2025 ANNUAL REPORT

Project Title

Removal of smallmouth bass (*Micropterus dolomieu)* in the Upper Colorado River between Rifle, Colorado, and the confluence with the Green River, Utah.

Bureau of Reclamation Agreement Numbers and Grant Periods:

U.S. Fish and Wildlife Service, USBR Agreement O2501-014-014-064326 (10/01/2024 through 9/30/2029)
Colorado Parks and Wildlife, USBR Agreement R23AP00309 (6/05/2023 through 9/30/2027)
Utah Division of Wildlife Resources, USBR Agreement R24AP00262-02 (5/28/2024 through 9/30/2028)

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Abstract:

The primary purpose of this study is to remove as many non-native smallmouth bass as possible, of all size-classes, from main channel riverine habitats in three distinct sections of the Colorado River: 1) a 66-mile reach from between the Grand Valley Water User's (GVWU) dam in Colorado, downstream to the Westwater boat landing in eastern UT; 2) a 52-mile reach between Rifle, CO and Beavertail Mountain in CO; 3) a 67-mile reach from Lower Westwater Canyon (Bighorn Camp) in Eastern Utah downstream to Potash boat landing. This is the twenty-first year of this study, which started in 2004. In years that Colorado pikeminnow (*Ptychocheilus lucius*) abundance estimate work in the Colorado River is occurring, the lower 47.2 miles of the Colorado River from Potash to the confluence with the Green River also receive removal efforts. Additional removal efforts from other projects are further described under tasks.

In our riverine reaches we removed 10,261 smallmouth bass. Catches of age-0 smallmouth bass indicate weak year classes (< 100 mm) were produced in years 2021 through 2024 in the Upper Colorado River. In 2025, a below average (in magnitude and duration) spring peak hydrograph advantaged young age-0 smallmouth bass production and a warmer than average summer and fall water temperatures further advantaged their growth going into winter. A strong cohort of bass produced in 2020 made up a large proportion of our 2025 adult (≥ 200 mm) smallmouth bass electrofishing catch. However, most reaches had reduced 2025 adult smallmouth bass catch rates (0 to 3.5 fish per hour {fish/hr} with a mean catch rate of 1.06 fish/hr) when compared to record catches experienced in 2022 (0 to 6.9 fish/hr with a mean catch rate of 3.70 fish/hr), and 2023 (0 to 4.5 fish/hr with a mean catch rate of 2.09 fish/hr).

Study Schedule:

2004-Ongoing

Relationship to RAP:

Recovery Action Plan (RAP) | Upper Colorado Website (coloradoriverrecovery.org)

- Element: Nonnative Fish
    - Focus Area: Reduce Impacts
        - Objective:
          Reduce the densities of smallmouth bass populations within the range of the listed species (30 SMB >200mm TL/mile)

Accomplishment of 2025 Tasks and Deliverables, Discussion of Findings and Shortcomings:

Task 1. Remove all sizes of smallmouth bass, other centrarchids, and other non-native species as deemed appropriate and described in state (Colorado and Utah) collection permits.

Task completed. The fiscal year (FY) 2025, USFWS 126a scope of work (SOW), called for six removal passes in the Grand Valley, CO (river mile (RM) 193.7 to 152.6). An island that has been expanding near the boat ramp at Cameo, CO has made it impossible to get boats out of the river when working this reach at base flows (e.g., the Colorado River from the GVWU roller dam downstream to Cameo; RM 193.7 to 189.8). Therefore, we moved additional effort to reaches we could access during base flows and have implemented removing bass with a jet driven electrofishing jon boat from the plunge pools below the GVWU dam. In FY 2025, we completed between two and eleven passes in the Grand Valley reaches (Colorado RM 187.9 to 152.6 and Gunnison RM 3.0 to 0.7). The 126a SOW also calls for two removal passes through Ruby Horsethief Canyon (RM 152.6 to 127.6), and, in FY 2025, two full passes were completed in addition to two days of extra effort in shorter portions of the reach. Four full passes were completed from lower Westwater Canyon to Takeout Beach (RM 114.0 to 74.2), two passes were completed from Takeout Beach to Moab Bridge (RM 74.2 to 64.2), and two passes were completed from Moab Bridge to Goldbar (RM 64.2 to 54) in FY 2025. An additional ten days of targeted removal were also expended in the reach from lower Westwater Canyon to Cisco (RM 114.0 to 111.0), two days from Fish Ford to Onion Creek (RM 105.8 to 85.2), and one day from Takeout Beach to Moab Bridge (RM 74.2 to 64.2).

USFWS also expended electrofishing effort targeting Colorado pikeminnow for project 127. While smallmouth bass are not targeted during these efforts, they are removed when encountered. In 2025, five passes were completed in the upper reach (Colorado RM 187.9 to 124.8 and Gunnison RM 3.0 to 0.7) and three passes were completed in the lower reach (Colorado RM 112.3 to 0.0).

USFWS also expended electrofishing effort while monitoring the fish community composition for project 163. All fish are targeted during these efforts and smallmouth bass are removed when encountered. In 2025, two days of effort were completed in the Grand Valley between Colorado RM 163.1 and RM 153.0.

In 2025, Colorado Parks and Wildlife (CPW) crews sampled three reaches of the Colorado River between Rifle (RM 242.9) and Rulison (RM 232.1), Rulison (RM 232.1) and Parachute (RM 224.4), and Parachute (RM 224.4) to Una Bridge (218.0) CO as part of Project 126b. Each reach was sampled over a single day by two electrofishing rafts, for a total of three days of electrofishing within target habitat types (backwaters, rip rap, eddies) in accordance with the 2025 SOW for Project 126b. During the 2025 Colorado River surveys no northern pike (*Esox lucius*) were captured. Due to low flows in 2025, crews were unable to navigate the

Colorado River downstream of Una Bridge. Project 126b has been restructured to sample the reaches between Parachute and Beavertail only during high-flow years. In those years, the sampling consists of three days of smallmouth bass and northern pike targeted sampling during base flows (Table 1).

The Colorado River was sampled between Granstaff Canyon (RM 66.8) and the Moab Bridge (RM 64.2) UT by UDWR crews as part of project 123d. One day of targeted electrofishing effort was expended.

These efforts resulted in the removal of 33,815 non-native fish from the Colorado and lower Gunnison Rivers and connected habitats. The catch was dominated by smallmouth bass (30.3%), largemouth bass (*Micropterus salmoides*; 24.8%), green sunfish (*Lepomis cyanellus*; 24.6%), white sucker (*Catostomus commersonii*; 6.5%), black bullhead (Ameiurus melas; 5.5%), gizzard shad (*Dorosoma cepedianum*; 2.7%), and bluegill (*Lepomis macrochirus*; 1.8%; Figure 1). Additionally, these efforts collected data from threatened and endangered fish encountered, and they include: 58 bonytail (*Gila elegans*) encounters, 192 Colorado pikeminnow encounters, nine humpback chub (*Gila cypha*) encounters, 1,518 razorback sucker (*Xyrauchen texanus*) encounters, and 28 encounters of flannelmouth x razorback sucker hybrids.

Task 2. a) Analyze data; b) Prepare annual RIP reports.

Results (2025 Highlights)

Annual hydrology and potential effects on Colorado River smallmouth bass phenology

Hydrology can have dynamic effects on river dependent biota's phenology. Colorado River smallmouth bass are no exception. We hypothesize that hydrologic classifications based on snowpack are generally indicative of smallmouth bass production, but other annual climatic factors are important as well, such as air and water temperature and summer monsoon rains. Elevated spring flows, from snowmelt, decrease river temperatures. Bestgen and Hill (2016) suggest smallmouth bass spawning occurs at 16° C in the upper Colorado River basin, which generally coincides with the descending limb of the spring hydrograph. Coble (1975) suggests that smallmouth bass growth does not occur until water temperatures reach 10-14° C. The Edwards et al. (1983) models suggest that optimal temperature for smallmouth bass fry first peaks at 13.9° C. Additionally, Bestgen and Hill (2016) suggest that smallmouth bass greater than 50 mm total length prior to going into the winter have a good chance of survival. Decreased and prolonged cooler river temperatures from spring runoff may result in delayed smallmouth bass spawning, later hatching of larvae, or even weak, young smallmouth bass fry being swept away from nests or quiet near-shore habitat resulting in high mortality. Protracted spring flows can lead to a shorter growing season and, ultimately, reduced growth for age-0 smallmouth bass. These young life stages can be subject to high mortality to age-1 due to a myriad of environmental factors over the winter. Small age-0 smallmouth bass going into winter may be susceptible to higher overwinter mortality because their relatively small body size limits energetic reserves that may run out before spring arrives. Multiple modes, or peaks, during spring runoff could cause the river to warm between modes and initiate the beginning of smallmouth bass spawning, and then the second pulse of water could sweep the fry off their nests and displace guarding male smallmouth bass leaving the remaining eggs or fry to be predated upon. Early summer monsoons can achieve the same. Dry annual hydrology can benefit smallmouth bass with river temperatures reaching 16 ° C earlier in the year aiding reproduction, extending their growing season prior to winter, and by concentrating potential prey items to a constricted channel.

For 2025, the Colorado River experienced a well below average spring hydrograph both in magnitude and duration. The Colorado River, in late summer/fall 2025, experienced below average base flows (Figure 2). High catch rates of age-0 smallmouth bass, in 2025, and warmer than average fall/early winter water temperatures suggest that the annual hydrology benefitted this year's smallmouth bass production and growth going into the winter in the Upper Colorado River (Figure 3).

Smallmouth Bass Size Distribution–Length Frequency

Length frequency of all sizes of smallmouth bass collected with electrofishing by CPW, UDWR, and USFWS, during 2025 between Rifle, CO and the confluence with the Green River, UT were graphed (Figure 4). All age groups of smallmouth bass (age-0, juveniles, and adults) were present in the 2025 spring/summer/fall collections. These ranged from age-0 (23 mm) to adult (446 mm) fish with a mean total length of 112 mm. A total of 10,261 smallmouth bass were removed, including 252 considered to be piscivorous competitors to Colorado pikeminnow (≥ 325 mm). Smallmouth bass produced in 2020 were major contributors to our 2025 adult catch (Figure 4). It is worth noting that the adult size class made up most smallmouth bass collected from the Colorado River, in years 2022 through 2024 with annual decreases in catch rate. Age-0 smallmouth bass dominated our 2025 collections at 71%.

Catch/Effort:

General

Mean catch/effort (fish/hr) was calculated separately for smallmouth bass, by size-class, for each sampling year and is provided graphically (Figure 3). To view the "big picture," for some analyses, river reaches, and removal passes were consolidated. Catch rates were calculated separately for Rifle to Una Bridge, the Grand Valley River reaches (GVWU Dam to Westwater Wash, UT, plus the lower Gunnison River), and lower Westwater Canyon to Potash, UT (Figures 5 through 7).

Rifle to Una Bridge, CO

Catch rates of smallmouth bass in the Rifle to Una Bridge reaches have been generally in decline since 2005 (Figure 5) when Rifle Gap Reservoir was determined to be a source of northern pike and walleye collected from the Colorado River, from 2005 through 2007, in this reach via otolith laser ablation and stable isotope fingerprinting (Johnson et al, 2014). Smallmouth bass and other centrarchids and percids are also present in the reservoir. In 2013, CPW installed a Coanda style fish screen in the tail water of Rifle Gap Reservoir in Rifle Creek. CPW monitors the screen and conducts annual electrofishing surveys of Rifle Creek to ensure that the screen is effective at preventing accidental emigration from Rifle Gap Reservoir and those data show that the screen is very effective at preventing escapement of non-native fish (CPW, 2024). Smallmouth bass spawning success in these reaches appears to be less than that found in the Grand Valley reaches. In 2025, CPW collected and removed 21 juvenile age-0 smallmouth bass (<100 mm) from this reach at a rate of 1.4 fish/hr (3rd highest annual catch rate for this reach; Figure 5). Five subadult smallmouth bass (100-199 mm) were removed from the Rifle to Parachute reach. Four adult smallmouth bass (≥200 mm) were removed from the Rifle to Parachute reach (n=2) and Parachute to Una Bridge reach (n=2). Emigration from downstream populations of smallmouth bass to populate this reach is unlikely as it is separated by the GVWU Roller Dam and Fish Passage that has a fish trap that allows managers to remove undesirable non-native fishes. A small population of smallmouth bass persists in this reach and likely contributes to the larger population found downstream in the Grand Valley.

GVWU (roller dam) to Loma, CO, and the bottom 2.7 miles of the Gunnison River (15- & 18-Mile Reaches)

Prior to the early 2000's smallmouth bass catch rates in the Colorado River were low. During springtime Colorado pikeminnow population monitoring, in 2004, increased catch rates in the Grand Valley and Ruby Horsethief Canyon caused concern and preempted the Upper Colorado River Endangered Fish Recovery Program to institute mechanical removal of this species in these reaches (McAda & Burdick, 2007). Conditions (see annual hydrology section above) were conducive to high levels of smallmouth bass production in 2007, 2010, 2012, 2013, 2018, 2020 and 2025 (Figure 6). However, these young bass don't always recruit in a measurable way to the adult population. Year-classes produced in 2010, 2012, 2018 and 2020 had measurable recruitment in future year(s) adult (> 200 mm) smallmouth bass catch rates (Figure 6). Record and high adult catch rates were experienced in 2020 and 2021 (2018 year-class), 2022 (2018 and 2020 year-classes), and 2023 and 2024 (2020 year-class; Figure 6). In 2025, USFWS crews removed 8,649 smallmouth bass (84% of the total catch river-wide) of all size classes from these reaches (Table 1). Fortunately, 2025 adult bass catch rates were low at < 2.0 fish/hr in all reaches apart from the GVWU dam plunge pool sampling (3.5 fish/hr; Figures 3 and 6).

The dry annual hydrology experienced in 2018, 2020, and 2025 is advantageous for smallmouth bass in the 15-mile reach (Price Stubb dam to the confluence with the Gunnison River, RM 188.3 to 170.9) and 18-mile reach (confluence with the Gunnison River to Loma, RM 170.9 to 152.6) providing ideal habitat (clean gravel and small cobble in low velocity flows) and temporally suitable temperatures (>15.9° C) for spawning and precluding our ability to efficiently remove or disadvantage them by boat mounted electrofishing (in some reaches). In 2025, declining adult smallmouth bass catch rates were experienced river-wide when compared to 2024, apart from sampling in the GVWU dam plunge pool. However, the highest adult catch rates in the Grand Valley reaches were documented just above and at the top end of the 15-mile reach (Figure 3) and is likely where most spawning occurred. In 2025, the second highest annual catch rates of age-0 smallmouth bass were documented in all Grand Valley reaches (9 fish/hr; Figure 6) many of which likely hatched in the 15-mile reach. This reach highlights the importance of continued mechanical removal of this species if recovery of imperiled native species is to be ever achieved. It also demonstrates the importance of keeping boatable levels of water in the 15-mile reach so managers can further exploit this population of bass. Flows, as measured at the US Geological Survey Gage 09106150 below the Grand Valley Diversion of over 1,100 cubic feet per second (cfs) are needed to boat the reach from Price Stubb to Riverbend, flows of over 550 cfs are needed to boat the reach from Riverbend to Corn Lake, and flows of over 700 cfs are needed to boat the reach from Corn Lake to Redlands Parkway. The USFWS Programmatic Biological Opinion (1999) for water depletions in the 15-mile reach has flow recommendations for the benefit of recovering threatened and endangered fishes. In dry hydrologic years base flow targets of greater than 810 cfs are recommended. Our targeted non-native fish removal work in these reaches typically occurs from the beginning of July through the end of October, trying to avoid the Colorado pikeminnow spawning window. In 2018, and in years 2020-2022 and 2025, 50-78% of this sampling window had flows less than 810 cfs as measured at the gage below Grand Valley Diversion. Obligations to other projects and this reduced window of boatable flows hampers our ability to achieve the desired passes and exploitation rates of smallmouth bass in some sections of the 15-mile reach in many years.

Loma, CO to Westwater Wash, UT (Ruby Horsethief Canyon)

Primary production of smallmouth bass in the GVWU to Westwater Wash reaches likely happens in the 15- & 18-mile reaches of the Grand Valley (see Figure 3 graph depicting catch rates of juvenile 0-99 mm bass). Spring flows, in the year following hatch, likely sweep young bass into the canyon bound reaches of Ruby Horsethief Canyon (RM 152.6 to 124.8). In many years, catch rates of 100-199 mm bass are highest in the Loma (RM 152.6) to Faultline 2 (RM 141.2) reach. As these fish mature into adult bass some likely stay in the canyon while others likely swim upstream and repopulate the 15- & 18-mile reaches and continue their lifecycle. In 2025, USFWS crews removed 392 smallmouth bass and catch rates of all size classes of smallmouth bass combined were low at less than 3 fish/hr (Table 1, Figure 3).

Lower Westwater Canyon to Potash, UT

An increased catch rate of walleye during springtime 2013 Colorado pikeminnow population monitoring, in the reaches between Lower Westwater Canyon and the confluence of the Colorado River with the Green River, led to extra non-native fish removal efforts in the reaches from Lower Westwater Canyon (RM 114.2) to Potash (RM 47.2) as part of Projects 126a and 123d beginning in 2015 (Francis, 2015). Investigations though 2017 didn't detect concerning catch rates of age-0 smallmouth bass in these reaches, suggesting that the juvenile and adult population may be the primary result of emigration. In 2018, age-0 catch rates were over 0.4 fish/hr suggesting that production was occurring in these reaches. In 2025, an annual catch record for age-0 smallmouth bass was documented at 0.6 fish/hr. From 2020 through 2022, the adult smallmouth bass catch rates in these reaches were some of the highest when compared to the rest of the Upper Colorado River. The spatial distribution of all size classes of smallmouth bass expanded from a concentration in the Lower Westwater Canyon to Dewey Bridge reaches downstream to Moab Bridge. In 2025, USFWS and UDWR crews removed 1,163 smallmouth bass from these reaches (Table 1). Fortunately, 2025 catch rates of adult smallmouth bass in these reaches were reduced when compared to 2024 (Figure 7).

Standardized Tables and Figures

Beginning in 2022, the Recovery Program has tasked the database manager, Chris Michaud, to generate standardized Tables and Figures from STReaMS that can be easily compared to other similar work being completed in other reaches within the Upper Colorado River Basin. Those that were not referenced in this summary of work can be found in the appendix at the end of this report.

Additional observations:

In 2025, an additional ten smallmouth bass were collected and removed from the Colorado and lower Gunnison rivers. Three smallmouth bass were collected and removed from the GVWU Fish Passage fish trap. Five smallmouth bass were also collected and removed from the Redlands Dam Fish Passage fish trap. During project 127, USFWS crews removed two adult smallmouth bass from the Colorado River in Meander Canyon below Potash, UT (Table 1).

Please see basin-wide reporting for further analysis of other problematic non-native fish species removed by these projects.

Recommendations:

1. Continue to collect and lethally remove all centrarchids from the Colorado and Gunnison rivers during all Grand Junction FWCO field station activities that include sampling on the Colorado and Gunnison rivers.

2. For dry hydrologic years, in the 15-mile reach, conduct a feasibility study considering different experimental flow management options that may disadvantage smallmouth bass production. Once an option is determined to be feasible begin implementation in future dry years.

3. Investigate and implement management measures to prevent escapement of smallmouth bass and other piscivorous fishes into riverine areas from bodies of water known to be occupied by species that could negatively impact native riverine fishes. A temporary screen was placed on the drain from Clifton Nature Pond in May 2021; CPW is funding a 60% design for a permanent structure. East/West Pond needs a permanent outlet screen installed.

4. Continue having CPW sample the Upper Colorado reaches from Rifle to Beavertail Mountain in De Beque Canyon. Efforts should continue to focus on targeting ideal nonnative fish habitat in years with above average flows.

5. Increase the number of non-native fish removal passes in the river reach between the Loma Boat Landing and Westwater Ranger Station, UT from two to four passes in response to high catch rates of juvenile smallmouth bass from 2020-2023 in this reach after large year-classes were produced in Grand Valley reaches in 2018 and 2020 and were likely swept into the canyon by spring flows. The large 2025 year-class of age-0 smallmouth bass produced in the Grand Valley will likely follow the same pattern.

6. Suspend all electrofishing operations when it's determined that Colorado pikeminnow show signs of preparing to spawn (e.g., mid- to late-June) in the 15 & 18-mile reaches. Electrofishing will be suspended during this period to eliminate the likelihood of harassment, interference, and injury to spawning Colorado pikeminnow. Operations will resume following cessation of Colorado pikeminnow spawning which should be sometime in mid- to late-July.

7. In future years, return the number of removal passes to eight (or more) to further exploit a smallmouth bass population in the Upper Colorado River Grand Valley reaches.

8. Increased catch rates of smallmouth bass and walleye from Lower Westwater Canyon to Potash, UT suggests a higher level of exploitation of these populations is warranted. More passes are recommended in these reaches including some effort during the off years for project 127 in the reach from Potash to the confluence with the Green River.

9. Poor boat ramp conditions at base flows can create non-native fish sanctuaries from a lack of river access and the inability to suppress their populations. The Recovery Program should work with the entities who manage/own these areas/ramps to keep them operational. The current Cameo boat ramp is on private property owned by V&S Holdings LLC. USFWS GJ-FWCO currently has a verbal agreement to use their ramp. This ramp is only useable for crews coming downstream to this location during some spring runoff events, depending upon the amount of in-river flow. With a formal agreement the Recovery Program

could install a boat ramp that is useable year-round, approx. 2/10 of a mile upstream of the current one, upstream of the island complex, which makes the current ramp unusable during base flows. Another option would be working with either the Town of Palisade or Grand Valley Water User's to put a ramp in 1/10 to 1/2 of a mile downstream of the current Cameo ramp. In 2025, the Program office began conversations with land ownership entities seeking a future solution.

Project Status:

On track, ongoing.

Data Submission Status:

126a data was uploaded into STReaMS 11/10/2025.
126b data was uploaded into STReaMS 12/05/2025.
123d data was uploaded into STReaMS 9/26/2025.
127 data was uploaded into STReaMS 10/16/2025.
163 data was uploaded into STReaMS 12/01/2025.

Signed:

Travis Francis
Principal Investigator
12/12/2025

Literature Cited

Bestgen, K. R., and A. A. Hill. 2016. River regulation affects reproduction, early growth, and suppression strategies for invasive smallmouth bass in the upper Colorado River basin. Final report submitted to the Upper Colorado River Endangered Fish Recovery Program, Denver, Colorado. Department of Fish, Wildlife, and Conservation Biology, Colorado State University, Fort Collins. Larval Fish Laboratory Contribution 187.

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Johnson, B.M., B. Wolf, and P.J. Martinez. 2014. Chemically Fingerprinting Nonnative Fish in Reservoirs. Final Report of Project C18/19 to the Upper Colorado River Endangered Fish Recovery Program.

McAda, C.W., and B.D. Burdick. Removal of Smallmouth Bass in the Upper Colorado River between Price-Stubb Dam near Palisade, Colorado, and Westwater, Utah. Annual Report from the U.S. Fish and Wildlife Service to the Upper Colorado River Endangered Fish Recovery Program, Project Number 126a. Grand Junction, Colorado.

U.S. Fish and Wildlife Service (USFWS). 1999. Final Programmatic Biological Opinion for Bureau of Reclamation's Operations and Depletions, Other Depletions, and Funding and Implementation of Recovery Program Actions in the Upper Colorado River Above the Confluence with the Gunnison River December 1999.

Table 1. 2025 smallmouth bass CPUE by Colorado and Gunnison River reach.

Reach Name	Gear Code	Sampling Date Range	Sampling River Mile Range	Total Effort (hr)	Number of Smallmouth Bass Encountered	Fish/Hour
Rifle to Rulison	EL	Sep 16 - Sep 16	239.1 - 242.9	5	2	0.4
Rulison to Parachute	EL	Sep 17 - Sep 17	227.3 - 232	5	19	4.51
Parachute to Una	EL	Sep 18 - Sep 18	218 - 224.4	5	9	1.86
GVWU Dam to Cameo	EL	Jul 03 - Sep 08	193.7 - 193.7	4	43	11.59
Price Stubb to Riverbend Park	EL	Apr 23 - Jun 27	184.2 - 187.7	20	35	1.76
Riverbend Park to Corn Lake	EL	Apr 03 - Oct 17	177.4 - 184.2	97	1,003	10.37
Corn Lake to Redlands Parkway	EL	Apr 01 - Oct 24	166.8 - 177.4	204	4,218	20.72
Redlands Diversion to Colorado Confluence	EL	Apr 07 - Oct 20	Gunnison River 0.7 – 3.0	46	220	4.82
Redlands Parkway to Fruita State Park	EL	Apr 10 - Oct 30	157.1 - 166.8	121	2,340	19.37
Fruita State Park to Loma Boat Launch	EL	Apr 04 - Oct 31	152.6 - 157.2	75	790	10.51
Loma Boat Launch to Fault Line 2	EL	Apr 15 - Aug 13	139.2 - 152.7	81	246	3.03
Fault Line 2 to Westwater Ranger Station	EL	Apr 30 - Aug 14	127.4 - 139.6	60	131	2.19
Westwater Ranger Station to Big Hole	EL	Apr 11 - Jun 17	124.6 - 127.7	9	15	1.60

Reach Name	Gear Code	Sampling Date Range	Sampling River Mile Range	Total Effort (hr)	Number of Smallmouth Bass Encountered	Fish/Hour
Lower Westwater Canyon to Fish Ford	EL	Apr 07 - Nov 03	104.1 - 114.2	94	667	7.06
Coats Creek to Dewey Bridge	EL	Apr 08 - Oct 27	94.4 - 105.7	73	165	2.26
Dewey Bridge to Takeout Beach	EL	Mar 31 - Oct 23	74.1 - 94.5	137	277	2.02
Takeout Beach to Potash	EL	Apr 01 - Nov 06	47 - 74.3	137	54	0.39
Meander Canyon	EL	Apr 28 - Jun 12	0 - 47.2	106	2	0.02

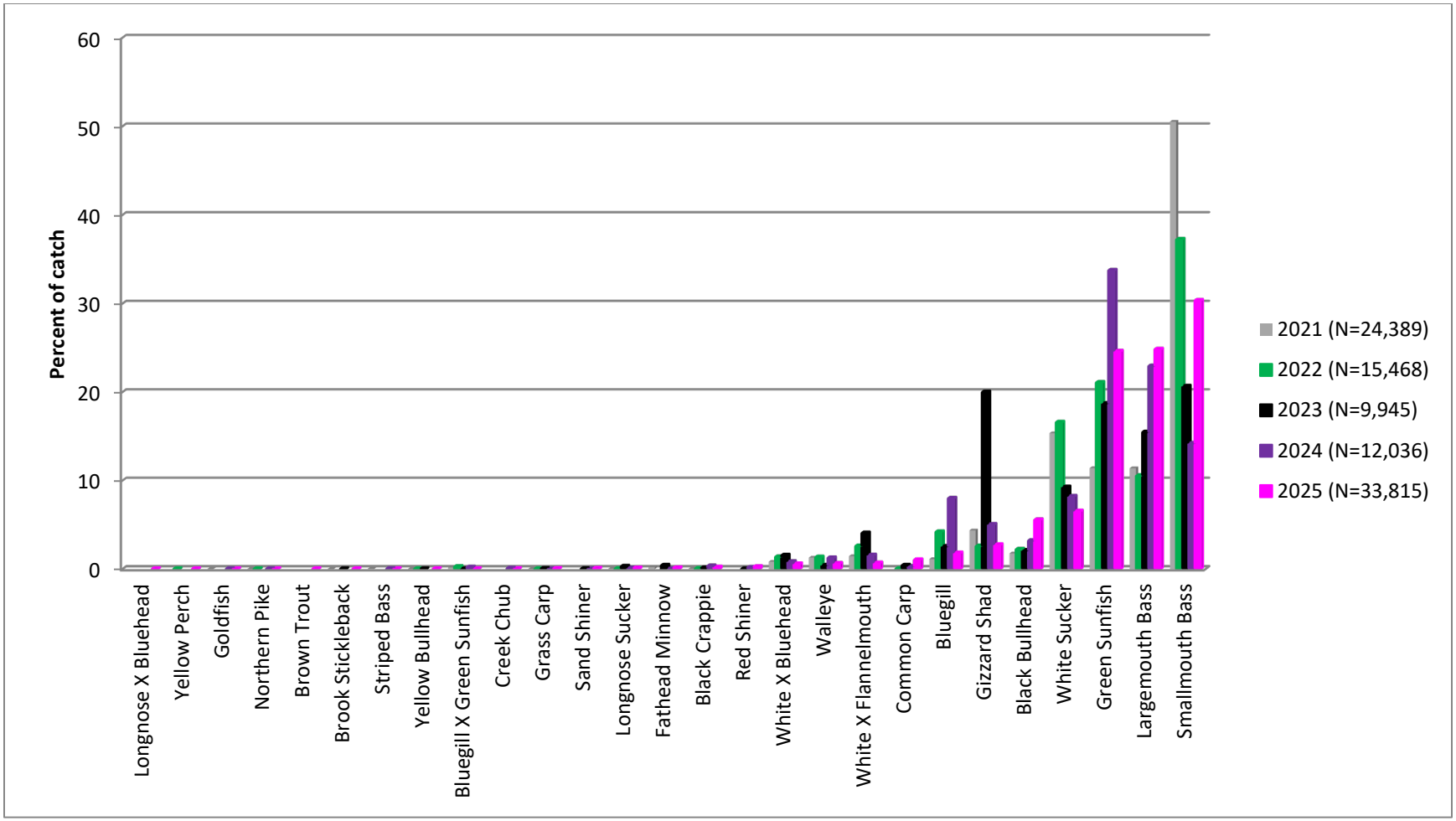

Figure 1. Percent composition of non-native fish removed from the Colorado (river mile 243.0 to 47.2) and Gunnison (river mile 3.0 to 0.7) rivers from 2021 through 2025. Note: Only species collected in 2025's catch are listed. Additional species have been collected in years past.

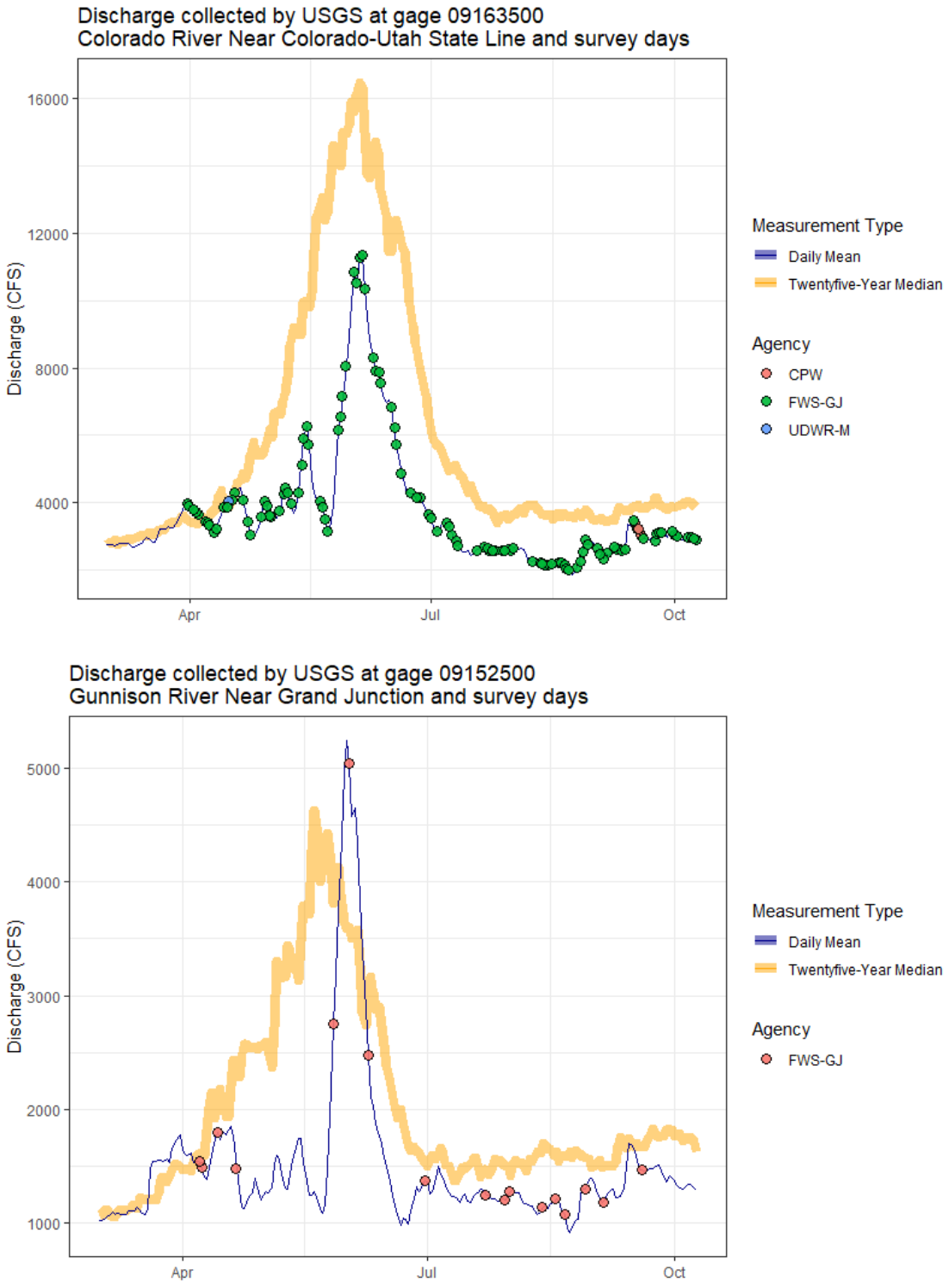

Figure 2. Top: Colorado River discharge as measured at the USGS gage (09163500) near the CO/UT state-line and targeted sampling days; 2024. Bottom: Gunnison River discharge measured at the USGS gage (09152500) near Grand Junction and targeted sampling days; 2025.

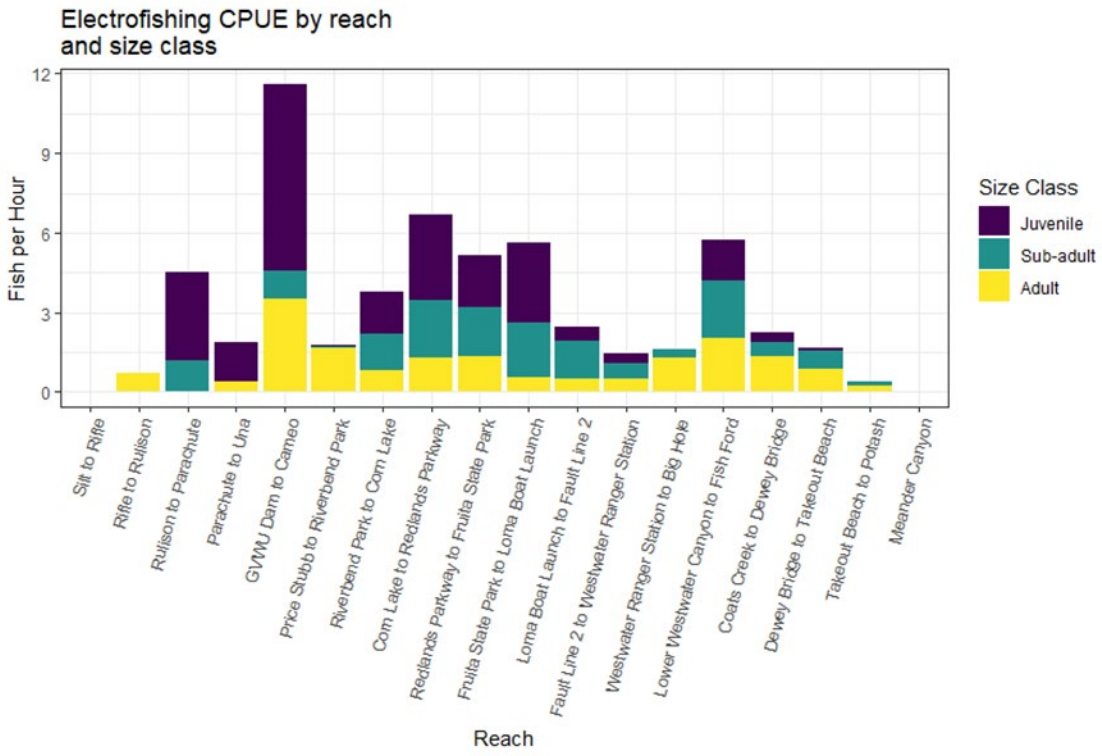

Figure 3. 2025 electrofishing CPUE by reach and size class.

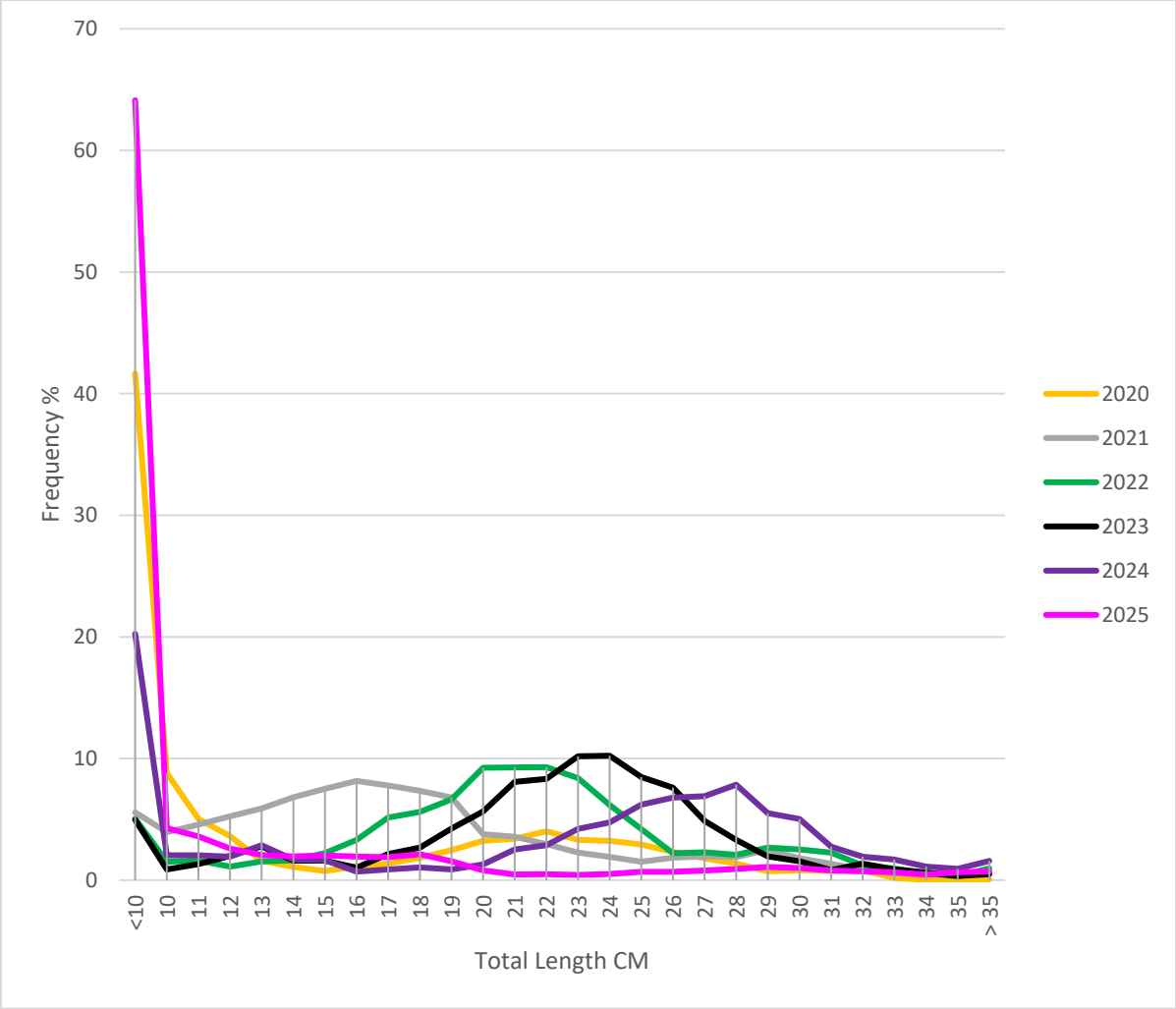

Figure 4. Length frequency graph for smallmouth bass removed from the Colorado River from Rifle, CO to Potash, UT (RM47.2), UT from 2020 through 2025.

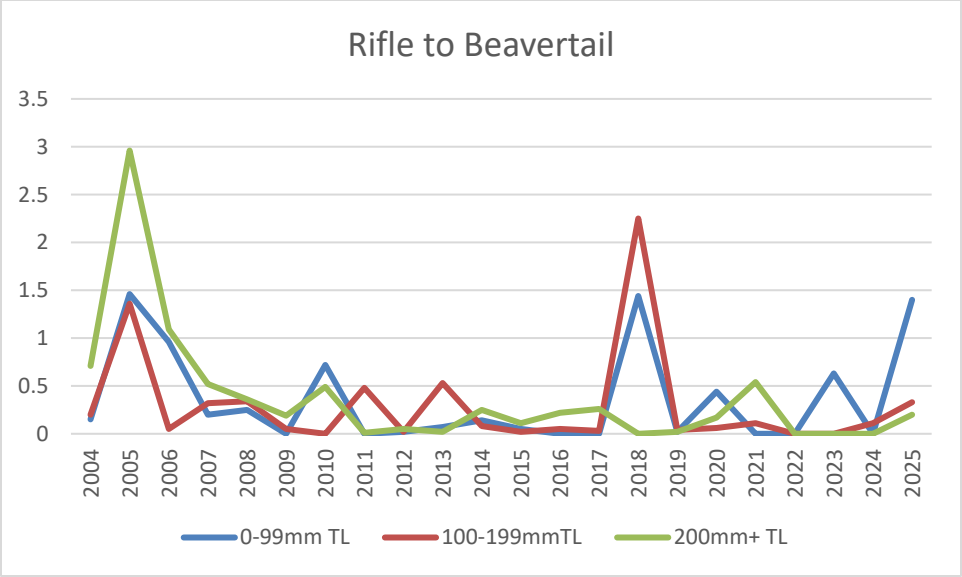

Figure 5. Catch/Effort for smallmouth bass removed from the Colorado River from Rifle, CO to Beavertail Tunnel by size-class from 2004-2025.

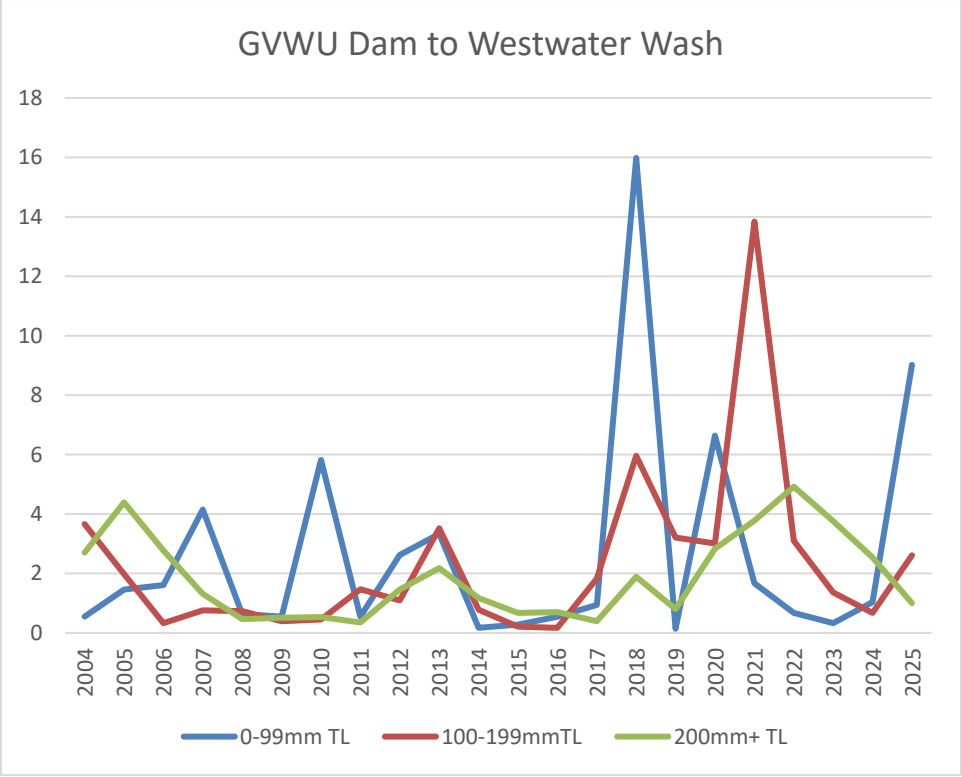

Figure 6. Catch/Effort for smallmouth bass removed from the Colorado River from GVWU Dam to Westwater Wash and the lower 2.7 miles of the Gunnison River by size-class from 2004-2025.

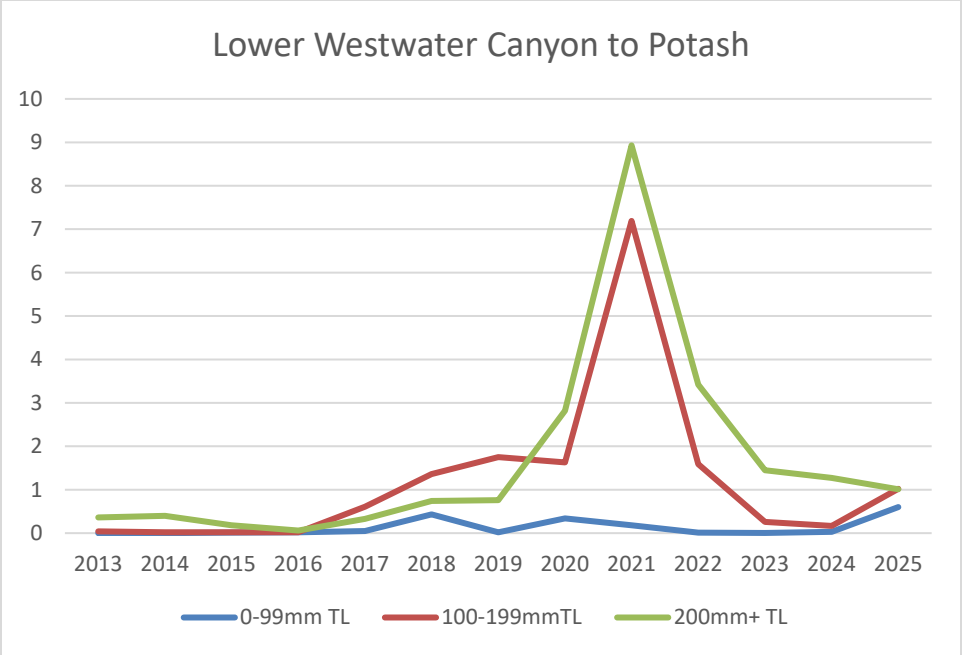

Figure 7. Catch/Effort for smallmouth bass removed from the Colorado River from lower Westwater Canyon to Potash by size-class from 2013-2025.

Appendix: Standardized Figures

Visualizations for smallmouth bass on the Colorado River, Gunnison River

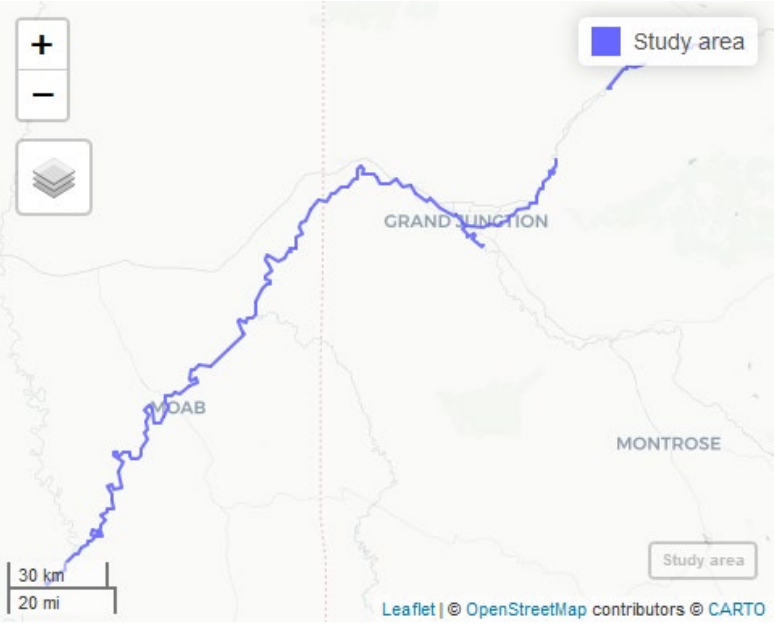

Figure 8. Study area, with areas surveyed for smallmouth bass highlighted.

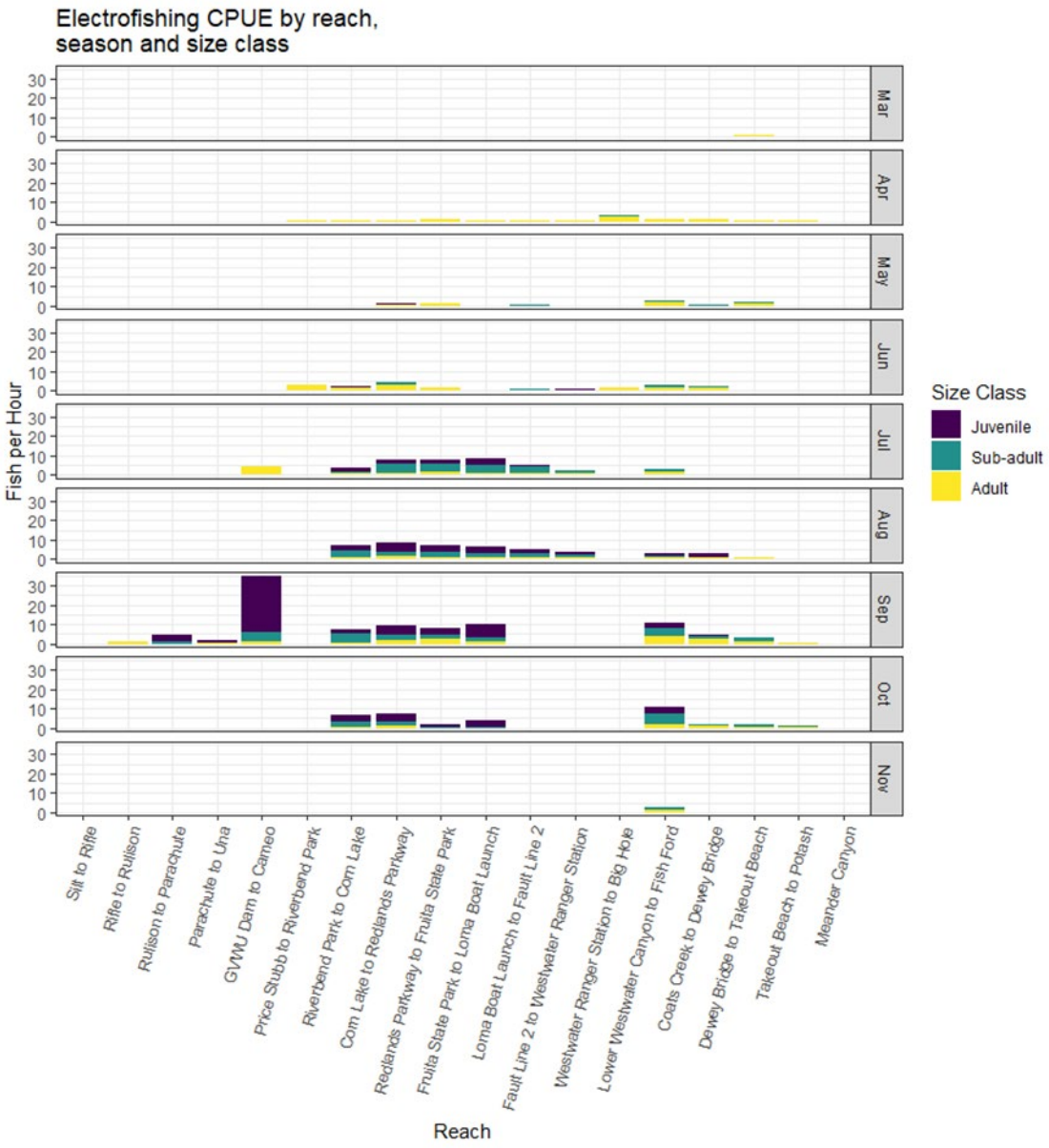

Figure 9. 2025 electrofishing CPUE by reach and month.

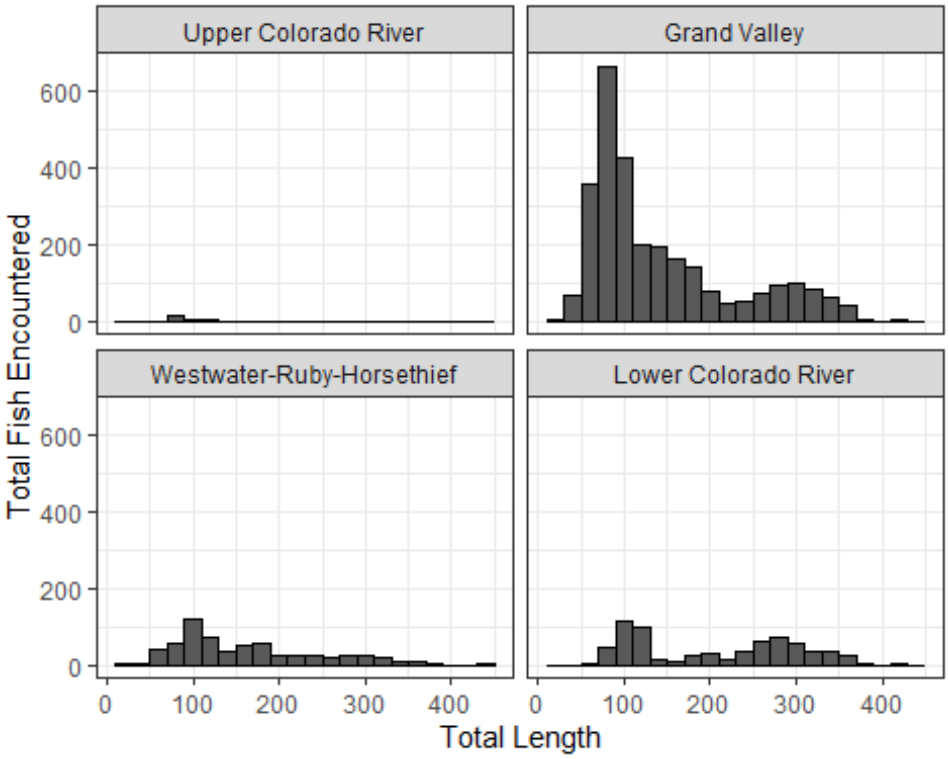

Figure 10. 2025 length frequency of smallmouth bass collected in the Colorado River.