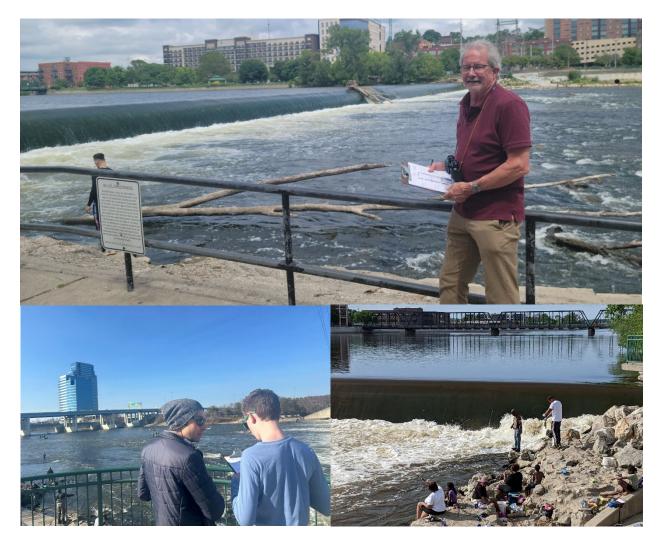


Grand River Angler Count Program

Community Science Project in Grand Rapids (2020-2024)



Prepared by Encompass Socio-ecological Consulting for the Grand Rapids Public Museum

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Background:

Since 2020, Grand Rapids community members have engaged in a study to record how anglers and other recreational groups use the Grand River in downtown Grand Rapids, Michigan. Over the five-year study, almost 1,100 surveys have been conducted. The information that has been collected include the location and the number of anglers, boaters, and canoers in the downtown study area during the Spring through Fall. The study is led by the Grand Rapids Public Museum (GRPM) and supported by many partners, including the Grand Valley Metro Council (GVMC) and Encompass Socio-ecological Consulting (ESC). The objectives are to collect baseline data for angler behavior and to engage community scientists and community organization to share in collecting data from their home river. The goal is to use these data to evaluate how the large-scale aquatic habitat restoration in the downtown area of Grand Rapids impacts river use. The restoration, which is in the urban core of the city, includes removal of dams, addition of in-river habitat features to increase the amount and diversity of aquatic habitat, and trailways, access improvements, and shoreline vegetation.

Study Design:

Sampling begins on March 1st of every year, and ends on October 31, where counts are conducted by volunteers walking a route from 6th Street Northwest to Fulton Street Bridge (approximately 1 mile). Along the route are 18 sites (Figure 1), and at each, volunteers record number of anglers, angling method (wading, shore, boat or other) and a general location. For this report, three sections are evaluated including: 1) Upstream (6th Street dam to Leonard Street.), 2) Below 6th Street Dam (6th Street to I-196) and 3) Downstream (I-196 to Fulton Street). The sampling along a route, makes it possible to evaluate how the dam removal, the addition of specific instream habitat, access, and riparian features alter angler use. Prior to conducting the count surveys, community volunteers are trained by the GRPM, ESC and GVMC, to ensure they are done in a standardized manner. The GRPM hosts seasonal trainings where volunteers learn the methods for recording and reporting data. The volunteers are provided a list of commonly asked questions, walk the study area, and conduct a partial count. Over 50 volunteers have been trained since 2020. Each year, a schedule is randomly generated by ESC, and the GRPM hosts a scheduling website allowing volunteers to view the schedule and select dates they will conduct the surveys. When dates are not filled by volunteers, trained staff from the GRPM, John Ball Zoo and GVMC complete the surveys.

There are two daily time ranges surveys are conducted to accommodate seasonal changes in daylight hours:



• March, April, and October: 8 am – 5 pm; May-September: 8 am – 7 pm

Figure 1. The angler count study area showing 18 sites that are spread across three sections in downtown Grand Rapids.



Results:

Over the five-year study, 1,084 angler counts have been completed. Many river-based recreational activities have been observed including shoreline and wading angling, or by boat. Other recreational pursuits include canoeing, kayaking, boating, swimming, wildlife watching, and magnet fishing.

Number of Anglers Per Year and Season

The highest amount of shore and wading angling happens in March and September just below the 6th Street Dam because of the migratory steelhead and Chinook salmon fishery (Figure 2). In March, the hourly number of anglers ranges from 22-35 with most pursuing spawning Steelhead. In September, the hourly average number of anglers ranges from 20 to 32 with most pursuing Chinook salmon. The highest number of shore and wading anglers for a year was in 2020, and within this year almost all monthly averages were higher than during 2021-2024. This was likely due to COVID-19 social distancing guidelines where angling provided an outdoor opportunity where distancing could be achieved, and people could experience the presence of other people and the outdoors. Although shoreline angling occurs more frequently than wading, the wading anglers make up about 40% of the anglers. Wading angling occurs during all seasons, during normal and safe flows. However, when the river discharge is high (above 3,000 cfs), wading angling decreases because of the higher water velocities and depths.

Boat angling is highest during the steelhead (Spring) and Chinook salmon (Fall) runs when water levels are relatively high (Figure 3). The number of boat anglers has been consistent across the five years except in September and October of 2022, where low water levels prevented boats from accessing upstream fishing areas.

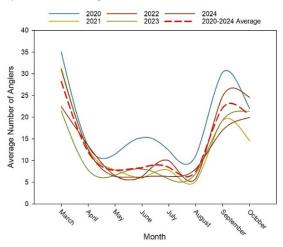


Figure 2. Average hourly number of shore and wading anglers per month.

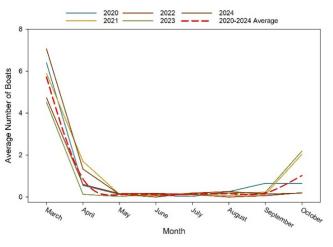


Figure 3. Average hourly number of boat anglers per month.



Location of Anglers

The *Below 6th Street Dam* section hosts the highest number of wading and shoreline anglers with much of the angling occurring immediately below the dam (Figure 4). In contrast, the large *Downstream*

section, which covers over 35 acres, is not used nearly as frequently for angling as the much smaller section *Below* 6th Street Dam (8 acres), although the *Below* 6th Street Dam section is 77% smaller in area it contains over two times the number of anglers during the Summer and over Four times during the Fall.

Interestingly, the *Downstream* section has multiple access points on the west side of the river for shore angling especially from Ah-Nab-Awen Park to just downstream of the Grand Rapids Public Museum. The area contains almost 0.5 mile of shoreline with fishable waters, however, during the Summer there is very little angling with an average of only 1 angler per hour (Figure

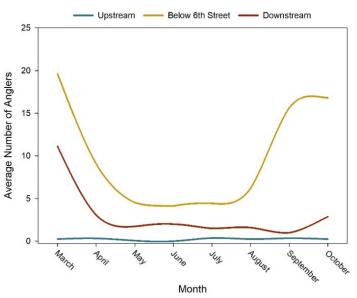


Figure 4. Average number of shore and wading anglers per month for three sites. month.

4). This could be happening because of poorly maintained access points, lack of parking and the low quality of aquatic habitat that does not provide areas for fish to occupy that are desirable to anglers.

Most of the boat angling occurs during the Spring in the *Below 6th Street Dam* section. Very little boat angling is observed in the *Upstream* section, and the *Downstream* section is less than half the number of

anglers except during two years of the fiveyear study (2020 and 2024). The angling by boat that does occur *Downstream* largely occurs during the Spring and is confined to the uppermost 665' of the section which is just downstream of the *Below 6th Street Dam* section. Over 80% of the *Downstream* boat angling occurs between the I-196 and Bridge Street bridges. These findings suggest how the largely uniform and degraded aquatic habitats in the *Downstream* section provide limited boat angling opportunities except for in a small upstream portion.

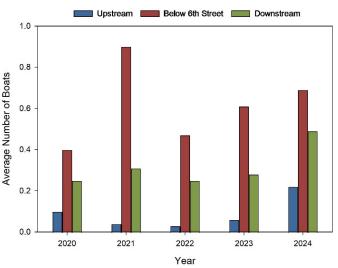
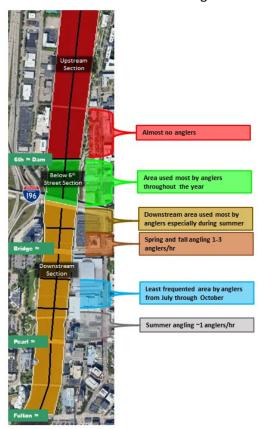


Figure 5. Average number of angling boats for the three sites.



Summary:

The data collected during the Community Science Angler Count shows angling is highest in the months of March, April and September during the Spring steelhead and Fall Chinook salmon fishery. These findings are similar to those described in the Michigan DNR Statewide Angler Program monitoring report (2015) for the Grand River where it reports that angling is highest just below the 6th Street Dam with much less effort found in the larger *Downstream* section. This study shows that relatively low number



of anglers use the Downstream section and that angling and recreational use declines related to the distance away from the 6th Street Dam (Figure 5). This highlights several opportunities, and the need for the Grand River shoreline to be accessible for more shore and wading angling opportunities in the Downstream section. It also highlights the opportunity for boat angling if navigation is enhanced and boat passage is available through the Summer low-flow conditions. The area below Bridge Street is the most underused in the Downstream section and could be a focus area. The proposed, comprehensive river restoration is intended to increase and more evenly distribute angling by diversifying instream habitat, increase and improve shore access and navigation, and provide targeted outreach and information that describes the seasonal angling opportunities.

The Community Science Angler Counts are planned to continue before, during, and after restoration of the Grand River and riparian sites in downtown Grand Rapids. The angler counts are being successfully implemented where NGO's have implemented and guided the project with support by a dedicated and reliable group of community volunteers.

count sections.

Figure 5. Angling details for the three angler



Pleasure boater in Upstream Section during the summer.



Snorkeler near the 6th Street Dam during the summer.

