

Quick Guide to Tidal Fringe Wetland Assessment Protocols

(Note: This is a quick outline of procedures. Refer to the actual protocols for detailed explanations of sampling procedures)

1. Locate and set-up 80m diameter Assessment Area (AA). Take pictures from the center in all four cardinal directions (N, E, S, and W).
2. Complete the 16 1m² vegetation plots. Estimate the percent cover for all species present, as well as unvegetated surface cover.
3. Obtain four random numbers from the random numbers table. Travel at a 45° angle the specified distance to the macroinvertebrate/soil/pore water sampling location.
4. Place the 1/10m metal ring on the surface (try to avoid removing snails from the vegetation when placing the ring).
5. Count all snails on the vegetation by cutting and carefully examining the vegetation from the ring.
6. Count all snails, crabs, and mussels on the substrate surface. Include any crab burrows evident on the surface.
7. Calibrate the soil penetrometer. Obtain readings within the ring and in any pool or panne (unvegetated) area within the quadrant.
8. Remove the metal ring and dig a soil core.
9. Plant fragments measurements:
 - a. Cut a “brownie” at 2-4cm and 25-27cm. Break the sample into smaller pieces.
 - b. Place the pieces into the bottle with ~250mL (half full) of water. Shake well.
 - c. Pour the contents of the bottle into the 2mm sieve. Press to remove excess water.
 - d. Place the remaining plant fragments into the syringe. Record the volume (cc).
10. Collect a 5x5x18cm deep sample from the soil core at **two quadrants (only)**. Place the sample in a labeled Zip-Lock bag for macroinvertebrate analysis.
11. Once the hole where the soil core was removed fills with water, use the YSI and pH pen to obtain pore water chemistry readings.
12. Repeat steps 3 through 11 in all four quadrants. Step 10 only needs to be performed in two quadrants.

13. Place the 1/10m metal ring along a tidal creek or ditch bank. Record all macroinvertebrates on the vegetation and substrate within the ring.
14. Use the shovel to dig a soil core and collect a 5x5x18cm deep sample at the bank. Place the sample in a labeled Zip-Lock bag.
15. Wash all macroinvertebrate soil samples in the sieve bucket before transporting back to the lab. Return washed samples to the respective labeled bag and place in a cooler for transport.
16. Fill-in the **Site Information** and **Rapid Assessment** datasheets upon completion of the sampling. Don't forget the site sketch and any comments about the site.