



**STATE OF MICHIGAN  
DEPARTMENT OF NATURAL RESOURCES**

---

Number 35 Appendix

September 2005

**Kalamazoo River Assessment  
Appendix**

Jay K. Wesley

# MICHIGAN DEPARTMENT OF NATURAL RESOURCES FISHERIES DIVISION

Special Report 35 appendix  
September 2005

## Kalamazoo River Assessment Appendix

Jay K. Wesley



### MICHIGAN DEPARTMENT OF NATURAL RESOURCES (DNR) MISSION STATEMENT

"The Michigan Department of Natural Resources is committed to the conservation, protection, management, use and enjoyment of the State's natural resources for current and future generations."

### NATURAL RESOURCES COMMISSION (NRC) STATEMENT

The Natural Resources Commission, as the governing body for the Michigan Department of Natural Resources, provides a strategic framework for the DNR to effectively manage your resources. The NRC holds monthly, public meetings throughout Michigan, working closely with its constituencies in establishing and improving natural resources management policy.

### MICHIGAN DEPARTMENT OF NATURAL RESOURCES NON DISCRIMINATION STATEMENT

The Michigan Department of Natural Resources (MDNR) provides equal opportunities for employment and access to Michigan's natural resources. Both State and Federal laws prohibit discrimination on the basis of race, color, national origin, religion, disability, age, sex, height, weight or marital status under the Civil Rights Acts of 1964 as amended (MI PA 453 and MI PA 220, Title V of the Rehabilitation Act of 1973 as amended, and the Americans with Disabilities Act). If you believe that you have been discriminated against in any program, activity, or facility, or if you desire additional information, please write:

HUMAN RESOURCES  
MICHIGAN DEPARTMENT OF NATURAL RESOURCES  
PO BOX 30028  
LANSING MI 48909-7528

Or MICHIGAN DEPARTMENT OF CIVIL RIGHTS  
CADILLAC PLACE  
3054 W. GRAND BLVD., SUITE 3-600  
DETROIT MI 48202

Or OFFICE FOR DIVERSITY AND CIVIL RIGHTS  
US FISH AND WILDLIFE SERVICE  
4040 NORTH FAIRFAX DRIVE  
ARLINGTON VA 22203

For information or assistance on this publication, contact the MICHIGAN DEPARTMENT OF NATURAL RESOURCES, Fisheries Division, PO BOX 30446, LANSING, MI 48909, or call 517-373-1280.

TTY/TDD: 711 (Michigan Relay Center)

This information is available in alternative formats.



Printed under authority of Michigan Department of Natural Resources  
Total number of copies printed 470 — Total cost \$2,371.82 — Cost per copy \$5.05



Suggested Citation Format

Wesley, J.K. 2005. Kalamazoo River assessment appendix. Michigan Department of Natural Resources, Fisheries Division, Special Report 35 appendix, Ann Arbor.

## TABLE OF CONTENTS

Appendix 1.	
Maps of known fish distributions and fish habitats within the Kalamazoo watershed. ....	1
Appendix 2.	
Miscellaneous creel data from 1928-1964 for the Kalamazoo River and tributaries. ....	107



## Appendix 1

### Distribution Maps of Fish Species

This appendix contains maps of known past and present fish distributions within the Kalamazoo River watershed. The distributions of fish species were compiled from records located at the University of Michigan's Museums Fisheries Library and Michigan Department of Natural Resources' Institute for Fisheries Research and Southern Lake Michigan Management Unit offices. Scientific names and phylogenic order follow Robins et al. (1991). Species that are listed under Michigan's Endangered Species Act (Part 365, Endangered Species Protection, of the Natural Resource and Environmental Protection Act, Act 451 of the Public Acts of 1994), their status follows their scientific name. Categories are declining, rare, threatened, endangered, extinct, and locally extinct.

Habitat descriptions were compiled from *The Fishes of Ohio* (Trautman 1982), *Freshwater Fishes of Canada* (Scott and Crossman 1973), *Fishes of Wisconsin* (Becker 1983), *Fishes of Missouri* (Pflieger 1975), and *Fishes of the Great Lakes Region* (Hubbs and Lagler 1947).

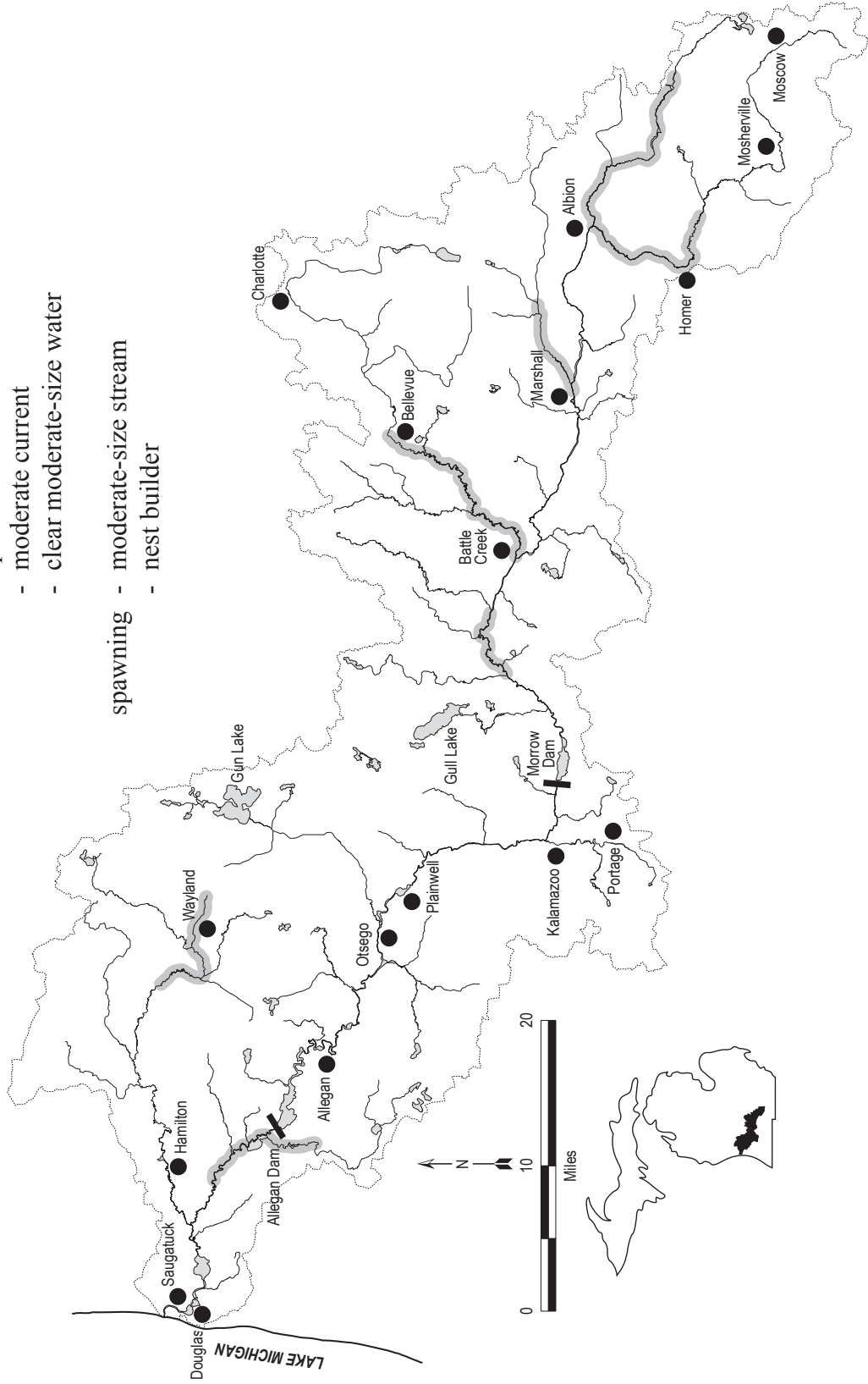
## Appendix 1 Index

alewife .....	12	least darter .....	98
American brook lamprey .....	5	longnose dace .....	38
American eel .....	11	longnose gar .....	9
Atlantic salmon .....	71	longnose sucker .....	41
bigmouth shiner .....	26	mimic shiner .....	33
blackchin shiner .....	27	mottled sculpin .....	84
blacknose shiner .....	28	muskellunge .....	62
blackside darter .....	102	ninespine stickleback .....	83
blackstripe topminnow .....	79	northern brook lamprey .....	4
black buffalo .....	46	northern hog sucker .....	45
black bullhead .....	53	northern logperch .....	101
black crappie .....	95	northern longear sunfish .....	91
black redhorse .....	49	northern pike .....	61
bluegill .....	89	northern redbelly dace .....	34
bluntnose minnow .....	35	pirate perch .....	76
bowfin .....	10	pugnose shiner .....	24
brassy minnow .....	18	pumpkinseed sunfish .....	87
brook silverside .....	80	quillback .....	40
brook stickleback .....	81	rainbow darter .....	96
brook trout .....	73	rainbow smelt .....	64
brown bullhead .....	55	rainbow trout .....	68
brown trout .....	72	redear sunfish .....	90
burbot .....	77	river chub .....	22
central mudminnow .....	63	rock bass .....	85
central stoneroller .....	14	rosyface shiner .....	30
channel catfish .....	56	round goby .....	105
chestnut lamprey .....	3	round whitefish .....	70
Chinook salmon .....	69	sand shiner .....	31
cisco {lake herring} .....	65	sea lamprey .....	6
coho salmon .....	67	shorthead redhorse .....	51
common carp .....	17	silver redhorse .....	48
common shiner .....	20	smallmouth bass .....	92
creek chub .....	39	spotfin shiner .....	16
emerald shiner .....	25	spottail shiner .....	29
fathead minnow .....	36	spotted gar .....	8
flathead catfish .....	59	spotted sucker .....	47
freshwater drum .....	104	stonecat .....	57
gizzard shad .....	13	striped shiner .....	19
golden redhorse .....	50	tadpole madtom .....	58
golden shiner .....	23	threespine stickleback .....	82
goldfish .....	15	trout-perch .....	75
grass pickerel .....	60	walleye .....	103
greater redhorse .....	52	warmouth .....	88
green sunfish .....	86	weed shiner .....	32
hornyhead chub .....	21	western banded killifish .....	78
Iowa darter .....	97	western blacknose dace .....	37
johnny darter .....	99	western creek chubsucker .....	43
lake chubsucker .....	44	white crappie .....	94
lake sturgeon .....	7	white sucker .....	42
lake trout .....	74	yellow bullhead .....	54
lake whitefish .....	66	yellow perch .....	100
largemouth bass .....	93		

**Chestnut lamprey (*Lichtomyzon castaneus*)**

**Habitat:**

- feeding - stable substrate of sand and silt with light growth of *chara* or quiet backwaters of muck and silt with dense rooted vegetation
- moderate current
- clear moderate-size water
  
- spawning - moderate-size stream
- nest builder

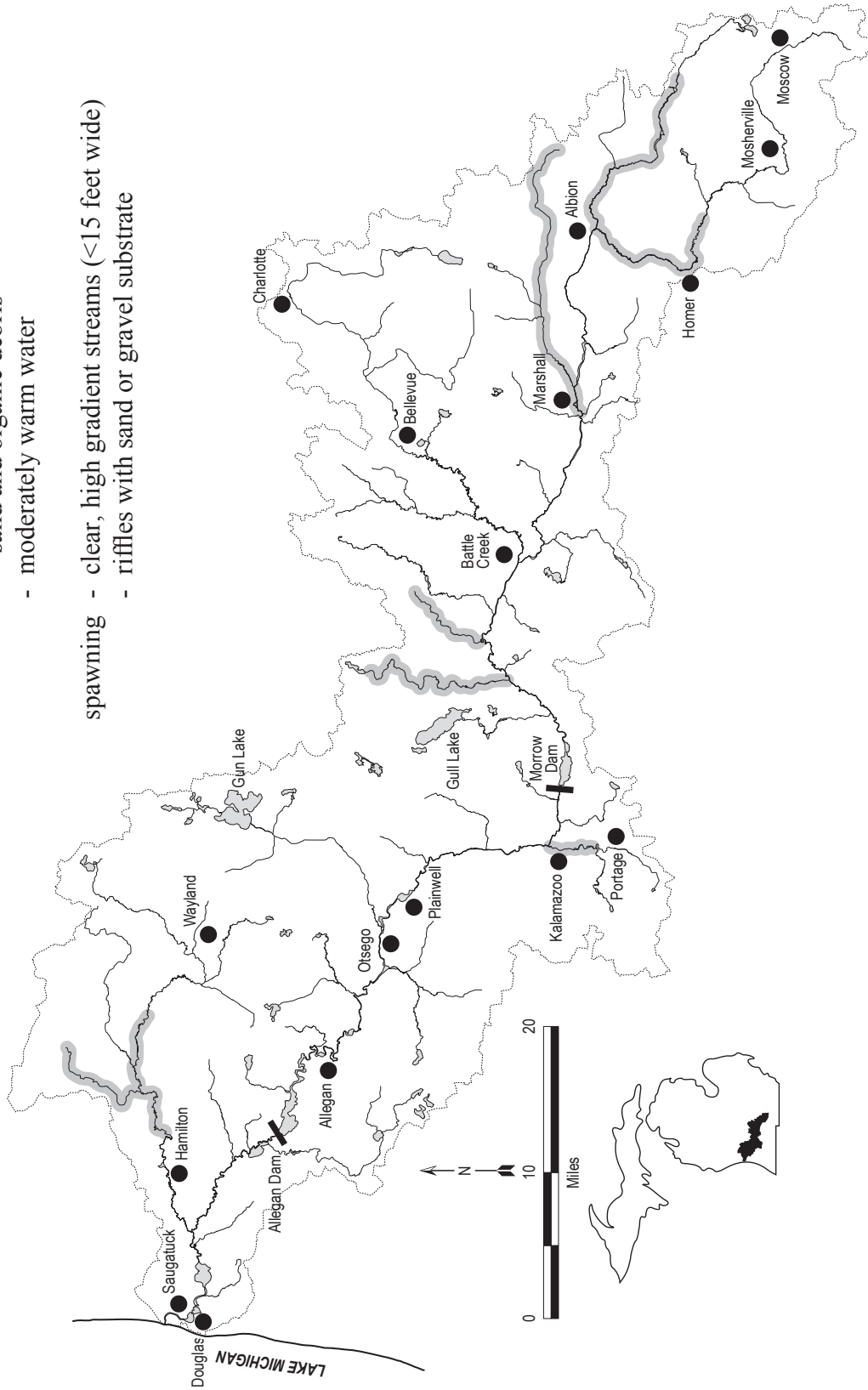




**Northern brook lamprey (*Ichthyomyzon fossor*)**

**Habitat:**

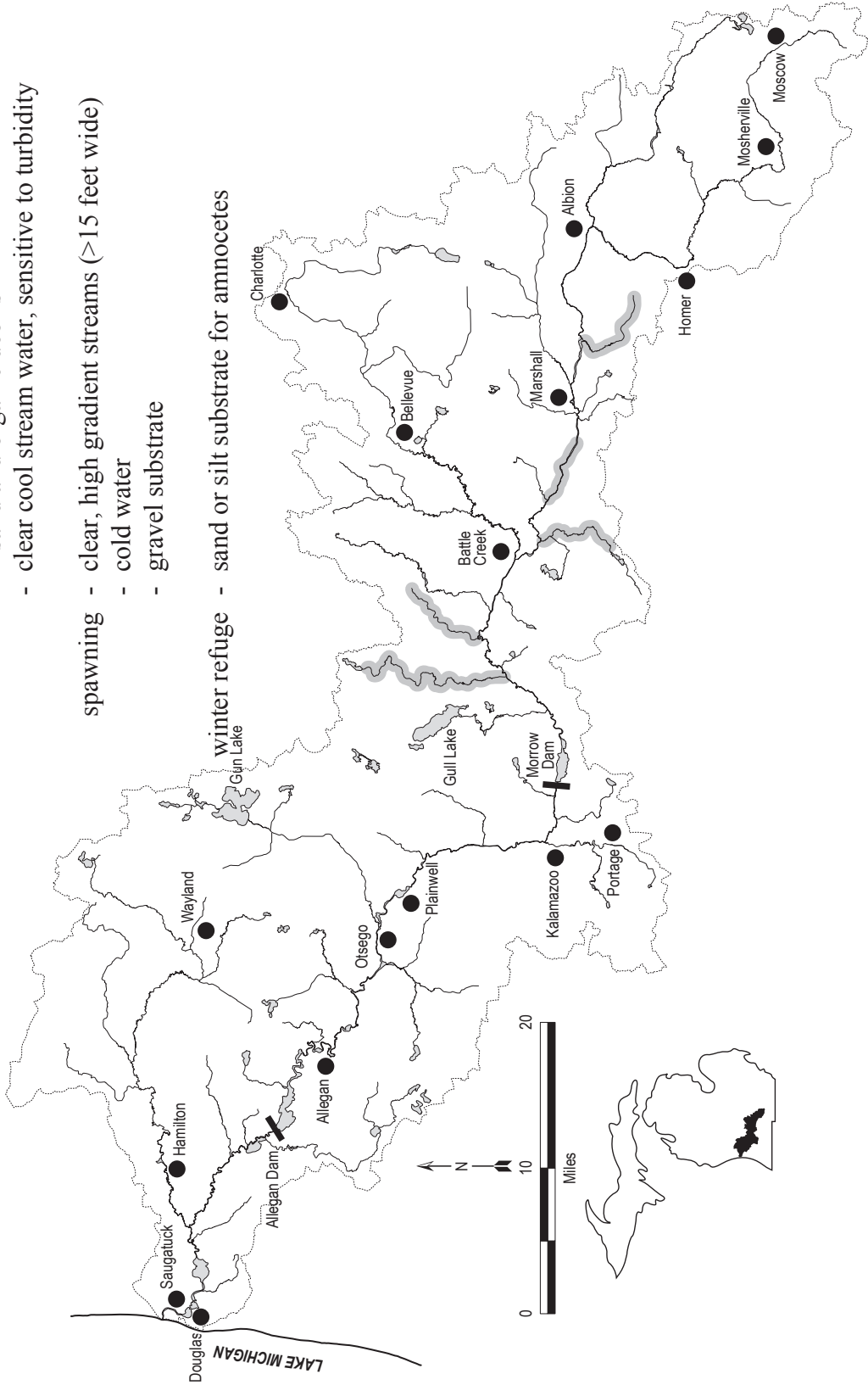
- feeding - young: low gradient, substrate with bars and beds of mixed sand and organic debris
- moderately warm water
- spawning - clear, high gradient streams (<15 feet wide)
- riffles with sand or gravel substrate



**American brook lamprey (*Lampetra appendix*)**

**Habitat:**

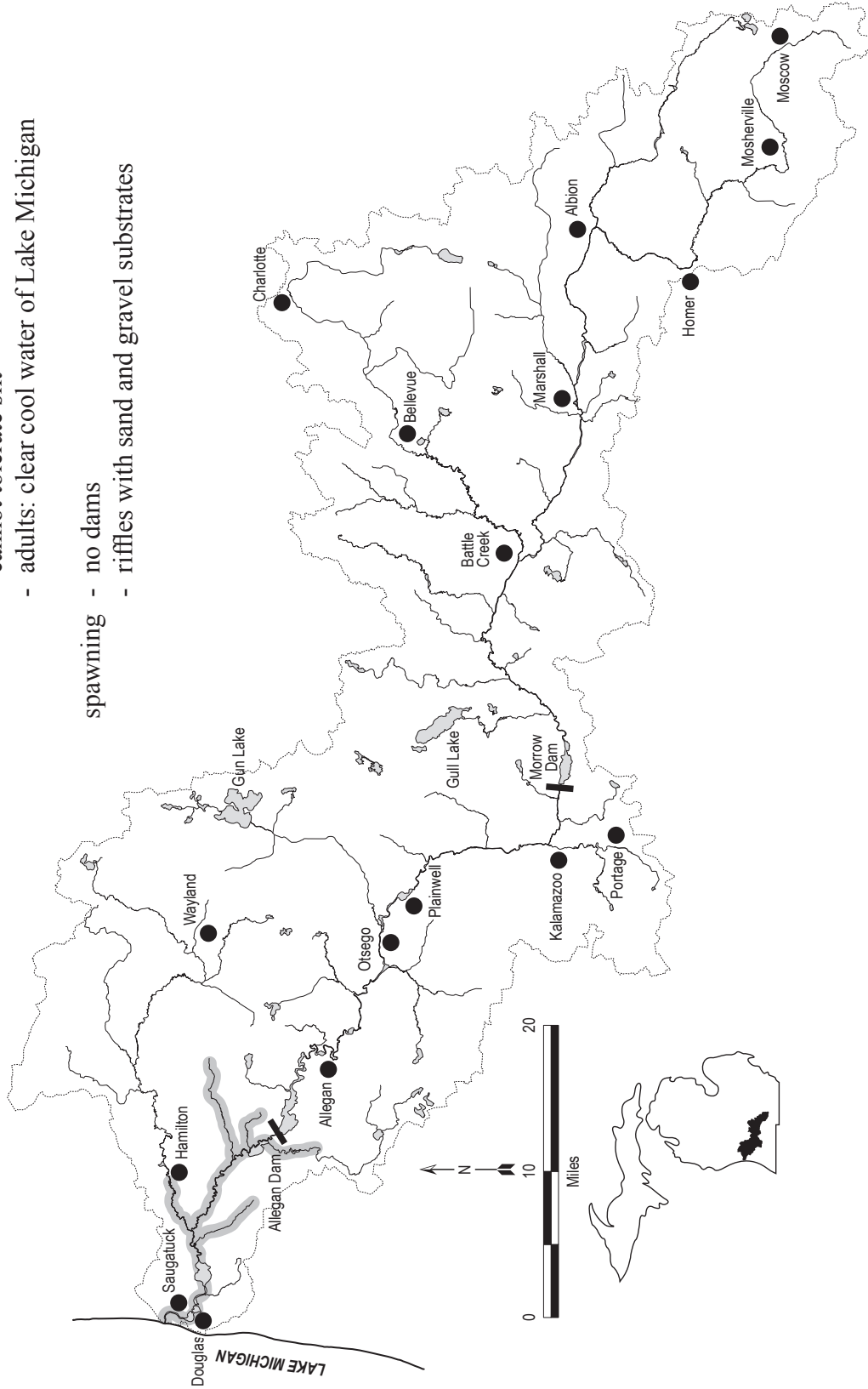
- feeding - young: low gradient, substrate with bars and beds of mixed sand and organic debris
- clear cool stream water, sensitive to turbidity
- spawning - clear, high gradient streams (>15 feet wide)
- cold water
- gravel substrate
- winter refuge - sand or silt substrate for ammocetes



**Sea lamprey (*Petromyzon marinus*)**

**Habitat:**

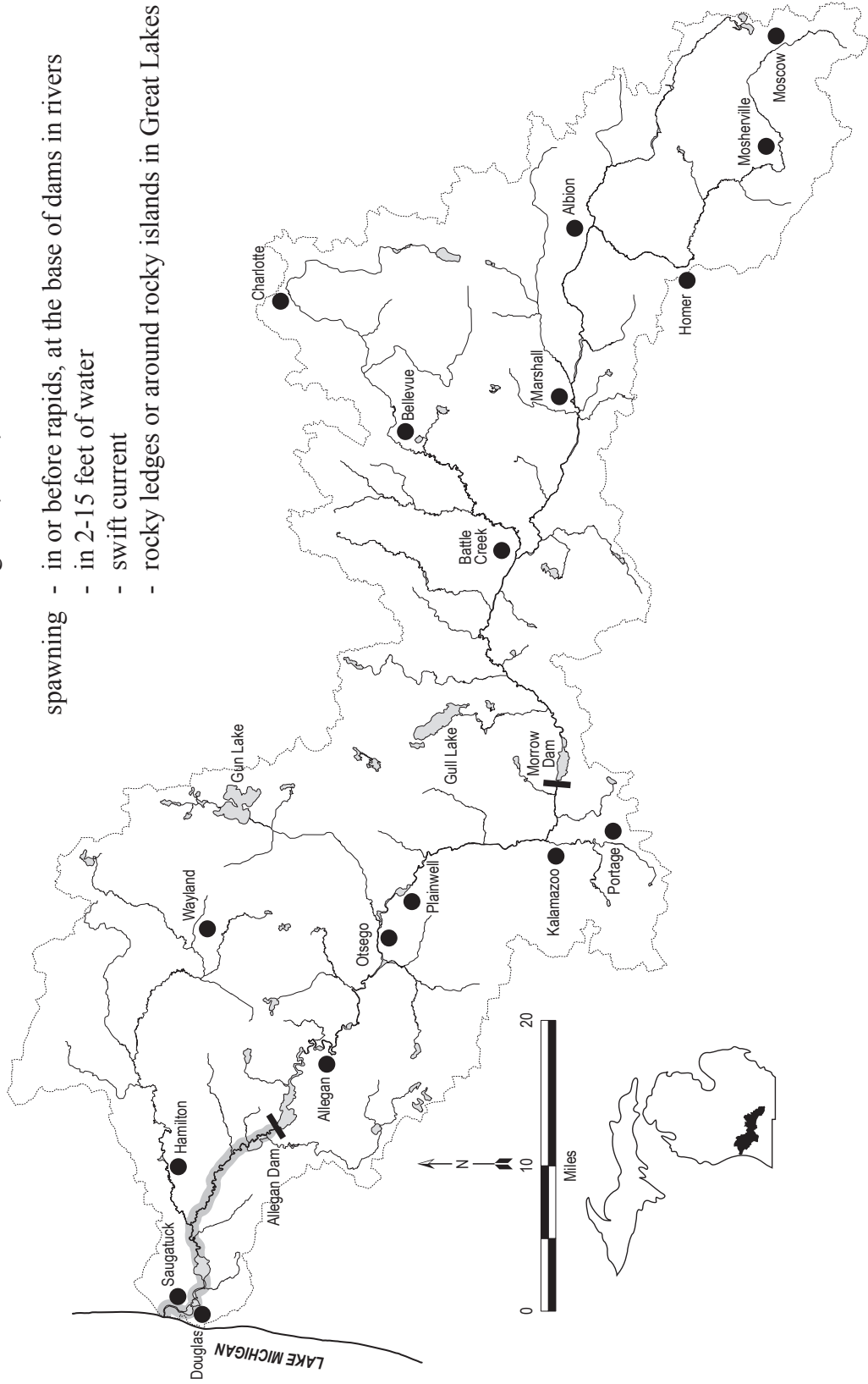
- feeding - young: substrate with beds of sand mixed with organic debris
  - cannot tolerate silt
  - adults: clear cool water of Lake Michigan
- 
- spawning - no dams
  - riffles with sand and gravel substrates



**Lake sturgeon (*Acipenser fulvescens*) - threatened**

**Habitat:**

- feeding - shoal areas of large rivers, lakes, and impoundments
- gravel, sand, rock substrates
- spawning - in or before rapids, at the base of dams in rivers
- in 2-15 feet of water
- swift current
- rocky ledges or around rocky islands in Great Lakes

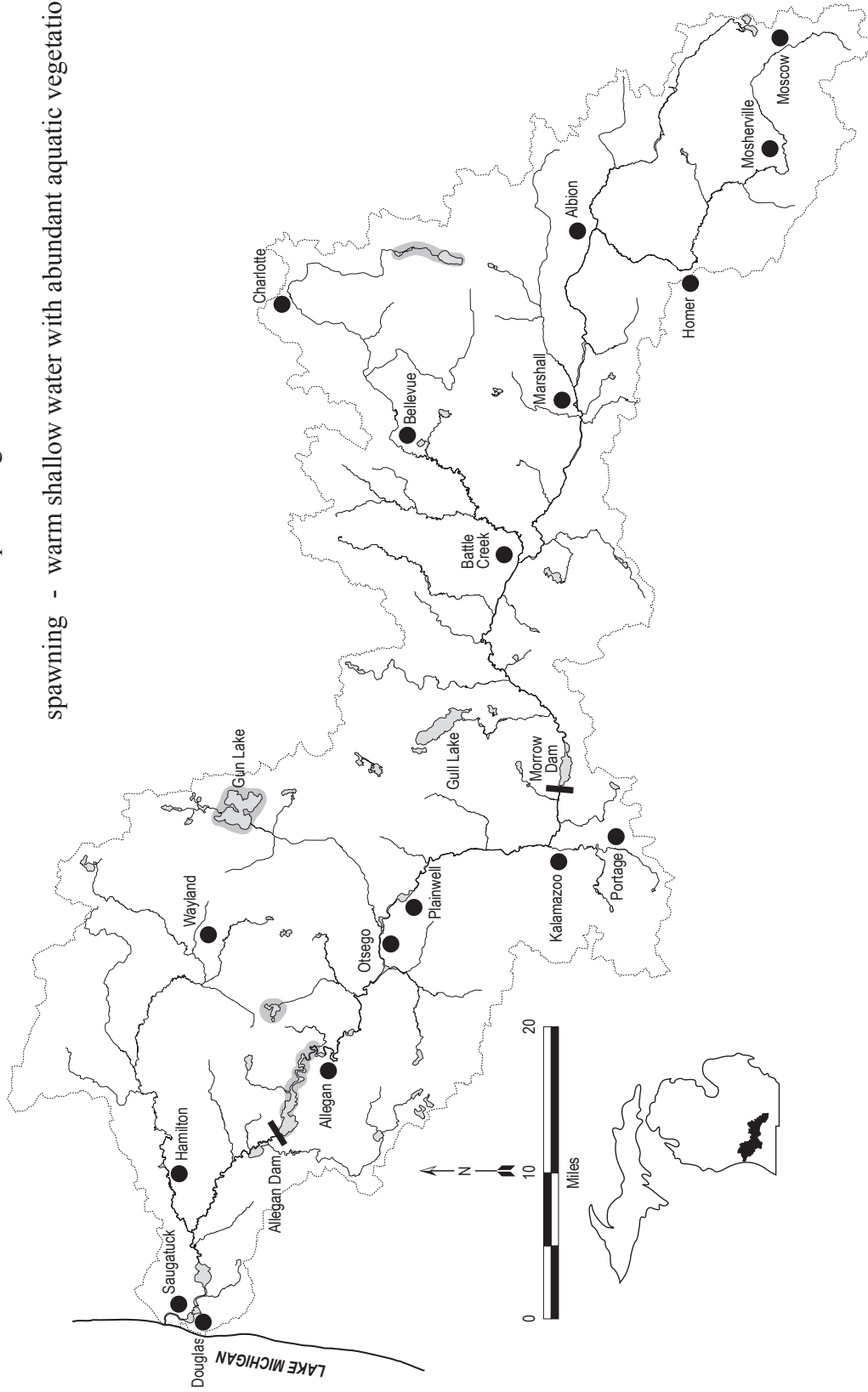


**Spotted gar (*Lepisosteus oculatus*)**

**Habitat:**

feeding - quiet clear water in lakes, impoundments, or streams  
 - aquatic vegetation

spawning - warm shallow water with abundant aquatic vegetation

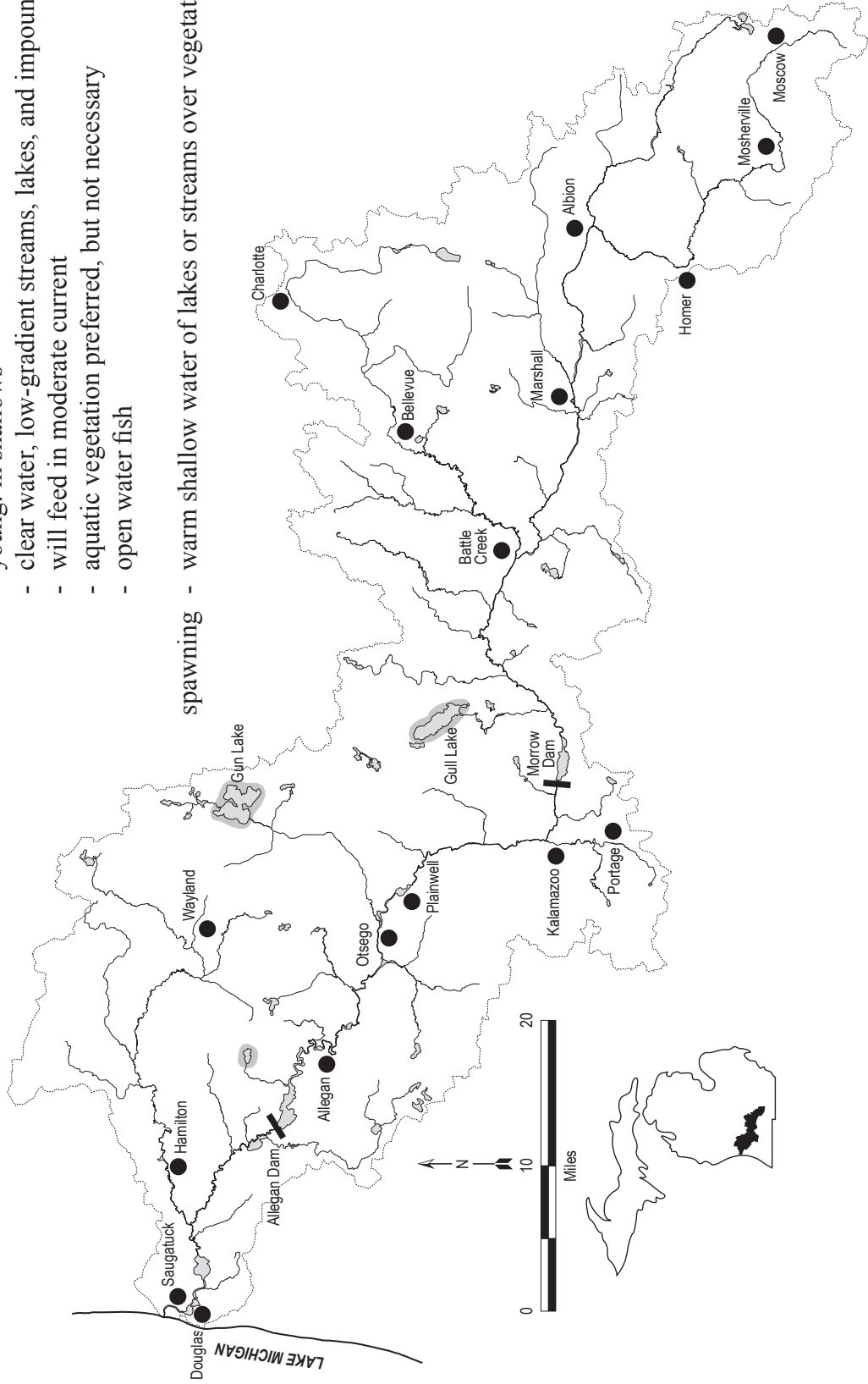


**Longnose gar (*Lepisosteus osseus*)**

**Habitat:**

- feeding
- adults: in deeper water
  - young: in shallows
  - clear water, low-gradient streams, lakes, and impoundments
  - will feed in moderate current
  - aquatic vegetation preferred, but not necessary
  - open water fish

spawning - warm shallow water of lakes or streams over vegetation



**Bowfin (*Amia calva*)**

**Habitat:**

- feeding
  - clear water
  - abundant rooted aquatic vegetation
  - low gradient streams, lakes, and impoundments
  - tolerate only small amount of silt
- spawning
  - need vegetated water, 1 to 2 feet deep
  - can spawn under logs, stumps, or bushes
- winter refuge
  - gravelly pockets among aquatic vegetation

