**Project - The spatial analysis of river herring spawning habitats and fish passage impediments in Massachusetts**

**GIS 5201 Advanced Spatial Analysis**

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The Massachusetts Division of Marine Fisheries (DMF) faces significant challenges in managing and restoring diadromous fish populations along coastal rivers, particularly focusing on river herring spawning habitats and fish passage impediments. This GIS-based analysis project aims to evaluate and visualize the spatial distribution of spawning locations, migration barriers, and restoration priorities across Massachusetts coastal watersheds. By integrating multiple data layers including sampling stations, restoration projects, and migratory habitats, the project seeks to identify critical areas for conservation efforts and assess the effectiveness of existing fish passages. The analysis incorporates kernel density estimation and buffer analysis techniques to understand spawning habitat clustering and zones of influence, ultimately supporting evidence-based decision-making for habitat restoration and species conservation

Dataset available at: <https://www.mass.gov/info-details/massgis-data-diadromous-fish#downloads->

References:

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