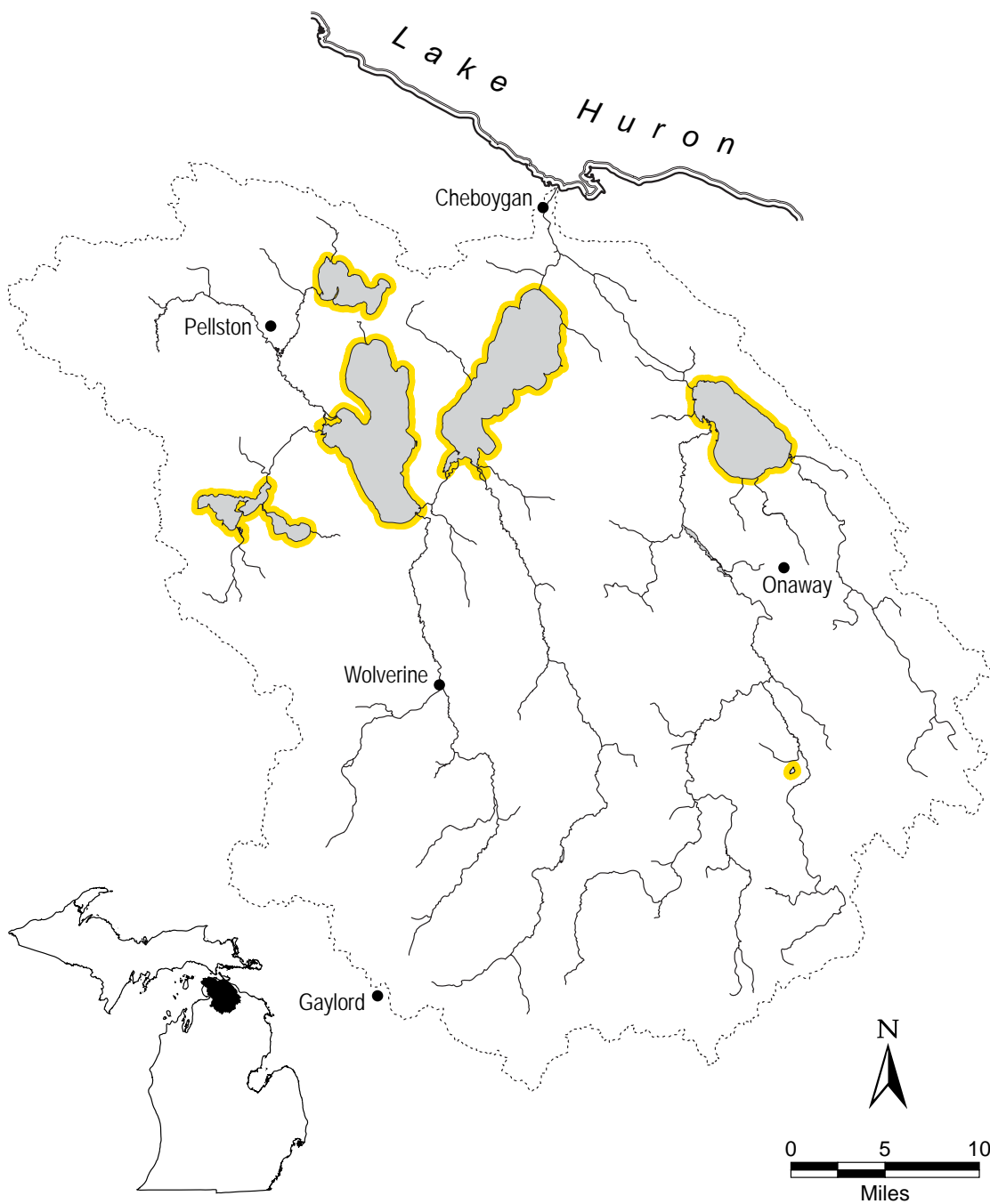


Sand shiner *Notropis stramineus*

Habitat:

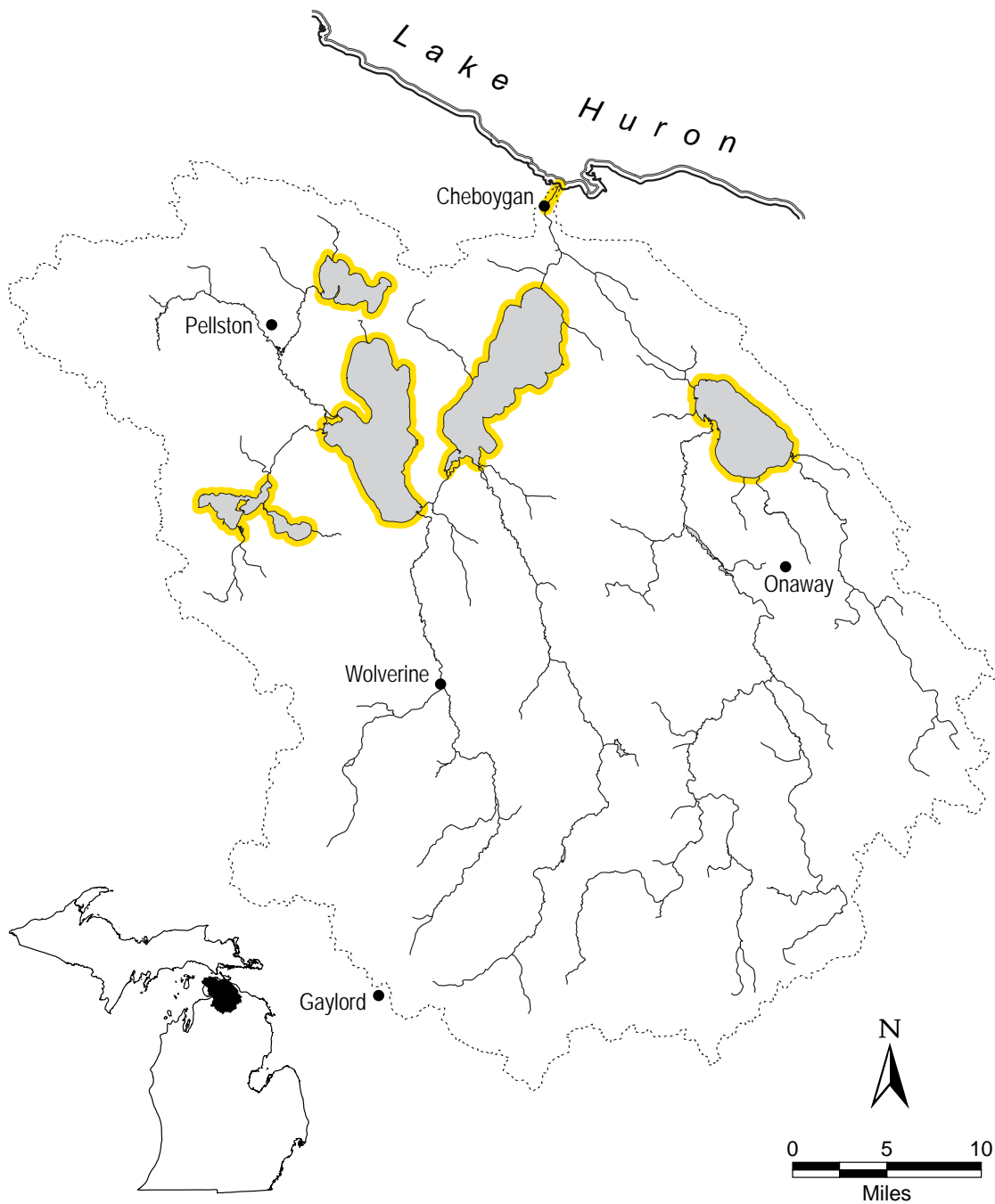
- feeding - sand and gravel substrate
- shallow pools in medium size streams, lakes, and impoundments
- clear water and low gradient
- rooted aquatic vegetation preferred
- tolerant of some inorganic pollutants provided substrate is not covered
- spawning - clean gravel or sand substrate



Mimic shiner *Notropis volucellus*

Habitat:

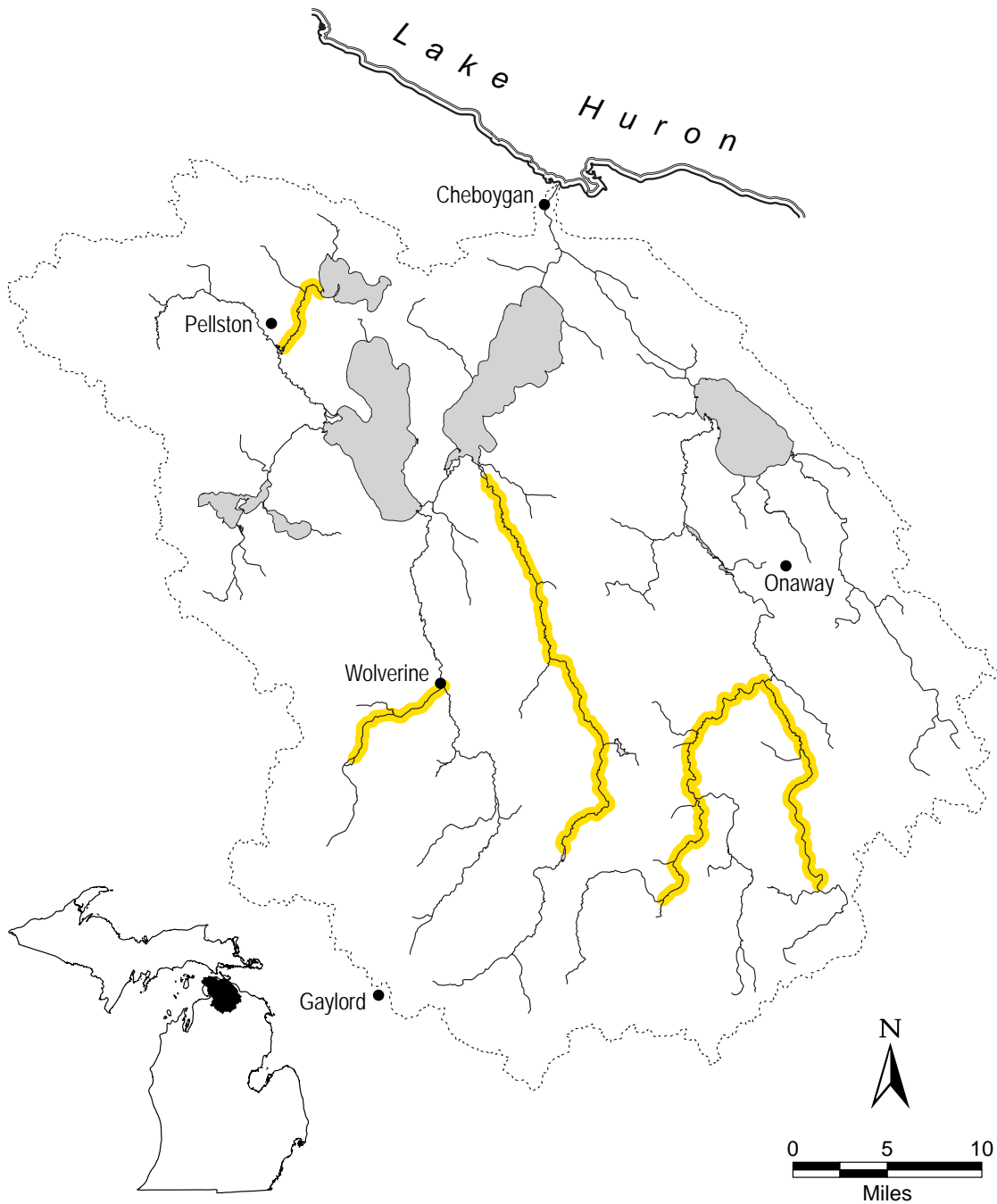
- feeding - pools and backwater of streams, moderately weedy lakes and impoundments
- quiet or still water
- clear shallow water
- spawning - aquatic vegetation necessary



Northern redbelly dace *Phoxinus eos*

Habitat:

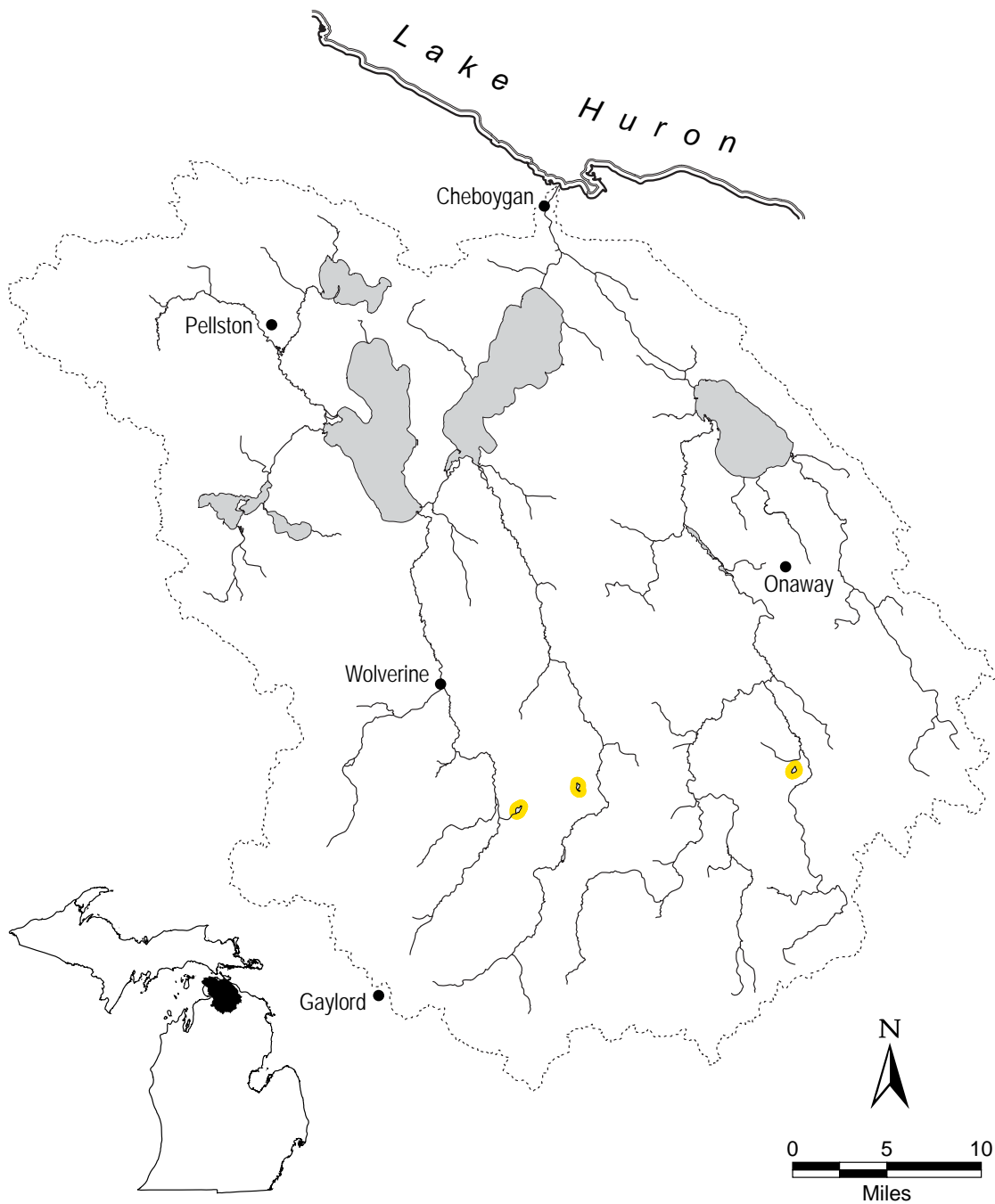
- feeding - slow current
- in boggy lakes and streams
- detritus or silt substrate
- clear to slightly turbid water
- spawning - filamentous algae needed for egg deposition



Finescale dace *Phoxinus neogaeus*

Habitat:

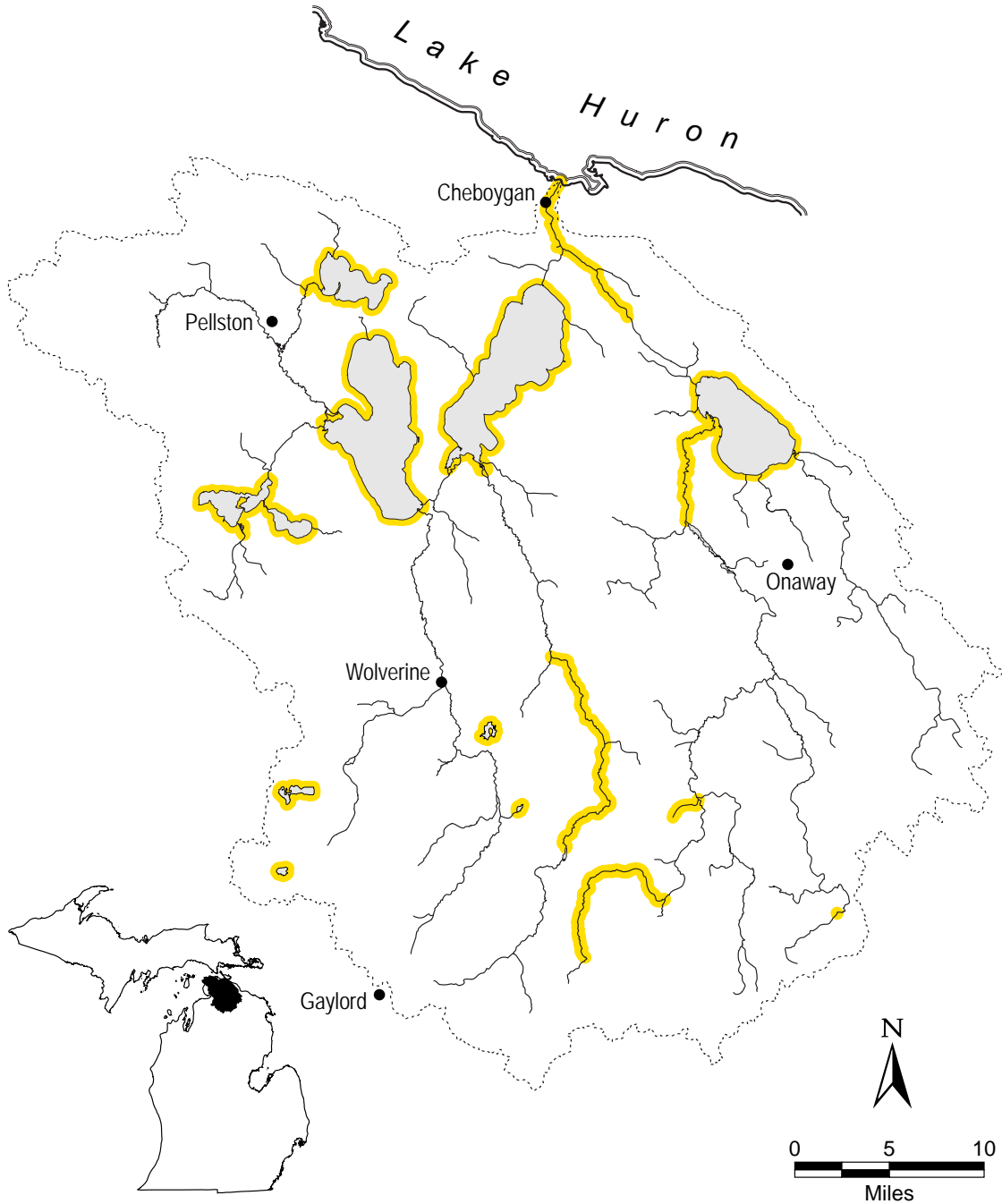
- feeding - cool bog lakes and streams
- neutral to slightly acidic waters
- various substrates



Bluntnose minnow *Pimephales notatus*

Habitat:

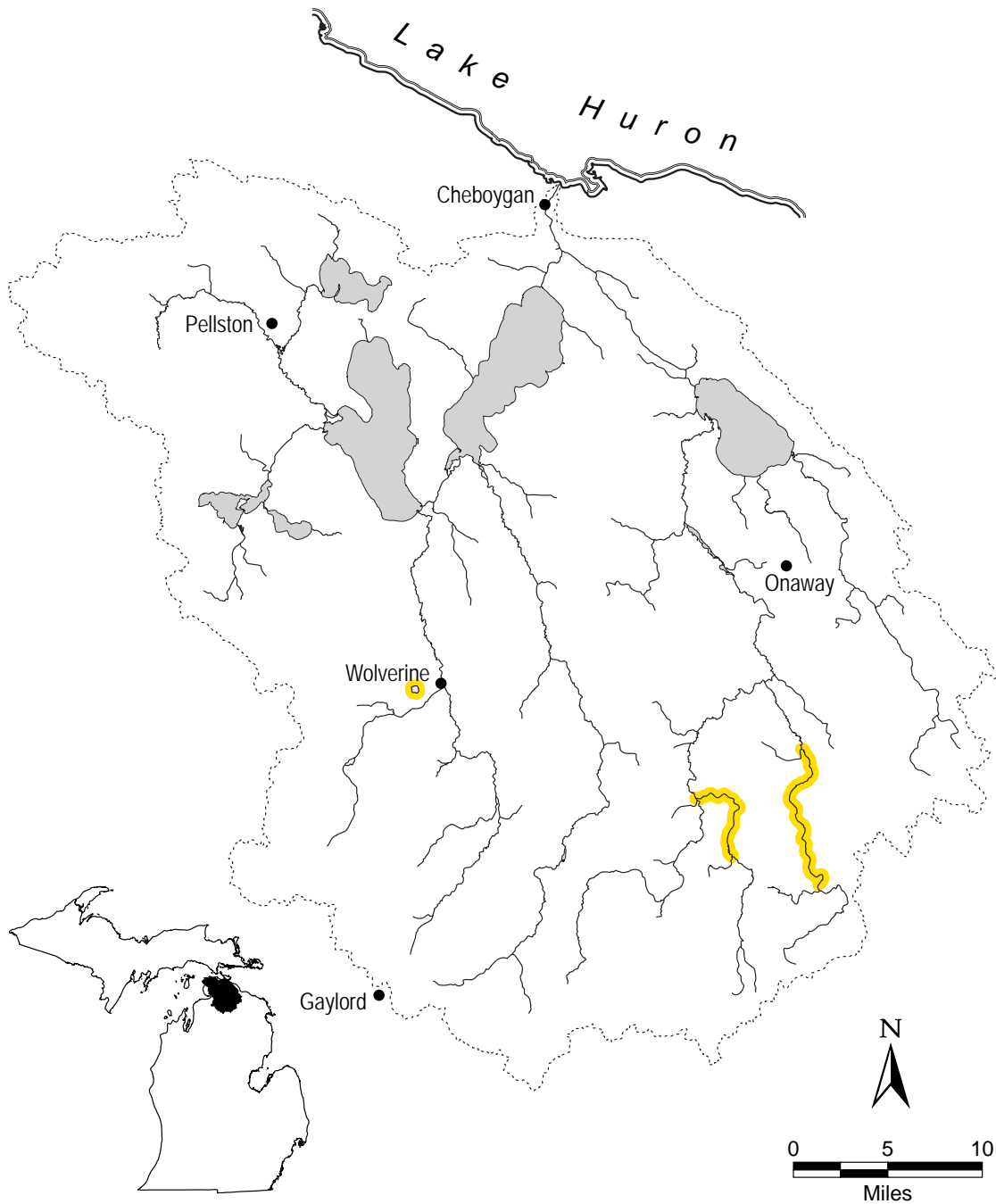
- feeding - quiet pools and backwaters of medium to large streams, lakes, and impoundments
- clear warm water
- some aquatic vegetation
- firm substrates
- tolerates all gradients, turbidity, organic and inorganic pollutants
- spawning - eggs deposited on the underside of flat stones or objects
- nests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



Fathead minnow *Pimephales promelas*

Habitat:

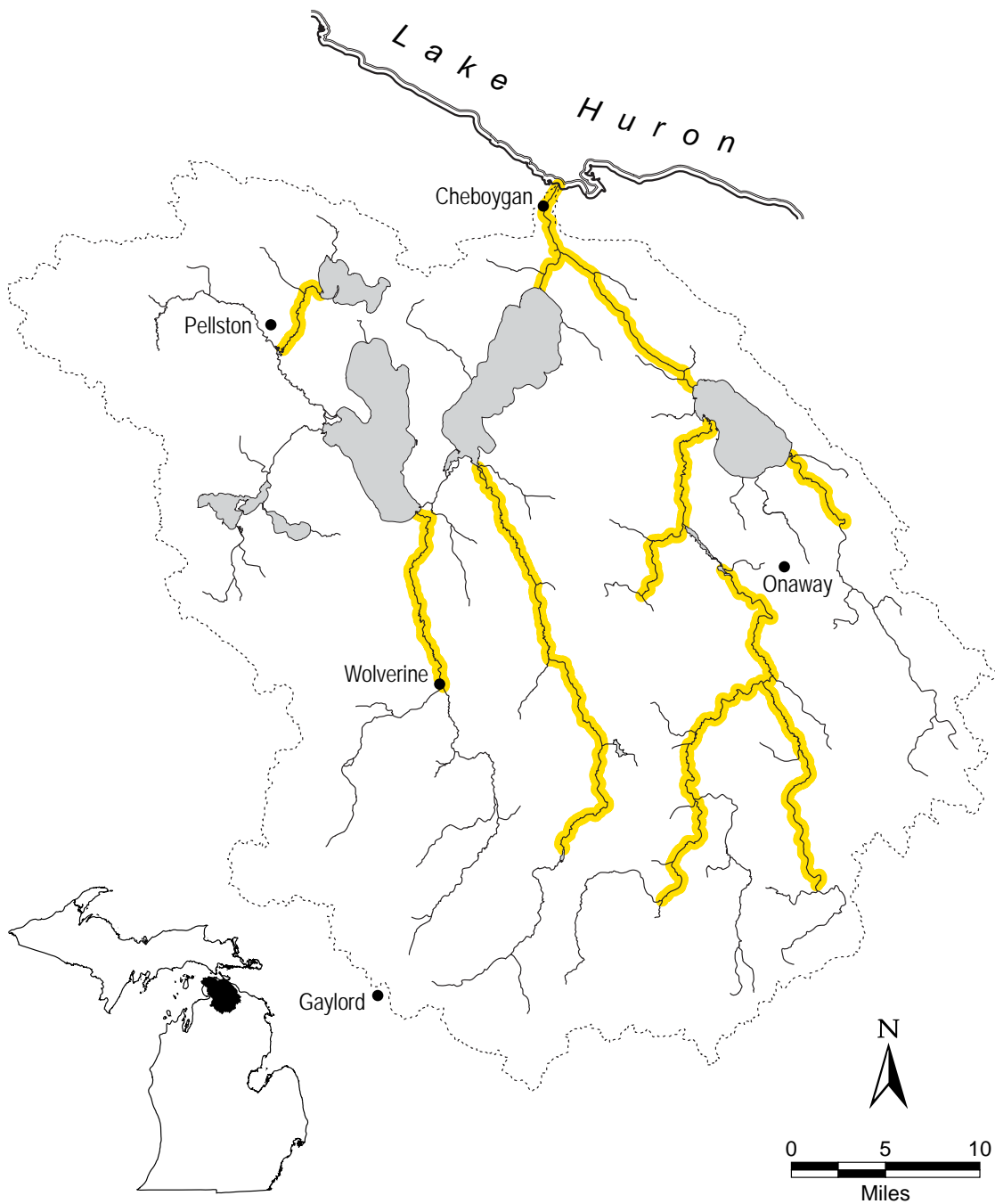
- feeding - pools of small streams, lakes, and impoundments
- tolerant of turbidity, high temperatures, and low oxygen
- spawning - on underside of objects in water 2 to 3 feet deep
- prefer sand, marl, or gravel substrate



Longnose dace *Rhinichthys cataractae*

Habitat:

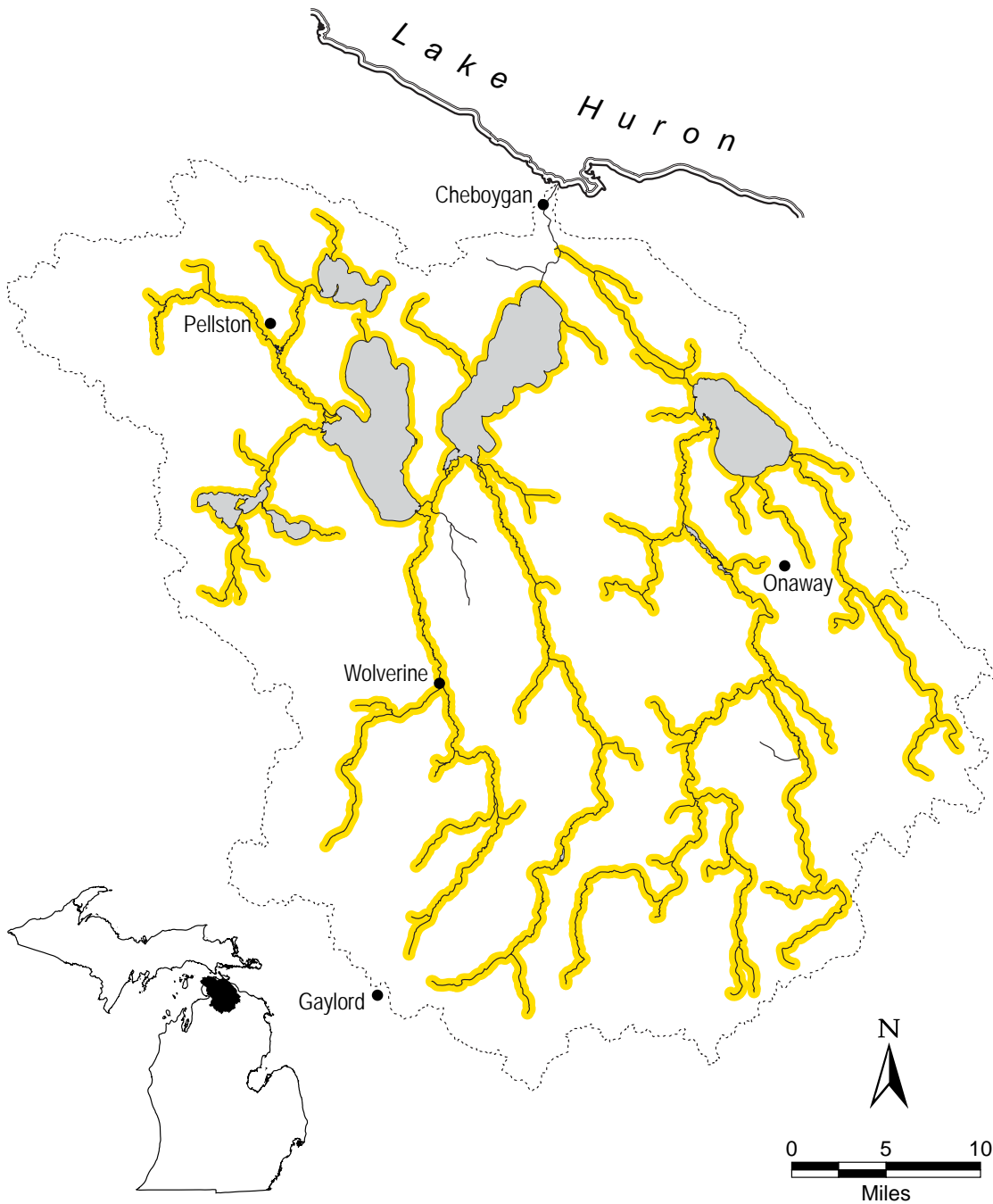
- feeding - lakes and streams
- high gradient
- gravel or boulder substrate



Western blacknose dace *Rhinichthys obtusus*

Habitat:

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



Creek chub *Semotilus atromaculatus*

Habitat:

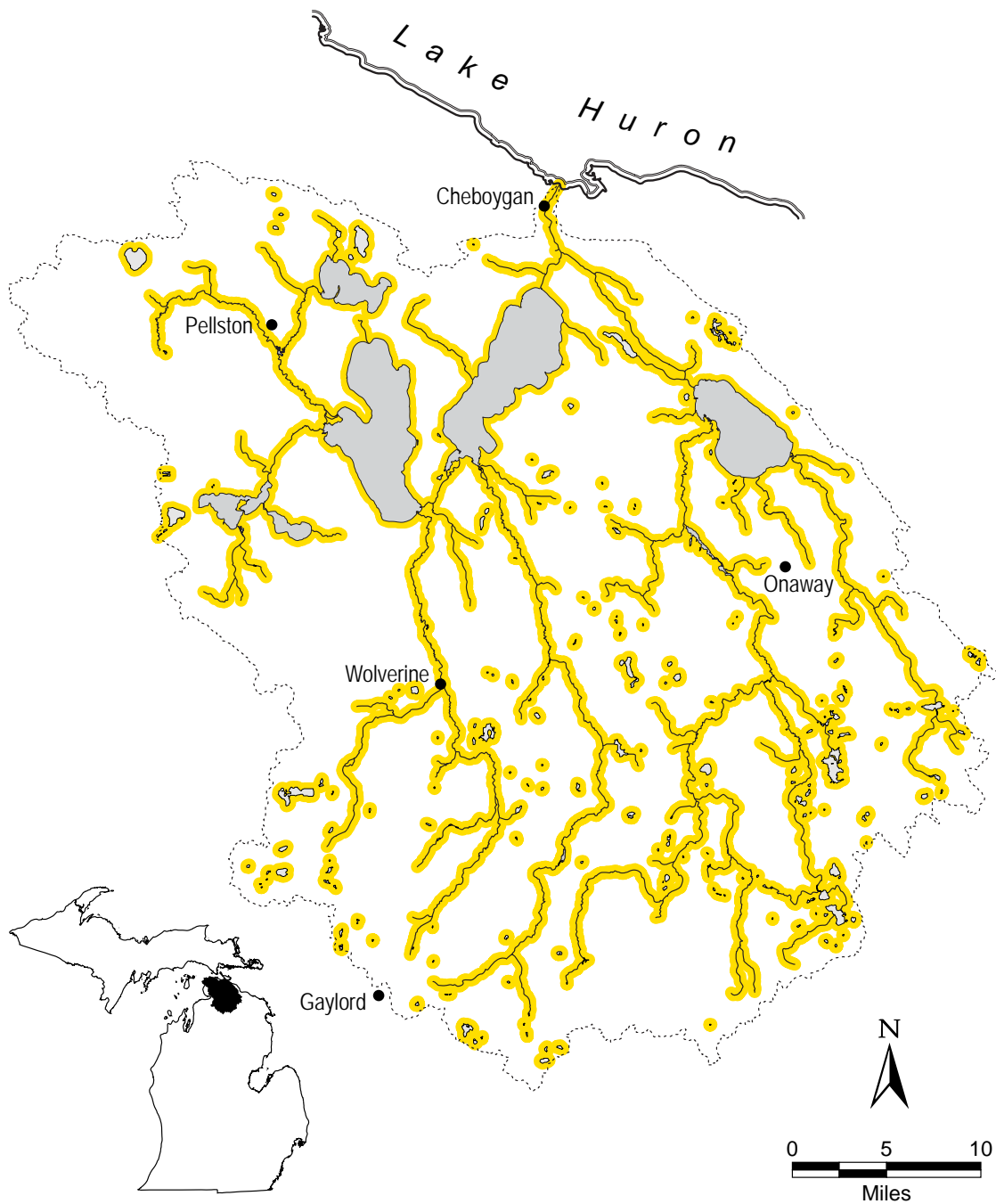
- feeding - streams, rivers, or shore waters of lakes and impoundments
- can tolerate intermittent flows
- tolerates moderate turbidity
- spawning - gravel nests
- low current
- winter refuge - deeper pools and runs



White sucker *Catostomus commersonii*

Habitat:

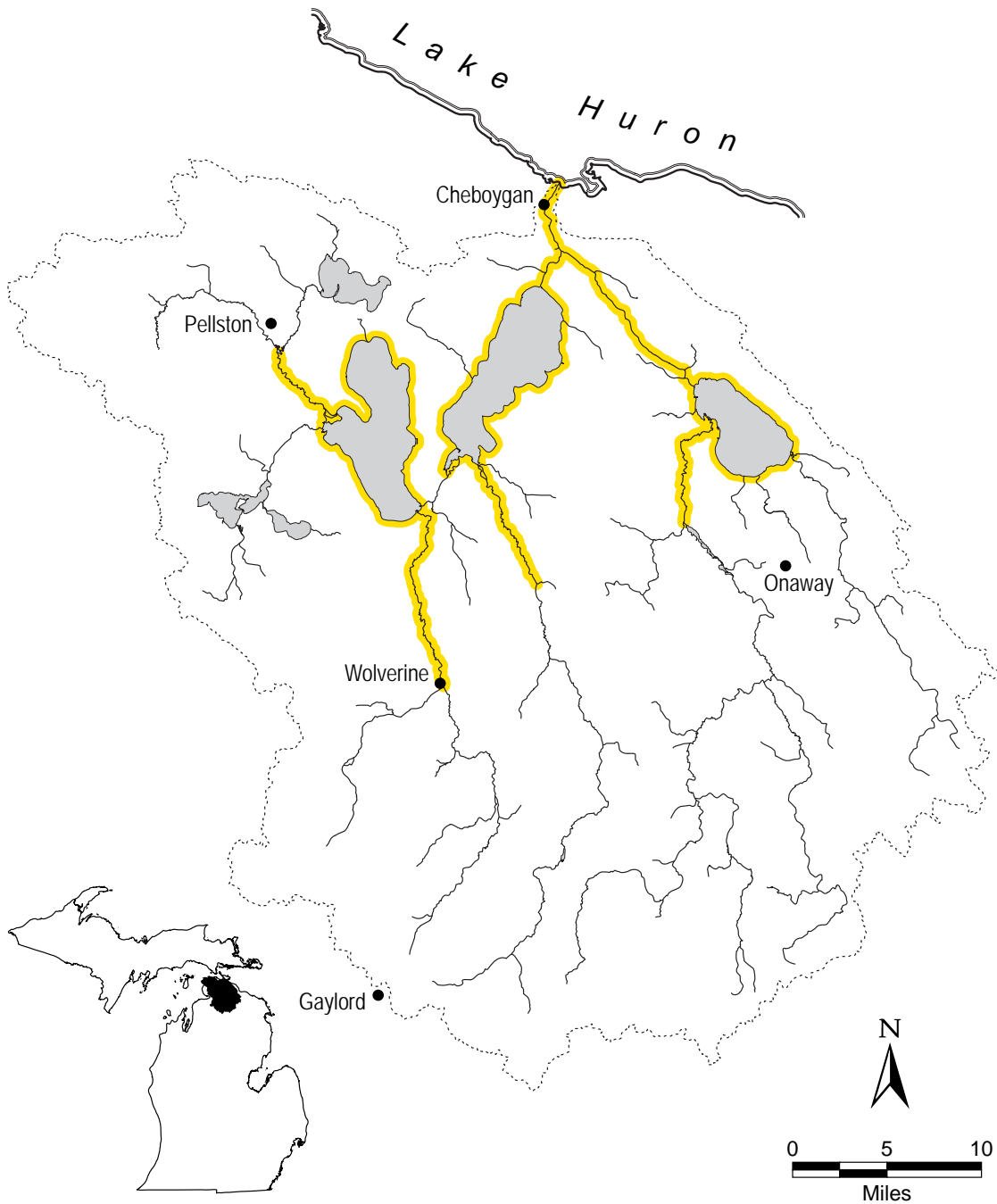
- feeding - streams, rivers, lakes, and impoundments
- can inhabit highly turbid and polluted waters
- spawning - quiet gravelly shallow areas of streams



Silver redhorse *Moxostoma anisurum*

Habitat:

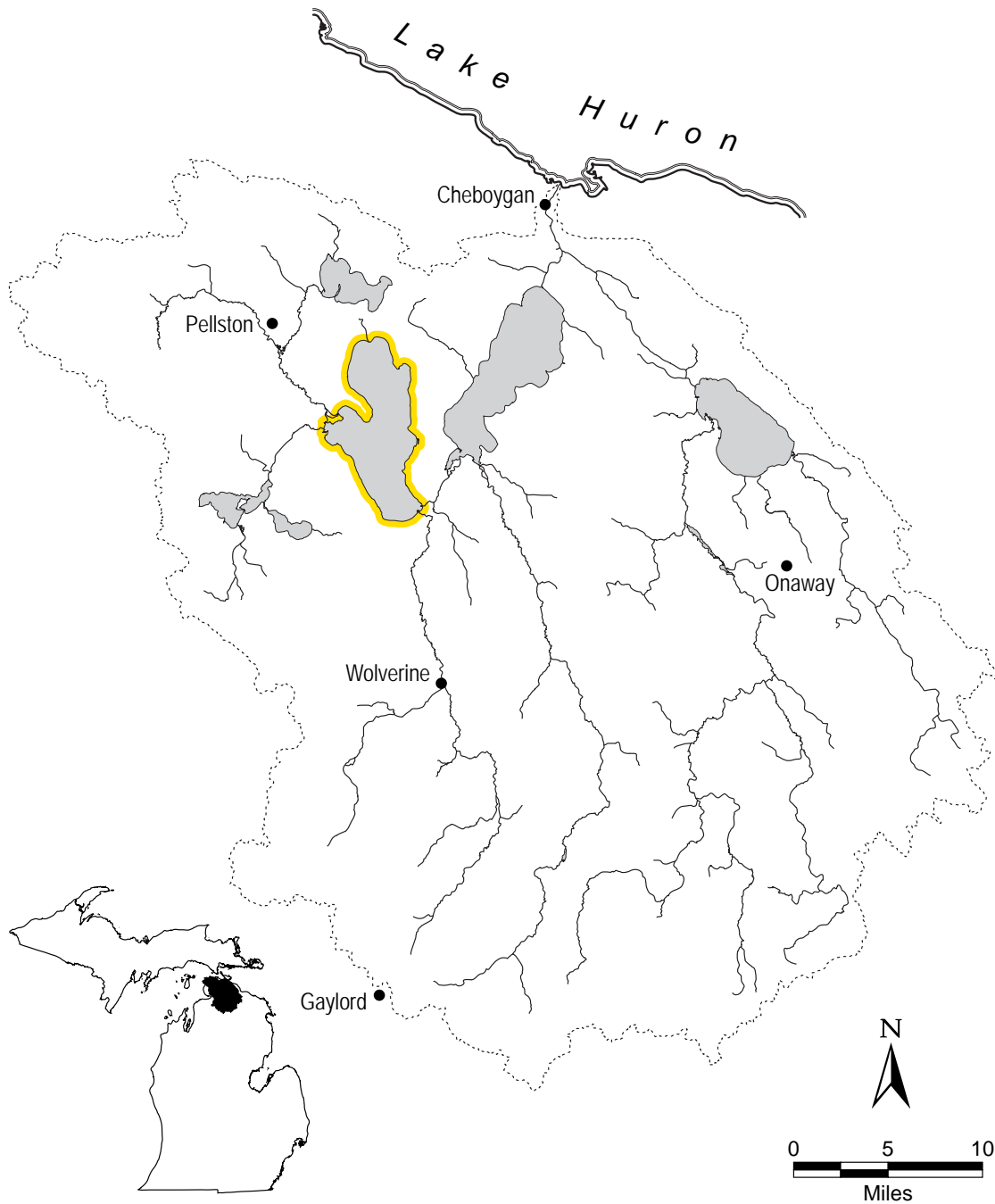
- feeding - streams, rivers, lakes, and impoundments
- low current
- pollution and turbidity intolerant
- spawning - swift current in rivers, do not spawn in tributaries
- males territorial
- gravel to rubble substrate



Golden redhorse *Moxostoma erythrurum*

Habitat:

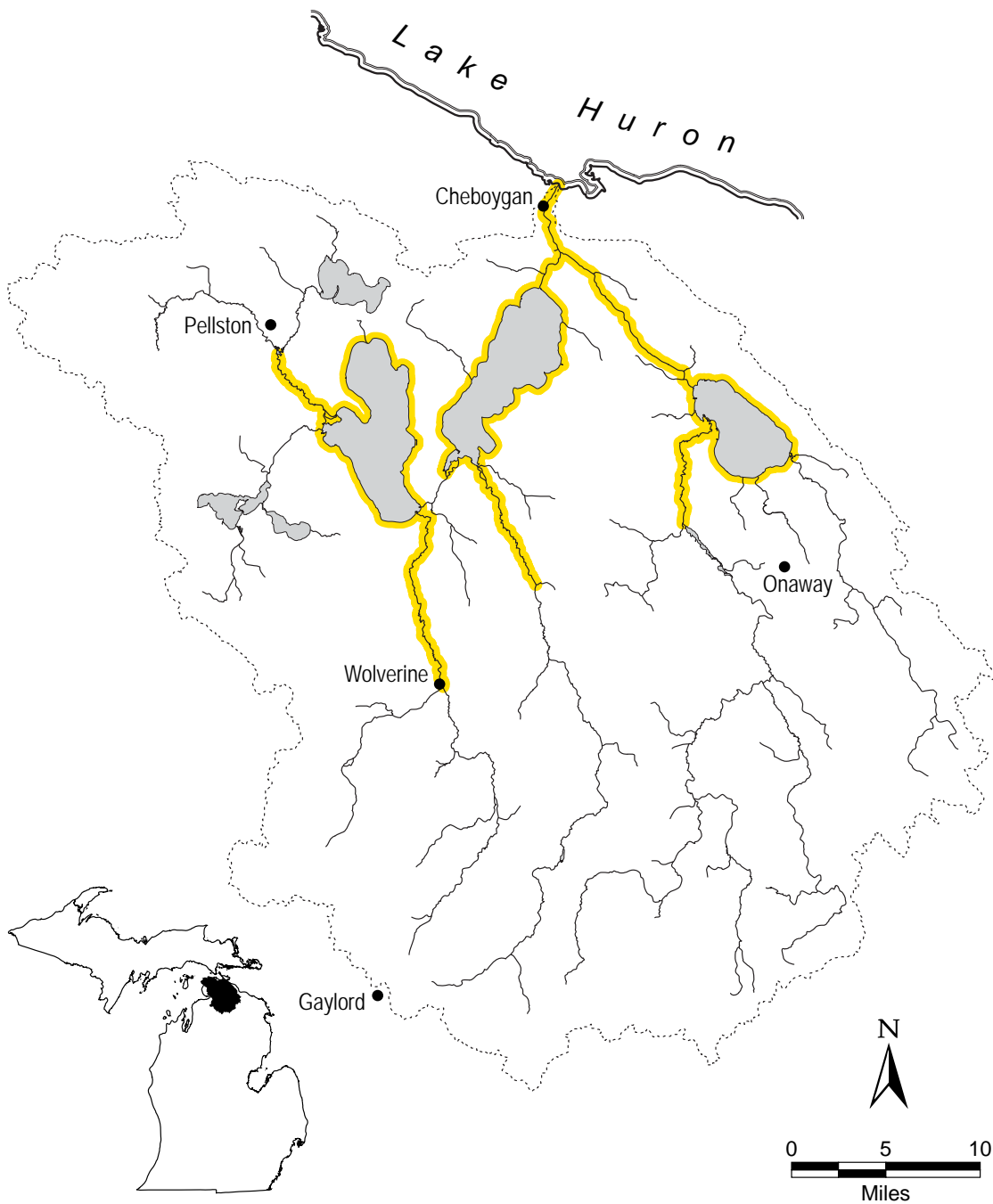
- feeding - warm medium gradient streams and rivers
- clear riffly streams
- medium size streams and rivers
- tolerates some turbidity and silt
- spawning - shallow gravelly riffles
- winter refuge - larger streams



Greater redhorse *Moxostoma valenciennesi*

Habitat:

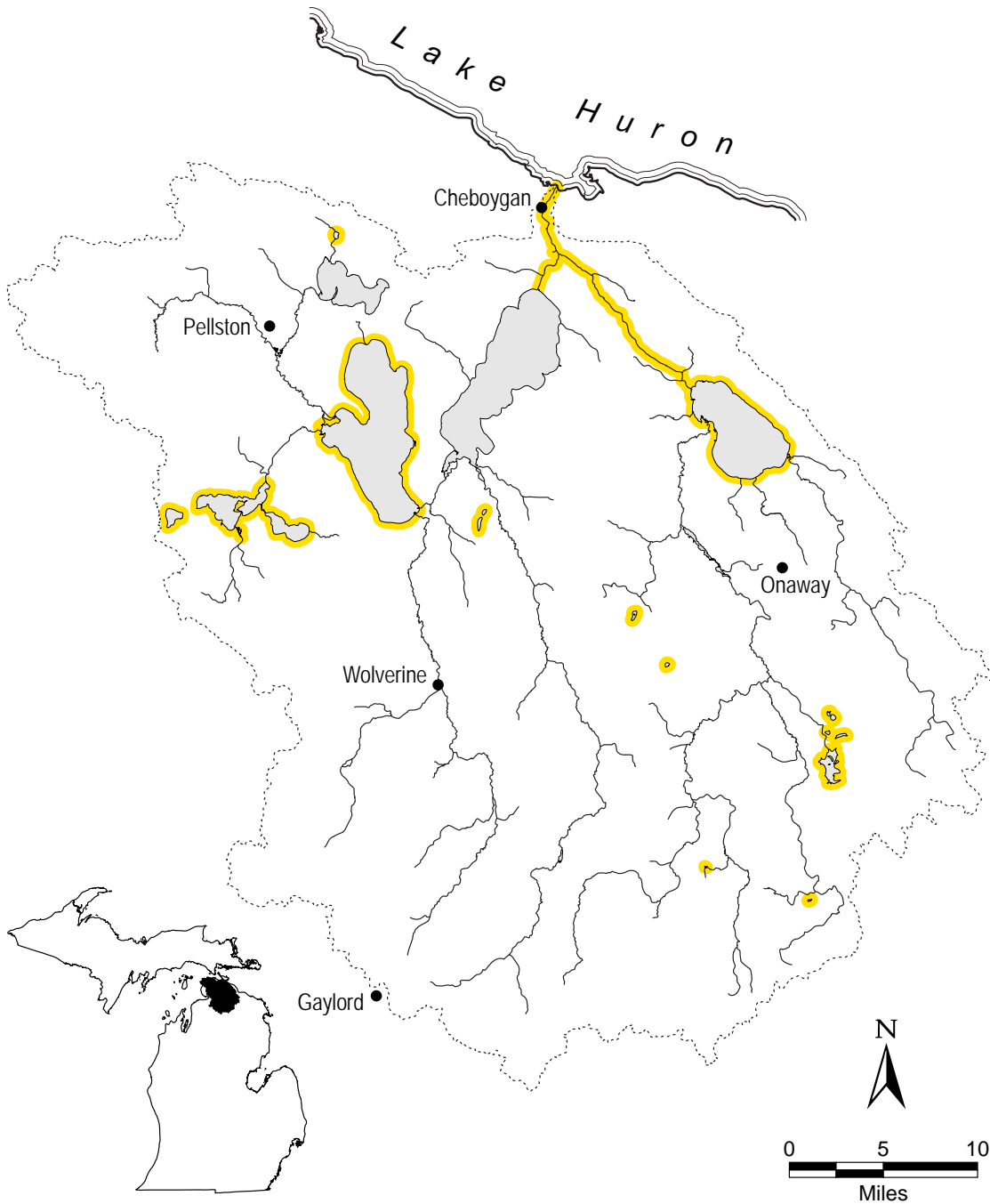
- feeding - large clear streams
- clean sand, gravel, or boulder substrate
- intolerant of excessive turbidity and chemical pollutants
- spawning - moderately rapid current



Black bullhead *Ameiurus melas*

Habitat:

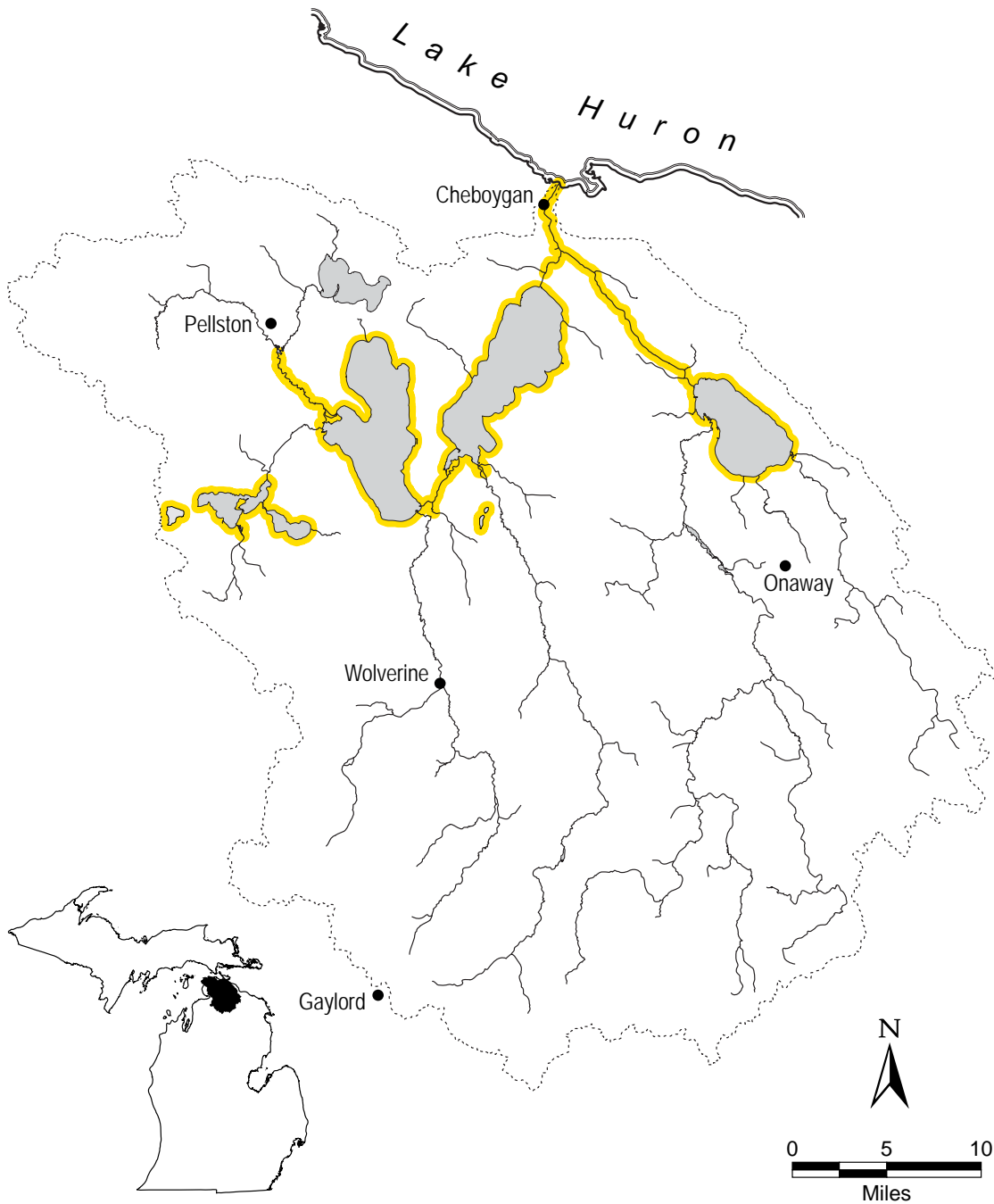
- feeding - turbid water
- silt bottom
- low gradient small to medium streams, pools, and headwaters of large rivers; also in lakes and impoundments
- can tolerate very warm water and very low dissolved oxygen
- spawning - nest in moderate to heavy vegetation or woody debris and under overhanging banks



Yellow bullhead *Ameiurus natalis*

Habitat:

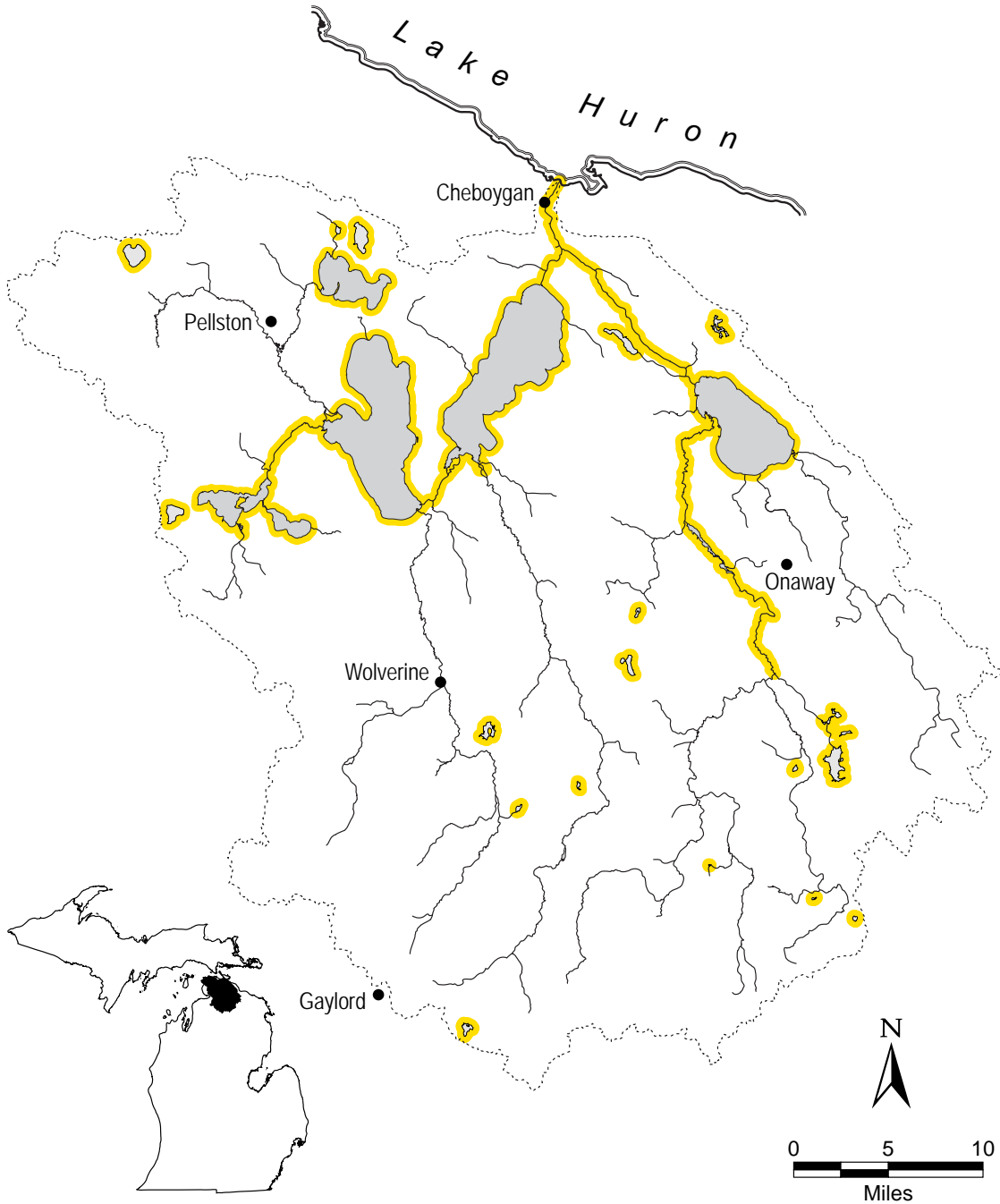
- feeding - clear flowing water
- heavy vegetation
- low gradient streams, lakes, and impoundments
- tolerant of low oxygen
- spawning - nest under a stream bank or near stones or stumps



Brown bullhead *Ameiurus nebulosus*

Habitat:

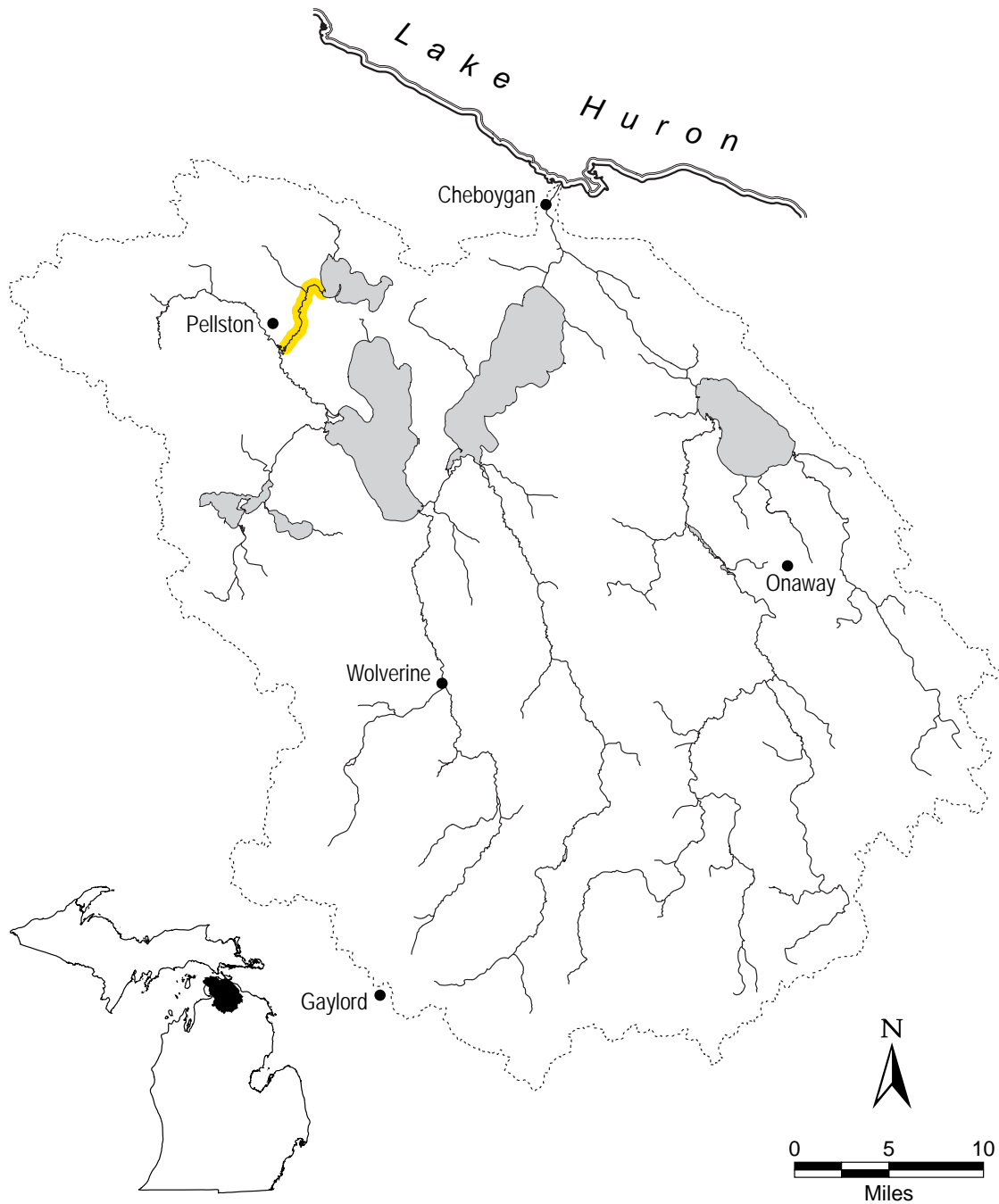
- feeding
 - larger streams and rivers, lakes and impoundments
 - clear cool water with little clayey silt
 - moderate amounts of aquatic vegetation
 - sand, gravel, or muck substrate
 - not tolerant of turbid water
 - tolerant of warm water and low oxygen
- spawning
 - nest in mud or sand substrate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



Grass pickerel *Esox americanus vermiculatus*

Habitat:

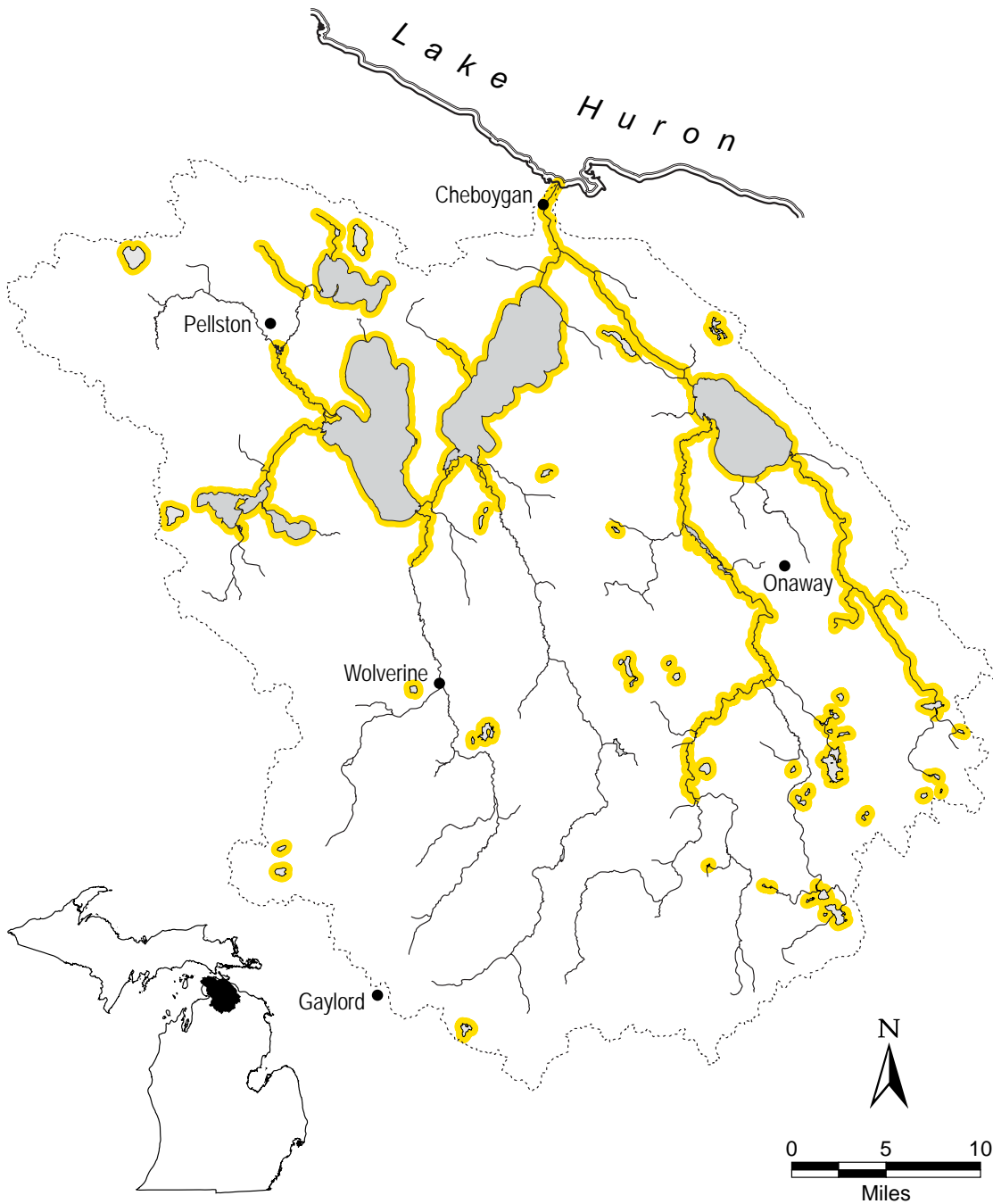
- feeding - juveniles: along shore
- adults: in deeper portions of streams, rivers, lakes, and impoundments
- clear water, little current, dense vegetation
- tolerates low oxygen concentrations
- spawning - broadcast spawner over submerged vegetation



Northern pike *Esox lucius*

Habitat:

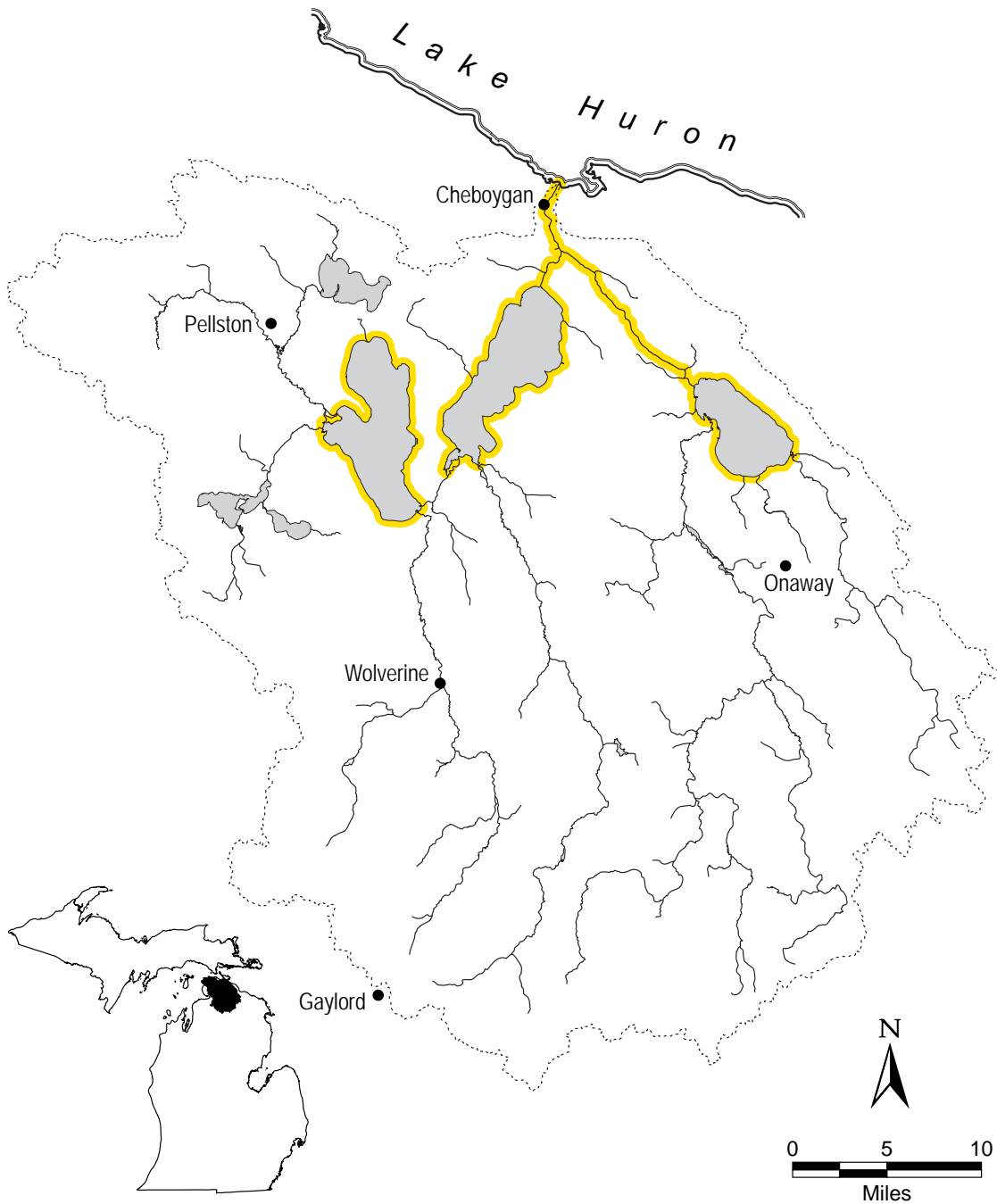
- feeding - cool to moderately warm streams, rivers, lakes, and impoundments
 - vegetation in slow to moderate current
- spawning - submerged vegetation with slow current in shallow water



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

