Protocol for sampling oysters and oyster density on Lone Cabbage restoration plots and control sites

Transect measurements:

1. Lay reel meter tape along NE – SW axis
2. From SE corner of square, measure towards SW to meters. These are the starting points for each of three belt transects.
3. Measure in from NE corner towards NW to 5.34, 10.68 and 16.02 meters. These are end points of the transects.
4. Run strings at 6” widths across the bar. Need 4 rebar pieces each end.
5. Number the transects as 1 being on the left hand side when facing the inlet, three being on the right hand side.
6. Beginning from the end of the transects FARTHEST FROM THE INLET begin counting oysters in 2.5 meter increments, counting all live and dead oysters with two valves on them.
7. Equipment list: for each team,

1 reel tape of at least 50 m

Four rebar stakes

1 hammer

Flexible tape measure

Two click counters

Some stick to mark off 2.5 meter quadrat within which you are counting

Data sheet

Two pairs Kneel pads

Gloves for all

Quadrat measurements:

1. Use random numbers table to generate distance along that transect you are sampling. Cross off the x and y numbers you are using.
2. Alternate each successive quadrat between the transects eg 1 then 2 then 3 then 1 then 2 etc.
3. Place quadrat sampler at edge of distance along, distance starts from inland end of transect (farthest from inlet) and increases in direction of inlet.
4. Measure all dead and live oysters in each quadrat, separating live and dead. Both live and dead must have two valves (shells) to be counted. You are measuring all oysters within the quadrat not within the belt.
5. Measurement is total length, from end of the hinge to end of the lip.
6. When 50 oysters are reached for any restoration site, then stop.
7. If 50 oysters are not reached in 20 quadrats, then stop.
8. Equipment list for quadrats

1 quarter m2 quadrat

Click counter

Vernier caliper or sewing tool

Data sheet

Random numbers table

Flexible tape measure

Elevation profiles….. Look for locations of elevation profiles done in summer 2013.

Suppose 9 people. Peter will roam for quality. Nick F and Nick V on data sheets, one for quadrats, one for transects? Leaves six to do the work.

Four people working simultaneously on belt transects. Two reel tapes, two flexible tape measures, four click counters, two devices to place at 2.5 m intervals. Four pairs kneel pads.

Two people working simultaneously on counting and measuring throw quadrats. Two click counters, two quadrats, two pairs calipers or sewing tools, two flexible tape measures.

Total equipment count:

Two reel tapes

Four flexible tapes

Six click counters

Three pairs calipers or sewing tools

Two quadrats

Six pairs kneel pads

Eight to ten pairs gloves