# **Spotfin shiner** (*Cyprinella spiloptera*)

### Habitat:

feeding - clear water tolerant of turbidity and siltation

- some current

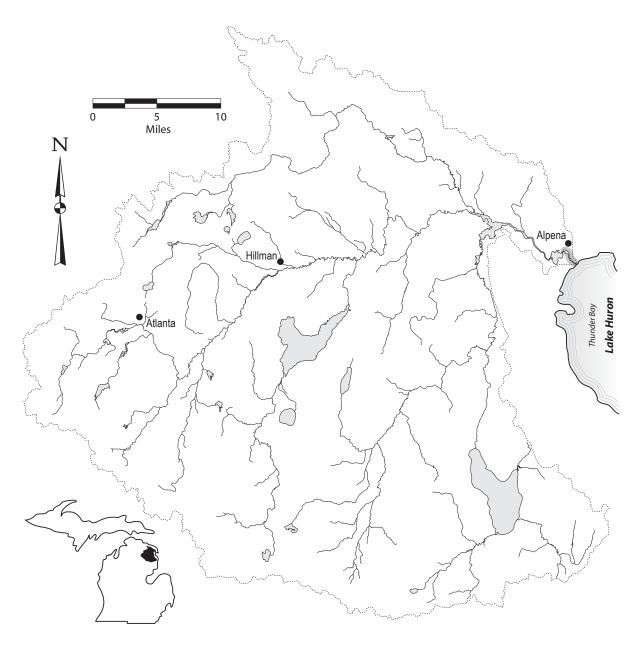
- shallow depths

- medium sized streams, lakes, and impoundments

- clear sand or gravel substrate

spawning - swift current

- crevice spawner or on underside of submerged logs and roots



## Common carp (Cyprinus carpio)

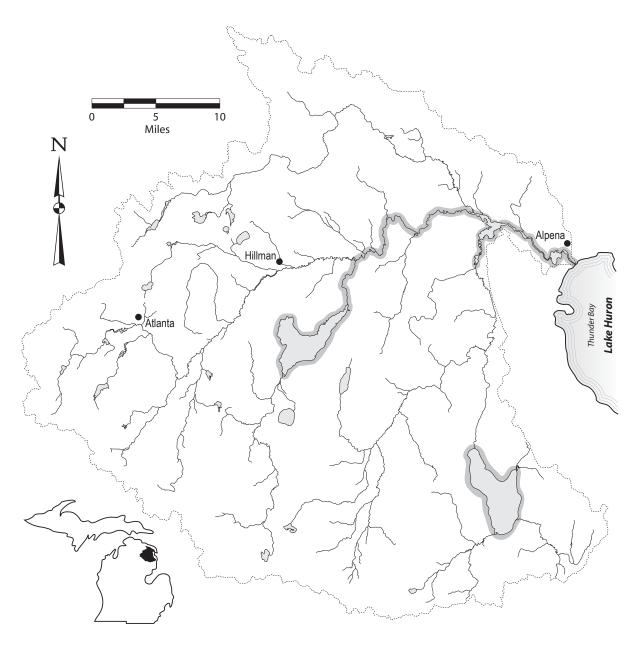
### Habitat:

feeding - low gradient fertile streams, rivers, lakes, and impoundments

- abundance of aquatic vegetation or organic matter

- tolerant of all substrates and clear to turbid water

spawning - weedy or grassy shallows



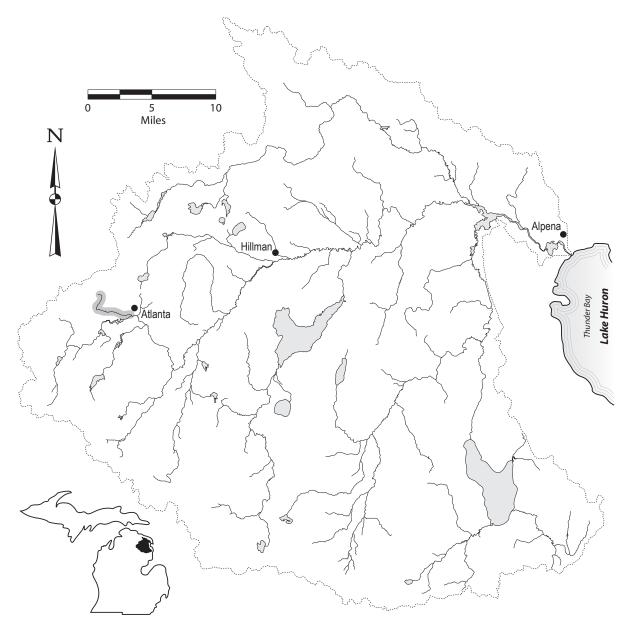
# **Brassy minnow** (*Hybognathus hankinsoni*)

## Habitat:

feeding - cool acidic streams

- slow to moderate current

- sand or gravel substrate



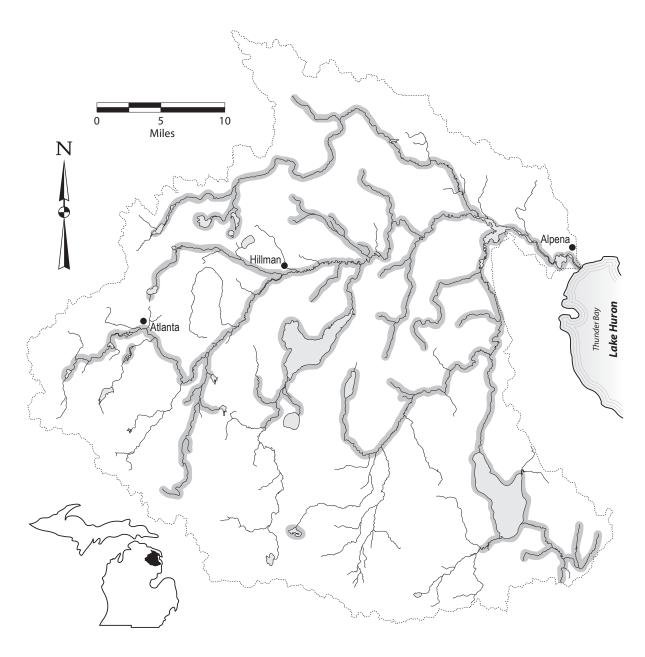
## **Common shiner** (*Luxilus cornutus*)

### Habitat:

feeding - small, clear, high-gradient streams and rivers, or shores of clear water lakes and impoundments

- gravel substrate
- can tolerate some submerged aquatic vegetation
- not very tolerant of turbidity or silted waters

spawning - gravel nests of other fish, especially those at the head of a riffle



# Northern pearl dace (Margariscus nachtriebi)

### Habitat:

feeding - cool, neutral to acidic streams and lakes

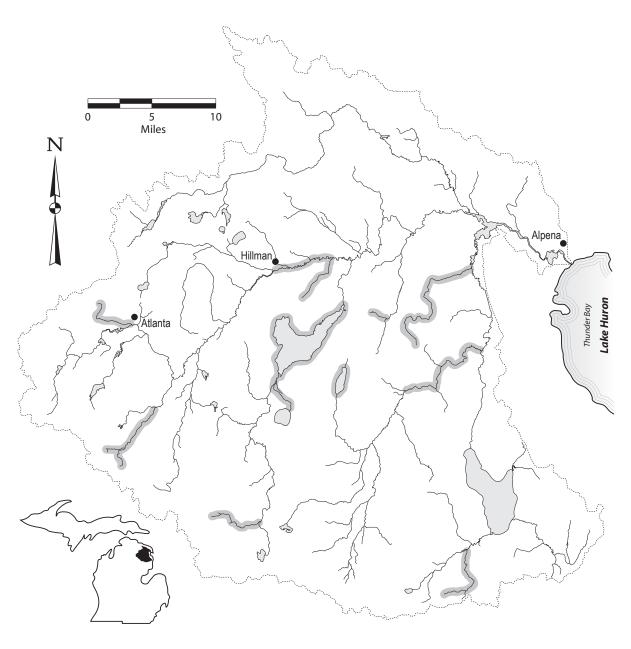
- clear to slightly turbid water

spawning - males are territorial

- clear water, 18-24 inches deep

- sand or gravel substrate

- weak to moderate current



# Hornyhead chub (Nocomis biguttatus)

### Habitat:

feeding - adults: near riffles

- young: near vegetation

- clear water, does not tolerate turbidity

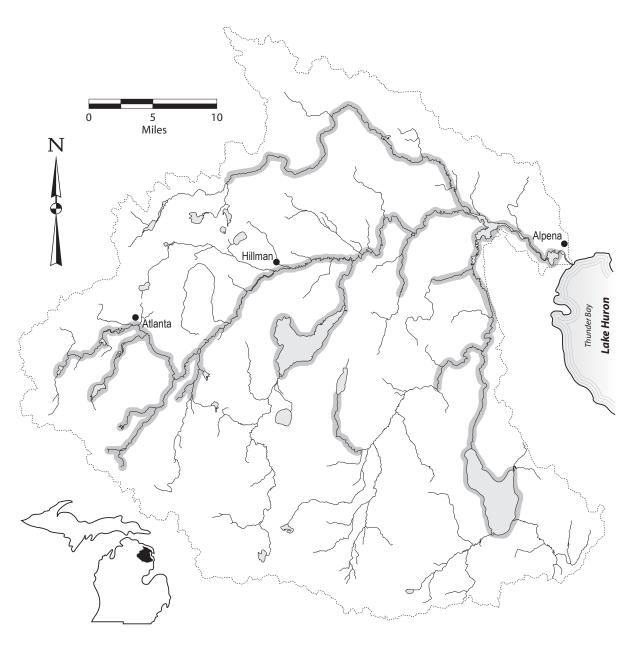
- gravel substrate

- low gradient streams that are tributaries to large streams

spawning - large stones and pebbles present

- often below a riffle in shallow water

- gravel substrate



# River chub (Nocomis micropogon)

## Habitat:

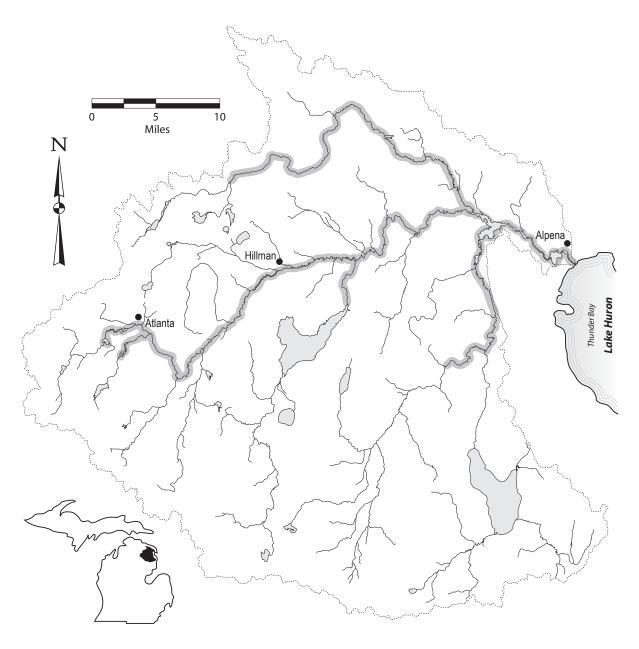
feeding - moderate to large streams

- moderate to high gradient

- gravel, boulder, or bedrock substrate

- little to no aquatic vegetation

- cannot tolerate turbidity or siltation



## **Golden shiner** (*Notemigonus crysoleucas*)

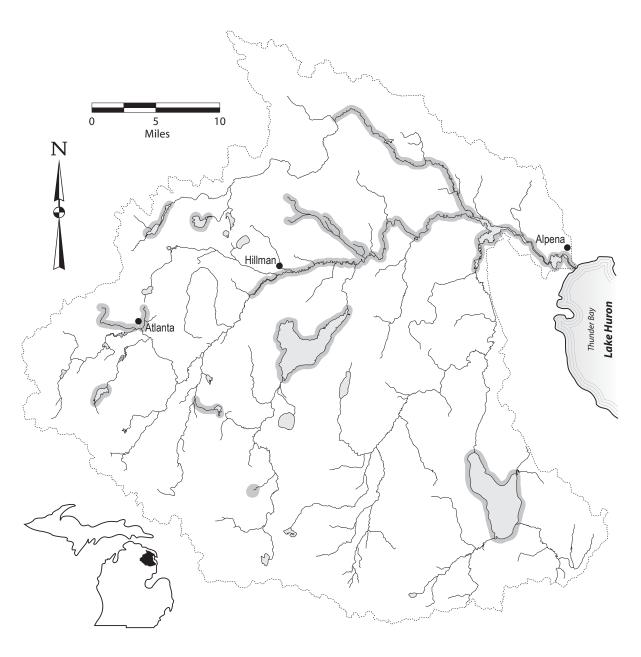
## Habitat:

feeding - lakes and impoundments and quiet pools of low gradient streams

- clear shallow water

- heavy vegetation

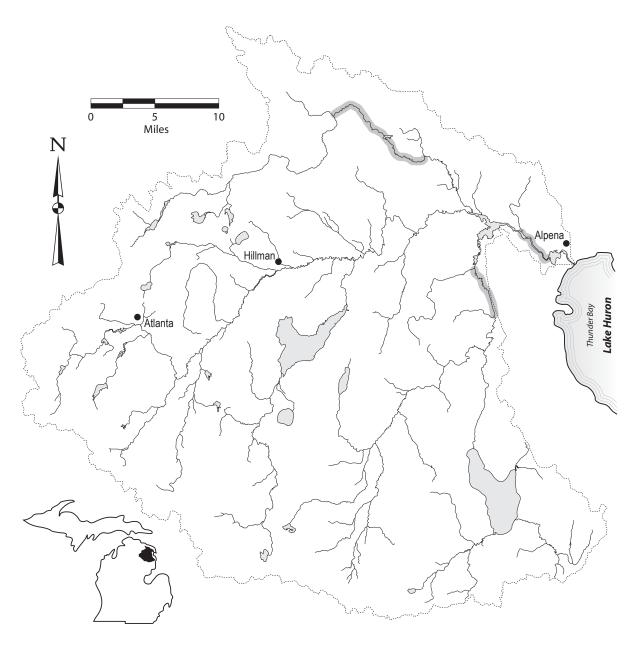
spawning - vegetation



# **Pugnose shiner** (*Notropis anogenus*) – **special concern**

## Habitat:

- feeding very clear water of lakes, impoundments, and low-gradient streams
  - aquatic vegetation
  - clean sand, marl, or organic debris substrate
  - extremely intolerant of turbidity



## **Emerald shiner** (*Notropis atherinoides*)

### Habitat:

feeding - open-large stream channels and lake

- low to moderate gradient

- range of turbidities and bottom types

- midwater or surface preferred, substrate of little importance

- avoids rooted vegetation

spawning - sand or firm mud substrate or gravel shoals

