

## Estimates for the Open Water Creel Survey on the Boardman River, Grand Traverse and Kalkaska Counties, 2015

<b>Waterbody</b>	Boardman River
<b>Year</b>	2015
<b>County</b>	Grand Traverse and Kalkaska counties
<b>Sections/Sites</b>	<b>Section 1:</b> Mouth to Beitner Road ( <b>site 1</b> ), Beitner Road to Brown Bridge ( <b>site 2</b> ) <b>Section 2:</b> Brown Bridge to Forks ( <b>site 3</b> ), Forks to Kalkaska ( <b>site 4</b> ).
<b>Survey period</b>	May 1 to September 30
<b>Sites</b>	Mouth to Sabin Dam ( <b>site 1a</b> ),
<b>Survey period</b>	April 1-30 and October 1-31
<b>Survey design</b>	Roving (instantaneous)-access
<b>Count methods/modes</b>	Roving (instantaneous)/boat and shore
<b>Clerk time</b>	full time
<b>Survey purpose</b>	Characterize general effort and catch aspects of the fishery

### Notes

The surveys followed a roving (instantaneous)-access design. Funding was provided by the Federal Aid to Sport Fish Restoration Project F-81, Study 230499. Two clerks worked full time to collect angling survey data. Two weekend days and 3 week days were randomly selected for sampling during each week of the survey season. No holidays were sampled. Clerks followed a randomized count and interview schedule. One of two shifts was selected each sample day. The May to September survey consisted of a portion of the Boardman River from the mouth to Kalkaska that was divided into 4 sites during the period from May through September: Mouth to Beitner Road, Beitner Road to Brown Bridge, Brown Bridge to Forks, Forks to Kalkaska. During a week each section was sampled every other scheduled day. One creel clerk was used to sample Site 1a (a portion of site 1) in April and October. Starting location within a section and direction of travel were randomized for both counting and interviewing. Roving (instantaneous) counts of boat and shore anglers were made once per day. Survey period for both counts and interviews was April 1 to October 31. Other in a table is a group of species including Sheepshead and Goby. "NAN" in a table means there was not enough data to make an estimate.

Table 1.–Daylight hours used to estimate catch and effort on the Boardman River from the mouth to Kalkaska, May 1 to September 30, 2015 and mouth to Sabin Dam, April 1-30 and October 1-31, 2015.

Year	Month	Daylight hours
2015	4	15
2015	5	15
2015	6	16
2015	7	16
2015	8	15
2015	9	14
2015	10	12

Table 2.—Estimated harvest, catch per hour, and fishing pressure for the Site 1, Mouth to Beitner Road, boat fishery. Two standard errors are given below the estimates.

Species	C/H	May	June	July	August	September	Season
HARVEST							
Walleye	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Smallmouth Bass	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Rock Bass	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Rainbow Trout	0.2409	49	—	—	—	—	49
	1.0823	NAN	—	—	—	—	196
Brown Trout	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Brook Trout	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Chinook Salmon	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Coho Salmon	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
TOTAL HARVEST	0.2409	49	—	—	—	—	49
	1.0823	NAN	—	—	—	—	196
RELEASED							
Northern pike	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Smallmouth bass	1.9272	392	—	—	—	—	392
	8.6580	NAN	—	—	—	—	1,567
Yellow Perch	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Rock bass	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Rainbow trout	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Brown trout	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Brook trout	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Carp	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Coho salmon	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Other	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
TOTAL RELEASED	1.9272	392	—	—	—	—	392
	8.6580	NAN	—	—	—	—	1,567
TOTAL CATCH	2.1682	441	—	—	—	—	441
	8.9452	NAN	—	—	—	—	1,580
ANGLER HOURS		86	—	—	—	118	203
		NAN	—	—	—	235	416
ANGLER TRIPS		69	—	—	—	94	163
		NAN	—	—	—	192	335

Table 3.—Estimated harvest, catch per hour, and fishing pressure for the Site 1, Mouth to Beitner Road, shore fishery. Two standard errors are given below the estimates.

Species	C/H	May	June	July	August	September	Season
<b>HARVEST</b>							
Walleye	0.0085	44	45	—	—	—	89
	0.0120	87	89	—	—	—	124
Smallmouth Bass	0.0087	71	—	20	—	—	91
	0.0098	93	—	40	—	—	101
Rock Bass	0.0450	—	472	—	—	—	472
	0.0904	—	943	—	—	—	943
Rainbow Trout	0.0190	14	—	185	—	—	199
	0.0272	28	—	281	—	—	282
Brown Trout	—	—	—	—	—	—	—
Brook Trout	—	—	—	—	—	—	—
Chinook Salmon	0.0040	—	—	—	—	42	42
Coho Salmon	0.0044	—	—	—	—	46	46
Coho Salmon	0.0053	—	—	—	—	55	55
	0.0078	—	—	—	—	82	82
TOTAL HARVEST	0.0904	129	516	205	—	97	948
	0.0971	131	947	284	—	93	1,002
<b>RELEASED</b>							
Northern pike	0.0056	—	59	—	—	—	59
	0.0113	—	118	—	—	—	118
Smallmouth bass	0.2957	918	586	1,319	279	—	3,102
	0.1575	843	622	1,045	414	—	1,536
Yellow Perch	0.0100	—	—	47	58	—	105
	0.0141	—	—	76	125	—	146
Rock bass	0.2455	76	1,105	1,343	51	—	2,575
	0.1517	117	764	1,291	102	—	1,509
Rainbow trout	0.1707	540	134	812	299	6	1,790
	0.1122	731	266	756	291	11	1,123
Brown trout	0.0975	254	207	146	416	—	1,023
	0.0588	357	299	259	238	—	584
Brook trout	0.0212	—	—	129	—	94	222
	0.0307	—	—	257	—	189	319
Carp	0.0278	220	71	—	—	—	291
	0.0433	440	98	—	—	—	450
Coho salmon	0.0047	49	—	—	—	—	49
	0.0094	98	—	—	—	—	98
Other	0.1191	250	948	51	—	—	1,249
	0.0910	247	882	102	—	—	922
TOTAL RELEASED	0.9977	2,306	3,110	3,847	1,103	99	10,465
	0.3252	1,284	1,390	1,866	582	189	2,727
TOTAL CATCH	1.0881	2,436	3,626	4,052	1,103	197	11,413
	0.3495	1,291	1,682	1,887	582	211	2,905
ANGLER HOURS		2,477	2,704	1,989	1,680	1,638	10,488
		1,071	837	1,185	774	605	2,054
ANGLER TRIPS		1,385	1,346	1,021	743	842	5,336
		630	516	705	579	357	1,274

Table 4.–Estimated harvest, catch per hour, and fishing pressure for the Site 1, Mouth to Beitner Road, combined boat and shore fishery. Two standard errors are given below the estimates.

Species	C/H	May	June	July	August	September	Season
<b>HARVEST</b>							
Walleye	0.0083	44	45	–	–	–	89
	0.0142	87	89	–	–	–	124
Smallmouth Bass	0.0085	71	–	20	–	–	91
	0.0126	93	–	40	–	–	101
Rock Bass	0.0441	–	472	–	–	–	472
	0.0981	–	943	–	–	–	943
Rainbow Trout	0.0232	63	–	185	–	–	248
	0.0419	NAN	–	281	–	–	377
Brown Trout	–	–	–	–	–	–	–
Brook Trout	–	–	–	–	–	–	–
Chinook Salmon	0.0039	–	–	–	–	42	42
	0.0057	–	–	–	–	46	46
Coho Salmon	0.0052	–	–	–	–	55	55
	0.0091	–	–	–	–	82	82
TOTAL HARVEST	0.0932	178	516	205	–	97	997
	0.1460	NAN	947	284	–	93	1,223
<b>RELEASED</b>							
Northern pike	0.0055	–	59	–	–	–	59
	0.0123	–	118	–	–	–	118
Smallmouth bass	0.3267	1,309	586	1,319	279	–	3,494
	0.5962	NAN	622	1,045	414	–	5,393
Yellow Perch	0.0099	–	–	47	58	–	105
	0.0167	–	–	76	125	–	146
Rock bass	0.2408	76	1,105	1,343	51	–	2,575
	0.2735	117	764	1,291	102	–	1,509
Rainbow trout	0.1674	540	134	812	299	6	1,790
	0.1938	731	266	756	291	11	1,123
Brown trout	0.0956	254	207	146	416	–	1,023
	0.1079	357	299	259	238	–	584
Brook trout	0.0208	–	–	129	–	94	222
	0.0360	–	–	257	–	189	319
Carp	0.0272	220	71	–	–	–	291
	0.0498	440	98	–	–	–	450
Coho salmon	0.0046	49	–	–	–	–	49
	0.0102	98	–	–	–	–	98
Other	0.1168	250	948	51	–	–	1,249
	0.1427	247	882	102	–	–	922
TOTAL RELEASED	1.0154	2,698	3,110	3,847	1,103	99	10,857
	1.4302	NAN	1,390	1,866	582	189	11,057
TOTAL CATCH	1.1087	2,876	3,626	4,052	1,103	197	11,853
	1.4987	NAN	1,682	1,887	582	211	11,124
ANGLER HOURS		2,563	2,704	1,989	1,680	1,756	10,692
		NAN	837	1,185	774	649	10,403
ANGLER TRIPS		1,453	1,346	1,021	743	936	5,499
		NAN	516	705	579	405	5,920

Table 5.–Estimated harvest, catch per hour, and fishing pressure for the Site 2, Beitner Road to Brown Bridge, shore fishery. Two standard errors are given below the estimates.

Species	C/H	May	June	July	August	September	Season
<b>HARVEST</b>							
Walleye	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
Smallmouth Bass	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
Rock Bass	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
Rainbow Trout	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
Brown Trout	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
Brook Trout	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
Chinook Salmon	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
Coho Salmon	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
<b>TOTAL HARVEST</b>	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
<b>RELEASED</b>							
Northern pike	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
Smallmouth bass	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
Yellow Perch	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
Rock bass	0.0462	–	–	98	–	–	98
	0.1857	–	–	NAN	–	–	393
Rainbow trout	0.1387	–	–	294	–	–	294
	0.5572	–	–	NAN	–	–	1,178
Brown trout	0.2721	578	–	–	–	–	578
	1.0929	NAN	–	–	–	–	2,310
Brook trout	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
Carp	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
Coho salmon	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
Other	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
<b>TOTAL RELEASED</b>	0.4571	578	–	393	–	–	970
	1.3265	NAN	–	NAN	–	–	2,793
<b>TOTAL CATCH</b>	0.4571	578	–	393	–	–	970
	1.3265	NAN	–	NAN	–	–	2,793
<b>ANGLER HOURS</b>		374	368	587	495	298	2,122
		235	388	415	345	314	772
<b>ANGLER TRIPS</b>		NAN	NAN	NAN	NAN	NAN	–
		NAN	NAN	NAN	NAN	NAN	–

Table 6.—Estimated harvest, catch per hour, and fishing pressure for the Site 3, Brown Bridge to Forks, boat fishery. Two standard errors are given below the estimates.

Species	C/H	May	June	July	August	September	Season
<b>HARVEST</b>							
Walleye	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
Smallmouth Bass	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
Rock Bass	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
Rainbow Trout	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
Brown Trout	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
Brook Trout	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
Chinook Salmon	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
Coho Salmon	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
<b>TOTAL HARVEST</b>	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
<b>RELEASED</b>							
Northern pike	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
Smallmouth bass	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
Yellow Perch	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
Rock bass	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
Rainbow trout	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
Brown trout	0.3862	10	70	-	-	-	81
	1.8567	NAN	NAN	-	-	-	285
Brook trout	0.2178	10	35	-	-	-	46
	0.9997	NAN	NAN	-	-	-	147
Carp	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
Coho salmon	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
<b>TOTAL RELEASED</b>	0.6039	21	106	-	-	-	126
	2.8525	NAN	NAN	-	-	-	430
<b>TOTAL CATCH</b>	0.6039	21	106	-	-	-	126
	2.8525	NAN	NAN	-	-	-	430
<b>ANGLER HOURS</b>		165	44	-	-	-	209
		NAN	NAN	-	-	-	683
<b>ANGLER TRIPS</b>		67	18	-	-	-	85
		NAN	NAN	-	-	-	277

Table 7.—Estimated harvest, catch per hour, and fishing pressure for the Site 3, Brown Bridge to Forks, shore fishery. Two standard errors are given below the estimates.

Species	C/H	May	June	July	August	September	Season
<b>HARVEST</b>							
Walleye	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Smallmouth Bass	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Rock Bass	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Rainbow Trout	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Brown Trout	0.0096	—	18	—	—	5	22
	0.0126	—	26	—	—	9	28
Brook Trout	0.0779	—	—	—	—	179	179
	0.3133	—	—	—	—	NAN	717
Chinook Salmon	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Coho Salmon	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
<b>TOTAL HARVEST</b>	0.0876	—	18	—	—	184	201
	0.3218	—	26	—	—	NAN	736
<b>RELEASED</b>							
Northern pike	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Smallmouth bass	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Yellow Perch	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Rock bass	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Rainbow trout	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Brown trout	0.2236	—	373	71	11	59	514
	0.2186	—	422	142	22	118	461
Brook trout	0.5683	432	290	178	349	59	1,307
	0.9762	NAN	NAN	280	608	110	2,187
Carp	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Coho salmon	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Other	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
<b>TOTAL RELEASED</b>	0.7918	432	663	249	360	118	1,821
	1.4425	NAN	NAN	314	608	161	3,241
<b>TOTAL CATCH</b>	0.8794	432	681	249	360	302	2,023
	1.4850	NAN	NAN	314	608	NAN	3,324
<b>ANGLER HOURS</b>		674	524	275	218	609	2,300
		483	378	331	310	470	895
<b>ANGLER TRIPS</b>		270	210	109	96	249	933
		217	194	149	142	197	407

Table 8.—Estimated harvest, catch per hour, and fishing pressure for Site 3, Brown Bridge to Forks, combined boat and shore fishery. Two standard errors are given below the estimates.

Species	C/H	May	June	July	August	September	Season
HARVEST							
Walleye	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Smallmouth Bass	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Rock Bass	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Rainbow Trout	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Brown Trout	0.0088	—	18	—	—	5	22
	0.0182	—	26	—	—	9	28
Brook Trout	0.0715	—	—	—	—	179	179
	0.3088	—	—	—	—	NAN	717
Chinook Salmon	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Coho Salmon	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
TOTAL HARVEST	0.0803	—	18	—	—	184	201
	0.3214	—	26	—	—	NAN	736
RELEASED							
Northern pike	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Smallmouth bass	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Yellow Perch	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Rock bass	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Rainbow trout	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Brown trout	0.2371	10	444	71	11	59	595
	0.8102	NAN	NAN	142	22	118	1,785
Brook trout	0.5391	442	325	178	349	59	1,353
	1.2712	NAN	NAN	280	608	110	2,296
Carp	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Coho salmon	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Other	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
TOTAL RELEASED	0.7762	452	769	249	360	118	1,948
	1.9269	NAN	NAN	314	608	161	3,636
TOTAL CATCH	0.8565	452	786	249	360	302	2,149
	2.0371	NAN	NAN	314	608	NAN	3,709
ANGLER HOURS		839	568	275	218	609	2,509
		NAN	NAN	331	310	470	4,106
ANGLER TRIPS		337	227	109	96	249	1,018
		NAN	NAN	149	142	197	1,650

Table 9.—Estimated harvest, catch per hour, and fishing pressure for the Site 4, Forks to Kalkaska, shore fishery. Two standard errors are given below the estimates.

Species	C/H	May	June	July	August	September	Season
<b>HARVEST</b>							
Walleye	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Smallmouth Bass	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Rock Bass	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Rainbow Trout	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Brown Trout	0.0591	—	39	—	—	—	39
	0.0698	—	40	—	—	—	40
Brook Trout	0.2266	—	39	—	111	—	150
	0.2970	—	40	—	171	—	175
Chinook Salmon	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Coho Salmon	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
<b>TOTAL HARVEST</b>	0.2857	—	78	—	111	—	190
	0.3205	—	56	—	171	—	180
<b>RELEASED</b>							
Northern pike	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Smallmouth bass	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Yellow Perch	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Rock bass	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Rainbow trout	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Brown trout	0.9716	—	634	—	11	—	645
	1.0145	—	551	—	17	—	551
Brook trout	0.4491	66	65	—	167	—	298
	0.5811	191	122	—	256	—	342
Carp	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Coho salmon	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Other	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
<b>TOTAL RELEASED</b>	1.4207	66	699	—	178	—	943
	1.2966	191	564	—	256	—	648
<b>TOTAL CATCH</b>	1.7064	66	777	—	289	—	1,132
	1.4409	191	567	—	308	—	673
<b>ANGLER HOURS</b>		248	316	—	100	—	664
		335	178	—	122	—	398
<b>ANGLER TRIPS</b>		132	89	—	33	—	254
		263	72	—	49	—	277

Table 10.—Estimated harvest, catch per hour, and fishing pressure for the Boardman River all sites combined boat fishery. Two standard errors are given below the estimates.

Species	C/H	May	June	July	August	September	Season
<b>HARVEST</b>							
Walleye	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Smallmouth Bass	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Rock Bass	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Rainbow Trout	0.1188	49	—	—	—	—	49
	0.5625	NAN	—	—	—	—	196
Brown Trout	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Brook Trout	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Chinook Salmon	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Coho Salmon	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
<b>TOTAL HARVEST</b>	0.1188	49	—	—	—	—	49
	0.5625	NAN	—	—	—	—	196
<b>RELEASED</b>							
Northern pike	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Smallmouth bass	0.9503	392	—	—	—	—	392
	4.5002	NAN	—	—	—	—	1,567
Yellow Perch	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Rock bass	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Rainbow trout	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Brown trout	0.1958	10	70	—	—	—	81
	0.8501	NAN	NAN	—	—	—	285
Brook trout	0.1104	10	35	—	—	—	46
	0.4526	NAN	NAN	—	—	—	147
Carp	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Coho salmon	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Other	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
<b>TOTAL RELEASED</b>	1.2565	412	106	—	—	—	518
	5.2155	NAN	NAN	—	—	—	1,703
<b>TOTAL CATCH</b>	1.3753	461	106	—	—	—	567
	5.4255	NAN	NAN	—	—	—	1,714
<b>ANGLER HOURS</b>		251	44	—	—	118	412
		NAN	NAN	—	—	235	1,045
<b>ANGLER TRIPS</b>		135	18	—	—	94	247
		NAN	NAN	—	—	192	579

Table 11.—Estimated harvest, catch per hour, and fishing pressure for the Boardman River all sites combined shore fishery. Two standard errors are given below the estimates.

Species	C/H	May	June	July	August	September	Season
<b>HARVEST</b>							
Walleye	0.0057	44	45	—	—	—	89
	0.0080	87	89	—	—	—	124
Smallmouth Bass	0.0059	71	—	20	—	—	91
	0.0066	93	—	40	—	—	101
Rock Bass	0.0303	—	472	—	—	—	472
	0.0607	—	943	—	—	—	943
Rainbow Trout	0.0128	14	—	185	—	—	199
	0.0182	28	—	281	—	—	282
Brown Trout	0.0039	—	57	—	—	5	61
	0.0032	—	48	—	—	9	49
Brook Trout	0.0212	—	39	—	111	179	330
	0.0475	—	40	—	171	NAN	738
Chinook Salmon	0.0027	—	—	—	—	42	42
	0.0030	—	—	—	—	46	46
Coho Salmon	0.0035	—	—	—	—	55	55
	0.0053	—	—	—	—	82	82
TOTAL HARVEST	0.0860	129	612	205	111	281	1,339
	0.0981	131	949	284	171	NAN	1,514
<b>RELEASED</b>							
Northern pike	0.0038	—	59	—	—	—	59
	0.0076	—	118	—	—	—	118
Smallmouth bass	0.1991	918	586	1,319	279	—	3,102
	0.1033	843	622	1,045	414	—	1,536
Yellow Perch	0.0068	—	—	47	58	—	105
	0.0094	—	—	76	125	—	146
Rock bass	0.1716	76	1,105	1,441	51	—	2,673
	0.3745	117	764	NAN	102	—	5,818
Rainbow trout	0.1339	540	134	1,107	299	6	2,085
	0.2899	731	266	NAN	291	11	4,504
Brown trout	0.1771	831	1,214	217	438	59	2,759
	0.2221	NAN	756	296	240	118	3,433
Brook trout	0.1173	498	355	306	516	153	1,827
	0.1660	NAN	NAN	380	660	219	2,570
Carp	0.0187	220	71	—	—	—	291
	0.0291	440	98	—	—	—	450
Coho salmon	0.0031	49	—	—	—	—	49
	0.0063	98	—	—	—	—	98
Other	0.0802	250	948	51	—	—	1,249
	0.0605	247	882	102	—	—	922
TOTAL RELEASED	0.9117	3,381	4,471	4,488	1,641	217	14,199
	1.8506	NAN	NAN	NAN	880	248	28,739
TOTAL CATCH	0.9976	3,511	5,084	4,693	1,752	499	15,538
	1.8542	NAN	NAN	NAN	897	NAN	28,779
ANGLER HOURS		3,774	3,912	2,851	2,493	2,545	15,575
		1,244	1,012	1,299	910	828	2,403
ANGLER TRIPS		NAN	NAN	NAN	NAN	NAN	—
		NAN	NAN	NAN	NAN	NAN	—

Table 12.—Estimated harvest, catch per hour, and fishing pressure for the Boardman River all sites and modes combined. Two standard errors are given below the estimates.

Species	C/H	May	June	July	August	September	Season
<b>HARVEST</b>							
Walleye	0.0056	44	45	—	—	—	89
	0.0111	87	89	—	—	—	124
Smallmouth Bass	0.0057	71	—	20	—	—	91
	0.0103	93	—	40	—	—	101
Rock Bass	0.0295	—	472	—	—	—	472
	0.0723	—	943	—	—	—	943
Rainbow Trout	0.0155	63	—	185	—	—	248
	0.0322	NAN	—	281	—	—	377
Brown Trout	0.0038	—	57	—	—	5	61
	0.0062	—	48	—	—	9	49
Brook Trout	0.0206	—	39	—	111	179	330
	0.0546	—	40	—	171	NAN	738
Chinook Salmon	0.0026	—	—	—	—	42	42
	0.0047	—	—	—	—	46	46
Coho Salmon	0.0035	—	—	—	—	55	55
	0.0071	—	—	—	—	82	82
TOTAL HARVEST	0.0868	178	612	205	111	281	1,388
	0.1613	NAN	949	284	171	NAN	1,669
<b>RELEASED</b>							
Northern pike	0.0037	—	59	—	—	—	59
	0.0090	—	118	—	—	—	118
Smallmouth bass	0.2185	1,309	586	1,319	279	—	3,494
	0.4578	NAN	622	1,045	414	—	5,393
Yellow Perch	0.0066	—	—	47	58	—	105
	0.0131	—	—	76	125	—	146
Rock bass	0.1672	76	1,105	1,441	51	—	2,673
	0.4342	117	764	NAN	102	—	5,818
Rainbow trout	0.1304	540	134	1,107	299	6	2,085
	0.3369	731	266	NAN	291	11	4,504
Brown trout	0.1776	842	1,284	217	438	59	2,840
	0.4599	NAN	NAN	296	240	118	6,155
Brook trout	0.1172	508	390	306	516	153	1,873
	0.2360	NAN	NAN	380	660	219	2,682
Carp	0.0182	220	71	—	—	—	291
	0.0382	440	98	—	—	—	450
Coho salmon	0.0031	49	—	—	—	—	49
	0.0075	98	—	—	—	—	98
Other	0.0781	250	948	51	—	—	1,249
	0.1248	247	882	102	—	—	922
TOTAL RELEASED	0.9206	3,794	4,577	4,488	1,641	217	14,717
	2.2753	NAN	NAN	NAN	880	248	29,809
TOTAL CATCH	1.0074	3,972	5,189	4,693	1,752	499	16,105
	2.3502	NAN	NAN	NAN	897	NAN	29,855
ANGLER HOURS		4,024	3,956	2,851	2,493	2,663	15,987
		NAN	NAN	1,299	910	861	22,645
ANGLER TRIPS		NAN	NAN	NAN	NAN	NAN	—
		NAN	NAN	NAN	NAN	NAN	—

Table 13.—Estimated harvest, catch per hour, and fishing pressure for the Site 1a, mouth to Sabin boat fishery. Two standard errors are given below the estimates.

Species	C/H	April	October	Season
<b>HARVEST</b>				
Rainbow Trout	—	—	—	—
	—	—	—	—
Brown Trout	0.0192	7	—	7
	0.0679	14	—	14
Lake Trout	—	—	—	—
	—	—	—	—
Chinook Salmon	—	—	—	—
	—	—	—	—
Coho Salmon	—	—	—	—
	—	—	—	—
<b>TOTAL HARVEST</b>	0.0192	7	—	7
	0.0679	14	—	14
<b>RELEASED</b>				
Walleye	—	—	—	—
	—	—	—	—
Rainbow trout	0.1303	13	32	45
	0.5265	28	NAN	131
Brown trout	0.0192	7	—	7
	0.0641	12	—	12
Common White Sucker	—	—	—	—
	—	—	—	—
Lake trout	0.3438	84	36	120
	1.4290	NAN	NAN	365
Chinook salmon	0.0918	—	32	32
	0.4497	—	NAN	128
Coho salmon	0.0918	—	32	32
	0.4497	—	NAN	128
Other	—	—	—	—
	—	—	—	—
<b>TOTAL RELEASED</b>	0.6769	104	132	236
	2.7173	NAN	NAN	672
<b>TOTAL CATCH</b>	0.6961	111	132	243
	2.7562	NAN	NAN	672
<b>ANGLER HOURS</b>		172	177	349
		NAN	NAN	986
<b>ANGLER TRIPS</b>		67	69	136
		NAN	NAN	385

Table 14.—Estimated harvest, catch per hour, and fishing pressure for the Site 1a, mouth to Sabin shore fishery. Two standard errors are given below the estimates.

Species	C/H	April	October	Season
<b>HARVEST</b>				
Rainbow Trout	0.0296	166	47	213
	0.0220	137	72	154
Brown Trout	—	—	—	—
	—	—	—	—
Lake Trout	0.1024	—	737	737
	0.0539	—	367	367
Chinook Salmon	0.0058	—	42	42
	0.0068	—	49	49
Coho Salmon	0.0072	—	52	52
	0.0074	—	52	52
<b>TOTAL HARVEST</b>	0.1450	166	877	1,043
	0.0614	137	381	405
<b>RELEASED</b>				
Walleye	0.0050	36	—	36
	0.0074	53	—	53
Rainbow trout	0.1758	1,020	244	1,264
	0.1202	801	244	838
Brown trout	0.1648	1,169	16	1,185
	0.1869	1,329	32	1,329
Common White Sucker	0.0131	94	—	94
	0.0198	141	—	141
Lake trout	0.0337	—	243	243
	0.0315	—	222	222
Chinook salmon	0.0052	19	19	37
	0.0075	39	37	54
Coho salmon	0.0071	36	16	51
	0.0109	71	32	78
Other	0.0150	108	—	108
	0.0166	118	—	118
<b>TOTAL RELEASED</b>	0.4197	2,482	536	3,018
	0.2337	1,566	336	1,601
<b>TOTAL CATCH</b>	0.5647	2,648	1,413	4,061
	0.2487	1,572	508	1,651
<b>ANGLER HOURS</b>		3,959	3,233	7,191
		779	932	1,215
<b>ANGLER TRIPS</b>		1,485	1,292	2,776
		407	418	583

Table 15.—Estimated harvest, catch per hour, and fishing pressure for the Site 1a, mouth to Sabin combined boat and shore fishery. Two standard errors are given below the estimates.

Species	C/H	April	October	Season
<b>HARVEST</b>				
Rainbow Trout	0.0282	166	47	213
	0.0827	137	72	154
Brown Trout	0.0009	7	–	7
	0.0031	14	–	14
Lake Trout	0.0977	–	737	737
	0.2818	–	367	367
Chinook Salmon	0.0055	–	42	42
	0.0169	–	49	49
Coho Salmon	0.0069	–	52	52
	0.0207	–	52	52
TOTAL HARVEST	0.1392	172	877	1,049
	0.3990	137	381	405
<b>RELEASED</b>				
Walleye	0.0047	36	–	36
	0.0152	53	–	53
Rainbow trout	0.1737	1,034	276	1,310
	0.5256	802	NAN	1,364
Brown trout	0.1580	1,176	16	1,192
	0.4824	1,329	32	1,329
Common White Sucker	0.0125	94	–	94
	0.0402	141	–	141
Lake trout	0.0481	84	279	362
	0.2061	NAN	NAN	1,164
Chinook salmon	0.0092	19	51	69
	0.0378	39	NAN	206
Coho salmon	0.0111	36	48	83
	0.0414	71	NAN	204
Other	0.0143	108	–	108
	0.0436	118	–	118
TOTAL RELEASED	0.4316	2,586	668	3,254
	1.8740	NAN	NAN	10,684
TOTAL CATCH	0.5708	2,758	1,545	4,304
	2.1543	NAN	NAN	10,691
ANGLER HOURS		4,130	3,410	7,540
		NAN	NAN	21,423
ANGLER TRIPS		1,552	1,361	2,912
		NAN	NAN	8,255