



# MONTANA FISH, WILDLIFE & PARKS

## Job Progress Report

**STATE:** Montana      **PROJECT:** Statewide Fisheries Management

**JOB TITLE:** Yellowstone River Paddlefish Investigations-3740

**FEDERAL GRANT:** F-113-R-17

**PROJECT PERIOD:** July 1, 2019 through June 30, 2020

**REPORT PERIOD:** April 1, 2020 through March 30, 2021

### Short Report:

The Yellow Tag Paddlefish season (Lower Yellowstone and Missouri River below Fort Peck Dam) in Montana was cancelled in 2020 due to the Covid-19 pandemic as was the harvest season in North Dakota. The nature of the fishery was not well suited to the guidelines proposed by the Governor's Office at the time (e.g. social distancing, crowd sizes of less than 25 people). The only sanctioned recreational fishing for the Yellowstone Sakakawea population occurred in North Dakota in a 7-day catch and release season beginning on May 15<sup>th</sup>. Collection for jaw tagging Paddlefish did not occur in either Montana or North Dakota in 2020. Fish Wildlife and Parks (FWP) crews captured and released Paddlefish as bycatch in trammel nets while conducting Pallid Sturgeon related work beginning in late April and throughout May in the lower Yellowstone River near Fairview, Montana. Encounters continued in June as FWP crews handled Paddlefish at Intake and near the mouth of the Powder River. During 2020, fifty-two telemetered Paddlefish were observed in the Yellowstone River (Table 1). Thirty Paddlefish migrated up to Intake. Of those Paddlefish that reached Intake Diversion Dam one migrated past by going over the diversion dam on May 31, 2020 (Figure 1). This telemetered Paddlefish continued to the Powder River but was not observed going into the Powder River. The Powder River had an early peak discharge of 4,120 CFS on March 9, 2020 but offered no attractive flow during the Paddlefish spawning window (May-June). Peak daily discharge at the Sidney United States Geologic Survey (USGS) gage station was recorded at 52,700 cubic feet per second (CFS)

on June 5, 2020. In response to presence of a gravid wild adult female Pallid Sturgeon, larval sampling was conducted at river mile 1 of the Tongue River (46.398497 -105.854192), in the Yellowstone River below the Tongue River confluence (46.420950 -105.859610), and in the Yellowstone River below the Powder River confluence (46.764480 -105.418153). Samples were taken between June 12<sup>th</sup> and June 24<sup>th</sup>. Acipenser larva were captured in the Tongue River but not in the Yellowstone River samples. These are expected to come back from genetic analysis as sturgeon. Past larval sampling in the Powder River (46.737683 -105.429215) related to Pallid Sturgeon has resulted in Paddlefish bycatch and subsequently documented Paddlefish reproduction in the Powder River in 2017 and 2019 (Table 2). Larval sampling from 2014-2019 occurred during the same date range (June 12-27) as larval sampling in 2020. A standard Paddlefish season beginning on May 15<sup>th</sup>, with staggered harvest and catch and release days and operating under a 1000 fish cap is expected in 2021.

Prepared by: \_\_\_\_\_

Caleb Bollman

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Waters Referred to: Yellowstone River Sec. 1 21-1350-02

<b>Key Words:</b>	Paddlefish	Larval Sampling
	Yellowstone River	Powder River
	Radio Telemetry	

Table 1. Summary of movements of telemetered Paddlefish in Yellowstone River and tributaries during 2020.

Upstream Movements	Total	Farthest Upstream Extent (RM)	Date Range
<b>Recorded in Yellowstone River</b>	<b>52</b>		
To Intake	30		
Move Past Intake	1		
<i>Via Joe's Island Side Channel</i>	0		N/A
<i>Over Dam</i>	1		5/31/2020
To Powder River	1	146.8	
Into Powder River	0		N/A
Move Past Powder River	0		

Table 2. Summary of larval sampling upstream of Intake Diversion Dam and number of Shovelnose Sturgeon (S STRG), Paddlefish (PF) and Unidentified Acipenser as determined by genetic identification 2014-2020.

Upstream Intake Larval Sampling										
Location					Date and Effort		Catch			
Year	River	RM	Latitude	Longitude	Date Range	Days Sampled	Acipenser captured	# S STRG	# PF	# Unidentified
2014	Powder	0.5	46.73772	-105.4292	June 19-25	7	139	139	0	0
2016	Powder	0.5	46.73772	-105.4292	June 13-20	6	4*	-	-	-
2017	Powder	0.5	46.73772	-105.4292	June 12-19	7	38	25	9	4
2018	Powder	0.5	46.73772	-105.4292	June 12-27	7	130	130	0	0
2019	Powder	0.5	46.73772	-105.4292	June 17-27	5	135	108	14	13
2020	Tongue	1	46.39852	-105.8541	June 12-22	8	233	awaiting genetic ID		
2020	Yellowstone	182	46.42086	-105.8596	June 15-19	4	0	-	-	-
2020	Yellowstone	144	46.76455	-105.4183	June 23-24	2	0	-	-	-

\*not sent for genetic ID, no known adult P STRG passage at Intake

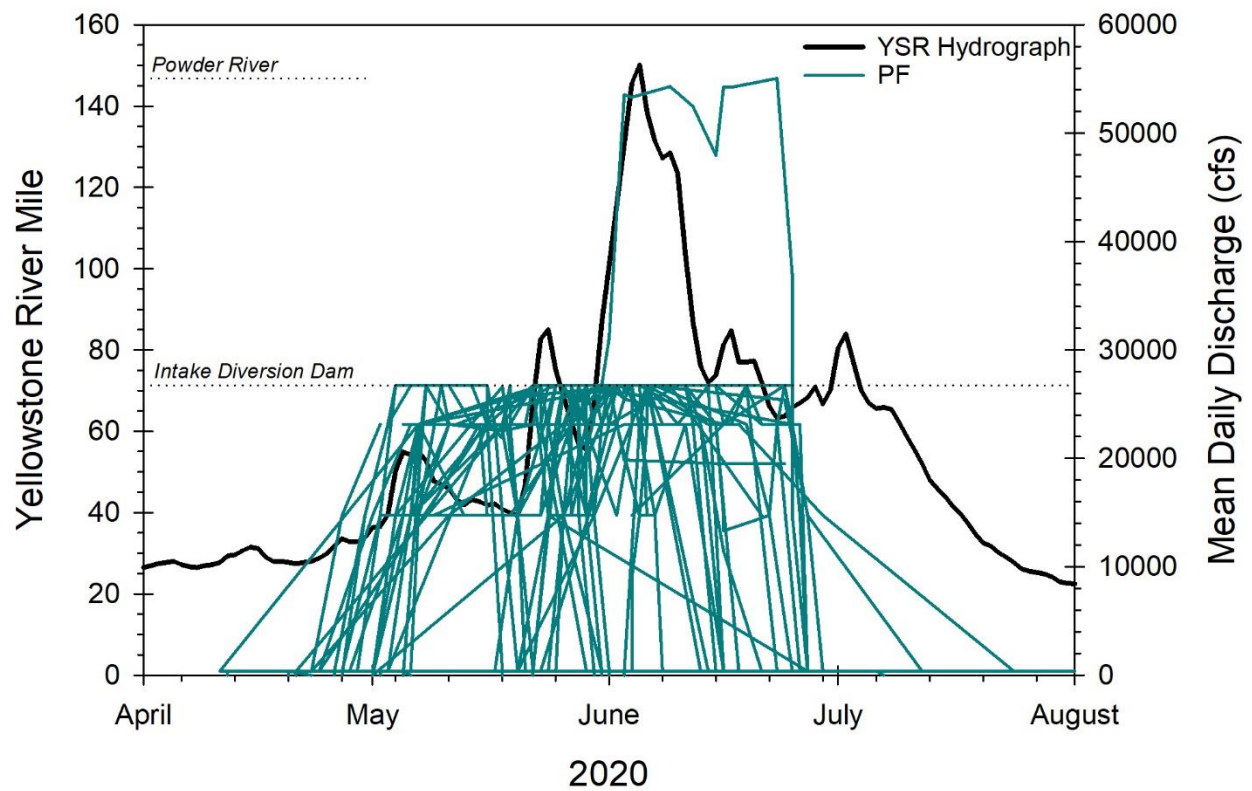


Figure 1. Movements of 52 telemetered Paddlefish in the Yellowstone during 2020. Yellowstone river miles on the primary y-axis, Yellowstone River discharge (CFS) at Glendive on the secondary y-axis, and date on the x-axis (by Mat Rugg and Jordan Pesik. Yellowstone River Radio Telemetry & Intake Passage Summary. 2020).