

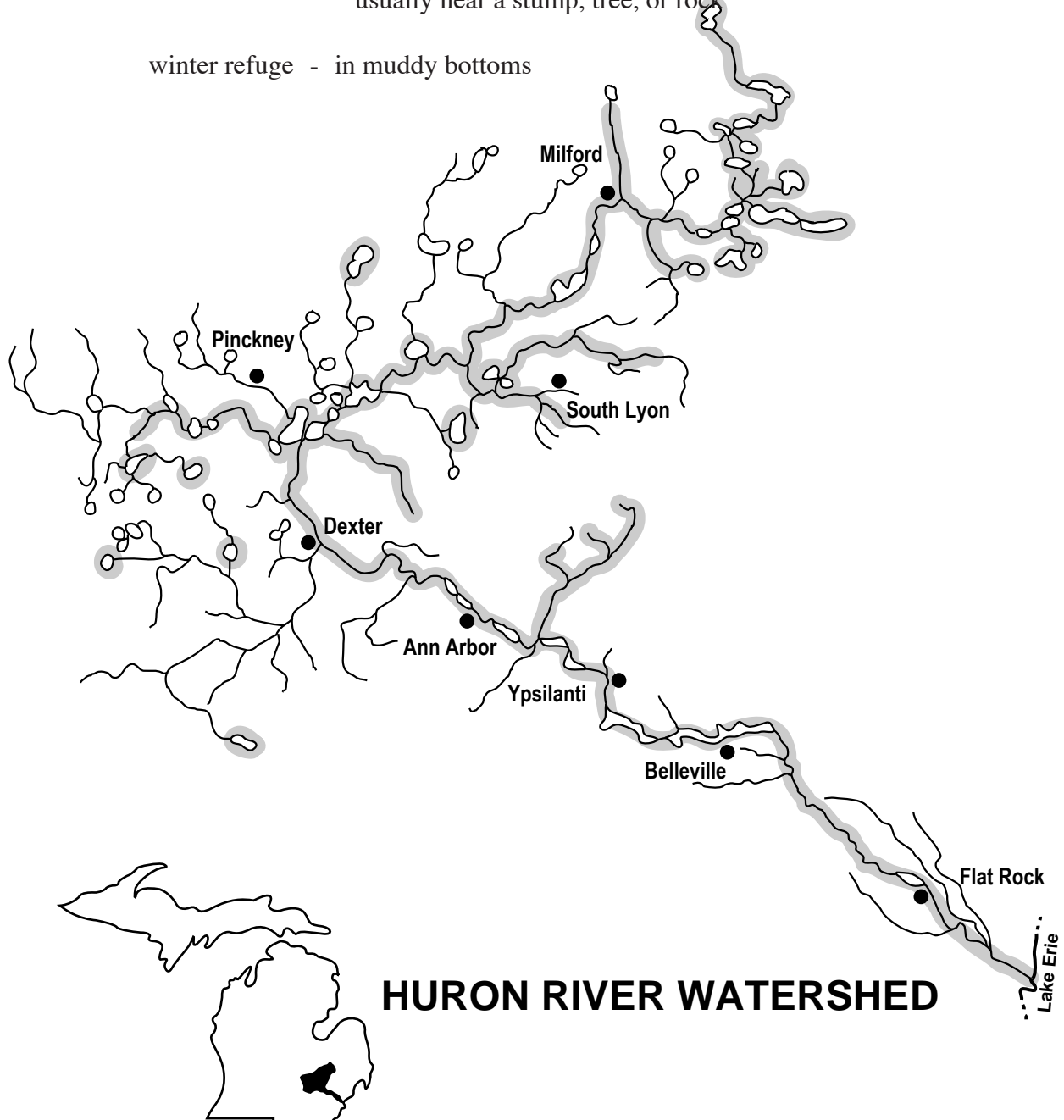
Brown bullhead (*Ameiurus nebulosus*)

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

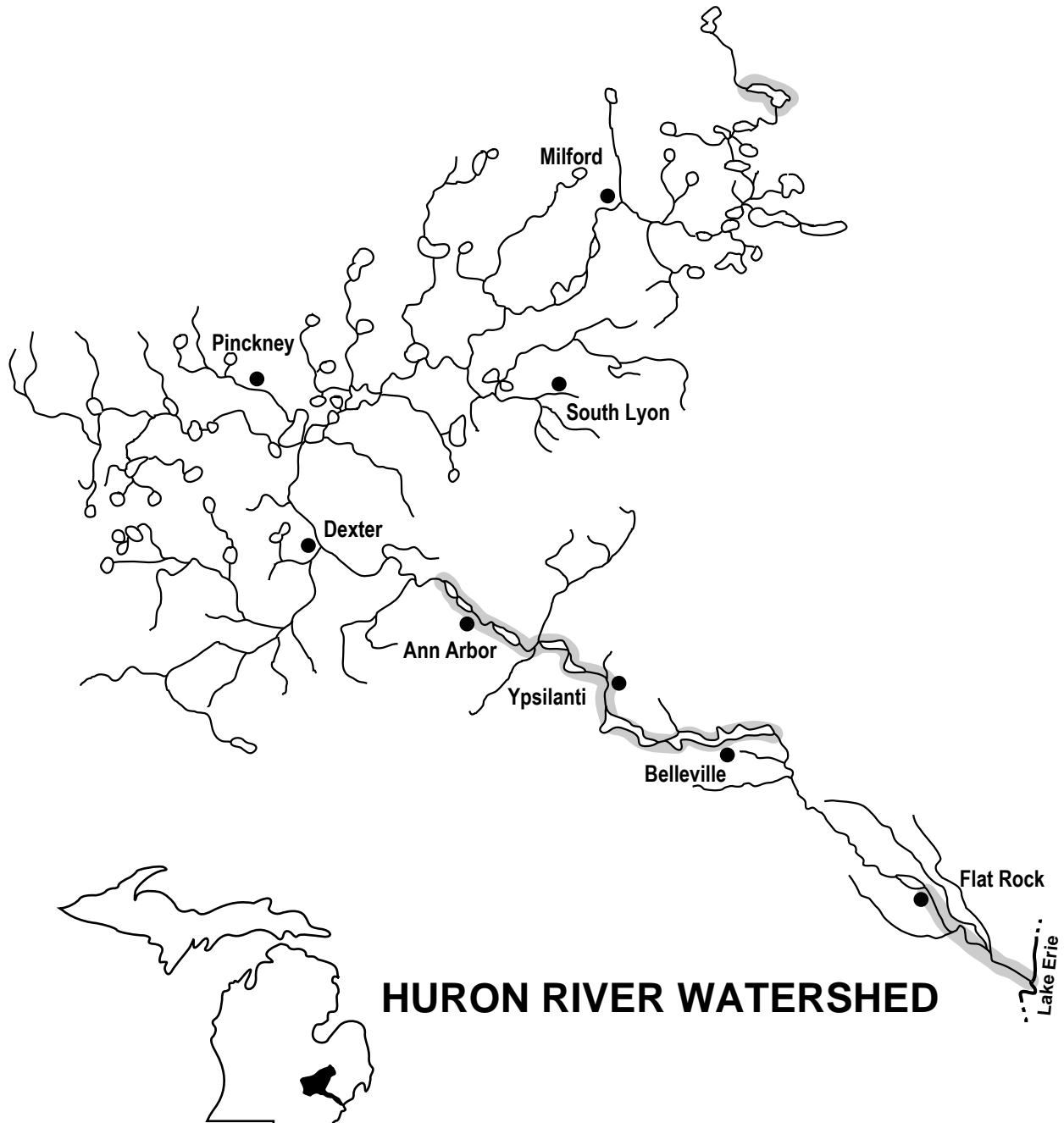


Channel catfish (*Ictalurus punctatus*)

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

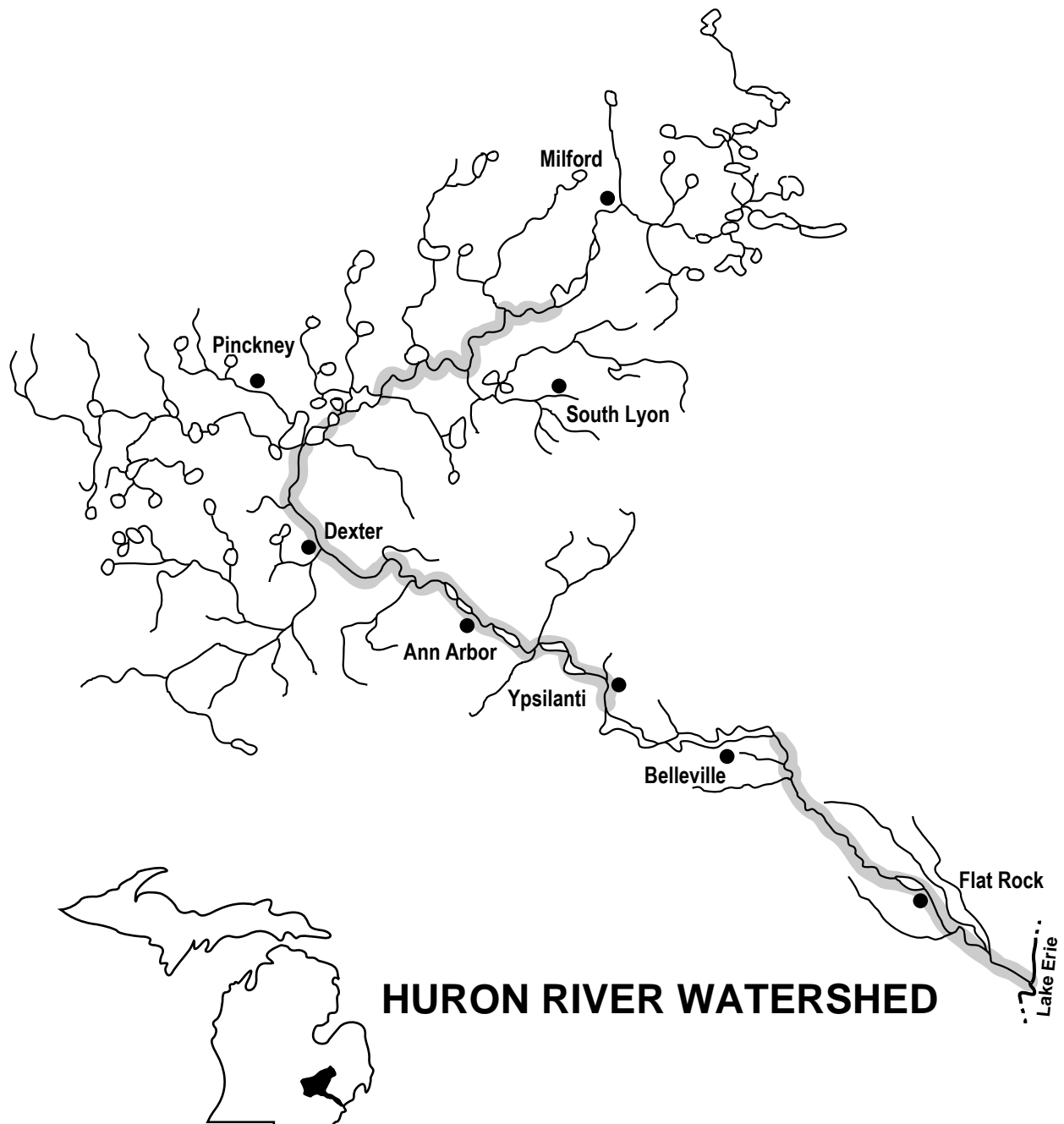


Stonecat (*Noturus flavus*)

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

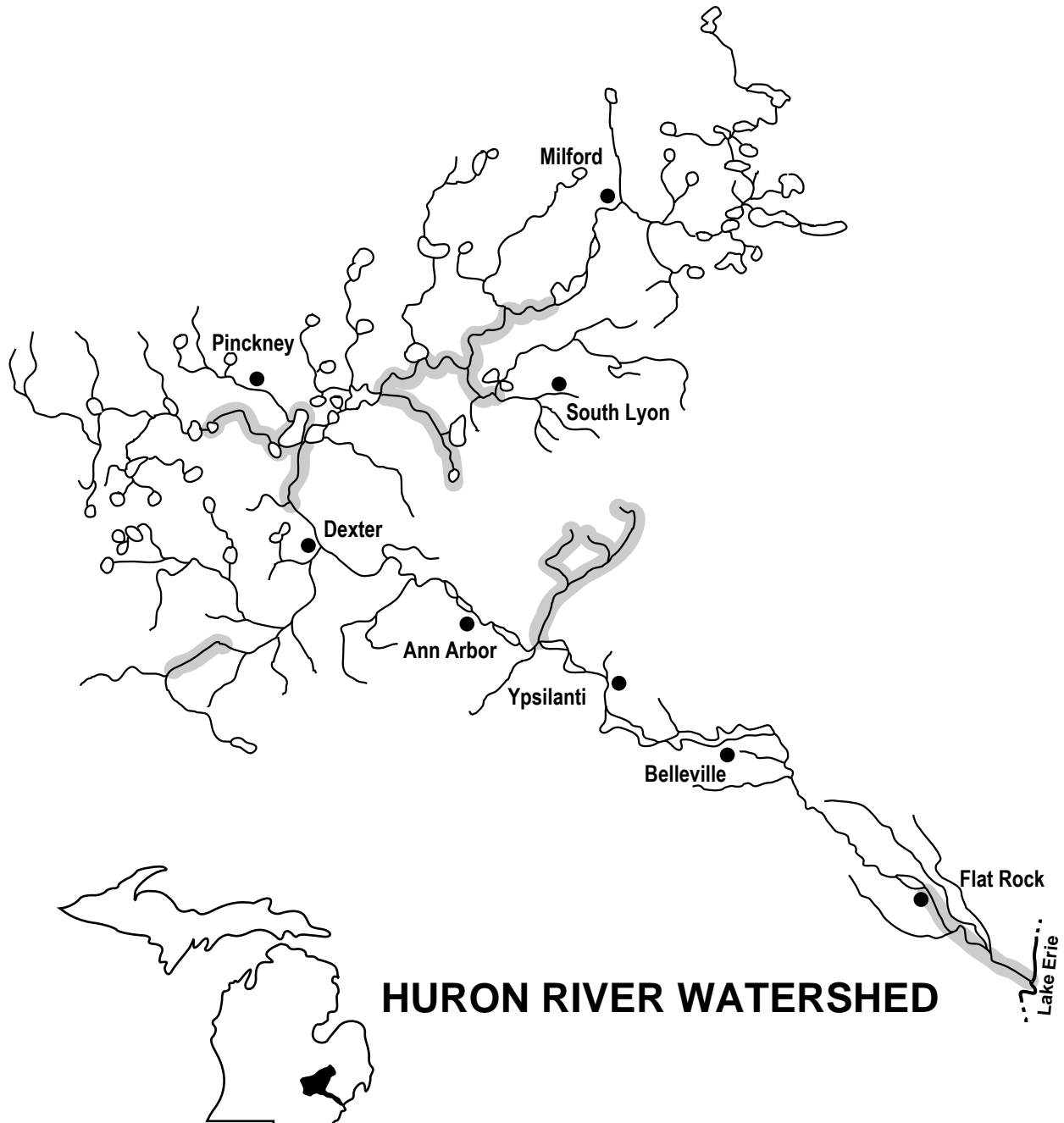


Tadpole madtom (*Noturus gyrinus*)

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)

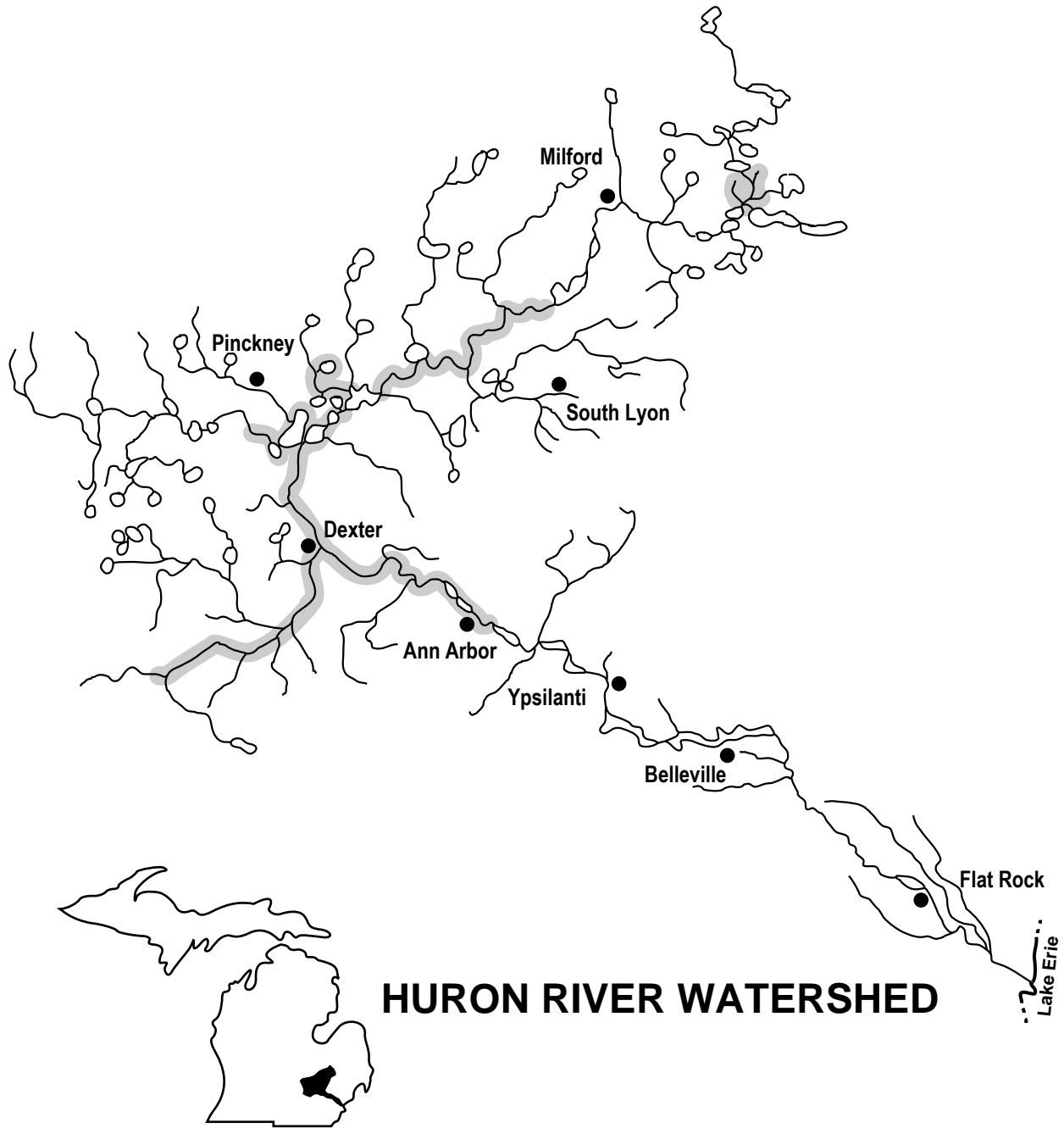


Brindled madtom (*Noturus miurus*) - declining

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

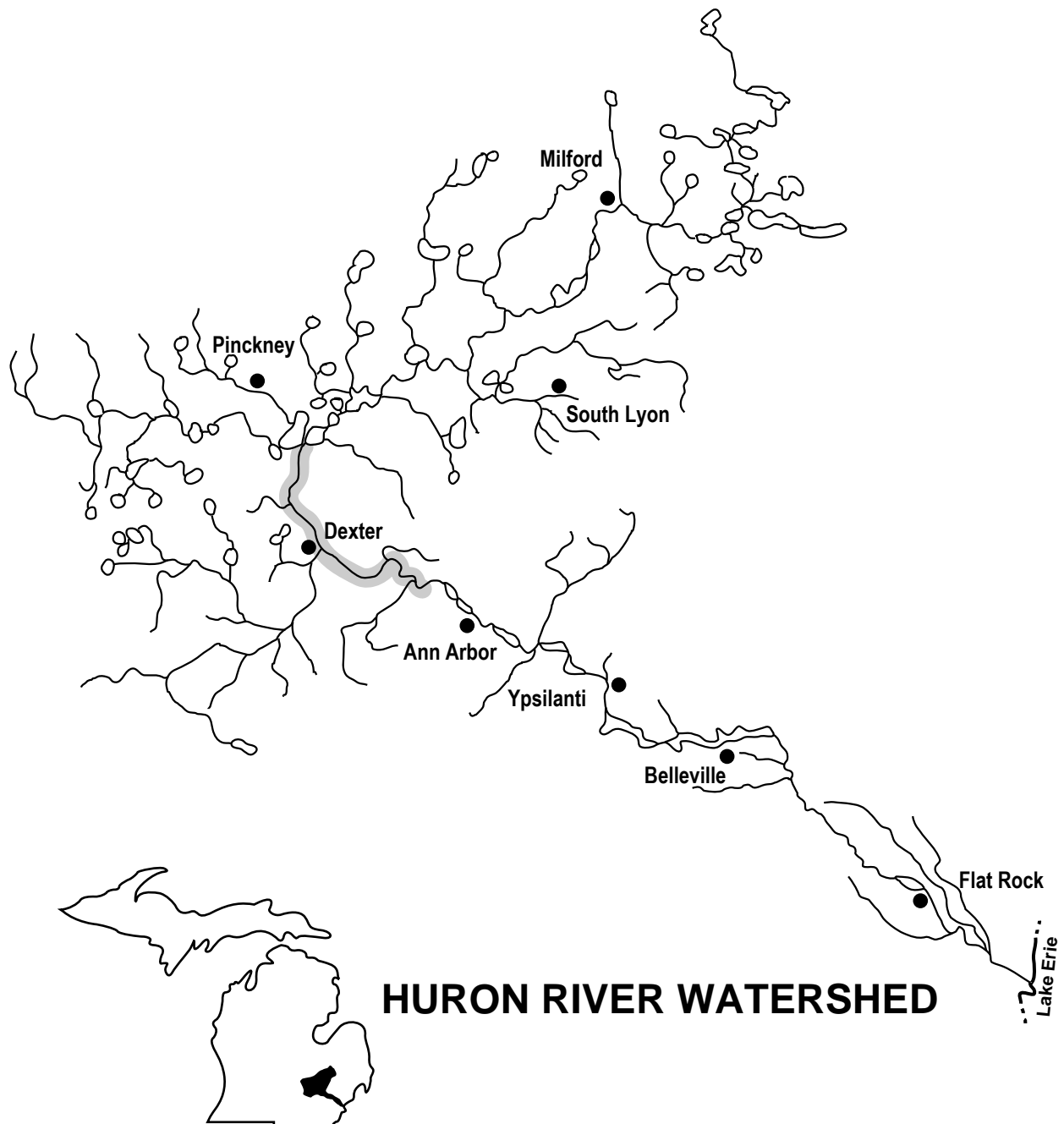
- spawning
 - silt or mud substrate
 - emergent vegetation



Northern madtom (*Noturus stigmosus*) - endangered

Habitat:

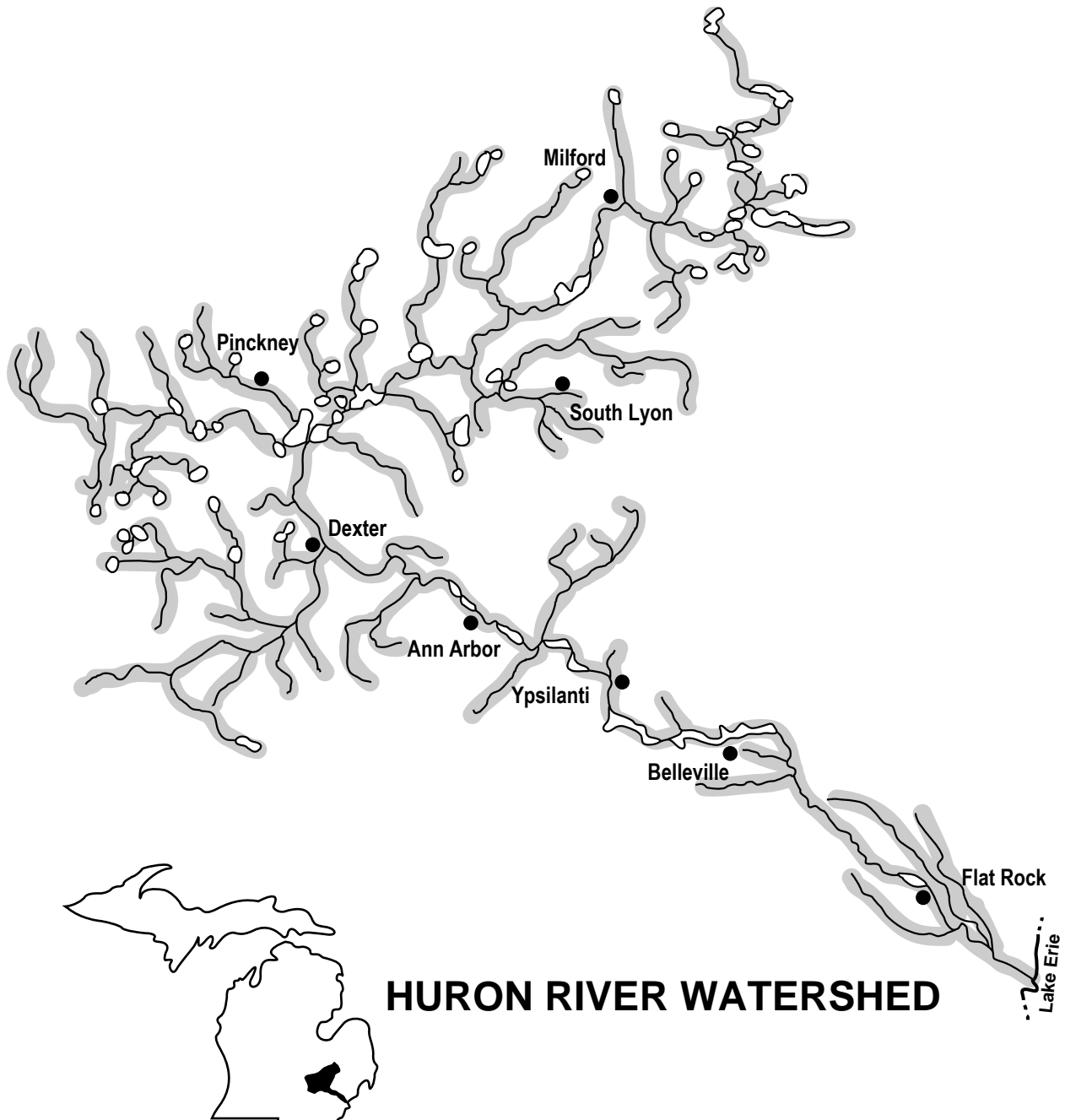
- feeding - deep, wide, swift riffles of streams and rivers
- gravel and boulder substrates



Grass pickerel (*Esox americanus vermiculatus*)

Habitat:

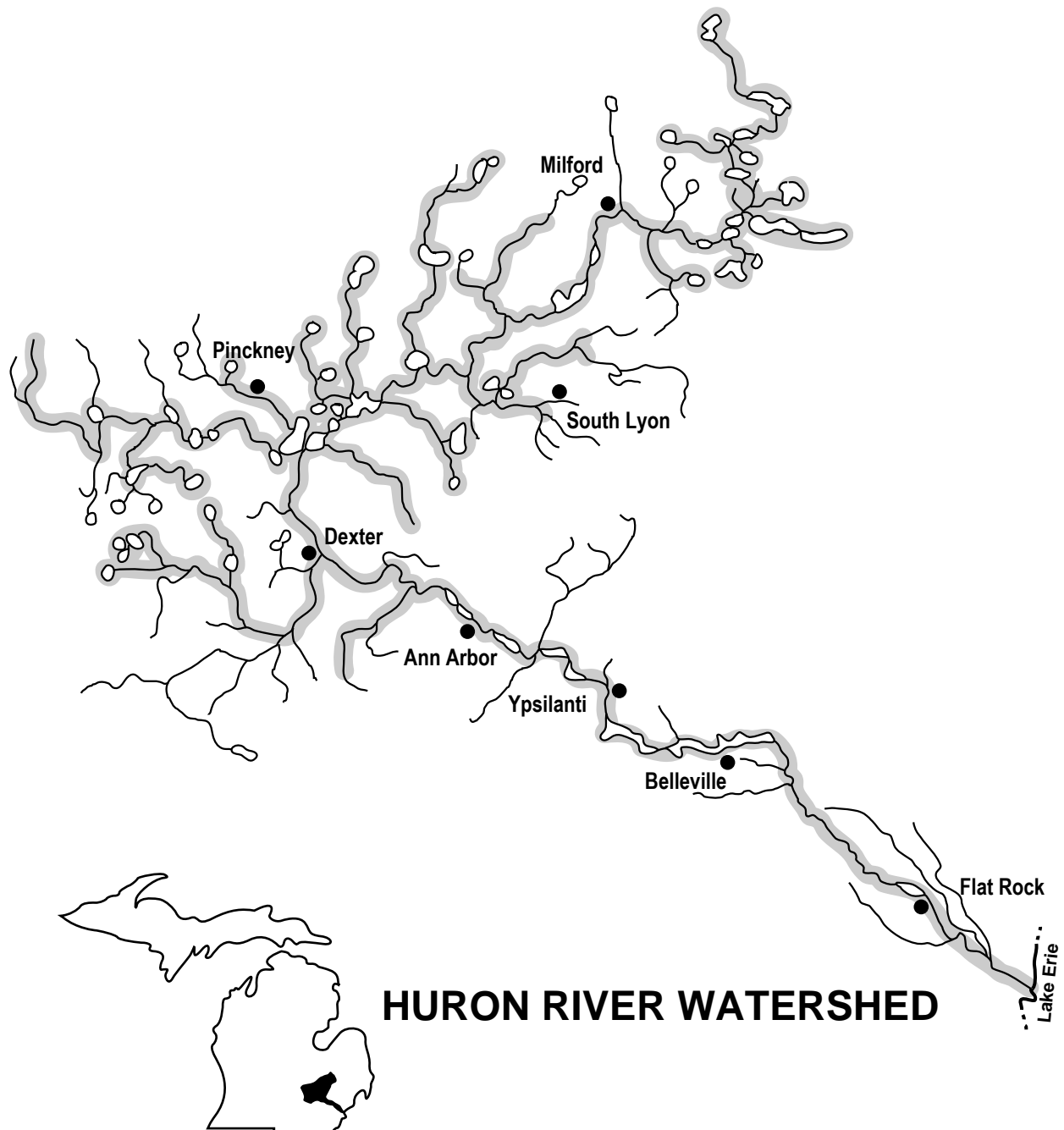
- feeding - juveniles: along shore
 - adults: in deeper portions of streams, rivers, lakes, and impoundments
 - clear water, little current, dense vegetation
 - tolerates low oxygen concentrations
- spawning - broadcast spawner over submerged vegetation



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

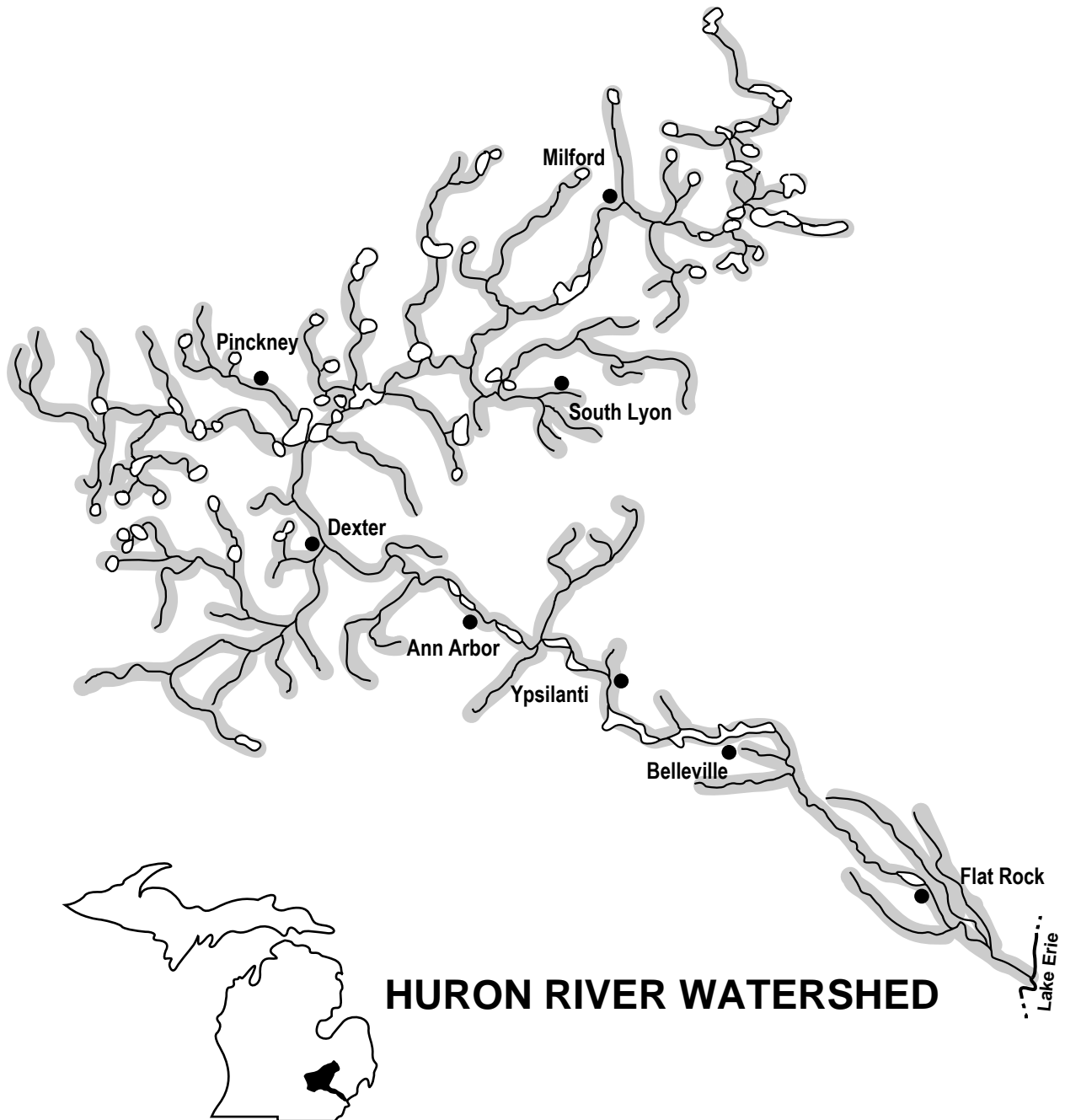


Central mudminnow (*Umbra limi*)

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

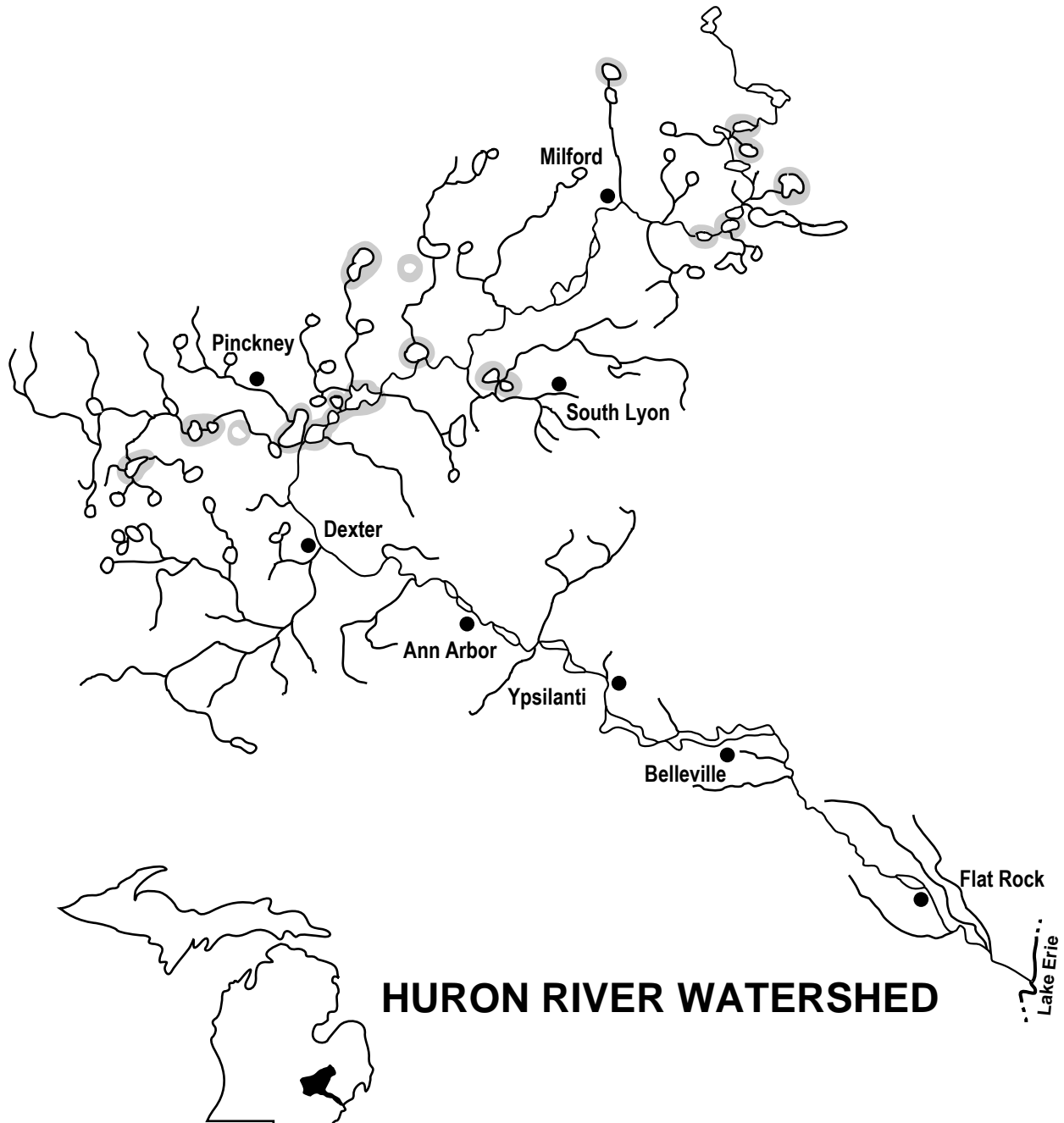


Cisco {Lake herring} (*Coregonus artedii*)

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

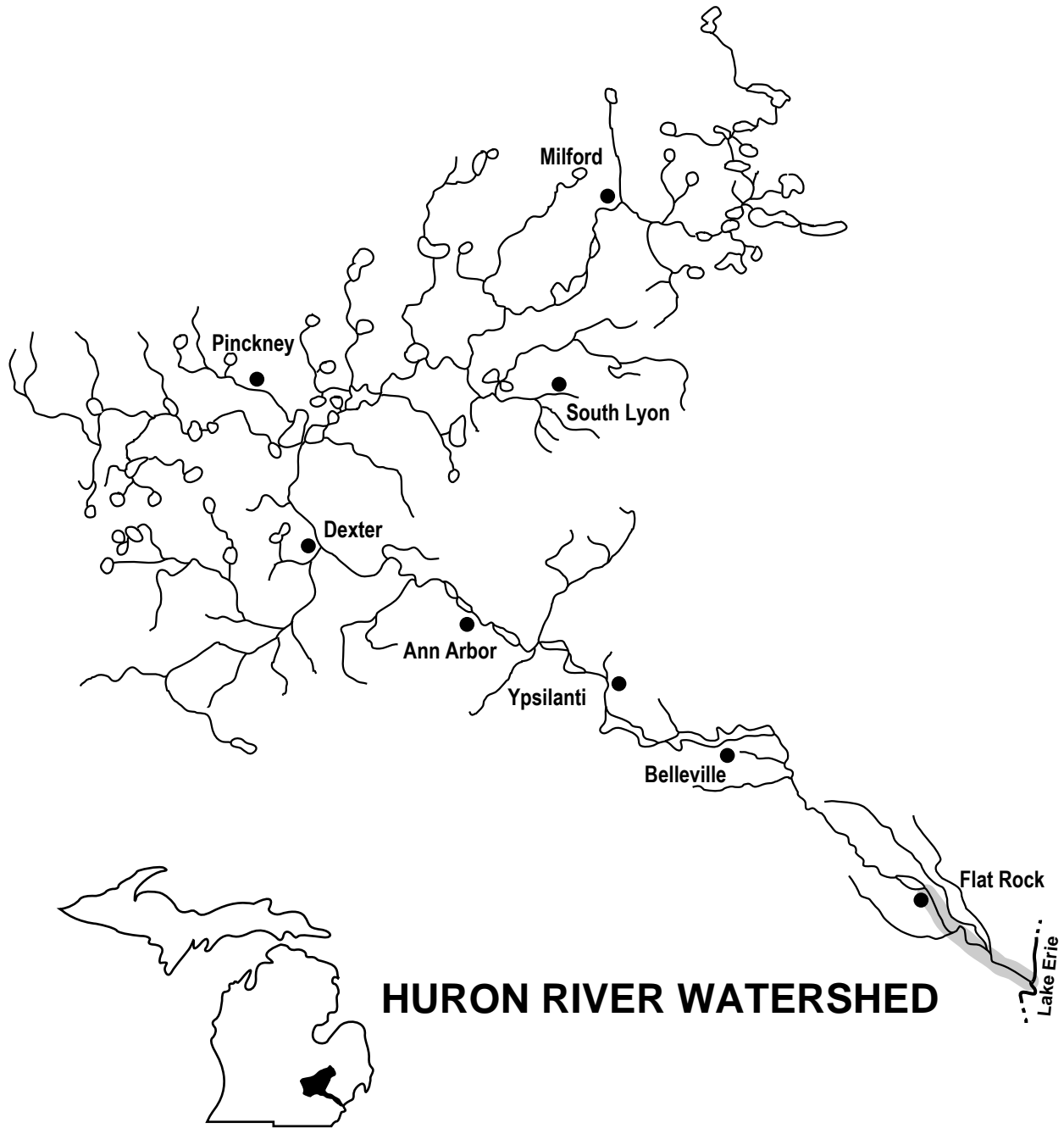


Coho salmon (*Oncorhynchus kisutch*)

Habitat:

- feeding - adults: Lake Erie
- young: shallow gravel substrate in cold streams, later into pools

- spawning - cold streams and rivers
- swifter water of shallow gravelly substrate

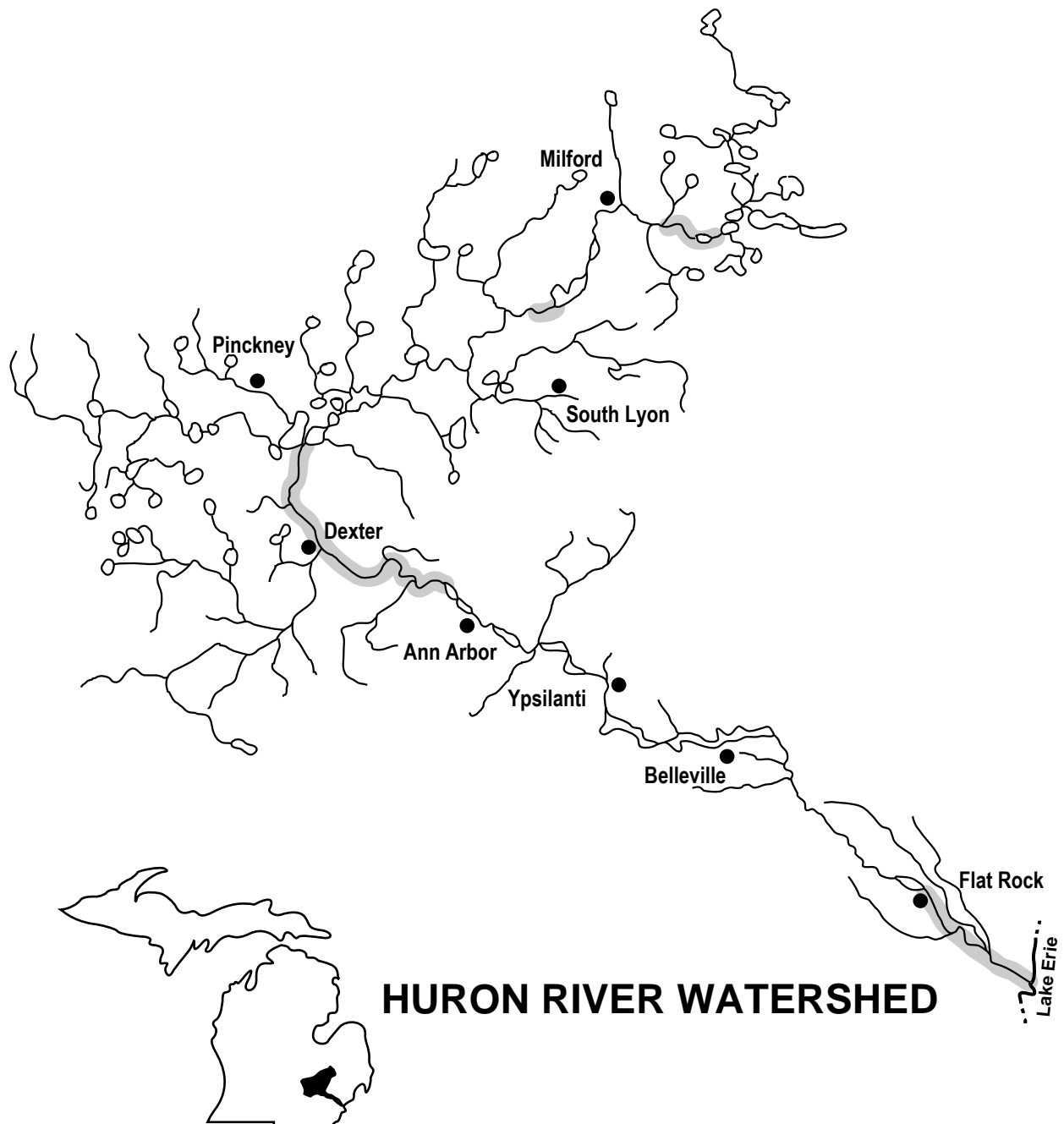


Rainbow trout (*Oncorhynchus mykiss*)

Habitat:

- feeding - cold clear water of rivers and Lake Erie
- moderate current

- spawning - gravelly riffles above a pool
- smaller tributaries

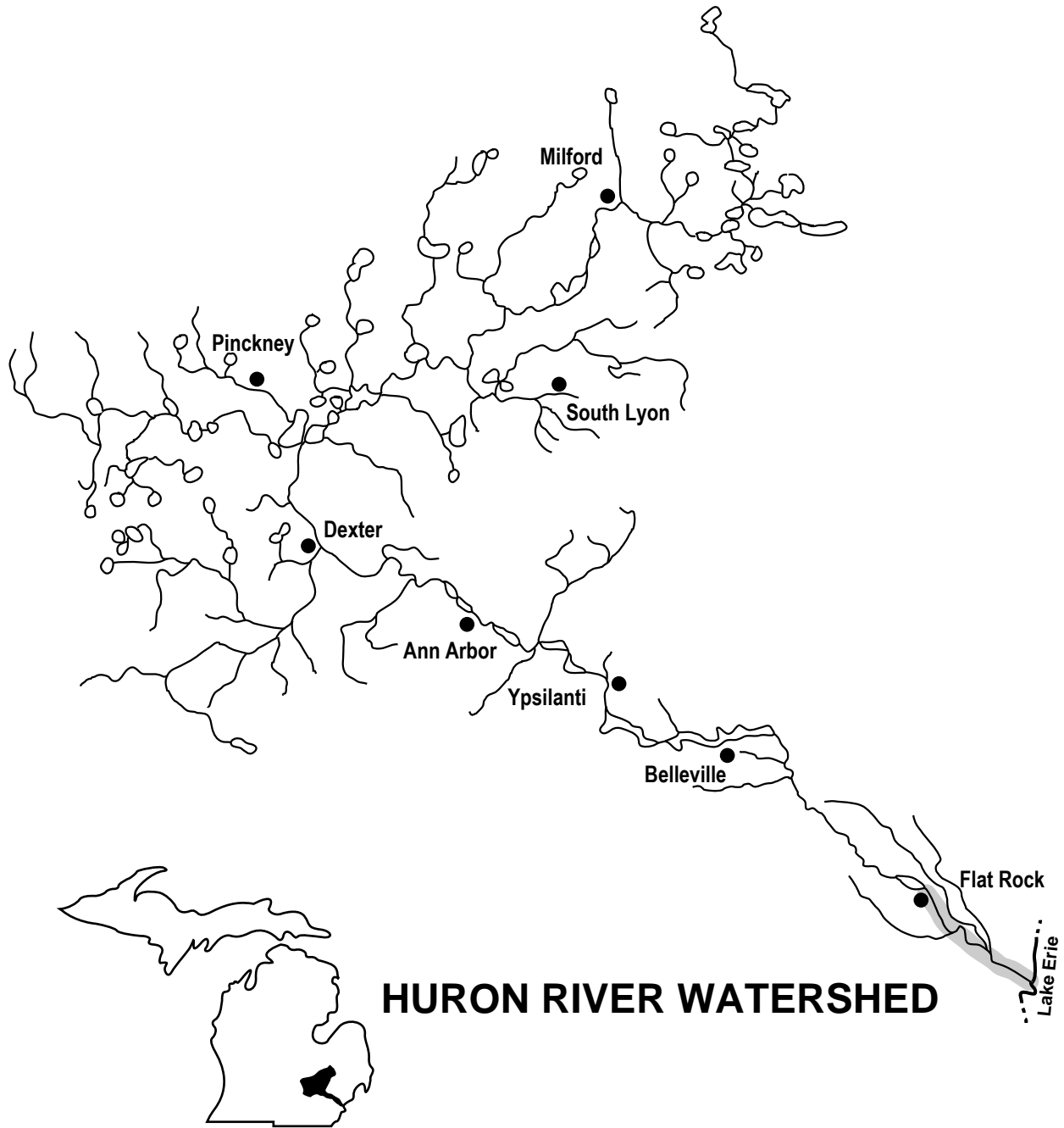


Chinook salmon (*Oncorhynchus tshawytscha*)

Habitat:

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

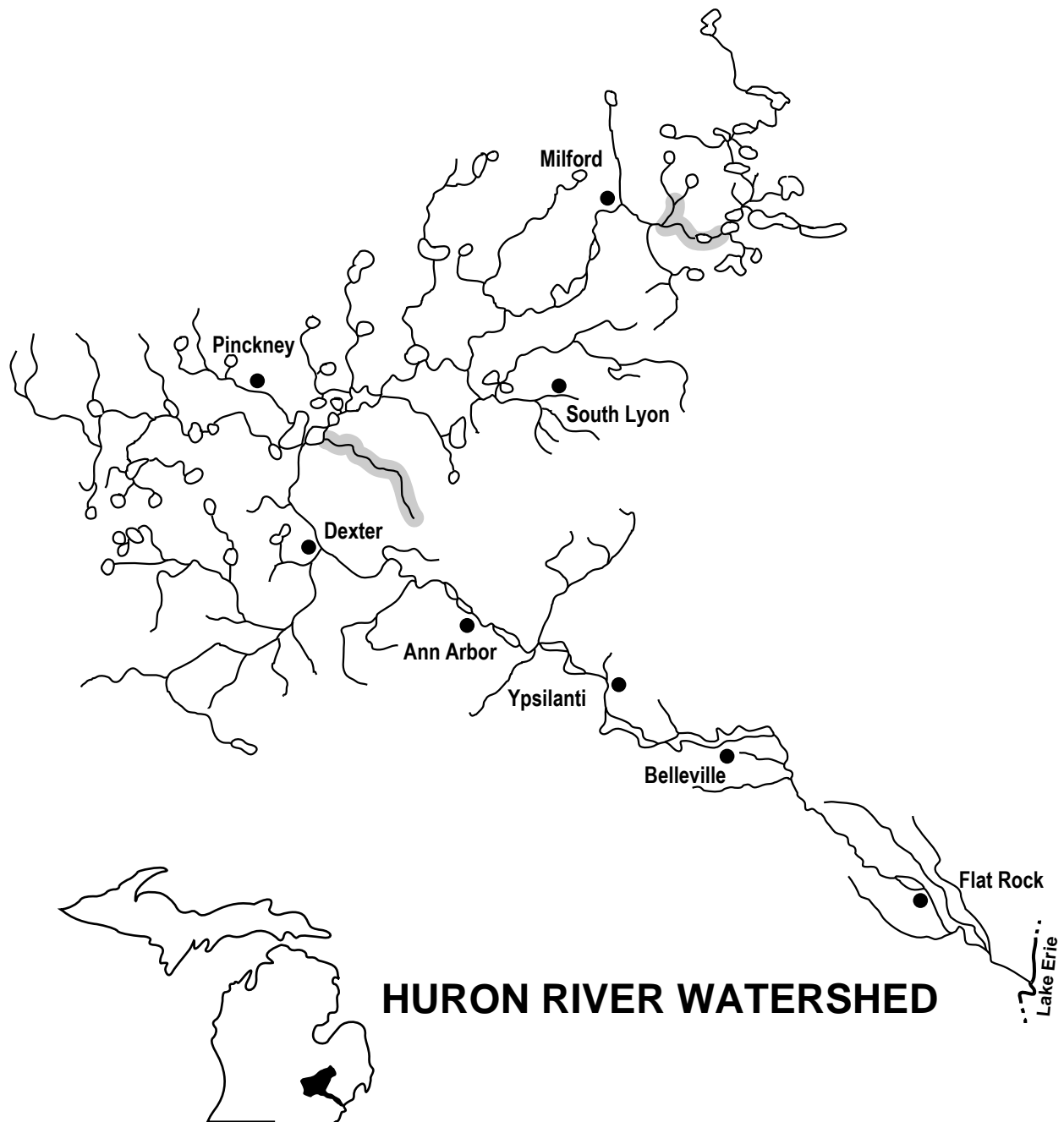
- spawning - gravelly substrate in cool streams



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

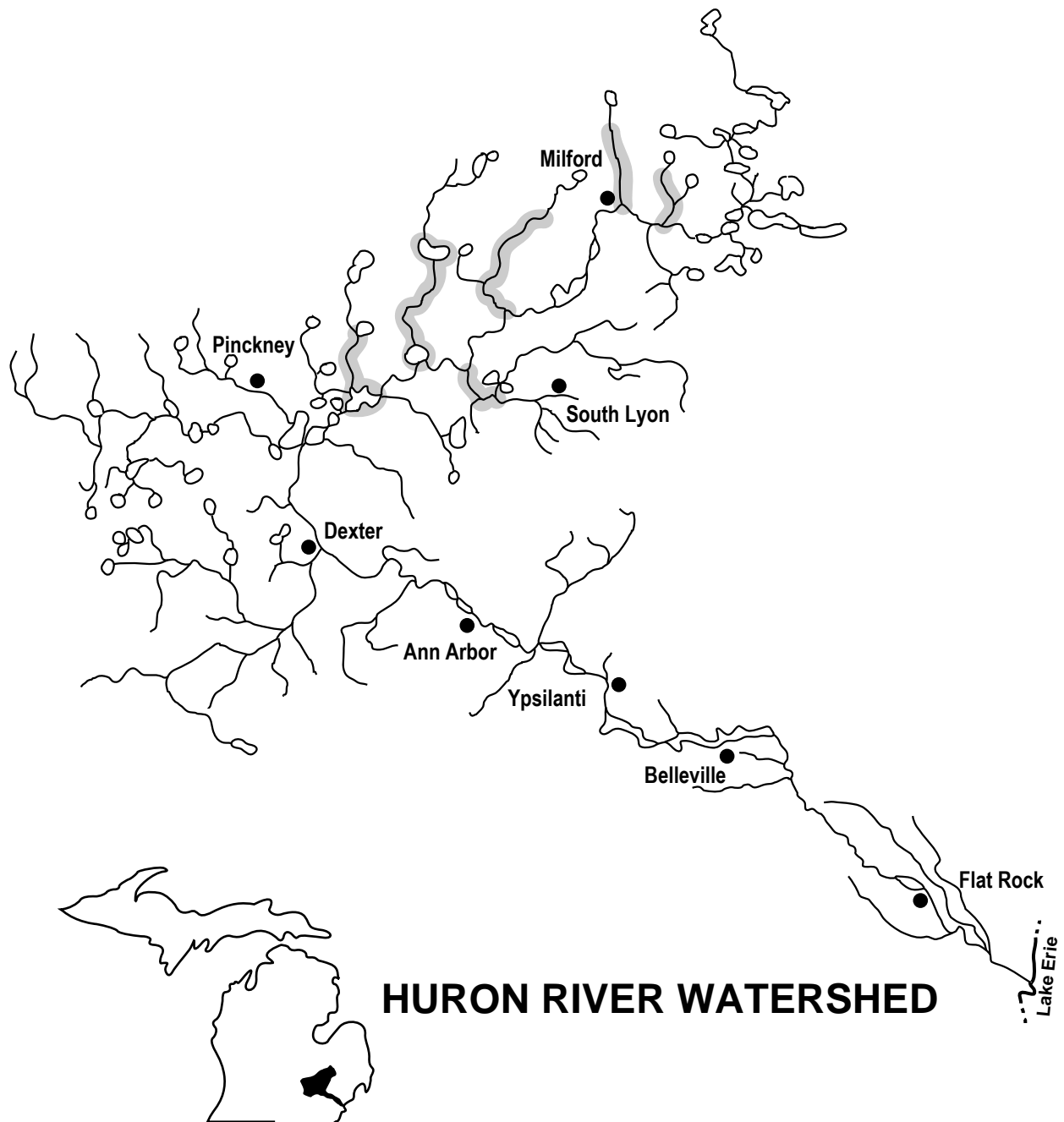


Brook trout (*Salvelinus fontinalis*)

Habitat:

- feeding - cold, clear streams, rivers, and lakes (not >65°F)
- low current
- well oxygenated water

- spawning - gravelly riffles; shallow or headwater streams

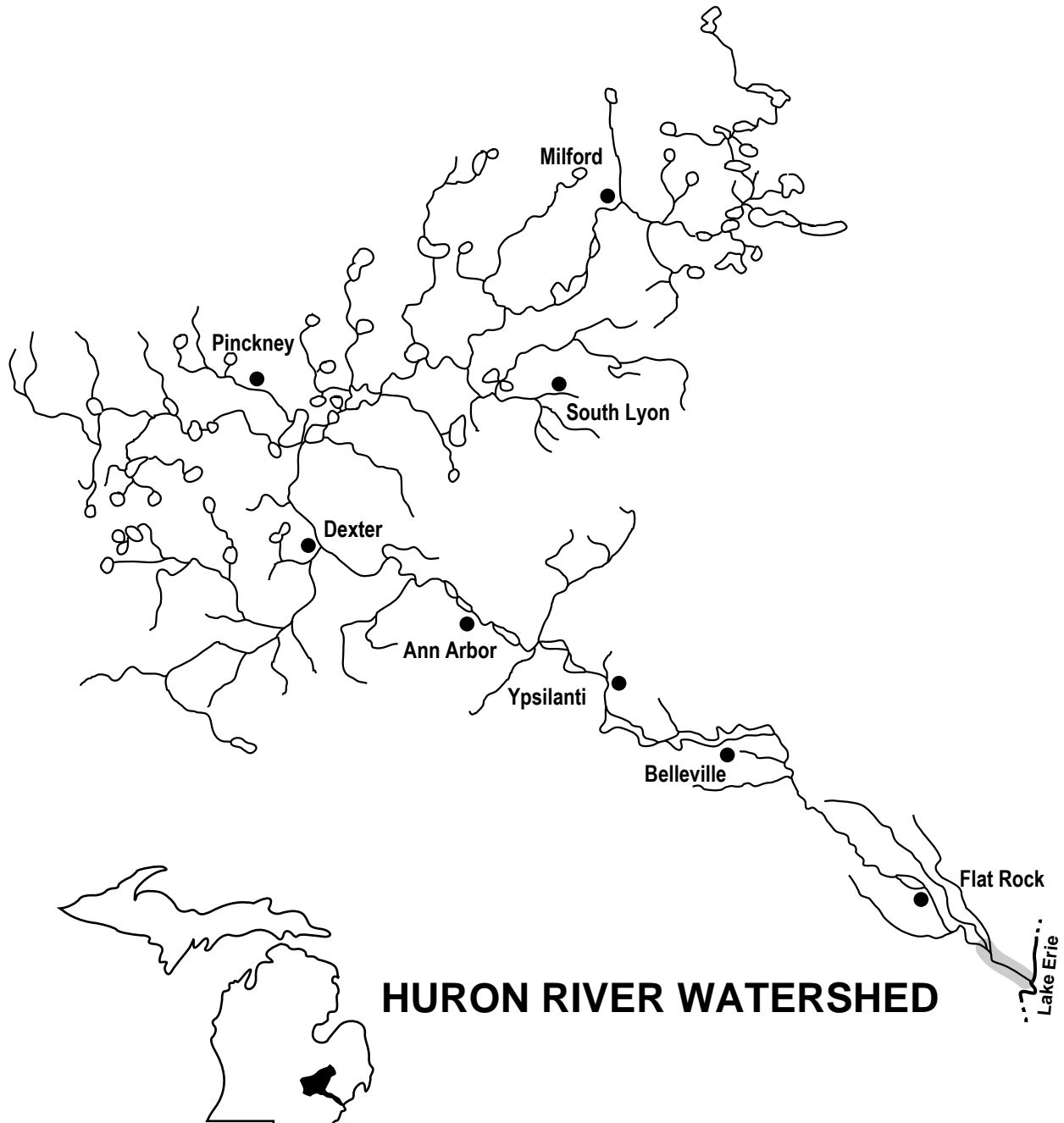


Trout-perch (*Percopsis omiscomaycus*)

Habitat:

- feeding
 - clean sand or fine gravel substrate
 - long deep pools in low gradient streams and Lake Erie
 - highly intolerant of clayey silts
 - avoids rooted aquatic vegetation

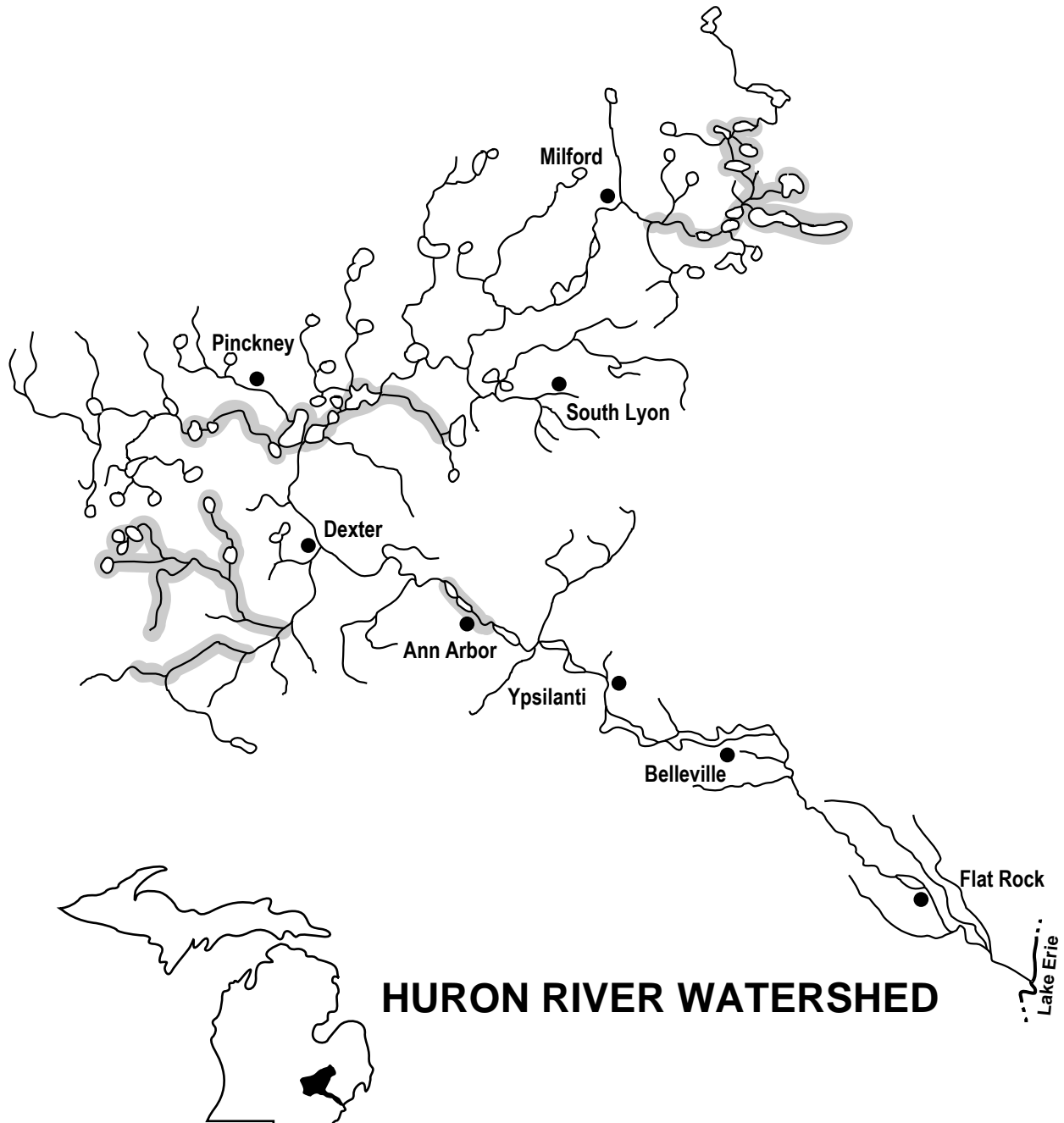
- spawning
 - over rocks in shallows
 - over sand and gravel substrates in Lake Erie



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



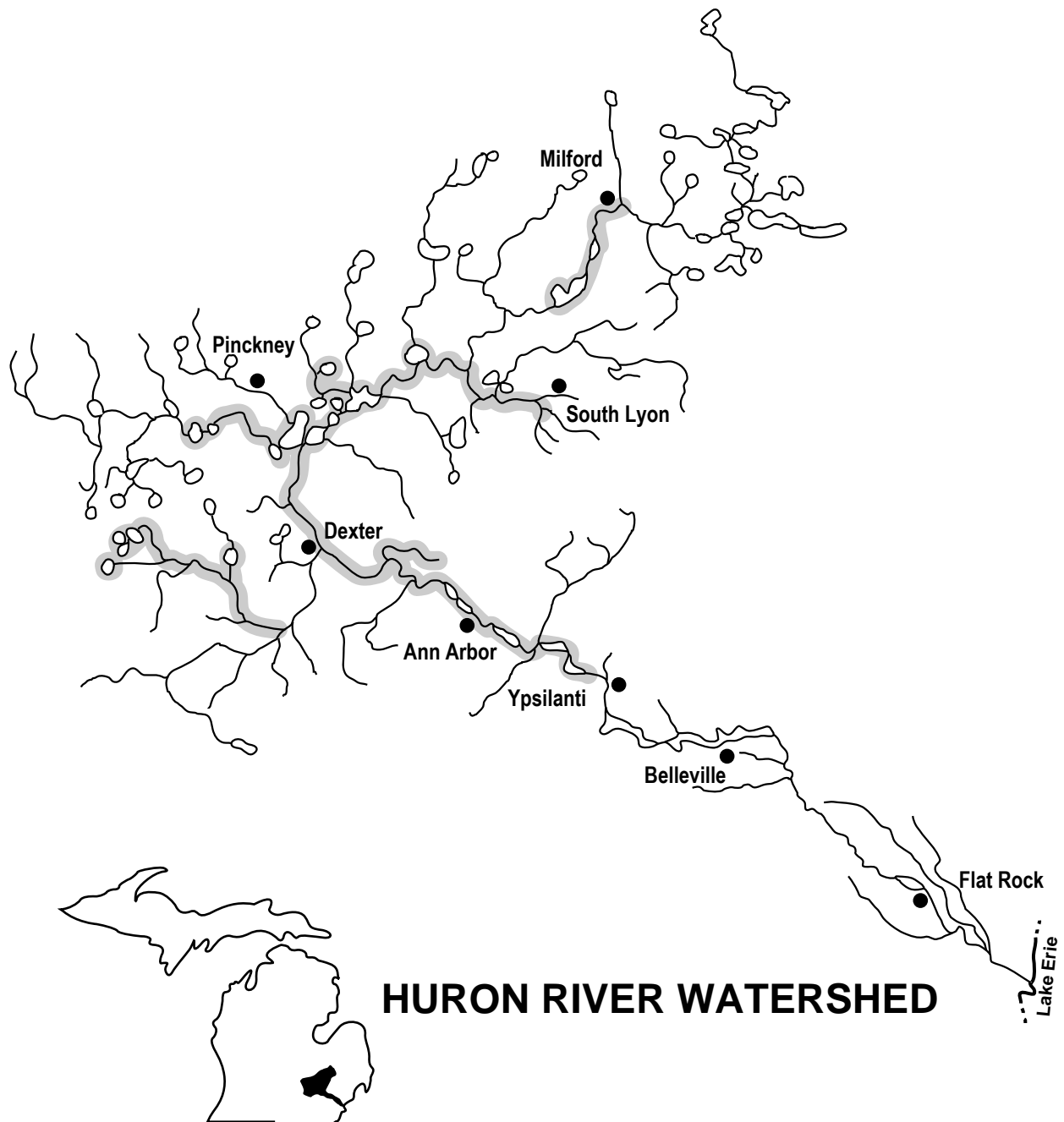
Blackstripe topminnow (*Fundulus notatus*)

Habitat:

- feeding - clear waters of lakes, impoundments and in low-gradient streams
- aquatic or submerged land vegetation
- somewhat tolerant of turbid water

spawning - in vegetation or algae

winter refuge - in deeper water with bottom vegetation

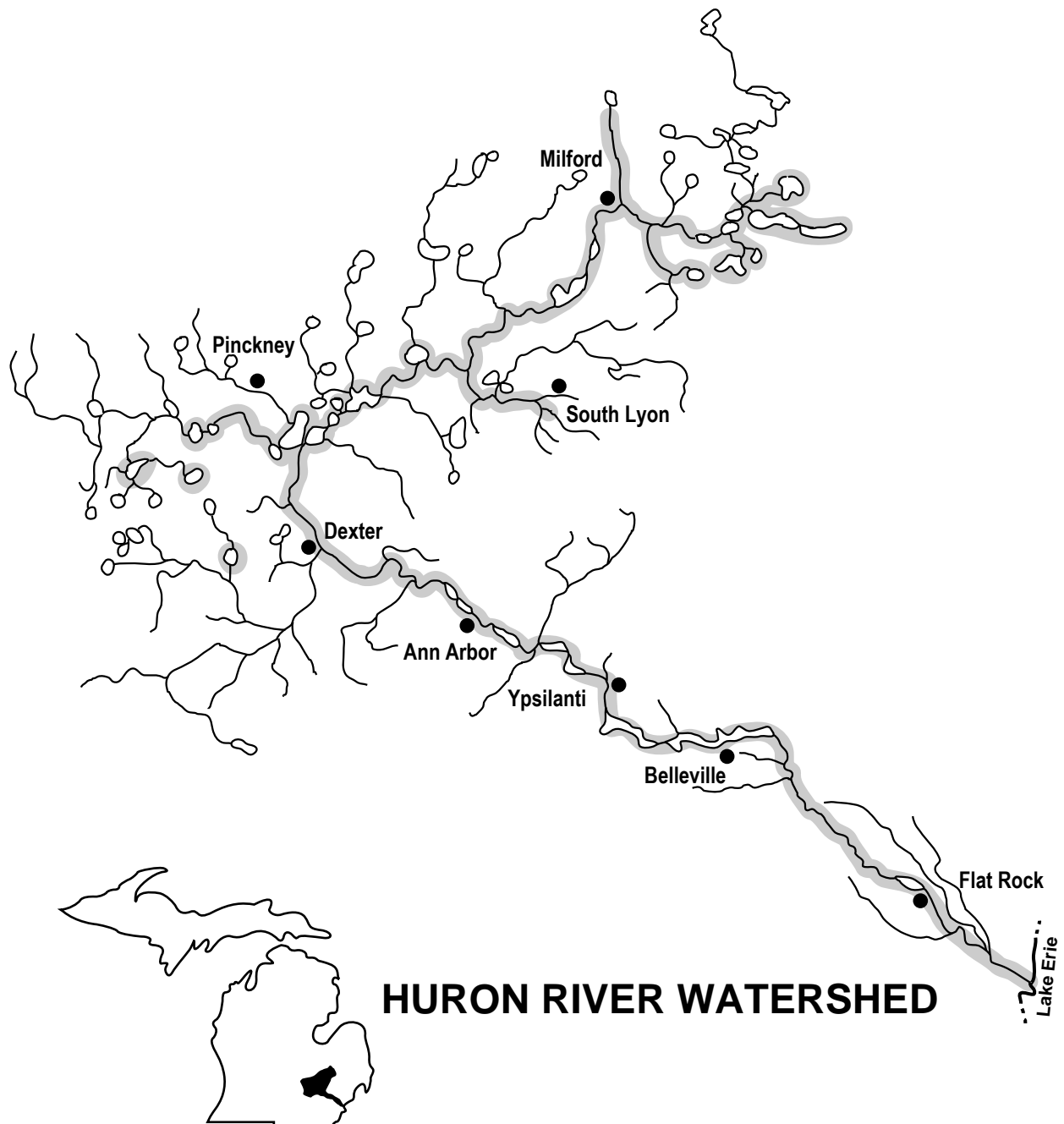


Brook silverside (*Labidesthes sicculus*)

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

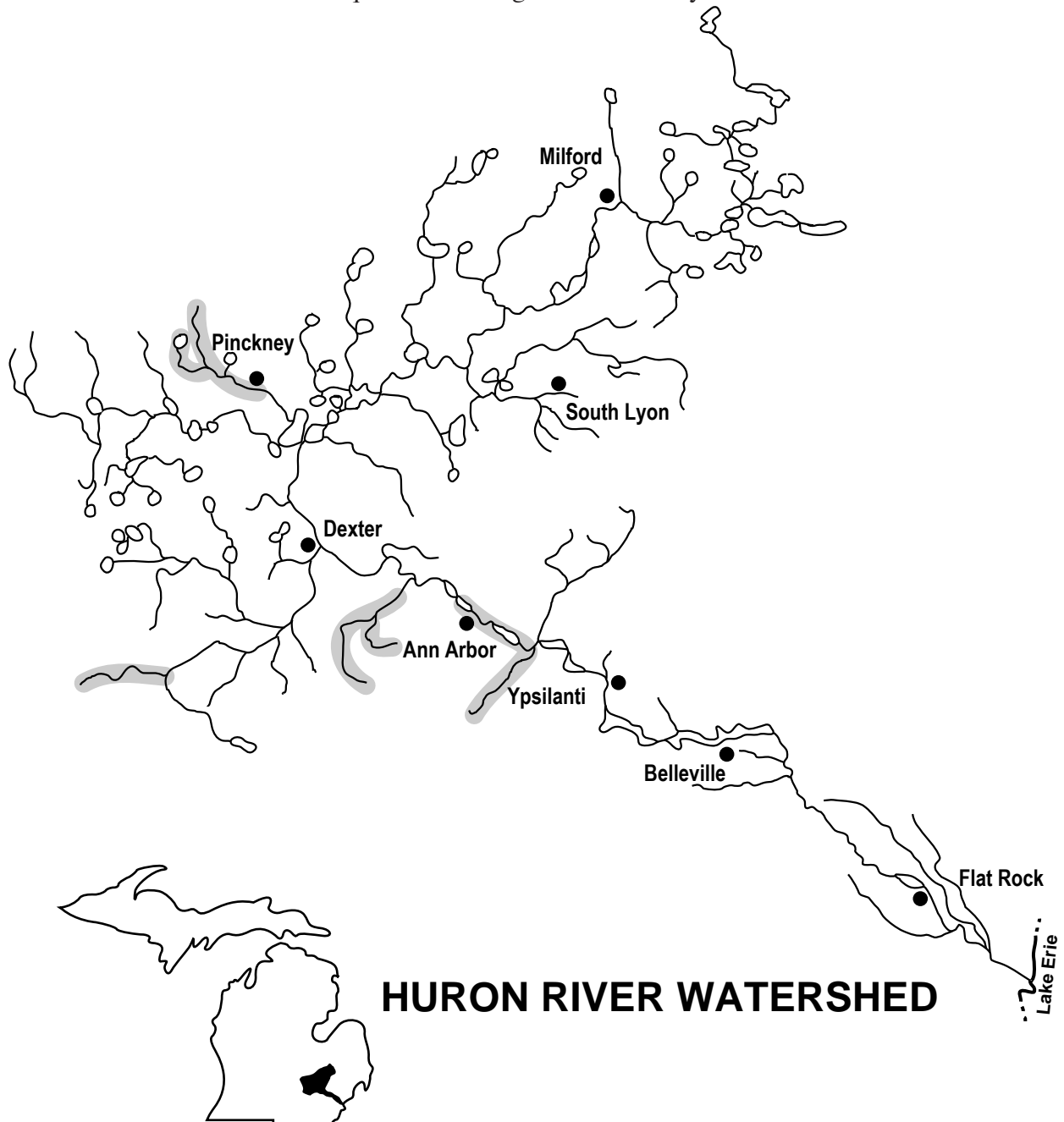


Brook stickleback (*Cluaea inconstans*)

Habitat:

- feeding - clear, cold, densely vegetated streams, and swampy margins of lakes
- low gradient
- muck, peat, or marl substrate
- not tolerant of turbidity

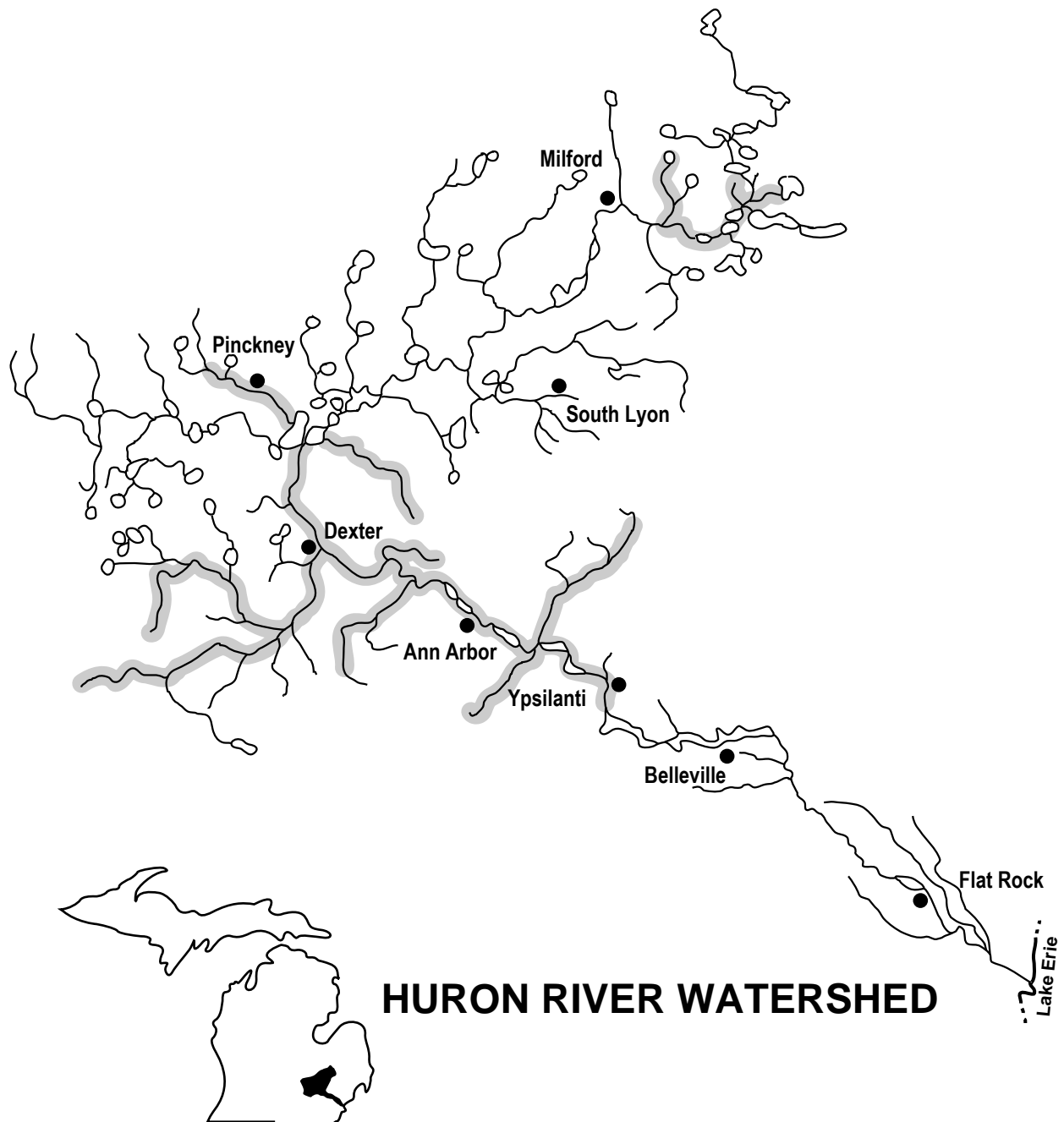
- spawning - shallow cool (<66°F) water
- aquatic reeds or grasses necessary



Mottled sculpin (*Cottus bairdi*)

Habitat:

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

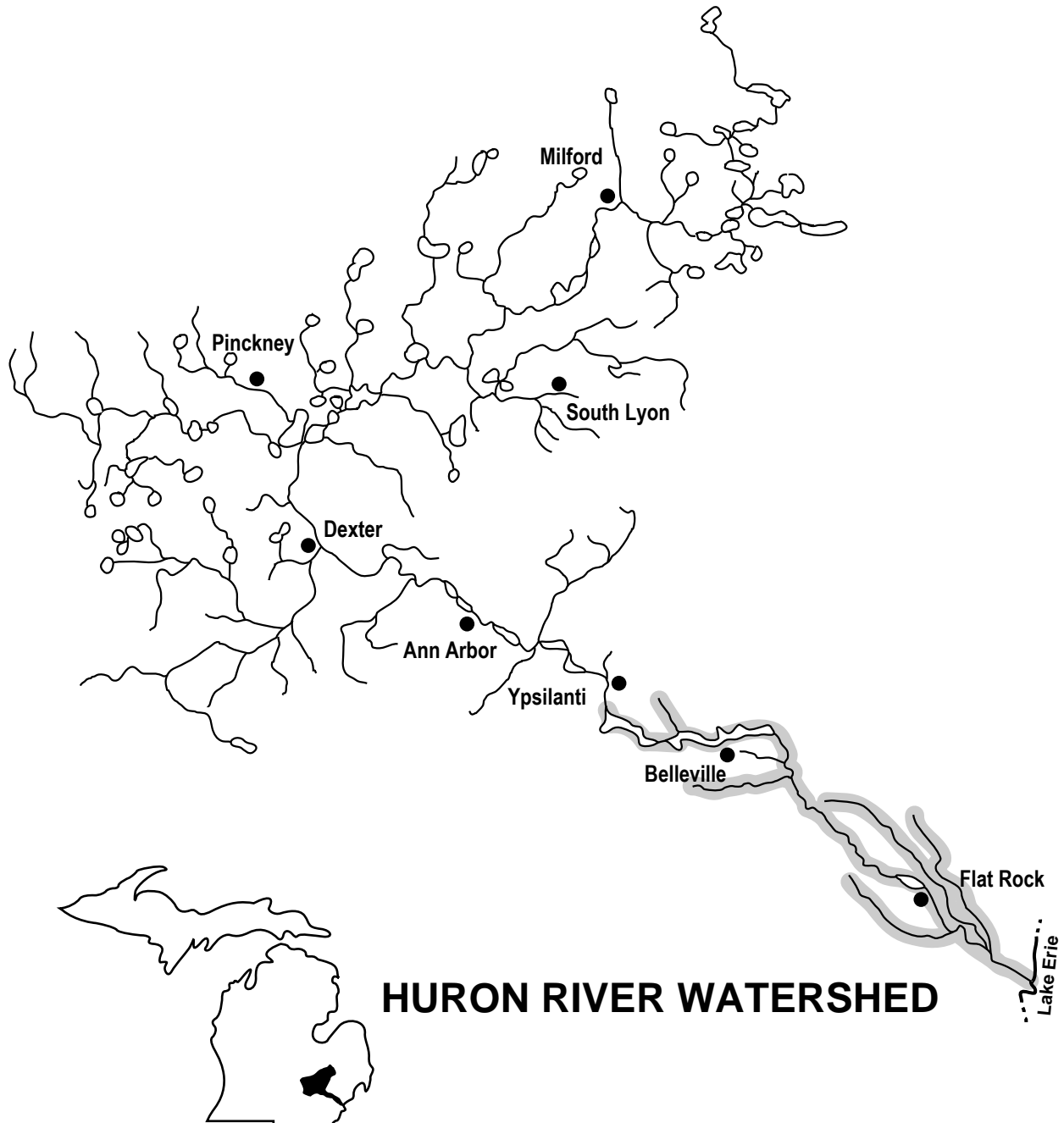


White perch (*Morone americana*)

Habitat:

feeding - clear, warm water of low-gradient streams, lakes, impoundments, and Lake Erie

spawning - shallow water over firm substrate

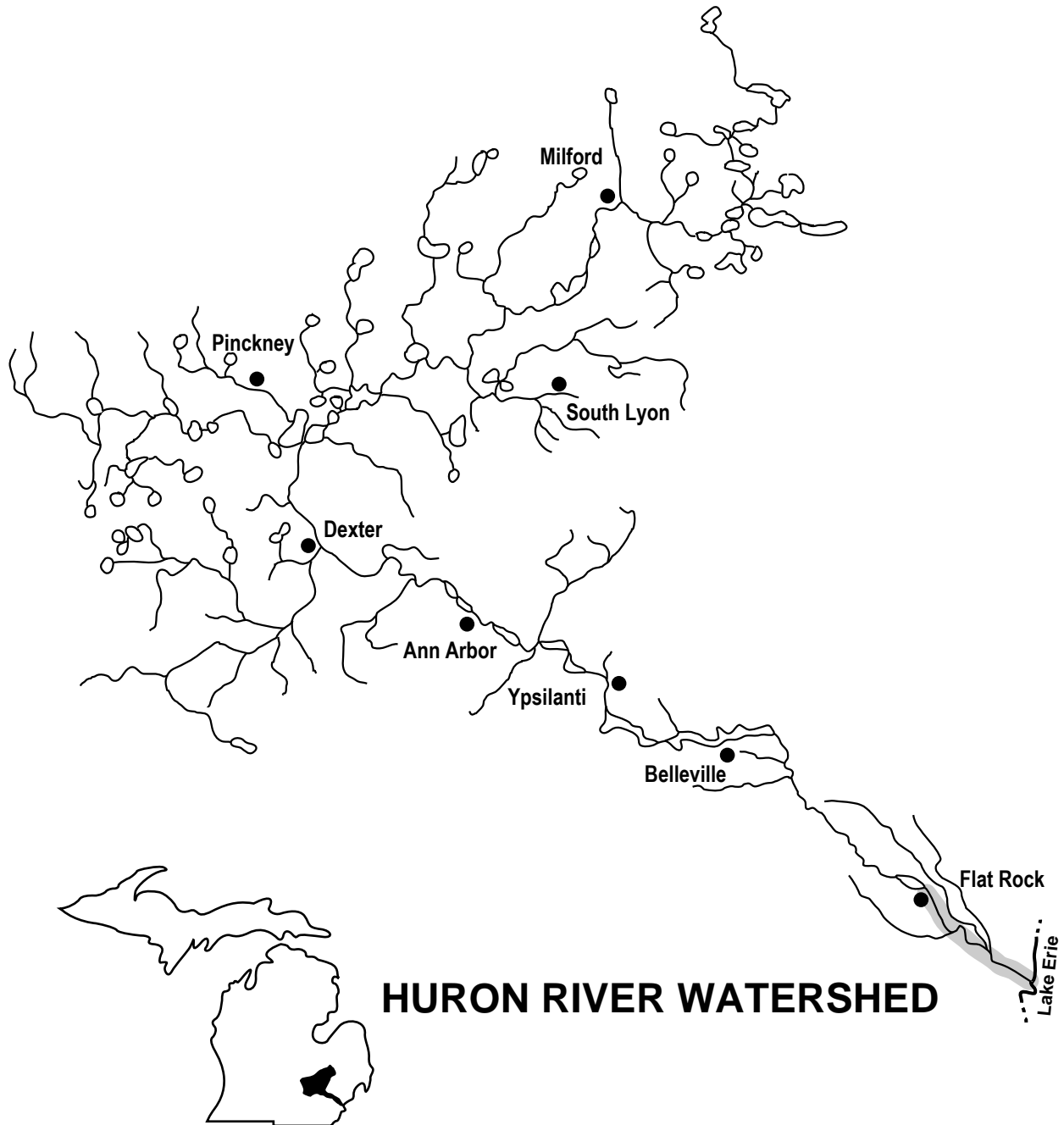


White bass (*Morone chrysops*)

Habitat:

- feeding - large lakes, impoundments, and Lake Erie
- clear water of 30 feet or less depth
- firm substrate

- spawning - tributary streams or shallow water of lakes
- over firm substrate



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

