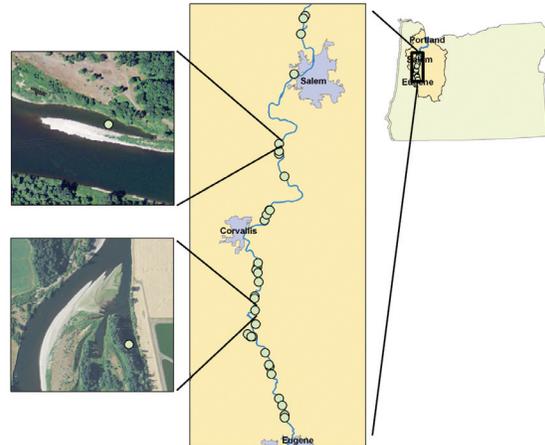


Methylmercury Bioaccumulation and Cycling in Off-channel and Backwater Habitats of Large Rivers

Study Description:

Large river systems are important for regional mercury cycling because they can serve as both sources of methylmercury transport, as well as vectors of mercury transport across the landscape. Wetlands bordering rivers are known to be important for mercury methylation, but less is known about the importance of off-channel, backwater habitats (such as alcoves), which could also play an important role in methylmercury cycling due to their physical and chemical properties, as well as their role as critical nursery habitat for native fishes. This study is evaluating the importance of off-channel habitats as a methylmercury source to the Willamette River in western Oregon, which is the largest of all major rivers in terms of discharge per square kilometer of drainage area.



Study Location:

Willamette River, western Oregon

Media Sample and Parameters Analyzed:

Fish and invertebrates samples will be analyzed for mercury concentrations and stable isotope ratios, water samples will be analyzed for methylmercury, total mercury, sulfate, dissolved organic carbon, and basic water quality parameters.

Study Timeline:

This is an ongoing study that is occurring between summer 2011 and spring 2012.

Agencies and Partners:

USGS Pacific Northwest Contaminant Ecology Program
Oregon DEQ
US EPA Region 10
Oregon State University

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