Logs and riparian vegetation

Characterizing logs and riparian vegetation provides valuable information on the habitat of the upper beach and marine-terrestrial connectivity. Logs provide shelter for many invertebrates such as beach-hopper amphipods, and foraging habitat for shorebirds. Riparian vegetation provides habitat for terrestrial insects that are prey resources for juvenile salmon.

Materials

- Two 50 m measuring tapes, one for the transect and one for width of the log line

Sampling Summary

- 50 m transect parallel to shore
- N=5 random samples per transect
- Width of log line, and number of large and small logs (<> 2 m length)
- Total percent and type of riparian vegetation along the transect
- Total count of fallen trees along the transect

Scale of Effort

$ Cost – low, simple materials and data are all field-based

$ People – low, 2-3 people can establish transects and record quadrat data

$ Fieldwork time – low, 1 day, once a year in September when driftwood is exposed

$ Processing time – low, entering field data into computer format

$ Technical expertise – low, identification of major vegetation types

Additional Resources

Reports that have used this method:
Dethier et al. 2016
Toft et al. 2021

Also see Brennan 2007 for further information on riparian vegetation in Puget Sound

Suggested citation: Shoreline Monitoring Toolbox. Washington Sea Grant.
Website: shoremonitoring.org

Methods

At five random points along a 50 m transect parallel to shore, measure the width of the log line perpendicular to the transect as the distance from the seaward-most edge of logs to the landward-most edge of logs. Count the number of large and small logs (longer or shorter than 2 m) intersecting the perpendicular line, and categorize as “natural” log recruits or human-altered (e.g., cut poles, dock material). Note any other defining characteristics of the logs, such as if they have marine or terrestrial growth (e.g., barnacles, moss). Estimate total percent cover along the 50 m transect of vegetation overhanging the upper beach. Also estimate the percent of supratidal vegetation categories (e.g., dunegrass, blackberries) and backshore vegetation categories (e.g., trees, shrubs, lawn). Make a total count of fallen trees along the 50 m transect. Sample in September at the end of the vegetation growing season, on an ebbing tide when the upper beach +6’ MLLW and above is exposed.

Data to record in the field

Date, time, site name, sample number, log and vegetation data. It is advisable to take a digital photo of the transect for documentation.

Processing

Enter the field data into computer spreadsheets. Calculate averages of width of the log line and number of logs. Log and vegetation data can be used as causal factors for other data types such as insects, beach wrack, and shorebirds.