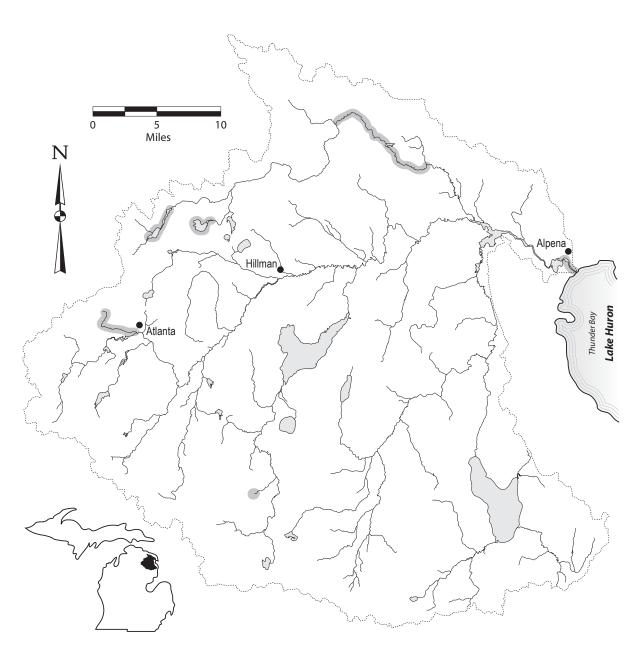
## **Blackchin shiner** (*Notropis heterodon*)

#### Habitat:

feeding - lakes, impoundments, and quiet pools in streams and rivers

- clear water
- clean sand, gravel, or organic debris substrate
- dense beds of submerged aquatic vegetation
- cannot tolerate turbidity, silt, or loss of aquatic vegetation

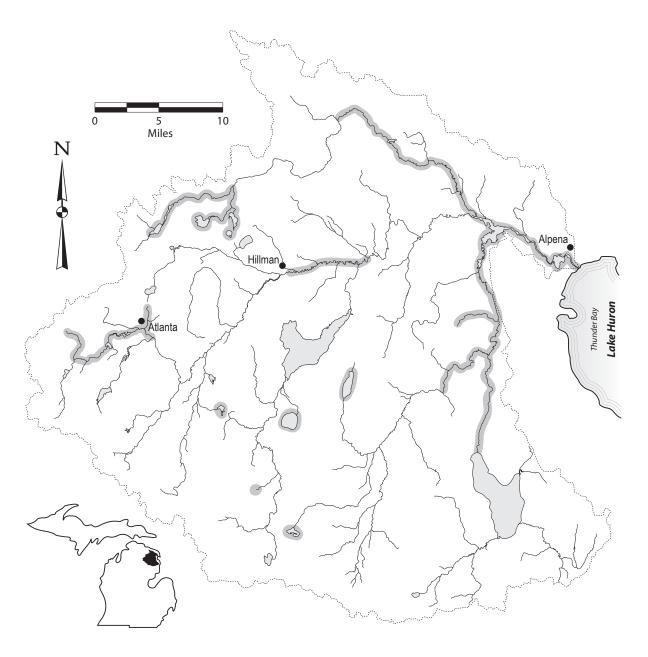


## **Blacknose shiner** (*Notropis heterolepis*)

#### Habitat:

- feeding clear lakes, impoundments, and pools of small, clear, low-gradient streams
  - aquatic vegetation
  - clean sand, gravel, marl, muck, peat, or organic debris substrate
  - cannot tolerate much turbidity, much siltation, or loss of aquatic vegetation

spawning - sandy substrate



## **Spottail shiner** (*Notropis hudsonius*)

#### Habitat:

feeding - large rivers, lakes, and impoundments

- firm sand and gravel substrate

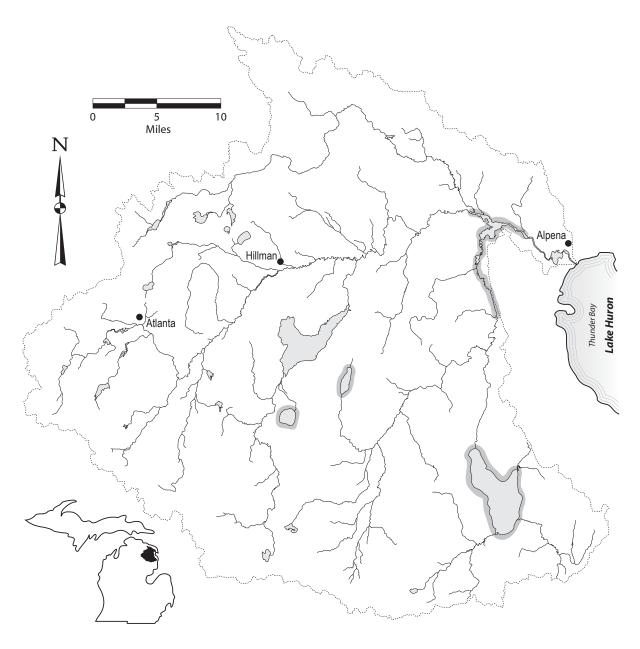
- low current

- sparse to moderate vegetation

- avoids turbidity

spawning - over sandy shoals or gravelly riffles

- near the mouths of small streams



## **Rosyface shiner** (*Notropis rubellus*)

#### Habitat:

feeding - moderate sized streams

- moderate to high gradient

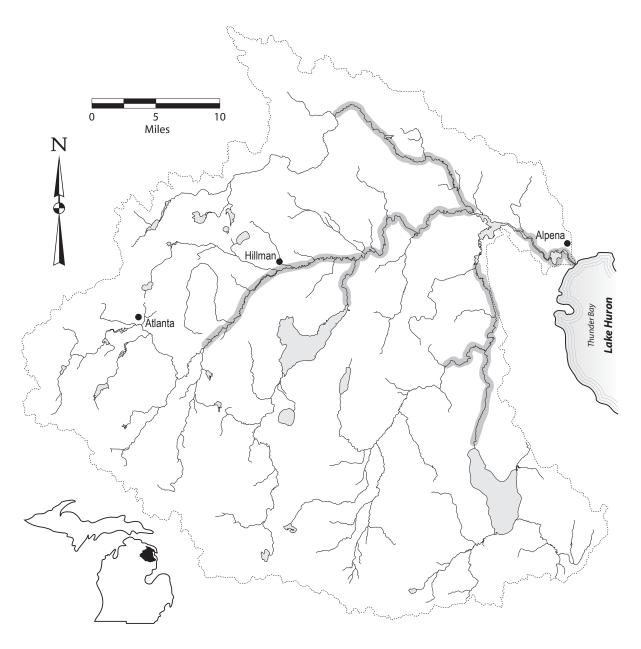
- gravel or sand substrate; intolerant of silt substrate

- clear water; intolerant of turbidity

spawning - on nests of hornyhead chub, chestnut lamprey, and redhorses

- sandy-gravel, gravel or bedrock substrate

- shallow high gradient water



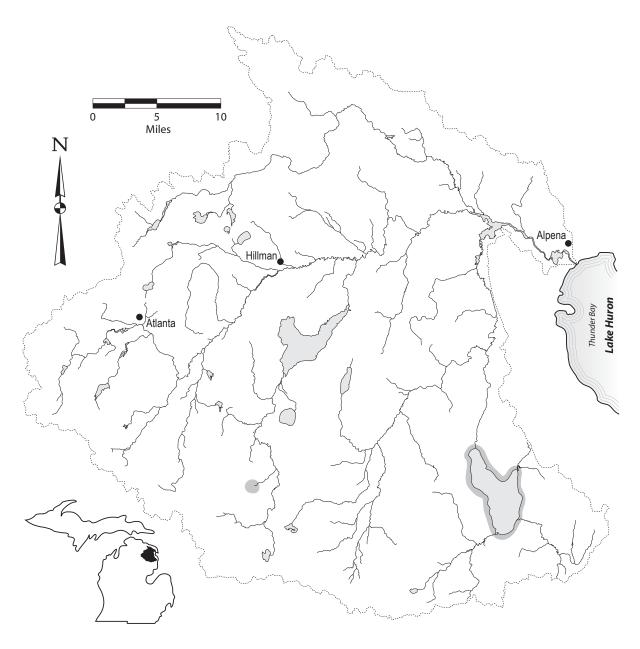
## **Sand shiner** (*Notropis stramineus*)

#### Habitat:

feeding - sand and gravel substrate

- shallow pools in medium size streams, lakes, and impoundments
- clear water and low gradient
- rooted aquatic vegetation preferred
- tolerant of some inorganic pollutants provided substrate is not covered

spawning - clean gravel or sand substrate



## **Mimic shiner** (*Notropis volucellus*)

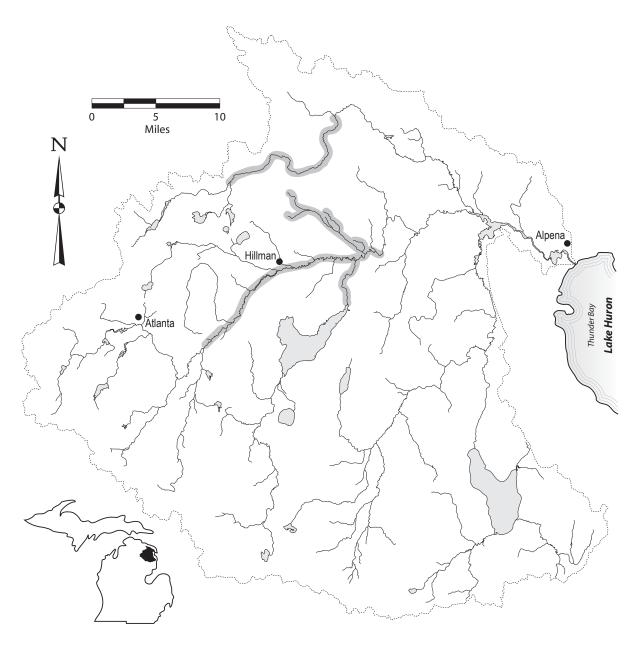
#### Habitat:

feeding - pools and backwater of streams, moderately weedy lakes and impoundments

- quiet or still water

- clear shallow water

spawning - aquatic vegetation necessary



# Northern redbelly dace (Phoxinus eos)

#### Habitat:

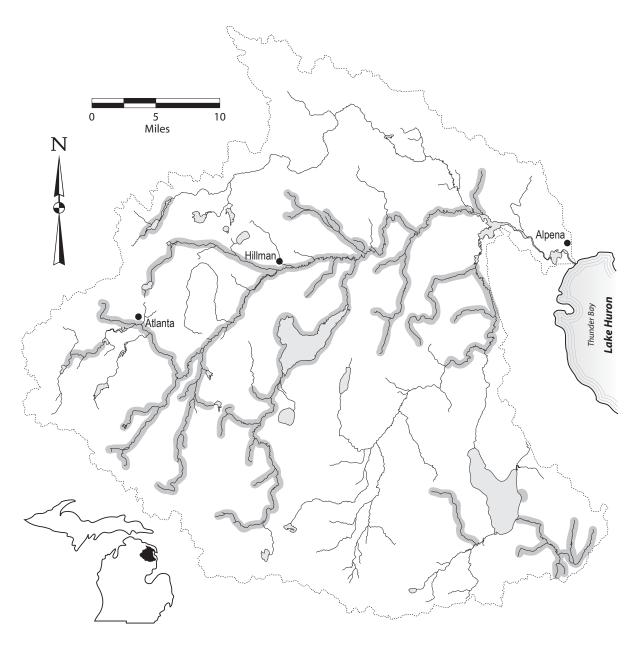
feeding - slow current

- in boggy lakes and streams

- detritus or silt substrate

- clear to slightly turbid water

spawning - filamentous algae needed for egg deposition

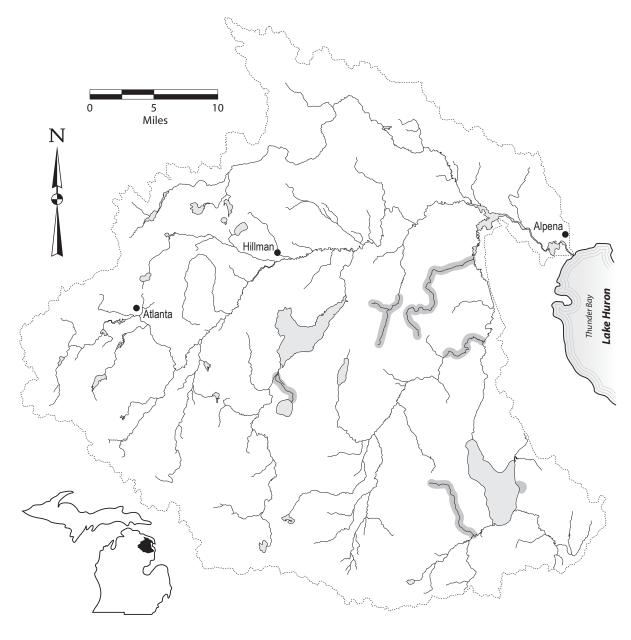


## **Finescale dace** (*Phoxinus neogaeus*)

## Habitat:

feeding - cool bog lakes and streams - neutral to slightly acidic waters

- various substrates



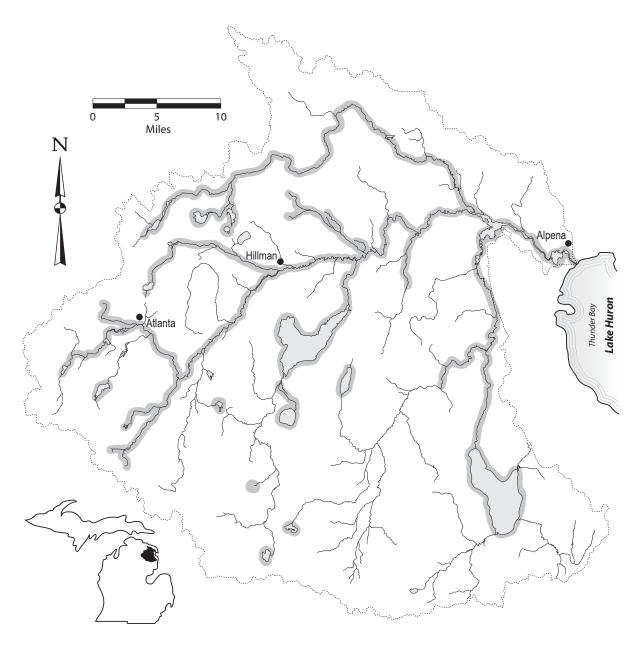
## **Bluntnose minnow** (*Pimephales notatus*)

#### Habitat:

- feeding quiet pools and backwaters of medium to large streams, lakes, and impoundments
  - clear warm water
  - some aquatic vegetation
  - firm substrates
  - tolerates all gradients, turbidity, organic and inorganic pollutants

spawning - eggs deposited on the underside of flat stones or objects

- nests in sand or gravel substrate



## Fathead minnow (Pimephales promelas)

#### Habitat:

feeding - pools of small streams, lakes, and impoundments

- tolerant of turbidity, high temperatures, and low oxygen

spawning - on underside of objects in water 2 to 3 feet deep

- prefer sand, marl, or gravel substrate

