

Module 2

STEP 1 BENCHMARK LOCATION

STEP 2 CROSS-SECTIONAL SURVEY

Take measurements every 0.5m in streams less than 5m wide, every 1m in streams 5 to 15m

STEP 3 CALCULATE DISCHARGE

26

Advanced Stream Habitat Survey Data Sheet - Module 2

STEP 4 LONGITUDINAL SURVEY, MEASUREMENTS

Length of survey site (minimum 12 times the bankfull width)	Minimum	m	Actual Length of Survey Site	m
--	---------	---	------------------------------	---

Upstream survey boundary

6x Bankfull Measurement			m	Actual Length of Survey Site			m
Upstream Location Description:			Lat:			Lng:	
habitat unit type (pool or riffle)	bottom of habitat unit (m) (hip chain)	top of habitat unit (m) (hip chain)	length of habitat unit (m) (measuring tape)	% slope (clinometer)	Photo taken (yes/no)		
	0m Up	Up					
		Up					
		Up					
		Up					
		Up					
		Up					
		Up					

Left Bank	0.10															Right Bank
Wetted Depth																
Bankfull Depth																

Upstream Average Depth: _____ m

Downstream survey boundary

6x Bankfull Measurement			m	Actual Length of Survey Site			m
Downstream Location Description:			Lat:			Lng:	
habitat unit type (pool or riffle)	top of habitat unit (m) (hip chain)	bottom of habitat unit (m) (hip chain)	length of habitat unit (m) (measuring tape)	% slope (clinometer)	Photo taken (yes/no)		
	0m Dn	Dn					
		Dn					
		Dn					
		Dn					
		Dn					
		Dn					
		Dn					

Left Bank	0.10															Right Bank
Wetted Depth																
Bankfull Depth																

Downstream Average Depth: _____ m

Advanced Stream Habitat Survey Data Sheet - Module 2

STEP 5 HABITAT CHARACTERISTICS

5.1 Streambed material at benchmark						Count	x4 = %	
1	6	11	16	21	finer (<0-2cm) - ladybug size and smaller		%	
2	7	12	17	22	gravel (0.2-5 cm) - ladybug to tennis ball		%	
3	8	13	18	23	cobble (5-25cm) - tennis ball to basketball		%	
4	9	14	19	24	boulder (>25cm) - bigger than a basketball		%	
5	10	15	20	25	bedrock - slab of rock		%	
5.2 Percent embeddedness cover of gravel and cobble by fine sediment Estimated %						Total	25	100%
						Total cobble plus boulder		

5.3 Instream Cover	Left Bank	Right Bank	Total #
Large Woody Debris			
Rooted Cutbank			
Total Instream Cover=			
Actual Survey Length m	Divided by Bankfull Width m		= (answer)
Divide Total Instream Cover by (answer) above to find Instream Cover Ratio			

5.4 Percent Pool Habitat – from step 4		% slope
Total Pool Habitat m	Divided by Actual Survey Length m	= % Pool Habitat

5.5 Off Channel Habitat (Describe: Flood Refuge, Pond, Side Channel, Size, and if Seasonal (Ephemeral) or Year-round)	
Present	

5.6 Bank Stability	Count	Left Bank	Right Bank	Comments (Soil Type, Topography)
Active Bank Erosion		m	m	
Slides Reaching Channel		m	m	
Bank Stabilization		m	m	

5.7 Length of Bank with No Vegetation	Left Bank	m	Right Bank	m
% Bank With Vegetation (Length of bank with no vegetation divided by Actual Survey Length)		%		%

5.8 Overhead canopy	%
% bankfull channel covered by overhanging branches	

5.9 Riparian zone	# of channel widths	
type and amount of vegetation	coniferous trees	none <input type="checkbox"/> few <input type="checkbox"/> many <input type="checkbox"/>
	deciduous trees	none <input type="checkbox"/> few <input type="checkbox"/> many <input type="checkbox"/>
	shrubs	none <input type="checkbox"/> few <input type="checkbox"/> many <input type="checkbox"/>
	grasses	none <input type="checkbox"/> few <input type="checkbox"/> many <input type="checkbox"/>
Adjacent land use and impacts		

Advanced Stream Habitat Survey Field Data Sheet

(use a new data sheet for each reference site surveyed) **Module 2**

HABITAT ASSESSMENT *(the score in bold, estimate a value within the range listed)*

Characteristic	Results	Good	Acceptable	Marginal	Poor	Score
1: Streambed material: % boulder and cobble		15 - 20 50%	10 - 15 30-50%	5 - 10 10-30%	0 - 5 <10%	
2: Embeddedness:		15 - 20 25-0%	10 - 15 50-25%	5 - 10 75-50%	0 - 5 >75%	
3: Instream cover:		15 - 20 >3	10 - 15 2 to 3	5 - 10 1 to 2	0 - 5 <1	
4: % Pool Habitat <2% stream slope 2-5% stream slope >5% stream slope	% Slope	11 - 15 >60% pool	7 - 11 50-60%	3 - 7 40-50%	0 - 3 <40%	
		>50% pool	40-50%	30-40%	<30%	
	% Pool	>40% pool	30-40%	20-30%	<20%	
5: Off-channel habitat: ponds, side channels with protection from flood flows		11 - 15 year round, good protection	7 - 11 seasonal, good protection	3 - 7 seasonal, minimal protection	0 - 3 little or none, no protection	
6: Bank Stability evidence of erosion or bank failure (see note 1)		11 - 15 stable none	7 - 11 Moderately Stable some	3 - 7 moderately unstable some	0 - 3 unstable lots	
7. Bank vegetation: % stream bank covered by vegetation		8 - 10 >90%	5 - 8 70-90% _s	2 - 5 50-70%	0 - 2 <50%	
8. Overhead canopy: % bankfull channel overhung by trees and shrubs		8 - 10 >30%	5 - 8 20-30%	2 - 5 10-20%	0 - 2 0-10%	
9. Riparian zone: # bankfull channels		8 - 10 2 or more abundant on whole floodplain	5 - 8 1 to 2 good species mix	2 - 5 <1 common, few species	0 - 2 0 sparse or absent	
Total Score		102 - 135	66 - 102	30 - 66	0 - 30	

Note 1: The evidence of erosion or bank failure changes from **Good** (intact banks) to **Acceptable** (healed or banks stabilized) to **Marginal** (active erosion or extensive bank stabilization) to **Poor** (many actively eroding areas or upslope slides reaching channel).

Enter the data: Streamkeepers Database,
www.streamkeepers.info

Data entered on (date): _____
Name: _____