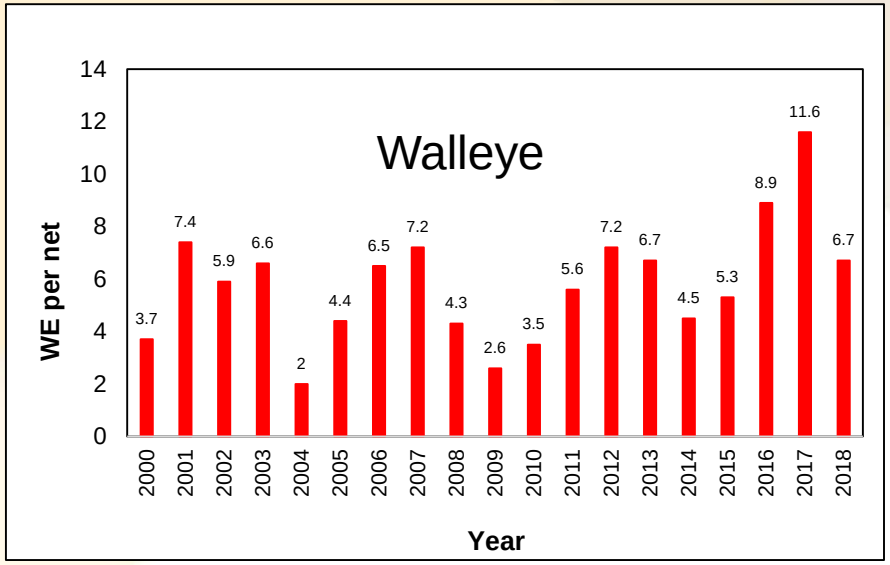
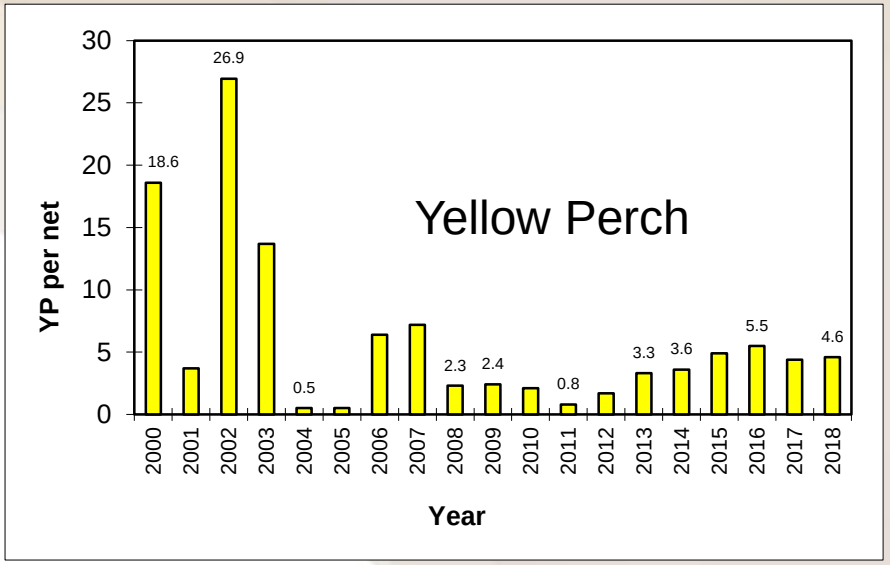
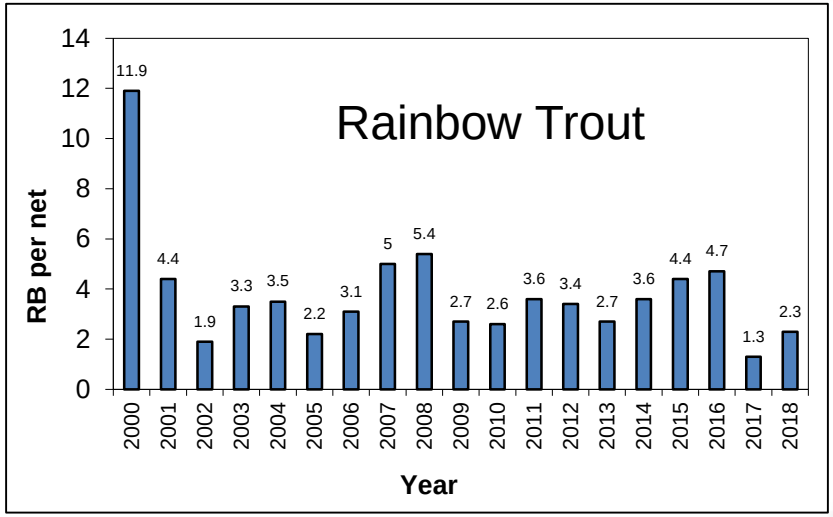
2018 Canyon Ferry Reservoir and Missouri River Fisheries Trends
&
Upper Missouri River Reservoirs Fisheries Management Plan Update

Adam Strainer
Helena Area Fisheries Biologist
(406) 495-3263
astrainer@mt.gov

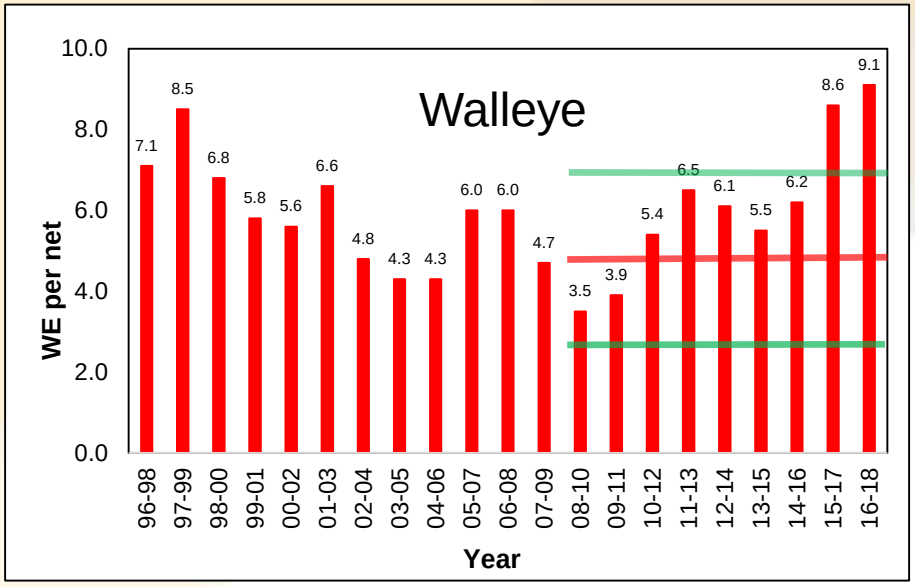
2018 Relative Abundance Gillnetting Surveys

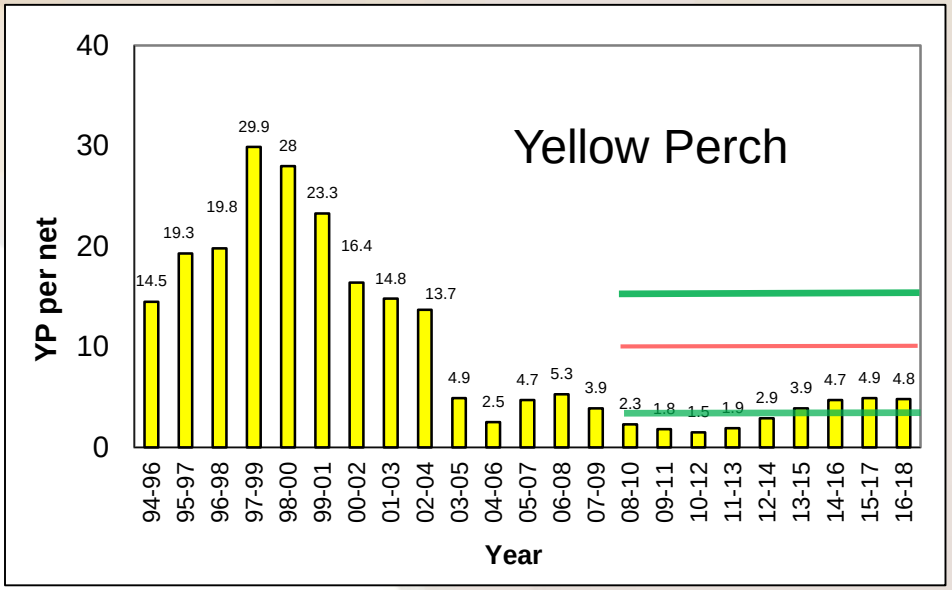






2018 Relative Abundance Gillnetting Surveys – 3 Year Average Trends



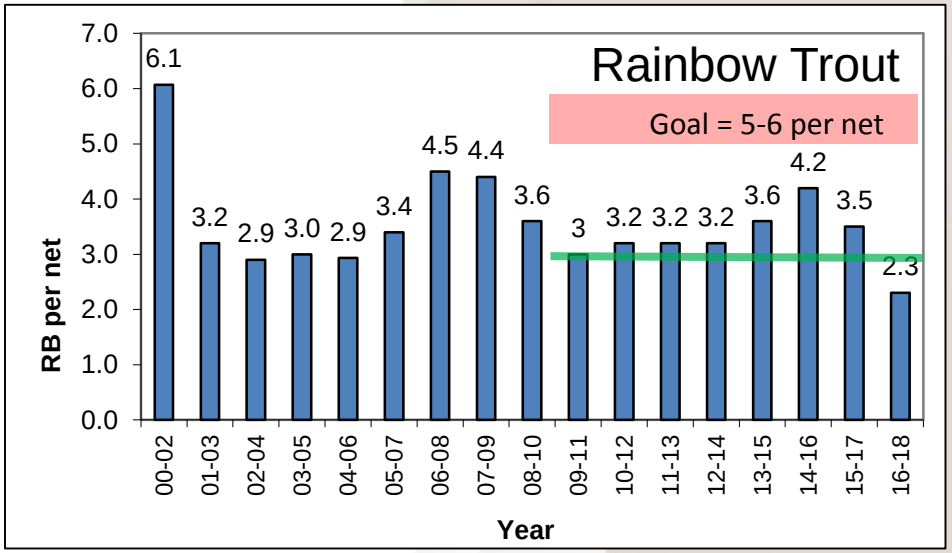


	Canyon Ferry		
	Target Range	Goal	2018
Walleye	3-6.9/net	2-3/net	9.1
Yellow Perch	3-14.9/net	4/net	4.7
Rainbow Trout	>3/net	3/net	2.6

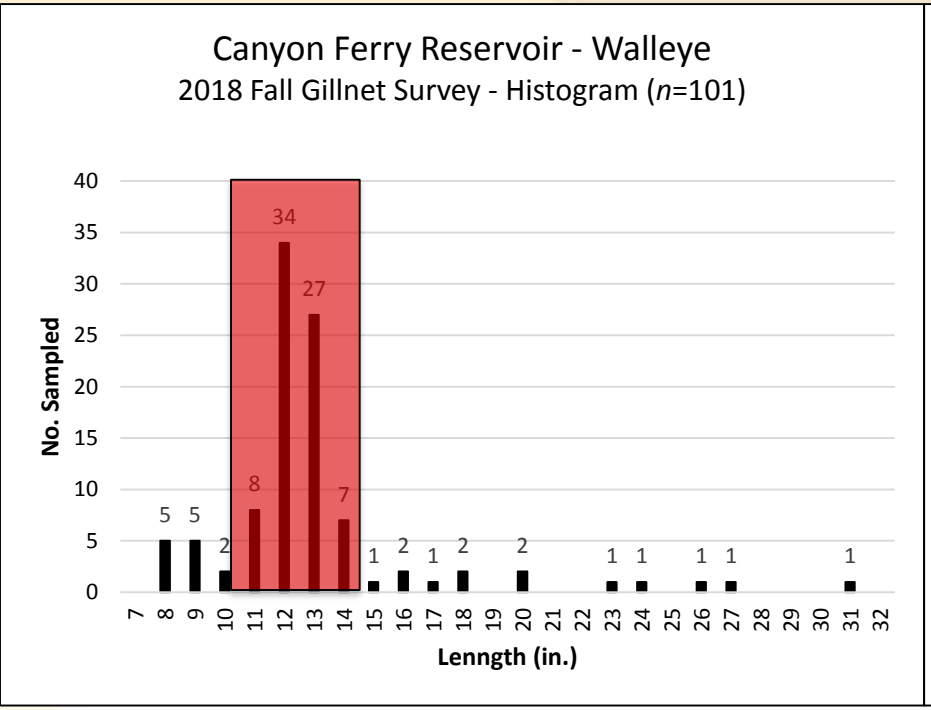
= meets management goals

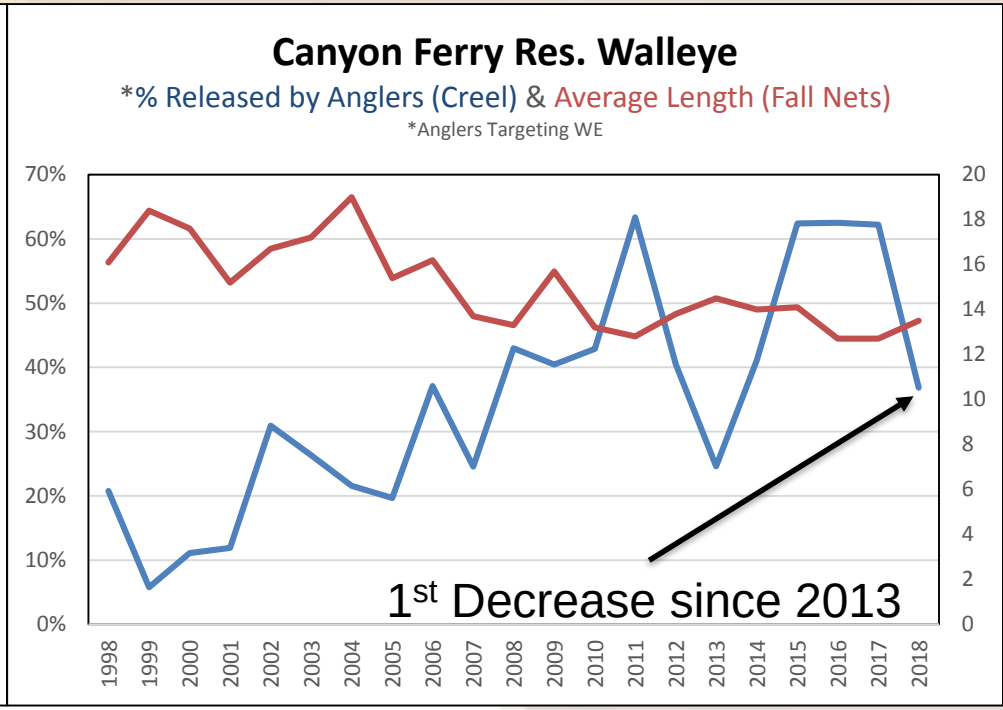
= below management goals, within management range

= exceeds upper or lower management triggers



Canyon Ferry Reservoir Walleye

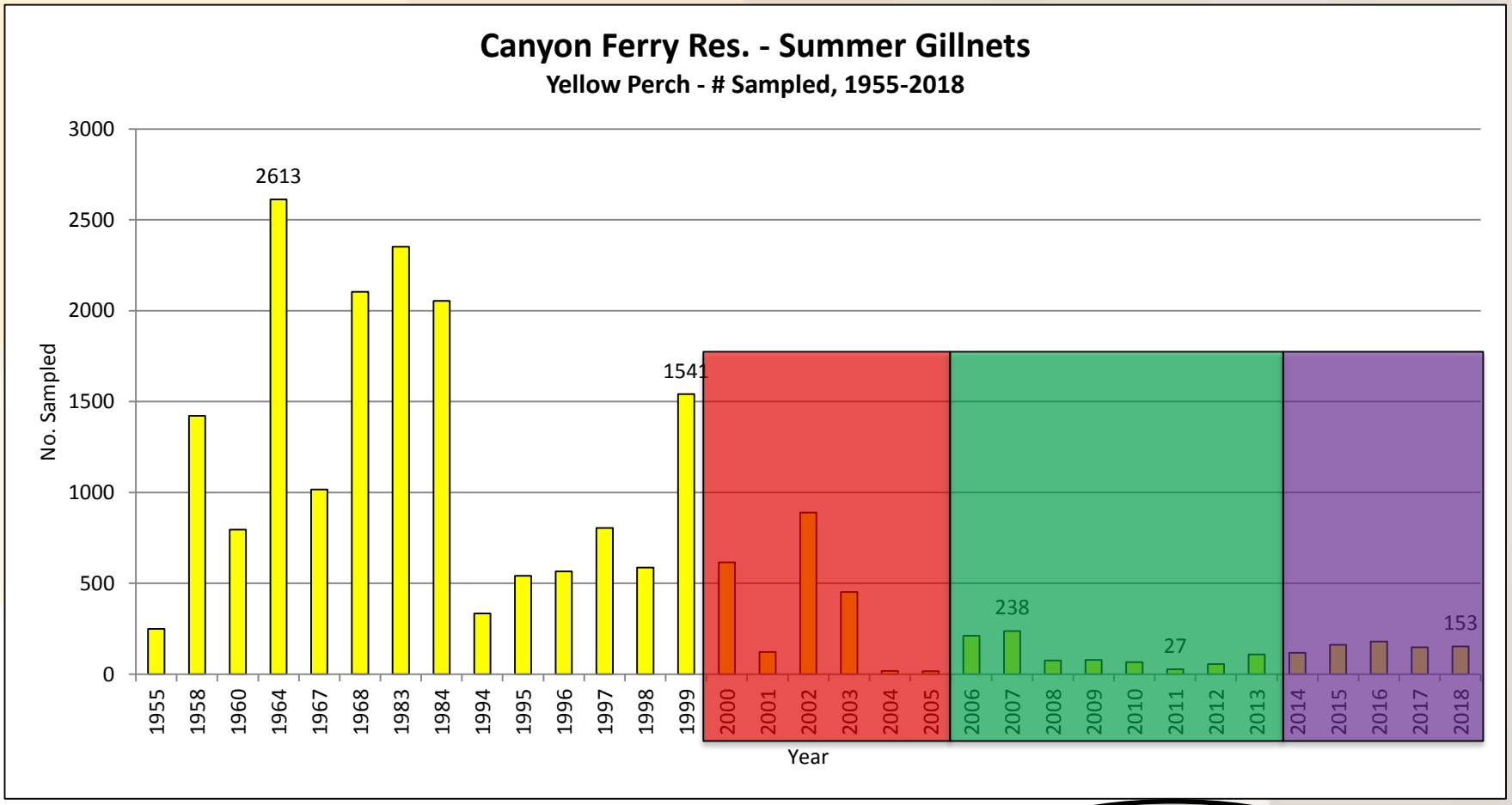




2.7/net in 2019 = Remain Above Upper Trigger

Are small walleye driving anglers away?

Canyon Ferry Reservoir Yellow Perch



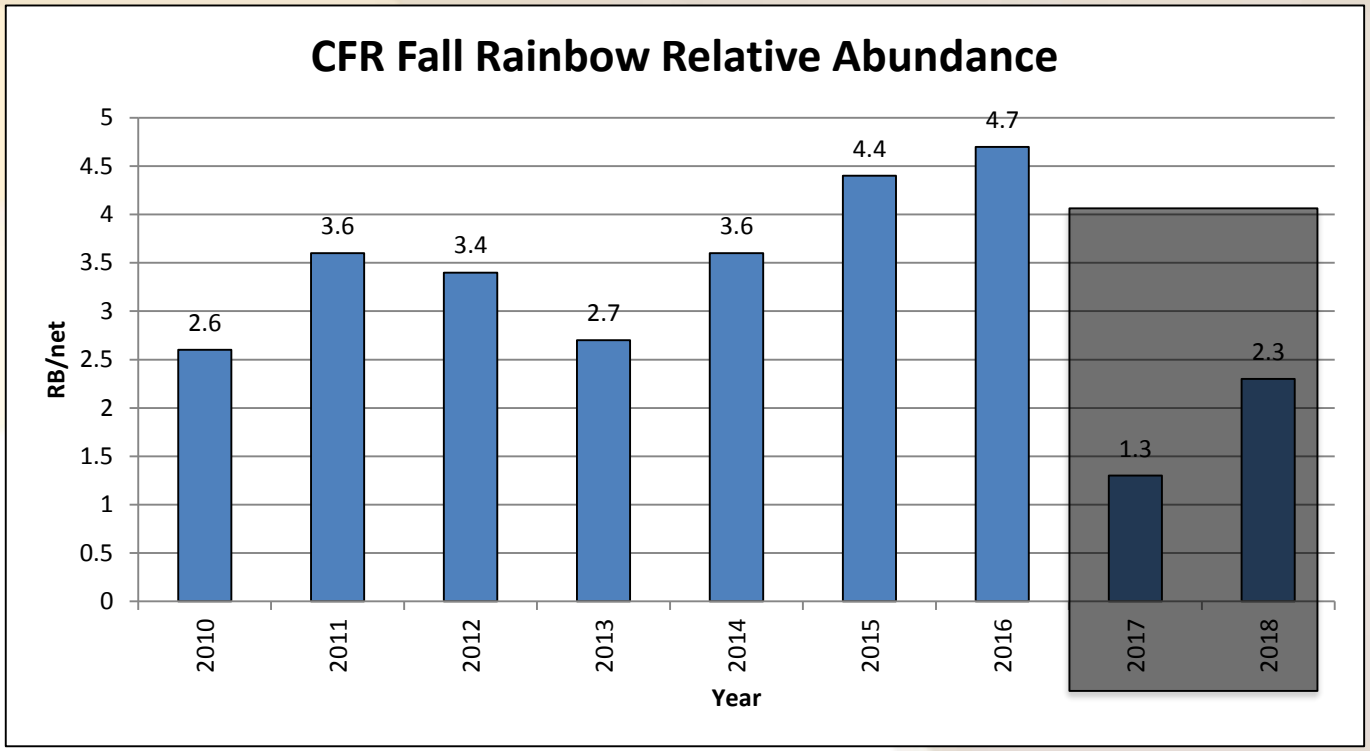
50 daily and no possession

15 daily and in possession

10 daily and in possession

Are small daily and possession limits driving anglers away?

Canyon Ferry Reservoir Rainbow Trout



5.4 per net in 2019 = Above lower trigger

Are current RB densities driving anglers away?

AIS (Mussel) Update

Canyon Ferry Reservoir

- 3rd Year
- Certified Boater Program

http://cleandraindry.mt.gov/Certified-Boaters

PROTECT OUR WATERS

Home | Watercraft Inspections | Certified Boaters | News | Contact Us

Certified Boater Program

What is the Certified Boater Program?

- The Certified Boater program was created to ease the inspection process for boat owners and decrease the volume of boats at decontamination stations at Canyon Ferry and Tiber Reservoirs. It allows watercraft inspectors to focus on boats traveling between many different waterbodies.
- A Certified Boater can depart from the reservoir without going through a full inspection and hot wash if their next boating trip is on this reservoir.
- A Certified Boater can access all OPEN boat ramps within their designated reservoir.
- Boaters must register each year to be in the Certified Boater Program.
- You can complete the certification process online. You must read the tutorial, pass the test, complete a registration form, and sign a contract agreeing to abide by the Certified Boater rules. Remember, you'll need your vessel and trailer licenses numbers and description of all vessels to complete certification.
  - Your Certified Boater decals will be mailed to you within 5-working days. If you want to complete the certification in person, you will need to travel to an FWP regional office to complete the certification process and receive your decals. Remember to bring your vessel and trailer licenses numbers and description of all vessels.

MONTANA CERTIFIED BOATER CANYON FERRY 2019 CLEAN. DRAIN. DRY.

MONTANA CERTIFIED BOATER TIBER RESERVOIR 2019 CLEAN. DRAIN. DRY.

Certified Boater Access Sites on Tiber and Canyon Ferry

Most boat ramps located around Tiber and Canyon Ferry Reservoirs are open to "certified boaters." The maps below indicate the current status of each boat ramp on these waterbodies.

- **Map:** Canyon Ferry Reservoir Access Sites
- **Map:** Tiber Reservoir Access Sites

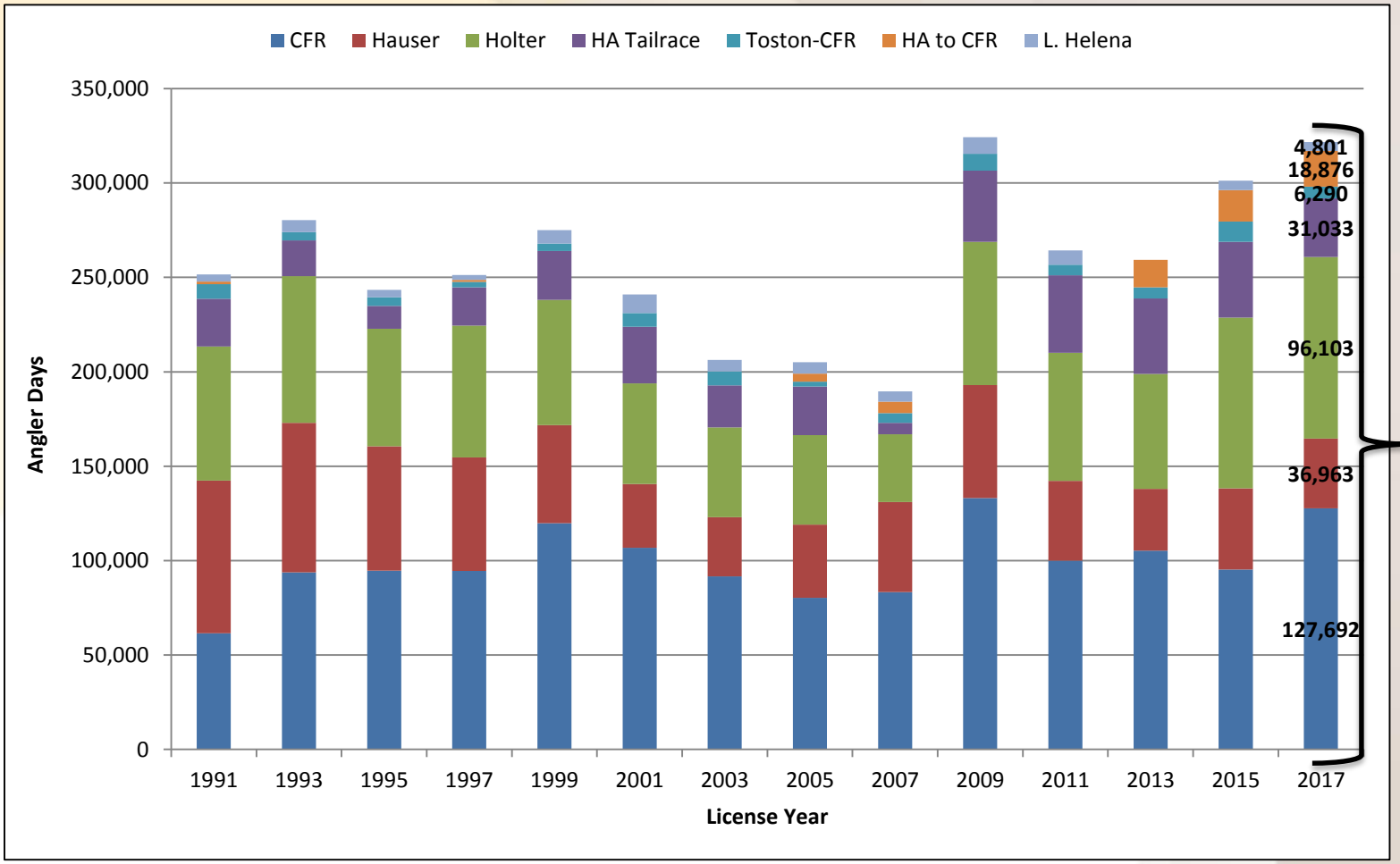
2018 Watercraft Inspection Station Annual Report, 2018

Report Prepared by: Zach Crete, Jorri Dyer, Jessi Gudgel, Russ Hartzell, John O'Bannon, Brant Stephens, and Tom Woolf

AIS issue keeping anglers away?

Angling Pressure

Upper Missouri River Reservoirs Fisheries Management Plan - **#2 All-time**



Report Card

Upper Missouri River Reservoirs Fisheries Management Plan

Walleye

	Target Range	Goal	2010	2011	2012	2013	2014	2015	2016	2017	2018
Canyon Ferry	3-6.9/net	5/net	**3.5**	**3.9**	**5.4**	**6.5**	**6.1**	**5.5**	**6.2**	**8.6**	**9.1**
Hauser	2-5.9/net	2-3/net	**4.5**	**4.5**	**5.2**	**6.1**	**6.8**	**8.4**	**7.4**	**6.9**	**6.9**
Holter	2-5.9/net	4/net	**6.3**	**5.7**	**6.0**	**8.4**	**7.4**	**6.0**	**3.1**	**2.9**	**2.8**

Rainbow Trout

	Target Range	Goal	2010	2011	2012	2013	2014	2015	2016	2017	2018
Canyon Ferry	>3/net	5-6/net	**3.6**	**3.0**	**3.2**	**3.2**	**3.2**	**3.6**	**4.2**	**3.5**	**2.6**
Hauser	>1/net	3/net	**5.0**	**5.2**	**5.9**	**6.4**	**5.2**	**4.1**	**4.0**	**4.0**	**5.3**
Holter	>2/net	6/net	**5.0**	**5.2**	**5.5**	**6.0**	**7.3**	**7.9**	**6.6**	**5.6**	**3.6**

Yellow Perch

	Target Range	Goal	2010	2011	2012	2013	2014	2015	2016	2017	2018
Canyon Ferry	3-14.9/net	10/net	**2.3**	**1.8**	**1.2**	**1.9**	**2.9**	**3.9**	**4.6**	**4.9**	**4.7**
Hauser	1-6.9/net	4/net	**0.6**	**0.4**	**0.4**	**0.7**	**1.6**	**4.2**	**5.3**	**6.6**	**4.3**
Holter	2-9.9/net	6/net	**1.8**	**1.8**	**2.8**	**24.6**	**41.6**	**55.6**	**41.7**	**28.2**	**15.3**

= meets management goals

= below management goals, within management range

= exceeds upper or lower management triggers

Missouri River – Toston Dam to Canyon Ferry

Walleye Movement Study – 2015-2017

Seasonal Movements and Angler Exploitation of an Adfluvial Walleye Population in The Missouri River, Montana

Adam Strainer, Montana Fish, Wildlife & Parks, 930 Custer Avenue West, Helena, MT 59620

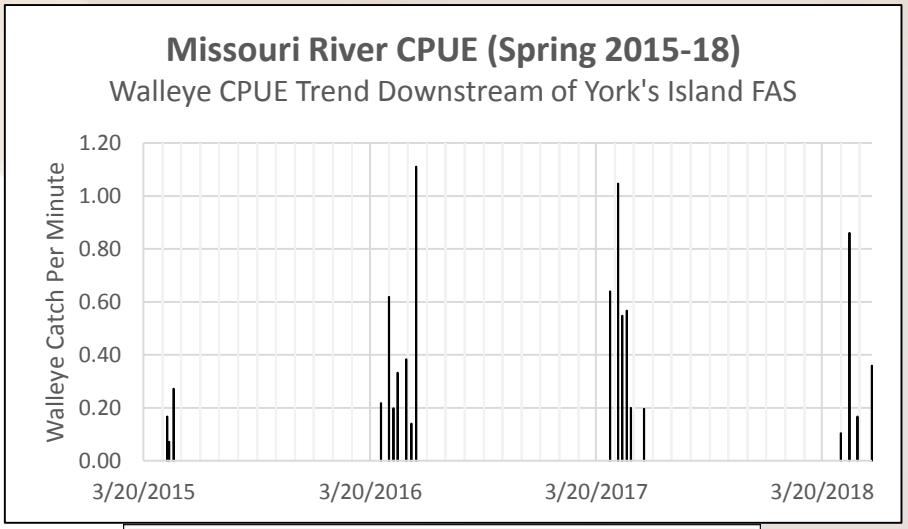
Abstract

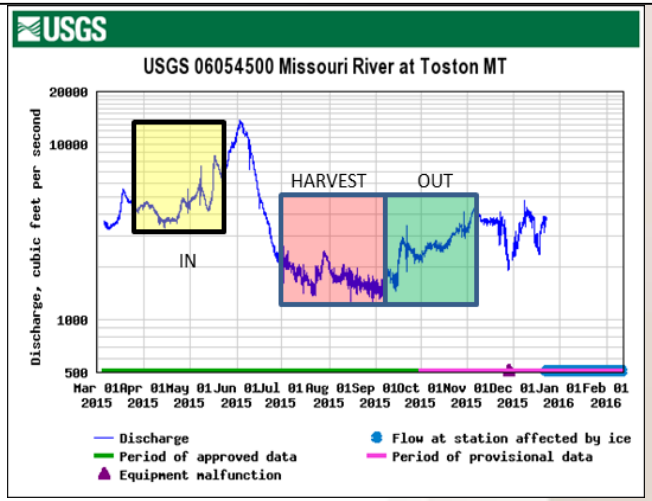
An unauthorized introduction of walleye in Canyon Ferry Reservoir (CFR) challenges fisheries managers as the population pioneers new habitat upstream in the Missouri River. Montana Fish, Wildlife & Parks (MFWP) confirmed walleye in the river upstream of CFR in 2007. Angler tag returns suggested walleye were abundant in the river. It was unknown if these were adfluvial walleye originating in CFR, or a discrete fluvial population. Understanding seasonal movements and ecology of walleye in the river will allow managers to effectively monitor and manage these fish. The objectives of this study were to monitor radio and anchor-tagged walleye movements to quantify movements and determine if two distinct populations exist, establish spatial and temporal densities within the river, and calculate exploitation rates of walleye by anglers in the river. Overall, most radio-tagged walleye relocated in the river, 88 percent river and 100 percent CFR implanted fish, exhibited seasonal adfluvial movements suggesting, similar to other studies, that two distinct walleye populations are not present. Adfluvial walleye were concentrated in the lower 6.4 km of the river during the annual ascending hydrograph, maintained maximum upstream extent throughout the summer, and out-migrated into CFR by late fall. Radio-tagged walleye only used the river between 17 March and 27 November. We estimated walleye exploitation rates were 21 percent for CFR-tagged walleye and 13 percent for river-tagged walleye. Exploitation rates for anchor-tagged walleye in this study reflect CFR exploitation rates (18% from 2010-2014) just prior to this study. These results suggest that adfluvial Missouri River walleye are seasonally abundant and exploited at similar rates as lacustrine CFR walleye, but no changes to current river walleye management strategies are recommended. In addition, routine walleye population monitoring surveys and a creel survey are warranted as the adfluvial CFR walleye population continues to adapt, expand, and establish.

Key Words: walleye, adfluvial, Missouri River, exploitation, radio telemetry, radio tag, anchor tag, reservoir fisheries Montana

Introduction

In 1989, a novel population of walleye (*Sander vitreus*) was discovered in Canyon Ferry Reservoir (CFR) in central Montana (MFWP 1991). Based on back-calculated length at age, walleye were likely introduced into CFR in the early 1980's (Yerk 2000). Given abundant spawning habitat (McMahon 1992), this population was expected to prosper. Concern over this new population, and its effects on one of the most popular recreational fisheries in Montana (Colby and Hunter 1989) prompted an investigation of the basic biology of the species in the upper Missouri River system to understand the potential trophic level and community changes that could occur as the fish community approached an equilibrium. In addition, an upstream range extension into the Missouri River was possible since reservoir walleye populations routinely migrate to tributary river spawning locations, typically in early spring (Forney 1963, Scott and Crossman 1973, Olsen et. al 1978), and a sizeable proportion may persist in deep pools throughout the river during



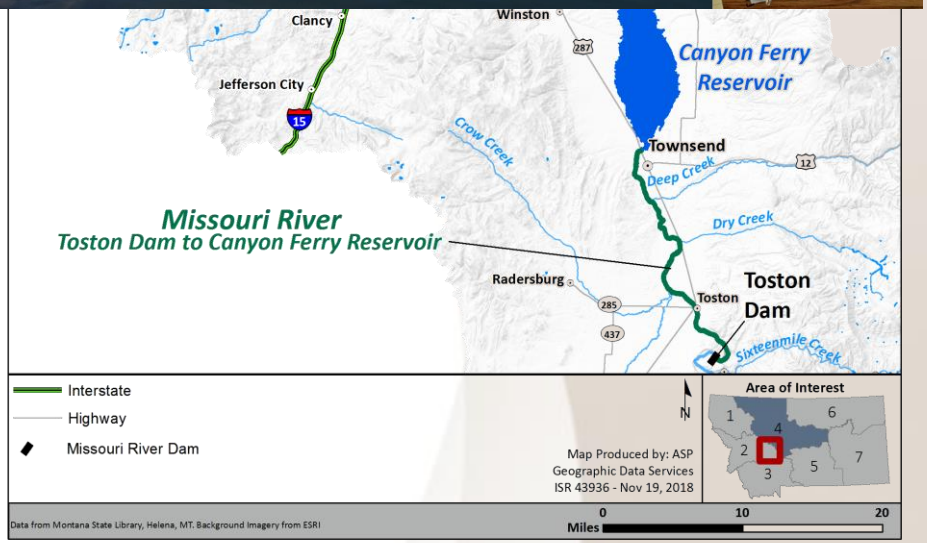


River walleye are adfluvial Canyon Ferry Reservoir walleye

CFR – Two ‘new’ species in 2018

Golden Shiners (7)

Kokanee (1)

Upper Missouri River and Reservoir Fisheries Management Plan (UMRR Revision Update:

- **Outreach began -** in Spring 2017
- **FWP Proposed 5 Changes –** April 2018
  - Citizen Scoping Committee
  - Open Houses (5)
  - Denied by FWP Commission Oct. 18
    "Back to the drawing board"
- **On-line survey and Open Houses (3) -** Dec. 2018
  - Presented outreach results – Feb. 2019
- **Citizens Working Group – Spring 2019**
  - Draft Plan Alternatives
  - Public Scoping - Summer 2019
  - Draft 2020-2029 UMRRFMP – Summer/Fall 2019
  - Present Draft Plan to Commission – Oct. 2019
    - Additional Public Comment
  - Present Final Plan to Commission – Dec. 2019