

Upper Potomac River Smallmouth Bass Status and Management

Supplemental Stocking Project

Maryland Department of Natural Resources
Freshwater Fisheries Program

Our Mission



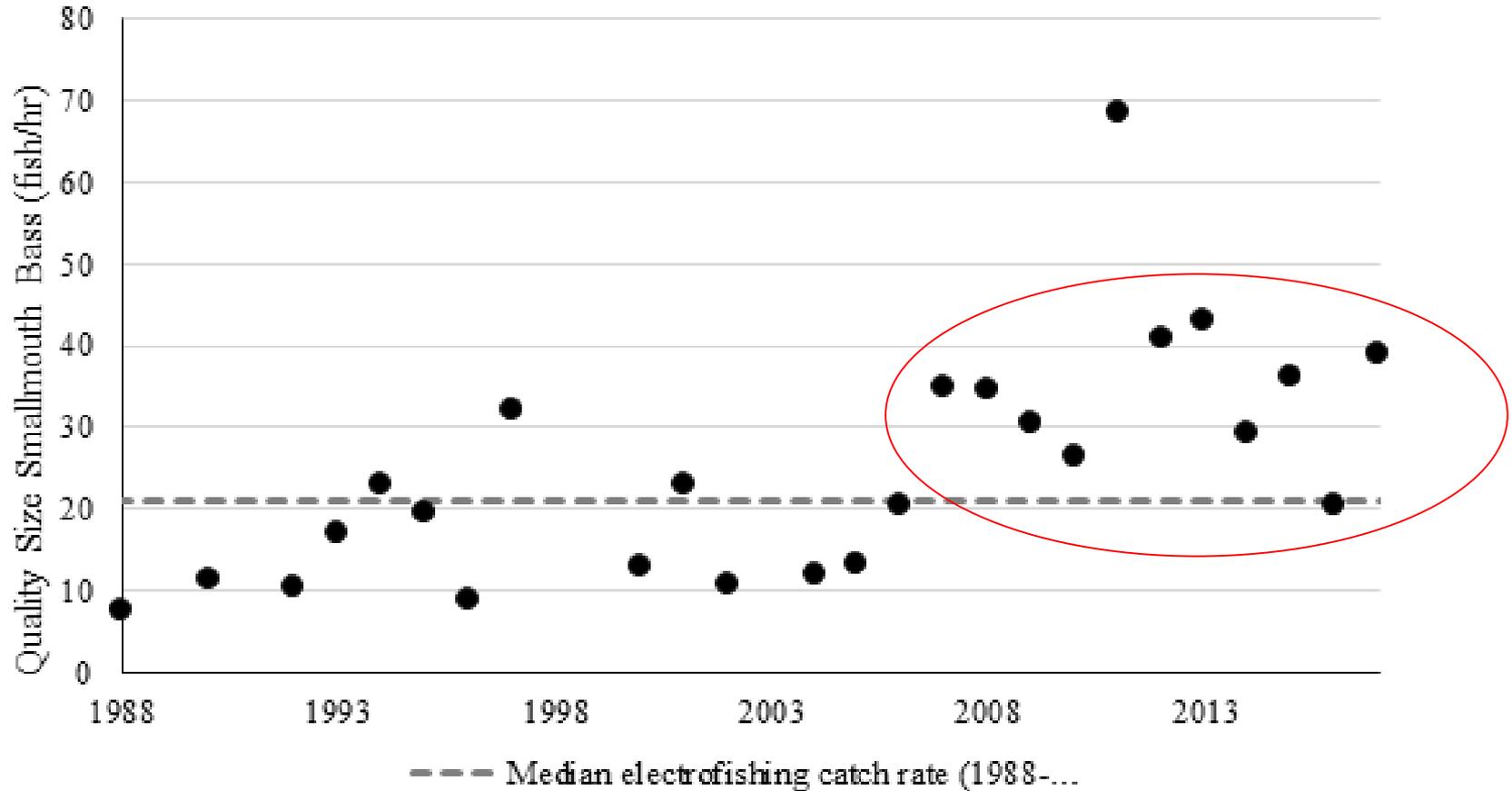
The Freshwater Fisheries Program is responsible for managing Maryland's freshwater resources to provide high quality, diverse, and accessible fisheries for Maryland residents and visitors.

Management Goal – maintain a productive smallmouth bass fishery for anglers in the upper Potomac River

Project Objectives

- supplement natural reproduction to improve smallmouth bass yearclass strength and to reduce annual recruitment variability
- Maintain a mean electrofishing catch rate ≥ 28 quality-size bass (> 11 inches) per hour (25th percentile of 2008 – 2017 mean catch rate for entire river)

Management Goals & Objectives



Mean annual fall boat electrofishing catch of quality size smallmouth bass (≥ 11 inches) in the Upper Potomac River (1988-2017).

Collecting Data and Monitoring the Population

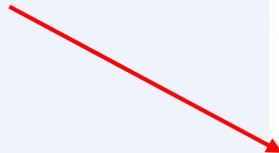
- Monitor annual juvenile recruitment
- Monitor electrofishing catch rates for multiple size classes of smallmouth (>8", > 11", > 14", > 17")
- Monitor changes in size distribution
- Determine total annual mortality and fishing mortality
- Track angler catch rates through Tournament Permit reporting and online Volunteer Angler Survey



Volunteer Angler Survey



Volunteer Angler Surveys



Fisheries

- > Fisheries Home Page
- > Fisheries Regulations
- > Fishing Licenses
- > Fishing Report
- > Tide Finder
- > Join Our Mailing List

More Resources

- > Public Notices
- > Fish Facts
- > Circle Hooks
- > Trout Stocking
- > Volunteer Angler Survey
- > Invasive Species
- > Youth Fishing
- > Charter Boats and Guides
- > Free Fishing
- > State Records
- > Eyes on the Bay
- > River Levels
- > Espanol/Spanish Language
- > Fisheries Forms
- > Non-Fishing Permits

Freshwater Fisheries Links

- > Freshwater Home
- > Freshwater Regions
- > Tools of the Trade

Freshwater Fisheries Program

Freshwater News



Biologists began their annual surveys for black bass in Maryland's tidewaters last week. On Oct.3 electrofishing survey crews were in the upper Bay, Middle River, and Potomac River. Staff also stocked bass in Gunpowder River and will continue later in the month, along with Middle River and other struggling bass fisheries. For more information, please contact the program manager, Joseph Love at Joseph.love@maryland.gov or 410-260-8257.

1.16.2019 - Freshwater Fisheries December Monthly Report.

Mission of the Freshwater Fisheries Program

Manage Maryland's freshwater resources using scientifically valid, standardized assessments and management techniques to provide high quality, diverse, and accessible fisheries for Maryland residents and visitors.

Please **CLICK** on a region for specific information, or contact headquarters in Annapolis with general questions by calling 1-877-620-8367.



Bass Tournaments



Trout Fishing and Stocking

Trout Stocking Program



Tidal Black Bass Program



Brook Trout Program



Show all

Volunteer Angler Survey



Connect Maryland Secure Portal | Inbox (175) - john.mullican@ma... | Potomac River Smallmouth Bass... | DNR_PotomacStocking_present... | Volunteer Angler Survey

Not secure | dnr.maryland.gov/Fisheries/Pages/survey/index.aspx

Apps | Sharpsburg, MD 10-... | Connect Maryland St... | Google | Workday (stateofma... | Fishing and Boating... | Stream Health | Freshwater Fisheries... | ArcGIS - Brook Trout | USGS Current Water... | NOAA - National We... | USGS Current Condi... | Other bookmarks

- > State Records
- > Eyes on the Bay
- > River Levels
- > Espanol/Spanish Language
- > Fisheries Forms
- > Non-Fishing Permits

Volunteer Angler Survey Links

- > Volunteer Angler Survey Home
- > Striped Bass Survey Results
- > Yellow Perch Survey Results
- > Horseshoe Crabs
- > Tag Return Program

MOBILE SURVEYS

If you are viewing this page on your cell phone or tablet, tap on one of the surveys below to get started.

- Striped Bass Survey** 
- The Artificial Reef Program Survey** 
- Freshwater Multi-Species Survey** 
- Shad Survey** 
- Potomac River Smallmouth Bass Survey** 
- Muskellunge Survey** 
- Blue Crab Survey** 

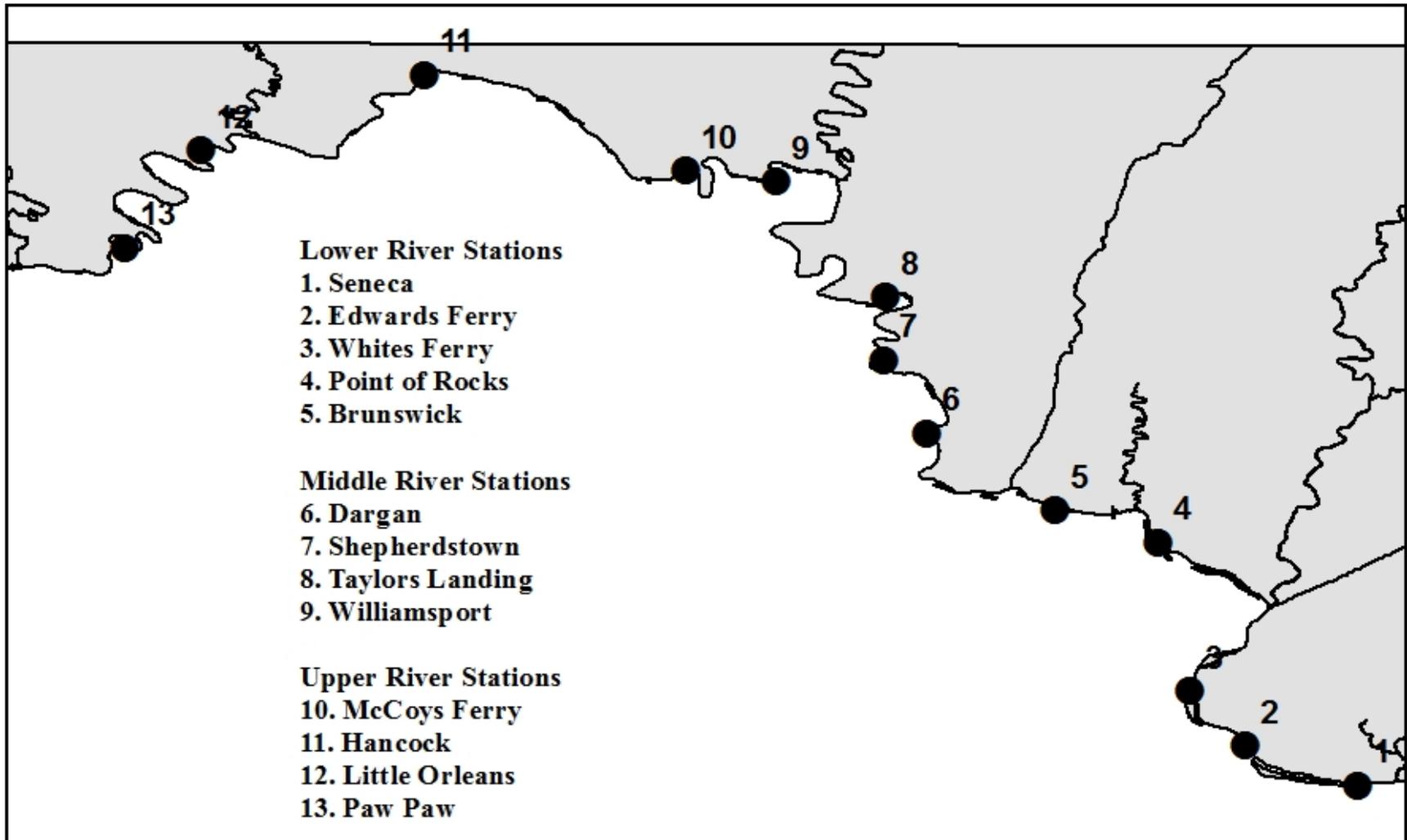
Link can be saved to mobile device home screen for one touch access

SMBpresentation....docx | Dough_ParkingL....docx | DNR_PowerpointT....ppt | Public - Potomacpdf

Show all

97% | 4:17 PM 2/6/2019

Upper Potomac River Survey Sites



Smallmouth Bass



Recruitment

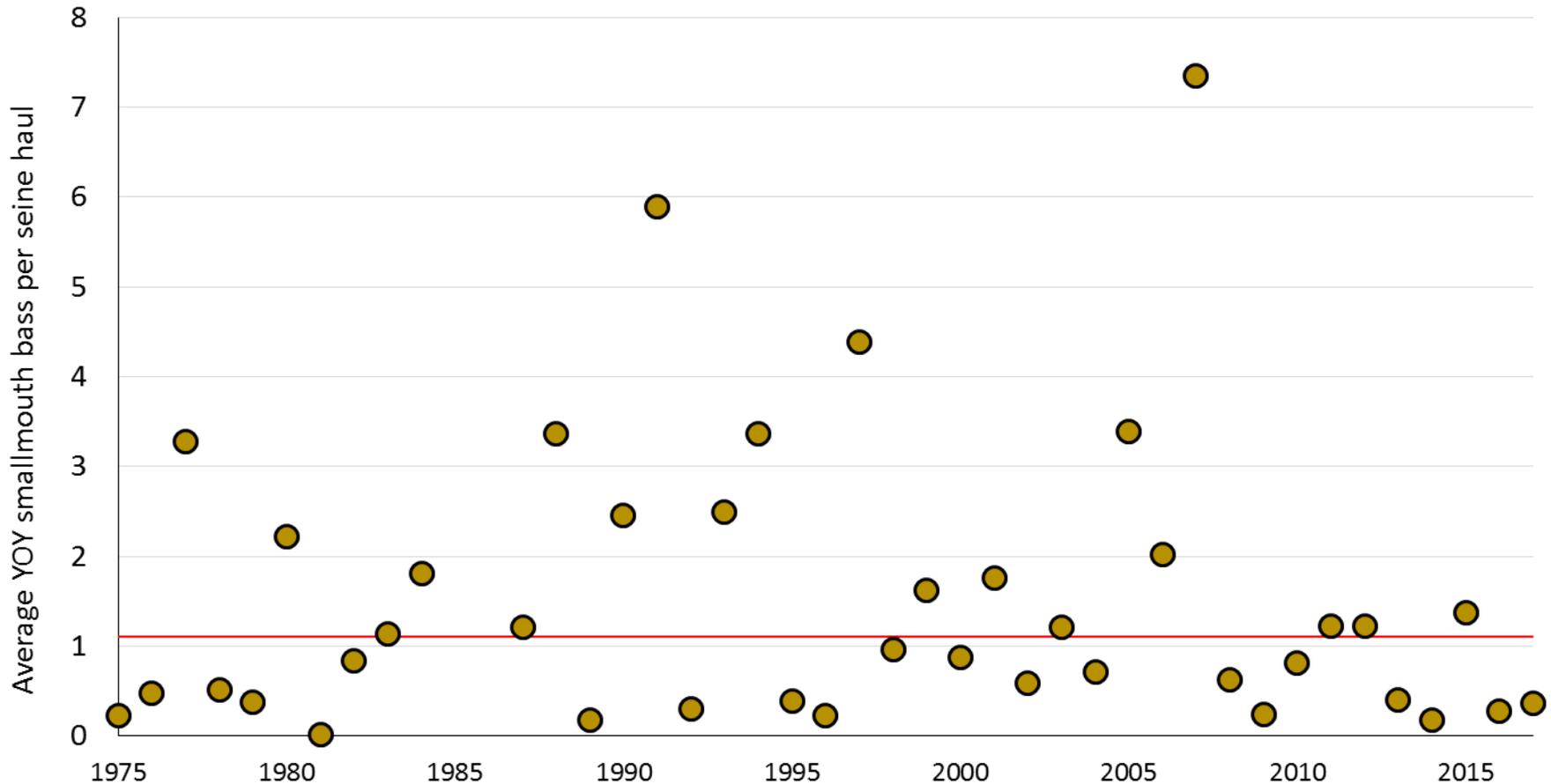
- Annual juvenile surveys (1975-current)
- 30 ft haul seine
- Young-of-year SMB
 - Bass <90 mm (3.5 inches)
- 12-15 stations along river
 - Seneca upstream to Paw Paw, WV



Smallmouth Bass



Summer SMB young-of-year seine survey catch rates

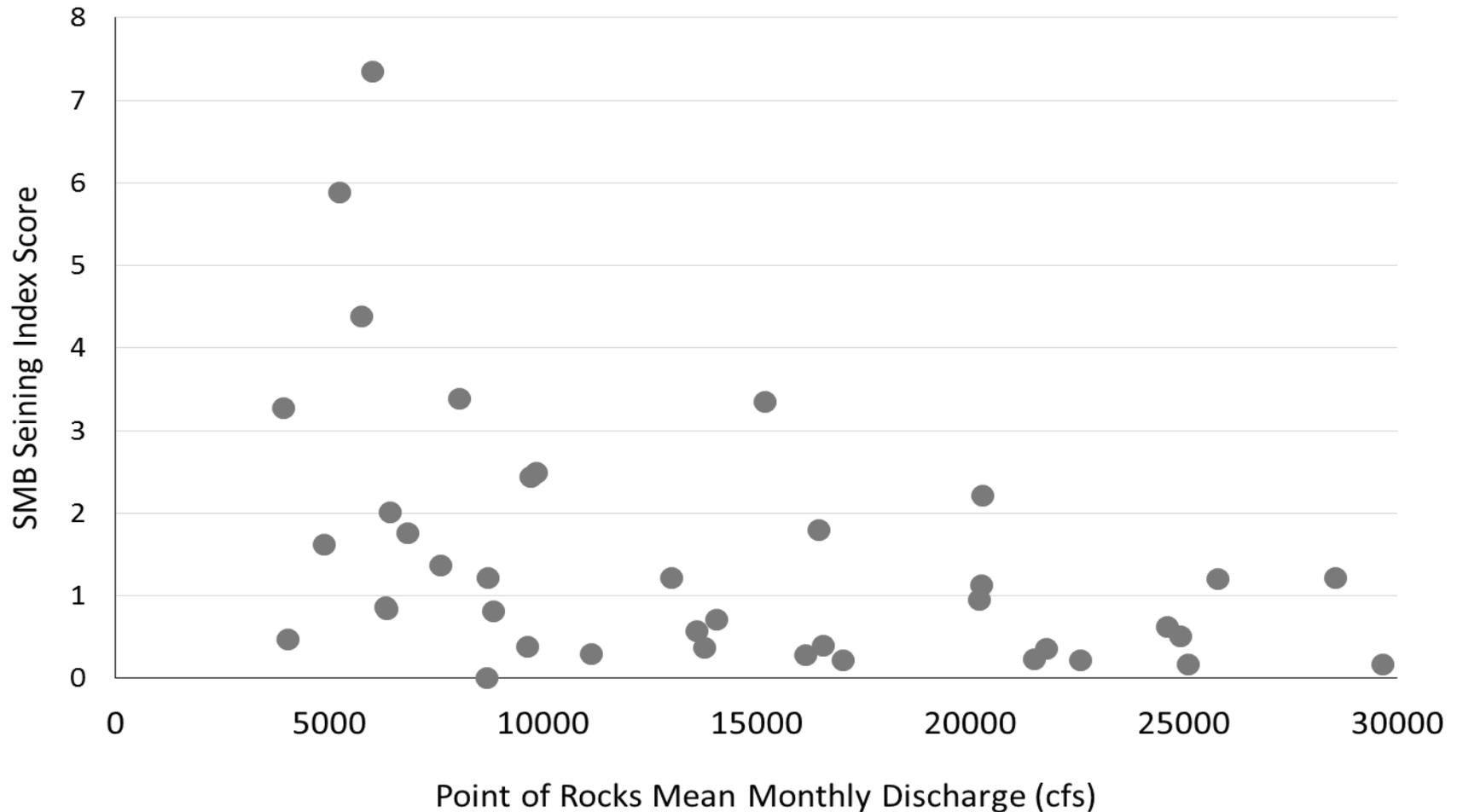


— Median YOY per seine haul (1975-2017)

Smallmouth Bass



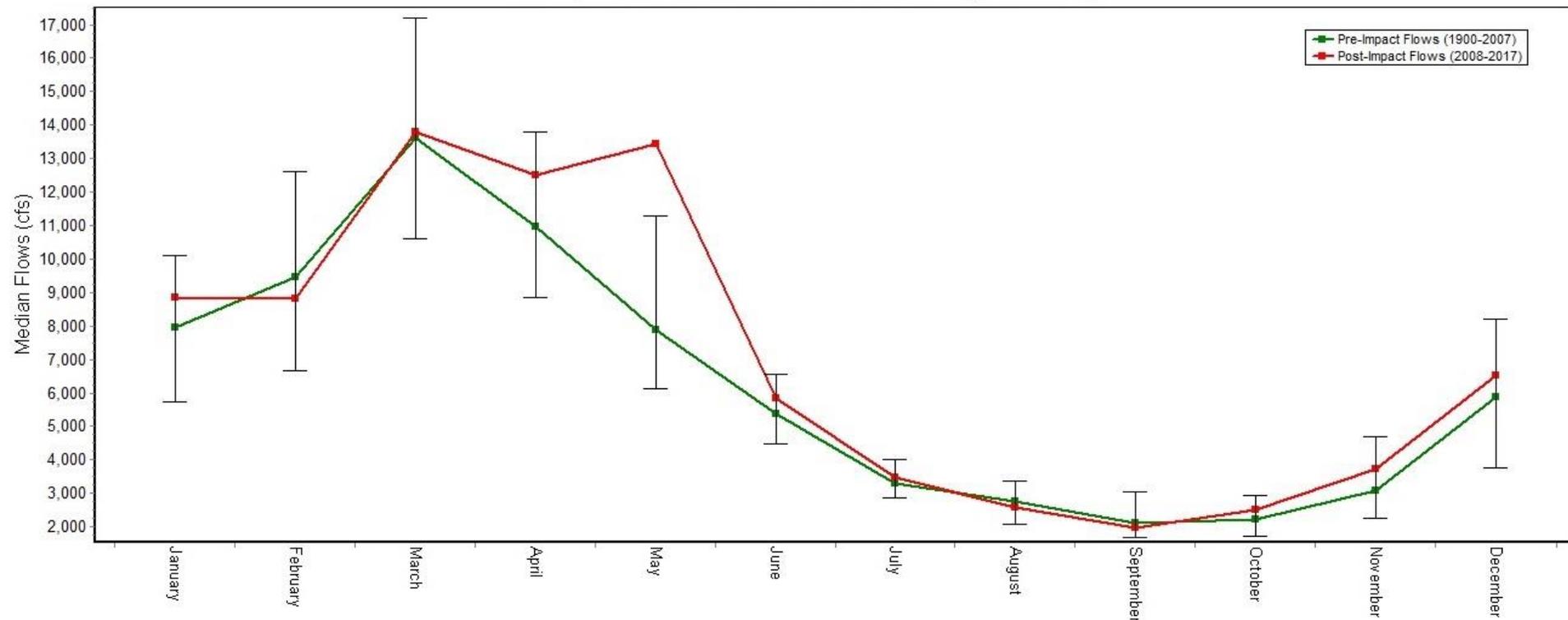
SMB juvenile recruitment versus May river flow levels



Smallmouth Bass



Flow alteration curve for USGS Point of Rocks gage (1900-2017)



Statistically significant higher recent May river flows

Smallmouth Bass



- Problems with juvenile recruitment
 - Poor year-classes (2008-2018)
 - Average seine index score = 0.67 fish/haul (1975-2007 = 1.8)
 - No dominant year-class
 - High spring flows (May-June)
- Adult population
 - Trends over time
 - Differences in river sections
 - Long-term forecast



Smallmouth Bass



Adult monitoring

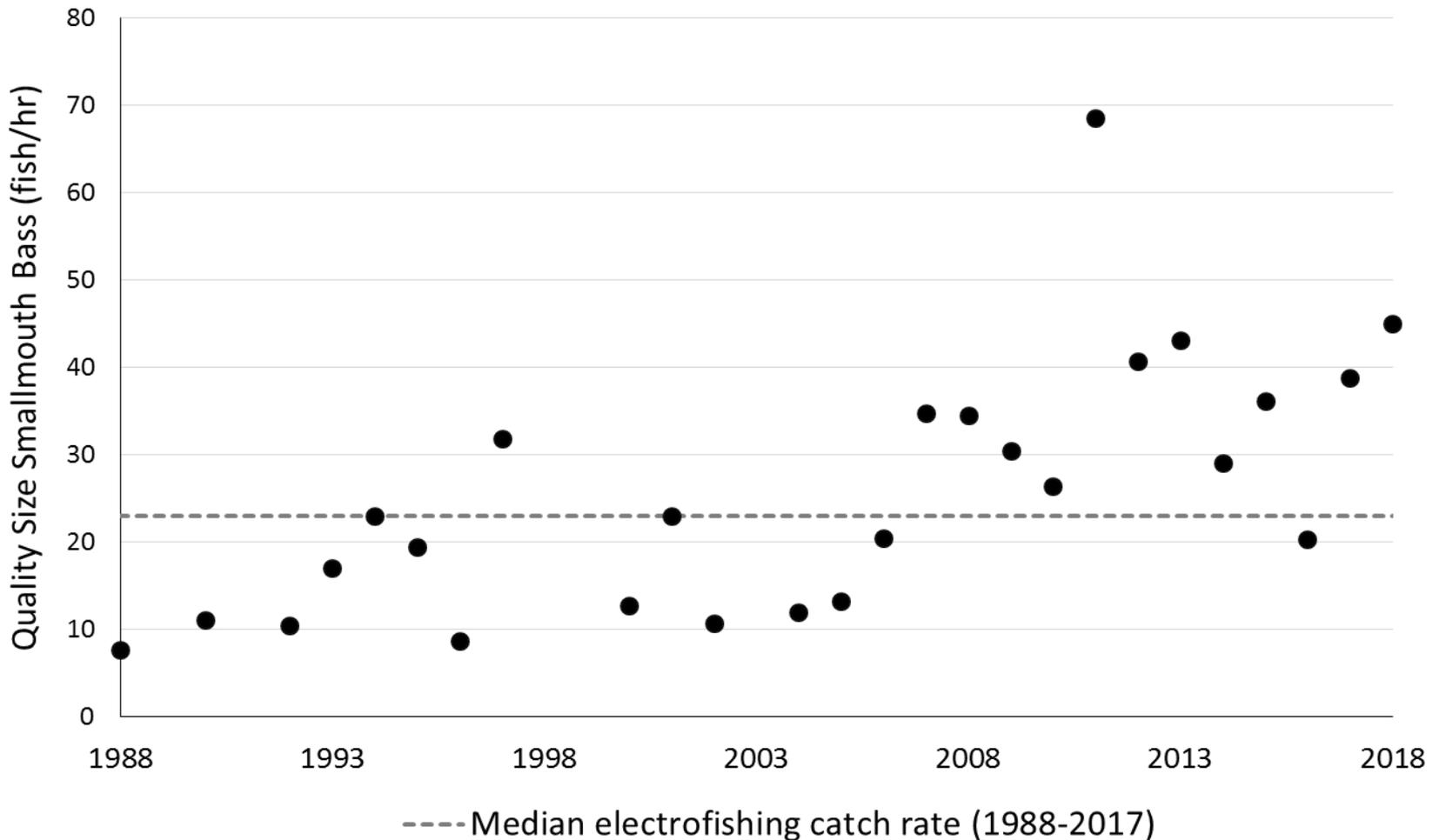
- Annual fall boat electrofishing surveys (1988-current)
- Catch rates and size distribution for different sections of the river
- Bass tournament catch rate data
 - Number of anglers
 - Legal size fish caught



Smallmouth Bass



Annual fall electrofishing adult smallmouth bass catch rates

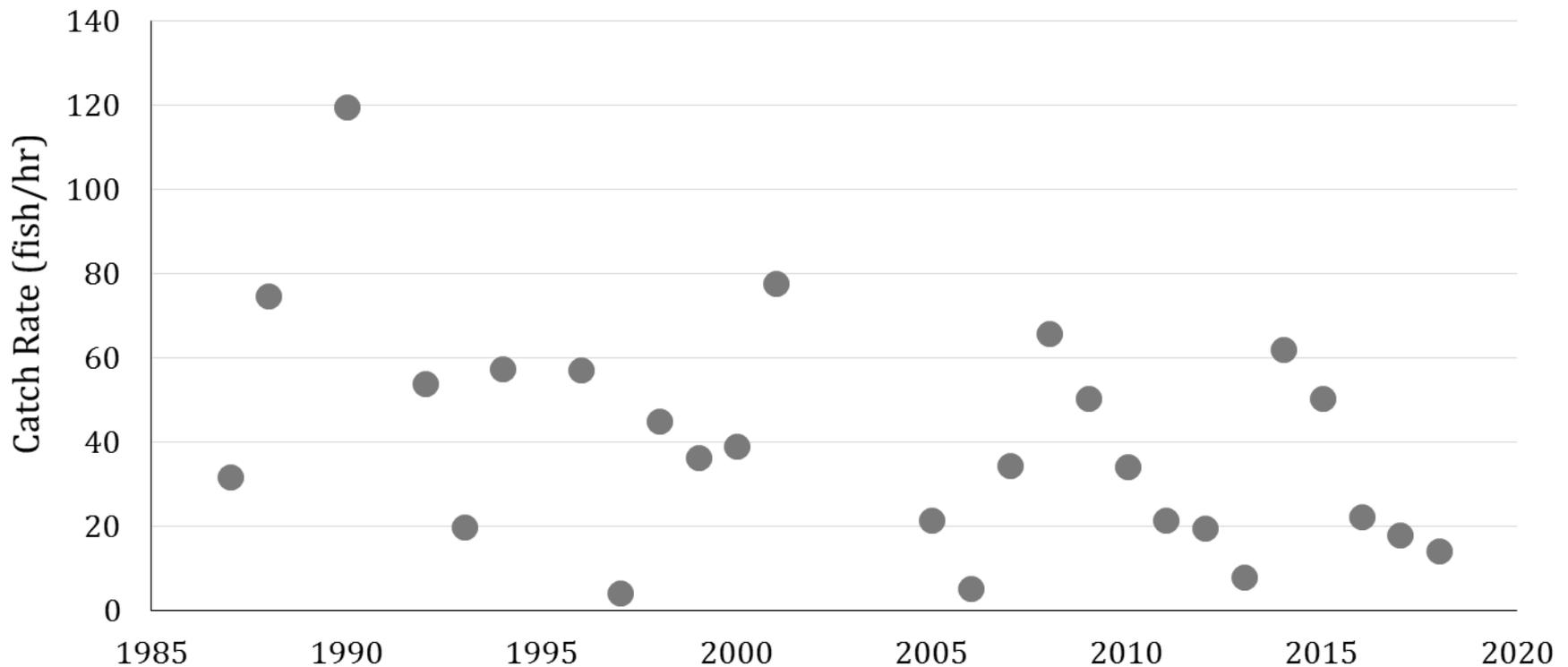


Smallmouth Bass



Stock-Quality size (8 - 11 inches) smallmouth bass catch rates by river section

Lower

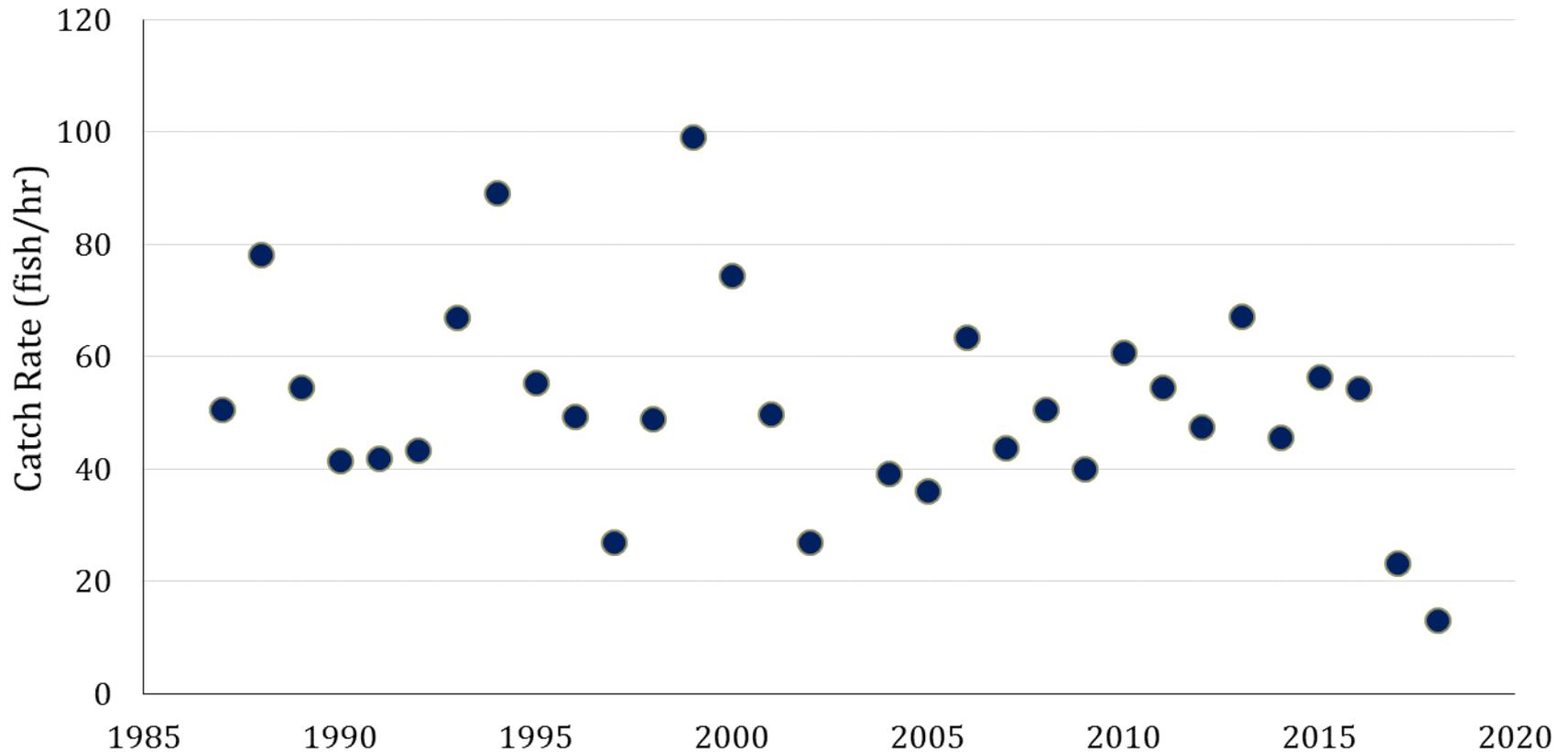


Smallmouth Bass



Stock-Quality size (8 -11 inches) smallmouth bass catch rates by river section

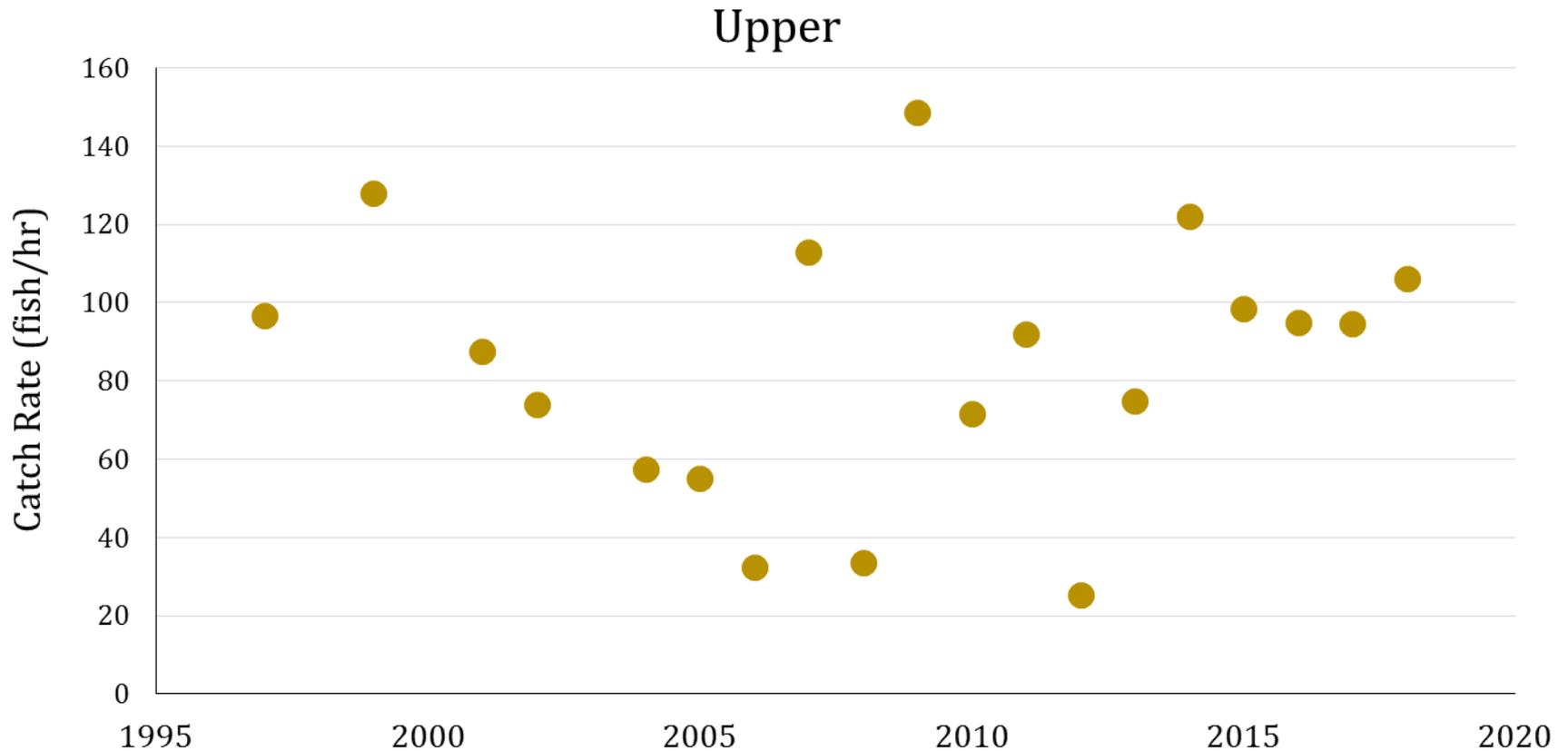
Middle



Smallmouth Bass



Stock-Quality size (8 - 11 inches) smallmouth bass catch rates by river section



Smallmouth Bass



Management Action

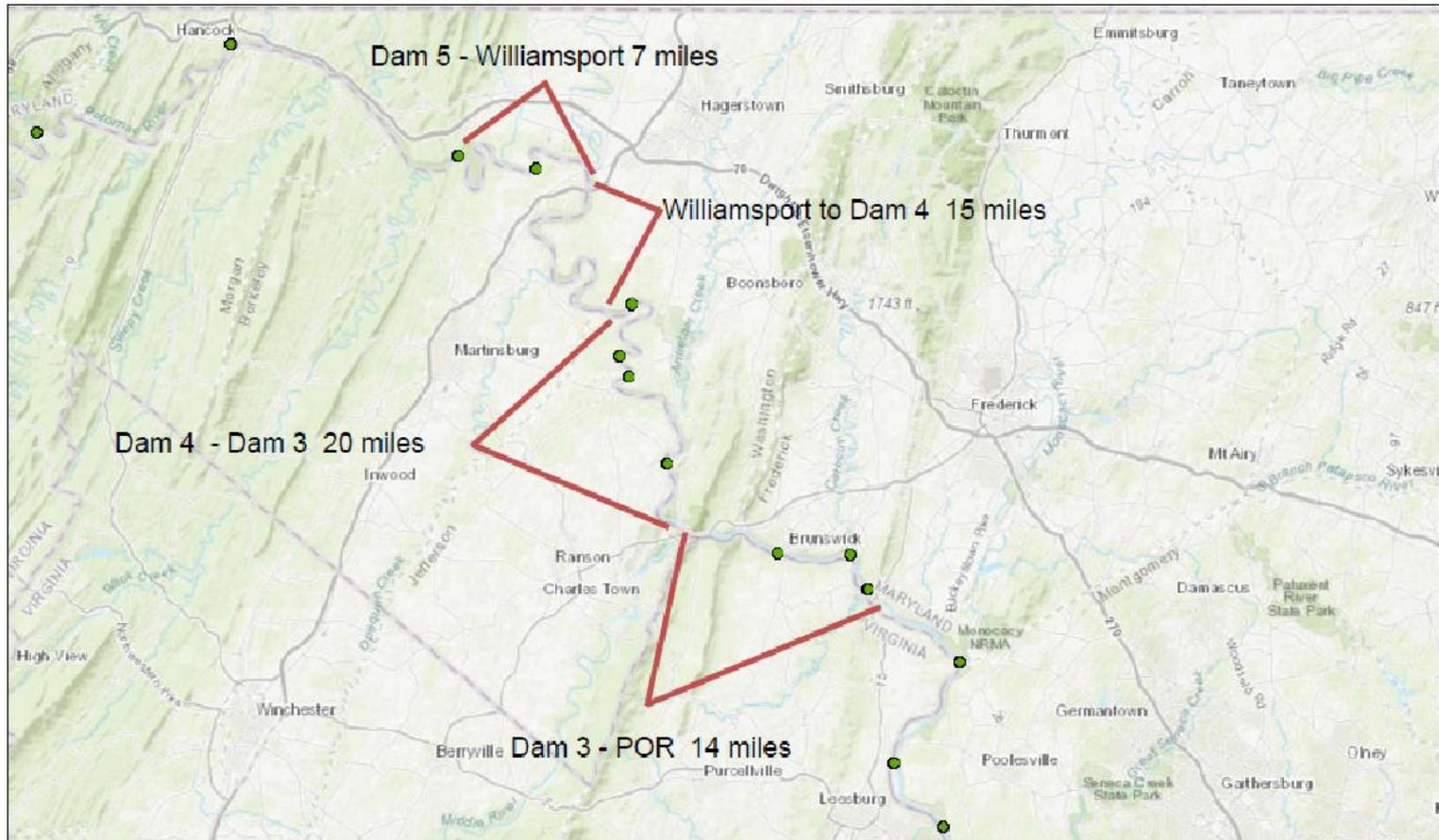
- Smallmouth bass stocking
 - Supplement juvenile recruitment with hatchery raised fingerlings
 - Adult smallmouth bass broodstock collected by anglers from UPR (12-15 pairs)
 - Spawned at a state hatchery (Manning)
 - Broodstock returned to UPR
 - Fingerlings chemically marked to identify hatchery origin
 - Stocked in the UPR at prioritized locations



Smallmouth Bass

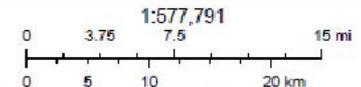


Potential Smallmouth Stocking Locations



11/9/2018, 11:15:32 AM

● Potomac_Surveys



MDDNR Fisheries Staff, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, © OpenStreetMap contributors, and the GIS User Community

Smallmouth Bass



No guarantee of success

- Collecting adult broodstock
- Past hatchery work with Potomac smallmouth bass had limited success
- Late spring/early summer flows may be high
- Survival of stocked fingerlings?
- Contribution of stocked fingerlings to overall fishery?
 - Percentage of marked age 1 smallmouth
 - Maintain or improve angler catch (Tournaments, Volunteer Angler Survey)

Smallmouth Bass



Information for the public

- Distribute handout outlining stocking project plans
- Meet with angler groups, river guides, NGOs
- MD DNR website for this project
 - Background information on fishery, project plan outline
 - Document all steps in the stocking process from start to finish
 - Annual update of results and potential changes to project plans

Thank You!



Michael Kashiwagi
Western II Regional Fisheries Manager
Freshwater Fisheries Program
Fishing and Boating Services
Department of Natural Resources
Lewistown Work Center
10932 Putman Rd
Thurmont, MD 21788
301-898-5443 (office)
michael.kashiwagi@maryland.gov

[Freshwater Fisheries
Program Webpage](http://dnr.maryland.gov/fisheries/Pages/inland.aspx)

<http://dnr.maryland.gov/fisheries/Pages/inland.aspx>