**DEP Form 9000-35** **Stream Condition Index Training Checklist and Event Log**

One copy of this form FD 9000-35, Stream Condition Index Training Checklist and Event Log, will exist for each Trainee. The Trainee or the trainee’s supervisor may retain the document. The Trainee will be required to provide this document as proof of completion of these training requirements.

**Prerequisite/Concurrent Training Signoffs** Signoff Date

Form FD 9000-34 Stream Habitat Assessment Training Checklist and Event Log \_\_\_\_\_\_\_\_\_\_

By signing this card, the Trainee and Supervisor attest to the completion of ALL competencies outlined in this form.

Sign off: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ / \_\_\_\_\_\_\_\_\_\_\_ / \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Trainee Name Signoff Date Supervisor Signature

**Signature and Initial Log** (Name, initials and signatures are used to verify authenticity)

Training Role Name Printed Initials Signature

Trainee \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/\_\_\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Trainer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/\_\_\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Evaluator \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/\_\_\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Evaluator \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/\_\_\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Evaluator \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/\_\_\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Supervisor \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/\_\_\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Introduction**

This sampling procedure requires specific training and a demonstration of competency due to the expert judgment exercised during field sampling. It is required that individuals conducting this procedure train with qualified staff (who have passed the FDEP Stream Condition Index audit) and successfully obtain all required training and evaluation signatures.

In an effort to establish standardization and consistency, individuals performing the training are required to adhere to the competencies and principles detailed in this document. Following these training protocols will encourage the establishment of an equal foundation among samplers performing the Stream Condition Index. The items below do not need to be completed in any particular order, nor do they need to be completed in a single event. However, each training or evaluation event must be identified in the Training Event Log, regardless of whether a competency was completed or not.

First, trainers will follow the items described in the Training Activities Section and initial upon completion.

Evaluators will then follow the Evaluation Activities and initial upon completion. Evaluators should not sign off on an item unless the trainee has demonstrated complete competency. NOTE: the Evaluator is not the DEP Auditor, but rather a qualified trainer performing a “mock audit” for the trainee to ensure that the trainee has the required skills.

The same individual may be both a trainer and an evaluator.

This procedure should also be followed by individuals wishing to conduct Bio-Recon sampling (BRN 1100). Once the training and evaluating portions are complete, the trainer should contact FDEP for an audit.

**Objective**

To provide trainers and trainees a standardized set of training and evaluation activities for performing a SCI. Trainers and trainees must understand, convey, discuss and demonstrate (where applicable) the proper techniques and principles for performing a SCI, to include the following:

1. Identify appropriate and applicable SOPs and forms used or referenced for performing a SCI.
2. Previously or concurrently complete Form FD 9000-34, Stream Habitat Assessment Training Checklist and Event Log.
3. Discuss and recognize circumstances when the SCI should be postponed or not used.
4. Identify, measure, and mark the 100-meter length sampling area.
5. Complete Stream/River Habitat Sketch per FT 3001.
6. Complete Physical/Chemical Characterization per FT 3001.
7. Complete Stream/River Habitat Assessment per FT 3100 using Form FD 9000-5.
8. Identify best available habitats to include snags, leaf packs, roots, aquatic plants, rock/rubble.
9. Consider length of inundation when choosing habitats to sample.
10. Discuss flow considerations to take into account.
11. Know correct number of sweeps for SCI (20).
12. Properly apportion sweeps to habitats available.
13. Demonstrate ability to capture invertebrates during sweep, including proper agitation of substrates. Complete at least 3 passes with net over 0.5 meter sample area.
14. Sample only productive portions of habitats, does not dilute sample with unproductive detritus.
15. Area sampled is 0.5 meters, plus or minus 0.1 m. Note if consistently high or low.
16. Properly transfer sampled material to jug without sample loss.
17. During at least twelve (12) separate training sessions, perform objectives 3-16.

**Training Activities**

The trainer will discuss, convey, instruct and demonstrate (where applicable) each of the following items. Once completed to satisfaction, the trainer will initial and date the item. The trainee will also initial in the appropriate area to signify the item was presented to them and they have received an understanding and competency.

 Trainee / Trainer / Signoff Date

 \_\_\_\_\_/\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_

1. Identify the required SOPs and supporting references.
	1. DEP-SOP-001/01 FT 3000 Aquatic Habitat Characterization
	2. DEP-SOP-003/11 SCI 1200 Stream Condition Index (D-Frame Dip net) Sampling
	3. “Sampling and Use of the Stream Condition Index (SCI) for Assessing Flowing Waters: A Primer”, FDEP, Standards and Assessment Section, DEP-SAS-001/11 (formerly DEP/EA/002/07, June 2007)
	4. Obtains the documentation required for the sampling.
		1. Access the DEP SOP webpage for example SOP Forms Listing
		2. Print out the form FD 9000-3, Physical/Chemical Characterization Field Sheet (or another means of capturing documentation required in FD 5311).
		3. Print out the form FD 9000-4 Stream/River Habitat Sketch Sheet (or another means of capturing documentation required in FD 5311).
		4. Print out the form FD 9000-5 the Stream/River Habitat Assessment Field Sheet.

Trainee / Trainer / Signoff Date

1. Discuss circumstances when the SCI should be postponed \_\_\_\_\_/\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_
	1. List the normal stream factors to consider for the determination of representative sampling as continuous water flow of at least 0.05 m/sec, availability of substrate and accessibility for sampling.
	2. Determines if the stream flow has remained continuous and has not been intermittent or stagnant, with at least 0.05 m/sec velocity for the past month (except Minimum Flow and Level studies, see SCI Primer).
	3. Does not sample if velocity has not been at least 0.05 m/sec velocity for 28 daysDetermines stream height either from recent rainfall data or from gauging stations. Does not sample if dry conditions occur. Waits 6 months (180 days) after the stream returns to normal flow to sample unless site specific information indicates that the macroinvertebrate community recovers sooner (dependent on study objectives).
	4. Demonstrates an understanding of when the SCI should be postponed. If flood conditions occur (>0.5 meter above normal), waits 28 days until the water recedes, normal flow returns and/or the habitats become accessible. Organisms are not destroyed, but their normal habitats are not accessible due to high water.
	5. If water levels are ≤0.5 meter above normal, samples habitats at the normal stream shoreline, not the flooded shoreline.
	6. Sampling for SCI is not used for Ecoregion 76, the Southern Florida Coastal Plain, where few natural streams exist and where the SCI is not calibrated.

Trainee / Trainer / Signoff Date

1. Measure and mark the 100-meter reach. \_\_\_\_\_/\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_

Trainee / Trainer / Signoff Date

1. Complete habitat sketch per FT 3001. \_\_\_\_\_/\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_

Trainee / Trainer / Signoff Date

1. Complete Physical/Chemical Characterization per FT 3001 . \_\_\_\_\_/\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_

Trainee / Trainer / Signoff Date

1. Perform a habitat assessment and record information on Form FD 9000-5. \_\_\_\_\_/\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_

Trainee / Trainer / Signoff Date

1. Discuss the productive habitat substrates and the conditions that make them \_\_\_\_\_/\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_ productive.
2. Productive means the habitat is currently or can sustain invertebrate populations.
3. Must be in contact with the water.
4. Minimum of 2 square meters in the entire reach to be counted as present.
5. Do not count smothered portions of habitats.
6. Identify the major habitats to include snags, leaf packs/mats, roots, aquatic macrophytes, rock/rubble.
7. List the characteristics for productive snag habitat.
	* + 1. Count only woody debris, not herbaceous.
			2. Count only snags greater than thumb size.
			3. Count portion of wood directly in contact with water, not out of water or smothered.
			4. Preferentially, sample only in the normal, continuous stream flow.
			5. Count old snags as more productive than young snags.
			6. Avoid new snags.
			7. Look for snag bark that is malleable with lots of crooks and crannies.
8. List the characteristics for productive leaf material substrate.
9. Count only leaf litter that is in contact with water.
10. Sample leaf packs and leaf mats only in the normal, continuous stream flow.
11. Define a leaf pack as leaves packed up against an obstruction at surface or in water.
12. Define a leaf mat as piles of leaf material on the stream bottom.
13. Generally leaf packs are better than leaf mats due to higher flow and dissolved oxygen.
14. Count leaf packs/mats as productive only if partially decayed.
15. Sample only the top 2 cm of leaf mats as a productive aerobic habitat.
16. Describe anaerobic versus aerobic conditions.
17. Do not count anaerobic (no oxygen) leaf litter.
18. State that leaf material such as pine needles or cypress needles is not considered productive.
19. List the characteristics for productive roots.
20. Count only roots less than thumb size in diameter, with small diameter, fibrous roots considered the best habitat.
21. Count roots only in contact with the water.
22. Count only if in the normal, continuous stream flow.
23. Indicate that finer roots are more productive.
24. Count woody, adventitious roots hanging into the water.
25. Do not count the herbaceous roots of aquatic macrophytes or roots from herbaceous vegetation overhanging the water. These are instead counted as aquatic macrophytes.
26. Silt being present is fine as long as it isn’t excessive to the point where the roots are clumped together or the root material is not visible.
27. Do not count undercut banks as a productive substrate if productive roots are not present.
28. List the characteristics for productive aquatic macrophytes.
29. Count only aquatic vegetation in contact with water.
30. Count only aquatic vegetation in normal, continuous flow.
31. Do not count non-aquatic macrophytes that are temporarily inundated.
32. List the characteristics for productive rock/rubble habitat.
33. Count rocky outcrops or rocks in contact with the water.
34. Count rocks only in the normal, continuous stream flow.
35. Count only if greater than 5 cm of productive surface.
36. Indicate rougher surfaces as more productive than smooth surfaces.
37. State concrete is considered a rock if weathered and present for a long time.
38. Do not count asphalt (possibly toxic) or pipe clay (not stable) as productive substrates.
39. Identify minor habitats as sand, muck, silt, mud.

Trainee / Trainer / Signoff Date

1. Identify that older rather than younger substrates are preferred because the older \_\_\_\_\_/\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_ ones allow time for organism communities to develop and flourish.

Trainee / Trainer / Signoff Date

1. Flow must be considered when assessing the productivity of habitat. Habitats in \_\_\_\_\_/\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_ good flow should be sampled over habitats in lesser flow.

Trainee / Trainer / Signoff Date

1. Identify that the SCI consist of a total of 20 sweeps. \_\_\_\_\_/\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_
2. A sweep is defined as the width of the dip net (0.3 meter) by 0.5 meter.

Trainee / Trainer / Signoff Date

1. Apportion the 20 sweeps based on the number of productive habitats in the reach. \_\_\_\_\_/\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_
2. In 1 productive habitat, perform 10 sweeps in the major productive habitat and 10 sweeps in the minor.
3. In 2 productive habitats, perform 7 sweeps in the major productive habitats and 6 sweeps in the minor.
4. In 3 productive habitats, perform 5 sweeps in the major productive habitats and 5 sweeps in the minor.
5. In 4 productive habitats, perform 4 sweeps in the major productive habitats and 4 sweeps in the minor.
6. In 5 productive habitats, perform 3 sweeps in the major productive habitats and 5 sweeps in the minor.
7. Generally, sweeps in the minor habitat should be performed in sand or sand/muck areas with good flow.
8. If less than 2 square meters of a snag, leaf matter, roots, macrophytes or rock is in the stream reach and was not counted as an available, “major” habitat; perform as many sweeps as possible and count as “minor” sweeps.

 Trainee / Trainer / Signoff Date

1. Demonstrate ability to capture invertebrates during sweep, including proper agitation \_\_\_\_\_/\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_ of substrates.
2. Disturb, agitate or dislodge organisms from substrates by using hands, brush or other tool.
3. Position the dip net as closely to and no more than 0.5 m downstream of the substrate in order to capture organisms. In low velocity areas, create a current into the net while agitating the substrate.
4. Complete at least 3 passes with net over the sample area.
5. If possible, submerse fine roots and removable snags into net, then agitate and scrub.
6. For large removable snags, position net to capture organism when removing snag from water.
7. When sampling a leaf pack, place all material into dip net.
8. For large removable snags, position net to capture organisms when removing snag from water.
9. In heavily vegetated areas, place the net at the base of the vegetation and dislodge organisms using your hand.
10. If there is not enough substrate at one location to complete a full sweep, go to the same substrate at an alternative location to complete the sweep. These partial sweeps are combined to complete the full sweep.
11. Once collected, pull dip net up and wash water through to dislodge silt, etc.
12. When discarding large pieces of substrate from the dip net, individually scrub each piece before discarding.
13. Visibly inspect collected materials for organisms.

Trainee / Trainer / Signoff Date

1. Sample only productive portions of habitats, do not dilute sample with unproductive \_\_\_\_\_/\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_ detritus.
2. Collect only top 2 cm of leaf mats, sand, silt, mud or muck.
3. Sample only in the normal flow of the stream.

Trainee / Trainer / Signoff Date

1. Sample an area equal to 1 dip net wide and 0.5 meters long. \_\_\_\_\_/\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_
2. Use the width of the dip net and the marked dip net handle or other measuring device to determine sampling area.
3. For thick, 3-dimensional habitats such as roots and leaf packs, visually spread out the substrate to a thickness of 2 cm.
4. Completely sweep the 0.5 meter sample area within 0.1 meters during each pass.

Trainee / Trainer / Signoff Date

1. Transfer material to jug and preserve. \_\_\_\_\_/\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_
2. Once collected, pull dip net up and wash water through to dislodge silt, etc.
3. When discarding large pieces of substrate from the dip net, individually scrub each piece before discarding.
4. Visibly inspect collected materials for organisms.
5. Transfer sample into 4 liter wide mouth jug without losing any organisms (e.g. put jug in net, invert then dump net into jug).
6. Wash down/transfer from dip net to jug using a squirt bottle, turkey baster, etc.
7. Preserve with 10% buffered formalin. 1:10 dilution. Either add 1 part buffered formalin to 9 parts site water or fill the whole jug with already mixed 10% formalin solution.

Trainee / Trainer / Signoff Date

1. Observe and critique trainee for items 2-15 above at twelve (at least) separate \_\_\_\_\_/\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_ training sites; include at least four (4) good sites (minimally disturbed), four (4) poor sites (disturbed or altered) and one (1) non-wadeable system.

**Evaluation Activities**

The trainee will convey and/or demonstrate (where applicable) a mastery of the following items. Once completed to satisfaction, the Evaluator will initial and date the item.

 Evaluator / Signoff Date

1. Identify appropriate and applicable SOPs and forms used or referenced for performing an \_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_ SCI.
	1. DEP-SOP-001/01 FT 3000 Aquatic Habitat Characterization
	2. DEP-SOP-003/11 SCI 1200 Stream Condition Index (D-Frame Dip net) Sampling
	3. FD 9000-3, Physical/Chemical Characterization Field Sheet.
	4. FD 9000-4 Stream/River Habitat Sketch Sheet.
	5. FD 9000-5 the Stream/River Habitat Assessment Field Sheet.

Evaluator / Signoff Date

1. Completed training for Habitat Assessment, FT-3000. \_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_

Evaluator / Signoff Date

1. Recognize circumstances when the SCI should be postponed. \_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_
	1. Lists the normal stream factors to consider for the determination of representative sampling as continuous water flow of at least 0.05 m/sec, availability of substrate and accessibility for sampling.
	2. Determine if the stream flow has remained continuous and has not been intermittent or stagnant, with at least 0.05 m/sec velocity for the past month (except Minimum Flow and Level studies, see SCI Primer).
	3. Does not sample if velocity has not been at least 0.05 m/sec velocity for 28 days
	4. Determines stream height either from recent rainfall data or from gauging stations. Does not sample if dry conditions occur. Waits 6 months (180 days) after the stream returns to normal flow to sample unless site specific information indicates that the macroinvertebrate community recovers sooner (dependent on study objectives).
	5. Demonstrates an understanding of when the SCI should be postponed. If flood conditions occur (>0.5 meter above normal), waits 28 days until the water recedes, normal flow returns and/or the habitats become accessible.
	6. If water levels are ≤0.5 meter above normal, samples habitats at the normal stream shoreline, not the flooded shoreline.
	7. Sampling for SCI is not used for Ecoregion 76, the Southern Florida Coastal Plain, where few natural streams exist and where the SCI is not calibrated.

 Evaluator / Signoff Date

1. Measures and marks the 100-meter reach. \_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_

Evaluator / Signoff Date

1. Completes habitat sketch on Form FD 9000-4. \_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_

Evaluator / Signoff Date

1. Completes Physical/Chemical Characterization Field Sheet, FD 9000-3. \_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_

 Evaluator / Signoff Date

1. Performs a habitat assessment and records information on Form FD 9000-5. \_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_

Evaluator / Signoff Date

1. Identifies the productive habitat substrates and the conditions that make them productive. \_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_
2. States productive means the habitat is currently or can sustain invertebrate populations.
3. Understands habitats must be in contact with the water to be considered productive.
4. State a minimum of 2 square meters in the entire reach is needed to be counted as present.
5. Does not count smothered portions of habitats.
6. Identifies the major habitats to include snags, leaf material, roots, aquatic macrophytes, rock/rubble.
7. Lists the characteristics for productive snag habitat.
8. Counts only woody debris, not herbaceous.
9. Counts only snags greater than thumb size.
10. Counts portion of wood directly in contact with water, not out of water or smothered.
11. Prefers snags in the normal, continuous stream flow.
12. Counts old snags as more productive than young snags.
13. Avoids new snags.
14. Looks for snag bark that is malleable with lots of crooks and crannies.
15. Lists the characteristics for productive leaf material substrate.
16. Counts only leaf litter that is in contact with water.
17. Samples leaf packs and leaf mats only in the normal, continuous stream flow.
18. Defines a leaf pack as leaves packed up against an obstruction at surface or in water.
19. Defines a leaf mat as piles of leaf material on the stream bottom.
20. Understands leaf packs are better than leaf mats due to higher flow and dissolved oxygen.
21. Counts leaf packs/mats as productive only if partially decayed.
22. Considers only the top 2 cm of leaf mats as a productive aerobic habitat.
23. Does not count anaerobic (no oxygen) leaf litter.
24. States that leaf material such as pine needles is not considered productive.
25. Lists the characteristics for productive roots.
26. Counts only roots less than thumb size.
27. Counts roots only in contact with the water.
28. Counts only if in the normal, continuous stream flow.
29. Indicates that finer roots are more productive.
30. Counts adventitious roots hanging into the water.
31. Understands that silt being present is fine as long as it isn’t excessive to the point where the roots are clumped together or the root material is not visible.
32. Does not count undercut banks as a productive substrate if productive roots are not present.
33. Lists the characteristics for productive aquatic macrophytes.
34. Counts only aquatic vegetation in contact with water.
35. Counts only aquatic vegetation in normal, continuous flow.
36. Does not count non-aquatic macrophytes that are temporarily inundated.
37. Lists the characteristics for productive rock/rubble habitat.
38. Counts rocky outcrops or rocks in contact with the water.
39. Counts rocks only in the normal, continuous stream flow.
40. Counts only if greater than 5 cm of productive surface.
41. Identifies rougher surface as more productive than smooth surfaces.
42. States concrete is considered a rock if weathered and present for a long time.
43. Does not count asphalt or pipe clay as productive substrates.
44. Identifies minor habitats as sand, muck, silt, mud.

Evaluator / Signoff Date

1. Prefers older rather than younger substrates because the older ones allow time for \_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_ organism communities to develop and flourish.

Evaluator / Signoff Date

1. Considers flow conditions when assessing the productivity of habitat. Habitats in \_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_ good flow should be sampled over habitats in lesser flow.

Evaluator / Signoff Date

1. Identifies that the SCI consist of a total of 20 sweeps. \_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_
2. Defines a sweep as the width of the dip net (0.3 meter) by 0.5 meter.

Evaluator / Signoff Date

1. Apportions the 20 sweeps based on the number of productive habitats in the reach. \_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_
2. In 1 productive habitat, performs 10 sweeps in the major productive habitat and 10 sweeps in the minor.
3. In 2 productive habitats, performs 7 sweeps in the major productive habitats and 6 sweeps in the minor.
4. In 3 productive habitats, performs 5 sweeps in the major productive habitats and 5 sweeps in the minor.
5. In 4 productive habitats, performs 4 sweeps in the major productive habitats and 4 sweeps in the minor.
6. In 5 productive habitats, performs 3 sweeps in the major productive habitats and 5 sweeps in the minor.
7. Identifies that sweeps in the minor habitat should be performed in sand or sand/muck areas with good flow.
8. If less than 2 square meters of a snag, leaf matter, roots, macrophytes or rock is in the stream reach and was not counted as an available, “major” habitat; perform as many sweeps as possible and count as “minor” sweeps.

Evaluator / Signoff Date

1. Demonstrates ability to capture invertebrates during sweeps, including proper agitation of \_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_ substrates.
2. Disturbs, agitates or dislodges organisms from substrates by using hands, brush or other tool.
3. Positions the dip net as closely to and no more than 0.5 m downstream of the substrate in order to capture organisms. In low velocity areas, creates a current into the net while agitating the substrate.
4. Completes at least 3 passes with net over the sample area.
5. When sampling a leaf pack, places all material into dip net, and does not just agitate leaves.
6. If possible, submerses fine roots and removable snags into net, then agitates and scrubs.
7. For large removable snags, positions net to capture organism when removing snag from water.
8. In heavily vegetated areas, places the net at the base of the vegetation and dislodges organisms using his/her hand.
9. If there is not enough substrate at one location to complete a full sweep, goes to the same substrate at an alternative location to complete the sweep.
10. Once collected, pulls dip net up and washes water through to dislodge silt, etc.
11. When discarding large pieces of substrate from the dip net, individually scrubs each piece before discarding.
12. Visibly inspects collected materials for organisms.

Evaluator / Signoff Date

1. Samples only productive portions of habitats, does not dilute sample with unproductive \_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_ detritus.
2. Collects only top 2 cm of leaf mats, sand, silt, mud or muck.
3. Samples only in the normal flow of the stream.

Evaluator / Signoff Date

1. Samples an area equal to 1 dip net wide and 0.5 meters long. \_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_
2. Uses the width of the dip net and the marked dip net handle or other measuring device to determine sampling area.
3. For thick, 3-dimensional habitats such as roots and leaf packs, states that the habitats should be visually spread out to a thickness of 2 cm.
4. Completely sweeps the 0.5 meter sample area within 0.1 meters during each pass.

Evaluator / Signoff Date

1. Transfers material to jug without loss of organisms and preserves. \_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_
2. Once collected, pulls dip net up and washes water through to dislodge silt, etc.
3. When discarding large pieces of substrate from the dip net, individually scrubs each piece before discarding.
4. Visibly inspects collected materials for organisms.
5. Transfers sample into 4 liter wide mouth jug without losing any organisms (e.g. puts jug in net, inverts, then dumps net into jug).
6. Washes down/transfer from dip net to jug using a squirt bottle, turkey baster, etc.
7. Preserves with 10% buffered formalin. 1:10 dilution. Add 10% buffered formalin to full jug of site water.

Evaluator / Signoff Date

1. Performs training at twelve (at least) separate sites; including at least four (4) good \_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_ sites (minimally disturbed), four (4) poor sites (disturbed or altered) and one (1) non- wadeable system.

 **Training Event Log**

1. Trainers or Evaluators are the only ones authorized to make an entry into this table.
2. Indicate the type of training event conducted by checking the TR column for training events or the EV column for evaluation events.
3. Initial and date the entry.
4. Write a brief description of the training. Describe the activities performed, site name, habitats swept, etc.

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| --- | --- | --- | --- | --- |
| **TR** | **EV** | **Initial** | **Date** | **Event Description** |
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