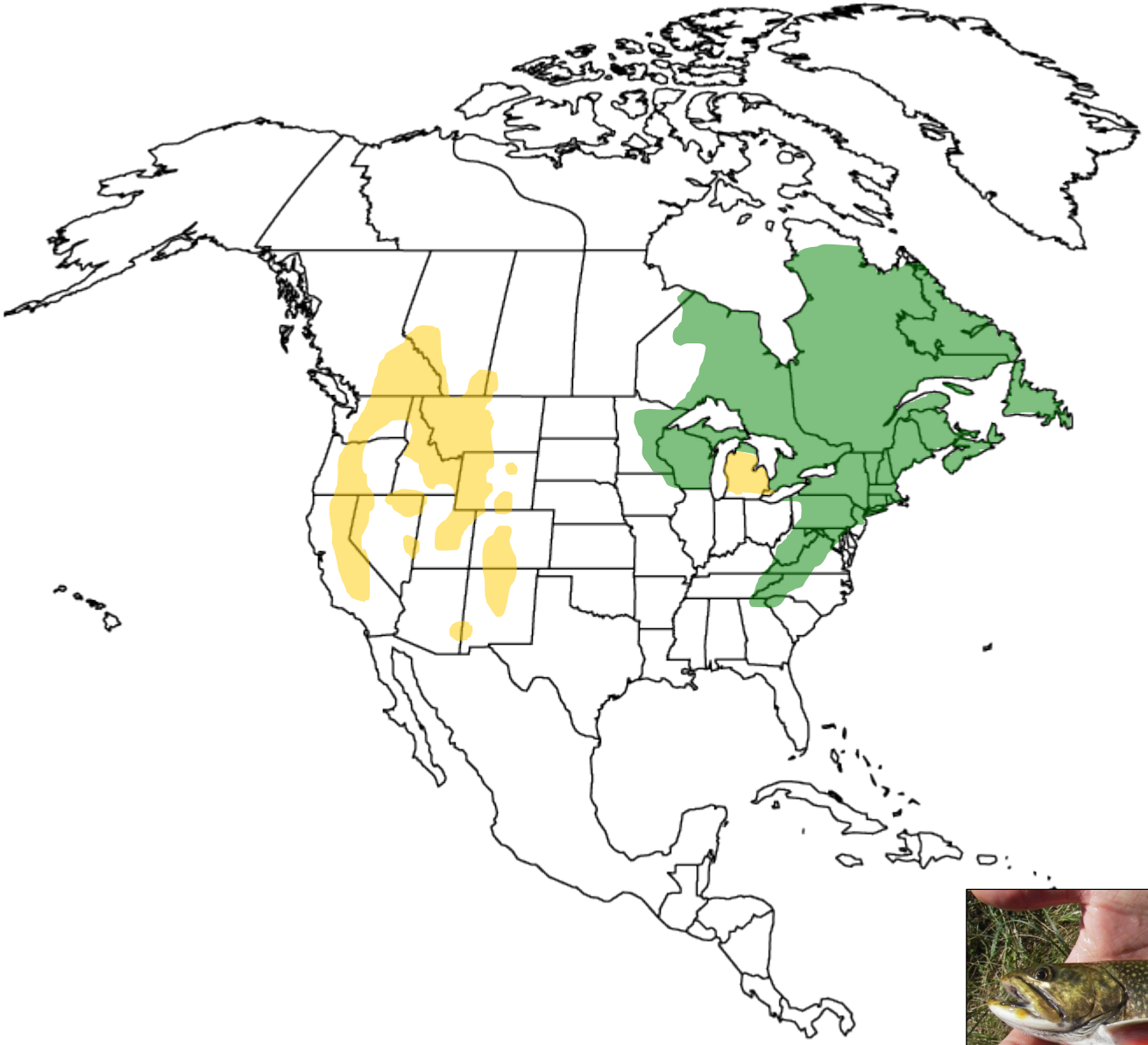
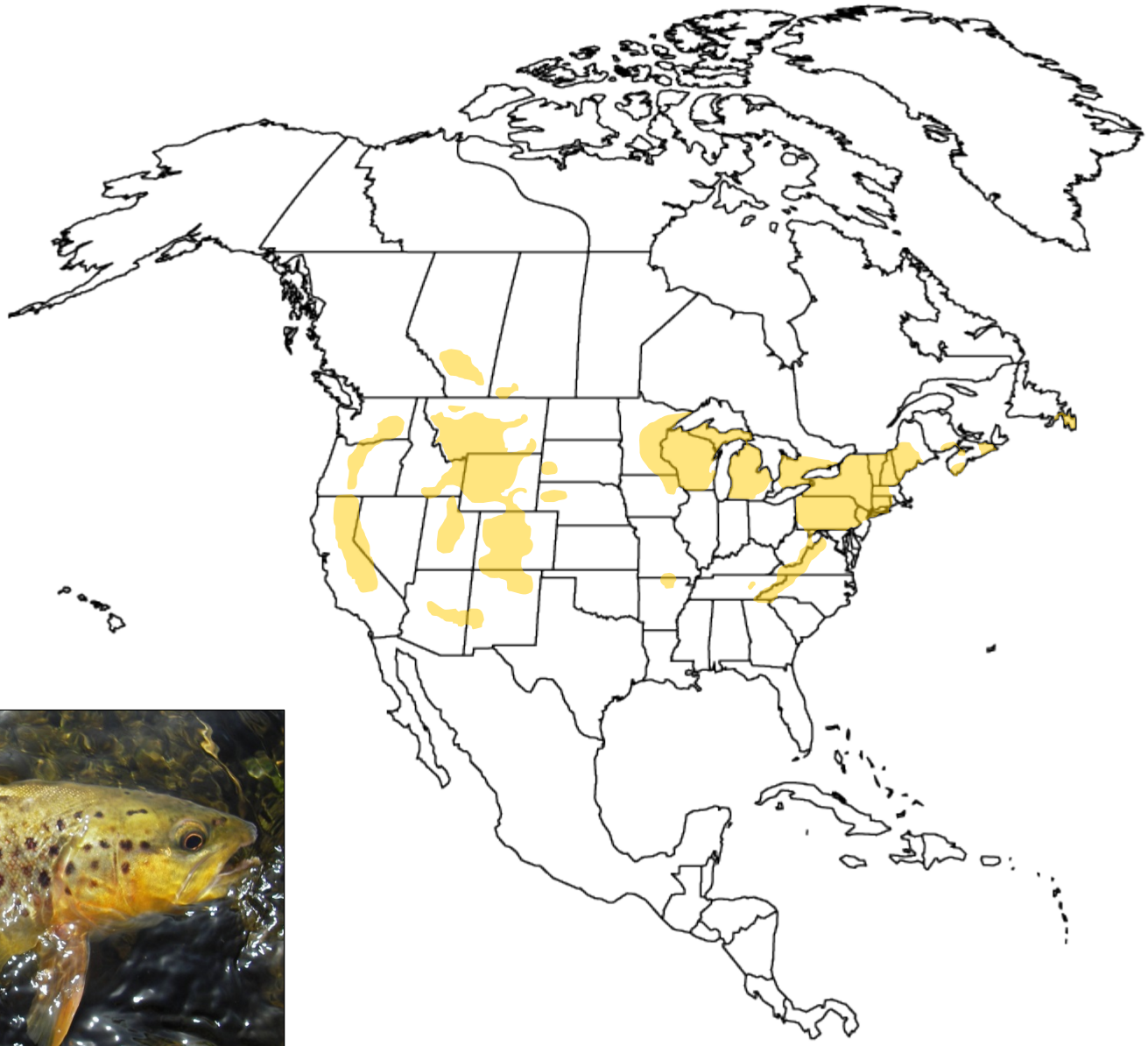
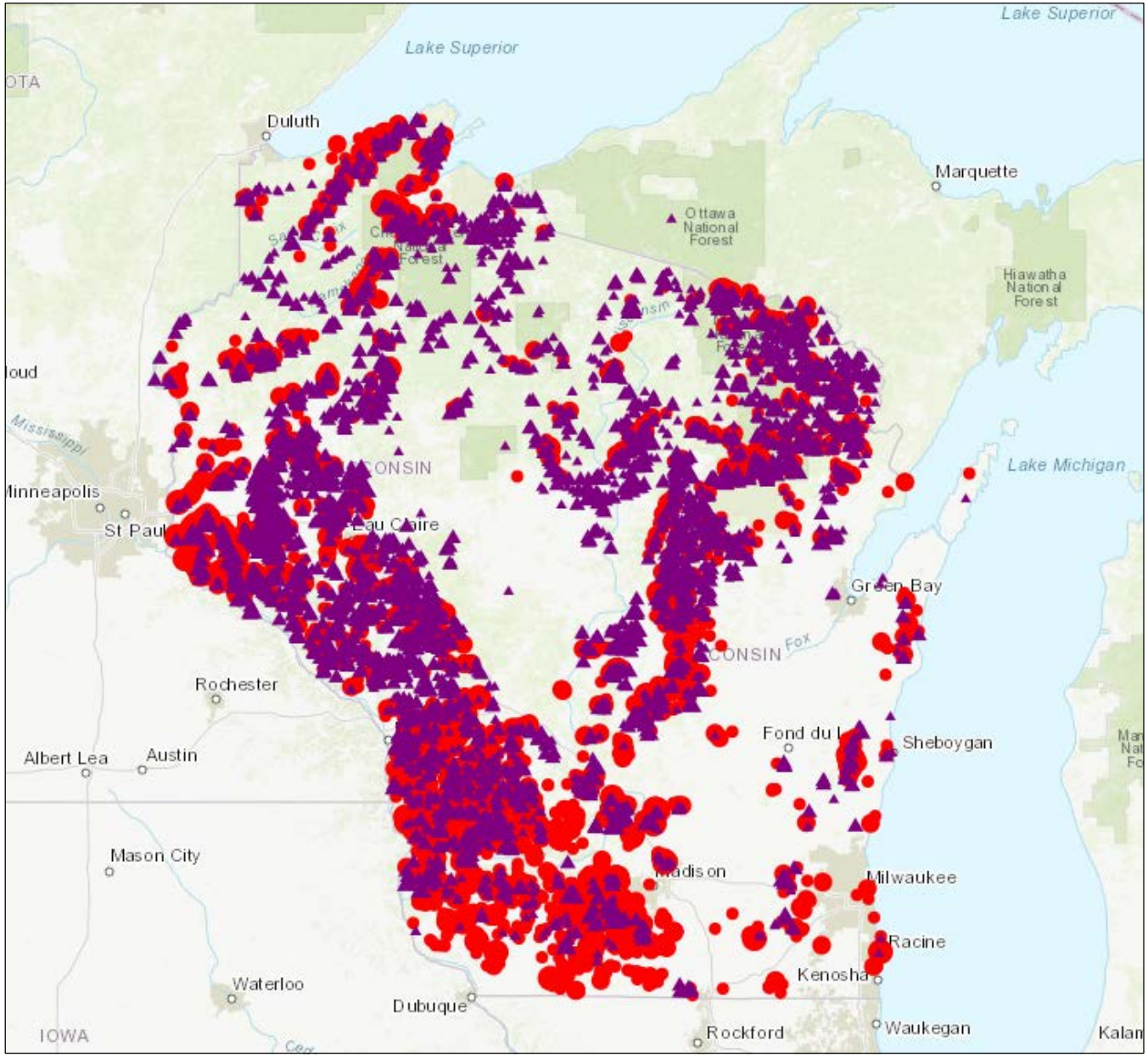
WDNR Trout Management Program:

A Brief Background

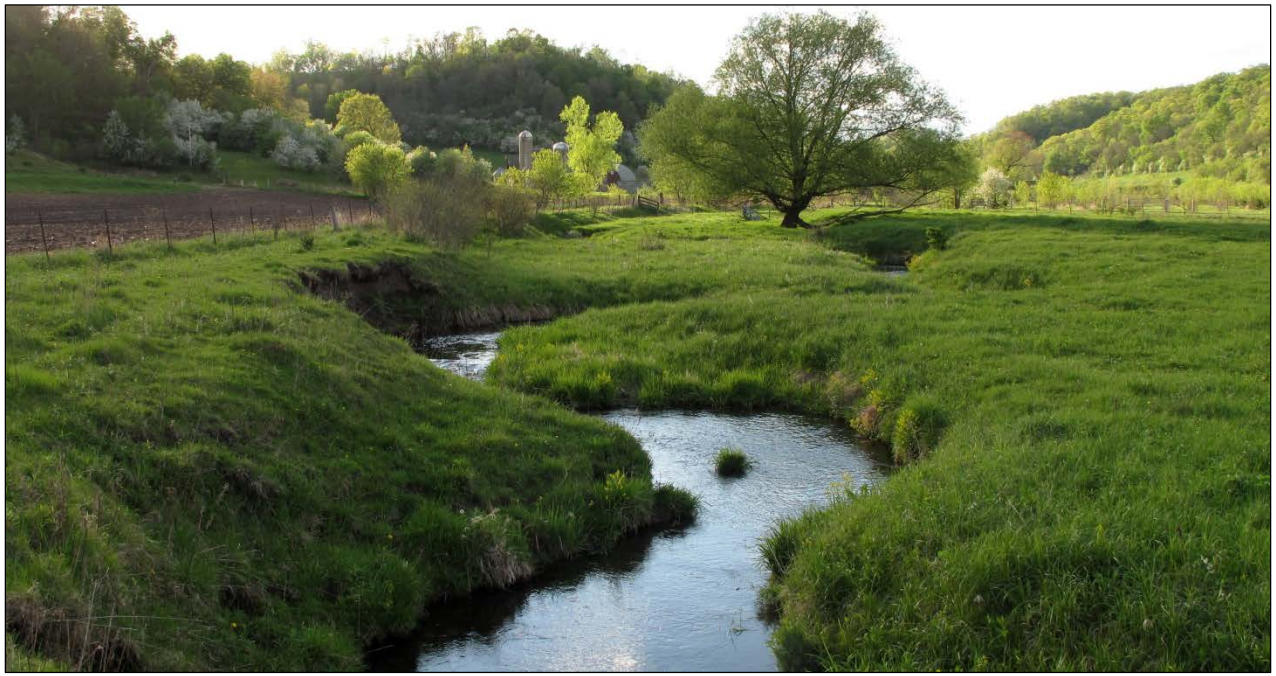






▲ Brook Trout

● Brown Trout

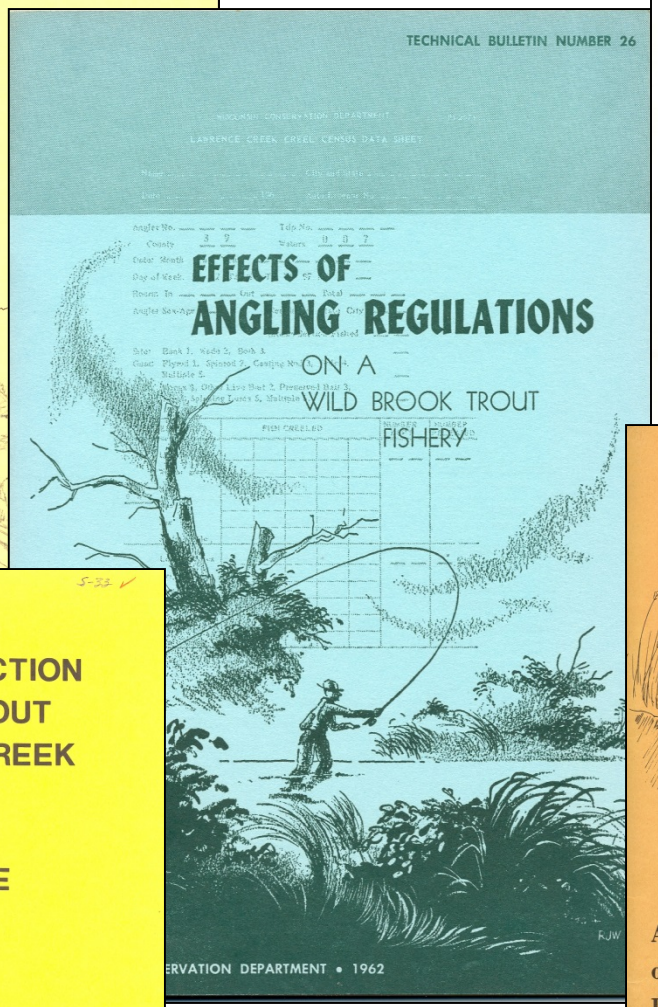


GUIDELINES FOR MANAGEMENT OF TROUT STREAM HABITAT IN WISCONSIN

Technical Bulleti

DEPARTMENT
Madison, Wiscons

TECHNICAL BULLETIN NUMBER 26



EFFECTS OF ANGLING REGULATIONS ON A WILD BROOK TROUT FISHERY

ERVATION DEPARTMENT • 1962

ANNUAL PRODUCTION BY BROOK TROUT IN LAWRENCE CREEK DURING ELEVEN SUCCESSIVE YEARS

TECHNICAL BULLETIN NO. 82
DEPARTMENT OF NATURAL RESOURCES
Madison, Wisconsin
1974

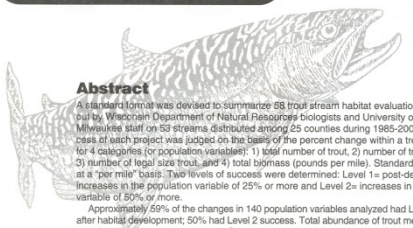
WISCONSIN DEPARTMENT OF NATURAL RESOURCES

RESEARCH REPORT 187

April 2004

A Compendium of 58 Trout Stream Habitat Development Evaluations in Wisconsin–1985-2000[1]

by **Ed L. Avery**
Bureau of Integrated Science Services
Waupaca, WI

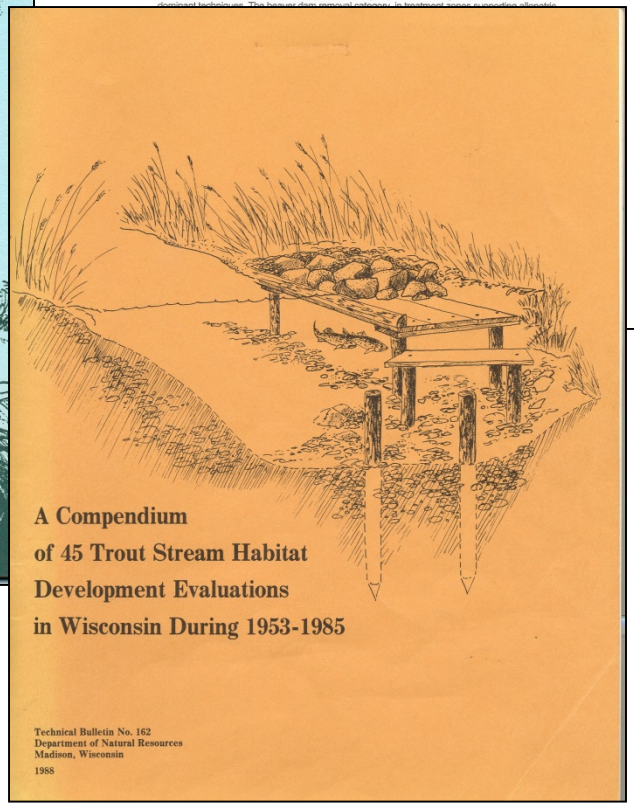


Abstract

A standard format was devised to summarize 58 trout stream habitat evaluations carried out by Wisconsin Department of Natural Resources biologists and University of Wisconsin-Milwaukee staff on 53 streams distributed among 25 counties during 1985-2000. The success of each project was judged on the basis of the percent change within a treatment zone for 4 categories (or population variables): 1) total number of trout, 2) number of trout ≥6 inches, 3) number of legal size trout, and 4) total biomass (pounds per mile). Standardization was at a "per mile" basis. Two levels of success were determined: Level 1= post-development increases in the population variable of 25% or more and Level 2= increases in the population variable of 50% or more.

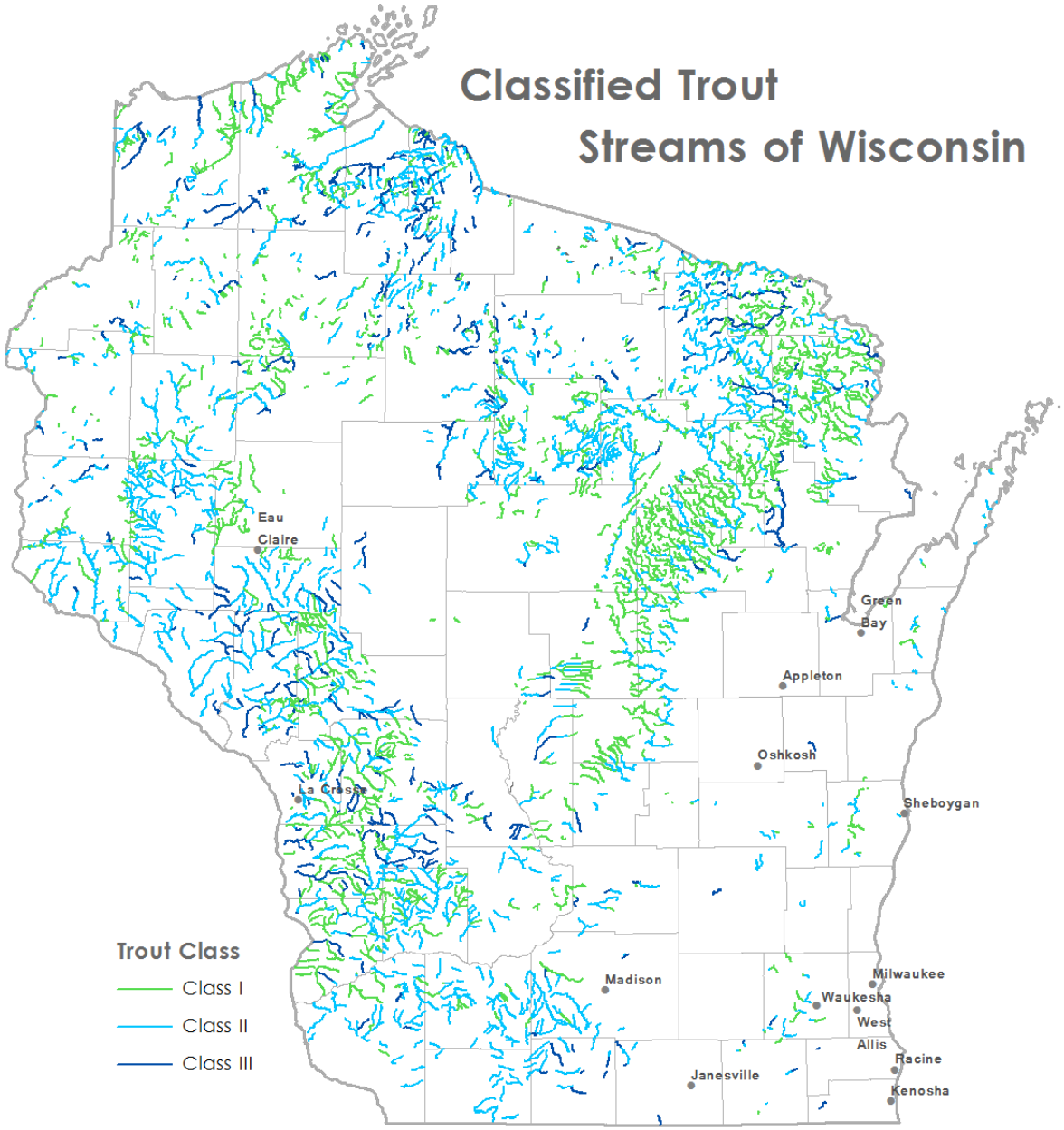
Approximately 59% of the changes in 140 population variables analyzed had Level 1 success after habitat development; 50% had Level 2 success. Total abundance of trout met Level 1 success in 43% of the treatment zones. Success rate at Level 2 was found in 31% of the treatment zones. Abundance of legal size trout achieved success rates of 65% and 62% at Levels 1 and 2, respectively. In treatment zones with allopatric populations of brook trout or brown trout, success rates were similar. In sympatric populations, brown trout responded much more positively than brook trout did to habitat development.

Habitat development techniques employed were grouped into 9 categories based on the predominant technique. The beaver dam removal category, in treatment zones supporting allopatric



A Compendium of 45 Trout Stream Habitat Development Evaluations in Wisconsin During 1953-1985

Technical Bulletin No. 162
Department of Natural Resources
Madison, Wisconsin
1988



Class I
5,365 mi
40%

Class II
6,120 mi
46%

Class III
1,786 mi
14%

Trout stream surveys

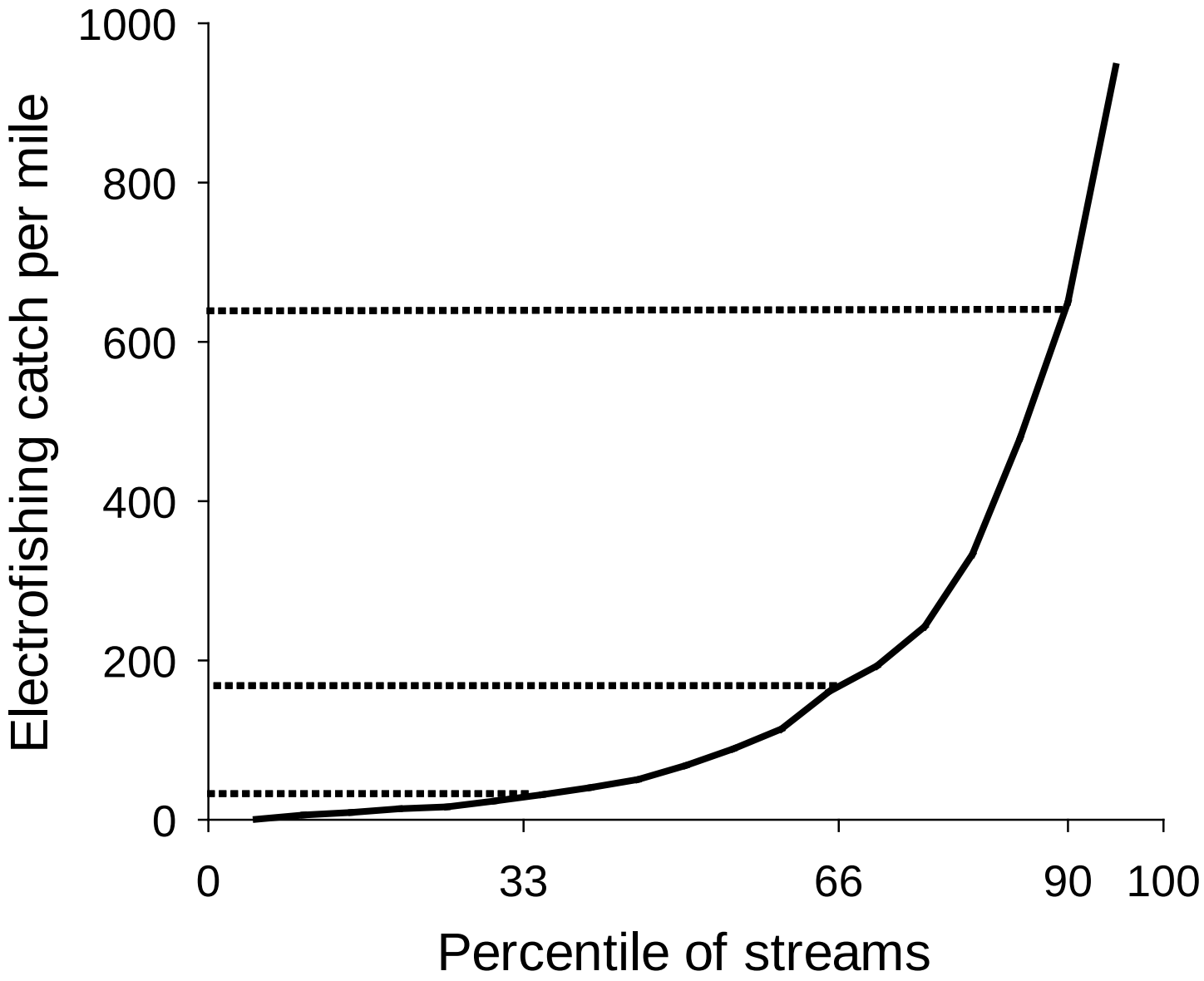
Stream shocker or backpack

15 June - 15 September

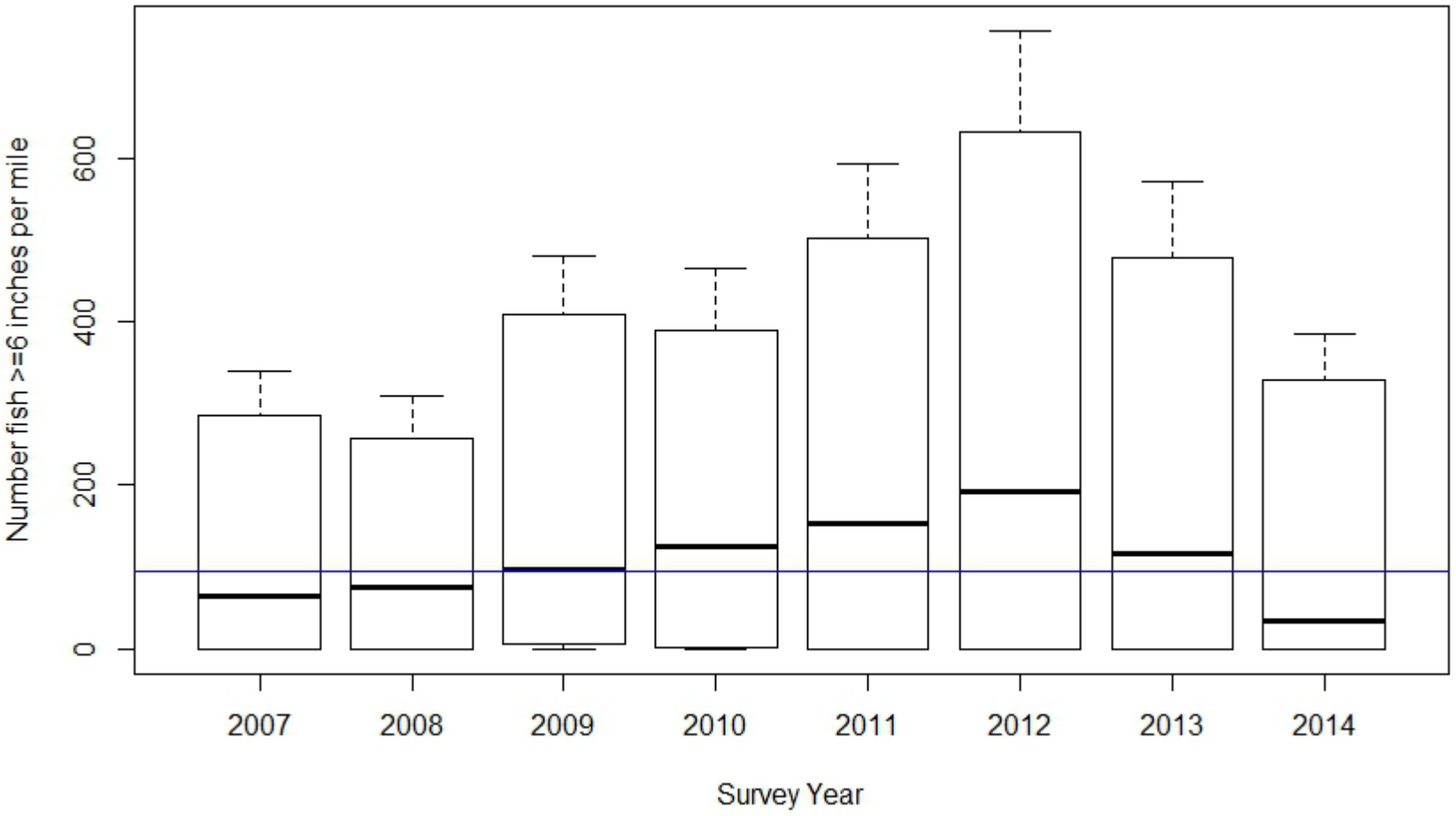
All species collected

CPE, IBI, trout size structure, qualitative habitat

Brown Trout Density



Brook and brown trout (≥ 6 in) indices of abundance



How Wisconsin manages trout

Habitat

Stream habitat protection, restoration, rehabilitation
Land use & watershed management
Beaver control

Stocking

Trout stocking guidance
F1 vs. F2 vs. Fn

Regulations

New trout fishing regulations in 2016
Trout angler survey data

Trout Stream Habitat Management

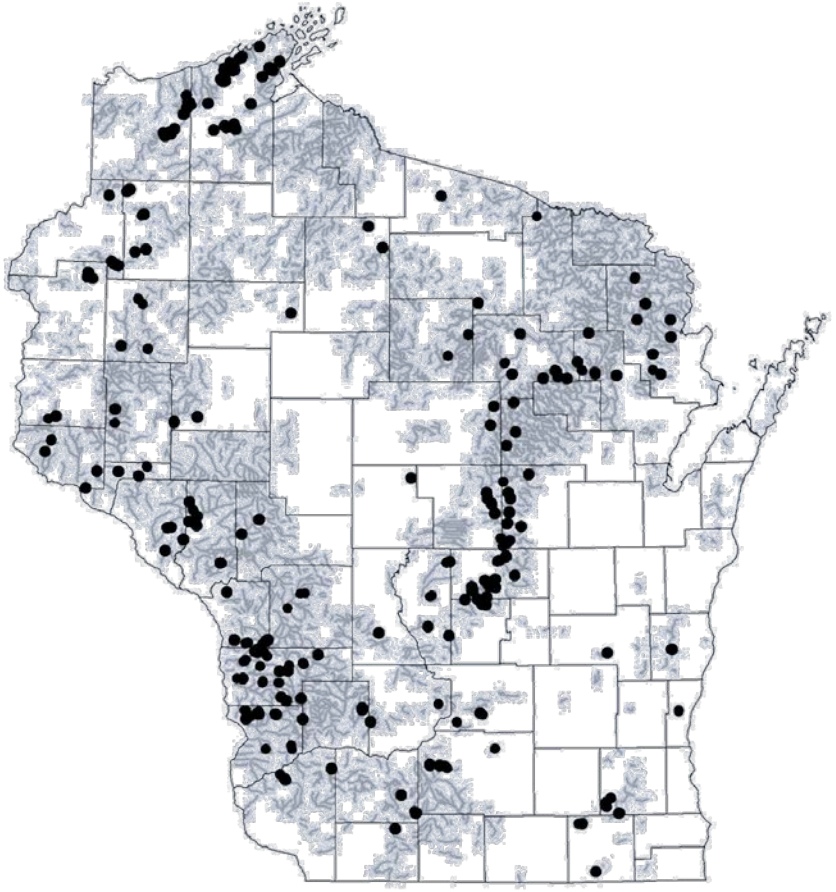
Trout stamp funds for trout stream habitat restoration and rehabilitation

Since 1978 raised about $25 million and restored over 700 miles of trout stream habitat

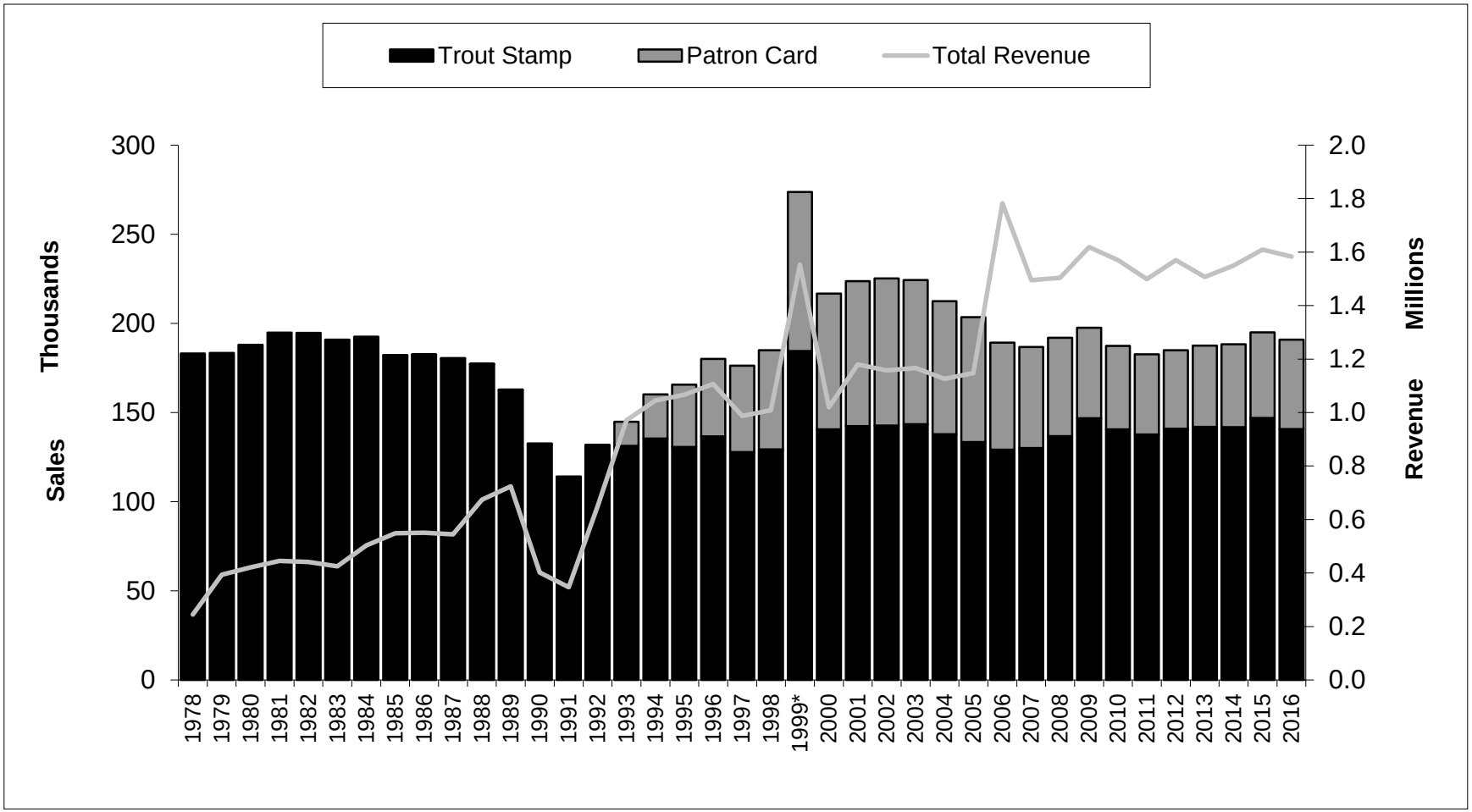
Currently $1.2 million and 25 miles of stream habitat work per year

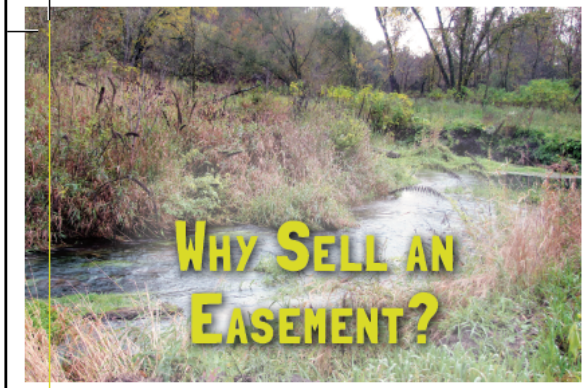
Trout Stream Habitat Management

FY 2011-2016 Habitat Projects



Inland Trout Stamp Sales





Why Sell an Easement?

Signing an easement leaves a conservation legacy for future generations:

- It helps ensure permanent protection of your land along the stream
- An easement may be the least expensive solution to correct environmental problems
- The landowner retains the rights on the majority of their property.
- The cash payment can be significant, with no spending restrictions
- Easements may qualify the seller for other financial assistance such as help with fencing costs and livestock management, erosion control and stream restoration work

Managing for the Future...

In general, DNR purchases the rights to:

- Manage vegetation along the stream bank.
- Manage instream habitat.
- Provide public access for fishing (excludes hunting and trapping).

What Is A Stream Bank Protection Easement?

A stream bank easement is a voluntary legal agreement between a landowner and the Department of Natural Resources that provides for public angling and other recreation while protecting fisheries, water quality and riparian areas for the future. A stream bank easement includes the right to improve stream habitat, fence livestock out of the stream corridor, manage streamside vegetation, prohibit streamside development and provide public access for angling, wildlife observation and hiking. The department retains easement rights if the landowner sells the land.

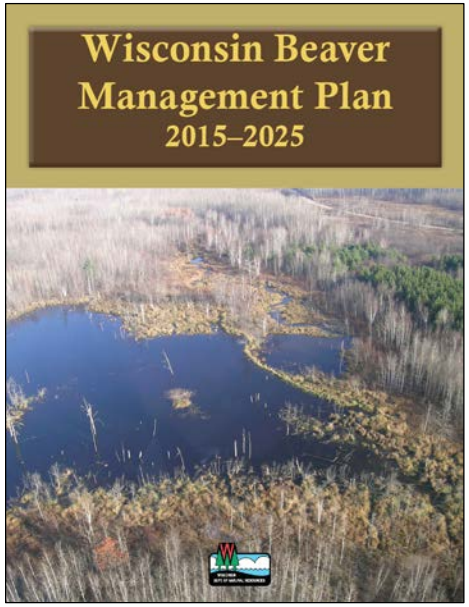
What Land Is Eligible?

The department maintains maps for streams and DNR properties that are eligible for stream bank protection funding. Over 3,070 miles of streams located in 44 counties are eligible.

Maps are available online – please visit dnr.wi.gov and search keyword "streambank."

The Stream Bank Easement Program focuses on protecting land bordering streams designated as "high quality" by the Wisconsin Department of Natural Resources. These stream corridors (a minimum of 66 feet from each stream bank) protect water quality, wildlife habitat and recreational opportunities.

Beaver Control

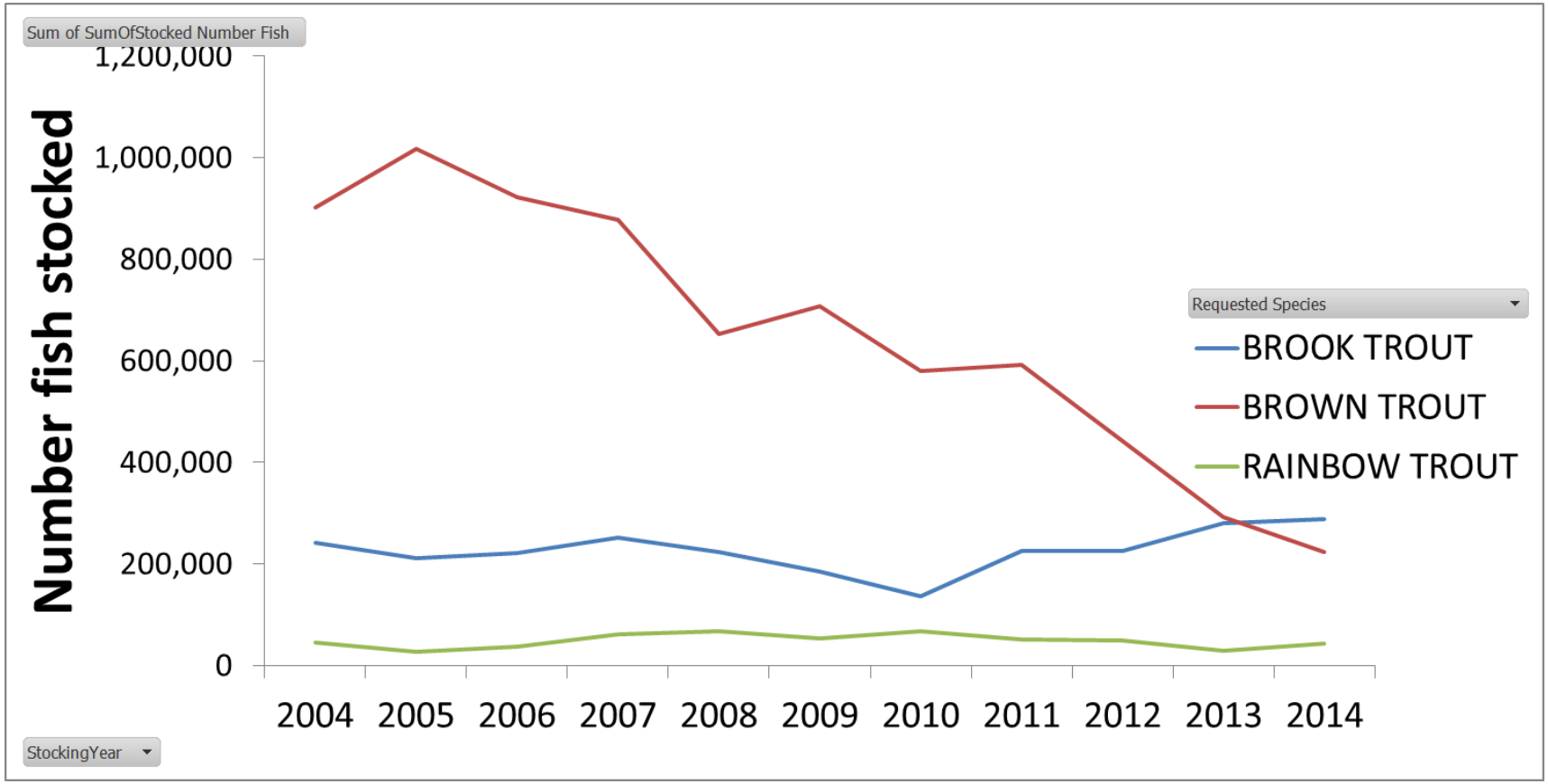


How Wisconsin manages trout

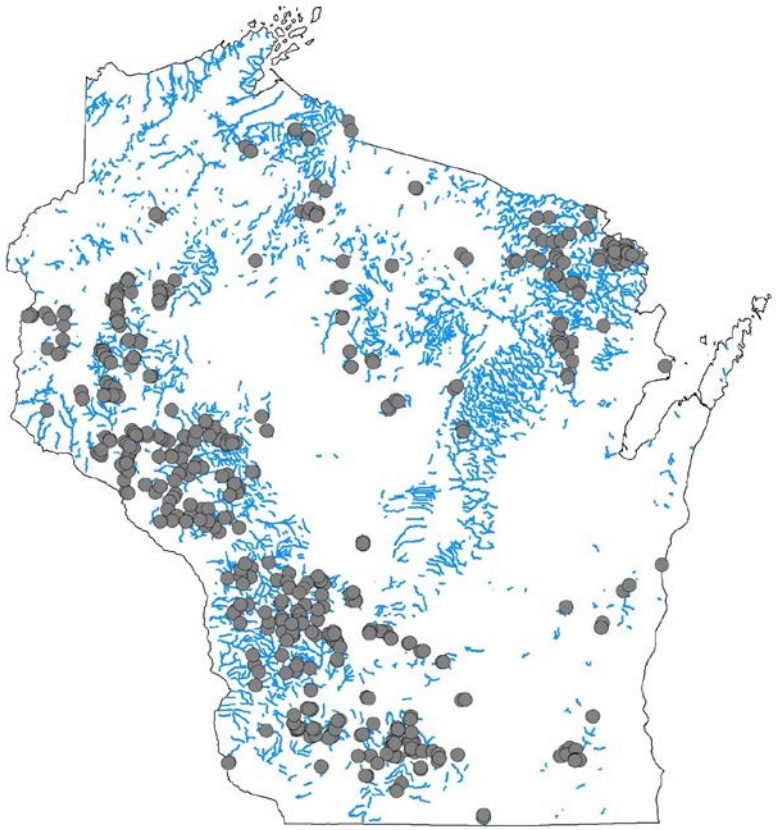
Stocking

Trout stocking guidance

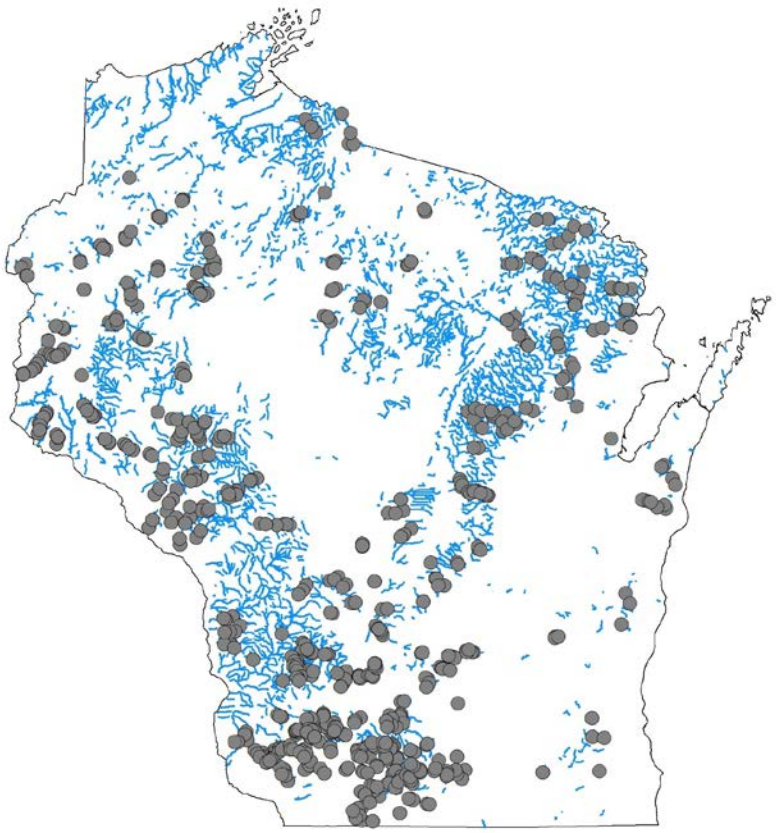
F1 vs. F2 vs. Fn


Sum of SumOfStocked Number Fish
Number fish stocked
1,200,000
1,000,000
800,000
600,000
400,000
200,000
0
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
StockingYear
Requested Species
BROOK TROUT
BROWN TROUT
RAINBOW TROUT

Brook Trout Stocking



Brown Trout Stocking



W

×

W

→ F1

→ ‘wild’ trout stocking

F1

×

F1

→ F2

→ ‘wild’ trout stocking

•
•
•

F(n)

×

F(n)

→ F(n+1)

→ domestic trout stocking

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

RESEARCH REPORT 186

November 2001

Field Performance of Wild and Domestic Brown Trout Strains in Two Wisconsin Rivers

by **Ed L. Avery,**
Al Niebur, and
David Vetrano

Abstract

We evaluated whether improvement in survival and growth of stocked brown trout could be accomplished by using first-generation wild strains instead of domestic strains. We also examined whether improvement in survival and growth of domestic strains might result from improving the hatchery rearing environment rather than changing the genetic lineage.

We stocked three

"…survival rates 2-4 times greater for stocked trout of wild versus domestic parentage…"

Stocking Trout of Wild Parentage to Restore Wild Populations: An Evaluation of Wisconsin's Wild Trout Stocking Program

M. G. Mitro
Coldwater Fisheries Research Scientist, Wisconsin Department of Natural Resources, Monona, Wisconsin

ABSTRACT—The Wisconsin Department of Natural Resources (WDNR) manages trout streams using a combination of stream habitat protection and improvement, fishing regulations, and stocking of hatchery-reared trout. The WDNR initiated a wild trout stocking program in 1995 to improve the quality of hatchery-reared brook and brown trout by raising offspring of wild parentage. The goals of the wild trout stocking program are to increase the survival and longevity of trout stocked in streams and to ultimately develop self-sustaining populations of wild trout. It is thought that hatchery trout of wild parentage maintain the genetic diversity and better embody the characteristics found in wild populations and may therefore improve restoration success. I collectively analyzed evaluations of wild trout stocking across Wisconsin to determine whether program goals were being fulfilled and to identify any research gaps. Preliminary analyses indicated survival rates 2-4 times greater for stocked trout of wild versus domestic parentage, and some increases in natural reproduction have been observed. Habitat, however, may be limiting the restoration of self-sustaining populations in some streams. Future research will address habitat limitations to survival and reproduction of stocked wild trout and the long-term viability of source populations for the wild trout stocking program.

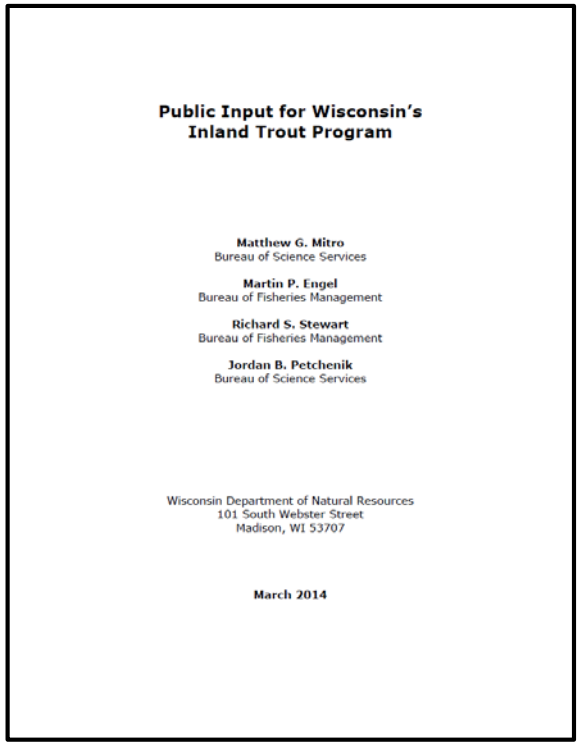
How Wisconsin manages trout

Regulations

New trout fishing regulations in 2016

Trout angler survey data

Trout Angler Surveys



Public Input for Wisconsin's Inland Trout Program

Matthew G. Mitro
Bureau of Science Services

Martin P. Engel
Bureau of Fisheries Management

Richard S. Stewart
Bureau of Fisheries Management

Jordan B. Petchenik
Bureau of Science Services

Wisconsin Department of Natural Resources
101 South Webster Street
Madison, WI 53707

March 2014

Results of the 2011 Survey of Lapsed Wisconsin Inland Trout Anglers

Submitted to:
Bureau of Fisheries Management

Prepared by:
Bureau of Science Services

May 2012

For additional information please contact:

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Madison, WI 53707
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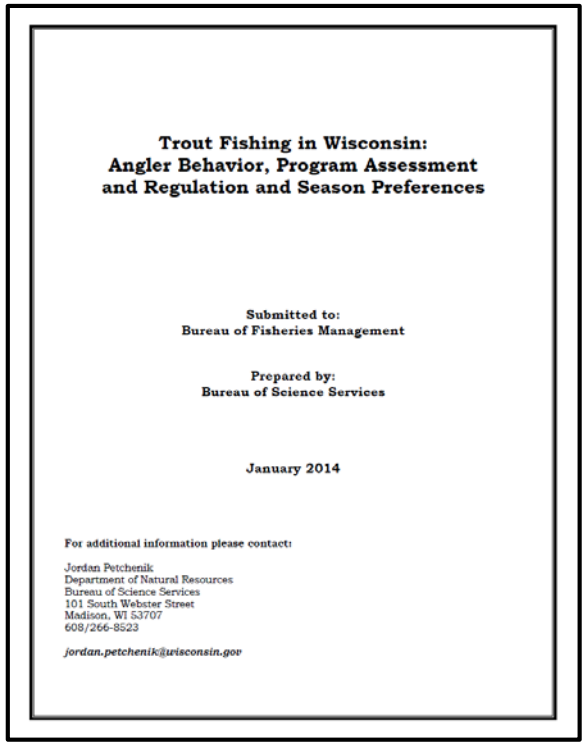

Trout Fishing in Wisconsin: Angler Behavior, Program Assessment and Regulation and Season Preferences

Submitted to:
Bureau of Fisheries Management

Prepared by:
Bureau of Science Services

January 2014

For additional information please contact:

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Madison, WI 53707
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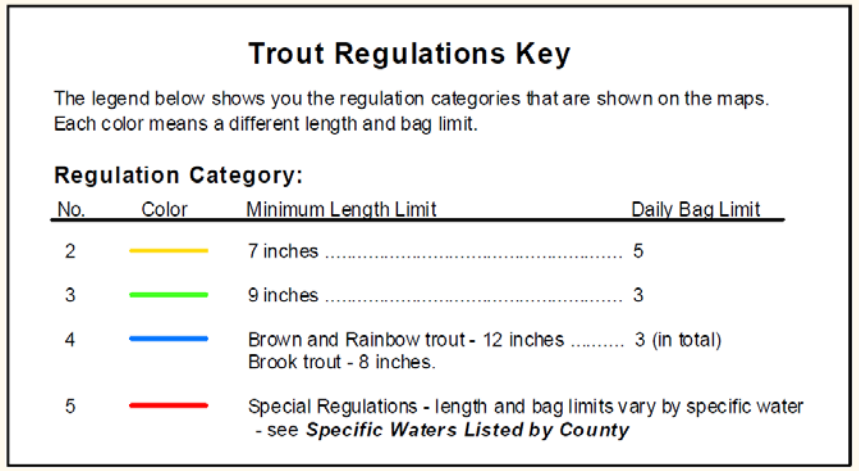
http://dnr.wi.gov/topic/fishing/outreach/TroutRegReview.html



Trout Regulations Key

The legend below shows you the regulation categories that are shown on the maps. Each color means a different length and bag limit.

Regulation Category:

No.	Color	Minimum Length Limit	Daily Bag Limit
2		7 inches	5
3		9 inches	3
4		Brown and Rainbow trout - 12 inches Brook trout - 8 inches.	3 (in total)
5		Special Regulations - length and bag limits vary by specific water - see ***Specific Waters Listed by County***	

Trout regulations 1990-2015

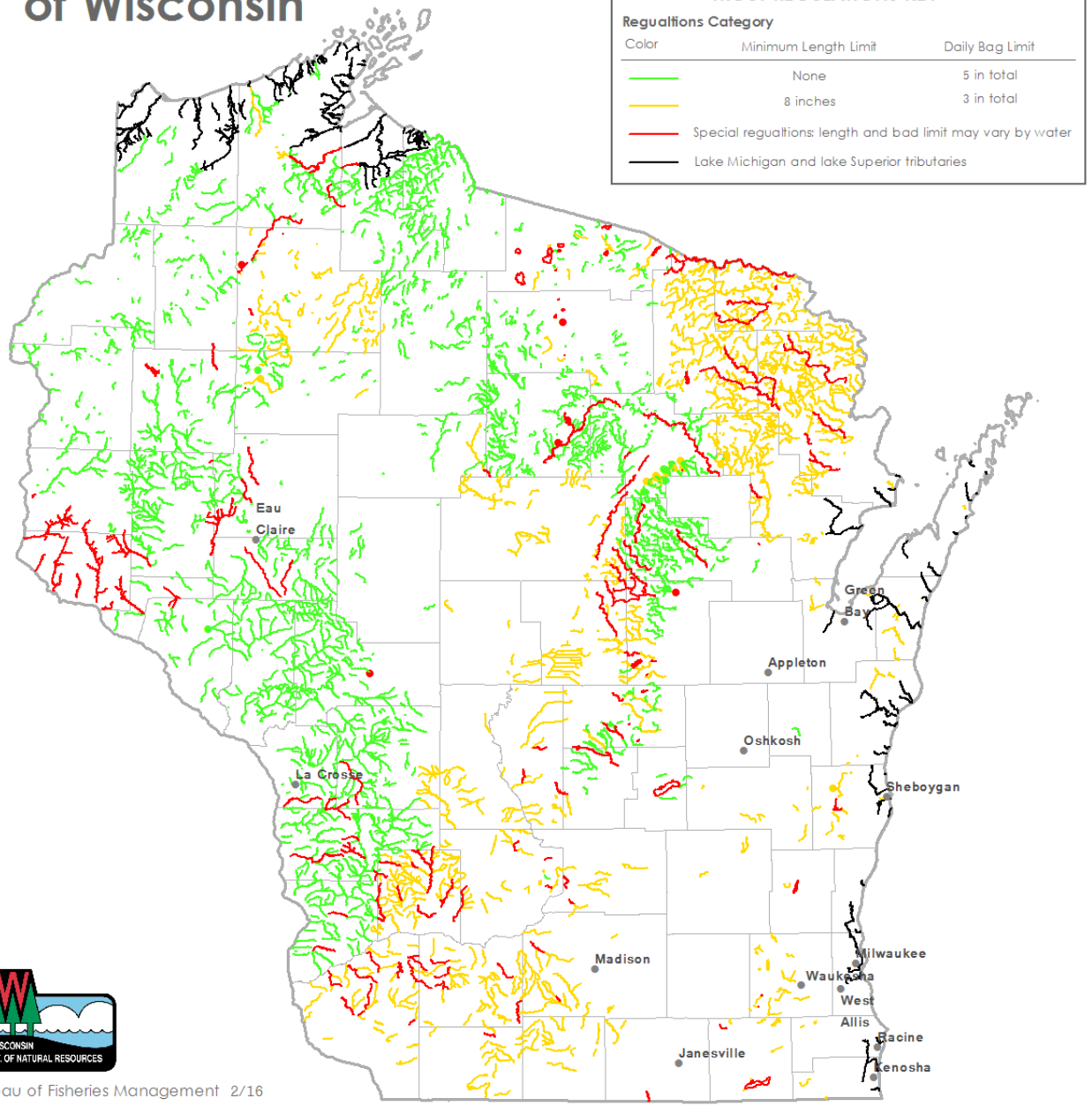
TROUT REGULATIONS KEY

Regulations Category

Color	Minimum Length Limit	Daily Bag Limit
	None	5 in total
	8 inches	3 in total
	Special regulations: length and bag limit may vary by water	
	Lake Michigan and Lake Superior tributaries	

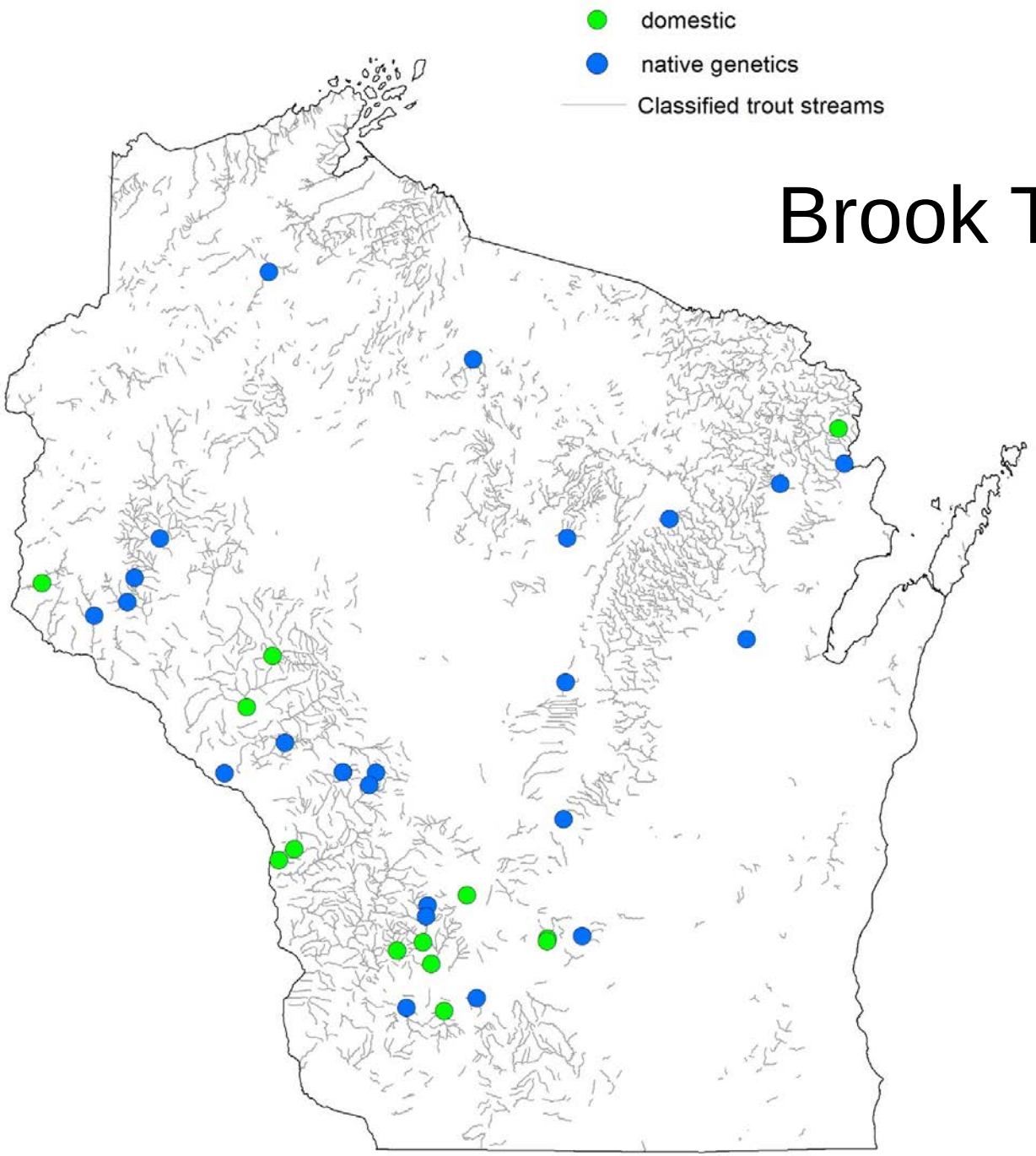
Trout regulations 2016-

Trout Regulations of Wisconsin



WISCONSIN DEPT. OF NATURAL RESOURCES

Bureau of Fisheries Management 2/16



Brook Trout Genetics

Brook trout genetics data
Will be used to update

- Definitions of genetic stock boundaries
- Guidance on broodstock collection and hatchery propagation practices
- Guidance on stocking practices