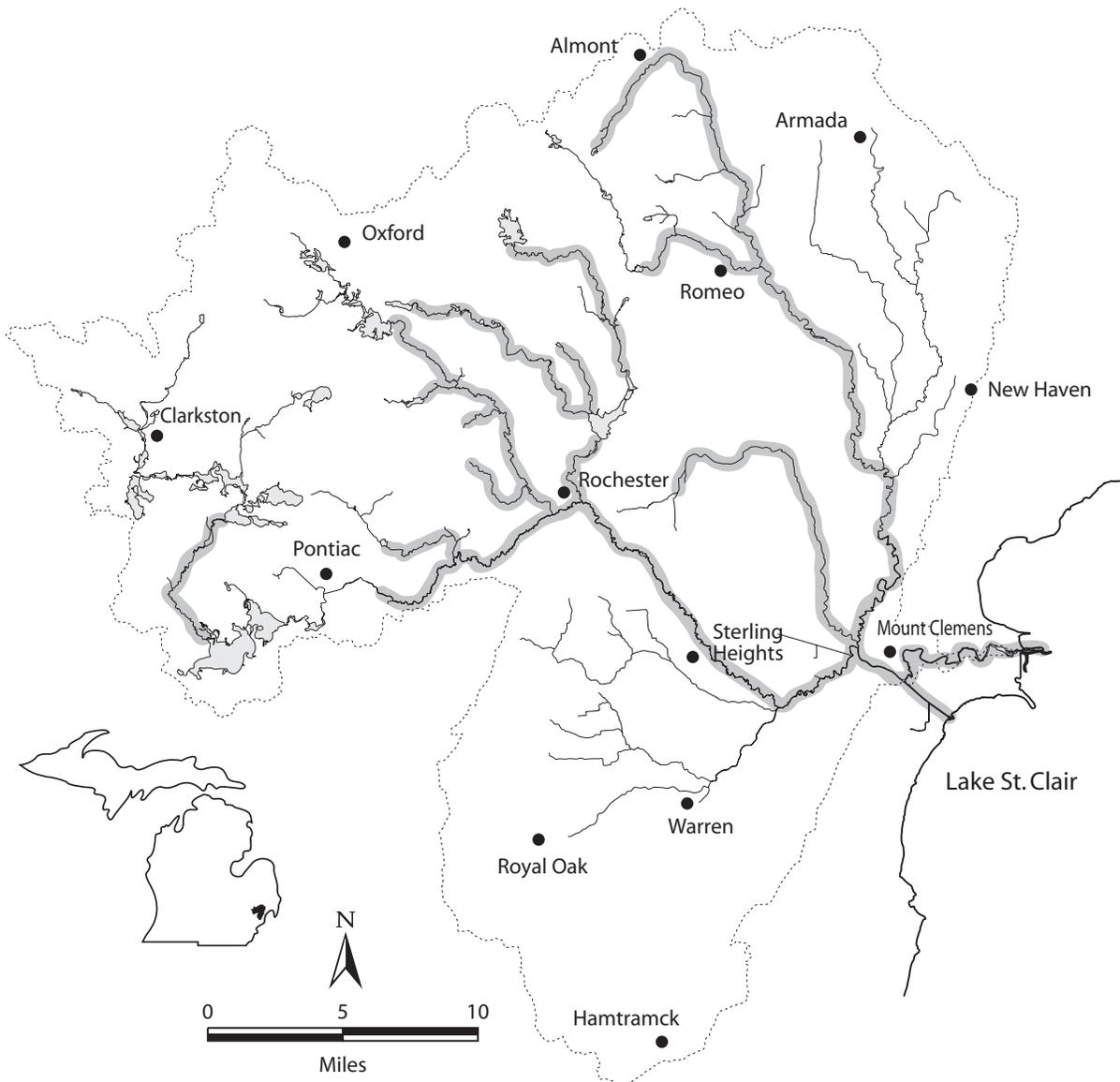


**Northern hog sucker (*Hypentelium nigricans*)**

**Habitat:**

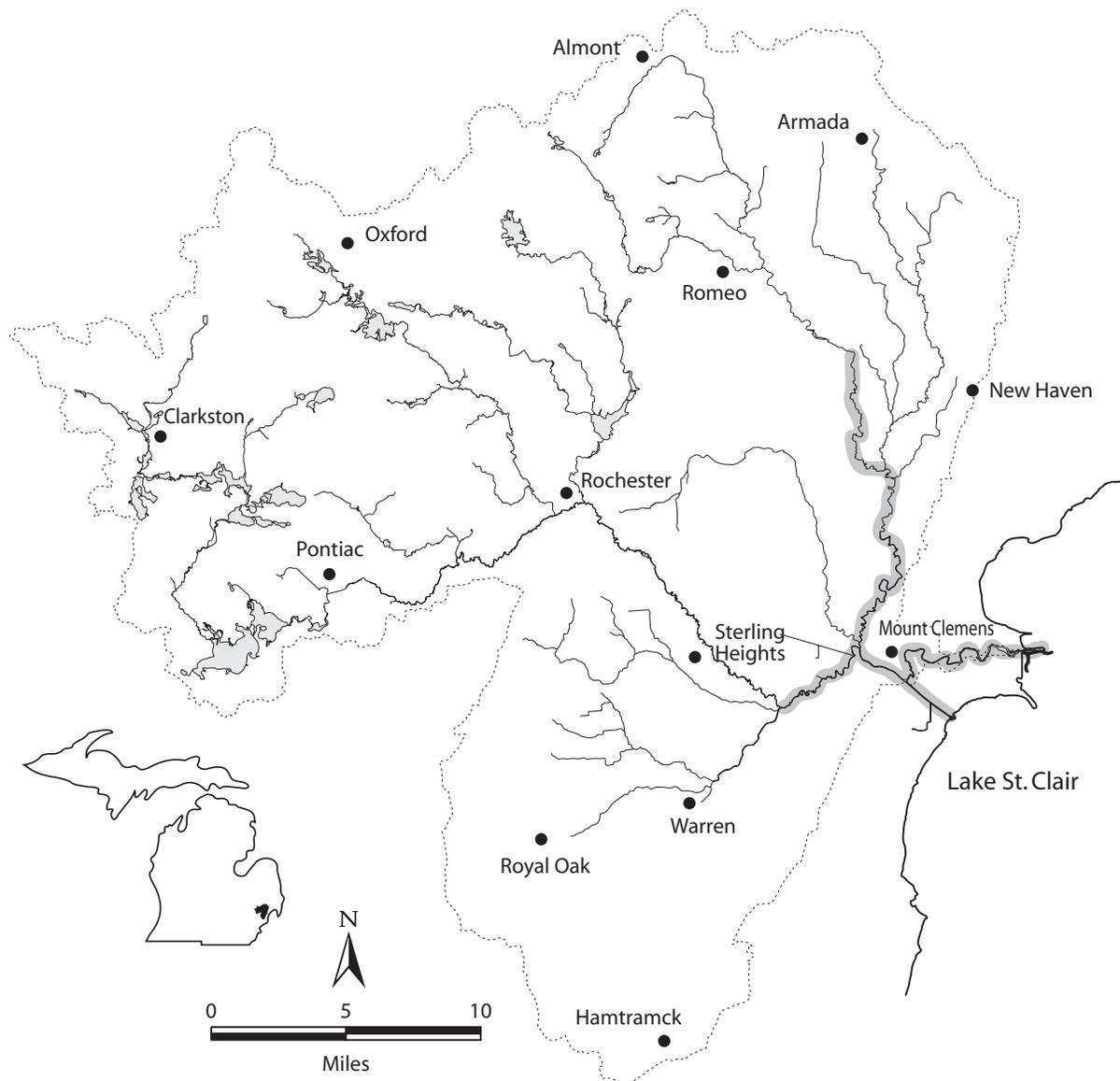
- feeding - gravel or rubble substrate
- riffles and adjacent pools of warm shallow streams
- clear water
- doesn't like turbidity or siltation
- avoids profuse amounts of aquatic vegetation
  
- spawning - riffles
- shallow gravel substrate
- high gradient
  
- winter refuge - deeper quieter pools



**Spotted sucker (*Minytrema melanops*)**

**Habitat:**

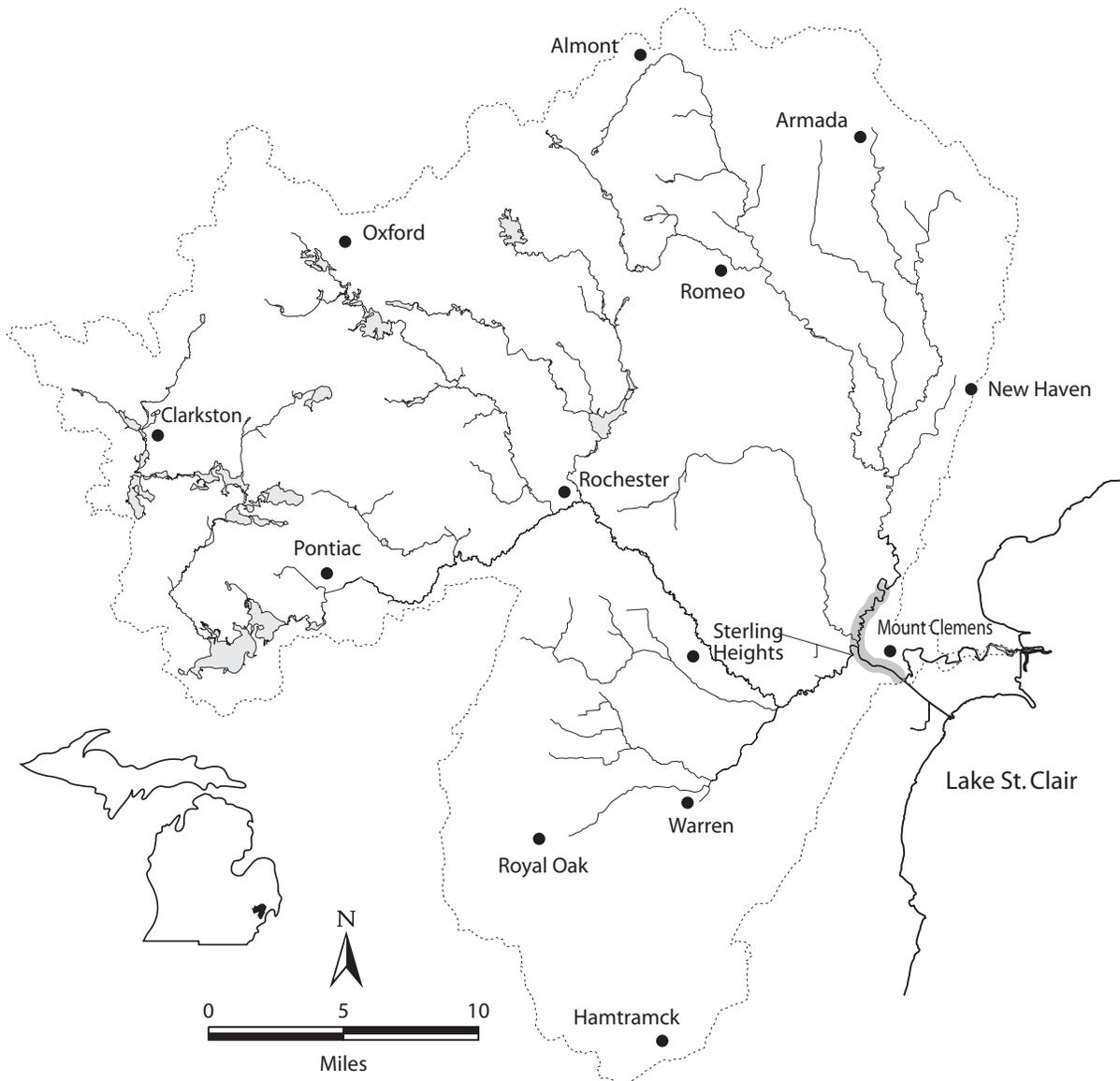
- feeding - clear warm rivers (pools, backwaters) with little current
  - abundant vegetation
  - soft substrate with organic debris
  - intolerant of turbidity
- spawning - riffles



**Silver redhorse (*Moxostoma anisurum*)**

**Habitat:**

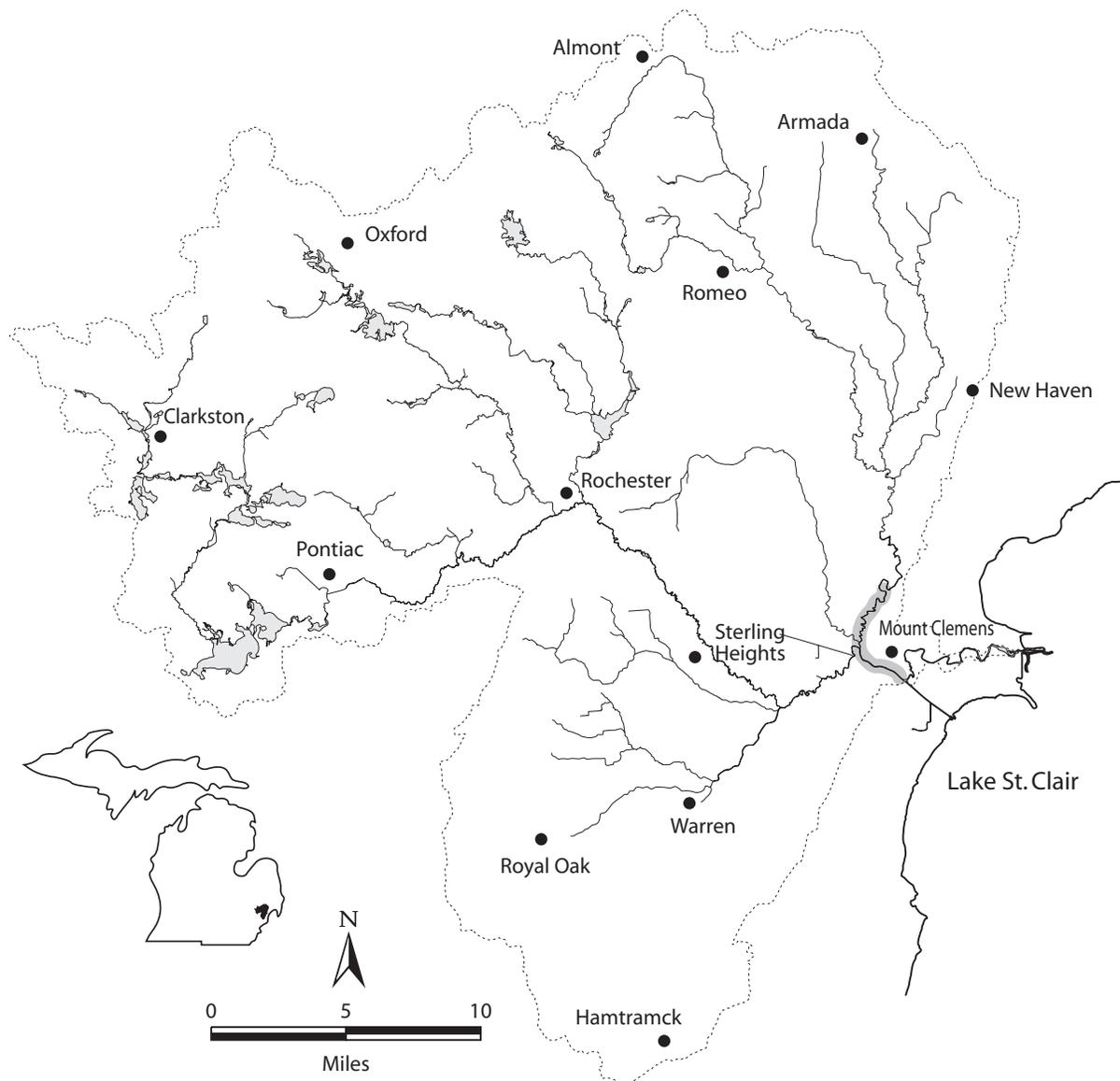
- feeding - streams, rivers, lakes, and impoundments
- low current
- pollution and turbidity intolerant
  
- spawning - swift current in rivers, do not spawn in tributaries
- males territorial
- gravel to rubble substrate



**Black redhorse (*Moxostoma duquesnei*)**

**Habitat:**

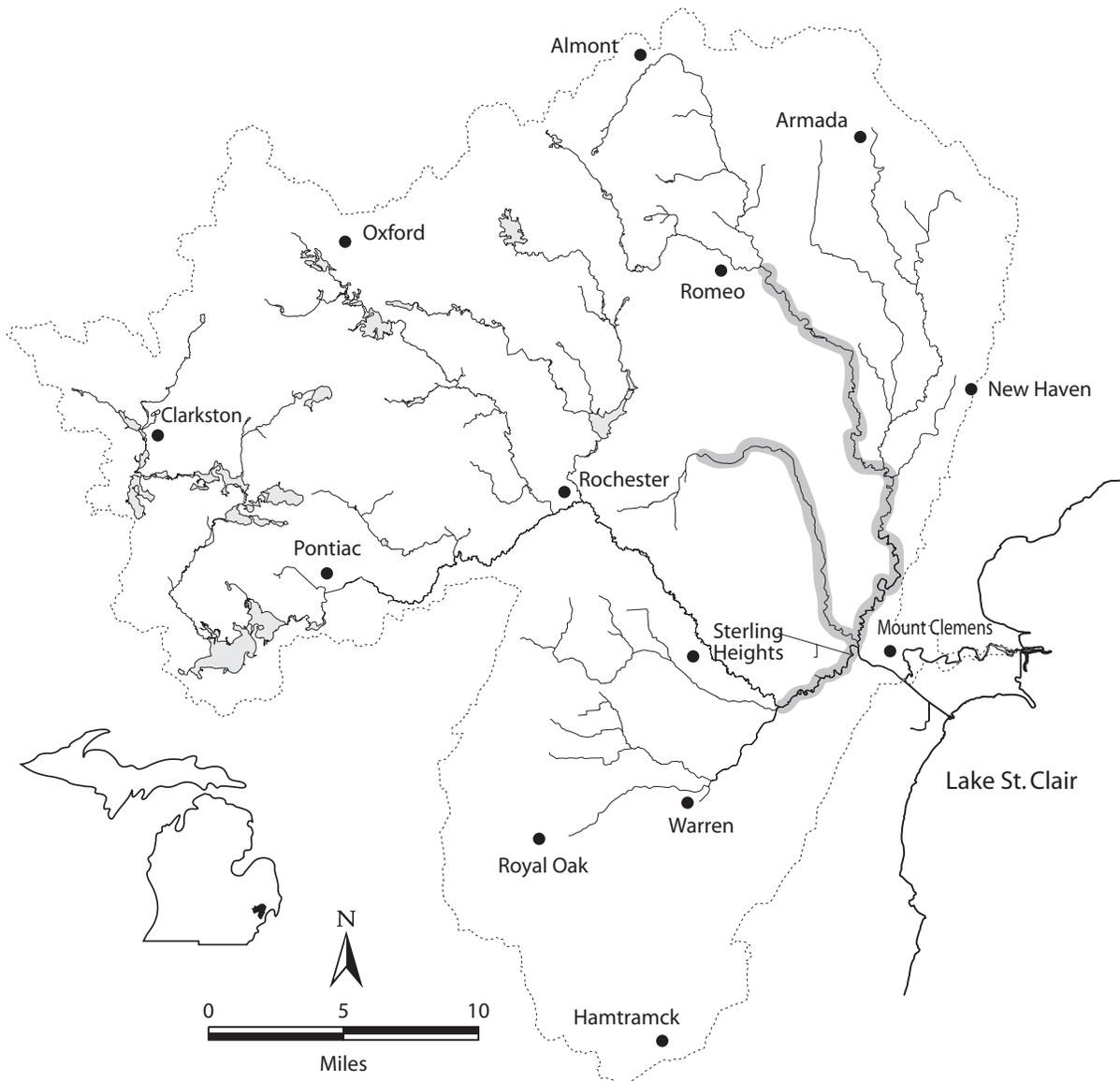
- feeding - gravel substrate
- clear water, intolerant of siltation, turbidity, and low gradients
- medium size streams
- cooler swifter streams and short rocky pools with current
  
- spawning - gravelly riffles
  
- winter refuge - deeper holes



**Golden redhorse (*Moxostoma erythrurum*)**

**Habitat:**

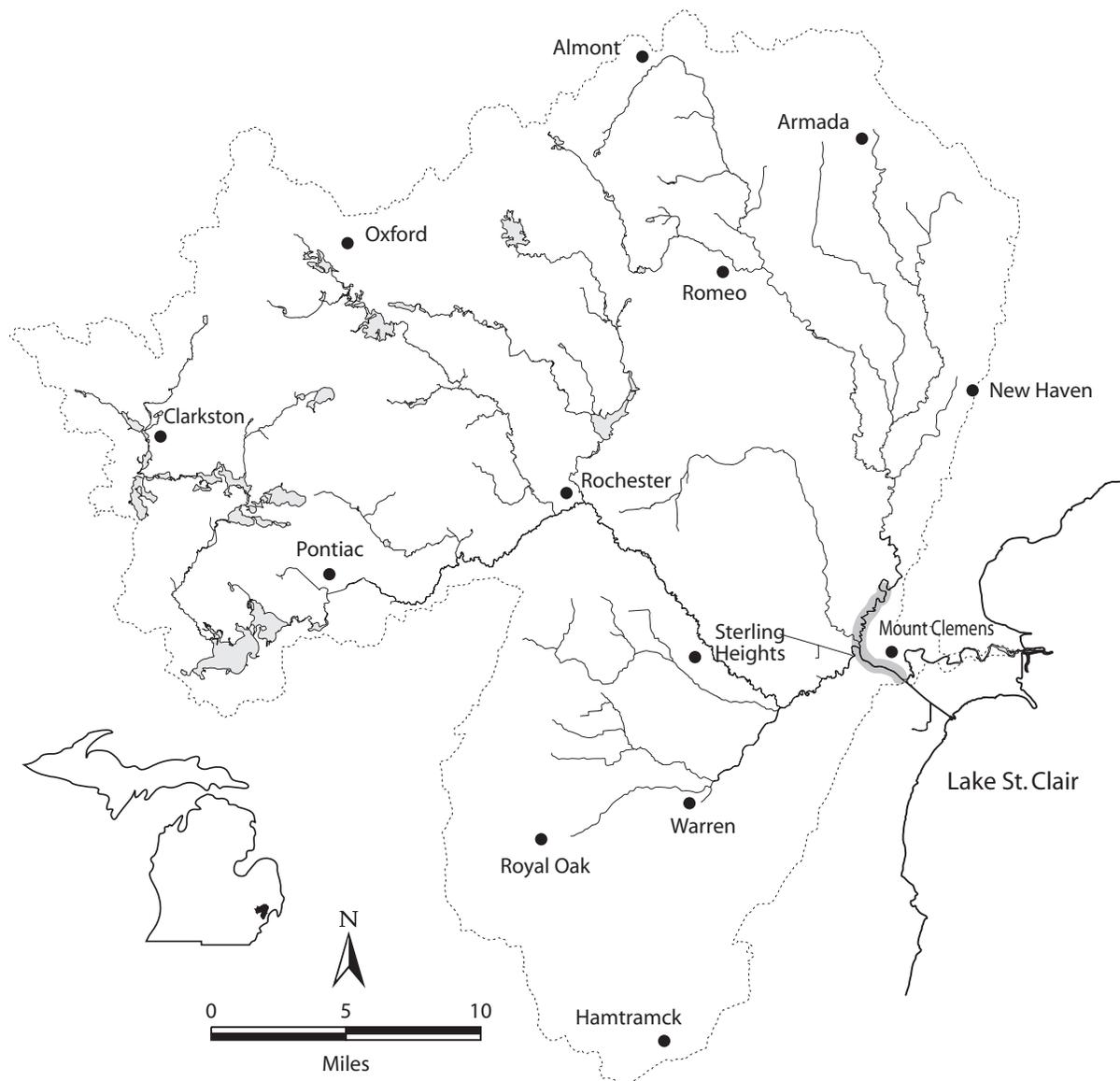
- feeding - warm medium gradient streams and rivers
- clear riffly streams
- medium size streams and rivers
- tolerates some turbidity and silt
  
- spawning - shallow gravelly riffles
  
- winter refuge - larger streams



**Shorthead redhorse** (*Moxostoma macrolepidotum*)

**Habitat:**

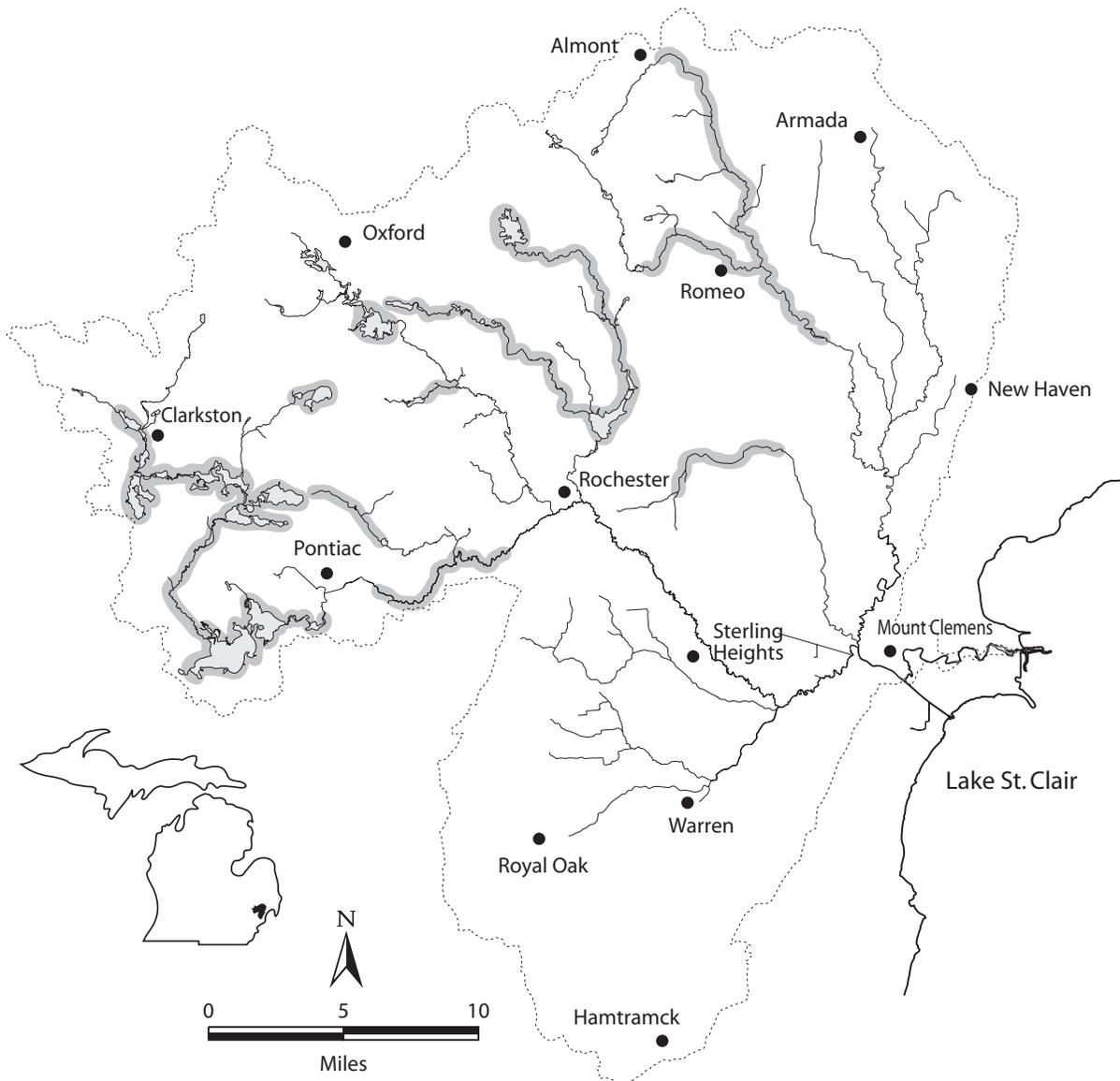
- feeding - downstream sections of large rivers, lakes, and impoundments
  - rocky substrates
  - swift water near riffles
  - clear to slightly turbid water
- spawning - gravelly riffles in smaller feeder streams



**Black bullhead (*Ameiurus melas*)**

**Habitat:**

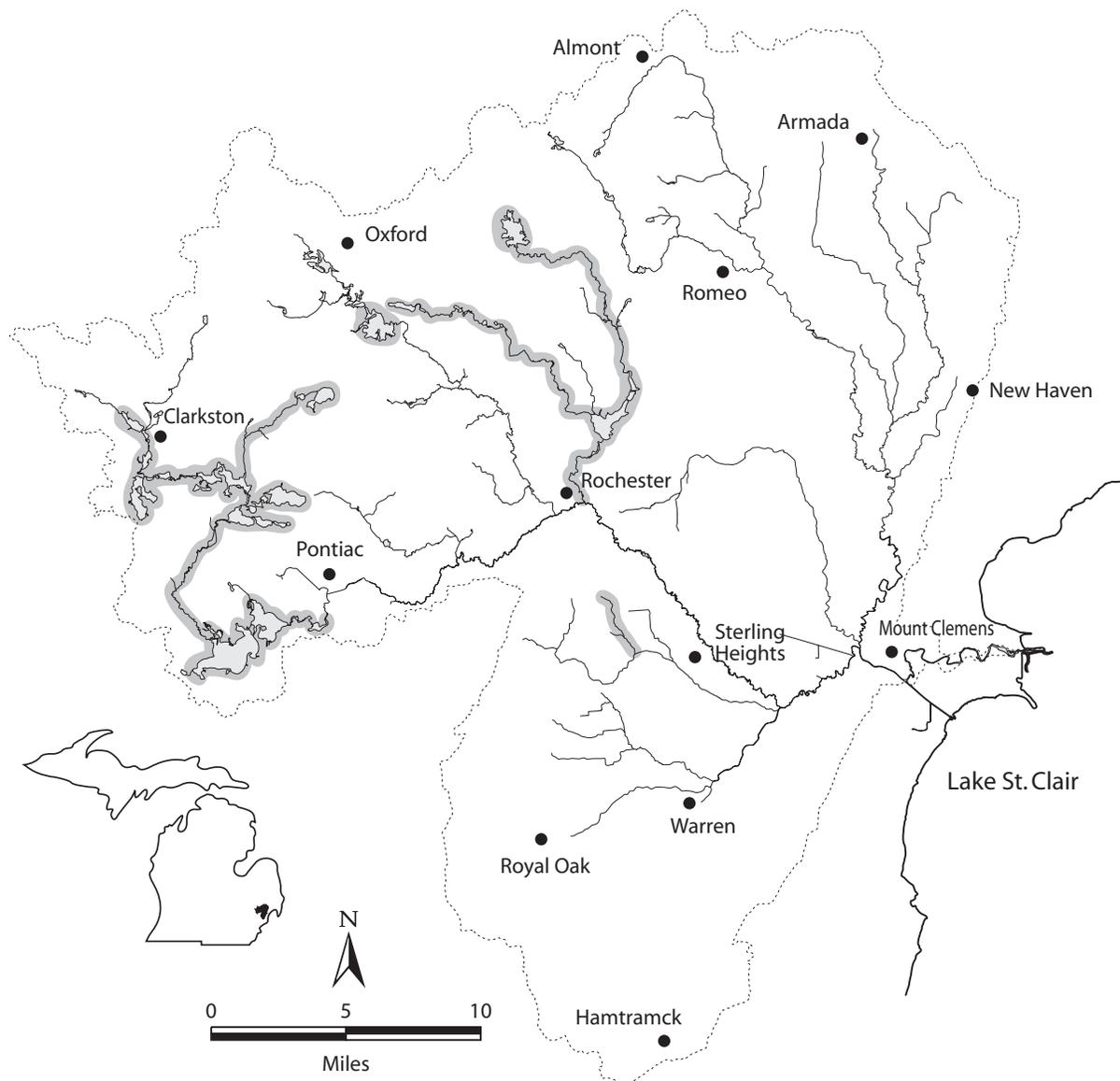
- feeding - turbid water
  - silt bottom
  - low gradient small to medium streams, pools, and headwaters of large rivers; also in lakes and impoundments
  - can tolerate very warm water and very low dissolved oxygen
- spawning - nest in moderate to heavy vegetation or woody debris and under overhanging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



**Yellow bullhead** (*Ameiurus natalis*)

**Habitat:**

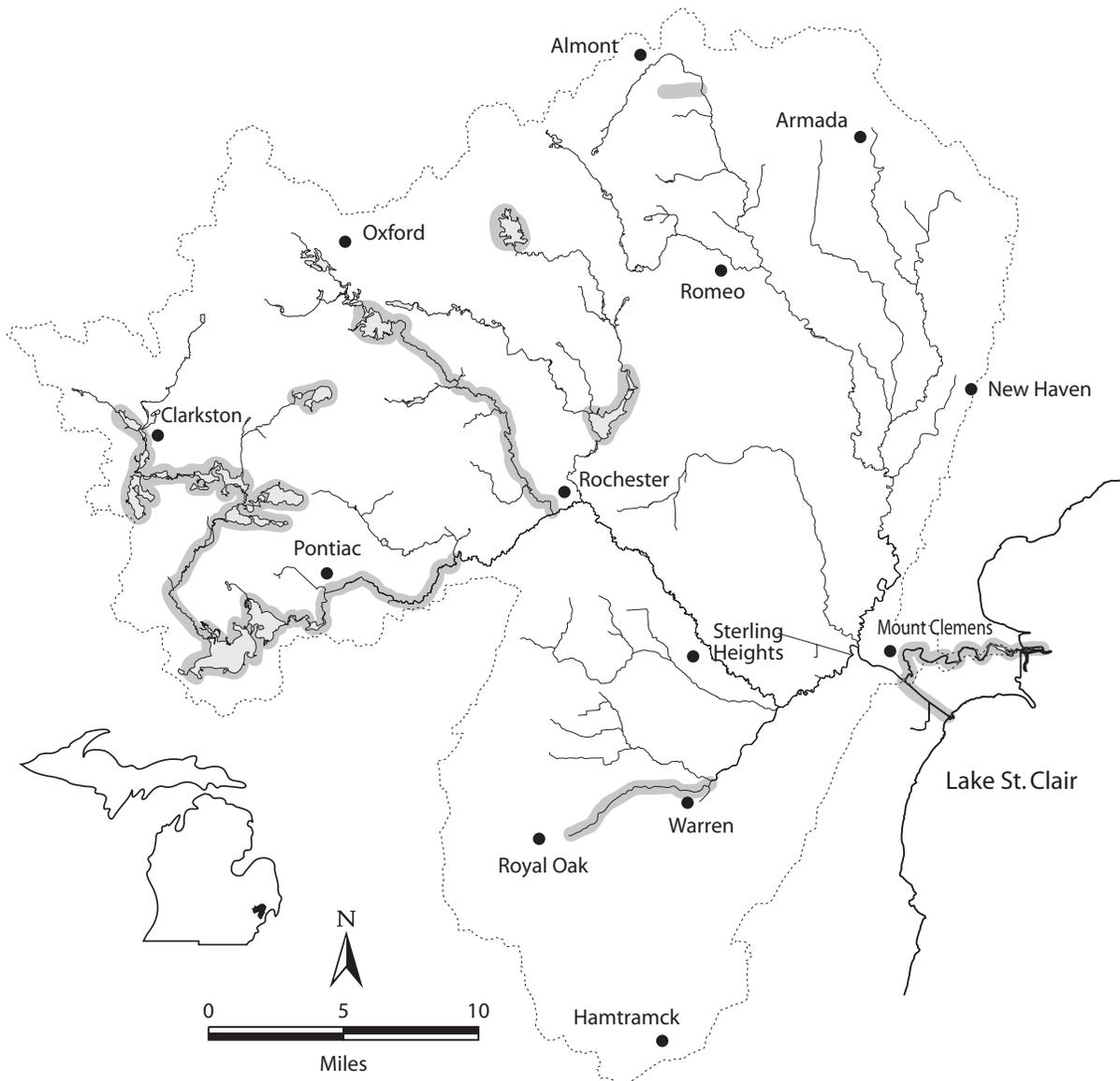
- feeding - clear flowing water
  - heavy vegetation
  - low gradient streams, lakes, and impoundments
  - tolerant of low oxygen
- spawning - nest under a stream bank or near stones or stumps



**Brown bullhead (*Ameiurus nebulosus*)**

**Habitat:**

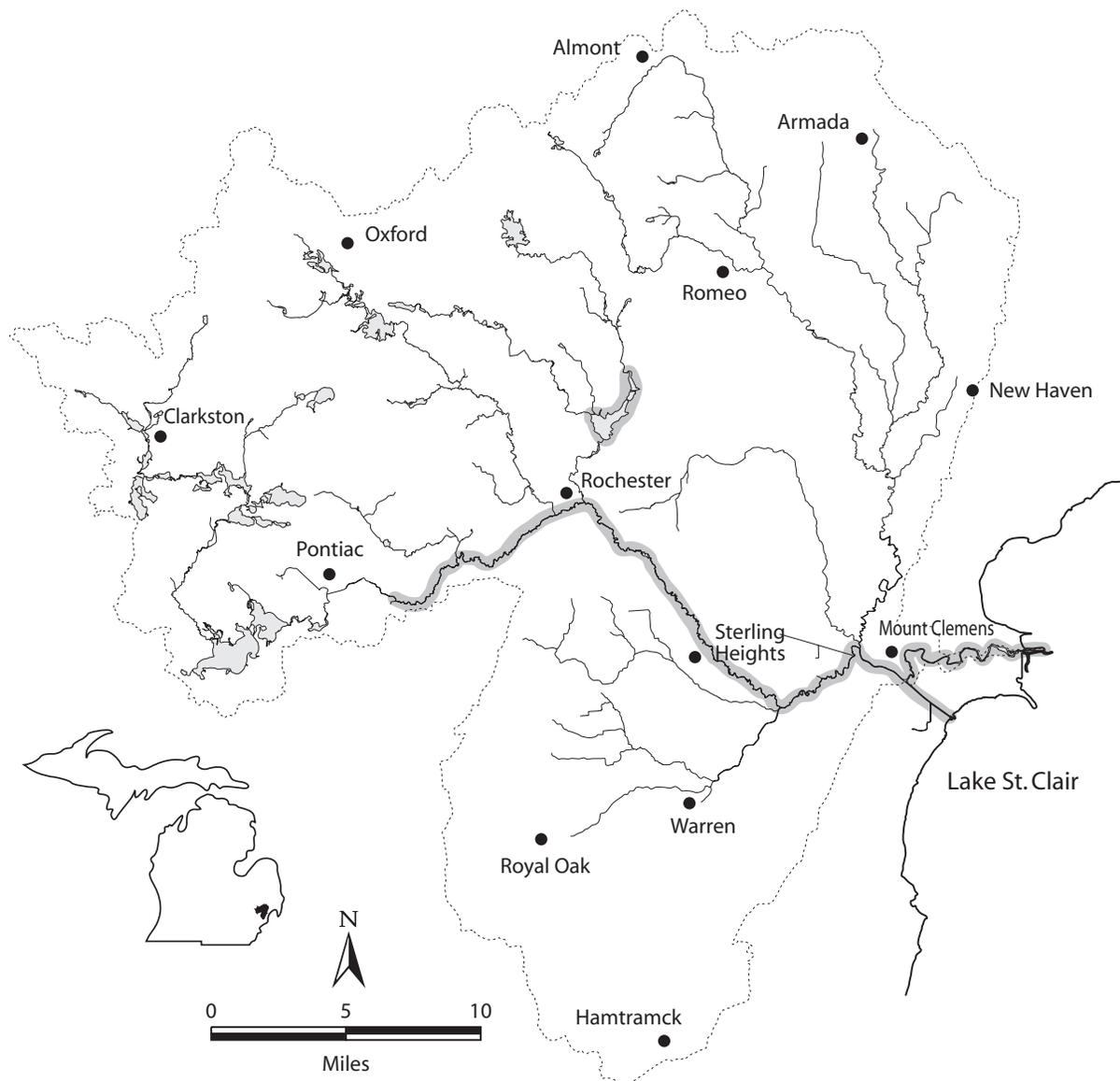
- feeding
  - larger streams and rivers, lakes and impoundments
  - clear cool water with little clayey silt
  - moderate amounts of aquatic vegetation
  - sand, gravel, or muck substrate
  - not tolerant of turbid water
  - tolerant of warm water and low oxygen
  
- spawning
  - nest in mud or sand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



**Channel catfish (*Ictalurus punctatus*)**

**Habitat:**

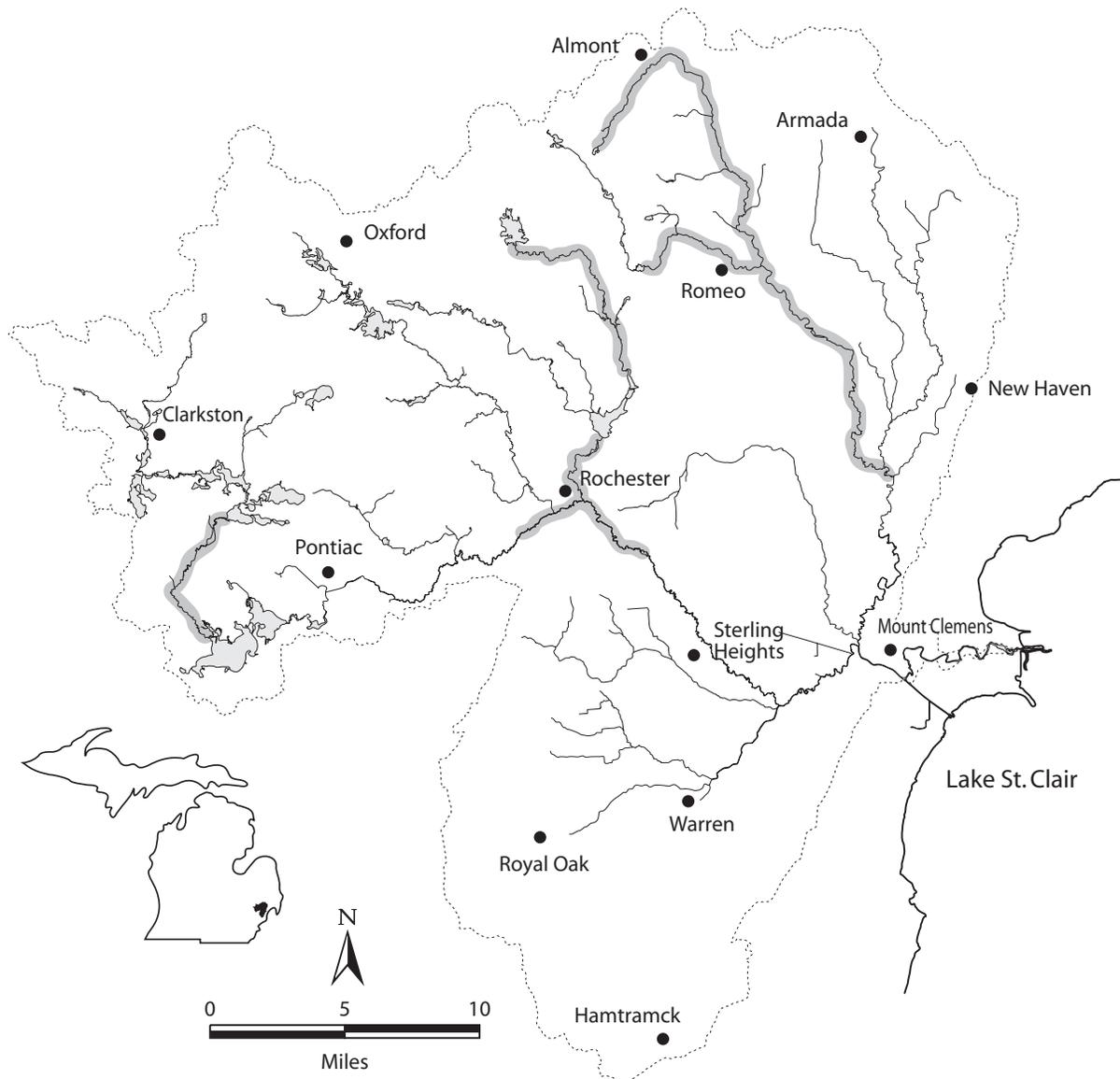
- feeding - moderately-clear, deeper waters of rivers, lakes, and impoundments
- sand, gravel, or rubble substrate
- low to moderate gradient
  
- spawning - secluded semi-dark areas such as holes, under banks, log jams, or rocks



**Stonecat** (*Noturus flavus*)

**Habitat:**

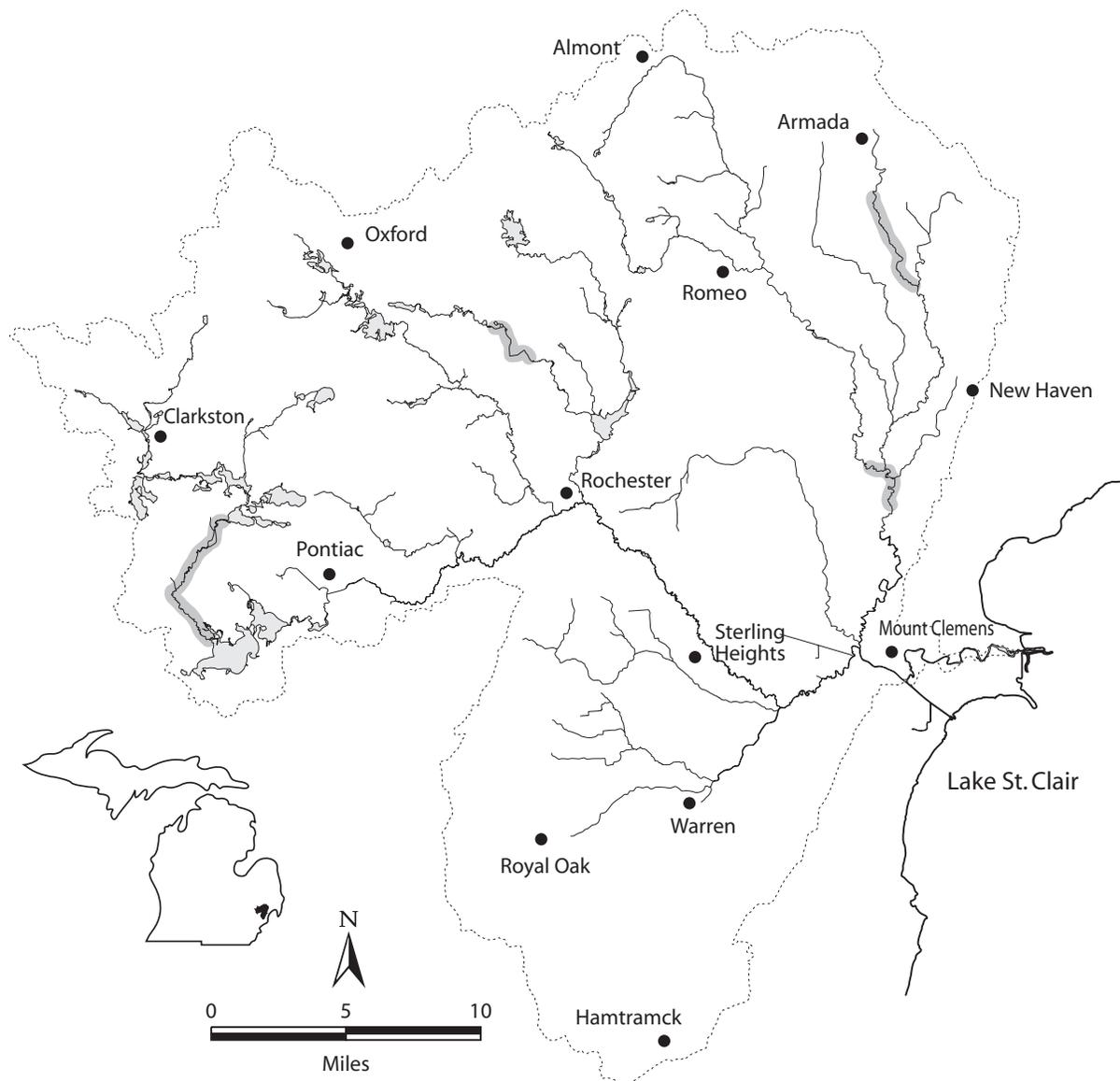
- feeding - consistent low to moderate gradient flowing water
- rocky riffles of larger streams and smaller rivers
- not tolerant of silt
- tolerant of low oxygen and pollution
  
- spawning - eggs deposited beneath stones
- shallow rocky areas of streams or lakes



**Tadpole madtom (*Noturus gyrinus*)**

**Habitat:**

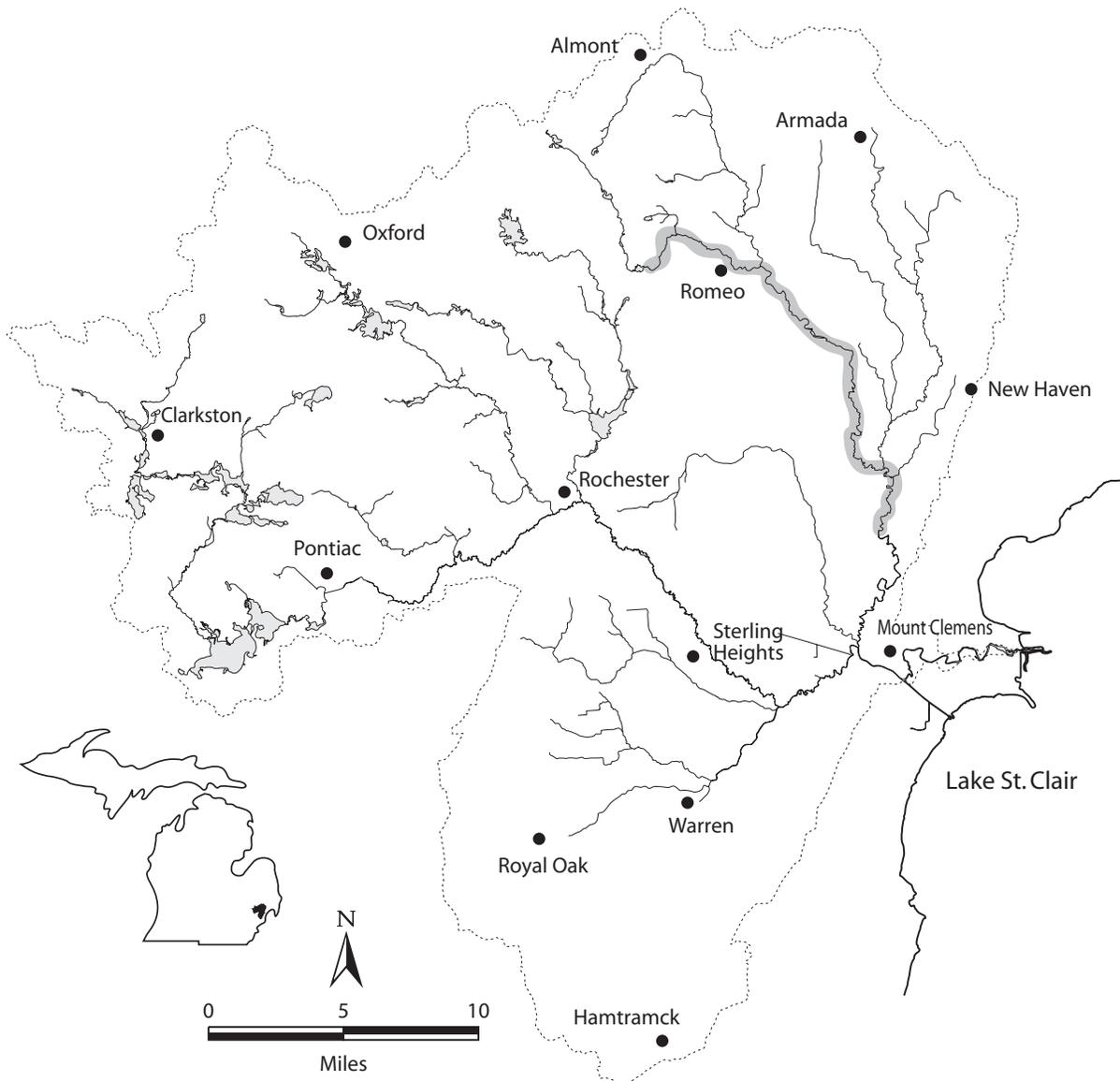
- feeding
  - vegetative cover in low-moderate current waters
  - muddy substrate with extensive vegetation
  - clear waters of streams, rivers, and lakes
  
- spawning
  - mostly in rivers, sometimes shallows of lakes
  - nests in dark cavities (ex: beneath boards, logs, crayfish burrows)



**Brindled madtom (*Noturus miurus*) – special concern**

**Habitat:**

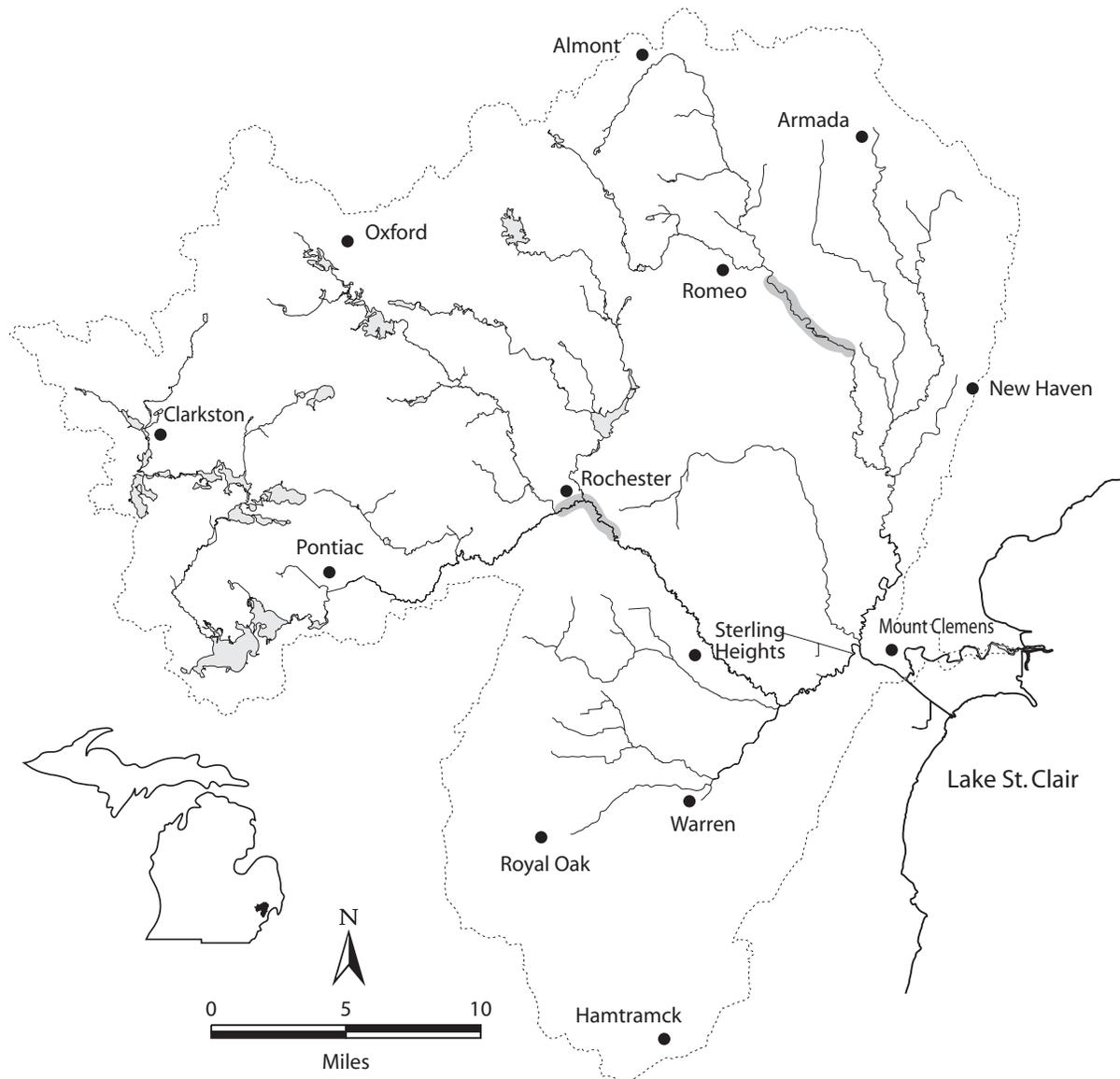
- feeding - low gradient streams or pools of higher gradient reaches
- sand or organic debris substrate - no clayey silts
- in riffles of sluggish or moderate flow if sand is present
  
- spawning - silt or mud substrate
- emergent vegetation



**Northern madtom** (*Noturus stigmosus*) – endangered

**Habitat:**

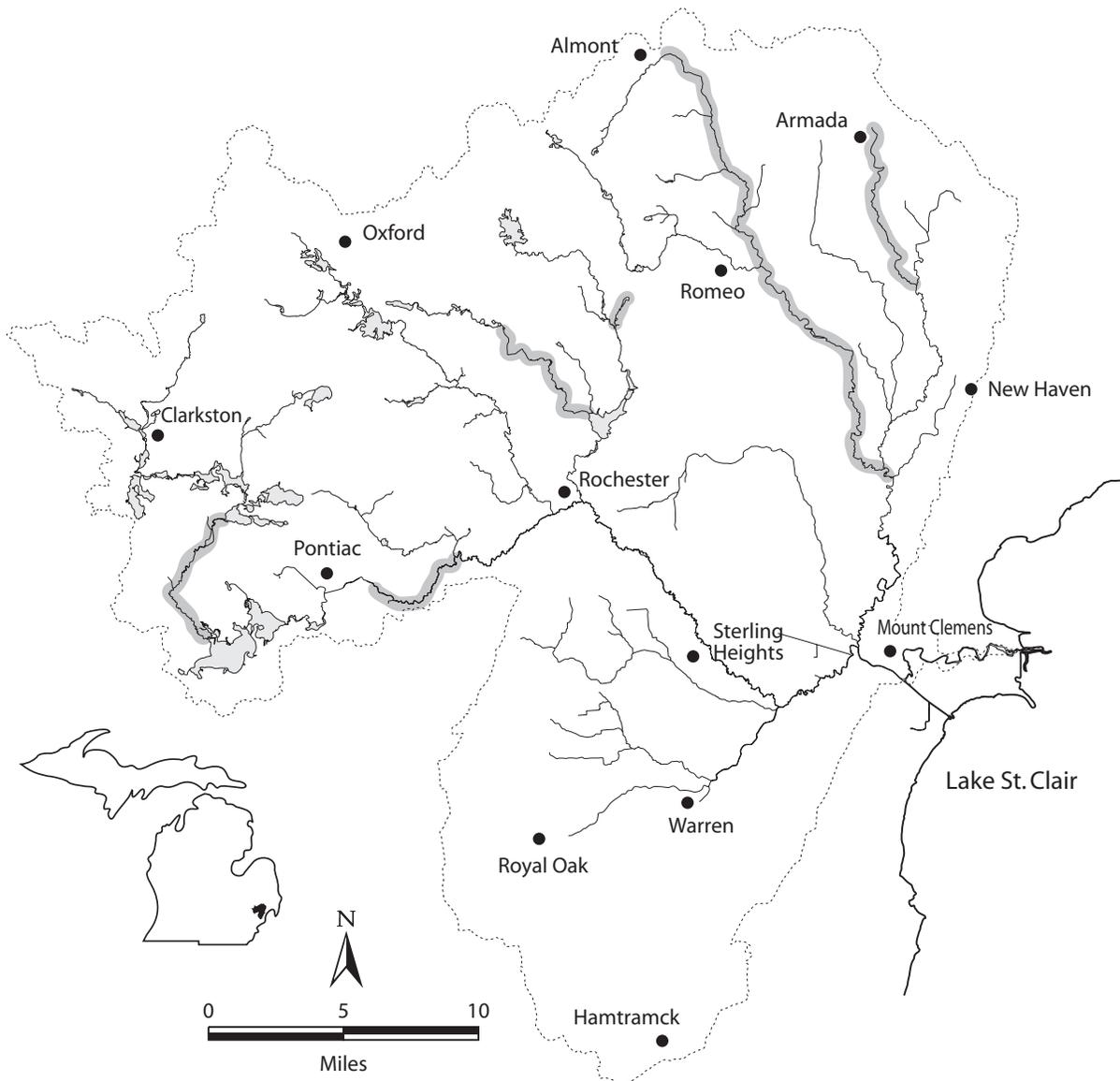
- feeding - deep, wide, swift riffles of streams and rivers
- gravel and boulder substrates



**Grass pickerel** (*Esox americanus vermiculatus*)

**Habitat:**

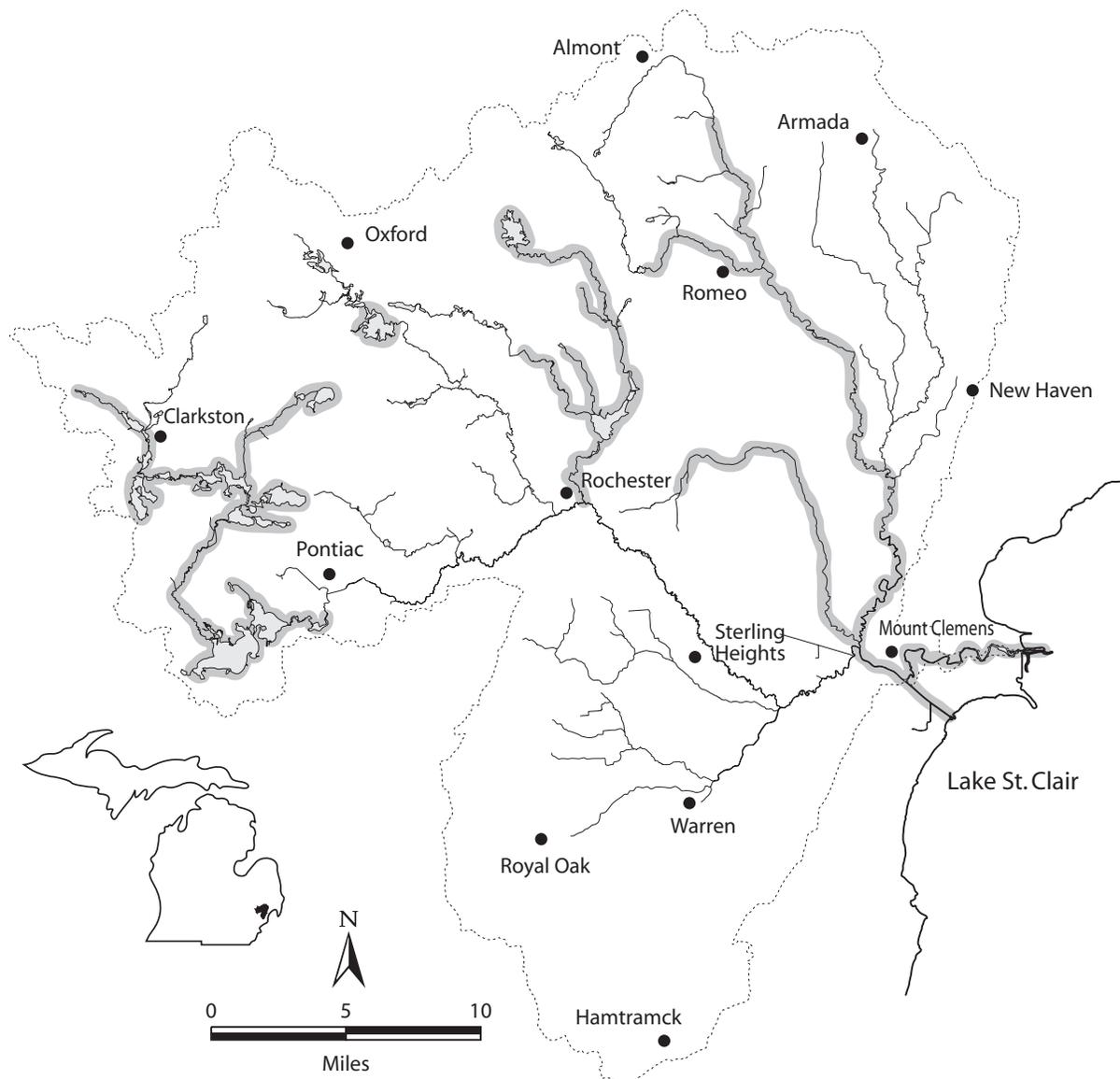
- feeding - juveniles: along shore
- adults: in deeper portions of streams, rivers, lakes, and impoundments
- clear water, little current, dense vegetation
- tolerates low oxygen concentrations
  
- spawning - broadcast spawner over submerged vegetation



**Northern pike (*Esox lucius*)**

**Habitat:**

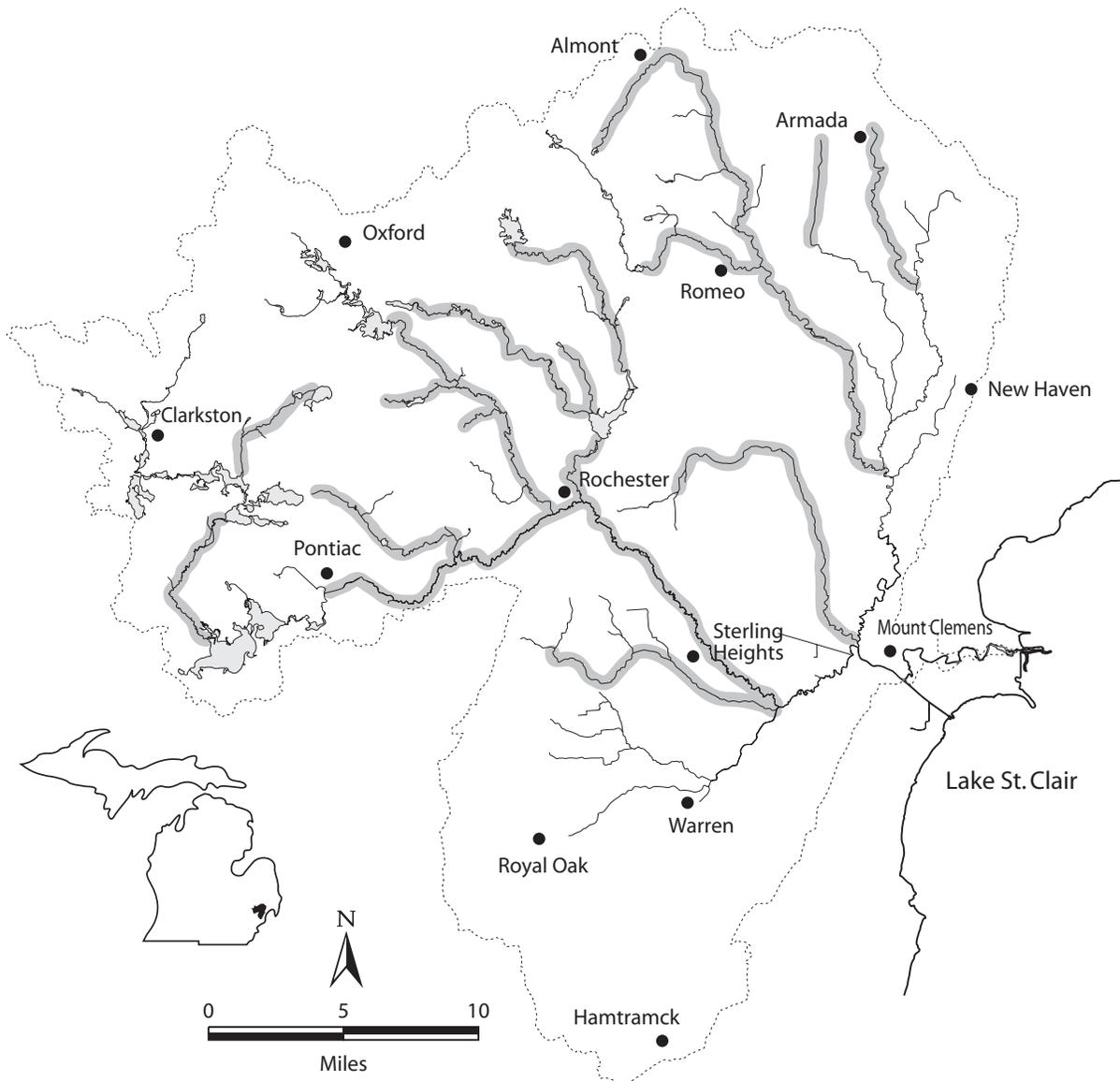
- feeding - cool to moderately warm streams, rivers, lakes, and impoundments
- vegetation in slow to moderate current
- spawning - submerged vegetation with slow current in shallow water



**Central mudminnow (*Umbra limi*)**

**Habitat:**

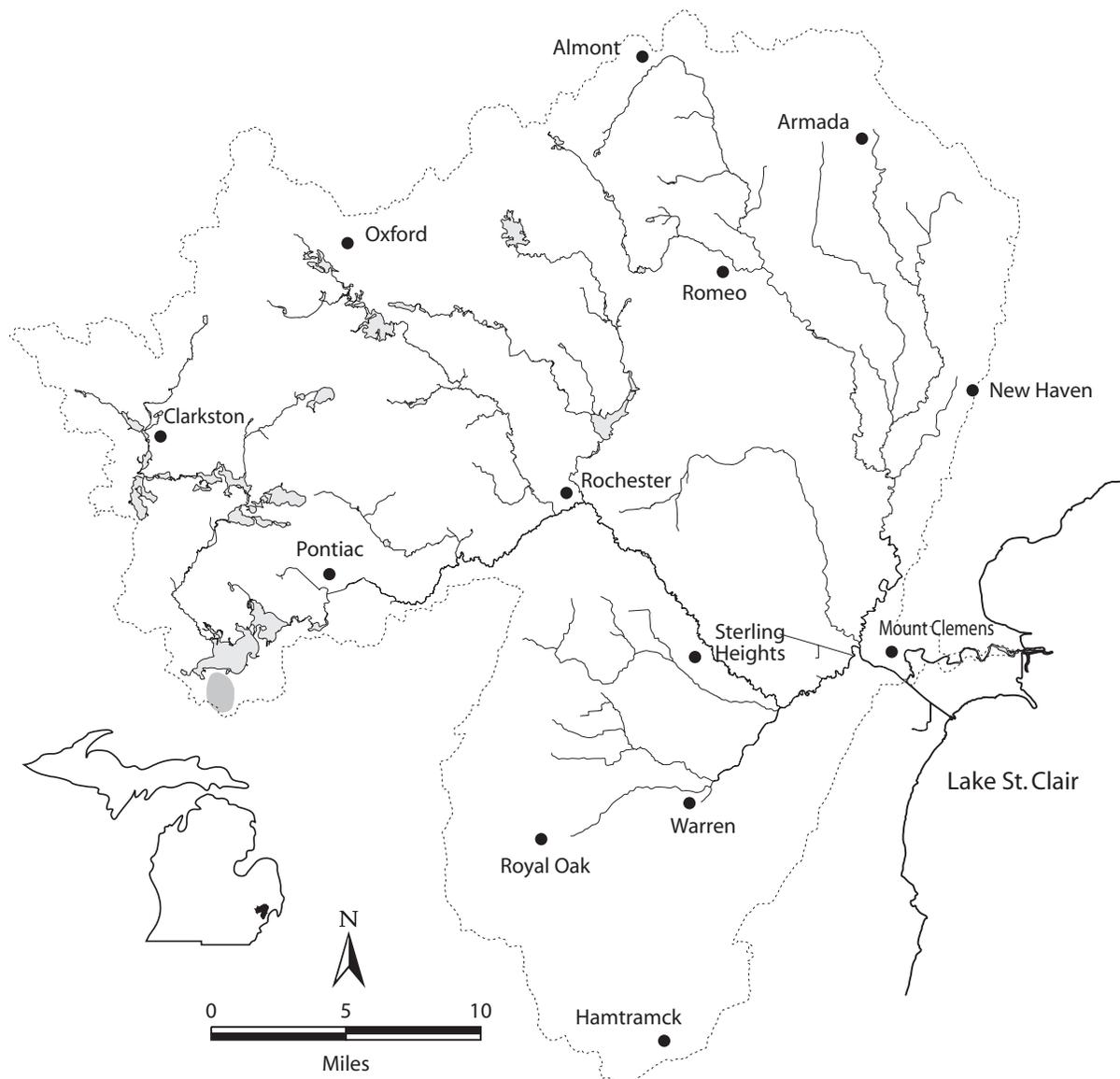
- feeding - undisturbed clear, low-gradient streams or rivers and lakes and impoundments
- organic debris, muck, or peat substrates
- aquatic vegetation
  
- spawning - floodplain areas, on vegetation



**Rainbow smelt (*Osmerus mordax*)**

**Habitat:**

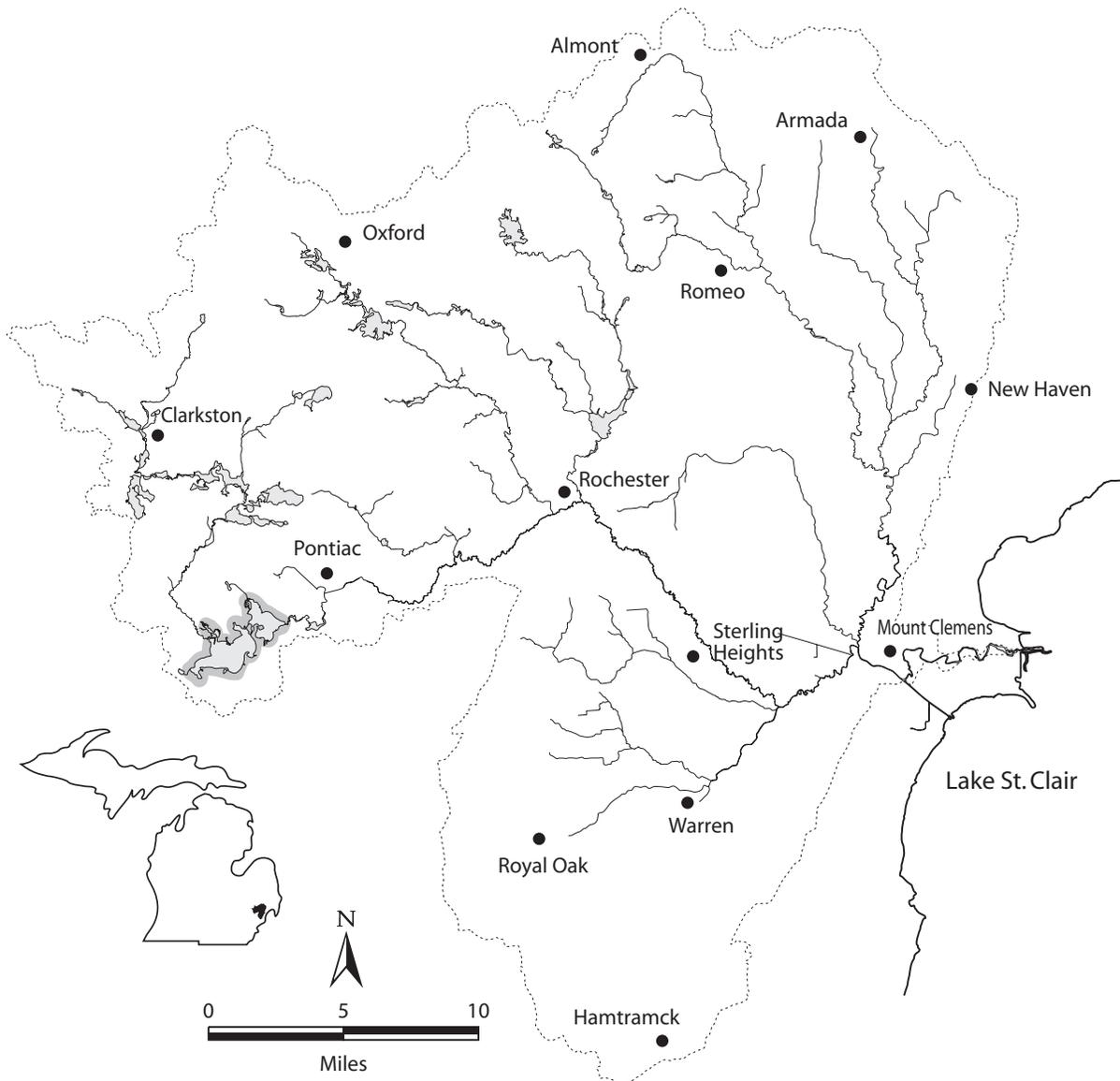
- feeding - young: close inshore lake habitat along sand and gravel beaches
- cold water
  
- spawning - clear high-gradient streams or wave swept shoreline
- riffles with coarse sand or gravel substrate
  
- winter refuge - midwaters of lakes or inshore coastal waters



**Lake herring (*Coregonus artedii*) – 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



**Rainbow trout (*Oncorhynchus mykiss*)**

**Habitat:**

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

