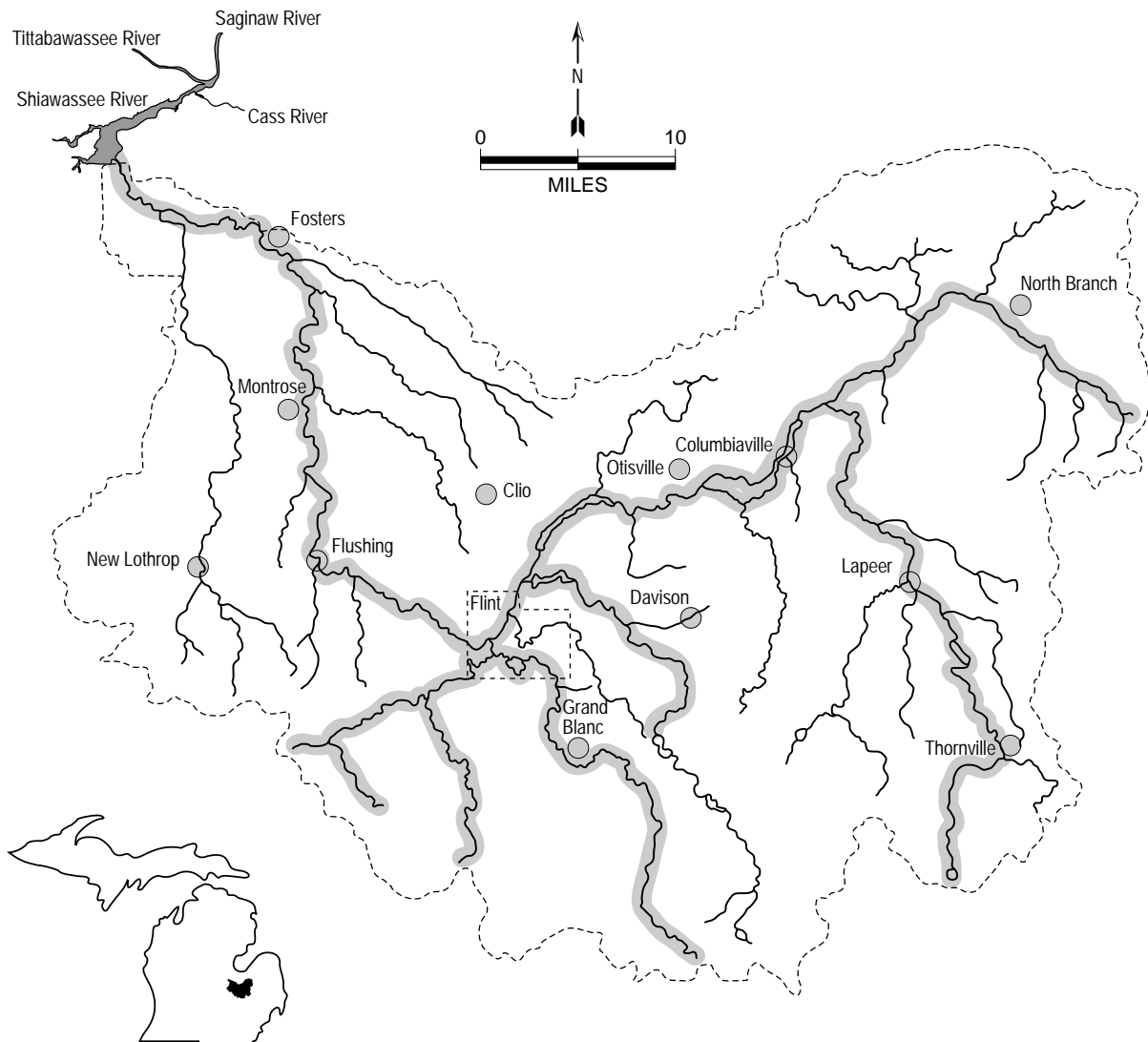


**Shorthead redhorse (*Moxostoma macrolepidotum*)**

**Habitat:**

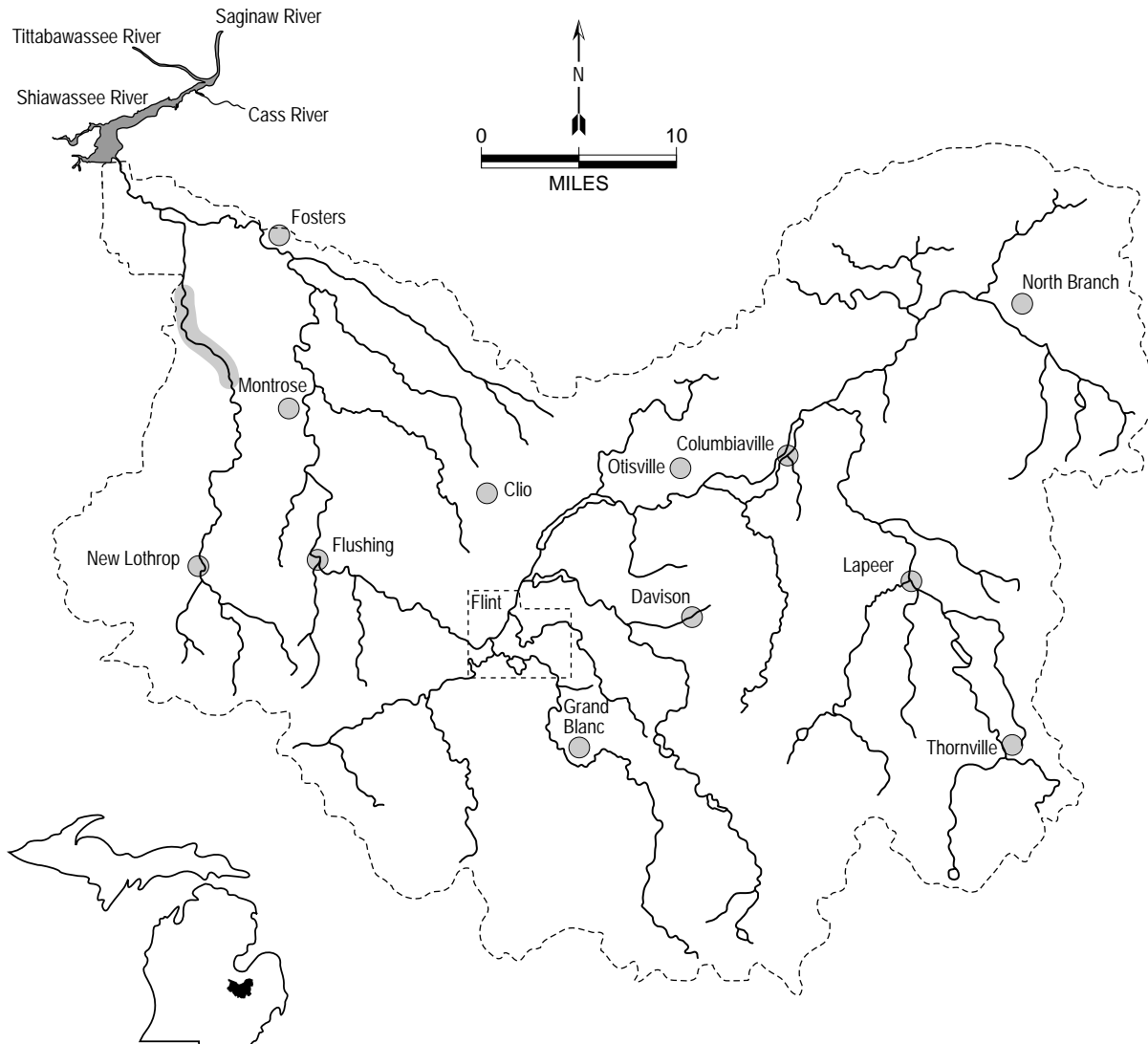
- feeding - downstream sections of large rivers, lakes, and impoundments
  - rocky substrates
  - swift water near riffles
  - clear to slightly turbid water
- spawning - gravelly riffles in smaller feeder streams



**Greater redhorse** (*Moxostoma valenciennesi*)

**Habitat:**

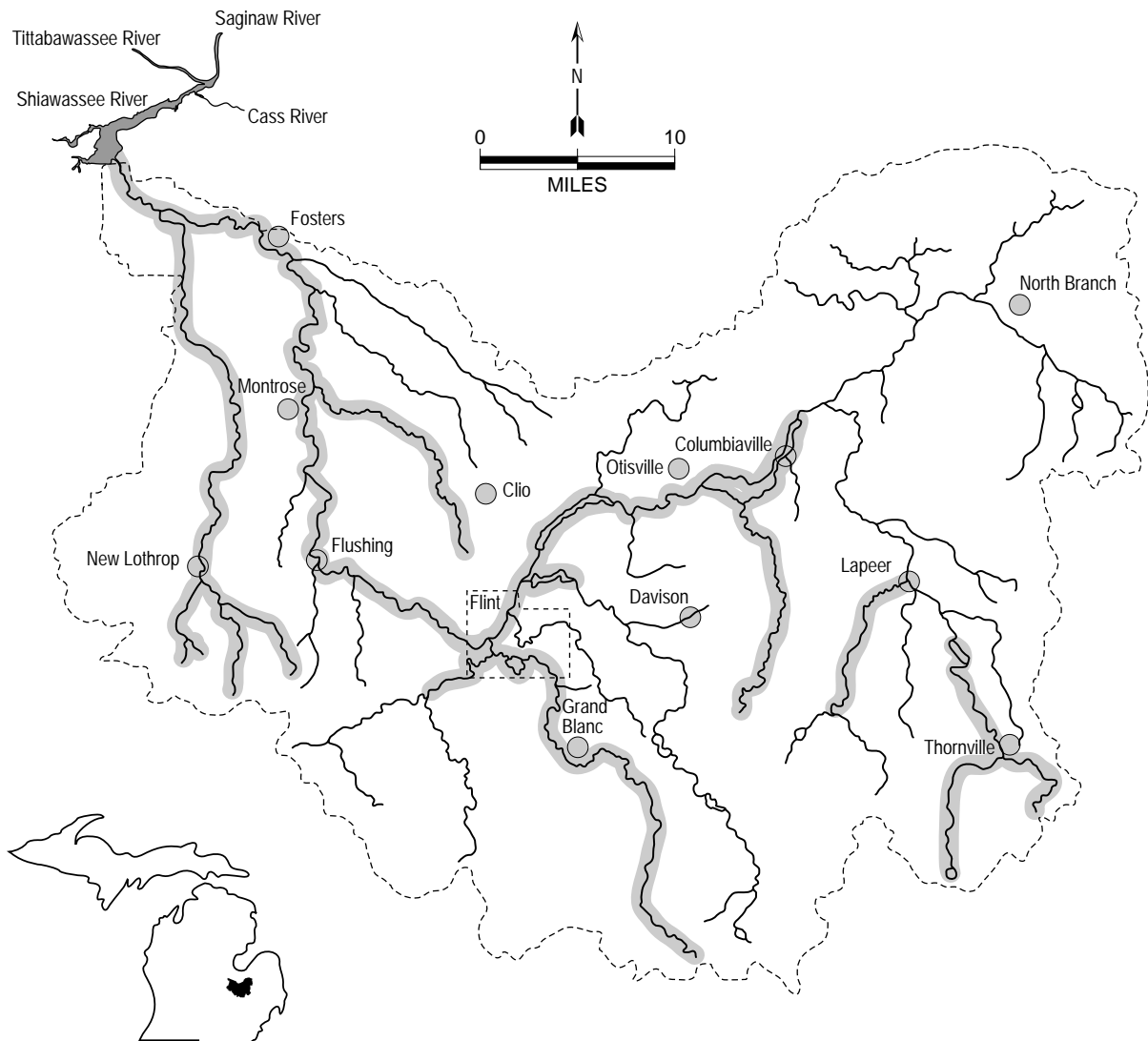
- feeding - large clear streams
  - clean sand, gravel, or boulder substrate
  - intolerant of excessive turbidity and chemical pollutants
- 
- spawning - moderately rapid current



**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



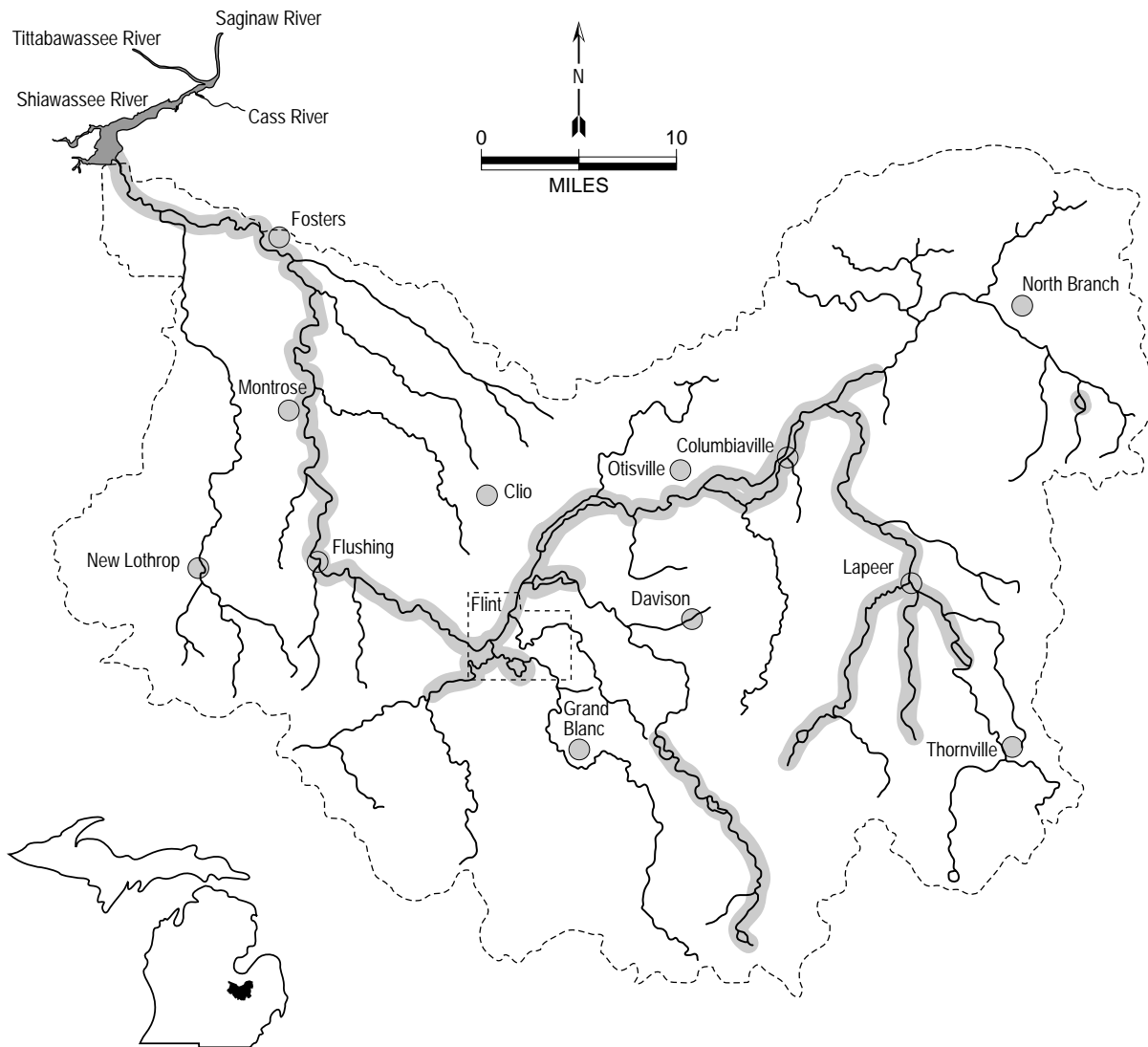
**Brown bullhead** (*Ameiurus nebulosus*)

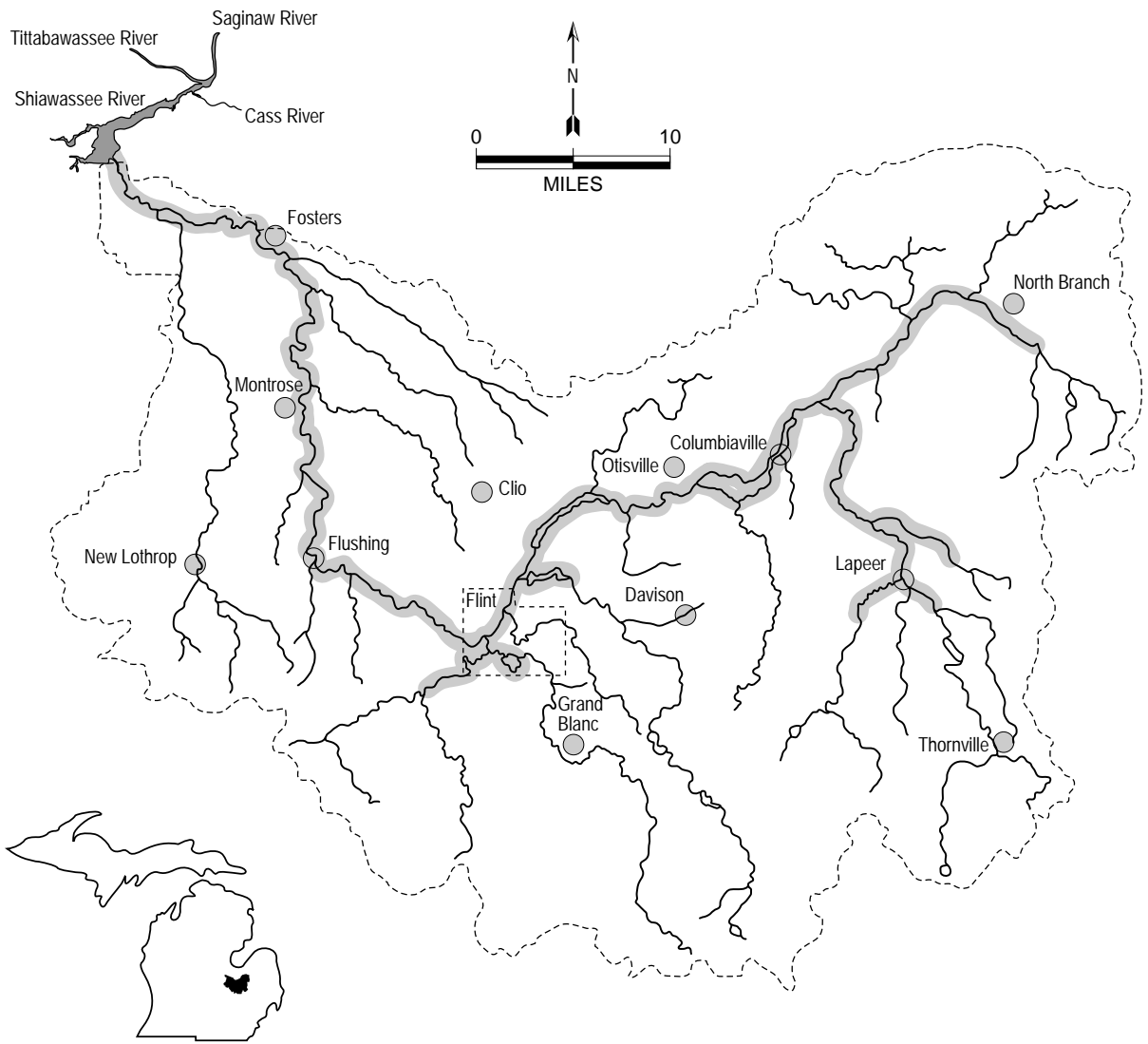
**Habitat:**

- 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

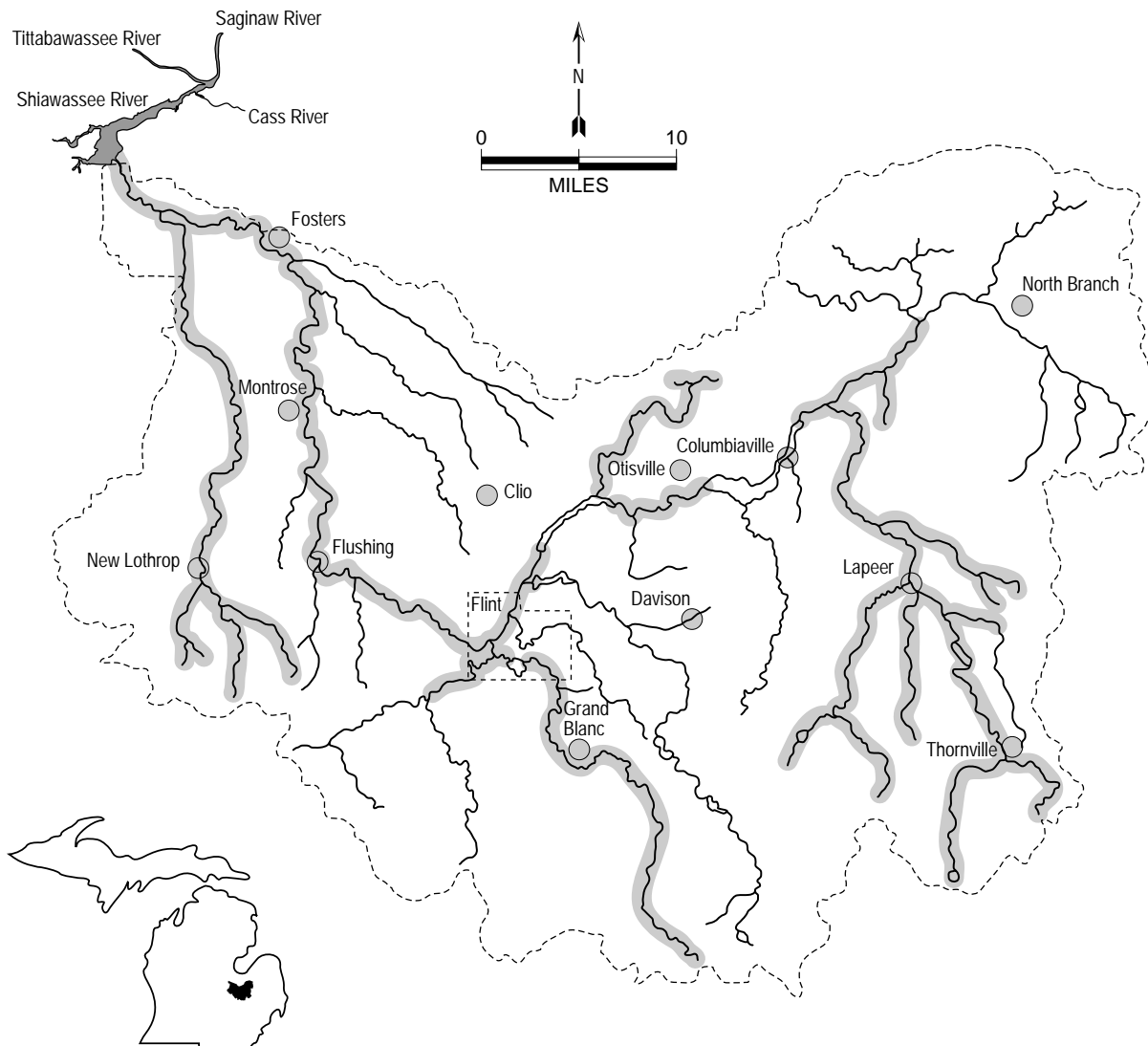




**Stonecat** (*Noturus flavus*)

**Habitat:**

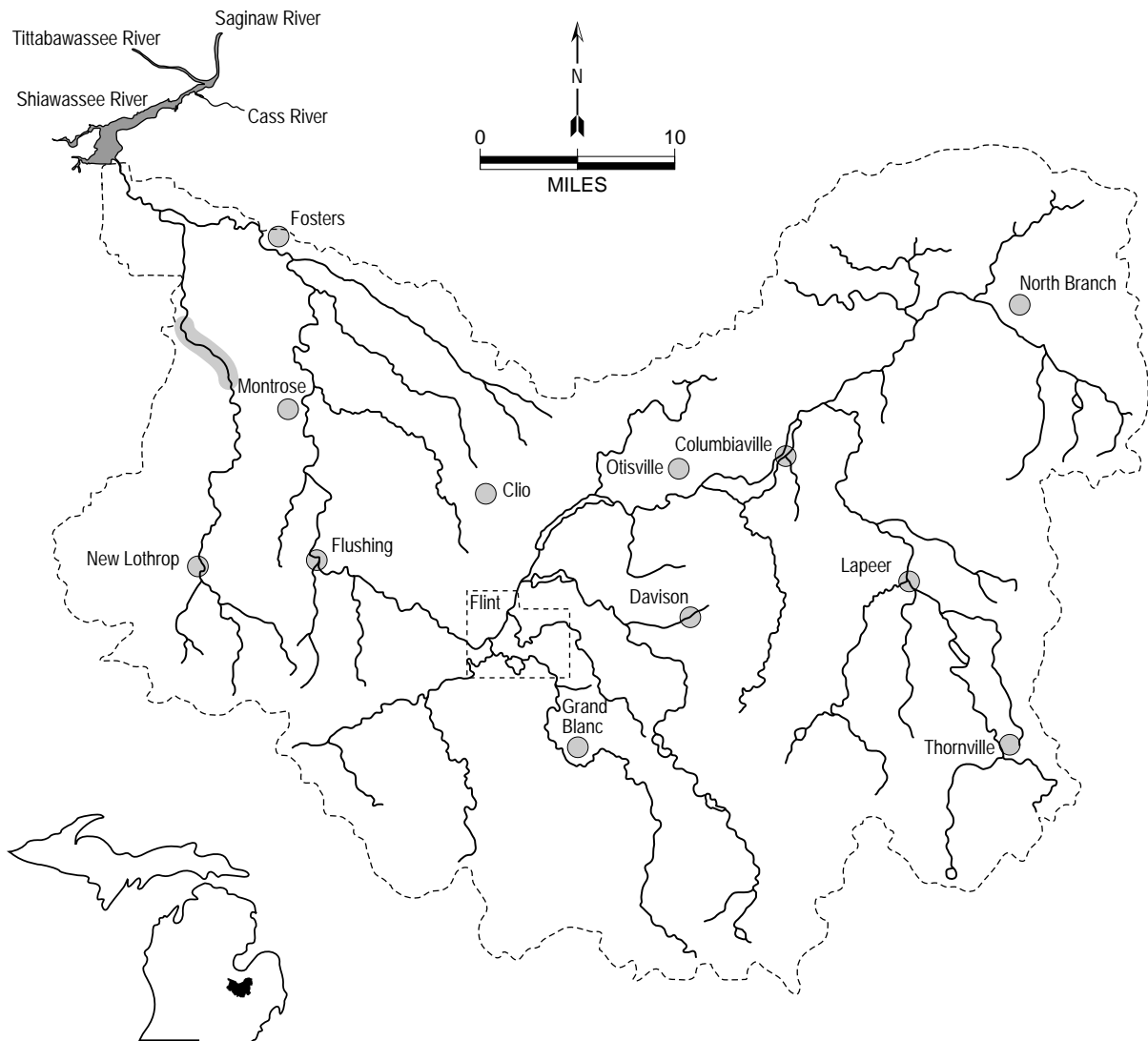
- feeding
  - consistent low to moderate gradient flowing water
  - rocky riffles of larger streams and smaller rivers
  - not tolerant of silt
  - tolerant of low oxygen and pollution
  
- spawning
  - eggs deposited beneath stones
  - shallow rocky areas of streams or lakes



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

**Habitat:**

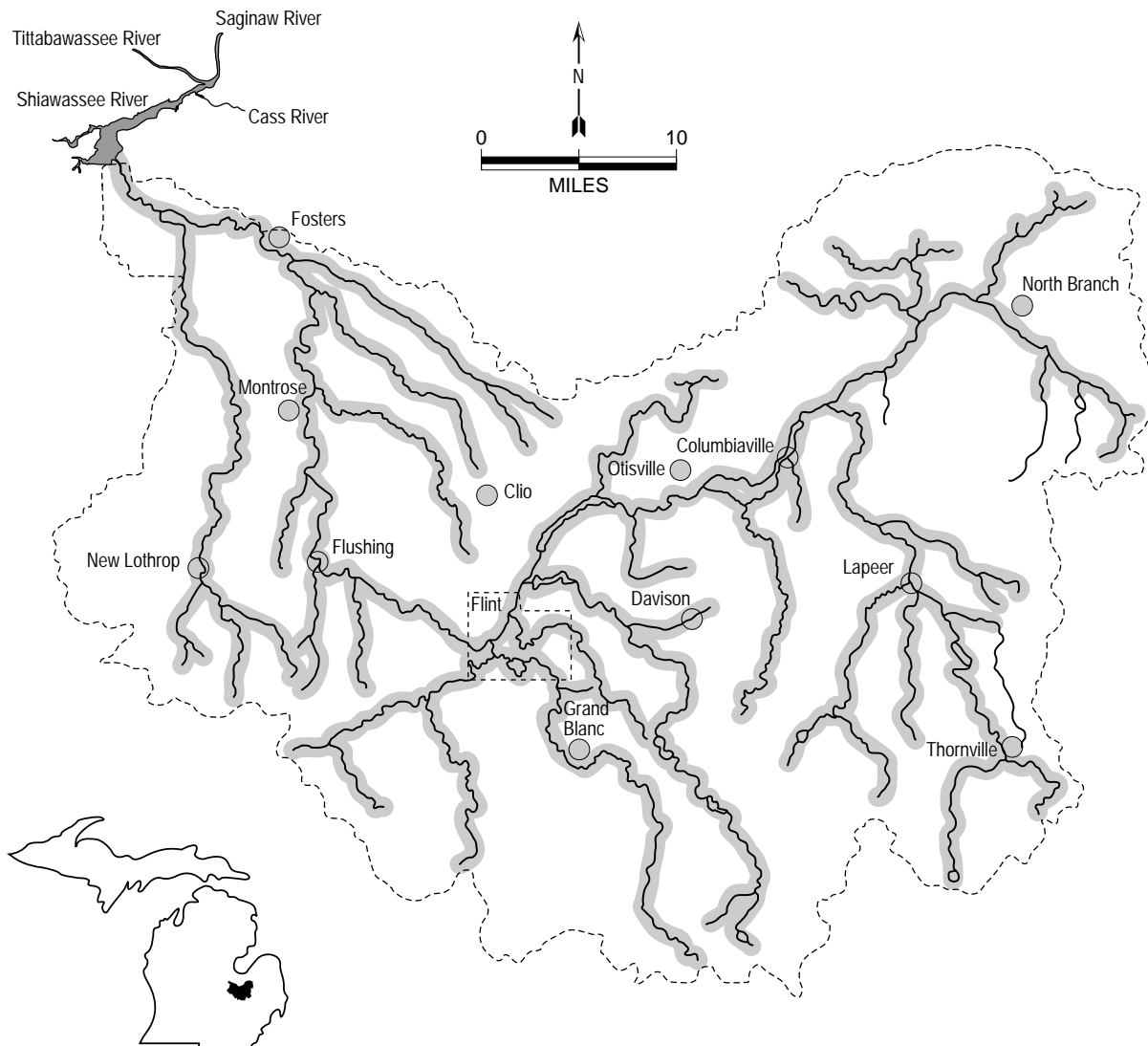
- feeding
  - vegetative cover in low-moderate current waters
  - muddy substrate with extensive vegetation
  - clear waters of streams, rivers, and lakes
  
- spawning
  - mostly in rivers, sometimes shallows of lakes
  - nests in dark cavities (ex: beneath boards, logs, crayfish burrows)



**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

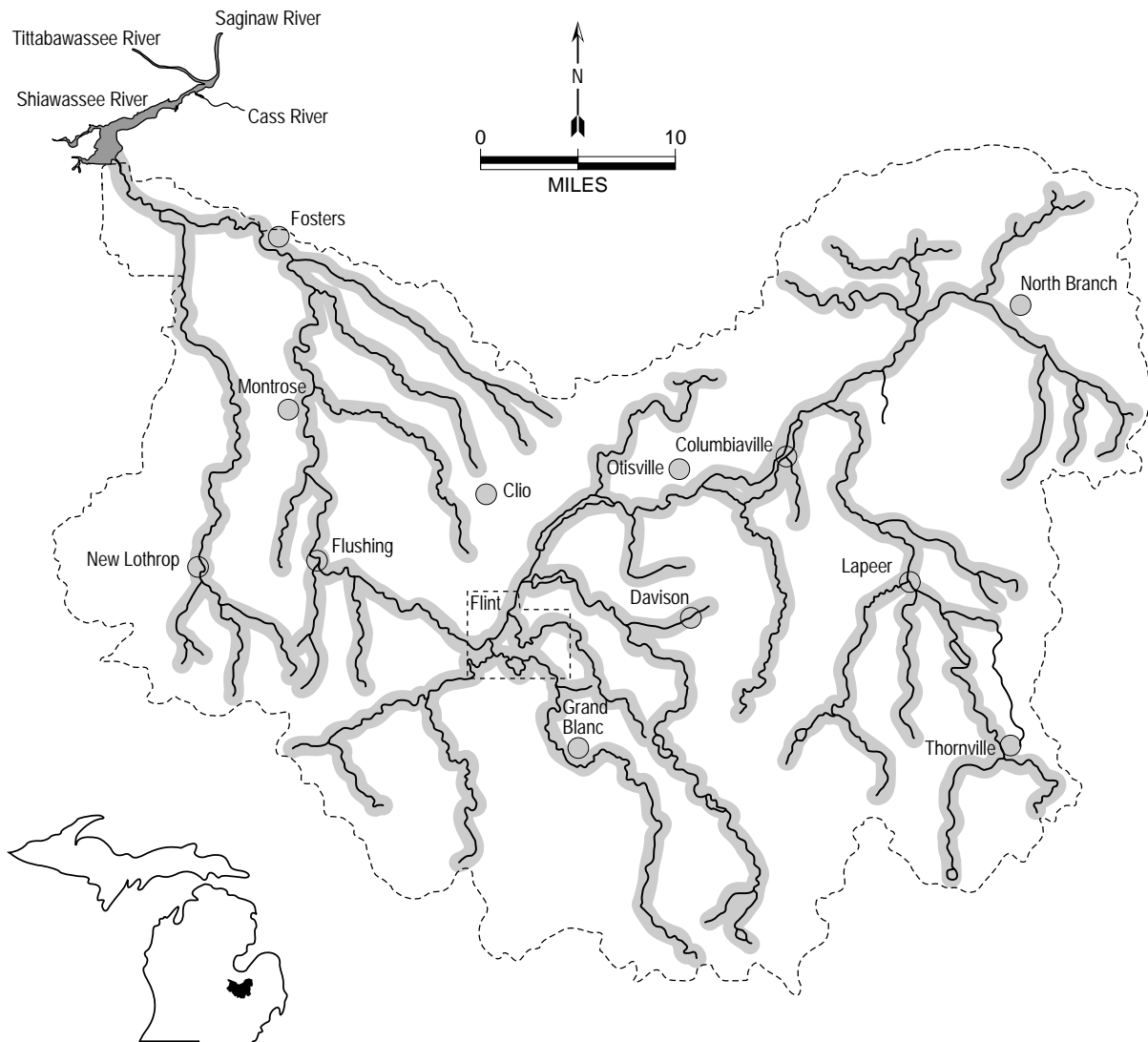




**Northern pike (*Esox lucius*)**

**Habitat:**

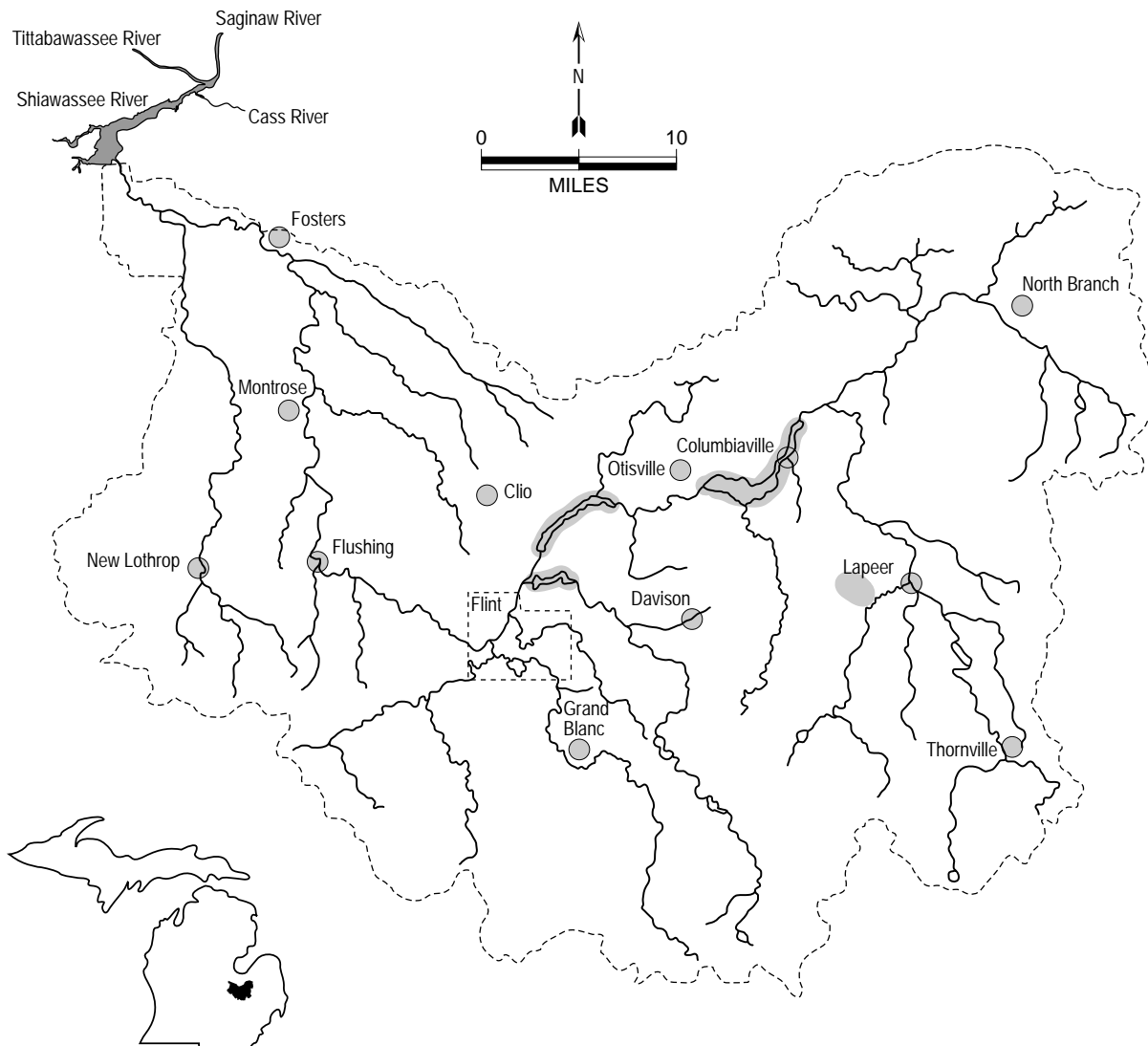
- feeding - cool to moderately warm streams, rivers, lakes, and impoundments
- vegetation in slow to moderate current
  
- spawning - submerged vegetation with slow current in shallow water



**Tiger muskellunge** (*Esox masquinongy* x *E. lucius*)

**Habitat:**

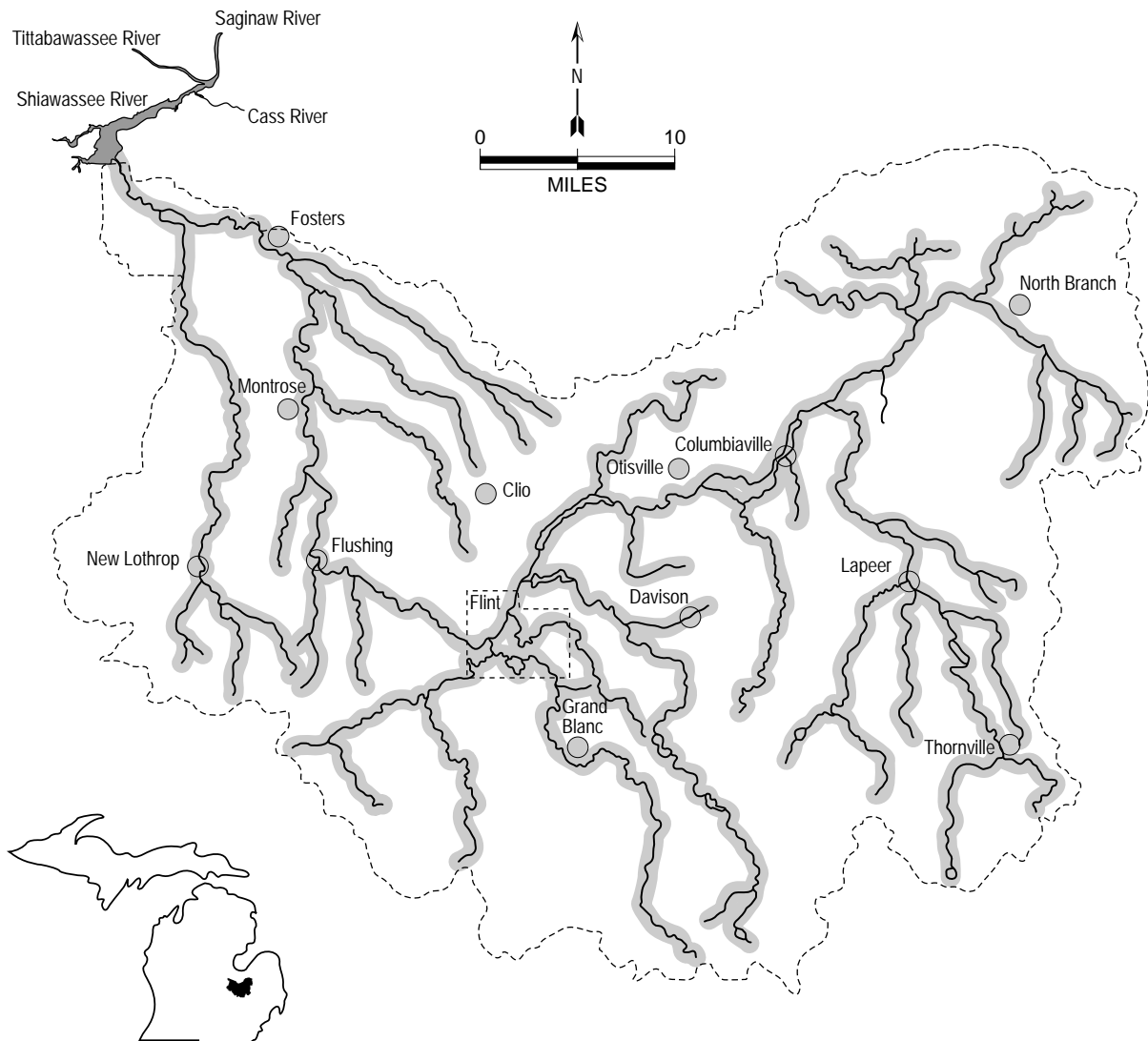
- feeding - intermediate between muskellunge and northern pike
  
- spawning - hybrid species; muskellunge x northern pike
  - occasionally produced in wild, but most often from hatcheries
  - males are sterile, females may be fertile



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

**Habitat:**

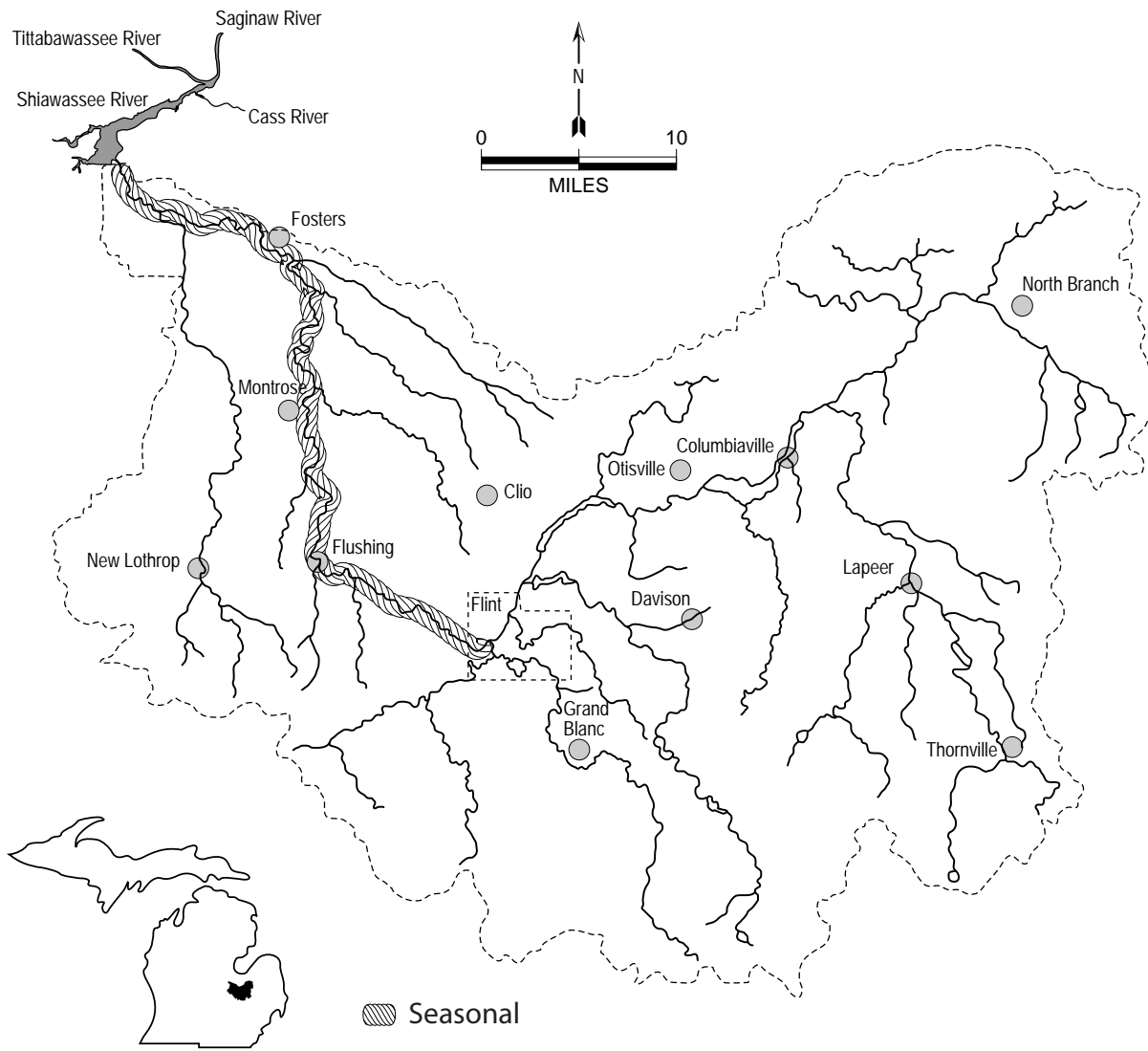
- feeding - undisturbed clear, low-gradient streams or rivers and lakes and impoundments
- organic debris, muck, or peat substrates
- aquatic vegetation
  
- spawning - floodplain areas, on vegetation



**Coho salmon** (*Oncorhynchus kisutch*)

**Habitat:**

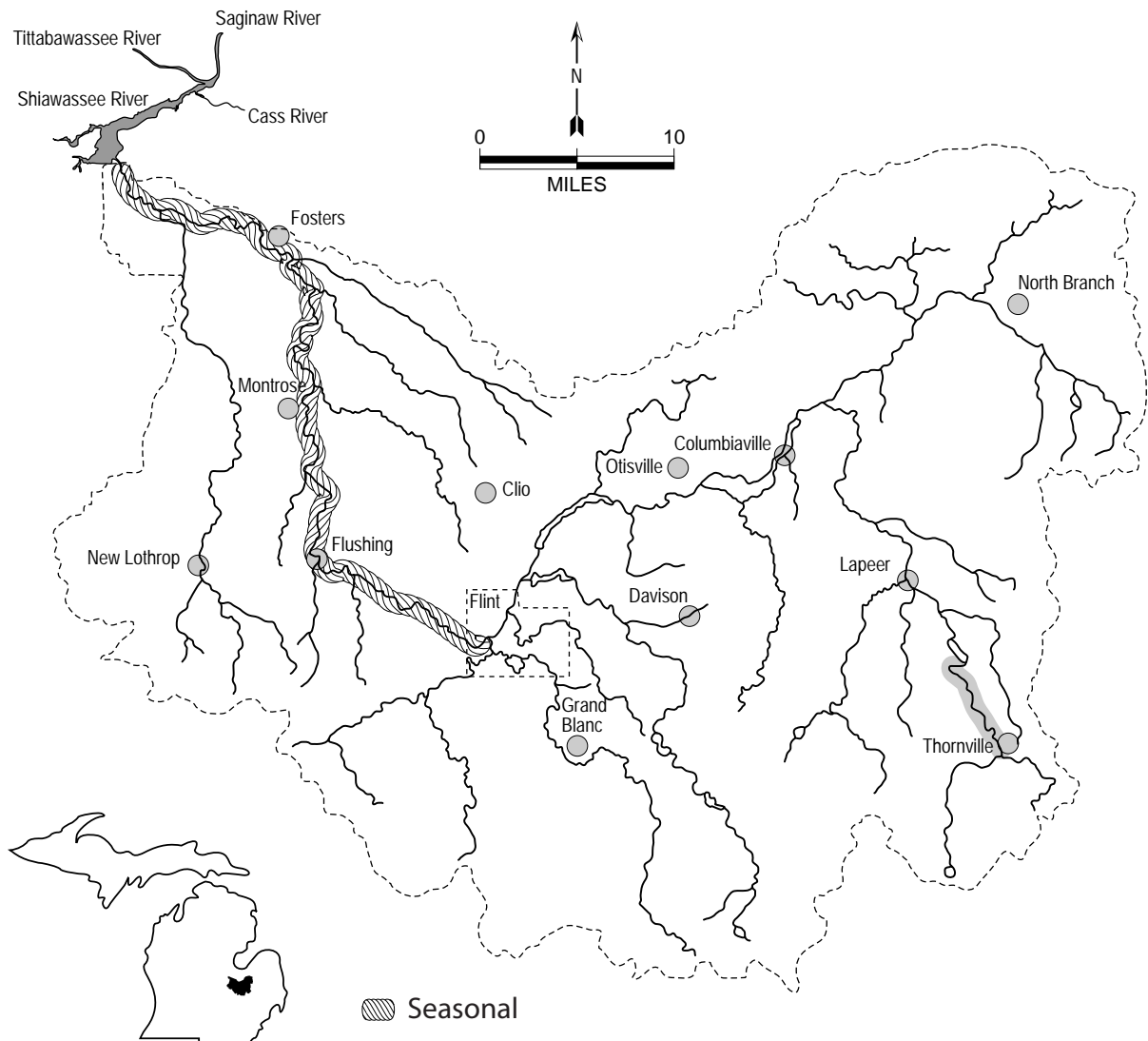
- feeding - adults: Lake Huron
- young: shallow gravel substrate in cold streams, later into pools
  
- spawning - cold streams and rivers
- swifter water of shallow gravelly substrate



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

**Habitat:**

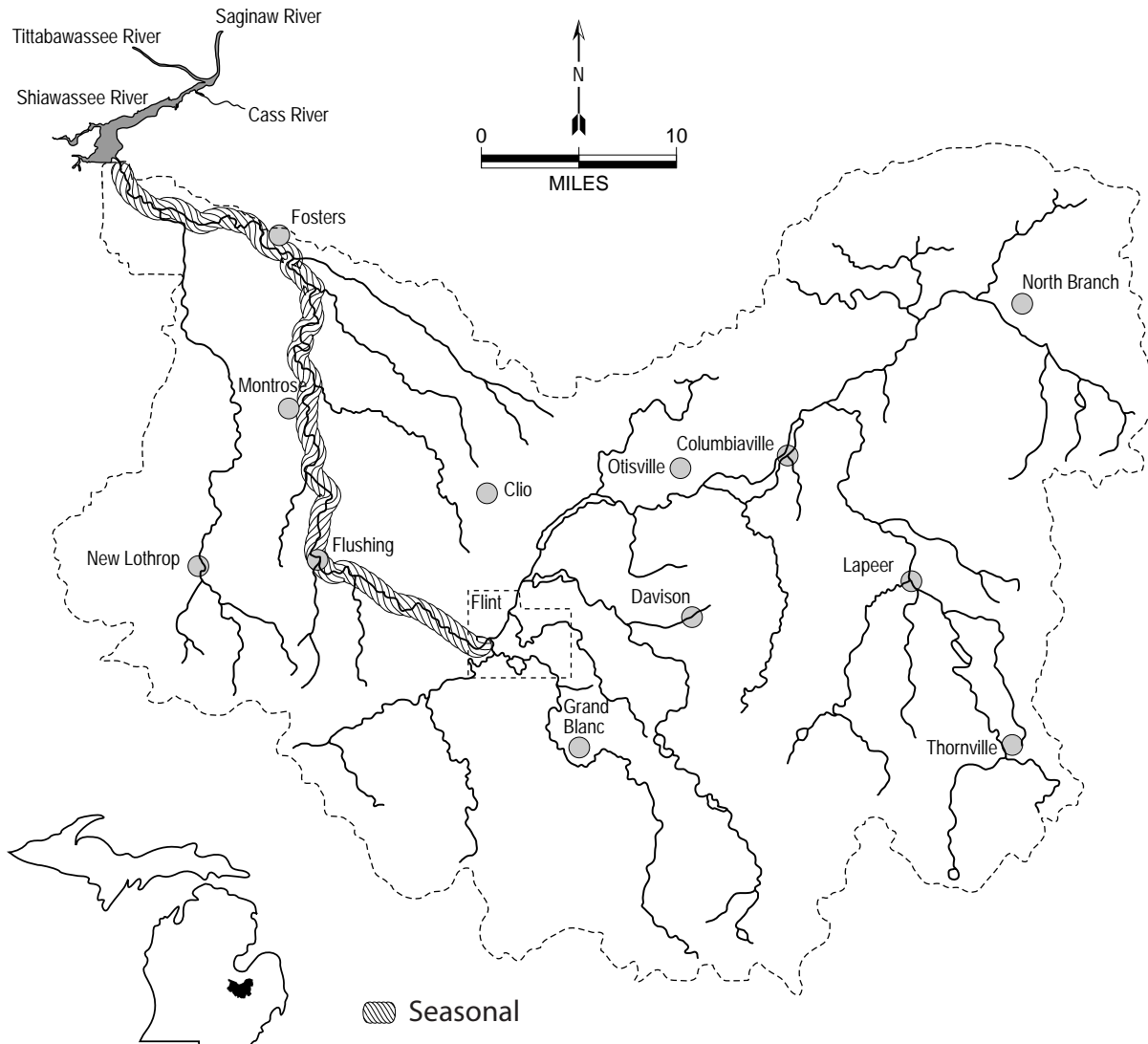
- feeding - cold clear water of rivers and Lake Huron
- moderate current
  
- spawning - gravelly riffles above a pool
- smaller tributaries



**Chinook salmon** (*Oncorhynchus tshawytscha*)

**Habitat:**

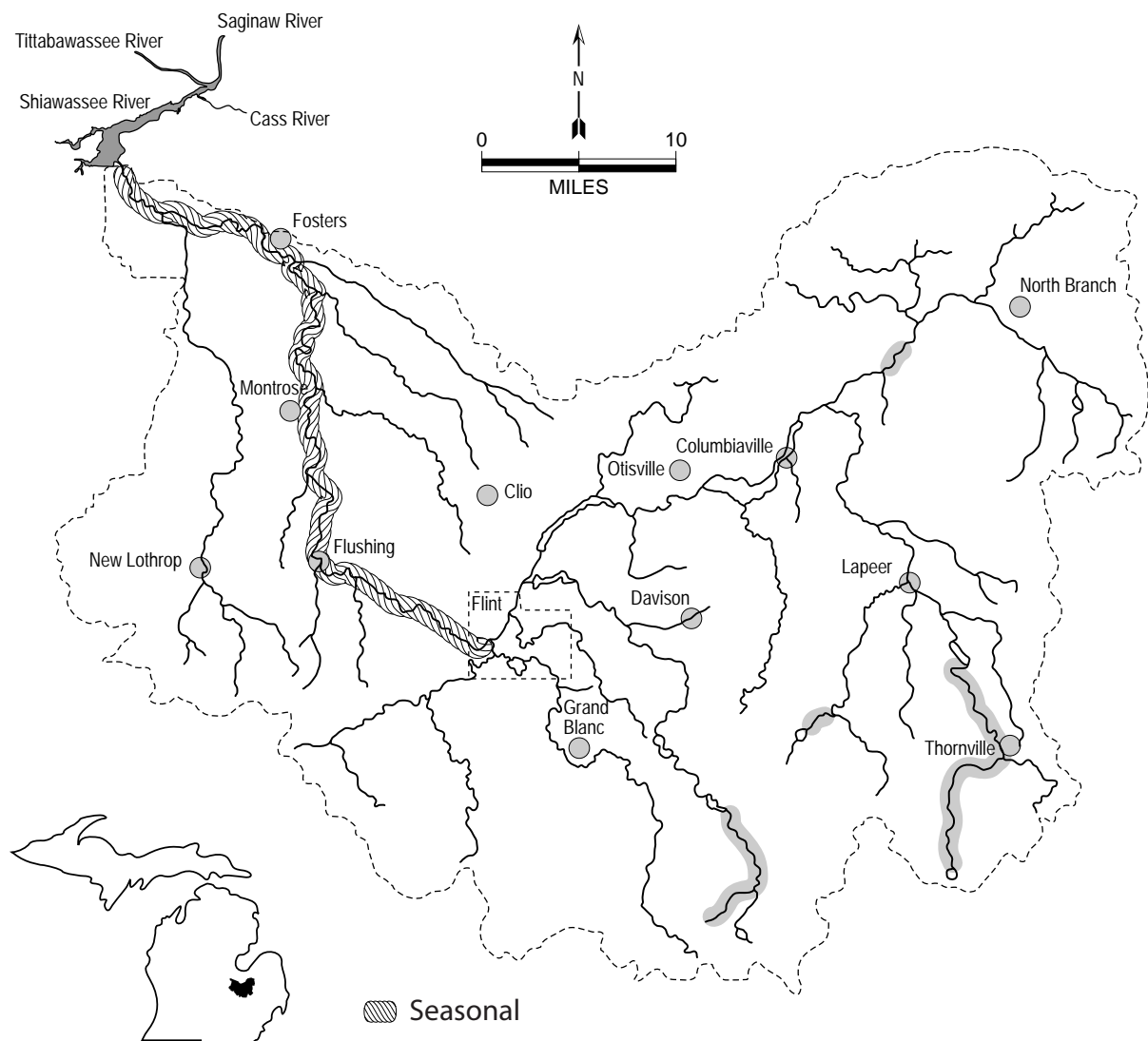
- feeding - adults: Lake Huron
- young: shallow gravel substrate in cool streams, later into pools
  
- spawning - gravelly substrate in cool streams



**Brown trout (*Salmo trutta*)**

**Habitat:**

- feeding - cold, clear streams, rivers, and lakes (not >70°F)
  - medium to swift current in streams
  - does not tolerate silt well
  - prefers few individuals and species around
  - abundance of aquatic and land insects
- spawning - gravelly riffles; shallow headwater areas

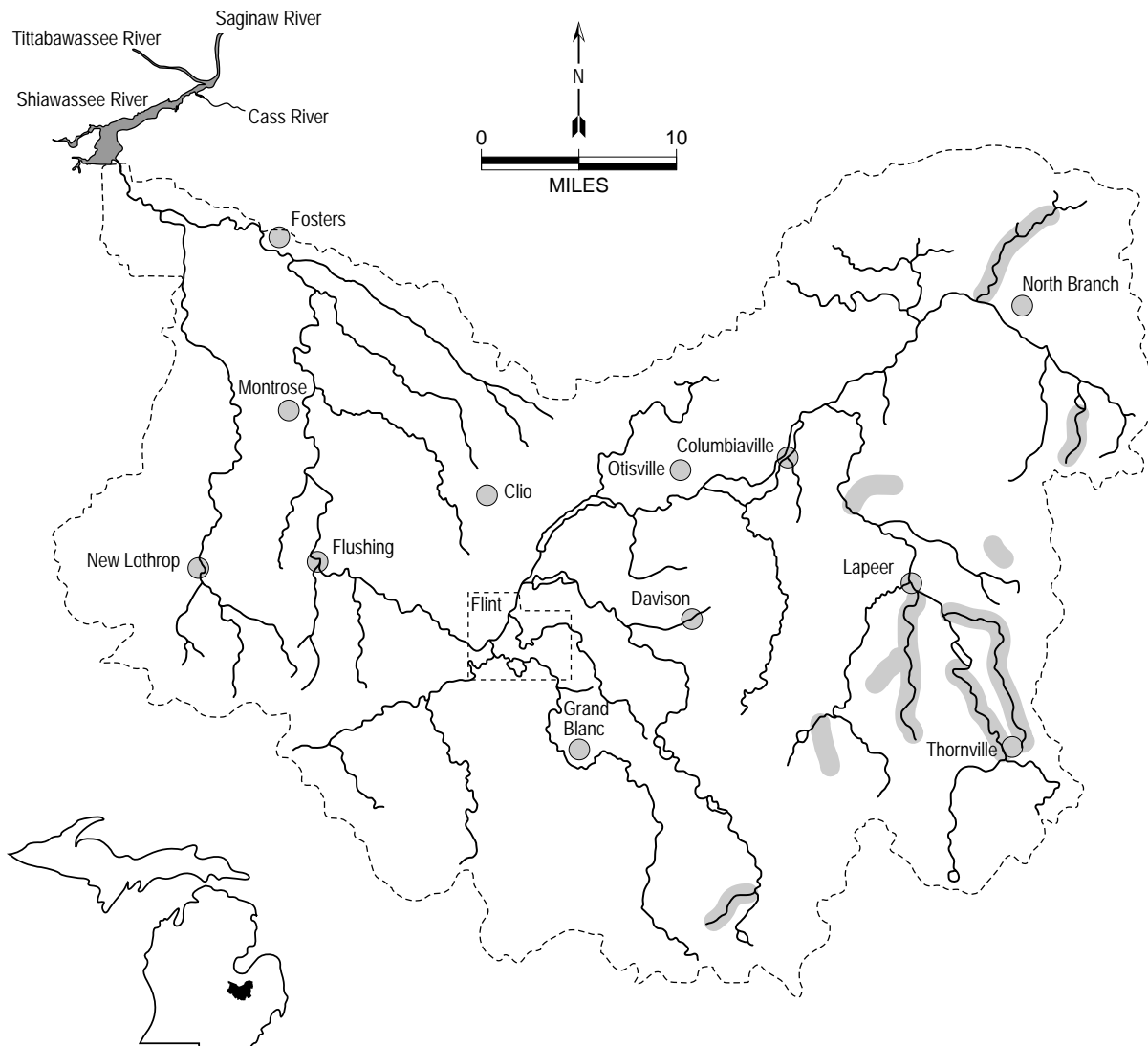


# Flint River Assessment Appendix

## 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

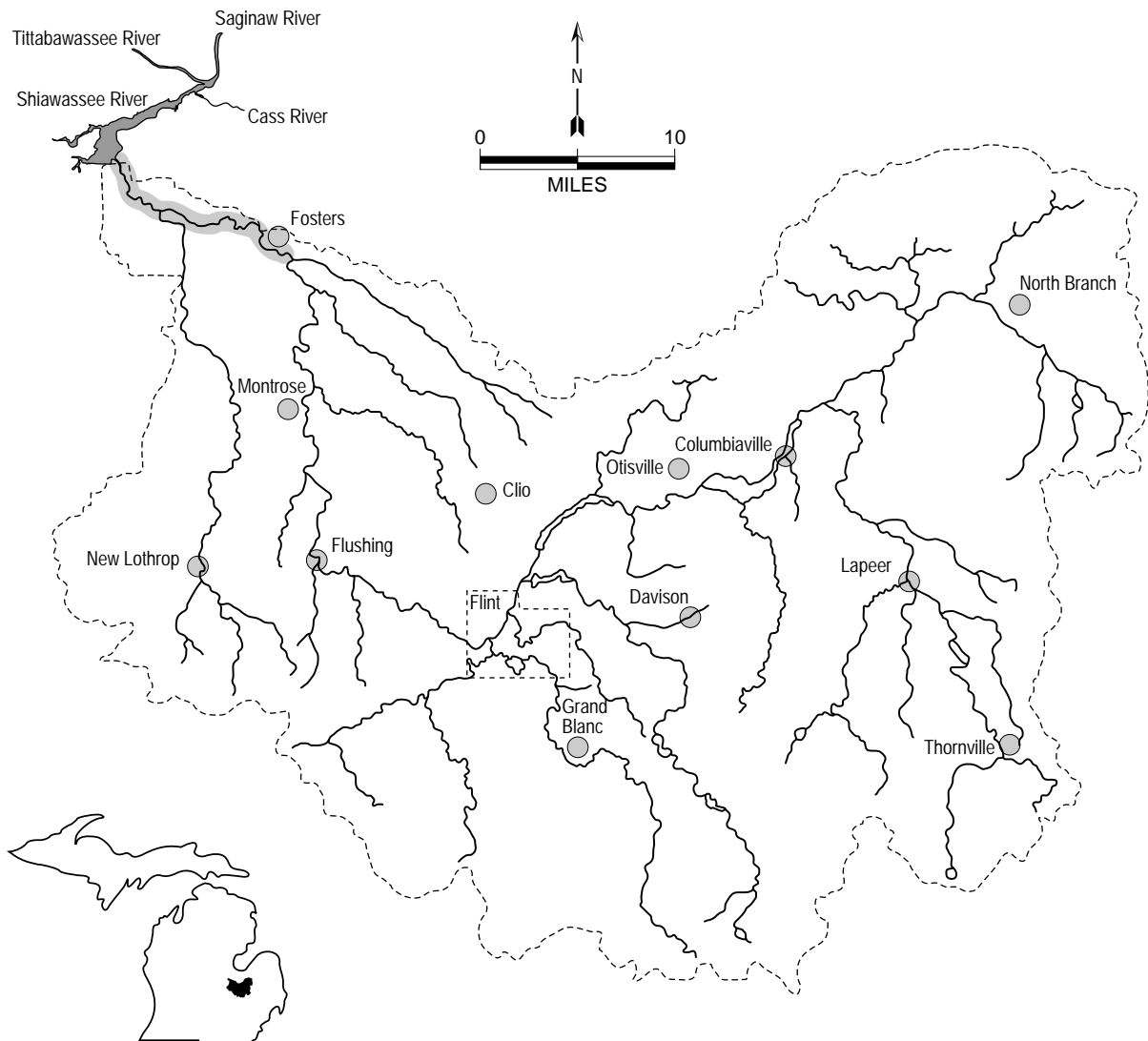




**Trout-perch (*Percopsis omiscomaycus*)**

**Habitat:**

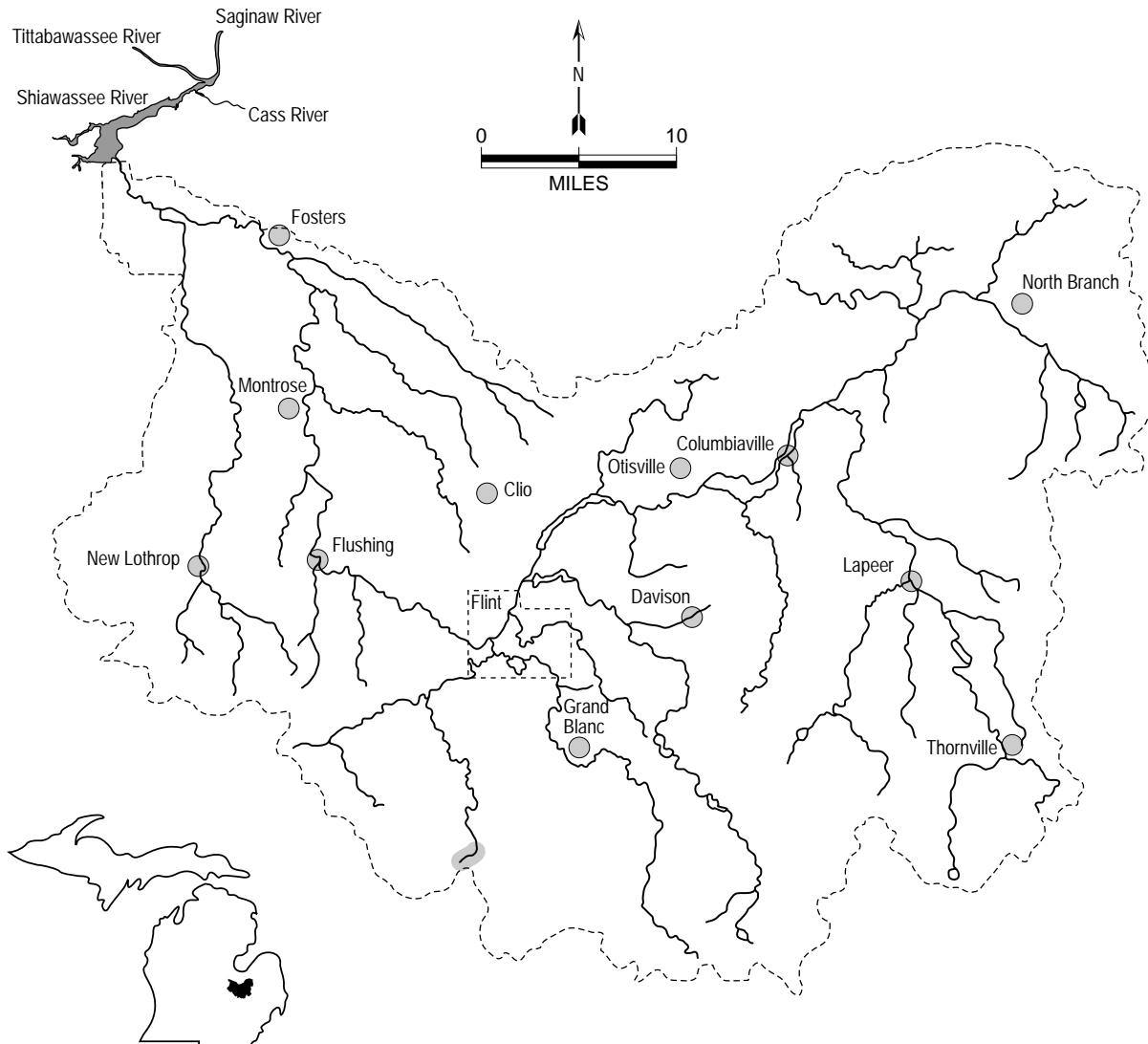
- feeding
  - clean sand or fine gravel substrate
  - long deep pools in low gradient streams and Lake Huron
  - highly intolerant of clayey silts
  - avoids rooted aquatic vegetation
  
- spawning
  - over rocks in shallows
  - over sand and gravel substrates in Lake Huron



**Pirate perch (*Aphredoderus sayanus*)**

**Habitat:**

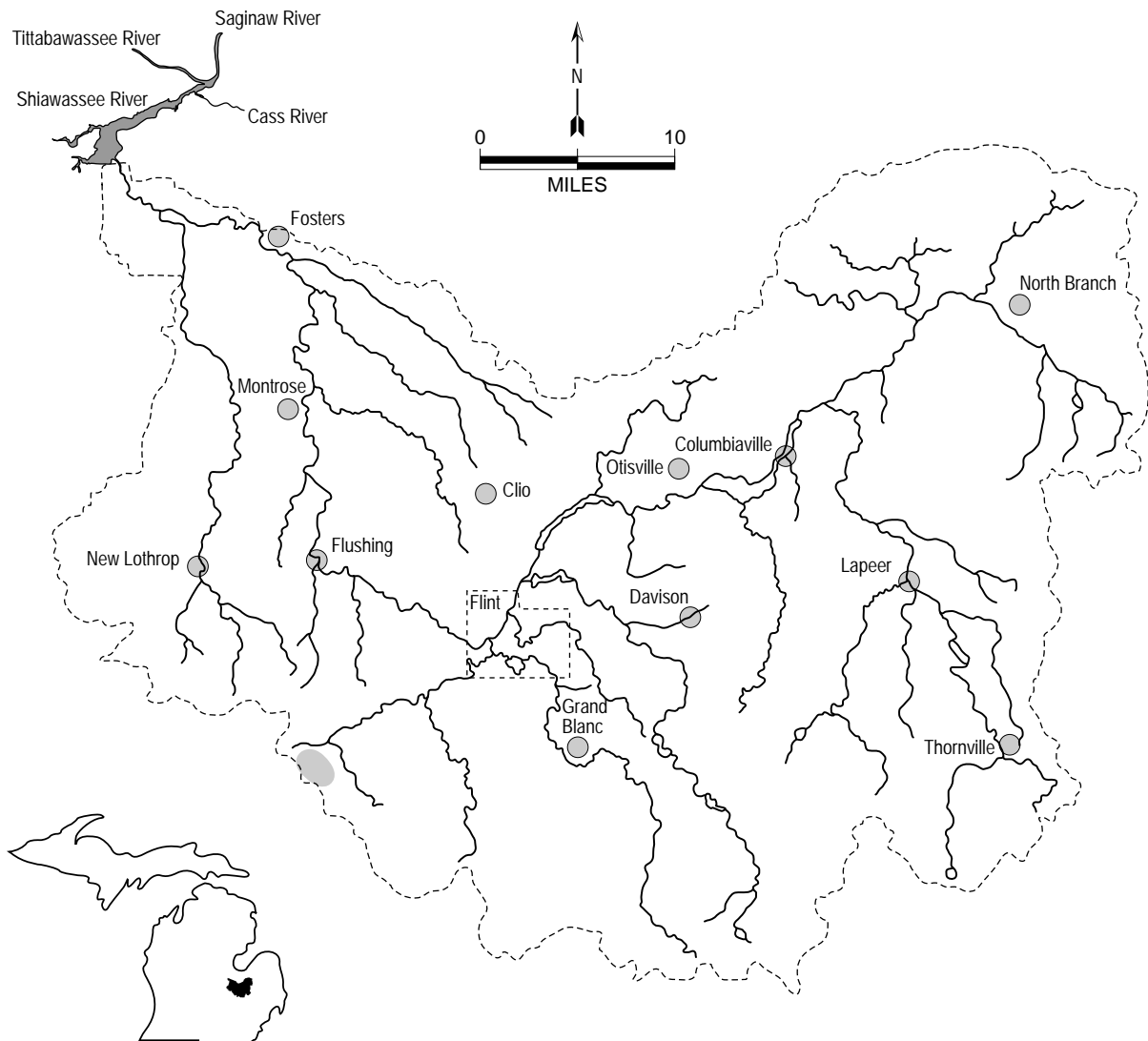
- feeding - oxbows, overflow ponds, marshes, estuaries, pools
- medium to large rivers
- low gradient, less than 3ft/mi
- sand or muck substrates covered with organic debris
- pools bordered by emergent aquatic vegetation
- clear, warm, quiet water



**Banded killifish (*Fundulus diaphanus*)**

**Habitat:**

- feeding - quiet backwaters at the mouths of streams and lakes
  - substrate of sand, gravel, and a few boulders
  - also found over detritus substrate where patches of submerged aquatic vegetation are present
- spawning - quiet areas of weedy pools



# Flint River Assessment Appendix

## 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

