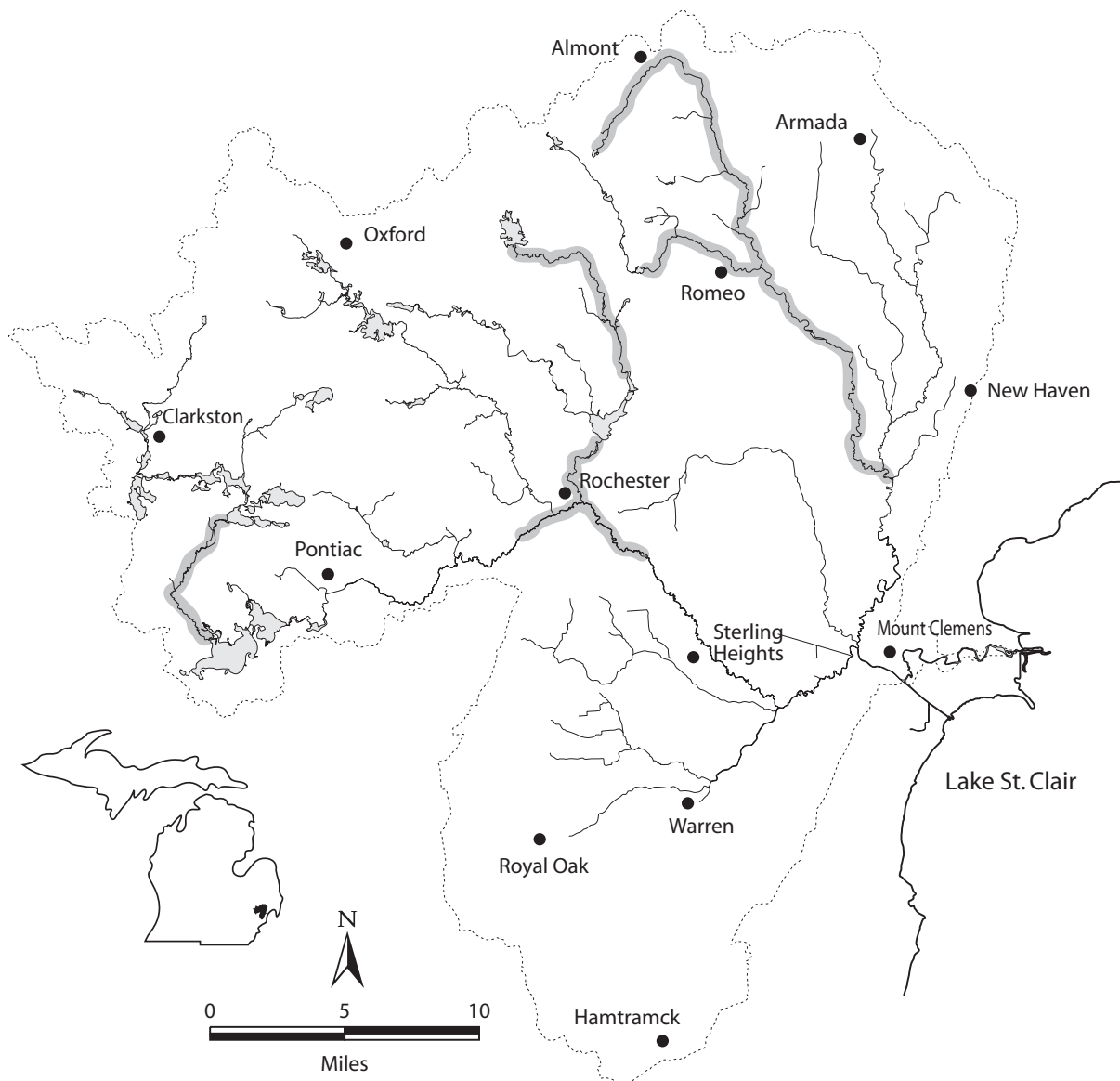


**Stonecat** *Noturus flavus*

**Habitat:**

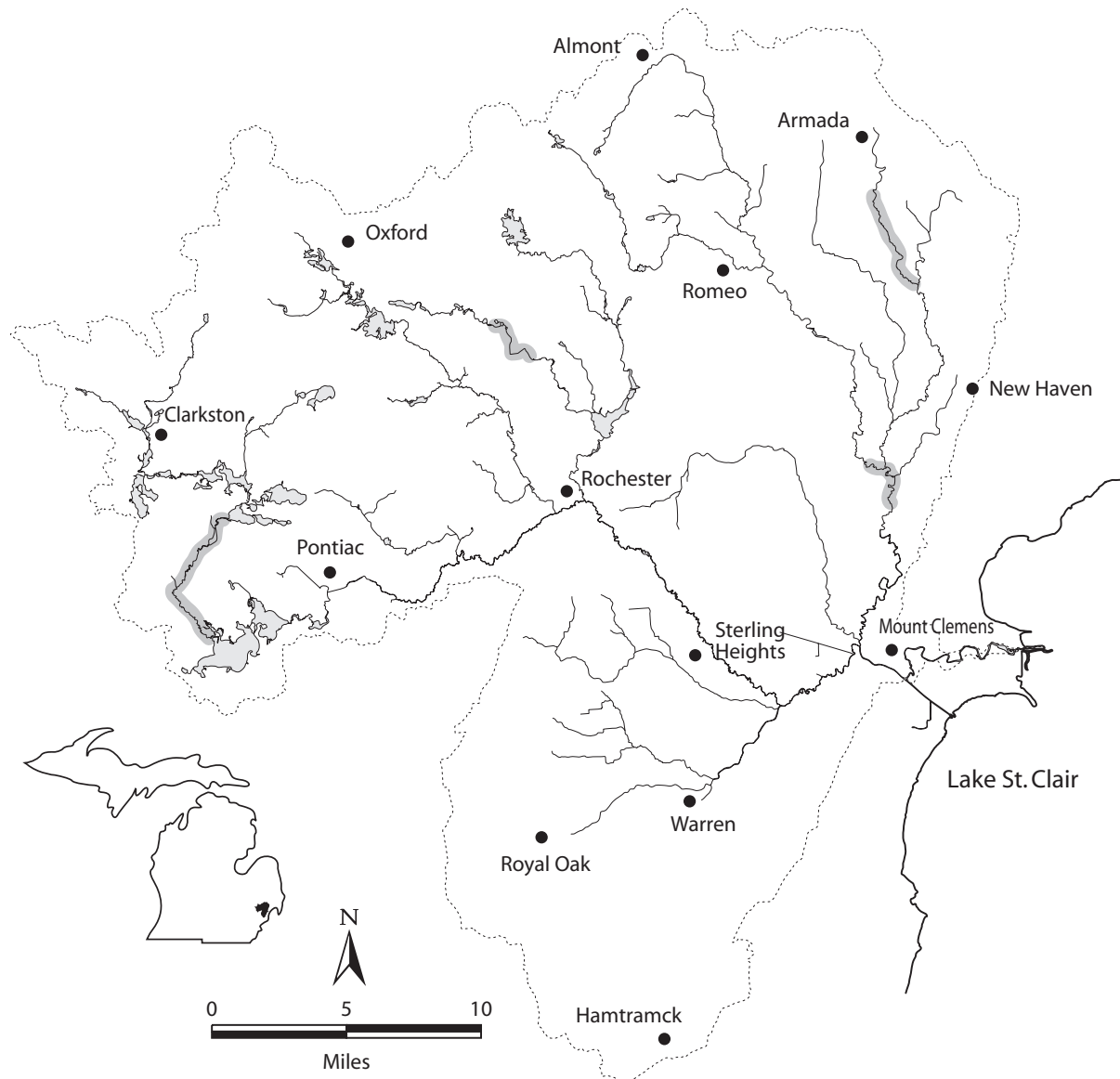
- feeding
  - consistent low to moderate gradient flowing water
  - rocky riffles of larger streams and smaller rivers
  - not tolerant of silt
  - tolerant of low oxygen and pollution
- spawning
  - eggs deposited beneath stones
  - shallow rocky areas of streams or lakes



**Tadpole madtom** *Noturus gyrinus*

**Habitat:**

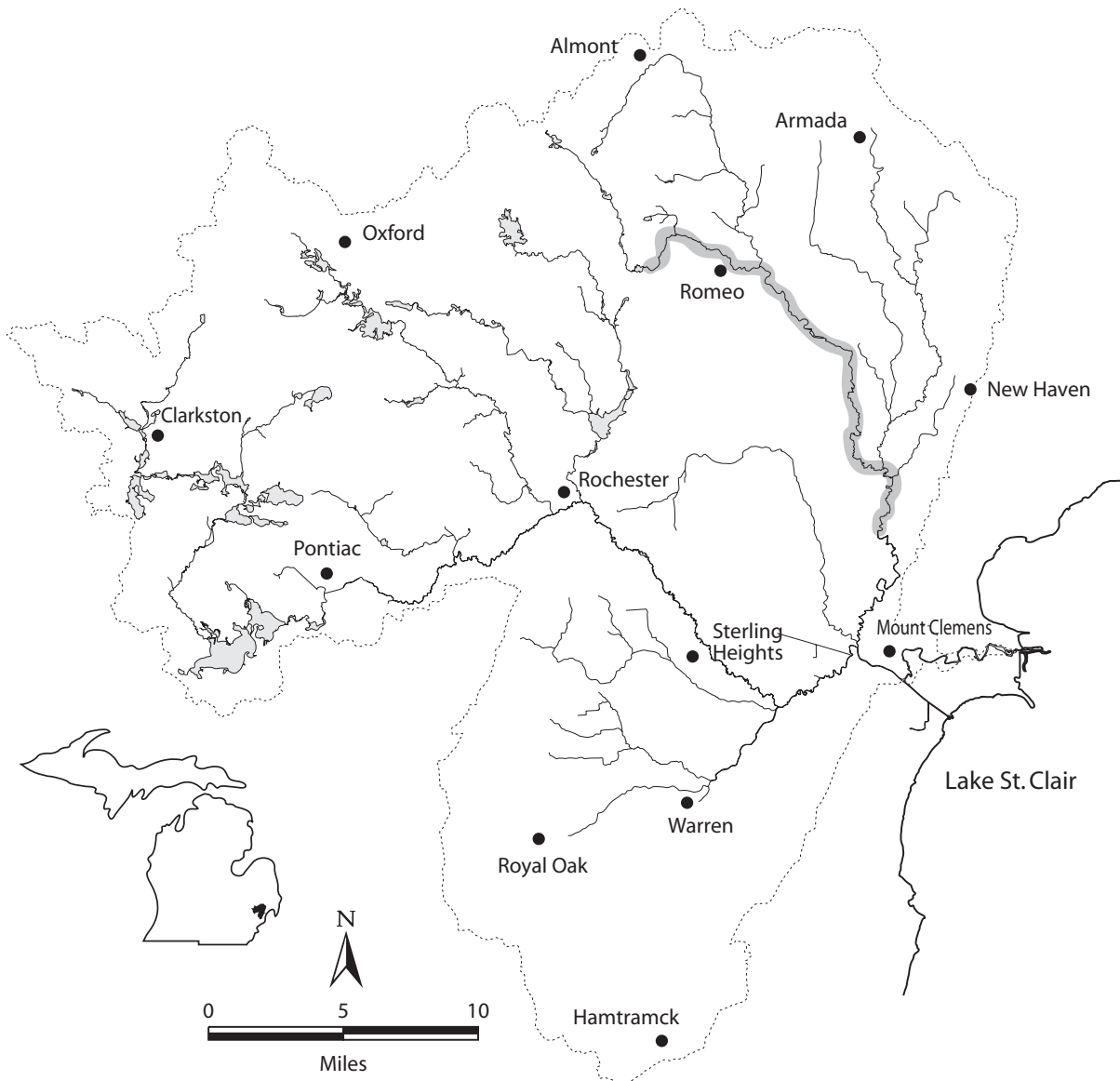
- feeding
  - vegetative cover in low-moderate current waters
  - muddy substrate with extensive vegetation
  - clear waters of streams, rivers, and lakes
  
- spawning
  - mostly in rivers, sometimes shallows of lakes
  - nests in dark cavities (ex: beneath boards, logs, crayfish burrows)



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

**Habitat:**

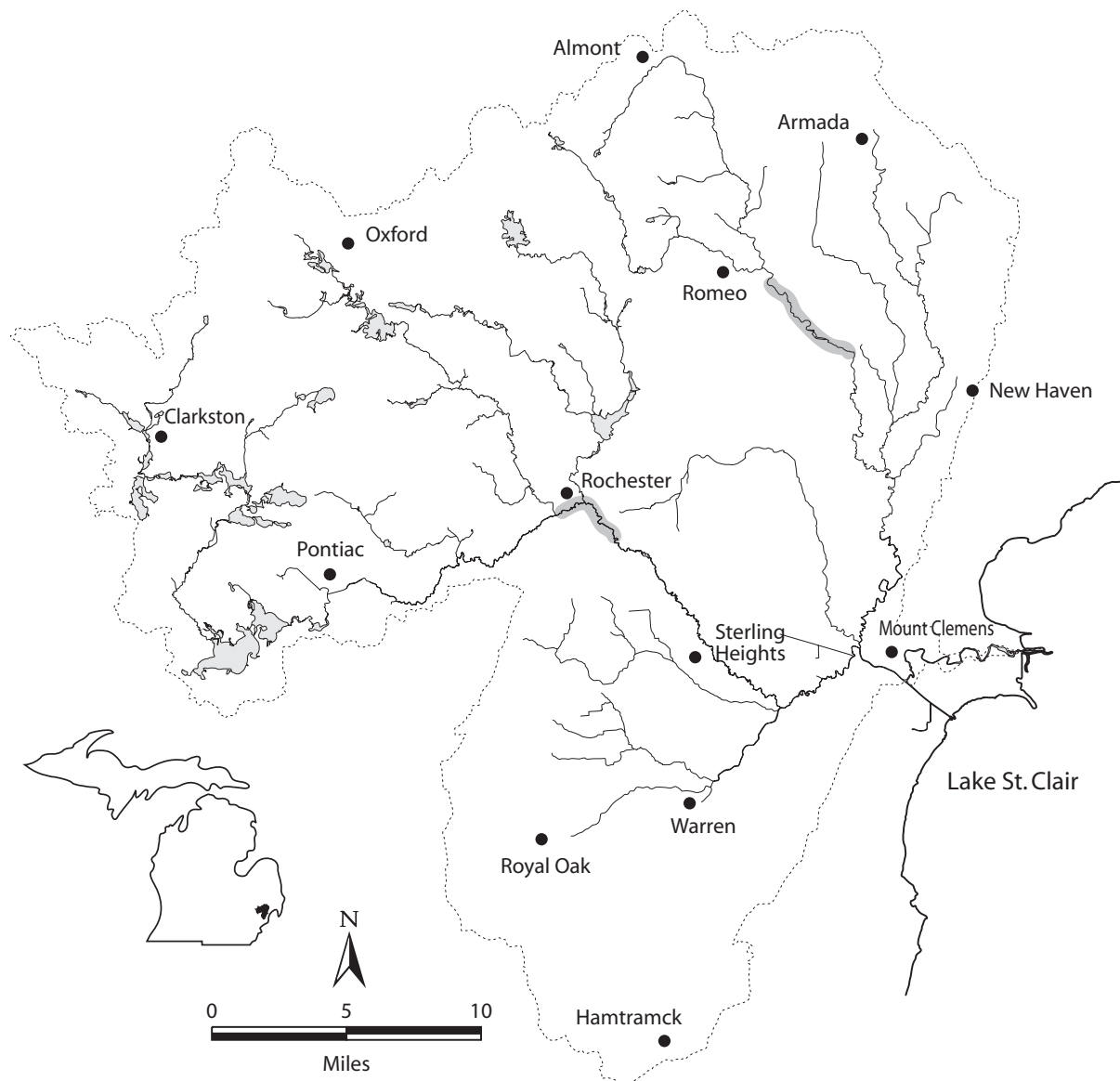
- feeding - low gradient streams or pools of higher gradient reaches
- sand or organic debris substrate - no clayey silts
- in riffles of sluggish or moderate flow if sand is present
  
- spawning - silt or mud substrate
- emergent vegetation



**Northern madtom *Noturus stigmosus* – endangered**

**Habitat:**

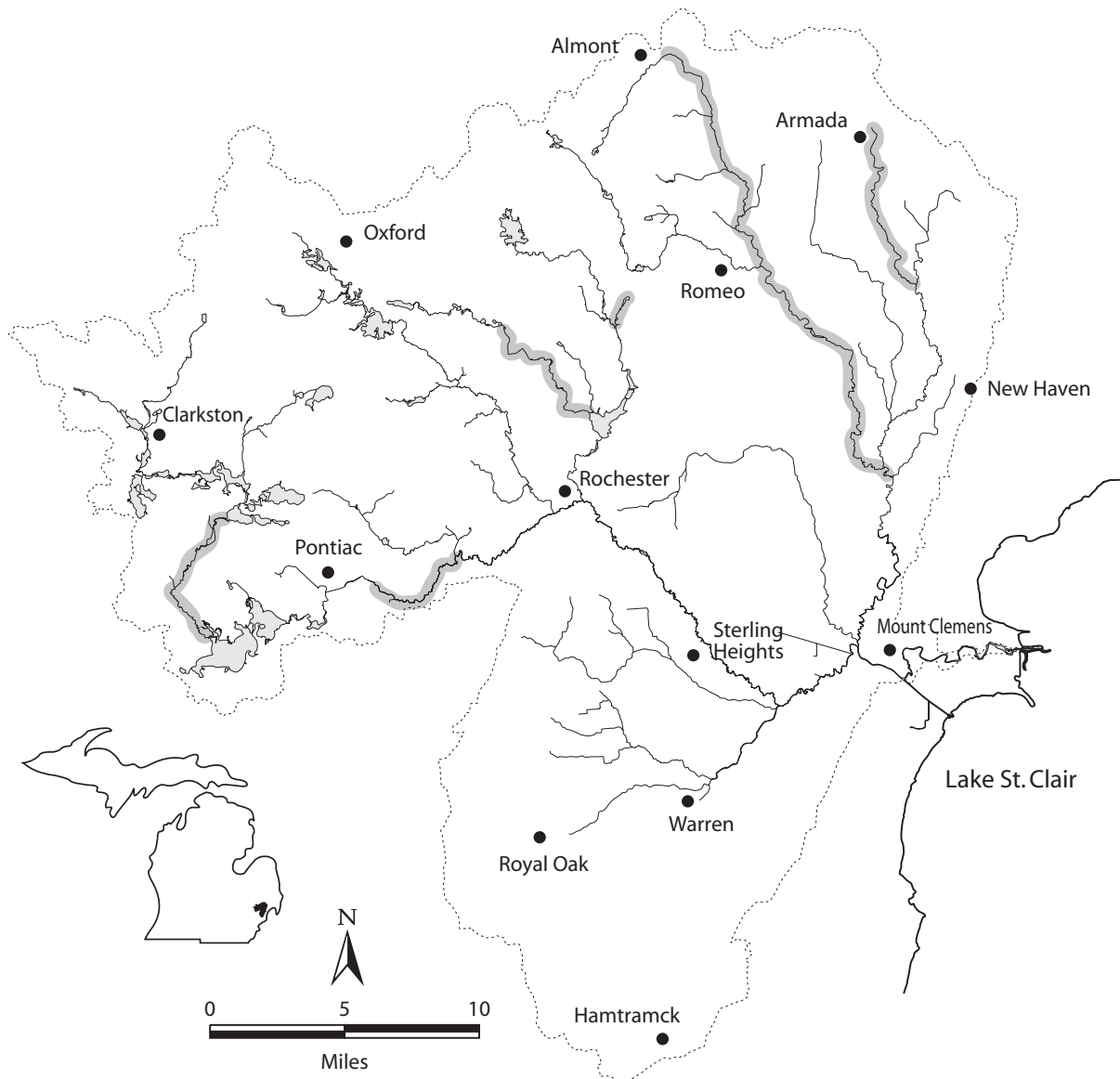
- feeding - deep, wide, swift riffles of streams and rivers
- gravel and boulder substrates



**Grass pickerel** *Esox americanus vermiculatus*

**Habitat:**

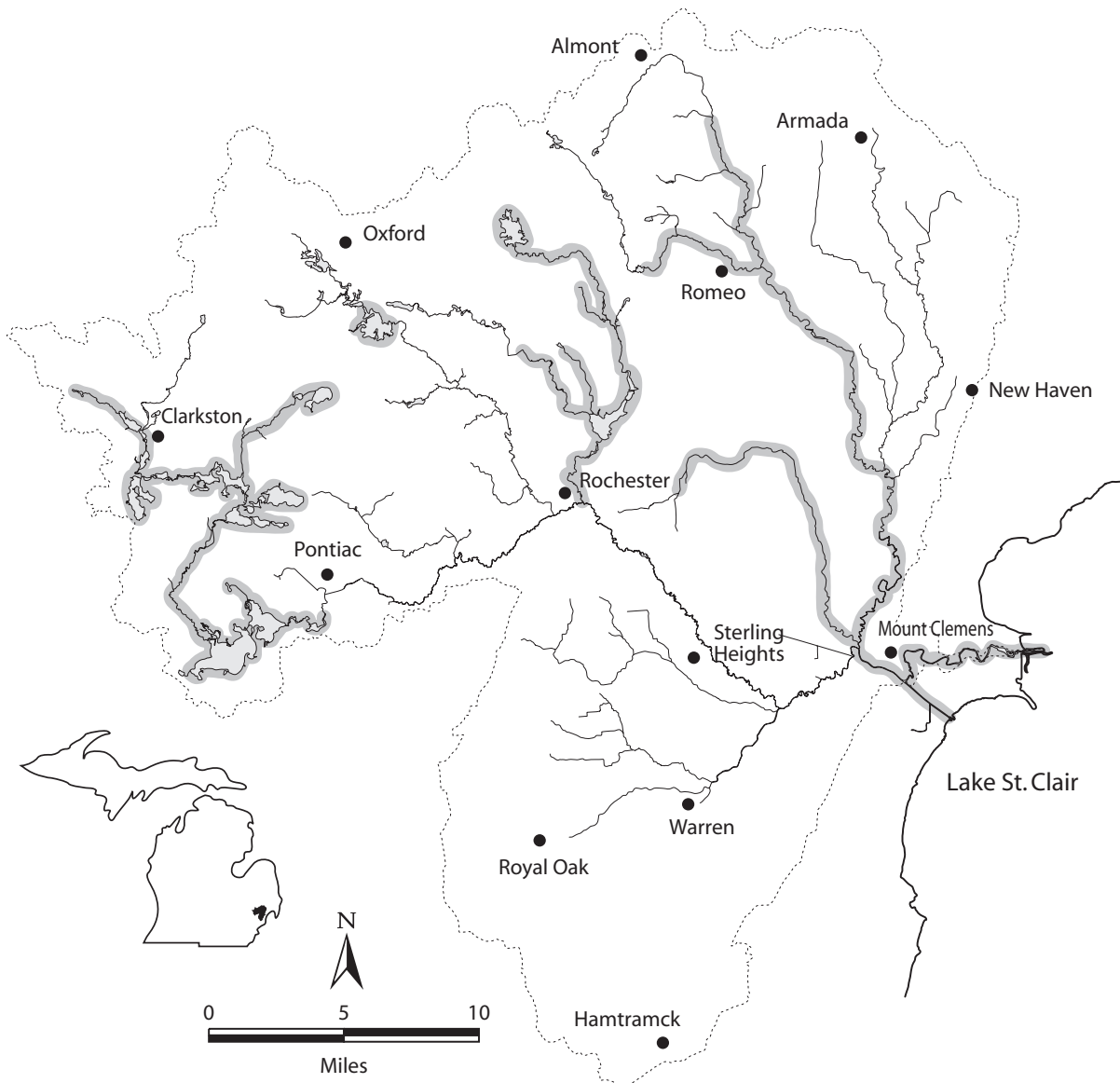
- feeding - juveniles: along shore
- adults: in deeper portions of streams, rivers, lakes, and impoundments
- clear water, little current, dense vegetation
- tolerates low oxygen concentrations
  
- spawning - broadcast spawner over submerged vegetation



**Northern pike** *Esox lucius*

**Habitat:**

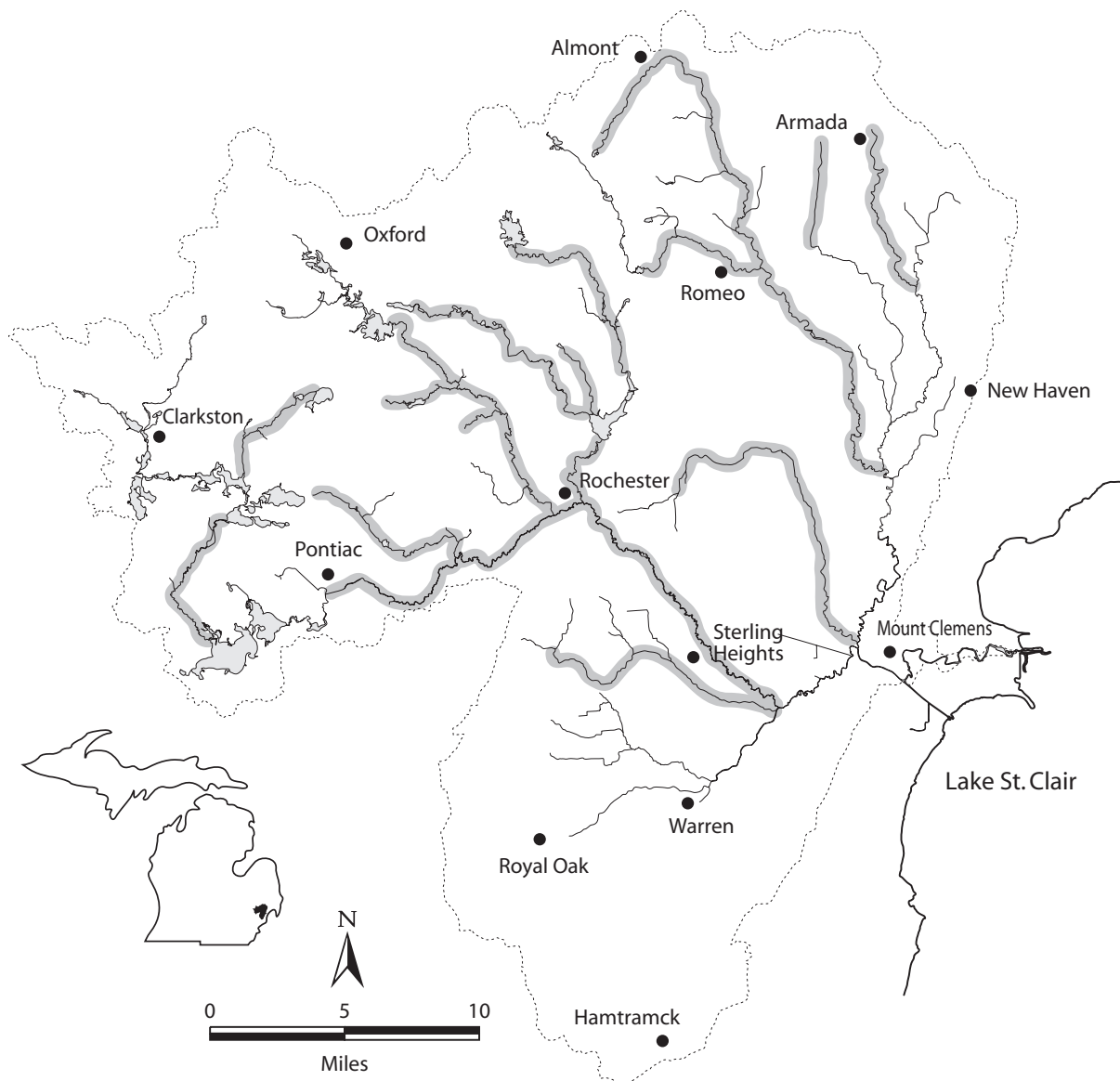
- feeding - cool to moderately warm streams, rivers, lakes, and impoundments
- vegetation in slow to moderate current
- spawning - submerged vegetation with slow current in shallow water



**Central mudminnow *Umbra limi***

**Habitat:**

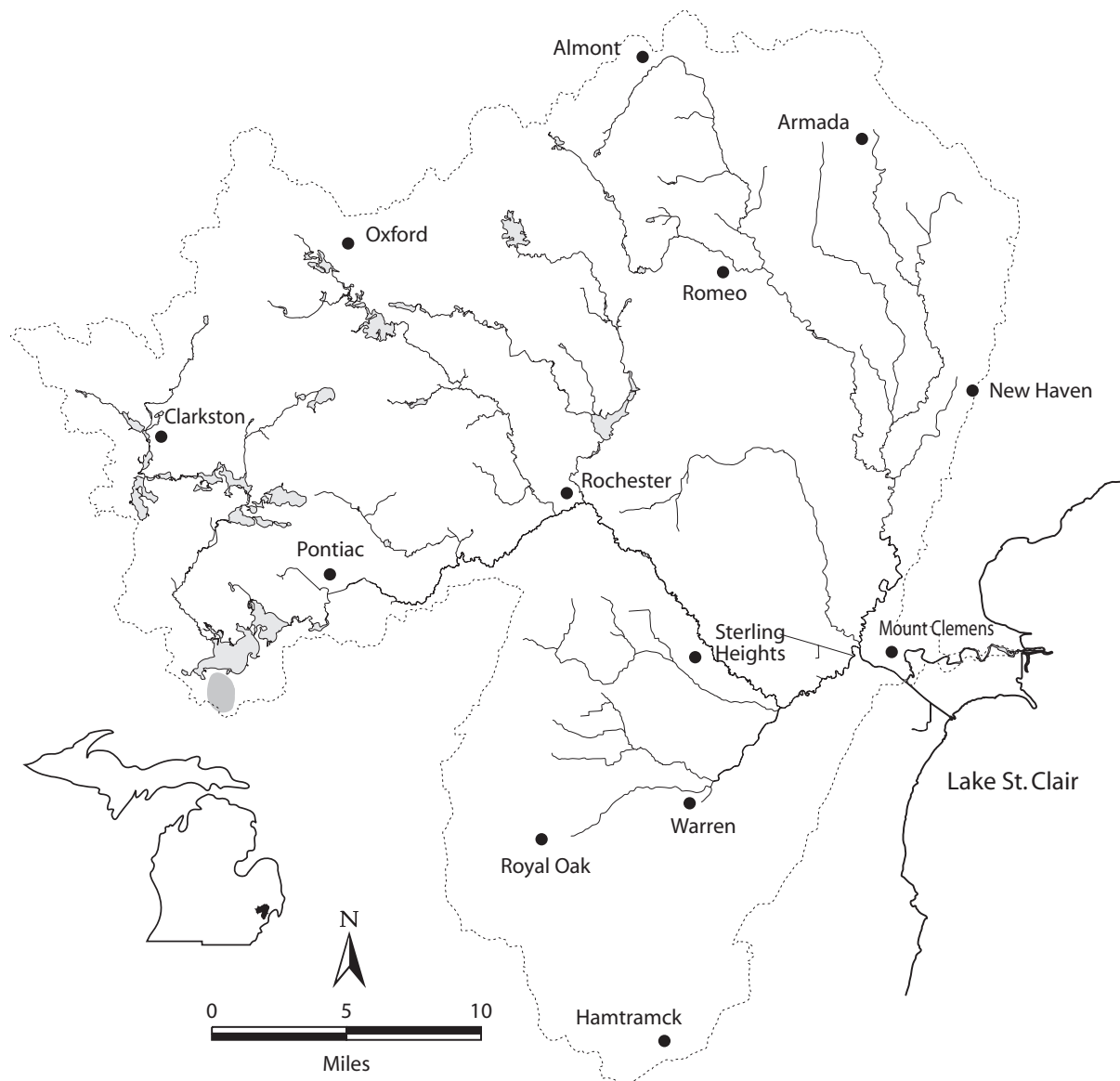
- feeding - undisturbed clear, low-gradient streams or rivers and lakes and impoundments
- organic debris, muck, or peat substrates
- aquatic vegetation
  
- spawning - floodplain areas, on vegetation



**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

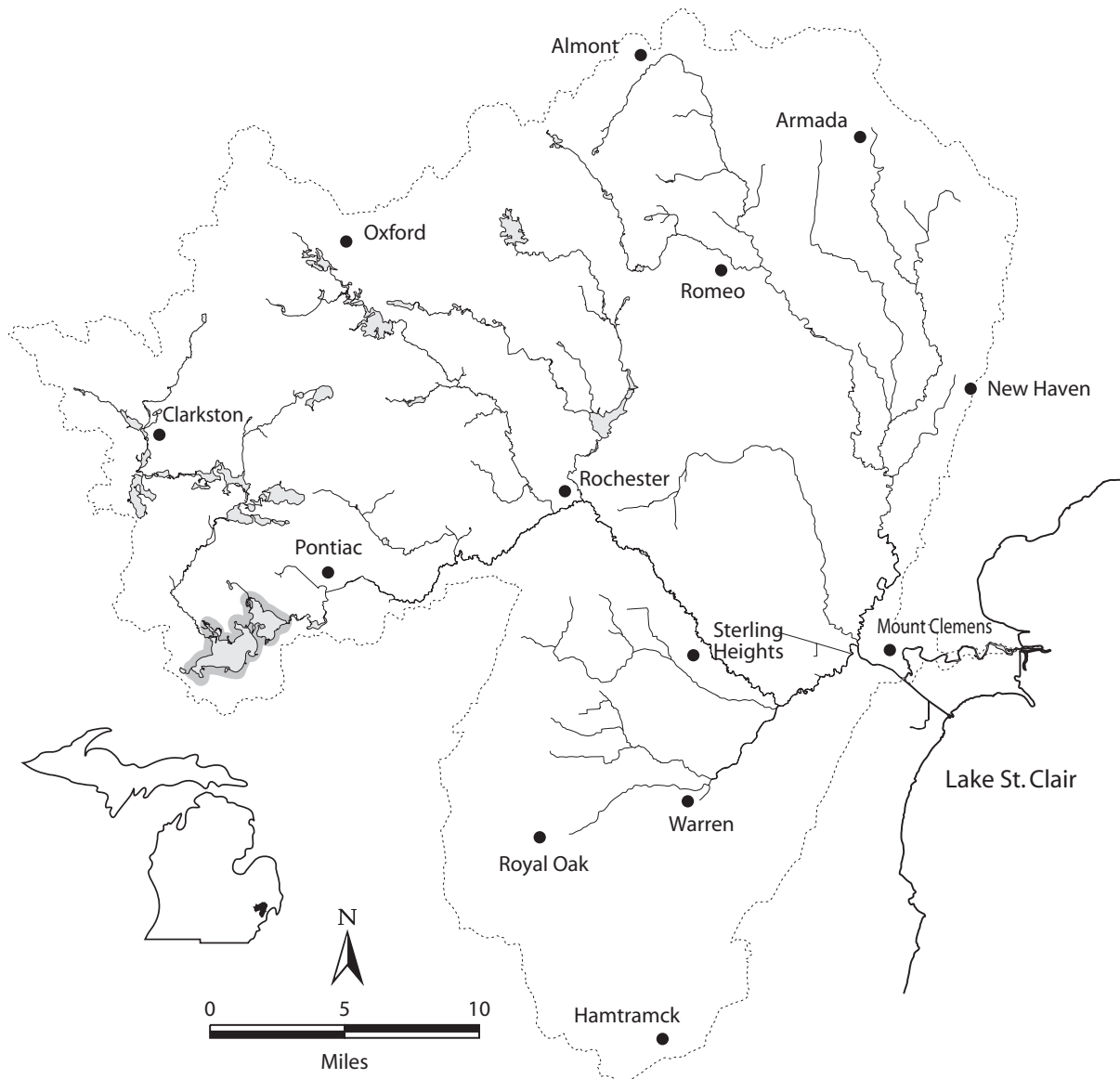




**Cisco {lake herring} *Coregonus artedi* – threatened**

**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



**Rainbow trout** *Oncorhynchus mykiss*

**Habitat:**

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

