

Section 6 Benthic Macroinvertebrates (Core)

Overview and background for updates: After approximately 10 years of experience training and implementing the current Macroinvertebrate collection methods, along with various input, small changes and clarifications are being implemented:

- Text surrounding number of required riffles and limitations was overly complex and has been simplified.
- We found the randomization method for net locations during the targeted riffle approach was overly complex adding unnecessary time in the field. We have changed to match the randomization methods for both targeted riffle and reach-wide methods.
- Clarifications are added below for net placement used for both targeted riffle and reach-wide methods.

General Macroinvertebrate method clarifications:

- Do not place nets exactly in line with any transects regardless of method being used. Move just up or downstream approximately 1 m from the transect to avoid disturbing sediment sizes or depth measurements at transect locations.
- Do not place nets in uncharacteristically and constantly disturbed areas such as a road crossing, move just up or downstream of the disturbance.
- Do not place nets within 15% from either wetted edge.

6.1 Updates to the Targeted riffle approach:

- Replacement to Step 1: Identify riffles located within the sample reach for 8 Surber/kick net sample locations.
 - o If you have 1 or more riffles collect macroinvertebrates at 8 sample locations within the first 4 riffles.
 - o If you cannot collect 8 samples within the riffle habitat without overlapping net locations; or if your only riffle is smaller than 2x bankfull or in an area of constant disturbance (e.g., road crossing); or if you do not have any riffle habitat then use the reach-wide approach to collect macroinvertebrates.
- Replacement to Step 2: Determine the location for each net.
 - o Evenly space the 8 sample locations longitudinally in each of the first 4 riffles. For example, if there are 2 riffles, there would be 4 longitudinally distributed samples in each riffle (i.e., 20%, 40%, 60%, and 80% up the length of each riffle).
 - o The lateral (i.e., left to right) starting location is selected by generating one random number between 1 and 9 (i.e., 1-3 =left, 4-6=center, 7-9=right). Subsequent sample locations are selected by moving up the riffle continuing with the left, center, right pattern.