

Puget Sound Stream Monitor – Number 2, January 2012

News about biological monitoring and reporting from around Puget Sound

As most of you know, in 2011, King County was awarded an EPA Grant entitled “*Enhancement and Standardization of Benthic Macroinvertebrate Monitoring and Analysis Tools for the Puget Sound Region.*” (See attached fact sheet for an overview of the grant). One key goal is to promote collaboration across the region. In this newsletter:

- 2011 summer sampling
- Upcoming data analysis
- Submitting biological data to Washington Department of Ecology
- Gear decon procedures in Redmond
- Conference news

Side-by-Side Summer Sampling 2011

We conducted side-by-side sampling this past summer at 53 sites throughout the Puget Sound region. The purpose of this sampling is to evaluate the differences between B-IBI scores based on samples collected from 3, 8 and 9 ft² areas and to develop a cross walk so that B-IBI values are comparable.

Jo Wilhelm (King Co.) joined colleagues from 9 partner agencies (3 cities, 5 counties, 1 non-profit) to collect macroinvertebrates using two protocols: 1) Ecology’s protocol and 2) the protocol of the local jurisdiction. Here’s what we learned this summer:

- Of the 9 partners, 4 sample 3 ft², 2 sample 8 ft², 3 sample 9 ft².
- 4 keep replicate samples separate; 5 composite replicates into one sample/site.
- Kitsap Co. and WRIA 8 have modified their protocols to collect from an 8 ft² area to match Ecology. City of Redmond changed their mesh size to 500µm to match others in the region.

What’s next for the data?

When Rhithron returns our taxonomic data in early February, we will analyze the data to:

- Develop a cross-walk for B-IBI scores derived from different sampling methods.
- Update the attribute lists for tolerant, intolerant, long-lived, predator, and clingers to make them consistent and updated to the best available science.
- Modify the metric scores to range from 0–10 so that B-IBI ranges from 0–100.



Lake Forest Park Streamkeepers

Submitting macroinvertebrate data to EIM

Macroinvertebrate data stored in the Puget Sound Stream Benthos database (<http://www.puget-soundstreambenthos.org/>) can be exported in the file format required by Ecology for their Environmental Information Management (EIM) system.

- In August, four jurisdictions (King, Snohomish and Clark Counties, and Clallam County Streamkeepers) submitted biological data for Ecology's Freshwater Water Quality Assessment for 2012. Data will be used to determine which streams are supporting or failing to support their beneficial uses.
- Karen Adams (Ecology) reports that the next call for data in 2015 will likely only accept bug data collected from 8 (or possibly 9) ft² area. No need to wait until 2015, data can be uploaded to EIM any time.



Tanya's Rig

Tanya MacFarlane (City of Redmond) heard the news about New Zealand mudsnails in local streams and added on-demand hot water to her truck. She uses the hot water spray to rinse boots and sampling gear between stream site visits. This process decontaminates the gear and reduces the likelihood of transferring mudsnails, chytrid fungus, invasive plant seeds, diseases, etc. to other waterbodies.

Conference News

Gretchen Hayslip (EPA) hosted the 22nd annual Pacific Northwest Biological Assessment Workgroup last November. Discussions centered on how to bring bioassessment into decision-making, collaboration across agencies, and defining impairment thresholds. Abstracts of the presentations are available online:

<http://yosemite.epa.gov/R10/OEA.NSF/webpage/NW+Biological+Assessment+Workgroup>.

Join us at the 8th National Water Quality Monitoring Conference April 30 – May 4 in Portland, OR. <http://acwi.gov/monitoring/conference/2012/>.

Contact Us/Stay Involved

How are you using benthic data to protect and restore streams? Please let us know. Contact Deb Lester at Deborah.Lester@kingcounty.gov and we will include your news in our next issue.