

Portland State  
University  
ZQM  
monitoring  
during 2020

A large black hexagonal graphic with rounded corners, containing text. To its right is a smaller solid black hexagon. Below the main hexagon is another hexagonal shape, partially overlapping it, which is a white outline with a thick black border.

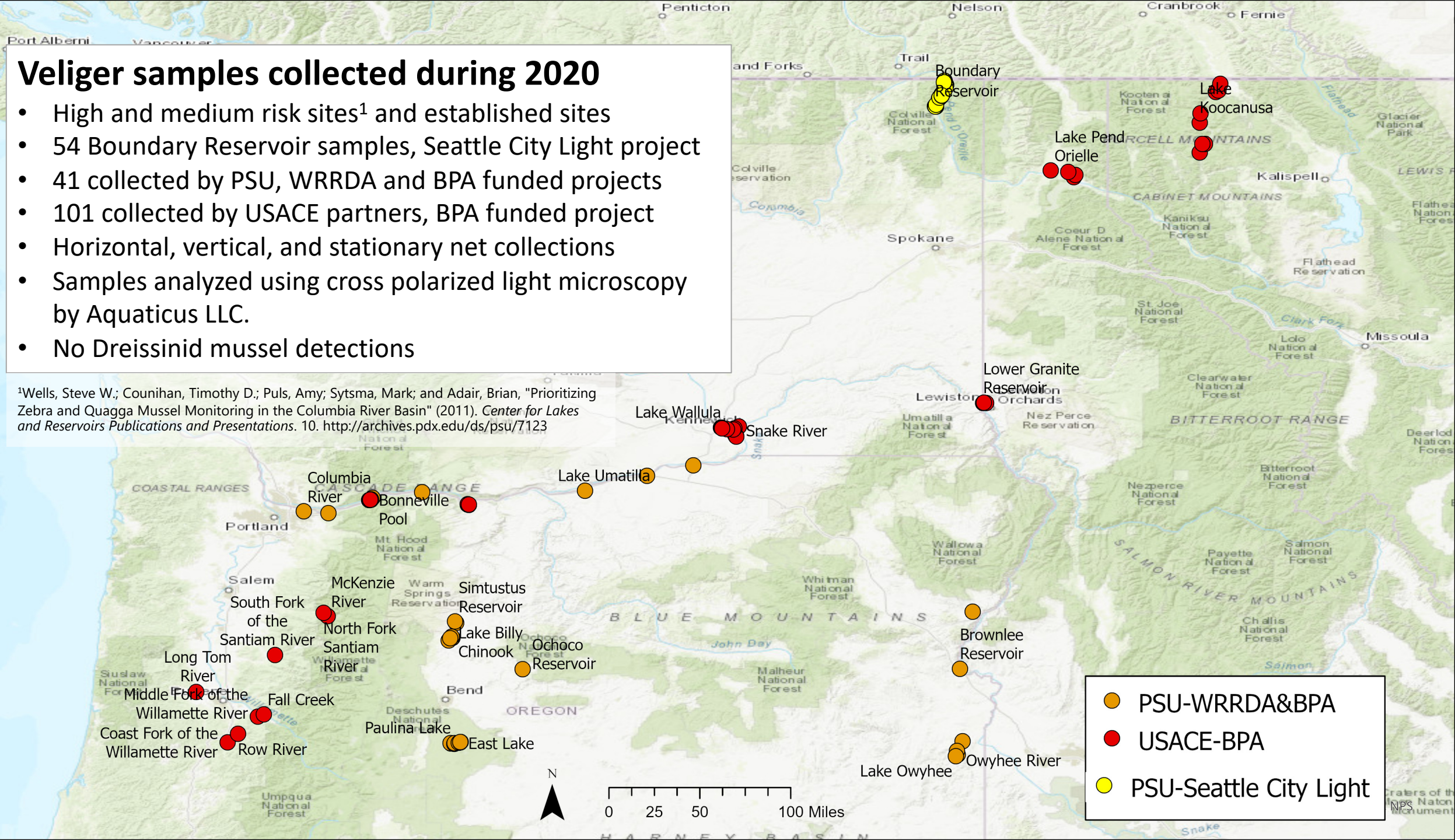
Rich Miller, Mark Sytsma, Catherine  
de Rivera, Trevor Williams, Toni  
Pennington, Arick Rouhe, and Josh  
Gottlieb

Columbia River Basin Monitoring Forum  
December 2, 2020

# Veliger samples collected during 2020

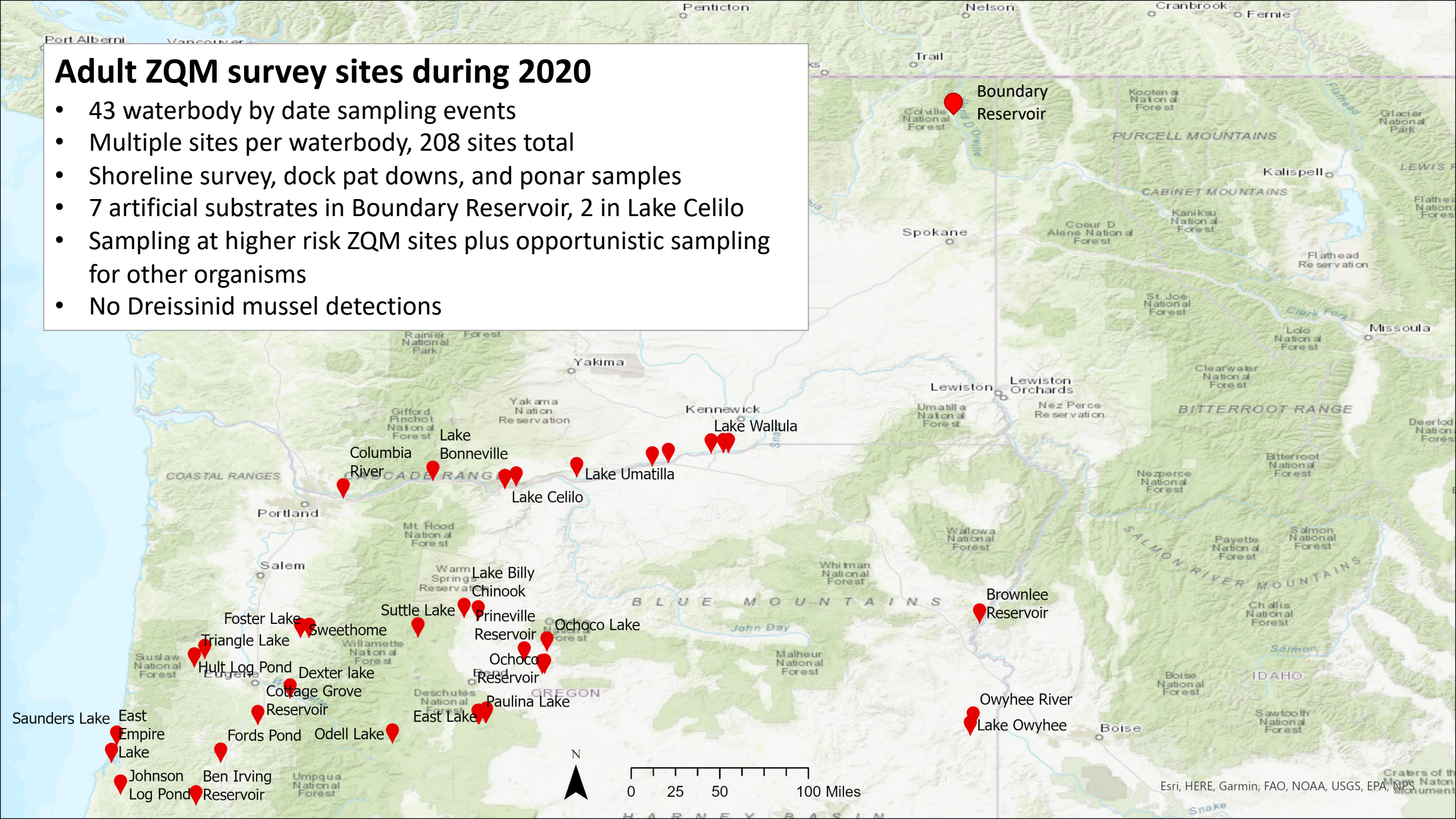
- High and medium risk sites<sup>1</sup> and established sites
- 54 Boundary Reservoir samples, Seattle City Light project
- 41 collected by PSU, WRRDA and BPA funded projects
- 101 collected by USACE partners, BPA funded project
- Horizontal, vertical, and stationary net collections
- Samples analyzed using cross polarized light microscopy by Aquaticus LLC.
- No Dreissinid mussel detections

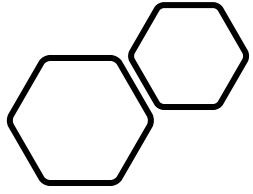
<sup>1</sup>Wells, Steve W.; Counihan, Timothy D.; Puls, Amy; Sytsma, Mark; and Adair, Brian, "Prioritizing Zebra and Quagga Mussel Monitoring in the Columbia River Basin" (2011). *Center for Lakes and Reservoirs Publications and Presentations*. 10. <http://archives.pdx.edu/ds/psu/7123>



# Adult ZQM survey sites during 2020

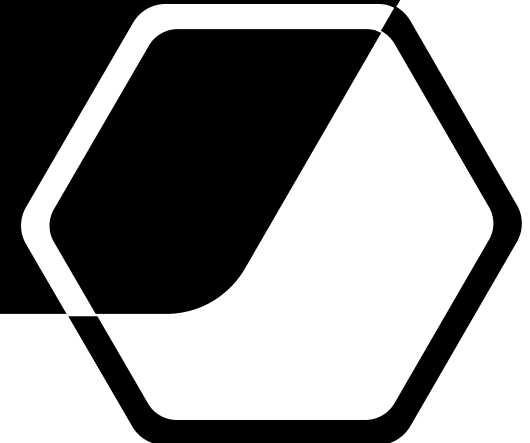
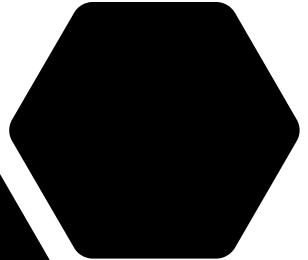
- 43 waterbody by date sampling events
- Multiple sites per waterbody, 208 sites total
- Shoreline survey, dock pat downs, and ponar samples
- 7 artificial substrates in Boundary Reservoir, 2 in Lake Celilo
- Sampling at higher risk ZQM sites plus opportunistic sampling for other organisms
- No Dreissinid mussel detections

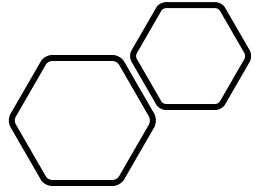




# Plans for 2021

- Support USACE veliger sampling, work to increase artificial sampler deployments, and streamline data reporting
- Increase veliger sample collection at high/medium risk waterbodies
- Continue Seattle City Light Boundary Reservoir sampling






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