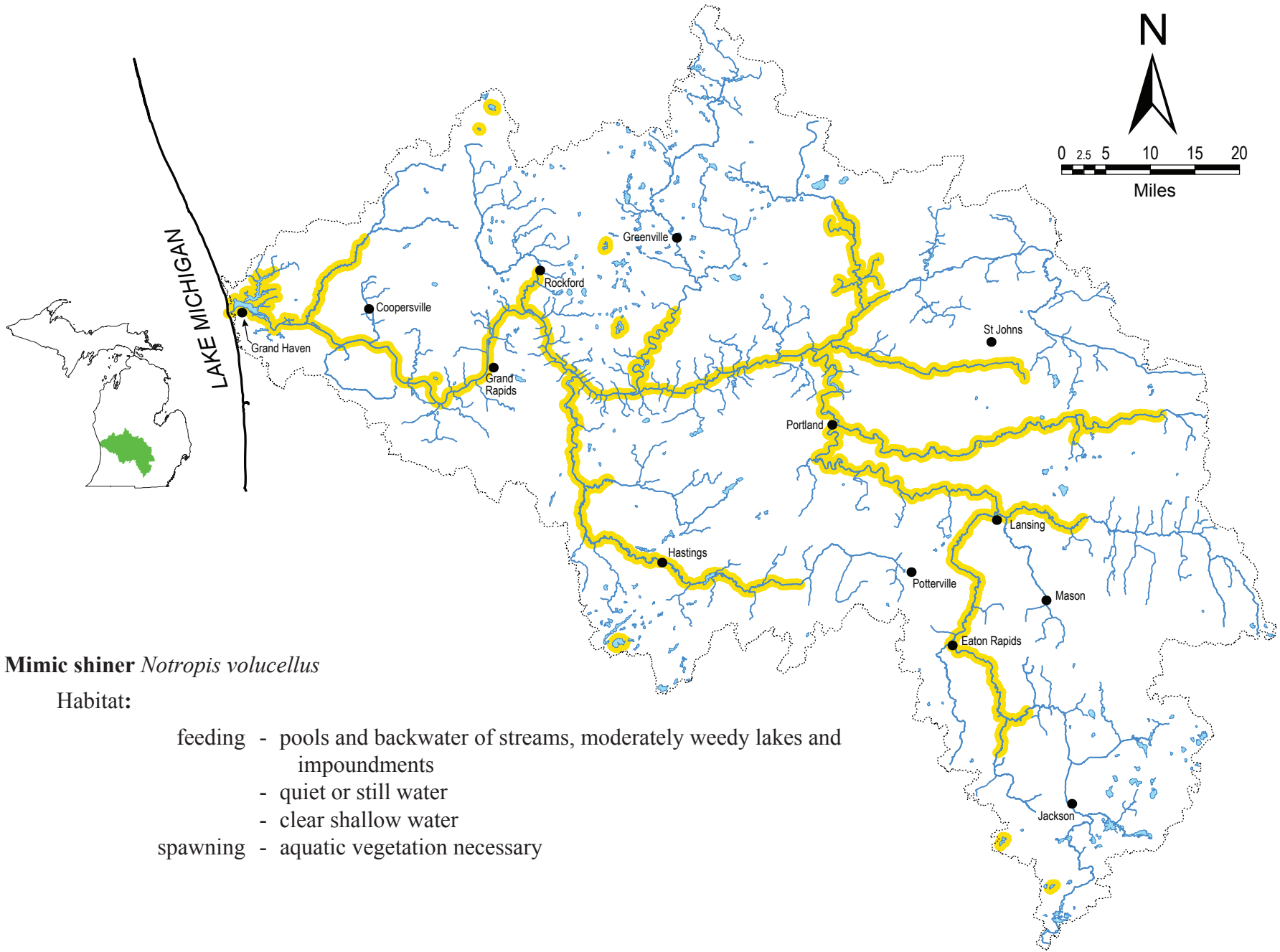
- feeding - sand and gravel substrate
- shallow pools in medium size streams, lakes, and impoundments
- clear water and low gradient
- rooted aquatic vegetation preferred
- tolerant of some inorganic pollutants provided substrate is not covered
- spawning - clean gravel or sand substrate



**Weed shiner *Notropis texanus* – extirpated**

Habitat:

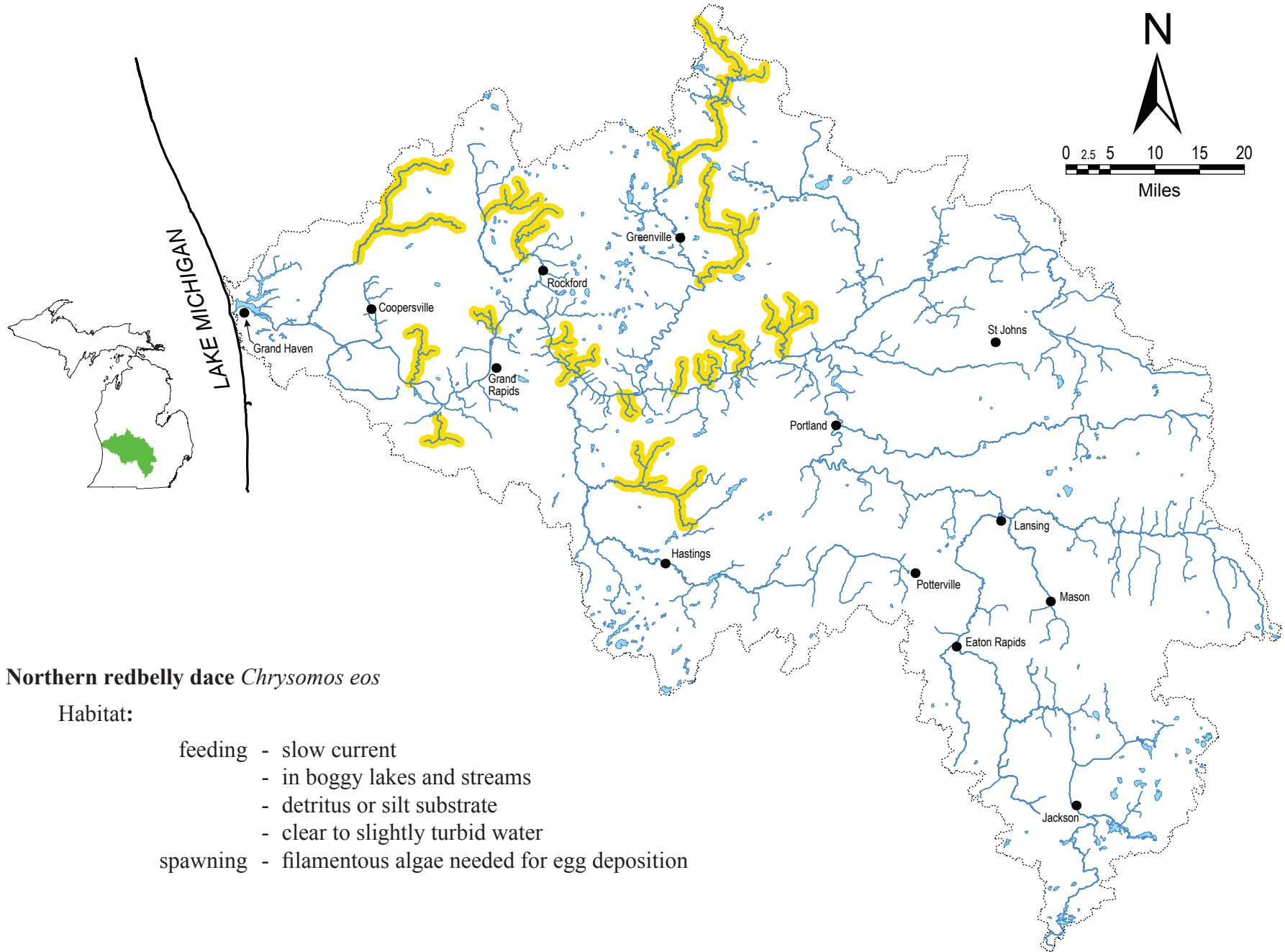
- feeding - sand substrate with quiet or slow waters
- medium to large rivers
- very sensitive to environmental deterioration or change
- vegetation need not be present
- mid-water schooling



**Mimic shiner** *Notropis volucellus*

Habitat:

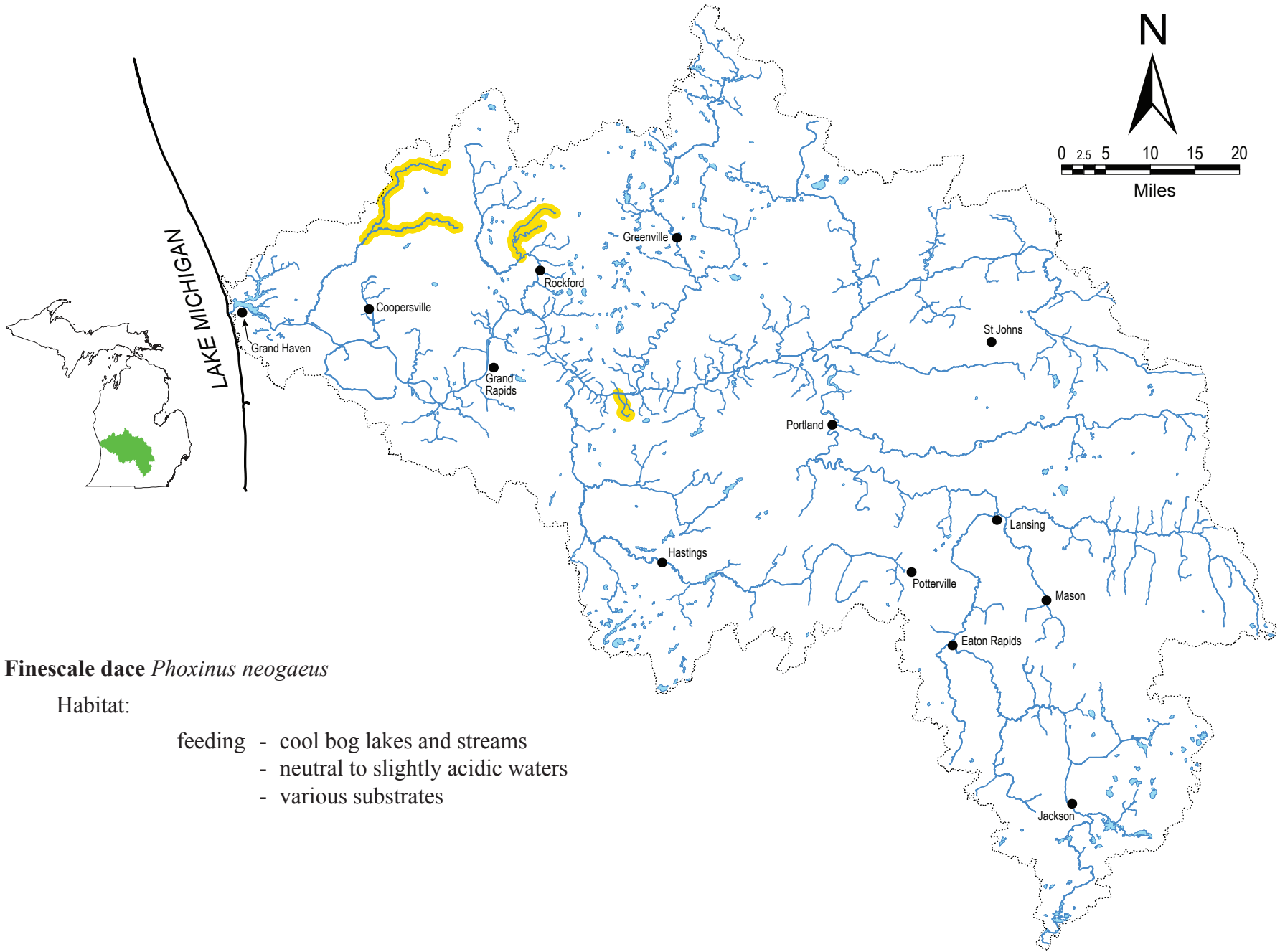
- feeding - pools and backwater of streams, moderately weedy lakes and impoundments
- quiet or still water
- clear shallow water
- spawning - aquatic vegetation necessary



**Northern redbelly dace** *Chrysomos eos*

**Habitat:**

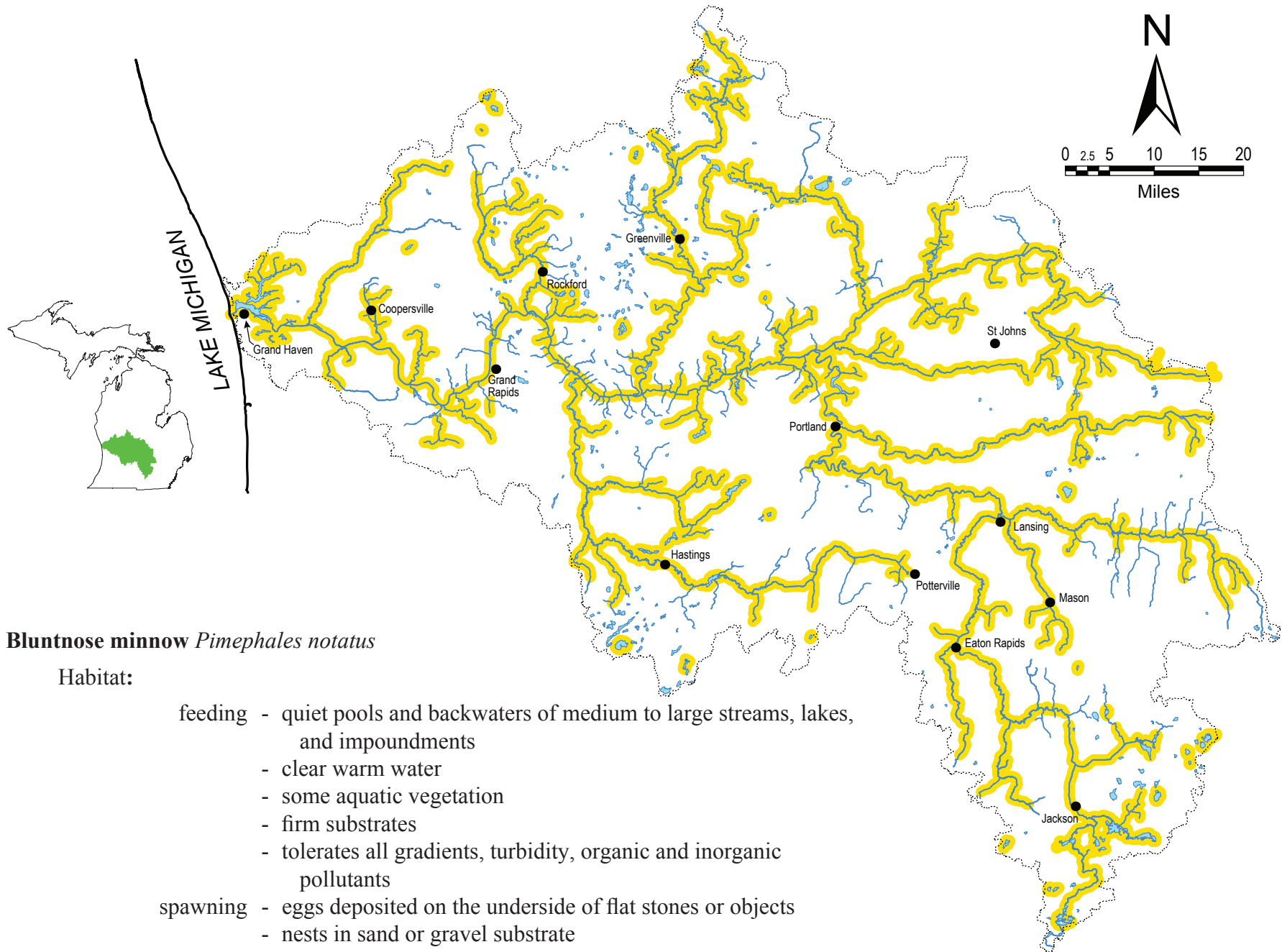
- feeding - slow current
- in boggy lakes and streams
- detritus or silt substrate
- clear to slightly turbid water
- spawning - filamentous algae needed for egg deposition



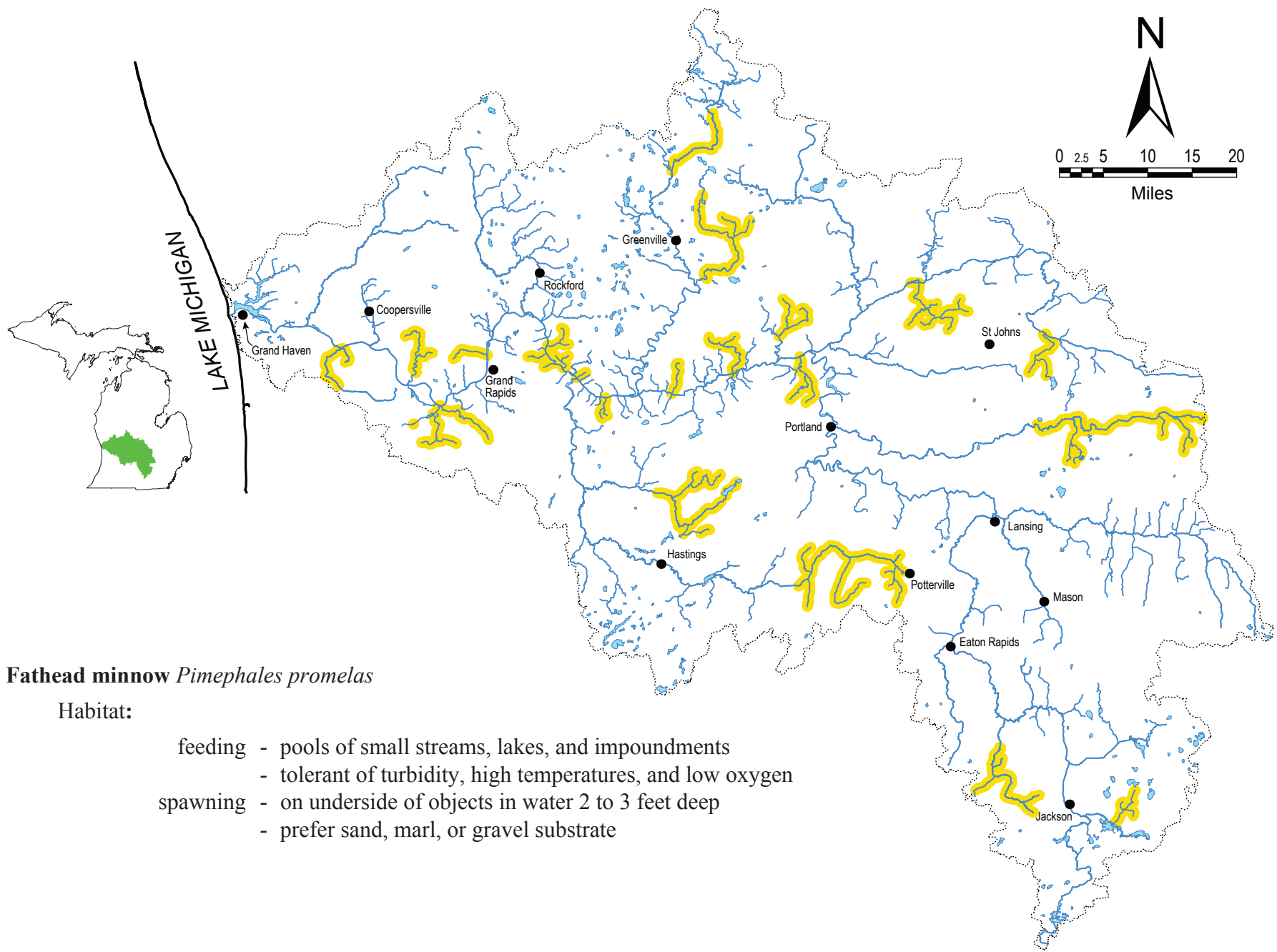
**Finescale dace *Phoxinus neogaeus***

Habitat:

- cool bog lakes and streams
- neutral to slightly acidic waters
- various substrates





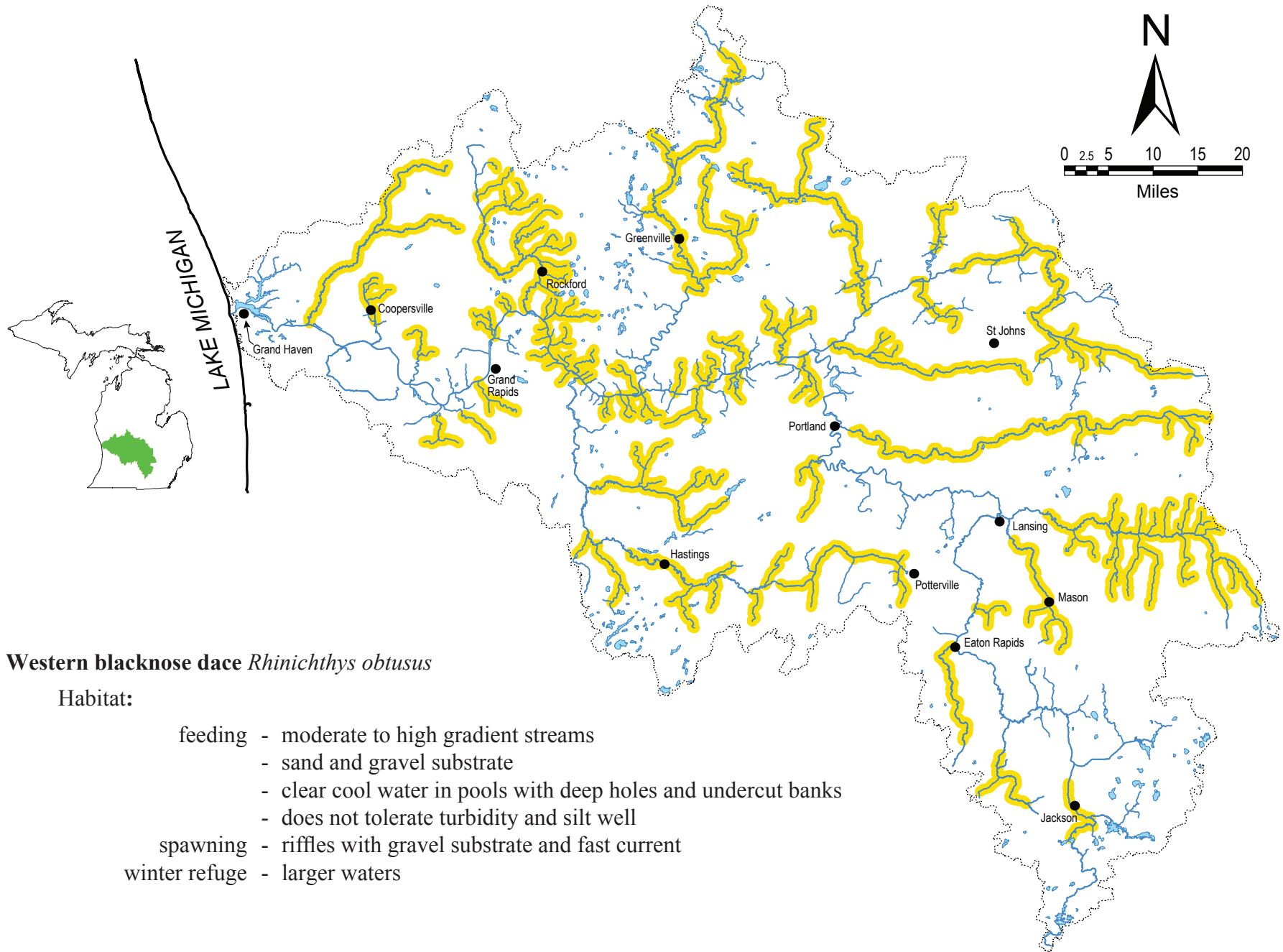


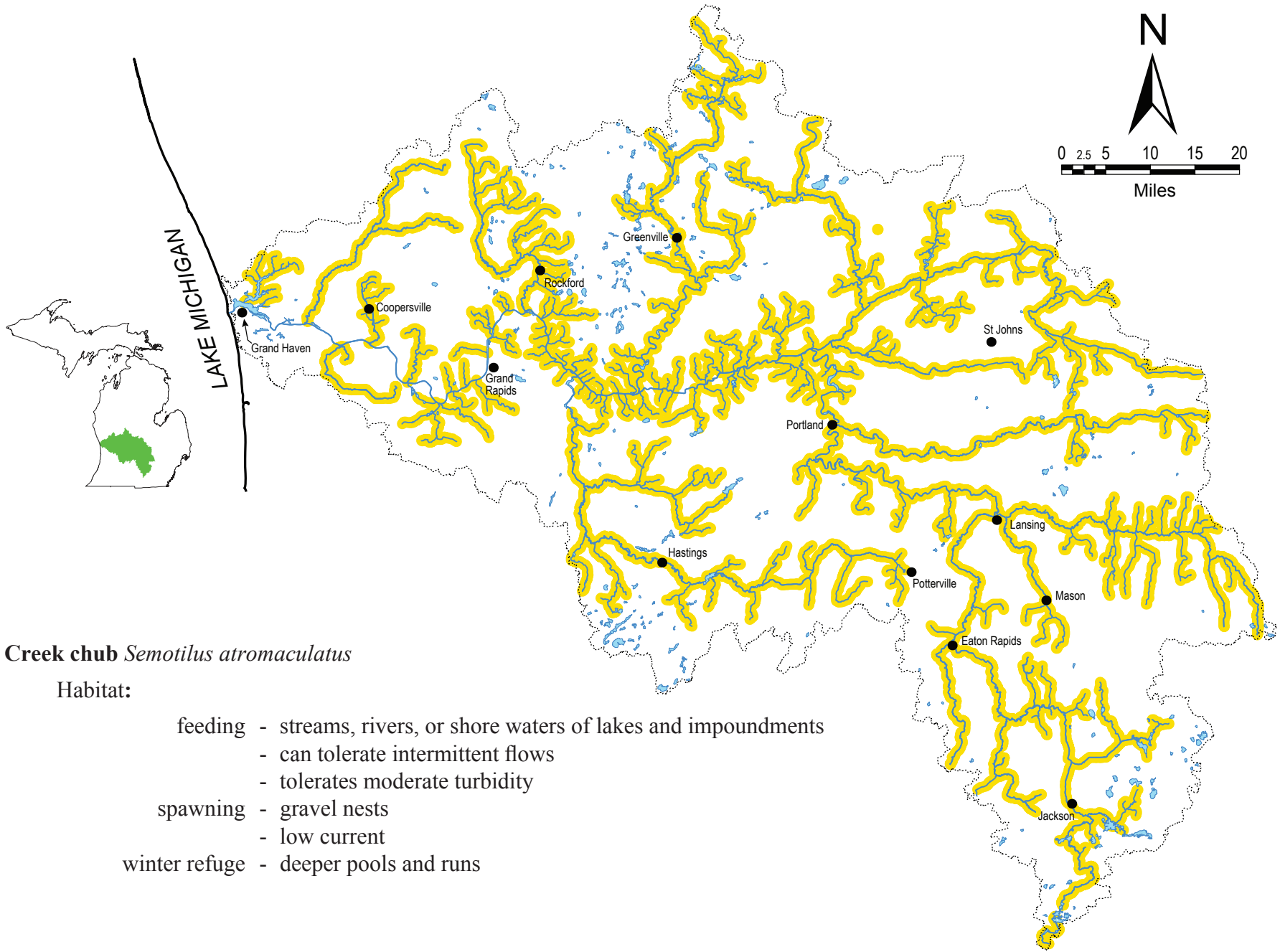
38

**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

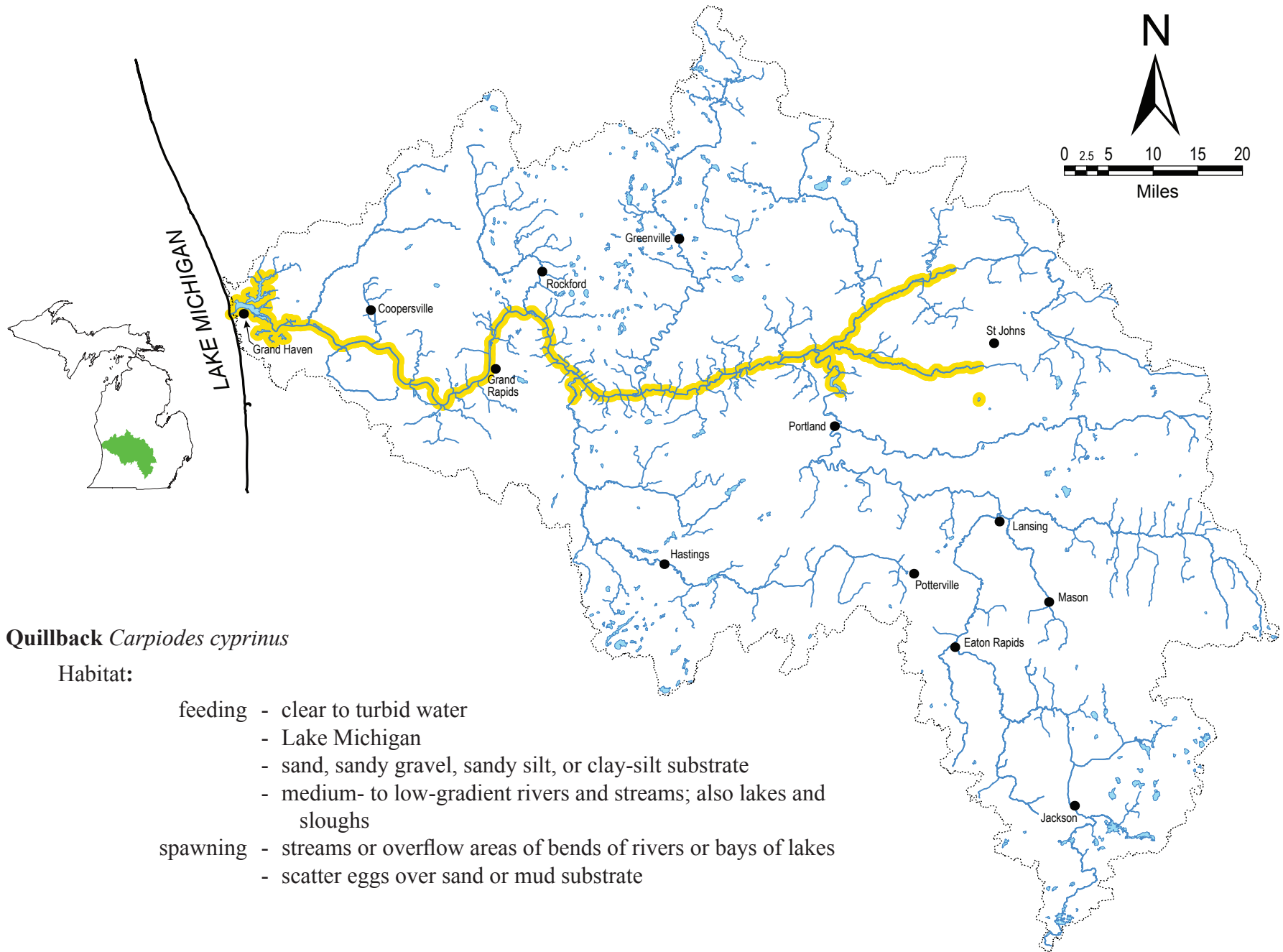


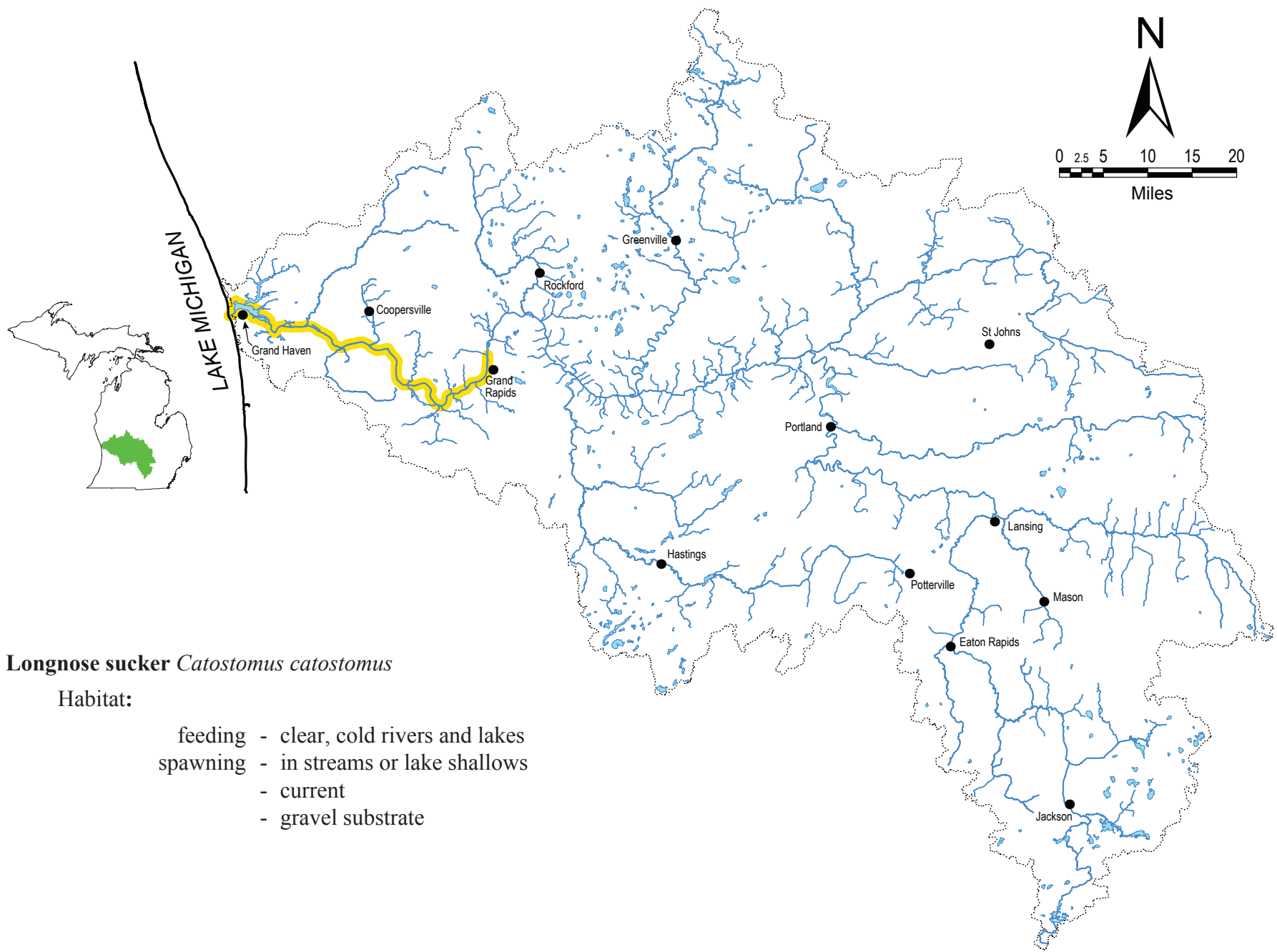


**Creek chub** *Semotilus atromaculatus*

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

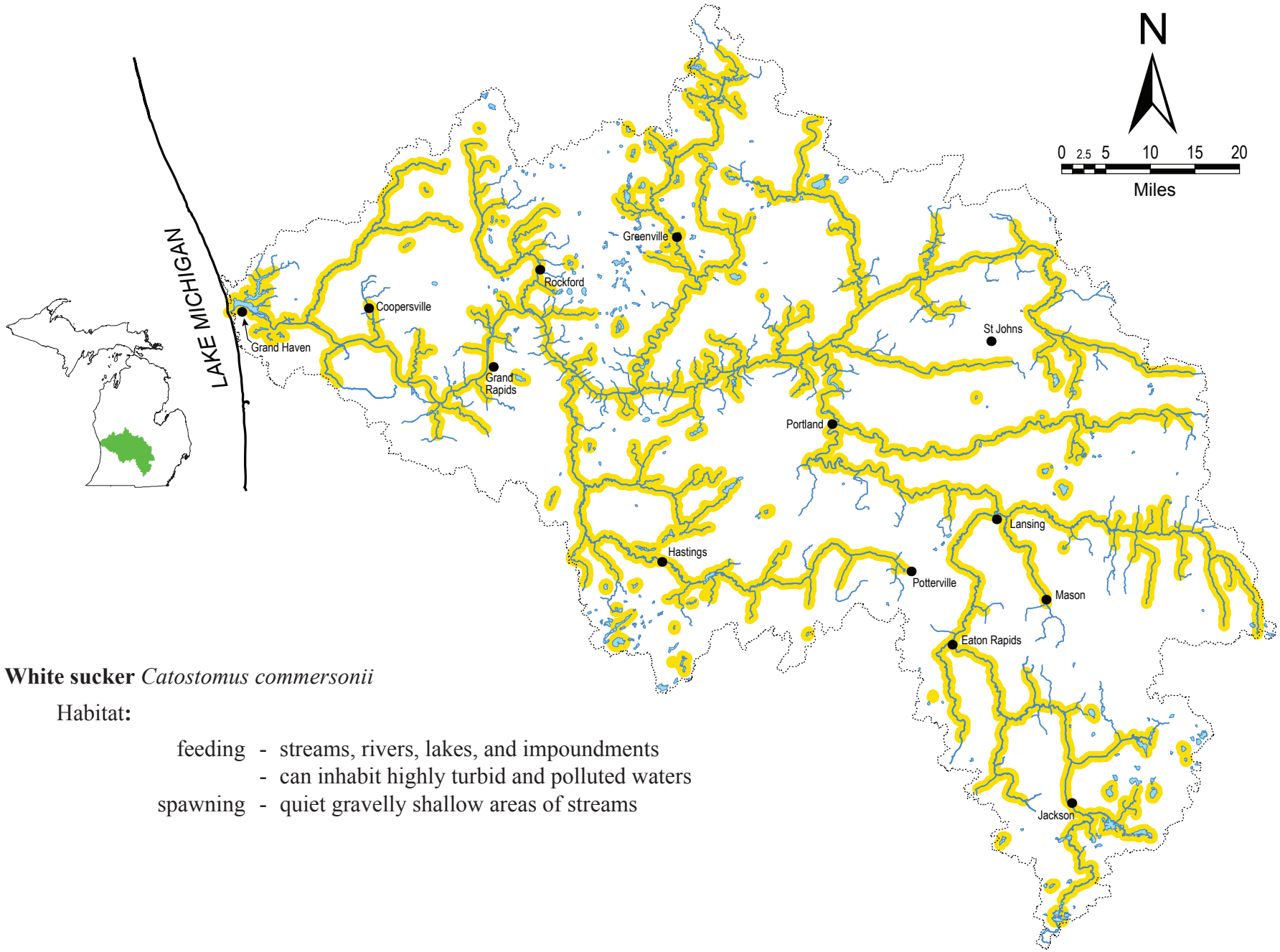




**Longnose sucker *Catostomus catostomus***

**Habitat:**

- feeding - clear, cold rivers and lakes
- spawning - in streams or lake shallows
  - current
  - gravel substrate

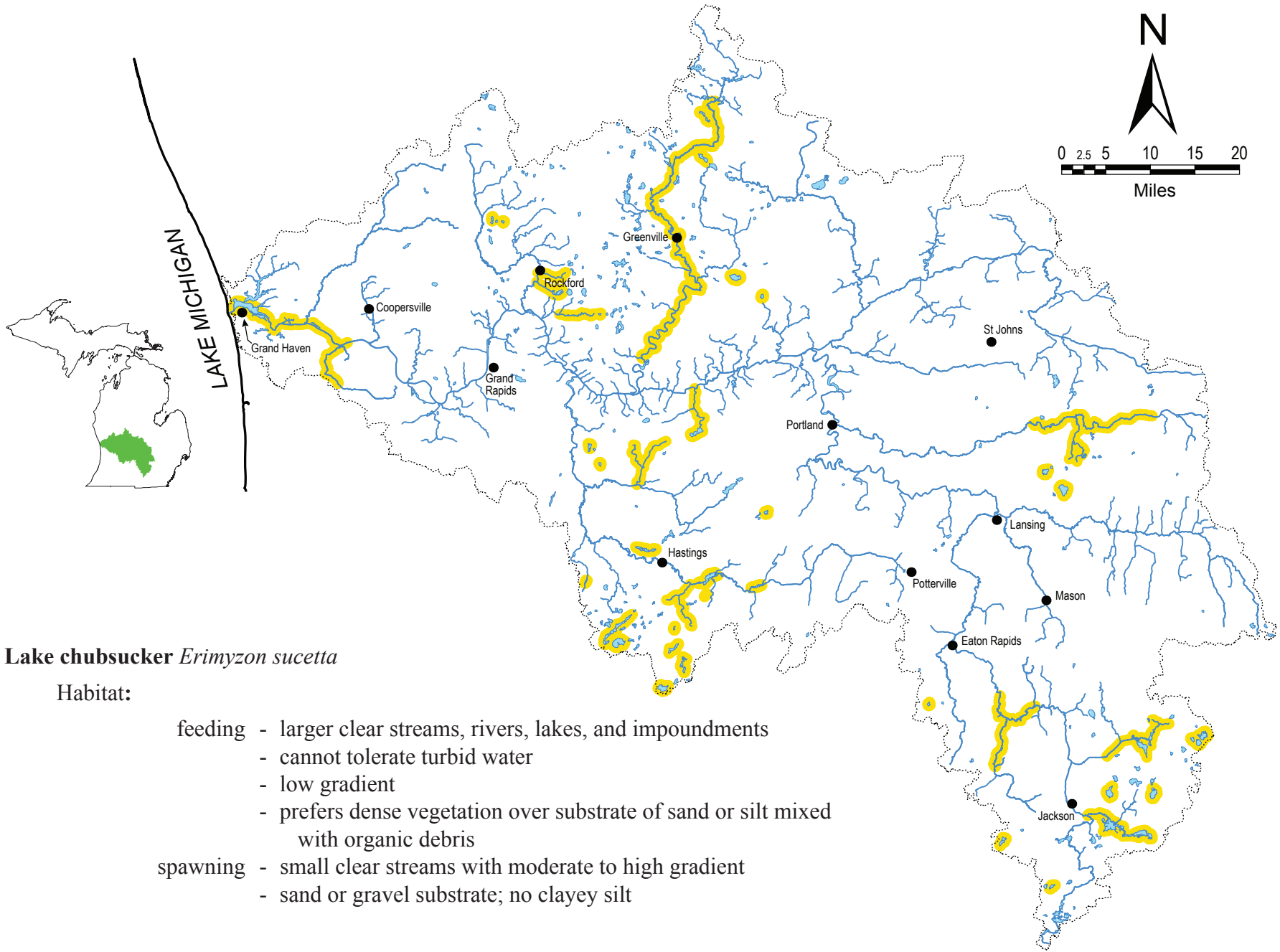


**White sucker** *Catostomus commersonii*

**Habitat:**

- feeding - streams, rivers, lakes, and impoundments
- can inhabit highly turbid and polluted waters
- spawning - quiet gravelly shallow areas of streams



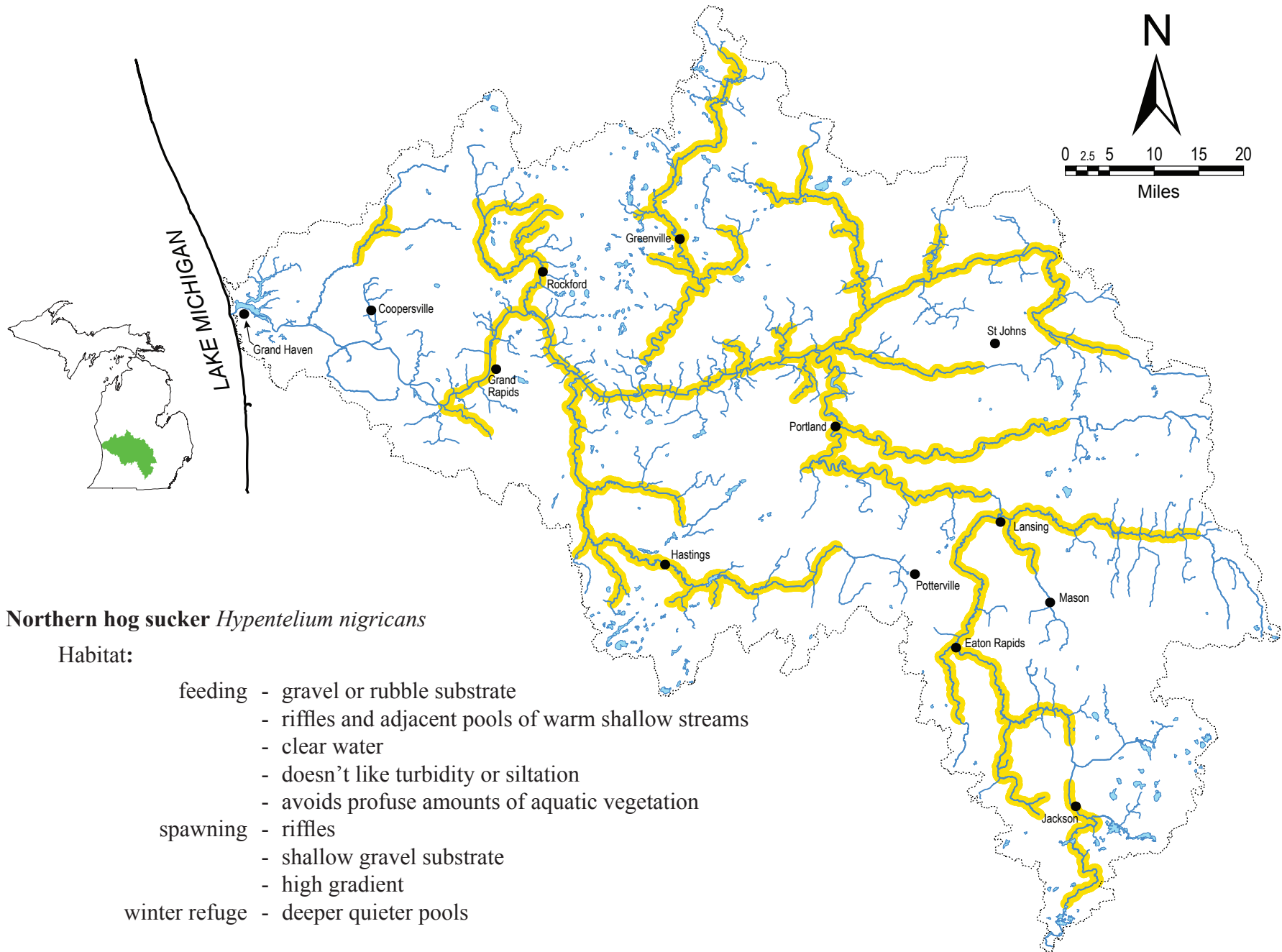


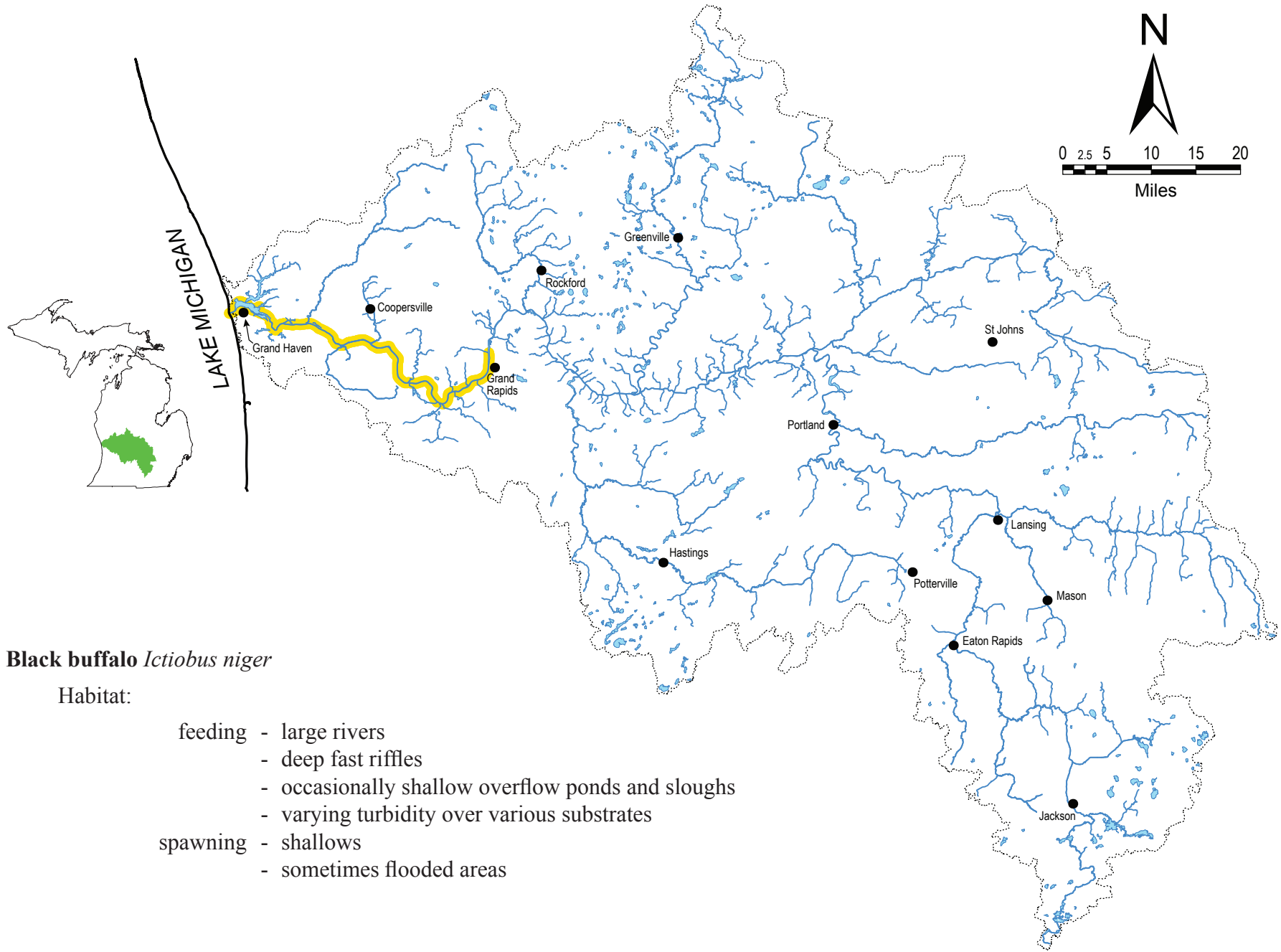
**Lake chubsucker** *Erimyzon sucetta*

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



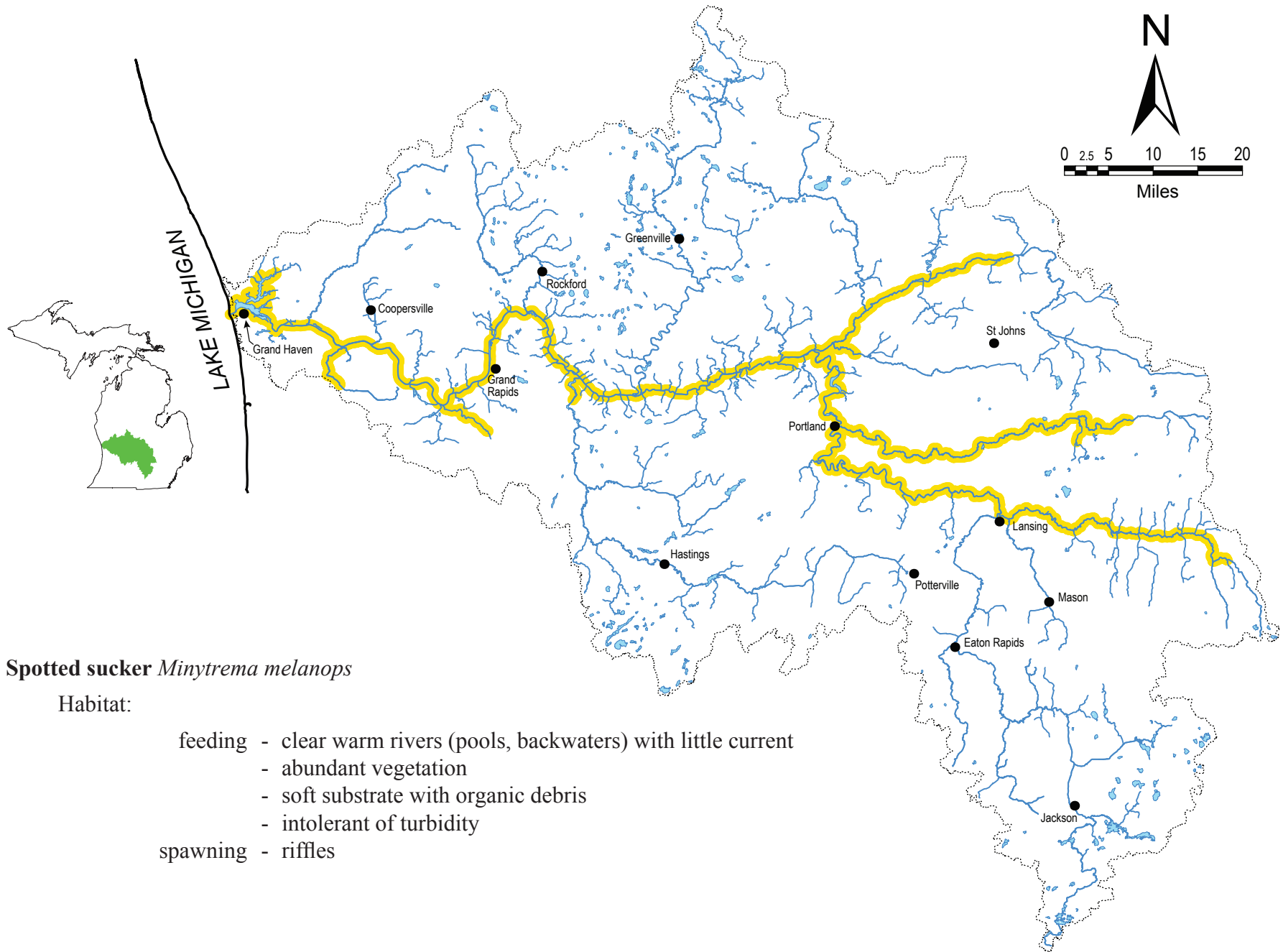




**Black buffalo *Ictiobus niger***

Habitat:

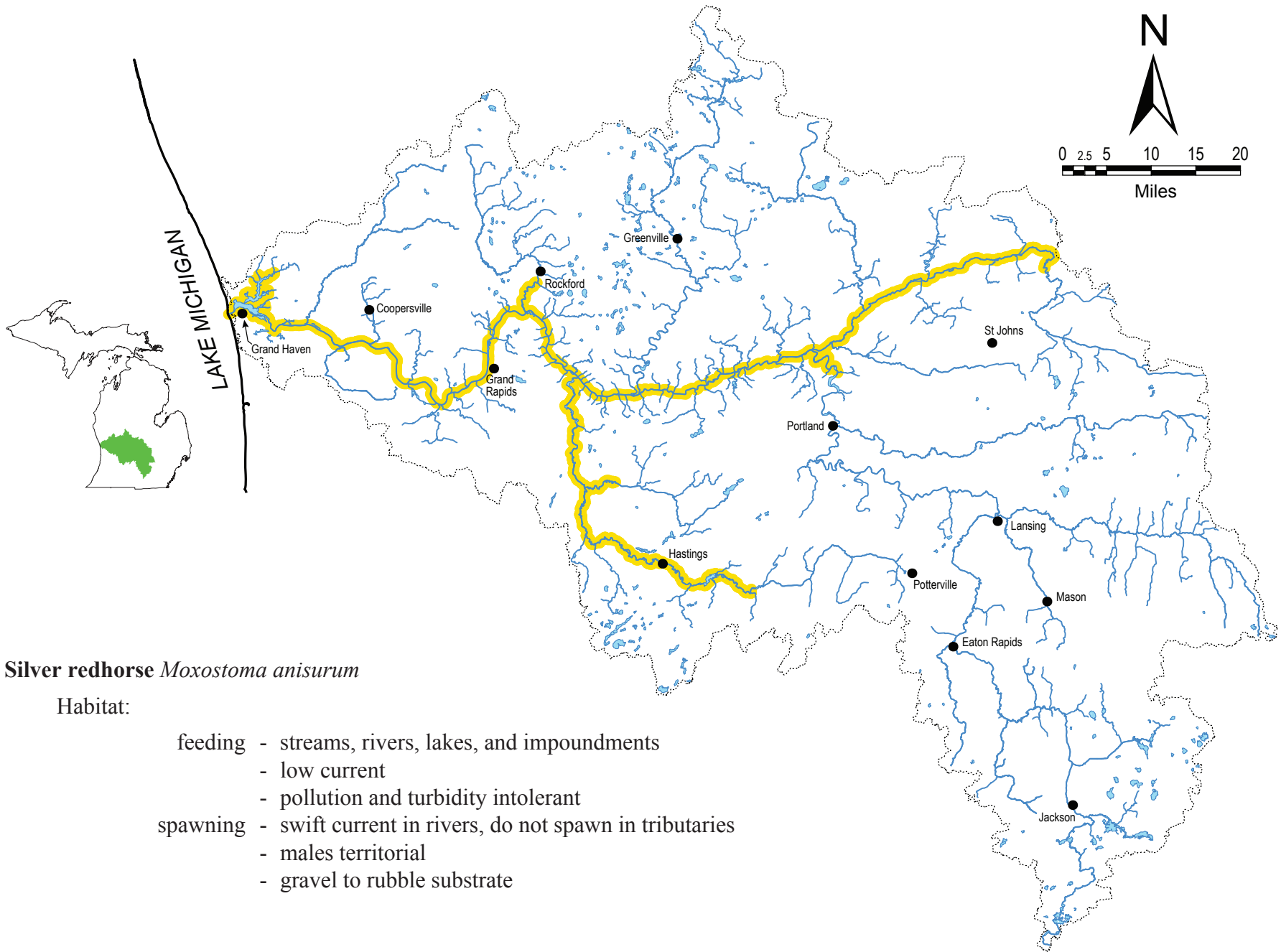
- feeding - large rivers
- deep fast riffles
- occasionally shallow overflow ponds and sloughs
- varying turbidity over various substrates
- spawning - shallows
- sometimes flooded areas



**Spotted sucker *Minytrema melanops***

Habitat:

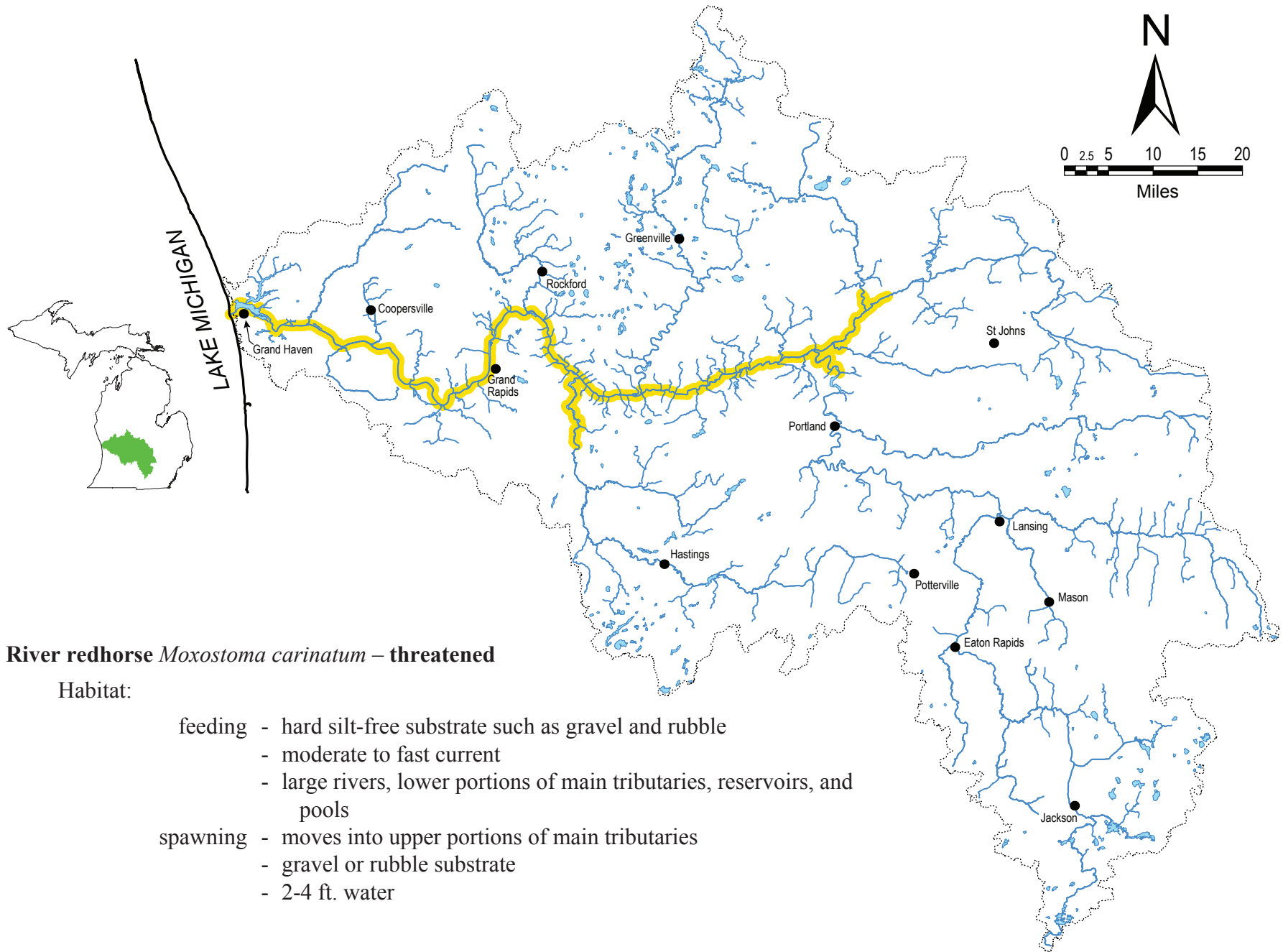
- feeding - clear warm rivers (pools, backwaters) with little current
- abundant vegetation
- soft substrate with organic debris
- intolerant of turbidity
- spawning - riffles



**Silver redhorse** *Moxostoma anisurum*

Habitat:

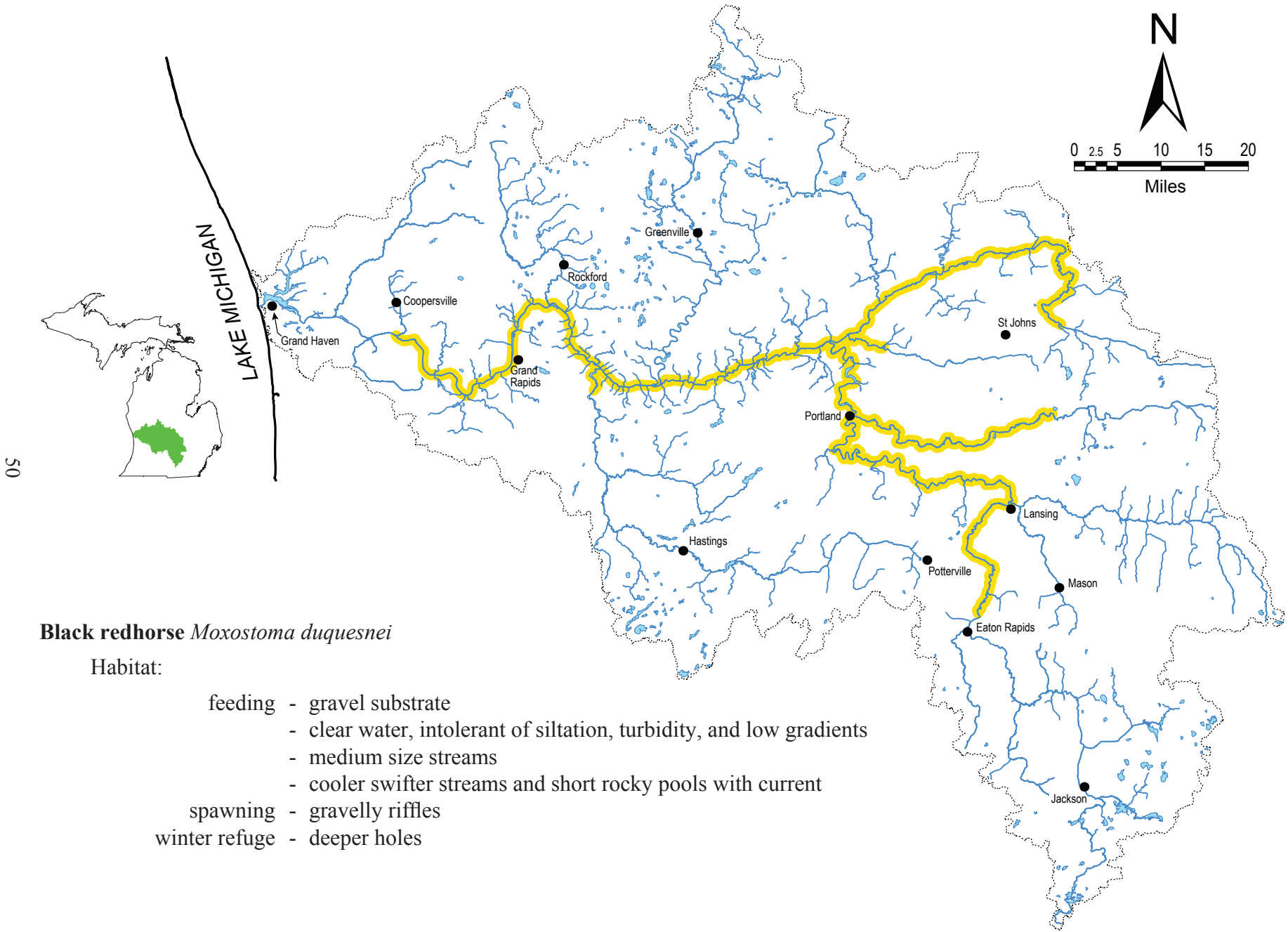
- feeding - streams, rivers, lakes, and impoundments
- low current
- pollution and turbidity intolerant
- spawning - swift current in rivers, do not spawn in tributaries
- males territorial
- gravel to rubble substrate



**River redhorse *Moxostoma carinatum* – threatened**

Habitat:

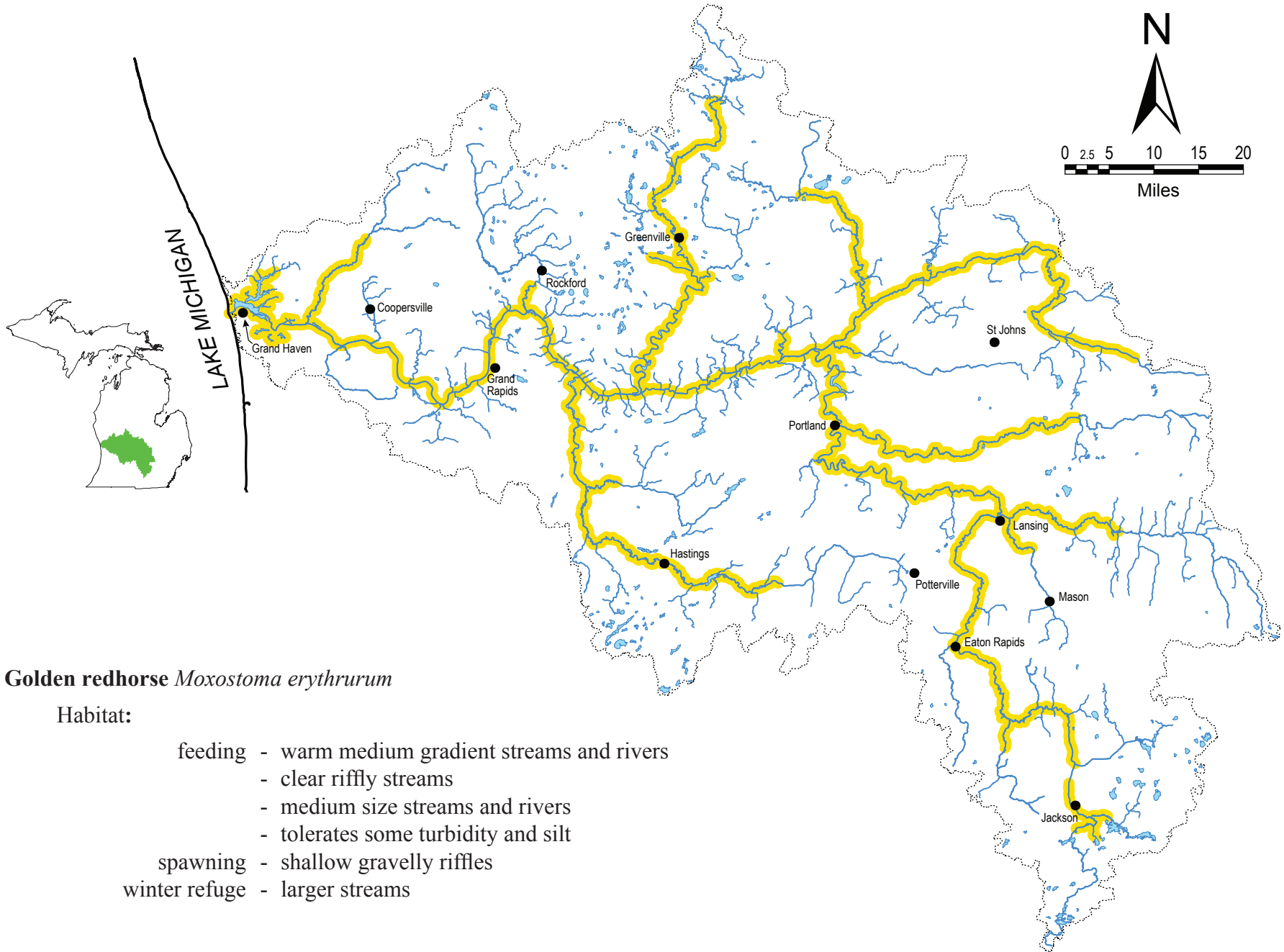
- feeding - hard silt-free substrate such as gravel and rubble
- moderate to fast current
- large rivers, lower portions of main tributaries, reservoirs, and pools
- spawning - moves into upper portions of main tributaries
- gravel or rubble substrate
- 2-4 ft. water



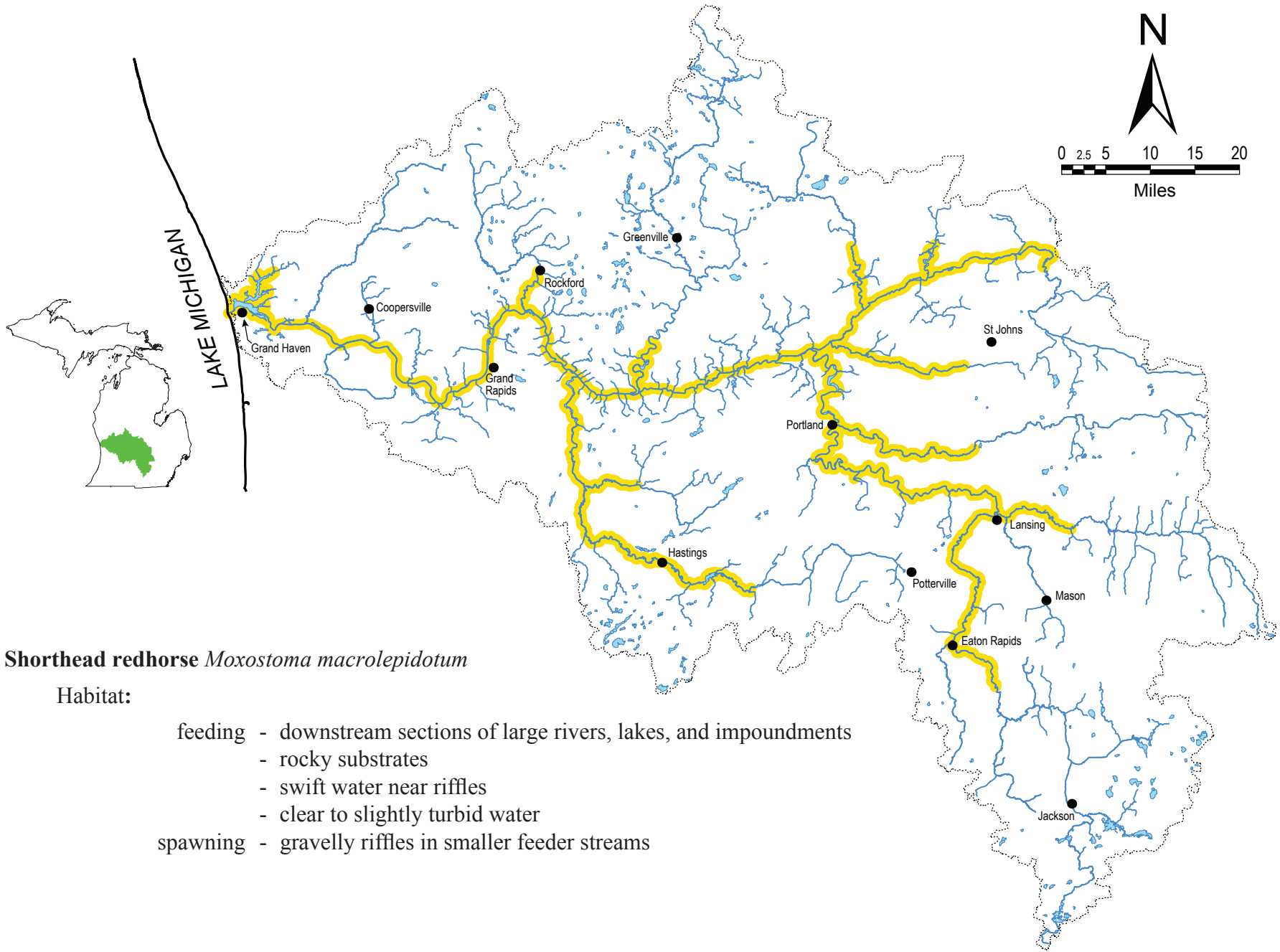
**Black redhorse** *Moxostoma duquesnei*

Habitat:

- feeding - gravel substrate
- clear water, intolerant of siltation, turbidity, and low gradients
- medium size streams
- cooler swifter streams and short rocky pools with current
- spawning - gravelly riffles
- winter refuge - deeper holes



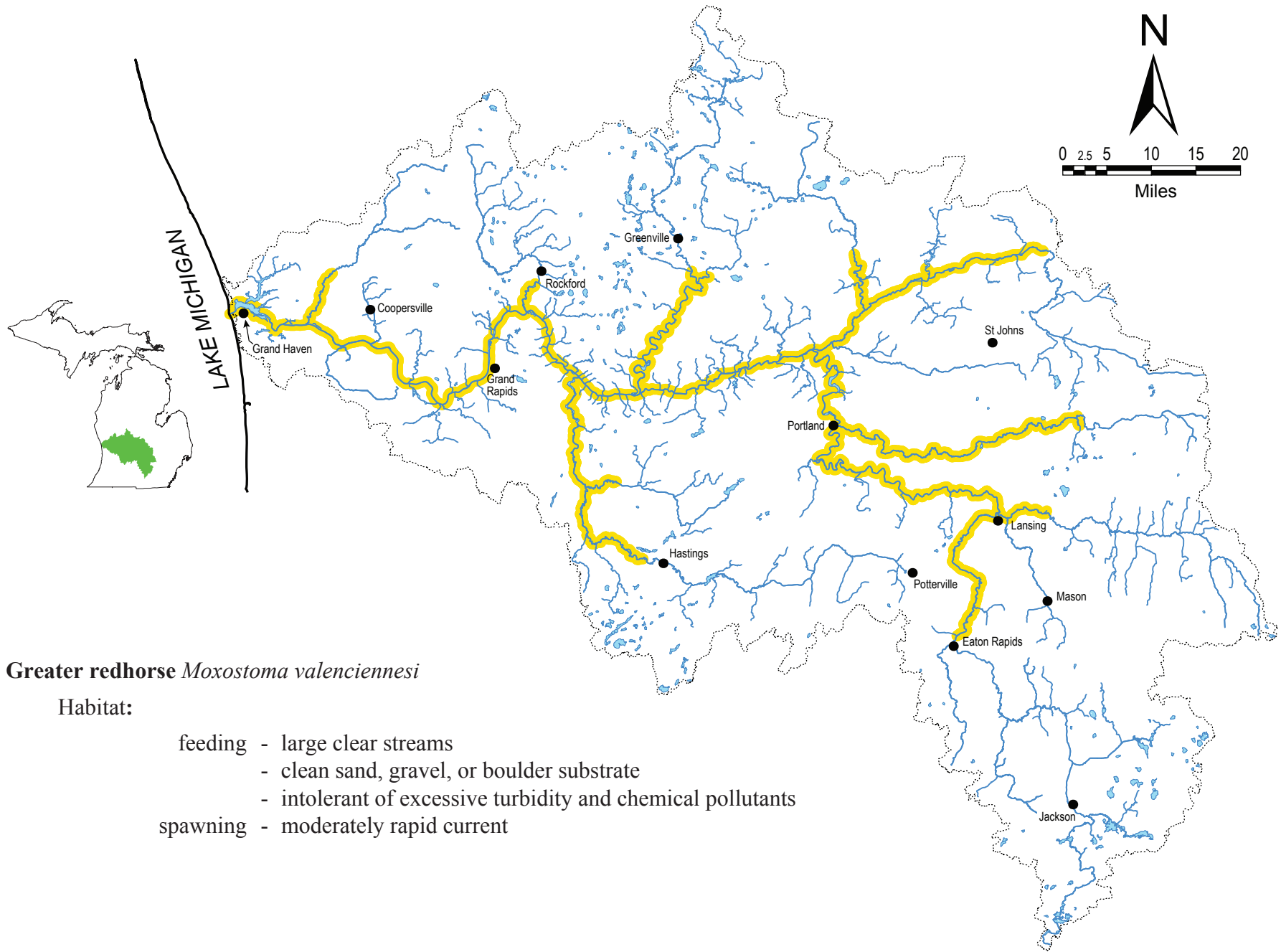




**Shorthead redhorse *Moxostoma macrolepidotum***

Habitat:

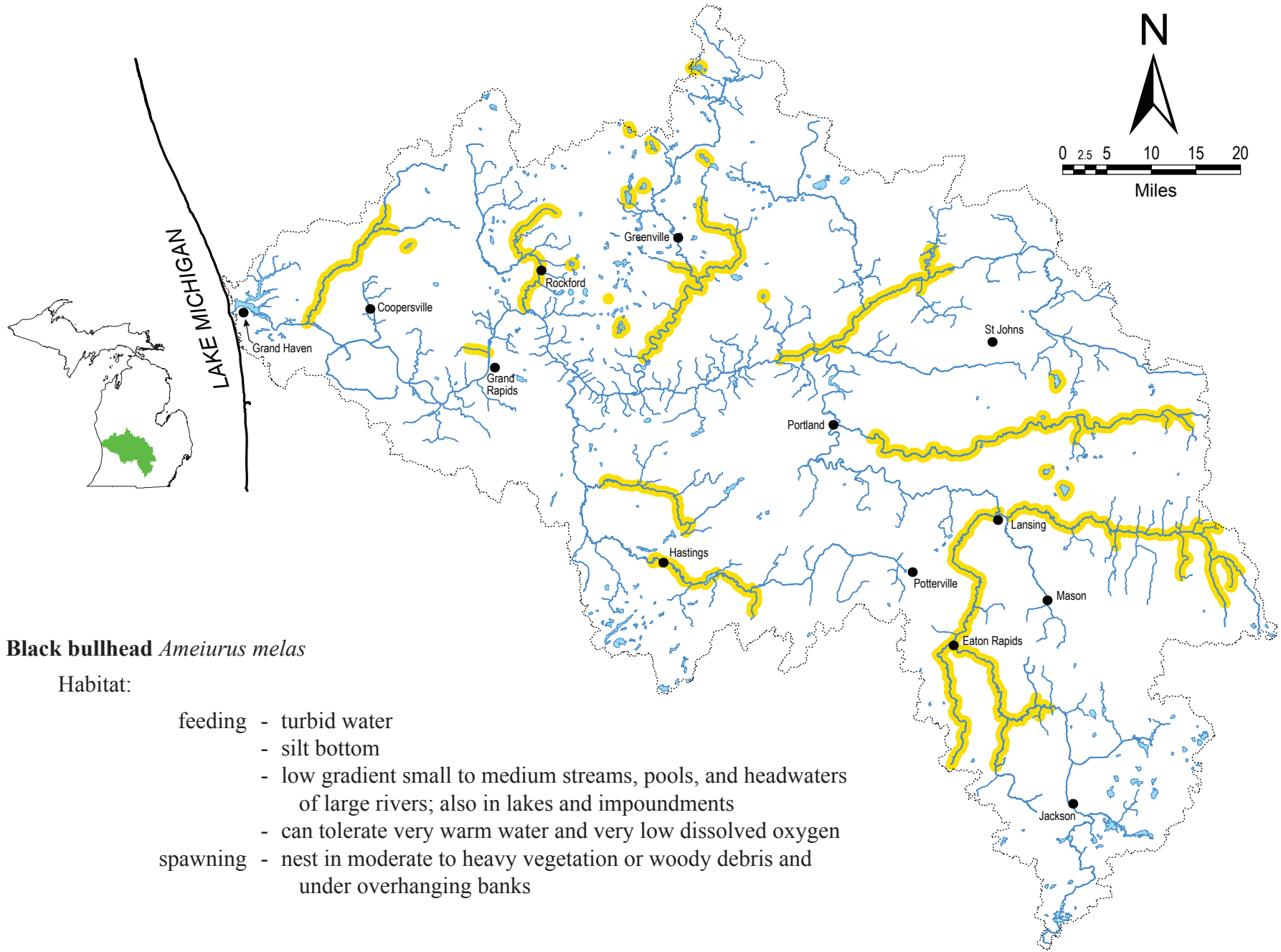
- feeding - downstream sections of large rivers, lakes, and impoundments
- rocky substrates
- swift water near riffles
- clear to slightly turbid water
- spawning - gravelly riffles in smaller feeder streams



**Greater redhorse *Moxostoma valenciennesi***

**Habitat:**

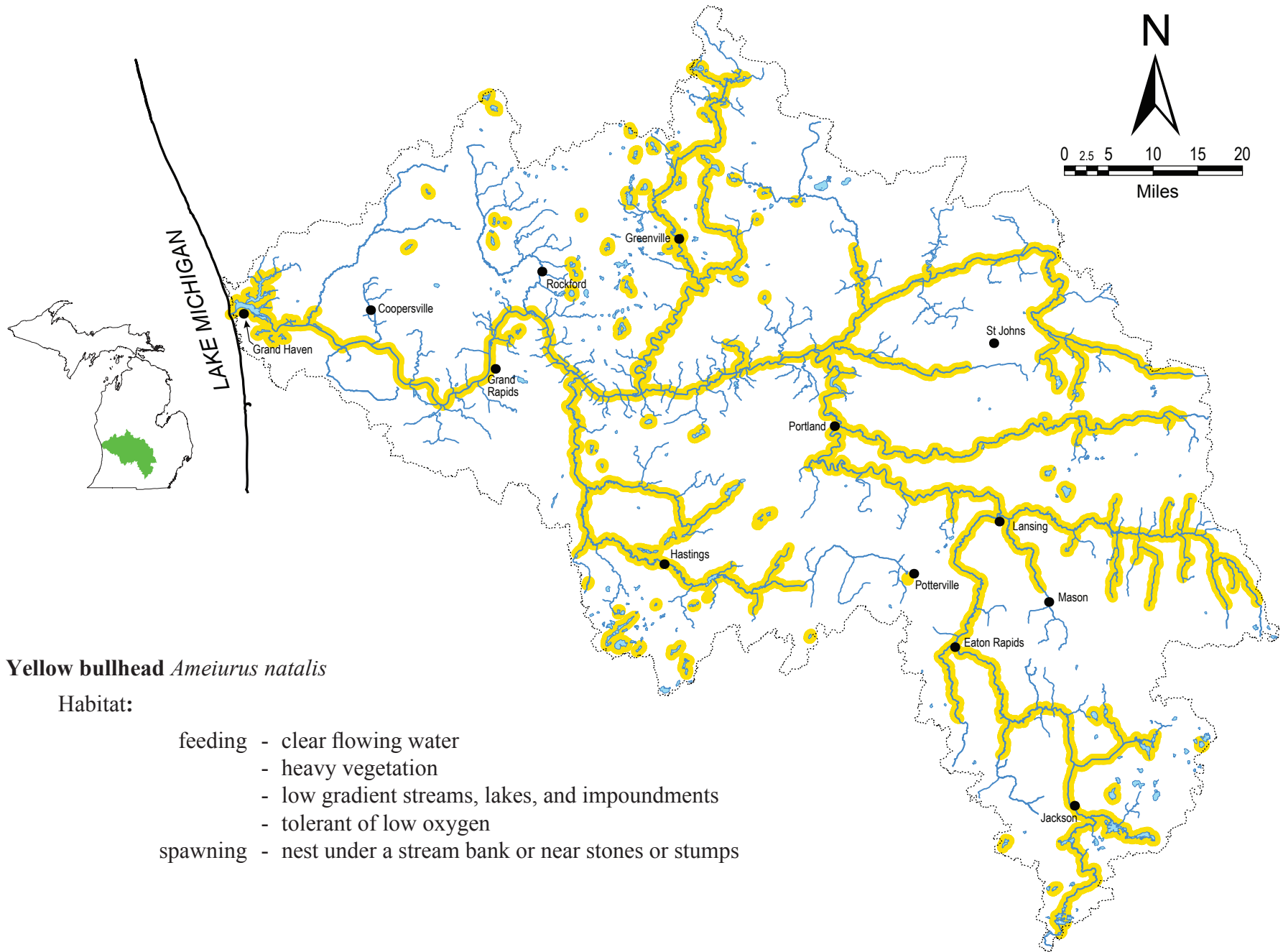
- feeding - large clear streams
- clean sand, gravel, or boulder substrate
- intolerant of excessive turbidity and chemical pollutants
- spawning - moderately rapid current

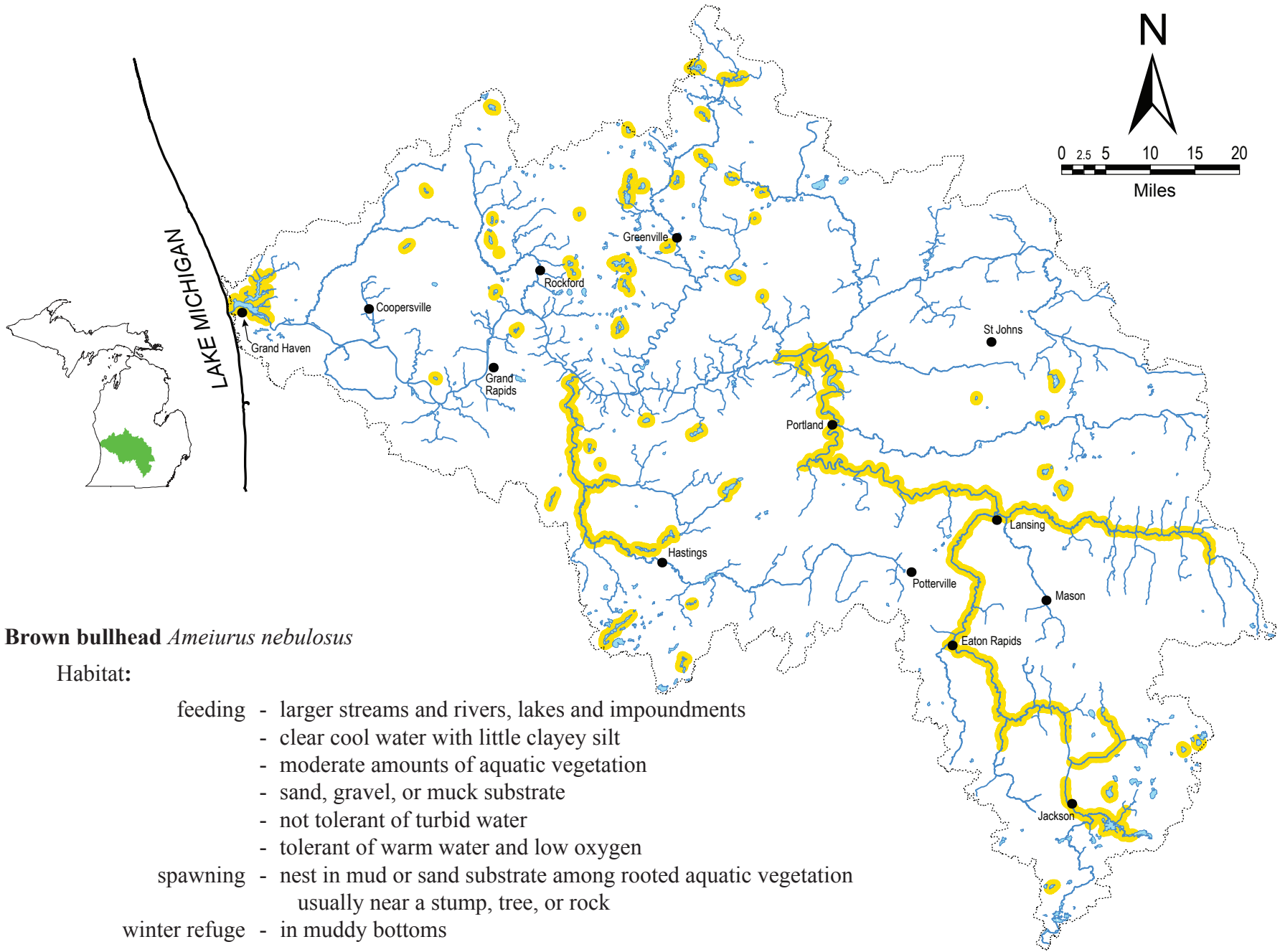


**Black bullhead *Ameiurus melas***

Habitat:

- feeding - turbid water
- silt bottom
- low gradient small to medium streams, pools, and headwaters of large rivers; also in lakes and impoundments
- can tolerate very warm water and very low dissolved oxygen
- spawning - nest in moderate to heavy vegetation or woody debris and under overhanging banks

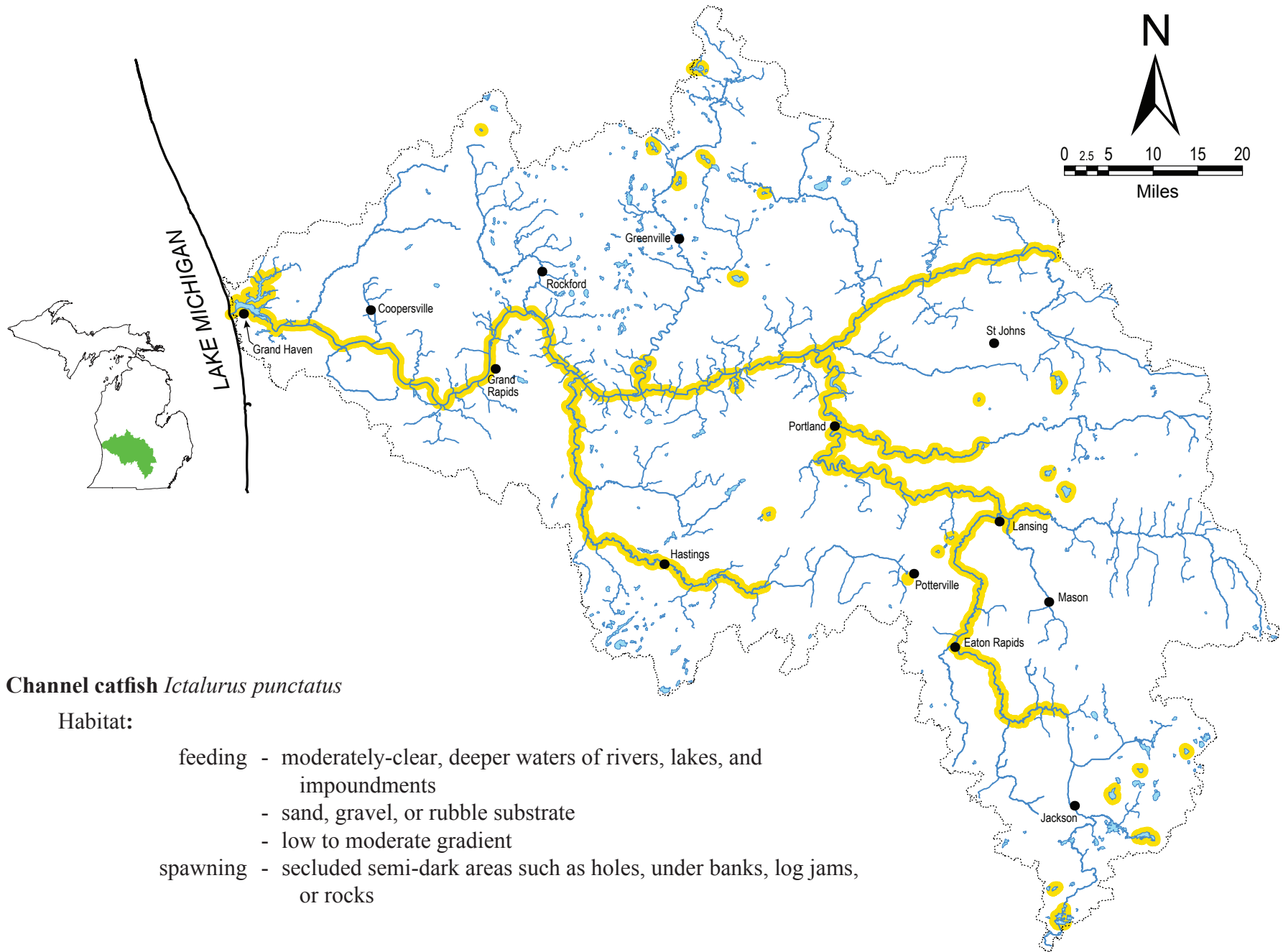


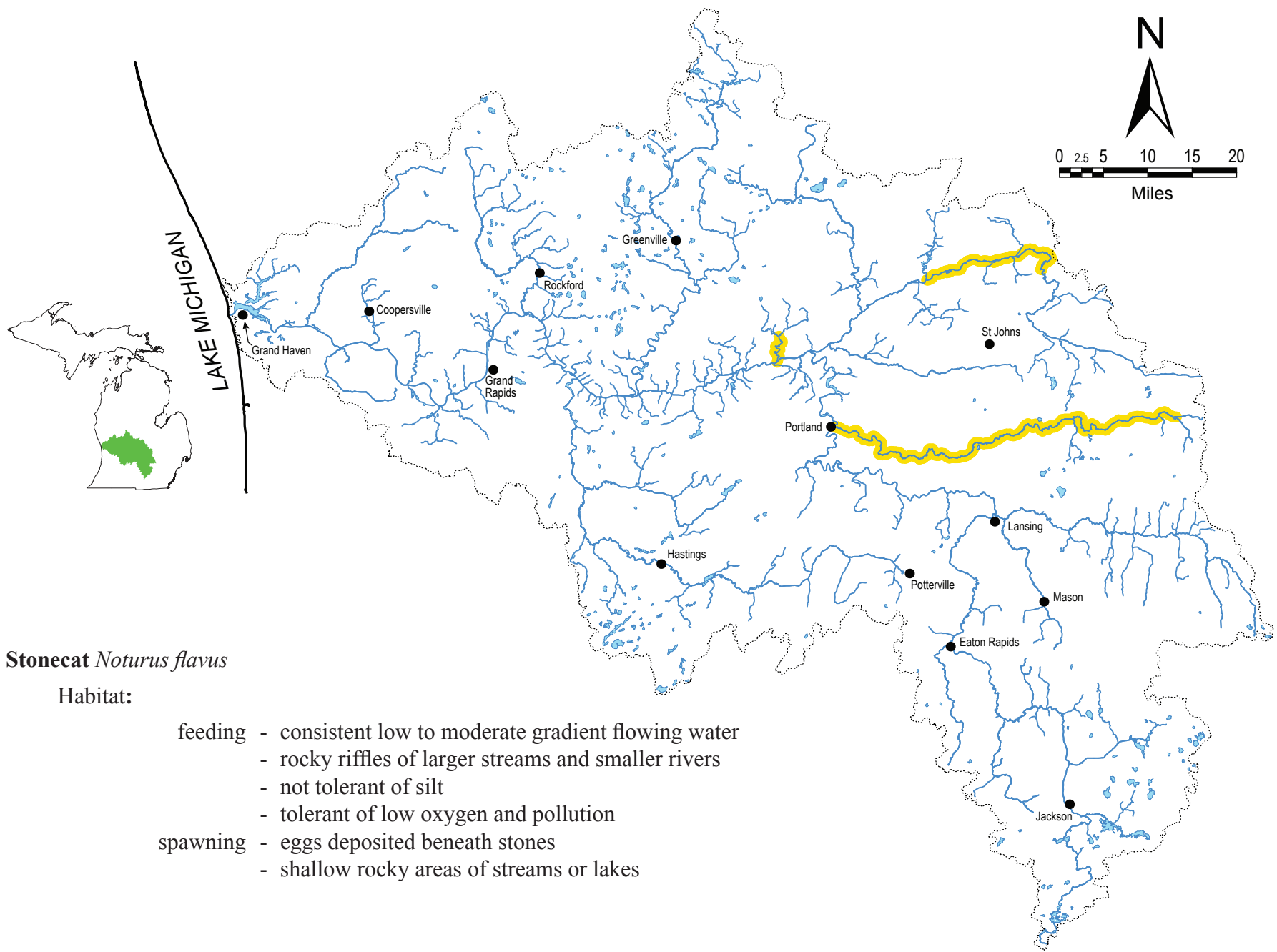


**Brown bullhead** *Ameiurus nebulosus*

Habitat:

- feeding - larger streams and rivers, lakes and impoundments
- clear cool water with little clayey silt
- moderate amounts of aquatic vegetation
- sand, gravel, or muck substrate
- not tolerant of turbid water
- tolerant of warm water and low oxygen
- spawning - nest in mud or sand substrate among rooted aquatic vegetation  
usually near a stump, tree, or rock
- winter refuge - in muddy bottoms



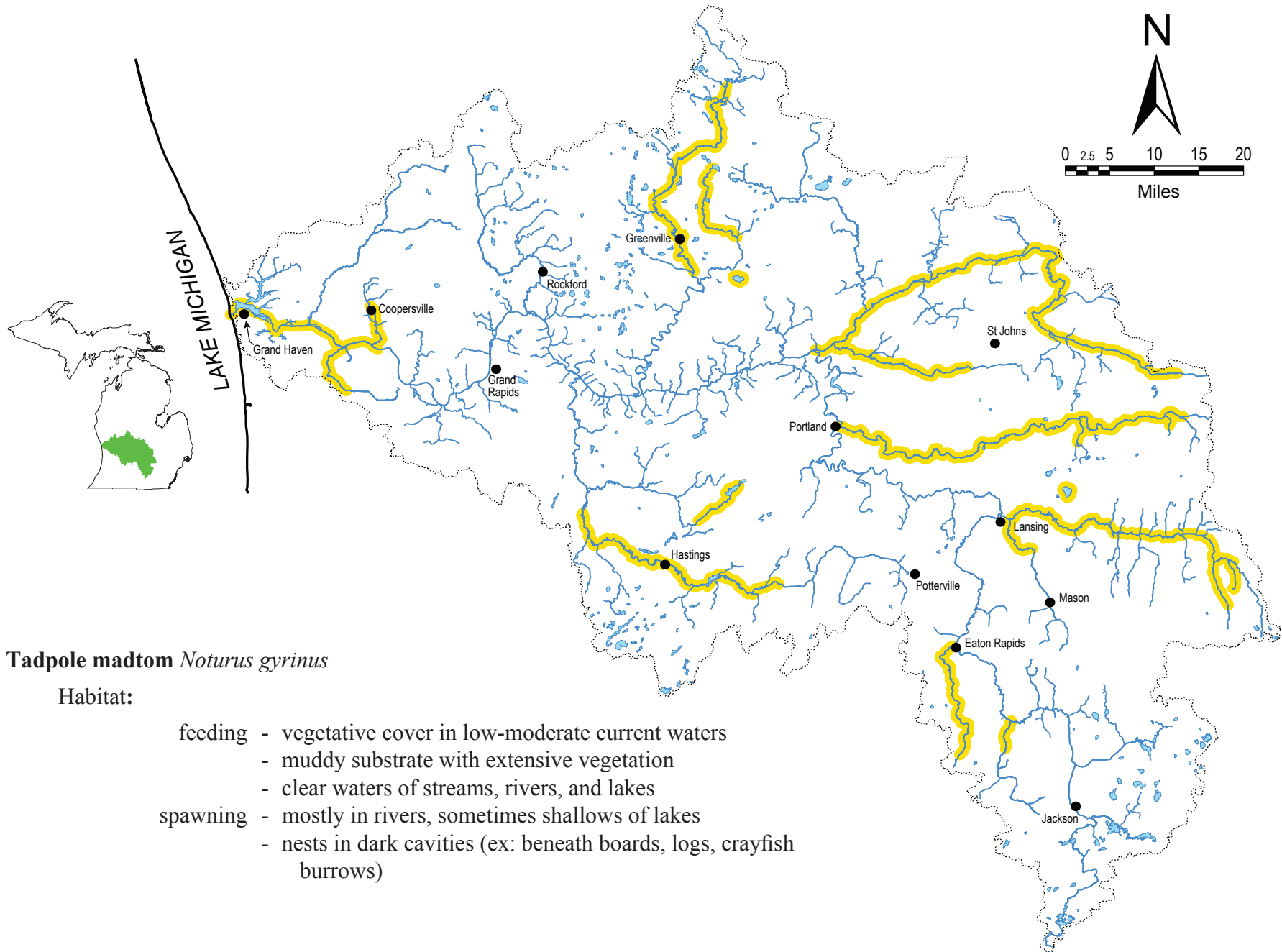


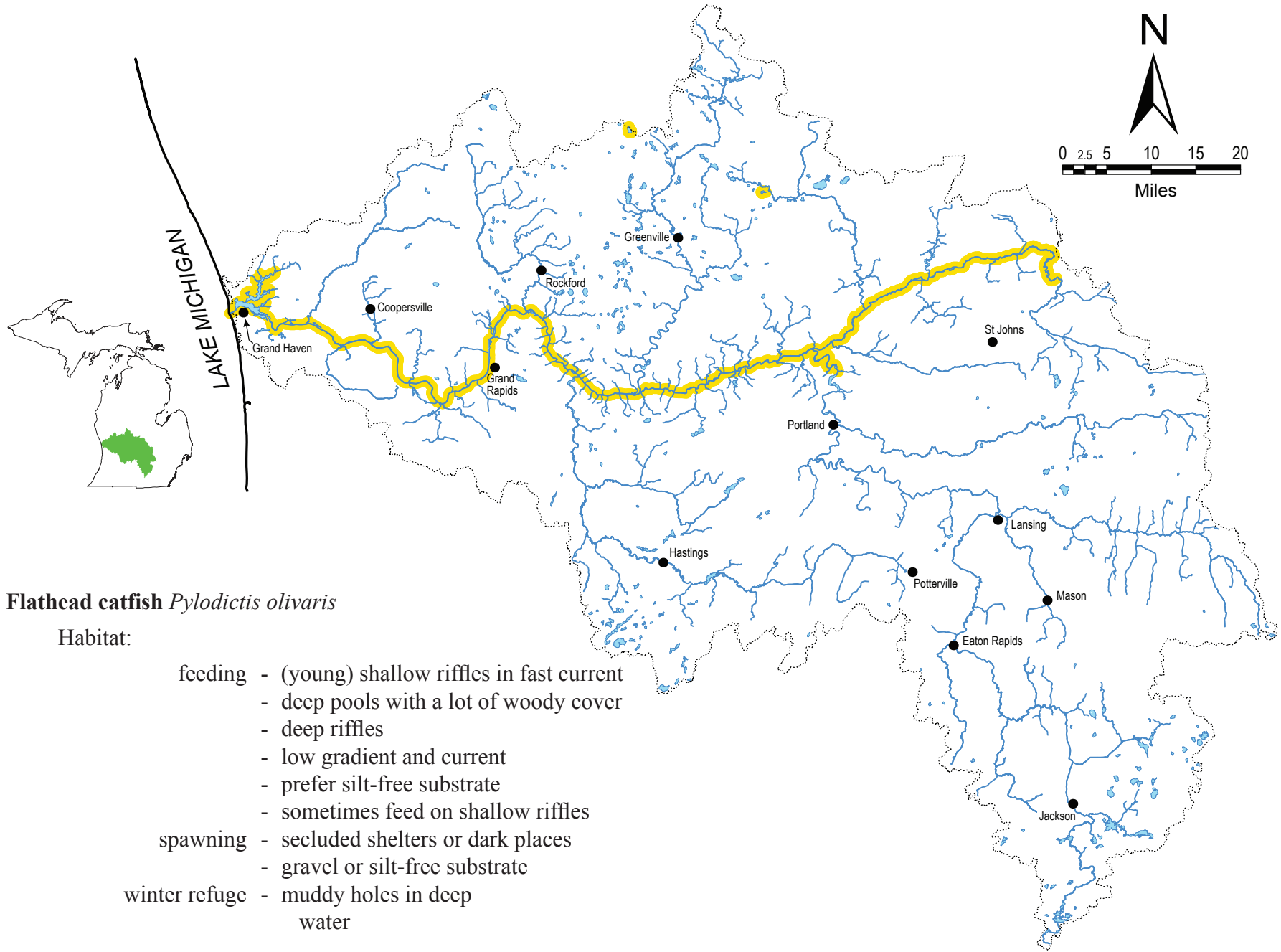
**Stonecat *Noturus flavus***

**Habitat:**

- feeding - consistent low to moderate gradient flowing water
- rocky riffles of larger streams and smaller rivers
- not tolerant of silt
- tolerant of low oxygen and pollution
- spawning - eggs deposited beneath stones
- shallow rocky areas of streams or lakes



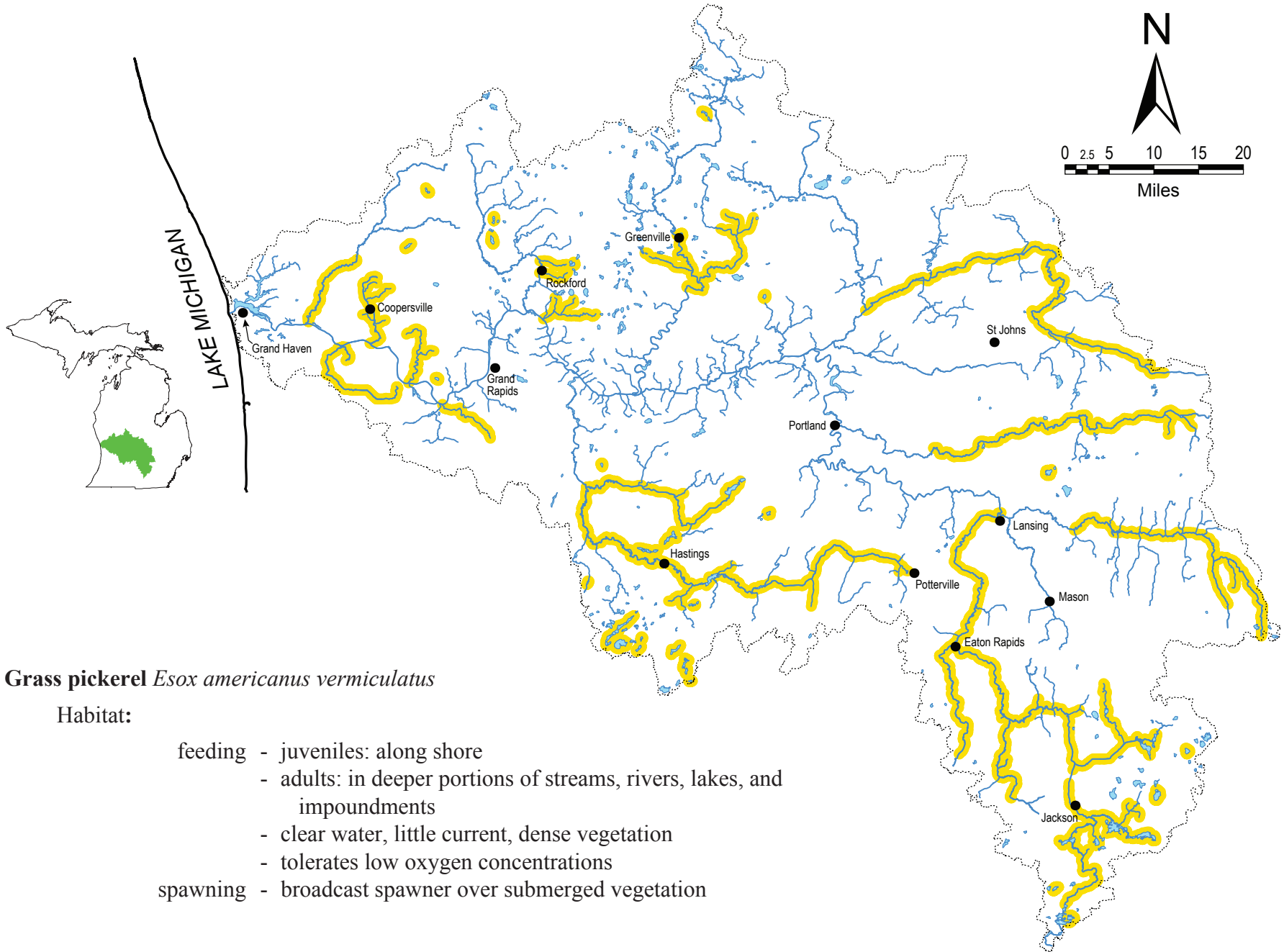




**Flathead catfish *Pylodictis olivaris***

Habitat:

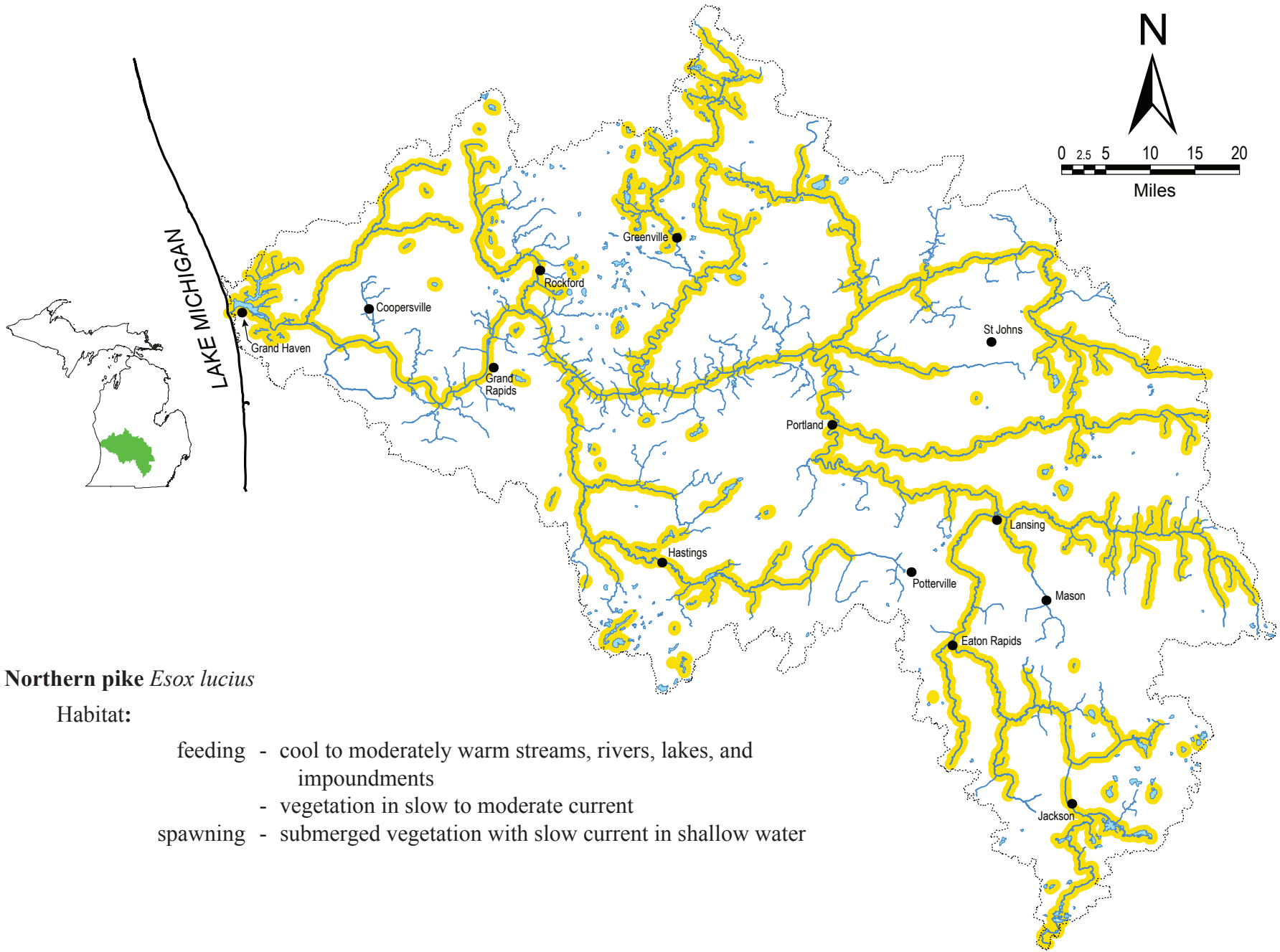
- feeding - (young) shallow riffles in fast current
- deep pools with a lot of woody cover
- deep riffles
- low gradient and current
- prefer silt-free substrate
- sometimes feed on shallow riffles
- spawning - secluded shelters or dark places
- gravel or silt-free substrate
- winter refuge - muddy holes in deep water



**Grass pickerel** *Esox americanus vermiculatus*

**Habitat:**

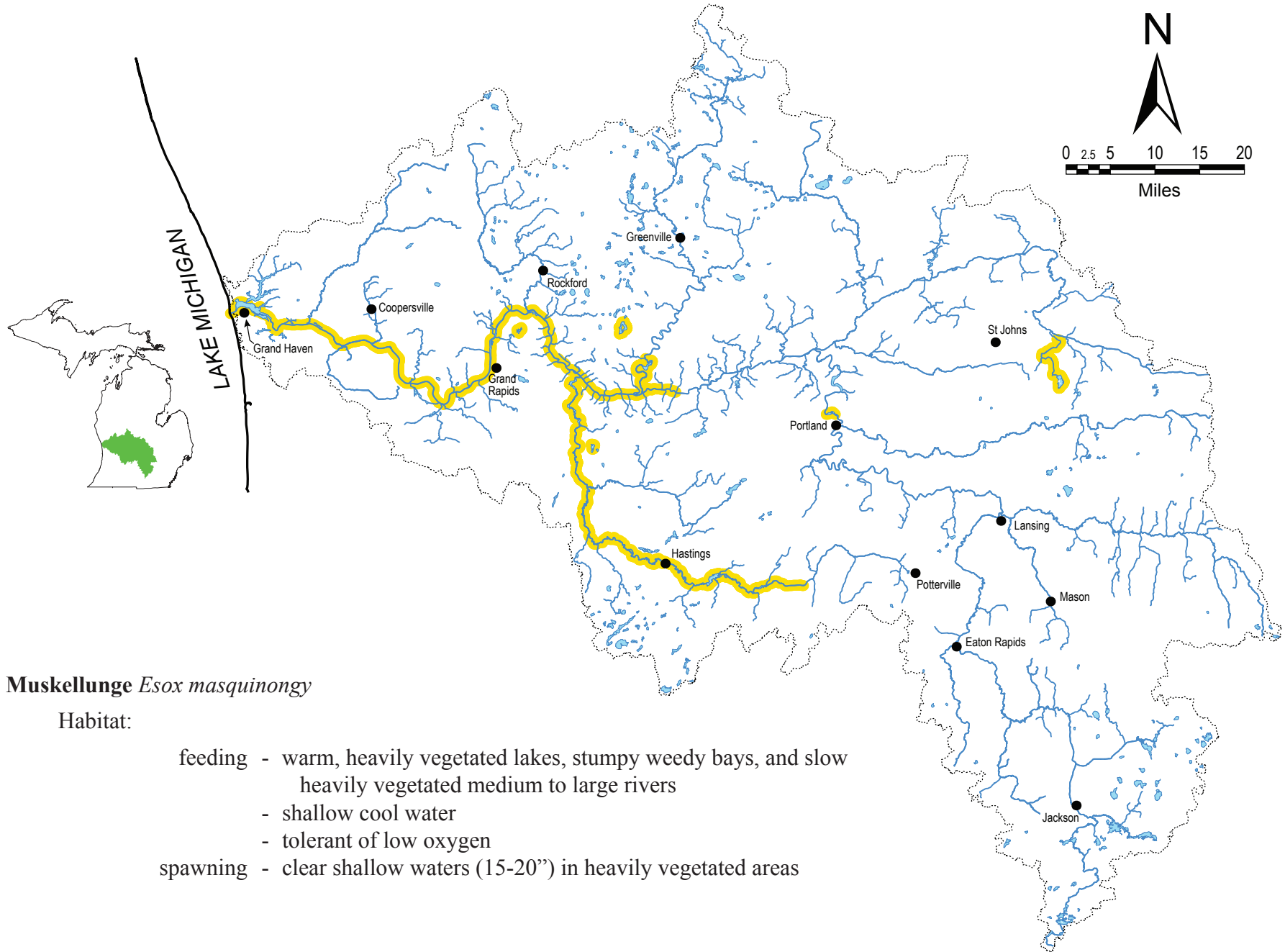
- feeding - juveniles: along shore
- adults: in deeper portions of streams, rivers, lakes, and impoundments
- clear water, little current, dense vegetation
- tolerates low oxygen concentrations
- spawning - broadcast spawner over submerged vegetation



**Northern pike** *Esox lucius*

Habitat:

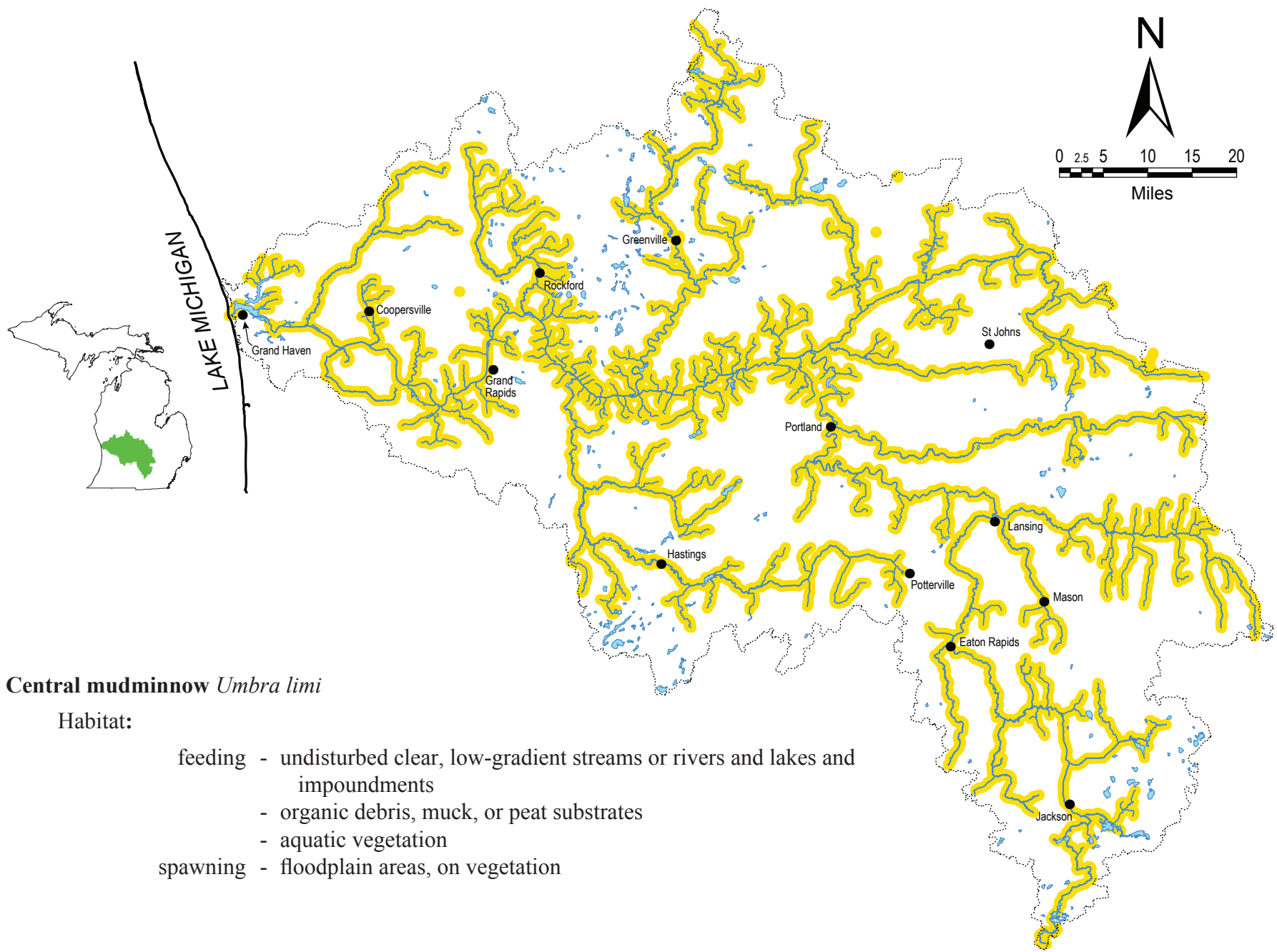
- feeding - cool to moderately warm streams, rivers, lakes, and impoundments
- vegetation in slow to moderate current
- spawning - submerged vegetation with slow current in shallow water



**Muskellunge** *Esox masquinongy*

Habitat:

- feeding - warm, heavily vegetated lakes, stumpy weedy bays, and slow heavily vegetated medium to large rivers
- shallow cool water
- tolerant of low oxygen
- spawning - clear shallow waters (15-20") in heavily vegetated areas

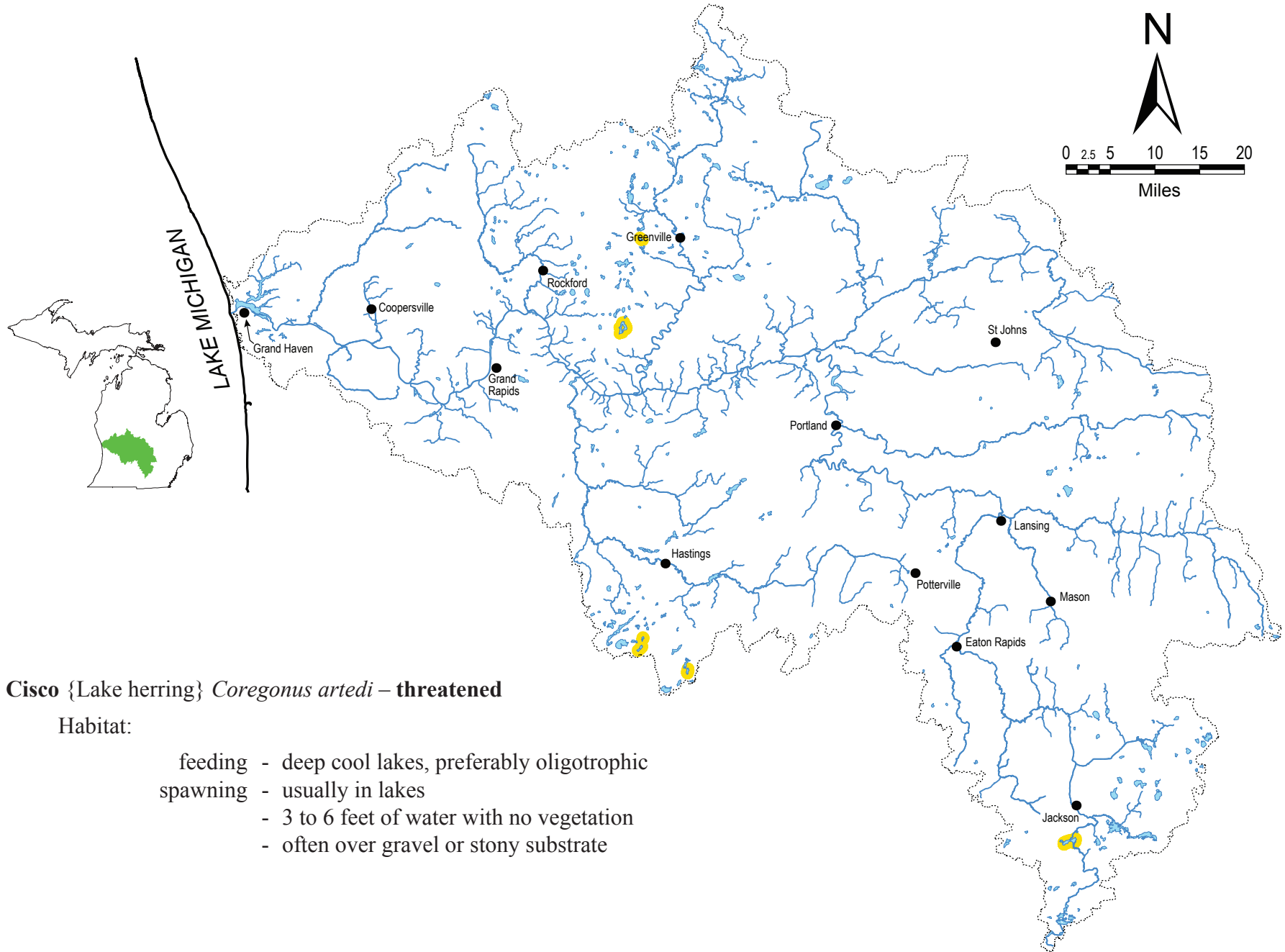


**Central mudminnow *Umbra limi***

**Habitat:**

- feeding - undisturbed clear, low-gradient streams or rivers and lakes and impoundments
- organic debris, muck, or peat substrates
- aquatic vegetation
- spawning - floodplain areas, on vegetation



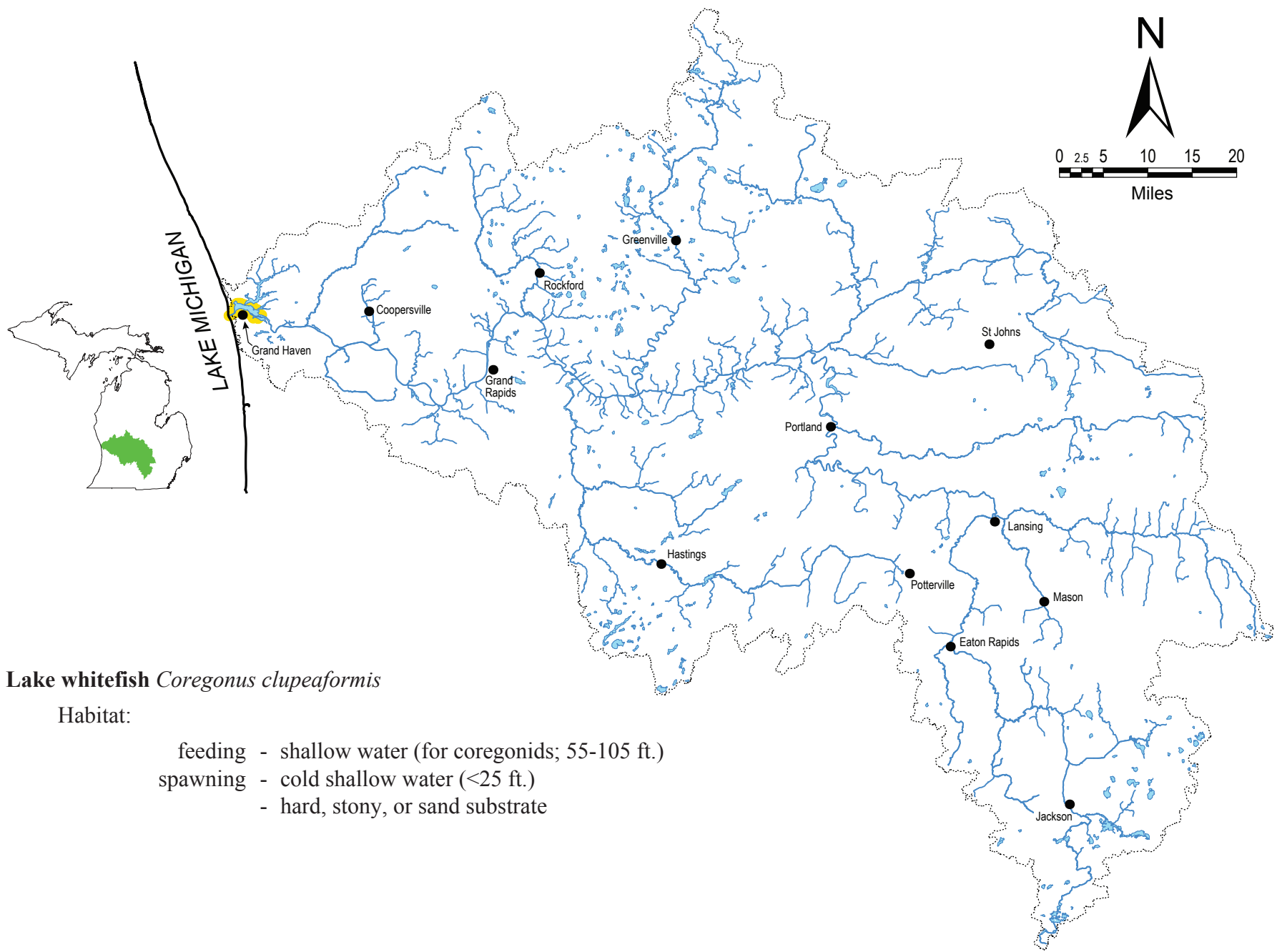


**Cisco {Lake herring} *Coregonus artedi* – threatened**

**Habitat:**

- feeding - deep cool lakes, preferably oligotrophic
- spawning - usually in lakes
  - 3 to 6 feet of water with no vegetation
  - often over gravel or stony substrate



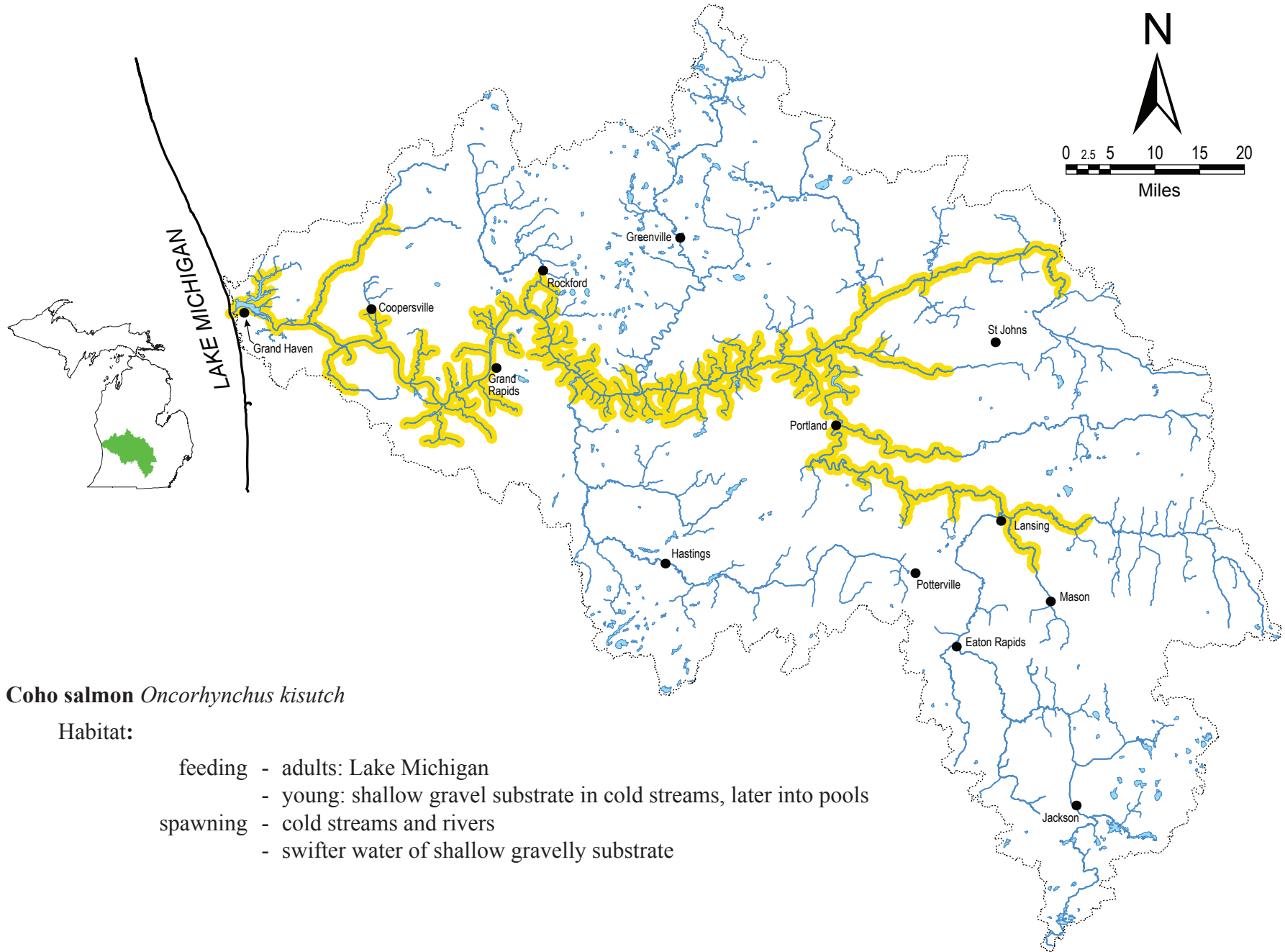


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**Lake whitefish** *Coregonus clupeaformis*

Habitat:

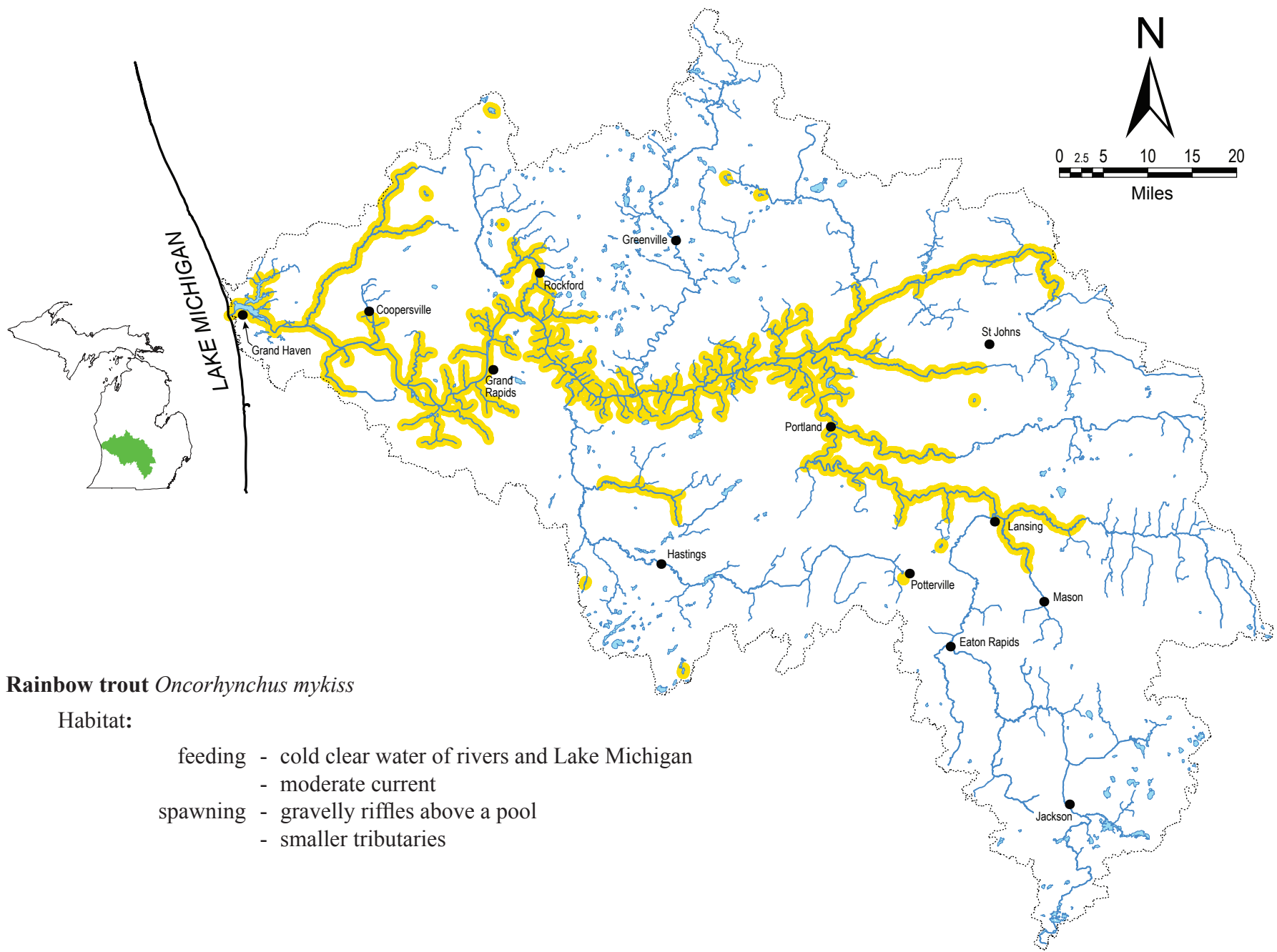
- feeding - shallow water (for coregonids; 55-105 ft.)
- spawning - cold shallow water (<25 ft.)
- hard, stony, or sand substrate



**Coho salmon *Oncorhynchus kisutch***

**Habitat:**

- feeding - adults: Lake Michigan
- young: shallow gravel substrate in cold streams, later into pools
- spawning - cold streams and rivers
- swifter water of shallow gravelly substrate

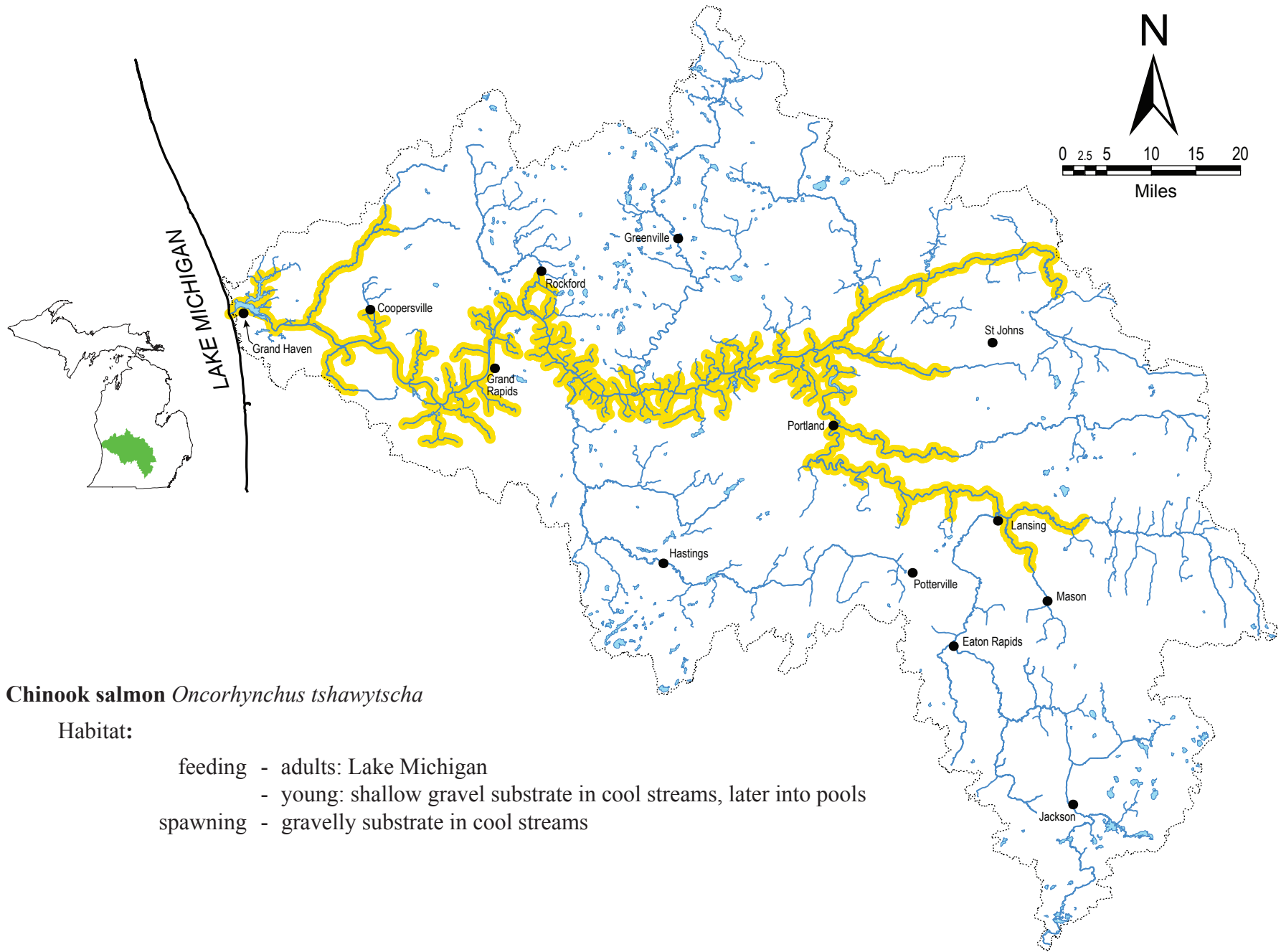


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**Rainbow trout *Oncorhynchus mykiss***

**Habitat:**

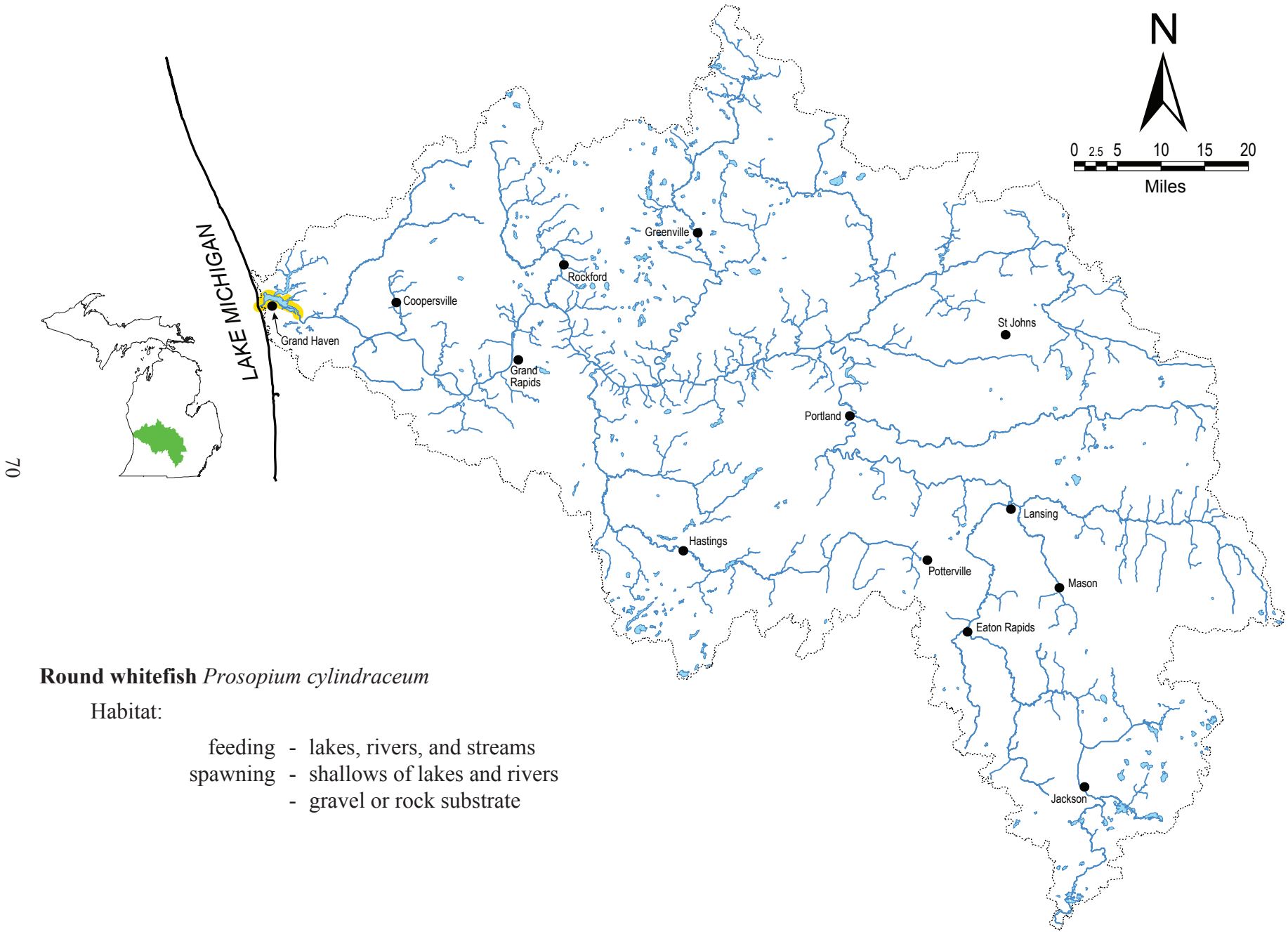
- feeding - cold clear water of rivers and Lake Michigan
- moderate current
- spawning - gravelly riffles above a pool
- smaller tributaries



**Chinook salmon *Oncorhynchus tshawytscha***

**Habitat:**

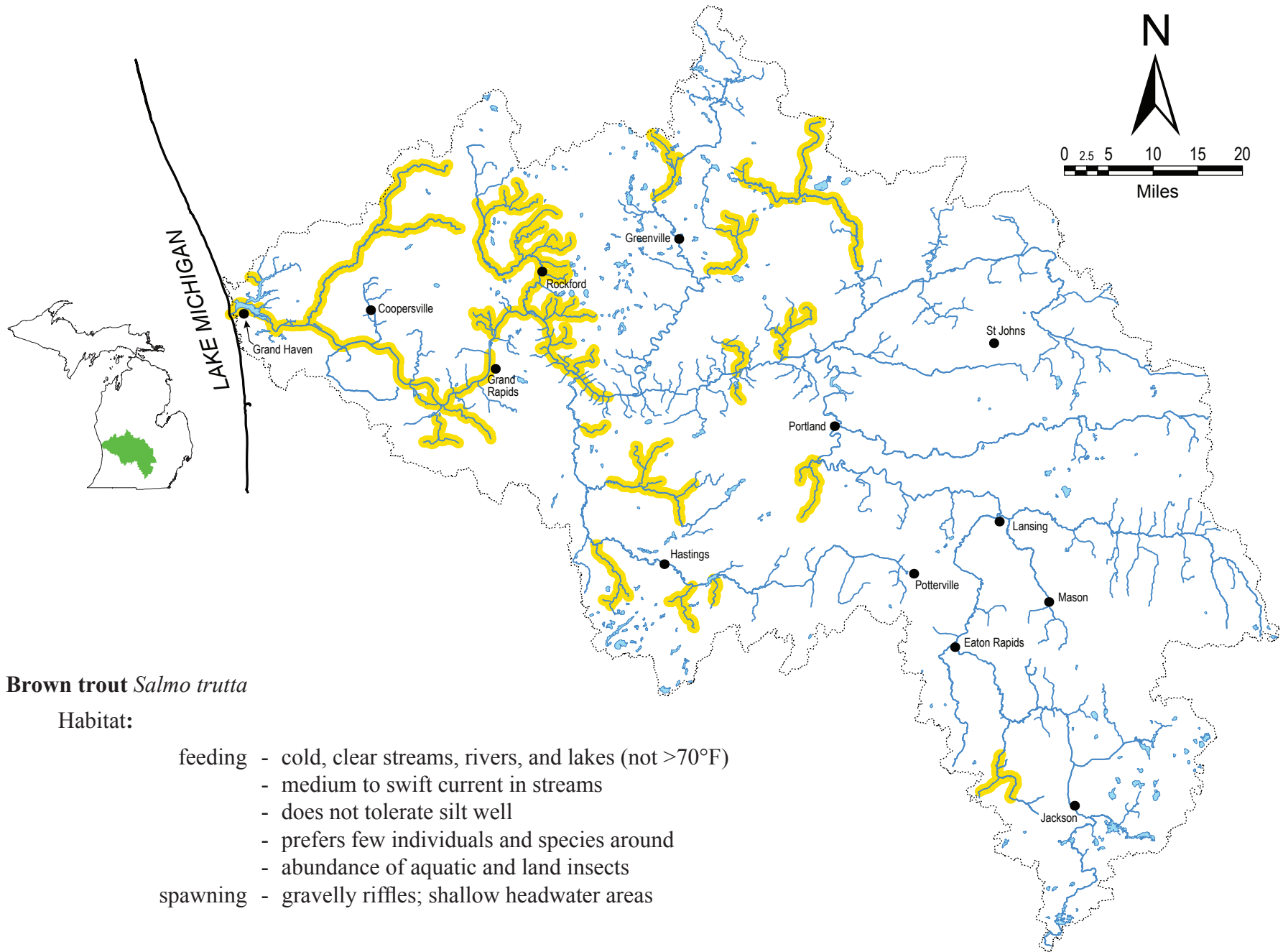
- feeding - adults: Lake Michigan
- young: shallow gravel substrate in cool streams, later into pools
- spawning - gravelly substrate in cool streams

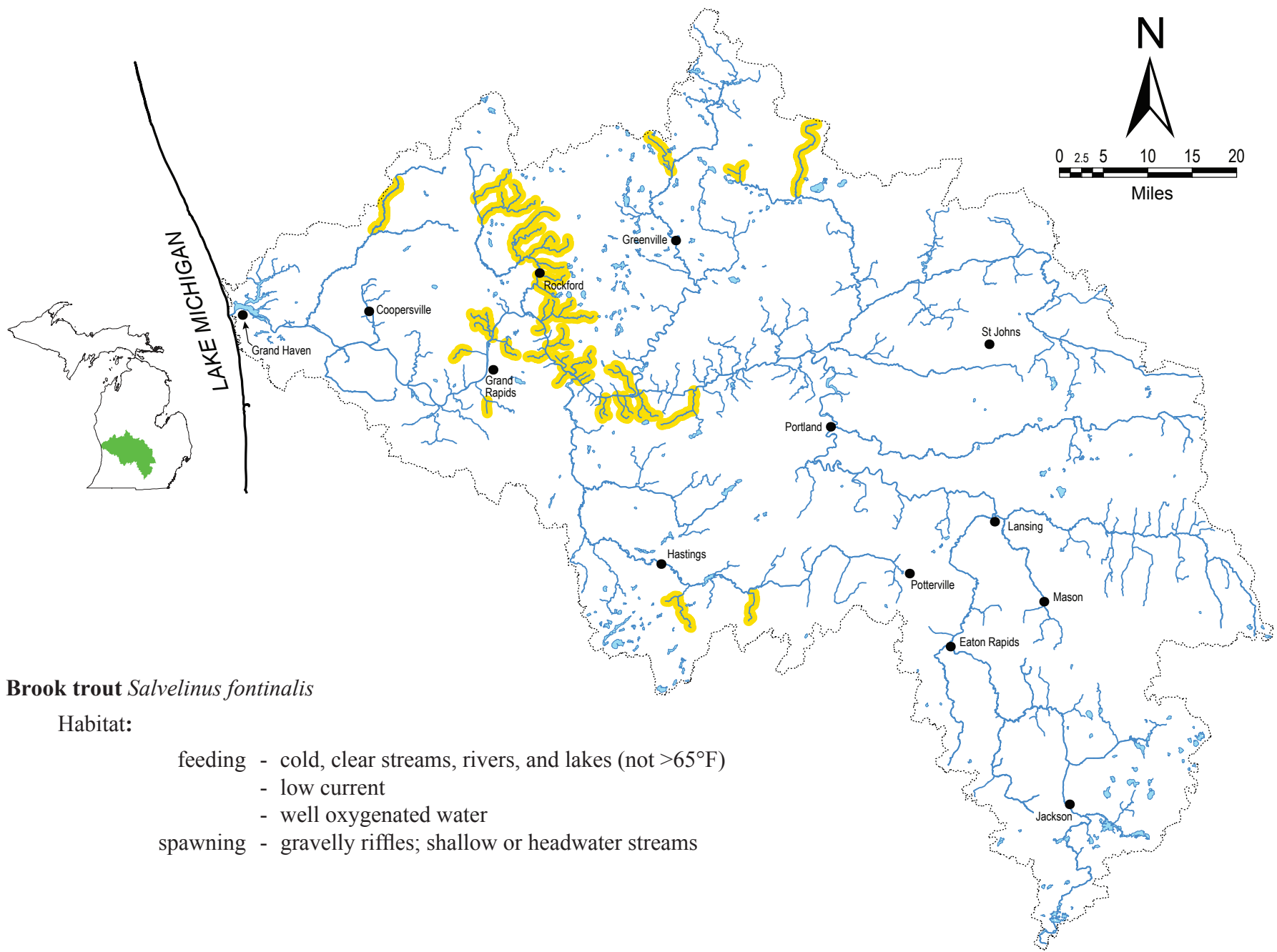


**Round whitefish** *Prosopium cylindraceum*

Habitat:

- feeding - lakes, rivers, and streams
- spawning - shallows of lakes and rivers
- gravel or rock substrate



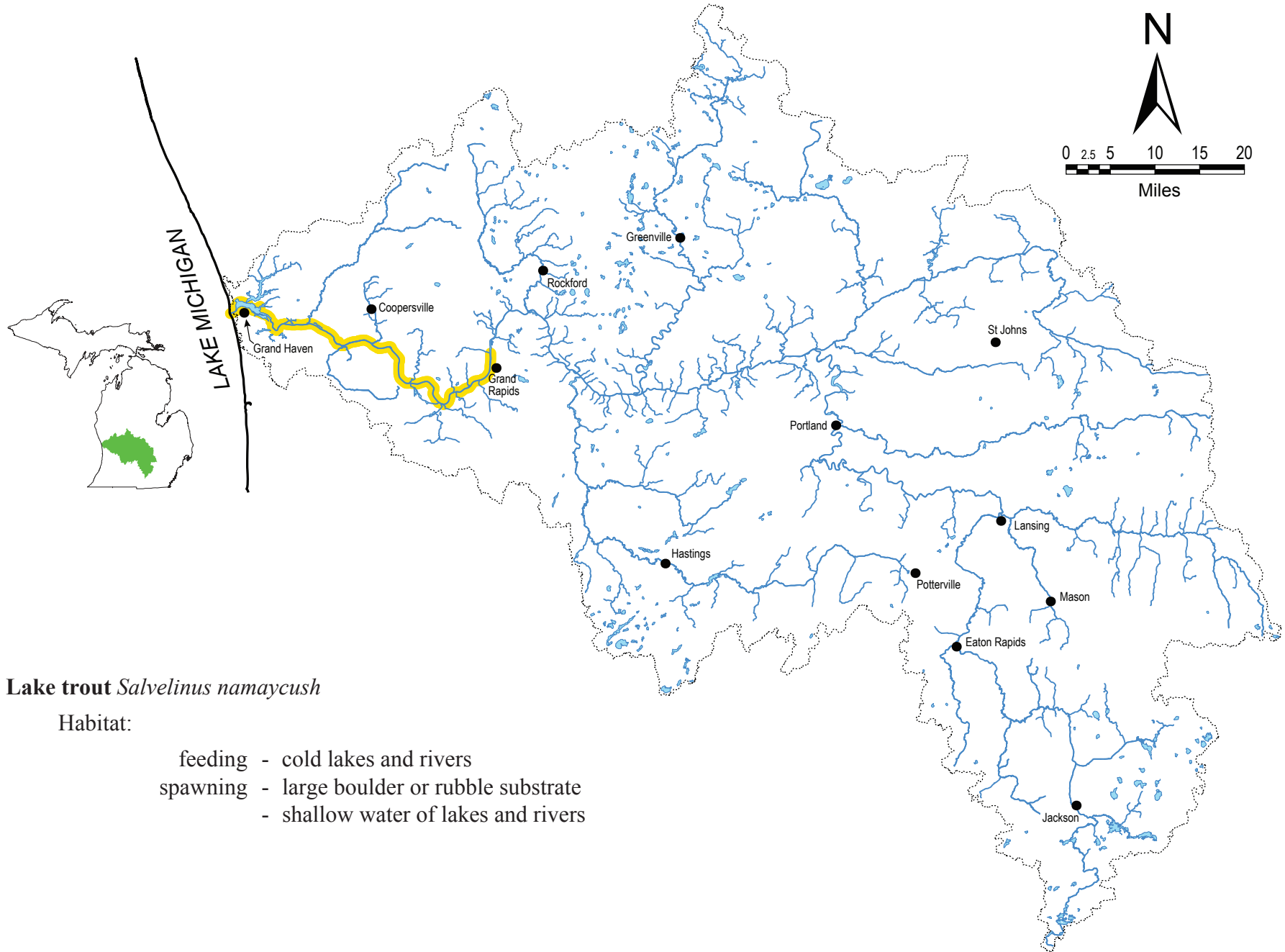


**Brook trout *Salvelinus fontinalis***

**Habitat:**

- feeding - cold, clear streams, rivers, and lakes (not >65°F)
- low current
- well oxygenated water
- spawning - gravelly riffles; shallow or headwater streams

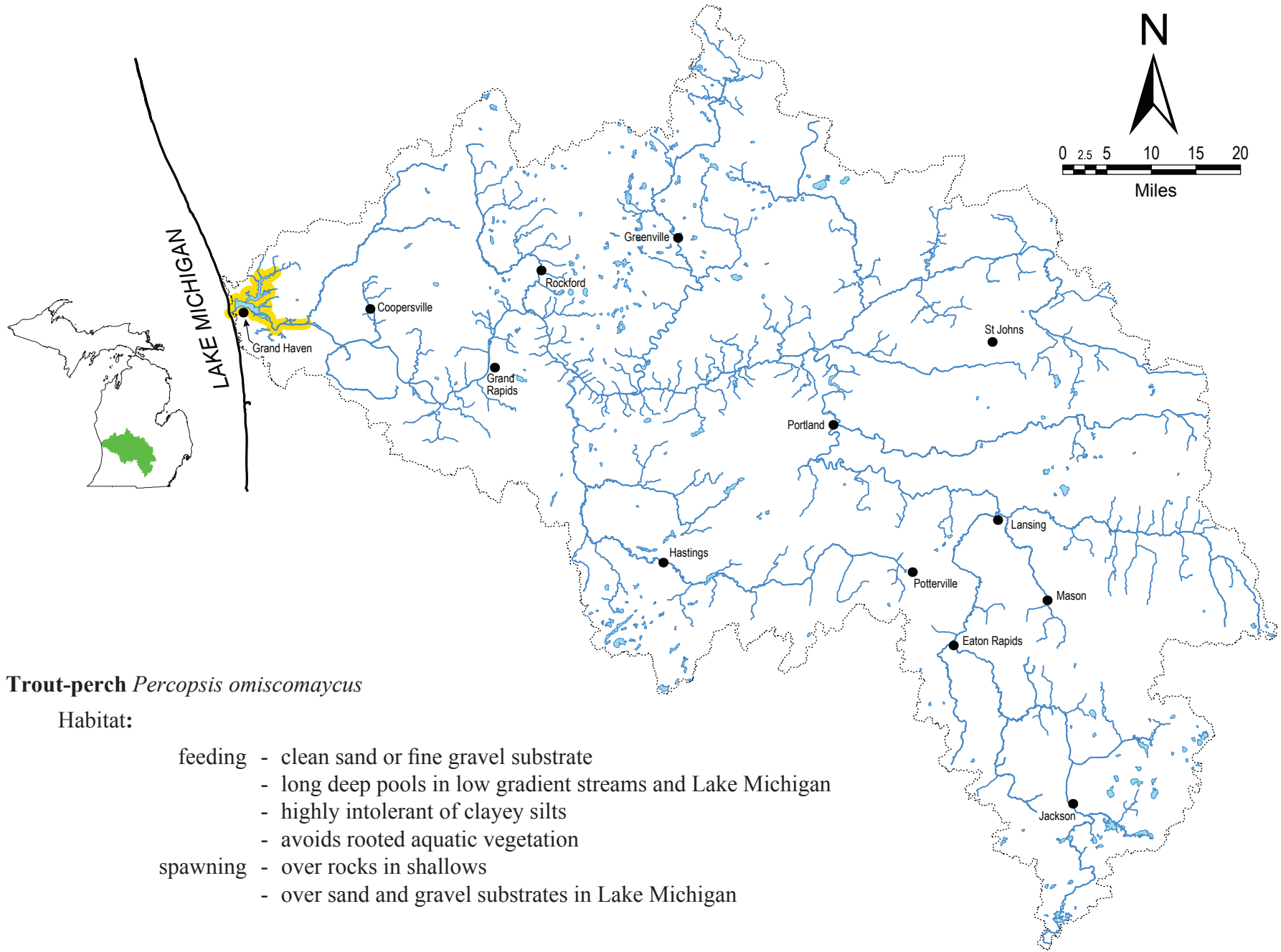




**Lake trout *Salvelinus namaycush***

Habitat:

- feeding - cold lakes and rivers
- spawning - large boulder or rubble substrate
- shallow water of lakes and rivers

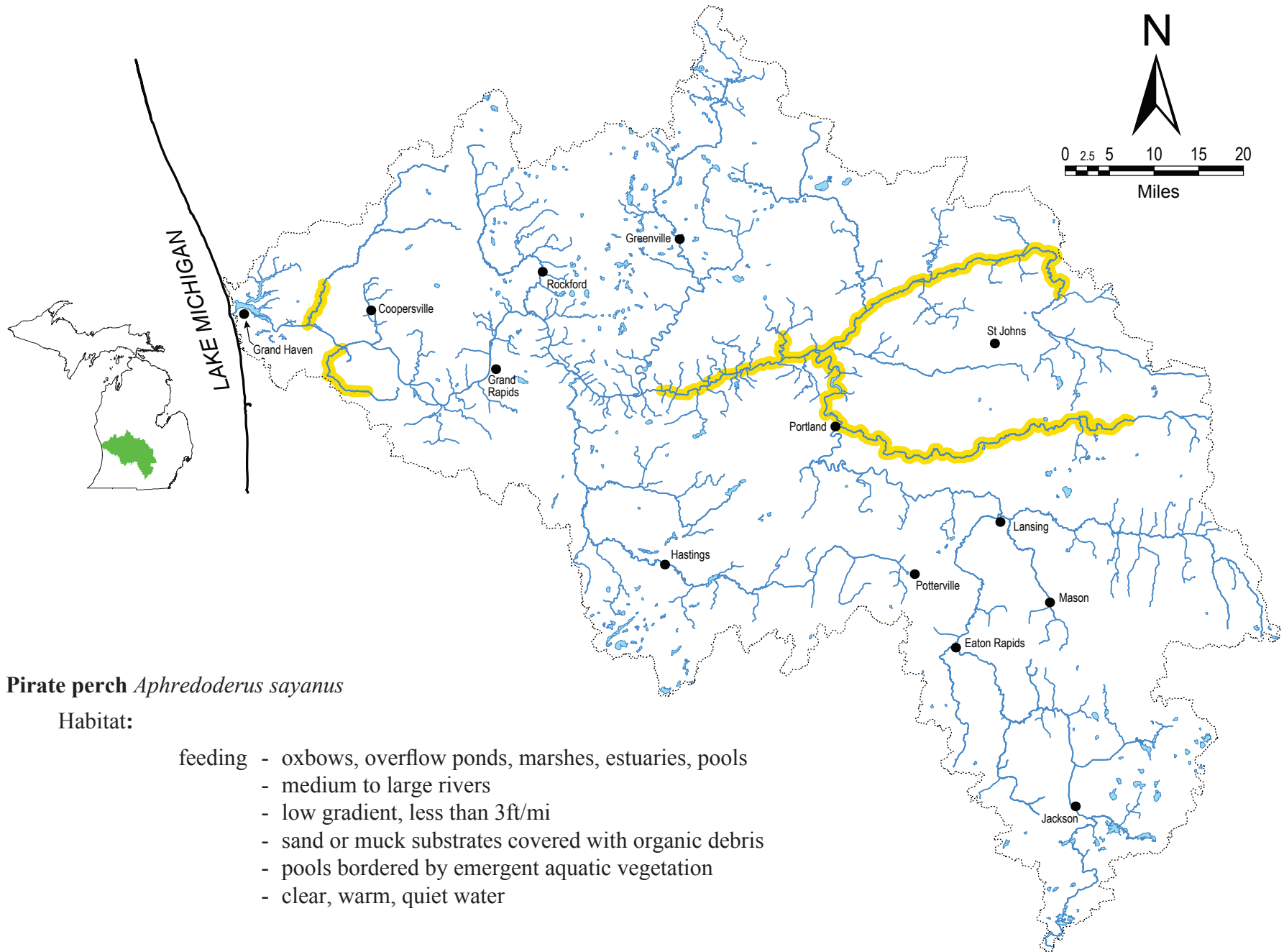


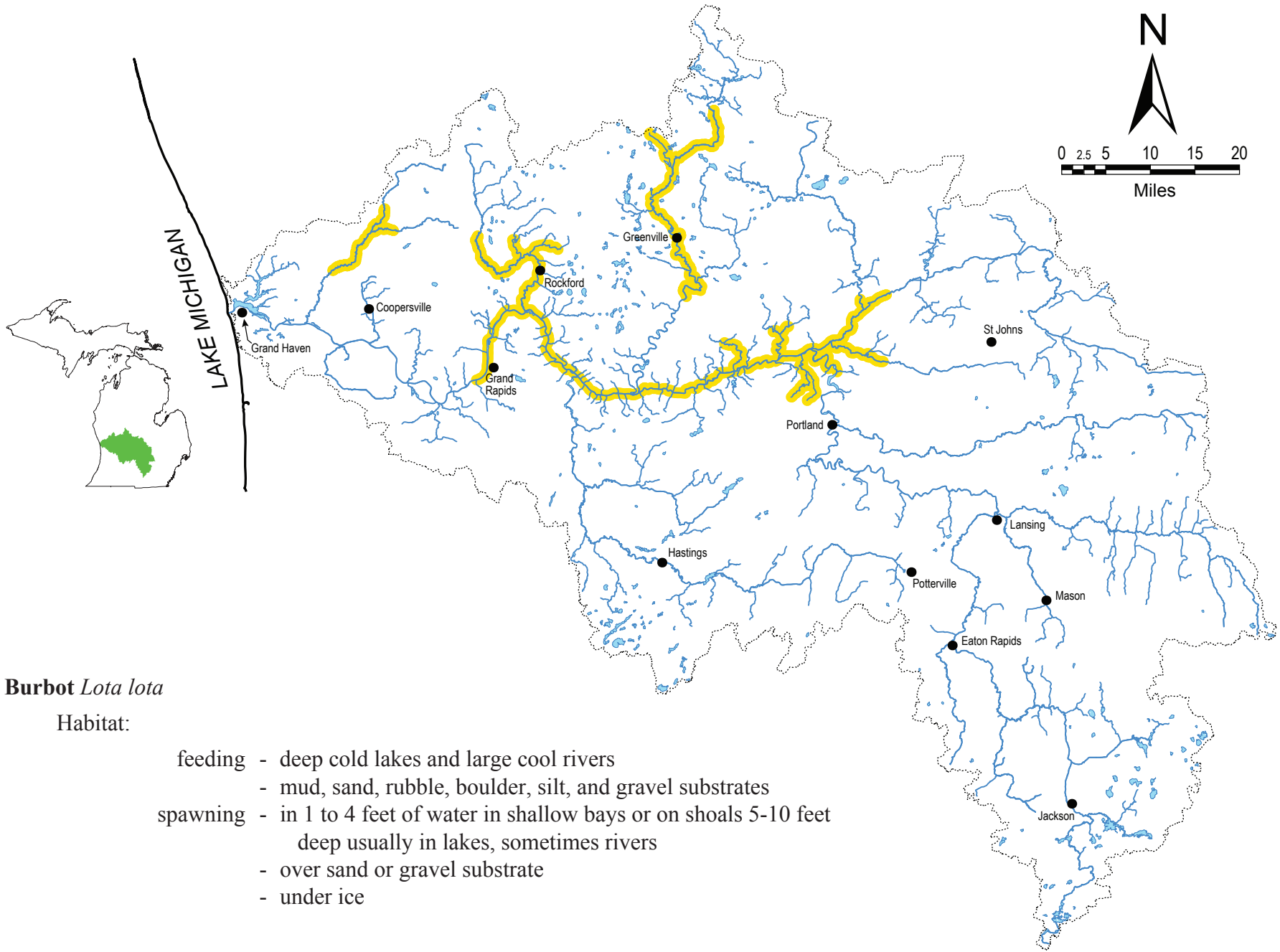
74

**Trout-perch *Percopsis omiscomaycus***

**Habitat:**

- feeding - clean sand or fine gravel substrate
- long deep pools in low gradient streams and Lake Michigan
- highly intolerant of clayey silts
- avoids rooted aquatic vegetation
- spawning - over rocks in shallows
- over sand and gravel substrates in Lake Michigan

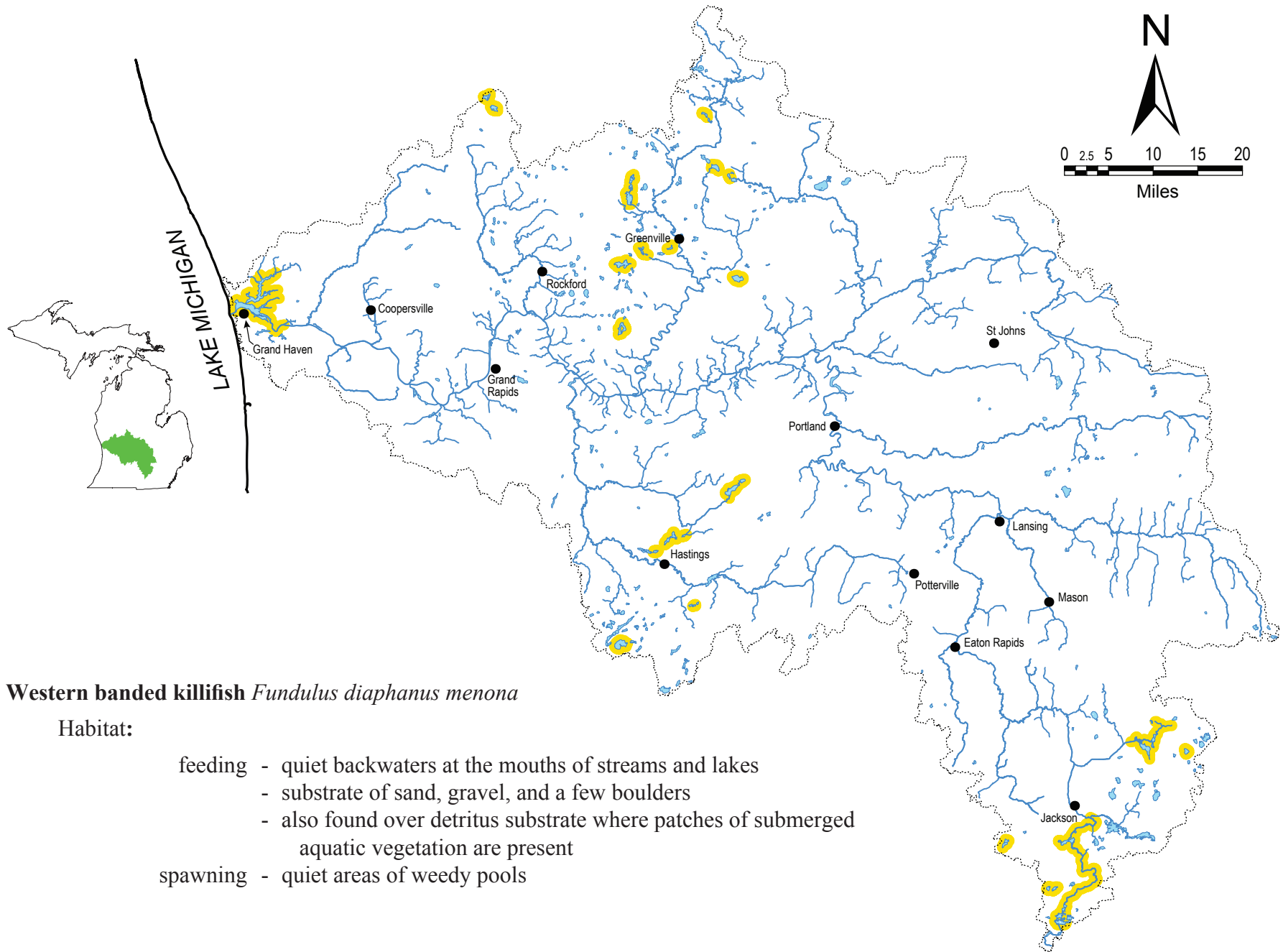


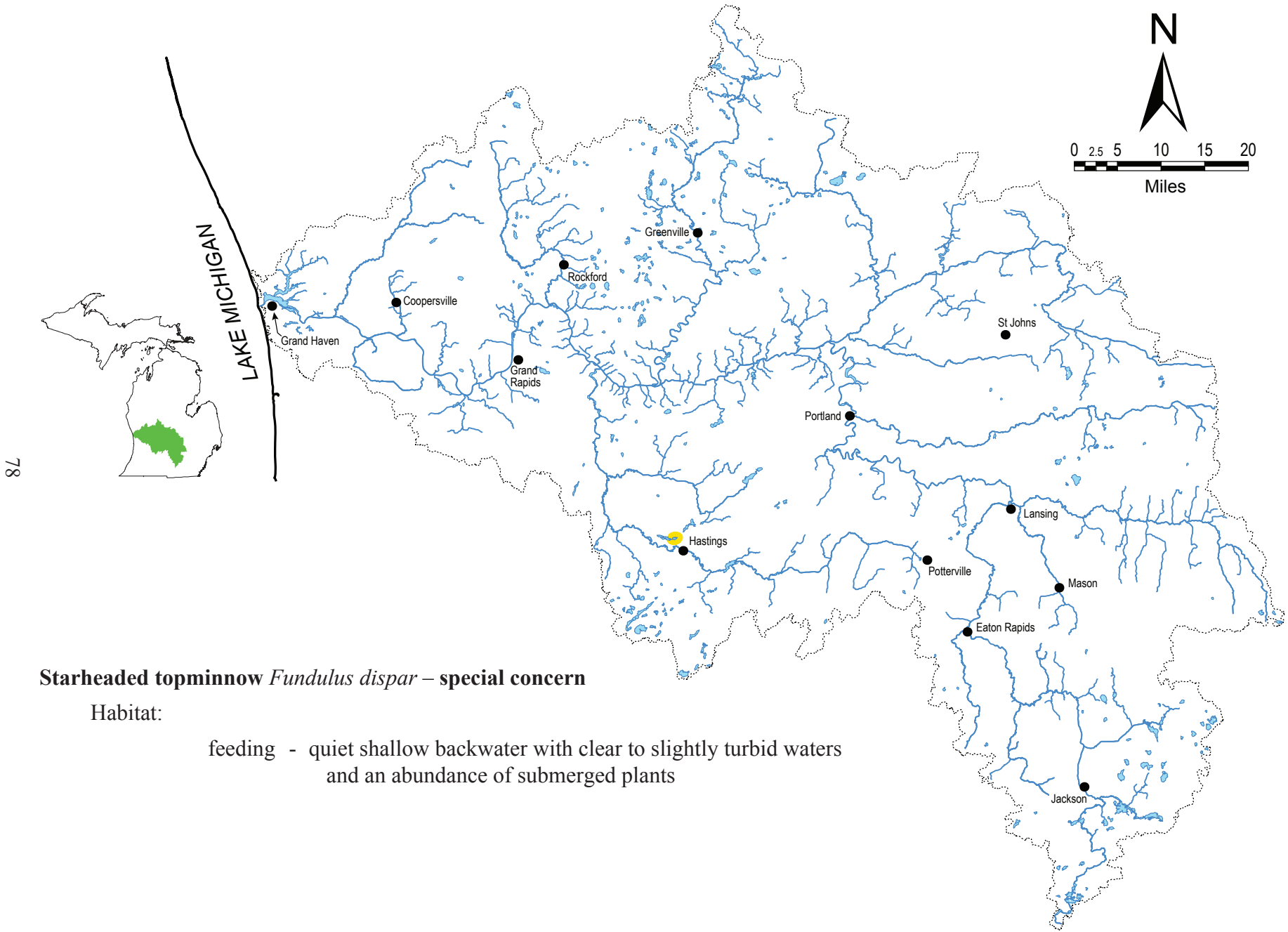


**Burbot *Lota lota***

Habitat:

- feeding - deep cold lakes and large cool rivers
- mud, sand, rubble, boulder, silt, and gravel substrates
- spawning - in 1 to 4 feet of water in shallow bays or on shoals 5-10 feet deep usually in lakes, sometimes rivers
- over sand or gravel substrate
- under ice



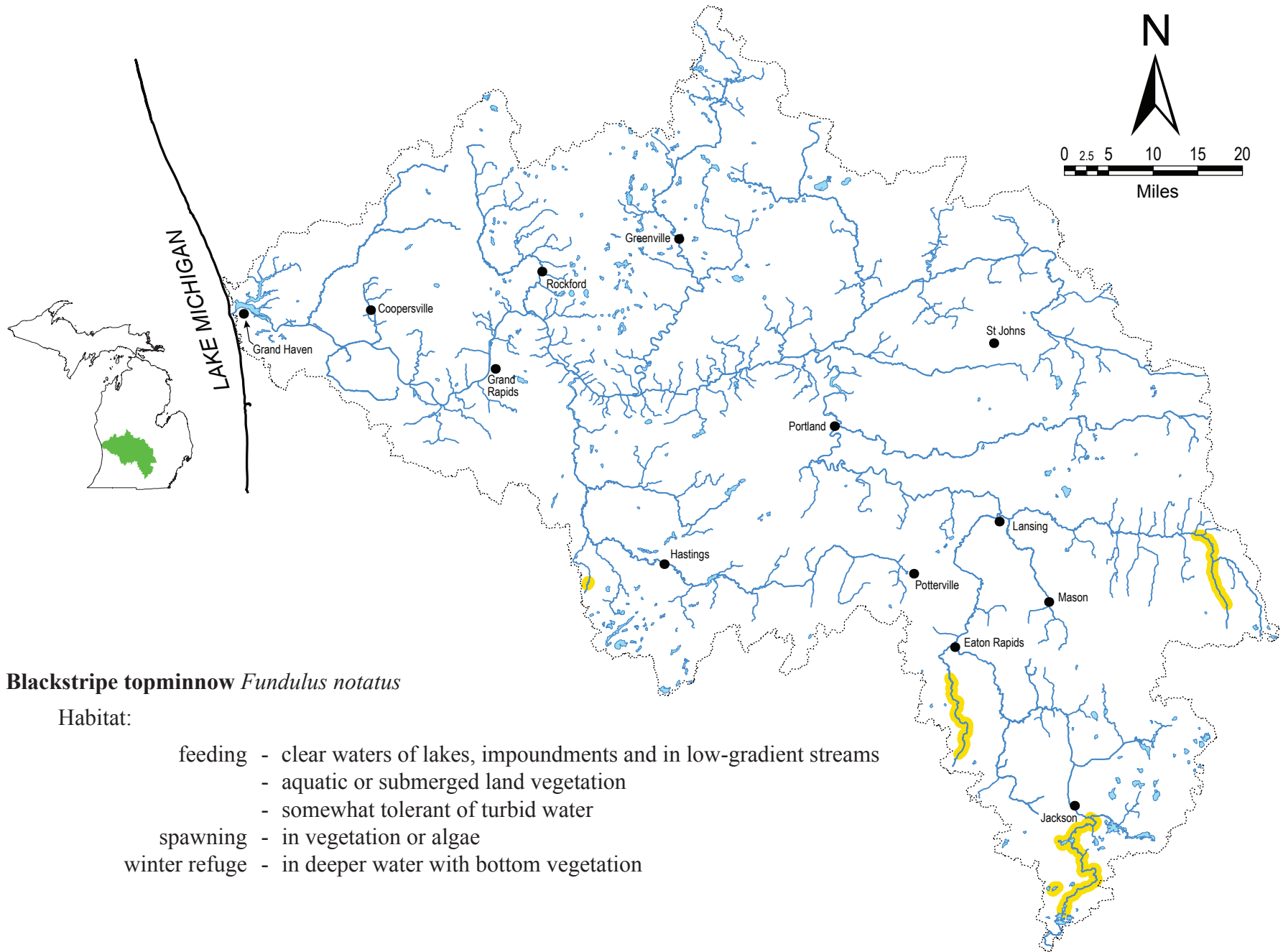


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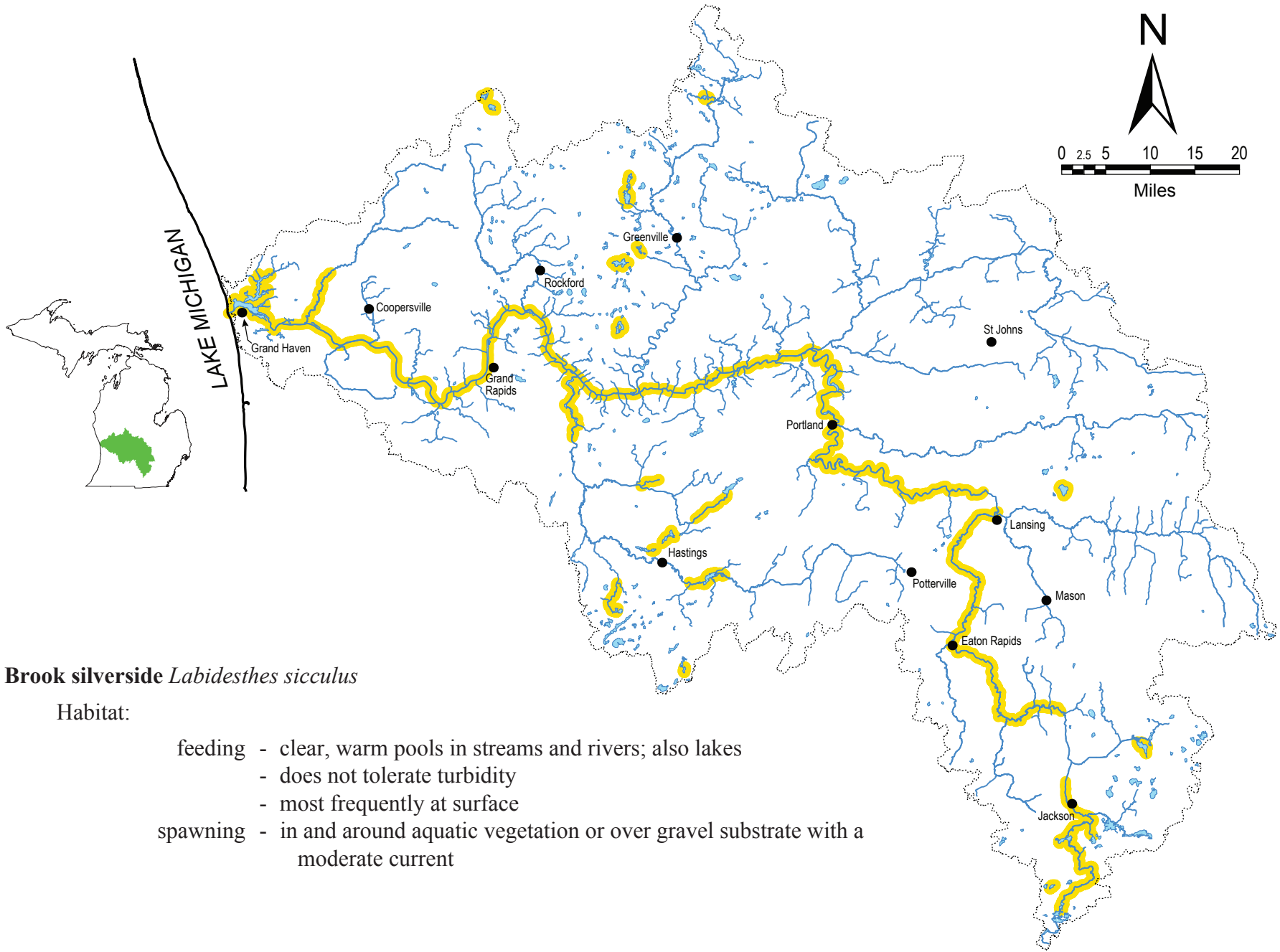
**Starheaded topminnow *Fundulus dispar* – special concern**

Habitat:

feeding - quiet shallow backwater with clear to slightly turbid waters  
and an abundance of submerged plants



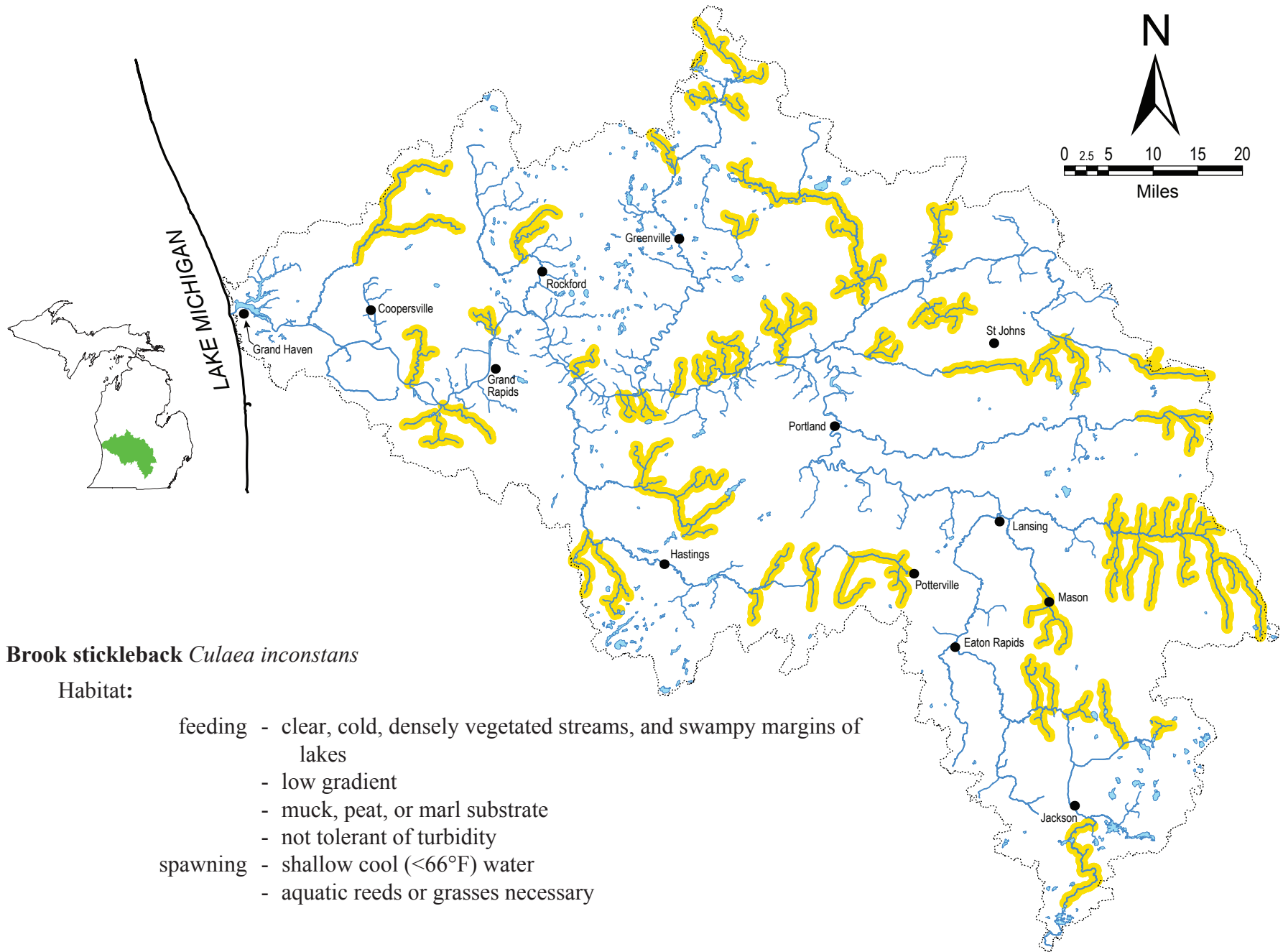


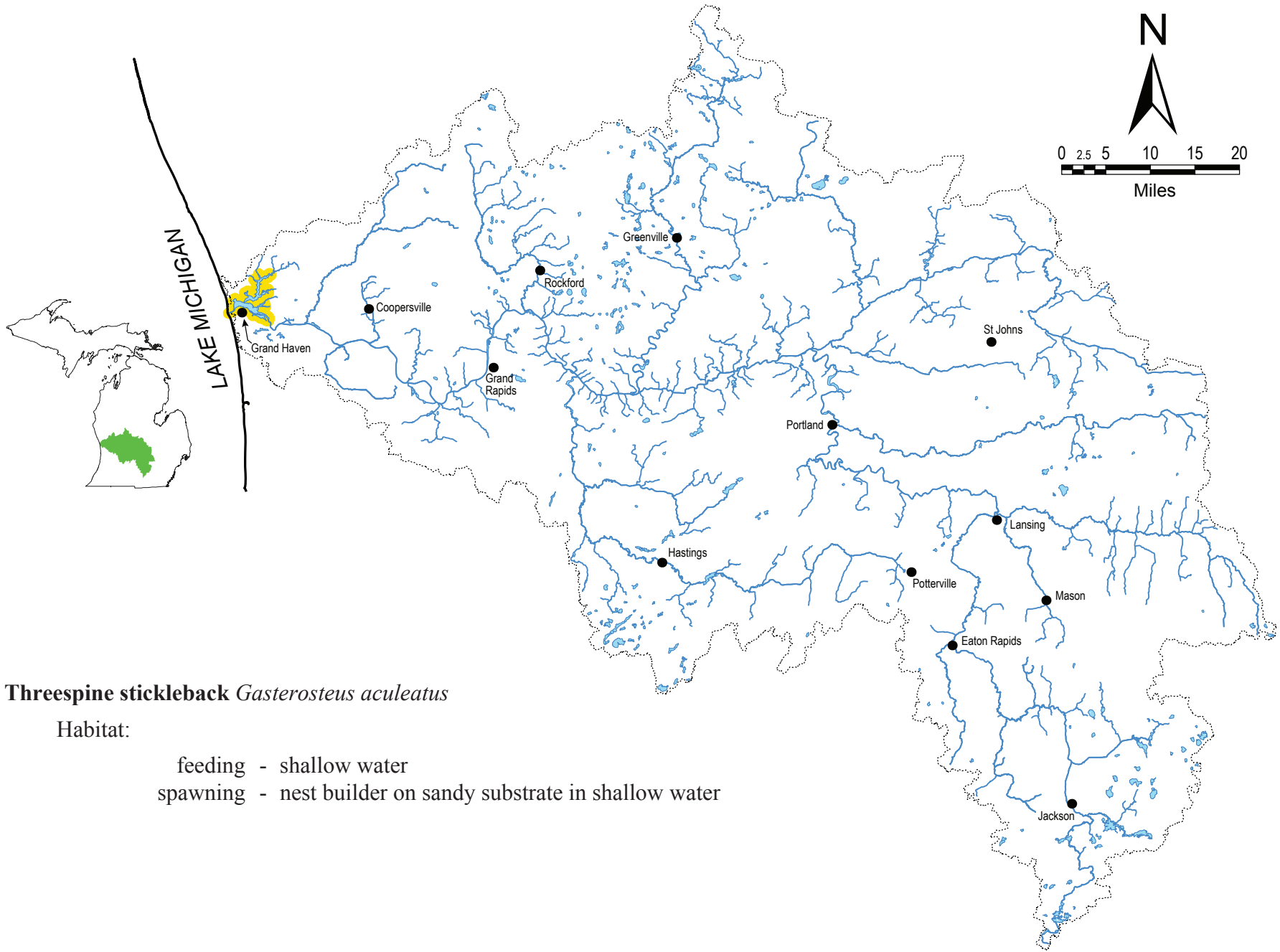


**Brook silverside** *Labidesthes sicculus*

Habitat:

- feeding - clear, warm pools in streams and rivers; also lakes
- does not tolerate turbidity
- most frequently at surface
- spawning - in and around aquatic vegetation or over gravel substrate with a moderate current

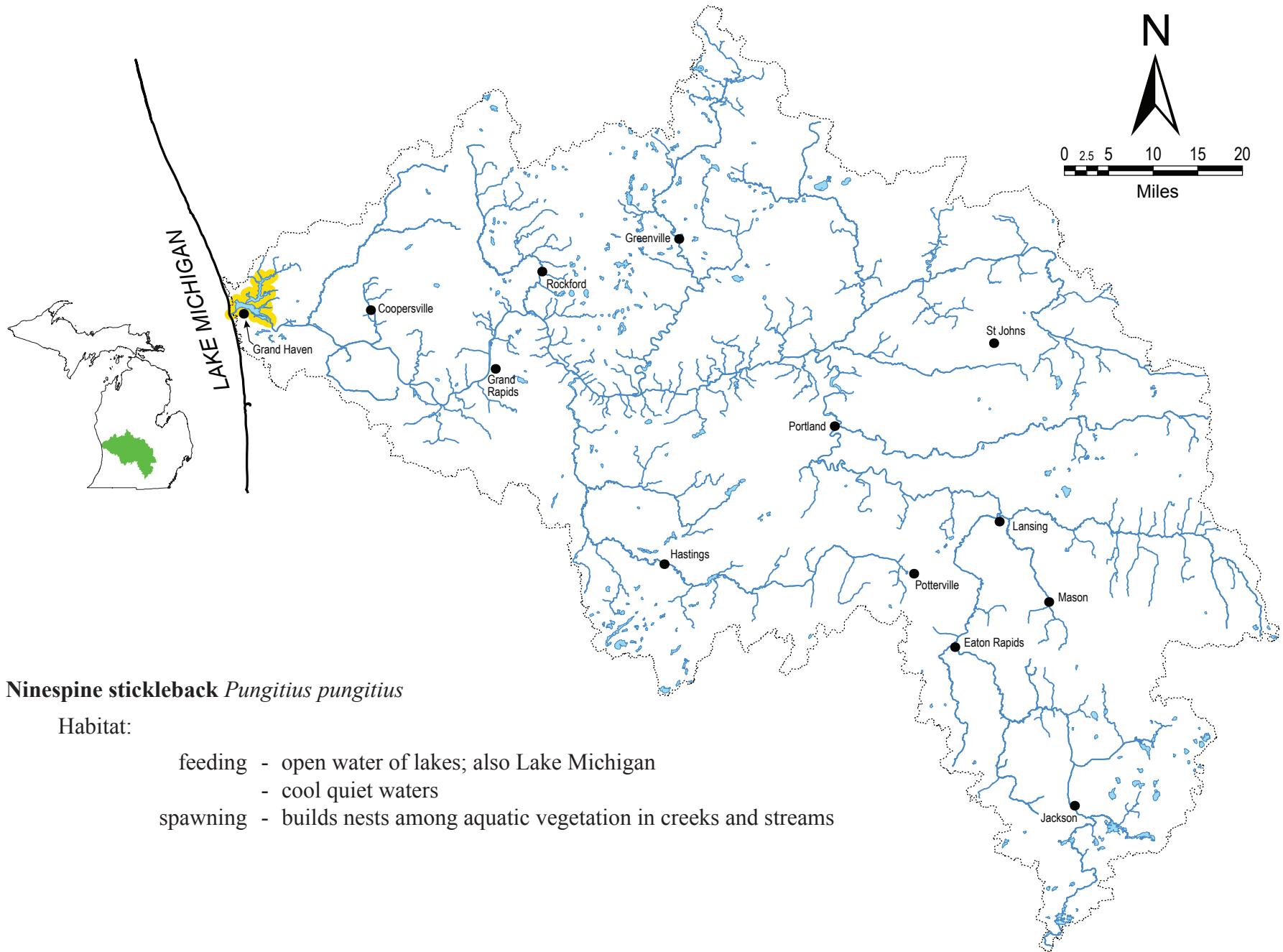




**Threespine stickleback** *Gasterosteus aculeatus*

Habitat:

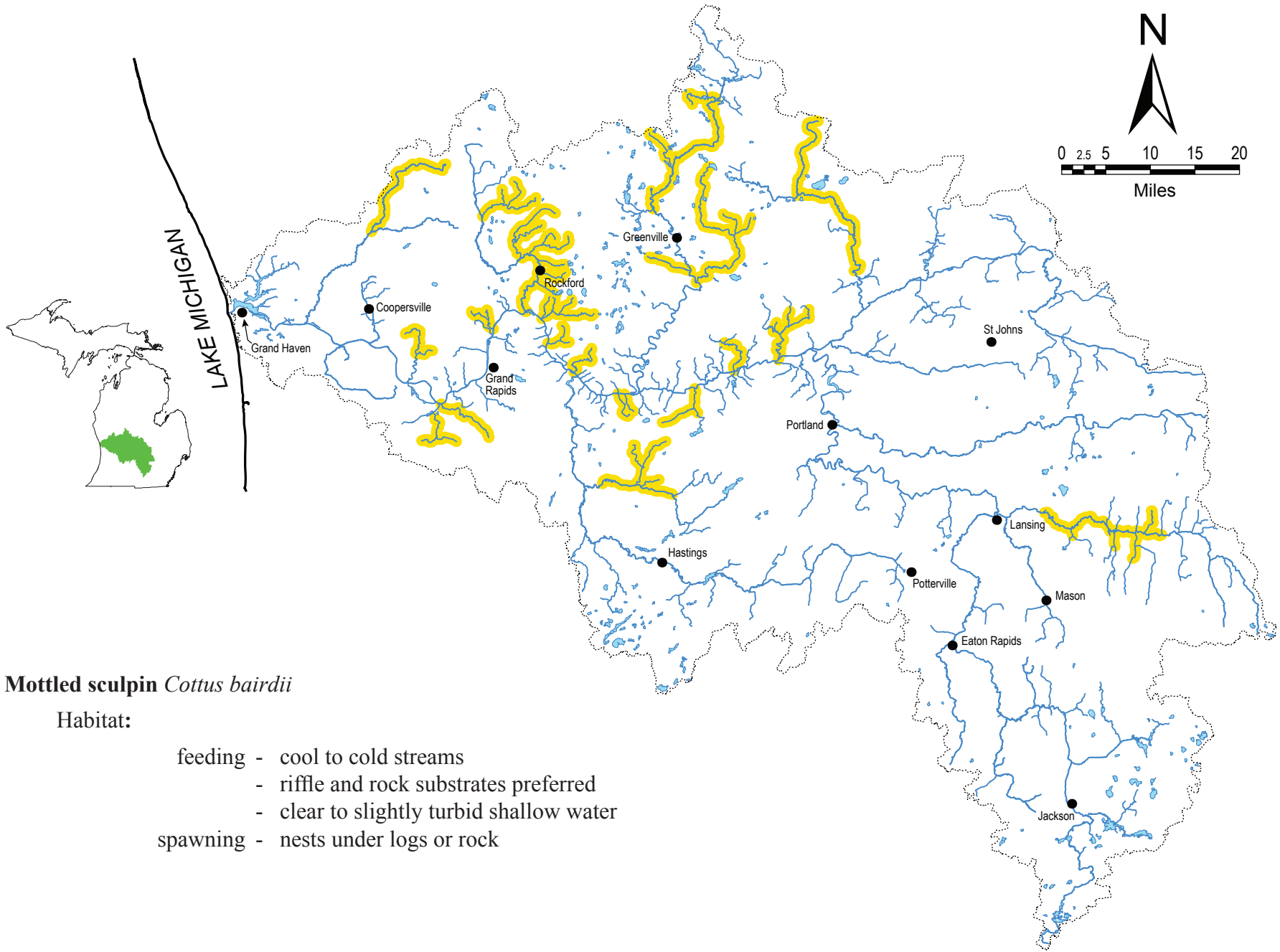
- feeding - shallow water
- spawning - nest builder on sandy substrate in shallow water



**Ninespine stickleback *Pungitius pungitius***

**Habitat:**

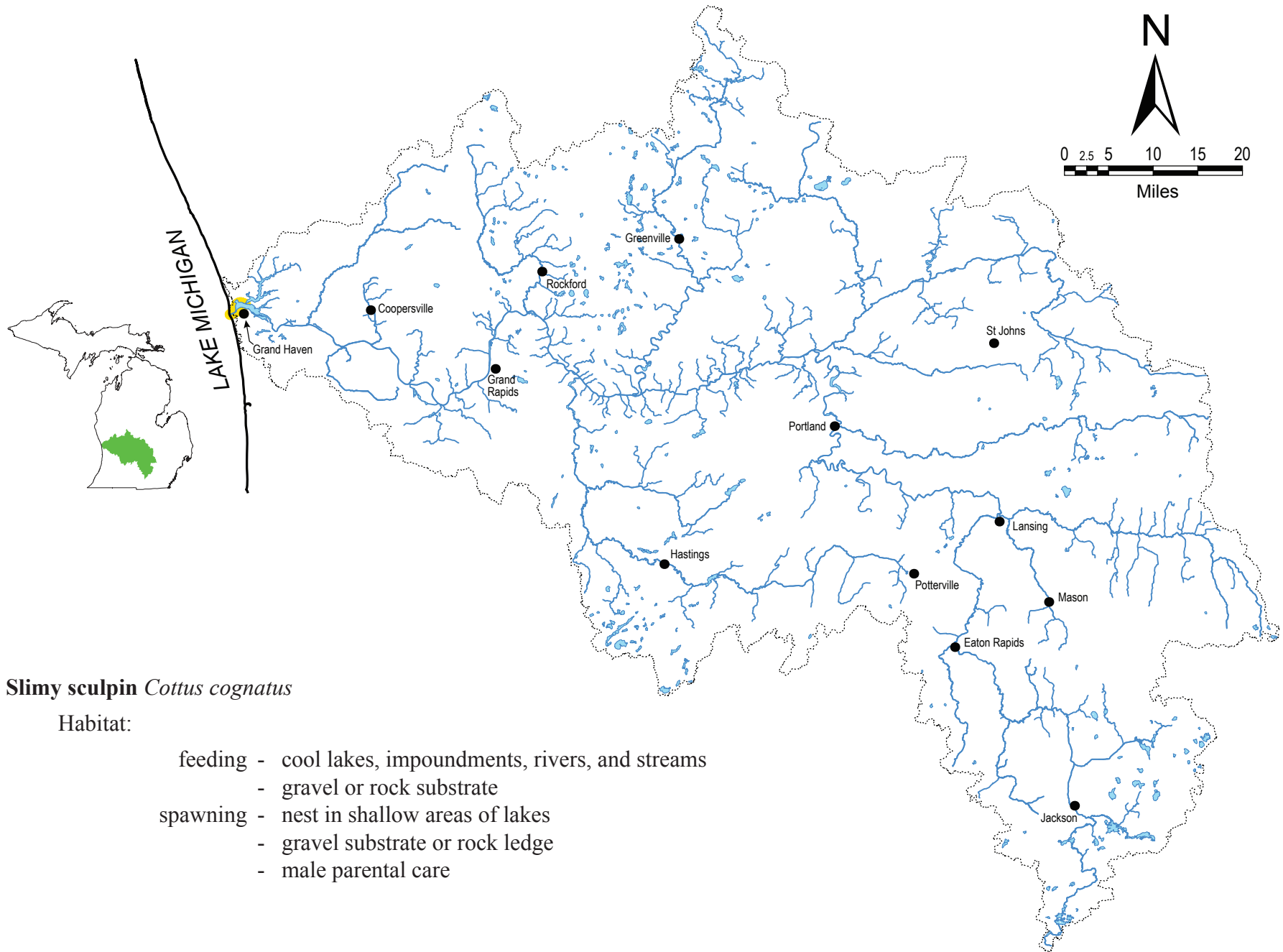
- feeding - open water of lakes; also Lake Michigan
- cool quiet waters
- spawning - builds nests among aquatic vegetation in creeks and streams



**Mottled sculpin *Cottus bairdii***

**Habitat:**

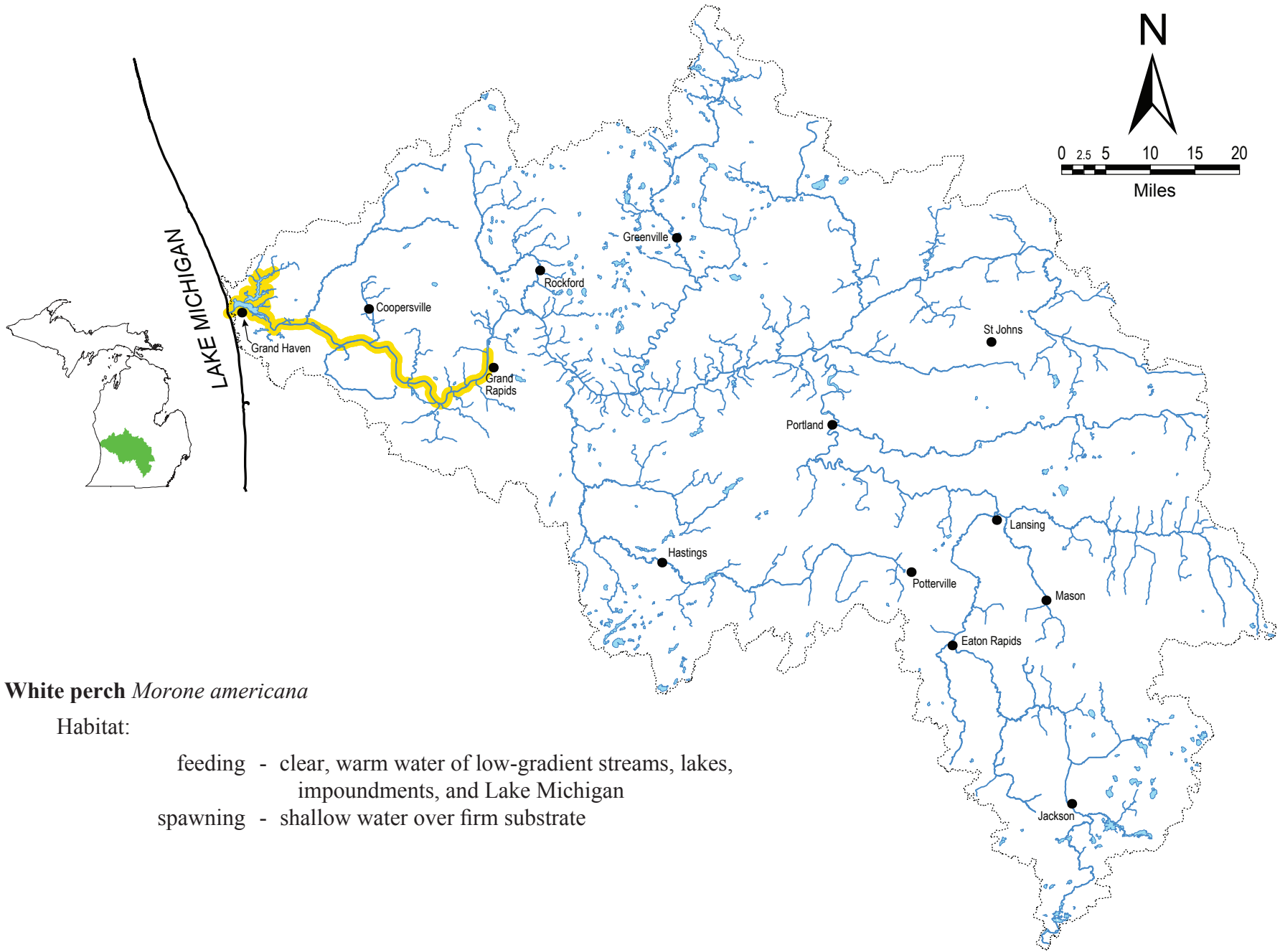
- feeding - cool to cold streams
- riffle and rock substrates preferred
- clear to slightly turbid shallow water
- spawning - nests under logs or rock



**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

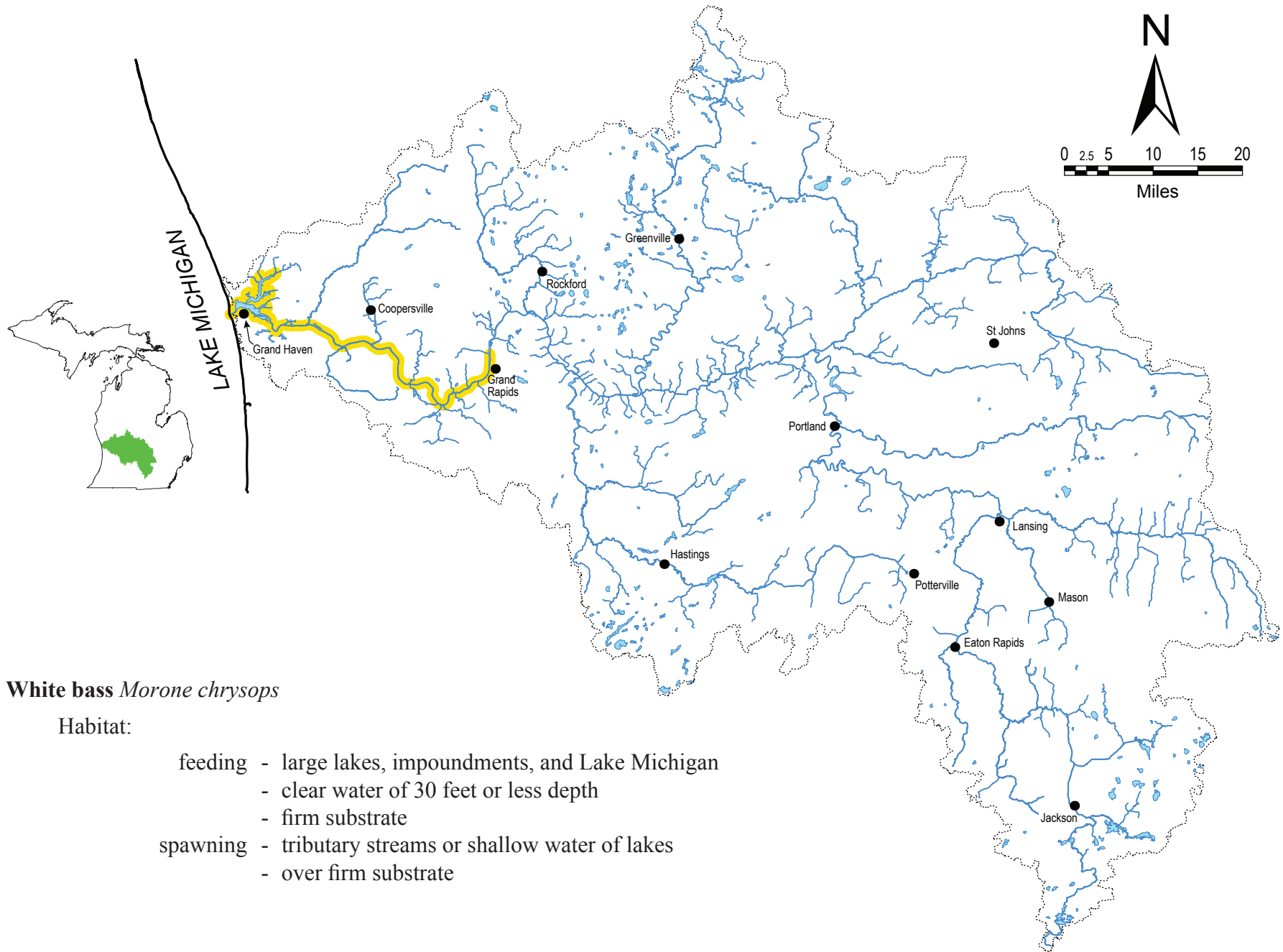


**White perch** *Morone americana*

Habitat:

- feeding - clear, warm water of low-gradient streams, lakes, impoundments, and Lake Michigan
- spawning - shallow water over firm substrate

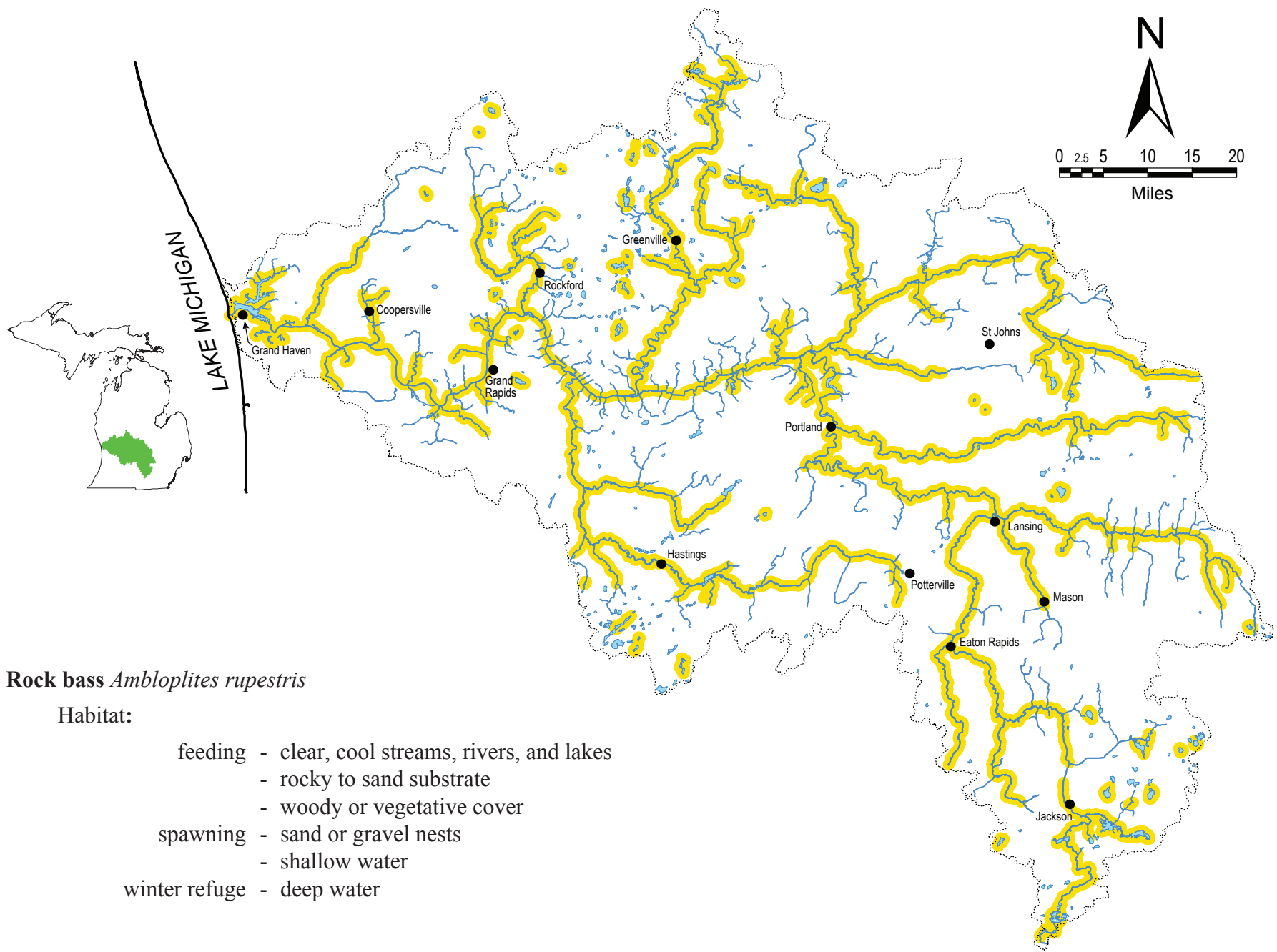




**White bass *Morone chrysops***

Habitat:

- feeding - large lakes, impoundments, and Lake Michigan
- clear water of 30 feet or less depth
- firm substrate
- spawning - tributary streams or shallow water of lakes
- over firm substrate

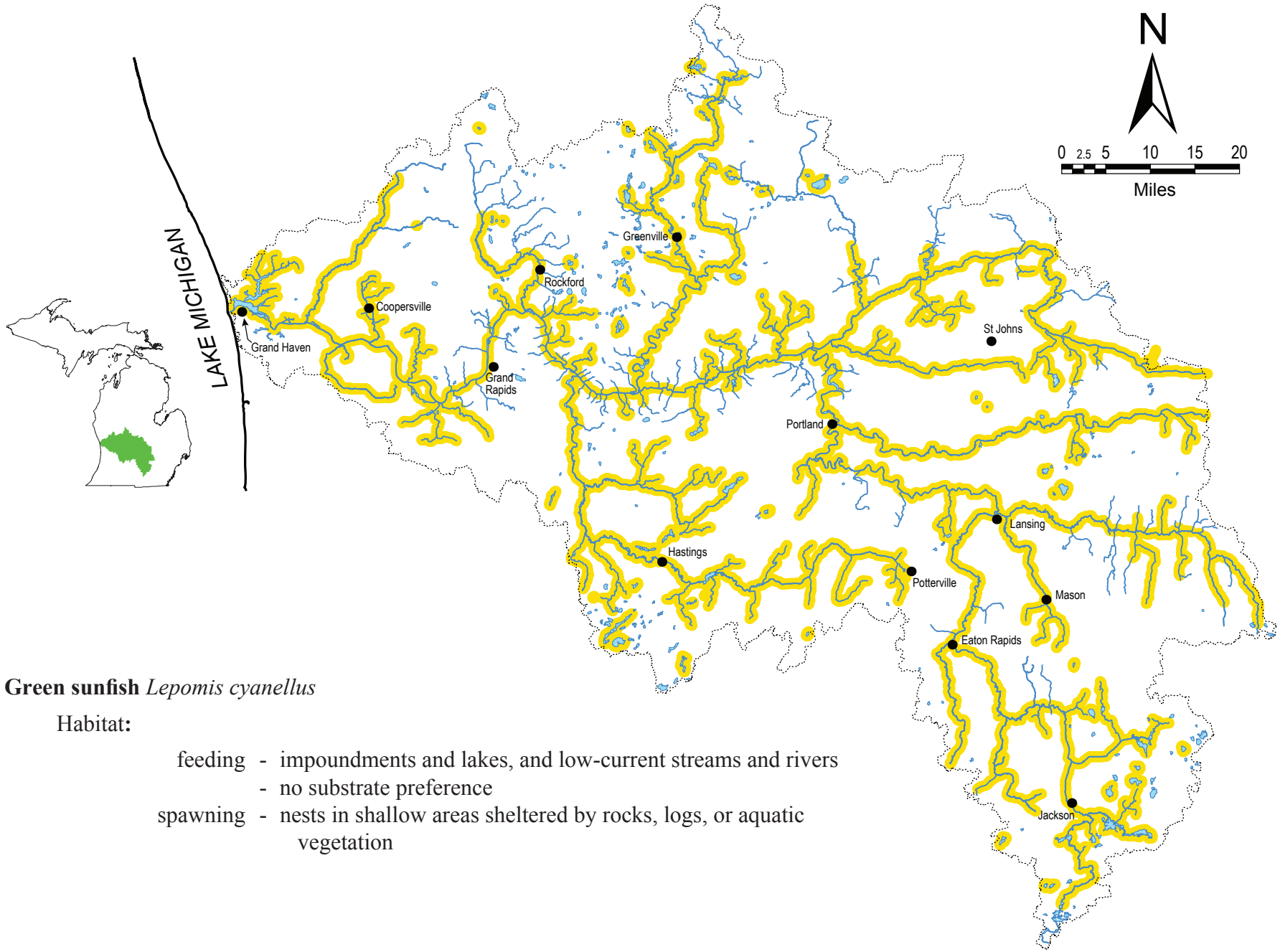


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**Rock bass** *Ambloplites rupestris*

Habitat:

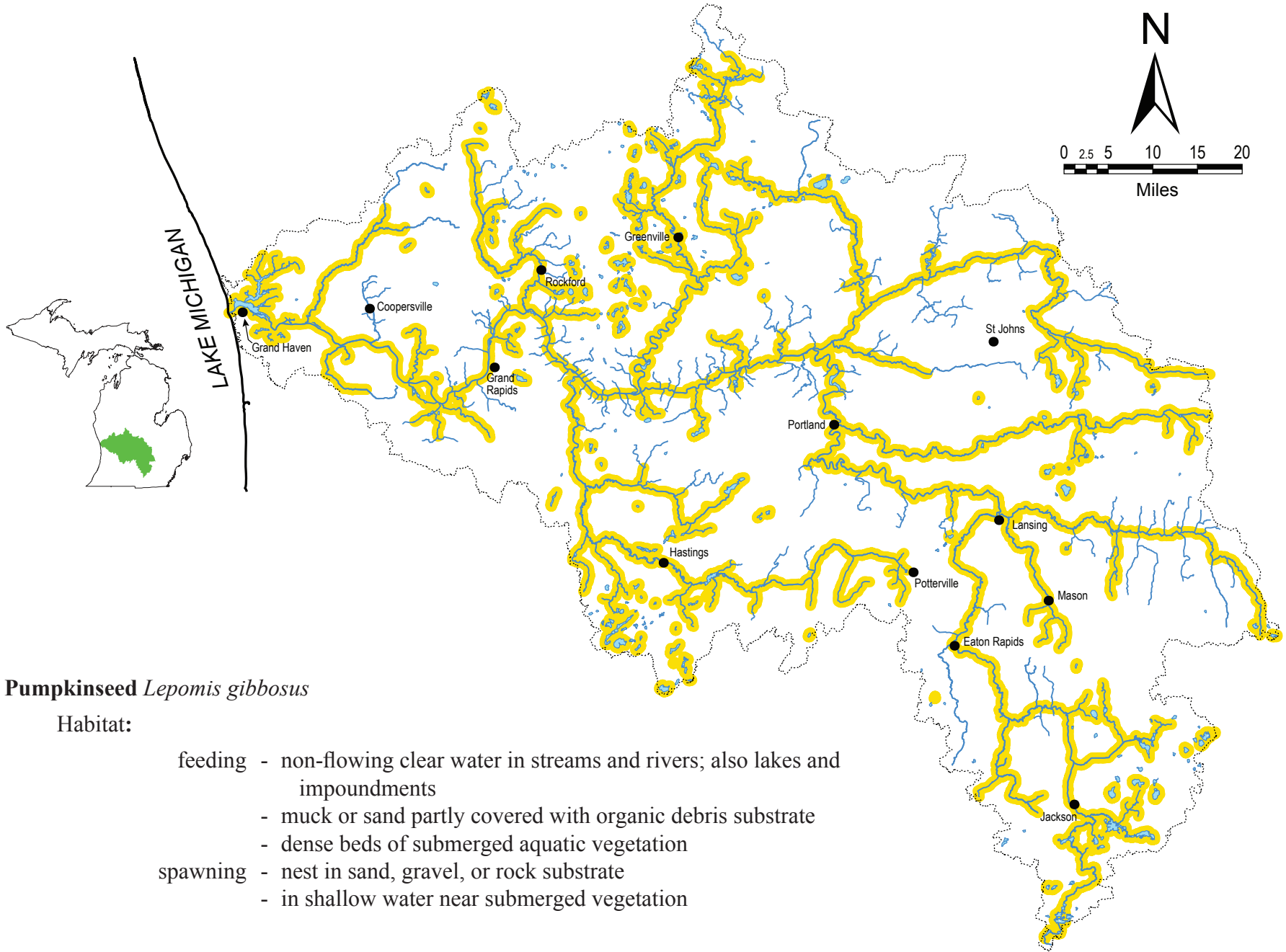
- feeding - clear, cool streams, rivers, and lakes
- rocky to sand substrate
- woody or vegetative cover
- spawning - sand or gravel nests
- shallow water
- winter refuge - deep water



**Green sunfish** *Lepomis cyanellus*

**Habitat:**

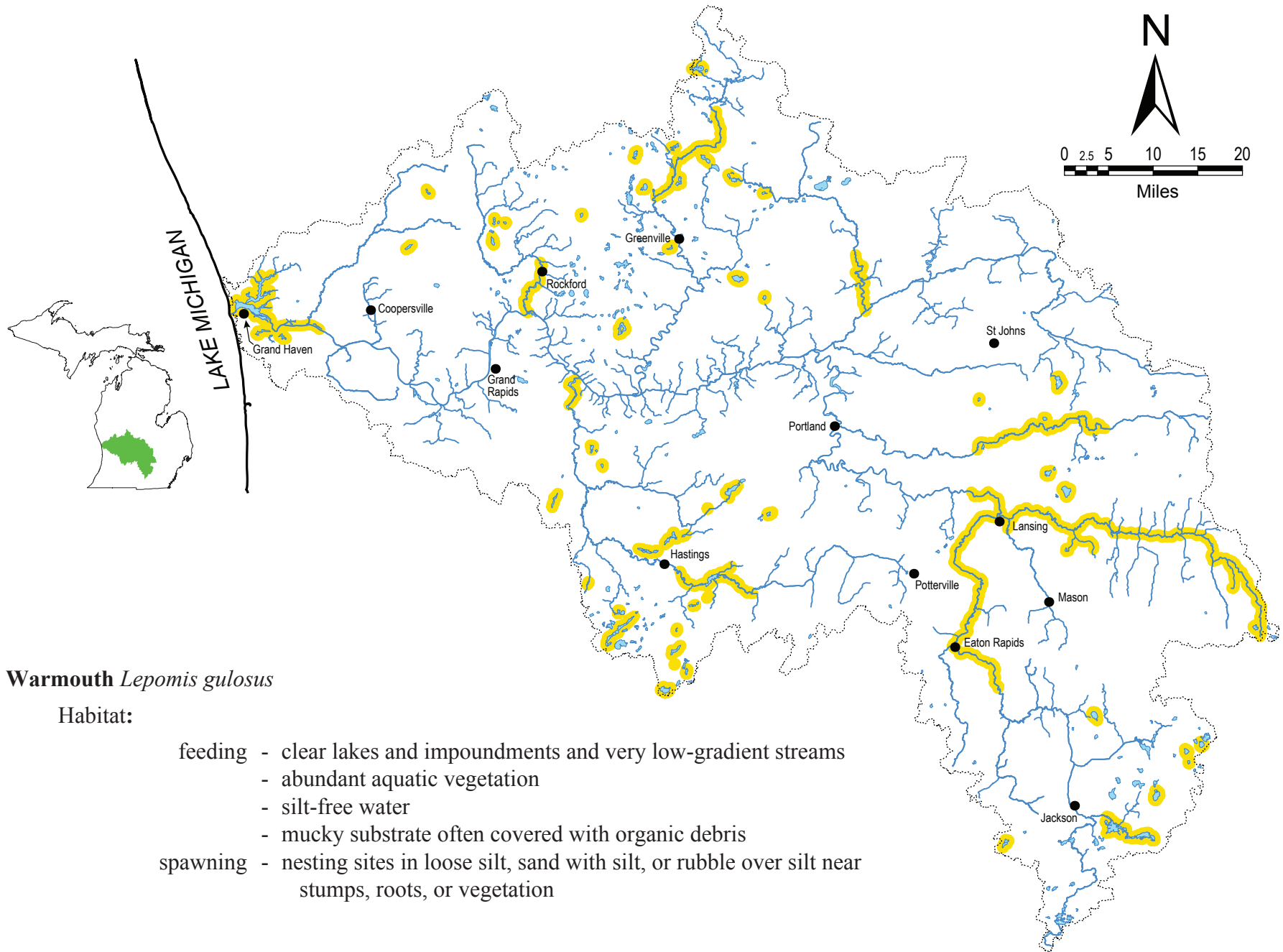
- feeding - impoundments and lakes, and low-current streams and rivers
- no substrate preference
- spawning - nests in shallow areas sheltered by rocks, logs, or aquatic vegetation

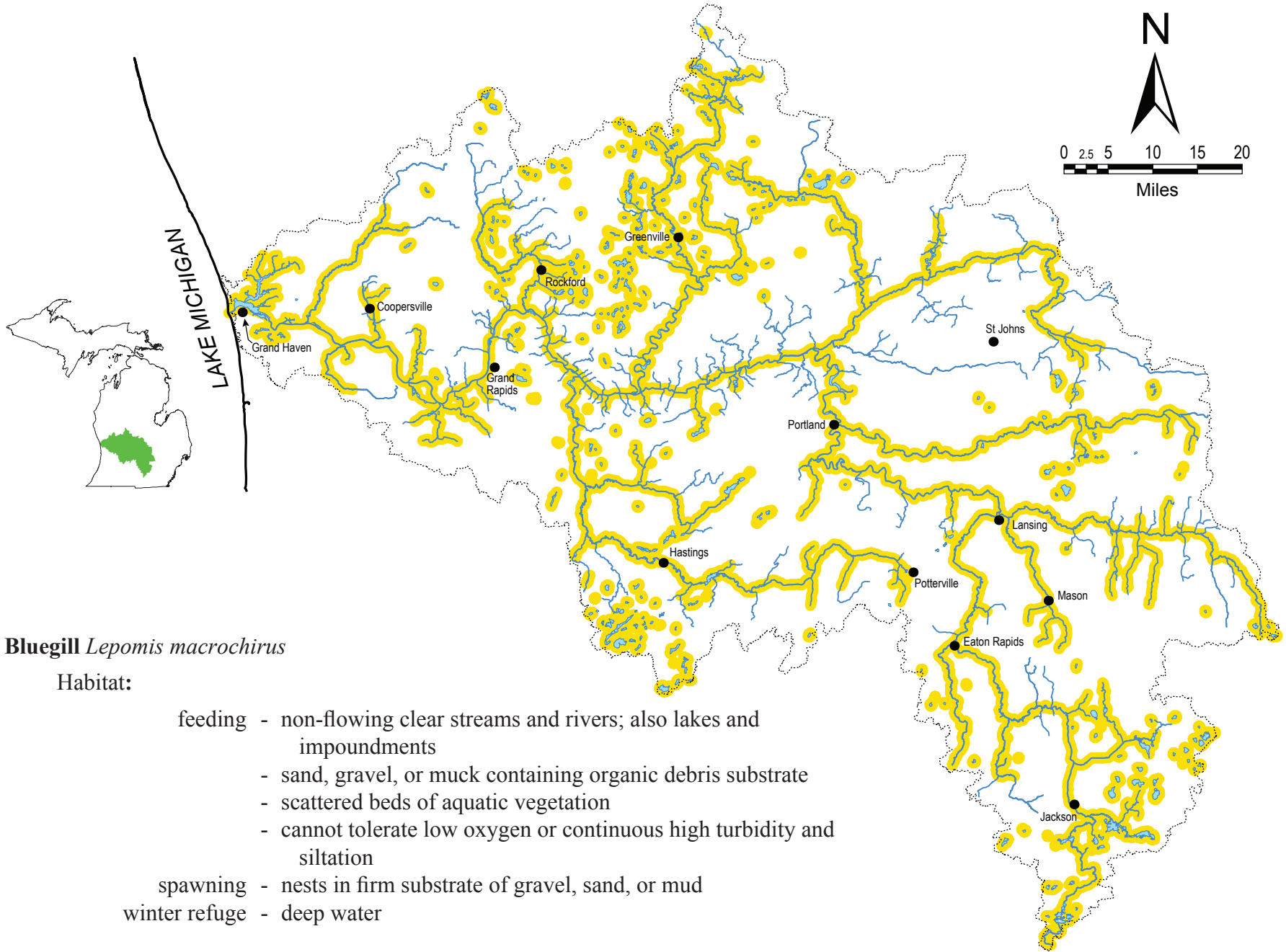


**Pumpkinseed *Lepomis gibbosus***

**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



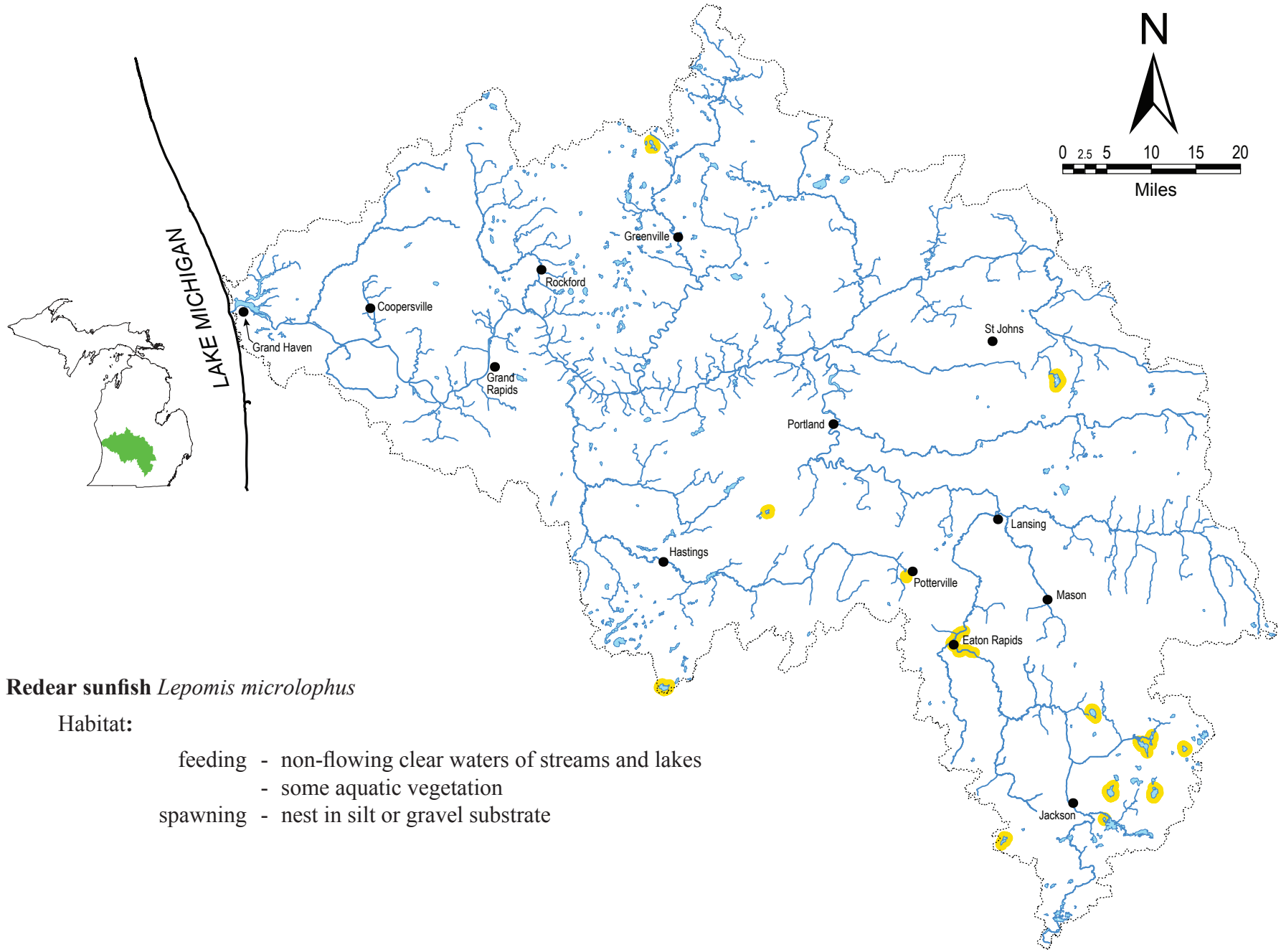


**Bluegill** *Lepomis macrochirus*

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



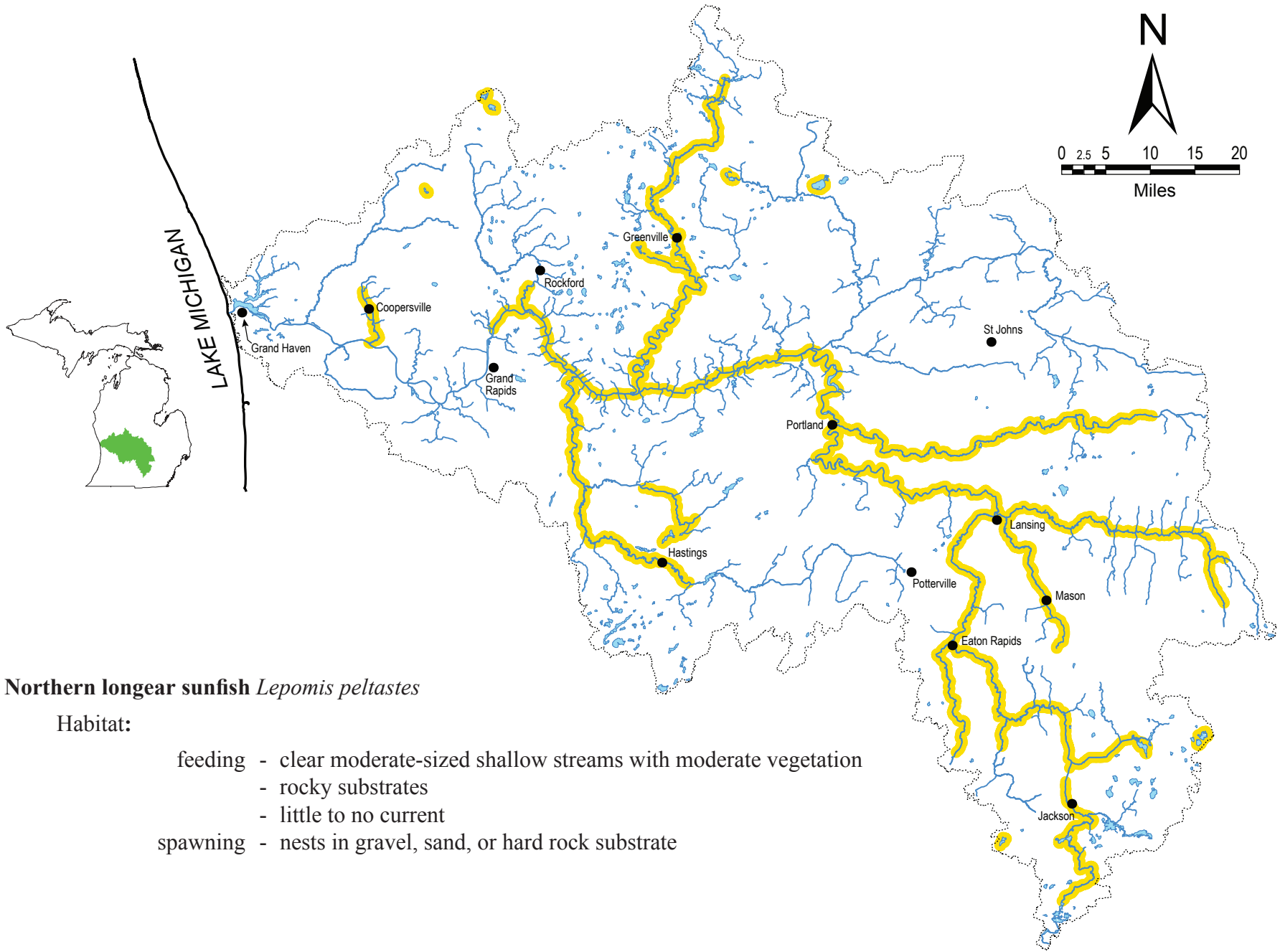


**Redear sunfish** *Lepomis microlophus*

Habitat:

- feeding - non-flowing clear waters of streams and lakes
- some aquatic vegetation
- spawning - nest in silt or gravel substrate

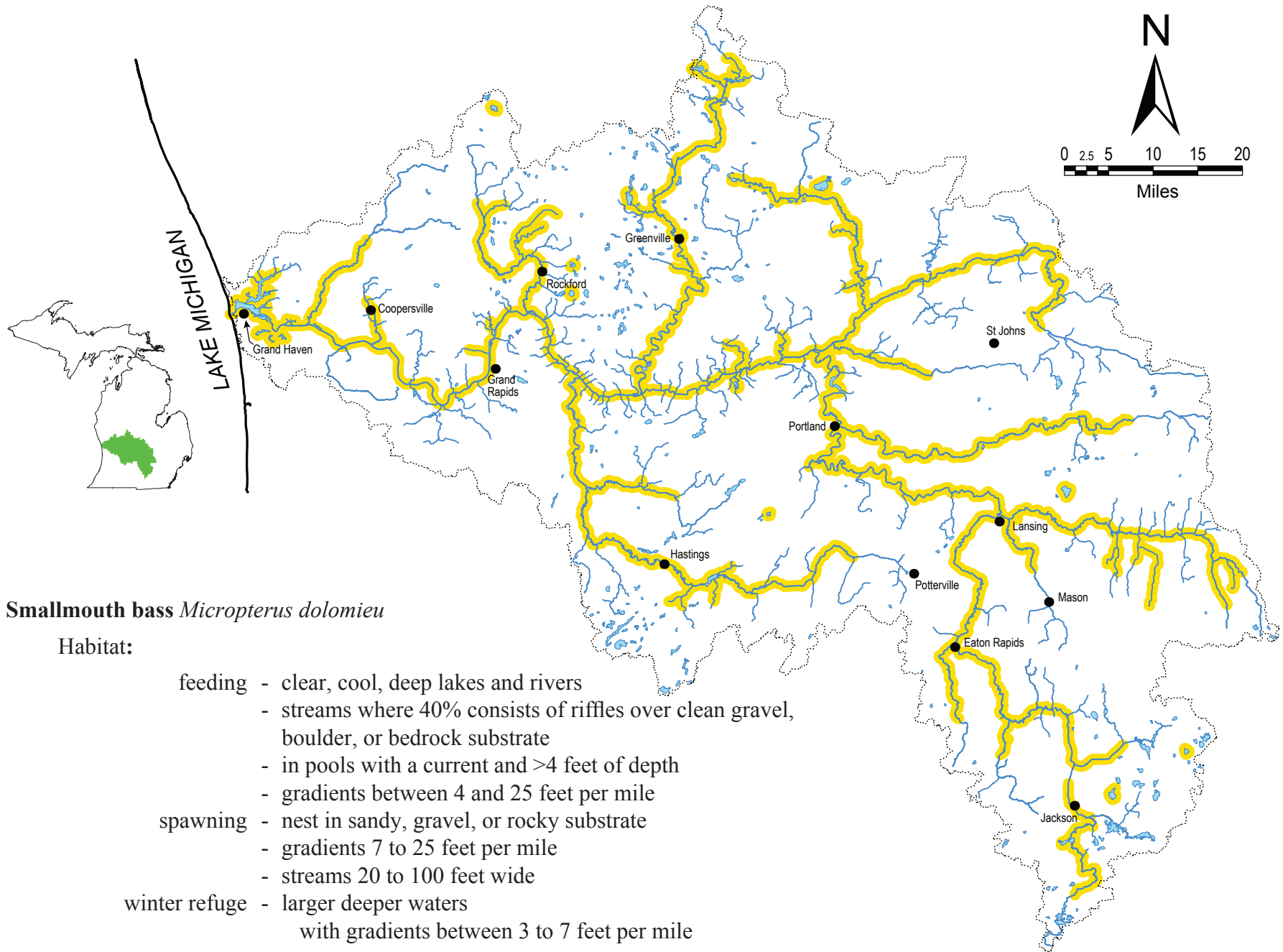




**Northern longear sunfish *Lepomis peltastes***

**Habitat:**

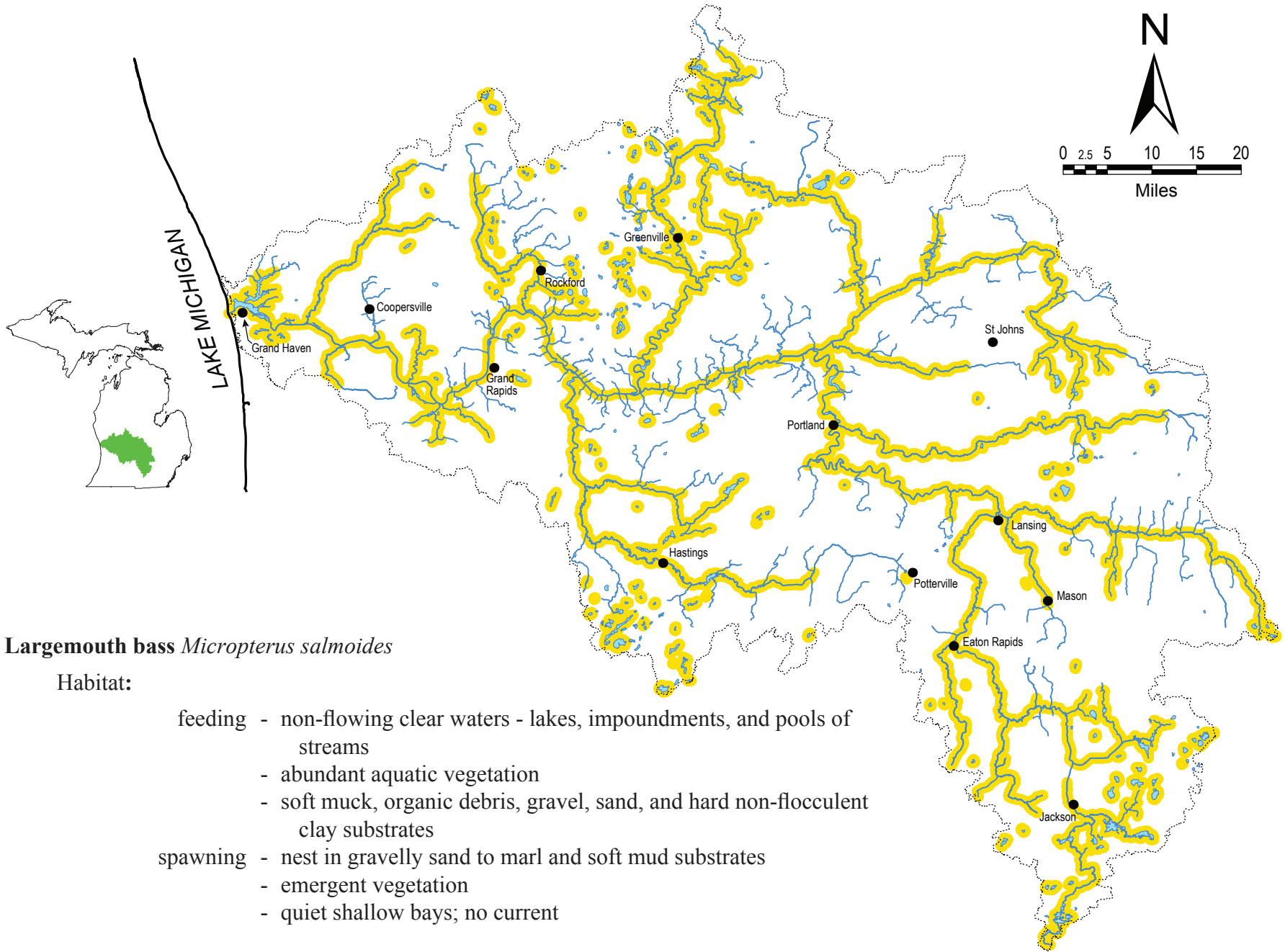
- feeding - clear moderate-sized shallow streams with moderate vegetation
- rocky substrates
- little to no current
- spawning - nests in gravel, sand, or hard rock substrate



**Smallmouth bass *Micropterus dolomieu***

**Habitat:**

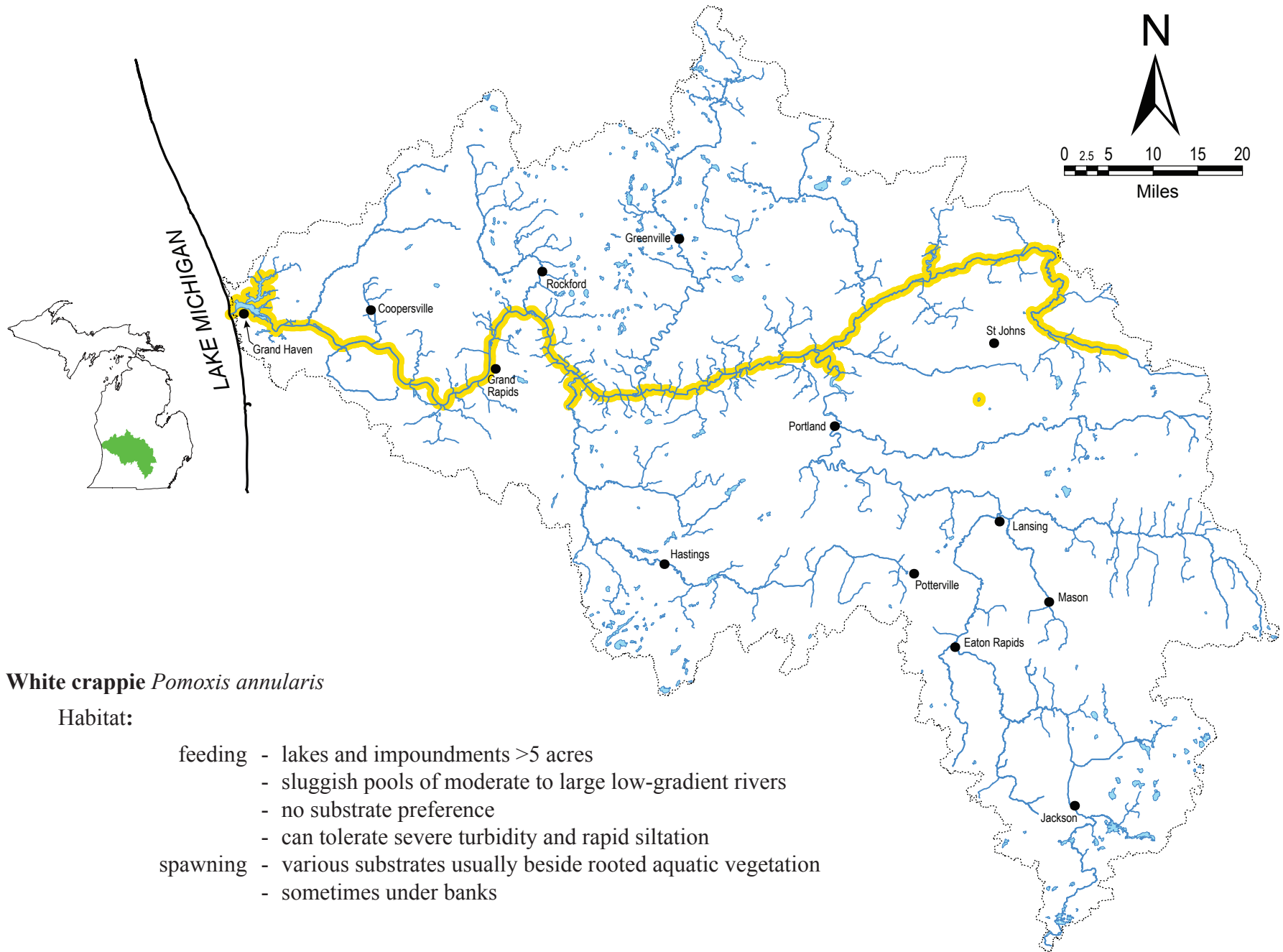
- feeding - clear, cool, deep lakes and rivers
- streams where 40% consists of riffles over clean gravel, boulder, or bedrock substrate
- in pools with a current and >4 feet of depth
- gradients between 4 and 25 feet per mile
- spawning - nest in sandy, gravel, or rocky substrate
- gradients 7 to 25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

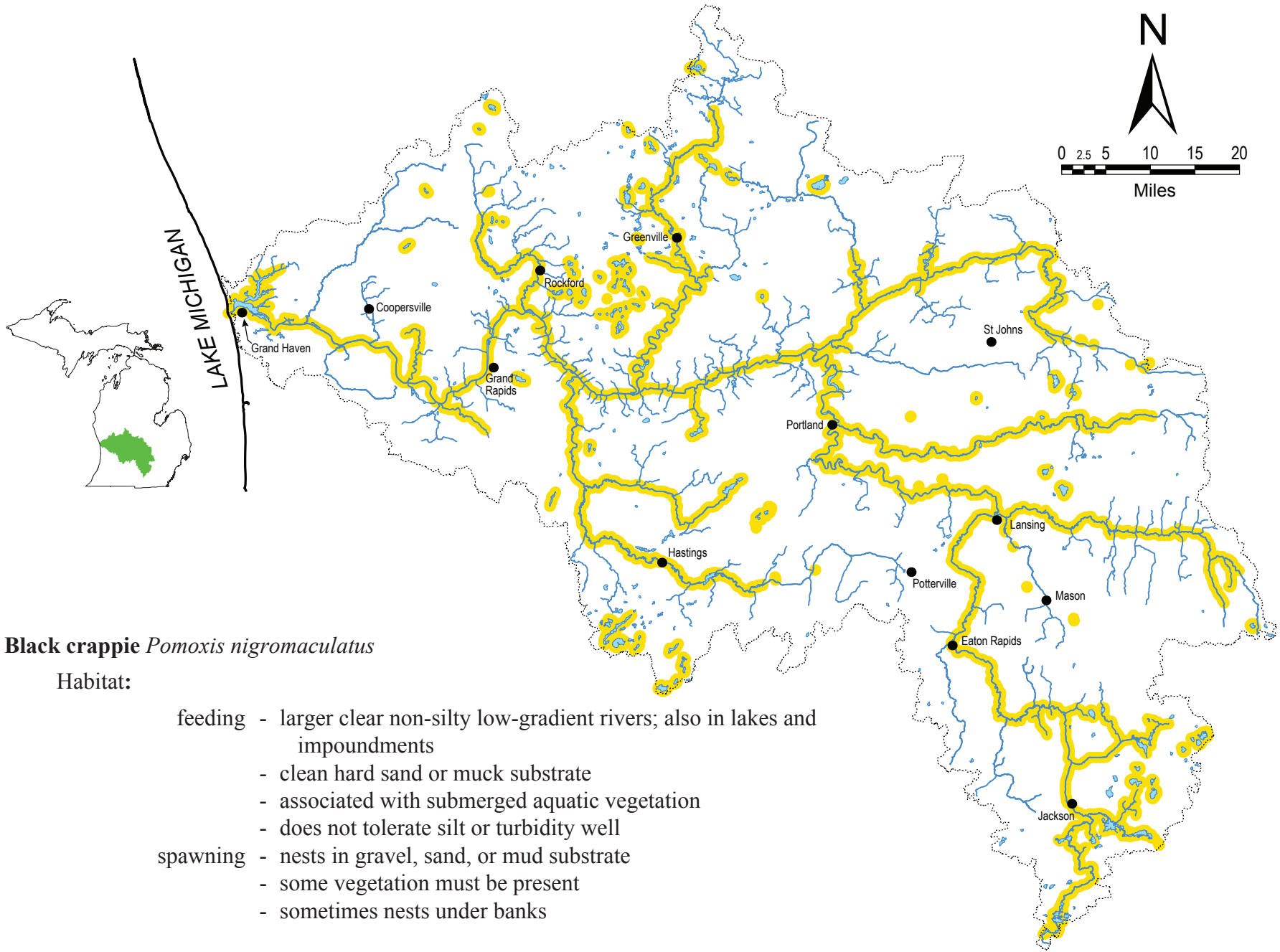


**Largemouth bass *Micropterus salmoides***

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

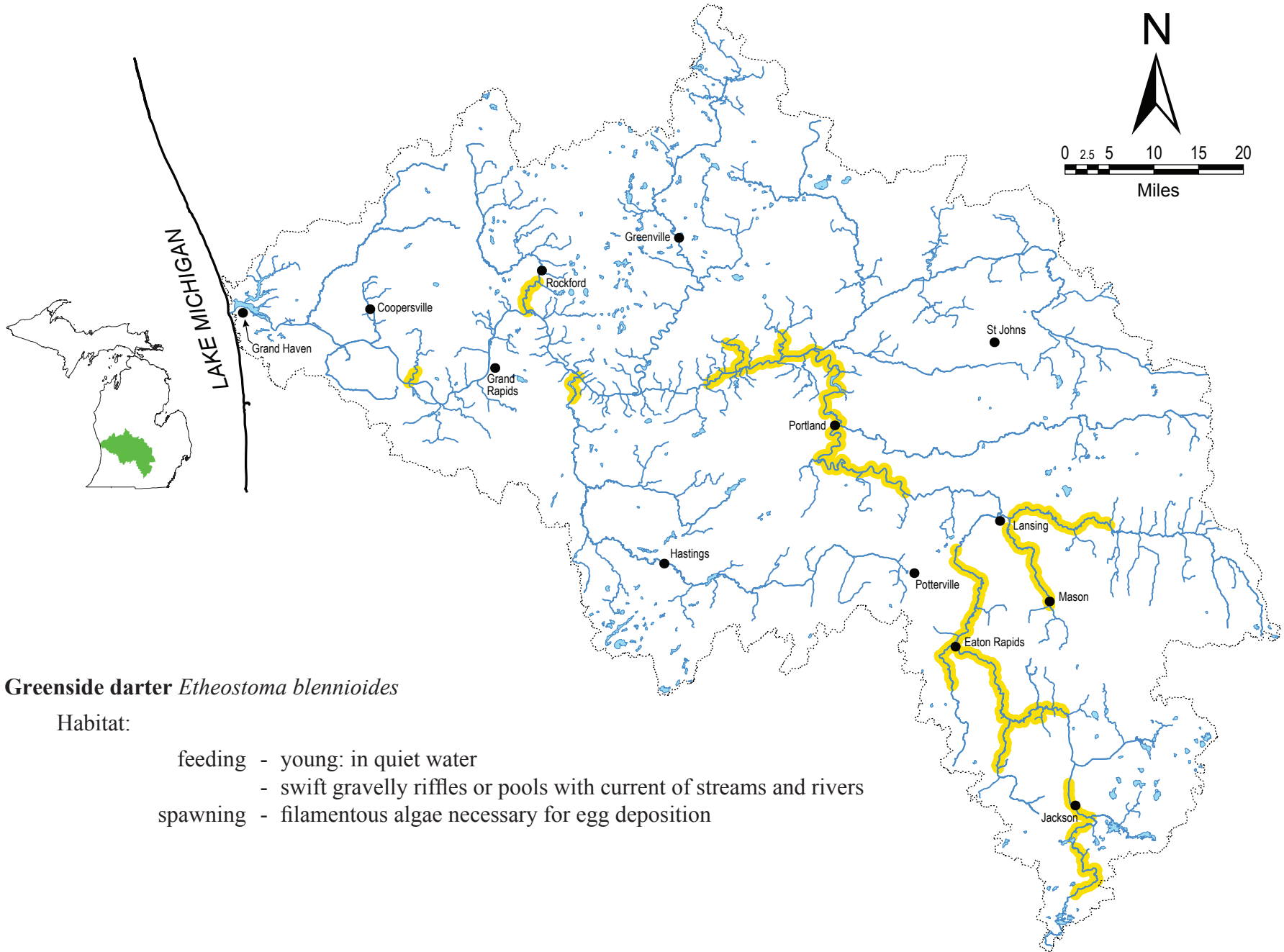




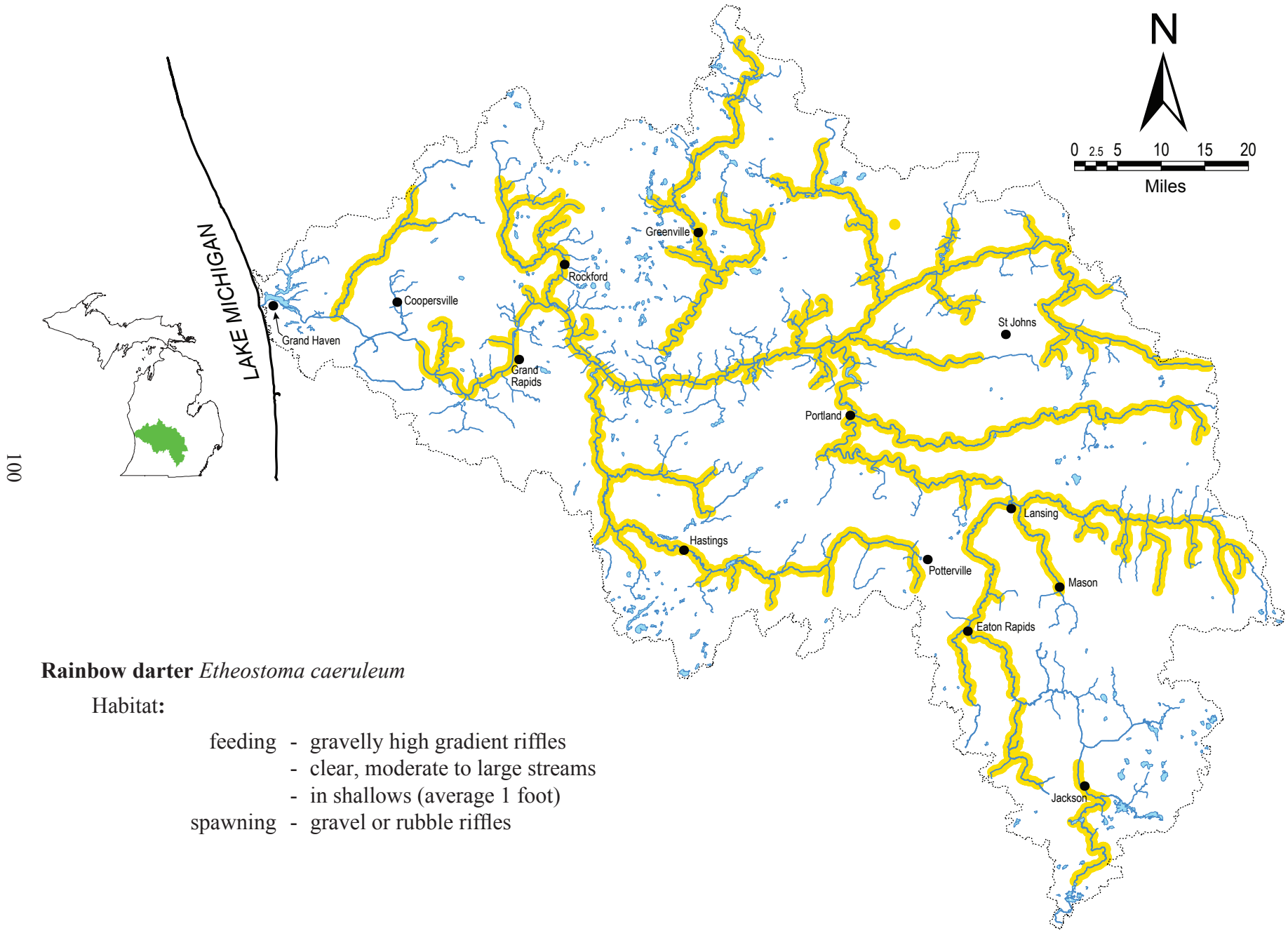
**Black crappie** *Pomoxis nigromaculatus*

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





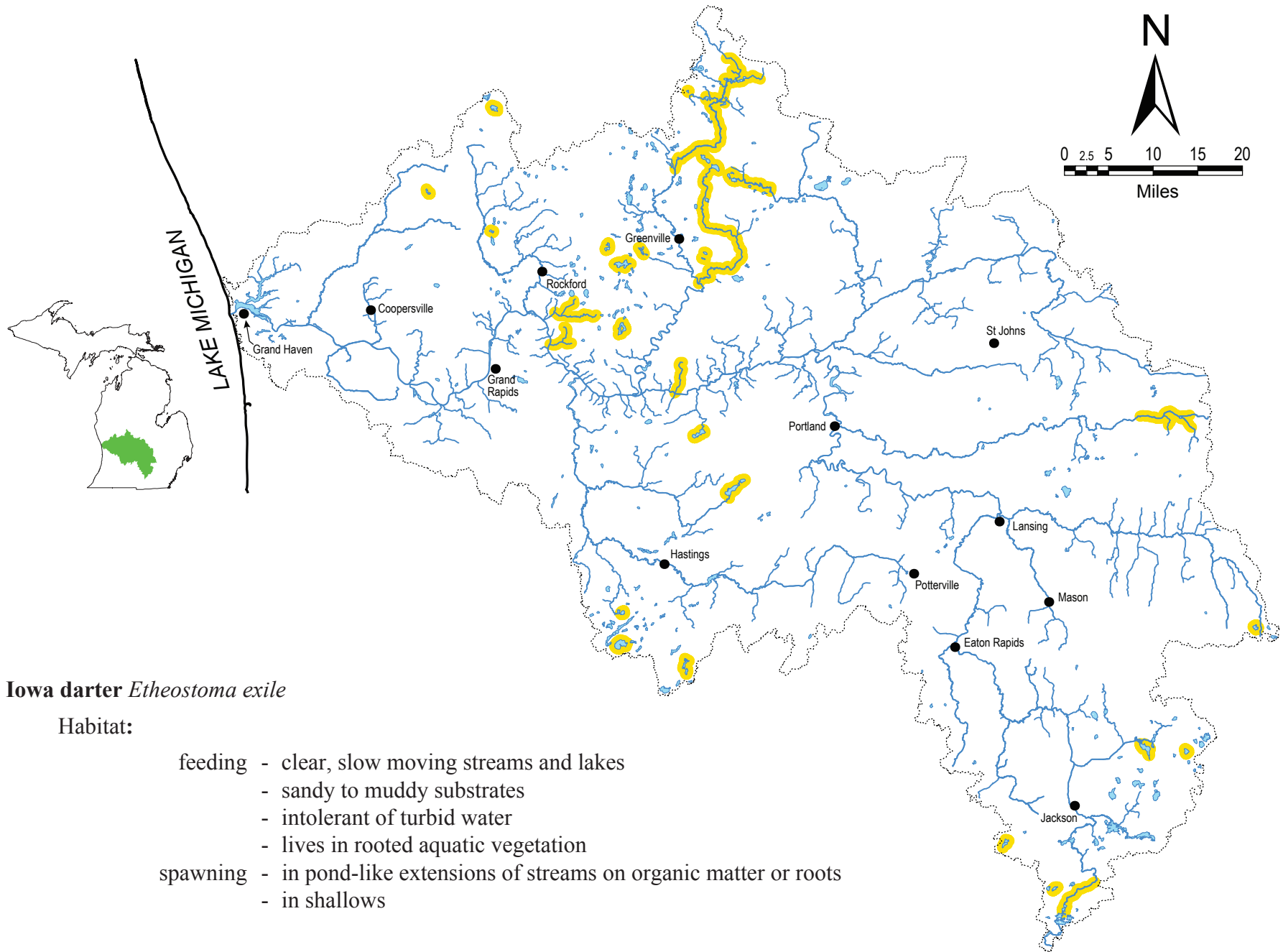


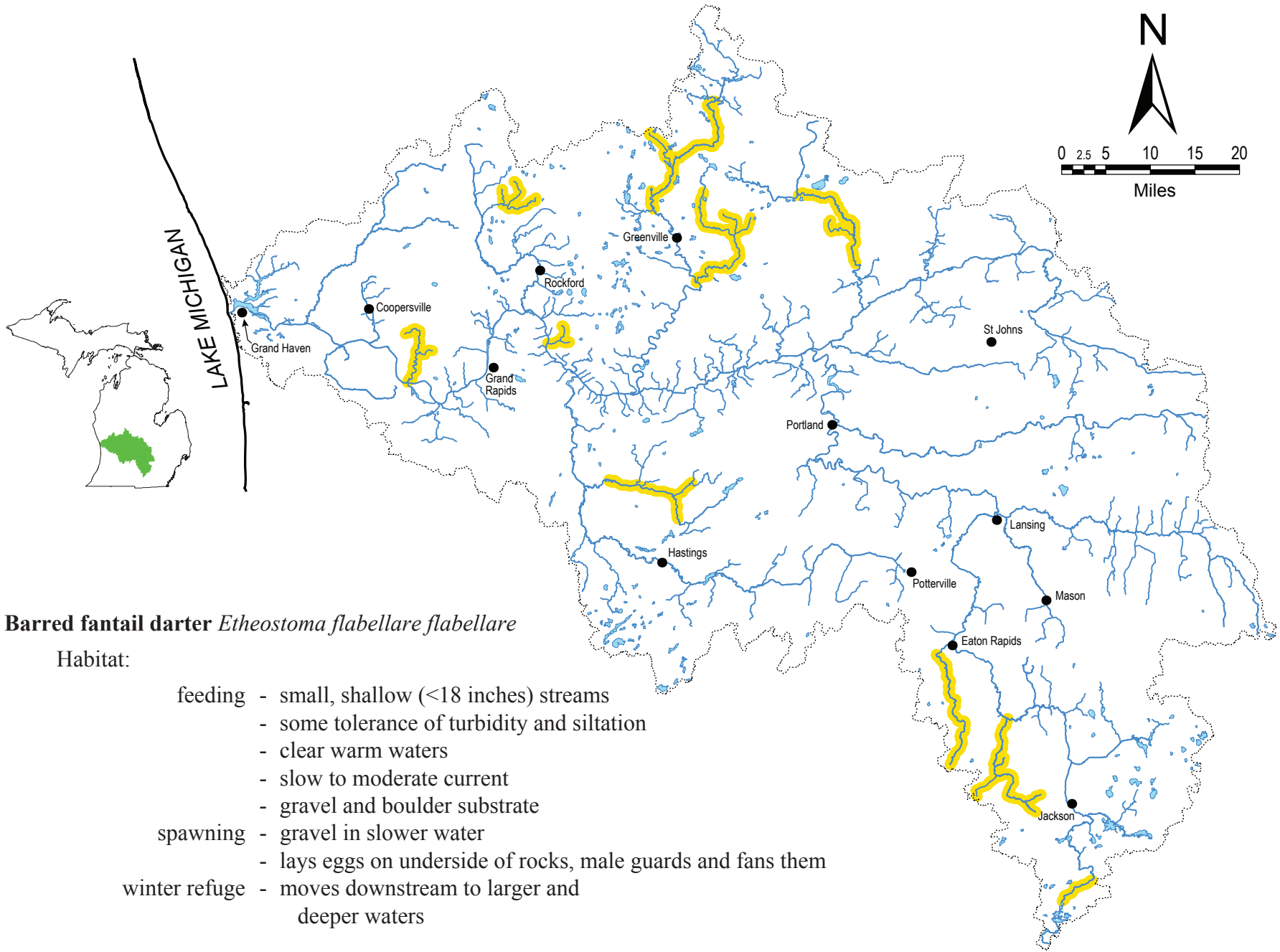
**Rainbow darter *Etheostoma caeruleum***

**Habitat:**

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



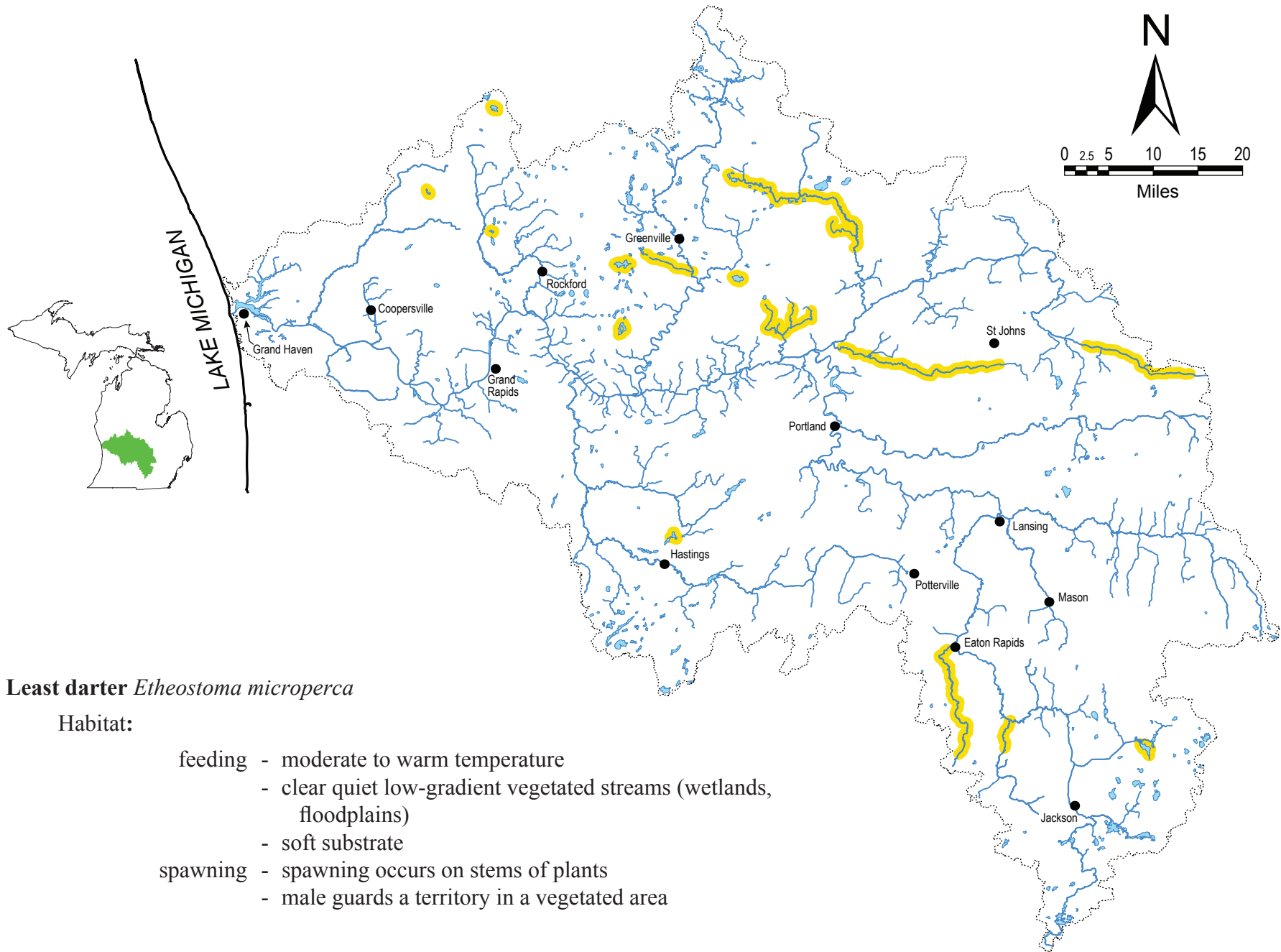


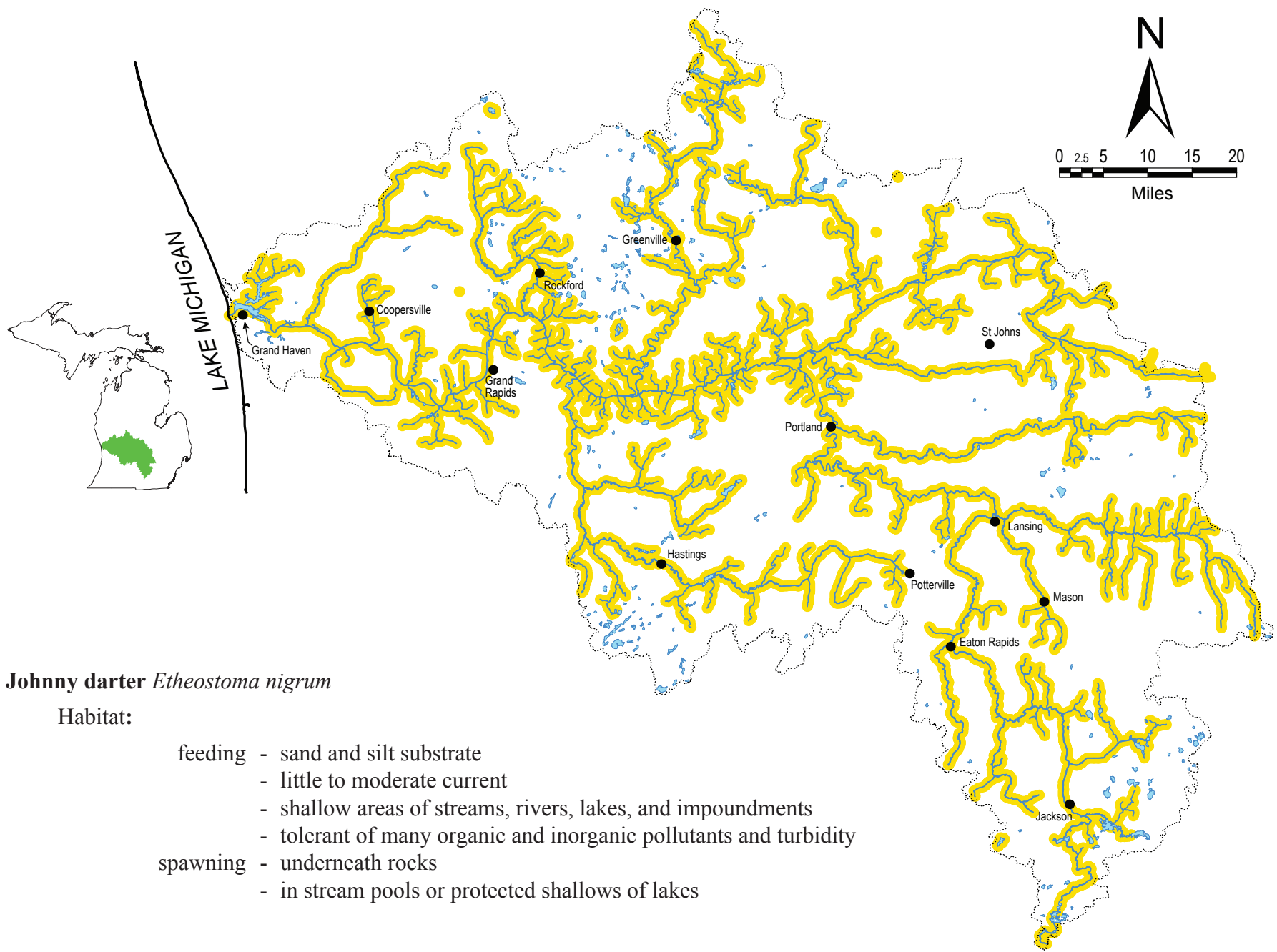


**Barred fantail darter** *Etheostoma flabellare flabellare*

Habitat:

- feeding - small, shallow (<18 inches) streams
- some tolerance of turbidity and siltation
- clear warm waters
- slow to moderate current
- gravel and boulder substrate
- spawning - gravel in slower water
- lays eggs on underside of rocks, male guards and fans them
- winter refuge - moves downstream to larger and deeper waters

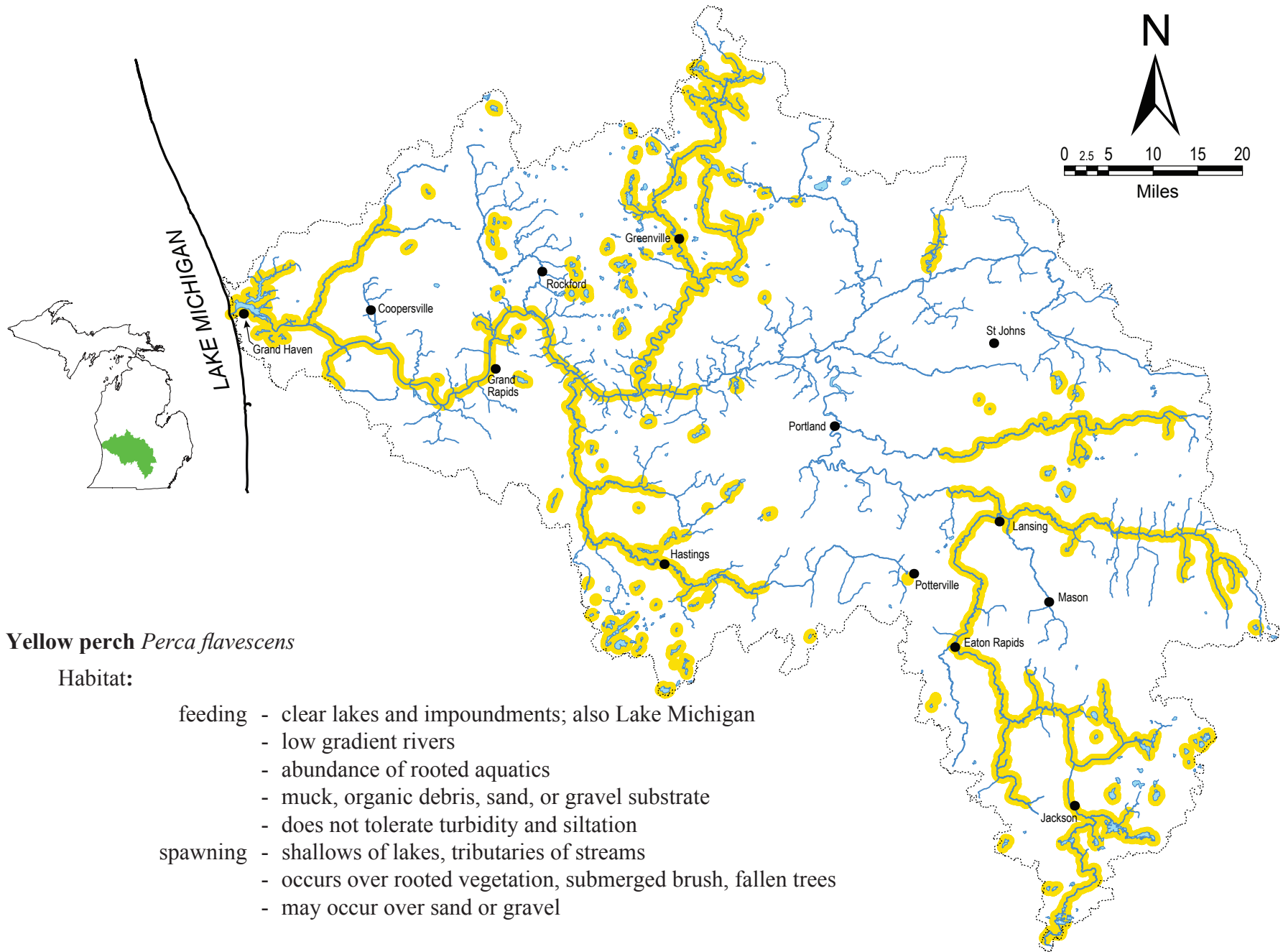


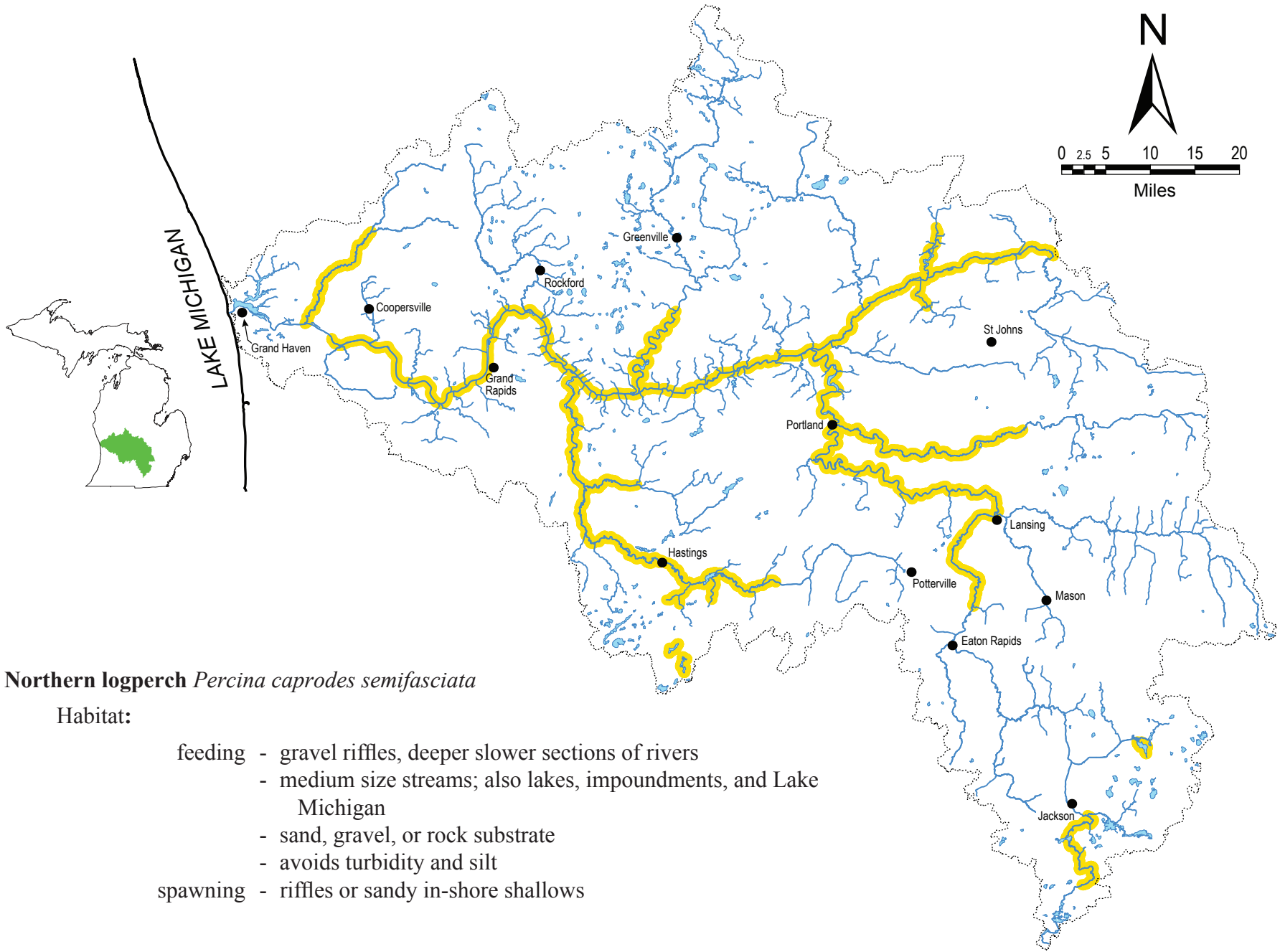


**Johnny darter** *Etheostoma nigrum*

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



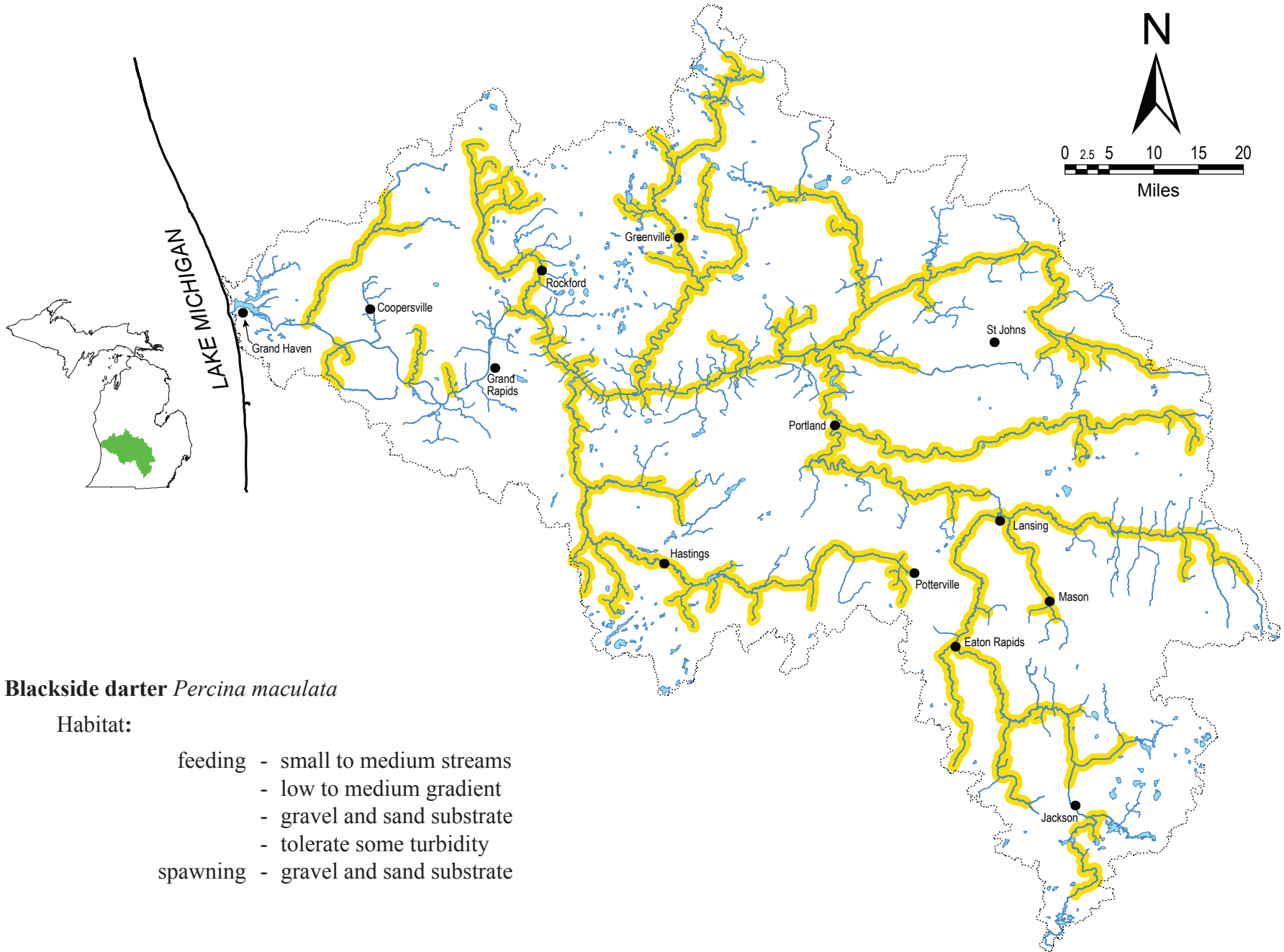


**Northern logperch** *Percina caprodes semifasciata*

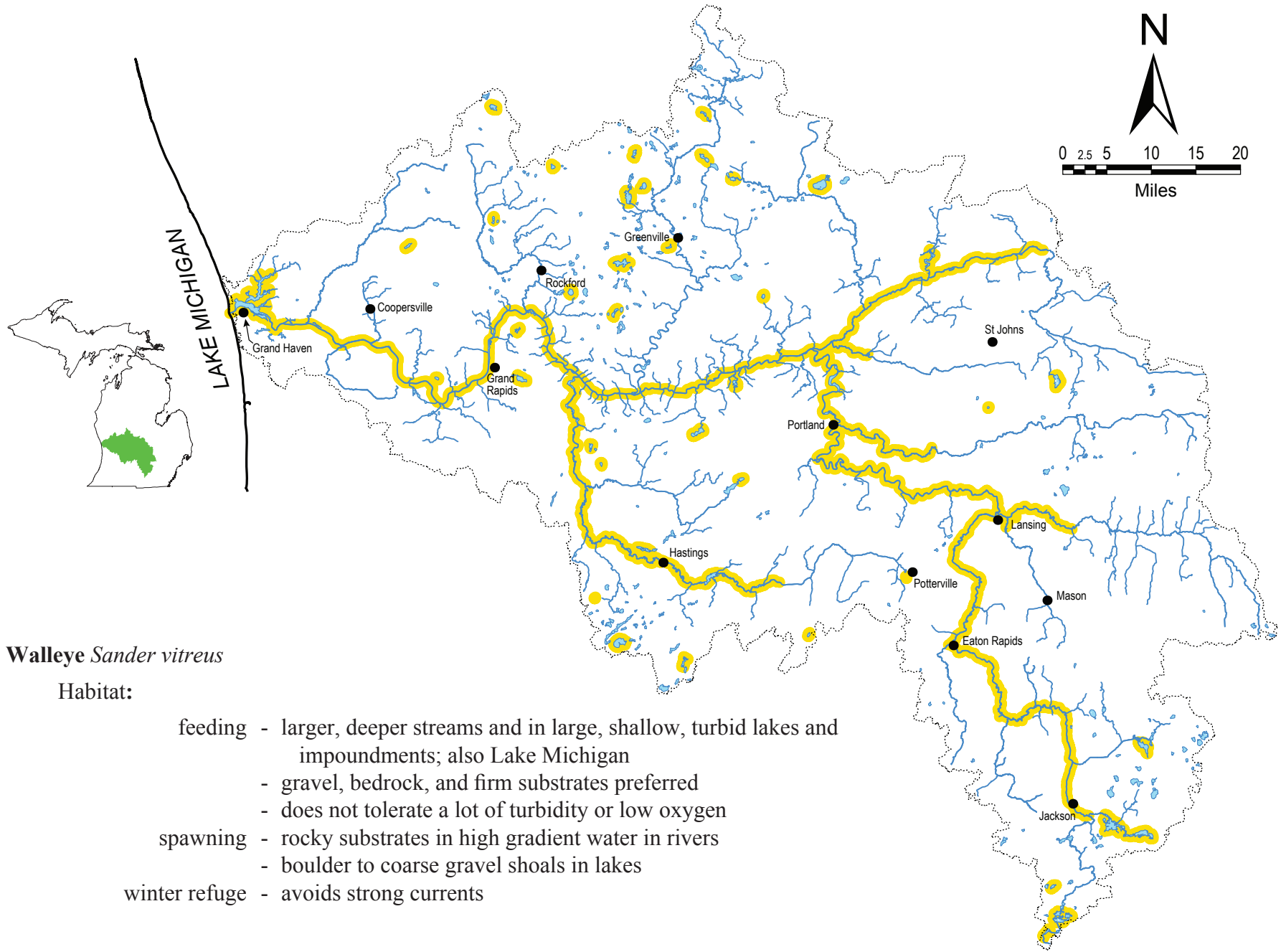
Habitat:

- 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







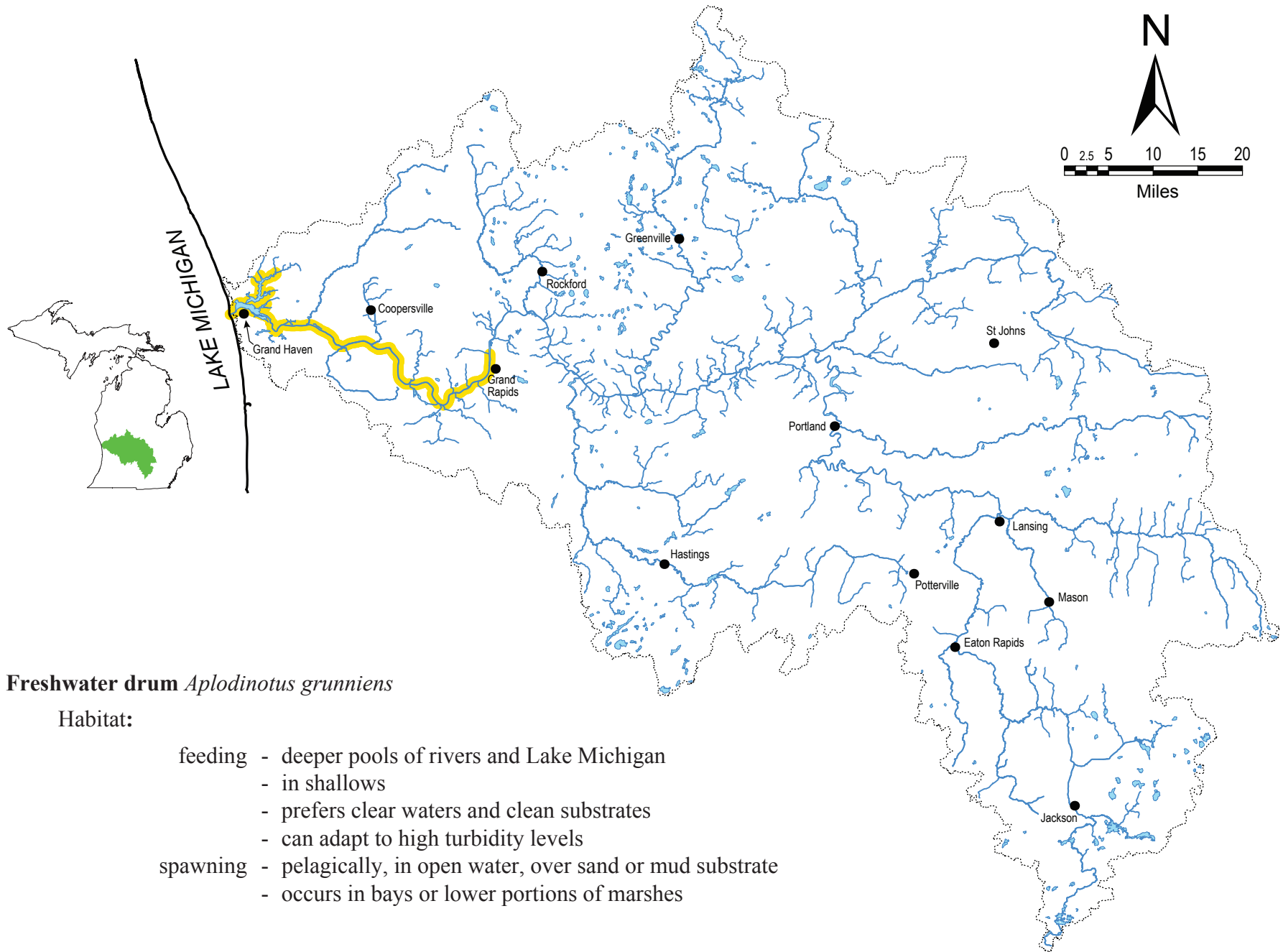


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**Walleye *Sander vitreus***

**Habitat:**

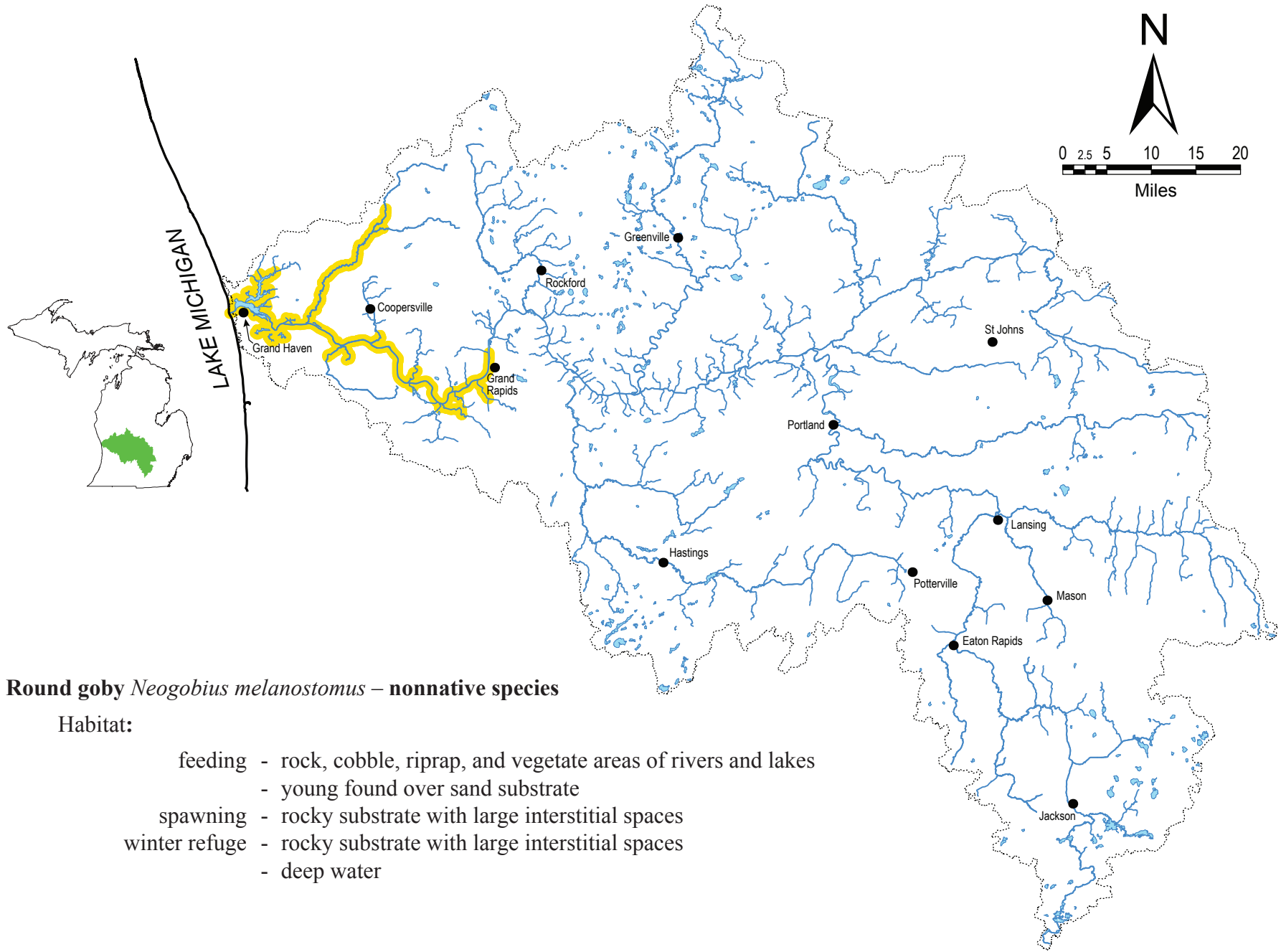
- feeding - larger, deeper streams and in large, shallow, turbid lakes and impoundments; also Lake Michigan
- gravel, bedrock, and firm substrates preferred
- does not tolerate a lot of turbidity or low oxygen
- spawning - rocky substrates in high gradient water in rivers
- boulder to coarse gravel shoals 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* – nonnative 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

## Appendix B

### Miscellaneous Historical Creel Data

This appendix contains miscellaneous creel data from 1928–1964 for inland lakes of the Grand River watershed. Angler hours, catch by species, total catch, catch per effort by species, and total catch per effort were summarized by year for each waterbody. These data were compiled from records located at Michigan Department of Natural Resources, Institute for Fisheries Research.

### References

- Lockwood, R.N., D.M. Benjamin, and J.R. Bence. 1999. Estimating angling effort and catch from Michigan roving and access site angler survey data. Michigan Department of Natural Resources, Fisheries Division, Research Report 2044, Ann Arbor.
- Ryckman, J.R. 1981. Creel census methods in general. Appendix VI-A-9 in J.W. Merna, J.C. Schneider, G.R. Alexander, W.D. Alward, and R.L. Eshenroder, editors. Manual of fisheries survey methods. Fisheries Management Report 9, Michigan Department of Natural Resources, Lansing.

Appendix B.–Miscellaneous inland lake creel 1930–1970 (MDNR unpublished data).

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskellunge		Channel catfish		Bullhead		Suckers		Carp									
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE								
<b>Headwaters</b>																																														
<b>Ackerson Lake (Jackson)</b>																																														
	1929	20	14	0.7								2	0.1	5	0.3	5	0.3						1	0.1			1	0.1																		
	1930	15	26	1.7							1	0.1	1	0.1	16	1.1	1	0.1					3	0.2	4	0.3																				
	1931	34	102	3.0								4	0.1	78	2.3	11	0.3	1	0.0			4	0.1	4	0.1																					
	1934	15	8	0.5																				8	0.5																					
	1935	15	68	4.7																			1	0.1	66	4.6			1	0.1																
	1937	38	34	0.9																				32	0.8			2	0.1																	
	1938	46	165	3.6							1	0.0	4	0.1	146	3.2	7	0.2					7	0.2																						
	1939	52	214	4.1							1	0.0	1	0.0	137	2.6	11	0.2	2	0.0	45	0.9	16	0.3			1	0.0																		
	1940	124	436	3.5							6	0.0			403	3.3	25	0.2							2	0.0																				
	1942	30	30	1.0								2	0.1	26	0.9									2	0.1																					
	1943	45	16	0.4										16	0.4																															
	1944	161	134	0.8								2	0.0	102	0.6	8	0.0	5	0.0	5	0.0	11	0.1												1	0.0										
	1945	14	23	1.6								5	0.4	18	1.3																															
	1953	15	22	1.5								1	0.1	18	1.2									3	0.2																					
	1960	5	0	0.0																																										
	1963	8	8	1.0										8	1.0																															
<b>Batteese Lake (Jackson)</b>																																														
	1936	17	42	2.5																				4	0.2													38	2.2							
	1938	51	138	2.7							1	0.0			121	2.4	14	0.3																				2	0.0							
	1939	8	33	4.1										6	0.8							2	0.3															25	3.1							
	1940	24	4	0.2																						1	0.0	1	0.0										2	0.1						
	1943	3	0	0.0																																										
	1944	156	226	1.5										190	1.2	10	0.1					4	0.0	19	0.1					3	0.0															
	1945	37	116	3.1										70	1.9	26	0.7	4	0.1					7	0.2			1	0.0								8	0.2								
	1949	4	3	0.8																				3	0.8																					
	1951	13	21	1.6										5	0.4	1	0.1							1	0.1	14	1.1																			
	1952	18	47	2.6										37	2.1											10	0.6																			
	1953	27	11	0.4										9	0.3											2	0.1																			
	1956	26	58	2.2										36	1.4											11	0.4	10	0.4			1	0.0													

Appendix B.–Continued.

Segment and lake (County)	Year	Angler Hours	Total #’s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskellunge		Channel catfish		Bullhead		Suckers		Carp						
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE					
<b>Headwaters–cont.</b>																																											
Big Portage Lake (Jackson)																																											
	1929	32	37	1.2									1	0.0	6	0.2						30	1.0																				
	1931	41	35	0.9											3	0.1	4	0.1	2	0.0						25	0.6																
	1934	25	42	1.7											12	0.5	8	0.3	15	0.6						4	0.2																
	1935	27	154	5.8											151	5.7	2	0.1																									
	1936	2,406	1,401	0.6							1	0.0	3	0.0	55	0.0	253	0.1	555	0.2	334	0.1	78	0.0	4	0.0	104	0.0											8	0.0	6	0.0	
	1938	9	43	5.1							1	0.1	2	0.2	36	4.2	2	0.2																									
	1939	24	28	1.2									2	0.1	24	1.0	1	0.0																									
	1940	24	20	0.8											8	0.3	10	0.4	1	0.0																							
	1942	55	40	0.7											3	0.1	18	0.3			2	0.0				15	0.3																
	1943	114	55	0.5							1	0.0	2	0.0	48	0.4			1	0.0				2	0.0																		
	1944	149	16	0.1									3	0.0	7	0.0								2	0.0																		
	1945	82	33	0.4									12	0.1	13	0.2					2	0.0	2	0.0	2	0.0	2	0.0	2	0.0	2	0.0	2	0.0	2	0.0	2	0.0	2	0.0	2	0.0	
	1946	208	90	0.4									3	0.0	70	0.3	2	0.0					1	0.0	2	0.0	3	0.0	9	0.0													
	1947	2	0	0.0																																							
	1949	94	65	0.7											27	0.3										33	0.4			4	0.0							1	0.0				
	1950	11	7	0.7											7	0.7																											
	1952	31	14	0.5											11	0.4			1	0.0						1	0.0			1	0.0												
	1953	24	19	0.8											8	0.3	6	0.3								3	0.1																
	1956	21	9	0.4											1	0.0	8	0.4																									
	1958	21	16	0.8											3	0.1	4	0.2			8	0.4				1	0.0																
	1961	3	11	3.7											3	1.0	2	0.7					6	2.0																			
	1963	14	6	0.4											2	0.1	4	0.3																									
	1964	12	2	0.2											2	0.2																											
Big Wolf Lake (Jackson)																																											
	1928	14	24	1.7									6	0.4	16	1.1			2	0.1																							
	1929	21	30	1.4									2	0.1	19	0.9	8	0.4								1	0.0																
	1930	9	11	1.2									1	0.1	1	0.1										3	0.3	5	0.6											1	0.1		
	1931	39	133	3.4											18	0.5										1	0.0	114	2.9														
	1933	28	46	1.6									1	0.0	1	0.0	40	1.4			1	0.0	1	0.0	1	0.0	1	0.0													1	0.0	
	1934	40	87	2.2									3	0.1	46	1.2	10	0.3	1	0.0						25	0.6			2	0.1												

Appendix B.–Continued.

Segment and lake (County)	Year	Angler Hours	Total #’s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskellunge		Channel catfish		Bullhead		Suckers		Carp					
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE				
<b>Headwaters–cont.</b>																																										
<b>Big Wolf Lake (Jackson)–cont.</b>																																										
	1935	3	1	0.4																				1	0.4																	
	1936	17	69	4.1											68	4.1							1	0.1																		
	1938	50	84	1.7							2	0.0			81	1.6													1	0.0												
	1939	87	207	2.4							1	0.0	5	0.1	156	1.8	12	0.1	9	0.1	6	0.1	13	0.1				1	0.0					4	0.0							
	1940	7	0	0.0																																						
	1941	301	513	1.7							8	0.0	8	0.0	444	1.5	11	0.0					17	0.1	24	0.1			1	0.0												
	1942	19	35	1.9											17	0.9							4	0.2	13	0.7			1	0.1												
	1943	430	401	0.9									14	0.0	297	0.7	22	0.1	4	0.0	4	0.0	53	0.1									7	0.0								
	1944	15	4	0.3																		2	0.1	2	0.1																	
	1945	229	318	1.4									2	0.0	218	1.0			4	0.0	13	0.1	75	0.3			2	0.0					4	0.0								
	1946	75	79	1.1									1	0.0	29	0.4	1	0.0			38	0.5	10	0.1																		
	1949	27	34	1.3									1	0.0	26	1.0	5	0.2	2																							
	1953	82	87	1.1									1	0.0	71	0.9	12	0.1							3	0.0																
	1954	7	6	0.9											6	0.9																										
	1957	27	83	3.1									1	0.0	45	1.7	18	0.7	11	0.4					8	0.3																
	1958	44	41	0.9											36	0.8			2	0.0					3	0.1																
	1960	22	58	2.6											48	2.2									10	0.5																
	1961	20	83	4.2									4	0.2	19	1.0	36	1.8	4	0.2					20	1.0																
	1962	64	89	1.4									10	0.2	46	0.7	17	0.3					2	0.0	14	0.2																
Brazee (Hillsdale)	1934	4	49	12.3											36	9.0	2	0.5							11	2.8																
	1937	10	7	0.7											7	0.7																										
	1938	17	31	1.9											26	1.6	1	0.1					1	0.1	3	0.2																
	1939	15	63	4.3											61	4.2	2	0.1																								
	1946	17	21	1.2											10	0.6					2	0.1			9	0.5																
	1953	23	11	0.5											1	0.0	3	0.1							7	0.3																
	1954	47	19	0.4									2	0.0	17	0.4																										
	1956	7	1	0.1											1	0.1																										
Brills Lake (Jackson)	1929	125	153	1.2									2	0.0	125	1.0	2	0.0	3	0.0					17	0.1			3	0.0					1	0.0						
	1930	20	39	2.0									1	0.1	25	1.3	3	0.2	7	0.4					3	0.2																



Appendix B.–Continued.

Segment and lake (County)	Year	Angler Hours	Total #’s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskellunge		Channel catfish		Bullhead		Suckers		Carp		
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	
<b>Headwaters–cont.</b>																																							
Brills Lake (Jackson)–cont.																																							
	1931	23	8	0.4											6	0.3																							
	1933	31	45	1.5									10	0.3	27	0.9	2	0.1	5	0.2		1	0.0					1	0.0							1	0.0		
	1934	35	73	2.1											14	0.4	2	0.1	1	0.0					50	1.4	3	0.1							3	0.1			
	1935	8	3	0.4																																			
	1938	3	6	2.4																																			
	1939	12	46	4.0								1	0.1			32	2.8	8	0.7	3	0.3			2	0.2														
	1941	57	60	1.1									1	0.0	36	0.6			4	0.1	7	0.1	11	0.2			1	0.0											
	1943	105	74	0.7									2	0.0	41	0.4	8	0.1	7	0.1					14	0.1			2	0.0									
	1945	21	27	1.3											16	0.8					7	0.3	2	0.1			2	0.1											
	1946	11	22	2.1											14	1.3					7	0.7					1	0.1											
	1947	44	27	0.6											24	0.5							2	0.0			1	0.0											
	1948	100	61	0.6							1	0.0			43	0.4	5	0.1			7	0.1	4	0.0									1	0.0					
	1950	19	12	0.6																			12	0.6															
	1951	18	0	0.0																																			
	1952	87	86	1.0									3	0.0	43	0.5	16	0.2	4	0.0					20	0.2													
	1953	38	84	2.2											65	1.7	4	0.1	6	0.2					9	0.2													
	1956	22	13	0.6											5	0.2							5	0.2			3	0.1											
	1962	81	142	1.8									1	0.0	117	1.4	17	0.2					5	0.1			2	0.0											
	1963	260	406	1.6									3	0.0	291	1.1	48	0.2	4	0.0	51	0.2	6	0.0			3	0.0											
	1964	56	45	0.8											35	0.6	2	0.0							7	0.1			1	0.0									
Browns Lake (Jackson)																																							
	1931	12	0	0.0																																			
	1934	15	19	1.3																																			
	1945	14	0	0.0																																			
Center Lake (Jackson)																																							
	1930	38	140	3.7																																9	0.2		
	1931	217	157	0.7									2	0.0	43	0.2	19	0.1	3	0.0		1	0.0	77	0.4			10	0.0							2	0.0		
	1932	7	60	9.2									6	0.6	19	1.4	21	1.5	1	0.2					12	1.1			1	0.2									
	1933	25	33	1.3																																			
	1934	36	52	1.5									1	0.0	18	0.5	2	0.1					3	0.1	20	0.6			8	0.2									

Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp	
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Headwaters-cont.</b>																						
Center Lake (Jackson)-cont.																						
	1935	88	72	0.8						40	0.5	6	0.1			12	0.1			14	0.2	
	1936	63	159	2.5					3	0.0	73	1.2	25	0.4	1	0.0	41	0.7		16	0.3	
	1938	290	885	3.1				9	0.0	13	0.0	801	2.8	34	0.1	2	0.0	10	0.0	4	0.0	
	1939	111	437	3.9				5	0.0	12	0.1	321	2.9	26	0.2	7	0.1	1	0.0	21	0.2	
	1940	280	1335	4.8								1,268	4.5	4	0.0	15	0.1	28	0.1	15	0.1	
	1941	442	585	1.3				4	0.0	33	0.1	346	0.8	29	0.1	12	0.0	8	0.0	15	0.0	
	1942	253	582	2.3						14	0.1	360	1.4	71	0.3	28	0.1	38	0.2	27	0.1	
	1943	271	341	1.3				3	0.0	8	0.0	187	0.7	76	0.3	7	0.0	16	0.1	27	0.1	
	1944	355	459	1.3						1	0.0	237	0.7	106	0.3	1	0.0	22	0.1	85	0.2	
	1945	74	71	1.0						53	0.7	9	0.1			1	0.0	8	0.1			
	1946	55	63	1.2					6	0.1	30	0.6			2	0.0	9	0.2		5	0.1	
	1947	14	17	1.3										9	0.7	8	0.6					
	1949	188	290	1.5				2	0.0	4	0.0	189	1.0	79	0.4	2	0.0	13	0.1		1	0.0
	1953	124	185	1.5						88	0.7	37	0.3			5	0.0	53	0.4		2	0.0
	1954	7	17	2.4						9	1.3							8	1.1			
	1956	91	435	4.8						369	4.1	34	0.4	11	0.1			21	0.2			
	1957	214	469	2.2					93	0.4	243	1.1	69	0.3	5	0.0			59	0.3		
	1958	291	307	1.1				1	0.0	15	0.1	254	0.9	20	0.1	2	0.0	2	0.0	13	0.0	
	1959	19	75	3.9						25	1.3	30	1.6	7	0.4			13	0.7			
	1960	52	48	0.9						37	0.7							10	0.2		1	0.0
	1961	96	358	3.7					21	0.2	207	2.2	58	0.6		33	0.3	39	0.4			
	1962	496	717	1.4					23	0.0	583	1.2	75	0.2	1	0.0			35	0.1		
	1963	538	645	1.2					23	0.0	554	1.0	14	0.0	2	0.0	10	0.0	35	0.1		
	1964	308	686	2.2				2	0.0		555	1.8	90	0.3	11	0.0	12	0.0	16	0.1		
Clear Lake (Jackson)																						
	1930	5	5	1.1						2	0.4	2	0.4	1	0.2							
	1931	39	121	3.1					3	0.1	72	1.8	11	0.3	17	0.4	12	0.3	5	0.1		
	1934	41	27	0.7									7	0.2	1	0.0			14	0.3		
	1935	24	48	2.0						8	0.3	2	0.1			6	0.3	31	1.3		1	0.0
	1936	2215	3757	1.7					5	0.0	24	0.0				3,357	1.5	311	0.1	21	0.0	

Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskelunge		Channel catfish		Bullhead		Suckers		Carp			
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE		
<b>Headwaters--cont.</b>																																								
Clear Lake (Jackson)--cont.																																								
	1938	2	3	2.0											3	2.0																								
	1940	8	8	1.1											3	0.4							3	0.4	2	0.3														
	1944	172	113	0.7							3	0.0	72	0.4	1	0.0	1	0.0			3	0.4	22	0.1	11	0.1			3	0.0										
	1945	42	42	1.0									32	0.8	4	0.1	1	0.0					4	0.1			1	0.0												
	1946	8	14	1.8									7	0.9									7	0.9																
	1947	19	13	0.7									2	0.1	3	0.2							4	0.2			1	0.1					1	0.1	2	0.1				
	1948	41	133	3.2									133	3.2									4	0.1																
	1949	37	51	1.4							2	0.1	32	0.9	13	0.4							4	0.1																
	1950	25	46	1.8									12	0.5	8	0.3					2	0.1	24	1.0																
	1952	60	135	2.3							1	0.0	101	1.7	12	0.2	3	0.1			5	0.1	13	0.2																
	1953	285	351	1.2							15	0.1	231	0.8	16	0.1					21	0.1	62	0.2			6	0.0												
	1954	40	2	0.1									2	0.1																										
	1956	85	172	2.0							4	0.0	132	1.6	13	0.2							22	0.3			1	0.0												
	1957	25	35	1.4									30	1.2	5	0.2																								
	1960	7	11	1.7									8	1.2									3	0.5																
	1961	32	117	3.7							19	0.6	67	2.1	21	0.7					7	0.2	2	0.1			1	0.0												
	1962	56	32	0.6							5	0.1	15	0.3	11	0.2							1	0.0																
	1963	71	64	0.9							6	0.1	44	0.6	12	0.2					1	0.0	1	0.0																
	1964	37	23	0.6							2	0.1	8	0.2							8	0.2	4	0.1					1	0.0										
Core Lake (Jackson)																																								
	1938	2	0	0.0																																				
Cranberry Lake (Jackson)																																								
	1928	4	6	1.5									5	1.3																					1	0.3				
	1929	83	66	0.8									50	0.6	1	0.0							8	0.1			7	0.1												
	1930	105	160	1.5							1	0.0	107	1.0	16	0.2	1	0.0			9	0.1	21	0.2			4	0.0					1	0.0						
	1931	14	19	1.4							1	0.1	12	0.9	2	0.1							2	0.1			2	0.1												
	1934	12	10	0.8																						10	0.8													
	1938	51	150	3.0							5	0.1			142	2.8	3	0.1																						
	1940	9	16	1.7									16	1.7																										
	1941	237	356	1.5							3	0.0	1	0.0	318	1.3	17	0.1	4	0.0	8	0.0	4	0.0			1	0.0												



Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskelunge		Channel catfish		Bullhead		Suckers		Carp		
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	
<b>Headwaters-cont.</b>																																							
Gilletts Lake (Jackson)-cont.																																							
	1936	6	17	2.8							1	0.2			16	2.7																							
	1938	14	20	1.4											5	0.4								15	1.1														
	1939	46	128	2.8							1	0.0	2	0.0	100	2.2	2	0.0	2	0.0				21	0.5														
	1940	11	31	2.8											29	2.6												2	0.2										
	1942	78	170	2.2							3	0.0			87	1.1	18	0.2	10	0.1	22	0.3	27	0.3			3	0.0											
	1943	102	166	1.6									2	0.0	99	1.0	12	0.1	3	0.0	12	0.1	38	0.4															
	1944	84	81	1.0									6	0.1	54	0.6	7	0.1	1	0.0	4	0.0	4	0.0								5	0.1						
	1945	37	71	1.9											62	1.7	2	0.1	1	0.0	2	0.1	4	0.1															
	1946	76	142	1.9									1	0.0	67	0.9					13	0.2	50	0.7			1	0.0				10	0.1						
	1947	40	19	0.5											1	0.0						8	0.2	10	0.3														
	1948	24	2	0.1							1	0.0			1	0.0																							
	1949	124	142	1.1									2	0.0	111	0.9	24	0.2	1	0.0	1	0.0	3	0.0															
	1950	30	41	1.4											36	1.2	5	0.2																					
	1951	46	16	0.4											14	0.3																							
	1952	36	72	2.0											54	1.5	11	0.3					7	0.2															
	1953	24	69	2.9									1	0.0	41	1.7	13	0.5					14	0.6															
	1954	33	54	1.6											2	0.1	1	0.0					51	1.5															
	1958	85	261	3.1									2	0.0	159	1.9	74	0.9	6	0.1	17	0.2	3	0.0															
	1961	26	63	2.4									11	0.4	17	0.7	21	0.8			5	0.2	9	0.3															
	1962	68	42	0.6									5	0.1	27	0.4	5	0.1					4	0.1			1	0.0											
	1963	95	44	0.5								1	0.0	10	0.1	18	0.2	2	0.0			11	0.1	2	0.0														
	1964	27	61	2.3											60	2.2	1	0.0																					
Goose Lake (Hillsdale)																																							
	1931	NA	25	NA																																			
	1932	NA	60	NA											60																								
	1935	12	5	0.4																																			
	1937	34	15	0.4																																			
	1938	51	25	0.5									3	0.1	10	0.2					12	0.2																	
	1939	28	151	5.3									1	0.0	133	4.7	2	0.1	2	0.1			13	0.5															
	1940	7	0	0.0																																			



Appendix B.–Continued.

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Headwaters–cont.</b>																					
Grass Lake (Jackson)–cont.																					
	1946	141	92	0.7					5 0.0	67 0.5	4 0.0			16 0.1							
	1947	9	5	0.6						1 0.1				1 0.1		3 0.3					
	1949	2	3	2.0										3 2.0							
	1950	4	0	0.0																	
	1951	15	63	4.2						1 0.1				61 4.1		1 0.1					
	1952	2	4	2.0					1 0.5					3 1.5							
	1953	43	74	1.7						12 0.3			1 0.0	61 1.4							
	1957	61	148	2.4					5 0.1	116 1.9	3 0.0			24 0.4							
	1958	77	102	1.3					7 0.1	71 0.9	8 0.1	4 0.1		12 0.2							
	1959	14	40	2.9					6 0.4	19 1.4	10 0.7			5 0.4							
	1960	11	26	2.4						9 0.8				17 1.5							
	1961	12	29	2.4						11 0.9	7 0.6			11 0.9							
	1962	98	115	1.2					6 0.1	41 0.4	14 0.1			54 0.6							
	1963	264	526	2.0					11 0.0	184 0.7	21 0.1			306 1.2					4 0.0		
	1964	4	19	5.4						7 2.0	7 2.0			5 1.4							
Hewes Lake (Ingham)																					
	1940	14	59	4.4					2 0.1	17 1.3			6 0.4	1 0.1		0.0			33 2.4		
	1945	11	4	0.4					2 0.2	2 0.2						0.0			0.0		
	1951	39	36	0.9						10 0.3	8 0.2		18 0.5								
	1953	197	228	1.2					3 0.0	142 0.7	27 0.1		45 0.2	5 0.0		6 0.0					
	1954	99	106	1.1						82 0.8	7 0.1		14 0.1	2 0.0		1 0.0					
	1955	38	31	0.8					1 0.0	18 0.5	6 0.2		4 0.1	2 0.1							
	1956	65	33	0.5						18 0.3	7 0.1		2 0.0	5 0.1		1 0.0					
	1957	28	13	0.5						8 0.3	1 0.0		2 0.1	2 0.1							
	1958	84	75	0.9						46 0.5	6 0.1	2 0.0	18 0.2	3 0.0							
	1964	25	17	0.7						4 0.2	2 0.1		0.0	11 0.4							
Jacobs Lake (Ingham)																					
	1941	221	322	1.5					4 0.0	152 0.7	74 0.3		24 0.1	67 0.3					1 0.0		
	1942	66	123	1.9				2 0.0	0.0	95 1.4	13 0.2		0.0	12 0.2					1 0.0		
	1944	43	72	1.7										72 1.7							



Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Headwaters-cont.</b>																					
Jacobs Lake (Ingham)-cont.																					
	1945	18	2	0.1																	
	1948	13	52	4.0						40	3.1	12	0.9								
	1951	13	10	0.8					1	0.1	4	0.3		0.0	2	0.2				3	0.2
	1952	8	11	1.4						7	0.9			0.0	4	0.5					
	1955	51	35	0.7						21	0.4	1	0.0	9	0.2	4	0.1				
	1956	16	14	0.9						3	0.2			9	0.6	1	0.1		1	0.1	
Leake Lake (Jackson)																					
	1956	28	15	0.5						5	0.2	1	0.0		2	0.1					
Leoni Mill Pond (Jackson)																					
	1930	4	6	1.7						3	0.9									3	0.9
	1933	1	1	1.0										1	1.0						
	1934	19	29	1.6					2	0.1	24	1.3	1	0.1						1	0.1
	1935	4	4	1.0						1	0.3	2	0.5			1	0.3				
	1943	63	137	2.2						92	1.5	5	0.1	2	0.0	21	0.3	17	0.3		
	1944	202	183	0.9						121	0.6	24	0.1	22	0.1	10	0.0			6	0.0
	1945	8	4	0.5						4	0.5										
	1946	3	0	0.0																	
	1947	19	21	1.1						18	0.9					3	0.2				
	1949	8	27	3.4												27	3.4				
	1950	33	20	0.6						2	0.1					18	0.5				
	1952	1	0	0.0																	
	1953	64	84	1.3						34	0.5	42	0.7	1	0.0	4	0.1	3	0.0		
	1954	33	51	1.5						35	1.1	15	0.5	1	0.0						
	1963	24	45	1.9						35	1.5	10	0.4								
	1964	4	2	0.5						2	0.5										
Little Olcott (Jackson)																					
	1944	19	9	0.5						3	0.2			1	0.1	5	0.3				
	1953	23	15	0.7					1	0.0	3	0.1	5	0.2						6	0.3
	1954	12	11	0.9						8	0.7					3	0.3				
	1957	30	62	2.1					9	0.3	41	1.4	3	0.1	9	0.3					

Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskelunge		Channel catfish		Bullhead		Suckers		Carp									
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE								
<b>Headwaters-cont.</b>																																														
Little Portage (Jackson)																																														
	1934	13	16	1.2																				14	1.1											1	0.1									
	1938	25	88	3.6						2	0.1	2	0.1	76	3.1	8	0.3																													
	1942	25	6	0.2											4	0.2	1	0.0																												
	1944	34	9	0.3								1	0.0	1	0.0	2	0.1	1	0.0	1	0.0				2	0.1																				
	1953	23	42	1.9											1	0.0								40	1.8																					
	1954	15	0	0.0																																										
	1963	50	28	0.6								1	0.0	21	0.4	4	0.1								2	0.0																				
Little Wolf (Jackson)																																														
	1931	7	6	0.9											6	0.9																														
	1934	9	9	1.0											8	0.9									1	0.1																				
	1936	53	133	2.5								5	0.1	127	2.4										1	0.0																				
	1939	17	53	3.1											49	2.8									4	0.2																				
	1943	80	49	0.6											17	0.2	9	0.1	7	0.1					2	0.0	14	0.2																		
	1945	99	98	1.0											59	0.6									6	0.1	33	0.3																		
	1946	30	12	0.4											2	0.1	10	0.3																												
	1948	22	19	0.9											12	0.5	1	0.0							6	0.3																				
	1953	65	130	2.0											2	0.0	99	1.5	24	0.4					1	0.0	4	0.1																		
	1957	17	42	2.5											12	0.7	12	0.7							11	0.6	7	0.4																		
Markla Lake (Jackson)																																														
	1952	9	0	0.0																																										
	1959	8	63	7.9											2	0.3	30	3.8	23	2.9					8	1.0																				
Mud Lake (Washtenaw)																																														
	1928	26	16	0.6											6	0.2									2	0.1																				
	1931	3	1	0.3																																										
	1936	164	166	1.0																					161	1.0																				
	1939	7	58	8.3											42	6.0	11	1.6							5	0.7																				

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Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp		
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Headwaters-cont.</b>																							
Mud Lake (Washtenaw)																							
	1940	1	0	0.0																			
	1942	20	2	0.1						1	0.1			1	0.1								
	1943	5	0	0.0																			
	1944	31	3	0.1						1	0.0			1	0.0		1	0.0					
	1947	11	8	0.7										8	0.7								
	1953	31	11	0.4						1	0.0	1	0.0	6	0.2		3	0.1					
	1955	29	20	0.7						13	0.4	2	0.1	3	0.1		2	0.1					
	1956	8	10	1.3						7	0.9			3	0.4								
	1958	9	6	0.7						4	0.4	1	0.1				1	0.1					
	1961	12	97	8.1						65	5.4	32	2.7										
Olcott Lake (Jackson)																							
	1928	1	2	2.0						2	2.0												
	1930	8	6	0.8						6	0.8												
	1938	11	38	3.6						38	3.6												
	1939	28	116	4.2					1	0.0	104	3.7	1	0.0	3	0.1	3	0.1		1	0.0		
	1945	27	24	0.9					3	0.1	10	0.4	7	0.3			4	0.2					
	1946	5	8	1.6						5	1.0			3	0.6								
	1947	2	0	0.0																			
	1958	31	43	1.4						33	1.1	6	0.2	1	0.0		3	0.1					
	1961	14	38	2.7						8	0.6	16	1.1	2	0.1	4	0.3	8	0.6				
Pleasant Lake (Jackson)																							
	1929	58	92	1.6				1	0.0	4	0.1	69	1.2	7	0.1	2	0.0	1	0.0	8	0.1		
	1930	34	213	6.3						209	6.1	1	0.0				3	0.1					
	1931	34	24	0.7						13	0.4	6	0.2	1	0.0	4	0.1						
	1934	2	4	2.0						4	2.0												
	1936	131	298	2.3				13	0.1	2	0.0	236	1.8	25	0.2		2	0.0	15	0.1		5	0.0
	1938	43	166	3.9				1	0.0			159	3.7	5	0.1			1	0.0				
	1939	117	293	2.5					10	0.1	224	1.9	5	0.0	8	0.1		40	0.3		6	0.1	
	1940	117	355	3.0						269	2.3	13	0.1			35	0.3	33	0.3		5	0.0	
	1941	86	60	0.7						56	0.7	3	0.0	1	0.0								

Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Headwaters-cont.</b>																					
Pleasant Lake (Jackson)-cont.																					
	1942	169	95	0.6				1 0.0	3 0.0	50 0.3	20 0.1	6 0.0	7 0.0	7 0.0		1 0.0					
	1943	423	426	1.0				3 0.0	47 0.1	178 0.4	46 0.1	4 0.0	8 0.0	140 0.3							
	1944	1085	1966	1.8					12 0.0	1,425 1.3	126 0.1		111 0.1	281 0.3		5 0.0			6 0.0		
	1945	98	109	1.1						21 0.2	3 0.0		47 0.5	38 0.4							
	1946	93	91	1.0						69 0.7	2 0.0	1 0.0	14 0.2	3 0.0		2 0.0					
	1947	190	268	1.4				2 0.0		222 1.2	13 0.1	1 0.0	17 0.1	13 0.1							
	1949	6	14	2.3						11 1.8		1 0.2				2 0.3					
	1950	26	54	2.1						43 1.7	4 0.2			5 0.2		2 0.1					
	1951	60	53	0.9						30 0.5			1 0.0	22 0.4							
	1952	19	11	0.6						8 0.4	1 0.1			2 0.1							
	1953	71	72	1.0					5 0.1	40 0.6	25 0.4			2 0.0							
	1954	113	129	1.1						98 0.9	1 0.0			30 0.3							
	1956	122	542	4.5					2 0.0	436 3.6	12 0.1			89 0.7		3 0.0					
	1958	50	26	0.5					4 0.1	13 0.3	1 0.0	6 0.1		2 0.0							
	1959	54	202	3.7					8 0.1	123 2.3	43 0.8	1 0.0	1 0.0	26 0.5							
	1962	180	321	1.8					12 0.1	156 0.9			72 0.4	81 0.5							
	1963	64	298	4.7						75 1.2	3 0.0		44 0.7	175 2.7					1 0.0		
	1964	54	57	1.1					2 0.0	43 0.8	4 0.1		1 0.0	7 0.1							
Pond Lily Lake (Jackson)																					
	1952	32	76	2.4						75 2.3	1 0.0										
	1953	46	64	1.4					3 0.1	60 1.3	1 0.0										
Price Lake (Jackson)																					
	1931	6	33	5.5						33 5.5											
	1943	25	40	1.6					1 0.0	22 0.9	10 0.4	5 0.2	1 0.0	1 0.0							
	1944	6	4	0.7						4 0.7											
	1945	24	62	2.6					2 0.1	31 1.3	7 0.3		15 0.6	7 0.3							
	1949	35	12	0.3						8 0.2	1 0.0			2 0.1		1 0.0					
	1953	9	11	1.2						7 0.8	2 0.2	2 0.2									
	1957	10	31	3.1				1 0.1		30 3.0											



Appendix B.–Continued.

Segment and lake (County)	Year	Angler Hours	Total #’s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Headwaters–cont.</b>																					
Standish Lake (Ingham)																					
	1953	8	11	1.4						9 1.1	1 0.1			1 0.1							
	1954	24	12	0.5						10 0.4	1 0.0		1 0.0								
	1955	22	12	0.5						10 0.5	2 0.1										
	1956	12	10	0.8						8 0.7				2 0.2							
	1957	12	6	0.5						5 0.4				1 0.1							
Sugarloaf Lake (Washtenaw)																					
	1928	6	3	0.5					2 0.3							1 0.2					
	1930	37	46	1.2					6 0.2	38 1.0			1 0.0			1 0.0					
	1931	48	29	0.6								2 0.0		23 0.5		4 0.1					
	1934	14	11	0.8									1 0.1	6 0.4		3 0.2			1 0.1		
	1936	1,233	6,068	4.9				40 0.0	145 0.1	3,161 2.6	945 0.8	224 0.2	138 0.1	665 0.5		223 0.2			527 0.4		
	1937	145	414	2.9				4 0.0	19 0.1	251 1.7	77 0.5	19 0.1		33 0.2		2 0.0			9 0.1		
	1938	2	1	0.5						1 0.5											
	1939	3,220	3,189	1.0						2,771 0.9	11 0.0	11 0.0	31 0.0	306 0.1		52 0.0			7 0.0		
	1940	48	220	4.6				3 0.1		162 3.4	20 0.4	34 0.7	1 0.0								
	1942	43	10	0.2						9 0.2						1 0.0					
	1943	10	0	0.0						0 0.0											
	1944	41	13	0.3						7 0.2				3 0.1		3 0.1					
	1945	20	29	1.5						26 1.3	1 0.1		1 0.1			1 0.1					
	1946	97	170	1.8						163 1.7	1 0.0		1 0.0	4 0.0		1 0.0					
	1947	8	21	2.6						19 2.4			1 0.1	1 0.1							
	1949	59	46	0.8					5 0.1	27 0.5	2 0.0	1 0.0		9 0.2		2 0.0					
	1950	48	40	0.8					1 0.0	21 0.4	4 0.1	3 0.1		9 0.2					2 0.0		
	1952	16	10	0.6						8 0.5	2 0.1										
	1954	30	22	0.7						19 0.6		3 0.1									
	1956	36	101	2.8					1 0.0	49 1.4	5 0.1	1 0.0		45 1.3							
	1962	4	0	0.0																	
	1963	28	31	1.1						25 0.9	3 0.1			3 0.1							

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Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Headwaters-cont.</b>																					
Tims Lake (Jackson)																					
	1930	5	25	5.6					1 0.2	9 2.0	2 0.4			6 1.3		7 1.6					
	1934	29	98	3.4					2 0.1	38 1.3	4 0.1			50 1.7		4 0.1					
	1936	18	8	0.4					8 0.4												
	1938	3	2	0.7						2 0.7											
	1945	62	114	1.9					1 0.0	105 1.7	1 0.0			6 0.1					1 0.0		
	1946	19	81	4.4						10 0.5				71 3.8							
Trist Mill Pond (Jackson)																					
	1935	2	0	0.0																	
	1953	23	147	6.5					1 0.0	117 5.2	23 1.0			6 0.3							
Vandercook Lake (Jackson)																					
	1931	18	1	0.1																	1 0.1
	1934	28	43	1.6										42 1.5		1 0.0					
	1936	60	125	2.1				4 0.1	2 0.0	33 0.6			2 0.0	79 1.3		5 0.1					
	1938	123	145	1.2					6 0.0	94 0.8	3 0.0	8 0.1	30 0.2	1 0.0		1 0.0			1 0.0		1 0.0
	1939	10	50	5.1					1 0.1	22 2.3	4 0.4	2 0.2		21 2.2							
	1944	28	7	0.3					2 0.1	2 0.1				3 0.1							
	1953	29	85	2.9						39 1.3	6 0.2		32 1.1	8 0.3							
	1954	10	6	0.6						1 0.1	1 0.1		2 0.2	2 0.2							
	1962	8	1	0.1				1 0.1													
	1963	6	5	0.8						5 0.8											
Welch Lake (Jackson)																					
	1931	6	11	1.8						11 1.8											
	1934	26	65	2.5					2 0.1	24 0.9	2 0.1			35 1.3		2 0.1					
	1935	19	6	0.3					4 0.2	1 0.1						1 0.1					
	1945	17	36	2.1						13 0.8	10 0.6			13 0.8							
	1946	80	110	1.4					1 0.0	46 0.6	16 0.2			47 0.6							
	1947	21	49	2.3				2 0.1		29 1.4	16 0.8			2 0.1							
	1948	58	23	0.4						19 0.3		1 0.0		3 0.1							



Appendix B.—Continued.

Segment and lake (County)	Year	Angler Hours	Total #’s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Headwaters—cont.</b>																					
Welch Lake (Jackson)—cont.																					
	1949	24	51	2.1					2 0.1	41 1.7				8 0.3							
	1950	7	9	1.4						6 0.9		1 0.2		2 0.3							
	1952	32	62	1.9						41 1.3	4 0.1			17 0.5							
	1953	97	270	2.8					1 0.0	184 1.9	36 0.4			49 0.5							
	1962	53	44	0.8					4 0.1	20 0.4	2 0.0			18 0.3							
	1963	85	86	1.0					3 0.0	24 0.3	16 0.2			43 0.5							
White Lake (Jackson)																					
	1928	15	0	0.0																	
	1929	25	30	1.2					1 0.0	20 0.8	3 0.1			6 0.2							
	1930	51	241	4.7					2 0.0	147 2.9	12 0.2	2 0.0	2 0.0	76 1.5							
	1931	37	53	1.4					3 0.1	21 0.6	1 0.0			24 0.6		1 0.0				3 0.1	
	1935	1	3	3.0						3 3.0											
	1943	16	52	3.3									52 3.3								
	1947	20	9	0.5				1 0.1		1 0.1			6 0.3	1 0.1							
	1950	16	21	1.3						20 1.3						1 0.1					
	1951	5	1	0.2										1 0.2							
	1952	17	16	0.9						12 0.7	2 0.1		1 0.1	1 0.1							
	1953	27	29	1.1						29 1.1											
	1954	15	13	0.9						13 0.9											
	1957	15	74	4.9					3 0.2	60 4.0	5 0.3			6 0.4							
	1963	26	92	3.5						56 2.2	1 0.0		33 1.3	2 0.1							
Winnewanna Lake (Washtenaw)																					
	1961	784	2230	2.8					15 0.0	275 0.4	1,827 2.3			4 0.0		108 0.1				1 0.0	
	1962	1152	635	0.6					6 0.0	142 0.1	276 0.2			7 0.0		204 0.2					
	1963	52	9	0.2												9 0.2					
	1964	6	6	1.0					4 0.7					1 0.2		1 0.2					
	1965	117	19	0.2					4 0.0					1 0.0		14 0.1					
<b>Upper</b>																					
Blye Lake (Eaton)																					
	1934	3	20	6.7						17 5.7											3 1.0
	1941	26	30	1.2					3 0.1	27 1.0				2 0.1							



Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp				
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	
<b>Upper-cont.</b>																									
Lime Lake (Jackson)-cont.																									
	1957	45	130	2.9			5	0.1		98	2.2	3	0.1												
	1960	2	0	0.0								1	0.0												
	1961	75	81	1.1					12	0.2	41	0.5	20	0.3											
	1963	106	74	0.7	3	0.0		19	0.2		46	0.4	3	0.0											
	1964	16	1	0.1				1	0.1																
Loomis Lake (Eaton)																									
	1929	16	0	0.0										3	0.1						21	0.5			
	1931	40	68	1.7					1	0.0	38	1.0	5	0.1											
	1932	4	0	0.0								2	0.1		1	0.0				10	0.3	21	0.7		
	1933	31	119	3.8					2	0.1	77	2.5	5	0.2		14	0.2	2	0.0		2	0.0			
	1938	70	114	1.6					2	0.0	86	1.2	5	0.1											
	1939	31	104	3.4							104	3.4			1	0.0	3	0.0	28	0.2		13	0.1		
	1941	146	232	1.6					5	0.0	139	1.0	42	0.3									1	0.0	
	1942	95	209	2.2					8	0.1	179	1.9	14	0.1											
	1943	19	30	1.6							30	1.6													
	1944	44	125	2.8					4	0.1	104	2.4	7	0.2				8	0.2				1	0.0	
	1951	42	130	3.1					3	0.1	127	3.0													
	1954	28	122	4.4							113	4.0	4	0.1				5	0.2						
Montague Lake (Jackson)																									
	1941	4	9	2.6					3	0.9	6	1.7													
	1944	14	10	0.7							3	0.2			2	0.1	3	0.2		2	0.1				
	1945	15	3	0.2										1	0.1				1	0.1			1	0.1	
	1946	14	10	0.7							10	0.7													
	1947	26	10	0.4							9	0.3												1	0.0
	1949	21	40	1.9												39	1.9	1	0.0						
	1951	12	5	0.4							2	0.2												3	0.3
	1953	52	135	2.6					3	0.1	77	1.5	3	0.1	44	0.8	3	0.1	5	0.1					
	1954	17	25	1.5							21	1.2	1	0.1				1	0.1					2	0.1



Appendix B.–Continued.

Segment and lake (County)	Year	Angler Hours	Total #’s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Middle–cont.</b>																					
Colby Lake																					
(Shiawassee)–cont.	1948	156	252	1.6					76 0.5	137 0.9	39 0.3										
	1949	26	16	0.6						15 0.6	1										
	1953	264	515	2.0					28 0.1	370 1.4	81 0.3		6 0.0	30 0.1							
	1954	94	168	1.8					81 0.9	72 0.8	11 0.1		3 0.0	1 0.0							
	1955	146	440	3.0						432 3.0	8 0.1										
	1958	90	305	3.4					7 0.1	292 3.2			1 0.0	5 0.1							
	1959	19	0	0.0																	
County Line Lake																					
(Ingham)	1945	7	0	0.0																	
	1951	7	7	1.0						7 1.0											
	1952	6	1	0.2						1 0.2											
	1953	18	28	1.6						12 0.7			14 0.8	1 0.1		1 0.1					
	1954	26	41	1.6						33 1.3	6 0.2		1 0.0	1							
	1956	13	13	1.0						9 0.7	3 0.2			1 0.1							
Dobie Lake																					
(Ingham)	1938	9	0	0.0																	
	1940	48	46	1.0				3 0.1	6 0.1	19 0.4	9 0.2	1 0.0		8 0.2							
	1941	189	142	0.8					10 0.1	68 0.4	11 0.1		50 0.3	3							
	1942	263	191	0.7				2 0.0	28 0.1	47 0.2	28 0.1	8 0.0	51 0.2	26 0.1		1 0.0					
	1945	13	1	0.1												1 0.1					
	1946	7	6	0.9						2 0.3			4 0.6								
	1948	24	16	0.7					3 0.1	5 0.2	1 0.0		5 0.2	2 0.1							
	1950	45	38	0.8						21 0.5	7 0.2			8 0.2		2 0.0					
	1951	181	60	0.3					1 0.0	15 0.1	8 0.0		18 0.1	7 0.0		11 0.1					
	1952	191	148	0.8					11 0.1	58 0.3	14 0.1		29 0.2	29 0.2		7 0.0					
	1953	362	348	1.0					7 0.0	169 0.5	32 0.1		108 0.3	31 0.1		1 0.0					
	1954	257	120	0.5					1 0.0	82 0.3	14 0.1		13 0.1	8 0.0		0.0				2 0.0	
	1955	231	164	0.7				3 0.0	2 0.0	111 0.5	18 0.1		17 0.1	7 0.0	4 0.0	2 0.0					
	1956	197	145	0.7					1 0.0	98 0.5	17 0.1		20 0.1	6 0.0		2 0.0				1 0.0	
	1957	149	105	0.7					1 0.0	73 0.5	13 0.1		13 0.1	4 0.0		1 0.0					

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp					
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE		
<b>Middle-cont.</b>																										
Dobie Lake (Ingham)–cont.																										
	1959	88	75	0.9						55	0.6	11	0.1	5	0.1	3	0.0	1	0.0							
	1961	22	1	0.0						1	0.0															
	1962	18	12	0.7						5	0.3	1	0.1	4	0.2	1	0.1	1	0.1							
	1963	67	30	0.4					1	0.0	19	0.3	3	0.0	7	0.1										
	1964	65	40	0.6					1	0.0	26	0.4	5	0.1	5	0.1	3	0.0								
Grass Lake (Livingston)																										
	1960	1	1	1.0						1	1.0															
Lake Lansing (Ingham)																										
	1930	183	269	1.5					1	0.0	168	0.9	21	0.1	10	0.1	33	0.2		6	0.0	30	0.2			
	1932	32	229	7.2				1	0.0	14	0.4	121	3.8	6	0.2	0.0	61	1.9	1	0.0	25	0.8	0.0			
	1933	126	506	4.0				0.0	27	0.2	404	3.2	22	0.2	32	0.3	2	0.0		11	0.1	8	0.1			
	1936	30	80	2.7				3	0.1	5	0.2	68	2.3			4	0.1									
	1938	66	192	2.9					3	0.0	160	2.4	10	0.2	5	0.1	11	0.2				3	0.0			
	1940	563	593	1.1				13	0.0	263	0.5	171	0.3	36	0.1	32	0.1	39	0.1		38	0.1	1	0.0		
	1941	796	683	0.9					17	0.0	407	0.5	82	0.1	54	0.1	96	0.1		25	0.0		1	0.0	1	0.0
	1942	611	478	0.8				2	0.0	4	0.0	158	0.3	35	0.1	174	0.3	92	0.2		13	0.0				
	1943	82	22	0.3						8	0.1					9	0.1	3	0.0					2	0.0	
	1944	409	627	1.5					6	0.0	356	0.9	14	0.0	172	0.4	78	0.2		1	0.0					
	1945	224	191	0.9				6	0.0		151	0.7	2	0.0	15	0.1	7	0.0		5	0.0		5	0.0		
	1948	74	124	1.7					3	0.0	91	1.2	13	0.2	9	0.1	8	0.1								
	1950	304	460	1.5					16	0.1	325	1.1	48	0.2	1	0.0	10	0.0	59	0.2		1	0.0			
	1951	376	415	1.1					20	0.1	272	0.7	59	0.2			16	0.0	44	0.1		4	0.0			
	1952	434	355	0.8				3	0.0	13	0.0	178	0.4	54	0.1		41	0.1	58	0.1		8	0.0			
	1953	1015	963	0.9				1	0.0	32	0.0	611	0.6	121	0.1	1	0.0	40	0.0	146	0.1		11	0.0		
	1954	642	488	0.8					9	0.0	236	0.4	50	0.1			87	0.1	91	0.1		15	0.0			
	1955	662	540	0.8					4	0.0	314	0.5	106	0.2	4	0.0	7	0.0	101	0.2		2	0.0	2	0.0	
	1956	661	544	0.8					6	0.0	233	0.4	184	0.3	2	0.0	6	0.0	107	0.2		6	0.0			
	1959	780	784	1.0					2	0.0	516	0.7	171	0.2	7	0.0	4	0.0	81	0.1		3	0.0			
	1962	140	136	1.0					3	0.0	89	0.6	21	0.2	1	0.0	2	0.0	18	0.1		2	0.0			
	1963	321	263	0.8					15	0.0	102	0.3	32	0.1	4	0.0	69	0.2	26	0.1		1	0.0	14	0.0	

Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Middle-cont.</b>																					
Lake Lansing (Ingham)-cont.	1964	170	126	0.7					19 0.1	56 0.3	12 0.1	1 0.0	16 0.1	17 0.1		5 0.0					
Lamoureaux Lake (Livingston)	1933	5	50	10.0				3 0.6		37 7.4				10 2.0							
	1934	4	1	0.3										1 0.3							
	1960	48	100	2.1						75 1.6	4 0.1	1 0.0	8 0.2	11 0.2		1 0.0					
	1961	22	28	1.3						11 0.5	10 0.5	1 0.0		6 0.3							
Moon Lake (Shiawassee)	1944	27	82	3.1						16 0.6	6 0.2	0.0	58 2.2	2 0.1							
	1946	12	0	0.0																	
	1947	78	154	2.0						110 1.4			41 0.5			3 0.0					
	1948	214	294	1.4						190 0.9	33 0.2		39 0.2	28 0.1		4 0.0					
	1949	284	279	1.0						230 0.8	16 0.1		14 0.0	18 0.1		1 0.0					
	1950	120	16	0.1						9 0.1	5 0.0		1 0.0	1 0.0							
	1952	92	245	2.7						136 1.5			54 0.6	55 0.6							
	1953	236	313	1.3					2 0.0	159 0.7	16 0.1		73 0.3	63 0.3							
	1954	44	95	2.2						66 1.5	11 0.3		18 0.4								
	1955	40	140	3.5						115 2.9	18 0.5		7 0.2								
	1961	64	36	0.6						36 0.6											
Park Lake (Clinton)	1928	10	14	1.4						9 0.9	4 0.4								1 0.1		
	1930	63	145	2.3				12 0.2	5 0.1	64 1.0	23 0.4		15 0.2	11 0.2	5 0.1	7 0.1			3 0.0		
	1931	37	144	3.9				3 0.1		78 2.1		40 1.1	11 0.3	5 0.1		5 0.1			2 0.1		
	1932	68	302	4.5					13 0.2	160 2.4	17 0.3		32 0.5	77 1.1					3 0.0		
	1933	22	35	1.6					1 0.0	26 1.2	8 0.4										
	1934	178	441	2.5					24 0.1	248 1.4	109 0.6			19 0.1		15 0.1			26 0.1		
	1935	68	116	1.7					11 0.2	45 0.7	38 0.6		5 0.1	17 0.3							
	1939	10	3	0.3						3 0.3											
	1940	9	0	0.0																	
	1941	167	244	1.5					8 0.0	123 0.7	6 0.0	4 0.0		19 0.1					84 0.5		
	1943	58	53	0.9						53 0.9				12 0.1					65 0.4		

Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Middle-cont.</b>																					
Park Lake (Clinton)-cont.																					
	1944	20	12	0.6						7	0.4										
	1945	289	577	2.0					9	0.0	306	1.1	80	0.3							
	1946	198	144	0.7					12	0.1	84	0.4	13	0.1						7	0.0
	1947	27	4	0.1										17	0.1	157	0.5				1
	1948	100	80	0.8					4	0.0	69	0.7	6	0.1	1	0.0					
	1949	116	204	1.8					11	0.1	131	1.1	18	0.2							
	1950	81	242	3.0					1	0.0	233	2.9	8	0.1							
	1951	212	381	1.8				7	0.0	9	0.0	254	1.2	19	0.1					89	0.4
	1952	532	1065	2.0					4	0.0	874	1.6	28	0.1		13	0.0	117	0.2	17	0.0
	1953	305	612	2.0					5	0.0	423	1.4	68	0.2	4	0.0	2	0.0	103	0.3	7
	1954	169	279	1.7							186	1.1	24	0.1						63	0.4
	1955	227	287	1.3							203	0.9	11	0.0		61	0.3	6	0.0		6
	1956	124	215	1.7							175	1.4	7	0.1		32	0.3				1
	1957	181	518	2.9				4	0.0	3	0.0	400	2.2	62	0.3					48	0.3
	1958	88	219	2.5							169	1.9	2	0.0						48	0.5
	1959	260	799	3.1							750	2.9	22	0.1		20	0.1				7
	1960	356	809	2.3							722	2.0	29	0.1						56	0.2
	1961	269	606	2.3							529	2.0	51	0.2		21	0.1				5
	1962	171	250	1.5					4	0.0	246	1.4									
	1963	111	249	2.2							229	2.1	8	0.1		8	0.1				4
	1964	146	106	0.7							79	0.5				6	0.0	15	0.1		6
Pleasant Lake (Livingston)																					
	1930	12	40	3.3							27	2.3	2	0.2						11	0.9
	1934	1	14	14.0																14	14.0
	1945	7	2	0.3							2	0.3									
	1960	35	33	0.9							22	0.6	7	0.2	1	0.0				3	0.1
Potters Lake (Clinton)																					
	1935	5	0	0.0																	
	1941	14	1	0.1																1	0.1
	1942	24	2	0.1																2	0.1



Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Middle-cont.</b>																					
Potters Lake (Clinton)-cont.																					
	1943	30	9	0.3												9	0.3				
	1944	36	0	0.0																	
	1949	12	13	1.1																	
	1951	54	142	2.6										13	1.1						
	1952	51	123	2.4						120	2.2			15	0.3	7	0.1				
	1953	23	47	2.0						107	2.1	4	0.1	5	0.1	7	0.1				
	1954	34	53	1.6						38	1.7			6	0.3	3	0.1				
	1956	56	65	1.2						35	1.0			15	0.4	3	0.1				
	1957	18	36	2.0						52	0.9	2	0.0	6	0.1	5	0.1				
	1960	34	11	0.3						27	1.5			8	0.4	1	0.1				
	1962	51	92	1.8						6	0.2			4	0.1	1	0.0				
	1963	10	14	1.4						84	1.6	2	0.0	4	0.1	2	0.0				
	1964	20	15	0.8						14	1.4										
										13	0.7					2	0.1				
Rose Lake (Clinton)																					
	1932	12	76	6.3					3	0.3		57	4.8	2	0.2	11	0.9	3	0.3		
	1938	75	212	2.8				2	0.0	3	0.0	5	0.1	115	1.5	31	0.4	16	0.2	40	0.5
	1941	25	0	0.0																	
	1942	29	17	0.6						17	0.6										
	1943	2	0	0.0																	
	1944	48	0	0.0																	
	1945	7	22	3.1						21	3.0			1	0.1						
	1946	68	5	0.1						5	0.1										
	1947	19	2	0.1												2	0.1				
	1953	156	225	1.4						83	0.5	65	0.4	73	0.5	4	0.0				
	1954	108	143	1.3						96	0.9	19	0.2	25	0.2	3	0.0				
	1955	87	101	1.2						81	0.9	6	0.1	8	0.1	3	0.0	3	0.0		
	1956	51	77	1.5						60	1.2	4	0.1	11	0.2	2	0.0				
	1967	37	40	1.1						6	0.2			32	0.9	2	0.1				
	1958	47	168	3.6						143	3.0			25	0.5						
	1959	55	56	1.0						53	1.0	2	0.0			1	0.0				

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp	
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Middle-cont.</b>																						
Round Lake (Clinton)	1930	30	67	2.3				2 0.1		27 0.9	1 0.0	4 0.1	16 0.5	15 0.5		1 0.0				1 0.0		
	1931	65	105	1.6				7 0.1	4 0.1	67 1.0	5 0.1		1 0.0	3 0.0	2 0.0	16 0.2						
	1932	157	538	3.4				8 0.1	40 0.3	407 2.6	38 0.2		1 0.0	17 0.1		20 0.1				7 0.0		
	1933	25	92	3.7					1 0.0	89 3.6	1 0.0					1 0.0						
	1934	80	100	1.3					3 0.0	61 0.8	4 0.1		27 0.3			5 0.1						
	1935	238	295	1.2					4 0.0	235 1.0	4 0.0		36 0.2	8 0.0	1 0.0	7 0.0						
	1937	145	167	1.1					9 0.1	81 0.6	18 0.1		12 0.1	39 0.3		8 0.1						
	1938	47	22	0.5					13 0.3		5 0.1					3 0.1				1 0.0		
	1939	103	260	2.5				7 0.1		186 1.8	0.0		56 0.5	3 0.0		8 0.1						
	1940	4	0	0.0																		
	1941	261	91	0.3					36 0.1	41 0.2	10 0.0					4 0.0						
	1942	247	32	0.1					3 0.0	26 0.1	1 0.0			1 0.0		1 0.0						
	1943	403	55	0.1					2 0.0	35 0.1	3 0.0		7 0.0	6 0.0		2 0.0						
	1945	169	83	0.5						18 0.1	10 0.1	1 0.0	52 0.3			2 0.0						
	1946	211	126	0.6					13 0.1	83 0.4	4 0.0			26 0.1								
	1947	24	7	0.3									1 0.0	6 0.3								
	1949	77	117	1.5					10 0.1	58 0.8	16 0.2			33 0.4								
	1950	56	177	3.2					3 0.1	157 2.8	15 0.3					2 0.0						
	1951	41	73	1.8						47 1.1			17 0.4	6 0.1		3 0.1						
	1952	130	297	2.3						158 1.2	4 0.0	33 0.3	38 0.3	58 0.4		6 0.0						
	1953	166	256	1.5				6 0.0	7 0.0	176 1.1	48 0.3	2 0.0		9 0.1		8 0.0						
	1954	51	107	2.1						67 1.3	2 0.0		18 0.4	16 0.3		4 0.1						
	1955	220	255	1.2						148 0.7	8 0.0		80 0.4	7 0.0		12 0.1						
	1956	124	225	1.8						77 0.6	6 0.0		130 1.0	4 0.0		8 0.1						
	1957	292	559	1.9				1 0.0	19 0.1	398 1.4	89 0.3		6 0.0	40 0.1		6 0.0						
	1958	93	165	1.8						104 1.1	2 0.0		4 0.0	51 0.5		4 0.0						
	1959	28	39	1.4						30 1.1	2 0.1		2 0.1			5 0.2						
	1960	41	54	1.3						44 1.1			8 0.2			2 0.0						
	1961	17	34	2.0						24 1.4	4 0.2		6 0.4									
	1962	28	22	0.8					1 0.0	17 0.6			4 0.1									

Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Middle-cont.</b>																					
Sauger Lake (Shiawassee)	1949	18	11	0.6						4 0.2	6 0.3					1 0.1					
	1953	31	17	0.5						8 0.3	1 0.0			3 0.1		5 0.2					
Three Lakes (Ingham)	1936	8	86	10.8						86 10.8											
	1940	29	91	3.2					3 0.1	78 2.7	7 0.2		2 0.1	1 0.0							
	1941	153	253	1.7						184 1.2	37 0.2		12 0.1	20 0.1							
	1942	186	369	2.0						331 1.8	11 0.1		5 0.0	22 0.1							
	1943	155	106	0.7						103 0.7			1 0.0	2 0.0							
	1944	89	154	1.7						132 1.5	10 0.1		6 0.1	6 0.1							
	1945	51	41	0.8						14 0.3	9 0.2			18 0.4							
	1946	18	28	1.6						28 1.6											
	1948	5	10	2.0					1 0.2	7 1.4	2 0.4										
	1951	14	6	0.4						2 0.1				3 0.2	1 0.1						
	1953	78	60	0.8						34 0.4	5 0.1			13 0.2	8 0.1						
	1954	113	86	0.8						63 0.6	9 0.1			9 0.1	5 0.0						
	1955	112	84	0.8						58 0.5	11 0.1			4 0.0	11 0.1						
	1957	104	80	0.8						73 0.7	3 0.0			4 0.0							
	1958	66	71	1.1						49 0.7	8 0.1	1 0.0		7 0.1	5 0.1		1 0.0				
	1963	59	59	1.0						48 0.8	2 0.0			1 0.0	8 0.1						
1964	51	46	0.9						28 0.5	3 0.1			5 0.1	9 0.2		1 0.0					
Triangle Lake (Livingston)	1930	5	26	5.2					1 0.2	1 0.2	10 2.0			14 2.8							
	1931	1	0	0.0																	
	1933	19	26	1.4				4 0.2	14 0.7	3 0.2	1 0.1			4 0.2							
	1934	27	32	1.2						10 0.4	14 0.5			6 0.2		1 0.0			1 0.0		
	1955	19	54	2.8						47 2.5	3 0.2		2 0.1	2 0.1							
	1960	56	83	1.5						59 1.1	9 0.2	4 0.1		11 0.2							
	1961	43	43	1.0						37 0.9	4 0.1			2 0.0							



Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																					
Alward Lake (Clinton)-cont.																					
	1932	32.0	103	3.2				12 0.4	12 0.4	72 2.3			1 0.0	5 0.2		1 0.0					
	1934	6.0	0	0.0																	
	1935	12.0	1	0.1					1 0.1	0.0											
	1938	16.0	3	0.2					1 0.1	2 0.1											
	1941	64.0	19	0.3					7 0.1	9 0.1						3 0.0					
	1942	53.0	7	0.1					2 0.0	4 0.1						1 0.0					
	1943	604.5	388	0.6				1 0.0	35 0.1	137 0.2			165 0.3	4 0.0		3 0.0			43 0.1		
	1944	53.0	23	0.4					4 0.1	4 0.1			15 0.3								
	1945	142.5	146	1.0					20 0.1	62 0.4			62 0.4			2 0.0					
	1948	52.0	53	1.0					14 0.3	33 0.6	6 0.1										
	1949	63.0	124	2.0					22 0.3	48 0.8	20 0.3		9 0.1	24 0.4		1 0.0					
	1950	51.0	150	2.9					17 0.3	133 2.6											
	1953	29.0	81	2.8					70 2.4	4 0.1				7 0.2							
	1961	19.0	44	2.3					43 2.3	1 0.1											
	1962	26.0	33	1.3					31 1.2	0.0			2 0.1								
	1964	17.0	21	1.2					0.0	21 1.2											
Angel Lake (Kent)	1928	6.0	27	4.5					3 0.5	8 1.3											
	1935	14.3	2	0.1									2 0.1								
	1936	25.5	139	5.5						92 3.6			39 1.5		8 0.3						
	1937	4.5	36	8.0						36 8.0											
	1938	71.3	497	7.0				1 0.0	6 0.1	266 3.7			210 2.9	5 0.1		2 0.0					
	1939	33.3	12	0.4						11 0.3				1 0.0							
	1943	83.8	94	1.1					1 0.0	61 0.7	3 0.0		15 0.2	14 0.2							
	1944	48.3	17	0.4					1 0.0	4 0.1			9 0.2	3 0.1							
	1946	13.2	18	1.4						10 0.8	3 0.2		5 0.4								
	1947	0.8	0	0.0																	
	1949	27.0	30	1.1					2 0.1	13 0.5	2 0.1		12 0.4	1 0.0							
	1950	46.0	48	1.0					5 0.1	25 0.5			9 0.2	8 0.2		1 0.0					
	1951	22.0	16	0.7					1 0.0	5 0.2	1 0.0		5 0.2	2 0.1		2 0.1					
	1952	23.0	63	2.7					1 0.0	13 0.6			49 2.1								

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp	
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																						
Angel Lake (Kent)-cont.	1953	10.0	3	0.3					3	0.3												
Baldwin Lake (Montcalm)	1931	19.5	81	4.2				1	0.1	48	2.5	3	0.2	8	0.4	9	0.5			2	0.1	
	1934	62.3	277	4.4				1	0.0	269	4.3	4	0.1			3	0.0					
	1935	221.5	886	4.0				1	0.0	725	3.3	19	0.1	2	0.0	118	0.5	11	0.0			
	1936	151.0	593	3.9					2	0.0	575	3.8		2	0.0	9	0.1	5	0.0			
	1937	165.0	379	2.3						376	2.3	1	0.0	2	0.0							
	1938	101.3	394	3.9						380	3.8	3	0.0	3	0.0	3	0.0			5	0.0	
	1939	315.8	504	1.6					1	0.0	426	1.3	5	0.0	67	0.2	5	0.0				
	1940	18.0	30	1.7						23	1.3			7	0.4	0	0.0					
	1943	43.5	56	1.3						39	0.9	3	0.1	0	0.0	14	0.3					
	1945	27.0	68	2.5					1	0.0	63	2.3	1	0.0	1	0.0	2	0.1				
	1949	28.0	34	1.2						30	1.1	1	0.0			2	0.1					
	1958	18.0	25	1.4						23	1.3	1	0.1			1	0.1					
	1959	1.0	23	23.0						14	14.0			7	7.0	1	1.0			1	1.0	
Banks Lake (Kent)	1930	25.5	265	10.4					1	0.0	111	4.4	18	0.7		2	0.1					
	1931	2.0	31	15.5						25	12.5											
	1935	2.5	9	3.6						9	3.6											
	1936	16.3	22	1.4					2	0.1	10	0.6	10	0.6								
	1937	7.0	0	0.0																		
	1938	1.5	0	0.0																		
	1939	0.3	0	0.0																		
	1940	12.3	7	0.6						1	0.1					5	0.4					
	1944	49.3	40	0.8						34	0.7	1	0.0	5	0.1							
	1945	4.0	4	1.0						2	0.5	1	0.3			1	0.3					
	1947	3.8	1	0.3																	1	0.3
	1949	23.0	34	1.5						22	1.0	6	0.3	1	0.0	5	0.2					
	1951	25.0	35	1.4					1	0.0	15	0.6	3	0.1	2	0.1	13	0.5		1	0.0	
	1952	35.0	63	1.8					1	0.0	44	1.3		2	0.1	15	0.4		1	0.0		

Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																					
Barber Lake (Kent)																					
	1938	2.0	0	0.0																	
	1942	20.0	56	2.8						54	2.7	2	0.1								
	1943	3.0	3	1.0						3	1.0										
	1944	17.0	24	1.4					1	0.1	17	1.0		6	0.4						
Barnard Lake (Montcalm)																					
	1953	44.0	135	3.1						108	2.5	7	0.2	9	0.2	10	0.2		1	0.0	
Bass Lake (Kent)																					
	1929	19.0	11	0.6					8	0.4		1	0.1			1	0.1				
	1930	4.0	36	9.0					4	1.0	7	1.8				1	0.3				
	1931	21.0	194	9.2					40	1.9	89	4.2	3	0.1		10	0.5		1	0.0	
	1933	2.0	15	7.5					6	3.0	8	4.0				1	0.5				
	1934	23.5	3	0.1												2	0.1				1
	1935	19.5	66	3.4					4	0.2	56	2.9				6	0.3				
	1936	13.0	80	6.2					1	0.1	79	6.1									
	1937	53.5	122	2.3					7	0.1	106	2.0				8	0.1		1	0.0	
	1938	25.3	94	3.7				2	0.1	4	0.2	82	3.2			2	0.1		4	0.2	
	1939	17.3	48	2.8							14	0.8				2	0.1				
	1943	33.5	41	1.2							39	1.2				1	0.0		1	0.0	
	1944	2.0	1	0.5							1	0.5									
	1945	9.8	0	0.0																	
	1946	17.5	2	0.1												2	0.1				
	1947	31.5	30	1.0					4	0.1	19	0.6				1	0.0		6	0.2	
	1949	44.0	36	0.8					2	0.0	17	0.4	2	0.0		1	0.0	8	0.2	6	0.1
	1950	11.0	10	0.9					2	0.2	5	0.5	2	0.2		1	0.1				
	1951	7.0	10	1.4							7	1.0				2	0.3		1	0.1	
	1952	20.0	17	0.9							6	0.3	2	0.1		8	0.4		1	0.1	
	1964	38.0	30	0.8					3	0.1	16	0.4	3	0.1		7	0.2				1

Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																					
Bass Lake (Montcalm-Richland Twp.)																					
	1950	12.0	16	1.3						16	1.3										
	1951	87.5	114	1.3						104	1.2	1	0.0	9	0.1						
	1952	13.0	1	0.1												1	0.1				
	1953	83.0	119	1.4					17	0.2	85	1.0	2	0.0		14	0.2	1	0.0		
	1954	24.0	29	1.2						1	0.0			28	1.2						
	1955	11.0	9	0.8						7	0.6			2	0.2						
	1956	63.5	45	0.7					7	0.1	38	0.6									
	1957	12.0	36	3.0						29	2.4			7	0.6						
	1958	66.5	90	1.4						74	1.1	2	0.0	14	0.2						
	1960	26.0	17	0.7						12	0.5	1	0.0	4	0.2						
	1961	15.5	45	2.9						40	2.6			5	0.3						
	1962	9.5	1	0.1							0.0			1	0.1						
Bass Lake (Montcalm-Belvidere Twp.)																					
	1948	60.0	52	0.9						28	0.5		3	0.1	21	0.4					
	1949	34.0	38	1.1						36	1.1			2	0.1						
Bassett Lake (Barry)																					
	1938	12.5	21	1.7						21	1.7										
	1939	8.0	33	4.1						33	4.1										
	1943	100.5	150	1.5						148	1.5	1	0.0			1	0.0				
	1944	25.0	44	1.8						43	1.7		1	0.0							
	1945	7.3	11	1.5						11	1.5										
	1946	3.0	4	1.3						4	1.3										
	1947	14.0	44	3.1						44	3.1										
	1949	51.0	62	1.2						57	1.1	1	0.0			4	0.1				
	1959	24.0	65	2.7						65	2.7										
	1961	38.0	80	2.1					1	0.0	54	1.4		17	0.4	1	0.0				
Big Cedar Lake (Barry)																					
	1928	3.0	6	2.0									4	1.3							
	1932	14.0	76	5.4					2	0.1	48	3.4	9	0.6		17	1.2				
	1939	22.5	69	3.1						68	3.0			1	0.0						



Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																					
Big Cedar Lake (Barry)-cont.																					
	1940	10.0	11	1.1						11	1.1										
	1944	66.0	93	1.4						93	1.4										
	1949	31.0	36	1.2						22	0.7	4	0.1	9	0.3	1	0.0				
	1959	20.0	12	0.6						12	0.6										
	1960	25.0	92	3.7						91	3.6	1	0.0								
Big Crooked Lake (Kent)																					
	1929	12.0	39	3.3						13	1.1	1	0.1	3	0.3						
	1932	3.0	2	0.7					2	0.7											
	1934	72.0	109	1.5						96	1.3			4	0.1	2	0.0	1	0.0	6	0.1
	1935	7.0	16	2.3				1	0.1	12	1.7			3	0.4						
	1938	25.3	98	3.9						94	3.7	2	0.1	2	0.1						
	1939	122.3	669	5.5						635	5.2			2	0.1						
	1946	42.0	23	0.5					2	0.0	17	0.4		4	0.1						
	1948	73.0	9	0.1						8	0.1					1	0.0				
	1949	165.0	430	2.6					1	0.0	395	2.4	19	0.1	6	0.0	9	0.1			
Big Myers Lake (Kent)																					
	1935	24.5	29	1.2						17	0.7			8	0.3	4	0.2				
	1936	5.5	1	0.2						1	0.2										
	1937	10.0	9	0.9										9	0.9						
	1938	7.8	2	0.3												2	0.3				
	1939	13.0	0	0.0																	
	1940	45.0	62	1.4						48	1.1			7	0.2	6	0.1	1	0.0		
	1943	15.0	31	2.1					2	0.1	21	1.4	1	0.1	4	0.3	2	0.1	1	0.1	
	1944	15.5	7	0.5						3	0.2	1	0.1			3	0.2				
	1945	6.0	13	2.2						11	1.8					2	0.3				
	1946	37.7	11	0.3						3	0.1	1	0.0	3	0.1	4	0.1				
	1947	4.8	1	0.2										1	0.2						
	1948	20.0	50	2.5					2	0.1	36	1.8	5	0.3	5	0.3	2	0.1			
	1949	31.0	20	0.6						4	0.1	3	0.1			10	0.3	3	0.1		
	1950	34.0	36	1.1					4	0.1	23	0.7	2	0.1		7	0.2				

Appendix B.-Continued.

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Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp		
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																							
Big Myers Lake (Kent)-cont.																							
	1951	3.0	1	0.3												1	0.3						
	1952	19.0	30	1.6					2	0.1	15	0.8	5	0.3	2	0.1		5	0.3	1	0.1		
	1953	9.0	13	1.4							5	0.6	5	0.6				3	0.3				
Big Pine Island Lake (Kent)																							
	1929	9.0	11	1.2				1	0.1	10	1.1												
	1930	26.0	68	2.6				1	0.0	60	2.3	2	0.1			2	0.1		3	0.1			
	1934	41.3	165	4.0						143	3.5			9	0.2	4	0.1			9	0.2		
	1935	31.3	1	0.0																			
	1936	33.5	59	1.8						58	1.7					1	0.0						
	1938	30.5	137	4.5				1	0.0	108	3.5			1	0.0	1	0.0						
	1939	39.8	141	3.5						128	3.2	3	0.1			5	0.1	5	0.1				
	1941	65.8	83	1.3						78	1.2			4	0.1				1	0.0			
	1943	33.8	40	1.2						32	0.9	1	0.0			3	0.1	4	0.1				
	1944	59.3	49	0.8						39	0.7	1	0.0			2	0.0	7	0.1				
	1945	115.0	140	1.2					8	0.1	113	1.0			10	0.1	6	0.1		3	0.0		
	1946	107.0	85	0.8					19	0.2	62	0.6							4	0.0			
	1949	330.0	495	1.5					23	0.1	456	1.4	2	0.0				4	0.0	10	0.0		
	1950	61.0	72	1.2					1	0.0	63	1.0	1	0.0		2	0.0	5	0.1				
Big Pine Island Lake (Kent)-cont.																							
	1959	58.5	113	1.9					3	0.1	65	1.1	17	0.3				26	0.4		2	0.0	
	1960	103.5	25	0.2				2	0.0	5	0.0	17	0.2			1	0.0						
	1962	34.8	91	2.6					2	0.1	84	2.4	5	0.1									
	1964	36.0	50	1.4					1	0.0	31	0.9			12	0.3	4	0.1			2	0.1	
Bills Lake (Newaygo)																							
	1929	6.0	3	0.5				1	0.2														
	1930	74.8	100	1.3				7	0.1	22	0.3	2	0.0		17	0.2		3	0.0	47	0.6	2	0.0
	1939	18.8	17	0.9				1	0.1			14	0.7		2	0.1							
	1941	12.0	8	0.7						7	0.6												
	1944	4.0	2	0.5																			
	1948	87.0	154	1.8					1	0.0	124	1.4						26	0.3		3	0.0	

Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																					
Bills Lake																					
(Newaygo)-cont.	1953	63.5	46	0.7				1	0.0	27	0.4	3	0.0	15	0.2						
	1954	19.5	8	0.4						2	0.1			6	0.3						
	1955	35.0	19	0.5				1	0.0	12	0.3	2	0.1	4	0.1						
	1956	53.0	86	1.6	74	1.4			1	0.0	5	0.1	6	0.1							
	1957	19.0	12	0.6			6	0.3		1	0.1			5	0.3						
	1958	9.0	3	0.3										3	0.3						
	1959	41.0	37	0.9						37	0.9										
	1960	31.5	21	0.7				1	0.0	2	0.1		1	0.0							
	1961	32.0	41	1.3			1	0.0		7	0.2		5	0.2	28	0.9					
	1963	52.0	44	0.8					4	0.1	37	0.7		3	0.1						
	1964	21.0	21	1.0					6	0.3	6	0.3	5	0.2	4	0.2					
Black Lake (Barry)																					
	1939	10.0	10	1.0						10	1.0										
	1943	8.0	0	0.0																	
Blue Lake (Kent)																					
	1928	20.0	71	3.6						24	1.2			28	1.4						
	1935	12.8	11	0.9						9	0.7					1	0.1			1	0.1
	1937	0.3	0	0.0																	
	1938	7.5	6	0.8				2	0.3	1	0.1	1	0.1	2	0.3						
	1940	0.5	0	0.0																	
	1941	0.8	0	0.0																	
	1944	5.8	2	0.3						2	0.3										
	1945	13.0	10	0.8						6	0.5		2	0.2	2	0.2					
	1946	1.0	0	0.0																	
	1947	4.0	28	7.0						28	7.0										
	1949	8.0	6	0.8						5	0.6	1	0.1								
Bostwick Lake (Kent)																					
	1928	43.5	129	3.0					1	0.0	61	1.4	7	0.2	3	0.1	1	0.0			
	1929	108.5	382	3.5				1	0.0	5	0.0	115	1.1	13	0.1	1	0.0	50	0.5	1	0.0
	1930	35.0	42	1.2					12	0.3	23	0.7	4	0.1		3	0.1				
	1931	22.5	324	14.4						212	9.4	5	0.2	7	0.3						

Appendix B.-Continued.

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Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																					
Bostwick Lake (Kent)-cont.																					
	1933	32.0	213	6.7				13 0.4	10 0.3	78 2.4	12 0.4	3 0.1		3 0.1						3 0.1	
	1934	36.5	65	1.8						62 1.7						3 0.1					
	1935	75.0	216	2.9				1 0.0	10 0.1	164 2.2	6 0.1		3 0.0	2 0.0							
	1936	3.0	18	6.0						18 6.0											
	1937	48.0	105	2.2						105 2.2											
	1938	20.8	55	2.7					5 0.2	50 2.4											
	1939	5.3	25	4.8					1 0.2	16 3.0			4 0.8	4 0.8							
	1941	51.0	24	0.5					2 0.0	21 0.4						1 0.0					
	1942	67.8	37	0.5					1 0.0	20 0.3			13 0.2	3 0.0							
	1943	10.0	11	1.1						10 1.0						1 0.1					
	1944	14.5	1	0.1												1 0.1					
	1945	161.5	282	1.7				4 0.0	269 1.7	4 0.0	1 0.0			4 0.0							
	1946	170.5	98	0.6				9 0.1	40 0.2	1 0.0			1 0.0	44 0.3		3 0.0					
	1949	93.5	149	1.6				12 0.1	129 1.4							8 0.1					
	1951	30.0	11	0.4					5 0.2							6 0.2					
	1960	80.5	19	0.2				6 0.1	8 0.1		4 0.0			1 0.0							
Bradley Lake (Montcalm)																					
	1934	6.5	4	0.6							4 0.6		0.0								
Bremmer Lake (Montcalm)																					
	1956	13.0	74	5.7						1 0.1			73 5.6								
Bristol Lake (Barry)																					
	1929	18.0	35	1.9						9 0.5	3 0.2	2 0.1	1 0.1	7 0.4					1 0.1		
	1931	7.5	5	0.7																5 0.7	
	1934	4.0	1	0.3																1 0.3	
	1938	14.0	65	4.6						65 4.6											
	1939	4.3	32	7.5						14 3.3			18 4.2								
	1941	33.5	36	1.1						25 0.7	5 0.1	6 0.2									
	1942	23.0	24	1.0						24 1.0											
	1943	22.0	25	1.1						23 1.0	2 0.1										
	1946	29.5	43	1.5					1 0.0	33 1.1	6 0.2			3 0.1							

Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp			
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																								
Bristol Lake (Barry)-cont.																								
	1948	22.0	44	2.0						44	2.0													
	1949	24.0	47	2.0					1	0.0	46	1.9												
	1950	26.0	42	1.6					1	0.0	36	1.4	1	0.0							4	0.2		
	1951	131.5	157	1.2					4	0.0	104	0.8	25	0.2	7	0.1	4	0.0			13	0.1		
	1954	101.5	157	1.5					4	0.0	127	1.3	10	0.1	1	0.0					15	0.1		
	1960	92.0	181	2.0					7	0.1	163	1.8	2	0.0	1	0.0					8	0.1		
	1961	54.0	54	1.0					3	0.1	34	0.6	3	0.1	2	0.0					12	0.2		
	1962	45.0	77	1.7							66	1.5									11	0.2		
149 Brower Lake (Kent)	1937	17.0	10	0.6				2	0.1	6	0.4	1	0.1								1	0.1		
	1938	11.0	22	2.0							22	2.0												
	1939	3.8	15	4.0					1	0.3	12	3.2									2	0.5		
	1944	1.0	0	0.0																				
	1945	1.0	2	2.0							1	1.0										1	1.0	
	1948	36.0	106	2.9					1	0.0	99	2.8	5	0.1								1	0.0	
	1949	14.0	7	0.5				1	0.1	1	0.1	2	0.1		1	0.1						2	0.1	
	1951	2.0	1	0.5																		1	0.5	
	1952	14.0	16	1.1					1	0.1	1	0.1	3	0.2								11	0.8	
	Buck Lake (Kent)																							
	1942	6.0	15	2.5							15	2.5												
	1944	7.0	2	0.3					1	0.1		1	0.1											
Burgess Lake (Montcalm)																								
	1931	14.0	13	0.9				1	0.1		6	0.4		3	0.2	3	0.2							
	1937	34.3	8	0.2												1	0.0					7	0.2	
	1940	56.5	46	0.8																	44	0.8	2	0.0
Byrne Lake (Kent)																								
	1945	6.0	18	3.0							18	3.0												
Camp Lake (Kent)																								
	1930	46.0	30	0.7					3	0.1	8	0.2		1	0.0						18	0.4		
	1934	66.8	181	2.7					16	0.2	63	0.9	12	0.2	37	0.6					20	0.3	2	0.0
	1935	83.5	186	2.2					2	0.0	176	2.1	2	0.0							6	0.1		
	1936	111.5	96	0.9					3	0.0	72	0.6									21	0.2		
	1937	51.8	153	3.0					2	0.0	107	2.1	13	0.3		1	0.0	5	0.1		4	0.1		



Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																					
Campbell Lake																					
(Kent)-cont.																					
	1935	15.0	22	1.5					1 0.1	10 0.7	3 0.2			8 0.5							
	1937	47.0	50	1.1				3 0.1	1 0.0	46 1.0											
	1939	16.0	70	4.4					10 0.6	57 3.6			1 0.1	2 0.1							
	1941	6.0	17	2.8					5 0.8	10 1.7		1 0.2		1 0.2							
	1942	6.0	4	0.7					2 0.3							2 0.3					
	1943	13.0	8	0.6					2 0.2	4 0.3				2 0.2							
	1944	23.0	32	1.4					2 0.1	12 0.5				18 0.8							
	1945	141.0	157	1.1					4 0.0	94 0.7			38 0.3	21 0.1							
	1946	61.0	30	0.5					6 0.1	5 0.1	2 0.0		2 0.0	15 0.2							
	1949	35.5	62	1.7					2 0.1	34 1.0	3 0.1	2 0.1		21 0.6							
	1955	35.0	92	2.6					3 0.1	71 2.0	8 0.2			10 0.3							
	1956	43.0	42	1.0						32 0.7			7	3 0.1							
	1959	60.0	142	2.4					1 0.0	118 2.0			18 0.3	5 0.1							
	1960	94.5	101	1.1					1 0.0	100 1.1											
	1961	78.0	76	1.0						35 0.4	9 0.1		2 0.0	30 0.4							
	1963	23.0	26	1.1				21 0.9	3 0.1					2 0.1							
Carr Lake (Eaton)																					
	1928	18.0	38	2.1						38 2.1											
	1929	8.0	12	1.5						12 1.5											
	1931	6.0	17	2.8					1 0.2	1 0.2	6 1.0			9 1.5							
	1932	8.0	24	3.0					1 0.1	18 2.3	5 0.6										
	1933	16.0	32	2.0					1 0.1	18 1.1	6 0.4			7 0.4							
	1934	18.0	47	2.6					3 0.2	42 2.3				2 0.1							
	1935	41.0	25	0.6						11 0.3	10 0.2		1 0.0	1 0.0					2 0.0		
	1937	37.0	80	2.2						71 1.9	2 0.1		1 0.0	3 0.1		2 0.1			1 0.0		
	1938	70.0	190	2.7					3 0.0	164 2.3	11 0.2			9 0.1		2 0.0			1 0.0		
	1939	37.0	54	1.5					5 0.1	48 1.3									1 0.0		
	1940	5.0	4	0.8						2 0.4	1 0.2		1 0.2								
	1941	160.0	259	1.6					2 0.0	242 1.5	10 0.1			5 0.0							
	1942	102.0	218	2.1					9 0.1	194 1.9	7 0.1			8 0.1							
	1943	23.0	23	1.0						20 0.9	2 0.1			1 0.0							

Appendix B.-Continued.

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Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																					
Carr Lake (Eaton)-cont.																					
	1944	76.0	172	2.3				2 0.0	2 0.0	151 2.0	5 0.1			2 0.0					10 0.1		
	1945	16.0	27	1.7						27 1.7											
	1946	149.0	364	2.4						341 2.3	22 0.1			1 0.0							
	1949	15.0	15	1.0							13 0.9	1 0.1		1 0.1							
	1950	485.0	1,160	2.4				2 0.0	8 0.0	1,125 2.3	11 0.0			14 0.0							
	1951	449.0	1,175	2.6				2 0.0	35 0.1	1,104 2.5	15 0.0			19 0.0							
	1953	46.0	104	2.3					3 0.1	90 2.0	6 0.1			5 0.1							
	1954	172.0	888	5.2					22 0.1	811 4.7	28 0.2			27 0.2							
	1957	72.0	307	4.3					26 0.4	271 3.8	5 0.1			5 0.1							
	1961	18.0	3	0.2						3 0.2											
Carter Lake (Barry)																					
	1930	19.5	250	12.8						194 9.9				6 0.3							
	1931	5.0	54	10.8						34 6.8											
	1934	NA	17	NA									17 NA								
	1937	16.5	127	7.7						15 0.9			112 6.8								
	1938	3.5	5	1.4						5 1.4											
	1944	32.0	66	2.1						66 2.1											
	1945	10.0	4	0.4					4 0.4												
	1946	14.0	36	2.6						36 2.6											
	1949	22.0	40	1.8						38 1.7				2 0.1							
	1956	19.0	7	0.4						3 0.2	2 0.1			2 0.1							
	1957	16.0	37	2.3					1 0.1	29 1.8	1 0.1		2 0.1	4 0.3							
	1958	314.0	1,386	4.4						1,378 4.4			1 0.0	6 0.0		1 0.0					
	1959	53.0	71	1.3						71 1.3											
	1960	114.0	116	1.0						59 0.5	41 0.4	11 0.1	2 0.0	1 0.0		2 0.0					
	1961	45.0	9	0.2						4 0.1	2 0.0		2 0.0			1 0.0					
	1962	36.0								44 1.2	5 0.1			24 0.7							
	1963	79.0							14 0.2	41 0.5	35 0.4			1 0.0							



Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp	
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																						
Cedar Lake (Montcalm-Evergreen Township)	1931	14.0	1	0.1												1	0.1					
	1943	59.0	32	0.5						27	0.5	3	0.1				2	0.0				
	1944	22.0	3	0.1						3	0.1											
	1945	42.5	76	1.8						70	1.6			5	0.1		1	0.0				
	1946	5.5	3	0.5						3	0.5											
	1948	15.0	8	0.5											6	0.4	1	0.1		1	0.1	
	1949	22.0	17	0.8						15	0.7					2	0.1					
Cedar Lake (Montcalm Home Township)	1953	19.5	9	0.5		1	0.1						5	0.3	2	0.1		1	0.1			
	Chapin Lake (Kent)																					
	1924	6.0	1	0.2					1	0.2												
	1936	10.3	36	3.5						36	3.5											
	1937	3.3	15	4.6						15	4.6											
	1939	16.8	22	1.3						17	1.0			5	0.3							
	1944	3.0	2	0.7						1	0.3	1	0.3									
	1946	17.0	12	0.7																		
	1948	2.0	0	0.0																		
	1949	26.0	48	1.8					1	0.0	44	1.7								3	0.1	
Clear Lake (Barry)	1932	8.0	73	9.1					3	0.4	30	3.8										
	1937	4.5	6	1.3					6	1.3												
	1938	12.3	19	1.6					9	0.7	10	0.8										
	1940	3.0	21	7.0						21	7.0											
	1942	14.0	43	3.1						33	2.4	8	0.6			2	0.1					
	1943	17.0	31	1.8					2	0.1	25	1.5	4	0.2								

Appendix B.–Continued.

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Segment and lake (County)	Year	Angler Hours	Total #’s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower–cont.</b>																					
Clear Lake (Barry)–cont.																					
	1946	30.5	33	1.1					6 0.2	27 0.9											
	1950	50.5	164	3.2						164 3.2											
	1953	30.0	87	2.9						84 2.8											
	1954	97.5	193	2.0						179 1.8	5 0.1										
	1955	44.0	78	1.8					2 0.0	59 1.3	17 0.4									8 0.1	
	1956	55.0	50	0.9					11 0.2	35 0.6	3 0.1	1 0.0									
	1960	20.0	41	2.1						31 1.6	9 0.5										
	1944	26.5	52	2.0						42 1.6					9 0.3	1 0.0					
	1929	21.0	45	2.1					1 0.0	6 0.3	11 0.5	6 0.3								3 0.1	
	1930	6.0	2	0.3					2 0.3												
	1931	27.5	58	2.1						45 1.6				3 0.1	6 0.2	3 0.1	1 0.0				
	1934	120.5	328	2.7					3 0.0	298 2.5	4 0.0	4 0.0		3 0.0	16 0.1						
	1935	22.0	94	4.3						3 0.1	81 3.7	10 0.5									
	1936	110.5	206	1.9						199 1.8				3 0.0	4 0.0						
	1937	12.0	10	0.8						9 0.8					1 0.1						
	1938	244.5	738	3.0						1 0.0	706 2.9			7 0.0	24 0.1						
	1939	50.5	32	0.6							13 0.3			9 0.2	10 0.2						
	1940	16.0	36	2.3						2 0.1				28 1.8	6 0.4						
	1943	304.0	428	1.4						25 0.1	364 1.2	11 0.0	1 0.0	17 0.1	9 0.0				1 0.0		
	1944	76.0	99	1.3						2 0.0	88 1.2	4 0.1	3 0.0						2 0.0		
	1945	62.0	62	1.0						3 0.0	59 1.0										
	1946	43.0	76	1.8						2 0.0	70 1.6			4 0.1							
	1948	43.0	108	2.5							102 2.4		1 0.0	2 0.0	3 0.1						
	1949	122.0	291	2.4							269 2.2			7 0.1	10 0.1						1 0.0
	1950	160.0	399	2.5							383 2.4			11 0.1	3 0.0						2 0.0
	1951	252.5	498	2.0						5 0.0	436 1.7	37 0.1	1 0.0	8 0.0	11 0.0						
	1952	76.0	105	1.4							103 1.4	1 0.0									1 0.0
	1953	102.0	157	1.5							150 1.5			4 0.0	3 0.0						

Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																					
Clifford Lake (Montcalm)-cont.																					
	1954	153.5	255	1.7					3 0.0	206 1.3	3 0.0	18 0.1	2 0.0	22 0.1		1 0.0					
	1955	74.0	102	1.4						93 1.3			2 0.0	5 0.1		2 0.0					
	1956	129.0	111	0.9					10 0.1	84 0.7		1 0.0	9 0.1	7 0.1							
	1957	66.5	197	3.0						163 2.5	4 0.1	2 0.0		28 0.4							
	1958	15.0	15	1.0						10 0.7			2 0.1	3 0.2							
	1959	85.0	121	1.4					2 0.0	107 1.3	2 0.0		1 0.0	6 0.1		2 0.0			1 0.0		
	1960	116.0	165	1.4					4 0.0	146 1.3	3 0.0		4 0.0	8 0.1							
	1961	154.0	251	1.6					4 0.0	238 1.5				8 0.1		1 0.0					
	1964	33.0	51	1.5						46 1.4		3 0.1	2 0.1								
155 Cody Lake (Montcalm)	1949	36.0	42	1.2					2 0.1	25 0.7			11 0.3	3 0.1		1 0.0					
	1950	5.0	11	2.2						10 2.0				1 0.2		0.0					
	1951	26.0	71	2.7						71 2.7											
	1954	49.5	38	0.8					4 0.1	32 0.6				2 0.0							
Colby Lake (Montcalm)	1943	54.5	120	2.2						84 1.5			36 0.7								
	1944	46.5	65	1.4						58 1.2			4 0.1		1 0.0					2 0.0	
	1945	50.0	82	1.6						73 1.5			3 0.1			3 0.1				3 0.1	
	1946	42.5	35	0.8						35 0.8											
	1949	6.0	7	1.2						7 1.2											
	1951	18.0	75	4.2						60 3.3				14 0.8	1 0.1						
	1952	54.0	61	1.1						28 0.5	31 0.6			1 0.0	1 0.0						
	1953	28.0	55	2.0						52 1.9				3 0.1							
	1957	25.0	5	0.2						5 0.2											
	1959	20.0	28	1.4						25 1.3				1 0.1	1 0.1		1 0.1				
	1961	23.0	27	1.2						17 0.7				7 0.3	2 0.1		1 0.0				
	Como Lake (Montcalm)	1934	7.0	35	5.0						35 5.0				0 0.0						
1935		3.0	5	1.7										5 1.7							
1936		7.0	40	5.7						40 5.7											

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Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp			
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																								
Como Lake (Montcalm)-cont.	1938	18.0	24	1.3						20	1.1	1	0.1						3	0.2				
County Line Lake (Kent)	1945	24.3	32	1.3					1	0.0	24	1.0		7	0.3									
	1946	1.0	0	0.0																				
	1949	5.0	4	0.8					1	0.2	3	0.6												
Cowden Lake (Montcalm)	1931	10.0	158	15.8				2	0.2					15										
	1938	128.5	198	1.5						44	0.3			154	1.2									
	1946	4.5	0	0.0																				
	1948	16.0	20	1.3						19	1.2			1	0.1									
	1949	203.5	341	1.7					5	0.0	115	0.6	6	0.0	1	0.0	51	0.3	150	0.7	13	0.1		
	1950	69.5	148	2.1						10	0.1			85	1.2	53	0.8							
	1951	116.0	86	0.7					3	0.0	59	0.5		1	0.0	20	0.2			2	0.0	1	0.0	
	1953	72.5	85	1.2						51	0.7			3	0.0	28	0.4			3	0.0			
	1956	22.0	7	0.3						6	0.3			1	0.0									
	1960	8.0	4	0.5						1	0.1					3	0.4							
	1961	18.0	4	0.2																				
Cox Lake (Barry)	1933	4.0								35	8.8									4	0.2			
	1938	16.0								60	3.8									1	0.3			
	1939	28.0								90	3.2													
Cranberry Lake (Ottawa)	1934	126.3	356	2.8					3	0.0	129	1.0	36	0.3	152	1.2	7	0.1	25	0.2	2	0.0	2	0.0
	1935	97.8	355	3.6					3	0.0	253	2.6	41	0.4	3	0.0	44	0.5	11	0.1				
	1936	9.0	60	6.7										60	6.7									
	1937	125.8	164	1.3						39	0.3			108	0.9	12	0.1			5	0.0			
	1938	93.5	117	1.3					2	0.0	51	0.5	2	0.0			26	0.3	31	0.3	2	0.0	2	0.0
	1939	14.0	117	8.4						112	8.0			5	0.4									
	1942	67.5	82	1.2						35	0.5			44	0.7	3	0.0							
	1943	19.5	0	0.0																				
	1944	62.5	53	0.8					4	0.1	26	0.4		3	0.0			15	0.2			5	0.1	

Appendix B.–Continued.

Segment and lake (County)	Year	Angler Hours	Total #’s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower–cont.</b>																					
Cranberry Lake (Ottawa)–cont.	1945	106.0	108	1.0					4 0.0	77 0.7			23 0.2			4 0.0					
	1946	6.0	0	0.0																	
	1948	174.0	132	0.8				3 0.0	2 0.0	62 0.4	4 0.0	1 0.0	23 0.1	35 0.2		2 0.0					
	1949	414.5	467	1.1					16 0.0	302 0.7	4 0.0	3 0.0	29 0.1	80 0.2	5 0.0	28 0.1					
Cranberry Lake (Ottawa)–cont.	1958	34.5	22	0.6					1 0.0	9 0.3			2 0.1	10 0.3							
	1959	122.0	122	1.0						22 0.2		5 0.0	32 0.3	63 0.5							
	1961	64.0	76	1.2					2 0.0	18 0.3			13 0.2	42 0.7		1 0.0					
Crawford Lake (Kent)	1937	2.5	2	0.8												2 0.8					
Crooked Lake (Montcalm)	1944	77.0	70	0.9						70 0.9											
	1945	28.5	64	2.2						64 2.2											
	1952	39.0	57	1.5						47 1.2			2 0.1	8 0.2							
Cryderman Lake (Ionia)	1930	13.0	125	9.6						98 7.5										27 2.1	
	1931	5.0	5	1.0																5 1.0	
	1934	3.0	18	6.0						18 6.0											
Crystal Lake (Montcalm)	1930	6.0	20	3.3						12 2.0										8 1.3	
	1931	9.0	12	1.3						7 0.8		1 0.1		4 0.4							
	1935	121.0	4	0.0												4 0.0					
	1936	17.5	39	2.2						34 1.9	1 0.1	3 0.2								1 0.1	
	1937	18.0	3	0.2										1 0.1		2 0.1					
	1938	63.5	0	0.0																	
	1943	198.0	126	0.6					2 0.0	78 0.4		3 0.0		38 0.2		5 0.0					
	1944	725.0	158	0.2				1 0.0		105 0.1	17 0.0	13 0.0		20 0.0		2 0.0					
	1945	122.0	109	0.9					8 0.1	56 0.5		11 0.1	4 0.0	28 0.2		2 0.0					
	1946	46.5	42	0.9						14 0.3				28 0.6							
	1948	59.0	104	1.8					5 0.1	83 1.4				12 0.2		4 0.1					



Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp				
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	
<b>Lower-cont.</b>																									
Deer Lake (Kent)-cont.	1940	65.0	123	1.9						109	1.7	1	0.0			1	0.0								
Derby Lake (Montcalm)	1935	4.0	3	0.8										3	0.8										
	1939	7.8	23	3.0						23	3.0														
	1940	6.0	0	0.0																					
	1943	315.5	366	1.2				4	0.0	11	0.0	331	1.0	3	0.0	6	0.0	5	0.0	5	0.0	1	0.0		
	1944	302.5	597	2.0				2	0.0	7	0.0	578	1.9		2	0.0	4	0.0			2	0.0	2	0.0	
	1945	97.5	152	1.6				1	0.0	3	0.0	147	1.5								1	0.0			
	1946	109.4	92	0.8			1	0.0	2	0.0															
	1947	92.5	135	1.5																					
	1948	13.0	1	0.1																					
	1949	119.0	94	0.8			1	0.0								4	0.0	6	0.1						
	1950	239.0	137	0.6			1	0.0																	
	1951	92.0	144	1.6					3	0.0					1	0.0	1	0.0	10	0.1					
	1952	57.0	102	1.8			3	0.1																	
	1953	49.5	91	1.8																					
	1954	115.0	131	1.1			4	0.0																	
	1955	50.0	31	0.6																					
	1956	179.0	258	1.4			9	0.1		1	0.0	34	0.2												
	1957	22.5	28	1.2																					
	1958	56.5	39	0.7					3	0.1	3	0.1	31	0.5	1	0.0									
	1959	91.0	77	0.8			10	0.1	1	0.0															
	1960	75.5	44	0.6					3	0.0															
	1961	26.0	23	0.9																					
	1964	23.0	101	4.4																					
Dickinson (Montcalm)	1929	4.5	102	22.7																					
	1931	116.5	148	1.3																					
	1934	27.0	178	6.6																					
	1935	141.5	612	4.3					13	0.1	15	0.1	303	2.1	18	0.1	30	0.2	49	0.3	180	1.3		4	0.0

Appendix B.-Continued.

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Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp		
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																							
Dickinson																							
(Montcalm)-cont.	1936	83.0	77	0.9				3	0.0	9	0.1	13	0.2	1	0.0			8	0.1	43	0.5		
	1937	2.0	0	0.0																			
	1939	552.0	313	0.6								1	0.0	15	0.0	297	0.5						
	1940	116.0	22	0.2						1	0.0					21	0.2						
	1943	109.0	113	1.0						44	0.4			49	0.4	19	0.2		1	0.0			
	1944	145.0	217	1.5				7	0.0	81	0.6			7	0.0	113	0.8		9	0.1			
	1946	81.5	74	0.9						2	0.0			23	0.3	47	0.6		1	0.0	1	0.0	
	1947	5.5	17	3.1												17	3.1						
	1949	16.0	19	1.2					2	0.1						17	1.1						
	1950	19.0	34	1.8					2	0.1	12	0.6	3	0.2	17	0.9							
	1951	49.0	63	1.3						5	0.1			4	0.1	53	1.1		1	0.0			
	1952	66.0	111	1.7										1	0.0	109	1.7		1	0.0			
	1953	68.0	87	1.3						9	0.1			5	0.1	71	1.0		2	0.0			
	1954	71.0	127	1.8						3	0.0	6	0.1	41	0.6	73	1.0		4	0.1			
	1955	67.0	111	1.7										4	0.1	106	1.6		1	0.0			
	1956	65.0	118	1.8						24	0.4	3	0.0	1	0.0	76	1.2	14	0.2				
	1957	203.0	506	2.5					5	0.0	420	2.1	7	0.0	6	0.0	5	0.0	60	0.3	3	0.0	
	1958	116.0	207	1.8					3	0.0	123	1.1		4	0.0	1	0.0	73	0.6	3	0.0		
	1959	93.0	134	1.4					1	0.0	80	0.9			9	0.1	40	0.4	4	0.0			
	1960	144.5	162	1.1					8	0.1	51	0.4	1	0.0	6	0.0	56	0.4	39	0.3	1	0.0	
	1961	167.0	182	1.1					7	0.0	92	0.6	3	0.0		26	0.2	52	0.3	2	0.0		
	1962	29.0	9	0.3					2	0.1	1	0.0			4	0.1	2	0.1					
	1964	135.0	184	1.4					4	0.0	65	0.5		1	0.0	79	0.6	34	0.3	1	0.0		
Duck Lake (Montcalm)																							
	1930	13.0	97	7.5					30	2.3	50	3.8	12	0.9		3	0.2		2	0.2			
	1931	36.0	104	2.9					16	0.4	39	1.1	7	0.2	2	0.1		21	0.6		19	0.5	
	1933	3.0	79	26.3					1	0.3	37	12.3	34	11.3			7	2.3					
	1935	24.0	0	0.0																			
	1943	197.0	48	0.2										21	0.1	18	0.1		3	0.0		6	0.0



Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp	
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																						
Duck Lake (Montcalm)-cont.	1944	170.0	132	0.8						119	0.7	7	0.0			3	0.0			3	0.0	
	1954	44.0	48	1.1						44	1.0									4	0.1	
	1955	69.0	66	1.0						45	0.7									11	0.2	
	1956	26.0	57	2.2						18	0.7									36	1.4	
Duitelmans Lake (Kent)	1952	37.0	144	3.9					4	0.1	106	2.9	4	0.1		1	0.0	28	0.8	1	0.0	
	1953	37.0	108	2.9					2	0.1	87	2.4						18	0.5	1	0.0	
Duncan Lake (Barry)	1931	1.5	4	2.7												4	2.7					
	1934	NA	20	NA							20											
	1938	6.0	27	4.5							25	4.2				2	0.3					
	1941	10.0	23	2.3							22	2.2										
	1944	21.5	5	0.2							5	0.2										
	1956	18.0	8	0.4					1	0.1	3	0.2				4	0.2					
	1957	64.0	47	0.7							1	0.0				46	0.7					
	1960	89.0	66	0.7							35	0.4				28	0.3	3	0.0			
	1963	64.0	132	2.1							82	1.3	1	0.0	1	0.0	45	0.7	3	0.0		
Emmons Lake (Kent)	1930	8.0	75	9.4							75	9.4										
	1936	15.0	83	5.5							75	5.0										
	1941	2.0	2	1.0												2	1.0					
	1942	4.5	8	1.8							8	1.8										
Fennessey Lake (Ottawa)	1942	11.0	1	0.1							1	0.1										
	1943	21.5	30	1.4							24	1.1				5	0.2	1	0.0			
	1944	22.0	43	2.0							10	0.5	33	1.5								
	1950	322.0	1,135	3.5							1	0.0	1,134	3.5								
Fifth Lake (Montcalm)	1934	18.0	5	0.3																	5	0.3

Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp			
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																								
Fifth Lake (Montcalm)-cont.																								
	1938	32.0	36	1.1						33	1.0	1	0.0	2	0.1									
	1949	36.5	87	2.4					1	0.0	33	0.9	5	0.1	1	0.0	43	1.2	1	0.0	3	0.1		
	1950	6.0	5	0.8							5	0.8												
	1951	26.0	32	1.2							19	0.7				3	0.1	10	0.4					
	1952	8.5	1	0.1																	1	0.1		
	1954	18.5	46	2.5							42	2.3				4	0.2							
	1955	85.5	295	3.5							260	3.0				24	0.3	5	0.1		3	0.0		
	1956	59.0	65	1.1							53	0.9				6	0.1	5	0.1	1	0.0			
	1957	57.5	25	0.4							17	0.3			1	0.0		7	0.1					
	1958	40.0	55	1.4							28	0.7	5	0.1				22	0.6					
	1960	41.0	86	2.1							74	1.8	1	0.0				6	0.1	5	0.1			
	1961	19.5	13	0.7							9	0.5						3	0.2	1	0.1			
	1962	4.0	3	0.8							2	0.5						1	0.3					
Fine Lake (Barry)																								
	1928	16.0	26	1.6					2	0.1	16	1.0								1	0.1			
	1929	25.0	33	1.3							28	1.1	1	0.0				4	0.2					
	1931	14.0	43	3.1							24	1.7						5	0.4	1	0.1			
	1932	14.5	104	7.2					2	0.1	40	2.8	8	0.6				4	0.3					
	1933	7.0	22	3.1							10	1.4	2	0.3				6	0.9			4	0.6	
	1939	3.5	27	7.7							21	6.0												
	1940	15.5	85	5.5							72	4.6	6	0.4					7	0.5				
	1941	29.5	79	2.7							72	2.4							1	0.0				
	1943	29.0	41	1.4							37	1.3	2	0.1					2	0.1				
	1947	64.0	67	1.0							55	0.9	7	0.1				1	0.0	3	0.0			
	1952	37.0	58	1.6							47	1.3	5	0.1					6	0.2				
	1953	116.0	134	1.2							3	0.0	82	0.7	28	0.2			16	0.1	2	0.0		
	1954	181.5	128	0.7				1	0.0	9	0.0	77	0.4	23	0.1	1	0.0	13	0.1	3	0.0	1	0.0	
	1956	138.0	154	1.1						1	0.0	136	1.0	9	0.1	2	0.0	2	0.0	3	0.0		1	0.0
	1958	64.0	55	0.9						1	0.0	43	0.7	5	0.1			4	0.1	2	0.0			
	1960	104.0	80	0.8						1	0.0	63	0.6	1	0.0					15	0.1			
	1961	2.0	4	2.0							4	2.0												

Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																					
Fine Lake (Barry)-cont.	1962	112.5	199	1.8					4 0.0	187 1.7			3 0.0	5 0.0							
First Lake (Montcalm)	1931	13.0	1	0.1												1 0.1					
	1950	26.0	44	1.7						40 1.5		3 0.1	1 0.0								
	1951	79.0	62	0.8						37 0.5		1 0.0	12 0.2	5 0.1		7 0.1					
First Lake (Montcalm)-cont.	1953	24.0	33	1.4				1 0.0	8 0.3	16 0.7		4 0.2	1 0.0	2 0.1		1 0.0					
	1956	11.0	32	2.9						28 2.5			2 0.2	2 0.2							
	1958	26.0	13	0.5						13 0.5											
	1960	57.0	133	2.3						120 2.1	1 0.0		4 0.1	8 0.1							
	1961	22.0	116	5.3						106 4.8				10 0.5							
	1962	68.5	160	2.3						148 2.2	2 0.0		4 0.1	6 0.1							
Fish Creek Lake (Montcalm)	1953	15.0	10	0.7						8 0.5				2 0.1							
	1958	15.0	4	0.3						3 0.2						1 0.1					
	1960	11.0	11	1.0						6 0.5	1 0.1		1 0.1	3 0.3							
Fish Lake (Kent)	1934	16.5	1	0.1										1 0.1							
	1943	22.3	2	0.1										2 0.1							
Fish Lake (Montcalm)	1929	36.5	282	7.7						34 0.9			248 6.8								
	1931	14.0	3	0.2												3 0.2					
	1935	52.0	14	0.3												14 0.3					
	1938	66.3	101	1.5					1 0.0	1 0.0			94 1.4	2 0.0		3 0.0					
	1939	6.8	46	6.8				3 0.4		18 2.7			25 3.7								
	1940	13.5	71	5.3					1 0.1				70 5.2								
	1944	12.0	24	2.0						2 0.2			22 1.8								
	1951	18.0	35	1.9						30 1.7		1 0.1	2 0.1	2 0.1							
Fourth Lake (Montcalm)	1931	19.0	0	0.0																	
	1943	14.0	7	0.5					2 0.1	4 0.3						1 0.1					

Appendix B.-Continued.

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Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp				
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	
<b>Lower-cont.</b>																									
Fourth Lake (Montcalm)-cont.																									
	1944	4.0	4	1.0						4	1.0														
	1949	20.0	6	0.3						3	0.2														
	1951	30.0	155	5.2								12	0.4	119	4.0	24	0.8								
	1953	30.0	43	1.4						7	0.2	18	0.6	3	0.1						1	0.0			
	1954	27.0	16	0.6						11	0.4			1	0.0	2	0.1		2	0.1					
	1955	116.5	436	3.7						407	3.5			28	0.2	1	0.0								
	1956	40.0	13	0.3						6	0.2			5	0.1				2	0.1					
	1957	9.8	18	1.8						18	1.8														
	1958	47.0	21	0.4						20	0.4					1	0.0								
	1960	74.5	119	1.6						97	1.3	6	0.1	1	0.0	10	0.1		2	0.0		3	0.0		
Freska Lake (Kent)																									
	1934	39.5	8	0.2					3	0.1												3	0.1		
	1935	99.5	92	0.9					2	0.0	72	0.7				10	0.1	5	0.1			1	0.0		
	1936	12.5	17	1.4												17	1.4						2	0.0	
	1937	35.5	46	1.3												44	1.2						2	0.1	
	1938	75.3	157	2.1						128	1.7	10	0.1			1	0.0		6	0.1					
	1939	193.8	67	0.3						47	0.2	6	0.0					14	0.1						
	1940	226.3	168	0.7						155	0.7	2	0.0					11	0.0						
	1943	137.0	97	0.7						69	0.5	5	0.0			2	0.0	14	0.1				6	0.0	
	1945	68.0	79	1.2					3	0.0	61	0.9	6	0.1	2	0.0	2	0.0	2	0.0		1	0.0	2	0.0
	1946	14.0	6	0.4					1	0.1	5	0.4													
	1949	32.0	82	2.6						63	2.0	3	0.1	1	0.0	7	0.2	8	0.3						
	1951	24.0	25	1.0						22	0.9					3	0.1								
Frey Lake (Newaygo)																									
	1961	4.0	3	0.8						2	0.5					1	0.3								
Gavin Lake (Kent)																									
	1928	5.5	31	5.6				2	0.4										1	0.2					
	1939	11.0	37	3.4						31	2.8	6	0.5												
	1948	44.8	171	3.8						130	2.9					41	0.9								
Grass Lake (Montcalm)																									
	1950	75.0	39	0.5						32	0.4					1	0.0	6	0.1						

Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																					
Sidney Township)	1951	73.0	140	1.9						135	1.8		1	0.0	4	0.1					
	1953	31.0	56	1.8						54	1.7			2	0.1						
	1955	20.0	18	0.9						18	0.9										
	1956	13.0	12	0.9						9	0.7		1	0.1	2	0.2					
	1958	18.0	17	0.9						15	0.8				2	0.1					
	1961	10.0	2	0.2						2	0.2										
Grass Lake (Montcalm-Fairplain Township)	1931	8.0	4	0.5												4	0.5				
Green Lake (Kent)	1939	11.0	14	1.3						14	1.3										
	1940	4.0	6	1.5						6	1.5										
	1941	48.8	48	1.0						48	1.0										
	1943	12.0	15	1.3						15	1.3										
	1948	53.0	53	1.0						52	1.0			1	0.0						
Guernsey Lake (Barry)	1928	30.0	56	1.9							5	0.2		7	0.2						
	1929	18.0	36	2.0						7	0.4	8	0.4		5	0.3				6	0.3
	1934	7.0	28	4.0					2	0.3	15	2.1		4	0.6	6	0.9			1	0.1
	1936	32.0	75	2.3						65	2.0	2	0.1		8	0.3					
	1941	139.0	319	2.3					6	0.0	260	1.9	37	0.3	4	0.0	11	0.1		1	0.0
	1942	104.0	163	1.6							154	1.5	5	0.0			4	0.0			
	1943	44.5	36	0.8					1	0.0	20	0.4	6	0.1		6	0.1				
	1945	3.5	1	0.3													1	0.3			
	1946	7.0	1	0.1													1	0.1			
	1947	33.0	36	1.1						36	1.1										
	1949	142.5	204	1.4							163	1.1	8	0.1		31	0.2		2	0.0	
	1957	42.0	65	1.5							62	1.5	2	0.0		1	0.0				
	1958	108.0	46	0.4					17	0.2	10	0.1	3	0.0		9	0.1	3	0.0		4
1959	37.0	82	2.2					2	0.1	58	1.6	10	0.3		12	0.3					



Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp	
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																						
Hannah Lake (Kent)-cont.																						
	1964	53.0	124	2.3						115	2.2		9	0.2								
Hart Lake (Kent)																						
	1928	10.0	35	3.5					2	0.2	18	1.8										
	1935	10.5	2	0.2									2	0.2								
	1936	10.0	19	1.9					5	0.5	13	1.3		1	0.1							
	1937	6.0	68	11.3							68	11.3										
	1939	2.8	2	0.7					2	0.7												
	1956	33.5	48	1.4							38	1.1	10	0.3								
Harvard Lake (Kent)																						
	1949	5.0	6	1.2						6	1.2											
Head Lake (Barry)																						
	1932	3.0	7	2.3						1	0.3	1	0.3	5	1.7							
Heart Lake (Eaton)																						
	1934	15.0	46	3.1					1	0.1	37	2.5		8	0.5							
	1937	16.0	7	0.4					4	0.3	2	0.1							1	0.1		
	1938	39.0	23	0.6				3	0.1	1	0.0	3	0.1	2	0.1	6	0.2	1	0.0	7	0.2	
	1941	127.0	181	1.4					11	0.1	154	1.2	10	0.1				2	0.0	2	0.0	
	1942	16.0	26	1.6							21	1.3	2	0.1				3	0.2			
	1943	20.0	35	1.8							35	1.8										
	1944	39.0	108	2.8				3	0.1		105	2.7										
	1946	154.0	266	1.7							249	1.6	9	0.1				2	0.0		6	0.0
	1950	236.0	594	2.5				1	0.0	3	0.0	580	2.5	5	0.0			5	0.0			
	1951	365.0	1,061	2.9						14	0.0	1,025	2.8	5	0.0	4	0.0	13	0.0			
	1953	296.0	858	2.9						2	0.0	856	2.9									
	1961	16.0	1	0.1							1	0.1										
Helena Lake (Kent)																						
	1943	2.0	1	0.5					1	0.5												
Hemmingway Lake (Montcalm)																						
	1944	34.0	52	1.5					3	0.1	43	1.3	3	0.1				3	0.1			
	1958	23.0	46	2.0							40	1.7		2	0.1	3	0.1	1	0.0			
	1959	16.0	41	2.6							39	2.4		2	0.1							





Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp		
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																							
Horseshoe Lake (Barry)-cont.	1942	61.0	41	0.7						31	0.5			7	0.1	3	0.0						
	1943	2.5	11	4.4					1	0.4	3	1.2	3	1.2	1	0.4							
	1960	22.0	8	0.4						6	0.3			1	0.0	1	0.0						
Horseshoe Lake (Kent)	1931	4.0	6	1.5															6	1.5			
	1938	13.0	0	0.0																			
	1945	1.3	0	0.0																			
	1947	8.5	10	1.2									3	0.4	7	0.8							
Horseshoe Lake (Montcalm)	1943	19.0	3	0.2					3	0.2													
	1944	18.0	5	0.3					2	0.1													
	1948	143.0	99	0.7			9	0.1	6	0.0	23	0.2		34	0.2	12	0.1		15	0.1			
Horseshoe Lake (Montcalm)-cont.	1949	264.0	136	0.5			13	0.0	11	0.0	32	0.1		61	0.2	4	0.0		15	0.1			
	1950	251.0	144	0.6			9	0.0	10	0.0	70	0.3	2	0.0	20	0.1	16	0.1	12	0.0	5	0.0	
	1951	408.5	453	1.1			6	0.0	9	0.0	263	0.6	20	0.0	6	0.0	120	0.3	25	0.1	4	0.0	
	1953	69.5	36	0.5					2	0.0	17	0.2	1	0.0			8	0.1			2	0.0	
	1954	13.5	21	1.6						9	0.7	2	0.1	1	0.1		8	0.6		1	0.1		
	1956	9.0	4	0.4																	1	0.1	
	1957	66.5	84	1.3							66	1.0	3	0.0	2	0.0	12	0.2	1	0.0		3	0.3
	1959	12.0	4	0.3					1	0.1	3	0.3											
Hunter Lake (Montcalm)	1960	6.0	6	1.0					1	0.2	2	0.3	1	0.2		2	0.3						
	1948	36.0	49	1.4						42	1.2	5	0.1	2	0.1								
	1949	21.0	32	1.5					1	0.0	28	1.3							3	0.1			
	1950	56.0	88	1.6					3	0.1	83	1.5							2	0.0			
	1951	52.0	64	1.2					2	0.0	39	0.8	14	0.3			7	0.1	2	0.0			
	1953	36.0	26	0.7					5	0.1	16	0.4					3	0.1	2	0.1			
	1956	10.0	6	0.6							3	0.3					1	0.1	1	0.1	1	0.1	
	1959	39.5	54	1.4							39	1.0					3	0.1	11	0.3	1	0.0	

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Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp				
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch
<b>Lower-cont.</b>																									
<b>Jordan Lake</b>																									
<b>(Barry/Ionia)-cont.</b>																									
	1938	126.3	60	0.5						51	0.4	1	0.0	1	0.0						4	0.0			
	1939	50.0	248	5.0					2	0.0	192	3.8	11	0.2											
	1941	968.8	1,044	1.1					10	0.0	546	0.6	112	0.1	18	0.0	111	0.1	167	0.2		10	0.0		
	1942	381.3	497	1.3					4	0.0	235	0.6	7	0.0	8	0.0	68	0.2	135	0.4	31	0.1	9	0.0	
	1943	916.3	1,950	2.1				4	0.0	28	0.0	900	1.0	118	0.1	6	0.0	474	0.5	374	0.4		38	0.0	
	1944	295.3	706	2.4				4	0.0	8	0.0	346	1.2	98	0.3	2	0.0	158	0.5	76	0.3		14	0.0	
	1945	674.3	1,290	1.9					14	0.0	450	0.7	68	0.1	62	0.1	556	0.8	114	0.2			26	0.0	
	1946	1,014.5	1,571	1.5					16	0.0	826	0.8	106	0.1	40	0.0	379	0.4	204	0.2					
	1947	143.0	219	1.5						106	0.7	16	0.1				81	0.6	14	0.1			2	0.0	
	1948	268.5	722	2.7					16	0.1	250	0.9	18	0.1			388	1.4	38	0.1			12	0.0	
	1949	250.0	416	1.7					8	0.0	236	0.9	16	0.1	4	0.0	134	0.5	6	0.0			12	0.0	
	1950	580.0	1,150	2.0					34	0.1	410	0.7	92	0.2	42	0.1	404	0.7	134	0.2			34	0.1	
	1951	1,147.5	772	0.7					8	0.0	106	0.1	56	0.0	66	0.1	276	0.2	182	0.2			78	0.1	
	1952	768.0	619	0.8					26	0.0	148	0.2	46	0.1	74	0.1	58	0.1	243	0.3			24	0.0	
	1953	60.0	6	0.1													4	0.1	2	0.0					
	1954	484.5	496	1.0						220	0.5	26	0.1	16	0.0		50	0.1	170	0.4			6	0.0	
	1955	478.0	1,448	3.0					12	0.0	860	1.8	82	0.2	34	0.1	250	0.5	192	0.4			18	0.0	
	1956	1,312.0	1,568	1.2				2	0.0	82	0.1	638	0.5	68	0.1	18	0.0	708	0.5	38	0.0			12	0.0
	1957	500.5	254	0.5					6	0.0	144	0.3	4	0.0	24	0.0	66	0.1	10	0.0				2	0.0
	1958	918.5	982	1.1					4	0.0	768	0.8	52	0.1	12	0.0	134	0.1	4	0.0			8	0.0	
	1960	1,130.5	1,750	1.5					6	0.0	1,130	1.0	16	0.0	2	0.0	574	0.5	18	0.0			2	0.0	
	1962	736.5	410	0.6					18	0.0	176	0.2	32	0.0	12	0.0	160	0.2	12	0.0					
	1963	599.5	908	1.5					26	0.0	434	0.7	66	0.1	2	0.0	324	0.5	38	0.1			2	0.0	
	1964	386.0	1,093	2.8					9	0.0	90	0.2	4	0.0	1	0.0	985	2.6	4	0.0				16	0.0
	1965	13.0	0	0.0																					
<b>Kilpatrick Lake</b>																									
<b>(Barry)</b>																									
	1931	7.0	17	2.4					2	0.3	12	1.7	3	0.4											

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Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp		
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																							
Kilpatrick Lake (Barry)-cont.																							
	1932	3.0	5	1.7					4	1.3													
	1937	33.0	61	1.8						57	1.7	1	0.0										
	1938	10.0	7	0.7						6	0.6		1	0.1									
	1939	20.0	2	0.1						1	0.1												
	1943	22.0	27	1.2						27	1.2												
	1945	21.0	5	0.2										5	0.2								
Lacey Lake (Eaton)																							
	1928	52.0	64	1.2					5	0.1	52	1.0	1	0.0	1	0.0							
	1929	33.0	27	0.8					2	0.1	22	0.7		3	0.1								
	1930	59.0	203	3.4					14	0.2	184	3.1		1	0.0						1	0.0	
	1931	129.0	526	4.1				20	0.2	14	0.1	483	3.7							2	0.0	6	0.0
	1932	77.0	275	3.6					11	0.1	253	3.3		9	0.1								
	1933	110.0	281	2.6					38	0.3	239	2.2	2	0.0		1	0.0						
	1934	6.0	25	4.2							25	4.2											
	1935	44.0	54	1.2					14	0.3	40	0.9											
	1937	67.0	58	0.9					1	0.0	52	0.8		5	0.1								
	1938	84.0	193	2.3					5	0.1	176	2.1	1	0.0		3	0.0		2	0.0		6	0.1
	1939	34.0	89	2.6					6	0.2	22	0.6		59	1.7				2	0.1			
	1941	358.0	578	1.6					56	0.2	495	1.4	4	0.0					17	0.0		2	0.0
	1942	50.0	72	1.4					13	0.3	34	0.7	6	0.1					19	0.4			
	1943	76.0	208	2.7					9	0.1	177	2.3	22	0.3									
	1944	31.0	93	3.0					1	0.0	92	3.0											
	1946	90.0	323	3.6							323	3.6											
	1950	115.0	229	2.0					9	0.1	180	1.6	17	0.1					19	0.2		4	0.0
	1951	311.0	674	2.2					33	0.1	613	2.0	8	0.0					9	0.0		11	0.0
	1953	482.0	1,140	2.4					32	0.1	1,048	2.2	16	0.0					44	0.1			
	1954	246.0	1,234	5.0					56	0.2	1,120	4.6	22	0.1					36	0.1			
	1957	24.0	113	4.7					113	4.7													
	1961	12.0	5	0.4										1	0.1				4	0.3			

Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																					
Lamberton Lake (Kent)	1943	4.0	1	0.3									1	0.3							
Larabee Lake (Barry)	1937	6.5	21	3.2						20	3.1	1	0.2								
	1938	43.0	27	0.6						23	0.5	2	0.0			2	0.0				
	1960	5.0	2	0.4						1	0.2					1	0.2				
Lawhead Lake (Barry)	1934	23.0	109	4.7					2	0.1	105	4.6				2	0.1				
	1936	12.0	70	5.8									70	5.8							
	1938	23.5	34	1.4					1	0.0	20	0.9	4	0.2		7	0.3		2	0.1	
	1939	5.0	18	3.6							15	3.0				3	0.6				
	1941	6.0	12	2.0							11	1.8	1	0.2							
	1942	48.0	23	0.5							23	0.5									
	1946	13.0	16	1.2												16	1.2				
	1957	32.0	78	2.4						78	2.4										
Leach Lake (Barry)	1929	16.0	10	0.6												7	0.4				
	1930	2.0	16	8.0																	
	1931	4.0	17	4.3						4	1.0	2	0.5								
	1932	13.0	40	3.1						40	3.1										
	1934	2.5	25	10.0						18	7.2					7	2.8				
	1935	18.0	67	3.7						67	3.7										
	1936	6.0	25	4.2						25	4.2										
	1937	13.0	51	3.9						51	3.9										
	1938	117.0	340	2.9					4	0.0	321	2.7	6	0.1			9	0.1			
	1939	139.0	238	1.7						212	1.5					2	0.0	15	0.1		
	1940	63.5	192	3.0						95	1.5							97	1.5		
	1941	61.5	141	2.3					3	0.0	118	1.9				19	0.3	1	0.0		
	1942	96.0	172	1.8						172	1.8										
	1943	191.0	310	1.6					1	0.0	303	1.6				2	0.0	4	0.0		
	1944	135.0	339	2.5						336	2.5					1	0.0	2	0.0		



Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp	
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																						
Lincoln Lake (Kent)-cont.																						
	1940	1.3	0	0.0																		
	1941	1.5	0	0.0																		
	1943	8.5	1	0.1						1	0.1											
	1944	5.0	2	0.4						2	0.4											
	1945	13.8	10	0.7						7	0.5		1	0.1	2	0.1						
	1947	10.5	7	0.7					2	0.2	3	0.3	1	0.1					1	0.1		
	1948	37.0	54	1.5				1	0.0	2	0.1	35	0.9	3	0.1	1	0.0	4	0.1	8	0.2	
	1949	62.0	41	0.7						6	0.1	11	0.2	4	0.1	5	0.1	1	0.0	9	0.1	
	1950	37.0	23	0.6						2	0.1	8	0.2	2	0.1	2	0.1	1	0.0	4	0.1	
	1951	24.0	15	0.6						1	0.0	8	0.3			1	0.0	3	0.1	2	0.1	
	1952	39.0	23	0.6				1	0.0	2	0.1	6	0.2	2	0.1	1	0.0	3	0.1	6	0.2	
	1953	5.0	6	1.2						2	0.4			4	0.8							
Little Brower Lake (Kent)																						
	1948	8.0	18	2.3					7	0.9	11	1.4										
	1949	26.0	69	2.7					1	0.0	68	2.6										
	1952	10.0	11	1.1					6	0.6	5	0.5										
Little Muskrat Lake (Kent)																						
	1930	37.0	115	3.1						97	2.6	6	0.2									
	1931	8.5	51	6.0					1	0.1	50	5.9										
	1932	45.5	101	2.2						82	1.8	1	0.0		1	0.0	1	0.0		2	0.0	
	1933	49.5	302	6.1					1	0.0	165	3.3	58	1.2	8	0.2		40	0.8	2	0.0	
	1934	16.0	23	1.4							12	0.8								8	0.2	
	1935	19.0	83	4.4							78	4.1			5	0.3				11	0.7	
	1937	34.5	90	2.6							89	2.6										
	1938	38.8	64	1.7					2	0.1	59	1.5			1	0.0	1	0.0		1	0.0	
	1939	20.8	111	5.3							98	4.7			2	0.1	6	0.3			5	0.2
	1943	20.5	25	1.2							20	1.0			2	0.1	2	0.1		1	0.0	
	1946	6.0	14	2.3							14	2.3										
	1950	11.0	4	0.4							3	0.3								1	0.1	

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Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp	
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																						
Little Muskrat Lake (Kent)-cont.	1957	16.0	20	1.3						20	1.3											
Little Myers Lake (Kent)	1938	13.8	5	0.4						4	0.3		1	0.1								
	1939	5.5	11	2.0						7	1.3	4	0.7									
	1944	6.0	0	0.0																		
	1946	10.5	1	0.1												1	0.1					
	1947	11.5	6	0.5										6	0.5							
	1953	11.0	19	1.7						7	0.6	3	0.3									
Little Penny Lake (Montcalm)	1940	15.0	92	6.1					1	0.1			90	6.0		1	0.1					
	1941	1.0	1	1.0					1	1.0												
	1945	19.0	9	0.5						2	0.1		1	0.1		5	0.3		1	0.1		
	1947	36.0	1	0.0						1	0.0											
	1948	101.5	153	1.5						151	1.5		1	0.0							1	0.0
	1949	5.0	17	3.4						15	3.0					2	0.4					
	1950	37.0	74	2.0					1	0.0	65	1.8	3	0.1		2	0.1		3	0.1		
	1951	4.5	0	0.0																		
	1952	19.0	11	0.6						8	0.4			2	0.1	1	0.1					
	1954	12.0	6	0.5						6	0.5											
	1957	25.0	48	1.9						41	1.6	3	0.1		4	0.2						
	1961	30.0	2	0.1																	2	0.1
	1962	9.0	0	0.0																		
Little Pine Island Lake (Kent)	1929	2.0	11	5.5										2	1.0							
	1931	3.0	13	4.3						13	4.3											
	1935	30.5	67	2.2					1	0.0	45	1.5		20	0.7				1	0.0		
	1936	16.3	31	1.9						30	1.8			1	0.1							
	1937	3.5	6	1.7						4	1.1		1	0.3	1	0.3						
	1938	16.0	14	0.9						2	0.1					12	0.8					



Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																					
Little Pine Island Lake (Kent)-cont.																					
	1939	17.5	20	1.1				1 0.1	1 0.1	5 0.3	11 0.6			2 0.1							
	1940	1.0	1	1.0										1 1.0							
	1942	38.8	91	2.3					5 0.1	85 2.2	1 0.0										
	1944	12.0	0	0.0																	
	1945	75.5	72	1.0					5 0.1	53 0.7	9 0.1			5 0.1							
	1946	16.0	17	1.1						13 0.8				4 0.3							
	1949	31.0	83	2.7					2 0.1	60 1.9				21 0.7							
	1950	122.0	115	0.9					6 0.0	75 0.6	3 0.0		8 0.1	23 0.2							
Little Wabasis Lake (Kent)																					
	1932	8.0	2	0.3						2 0.3											
	1937	157.5	337	2.1						333 2.1				4 0.0							
	1938	1.0	0	0.0																	
	1940	17.0	56	3.3						48 2.8				8 0.5							
	1943	1.5	1	0.7						1 0.7											
	1945	7.0	12	1.7						9 1.3				3 0.4							
	1949	10.0	5	0.5						5 0.5											
Logan Lake (Kent)																					
	1934	2.0	2	1.0					1 0.5				1 0.5								
	1938	42.5	140	3.3						117 2.8	1 0.0	1 0.0									
	1939	7.0	23	3.3					4 0.6	7 1.0											
	1941	8.0	19	2.4					2 0.3	12 1.5	3 0.4	2 0.3									
	1942	10.5	15	1.4					2 0.2	13 1.2											
	1943	12.0	21	1.8					1 0.1	10 0.8	6 0.5								4 0.3		
	1944	6.0	5	0.8					2 0.3	3 0.5											
	1945	21.0	37	1.8					1 0.0	36 1.7											
Long Lake (Barry)																					
	1929	3.5	11	3.1						1 0.3				5 1.4							
	1930	8.5	40	4.7					1 0.1					34 4.0							
	1931	10.0	72	7.2						40 4.0		3 0.3		7 0.7							
	1932	21.0	61	2.9				1 0.0	13 0.6	32 1.5	2 0.1	1 0.0		12 0.6							
	1933	14.0	109	7.8						84 2.6			25 1.8								
	1934	16.0	117	7.3					1 0.1	87 5.4	1 0.1	1 0.1	27 NA								

Appendix B.-Continued.

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Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp		
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																							
Long Lake (Barry)-cont.																							
	1936	12.5	23	1.8						21	1.7			2	0.2								
	1937	104.8	450	4.3						441	4.2		4	0.0		1	0.0						
	1938	67.0	325	4.9					1	0.0	308	4.6	5	0.1									
	1939	52.3	179	3.4							176	3.4											
	1940	20.0	47	2.4				1	0.1	4	0.2	36	1.8										
	1941	64.0	149	2.3					2	0.0	105	1.6	3	0.0	16	0.3	2	0.0	21	0.3			
	1942	86.5	279	3.2							277	3.2	2	0.0									
	1943	69.5	130	1.9					3	0.0	99	1.4			26	0.4	2	0.0					
	1944	161.0	360	2.2							332	2.1			20	0.1	8	0.0					
	1945	8.0	7	0.9							6	0.8			1	0.1							
	1946	13.0	4	0.3							4	0.3											
	1947	72.0	87	1.2						83	1.2	1	0.0	1	0.0			1	0.0		1	0.0	
	1949	42.0	60	1.4						52	1.2	2	0.0			4	0.1		1	0.0		1	0.0
	1950	14.0	23	1.6							23	1.6											
	1956	28.0	55	2.0							52	1.9				1	0.0		1	0.0		1	0.0
	1957	107.0									50	0.5	11	0.1	3	0.0		23	0.2		2	0.0	
	1958	139.0					26	0.2			1	0.0											
	1960	152.0					1	0.0	1	0.0	174	1.1	4	0.0		28	0.2	14	0.1		4	0.0	
	1961	21.0							1	0.0	9	0.4											
	1962	14.0									14	1.0						5	0.4				
Long Lake (Ionia)	1928	?	56						13		10		21		10		2						
	1929	?	47								44								3				
	1930	28.0	23	0.8					14	0.5	3	0.1							6	0.2			
	1931	86.0	75	0.9					32	0.4			6	0.1				18	0.2		19	0.2	
	1932	20.0	72	3.6					1	0.1	55	2.8						16	0.8				
	1933	70.3	228	3.2					9	0.1	153	2.2	12	0.2	5	0.1	12	0.2	33	0.5		4	0.1
	1934	25.5	39	1.5					1	0.0	22	0.9	1	0.0	2	0.1			0	0.0		13	0.5
	1935	48.0	44	0.9					1	0.0	21	0.4	1	0.0	8	0.2	1	0.0	11	0.2		1	0.0
	1936	48.0	53	1.1					1	0.0	24	0.5	3	0.1	2	0.0	19	0.4	2	0.0		2	0.0
	1937	30.8	4	0.1															4	0.1			

Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																					
Long Lake (Ionia)-cont.																					
	1938	99.5	31	0.3					1 0.0	4 0.0		1 0.0	1 0.0	15 0.2		9 0.1					
	1939	97.3	141	1.4						119 1.2			1 0.0	13 0.1		8 0.1					
	1941	146.8	371	2.5					5 0.0	265 1.8	23 0.2	7 0.0	7 0.0	56 0.4		6 0.0			2 0.0		
	1942	114.5	127	1.1					5 0.0	82 0.7	9 0.1			22 0.2	5 0.0	4 0.0					
	1943	311.3	693	2.2				3 0.0	7 0.0	434 1.4	82 0.3	16 0.1	50 0.2	90 0.3		11 0.0					
	1944	310.3	609	2.0					10 0.0	475 1.5	22 0.1	12 0.0	34 0.1	37 0.1		18 0.1					
	1945	615.0	1,290	2.1					37 0.1	985 1.6	71 0.1	14 0.0	11 0.0	156 0.3		16 0.0					
	1946	586.3	737	1.3					15 0.0	536 0.9	57 0.1	38 0.1	6 0.0	64 0.1	3 0.0	17 0.0					
	1947	46.0	10	0.2									1 0.0	6 0.1		3 0.1					
	1948	28.0	70	2.5					1 0.0	60 2.1	4 0.1					5 0.2					
	1949	126.5	214	1.7					1 0.0	198 1.6	4 0.0			5 0.0		6 0.0					
	1950	56.5	98	1.7					4 0.1	57 1.0	9 0.2	4 0.1	15 0.3	9 0.2							
	1951	40.0	68	1.7					1 0.0	32 0.8	9 0.2		1 0.0	24 0.6					1 0.0		
	1952	209.5	320	1.5					13 0.1	162 0.8	39 0.2	7 0.0	17 0.1	79 0.4		2 0.0			1 0.0		
	1953	120.0	190	1.6						84 0.7	8 0.1	5 0.0	3 0.0	90 0.8							
	1955	33.0	85	2.6						51 1.5	9 0.3	2 0.1	4 0.1	19 0.6							
	1956	41.0	132	3.2					3 0.1	70 1.7	7 0.2		2 0.0	50 1.2							
	1957	56.5	192	3.4						159 2.8	3 0.1		2 0.0	28 0.5							
	1960	74.0	85	1.1					2 0.0	61 0.8	2 0.0		7 0.1	12 0.2		1 0.0					
	1962	39.0	36	0.9					2 0.1	11 0.3	6 0.2			17 0.4							
	1963	13.0	1	0.1												1 0.1					
	1930	34.5	190	5.5					3 0.1	169 4.9	11 0.3								7 0.2		
	1931	6.0	10	1.7					4 0.7	6 1.0											
	1933	4.0	13	3.3						12 3.0		1 0.3									
	1934	26.0	33	1.3				1 0.0	3 0.1	23 0.9	4 0.2					1 0.0			1 0.0		
	1935	62.3	144	2.3					10 0.2	131 2.1	1 0.0			2 0.0							
	1936	39.5	82	2.1					4 0.1	44 1.1	26 0.7			8 0.2							
	1937	21.5	39	1.8				6 0.3	2 0.1	25 1.2	3 0.1		1 0.0	2 0.1							
	1938	19.5	51	2.6					1 0.1	50 2.6											
	1939	34.8	77	2.2				5 0.1		44 1.3	21 0.6			7 0.2							



Appendix B.–Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower–cont.</b>																					
Loon Lake (Montcalm)–cont.																					
	1951	11.0	16	1.5						3 0.3			8 0.7	4 0.4		1 0.1					
	1952	76.0	72	0.9						53 0.7			8 0.1	10 0.1		1 0.0					
	1953	53.0	22	0.4						11 0.2			1 0.0	6 0.1		4 0.1					
	1954	130.5	114	0.9					2 0.0	50 0.4	3 0.0		26 0.2	28 0.2		5 0.0					
	1955	54.0	43	0.8						17 0.3			3 0.1	20 0.4		3 0.1					
	1956	45.5	37	0.8				4 0.1		18 0.4	1 0.0		7 0.2	6 0.1		1 0.0					
	1957	26.0	13	0.5						4 0.2			4 0.2	4 0.2		1 0.0					
	1958	135.0	190	1.4					3 0.0	84 0.6	1 0.0		85 0.6	13 0.1		4 0.0					
	1959	68.0	107	1.6						90 1.3	4 0.1	3 0.0	7 0.1	3 0.0							
	1960	53.5	41	0.8						34 0.6	3 0.1			3 0.1		1 0.0					
	1961	87.3	74	0.8						57 0.7	1 0.0		6 0.1	7 0.1		3 0.0					
	1963	37.0	32	0.9						30 0.8			2 0.1								
	1964	33.0	41	1.2						31 0.9			2 0.1	8 0.2							
Low Lake (Kent)	1948	4.0	5	1.3					1 0.3	1 0.3	1 0.3			2 0.5							
	1949	19.0	21	1.1						16 0.8	2 0.1	3 0.2									
Lower Lake (Barry)																					
	1930	4.0	20	5.0						20 5.0											
	1936	19.0	142	7.5						142 7.5											
	1937	19.0	93	4.9						90 4.7			3 0.2								
	1943	NA	276	NA				1 NA		265 NA				10 NA							
	1944	18.0	42	2.3						42 2.3											
	1960	103.0	125	1.2					2 0.0	100 1.0			21 0.2			2 0.0					
	1961	29.0	11	0.4									11 0.4								
Maston Lake (Kent)																					
	1929	28.5	24	0.8					5 0.2	8 0.3		2 0.1		7 0.2							
	1934	0.5	0	0.0																	
	1935	2.0	9	4.5				2 1.0	7 3.5												
	1936	13.3	50	3.8						50 3.8											
	1937	4.5	3	0.7												3 0.7					
	1938	4.5	1	0.2						1 0.2											



Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																					
McEwen Lake (Kent)-cont.	1960	20.0	27	1.4					3 0.2	22 1.1	2 0.1										
	1961	9.0	9	1.0						9 1.0											
Mead Lake (Kent)	1934	47.0	64	1.4					1 0.0	52 1.1	1 0.0			10 0.2							
	1938	46.2	29	0.6				2 0.0	2 0.0	19 0.4				2 0.0							
	1940	2.0	0	0.0																	
	1943	21.5	10	0.5						2 0.1	1 0.0			3 0.1	4 0.2						
	1944	6.0	4	0.7										4 0.7							
Meyers Lake (Barry)	1936	16.0	48	3.0						47 2.9			1 0.1								
	1937	13.5	59	4.4					1 0.1	51 3.8				3 0.2							
	1938	6.0	10	1.7						8 1.3			1 0.2	1 0.2							
	1960	8.0	10	1.3						10 1.3											
Middle Lake (Barry)	1930	20.0	137	6.9					6 0.3	108 5.4	21 1.1			2 0.1							
	1937	32.0	64	2.0						63 2.0			1 0.0								
	1938	32.5	149	4.6					5 0.2	113 3.5	8 0.2		18 0.6	2 0.1							
	1939	46.0	576	12.5					3 0.1	556 12.1	5 0.1		2 0.0	10 0.2							
	1940	27.5	371	13.5				3 0.1	11 0.4	325 11.8	6 0.2		12 0.4	14 0.5							
	1941	4.0	28	7.0						26 6.5				2 0.5							
	1942	79.0	161	2.0					4 0.1	143 1.8	3 0.0		3 0.0	7 0.1		1 0.0					
	1943	323.8	848	2.6					6 0.0	731 2.3	18 0.1		77 0.2	14 0.0		2 0.0					
	1944	15.0	383	25.5						383 25.5											
	1945	3.0	60	20.0					8 2.7	44 14.7	2 0.7			6 2.0							
	1946	10.0	376	37.6						369 36.9			5 0.5	2 0.2							
	1947	27.0	71	2.6						60 2.2			2 0.1	9 0.3							
	1948	116.0	208	1.8					4 0.0	196 1.7		1 0.0		6 0.1		1 0.0					
	1949	132.5	0	0.0																	
	1950	60.5	121	2.0					3 0.0	41 0.7	12 0.2		40 0.7	25 0.4							
	1951	22.0	11	0.5						8 0.4	1 0.0			2 0.1							
	1952	61.3	25	0.4						16 0.3				7 0.1		2 0.0					





Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																					
Mill Lake (Barry)-cont.																					
	1934	3.0	0	0.0																	
	1940	2.0	0	0.0																	
	1943	44.0	0	0.0																	
	1953	23.0	21	0.9			7	0.3		14	0.6										
	1954	37.0	0	0.0																	
	1956	72.0	91	1.3		1	0.0	81	1.1	9	0.1										
	1957	44.0	35	0.8						25	0.6			10	0.2						
	1960	41.5	28	0.7						28	0.7										
185 Mitchell Lake (Montcalm)	1938	132.0	135	1.0						133	1.0		2	0.0							
	1941	4.5	16	3.6					6	1.3	10	2.2									
	1943	10.0	24	2.4						24	2.4										
	1956	16.0	24	1.5						21	1.3			3	0.2						
Montcalm Lake (Montcalm)	1931	32.0	1	0.0												1	0.0				
	1936	8.5	4	0.5																	
	1943	16.5	3	0.2																	
	1944	7.0	0	0.0																	
	1945	9.0	11	1.2						9	1.0										
	1946	43.0	2	0.0																	
	1948	106.0	77	0.7				1	0.0	1	0.0	53	0.5	3	0.0	3	0.0	12	0.1	4	0.0
	1949	24.0	2	0.1																	
	1950	89.0	12	0.1						9	0.1										
	1951	149.5	136	0.9					3	0.0	104	0.7	12	0.1	1	0.0	8	0.1	8	0.1	
	1953	12.5	2	0.2																	
	1955	23.5	18	0.8							18	0.8									
	1956	62.5	15	0.2							10	0.2			2	0.0			3	0.0	
	1958	11.5	28	2.4							26	2.3									
	1959	18.0	36	2.0							35	1.9	1	0.1							

Appendix B.-Continued.

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Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp	
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																						
Montcalm Lake (Montcalm)-cont.	1961	20.5	32	1.6						26	1.3			5	0.2	1	0.0					
	1962	21.0	13	0.6						12	0.6		1	0.0								
Morgan Mills Lake (Kent)	1930	18.0	38	2.1						38	2.1											
	1931	25.0	46	1.8					1	0.0	37	1.5	2	0.1		5	0.2	1	0.0			
	1934	4.3	9	2.1										9	2.1							
	1936	72.5	116	1.6					1	0.0	97	1.3		3	0.0	2	0.0					
	1937	12.0	38	3.2						26	2.2									10	0.8	
	1938	24.8	35	1.4						28	1.1	4	0.2	2	0.1	1	0.0					
	1939	22.0	13	0.6																12	0.5	
Morrison Lake (Ionia)	1932	18.5	51	2.8					2	0.1			1	0.1	42	2.3			6	0.3		
	1933	20.0	167	8.4					1	0.1	97	4.9		14	0.7	30	1.5		25	1.3		
	1934	21.5	20	0.9					1	0.0	12	0.6		1	0.0	5	0.2				1	0.0
	1935	10.0	2	0.2										1	0.1			1	0.1			
	1937	109.3	215	2.0									213	1.9		2	0.0					
	1938	29.0	53	1.8									53	1.8								
	1939	38.0	104	2.7						3	0.1		101	2.7								
	1941	81.8	234	2.9					6	0.1	197	2.4	6	0.1	8	0.1	17	0.2				
	1942	39.5	65	1.6					1	0.0	60	1.5		4	0.1							
	1943	397.8	1,058	2.7				2	0.0	11	0.0	728	1.8	18	0.0	177	0.4	117	0.3	5	0.0	
	1944	305.3	962	3.2					9	0.0	670	2.2	15	0.0	231	0.8	29	0.1	8	0.0		
	1945	262.0	423	1.6					7	0.0	218	0.8	7	0.0	9	0.0	120	0.5	55	0.2	7	0.0
	1946	503.3	466	0.9					11	0.0	319	0.6	7	0.0	2	0.0	76	0.2	50	0.1	1	0.0
	1948	142.0	262	1.8					3	0.0	144	1.0	5	0.0			85	0.6	20	0.1	5	0.0
	1949	90.5	108	1.2							35	0.4					73	0.8				
	1950	28.5	80	2.8					3	0.1	47	1.6					27	0.9	3	0.1		
	1951	90.0	111	1.2					1	0.0	67	0.7	7	0.1			18	0.2	18	0.2		
	1952	236.5	348	1.5					8	0.0	188	0.8	15	0.1	1	0.0	89	0.4	47	0.2		

Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																					
Morrison Lake (Ionia)-cont.																					
	1953	23.0	0	0.0																	
	1955	87.0	301	3.5					1 0.0	211 2.4	16 0.2	2 0.0	43 0.5	23 0.3		5 0.1					
	1956	300.0	833	2.8					23 0.1	562 1.9	6 0.0		134 0.4	107 0.4					1 0.0		
	1957	106.5	264	2.5						203 1.9			47 0.4	12 0.1		1 0.0			1 0.0		
	1958	57.0	297	5.2						121 2.1			106 1.9	70 1.2							
	1960	122.0	632	5.2						520 4.3			71 0.6	40 0.3		1 0.0					
	1962	92.5	165	1.8					7 0.1	109 1.2		1 0.0	31 0.3	17 0.2							
	1963	40.0	137	3.4						94 2.4			43 1.1								
	1964	16.0	18	1.1						10 0.6			7 0.4	1 0.1							
	1965	17.0	17	1.0						12 0.7				5 0.3							
	Morse Lake (Kent)																				
	1944	15.0	17	1.1					5 0.3	12 0.8											
	Mud Lake (Barry)																				
	1943	14.0	13	0.9					3 0.2	10 0.7											
	1944	13.0	10	0.8						10 0.8											
	1945	125.0	25	0.2						25 0.2											
	1947	33.0	15	0.5						15 0.5											
	1949	7.0	1	0.1										1 0.1							
	1957	18.5	4	0.2						4 0.2											
	1958	26.0	100	3.8						91 3.5	9 0.3										
	1960	67.0	58	0.9						52 0.8	3 0.0			3 0.0							
	1961	27.0	24	0.9					1 0.0	22 0.8				1 0.0							
	Mud Lake (Clinton)																				
	1946	172.0	122	0.7					14 0.1	26 0.2	26 0.2		8 0.0	47 0.3		1 0.0					
	Mud Lake (Eaton)																				
	1929	5.0	0	0.0																	
	1935	17.0	3	0.2																	3 0.2
	1937	51.0	117	2.3									16 0.3								
	1938	37.0	127	3.4						101 2.0										8 0.2	
	1939	41.0	115	2.8						119 3.2										17 0.4	
	1941	125.5	247	2.0						89 2.2	4 0.1			5 0.1							
	1943	77.0	162	2.1					5 0.0	242 1.9											
										162 2.1											



Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp			
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																								
Mud Lake (Montcalm-Douglass Twp.)	1950	2.5	2	0.8									2	0.8										
Murray Lake (Kent)	1928	14.0	24	1.7					1	0.1	4	0.3												
	1929	4.0	26	6.5				4	1.0	2	0.5													
	1934	45.0	58	1.3					2	0.0	14	0.3	1	0.0	1	0.0	38	0.8	2	0.0				
	1935	5.3	5	1.0							2	0.4							1	0.2				
	1936	34.0	36	1.1				3	0.1	2	0.1	16	0.5	1	0.0				3	0.1				
	1937	13.5	65	4.8							50	3.7												
	1939	28.5	112	3.9					3	0.1	20	0.7	9	0.3	4	0.1	14	0.5	5	0.2		2	0.1	
	1941	34.0	36	1.1					7	0.2	16	0.5			8	0.2	2	0.1	2	0.1		1	0.0	
	1942	40.0	42	1.1					4	0.1	20	0.5							14	0.4		4	0.1	
	1943	138.0	72	0.5					20	0.1	33	0.2	1	0.0	1	0.0			13	0.1		4	0.0	
	1944	233.5	129	0.6				1	0.0	20	0.1	46	0.2	12	0.1	1	0.0	2	0.0	33	0.1		13	0.1
	1945	96.5	202	2.1					7	0.1	175	1.8			1	0.0	1	0.0	12	0.1		6	0.1	
	1946	83.0	17	0.2					2	0.0	9	0.1			2	0.0			2	0.0		2	0.0	
	1948	38.5	84	2.2					3	0.1	63	1.6					15	0.4				3	0.1	
	1949	137.0	139	1.0					1	0.0	107	0.8	5	0.0	2	0.0			2	0.0		22	0.2	
	1955	46.0	112	2.4					2	0.0	52	1.1					24	0.5	32	0.7		2	0.0	
	1956	154.5	306	2.0				1	0.0	5	0.0	122	0.8				141	0.9	34	0.2	1	0.0	2	0.0
	1957	89.0	45	0.5					1	0.0	23	0.3	1	0.0			3	0.0	12	0.1		3	0.0	
	1959	96.5	101	1.0					2	0.0	58	0.6	6	0.1			34	0.4	1	0.0			2	0.0
	1960	107.0	57	0.5					10	0.1	40	0.4					3	0.0	3	0.0		1	0.0	
	1961	66.0	100	1.5					1	0.0	45	0.7					50	0.8	2	0.0	2	0.0		
	1962	67.0	82	1.2					6	0.1	39	0.6			3	0.0			33	0.5		1	0.0	
	1963	83.5	85	1.0					4	0.0	61	0.7	6	0.1	3	0.0	2	0.0	6	0.1		3	0.0	
	1964	87.0	108	1.2					3	0.0	49	0.6	2	0.0			49	0.6	1	0.0				
Muskellunge Lake (Montcalm)	1934	20.0	38	1.9													38	1.9						
	1938	38.5	81	2.1					1	0.0	58	1.5	4	0.1	2	0.1			14	0.4		2	0.1	

Appendix B.-Continued.

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Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp		
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																							
Muskellunge Lake (Montcalm)-cont.																							
	1939	5.5	2	0.4					1	0.2						1	0.2						
	1940	23.5	22	0.9						21	0.9												
	1943	113.0	106	0.9					6	0.1	71	0.6	2	0.0		19	0.2	5	0.0		3	0.0	
	1944	78.0	120	1.5					4	0.1	90	1.2			21	0.3	3	0.0			2	0.0	
	1945	89.0	116	1.3					12	0.1	103	1.2									1	0.0	
	1946	64.0	51	0.8					1	0.0	31	0.5			7	0.1	7	0.1			5	0.1	
	1948	208.0	253	1.2				5	0.0	7	0.0	170	0.8	20	0.1	2	0.0	11	0.1	21	0.1	17	0.1
	1949	296.5	498	1.7					1	0.0	425	1.4			23	0.1	35	0.1			14	0.0	
	1950	263.0	463	1.8					5	0.0	369	1.4	26	0.1		7	0.0	47	0.2		9	0.0	
	1951	120.0	138	1.2							100	0.8	8	0.1		4	0.0	20	0.2		6	0.1	
	1952	71.0	40	0.6							33	0.5	3	0.0		1	0.0	2	0.0		1	0.0	
	1953	121.5	258	2.1							230	1.9	1	0.0	1	0.0	4	0.0	17	0.1		5	0.0
	1954	26.0	70	2.7							61	2.3	3	0.1							6	0.2	
	1955	69.0	90	1.3					3	0.0	78	1.1	4	0.1		1	0.0	2	0.0		2	0.0	
	1956	65.5	72	1.1							45	0.7	1	0.0		7	0.1	14	0.2		5	0.1	
	1957	106.5	197	1.8					1	0.0	143	1.3	8	0.1		24	0.2	13	0.1		8	0.1	
	1958	87.0	134	1.5					3	0.0	101	1.2	1	0.0	2	0.0	11	0.1	12	0.1		4	0.0
	1959	30.0	51	1.7							51	1.7											
	1960	113.0	334	3.0							302	2.7	8	0.1		6	0.1	12	0.1		6	0.1	
	1961	141.0	391	2.8					1	0.0	333	2.4	13	0.1	2	0.0	3	0.0	39	0.3			
	1962	161.0	228	1.4					3	0.0	178	1.1	8	0.0		11	0.1	23	0.1		5	0.0	
	1964	24.0	23	1.0					5	0.2	8	0.3			1	0.0	9	0.4					
Muskrat Lake (Clinton)																							
	1930	4.0	3	0.8					1	0.3	2	0.5											
	1931	9.8	6	0.6							2	0.2	2	0.2					1	0.1			
	1932	13.5	9	0.7				1	0.1		2	0.1	2	0.1	1	0.1					4	0.3	
	1934	10.0	0	0.0																			
	1939	22.0	26	1.2							24	1.1							2	0.1			
	1941	110.3	5	0.0					1	0.0											4	0.0	
	1942	56.5	6	0.1					3	0.1					3	0.1							

Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																					
Muskrat Lake (Clinton)																					
	1943	97.5	30	0.3					2 0.0	14 0.1	1 0.0		5 0.1	1 0.0		7 0.1					
	1945	224.0	502	2.2					7 0.0	50 0.2	17 0.1		375 1.7	11 0.0		6 0.0			36 0.2		
	1946	31.0	19	0.6									19 0.6								
	1949	26.0	23	0.9						13 0.5			9 0.3	1 0.0							
	1950	63.0	241	3.8					4 0.1	220 3.5		4 0.1	2 0.0	10 0.2		1 0.0					
	1951	60.5	63	1.0						21 0.3	13 0.2		16 0.3	12 0.2		1 0.0					
	1955	27.0	31	1.1						10 0.4			20 0.7			1 0.0					
	1956	23.0	32	1.4						25 1.1	2 0.1		4 0.2			1 0.0					
	1958	66.0	100	1.5						98 1.5						2 0.0					
	1959	44.0	153	3.5						107 2.4	2 0.0		36 0.8	6 0.1		2 0.0					
	1961	144.0	99	0.7						55 0.4	3 0.0		31 0.2			2 0.0				8 0.1	
	1962	78.0	54	0.7					2 0.0	34 0.4	8 0.1		8 0.1	2 0.0							
	1963	11.0	13	1.2									13 1.2								
	1964	52.0	35	0.7						17 0.3	1 0.0		13 0.3			4 0.1					
Muskrat Lake (Kent)																					
	1929	7.0	25	3.6					2 0.3	6 0.9	1 0.1					1 0.1					
	1931	15.0	79	5.3						53 3.5			1 0.1	15 1.0							
	1933	7.0	32	4.6						10 1.4	21 3.0								1 0.1		
	1934	46.5	145	3.1						73 1.6	19 0.4	4 0.1	8 0.2	11 0.2		1 0.0			29 0.6		
	1935	25.3	34	1.3						13 0.5	17 0.7			4 0.2							
	1937	26.5	96	3.6					6 0.2	89 3.4											
	1938	5.5	9	1.6						9 1.6											
	1939	45.0	176	3.9						152 3.4			19 0.4	1 0.0		4 0.1					
	1940	3.0	31	10.3									25 8.3								
	1941	4.0	22	5.5					3 0.8	19 4.8											
	1945	129.0	151	1.2					2 0.0	114 0.9	6 0.0		2 0.0	3 0.0	13 0.1	11 0.1					
	1946	25.5	19	0.7					1 0.0	17 0.7						1 0.0					
	1948	7.0	23	3.3						21 3.0				1 0.1		1 0.1					
	1949	182.5	520	2.8					1 0.0	472 2.6						47 0.3					





Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp	
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																						
Olin Lakes																						
(Kent)-cont.	1936	6.5	4	0.6										4	0.6							
	1937	14.0	27	1.9						17	1.2			10	0.7							
	1938	34.3	49	1.4					3	0.1	36	1.1		10	0.3							
	1939	2.3	9	4.0						9	4.0											
	1945	1.5	0	0.0																		
	1949	3.0	1	0.3						1	0.3											
	1951	14.0	20	1.4						20	1.4											
	Pearl Lake (Montcalm)																					
	1943	6.0	6	1.0						5	0.8	1	0.2									
	Peck Lake (Ionia)																					
	1941	16.0	53	3.3						53	3.3											
	1943	7.5	9	1.2						9	1.2											
	1944	23.5	71	3.0						57	2.4	8	0.3	6	0.3							
	1945	8.0	22	2.8						22	2.8											
	Penny Lake (Montcalm)																					
	1941	3.0	0	0.0																		
	1943	94.5	146	1.5						113	1.2			30	0.3			3	0.0			
	1944	59.5	106	1.8					3	0.1	79	1.3		21	0.4			3	0.1			
	1946	9.0	1	0.1										1	0.1							
	1949	26.0	65	2.5					1	0.0	54	2.1		1	0.0	3	0.1		6	0.2		
	1950	22.0	32	1.5					1	0.0	29	1.3							2	0.1		
	1951	61.0	90	1.5					1	0.0	56	0.9	9	0.1	1	0.0	19	0.3		3	0.0	
	1954	67.0	155	2.3							128	1.9	10	0.1	9	0.1	6	0.1		2	0.0	
	1955	93.5	190	2.0					1	0.0	133	1.4	20	0.2	18	0.2	16	0.2		2	0.0	
	1956	9.5	66	6.9							60	6.3	3	0.3			1	0.1		2	0.2	
	1957	54.0	203	3.8							185	3.4	3	0.1	1	0.0	13	0.2		1	0.0	
	Perch Lake (Barry)																					
	1943	3.0	5	1.7						4	1.3	1	0.3									
	Perch lake (Montcalm)																					
	1935	4.0	1	0.3															1	0.3		

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Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp		
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																							
Pettit Lake (Newaygo)																							
	1930	21.0	34	1.6												34	1.6						
	1931	8.0	3	0.4												3	0.4						
	1932	0.8	8	10.7				8	10.7														
	1936	18.8	22	1.2				8	0.4							14	0.7						
	1937	38.0	4	0.1												4	0.1						
	1950	84.0	65	0.8						8	0.1	11	0.1	28	0.3	18	0.2						
	1953	37.0	38	1.0				6	0.2	29	0.8	2	0.1			1	0.0						
	1954	13.0	3	0.2												3	0.2						
	1956	4.0	0	0.0																			
Pine Lake (Barry)																							
	1928	56.5	2,621	46.4				17	0.3	55	1.0	2,457	43.5	54	1.0	38	0.7						
	1929	22.8	288	12.7						21	0.9	228	10.0	15	0.7	24	1.1						
	1931	4.0	66	16.5																			
	1944	2.0	5	2.5																			
	1960	63.5	331	5.2						297	4.7			9	0.1	3	0.0						
Pine Lake (Kent)																							
	1930	12.0	66	5.5					3	0.3	36	3.0				1	0.1						
	1934	2.0	0	0.0																			
	1935	4.8	3	0.6					3	0.6													
	1936	16.0	36	2.3					3	0.2	33	2.1											
	1937	3.5	0	0.0																			
	1938	19.0	6	0.3				1	0.1	1	0.1					4	0.2						
	1939	6.8	14	2.1																			
	1943	10.5	7	0.7					1	0.1	6	0.6											
	1944	28.0	17	0.6					1	0.0	13	0.5	2	0.1				1	0.0				
	1945	8.8	4	0.5					1	0.1	2	0.2			1	0.1							
	1946	79.5	79	1.0				3	0.0	19	0.2	30	0.4	7	0.1	7	0.1	8	0.1	1	0.0	4	0.1
	1947	22.5	21	0.9					6	0.3	14	0.6									1	0.0	
	1948	21.0	10	0.5					4	0.2	4	0.2	1	0.0				1	0.0				
	1949	91.0	36	0.4					12	0.1	16	0.2	1	0.0				3	0.0		4	0.0	
	1950	33.0	15	0.5					5	0.2	7	0.2			1	0.0	1	0.0			1	0.0	

Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																					
Pine Lake (Kent)-cont.																					
	1951	32.0	41	1.3					3 0.1	33 1.0				4 0.1		1 0.0					
	1952	59.0	44	0.7					17 0.3	17 0.3	3 0.1		1 0.0	6 0.1							
	1953	20.0	12	0.6					3 0.2	5 0.3				3 0.2		1 0.1					
Podunk Lake (Barry)																					
	1929	5.0	31	6.2									31 6.2								
	1931	12.5	26	2.1				1 0.1		2 0.2	2 0.2		20 1.6								
	1934	2.5	1	0.4				1 0.4													
	1936	6.5	30	4.6						15 2.3	10 1.5		5 0.8								
	1938	10.5	40	3.8						4 0.4			36 3.4								
	1943	NA	184	NA				1 NA	4 NA	115 NA		4 NA	48 NA	12 NA							
	1945	9.0	23	2.6						23 2.6											
	1949	50.0	12	0.2						5 0.1	4 0.1		3 0.1								
Rainbow Lake (Montcalm)																					
	1931	4.0	17	4.3					5 1.3	12 3.0											
	1943	54.0	75	1.4						68 1.3	4 0.1			3 0.1							
	1946	43.5	86	2.0					2 0.0	83 1.9				1 0.0							
	1950	82.5	99	1.2					6 0.1	86 1.0	7 0.1										
	1954	47.0	129	2.7						91 1.9	33 0.7		4 0.1	1 0.0							
	1961	18.0	1	0.1			1 0.1														
Ransom Lake (Newaygo)																					
	1953	2.0	1	0.5							1 0.5										
	1956	8.0	7	0.9					2 0.3	5 0.6											
	1957	9.0	2	0.2																2 0.2	
	1958	17.0	33	1.9						33 1.9											
	1961	5.0	0	0.0																	
	1962	6.0	13	2.2						13 2.2											
Ratagan Lake (Kent)																					
	1934	13.5	26	1.9						26 1.9											
	1937	5.5	87	15.8						68 12.4				1 0.2							
	1938	34.8	46	1.3						46 1.3											

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Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskelunge		Channel catfish		Bullhead		Suckers		Carp			
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE		
<b>Lower-cont.</b>																																								
Ratagan Lake (Kent)-cont.																																								
	1948	162.0	124	0.8											115	0.7						6	0.0																	
	1950	60.0	46	0.8									1	0.0	43	0.7								2	0.0															
Reeds Lake (Kent)																																								
	1930	4.0	2	0.5																				2	0.5															
	1931	4.0	1	0.3									1	0.3																										
	1932	125.5	2,233	17.8											56	0.4						2,057	16.4	120	1.0															
	1934	447.5	715	1.6							1	0.0	13	0.0	573	1.3	5	0.0	8	0.0	66	0.1	46	0.1				2	0.0						1	0.0				
	1935	274.0	335	1.2									15	0.1	210	0.8	4	0.0	6	0.0	3	0.0	74	0.3				3	0.0											
	1936	178.0	353	2.0							5	0.0	4	0.0	248	1.4	39	0.2	11	0.1	1	0.0	27	0.2	4	0.0	2	0.0												
	1937	363.5	959	2.6									4	0.0	550	1.5	24	0.1	29	0.1	2	0.0	237	0.7	3	0.0	18	0.0												
	1938	5.5	8	1.5									2	0.4	6	1.1																								
	1939	75.0	204	2.7									33	0.4	13	0.2	32	0.4	1	0.0			104	1.4	6	0.1	2	0.0												
	1941	49.0	89	1.8									33	0.7	41	0.8	4	0.1	2	0.0	3	0.1	4	0.1				2	0.0											
	1942	333.5	258	0.8									33	0.1	166	0.5	5	0.0	2	0.0	1	0.0	17	0.1				34	0.1											
	1943	361.3	195	0.5									28	0.1	67	0.2	1	0.0	2	0.0			60	0.2				37	0.1											
	1944	459.5	293	0.6								1	0.0	31	0.1	174	0.4	17	0.0	1	0.0	1	0.0	28	0.1			40	0.1											
	1945	199.0	256	1.3									72	0.4	91	0.5	6	0.0	2	0.0			66	0.3				19	0.1											
	1946	7.0	11	1.6																			9	1.3				2	0.3											
	1949	107.0	113	1.1									12	0.1	36	0.3	2	0.0			4	0.0	40	0.4				19	0.2											
	1951	6.0	6	1.0																			6	1.0																
	1955	63.0	146	2.3									8	0.1	43	0.7	11	0.2	6	0.1	34	0.5	43	0.7				1	0.0											
	1956	168.5	358	2.1											47	0.3					32	0.2	260	1.5				8	0.0							11	0.1			
	1959	23.0	84	3.7													1	0.0	1	0.0	2	0.1	80	3.5																
	1961	18.0	35	1.9																			8	0.4	27	1.5														
Rosa Lake (Montcalm)																																								
	1943	25.0	23	0.9									1	0.0	22	0.9																								
	1944	11.0	3	0.3																								3	0.3											
	1946	16.0	30	1.9																																				
Round Lake (Kent)																																								
	1929	3.0	3	1.0																																1	0.3			

Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp			
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																								
Round Lake (Kent)-cont.	1932	3.0	34	11.3						34	11.3													
	1933		75							75														
	1934	79.0	211	2.7					1	0.0	204	2.6	1	0.0		1	0.0		3	0.0				
	1935	26.5	64	2.4					3	0.1	50	1.9			4	0.2				7	0.3			
	1938	18.8	26	1.4					1	0.1	25	1.3												
	1939	57.3	126	2.2					1	0.0	117	2.0	4	0.1		4	0.1							
	1943	36.8	33	0.9							22	0.6			11	0.3								
	1944	76.3	96	1.3					4	0.1	71	0.9	9	0.1	2	0.0	1	0.0						
	1945	167.5	339	2.0					7	0.0	307	1.8	6	0.0	1	0.0	6	0.0	9	0.1		3	0.0	
	1946	23.0	9	0.4					1	0.0	8	0.3												
	1948	51.0	34	0.7							34	0.7												
	1949	209.0	773	3.7					1	0.0	753	3.6	15	0.1		4	0.0							
	1950	19.0	16	0.8							12	0.6	2	0.1		2	0.1							
	1962	83.5	67	0.8					1	0.0	62	0.7	2	0.0		2	0.0							
Saddlebag Lake (Barry)	1928	6.0	103	17.2					9	1.5	12	2.0		80	13.3		2	0.3						
	1930	3.0	23	7.7							15	5.0	1	0.3		7	2.3							
	1931	13.0	49	3.8					6	0.5	13	1.0	4	0.3		14	1.1	7	0.5	3	0.2	2	0.2	
	1932	19.0	15	0.8							15	0.8												
	1933	29.0	151	5.2							13	0.4	116	4.0	9	0.3	7	0.2	3	0.1	2	0.1		
	1934	7.0	2	0.3							2	0.3												
	1938	52.0	286	5.5							199	3.8	5	0.1		64	1.2	16	0.3		2	0.0		
	1939	27.0	151	5.6					4	0.1	51	1.9	4	0.1		80	3.0	11	0.4		1	0.0		
	1941	116.0	76	0.7							20	0.2			45	0.4	11	0.1						
	1943	40.0	174	4.4				1	0.0	1	0.0	67	1.7	2	0.1	95	2.4	3	0.1		3	0.1	2	0.1
	1944	20.0	233	11.7							39	2.0			188	9.4	6	0.3						
	1945	22.5	132	5.9							117	5.2	7	0.3		2	0.1	1	0.0			5	0.2	
	1946	110.0	204	1.9				1	0.0	7	0.1	144	1.3	4	0.0	1	0.0	34	0.3	10	0.1	2	0.0	
	1949	40.5	26	0.6							4	0.1	6	0.1		14	0.3	2	0.0					
	1950	196.0	62	0.3							59	0.3				2	0.0							



Appendix B.-Continued.

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Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp	
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																						
Saube Lake (Eaton)-cont.	1932	72.0	175	2.4					4 0.1	120 1.7	21 0.3	9 0.1		21 0.3								
	1933	28.0	0	0.0																		
	1934	203.0	378	1.9					7 0.0	350 1.7	5 0.0	1 0.0	4 0.0	4 0.0		2 0.0			3 0.0	2 0.0		
Saube Lake (Eaton)	1935	49.0	124	2.5					6 0.1	98 2.0	7 0.1	3 0.1	3 0.1	7 0.1								
	1937	143.0	108	0.8					13 0.1	79 0.6	3 0.0	1 0.0		11 0.1							1 0.0	
	1938	251.0	475	1.9				1 0.0	21 0.1	387 1.5	29 0.1		2 0.0	7 0.0		1 0.0			21 0.1	6 0.0		
	1939	39.0	50	1.3					2 0.1	31 0.8	12 0.3			1 0.0					4 0.1			
	1941	377.5	534	1.4					17 0.0	471 1.2	21 0.1			19 0.1		2 0.0					4 0.0	
	1942	169.0	316	1.9						271 1.6	13 0.1		26 0.2	6 0.0								
	1943	141.0	338	2.4						331 2.3	7 0.0											
	1944	216.0	537	2.5					25 0.1	481 2.2	14 0.1			14 0.1					3 0.0			
	1945	168.0	559	3.3						559 3.3												
	1946	166.0	519	3.1					4 0.0	495 3.0	15 0.1			5 0.0								
	1950	348.0	823	2.4					3 0.0	795 2.3	14 0.0			11 0.0								
	1951	338.0	849	2.5					20 0.1	775 2.3	27 0.1			27 0.1								
	1953	548.0	1,665	3.0					12 0.0	1,613 2.9	17 0.0	3 0.0		18 0.0		2 0.0						
	1957	101.0	446	4.4					169 1.7	263 2.6			4 0.0	10 0.1								
	1961	14.0	8	0.6						8 0.6												
	1963	9.0	7	0.8						3 0.3				3 0.3							1 0.1	
Scalley Lake (Kent)	1939	30.3	50	1.7					1 0.0	49 1.6												
	1949	12.0	23	1.9						23 1.9												
	1957	2,073.5	1,675	0.8					171 0.1	1,308 0.6			175 0.1	21 0.0								
	1962	68.0	17	0.3					1 0.0	9 0.1	1 0.0	1 0.0	3 0.0	2 0.0								
Scott Lake (Kent)	1935	27.0	56	2.1					1 0.0	52 1.9				3 0.1								
Scram Lake (Kent)	1928	7.0	22	3.1				2 0.3	2 0.3					3 0.4								
	1929	12.0	45	3.8						10 0.8				14 1.2								
	1931	13.5	15	1.1										12 0.9	2 0.1				1 0.1			

Appendix B.-Continued.

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Segment and lake (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp		
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																							
Scram Lake (Kent)-cont.																							
	1935	16.0	26	1.6						23	1.4			3	0.2								
	1936	62.3	114	1.8					5	0.1	103	1.7		1	0.0	2	0.0	3	0.0				
	1937	8.5	11	1.3				1	0.1	8	0.9	2	0.2										
	1938	7.0	19	2.7						19	2.7												
	1939	22.5	37	1.6						25	1.1	5	0.2	1	0.0	5	0.2	1	0.0				
	1940	2.0	14	7.0										14	7.0								
	1943	77.0	109	1.4				3	0.0	89	1.2	2	0.0	4	0.1	11	0.1						
	1944	3.0	1	0.3						1	0.3												
	1947	10.0	0	0.0																			
	1950	14.0	22	1.6						18	1.3	3	0.2			1	0.1						
	1952	18.0	33	1.8					1	0.1	17	0.9	3	0.2	9	0.5	3	0.2					
	1953	11.0	9	0.8					3	0.3	3	0.3		2	0.2	1	0.1						
Second Lake (Montcalm)																							
	1934	9.0	0	0.0																			
	1952	29.0	53	1.8						45	1.6	2	0.1			6	0.2						
	1956	22.0	38	1.7						27	1.2	4	0.2			7	0.3						
	1957	10.5	25	2.4						23	2.2	2	0.2										
	1958	19.5	28	1.4						23	1.2			1	0.1	1	0.1	2	0.1		1	0.1	
Silver Lake (Kent)																							
	1937	2.0	2	1.0				1	0.5	1	0.5												
	1938	7.5	15	2.0						15	2.0												
	1946	1.5	0	0.0																			
Six Lakes (Montcalm)																							
	1935	4.5	34	7.6										34	7.6								
	1937	20.0	4	0.2										4	0.2								
	1943	126.0	202	1.6					14	0.1	144	1.1		38	0.3	5	0.0		1	0.0			
	1944	81.0	91	1.1					2	0.0	85	1.0		2	0.0				2	0.0			
	1945	133.0	229	1.7					8	0.1	213	1.6		7	0.1				1	0.0			
	1946	12.0	5	0.4										5	0.4								
	1948	118.0	174	1.5				1	0.0	2	0.0	135	1.1	3	0.0	17	0.1	13	0.1		3	0.0	
	1949	168.0	181	1.1					2	0.0	64	0.4	10	0.1	11	0.1	41	0.2	38	0.2		15	0.1



Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp	
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																						
Six Lakes (Montcalm)-cont.																						
	1950	236.0	177	0.8					6 0.0	115 0.5	6 0.0	8 0.0	8 0.0	11 0.0					23 0.1			
	1951	210.0	202	1.0					3 0.0	61 0.3		22 0.1	74 0.4	32 0.2					10 0.0			
	1953	97.5	163	1.7					3 0.0	84 0.9	31 0.3	14 0.1	11 0.1	19 0.2					1 0.0			
	1954	192.0	86	0.4				1 0.0	20 0.1	2 0.0	10 0.1	20 0.1	11 0.1	6 0.0						5 0.0		
	1956	94.5	153	1.6					5 0.1	94 1.0	2 0.0	4 0.0	25 0.3	22 0.2								
	1957	119.5	83	0.7					8 0.1	42 0.4	17 0.1	1 0.0	5 0.0	8 0.1								
	1958	319.0	298	0.9					7 0.0	197 0.6	31 0.1	5 0.0	22 0.1	36 0.1								
	1959	145.0	91	0.6					2 0.0	41 0.3	13 0.1	4 0.0	10 0.1	16 0.1					5 0.0			
	1960	213.5	401	1.9					4 0.0	183 0.9	21 0.1	5 0.0	173 0.8	15 0.1								
	1961	88.5	229	2.6						85 1.0	12 0.1		126 1.4	6 0.1								
	1962	107.0	145	1.4					5 0.0	37 0.3	18 0.2	3 0.0	68 0.6	10 0.1					4 0.0			
	1963	97.0	220	2.3					4 0.0	126 1.3	3 0.0		60 0.6	27 0.3								
	1964	166.0	225	1.4				1 0.0	9 0.1	64 0.4	6 0.0	1 0.0	121 0.7	19 0.1	4 0.0							
Sixth Lake (Montcalm)																						
	1952	7.5	27	3.6						6 0.8		20 2.7	1 0.1									
	1954	43.0	179	4.2						121 2.8		0 0.0	58 1.3									
	1955	59.5	111	1.9						73 1.2	4 0.1	4 0.1	22 0.4	5 0.1					2 0.0		1 0.0	
	1956	54.0	61	1.1						45 0.8			6 0.1	10 0.2								
	1957	10.8	18	1.7						11 1.0			7 0.7									
	1958	17.5	25	1.4						24 1.4				1 0.1								
	1959	55.0	69	1.3						14 0.3		1 0.0	18 0.3	36 0.7								
	1960	109.3	189	1.7						47 0.4		2 0.0	113 1.0	20 0.2					2 0.0		5 0.0	
	1961	14.0	26	1.9						15 1.1		1 0.1	8 0.6	2 0.1								
Slayton Lake (Kent)																						
	1928	27.0	105	3.9						54 2.0		7 0.3		8 0.3								
	1931	21.0	81	3.9					5 0.2	57 2.7	19 0.9											
	1934	21.0	21	1.0						18 0.9	1 0.0		2 0.1									
	1935	19.8	2	0.1						2 0.1												
	1936	10.3	37	3.6						37 3.6												
	1937	0.5	0	0.0																		

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Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp	
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																						
Spring Lake (Kent)-cont.	1948	14.0	52	3.7					1 0.1	41 2.9				10 0.7								
	1949	28.0	40	1.4						25 0.9	3 0.1			11 0.4		1 0.0						
	1953	6.0	16	2.7						11 1.8				5 0.8								
Spring Lake (Montcalm)	1949	2.0	1	0.5						1 0.5												
	1958	7.5	4	0.5											2 0.3	2 0.3						
	1951	45.0	52	1.2					2 0.0	42 0.9			4 0.1	2 0.0		2 0.0						
	1953	9.0	10	1.1						6 0.7	1 0.1		3 0.3									
Squaw Lake (Kent)	1935	4.0	4	1.0						2 0.5				2 0.5								
	1944	5.0	19	3.8					1 0.2	17 3.4			1 0.2									
	1945	19.0	41	2.2					1 0.1	38 2.0		2 0.1										
	1953	34.0	97	2.9						97 2.9												
Stewart Lake (Barry)	1932	11.0	12	1.1						8 0.7											1 0.1	
	1933	NA	6	NA						5 NA				1 NA								
	1938	34.3	101	2.9					11 0.3	42 1.2	5 0.1	1 0.0	11 0.3	14 0.4							5 0.1	
	1939	21.5	11	0.5										8 0.4		3 0.1						
	1952	17.0	1	0.1										1 0.1								
	1960	13.0	4	0.3										4 0.3								
Sugarbush Lake (Barry)	1947	15.0	24	1.6						24 1.6												
	1954	37.0	10	0.3						7 0.2												
	1955	43.0	30	0.7						25 0.6												
	1956	31.0	7	0.2						7 0.2												
	1960	334.0	191	0.6						158 0.5				2 0.0								
	1961	52.0	4	0.1										4 0.1								
	1963	74.0	12	0.2			4 0.1			8 0.1												
Sunfish Lake (Kent)	1934	27.0	12	0.4										12 0.4								

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Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																					
Tanner Lake (Barry)-cont.																					
	1937	9.0	30	3.3					5 0.6	10 1.1				15 1.7							
	1938	11.0	34	3.1					5 0.5	14 1.3	3 0.3	2	0.2		9 0.8						
	1940	13.0	105	8.1						48 3.7	4 0.3			31 2.4	22 1.7						
	1946	14.0	8	0.6						3 0.2	1 0.1			4 0.3							
	1961	4.0	15	3.8						3 0.8	2 0.5			7 1.8	3 0.8						
	1962	45.0	47	1.0						27 0.6				20 0.4							
Tek-e-nink Lake (Kent)																					
	1938	68.3	118	1.7						83 1.2				9 0.1	26 0.4						
	1939	77.3	131	1.7					1 0.0	122 1.6				8 0.1							
	1940	1.0	1	1.0						1 1.0											
	1943	3.0	0	0.0																	
	1944	81.5	177	2.2						165 2.0				3 0.0	9 0.1						
	1945	92.0	160	1.7					2 0.0	140 1.5				7 0.1	11 0.1						
	1946	23.8	13	0.5						13 0.5											
	1947	6.5	11	1.7						11 1.7											
	1948	8.0	3	0.4					1 0.1	2 0.3											
	1949	49.0	35	0.7						15 0.3				2 0.0	18 0.4						
	1950	24.0	11	0.5					2 0.1	6 0.3	1 0.0			2 0.1							
	1951	18.0	18	1.0						13 0.7		1 0.1		1 0.1	3 0.2						
	1952	41.0	33	0.8					4 0.1	16 0.4	1 0.0			4 0.1	8 0.2						
	1953	21.0	30	1.4						21 1.0	1 0.0			1 0.0	7 0.3						
Third Lake (Montcalm)																					
	1931	16.0	1	0.1																	1 0.1
	1934	12.0	2	0.2											2 0.2						
	1955	34.0	50	1.5						41 1.2	1 0.0			1 0.0	7 0.2						
Thornapple Lake (Barry)																					
	1928	15.0	73	4.9						68 4.5				5 0.3							
	1929	18.0	125	6.9					1 0.1	121 6.7	1 0.1			2 0.1							
	1930	2.5	98	39.2						88	35.2			10 4.0							
	1931	15.5	134	8.6						104 6.7		1 0.1		26 1.7	3 0.2						

Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp	
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																						
Thornapple Lake (Barry)-cont.	1932	10.0	357	35.7				1 0.1	15 1.5	276 27.6	6 0.6	1 0.1	29 2.9	23 2.3		4 0.4					2 0.2	
	1933	NA	94	NA						68 NA	3 NA		16 NA	6 NA							1 NA	
	1934	30.0	586	19.5			1 0.0	29 1.0	428 14.3	25 0.8	18 0.6	30 1.0	46 1.5	1 0.0	5 0.2						3 0.1	
	1938	156.0	796	5.1				1 0.0	431 2.8	31 0.2	8 0.1	62 0.4	58 0.4						1 0.0			
	1939	62.8	397	6.3				2 0.0		188 3.0			71 1.1	75 1.2		1 0.0						
	1940	122.5	368	3.0					3 0.0	311 2.5	3 0.0			36 0.3								
	1941	502.8	3,245	6.5				14 0.0	122 0.2	2,268 4.5	252 0.5	53 0.1	101 0.2	343 0.7		30 0.1				55 0.1		
	1942	139.0	202	1.5					1 0.0	189 1.4	2 0.0			10 0.1								
	1943	176.3	346	2.0						320 1.8	2 0.0		14 0.1	10 0.1								
	1944	50.0	26	0.5					1 0.0	17 0.3	2 0.0											
	1945	114.3	68	0.6						55 0.5	4 0.0											
	1946	18.0	38	2.1						15 0.8				10 0.6								
	1947	72.5	26	0.4						24 0.3	1 0.0											
	1948	34.0	6	0.2						6 0.2												
	1949	191.0	0	0.0																		
	1951	110.0	2	0.0						1 0.0	1 0.0											
	1952	338.0	12	0.0						8 0.0												
	1953	105.0	1	0.0					1 0.0													
	1954	206.0	19	0.1						12 0.1	2 0.0											
	1956	467.5	104	0.2						68 0.1												
	1957	503.0	3	0.0						1 0.0												
	1958	412.0	91	0.2						78 0.2	1 0.0		6 0.0	1 0.0								
	1959	469.0	101	0.2					4 0.0	77 0.2			20 0.0									
	1960	634.0	122	0.2					1 0.0	96 0.2	3 0.0		20 0.0	2 0.0								
	1961	520.0	231	0.4					1 0.0	100 0.2			74 0.1	44 0.1		2 0.0						1 0.0
	1962	627.0	556	0.9					5 0.0	139 0.2		9 0.0	265 0.4	101 0.2		20 0.0					8 0.0	
	1963	302.0	172	0.6					15 0.0	81 0.3	15 0.0	10 0.0	16 0.1	24 0.1		3 0.0				3 0.0		
	1964	97.0	75	0.8					5 0.1	49 0.5	1 0.0		9 0.1	11 0.1								
Tillotson Lake (Barry)	1931	13.0	163	12.5						163 12.5												

Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp			
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																								
Tillotson Lake (Barry)-cont.																								
	1932	11.5	124	10.8						124	10.8													
	1934	3.0	36	12.0						36	12.0													
	1938	31.5	98	3.1						95	3.0	2	0.1		1	0.0								
	1940	9.0	25	2.8						25	2.8													
	1945	7.0	56	8.0						56	8.0													
	1946	3.0	1	0.3						1	0.3													
	1960	110.0	187	1.7						180	1.6			3	0.0	4	0.0							
	Tooey Lake (Kent)																							
	1943	0.5	0	0.0																				
	Tower Lake (Kent)																							
	1930	24.0	35	1.5					4	0.2	29	1.2				2	0.1							
	1939	17.5	0	0.0																				
	1943	1.0	0	0.0																				
	1944	4.0	6	1.5						5	1.3				1	0.3								
	Townline Lake (Montcalm)																							
	1929	29.0	34	1.2				9	0.3	4	0.1		2	0.1		19	0.7							
	1931	68.5	110	1.6				15	0.2			89	1.3	1	0.0		2	0.0		1	0.0			
	1934	3.0	30	10.0						30	10.0													
	1935	32.0	10	0.3						6	0.2	2	0.1		2	0.1								
	1936	14.0	10	0.7				5	0.4	5	0.4													
	1938	48.5	127	2.6					19	0.4	108	2.2												
	1939	110.0	13	0.1					5	0.0						8	0.1							
	1943	209.0	250	1.2					27	0.1	196	0.9		3	0.0	22	0.1		2	0.0				
	1945	83.0	71	0.9					2	0.0	63	0.8		1	0.0		4	0.0		1	0.0			
	1946	95.5	93	1.0					2	0.0	81	0.8		7	0.1	3	0.0							
	1948	164.0	126	0.8				1	0.0	2	0.0	96	0.6	5	0.0	2	0.0		5	0.0	13	0.1		
	1949	375.0	211	0.6					3	0.0	101	0.3		5	0.0	54	0.1	4	0.0		44	0.1		
	1950	593.0	531	0.9					21	0.0	364	0.6	10	0.0	6	0.0	46	0.1	26	0.0		58	0.1	
	1951	403.0	282	0.7				4	0.0	2	0.0	178	0.4	1	0.0	29	0.1	23	0.1	27	0.1		18	0.0
	1952	28.0	23	0.8						14	0.5					1	0.0	5	0.2				3	0.1

Appendix B.-Continued.

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Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																					
Townline Lake (Montcalm)-cont.																					
	1953	176.5	208	1.2					7 0.0	75 0.4	5 0.0	3 0.0	2 0.0	91 0.5		25 0.1					
	1954	361.0	600	1.7					8 0.0	451 1.2	9 0.0	1 0.0	31 0.1	66 0.2		34 0.1					
	1956	33.0	5	0.2												5 0.2					
	1957	112.0	36	0.3						13 0.1			3 0.0	4 0.0		16 0.1					
	1961	43.5	16	0.4						15 0.3				1 0.0							
	1963	208.0	16	0.1					9 0.0	3 0.0	3 0.0					1 0.0					
	1964	31.0	55	1.8					1 0.0	43 1.4			2 0.1	7 0.2		2 0.1					
Tupper Lake (Ionia)																					
	1928	U	13					5								8					
	1929	U	4													4					
	1931	U	2													2					
	1937	3.0	0	0.0																	
	1941	68.8	167	2.4					5 0.1	78 1.1	21 0.3		18 0.3	30 0.4		5 0.1			10 0.1		
	1942	86.8	94	1.1						30 0.3	13 0.1		31 0.4	16 0.2		4 0.0					
	1943	205.5	199	1.0				1 0.0		125 0.6		4 0.0	18 0.1	39 0.2		10 0.0			2 0.0		
	1944	91.3	206	2.3					2 0.0	145 1.6	4 0.0	3 0.0	34 0.4	16 0.2		2 0.0					
	1945	11.0	14	1.3						6 0.5			5 0.5	3 0.3							
	1946	33.8	105	3.1									103 3.1	2 0.1							
	1946	29.5	63	2.1					1 0.0	11 0.4	4 0.1		44 1.5	3 0.1							
	1947	17.0	13	0.8						10 0.6			3 0.2								
	1949	124.5	138	1.1						73 0.6			55 0.4	10 0.1							
Turk Lake (Montcalm)																					
	1934	78.0	149	1.9						7 0.1			136 1.7	1 0.0		4 0.1			1 0.0		
	1935	192.5	25	0.1						2 0.0			4 0.0	2 0.0		17 0.1					
	1936	11.0	1	0.1												1 0.1					
	1937	105.0	31	0.3							1 0.0		9 0.1	10 0.1		11 0.1					
	1938	82.0	7	0.1									4 0.0			3 0.0					
	1940	24.5	4	0.2												4 0.2					
	1945	8.5	2	0.2												2 0.2					
	1949	7.0	1	0.1												1 0.1					



Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																					
Turk Lake (Montcalm)-cont.																					
	1950	36.0	27	0.8						11	0.3		4	0.1	6	0.2		6	0.2		
	1951	28.0	40	1.4									3	0.1	36	1.3		1	0.0		
	1953	23.0	13	0.6										12	0.5			1	0.0		
	1954	40.0	6	0.2														6	0.2		
	1955	27.0	3	0.1														3	0.1		
	1960	11.0	16	1.5						2	0.2			14	1.3						
	1961	35.0	11	0.3					1	0.0	4	0.1	1	0.0	3	0.1			2	0.1	
Turner Lake (Barry)																					
	1945	21.5	30	1.4					6	0.3	24	1.1									
Twin Lake (Kent)																					
	1934	8.0	29	3.6					5	0.6	22	2.8		1	0.1	1	0.1				
	1935	12.0	37	3.1					1	0.1	36	3.0									
	1941	1.0	0	0.0																	
	1942	13.0	30	2.3						30	2.3										
	1943	10.0	9	0.9					1	0.1	8	0.8									
	1944	2.0	2	1.0						2	1.0										
Twin Lakes (Montcalm)																					
	1944	14.0	13	0.9						11	0.8									2	0.1
	1950	11.0	4	0.4						2	0.2			1	0.1		1	0.1			
Twin Stone Lakes (Montcalm)																					
	1938	15.0	0	0.0																	
	1943	89.0	0	0.0																	
	1944	45.0	59	1.3						30	0.7		29	0.6							
	1945	35.0	76	2.2						73	2.1		3	0.1							
	1946	27.0	63	2.3						59	2.2		2	0.1			1	0.0		1	0.0
	1947	19.0	58	3.1						52	2.7		6	0.3							
	1949	66.5	140	2.1						128	1.9	1	0.0	1	0.0	6	0.1	3	0.0	1	0.0
	1950	19.0	26	1.4						24	1.3		1	0.1				1	0.1		
	1952	59.0	53	0.9						49	0.8		1	0.0			2	0.0		1	0.0
	1957	18.0	16	0.9						15	0.8		1	0.1							
	1958	7.0	1	0.1						1	0.1										

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Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp		
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																							
Upper Lake (Kent)																							
	1934	1.0	0	0.0																			
	1935	5.5	12	2.2						11	2.0		1	0.2									
	1937	11.5	7	0.6										7	0.6								
	1950	32.0	20	0.6					1	0.0	10	0.3	1	0.0									
	1951	18.0	20	1.1						17	0.9			3	0.2								
	1952	37.0	32	0.9					2	0.1	10	0.3	2	0.1					1	0.0			
	1953	19.0	18	0.9						8	0.4			1	0.1	9	0.5						
Wabasis Lake (Kent)																							
	1928	11.5	9	0.8					5	0.4		3	0.3	1	0.1								
	1930	15.0	19	1.3					9	0.6	9	0.6							1	0.1			
	1934	40.2	116	2.9						93	2.3		1	0.0									
	1935	56.8	80	1.4					3	0.1	49	0.9	24	0.4	1	0.0	3	0.1					
	1936	12.0	30	2.5						3	0.3			27	2.3								
	1937	156.5	379	2.4					4	0.0	362	2.3	2	0.0		10	0.1			1	0.0		
	1938	70.8	80	1.1						78	1.1												
	1939	28.0	110	3.9						97	3.5												
	1940	23.5	21	0.9						13	0.6												
	1941	297.0	286	1.0					5	0.0	136	0.5	21	0.1	37	0.1	4	0.0	76	0.3	7	0.0	
	1942	227.8	112	0.5				1	0.0	1	0.0	80	0.4	6	0.0				23	0.1	1	0.0	
	1943	179.5	189	1.1				3	0.0	2	0.0	108	0.6	7	0.0	7	0.0	1	0.0	57	0.3	4	0.0
	1944	97.0	72	0.7				2	0.0	2	0.0	41	0.4	2	0.0	1	0.0	12	0.1	12	0.1		
	1946	77.5	56	0.7				1	0.0	4	0.1	20	0.3	3	0.0	1	0.0	6	0.1	21	0.3		
	1947	10.5	26	2.5					1	0.1	18	1.7	2	0.2						5	0.5		
	1948	56.0	52	0.9					5	0.1	21	0.4	1	0.0	2	0.0	4	0.1	17	0.3		2	0.0
	1949	182.0	115	0.6					5	0.0	34	0.2	5	0.0	3	0.0	19	0.1	49	0.3			
	1950	65.0	65	1.0					2	0.0	50	0.8	4	0.1	1	0.0			8	0.1			
	1951	50.0	103	2.1					5	0.1	79	1.6	6	0.1	2	0.0	3	0.1	8	0.2			
	1952	57.0	35	0.6					2	0.0	18	0.3	3	0.1	2	0.0	4	0.1	6	0.1			
	1953	37.0	26	0.7					1	0.0	14	0.4	1	0.0	1	0.0	2	0.1	5	0.1		2	0.1
	1954	141.0	250	1.8					3	0.0	168	1.2	6	0.0	1	0.0			72	0.5			

Appendix B.–Continued.

Segment and lake (County)	Year	Angler Hours	Total # s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskelunge		Channel catfish		Bullhead		Suckers		Carp				
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE			
<b>Lower–cont.</b>																																									
Wabasis Lake																																									
(Kent)–cont.																																									
	1956	269.5	335	1.2							1	0.0	60	0.2	72	0.3	7	0.0	68	0.3	47	0.2	80	0.3																	
	1957	452.0	357	0.8									99	0.2	148	0.3	4	0.0	32	0.1	24	0.1	50	0.1																	
	1960	122.0	199	1.6							8	0.1			37	0.3	37	0.3	11	0.1	18	0.1	88	0.7																	
	1961	130.0	200	1.5							8	0.1			83	0.6			6	0.0	64	0.5	37	0.3			2	0.0													
Wall Lake (Barry)	1928	79.5	239	3.0									13	0.2	102	1.3	24	0.3					12	0.2	21	0.3	7	0.1													
	1929	40.0	68	1.7									1	0.0	25	0.6	3	0.1					3	0.1																	
	1930	3.0	15	5.0											8	2.7	3	1.0																							
	1931	1.0	10	10.0									1	1.0	4	4.0	2	2.0					3	3.0																	
	1932	41.0	132	3.2							2	0.0	8	0.2	49	1.2	17	0.4	5	0.1			23	0.6	18	0.4							10	0.2							
	1933	NA	10	NA																			10	NA																	
	1936	11.0	47	4.3											29	2.6	7	0.6					10	0.9	1	0.1															
	1938	93.8	255	2.7									8	0.1	221	2.4	15	0.2					10	0.1	1	0.0															
	1939	3.5	10	2.9									2	0.6	8	2.3																									
	1940	58.5	192	3.3							1	0.0	16	0.3	127	2.2	25	0.4					14	0.2	5	0.1															
	1941	92.0	202	2.2									1	0.0	197	2.1																									
	1942	45.0	89	2.0									12	0.3	59	1.3	15	0.3					3	0.1																	
	1943	119.3	187	1.6									6	0.1	126	1.1	27	0.2					28	0.2																	
	1945	21.0	48	2.3											41	2.0			7	0.3																					
	1947	80.7	212	2.6							1	0.0	1	0.0	180	2.2					1	0.0	27	0.3																	
	1950	59.5	174	2.9									1	0.0	140	2.4	4	0.1	1	0.0	2	0.0	26	0.4																	
	1951	238.5	552	2.3											400	1.7	41	0.2					111	0.5																	
	1952	124.0	259	2.1									2	0.0	189	1.5	37	0.3			2	0.0	29	0.2																	
	1955	74.0	182	2.5									5	0.1	148	2.0	5	0.1					24	0.3																	
	1956	354.0	446	1.3									6	0.0	364	1.0	26	0.1			1	0.0	44	0.1												4	0.0				
	1957	483.3	914	1.9							2	0.0	15	0.0	882	1.8	2	0.0			7	0.0	4	0.0												2	0.0				
	1958	159.5	318	2.0									1	0.0	255	1.6	3	0.0			1	0.0	58	0.4																	
	1959	240.0	216	0.9									41	0.2	110	0.5	14	0.1	2	0.0	1	0.0	27	0.1													21	0.1			
	1960	248.5	408	1.6									17	0.1	340	1.4	6	0.0			2	0.0	43	0.2																	
	1961	356.0	672	1.9									25	0.1	550	1.5	3	0.0			3	0.0	82	0.2													9	0.0			
	1962	698.5	1,365	2.0									3	0.0	1,142	1.6	112	0.2	3	0.0	2	0.0	103	0.1																	

Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																					
Wall Lake (Barry)-cont.	1963	143.0	283	2.0					21 0.1	232 1.6				30 0.2							
	1964	87.5	236	2.7					5 0.1	201 2.3				30 0.3							
West Lake (Montcalm)	1936	22.0	74	3.4						69 3.1			5 0.2								
	1937	19.0	3	0.2												3 0.2					
	1943	69.0	155	2.2					7 0.1	132 1.9	7 0.1	5 0.1	1 0.0	1 0.0		2 0.0					
	1944	100.0	44	0.4					3 0.0	37 0.4						4 0.0					
	1945	41.5	23	0.6						20 0.5						3 0.1					
	1946	44.5	14	0.3						7 0.2			1 0.0			1 0.0				5 0.1	
	1949	43.0	141	3.3				1 0.0		119 2.8	10 0.2	6 0.1		4 0.1		1 0.0					
	1950	93.0	84	0.9					1 0.0	77 0.8				1 0.0		5 0.1					
	1951	30.5	38	1.2					1 0.0	30 1.0	2 0.1			3 0.1		2 0.1					
	1953	70.5	130	1.8					7 0.1	101 1.4	11 0.2	1 0.0	1 0.0	3 0.0		6 0.1					
	1956	15.0	17	1.1						9 0.6	2 0.1		3 0.2	1 0.1					2 0.1		
	1959	24.0	15	0.6						3 0.1			2 0.1			10 0.4					
	1960	18.0	56	3.1						45 2.5	1 0.1		8 0.4	2 0.1							
Wilkinson Lake (Barry)	1929	8.0	18	2.3					1 0.1	13 1.6				4 0.5							
	1949	27.5	88	3.2						76 2.8				12 0.4							
	1957	15.0							2 0.1	6 0.4	1 0.1										
	1960	67.0							1 0.0	68 1.0				5 0.1							
	1962	13.0											8 0.6								
Wolf (Kent)	1941	2.0	1	0.5					1 0.5												
Woodard Lake (Ionia)	1929	16.0	33	2.1					9 0.6	20 1.3	2 0.1			2 0.1							
	1931	30.5	72	2.4					3 0.1	37 1.2	8 0.3	2 0.1		16 0.5		6 0.2					
	1932	4.0	27	6.8						23 5.8				4 1.0							
	1933	27.0	180	6.7					5 0.2	165 6.1	5 0.2			5 0.2							
	1937	4.0	1	0.3												1 0.3					
	1938	51.5	73	1.4						7 0.1			60 1.2	6 0.1							

Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Lower-cont.</b>																					
Woodard Lake (Ionia)-cont.																					
	1943	47.5	93	2.0					5 0.1	36 0.8	7 0.1		2 0.0	43 0.9							
	1944	42.0	126	3.0					9 0.2	41 1.0	9 0.2		36 0.9	31 0.7							
	1945	14.0	19	1.4						13 0.9	6 0.4										
	1946	44.8	78	1.7					2 0.0	51 1.1	9 0.2	1 0.0	2 0.0	13 0.3							
	1949	11.5	34	3.0						27 2.3	7 0.6										
Woodbeck Lake (Kent)																					
	1931	3.0	1	0.3												1 0.3					
	1933	1.5	1	0.7					1 0.7												
	1935	52.5	5	0.1									1 0.0	1 0.0		3 0.1					
	1938	2.5	0	0.0																	
	1939	13.0	7	0.5						6 0.5						1 0.1					
	1940	4.3	0	0.0																	
	1941	4.0	28	7.0					3 0.8	25 6.3											
	1943	21.0	19	0.9						12 0.6	1 0.0		3 0.1	3 0.1							
	1944	62.3	58	0.9					1 0.0	35 0.6	1 0.0	5 0.1	4 0.1	12 0.2							
	1946	1.8	0	0.0																	
	1949	50.0	41	0.8						16 0.3			2 0.0	23 0.5							
	1950	19.0	19	1.0					1 0.1	7 0.4	5 0.3			5 0.3		1 0.1					
	1953	18.0	41	2.3						19 1.1	6 0.3	1 0.1	1 0.1	14 0.8							
	1964	26.0	18	0.7					2 0.1	4 0.2	2 0.1	9 0.3	1 0.0								
Ziegenfuss (Kent)																					
	1937	7.0	1	0.1												1 0.1					
	1939	3.0	0	0.0																	
	1944	5.5	3	0.5						2 0.4				1 0.2							
	1945	6.0	2	0.3						2 0.3											
	1946	11.0	7	0.6						2 0.2	5 0.5										
	1949	44.0	22	0.5					2 0.0	15 0.3	1 0.0			2 0.0		2 0.0					
	1950	10.0	8	0.8					2 0.2	3 0.3	1 0.1	1 0.1		1 0.1							
	1953	10.0	12	1.2						8 0.8	2 0.2			1 0.1		1 0.1					

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Mouth</b>																					
Crockery Lake (Ottawa)	1938	10.0	9	0.9					7	0.7						2	0.2				
	1942	122.5	180	1.5						110	0.9		63	0.5	6	0.0	1	0.0			
	1943	7.0	14	2.0						14	2.0										
	1945	109.5	204	1.9					3	0.0	112	1.0	2	0.0	48	0.4	39	0.4			
	1946	10.2	4	0.4										4	0.4						
	1947	10.5	28	2.7						23	2.2		2	0.2		3	0.3				
	1950	18.0	0	0.0																	
Eastmanville Bayou (Ottawa)	1939	3.5	13	3.7					4	1.1	9	2.6									
	1942	54.3	52	1.0					1	0.0	28	0.5	6	0.1	6	0.1	2	0.0		9	0.2
	1945	46.5	13	0.3						12	0.3									1	0.0
Half Moon Lake (Muskegon)	1933	2.0	2	1.0											2	1.0					
	1949	13.0	2	0.2				2	0.2												
	1957	67.0	22	0.3			12	0.2	5	0.1	4	0.1			1	0.0					
	1960	200.0	142	0.7			36	0.2		77	0.4	1	0.0		28	0.1					
	1961	69.0	38	0.6			26	0.4		8	0.1	2	0.0		2	0.0					
	1962	39.0	9	0.2			8	0.2		1	0.0										
	1963	14.0	13	0.9			12	0.9		1	0.1										
	1964	20.5	1	0.0						1	0.0										
	1964	19.0	4	0.2			4	0.2													
Jubb Bayou (Ottawa)	1964	39.5	5	0.1			4	0.1		1	0.0										
Jubb Bayou (Ottawa)	1945	104.0	84	0.8				1	0.0	78	0.8		4	0.0		1	0.0				
Ovidhall Lake (Muskegon)	1960	10.0	31	3.1						21	2.1		2	0.2	8	0.8					
Potawatomi Bayou (Ottawa)	1930	2.0	12	6.0						12	6.0										

Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp		
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Mouth-cont.</b>																							
Potawatomi																							
Bayou																							
(Ottawa)-cont.	1942	43.5	90	2.1						76	1.7		13	0.3	1	0.0							
	1943	112.8	321	2.8						300	2.7		18	0.2	3	0.0							
	1944	13.0	35	2.7						25	1.9		10	0.8									
	1945	105.0	270	2.6				2	0.0	3	0.0	228	2.2	4	0.0								
	1946	51.0	101	2.0								3	0.1	75	1.5	22	0.4		1	0.0			
	1947	139.0	246	1.8					1	0.0	185	1.3	8	0.1	3	0.0							
	1948	50.0	60	1.2				2	0.0		32	0.6		26	0.5								
	1949	128.0	220	1.7				2	0.0	4	0.0	173	1.4		31	0.2	10	0.1					
	1950	435.0	1,036	2.4					13	0.0	952	2.2	3	0.0	24	0.1	42	0.1		2	0.0		
	1951	80.0	79	1.0					1	0.0	60	0.8	4	0.1	1	0.0	13	0.2					
	1952	92.5	116	1.3					1	0.0	27	0.3	1	0.0	82	0.9	2	0.0		2	0.0		
	1953	376.0	386	1.0				11	0.0	7	0.0	235	0.6	23	0.1	4	0.0	16	0.0	88	0.2	2	0.0
	1954	37.0	48	1.3										40	1.1	6	0.2			2	0.1		
	1955	246.0	1,216	4.9					3	0.0	581	2.4	26	0.1	535	2.2	68	0.3		3	0.0		
	1956	232.0	669	2.9							589	2.5		79	0.3					1	0.0		
	1958	320.0	1,211	3.8					2	0.0	1,088	3.4	14	0.0	32	0.1	75	0.2					
	1959	133.5	263	2.0							180	1.3	14	0.1	14	0.1	55	0.4					
	1960	168.0	177	1.1					2	0.0	156	0.9	2	0.0	14	0.1	3	0.0					
	1961	136.0	497	3.7							470	3.5	2	0.0	14	0.1	11	0.1					
	1962	271.0	529	2.0				20	0.1	9	0.0	381	1.4	43	0.2			37	0.1	39	0.1		
	1964	192.5	139	0.7							34	0.2	17	0.1	17	0.1	67	0.3		4	0.0		
	1932	11.0	16	1.5					1	0.1	4	0.4	2	0.2			6	0.5	2	0.2		1	0.1
	1934	33.5	64	1.9					5	0.1					50	1.5	9	0.3					
	1935	77.5	192	2.5										192	2.5								
	1937	25.0	80	3.2										80	3.2								
	1938	21.5	129	6.0					4	0.2	125	5.8											
	1939	7.5	22	2.9					1	0.1	1	0.1			2	0.3	18	2.4					
	1942	100.0	161	1.6							87	0.9			58	0.6	12	0.1				4	0.0

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp	
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Mouth–cont.</b>																						
Spring Lake (Ottawa)–cont.																						
	1943	195.3	435	2.2					1 0.0	70 0.4	2 0.0		216 1.1	139 0.7	7 0.0							
	1944	74.0	184	2.5					5 0.1	86 1.2			82 1.1	5 0.1	3 0.0	3 0.0						
	1945	259.5	764	2.9				14 0.1	15 0.1	279 1.1			440 1.7	16 0.1								
	1946	280.5	380	1.4				2 0.0	4 0.0	60 0.2	16 0.1	2 0.0	95 0.3	201 0.7								
	1947	314.5	580	1.8					9 0.0	193 0.6	3 0.0	18 0.1	250 0.8	105 0.3		2 0.0						
	1948	187.0	287	1.5				7 0.0	16 0.1	208 1.1	10 0.1	6 0.0	4 0.0	36 0.2								
	1949	421.0	553	1.3					96 0.2	180 0.4	9 0.0	1 0.0	196 0.5	69 0.2		2 0.0						
	1950	670.0	1,648	2.5				1 0.0	23 0.0	708 1.1	69 0.1	12 0.0	597 0.9	236 0.4		2 0.0						
	1951	593.0	2,147	3.6					1 0.0	1,504 2.5	271 0.5	8 0.0	227 0.4	135 0.2		1 0.0						
	1952	654.5	1,217	1.9				6 0.0	7 0.0	712 1.1	17 0.0	2 0.0	363 0.6	107 0.2		3 0.0						
	1953	648.0	923	1.4					10 0.0	248 0.4	14 0.0	2 0.0	574 0.9	72 0.1		3 0.0						
	1954	115.5	31	0.3					4 0.0	12 0.1			12 0.1	3 0.0								
	1955	324.0	1,090	3.4				43 0.1	2 0.0	409 1.3	9 0.0	2 0.0	609 1.9	16 0.0								
	1957	384.5	930	2.4					17 0.0	521 1.4			355 0.9	36 0.1	1 0.0							
	1958	759.5	2,700	3.6				7 0.0	8 0.0	1,737 2.3	18 0.0		676 0.9	149 0.2		105 0.1						
	1959	468.0	1,153	2.5					7 0.0	820 1.8	17 0.0		203 0.4	101 0.2				5 0.0				
	1960	686.5	1,157	1.7					41 0.1	1,003 1.5	19 0.0		22 0.0	70 0.1		2 0.0						
	1961	394.0	340	0.9					2 0.0	175 0.4	14 0.0		119 0.3	30 0.1								
	1962	318.0	339	1.1				6 0.0	7 0.0	148 0.5	21 0.1		65 0.2	92 0.3								
	1963	228.5	367	1.6						218 1.0	56 0.2	3 0.0	66 0.3	24 0.1								
	1964	307.5	243	0.8					7 0.0	140 0.5	12 0.0		70 0.2	10 0.0		1 0.0		1 0.0				2 0.0
Stearns Bayou (Ottawa)																						
	1930	23.0	37	1.6						7 0.3		17 0.7	13 0.6									
	1935	17.0	42	2.5						42 2.5												
	1938	16.5	21	1.3					4 0.2	16 1.0						1 0.1						
	1939	13,155.0	19,047	1.4					3 0.0	17,080 1.3		2 0.0	1,661 0.1	249 0.0		45 0.0						7 0.0
	1942	47.5	49	1.0					6 0.1	39 0.8			1 0.0	2 0.0		1 0.0						



Appendix B.-Continued.

Segment and lake (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout	Brown trout	Rainbow trout	Smallmouth bass	Largemouth bass	Bluegill	Pumpkinseed	Rock bass	Black crappie	Yellow perch	Walleye	Northern pike	Muskellunge	Channel catfish	Bullhead	Suckers	Carp		
					Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE	Catch CPE
<b>Mouth-cont.</b>																							
Stearns Bayou (Ottawa)-cont.	1943	220.3	617	2.8						588	2.7		26	0.1		2	0.0				1	0.0	
	1944	233.0	732	3.1					22	0.1	626	2.7	76	0.3	8	0.0							
	1945	811.5	2,022	2.5				2	0.0	11	0.0	1,882	2.3	115	0.1	4	0.0	8	0.0				
	1946	237.5	303	1.3						235	1.0		36	0.2	26	0.1		6	0.0				
	1947	191.5	347	1.8					12	0.1	276	1.4	5	0.0	3	0.0	4	0.0	46	0.2	1	0.0	
	1948	124.5	387	3.1					1	0.0	377	3.0	7	0.1	2	0.0							
	1949	541.5	1,144	2.1					2	0.0	1,100	2.0	2	0.0	30	0.1	9	0.0			1	0.0	
	1950	238.0	838	3.5					5	0.0	816	3.4	13	0.1	3	0.0		1	0.0				
	1951	119.0	50	0.4				1	0.0	2	0.0	37	0.3	1	0.0	2	0.0		6	0.1	1	0.0	
	1952	622.5	1,061	1.7					2	0.0	930	1.5	13	0.0	3	0.0	75	0.1	38	0.1			
	1953	345.5	345	1.0						234	0.7	15	0.0	53	0.2	12	0.0	24	0.1		7	0.0	
	1954	305.5	691	2.3						664	2.2	10	0.0	6	0.0	9	0.0				2	0.0	
	1955	678.5	1,986	2.9						1,802	2.7	1	0.0	161	0.2	20	0.0				2	0.0	
	1956	159.5	569	3.6						539	3.4	2	0.0	22	0.1	6	0.0						
	1957	98.0	140	1.4					3	0.0	94	1.0	8	0.1	24	0.2	3	0.0			8	0.1	
	1958	240.0	403	1.7					1	0.0	373	1.6	2	0.0	10	0.0	14	0.1			3	0.0	
	1959	105.5	132	1.3						95	0.9	3	0.0	16	0.2	15	0.1				3	0.0	
	1960	188.0	221	1.2						194	1.0	23	0.1	2	0.0	2	0.0						
	1961	95.5	30	0.3					3	0.0	21	0.2									6	0.1	
	1962	134.0	201	1.5					2	0.0	198	1.5									1	0.0	
	1963	237.0	419	1.8					8	0.0	399	1.7	2	0.0	10	0.0							
	1964	136.0	38	0.3					4	0.0	15	0.1	6	0.0	3	0.0	5	0.0		1	0.0	3	0.0



## Appendix C

### Miscellaneous Historical Creel Data

This appendix contains miscellaneous creel data during 1928–1964 for the Grand R. and tributaries. Angler hours, catch by species, total catch, catch per effort by species, and total catch per effort were summarized by year for each water body. These data were compiled from records located at Michigan Department of Natural Resources, Institute for Fisheries Research.

### References

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Appendix C.–Continued.

Segment and stream (County)	Year	Angler Hours	Total #’s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskellunge		Channel catfish		Bullhead		Suckers		Carp			
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE		
<b>Upper–cont.</b>																																								
Sandstone Cr. (Jackson)																																								
	1940	1.3	0	0.0																																				
	1944	60.5	63	1.0					1	0.0																										62	1.0			
	1945	21.0	14	0.7																																	14	0.7		
	1946	29.0	4	0.1												2	0.1	1	0.0	1	0.0																			
	1947	4.0	6	1.5																																	6	1.5		
	1953	73.0	21	0.3														2	0.0		2	0.0															17	0.2		
	1960	3.0	0	0.0																																				
	1962	27.0	22	0.8												15	0.6	3	0.1										4	0.1										
	1963	2.0	1	0.5																								1	0.5											
Snyder Cr. (Jackson)																																								
	1933	3.0	9	3.0	9	3.0																																		
	1943	2.0	2	1.0	2	1.0																																		
	1944	3.0	4	1.3	2	0.7			2	0.7																														
	1945	38.5	15	0.4					4	0.1											10	0.3			1	0.0														
	1946	16.8	18	1.1	16	1.0															2	0.1																		
	1949	66.0	57	0.9	13	0.2	3	0.0	41	0.6																														
	1953	43.0	26	0.6	2	0.0			24	0.6																														
<b>Middle</b>																																								
Grand R. (Eaton)																																								
	1930	50.0	28	0.6																	1	0.0						4	0.1						6	0.1	2	0.0	15	0.3
	1931	354.0	194	0.5						6	0.0	1	0.0	40	0.1	6	0.0										5	0.0						111	0.3		25	0.1		
	1932	147.0	0	0.0																																				
	1933	173.0	144	0.8								2	0.0	14	0.1	1	0.0	12	0.1	25	0.1	15	0.1				1	0.0						17	0.1	17	0.1	40	0.2	
	1934	347.0	264	0.8				1	0.0					26	0.1	50	0.1	30	0.1						11	0.0	2	0.0						103	0.3	32	0.1	9	0.0	
	1935	352.0	102	0.3						1	0.0	1	0.0					34	0.1														36	0.1	1	0.0	29	0.1		
	1937	155.0	145	0.9												3	0.0	35	0.2														77	0.5	23	0.1	7	0.0		
	1938	497.0	189	0.4												13	0.0	6	0.0	11	0.0					2	0.0	9	0.0					143	0.3	4	0.0	1	0.0	
	1939	17.0	0	0.0																																				
	1941	53.0	0	0.0																																				
	1942	67.0	0	0.0																																				

Appendix C.–Continued.

Segment and stream (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskellunge		Channel catfish		Bullhead		Suckers		Carp		
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	
<b>Middle–cont.</b>																																							
Grand R. (Eaton)-cont.	1943	137.0	161	1.2											38	0.3			38	0.3		17	0.1	61	0.4			2	0.0								5	0.0	
	1944	426.0	902	2.1											13	0.0	3	0.0	248	0.6		56	0.1				40	0.1					496	1.2	46	0.1			
	1945	53.0	113	2.1																		59	1.1	5	0.1			42	0.8							7	0.1		
	1946	266.0	291	1.1															7	0.0	18	0.1	84	0.3	22	0.1		9	0.0				128	0.5	23	0.1			
	1953	784.0	718	0.9									14	0.0					33	0.0	469	0.6		70	0.1		87	0.1							42	0.1	3	0.0	
	1954	635.0	1,949	3.1				18	0.0	38	0.1	57	0.1		71	0.1	432	0.7	210	0.3	147	0.2					99	0.2				472	0.7	405	0.6				
	1957	298.0	398	1.3						49	0.2	34	0.1		9	0.0	79	0.3										22	0.1						205	0.7			
	1959	79.0	21	0.3																															21	0.3			
	1961	200.0	28	0.1																															28	0.1			
Looking Glass R. (Clinton)	1928	15.0	1	0.1																																			
	1930	20.5	51	2.5																						10	0.5	2	0.1					21	1.0	18	0.9		
	1931	23.5	27	1.1																	1	0.0						1	0.0					23	1.0	2	0.1		
	1932	37.5	247	6.6											15	0.4	1	0.0						32	0.9			9	0.2				190	5.1					
	1933	5.0	11	2.2											9	1.8						1	0.2																
	1934	8.5	36	4.2																						1	0.1	21	2.5					14	1.6				
	1935	43.0	2	0.0																								2	0.0										
	1937	5.0	2	0.4																																			
	1939	11.0	3	0.3																																			
	1941	66.5	20	0.3											10	0.2					5	0.1						1	0.0								4	0.1	
	1942	148.5	16	0.1													2	0.0										1	0.0							13	0.1		
	1943	1,355.0	153	0.1							1	0.0					7	0.0						3	0.0			142	0.1										
	1944	636.0	106	0.2																								50	0.1					20	0.0	22	0.0	14	0.0
	1945	400.5	272	0.7							22	0.1									6	0.0						30	0.1							196	0.5	18	0.0
	1946	169.0	49	0.3																								12	0.1							20	0.1	17	0.1
	1947	43.0	31	0.7																																			
	1948	99.0	37	0.4								27	0.3																1	0.0							30	0.7	
	1949	189.0	85	0.4									57	0.3														10	0.1										
	1950	20.0	6	0.3									6	0.3																									
	1951	34.0	36	1.1									1	0.0		24	0.7																						
	1952	121.0	30	0.2								4	0.0	1	0.0																								

Appendix C.–Continued.

Segment and stream (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskellunge		Channel catfish		Bullhead		Suckers		Carp					
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE				
<b>Middle-cont.</b>																																										
Looking Glass R. (Clinton)–cont.																																										
	1953	161.5	51	0.3																14	0.1							12	0.1									25	0.2			
	1954	86.0	13	0.2																							13	0.2														
	1955	25.0	39	1.6																							3	0.1									18	0.7	18	0.7		
	1957	43.0	7	0.2																							7	0.2														
	1958	71.0	12	0.2																							12	0.2														
	1962	19.0	2	0.1																							2	0.1														
	1964	23.0	9	0.4																							6	0.3														
Looking Glass R. (Ingham)																																										
	1940	30.3	87	2.9																	76	2.5							11	0.4												
	1944	3.5	1	0.3																																						
Looking Glass R. (Ionia)																																										
	1934	5.0	6	1.2							4	0.8																										2	0.4			
	1936	7.5	6	0.8																																		4	0.5	2	0.3	
	1944	10.0	20	2.0																	10	1.0																5	0.5	5	0.5	
	1945	62.5	105	1.7																																		104	1.7	1	0.0	
Looking Glass R. (Shiawassee)																																										
	1929	1.0	11	11.0												11	11.0																									
	1943	11.0	16	1.5																																						
	1945	69.0	0	0.0																																						
	1946	117.8	94	0.8																																		26	0.2			
	1950	14.0	0	0.0																																						
	1953	36.0	2	0.1																																		2	0.1			
	1958	24.0	0	0.0																																						
	1960	18.0	3	0.2																																		3	0.2			
	1964	22.0	7	0.3																																		2	0.1	5	0.2	
Mud Cr. (Ingham)																																										
	1941	5.0	16	3.2																																						
Red Cedar R. (Ingham)																																										
	1940	155.0	48	0.3							2	0.0	1	0.0				1	0.0	21	0.1							8	0.1							11	0.1	3	0.0			
	1941	145.3	90	0.6																																	15	0.1	48	0.3	5	0.0
	1942	11.5	13	1.1																																						



Appendix C.—Continued.

Segment and stream (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskellunge		Channel catfish		Bullhead		Suckers		Carp				
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE			
<b>Middle—cont.</b>																																									
Red Cedar R. (Ingham)—cont.																																									
	1945	20.0	19	1.0											1	0.1						18	0.9																		
	1946	79.5	15	0.2																																					
	1951	13.0	4	0.3																3	0.2																				
	1952	29.0	19	0.7															1	0.0		12	0.4																		
	1953	40.0	5	0.1																																					
	1954	36.0	9	0.3																																					
	1964	146.0	25	0.2																																					
Sebewa Cr. (Eaton)																																									
	1930	4.0	27	6.8																																					
	1950	37.0	21	0.6	21	0.6																																			
	1953	75.0	56	0.7	21	0.3																																			
	1954	141.0	212	1.5	39	0.3	10	0.1	104	0.7																															
	1957	83.0	100	1.2	60	0.7	1	0.0	23	0.3																															
	1963	6.0	8	1.3			6	1.0	2	0.3																															
Sycamore Cr. (Ingham)																																									
	1940	47.5	48	1.0							1	0.0				1	0.0				6	0.1																			
	1941	89.5	76	0.8				1	0.0										1	0.0		11	0.1																		
	1942	17.5	7	0.4							2	0.1																													
	1945	213.0	28	0.1																																					
	1946	41.0	4	0.1																																					
	1950	4.0	1	0.3																																					
	1952	38.0	10	0.3																3	0.1		1	0.0																	
	1953	86.0	59	0.7																5	0.1	2	0.0	13	0.2	28	0.3														
Willow Cr. (Ingham)																																									
	1940	1.8	0	0.0																																					
	1941	5.0	3	0.6																																					
<b>Lower</b>																																									
Bassett Cr. (Barry)																																									
	1930	6.0	1	0.2																																					
Beals Cr. (Kent)																																									
	1934	1.0	0	0.0																																					

Appendix C.–Continued.

Segment and stream (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskellunge		Channel catfish		Bullhead		Suckers		Carp			
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE		
<b>Lower-cont.</b>																																								
Bear Cr. (Kent)	1928	15.0	36	2.4	36	2.4																																		
	1930	75.0	55	0.7	55	0.7																																		
	1931	5.0	14	2.8	12	2.4	2	0.4																																
	1932	2.0	14	7.0	14	7.0																																		
	1933	13.0	2	0.2	2	0.2																																		
	1934	63.0	28	0.4	28	0.4																																		
	1936	25.0	10	0.4	3	0.1	7	0.3																																
	1937	16.0	7	0.4	2	0.1	5	0.3																																
	1938	29.0	6	0.2	5	0.2	1	0.0																																
	1939	21.0	6	0.3			6	0.3																																
	1941	25.5	0	0.0																																				
	1944	3.5	1	0.3			1	0.3																																
	1945	35.5	40	1.1	3	0.1	37	1.0																																
	1953	19.0	19	1.0	9	0.5	3	0.2	7	0.4																														
	1954	15.5	6	0.4	1	0.1	2	0.1	3	0.2																														
	1959	17.0	8	0.5			2	0.1	6	0.4																														
	1960	49.0	12	0.2	3	0.1	7	0.1	2	0.0																														
1964	54.0	16	0.3	10	0.2	6	0.1																																	
Becker Cr. (Kent)	1929	7.0	47	6.7	47	6.7																																		
	1930	2.5	0	0.0																																				
	1931	3.0	17	5.7	17	5.7																																		
	1933	19.5	63	3.2	63	3.2																																		
	1934	6.5	5	0.8	5	0.8																																		
	1935	21.5	1	0.0	1	0.0																																		
	1936	13.0	11	0.8	11	0.8																																		
	1937	7.5	12	1.6	12	1.6																																		
	1938	7.5	10	1.3	10	1.3																																		
	1943	35.2	15	0.4	14	0.4	1	0.0																																
	1944	21.3	4	0.2	3	0.1	1	0.0																																
1946	2.8	1	0.4	1	0.4																																			
1947	24.8	25	1.0	10	0.4	12	0.5				2	0.1	1	0.0																										

Appendix C.–Continued.

Segment and stream (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskellunge		Channel catfish		Bullhead		Suckers		Carp		
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	
<b>Lower–cont.</b>																																							
Becker Cr. (Kent)–cont.																																							
	1949	67.0	37	0.6	6	0.1	31	0.5																															
	1950	50.0	10	0.2	4	0.1	4	0.1	2	0.0																													
	1951	28.0	29	1.0	17	0.6	12	0.4																															
	1952	15.0	9	0.6	5	0.3	4	0.3																															
	1953	31.0	29	0.9	10	0.3			19	0.6																													
	1955	8.0	19	2.4	17	2.1			2	0.3																													
Black Cr. (Montcalm)																																							
	1943	8.0	3	0.4																																			
Buck Cr. (Kent)																																							
	1933	1.0	1	1.0	1	1.0																																	
Butternut Cr. (Kent)																																							
	1931	2.5	12	4.8	12	4.8																																	
	1947	4.0	3	0.8	3	0.8																																	
Cedar Cr. (Kent)																																							
	1928	3.0	7	2.3	7	2.3																																	
	1929	5.5	14	2.5	14	2.5																																	
	1930	29.0	12	0.4	11	0.4	1	0.0																															
	1931	1.5	8	5.3	8	5.3																																	
	1933	13.5	23	1.7	23	1.7																																	
	1934	15.5	8	0.5	7	0.5	1	0.1																															
	1935	13.5	11	0.8	11	0.8																																	
	1936	9.0	2	0.2	2	0.2																																	
	1937	3.3	1	0.3			1	0.3																															
	1938	32.5	13	0.4	12	0.4	1	0.0																															
	1939	5.5	2	0.4			2	0.4																															
	1941	9.0	3	0.3	2	0.2	1	0.1																															
	1942	8.0	10	1.3			10	1.3																															
	1943	40.0	7	0.2	2	0.1	5	0.1																															
	1944	78.5	25	0.3	3	0.0	22	0.3																															
	1946	43.0	12	0.3	3	0.1	7	0.2	2	0.0																													
	1947	23.5	16	0.7	3	0.1	13	0.6																															

Appendix C.–Continued.

Segment and stream (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskelunge		Channel catfish		Bullhead		Suckers		Carp					
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE				
<b>Lower–cont.</b>																																										
Cedar Cr. (Kent)–cont.																																										
	1949	108.0	39	0.4	6	0.1	31	0.3	2	0.0																																
	1950	86.0	23	0.3	2	0.0	16	0.2	5	0.1																																
	1951	58.0	48	0.8	6	0.1	37	0.6	5	0.1																																
	1952	31.0	17	0.5	7	0.2	6	0.2	4	0.1																																
	1953	71.5	41	0.6	2	0.0	25	0.3	14	0.2																																
	1954	66.0	58	0.9	30	0.5	3	0.0	25	0.4																																
	1955	45.0	17	0.4	10	0.2	1	0.0	6	0.1																																
	1956	32.0	16	0.5	11	0.3	5	0.2																																		
	1957	27.0	39	1.4	36	1.3			3	0.1																																
	1958	48.0	16	0.3	15	0.3			1	0.0																																
	1959	14.5	39	2.7	33	2.3			6	0.4																																
	1960	25.0	40	1.6	38	1.5	2	0.1																																		
	1964	2.0	4	2.0			4	2.0																																		
Cherry Cr. (Kent)																																										
	1938	3.5	1	0.3	1	0.3																																				
	1956	23.0	14	0.6	14	0.6																																				
	1961	23.0	15	0.7	15	0.7																																				
Coldwater R. (Kent)																																										
	1937	10.0	3	0.3																																						
	1939	3.0	5	1.7																																						
	1942	3.0	3	1.0																																						
	1944	1.0	0	0.0																																						
	1964	32.0	3	0.1			3	0.1																																		
Crinnion Cr. (Kent)																																										
	1933	8.0	4	0.5	4	0.5																																				
	1939	16.5	7	0.4	7	0.4																																				
	1942	1.0	0	0.0																																						
	1944	5.0	2	0.4			2	0.4																																		
	1946	6.3	2	0.3	1	0.2	1	0.2																																		
	1947	9.0	7	0.8	6	0.7	1	0.1																																		

Appendix C.–Continued.

Segment and stream (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskelunge		Channel catfish		Bullhead		Suckers		Carp		
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	
<b>Lower–cont.</b>																																							
Dickerson Cr. (Ionia)																																							
	1932	4.0	0	0.0																																			
	1943	12.0	10	0.8																																			
	1944	7.0	0	0.0																																			
	1945	28.0	10	0.4																																			
	1946	10.0	1	0.1																																			
	1953	8.0	2	0.3																																			
Dickerson Cr. (Montcalm)																																							
	1930	6.0	0	0.0																																			
	1944	5.0	0	0.0																																			
Dop Cr. (Kent)																																							
	1950	5.0	3	0.6	1	0.2	2	0.4																															
Duke Cr. (Kent)																																							
	1935	2.0	0	0.0																																			
	1936	7.8	0	0.0																																			
	1938	6.0	0	0.0																																			
	1939	5.0	0	0.0																																			
	1941	11.3	2	0.2	1	0.1	1	0.1																															
	1942	5.0	2	0.4	1	0.2	1	0.2																															
	1943	1.8	1	0.6			1	0.6																															
	1944	23.5	7	0.3			6	0.3	1	0.0																													
	1946	35.0	17	0.5	2	0.1	15	0.4																															
	1947	30.3	14	0.5	5	0.2	9	0.3																															
	1949	65.0	27	0.4			27	0.4																															
	1950	29.0	5	0.2	2	0.1	3	0.1																															
	1951	45.5	38	0.8	2	0.0	36	0.8																															
	1952	14.0	8	0.6			4	0.3	4	0.3																													
	1953	67.0	36	0.5	3	0.0	24	0.4	9	0.1																													
	1954	13.0	0	0.0																																			
	1955	8.0	5	0.6			2	0.3	3	0.4																													
Egypt Cr. (Kent)																																							
	1931	4.0	11	2.8	11	2.8																																	
	1932	28.0	69	2.5	63	2.3	5	0.2	1	0.0																													

Appendix C.–Continued.

Segment and stream (County)	Year	Angler Hours	Total #s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskellunge		Channel catfish		Bullhead		Suckers		Carp			
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE		
<b>Lower–cont.</b>																																								
Egypt Cr. (Kent)–cont.																																								
	1933	5.0	0	0.0																																				
	1934	12.0	9	0.8	9	0.8																																		
	1937	5.0	1	0.2	1	0.2																																		
	1943	5.0	3	0.6	3	0.6																																		
	1953	13.0	20	1.5	9	0.7	3	0.2	8	0.6																														
	1959	23.0	22	1.0	22	1.0																																		
	1962	24.0	23	1.0	23	1.0																																		
	1963	15.0	14	0.9	14	0.9																																		
Fish Cr. (Ionia)	1936	79.5	46	0.6																																40	0.5	6	0.1	
	1943	13.5	5	0.4																																3	0.2	2	0.1	
	1944	18.0	11	0.6														5	0.3			1	0.1	3	0.2	1	0.1										1	0.1		
	1946	80.0	89	1.1																														1	0.0	73	0.9	15	0.2	
Fish Cr. (Montcalm)	1930	15.0	2	0.1																																		2	0.1	
	1942	5.0	11	2.2																			5	1.0													2	0.4	4	0.8
	1943	34.5	10	0.3				3	0.1																													7	0.2	
	1944	153.5	79	0.5	52	0.3	10	0.1	2	0.0																												15	0.1	
	1945	8.0	10	1.3																																				
	1946	39.0	20	0.5				3	0.1	17	0.4																													
	1949	40.0	46	1.2																																				
	1951	162.5	80	0.5	16	0.1	10	0.1	14	0.1	16	0.1																												
	1953	110.0	65	0.6	7	0.1	7	0.1	51	0.5																														
	1956	29.0	8	0.3				1	0.0	7	0.2																													
	1959	70.0	31	0.4	4	0.1	3	0.0	24	0.3																														
	1960	92.0	45	0.5	27	0.3	3	0.0	15	0.2																														
	1961	55.0	38	0.7	5	0.1	16	0.3	17	0.3																														
Flat R. (Ionia)	1932	4.0	4	1.0							2	0.5																											2	0.5
	1933	6.0	10	1.7							8	1.3	2	0.3																										
	1934	26.0	25	1.0							25	1.0																												
	1935	6.0	5	0.8							5	0.8																												
	1936	94.0	113	1.2																																		113	1.2	

Appendix C.–Continued.

Segment and stream (County)	Year	Angler Hours	Total #’s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskellunge		Channel catfish		Bullhead		Suckers		Carp		
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	
<b>Lower–cont.</b>																																							
Flat R. (Ionia)–cont.	1937	39.0	29	0.7																																27	0.7	2	0.1
	1941	4.0	3	0.8							3	0.8																											
	1943	48.0	25	0.5							8	0.2								11	0.2															1	0.0	5	0.1
	1944	24.0	31	1.3																15	0.6															13	0.5	3	0.1
	1945	66.0	47	0.7																1	0.0													12	0.2	34	0.5		
	1946	156.0	175	1.1																8	0.1						1	0.0					18	0.1	128	0.8	20	0.1	
	1953	10.0	8	0.8																																8	0.8		
Flat R. (Kent)	1931	7.0	31	4.4							26	3.7										5	0.7																
	1934	6.0	3	0.5							2	0.3	1	0.2																									
	1942	28.0	12	0.4								12	0.4																										
	1943	51.5	71	1.4							2	0.0			34	0.7						35	0.7																
	1944	201.5	396	2.0							10	0.0			285	1.4	11	0.1	2	0.0	31	0.2	54	0.3			2	0.0									1	0.0	
	1945	189.0	444	2.3							1	0.0	6	0.0	346	1.8			4	0.0	18	0.1	60	0.3			3	0.0									6	0.0	
	1946	35.5	46	1.3											20	0.6					25	0.7	1	0.0															
	1948	123.0	121	1.0											84	0.7	1	0.0			4	0.0	12	0.1													20	0.2	
	1949	38.0	87	2.3									4	0.1	82	2.2							1	0.0															
	1956	87.5	149	1.7							23	0.3			116	1.3	1	0.0				8	0.1			1	0.0												
	1959	44.0	59	1.3							11	0.3			30	0.7	2	0.0	16	0.4																			
	1960	43.0	54	1.3							1	0.0	1	0.0	52	1.2																							
	1961	48.0	100	2.1							2	0.0			87	1.8																						9	0.2
	1964	26.0	15	0.6							4	0.2			6	0.2	5	0.2																					
Flat R. (Montcalm)	1935	4.0	0	0.0																																			
	1943	39.0	11	0.3																																		11	0.3
	1944	10.5	18	1.7																																		18	1.7
	1946	7.0	0	0.0																																			
	1949	8.0	2	0.3																																			
	1951	9.0	9	1.0											1	0.1	8	0.9																					
	1960	14.0	4	0.3																																			
Glass Cr. (Barry)	1929	4.0	11	2.8	11	2.8																																	

Appendix C.–Continued.

Segment and stream (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskellunge		Channel catfish		Bullhead		Suckers		Carp			
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE		
<b>Lower-cont.</b>																																								
Glass Cr. (Barry)-cont.	1931	3.0	0	0.0																																				
	1938	5.0	10	2.0	10	2.0																																		
	1939	12.0	16	1.3	16	1.3																																		
	1943	18.5	26	1.4	24	1.3				2	0.1																													
	1944	8.0	10	1.3			6	0.8	4	0.5																														
	1945	14.8	9	0.6	9	0.6																																		
	1946	96.5	76	0.8	26	0.3	44	0.5	6	0.1																														
	1948	8.0	0	0.0																																				
	1949	12.0	6	0.5	4	0.3	2	0.2																																
	1950	1.5	0	0.0																																				
	1952	14.0	1	0.1						1	0.1																													
	1955	45.5	32	0.7	20	0.4	4	0.1	8	0.2																														
	1959	97.0	46	0.5	4	0.0	1	0.0	41	0.4																														
	1960	12.0	6	0.5	2	0.2	2	0.2	2	0.2																														
	1961	189.0	42	0.2	28	0.1	1	0.0	13	0.1																														
	1962	61.0	8	0.1	3	0.0			5	0.1																														
	1963	93.0	13	0.1	5	0.1			8	0.1																														
	1964	1.0	0	0.0																																				
Grand R. (Ionia)	1930	8.0	8	1.0																						8	1.0													
	1931	2.5	1	0.4								1	0.4																											
	1936	26.5	24	0.9																3	0.1													6	0.2	12	0.5	3	0.1	
	1937	9.0	36	4.0																																	25	2.8	11	1.2
	1941	61.5	56	0.9							5	0.1	5	0.1					5	0.1					6	0.1	1	0.0									24	0.4	10	0.2
	1943	64.5	71	1.1							1	0.0												1	0.0	2	0.0		2	0.0							41	0.6	24	0.4
	1944	63.0	53	0.8							5	0.1	5	0.1						14	0.2	5	0.1		6	0.1	3	0.0									5	0.1	10	0.2
	1945	93.5	61	0.7							2	0.0								8	0.1			1	0.0	0	0.0										28	0.3	22	0.2
	1946	159.0	142	0.9																26	0.2			2	0.0	12	0.1						1	0.0	50	0.3	51	0.3		
	1948	9.0	7	0.8																							7	0.8												
	1960	61.0	97	1.6																																		97	1.6	
Grand R. (Kent)	1931	8.0	15	1.9																																				
	1934	10.0	27	2.7																		15	1.9					1	0.1	11	1.1							15	1.5	



Appendix C.–Continued.

Segment and stream (County)	Year	Angler Hours	Total #’s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskellunge		Channel catfish		Bullhead		Suckers		Carp													
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE												
<b>Lower–cont.</b>																																																		
Grand R. (Kent)–cont.	1942	26.0	65	2.5																																														
	1943	29.0	21	0.7									2	0.1																																				
	1944	14.0	3	0.2																																														
	1945	74.5	75	1.0								7	0.1									34	0.5		5	0.1		4	0.1									13	0.2											
	1948	20.0	37	1.9								8	0.4																																					
	1949	14.5	27	1.9								1	0.1									8	0.6																											
	1955	25.0	14	0.6																																			14	0.6										
	1956	111.0	129	1.2									4	0.0	9	0.1	7	0.1							2	0.0													7	0.1	67	0.6	33	0.3						
	1959	13.0	6	0.5								1	0.1			1	0.1								1	0.1																								
	1960	37.0	104	2.8																		2	0.1																											
	1961	66.0	163	2.5																																														
	1963	27.0	16	0.6								8	0.3																																					
Grand R. Bayou (Kent)	1931	14.0	42	3.0																																														
	1932	3.0	9	3.0																																														
Haney Cr. (Ionia)	1934	0.5	2	4.0																																														
Hayworth Cr. (Clinton)	1946	30.0	12	0.4																																														
Highbanks Cr. (Barry)	1930	7.5	25	3.3																																														
Hill Cr. (Barry)	1930	9.0	11	1.2																																														
	1931	4.0	21	5.3																																														
	1937	9.0	13	1.4																																														
	1943	31.5	24	0.8																																														
	1944	6.0	7	1.2																																														
	1945	45.0	48	1.1																																														
	1946	39.0	47	1.2																																														
	1947	31.0	37	1.2																																														
	1948	29.0	22	0.8																																														
	1949	64.0	34	0.5																																														

Appendix C.–Continued.

Segment and stream (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskellunge		Channel catfish		Bullhead		Suckers		Carp			
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE		
<b>Lower–cont.</b>																																								
Hill Cr. (Barry)–cont.																																								
	1950	47.5	57	1.2	57	1.2																																		
	1952	17.0	11	0.6	11	0.6																																		
	1959	46.0	13	0.3	1	0.0	12	0.3																																
	1960	9.0	16	1.8	6	0.7	6	0.7	4	0.4																														
	1961	32.0	10	0.3	5	0.2	1	0.0	4	0.1																														
	1962	22.0	12	0.5	10	0.5	2	0.1																																
	1963	33.0	24	0.7	24	0.7																																		
Honey Cr. (Kent)																																								
	1928	2.0	11	5.5	5	2.5	4	2.0	2	1.0																														
	1931	22.0	38	1.7	38	1.7																																		
	1933	24.0	15	0.6	15	0.6																																		
	1934	21.0	34	1.6	34	1.6																																		
	1937	24.5	5	0.2	5	0.2																																		
	1938	68.0	44	0.6	44	0.6																																		
Horseshoe Cr. (Montcalm)																																								
	1944	24.0	11	0.5																																				
	1950	1.0	0	0.0																																				
Kenyon Cr. (Kent)																																								
	1931	3.5	10	2.9	10	2.9																																		
	1932	29.5	139	4.7	138	4.7			1	0.0																														
	1933	4.0	1	0.3	1	0.3																																		
	1938	2.5	0	0.0																																				
Kopf Cr. (Kent)																																								
	1956	10.0	10	1.0	10	1.0																																		
	1931	3.0	10	3.3	10	3.3																																		
	1932	13.0	56	4.3	56	4.3																																		
	1933	4.0	2	0.5	2	0.5																																		
	1937	4.0	3	0.8	3	0.8																																		
Lake Cr. (Ionia)																																								
	1936	6.0	2	0.3																																				
	1937	10.0	6	0.6																																				
	1943	23.5	12	0.5			8	0.3																																
	1944	17.3	32	1.9	14	0.8	1	0.1																																
	1945	47.5	19	0.4	9	0.2	3	0.1																																
	1946	69.0	34	0.5			26	0.4																																

Appendix C.–Continued.

Segment and stream (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskellunge		Channel catfish		Bullhead		Suckers		Carp												
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE											
<b>Lower—cont.</b>																																																	
Lake Cr. (Ionia)—cont.	1953	16.0	6	0.4			6	0.4																																									
Lamont Bayou (Kent)	1945	20.0	4	0.2																							4	0.2																					
Laraway Cr. (Kent)	1931	3.0	14	4.7	14	4.7																																											
	1932	16.0	46	2.9	46	2.9																																											
	1934	2.5	2	0.8	2	0.8																																											
Little Cedar Cr. (Kent)	1933	2.0	0	0.0																																													
	1943	0.5	1	2.0	1	2.0																																											
	1947	4.5	3	0.7	1	0.2	2	0.4																																									
	1950	13.0	2	0.2	2	0.2																																											
	1956	15.0	8	0.5	7	0.5			1	0.1																																							
Little Maple R. (Clinton)	1943	13.0	41	3.2									41	3.2																																			
	1944	331.0	42	0.1													7	0.0			1	0.0				13	0.0														21	0.1							
	1945	153.0	25	0.2															1	0.0						5	0.0														19	0.1							
	1948	586.0	130	0.2													13	0.0		6	0.0				11	0.0	35	0.1													14	0.0			51	0.1			
Little Thornapple R. (Kent)	1930	14.5	86	5.9																																													
	1931	13.0	17	1.3																																													
Maple R. (Clinton)	1929	8.5	3	0.4																																													
	1930	19.5	20	1.0										1	0.1												3	0.2																					
	1931	15.3	8	0.5								2	0.1													1	0.1																						
	1932	5.0	12	2.4																																													
	1933	10.0	5	0.5																																													
	1935	13.5	1	0.1																																													
	1937	8.0	21	2.6																																													
	1938	63.0	78	1.2																																													
	1939	35.0	14	0.4																																													

Appendix C.–Continued.

Segment and stream (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskellunge		Channel catfish		Bullhead		Suckers		Carp									
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE								
<b>Lower-cont.</b>																																														
Maple R. (Clinton)–cont.	1941	54.5	0	0.0																																										
	1942	35.5	1	0.0																																										
	1943	433.0	114	0.3									1	0.0			1	0.0				77	0.2		13	0.0		2	0.0							17	0.0		3	0.0						
	1944	675.0	247	0.4																		203	0.3		7	0.0		9	0.0								28	0.0								
	1945	748.5	422	0.6																		372	0.5		2	0.0		6	0.0				11	0.0				29	0.0		2	0.0				
	1946	560.5	25	0.0																				2	0.0		3	0.0									9	0.0		11	0.0					
	1948	487.0	135	0.3								6	0.0	6	0.0					5	0.0	19	0.0					25	0.1				29	0.1	45	0.1										
	1949	646.5	208	0.3								1	0.0								5	0.0	36	0.1		28	0.0	105	0.2				31	0.0				7	0.0							
	1950	26.0	11	0.4																				9	0.3		2	0.1																		
	1951	40.0	9	0.2																		6	0.2		2	0.1		1	0.0																	
	1952	250.0	68	0.3																	6	0.0	10	0.0		12	0.0	40	0.2																	
	1953	247.5	56	0.2																					3	0.0	24	0.1					10	0.0				19	0.1							
	1954	65.0	20	0.3																					8	0.1	12	0.2																		
	1957	22.0	5	0.2																					1	0.0	2	0.1					2	0.1												
	1958	119.0	0	0.0																																										
	1959	2.0	0	0.0																																										
	1960	29.0	0	0.0																																										
	1962	19.0	4	0.2																																										
	1964	34.0	0	0.0																																										
Maple R. (Gratiot)	1931	4.0	3	0.8																																										
	1935	8.0	0	0.0																																										
	1936	42.5	74	1.7																					12	0.3																				
	1943	8.0	4	0.5																																										
	1944	629.5	283	0.4																							3	0.4																		
	1945	194.8	79	0.4																																										
	1946	130.5	18	0.1																																										
	1948	394.5	223	0.6																																										
	1949	49.0	4	0.1																																										
	1950	63.0	5	0.1																																										
	1951	74.0	21	0.3																																										
	1953	500.5	63	0.1																																										

Appendix C.–Continued.

Segment and stream (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskelunge		Channel catfish		Bullhead		Suckers		Carp			
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE		
<b>Lower-cont.</b>																																								
Maple R. (Gratiot)–cont.																																								
	1954	274.5	64	0.2										2	0.0	15	0.1	2	0.0			36	0.1	1	0.0			4	0.0					3	0.0					
	1955	121.0	2	0.0																					2	0.0														
	1956	2.0	0	0.0																																				
	1957	71.0	3	0.0																			2	0.0	1	0.0														
	1958	307.0	60	0.2										4	0.0								4	0.0					26	0.1			2	0.0	24	0.1				
	1959	482.0	24	0.0												1	0.0	1	0.0				5	0.0			1	0.0	11	0.0			3	0.0						
	1960	70.0	20	0.3																													20	0.3						
	1961	44.0	15	0.3																					2	0.0			2	0.0					7	0.2	4	0.1		
	1962	171.0	67	0.4																							1	0.0	1	0.0			55	0.3	2	0.0	8	0.0		
	1963	228.0	16	0.1																			2	0.0					2	0.0			2	0.0	10	0.0				
	1964	8.0	6	0.8																			1	0.1							5	0.6								
Maple R. (Ionia)																																								
	1930	5.0	4	0.8								3	0.6																		1	0.2								
	1936	11.0	4	0.4																											1	0.1						3	0.3	
	1937	1.0	0	0.0																																				
	1939	7.5	6	0.8																																				
	1941	15.5	4	0.3										2	0.1												1	0.1	1	0.1										
	1944	30.0	21	0.7									2	0.1	1	0.0							2	0.1			5	0.2	3	0.1			1	0.0				7	0.2	
	1945	116.5	34	0.3									5	0.0													7	0.1	1	0.0			11	0.1			9	0.1		
	1946	72.3	49	0.7									1	0.0											3	0.0			1	0.0			3	0.0			28	0.4	13	0.2
	1948	17.0	8	0.5																									2	0.1					2	0.1	4	0.2		
	1960	21.0	37	1.8																															37	1.8				
	1963	4.0	0	0.0																																				
Maple R. (Shiawassee)																																								
	1945	31.0	7	0.2																									4	0.1							3	0.1		
	1949	1.0	3	3.0																			3	3.0																
	1953	4.0	6	1.5	3	0.8																							3	0.8										
Mill Cr. (Kent)																																								
	1929	1.0	1	1.0																											1	1.0								
	1930	2.0	1	0.5																			1	0.5																
	1933	13.0	12	0.9																			1	0.1	11	0.8														
	1938	9.0	24	2.7												5	0.6	19	2.1																					



Appendix C.–Continued.

Segment and stream (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskellunge		Channel catfish		Bullhead		Suckers		Carp		
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	
<b>Lower–cont.</b>																																							
Rogue R. (Kent)–cont.	1957	83.0	134	1.6			106	1.3	28	0.3																													
	1958	64.0	24	0.4			19	0.3	5	0.1																													
	1959	52.5	42	0.8	20	0.4	20	0.4	2	0.0																													
	1960	15.5	8	0.5	1	0.1	7	0.5																															
	1962	27.0	6	0.2	3	0.1	1	0.0	2	0.1																													
	1964	60.5	37	0.6	37	0.6																																	
Roman Cr. (Kent)	1937	1.0	6	6.0	6	6.0																																	
Ronan Cr. (Kent)	1932	1.0	3	3.0	3	3.0																																	
	1934	4.0	0	0.0																																			
Roncon Cr. (Kent)	1929	4.0	5	1.3	5	1.3																																	
Rum Cr. (Kent)	1928	1.0	6	6.0			6	6.0																															
	1933	2.0	21	10.5	9	4.5	12	6.0																															
	1944	2.0	3	1.5	3	1.5																																	
	1946	2.3	1	0.4			1	0.4																															
	1947	4.0	2	0.5	2	0.5																																	
	1949	13.0	6	0.5	2	0.2	4	0.3																															
	1950	21.0	6	0.3	1	0.0	5	0.2																															
	1954	20.0	33	1.7	21	1.1	3	0.2	9	0.5																													
	1955	19.0	26	1.4	9	0.5			17	0.9																													
	1956	15.0	13	0.9	11	0.7			2	0.1																													
	1957	14.0	16	1.1	15	1.1			1	0.1																													
	1958	10.0	11	1.1	8	0.8			3	0.3																													
	1959	9.5	9	0.9	7	0.7			2	0.2																													
	1960	22.0	27	1.2	19	0.9			8	0.4																													
	1962	18.0	12	0.7	3	0.2	3	0.2	6	0.3																													
	1964	21.0	26	1.2	17	0.8	5	0.2	4	0.2																													
Sand Cr. (Kent)	1931	1.5	15	10.0	15	10.0																																	
	1953	12.0	22	1.8	16	1.3			6	0.5																													
	1954	15.0	9	0.6	9	0.6																																	
	1955	18.0	13	0.7	13	0.7																																	
	1959	23.0	26	1.1	26	1.1																																	





Appendix C.–Continued.

Segment and stream (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskellunge		Channel catfish		Bullhead		Suckers		Carp		
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	
<b>Lower–cont.</b>																																							
Spring Cr. (Kent)–cont.																																							
	1941	16.0	10	0.6	6	0.4	4	0.3																															
	1943	9.5	10	1.1	8	0.8	2	0.2																															
	1944	8.5	6	0.7	3	0.4	3	0.4																															
	1946	12.3	8	0.7	6	0.5	2	0.2																															
	1947	12.5	8	0.6	6	0.5	2	0.2																															
	1951	9.0	11	1.2	4	0.4	7	0.8																															
	1952	6.0	7	1.2	2	0.3	5	0.8																															
	1953	42.0	28	0.7	7	0.2	21	0.5																															
Stegman Cr. (Kent)																																							
	1928	66.0	123	1.9	123	1.9																																	
	1929	53.0	195	3.7	116	2.2				79	1.5																												
	1930	74.0	37	0.5	28	0.4				9	0.1																												
	1931	47.5	96	2.0	77	1.6	3	0.1	16	0.3																													
	1933	24.0	21	0.9	21	0.9																																	
	1934	78.5	44	0.6	40	0.5	1	0.0	3	0.0																													
	1935	171.3	34	0.2	23	0.1	4	0.0	7	0.0																													
	1936	179.0	19	0.1	15	0.1	1	0.0	3	0.0																													
	1937	55.0	24	0.4	14	0.3	4	0.1	6	0.1																													
	1938	207.5	73	0.4	49	0.2	11	0.1	13	0.1																													
	1939	81.3	11	0.1	10	0.1			1	0.0																													
	1941	41.5	13	0.3	4	0.1	4	0.1	5	0.1																													
	1942	92.5	55	0.6	43	0.5	3	0.0	9	0.1																													
	1943	9.0	5	0.6	4	0.4	1	0.1																															
	1944	76.3	31	0.4	5	0.1	19	0.2	7	0.1																													
	1946	35.0	26	0.7	5	0.1	16	0.5	5	0.1																													
	1947	52.0	27	0.5	4	0.1	19	0.4	4	0.1																													
	1949	133.0	48	0.4	6	0.0	36	0.3	6	0.0																													
	1950	63.0	13	0.2			3	0.0	10	0.2																													
	1951	18.0	12	0.7	5	0.3	4	0.2	3	0.2																													
	1952	12.0	6	0.5	2	0.2	4	0.3																															
	1953	71.0	43	0.6	3	0.0	12	0.2	28	0.4																													



Appendix C.—Continued.

Segment and stream (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskellunge		Channel catfish		Bullhead		Suckers		Carp			
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE		
<b>Lower—cont.</b>																																								
Thornapple R. (Barry)—cont.	1934	2.0	7	3.5																																		7	3.5	
	1940	51.0	55	1.1							1	0.0	54	1.1																										
	1943	6.0	9	1.5							9	1.5																												
	1945	6.5	0	0.0																																				
	1954	23.0	12	0.5							3	0.1	2	0.1			2	0.1					5	0.2																
	1956	103.0	68	0.7							2	0.0	3	0.0	41	0.4	2	0.0			2	0.0	8	0.1					3	0.0		6	0.1		1	0.0				
	1964	13.0	5	0.4													2	0.2																1	0.1		2	0.2		
Thornapple R. (Eaton)	1930	18.0	14	0.8																																				
	1931	78.0	95	1.2																							1	0.0					2	0.0	69	0.9	23	0.3		
	1933	5.0	2	0.4																																				
	1934	13.0	20	1.5																																				
	1935	48.0	7	0.1																																				
	1937	1.0	0	0.0																																				
	1940	8.5	4	0.5														1	0.1																					
	1944	17.0	14	0.8																																				
	1946	39.0	28	0.7																																				
	1953	19.0	45	2.4																																				
	1954	42.0	97	2.3														18	0.4	63	1.5					16	0.4													
Thornapple R. (Kent)	1931	10.5	23	2.2								2	0.2																											
	1934	33.0	29	0.9								1	0.0		13	0.4	2	0.1	11	0.3																				
	1935	19.5	13	0.7								1	0.1		10	0.5	2	0.1																						
	1937	24.0	98	4.1								7	0.3																											
	1939	40.0	36	0.9								12	0.3																											
	1941	12.0	4	0.3								4	0.3																											
	1942	30.5	29	1.0								5	0.2		5	0.2																								
	1943	125.5	96	0.8								24	0.2		3	0.0	2	0.0	3	0.0			26	0.2	8	0.1	2	0.0	1	0.0			12	0.1		13	0.1		2	0.0
	1944	183.5	138	0.8								24	0.1		2	0.0	5	0.0	1	0.0			17	0.1	31	0.2	1	0.0	3	0.0			22	0.1		9	0.0		23	0.1
	1945	27.0	34	1.3								2	0.1																											
	1946	37.0	12	0.3								1	0.0																											



Appendix C.–Continued.

Segment and stream (County)	Year	Angler Hours	Total #'s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskellunge		Channel catfish		Bullhead		Suckers		Carp		
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	
<b>Lower–cont.</b>																																							
West Branch Fish Cr. (Montcalm)–cont.																																							
	1944	8.0	4	0.5	2	0.3			2	0.3																													
	1946	37.5	0	0.0																																			
	1949	5.0	4	0.8			2	0.4	2	0.4																													
	1950	11.0	3	0.3			1	0.1	2	0.2																													
	1951	32.0	22	0.7	10	0.3	4	0.1	8	0.3																													
	1953	22.5	8	0.4	8	0.4																																	
	1954	68.0	60	0.9	29	0.4	9	0.1	22	0.3																													
	1955	58.0	39	0.7	18	0.3	4	0.1	17	0.3																													
	1960	5.5	5	0.9	3	0.5	2	0.4																															
White R. (Kent) Whitney Cr. (Kent) Whitneyville Cr. (Kent)																																							
	1930	9.0	5	0.6	5	0.6																																	
	1931	1.5	13	8.7	13	8.7																																	
	1956	28.0	19	0.7	19	0.7																																	
<b>Mouth</b>																																							
Bass R. (Ottawa)																																							
	1944	9.0	1	0.1																																			
	1945	27.0	2	0.1																																			
	1955	133.0	220	1.7											192	1.4	3	0.0				2	0.1																
Crockery Cr. (Ottawa)																																							
	1942	4.0	1	0.3																		5	0.0	20	0.2														
	1944	6.0	0	0.0																																			
	1945	24.0	0	0.0																																			
Grand R. (Ottawa)																																							
	1932	12.5	29	2.3										2	0.2	19	1.5	3	0.2																				
	1934	52.5	112	2.1										3	0.1	50	1.0	7	0.1	3	0.2			2	0.2														
	1935	18.0	73	4.1							1	0.1	1	0.1	47	2.6	24	1.3	1	0.0	25	0.5	13	0.2	4	0.1	5	0.1					4	0.1					
	1939	52.5	51	1.0							1	0.0	10	0.2	14	0.3																							
	1942	40.8	18	0.4									5	0.1								1	0.0												25	0.5			
	1943	46.5	64	1.4																		4	0.1		5	0.1								4	0.1				
	1944	241.0	293	1.2									10	0.0	127	0.5	16	0.1				11	0.2	5	0.1	5	0.1							7	0.2				
	1945	114.5	68	0.6							1	0.0	1	0.0	5	0.0	1	0.0				63	0.3	11	0.0	29	0.1	6	0.0				31	0.1					

Appendix C.–Continued.

Segment and stream (County)	Year	Angler Hours	Total #’s Fish	Total CPE	Brook trout		Brown trout		Rainbow trout		Smallmouth bass		Largemouth bass		Bluegill		Pumpkinseed		Rock bass		Black crappie		Yellow perch		Walleye		Northern pike		Muskellunge		Channel catfish		Bullhead		Suckers		Carp		
					Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	Catch	CPE	
<b>Mouth–cont.</b>																																							
Grand R. (Ottawa)–cont.	1946	113.5	85	0.7									2	0.0	52	0.5	7	0.1				58	0.5														2	0.0	
	1947	108.5	68	0.6											49	0.5	2	0.0	1	0.0		2	0.0	7	0.1	1	0.0					12	0.1				1	0.0	
	1948	528.0	642	1.2							9	0.0	31	0.1	445	0.8	39	0.1						2	0.0	1	0.0					14	0.1						
	1949	85.5	205	2.4							2	0.0	37	0.4	156	1.8			5	0.0	53	0.1	57	0.1	2	0.0	1	0.0											
	1950	29.0	4	0.1									2	0.1	1	0.0							10	0.1															
	1951	73.5	21	0.3															1	0.0																			
	1952	199.0	524	2.6									7	0.0	416	2.1	68	0.3								21	0.3												
	1953	272.0	273	1.0									17	0.1	97	0.4	52	0.2						15	0.1	14	0.1	1	0.0			3	0.0						
	1954	204.0	259	1.3									1	0.0	131	0.6	72	0.4	1	0.0	2	0.0	25	0.1			1	0.0			78	0.3							
	1955	271.0	611	2.3						2	0.0	16	0.1	357	1.3	139	0.5			10	0.0	24	0.1			1	0.0			20	0.1								
	1957	81.0	88	1.1									1	0.0	69	0.9	6	0.1			8	0.0	25	0.1			5	0.0			59	0.2							
	1958	45.0	15	0.3											13	0.3					1	0.0	7	0.1						4	0.0								
	1959	378.0	643	1.7						1	0.0	6	0.0	435	1.2	92	0.2				1	0.0				1	0.0												
	1960	538.0	160	0.3									2	0.0	64	0.1	39	0.1				3	0.0	48	0.1						58	0.2							
	1961	282.0	373	1.3									3	0.0	244	0.9	75	0.3	7	0.0	5	0.0	18	0.0						25	0.0								
	1962	188.0	169	0.9						6	0.0	3	0.0	102	0.5	26	0.1					49	0.2							2	0.0								
	1963	87.5	161	1.8									4	0.0	142	1.6	3	0.0			9	0.0	18	0.1		2	0.0			3	0.0								
	1964	119.0	87	0.7									2	0.0	33	0.3	10	0.1			7	0.1	2	0.0						3	0.0								
Norris Cr. (Muskegon)	1960	3.0	1	0.3									1	0.3						1	0.0		18	0.2					23	0.2									
	1961	2.0	0	0.0																																			
	1962	1.5	1	0.7																										1	0.7								
	1963	1.0	0	0.0																																			
	1964	10.5	1	0.1																										1	0.1								