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BAG SEINING

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General Information:

Seining is used to collect small fishes in shallow macrohabitats along the shoreline. Three macrohabitats are suitable for seining (inside bend sand bar areas, secondary channel connected (deep and shallow), and secondary channel non-connected). A net haul is the standard unit of effort (#/seine haul). The location of each haul is macrohabitat specific.

All sampling begins at the downstream most point in each macrohabitat. Three seine hauls are made at each ***inside bend***, ***secondary channel non-connected,*** and ***secondary channel connected*** (deep and shallow) macrohabitat sampled. The first haul is made at the lower boundary, the second haul at the mid-point, and the third is haul is made at the upstream end of the macrohabitat. Where applicable, the side of shoreline which is sampled is randomly selected by flipping a coin. If sampling at the set distances is not possible, then sampling will take place in areas that will allow for a seine haul within the same macrohabitat.

Material & Methods:

A. Seine (10.7-m (35 ft.) long by 1.8-m (6 ft.) high (about $180-Memphis Net & Twine Co., Inc.) with:
   1. 1.8-m X 1.8-m X 1.8-m bag at the center of the net
   2. Ace mesh measuring 5-mm (3/16 inch)
   3. A 29.5-kg (65 lb) lead-core lead line (in sleeve)
      a. In areas that are composed of soft sediments a "many ends" mudline (additional $25/net) may be used in place of the regular lead line
   4. The seine poles are also calibrated to measure water column depth (nearest 0.1-m) while the seine is deployed
   5. One fully extended seine haul samples an area of 179.8 m^2 ($0.5\pi r^2$).

Procedure:

I. To deploy the seine:
   A. One end of the seine is anchored to the shoreline, while the other end is pulled until it is fully extended along the shoreline.
   B. In flowing macrohabitats, the end that is pulled into the water should be upstream of the anchored end.

C. Once the seine is extended, the net is swept in a 180-degree arc (half arc), keeping the net fully extended or until water column depth exceeds 1.2-m, to the downstream side of the anchored end of the seine.
D. While pulling the seine, precautions should be taken to ensure that the lead line remains on the substrate and the floats are on the water surface.
E. If the seine cannot be fully deployed, then the estimated radius, in meters, is recorded.

II. Procedures when the seine becomes snagged
A. If snagging occurs, a third person follows behind the net to free it and to ensure contact with the substrate is not lost.
B. If the seine is frequently snagged and the integrity of the seine haul is lost, the sample is abandoned and moved to a nearby, undisturbed upstream area at the crew leader's discretion.

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