

Habitat	Subhabitat and Ecological Community	Quantitative Sampler	Reference(s)	Qualitative Or Semi-Quantitative	Reference(s)
LOTIC HABITATS I. Streams, Wadable Rivers, Springs.	A. Riffles (erosional areas)				
	1. Benthos a. Sediments	Surber sampler	636, 1849, 2388, 2726, 2868, 3909, 588, 3868	Aquatic net	4074, 2413
		Hess, or modified Hess	1704, 1944, 4264, 546, 1084	Hand screen	4074
		T-sampler	2427	Artificial substrate sampler	1849, 2388, 2503, 3410, 3430, 3903, 588, 4301, 2230, 556, 1943
		Individual stone, bedrock, or rock outcrop sampler	3609, 1840, 4575, 4148, 2608	Individual stone sampler	929, 4575, 2608
		Stovepipe, or box-type sampler	66, 3819, 4296, 4411	Kick sampling	1321, 1893, 3173, 2416, 3868, 2317
		Suction samplers (airlift and water pump)	376, 2935, 4523, 1497, 444	Recolonization	4437
				Hand collections	2388, 4074
				Leaf packs	2668, 3109, 3623, 377, 921
		Portable invertebrate box sampler	2107, 133, 4148	Photographic methods	787, 788
		Riffle sampler	671	Graded sieves	176, 2797, 4074

	b. Hyporheic zone (subterranean)	Implants	320, 678, 1400, 1898, 2765, 3177	Freeze-core samplers	1040, 3852, 404, 3223, 403, 2372
		Standpipe corers	1127, 4429, 4436, 4438	Canister sampler	1400
	c. Plants	Bag sampler	1897, 4296	Needham apron net	4074
		Surber sampler		Aquatic net	4074
				Snag sampler	889
		Stovepipe sampler	66, 4284		
		Lambourn sampler	1717		
	d. Drift and neuston (surface)	Drift net	117, 1048, 4257, 4437, 4474, 44, 1084	Aquatic net	4074
		Plankton net	1048, 1897		
		Cushing-Mundie drift sampler	813, 2795		
		Hardy plankton indicator type sampler	1046, 1897		
		Surface film sampler	670		
		Colonization cages	1659		
	2. Emerging Adults	Surface film sampler	670	Hand screen collector	4074
		Mundie pyramid trap	2793	Pan traps	1486, 2208
		Stationary screen trap	1538, 1906, 2511	Window traps	607, 3913
		Enclosed channels	4245	Light traps	3758
		Floating emergence traps	2326, 2390, 2756, 860		

	B. Pools (depositional areas)				
	1. Benthos a. Sediments	Eckman grab with pole	1897	Aquatic net	4074
		Wilding or stovepipe sampler		Graded sieves	4074
		Single corer with pole	680, 1340, 4161		
		Suction samplers (air-lift and water pump)	376, 444		
	b. Plants	Bag sampler	1897	Needham apron net	4074
	c. Drift and neuston	See section I.A.I.C.		See section I.A.I.C.	
	2. Emerging Adults	See section 1.A.Z.		See section I.A.Z.	
II. Large Rivers.	A. Riffles 1. Benthos a. sediments	Suction samplers (air-lift and water pump)	1065, 1344, 1499, 4127, 972, 1568, 2935, 973	Basket or cylindrical- type artificial substrate samplers	78, 101, 216, 763, 1211, 1342, 1536, 1717, 1726, 2505, 2509, 3001, 3432, 4286
				Suction samplers (air- lift and water pump)	972, 3044, 2424
		SCUBA diving	1342, 1343, 1717, 3236	Single or multi-plate sampling	912, 1211, 1599, 1705, 3432
		Grab samplers	37, 1063, 1065	Drag-type samplers	1064, 1065, 4079
	b. Drift and neuston	Floating drift trap	1048, 2796		
		Hardy plankton indicator - type sampler	1046, 1897		
	2. Emerging Adults	Insect emergence traps	2244, 2756, 860		

		Floating drift trap	2796		
	B. Pools 1. Benthos a. Sediments	Ponar Grab	1063, 1065, 2338, 3193	Basket-type artificial substrate samplers	1211, 1342, 2505, 3432
		Petersen-type grabs	1063, 2338, 3125	SCUBA diving	1065, 1897
		Eckman grab	1045, 1063, 1065, 1897, 2338		
		Core sampler	1065, 1208, 1340, 1394		
		Allan hand- operated grab	37		
	b. Plants	See Lentic Habitats Section III.A.1.b.		See Lentic Habitats Section III.A.1.b.	
	c. Drift and neuston	See Section IIA.1.b.			
		2. Emerging Adults see section II.A.Z.			
LENTIC HABITATS III. Shallow Standing- Water Habitats.	A. Vegetated 1. Benthos a. Sediments	Core sampler with pole	213, 680, 1340, 4161	Aquatic net	4074
		Wilding or Hess-type sampler	1704, 1717, 4411	Graded sieves	2241, 3967, 4074
		Kellen grab	2064, 4252		
		Water column sampler	2302, 3915		
		Suction sampler	1943, 444		

	b. Rooted plants, periphyton	Macan sampler	1830, 2037, 2386, 954, 950	Glass slides, plastic squares, and other artificial substrates	2396, 3688, 3689
		Minto sampler	950	Modified KUG sampler	445
		Lambourn sampler	1717		
		Gerking sampler	1379	Modified sweep net	2046, 4144
		Modified Gerking sampler	2046, 2723, 1360	Drop traps and pull-up traps	1297, 172
		Quadrat Clipping	950		
		Removal of natural substrates	3689		
		Plexiglass or metal tubes	2236, 3689, 1113		
		Douglas method	947		
	c. Neuston	Water column sampler	2302, 240	Subaquatic light traps	7, 560, 561, 1870, 1879, 4252, 4646
		D-Vac vacuum sampler	1349	Telescope method	1473
				Bottle traps	1753, 1739
		Funnel-trap	1674	Plankton tow net	
				Hand dipper	3628, 3758, 3901, 4074, 4144, 3901
				Aquatic net	4074, 4144, 3901
	2. Emerging adults	Emergence traps (surface traps which float)	705, 1111, 1509, 2016, 2091, 2231, 2326, 2345, 2604, 2756, 2757, 2793, 2798, 3210, 3437, 860, 815, 4577, 1084	Subaquatic light traps	7, 352, 108, 560, 561, 1107, 1870, 1879, 4252, 4646

	A. Nonvegetated 1. Benthos a. sediment	Ekman with or without pole	1045, 1830, 2037, 954	Dredges	2037
		Kellen grab	2064	Aquatic net	4074
		Petite ponar			
		Suction sampler (air-lift and water pump)	376, 3866		
		Core sampler with pole	213, 680, 1340, 2037, 4161		
		Water column sampler	3915		
	b. Neuston	See section IIIA.1.c.		See section III.A.1.c.	
	2. Emerging Adults	See section III.A.2.		See Section IIIA.1.c.	
IV. Lakes.	A. Littoral 1. Benthos a. nonvegetated (wave-swept)	Wilding of stovepipe sampler	2037, 4296, 4411	Basket-type artificial substrate sampler	102, 118, 216, 1211, 2738, 3432, 4150, 4286
		Suction sampler (air-lift and water pump).	1190, 1499, 954		
		Core sampler with or without pole	213, 680, 1208, 1340, 4161, 954	Graded sieves	4074
		Eckman or similar type grab with pole.	886, 1063, 1828, 2964, 4522, 954		
		Ponar	102, 1063, 1208, 1828, 2037, 3193		
		SCUBA diving with sampling gear	1129, 1341, 954		
		Also, see section III.B.1.a.			

	b. Vegetated (littoral zone)	Wilding or stovepipe sampler	4284, 4411	Dredges and grabs	954
		Gillespie and Brown sampler	1393	Photographic methods	4284
				Modified KUG sampler	445
		Macan sampler and attachment rod	2037, 2964		
		Removal of natural substrate by SCUBA	4319		
	2. Emerging adults	See section III.A.2.			
	A. Profundal 1. Benthos a. Sediments	Single core sampler	418, 1208, 1811, 2037, 2040, 2055, 2694, 4296, 4346, 954, 33	Dredges	954
		Multiple core sampler	1208, 1539, 2037, 2694	Photographic methods	2037
		Ekman or modified Ekman grab	1045, 1208, 2037, 2816, 954		
		Ponar Grab	1208, 2037, 3193, 954		
		Petersen-type grab	2037, 3125, 3724, 4296		
		SCUBA diving with sampling gear	1129, 2037, 4150		

	2. Emerging adults	Emergence traps (mainly funnel and submerged traps)	469, 1144, 3436, 1509, 2016, 2756, 2757, 2793, 2798, 3437, 4346, 860		
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