Shannon McGinty
Program Coordinator
Lake Windermere Ambassadors
Invermere, BC
250-341-6898

May 26, 2021

Attn: Shannon McGinty

Subject: Summary of Activities for the day of sampling conducted July 24, 2020.

Dear Shannon,

Background

In response to a request from Lake Windermere Ambassadors (the Ambassadors), Lotic Environmental Ltd. (Lotic) prepared a plan for a day of sampling. Activities conducted as part of the day of sampling on July 24, 2020 included beach seining and minnow trapping. The crew consisted of Michael Hildebrand (Lotic), Georgia Peck (acting Program Coordinator with the Ambassadors), and Claire Suggett (Ambassadors summer student). Lotic provided the sampling gear and the Ambassadors provided the boat.

Results

In total, eight beach seine hauls were conducted along the shoreline of Lake Windermere (Table 1). The total area sampled was 463 m^2, and a total of 91 fish were captured (Table 3). The overall catch rate was 19.7 fish/100 m^2 sampled. The catch was composed of 57 Redside Shiner (RSC; catch rate of 12.3/100 m^2) and 34 juvenile Northern Pikeminnow (NPC; catch rate of 7.3/100 m^2).

Minnow traps were deployed at three sites (Table 2). This was due to the sampling being limited to one day (therefore the traps could not be set over night). The three traps were baited with dog treats and fished for a total of 10 hours (1.0 to 5.6); one Northern Pikeminnow was captured in the trap that fished the longest (Table 3).

Closing

I trust this provides adequate information to meet your request. If you have any questions or would like additional information, please do not hesitate to contact me.

Sincerely,

Michael Hildebrand (BSc, RPBio)
Senior Fisheries Biologist
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Table 1: Beach Seine sample data, Lake Windermere, 24 July, 2020.

Site	Area	Time Start	Time End	Length Sampled (m)	Width Sampled (m)	Area Sampled (m²)	Depth (m) Max.	Depth (m) Mean	Water Velocity (m/s)	Substrate Dominant	Substrate Sub-dom.	Lat./Long. N	Lat./Long. W	Catch Summary NPC[b]	Catch Summary RSC[b]	Comments
BS1	Pete's Marina	08:55	N/A	12	4	48	1.0	0.4	nil	sand	silt	50.50905	116.02885	0	0	
BS2	Windermere Beach	09:50	N/A	15	4	60	0.8	0.4	nil	gravel		50.46166	115.99418	0	0	
BS3	Windermere Provincial Park Beach	10:25	N/A	20	4	80	0.8	0.4	nil	sand	gravel	50.42887	115.96758	0	0	
BS4	Rushmere	10:45	N/A	15	3	45	1.0	0.6	nil	gravel	cobble	50.41448	115.94869	0	0	
BS5	near mouth of Johnson Creek	11:35	N/A	20	3	60	0.7	0.3	nil	sand	gravel	50.43240	115.97109	10	0	trace aquatic vegetation
BS6	Windermere Creek area	12:33	N/A	20	5	100	0.5	0.2	nil	silt	sand	50.45698	115.99275	7	9	
BS7	near Salter Creek mouth	13:27	N/A	10	4	40	0.5	0.3	nil	fines	gravel	50.45451	116.00477	17	48	
BS8[a]	Abel Creek mouth (culvert) area	14:20	N/A	10	3	30	0.8	0.4	nil	gravel	fines	50.48812	116.02476	0	0	
						Total 463								**Total** 34	57	
													CPUE[c]	7.3	12.3	

[a] Low sample efficiency due to large amount of gravel getting into net.
[b] NPC = Northern Pikeminnow, RSC = Redside Shiner.
[c] CPUE = catch-per-unit-effort (number of fish/100 m²).

Table 2: Minnow Trap sample data, Lake Windermere, 24 July, 2020.

Site	Area	Time Start	Time End	Sample Duration (h)	Depth (m)	Water Velocity (m/s)	Substrate Dom	Substrate Sub	Lat./Long. N	Lat./Long. W	Catch Summary NPC[a]	Catch Summary RSC[a]	Comments
MT1	Pete's Marina	09:12	14:50	5.6	0.9	nil	sand	silt	50.51485	116.01862	1	0	
MT2	Windermere Beach	09:45	13:05	3.3	0.4	nil	gravel		50.46166	115.99418	0	0	near small woody debris (SWD)
MT3	Windermere Provincial Park Beach	10:20	11:20	1.0	0.3	nil	sand		50.42887	115.96758	0	0	near small woody debris (SWD)
			Total	10.0						**Total**	1	0	

[a] NPC = Northern Pikeminnow, RSC = Redside Shiner.

Table 3: Fish captured during sampling on Lake Windermere, 24 July, 2020 (NPC = Northern Pikeminnow, RSC = Redside Shiner).

Fish #	Site	Species	Length (mm)	Weight (g)	Comments
1	MT1	NPC	89	8	
2	BS4	NPC	57	2	
3	BS4	NPC	62	1	
4	BS4	NPC	51	2	
5	BS4	NPC	50	2	
6	BS4	NPC	60	3	
7	BS4	NPC	65	4	
8	BS4	NPC	56	2	
9	BS4	NPC	55	2	
10	BS4	NPC	63	3	
11	BS4	NPC	55	1	
12	BS6	NPC	61	2	
13	BS6	NPC	75	3	
14	BS6	RSC	58	3	
15	BS6	RSC	71	4	
16	BS6	NPC	66	2	
17	BS6	RSC	85	7	
18	BS6	RSC	68	3	
19	BS6	RSC	66	4	
20	BS6	RSC	80	5	
21	BS6	RSC	84	7	
22	BS6	NPC	47	1	
23	BS6	RSC	68	3	
24	BS6	NPC	52	2	
25	BS6	RSC	72	4	
26	BS6	NPC	58	3	missing portion of tail
27	BS6	NPC	52	2	
28	BS7	RSC	30	< 1	
29	BS7	RSC	22	< 1	
30	BS7	RSC	33	< 1	
31	BS7	RSC	31	< 1	
32	BS7	RSC	30	< 1	
33	BS7	RSC	36	< 1	
34	BS7	RSC	30	< 1	
35	BS7	RSC	29	< 1	
36	BS7	RSC	33	< 1	
37	BS7	RSC	31	< 1	
38	BS7	RSC	36	< 1	
39	BS7	NPC	65	3	
40	BS7	RSC	59	2	
41	BS7	NPC	72	4	
42	BS7	RSC	33	< 1	
43	BS7	RSC	27	< 1	
44	BS7	RSC	31	< 1	
45	BS7	RSC	25	< 1	
46	BS7	RSC	34	< 1	
47	BS7	RSC	29	< 1	
48	BS7	RSC	33	< 1	
49	BS7	RSC	32	< 1	
50	BS7	RSC	29	< 1	
51	BS7	RSC	47	1	
52	BS7	RSC	45	1	
53	BS7	RSC	45	1	
54	BS7	RSC	51	2	

Table 3: Concluded.

Fish #	Site	Species	Length (mm)	Weight (g)	Comments
55	BS7	RSC	33	< 1	
56	BS7	NPC	55	2	
57	BS7	NPC	71	2	
58	BS7	RSC	31	< 1	
59	BS7	NPC	48	1	
60	BS7	NPC	57	2	
61	BS7	RSC	45	1	
62	BS7	RSC	65	3	
63	BS7	RSC	77	5	
64	BS7	NPC	57	2	
65	BS7	NPC	74	4	
66	BS7	NPC	46	1	
67	BS7	NPC	50	2	
68	BS7	RSC	51	2	
69	BS7	RSC	71	3	
70	BS7	NPC	51	2	
71	BS7	RSC	48	2	
72	BS7	RSC	54	2	
73	BS7	RSC	52	2	
74	BS7	RSC	50	2	
75	BS7	RSC	46	1	
76	BS7	NPC	56	2	
77	BS7	RSC	55	2	
78	BS7	RSC	53	2	
79	BS7	RSC	46	1	
80	BS7	NPC	62	3	
81	BS7	RSC	60	2	
82	BS7	RSC	54	1	
83	BS7	RSC	54	2	
84	BS7	RSC	65	3	
85	BS7	RSC	49	2	
86	BS7	NPC	56	2	
87	BS7	RSC	62	2	
88	BS7	NPC	62	2	
89	BS7	NPC	58	2	
90	BS7	RSC	50	2	
91	BS7	RSC	54	2	
92	BS7	NPC	60	3	