

Assessing the Ecology of the Flint River in Flint, Michigan Above and Below a Century-Old Dam

Chloe Summers, Arianna Elkins,
Cason Konzer, Heather Dawson

*summersj@umich.edu, arelkins@umich.edu,
casonk@umich.edu, hdawson@umich.edu*

University of Michigan - Flint



Where is Flint?



- ⊗ Flint is the home to 81,252 unique residents.
- ⊗ The Flint River drains portions of seven counties in mid-Michigan. The watershed is more than 1,300 square miles.

Objectives

- ⊛ Investigate the ecology and health of the Flint River above and below the Hamilton Dam before the dam is removed.
- ⊛ Collect data now and in the future to gain an understanding of the baseline ecosystem now and the restored ecosystem in the future to measure restoration success.

Background

- ⊗ The Hamilton Dam, constructed in 1920, resides in the urban city of Flint, Michigan and was utilized for logging and the automobile industry.
- ⊗ The Dam no longer serves this purpose and is in the process of removal to revert the stream to its natural ecology.
- ⊗ Upstream reaches of the Hamilton dam consist of a wide riparian zone, whereas downstream is composed of cemented structures with trapped debris.
- ⊗ The Great Lakes have been polluted through agriculture, urbanization, and industrialization that introduced chemicals such as PFAS, PCBs, and heavy metals, including; Hg, As, Cr, Pb, and Cd. These have been found in higher concentrations in reservoirs above dams [1].

Introduction

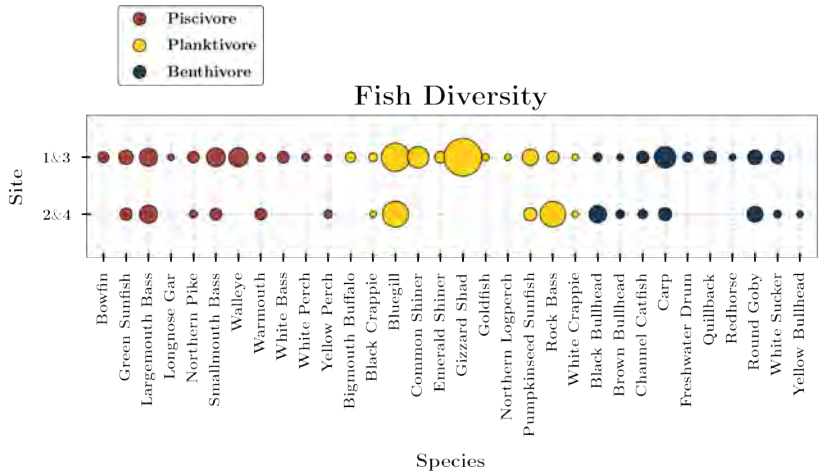
- ⊗ Ecology study on the Flint River before the weir is removed in 2023 through a \$40 million project to restore habitat and recreational utility.
- ⊗ This data will later be compared to data collected once the weir is removed to assess the impact of habitat fragmentation and relay how restoration efforts can affect riverine ecosystems.
- ⊗ Multiple fishing methods were necessary to assess the varying habitats upstream and downstream as a result of the dam.

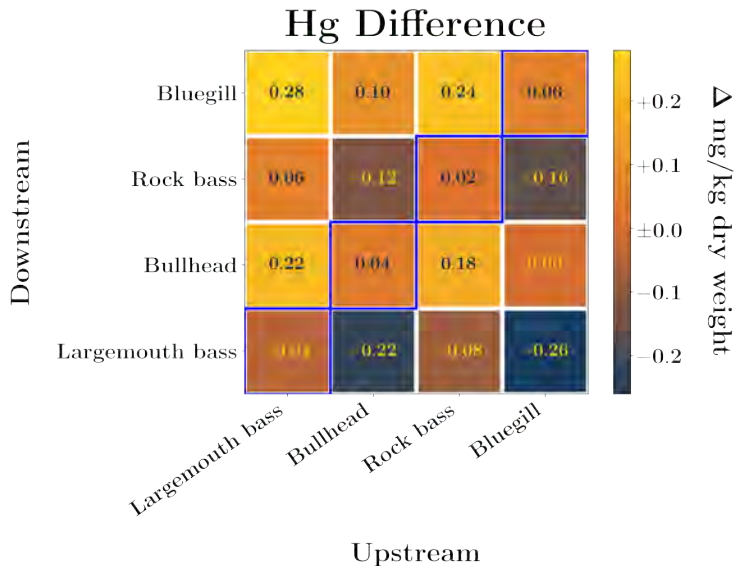
Site Map



Methods







The ecology study of the Flint River has been conducted for 2 years. Study will be continued through the removal of the Hamilton Dam and restoration of the Flint River. This pre-assessment will be used to compare data once restoration is complete to understand how dam removal impacts riverine ecosystems.

For funding we thank ...

- ⊗ The Community Foundation of Greater Flint
- ⊗ Saginaw Bay Watershed Initiative Network
- ⊗ UM-Flint Office of Research
- ⊗ UM-Flint CAS Opportunity Fund
- ⊗ UM-Flint Urban Institute for Racial, Economic, & Environmental Justice
- ⊗ The Gary and Colleen Pace Field Biology Scholarship
- ⊗ Those who have worked on or helped with the project including many UM-Flint students, Megan Heyza, and the Flint River Watershed Coalition

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