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**1999 Steelhead Tagging Project
at
Moricetown Canyon**

by
Wet'suwet'en Fisheries

Data Analysis and Recommendation

by

SKR Consultants Ltd.
Smithers, B.C.

for

Wet'suwet'en Fisheries
Moricetown, B.C.

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1999 Steelhead Tagging Project at Moricetown Canyon
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Executive Summary

The Wet'suwet'en Fisheries conducted an extensive coho and steelhead tagging program at Moricetown canyon in 1999. The Department of Fisheries and Oceans will summarize coho data in a separate report. The analysis of steelhead data is summarized in this report in conjunction with a report produced by the Wet'suwet'en Fisheries.

The main objective of the steelhead tagging program was to develop in-season population estimates of adult steelhead moving through Moricetown canyon. This report summarizes mark-recapture data, presents adjusted Petersen estimates for steelhead moving through Moricetown canyon, explores potential biases in the methods used between August 8 and October 30, 1999, and provides some recommendations for future years.

In total, 164 steelhead were tagged downstream of Moricetown canyon. Eight of the 164 steelhead tagged downstream of the canyon were recaptured in a sample of 1555 steelhead examined for tags at the canyon. Fork length and sex was recorded for marked, recaptured and censused steelhead. The effects of potential temporal, fork length and sex biases between marked, recaptured and censused steelhead were assessed. Data gaps or data problems resulted in some uncertainty over the number of steelhead recaptured. Consequently, several adjusted Petersen estimates with 95% confidence intervals were determined for mark-recapture data provided by Wet'suwet'en Fisheries. Adjusted Petersen estimates ranged between 15,102 and 37,913 steelhead, with 95% confidence intervals ranging between 9,874 and 77,550. The large range in adjusted Petersen estimates, and the large widths of confidence intervals indicates that the estimates are relatively imprecise due to sample size and data uncertainties. Based on data evaluation and discussions with Wet'suwet'en Fisheries, we feel that 28,527 steelhead (confidence interval = 16,249 to 58,350) is the most conservative and representative estimate from the data.

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1.0 Introduction

Wet'suwet'en Fisheries conducted an extensive tagging program on the Bulkley River at Moricetown Canyon (about 30 km north of Smithers, B.C.) in order to develop in-season population estimates of steelhead (*Oncorhynchus mykiss*) moving through Moricetown Canyon. The program was jointly funded by Fisheries Renewal B.C. and the Department of Fisheries and Oceans. SKR Consultants Ltd. was retained by the Wet'suwet'en Fisheries to estimate the number of steelhead migrating through Moricetown Canyon, and to provide recommendations for future efforts toward attaining in-season population estimates of steelhead that are migrating through Moricetown Canyon.

The main objectives of this data review were:

- to provide a population estimate for steelhead that moved up the Bulkley River past Moricetown Canyon;
- to identify and assess potential biases of the sampling methods used in 1999; and
- to provide recommendations for future years of the study.

2.0 Materials and Methods

2.1 Data Collection

Steelhead were captured by beach seining just downstream of the Moricetown Canyon, and by dipnet in Moricetown Canyon. Steelhead were tagged using a combination of spaghetti tags and hole punches of the caudal fin. Methodologies employed for tagging and data collection between August 8 and October 30, 1999 are described in detail in the Wet'suwet'en Fisheries Report (2000).

2.2 Data Analysis

Wet'suwet'en Fisheries conducted some data analysis for catch per unit effort and daily run time for their final report (Wet'suwet'en Fisheries 2000). We therefore limited this analysis to population size estimates with consideration of some potential biases associated with these estimates.

Population size was determined using an adjusted Petersen estimate (Ricker 1975). This method is relatively unbiased (Ricker 1975, Bagenal 1978). The equation used to determine the adjusted Petersen estimate is given below (equation 1):

Equation 1:
$$N^* = (M+1)(C+1) / (R+1)$$

where: N^* = adjusted Petersen estimate
 M = number of marked fish
 C = catch or sample taken for census
 R = number of recaptured marks in the sample.

Since steelhead move through Moricetown Canyon on their migration upstream, only fish marked downstream of the canyon (by beach seining) were included in the number of marked fish (M) for the study. The catch taken for census (C) included all fish captured at Moricetown Canyon, and the number of recaptured marks (R) included only fish marked by beach seining and recaptured at the canyon. For estimation of population size, fish recaptured by beach seining, and recaptured fish initially marked at Moricetown Canyon were not considered.

The validity of the mark-recapture population estimate relies on several assumptions, which must be met. Mark-recapture estimates require that:

- the population is closed (no emigration, immigration, births or deaths)
- marked fish are in every way the same as unmarked fish
- marked fish do not lose their marks
- either the marking or the re-capture sample is random, or that marked and unmarked fish mix randomly (Ricker 1975, Bagenal 1978)

Confidence intervals around the estimate were determined by assuming a Poisson distribution of recaptures (R) and by determining the approximate confidence interval of R from statistical tables (Ricker 1975).

Mark-recapture experiments can be influenced significantly by biases in capture techniques. The potential presence of temporal biases was examined graphically by comparing the temporal distribution of mark application (M) to the temporal distribution of the census sample (C). In addition, the distribution of recaptured steelhead among the marked and censused sample was compared. To evaluate if inherent sex or size biases were present in the capture techniques used during this study, fork lengths and sex ratios were compared between un-recovered tagged steelhead (M-R), the un-marked steelhead in the sample taken for census (C-R) and the recaptured steelhead (R). Mann-Whitney U tests or T-tests were used to compare fork length distributions between the three samples, and Cochran's corrected χ^2_c was used to compare sex ratios between the samples (Zar 1984).

3.0 Results and Discussion

3.1 Steelhead Population Estimates: Adjusted Petersen Estimate

Wet'suwet'en Fisheries tagged a total 1695 steelhead in 1999. The majority of these steelhead (1531) were captured and tagged at Moricetown Canyon. The 164 steelhead that were tagged just downstream of Moricetown Canyon and were considered to be the number of marked fish (M) for the calculation of the adjusted Petersen estimate. Of the 164 steelhead tagged by beach seining, eight were recaptured in the canyon (Table 1).

Table 1. Applied and recaptured steelhead tags for the 1999 steelhead tagging program conducted in Moricetown Canyon (adapted from Wet'suwet'en Fisheries 1999).

	Beach Seine Tags (d/s of the canyon)	Dipnet Tags (in canyon)
Applied	164 ¹	1531
Recaptured by Dipnet (in canyon)	8 ²	24

1 The number of tags applied by beach seine equals M in equation 1

2 The number of beach seine tagged steelhead recaptured by dipnetting equals R in equation 1

In addition, 13 other steelhead with tag numbers in the range of tags used during this study were captured, but time and location of the application of these tags had not been recorded (Table 2 "Possible errors in recording"). Of these 13 tags, eight were recaptured in Moricetown Canyon and five were captured downstream of the canyon. The eight recaptures with unknown origin that were caught by dipnet at the canyon are relevant errors to this population estimate, and must be considered in evaluating the accuracy of the estimate.

Table 2. Steelhead recaptures with no record of tag application in the 1999 steelhead tagging program conducted in Moricetown Canyon (adapted from Wet'suwet'en Fisheries 1999).

	Location of Recapture	
	Beach Seine	Dipnet (in canyon)
Possible errors in recording	5	8
1998 Tags	0	3
1997 Tags	0	4
Unknown	0	1
Total	5	16

The adjusted Petersen estimate generated by using the number of tagged fish by beach seining (164), the recaptures with known location of applied tags (8), and the total number of fish captured at the canyon (1555) (Tables 1 and 2) is 28,527 steelhead with a 95% confidence interval of 16,250 to 58,350. The total number of fish captured at the canyon includes 1531 steelhead tagged at the canyon, eight steelhead marked during beach seining and recaptured at the canyon (Table 1), and 16 recaptured steelhead with unknown tag origin (Table 2). This

estimate is the most conservative estimate that can be generated with the data provided, since it ignores the eight questionable recaptures. If we assume that all of these eight fish were actually marked during beach seining, the adjusted Petersen estimate would be 15,102.4 steelhead (95% confidence interval = 9,874.6 – 25170.6). Even small changes in the number of recaptured fish can drastically change the adjusted Petersen estimate. By changing the number of recaptures from eight to 16 by increments of one recapture, the adjusted Petersen estimate and the confidence interval decreases notably (Figure 1, Table 3). This illustrates the importance of data fidelity, especially when the total number of recaptured fish is relatively low. Discussions with Wet'suwet'en Fisheries indicate that the eight tagged steelhead captured by dipnetting for which no tagging record could be found are likely errors in recording applied and/or recaptured tag numbers at the canyon. In any case, the presence of eight recaptured fish of unknown origin indicates some problems with data accuracy. Combined with the small number of recaptures, issues in data accuracy result in greater uncertainty around the steelhead population estimate.

Alternatively, the unknown origin of the eight steelhead recaptured by dipnetting may indicate that considerably more tagged fish were not recorded during beach seining. The known mark to recapture ratio is 20.5:1 marked fish by beach seining : recaptured fish. By changing the number of recaptures from eight to 16 by increments of one recapture and extrapolating a corresponding increase in fish marked during beach seining from 164 to 328, the adjusted Petersen estimate increases marginally, but the width of the confidence interval decreases considerably (Figure 2, Table 4).

By the same logic, the eight recaptured steelhead of unknown origin may indicate that considerably more steelhead were examined for tags at the canyon. In this case, the known mark to recapture ratio is 64 : 1 marked fish by dipnetting : recaptured fish. By changing the number of fish examined for marks (C) by increments of 64 from 1,555 to 2,067, the adjusted Petersen estimate increases considerably, along with a notable increase in the width of the confidence interval (Figure 3, Table 5).

Table 3. Changes in the adjusted Petersen Estimate (N) and 95 % confidence interval with incremental change in the number of recaptures from 8 to 16 (also see Figure 1).

Marked (M)	Censused (C)	Recaptured (R)	Population Size (N) (% difference)	95% Confidence Interval			
				lower	%	upper	%
164	1555	8	28526.7 (0.0%)	16249.4	43.0	58350.0	104.5
164	1555	9	25674.0 (10.0%)	15014.0	41.5	51348.0	100.0
164	1555	10	23340.0 (18.2%)	13953.3	40.2	45042.1	93.0
164	1555	11	21395.0 (2.05%)	13032.5	39.1	40115.6	87.5
164	1555	12	19749.2 (30.8%)	12225.7	38.1	35658.3	80.6
164	1555	13	18338.6 (35.7%)	11513.0	37.2	32498.7	77.2
164	1555	14	17116.0 (40.0%)	10925.1	36.2	29510.3	72.4
164	1555	15	16046.3 (43.7%)	10352.4	35.5	27312.8	70.2
164	1555	16	15102.4 (47.1%)	9874.6	34.6	25170.6	66.7

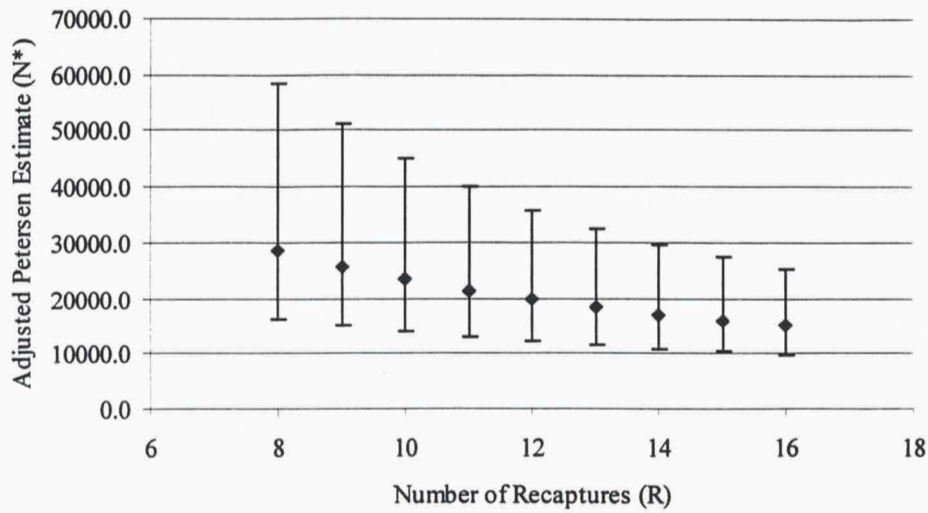


Figure 1. Changes in the adjusted Petersen estimate and confidence interval by incremental changes in the number of recaptures from eight to 16 (see Table 3 for details).

Table 4. Changes in the adjusted Petersen Estimate (N) and 95 % confidence interval with incremental change in the number of recaptures from 8 to 16, and corresponding changes in the number of marked fish from 164 to 328 (also see Figure 2).

Marked (M)	Censused (C)	Recaptured (R)	Population Size (N) (% difference)	95% Confidence Interval			
				lower	%	upper	%
164.0	1555	8	28526.7 (0.0%)	16249.4	43.0	58350.0	104.5
184.5	1555	9	28863.8 (1.2%)	16879.4	41.5	57727.6	100.0
205.0	1555	10	29139.6 (2.5%)	17420.4	40.2	56234.4	93.0
225.5	1555	11	29369.5 (3.0%)	17890.1	39.1	55067.8	87.5
246.0	1555	12	29564.0 (3.6%)	18301.5	38.1	53379.4	80.6
266.5	1555	13	29730.7 (4.2%)	18665.0	37.2	52687.3	77.2
287.0	1555	14	29875.2 (4.7%)	19069.3	36.2	51509.0	72.4
307.5	1555	15	30001.6 (5.2%)	19355.9	35.5	51066.6	70.2
328.0	1555	16	30113.2 (5.6%)	19689.4	34.6	50188.6	66.7

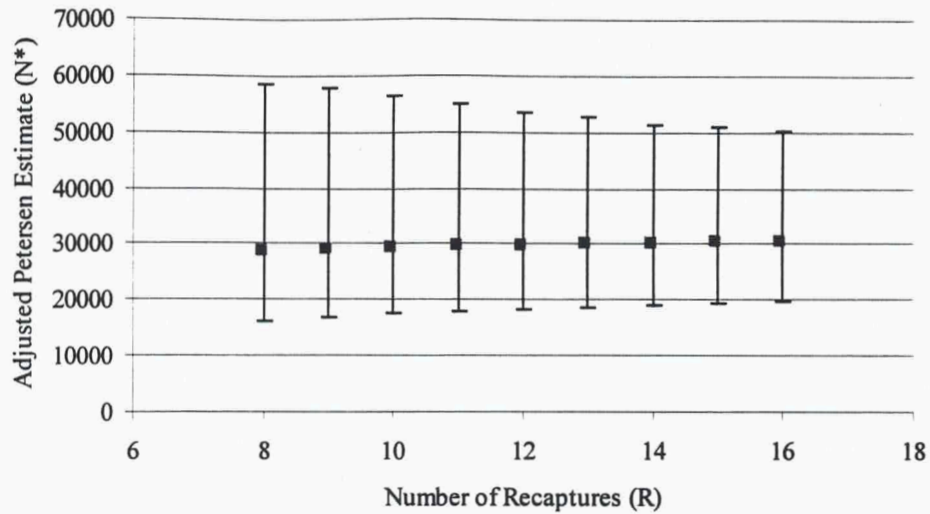


Figure 2. Changes in the adjusted Petersen estimate and confidence interval by incremental changes in the number of recaptures from eight to 16, and corresponding changes in the number of marked fish from 164 to 328 (see Table 4).

Table 5. Changes in the adjusted Petersen Estimate (N) and 95 % confidence interval with incremental change in the number of steelhead examined for marks from 1555 to 2067 (also see Figure 3).

Marked (M)	Censused (C)	Recaptured (R)	Population Size (N) (% difference)	95% Confidence Interval			
				lower	%	upper	%
164.0	1555	8	28526.7 (0.0%)	16249.4	43.0	58350.0	104.5
164.0	1619	8	29700.0 (4.1%)	16917.7	43.0	60750.0	104.5
164.0	1683	8	30873.3 (8.2%)	17586.1	43.0	63150.0	104.5
164.0	1747	8	32046.7 (12.3%)	18254.4	43.0	65550.0	104.5
164.0	1811	8	33220.0 (16.5%)	18922.8	43.0	67950.0	104.5
164.0	1875	8	34393.3 (20.6%)	19591.1	43.0	70350.0	104.5
164.0	1939	8	35566.7 (24.7%)	20259.5	43.0	72750.0	104.5
164.0	2003	8	36740.0 (28.8%)	20927.8	43.0	75150.0	104.5
164.0	2067	8	37913.3 (32.9%)	21596.2	43.0	77550.0	104.5

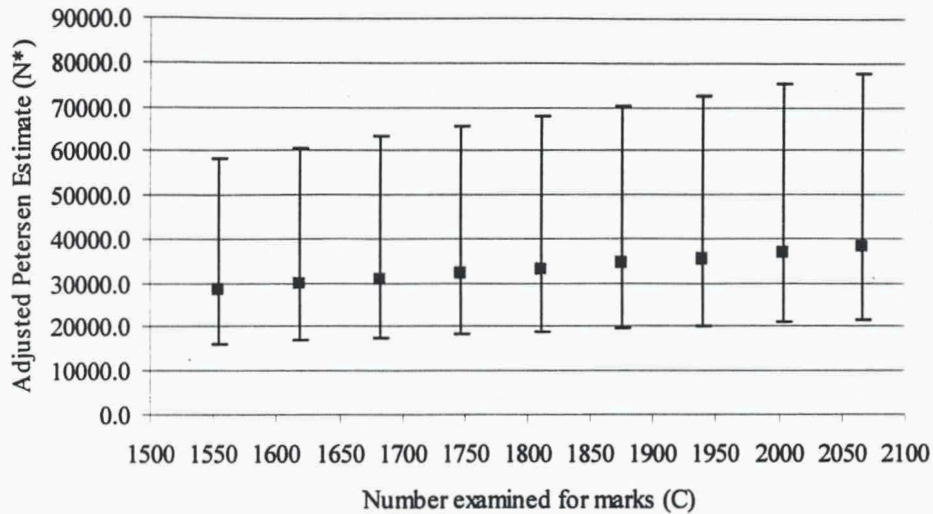


Figure 3. Changes in the adjusted Petersen estimate and confidence interval by incremental changes of 64 steelhead in the number of steelhead examined for marks from 1555 to 2067. The number of marked fish (164) and recaptured fish (8) remains constant (also see Table 5).

The adjustments of marked, recaptured and censused fish (Figures 1 – 3, Tables 3-6) demonstrate the importance in recording the number of marked fish, the number of recaptured fish, and the number of fish examined for marks accurately. Nevertheless, we feel that the adjusted Petersen estimate using only known marked, recaptured, and censused steelhead is the most representative and conservative estimate.

3.2 Sampling Bias: Temporal Bias in Sampling and Tag Recovery

Temporal biases in sampling and tag recovery can affect the validity of the population estimate, since temporal bias may affect the likelihood of recapture. To evaluate if temporal biases may be present during this study, the number of steelhead marked and examined for marks was plotted against time (Figure 4). Figure 4 illustrates that the peak of capture of un-marked steelhead by dipnetting precedes the peak of tagging by beach seining, which can partly be attributed to higher fishing effort at Moricetown Canyon prior to Labour Day (Wet'suwet'en 2000). This implies that many of the steelhead captured by dipnetting were captured prior to the majority of tag application, therefore reducing the likelihood of tag recovery, and causing an inflated population estimate.

The time of marking (Figure 4A) and recovery (Figure 4B) of the eight recaptured steelhead was also compared graphically to document if there are temporal variations in the rate of tag recovery. The timing of tag application for the recaptured fish is dispersed from September 16, 1999 to October 21, 1999 (Figure 4A). However, most of the recaptures were concentrated on October 22, 1999 (six of eight recaptures; Figure 4B). Since the rate of recapture of marked fish appears to be different from the rate at which marks were applied, a second temporal bias is likely present. The difference in the temporal distribution of mark application versus recapture for these eight steelhead may be due to affects of handling and/or tagging which may influence

migration rates more severely for steelhead tagged earlier in the season. It may be speculated that changes in environmental conditions (e.g. water levels, water temperatures) become more stringent as the season progresses, and plays an increasingly important role in migration behaviour, overriding the affects of tagging and handling later in the season. However, it is difficult to speculate on the nature and extent of this temporal bias due to the low sample size of recaptures (N=8). Delays in migration of tagged steelhead should not affect the validity of the population estimate provided the census sample is taken during time intervals that accommodates these delays in movement (i.e. sampling is extended into November, if possible). The analysis of temporal biases in this study indicates that temporal biases are present and must be considered in future studies of this nature.

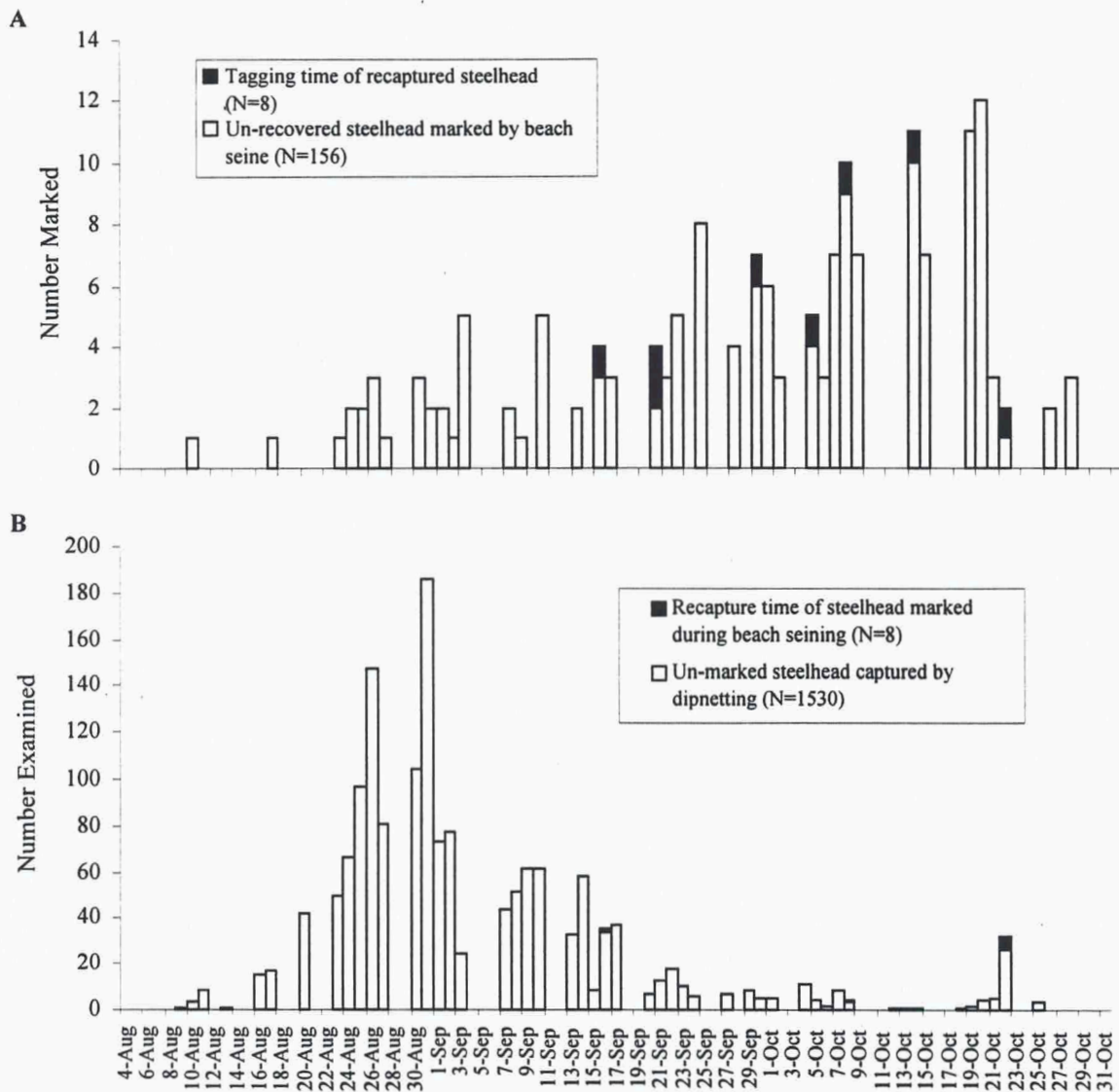


Figure 4. Temporal distribution of tag application during beach seining (A), and of examination for tags during dipnetting (B) during the 1999 steelhead population estimate study.

3.3 Sampling Bias: Fork Length and Sex Ratios

Mark-recapture estimates assume random samples of marked or unmarked fish, or that marked fish mix randomly with unmarked fish (Bagenal 1978). If samples are not obtained randomly, or if fish do not mix randomly, the validity of the population estimate is compromised. Fork length and sex ratio comparisons can indicate selectivity in capture methods, which influence the validity of population estimates (Ricker 1975, Bagenal 1978). Fork length distribution and sex ratios between un-recovered marked steelhead (M-R), the un-marked steelhead examined for census (C-R) and the recaptured steelhead (R) were compared to evaluate if capture methods were biased.

Bias in capture methods can lead to an underestimate or overestimate of the actual population size. For example, if males are more likely to be captured in seining, a disproportionate amount of males will be marked. If dipnetting is more likely to capture females, and fewer males, a lower number of recaptures will be observed than would be expected, leading to an inflated population estimate. Size bias may result in the exclusion of a significant portion of the population from the sample obtained. The population estimate would then only be valid for the size range targeted by the sampling methods, but would underestimate the true population size.

Although it is often difficult to alleviate biases in capture methods, it is important to determine if these biases are present, and if they are severe. By comparing fork length data and sex ratios between samples of marked steelhead, recaptured steelhead, and steelhead examined for marks, biases in sampling methods may become apparent.

3.3.1 Comparisons of Fork Lengths Among Marked, Censused and Recaptured Steelhead

Fork lengths data collected for un-recovered steelhead marked by beach seining (M-R), unmarked fish captured by dipnetting at Moricetown Canyon (C-R), and recaptured steelhead (R) are summarized in Table 6 and Figure 5. In comparisons of fork length data, it is important to consider that the accuracy of some of the measurements are questionable. This is particularly apparent when comparing fork length measurements of recaptured fish to fork length recorded for these fish when they were originally tagged. Repeated fork length measurements of the individual steelhead differed by a mean of 5.0 cm (SD = 5.936), with a range of 0 cm to 24 cm. Since fork lengths data for some individual fish differed considerably, all fork length data for steelhead captured by dipnetting at Moricetown Canyon which were not initially marked during beach seining were included in the analysis of fork length data. The sample of un-marked steelhead captured by dipnetting at Moricetown canyon (C-R) therefore includes some steelhead captured on more than one occasion. Fork length distribution of unmarked steelhead captured by dipnetting, and un-recovered steelhead marked during beach seining appears to be bi-modal, with a relatively good match of the peaks in fork length frequency distribution between the two samples. Comparisons of these two samples to the eight recaptured steelhead is difficult due to the small sample size of recaptured steelhead (N=8). The fork length distribution of un-recovered steelhead marked by beach seining is similar to the fork length distribution of un-marked steelhead captured by dipnetting (Kolmogorov-Smirnov goodness of fit max. $D_i = 0.076$, $P = 0.389$). Similarly, fork length distribution of recaptured steelhead is similar to fork

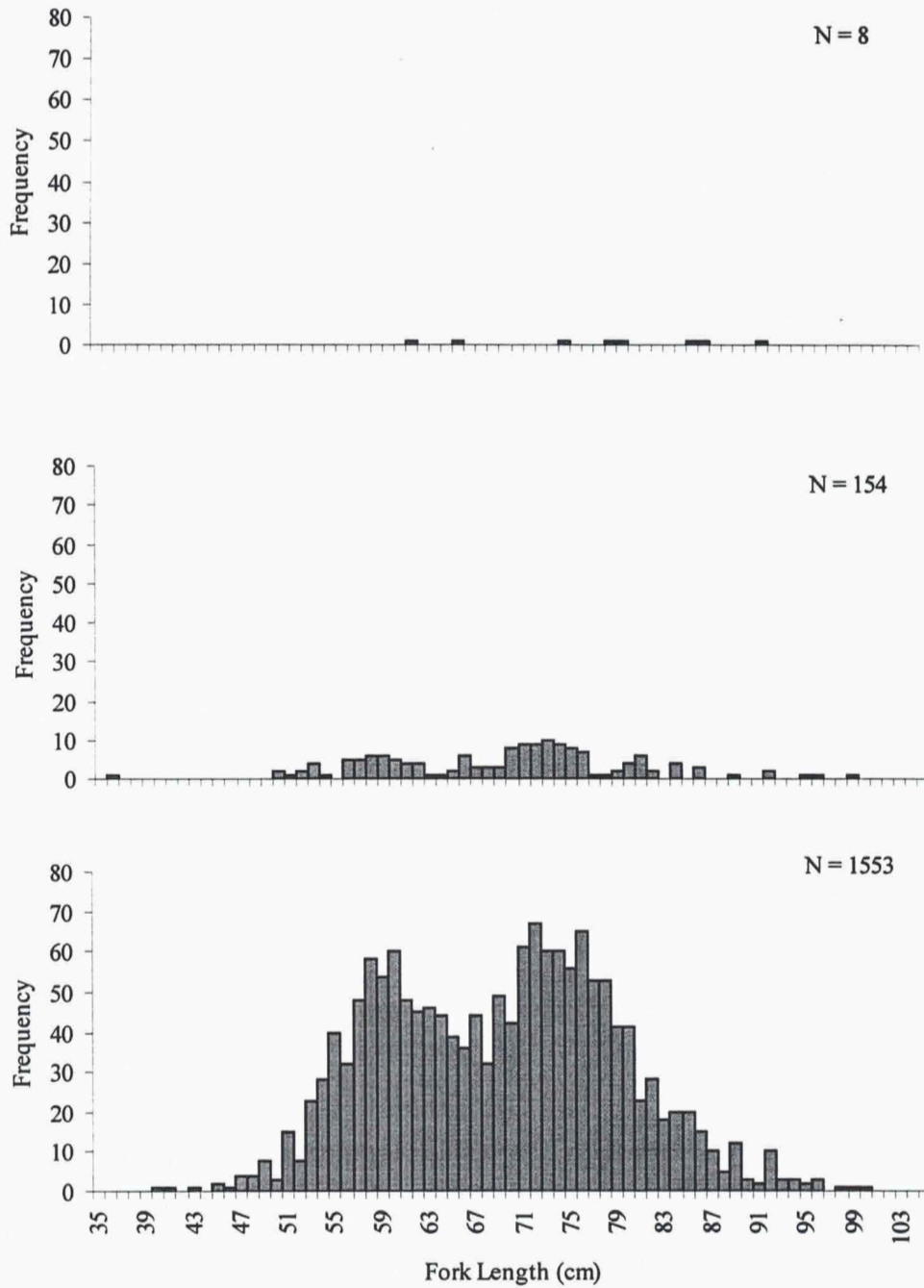


Figure 5. Fork length frequency distribution of recaptured steelhead (top), un-recovered steelhead marked by beach seining (center), and un-marked steelhead captured by dipnetting at Moricetown Canyon (bottom).

length distribution of un-marked steelhead captured by dipnetting (max. $D_i = 0.456$, $P = 0.075$). However, fork length distribution of recaptured steelhead differs significantly from fork length distribution of un-recovered steelhead tagged during beach seining (max. $D_i = 0.490$, $P = 0.045$). Fork length of the recaptured steelhead appears to be more variable than fork length distribution of un-recovered steelhead, or un-marked steelhead captured by dipnetting (Figures 5 and 6, Table 6). The greater variability is likely in part due to the small sample size ($N=8$), inaccuracies in fork length measurements, and potential bias in steelhead samples obtained.

Box plots for steelhead fork length data indicate that some deviations from normality may be present among the samples (Figure 6). Although fork length distribution for recaptured steelhead and un-recovered steelhead captured by beach seine do not differ significantly from a normal distribution (Kolmogorov-Smirnov goodness of fit max. $D_i = 0.149$, $P = 0.982$ and max. $D_i = 0.088$, $P = 0.1.82$ respectively), the fork lengths distribution for un-marked steelhead captured by dipnetting deviates significantly from the normal distribution (max. $D_i = 0.067$, $P = 0.000$). Therefore, the Mann-Whitney U test was used to compare fork lengths data for un-recovered steelhead captured by dipnetting to fork lengths data for recaptured steelhead and un-marked steelhead captured by beach seining. Fork lengths of un-marked steelhead captured by dipnetting and un-recovered steelhead marked during beach seining do not differ significantly ($U_{0.05(2)1553,154} = 118251.5$, $P = 0.820$). However, fork lengths of un-marked steelhead captured by dipnetting also differ significantly from fork lengths of recaptured steelhead ($U_{0.05(2)1553,8} = 3048.50$, $P = 0.013$). Similarly, fork lengths of recaptured steelhead differ significantly from un-recovered steelhead captured by beach seining ($t_{0.05(2),160} = 2.417$, $P = 0.017$). The difference between mean fork lengths of recaptured steelhead and un-recovered steelhead captured by beach seining is not surprising since the previous comparisons of these two fork length distributions using the Kolmogorov-Smirnov goodness of fit test also indicated a significant difference. The strength of comparisons of fork length data of recaptured steelhead to those captured by beach seining or dipnetting is somewhat reduced by the small sample size of recaptured steelhead. However, the significant difference in fork length data of recaptured steelhead to those captured by beach seining indicates that there is some size bias in the sampling methodology, and/or size dependent differences in vulnerabilities of marked versus un-marked fish to capture. Although the difference in fork length data between recaptured and marked fish (beach seine sample) is significant, this bias needs to be re-evaluated when a larger sample size of recaptures and more accurate fork length data are obtained.

Table 6. Summary of fork length data for un-recovered steelhead marked during beach seining (M-R), un-marked steelhead captured by dipnetting (C-R), and recaptures (R). Only steelhead for which fork length was recorded are included in this summary.

Sample	N	Min.	Max.	Mean	SD	SE
beach seine (M-R)	154	36.0	98.5	69.23	10.433	0.841
dipnetting (C-R) ¹	1553	40.0	100.0	68.90	10.025	0.254
recaptures (R)	8	62.0	92.0	78.38	10.378	3.669

¹ this sample includes multiple captures of some steelhead that were not tagged during beach seining since repeated fork length measurements for some steelhead differed substantially.

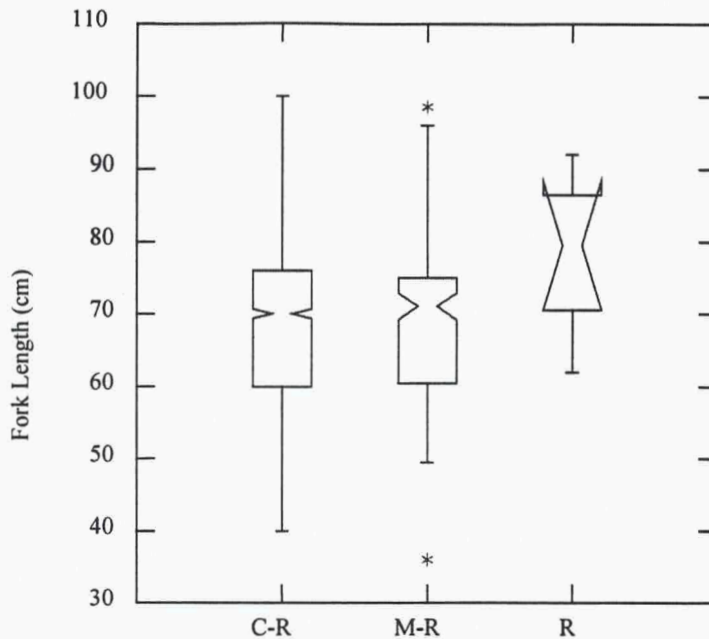


Figure 6. Box plot illustrating fork length distribution for steelhead in the census sample (captured; N = 1553), steelhead captured by beach seining (marked; N = 169), and steelhead recaptured (Recaptured; N = 8).

3.3.2 Comparisons of Sex Ratios Among Marked, Censused and Recaptured Steelhead

Females predominated the catch of steelhead obtained by beach seining and dipnetting (Table 7). Similarly, recaptured females were more numerous than recaptured males. In fact, the sex ratio obtained during this study is more skewed towards females than sex ratios reported for other Skeena River populations (Atagi pers. comm.). The pronounced predominance of females over males may be due to difficulties in distinguishing between the sexes when sexual dimorphism is not pronounced, as is the case for steelhead captured during this study. Males can easily be mistaken for females prior to the development of secondary sexual characteristics. However, the proportion of females identified during dipnetting is lower than the proportion of females identified during beach seining (Table 7), despite the fact that the peak capture by dipnetting preceded the peak capture by beach seining (Figure 4). Differences in sex ratios between unrecovered steelhead captured in the beach seine, and those recaptured are not statistically significant ($\chi^2_c=0.9066$, $P>0.25$). Similarly, sex ratios between recaptured steelhead and unmarked steelhead captured during dip netting do not differ significantly ($\chi^2_c=0.161$, $P>0.75$). However, sex ratios of unrecovered steelhead (M-R), and un-marked steelhead captured by dipnetting (C-R) differ significantly ($\chi^2_c=5.838$, $P<0.05$). However, it is important to note that

sex identification of fish caught in the canyon is likely less accurate than those caught by beach seining since beach seining crews were more experienced and consistent (Wet'suwet'en pers. comm.). Sixteen of 61 (26%) steelhead captured by dipnetting on more than one occasion were identified as one sex on initial capture, and identified as the other sex on recapture, indicating that sex ratios may not be accurate. In addition two steelhead were sexed during initial capture, but were not sexed upon recapture. Thus, differences between sex ratios of dipnetted, recaptured and beach seined steelhead may be due to sampling error rather than sampling bias.

Table 7. Sex ratios for steelhead captured by beach seining, dipnetting, and recaptures (marked by beach seining and recaptured by dipnetting). Only steelhead for which sex was recorded are included in this summary.

	Beach Seine Fishery			Dipnet Fishery		
	Recovered (R)	Not Recovered (M-R)	Total	Marked (R)	Un-marked (C-R)	Total
Females	5 (62.5%)	127 (82.5%)	132 (81.5%)	5 (62.5%)	1141 (73.5%)	1146 (73.4%)
Males	3 (37.5%)	27 (17.5%)	30 (18.5%)	3 (37.5%)	412 (26.5%)	415 (26.6%)
Total	8	154	162	8	1553	1561
χ^2_c	0.907, P > 0.25			0.161, P > 0.75		

4.0 Recommendations

The value of estimating steelhead population size in-season as a management tool can not be understated. Information gathered in this study will be invaluable during the treaty process. Exploring methodologies to conduct in-season population estimates in an accurate and reliable manner will be beneficial in managing the resource. These long-term goals must be considered during the initial years of the study, since the success of the project will likely increase as the study is refined. Although results from data analysis for this report are of a relatively cursory nature, some recommendations or ideas are apparent to us. In formulating these recommendations, we have taken into account the nature of the data provided by Wet'suwet'en Fisheries, as well as future changes to the methodology as communicated by Wet'suwet'en Fisheries during informal meetings and telephone conversation. We also incorporated many of the valuable suggestions provided by D. Atagi (pers. comm.) in the recommendations provided below. The recommendations given in this section are not exhaustive, and some may not be practical, but we hope they will give food for thought, and aid in improving the reliability of steelhead population estimates.

OBJECTIVES

1. Clearly state what the objectives are. An objective such as "...to develop estimates of steelhead moving through Moricetown Canyon in-season, as well as to tag steelhead for other studies..."(Wet'suwet'en Fisheries 2000) is a good start. However, it would be beneficial to define objectives more precisely as the study develops. In particular, the desired level of accuracy of the population estimate should be established as an objective. In addition, objectives can help others recognize that the methods of estimating the number of steelhead moving through Moricetown Canyon are being developed and refined. This is an important objective, particularly in the early stages of the project.

METHODS

1. Outline in detail all aspects of the study and proposed methodology. By clarifying the approach taken to meet the objectives, a detailed and comprehensive project plan can be implemented. Other groups or agencies may be consulted for input into the project plan. These may include, but may not be limited to, B.C. Environment, Department of Fisheries and Oceans, Upper Bulkley River Round Table, other tribal councils, staff and consultants involved in the project.
2. Clearly describe the underlying assumptions of the study design. Once the assumptions have been identified, it is important to consider how to test if assumptions are being violated, how severe the violations are, and if these violations will significantly affect the validity of the population estimate. Project objectives may need to be refined to incorporate limitations identified by not meeting some assumptions if the methods used are not robust. Some of the potential problems which require evaluation are:

- the proportion of steelhead dropping back (is it the same for marked and unmarked steelhead? how do we account for steelhead dropping back? how do we determine the extent of this problem?)
 - the proportion of steelhead that lose their tags (although the methods employed in 1999 should allow for some evaluation of this, the data were not readily available). In addition, it is critical to have a secondary mark that clearly distinguishes steelhead marked by beach seining from steelhead marked at the canyon.
 - the number of additional steelhead that are captured for other purposes (e.g. harvest for food, social and ceremonial) which could be examined for marks. How many of the harvested steelhead are tagged? It is important to adjust the number of marked steelhead in the population by the number of marked steelhead removed to avoid further biases in the estimated population size.
3. Consider developing a Catch Per Unit Effort (CPUE) index as a secondary component to the study. A CPUE index can be used as an in-season indicator of population size without conducting mark-recapture studies. Similar indices are used elsewhere (e.g. Tyhee Test Fishery).

STUDY DESIGN FOR POPULATION ESTIMATES

1. As previously stated for "Objectives", the desired level of accuracy for the adjusted Petersen mark recapture estimate needs to be defined. Once the desired level of accuracy has been defined, the number of steelhead that need to be tagged (M) and the number that need to be examined for tags (C) can be determined. A common standard is 25% accuracy. Based on this year's information, we can speculate on the number of tagged steelhead required (tagged downstream of the canyon), and the number of steelhead that need to be examined for tags if we assume this year's estimates are indicative of next year's true population size. The adjusted Petersen estimate given 8 recaptures and 164 marked fish is about 28,527 steelhead. If we assume that about 30,000 steelhead move through Moricetown Canyon next year, a minimum of 1000 steelhead would need to be tagged, and 2,000 steelhead would need to be examined for marks to obtain an adjusted Petersen estimate (error = 25% of the true population estimate, provided no biases or data uncertainties are present) (Ricker 1975) (Table 8). Assuming a population size of about 10,000 steelhead would require that 600 steelhead be tagged, and 1000 steelhead be examined for marks to achieve the same accuracy in the adjusted Petersen estimate. Assuming a population size of 50,000 steelhead would require a minimum of about 1500 marked steelhead, and 2500 steelhead examined for marks (Ricker 1975). Targets may need to be revised as the season progresses, and as in-season estimates are determined. In addition, targets may need to be revised to make them realistic to the study. However, consequences of revising the target (e.g. reducing sample size) need to be considered.

Table 8. Minimum number of marked fish and corresponding number of fish examined for marks to obtain an adjusted Petersen estimate with an error of 25% of the true population estimate (Ricker 1975).

True Population Size (N)	Minimum Number Marked (M)	Corresponding Minimum Number Examined for Marks (C)
10,000	600	1,000
30,000	1,000	2,000
50,000	1,500	2,000

2. To meet the set targets, tag application may need to be increased. The number of steelhead examined for marks actually comes close to the required number of steelhead that would need to be examined if the population estimate is between 10,000 and 25,000, and 1,000 steelhead had been marked. However, the number of marked steelhead precludes an accurate estimate of the population size in the current study. To increase the number of marked steelhead, one or more of the following may be considered:
 - increase sampling intensity for tag application in beach seining. Have two crews working to take advantage of long day light hours in the summer (12-14 hours of day light). Sample seven days a week, rather than 5 days (this also alleviates a problem with systematic rather than random or uniform sampling).
 - change beach seining location to a site that may be more suitable for steelhead. The beach seining activity served the dual purpose of tagging coho and steelhead, which have different microhabitat and migration preferences. Choosing a second beach seining location that may be more representative of preferred steelhead holding habitat may result in an increased catch per unit effort.
 - consider other sampling techniques that could be employed downstream of the canyon. For example, fishwheels are being considered by the Wet'suwet'en. Fishwheels have worked well in some systems (e.g. Nass River), but not in others (e.g. Kitselas canyon) (Atagi pers. comm.). Fishwheels appear to be less effective in clear water than in turbid systems (Atagi pers. comm.). Small in stream adjustments can greatly influence the efficiency of the fishwheel, and these adjustments are made on a daily basis (e.g. in the Nass system). Permanently mounting fishwheels in Hagwilget canyon may reduce movability, and may prevent small adjustments from being made. Persons with expertise in the design and implementation of fishwheels should be consulted to determine if fishwheels are likely to be suitable for the study, and how the fishwheel should be designed and operated. LGL has extensive experience in this regard, and it may be prudent to retain LGL to establish a stock assessment protocol for Moricetown Canyon, and to aid in the design and implementation of fishwheels. It may be possible to contract LGL to train and coordinate Wet'suwet'en staff and local fisheries biologists for this study.

3. Capture methods can be species, size, age, or sex selective (Bagenal 1978), and therefore result in the capture of a non-random sample of the population. In this year's study, fork length distribution differed significantly between the steelhead captured by beach seining and recaptured steelhead (section 3.2.1). In addition, sex ratios of steelhead captured by dipnetting and steelhead captured by beach seining was found to differ significantly (section

3.2.2). This indicates that non-random sections of the population may be more vulnerable to the two sampling methods. However, data analysis also revealed inaccuracies in fork lengths and sex ratio data that need to be addressed. Other sampling techniques may result in a more random sample of the population captured (e.g. fishwheels or angling). Although it is difficult to adjust sampling methods to decrease sampling bias, it is important to consider how severe these biases are, and how these biases will affect the estimated population size.

4. Evaluate the impacts of handling on steelhead survival by holding sub-samples of tagged fish for 24 hours before release.
5. Monitor the proportion of marked fish in the census sampled taken at Moricetown canyon over time to evaluate if marked fish are randomly distributed among unmarked fish. Marked fish are assumed to be distributed randomly among un-marked fish for mark-recapture population estimates. Since the population is open, it is likely that marking at uniform intensity during the study will increase the probability that the assumption of randomness will not be violated. This can be achieved by marking at equal intensity if capture efficiency is relatively uniform over time. To establish if capture efficiency is uniform over time, a known number of marked fish (either from the canyon and/or fish wheel) can be released downstream of the beach seine location at several time intervals. The recapture rate can then be used to estimate capture efficiency, and sampling intensity can be adjusted accordingly.

DATA COLLECTION AND MANAGEMENT

1. A large number of steelhead, and an even larger number of coho were processed by Wet'suwet'en Fisheries in the summer and fall of 1999. Considering this vast amount of data, problems with data fidelity are not surprising. There are many potential places for errors, however, some of these problems could be avoided using some relatively simple measures:
 - Utilize easy to use and clear datasheets designed for this project.
 - Stress the fact that the study is only as good as the data collected and recorded; it's the technicians that make or break the study. A training session at the beginning of the project, stressing the importance of accurate data would be beneficial.
 - Data should be entered and analysed during the season. After all, this is the goal of in-season stock estimates. This will also identify problem data early on.
 - One person should be in charge of cataloging and distributing all spaghetti tags at the start of the day, and collecting un-used tags at the end of each day. Each tag should be accounted for (applied, lost, not used). This will validate the number of applied tags, and will allow cross referencing with recaptured tags for which no tagging record can be found.
 - The most significant problem was the eight recaptured steelhead in the canyon for which no tagging record was found. These steelhead were either tagged by beach seining or tagged in the canyon. When processing a large number of fish, it is possible that some tag numbers are not recorded. However, recaptured fish are the most valuable fish in the study, and they should be treated with extra diligence. To prevent this problem from affecting the study in the future, two different colours of spaghetti tags should be used. One colour should only be applied by beach seining, and the other only in the canyon. A

third colour may be used if additional marking is conducted at a different location (e.g. by fish wheel at Hagwilget). Even though there may still be errors in individual tag numbers, the origin of the marked fish will be known, and the recaptures can still be used in the population estimate.

- Encourage frequent communications between field crews and data entry personal to ensure that data are transcribed and entered properly. Field crews should be encouraged to check the accuracy of the entered data.
- Standardize methods for accurately measuring fork length of steelhead for samples obtained by beach seining and dipnetting. Measuring boards and/or tape measures should be used, and all measurements should be recorded in the same units to the same level of accuracy.

DATA ANALYSIS

Data analysis in this study and the report produced by Wet'suwet'en Fisheries could be further expanded. Compilation of data in one report rather than two would be beneficial to the writer and the reader since data analysis is more comprehensive. Some catch per unit effort analysis was conducted by Wet'suwet'en Fisheries, but this could be expanded further. No analysis was conducted on the proportion of marked fish migrating downstream from the canyon. In addition, no analysis was conducted on the percentage of tag loss, since data was not readily available. Tag loss affects the number of marked fish in the population, and will therefore affect estimated population size. Migration rates, tagging affects and handling affects could also be analysed by the data set provided by Wet'suwet'en Fisheries.

5.0 References

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Appendix 1. Tagging data for steelhead tagged during beach seining.

Appendix 1. Tagging data for steelhead tagged during beach seining.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - Colour	Tag - Letter	Tag - Number	Sex	Fork length
1999/08/10 0:00	crew/set2	Idiot Rock island	RS	ST	BL	-	20975	F	65.5
1999/08/17 0:00	crew/set6	Idiot Rock island	RS	ST	BR	-	20977	F	81
1999/08/23 1:05	Rock island	Idiot Rock island	RS	ST	BR	-	20978	F	73
1999/08/24 16:00	Rock island	Idiot Rock island	RS	ST	BR	-	20980	F	49.5
1999/08/24 16:00	Rock island	Idiot Rock island	RS	ST	BR	-	20981	F	59.1
1999/08/25 10:00	Rock island	Idiot Rock island	RS	ST	BR	-	20985	F	71.5
1999/08/25 10:00	Rock island	Idiot Rock island	RS	ST	BR	-	20983	M	57.5
1999/08/26 10:00	Rock island	Idiot Rock island	RS	ST	BR	-	20982	M	76.5
1999/08/26 12:40	Rock island	Idiot Rock island	RS	ST	BR	-	20986	U	0
1999/08/26 2:37	Rock island	Idiot Rock island	RS	ST	BR	-	20987	F	51.5
1999/08/27 2:25	Rock island	Idiot Rock island	RS	ST	BR	-	20988	F	56
1999/08/30 1:10	Rock island	Idiot Rock island	RS	ST	BR	-	20989	F	49.5
1999/08/30 2:30	Rock island	Idiot Rock island	RS	ST	BR	-	20990	F	73.5
1999/08/30 2:30	Rock island	Idiot Rock island	RS	ST	BR	-	20991	M	70
1999/08/31 1:30	Rock island	Idiot Rock island	RS	ST	BR	-	20993	F	82
1999/08/31 1:30	Rock island	Idiot Rock island	RS	ST	BR	-	20992	M	71.5
1999/09/01 12:30	Rock island	Idiot Rock island	RS	ST	BR	-	20994	F	66.5
1999/09/01 12:45	Rock island	Idiot Rock island	RS	ST	BR	-	20995	M	74.5
1999/09/02 3:30	Island seine	Idiot Rock island	RS	ST	BR	-	20996	F	71
1999/09/03 1:25	Rock island	Idiot Rock island	RS	ST	BR	-	20998	F	70.5
1999/09/03 1:25	Rock island	Idiot Rock island	RS	ST	BR	-	20950	M	84
1999/09/03 1:25	Rock island	Idiot Rock island	RS	ST	BR	-	20951	M	86
1999/09/03 10:30	Rock island	Idiot Rock island	RS	ST	BR	-	20997	F	50.5
1999/09/03 2:50	Rock island	Idiot Rock island	RS	ST	BR	-	20953	F	59.5
1999/09/07 1:22	Island seine	Idiot Rock island	RS	ST	BR	-	20954	F	92
1999/09/07 10:30	Island seine	Idiot Rock island	RS	ST	BR	-	20956	F	71.5
1999/09/08 10:30	Island seine	Idiot Rock island	RS	ST	BR	-	20955	F	71
1999/09/10 1:50	Island seine	Idiot Rock island	RS	ST	BR	-	20961	F	73.5
1999/09/10 10:50	Island seine	Idiot Rock island	RS	ST	BR	-	20959	F	71
1999/09/10 12:35	Island seine	Idiot Rock island	RS	ST	BR	-	20960	F	53
1999/09/10 3:00	Island seine	Idiot Rock island	RS	ST	BR	-	20962	F	58
1999/09/10 9:35	Island seine	Idiot Rock island	RS	ST	BR	-	20958	F	73
1999/09/13 2:50	Rock island	Idiot Rock island	RS	ST	BR	-	20964	F	36
1999/09/13 2:50	Rock island	Idiot Rock island	RS	ST	BR	-	20963	F	57.9
1999/09/15 12:45	Island seine	Idiot Rock island	RS	ST	BR	-	23218	M	74
1999/09/15 3:40	Island seine	Idiot Rock island	RS	ST	BR	-	20966	F	74.5
1999/09/15 3:40	Island seine	Idiot Rock island	RS	ST	BR	-	20967	F	86.2
1999/09/15 3:40	Island seine	Idiot Rock island	RS	ST	BR	-	20965	F	92

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 1. Tagging data for steelhead tagged during beach seining.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - Colour	Tag - Letter	Tag - Number	Sex	Fork length
1999/09/16 10:00	Rock island	Idiot Rock island	RS	ST	BR	-	20968	F	62
1999/09/16 2:40	Rock island	Idiot Rock island	RS	ST	BR	-	20969	F	68
1999/09/16 4:00	Rock island	Idiot Rock island	RS	ST	BR	-	20970	M	98.5
1999/09/20 1:25	Island seine	Idiot Rock island	RS	ST	BR	-	20973	F	84
1999/09/20 2:25	Island seine	Idiot Rock island	RS	ST	BR	-	20000	F	76
1999/09/20 3:05	Island seine	Idiot Rock island	RS	ST	BR	-	20001	F	66
1999/09/21 1:45	Island seine	Idiot Rock island	RS	ST	BR	-	20004	F	81
1999/09/21 10:10	Island seine	Idiot Rock island	RS	ST	BR	-	20002	M	57
1999/09/21 11:45	Island seine	Idiot Rock island	RS	ST	BR	-	20003	F	74.5
1999/09/22 11:00	Island seine	Idiot Rock island	RS	ST	BR	-	20006	U	56
1999/09/22 11:50	Island seine	Idiot Rock island	RS	ST	BR	-	20009	F	58.5
1999/09/22 11:50	Island seine	Idiot Rock island	RS	ST	BR	-	20007	F	68.5
1999/09/22 11:50	Island seine	Idiot Rock island	RS	ST	BR	-	20008	M	81
1999/09/22 3:25	Island seine	Idiot Rock island	RS	ST	BR	-	20010	F	60
1999/09/23 1:15	Island seine	Idiot Rock island	RS	ST	BR	-	20112	F	63.5
1999/09/24 11:20	Island seine	Idiot Rock island	RS	ST	BR	-	20013	F	64.5
1999/09/24 2:20	Island seine	Idiot Rock island	RS	ST	BR	-	20026	F	70
1999/09/24 2:20	Island seine	Idiot Rock island	RS	ST	BR	-	20027	F	86
1999/09/24 3:00	Island seine	Idiot Rock island	RS	ST	BR	-	20032	F	67
1999/09/24 3:00	Island seine	Idiot Rock island	RS	ST	BR	-	20035	F	70.5
1999/09/24 3:00	Island seine	Idiot Rock island	RS	ST	BR	-	20030	F	75
1999/09/24 3:00	Island seine	Idiot Rock island	RS	ST	BR	-	20038	F	79
1999/09/24 3:00	Island seine	Idiot Rock island	RS	ST	BR	-	20033	M	58
1999/09/27 10:45	Island seine	Idiot Rock island	RS	ST	BR	-	20041	F	71
1999/09/27 11:35	Island seine	Idiot Rock island	RS	ST	BR	-	20043	F	54
1999/09/27 2:10	Island seine	Idiot Rock island	RS	ST	BR	-	20044	M	86
1999/09/27 2:50	Island seine	Idiot Rock island	RS	ST	BR	-	20045	F	55.5
1999/09/29 11:30	Island seine	Idiot Rock island	RS	ST	BR	-	20048	F	57.5
1999/09/29 11:30	Island seine	Idiot Rock island	RS	ST	BR	-	20047	F	72.5
1999/09/29 11:30	Island seine	Idiot Rock island	RS	ST	BR	-	20049	F	73
1999/09/29 12:20	Island seine	Idiot Rock island	RS	ST	BR	-	20926	M	81
1999/09/29 15:00	Island seine	Idiot Rock island	RS	ST	BR	-	20929	F	74.5
1999/09/29 15:00	Island seine	Idiot Rock island	RS	ST	BR	-	20928	M	53
1999/09/29 9:38	Island seine	Idiot Rock island	RS	ST	BR	-	20046	F	59.5
1999/09/30 11:05	Island seine	Idiot Rock island	RS	ST	BR	-	20930	F	58.5
1999/09/30 11:45	Island seine	Idiot Rock island	RS	ST	BR	-	20931	F	70.5
1999/09/30 13:45	Island seine	Idiot Rock island	RS	ST	BL	-	20932	F	56.5
1999/09/30 14:20	Island seine	Idiot Rock island	RS	ST	BR	-	20935	F	75

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 1. Tagging data for steelhead tagged during beach seining.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - Colour	Tag - Letter	Tag - Number	Sex	Fork length
1999/09/30 14:20	Island seine	Idiot Rock island	RS	ST	BR	-	20936	M	74
1999/09/30 15:35	Island seine	Idiot Rock island	RS	ST	BR	-	20938	F	75
1999/10/01 10:30	Island seine	Idiot Rock island	RS	ST	BR	-	20941	F	56
1999/10/01 10:30	Island seine	Idiot Rock island	RS	ST	BR	-	20940	M	53
1999/10/01 13:00	Island seine	Idiot Rock island	RS	ST	BR	-	20942	M	56
1999/10/04 12:30	Island seine	Idiot Rock island	RS	ST	BR	-	20051	M	56.5
1999/10/04 12:30	Island seine	Idiot Rock island	RS	ST	BR	-	20050	M	82
1999/10/04 15:52	Island seine	Idiot Rock island	RS	ST	BR	-	20052	F	70
1999/10/04 9:50	Island seine	Idiot Rock island	RS	ST	BR	-	20944	F	69.5
1999/10/04 9:50	Island seine	Idiot Rock island	RS	ST	BR	-	20943	F	79.5
1999/10/05 15:30	Island seine	Idiot Rock island	RS	ST	BR	-	20055	F	58.5
1999/10/05 15:30	Island seine	Idiot Rock island	RS	ST	BR	-	20054	F	69.5
1999/10/05 15:30	Island seine	Idiot Rock island	RS	ST	BR	-	20053	F	72
1999/10/06 10:00	Island seine	Idiot Rock island	RS	ST	BR	-	20945	F	72
1999/10/06 10:00	Island seine	Idiot Rock island	RS	ST	BR	-	20946	F	80.5
1999/10/06 13:20	ld	Idiot Rock island	RS	ST	BR	-	20075	F	71.5
1999/10/06 13:20	Rock island	Idiot Rock island	RS	ST	BR	-	20947	F	96
1999/10/06 14:05	Rock island	Idiot Rock island	RS	ST	BR	-	20948	F	69
1999/10/06 15:05	Rock island	Idiot Rock island	RS	ST	BR	-	20076	M	68
1999/10/06 15:45	Rock island	Idiot Rock island	RS	ST	BR	-	20078	F	71.5
1999/10/07 11:20	Rock island	Idiot Rock island	RS	ST	BR	-	20080	F	58.5
1999/10/07 11:20	Rock island	Idiot Rock island	RS	ST	BR	-	20081	F	72.5
1999/10/07 11:20	Rock island	Idiot Rock island	RS	ST	BR	-	20079	M	53
1999/10/07 12:20	Rock island	Idiot Rock island	RS	ST	BR	-	20082	F	62
1999/10/07 12:20	Rock island	Idiot Rock island	RS	ST	BR	-	20084	F	74
1999/10/07 12:20	Rock island	Idiot Rock island	RS	ST	BR	-	20083	F	80.5
1999/10/07 13:35	bm	Idiot Rock island	RS	ST	BR	-	20087	F	56.4
1999/10/07 13:35	Rock island	Idiot Rock island	RS	ST	BR	-	20085	F	59
1999/10/07 13:35	bm	Idiot Rock island	RS	ST	BR	-	20086	F	66
1999/10/07 15:20	Rock island	Idiot Rock island	RS	ST	BR	-	20088	F	75.5
1999/10/08 11:30	Rock island	Idiot Rock island	RS	ST	BR	-	20091	F	65
1999/10/08 11:30	Rock island	Idiot Rock island	RS	ST	BR	-	20092	F	70
1999/10/08 11:30	Rock island	Idiot Rock island	RS	ST	BR	-	20089	F	84
1999/10/08 11:30	Rock island	Idiot Rock island	RS	ST	BR	-	20090	F	84
1999/10/08 13:40	Rock island	Idiot Rock island	RS	ST	BR	-	20094	F	76
1999/10/08 13:40	Rock island	Idiot Rock island	RS	ST	BR	-	20093	F	76
1999/10/08 14:20	Rock island	Idiot Rock island	RS	ST	BR	-	20095	F	75.5
1999/10/13 10:45	Rock island	Idiot Rock island	RS	ST	BR	-	20101	F	62

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 1. Tagging data for steelhead tagged during beach seining.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - Colour	Tag - Letter	Tag - Number	Sex	Fork length
1999/10/13 10:45	Rock island	Idiot Rock island	RS	ST	BR	-	20102 F		74
1999/10/13 10:45	Rock island	Idiot Rock island	RS	ST	BR	-	20100 F		79
1999/10/13 14:22	Rock island	Idiot Rock island	RS	ST	BR	-	20109 F		60.5
1999/10/13 14:22	Rock island	Idiot Rock island	RS	ST	BR	-	20110 F		72.5
1999/10/13 14:22	Rock island	Idiot Rock island	RS	ST	BR	-	20106 F		73
1999/10/13 14:22	Rock island	Idiot Rock island	RS	ST	BR	-	20107 F		81.5
1999/10/13 14:22	Rock island	Idiot Rock island	RS	ST	BR	-	20104 F		88.5
1999/10/13 14:22	Rock island	Idiot Rock island	RS	ST	BR	-	20108 M		61.5
1999/10/13 14:22	Rock island	Idiot Rock island	RS	ST	BR	-	20105 M		62.5
1999/10/13 15:20	Rock island	Idiot Rock island	RS	ST	BR	-	20111 F		68
1999/10/14 10:25	Rock island	Idiot Rock island	RS	ST	BR	-	20113 F		71
1999/10/14 11:35	Rock island	Idiot Rock island	RS	ST	BR	-	20115 F		57.5
1999/10/14 11:35	Rock island	Idiot Rock island	RS	ST	RD	-	20116 F		57.5
1999/10/14 13:45	bm	Idiot Rock island	RS	ST	BR	-	20119 F		57
1999/10/14 13:45	Rock island	Idiot Rock island	RS	ST	BR	-	20117 F		59.5
1999/10/14 13:45	Rock island	Idiot Rock island	RS	ST	BR	-	20118 F		61
1999/10/14 14:45	Rock island	Idiot Rock island	RS	ST	BR	-	20121 F		74
1999/10/18 11:00	Rock island	Idiot Rock island	RS	ST	BR	-	20131 F		72.5
1999/10/18 11:40	Rock island	Idiot Rock island	RS	ST	BR	-	20133 F		68.5
1999/10/18 11:40	Rock island	Idiot Rock island	RS	ST	BR	-	20132 F		77.5
1999/10/18 13:30	Rock island	Idiot Rock island	RS	ST	BR	-	20134 F		66
1999/10/18 14:05	Rock island	Idiot Rock island	RS	ST	BR	-	20137 F		61
1999/10/18 14:05	Rock island	Idiot Rock island	RS	ST	BR	-	20135 F		71
1999/10/18 14:56	Rock island	Idiot Rock island	RS	ST	BR	-	20138 F		66.5
1999/10/18 14:56	Rock island	Idiot Rock island	RS	ST	BR	-	20176 F		71.5
1999/10/18 14:56	Rock island	Idiot Rock island	RS	ST	BR	-	20175 F		73.5
1999/10/18 14:56	Rock island	Idiot Rock island	RS	ST	BR	-	20139 F		73.5
1999/10/18 15:45	Rock island	Idiot Rock island	RS	ST	BR	-	20141 M		80
1999/10/19 10:00	ld	Idiot Rock island	RS	ST	BR	-	20123 F		52
1999/10/19 10:00	ld	Idiot Rock island	RS	ST	BR	-	20122 F		59
1999/10/19 10:40	ld	Idiot Rock island	RS	ST	BR	-	20124 F		73
1999/10/19 11:27	Rock island	Idiot Rock island	RS	ST	BR	-	20180 F		66
1999/10/19 11:27	Rock island	Idiot Rock island	RS	ST	BR	-	20178 M		80
1999/10/19 12:20	Rock island	Idiot Rock island	RS	ST	BR	-	20181 F		80
1999/10/19 12:50	Rock island	Idiot Rock island	RS	ST	BR	-	20126 F		60.5
1999/10/19 12:50	Rock island	Idiot Rock island	RS	ST	BR	-	20127 F		61.5
1999/10/19 12:50	Rock island	Idiot Rock island	RS	ST	BR	-	20125 M		95
1999/10/19 13:30	Rock island	Idiot Rock island	RS	ST	BR	-	20142 F		76

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 1. Tagging data for steelhead tagged during beach seining.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - Colour	Tag - Letter	Tag - Number	Sex	Fork length
1999/10/19 14:00	Rock island	Idiot Rock island	RS	ST	BR	-	20129	F	72
1999/10/19 14:00	Rock island	Idiot Rock island	RS	ST	BR	-	20144	F	76
1999/10/20 12:35	Rock island	Idiot Rock island	RS	ST	BR	-	20145	F	69.5
1999/10/20 14:35	Rock island	Idiot Rock island	RS	ST	BR	-	20146	F	75
1999/10/20 15:15	Rock island	Idiot Rock island	RS	ST	BR	-	20147	F	84
1999/10/21 10:10	Rock island	Idiot Rock island	RS	ST	BR	-	20182	F	73.5
1999/10/21 13:25	Rock island	Idiot Rock island	RS	ST	BR	-	20183	F	64
1999/10/25 10:10	Rock island	Idiot Rock island	RS	ST	BR	-	20185	F	56
1999/10/25 10:10	Rock island	Idiot Rock island	RS	ST	BR	-	20184	F	65.5
1999/10/27 11:20	Rock island	Idiot Rock island	RS	ST	BR	-	20187	F	69.5
1999/10/27 11:20	Rock island	Idiot Rock island	RS	ST	BR	-	20186	M	72.5
1999/10/27 13:25	Rock island	Idiot Rock island	RS	ST	BR	-	20188	F	74

Tagging gear: RS = beach seine, RD = dipnet, RA = angling
 Sex: F = female, M = male
 Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/08/09 3:25	bj	Moricetown	RD	ST	BR	-	21500	F	36
1999/08/10 3:40	bj	Moricetown	RD	ST	BR	-	21001	M	33
1999/08/10 3:42	bj	Moricetown	RD	ST	BR	-	21002	M	28
1999/08/10 7:42	em	Moricetown	RD	ST	BR	-	21000	F	28
1999/08/11 12:00	em	Moricetown	RD	ST	BR	-	21006	M	29
1999/08/11 2:40	bj	Moricetown	RD	ST	BR	-	21009	M	22
1999/08/11 3:14	bj	Moricetown	RD	ST	BR	-	21010	M	28
1999/08/11 4:15	bj	Moricetown	RD	ST	BR	-	21011	M	27
1999/08/11 5:08	dj	Moricetown	RD	ST	BR	-	21012	M	30
1999/08/11 7:44	em	Moricetown	RD	ST	BR	-	21003	F	31
1999/08/11 8:01	em	Moricetown	RD	ST	BR	-	21004	F	23
1999/08/11 8:06	em	Moricetown	RD	ST	BR	-	21005	F	26
1999/08/13 7:30	bj	Moricetown	RD	ST	BR	-	210014	M	23
1999/08/16 1:37	rc	Moricetown	RD	ST	BR	-	21029	M	27
1999/08/16 11:08	em	Moricetown	RD	ST	BR	-	21021	F	21
1999/08/16 5:03	rc	Moricetown	RD	ST	BR	-	21026	F	27
1999/08/16 5:12	canyon crew	Moricetown	RD	ST	BR	-	21501	F	75
1999/08/16 5:18	canyon crew	Moricetown	RD	ST	BR	-	21499	M	65
1999/08/16 5:29	canyon crew	Moricetown	RD	ST	BR	-	21498	F	51
1999/08/16 5:32	canyon crew	Moricetown	RD	ST	BR	-	21497	F	70
1999/08/16 6:18	bj	Moricetown	RD	ST	BR	-	21027	F	28
1999/08/16 6:18	bj	Moricetown	RD	ST	BR	-	21028	M	28
1999/08/16 6:20	dj	Moricetown	RD	ST	BR	-	21025	M	30
1999/08/16 6:59	rc	Moricetown	RD	ST	BR	-	21030	F	22
1999/08/16 7:11	-	Moricetown	RD	ST	BR	-	21031	M	35
1999/08/16 8:20	em	Moricetown	RD	ST	BR	-	21017	F	31
1999/08/16 8:38	mw	Moricetown	RD	ST	BR	-	21494	F	84
1999/08/16 9:28	dj	Moricetown	RD	ST	BR	-	21020	F	43
1999/08/17 1:04	jr	Moricetown	RD	ST	BR	-	21022	M	30
1999/08/17 1:13	jr	Moricetown	RD	ST	BR	-	21040	F	31
1999/08/17 1:19	jr	Moricetown	RD	ST	BR	-	21041	F	30
1999/08/17 2:18	rn	Moricetown	RD	ST	BR	-	21007	F	27
1999/08/17 3:42	bj	Moricetown	RD	ST	BR	-	21008	F	27
1999/08/17 5:33	bj	Moricetown	RD	ST	BR	-	21042	F	26
1999/08/17 5:37	bj	Moricetown	RD	ST	BR	-	21043	F	28
1999/08/17 5:50	gl	Moricetown	RD	ST	BR	-	21049	F	37
1999/08/17 6:18	bj	Moricetown	RD	ST	BR	-	21044	F	27
1999/08/17 6:20	bj	Moricetown	RD	ST	BR	-	21045	M	31

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/08/17 7:34 bj		Moricetown	RD	ST	BR	-	21046	M	29
1999/08/17 7:40 jr		Moricetown	RD	ST	BR	-	21023	M	31
1999/08/17 8:12		Moricetown	RD	ST	BR	-	21047	F	16
1999/08/17 8:16		Moricetown	RD	ST	BR	-	21048	F	30
1999/08/17 8:52 mm		Moricetown	RD	ST	BR	-	21025	F	30
1999/08/17 8:52 em		Moricetown	RD	ST	BR	-	21024	U	30
1999/08/17 9:01 mm		Moricetown	RD	ST	BR	-	21027	F	20
1999/08/20 10:40 dp		Moricetown	RD	ST	BR	-	21487	F	67
1999/08/20 10:45 jr		Moricetown	RD	ST	BR	-	21480	F	53
1999/08/20 10:50 jr		Moricetown	RD	ST	BR	-	21479	F	72
1999/08/20 11:00 jr		Moricetown	RD	ST	BR	-	21478	M	81
1999/08/20 11:03 jr		Moricetown	RD	ST	BR	-	21477	M	55
1999/08/20 11:22 jr		Moricetown	RD	ST	BR	-	21476	F	61
1999/08/20 11:32 jr		Moricetown	RD	ST	BR	-	21475	F	67
1999/08/20 12:00 jr		Moricetown	RD	ST	BR	-	21400	F	67
1999/08/20 12:20 jr		Moricetown	RD	ST	BR	-	21401	F	66
1999/08/20 12:20 jr		Moricetown	RD	ST	BR	-	21402	F	66
1999/08/20 12:26 jr		Moricetown	RD	ST	BR	-	21403	M	67
1999/08/20 12:49 mt		Moricetown	RD	ST	BR	-	21404	F	60
1999/08/20 12:51 mt		Moricetown	RD	ST	BR	-	21405	M	21
1999/08/20 2:05 bj		Moricetown	RD	ST	BR	-	21406	F	54
1999/08/20 2:23 bj		Moricetown	RD	ST	BR	-	21408	F	72
1999/08/20 2:26 bj		Moricetown	RD	ST	BR	-	21409	F	73
1999/08/20 2:37 bj		Moricetown	RD	ST	BR	-	21410	F	54
1999/08/20 3:09 gj		Moricetown	RD	ST	BR	-	21411	M	66
1999/08/20 3:15 dj		Moricetown	RD	ST	BR	-	21412	F	73
1999/08/20 3:16 bj		Moricetown	RD	ST	BR	-	21413	F	59
1999/08/20 4:06 bj		Moricetown	RD	ST	BR	-	21414	F	77
1999/08/20 4:36 bj		Moricetown	RD	ST	BR	-	21415	F	53
1999/08/20 5:03 bj		Moricetown	RD	ST	BR	-	21416	F	75
1999/08/20 5:05		Moricetown	RD	ST	BR	-	21417	M	80
1999/08/20 6:29 bj		Moricetown	RD	ST	BR	-	21418	F	72
1999/08/20 6:37 bj		Moricetown	RD	ST	BR	-	21419	F	69
1999/08/20 6:44 bj		Moricetown	RD	ST	BR	-	21420	F	76
1999/08/20 6:56 bj		Moricetown	RD	ST	BR	-	21421	F	82
1999/08/20 7:02 em		Moricetown	RD	ST	BR	-	21493	M	54
1999/08/20 7:16 bj		Moricetown	RD	ST	BR	-	21422	F	69
1999/08/20 7:22 jr		Moricetown	RD	ST	BR	-	21492	M	67

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/08/20 7:23 em		Moricetown	RD	ST	BR	-	21491 F		61
1999/08/20 7:33 em		Moricetown	RD	ST	BR	-	21490 F		72
1999/08/20 8:10 em		Moricetown	RD	ST	BR	-	21488 F		78
1999/08/20 8:13 bj		Moricetown	RD	ST	BR	-	21423 M		57
1999/08/20 8:16 jr		Moricetown	RD	ST	BR	-	21481 F		64
1999/08/20 8:30 jr		Moricetown	RD	ST	BR	-	21485 F		60
1999/08/20 8:35 bj		Moricetown	RD	ST	BR	-	21424 F		68
1999/08/20 8:36 jr		Moricetown	RD	ST	BR	-	21486 M		69
1999/08/20 9:39 jr		Moricetown	RD	ST	BR	-	21484 F		55
1999/08/20 9:55 jr		Moricetown	RD	ST	BR	-	21483 M		76
1999/08/20 9:58 em		Moricetown	RD	ST	BR	-	21489 M		65
1999/08/23 1:03 bj		Moricetown	RD	ST	BR	-	21457 F		60
1999/08/23 1:14 bj		Moricetown	RD	ST	BR	-	21458 M		86
1999/08/23 1:32 bj		Moricetown	RD	ST	BR	-	21459 F		76
1999/08/23 1:48 mw		Moricetown	RD	ST	BR	-	21469 F		55
1999/08/23 10:10 bj		Moricetown	RD	ST	BR	-	21434 M		59
1999/08/23 10:12 bj		Moricetown	RD	ST	BR	-	21435 F		57
1999/08/23 10:18 bj		Moricetown	RD	ST	BR	-	21436 F		71
1999/08/23 10:47 mw		Moricetown	RD	ST	BR	-	21451 F		61
1999/08/23 10:57 bj		Moricetown	RD	ST	BR	-	21437 F		76
1999/08/23 11:02 mw		Moricetown	RD	ST	BR	-	21438 M		59
1999/08/23 11:05 mw		Moricetown	RD	ST	BR	-	21439 F		68
1999/08/23 11:08 bj		Moricetown	RD	ST	BR	-	21440 F		68
1999/08/23 11:15 bj		Moricetown	RD	ST	BR	-	21441 F		68
1999/08/23 11:17 mw		Moricetown	RD	ST	BR	-	21442 F		67
1999/08/23 11:27 mw		Moricetown	RD	ST	BR	-	21443 F		51
1999/08/23 11:27 mw		Moricetown	RD	ST	BR	-	21444 M		69
1999/08/23 11:44 bj		Moricetown	RD	ST	BR	-	21445 F		61
1999/08/23 12:09 bj		Moricetown	RD	ST	BR	-	21446 F		58
1999/08/23 12:09 bj		Moricetown	RD	ST	BR	-	21447 M		92
1999/08/23 12:13 bj		Moricetown	RD	ST	BR	-	21448 F		61
1999/08/23 12:21 bj		Moricetown	RD	ST	BR	-	21449 F		74
1999/08/23 12:25 bj		Moricetown	RD	ST	BR	-	00001 F		77
1999/08/23 12:38 bj		Moricetown	RD	ST	BR	-	21452 F		56
1999/08/23 12:39 bj		Moricetown	RD	ST	BR	-	21453 F		57
1999/08/23 12:43 mw		Moricetown	RD	ST	BR	-	21454 F		57
1999/08/23 12:44 mw		Moricetown	RD	ST	BR	-	21455 F		58
1999/08/23 12:47 bj		Moricetown	RD	ST	BR	-	21456 F		69

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/08/23 2:10 mt		Moricetown	RD	ST	BR	-	21461 M		65
1999/08/23 2:21 em		Moricetown	RD	ST	BR	-	21462 F		82
1999/08/23 3:12 em		Moricetown	RD	ST	BR	-	21463 F		55
1999/08/23 3:22 mt		Moricetown	RD	ST	BR	-	21464 F		51
1999/08/23 3:49 em		Moricetown	RD	ST	BR	-	21630 F		53
1999/08/23 4:06 em		Moricetown	RD	ST	BR	-	21465 M		63
1999/08/23 4:12 mt		Moricetown	RD	ST	BR	-	21466 F		53
1999/08/23 4:53 mt		Moricetown	RD	ST	BR	-	21467 M		51
1999/08/23 6:17 em		Moricetown	RD	ST	BR	-	21468 F		68
1999/08/23 6:30 em		Moricetown	RD	ST	BR	-	21470 F		49
1999/08/23 6:42 mt		Moricetown	RD	ST	BR	-	21471 F		58
1999/08/23 6:44 em		Moricetown	RD	ST	BR	-	21472 M		46
1999/08/23 6:46 em		Moricetown	RD	ST	BR	-	21473 F		66
1999/08/23 6:47 em		Moricetown	RD	ST	BR	-	21474 M		64
1999/08/23 7:46 bj		Moricetown	RD	ST	BR	-	21425 F		56
1999/08/23 7:46 bj		Moricetown	RD	ST	BR	-	21426 F		78
1999/08/23 7:57 bj		Moricetown	RD	ST	BR	-	21427 F		55
1999/08/23 8:17 bj		Moricetown	RD	ST	BR	-	21428 F		64
1999/08/23 9:40 bj		Moricetown	RD	ST	BR	-	21429 F		65
1999/08/23 9:44 bj		Moricetown	RD	ST	BR	-	21430 F		75
1999/08/23 9:50 mw		Moricetown	RD	ST	BR	-	21432 F		74
1999/08/23 9:50 mw		Moricetown	RD	ST	BR	-	21431 M		56
1999/08/23 9:57 mw		Moricetown	RD	ST	BR	-	21433 F		71
1999/08/24 1:14 mw		Moricetown	RD	ST	BR	-	21398 F		75
1999/08/24 1:18 bj		Moricetown	RD	ST	BR	-	21399 M		80
1999/08/24 1:20 bj		Moricetown	RD	ST	BR	-	21275 F		56
1999/08/24 1:20 bj		Moricetown	RD	ST	BR	-	21277 F		77
1999/08/24 1:20 bj		Moricetown	RD	ST	BR	-	21276 F		92
1999/08/24 1:28 mw		Moricetown	RD	ST	BR	-	21278 F		62
1999/08/24 10:04 bj		Moricetown	RD	ST	BR	-	21377 F		64
1999/08/24 10:15 mw		Moricetown	RD	ST	BR	-	21378 M		64
1999/08/24 10:32 mw		Moricetown	RD	ST	BR	-	21379 F		71
1999/08/24 10:38 bj		Moricetown	RD	ST	BR	-	21380 F		78
1999/08/24 10:41 bj		Moricetown	RD	ST	BR	-	21381 F		53
1999/08/24 10:42 mw		Moricetown	RD	ST	BR	-	21382 F		61
1999/08/24 10:44 bj		Moricetown	RD	ST	BR	-	21383 F		77
1999/08/24 10:53 bj		Moricetown	RD	ST	BR	-	21384 F		70
1999/08/24 10:57 bj		Moricetown	RD	ST	BR	-	21385 F		73

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/08/24 11:11	mw	Moricetown	RD	ST	BR	-	21386	F	59
1999/08/24 11:14	mw	Moricetown	RD	ST	BR	-	21387	M	74
1999/08/24 11:15	bj	Moricetown	RD	ST	BR	-	21388	F	75
1999/08/24 11:16	mw	Moricetown	RD	ST	BR	-	21389	F	59
1999/08/24 11:19	bj	Moricetown	RD	ST	BR	-	21390	M	73
1999/08/24 11:32	bj	Moricetown	RD	ST	BR	-	21391	F	58
1999/08/24 11:45	bj	Moricetown	RD	ST	BR	-	21392	F	59
1999/08/24 11:47	mw	Moricetown	RD	ST	BR	-	21393	F	62
1999/08/24 11:48	mw	Moricetown	RD	ST	BR	-	21394	F	60
1999/08/24 12:46	mw	Moricetown	RD	ST	BR	-	21395	F	72
1999/08/24 12:52	mw	Moricetown	RD	ST	BR	-	21396	F	58
1999/08/24 12:52	mw	Moricetown	RD	ST	BR	-	21397	F	58
1999/08/24 2:15	em	Moricetown	RD	ST	BR	-	21279	M	70
1999/08/24 2:42	em	Moricetown	RD	ST	BR	-	21280	M	72
1999/08/24 2:54	em	Moricetown	RD	ST	BR	-	21281	F	61
1999/08/24 3:48	jr	Moricetown	RD	ST	BR	-	21282	M	81
1999/08/24 3:57	em	Moricetown	RD	ST	BR	-	21283	F	67
1999/08/24 4:36	em	Moricetown	RD	ST	BR	-	21284	F	70
1999/08/24 4:51	em	Moricetown	RD	ST	BR	-	21285	F	58
1999/08/24 4:51	em	Moricetown	RD	ST	BR	-	21286	M	64
1999/08/24 4:56	em	Moricetown	RD	ST	BR	-	21287	F	65
1999/08/24 5:01	em	Moricetown	RD	ST	BR	-	21288	F	61
1999/08/24 5:13	em	Moricetown	RD	ST	BR	-	21289	M	68
1999/08/24 5:21	em	Moricetown	RD	ST	BR	-	21290	F	67
1999/08/24 5:23	em	Moricetown	RD	ST	BR	-	21291	F	56
1999/08/24 5:26	em	Moricetown	RD	ST	BR	-	21292	F	65
1999/08/24 5:27	em	Moricetown	RD	ST	BR	-	21293	M	64
1999/08/24 6:03	em	Moricetown	RD	ST	BR	-	21294	M	85
1999/08/24 6:07	em	Moricetown	RD	ST	BR	-	21295	F	52
1999/08/24 6:25	em	Moricetown	RD	ST	BR	-	21296	M	78
1999/08/24 6:57	an	Moricetown	RD	ST	BR	-	21297	M	84
1999/08/24 7:58	em	Moricetown	RD	ST	BR	-	21298	F	66
1999/08/24 8:00	mw	Moricetown	RD	ST	BR	-	21358	F	54
1999/08/24 8:07	mw	Moricetown	RD	ST	BR	-	21359	F	60
1999/08/24 8:20	bj	Moricetown	RD	ST	BR	-	21360	F	74
1999/08/24 8:23	bj	Moricetown	RD	ST	BR	-	21361	F	54
1999/08/24 8:27	hole	Moricetown	RD	ST	BR	-	21362	F	58
1999/08/24 8:39	mw	Moricetown	RD	ST	BR	-	21364	F	64

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/08/24 8:39	mw	Moricetown	RD	ST	BR	-	21363	F	71
1999/08/24 9:02	bj	Moricetown	RD	ST	BR	-	21365	F	78
1999/08/24 9:05	bj	Moricetown	RD	ST	BR	-	21366	F	61
1999/08/24 9:07	bj	Moricetown	RD	ST	BR	-	21367	F	69
1999/08/24 9:19	hole	Moricetown	RD	ST	BR	-	21368	F	58
1999/08/24 9:27	mw	Moricetown	RD	ST	BR	-	21369	M	69
1999/08/24 9:38	mw	Moricetown	RD	ST	BR	-	21370	F	53
1999/08/24 9:45	bj	Moricetown	RD	ST	BR	-	21371	F	69
1999/08/24 9:51	bj	Moricetown	RD	ST	BR	-	21372	F	60
1999/08/24 9:54	bj	Moricetown	RD	ST	BR	-	21373	F	55
1999/08/24 9:56	bj	Moricetown	RD	ST	BR	-	21374	F	67
1999/08/24 9:58	mw	Moricetown	RD	ST	BR	-	21375	M	66
1999/08/24 9:59	mw	Moricetown	RD	ST	BR	-	21376	F	75
1999/08/25 1:05	mw	Moricetown	RD	ST	BR	-	21053	F	54
1999/08/25 1:07	mw	Moricetown	RD	ST	BR	-	21054	M	80
1999/08/25 1:09	mw	Moricetown	RD	ST	BR	-	21055	M	78
1999/08/25 1:10	mw	Moricetown	RD	ST	BR	-	21056	F	63
1999/08/25 1:12	mw	Moricetown	RD	ST	BR	-	21057	M	54
1999/08/25 1:13	mw	Moricetown	RD	ST	BR	-	21058	F	69
1999/08/25 1:14	mw	Moricetown	RD	ST	BR	-	21059	F	88
1999/08/25 1:27	mw	Moricetown	RD	ST	BR	-	21060	F	86
1999/08/25 1:29	mw	Moricetown	RD	ST	BR	-	21061	F	64
1999/08/25 1:30	mw	Moricetown	RD	ST	BR	-	21062	F	65
1999/08/25 1:31	bj	Moricetown	RD	ST	BR	-	21063	F	72
1999/08/25 1:31	mw	Moricetown	RD	ST	BR	-	21064	M	75
1999/08/25 1:56	em	Moricetown	RD	ST	BL	-	21065	M	67
1999/08/25 10:11	bj	Moricetown	RD	ST	BR	-	21314	F	72
1999/08/25 10:20	bj	Moricetown	RD	ST	BR	-	21315	M	72
1999/08/25 10:42	an	Moricetown	RD	ST	BR	-	21316	F	58
1999/08/25 10:54	bj	Moricetown	RD	ST	BR	-	21317	F	70
1999/08/25 11:13	bj	Moricetown	RD	ST	BR	-	21318	F	60
1999/08/25 11:20	mw	Moricetown	RD	ST	BR	-	21319	F	62
1999/08/25 11:21	mw	Moricetown	RD	ST	BR	-	21320	F	55
1999/08/25 11:27	bj	Moricetown	RD	ST	BR	-	21322	F	79
1999/08/25 11:27	bj	Moricetown	RD	ST	BR	-	21321	M	71
1999/08/25 11:32	bj	Moricetown	RD	ST	BR	-	21323	F	73
1999/08/25 11:35	bj	Moricetown	RD	ST	BR	-	21325	F	74
1999/08/25 11:44	mw	Moricetown	RD	ST	BR	-	21324	F	81

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/08/25 11:49	mw	Moricetown	RD	ST	BR	-	21326	F	57
1999/08/25 11:52	mw	Moricetown	RD	ST	BR	-	21327	F	77
1999/08/25 11:56	mw	Moricetown	RD	ST	BR	-	21328	F	72
1999/08/25 11:57	mw	Moricetown	RD	ST	BR	-	21329	F	70
1999/08/25 11:58	mw	Moricetown	RD	ST	BR	-	21330	F	62
1999/08/25 12:00	mw	Moricetown	RD	ST	BR	-	21331	F	76
1999/08/25 12:04	mw	Moricetown	RD	ST	BR	-	21333	F	60
1999/08/25 12:04	mw	Moricetown	RD	ST	BR	-	21332	F	74
1999/08/25 12:05	mw	Moricetown	RD	ST	BR	-	21334	F	55
1999/08/25 12:05	mw	Moricetown	RD	ST	BR	-	21335	F	62
1999/08/25 12:16	bj	Moricetown	RD	ST	BR	-	21336	F	71
1999/08/25 12:24	mw	Moricetown	RD	ST	BR	-	21337	F	79
1999/08/25 12:26	bj	Moricetown	RD	ST	BR	-	21338	F	68
1999/08/25 12:27	mw	Moricetown	RD	ST	BR	-	21339	F	65
1999/08/25 12:28	mw	Moricetown	RD	ST	BR	-	21340	M	76
1999/08/25 12:31	mw	Moricetown	RD	ST	BR	-	21341	M	70
1999/08/25 12:36	bj	Moricetown	RD	ST	BR	-	21342	F	77
1999/08/25 12:37	mw	Moricetown	RD	ST	BR	-	21343	F	80
1999/08/25 12:41	mw	Moricetown	RD	ST	BR	-	21345	F	56
1999/08/25 12:41	mw	Moricetown	RD	ST	BR	-	21344	F	60
1999/08/25 12:52	mw	Moricetown	RD	ST	BR	-	21346	F	61
1999/08/25 12:52	mw	Moricetown	RD	ST	BR	-	21347	F	72
1999/08/25 12:57	mw	Moricetown	RD	ST	BR	-	21349	F	58
1999/08/25 12:57	mw	Moricetown	RD	ST	BR	-	21348	F	85
1999/08/25 12:58	mw	Moricetown	RD	ST	BR	-	21051	M	51
1999/08/25 12:59	mw	Moricetown	RD	ST	BR	-	21052	M	57
1999/08/25 2:45	rn	Moricetown	RD	ST	BL	-	21066	F	64
1999/08/25 2:45	rn	Moricetown	RD	ST	BL	-	21067	M	54
1999/08/25 2:56	em	Moricetown	RD	ST	BL	-	21068	F	64
1999/08/25 2:58	em	Moricetown	RD	ST	BL	-	21069	M	71
1999/08/25 3:30	em	Moricetown	RD	ST	BL	-	21070	F	67
1999/08/25 3:30	em	Moricetown	RD	ST	BL	-	21071	M	55
1999/08/25 3:36	em	Moricetown	RD	ST	BL	-	21072	F	56
1999/08/25 3:50	em	Moricetown	RD	ST	BL	-	21074	M	67
1999/08/25 3:51	em	Moricetown	RD	ST	BL	-	21075	M	53
1999/08/25 4:00	em	Moricetown	RD	ST	BL	-	21076	F	59
1999/08/25 4:03	em	Moricetown	RD	ST	BL	-	21077	M	69
1999/08/25 4:04	em	Moricetown	RD	ST	BL	-	21078	F	67

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/08/25 4:20 mt		Moricetown	RD	ST	BL	-	21079	F	71
1999/08/25 4:26 mt		Moricetown	RD	ST	BL	-	21080	M	70
1999/08/25 4:29 em		Moricetown	RD	ST	BL	-	21081	M	62
1999/08/25 5:01 em		Moricetown	RD	ST	BL	-	21082	M	51
1999/08/25 5:23 mt		Moricetown	RD	ST	BL	-	21083	F	55
1999/08/25 5:29 mt		Moricetown	RD	ST	BL	-	21084	F	70
1999/08/25 5:29 mt		Moricetown	RD	ST	BL	-	21085	M	62
1999/08/25 6:00 mt		Moricetown	RD	ST	BL	-	21086	M	62
1999/08/25 6:05 wj		Moricetown	RD	ST	BL	-	21087	F	67
1999/08/25 6:08 wj		Moricetown	RD	ST	BL	-	21088	F	55
1999/08/25 6:16 em		Moricetown	RD	ST	BL	-	21090	F	48
1999/08/25 6:16 em		Moricetown	RD	ST	BL	-	21089	F	63
1999/08/25 6:23 em		Moricetown	RD	ST	BL	-	21091	F	58
1999/08/25 6:35 mt		Moricetown	RD	ST	BL	-	21092	F	71
1999/08/25 6:56 mt		Moricetown	RD	ST	BL	-	21093	F	77
1999/08/25 7:04 mt		Moricetown	RD	ST	BL	-	21094	F	70
1999/08/25 7:05 mt		Moricetown	RD	ST	BL	-	21095	M	61
1999/08/25 7:26 mw		Moricetown	RD	ST	BR	-	21299	M	76
1999/08/25 7:29 bj		Moricetown	RD	ST	BR	-	21300	F	73
1999/08/25 7:30 mw		Moricetown	RD	ST	BR	-	21301	F	71
1999/08/25 7:31 mw		Moricetown	RD	ST	BR	-	21302	F	59
1999/08/25 7:40 em		Moricetown	RD	ST	BL	-	21096	F	76
1999/08/25 7:51 em		Moricetown	RD	ST	BL	-	21097	F	65
1999/08/25 8:00 mw		Moricetown	RD	ST	BR	-	21303	M	65
1999/08/25 8:22 mw		Moricetown	RD	ST	BR	-	21304	F	75
1999/08/25 8:23 mw		Moricetown	RD	ST	BR	-	21305	F	62
1999/08/25 8:23 mw		Moricetown	RD	ST	BR	-	21306	F	74
1999/08/25 8:23 mw		Moricetown	RD	ST	BR	-	21307	F	74
1999/08/25 8:44 bj		Moricetown	RD	ST	BR	-	21308	F	76
1999/08/25 9:08 mw		Moricetown	RD	ST	BR	-	21309	M	69
1999/08/25 9:28 bj		Moricetown	RD	ST	BR	-	21310	F	63
1999/08/25 9:49 bj		Moricetown	RD	ST	BR	-	21311	F	56
1999/08/25 9:51 bj		Moricetown	RD	ST	BR	-	21312	F	60
1999/08/25 9:59 bj		Moricetown	RD	ST	BR	-	21313	F	82
1999/08/26 1:02 mw		Moricetown	RD	ST	BR	-	20612	M	51
1999/08/26 1:13 mw		Moricetown	RD	ST	BR	-	21150	F	79
1999/08/26 1:14 mw		Moricetown	RD	ST	BR	-	21151	F	73
1999/08/26 1:18 mw		Moricetown	RD	ST	BR	-	20613	M	49

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/08/26 1:18 mw		Moricetown	RD	ST	BR	-	20614	M	51
1999/08/26 1:19 mw		Moricetown	RD	ST	BR	-	21152	F	53
1999/08/26 1:20 mw		Moricetown	RD	ST	BR	-	21153	M	58
1999/08/26 1:21 mw		Moricetown	RD	ST	BR	-	21154	F	53
1999/08/26 1:24 mw		Moricetown	RD	ST	BR	-	21155	F	61
1999/08/26 1:29 mw		Moricetown	RD	ST	BR	-	21156	F	74
1999/08/26 1:30 mw		Moricetown	RD	ST	BR	-	21157	F	79
1999/08/26 1:33 mw		Moricetown	RD	ST	BR	-	21158	F	66
1999/08/26 1:47 mt		Moricetown	RD	ST	BR	-	00159	M	79
1999/08/26 1:54 mt		Moricetown	RD	ST	BR	-	00160	M	51
1999/08/26 10:11 mw		Moricetown	RD	ST	BR	-	21133	F	78
1999/08/26 10:19 mw		Moricetown	RD	ST	BR	-	21134	F	57
1999/08/26 10:21 mw		Moricetown	RD	ST	BR	-	21137	F	81
1999/08/26 10:22 mw		Moricetown	RD	ST	BR	-	21136	F	59
1999/08/26 10:22 mw		Moricetown	RD	ST	BR	-	21135	F	70
1999/08/26 10:29 mw		Moricetown	RD	ST	BR	-	21132	M	55
1999/08/26 10:31 mw		Moricetown	RD	ST	BR	-	21138	F	60
1999/08/26 10:32 mw		Moricetown	RD	ST	BR	-	21139	F	58
1999/08/26 10:33 mw		Moricetown	RD	ST	BR	-	20588	M	52
1999/08/26 10:33 mw		Moricetown	RD	ST	BR	-	21140	M	55
1999/08/26 10:50 bj		Moricetown	RD	ST	BR	-	20589	M	62
1999/08/26 10:58 bj		Moricetown	RD	ST	BR	-	20590	M	56
1999/08/26 11:15 mw		Moricetown	RD	ST	BR	-	20591	M	67
1999/08/26 11:21 bj		Moricetown	RD	ST	BR	-	21141	F	71
1999/08/26 11:35 mw		Moricetown	RD	ST	BR	-	20592	M	51
1999/08/26 11:38 mw		Moricetown	RD	ST	BR	-	20593	M	71
1999/08/26 11:41 mw		Moricetown	RD	ST	BR	-	20594	M	68
1999/08/26 11:44 mw		Moricetown	RD	ST	BR	-	20595	M	71
1999/08/26 11:46 mw		Moricetown	RD	ST	BR	-	20596	M	66
1999/08/26 11:47 mw		Moricetown	RD	ST	BR	-	20597	M	72
1999/08/26 11:50 bj		Moricetown	RD	ST	BR	-	21142	F	73
1999/08/26 11:50 bj		Moricetown	RD	ST	BR	-	20598	M	49
1999/08/26 12:14 mw		Moricetown	RD	ST	BR	-	20599	M	62
1999/08/26 12:19 mw		Moricetown	RD	ST	BR	-	20600	M	59
1999/08/26 12:20 mw		Moricetown	RD	ST	BR	-	20601	M	71
1999/08/26 12:21 mw		Moricetown	RD	ST	BR	-	20602	M	58
1999/08/26 12:24 mw		Moricetown	RD	ST	BR	-	20603	M	54
1999/08/26 12:28 mw		Moricetown	RD	ST	BR	-	21143	F	78

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/08/26 12:29 mw		Moricetown	RD	ST	BR	-	20604	M	61
1999/08/26 12:36 mw		Moricetown	RD	ST	BR	-	21144	F	59
1999/08/26 12:37 mw		Moricetown	RD	ST	BR	-	21145	F	92
1999/08/26 12:38 mw		Moricetown	RD	ST	BR	-	21146	M	83
1999/08/26 12:40 bj		Moricetown	RD	ST	BR	-	21147	F	72
1999/08/26 12:40 mw		Moricetown	RD	ST	BR	-	20605	M	54
1999/08/26 12:42 mw		Moricetown	RD	ST	BR	-	20606	M	67
1999/08/26 12:43 mw		Moricetown	RD	ST	BR	-	21148	M	59
1999/08/26 12:45 mw		Moricetown	RD	ST	BR	-	21149	F	80
1999/08/26 12:47 mw		Moricetown	RD	ST	BR	-	20607	M	76
1999/08/26 12:47 mw		Moricetown	RD	ST	BR	-	20608	M	76
1999/08/26 12:50 mw		Moricetown	RD	ST	BR	-	20609	M	55
1999/08/26 12:52 mw		Moricetown	RD	ST	BR	-	20610	M	53
1999/08/26 12:56 mw		Moricetown	RD	ST	BR	-	20611	M	70
1999/08/26 2:14 em		Moricetown	RD	ST	BR	-	00161	M	52
1999/08/26 2:20 in		Moricetown	RD	ST	BR	-	00162	F	64
1999/08/26 2:21 in		Moricetown	RD	ST	BR	-	00163	M	66
1999/08/26 2:22 in		Moricetown	RD	ST	BR	-	00164	M	58
1999/08/26 2:31 in		Moricetown	RD	ST	BR	-	00165	F	66
1999/08/26 2:33 in		Moricetown	RD	ST	BR	-	00166	F	64
1999/08/26 2:34 in		Moricetown	RD	ST	BR	-	00167	F	50
1999/08/26 2:34 in		Moricetown	RD	ST	BR	-	00168	M	63
1999/08/26 2:40 in		Moricetown	RD	ST	BR	-	00169	F	74
1999/08/26 3:02 in		Moricetown	RD	ST	BR	-	00170	F	55
1999/08/26 3:35 mt		Moricetown	RD	ST	BR	-	00171	M	86
1999/08/26 3:50 mt		Moricetown	RD	ST	BR	-	00172	F	73
1999/08/26 4:05 in		Moricetown	RD	ST	BR	-	00173	M	69
1999/08/26 4:22 in		Moricetown	RD	ST	BR	-	00176	F	72
1999/08/26 4:26 mt		Moricetown	RD	ST	BR	-	00177	M	69
1999/08/26 4:31 mt		Moricetown	RD	ST	BR	-	00179	F	78
1999/08/26 4:31 in		Moricetown	RD	ST	BR	-	00178	M	75
1999/08/26 4:42 in		Moricetown	RD	ST	BR	-	00180	M	78
1999/08/26 5:04 mt		Moricetown	RD	ST	BR	-	00181	F	67
1999/08/26 5:20 mt		Moricetown	RD	ST	BR	-	00182	M	68
1999/08/26 5:21 mt		Moricetown	RD	ST	BR	-	00184	F	63
1999/08/26 5:21 mt		Moricetown	RD	ST	BR	-	00183	M	67
1999/08/26 6:18 mt		Moricetown	RD	ST	BR	-	00185	F	60
1999/08/26 6:22 mt		Moricetown	RD	ST	BR	-	00186	F	93

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

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Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/08/26 6:41 em		Moricetown	RD	ST	BR	-	00187 M		71
1999/08/26 6:45 em		Moricetown	RD	ST	BR	-	00188 F		63
1999/08/26 6:49 mt		Moricetown	RD	ST	BR	-	00189 U		68
1999/08/26 6:49 mt		Moricetown	RD	ST	BR	-	00190 U		72
1999/08/26 6:58 kp		Moricetown	RD	ST	BR	-	00191 M		71
1999/08/26 6:59 mw		Moricetown	RD	ST	BR	-	21098 M		72
1999/08/26 7:02 bj		Moricetown	RD	ST	BR	-	21099 F		73
1999/08/26 7:05 mw		Moricetown	RD	ST	BR	-	21100 F		82
1999/08/26 7:15 em		Moricetown	RD	ST	BR	-	00192 F		82
1999/08/26 7:25 em		Moricetown	RD	ST	BR	-	00193 F		58
1999/08/26 7:25 mw		Moricetown	RD	ST	BR	-	21101 F		60
1999/08/26 7:28 mw		Moricetown	RD	ST	BR	-	21102 F		87
1999/08/26 7:31 em		Moricetown	RD	ST	BR	-	00194 M		76
1999/08/26 7:34 mw		Moricetown	RD	ST	BR	-	21103 F		70
1999/08/26 7:39 em		Moricetown	RD	ST	BR	-	00195 F		82
1999/08/26 7:39 em		Moricetown	RD	ST	BR	-	00196 M		76
1999/08/26 7:56 mw		Moricetown	RD	ST	BR	-	21104 F		65
1999/08/26 8:09 mw		Moricetown	RD	ST	BR	-	21105 F		68
1999/08/26 8:09 bj		Moricetown	RD	ST	BR	-	21106 F		82
1999/08/26 8:10 mw		Moricetown	RD	ST	BR	-	21107 F		58
1999/08/26 8:17 bj		Moricetown	RD	ST	BR	-	21108 M		85
1999/08/26 8:19 bj		Moricetown	RD	ST	BR	-	20529 M		60
1999/08/26 8:19 bj		Moricetown	RD	ST	BR	-	20528 M		79
1999/08/26 8:21 hole		Moricetown	RD	ST	BR	-	20530 M		70
1999/08/26 8:26 bj		Moricetown	RD	ST	BR	-	20531 M		61
1999/08/26 8:33 bj		Moricetown	RD	ST	BR	-	21109 F		60
1999/08/26 8:34 mw		Moricetown	RD	ST	BR	-	21110 F		71
1999/08/26 8:35 mw		Moricetown	RD	ST	BR	-	21111 F		66
1999/08/26 8:36 mw		Moricetown	RD	ST	BR	-	20532 M		55
1999/08/26 8:38 bj		Moricetown	RD	ST	BR	-	21112 F		70
1999/08/26 8:40 bj		Moricetown	RD	ST	BR	-	21113 F		57
1999/08/26 8:41 mw		Moricetown	RD	ST	BR	-	20533 M		63
1999/08/26 8:43 mw		Moricetown	RD	ST	BR	-	20534 M		60
1999/08/26 8:46 bj		Moricetown	RD	ST	BR	-	20535 M		63
1999/08/26 8:48 mw		Moricetown	RD	ST	BR	-	20536 M		59
1999/08/26 8:50 bj		Moricetown	RD	ST	BR	-	21114 F		72
1999/08/26 8:50 mw		Moricetown	RD	ST	BR	-	20537 M		66
1999/08/26 8:50 bj		Moricetown	RD	ST	BR	-	20538 M		73

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/08/26 8:55 mw		Moricetown	RD	ST	BR	-	20541	F	64
1999/08/26 8:55 mw		Moricetown	RD	ST	BR	-	21115	F	79
1999/08/26 8:55 mw		Moricetown	RD	ST	BR	-	20539	M	65
1999/08/26 8:55 mw		Moricetown	RD	ST	BR	-	20540	M	69
1999/08/26 9:04 bj		Moricetown	RD	ST	BR	-	21116	M	58
1999/08/26 9:06 mw		Moricetown	RD	ST	BR	-	20543	F	63
1999/08/26 9:06 mw		Moricetown	RD	ST	BR	-	20542	M	69
1999/08/26 9:08 mw		Moricetown	RD	ST	BR	-	20544	M	72
1999/08/26 9:10 mw		Moricetown	RD	ST	BR	-	20545	M	64
1999/08/26 9:14 mw		Moricetown	RD	ST	BR	-	20546	M	49
1999/08/26 9:15 mw		Moricetown	RD	ST	BR	-	20547	M	61
1999/08/26 9:17 mw		Moricetown	RD	ST	BR	-	20548	M	54
1999/08/26 9:21 hole		Moricetown	RD	ST	BR	-	20549	F	68
1999/08/26 9:24 bj		Moricetown	RD	ST	BR	-	21121	F	57
1999/08/26 9:24 mw		Moricetown	RD	ST	BR	-	21122	F	59
1999/08/26 9:26 mw		Moricetown	RD	ST	BR	-	21123	F	77
1999/08/26 9:26 mw		Moricetown	RD	ST	BR	-	20550	M	72
1999/08/26 9:26 mw		Moricetown	RD	ST	BR	-	21124	M	56
1999/08/26 9:28 bj		Moricetown	RD	ST	BR	-	20557	M	64
1999/08/26 9:30 mw		Moricetown	RD	ST	BR	-	21125	F	75
1999/08/26 9:33 mw		Moricetown	RD	ST	BR	-	21126	F	75
1999/08/26 9:33 mw		Moricetown	RD	ST	BR	-	20558	M	66
1999/08/26 9:35 mw		Moricetown	RD	ST	BR	-	20559	F	49
1999/08/26 9:36 mw		Moricetown	RD	ST	BR	-	20560	M	54
1999/08/26 9:38 mw		Moricetown	RD	ST	BR	-	21127	M	61
1999/08/26 9:38 bj		Moricetown	RD	ST	BR	-	21128	M	66
1999/08/26 9:41 bj		Moricetown	RD	ST	BR	-	21129	F	74
1999/08/26 9:48 mw		Moricetown	RD	ST	BR	-	21130	F	62
1999/08/26 9:51 mw		Moricetown	RD	ST	BR	-	21131	F	76
1999/08/26 9:52 mw		Moricetown	RD	ST	BR	-	21254	F	68
1999/08/27 1:10 mw		Moricetown	RD	ST	BR	-	21253	F	72
1999/08/27 1:10 bj		Moricetown	RD	ST	BR	-	21255	F	71
1999/08/27 1:12 bj		Moricetown	RD	ST	BR	-	21256	F	69
1999/08/27 1:18 mw		Moricetown	RD	ST	BR	-	00257	F	76
1999/08/27 1:33 mw		Moricetown	RD	ST	BR	-	00258	F	68
1999/08/27 1:34 mw		Moricetown	RD	ST	BR	-	00256	F	64
1999/08/27 1:36 mw		Moricetown	RD	ST	BR	-	00259	F	69
1999/08/27 1:37 mw		Moricetown	RD	ST	BR	-	00260	F	79

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/08/27 1:38 mw		Moricetown	RD	ST	BR	-	00261	F	67
1999/08/27 1:38 mw		Moricetown	RD	ST	BR	-	00262	M	80
1999/08/27 10:00 mw		Moricetown	RD	ST	BR	-	21217	F	75
1999/08/27 10:28 jr		Moricetown	RD	ST	BR	-	21218	F	60
1999/08/27 10:51 bj		Moricetown	RD	ST	BR	-	21219	F	68
1999/08/27 10:58 mw		Moricetown	RD	ST	BR	-	21220	F	68
1999/08/27 11:00 mw		Moricetown	RD	ST	BR	-	21221	F	70
1999/08/27 11:01 bj		Moricetown	RD	ST	BR	-	21222	F	64
1999/08/27 11:09 bj		Moricetown	RD	ST	BR	-	21223	F	76
1999/08/27 11:15 mw		Moricetown	RD	ST	BR	-	21224	F	21224
1999/08/27 11:16 bj		Moricetown	RD	ST	BR	-	21225	F	89
1999/08/27 11:26 mw		Moricetown	RD	ST	BR	-	21227	F	79
1999/08/27 11:38 bj		Moricetown	RD	ST	BR	-	21228	F	57
1999/08/27 11:48 bj		Moricetown	RD	ST	BR	-	21229	F	70
1999/08/27 11:49 mw		Moricetown	RD	ST	BR	-	21230	F	58
1999/08/27 11:50 bj		Moricetown	RD	ST	BR	-	21231	F	55
1999/08/27 11:53 mw		Moricetown	RD	ST	BR	-	21232	F	73
1999/08/27 12:01 mw		Moricetown	RD	ST	BR	-	21233	M	81
1999/08/27 12:04 mw		Moricetown	RD	ST	BR	-	21234	F	73
1999/08/27 12:18 mw		Moricetown	RD	ST	BR	-	21235	F	58
1999/08/27 12:18 mw		Moricetown	RD	ST	BR	-	21236	F	71
1999/08/27 12:21 mw		Moricetown	RD	ST	BR	-	21237	F	80
1999/08/27 12:22 mw		Moricetown	RD	ST	BR	-	21238	M	61
1999/08/27 12:24 mw		Moricetown	RD	ST	BR	-	21240	F	75
1999/08/27 12:24 mw		Moricetown	RD	ST	BR	-	21239	M	76
1999/08/27 12:25 mw		Moricetown	RD	ST	BR	-	21241	F	69
1999/08/27 12:27 mw		Moricetown	RD	ST	BR	-	21244	F	77
1999/08/27 12:27 mw		Moricetown	RD	ST	BR	-	21245	M	76
1999/08/27 12:30 mw		Moricetown	RD	ST	BR	-	21246	F	73
1999/08/27 12:30 mw		Moricetown	RD	ST	BR	-	21248	F	74
1999/08/27 12:38 mw		Moricetown	RD	ST	BR	-	21249	F	85
1999/08/27 12:40 mw		Moricetown	RD	ST	BR	-	21247	F	70
1999/08/27 12:46 bj		Moricetown	RD	ST	BR	-	21250	F	61
1999/08/27 12:50 bj		Moricetown	RD	ST	BR	-	21251	F	64
1999/08/27 12:51 bj		Moricetown	RD	ST	BR	-	21252	M	57
1999/08/27 2:30 em		Moricetown	RD	ST	BR	-	00263	M	53
1999/08/27 3:03 em		Moricetown	RD	ST	BR	-	00264	F	56
1999/08/27 3:03 em		Moricetown	RD	ST	BR	-	00265	F	64

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/08/27 3:23	mt	Moricetown	RD	ST	BR	-	00266	M	54
1999/08/27 3:43	em	Moricetown	RD	ST	BR	-	00267	F	84
1999/08/27 4:00	mt	Moricetown	RD	ST	BR	-	00268	F	83
1999/08/27 4:01	em	Moricetown	RD	ST	BR	-	00269	M	66
1999/08/27 4:24	mt	Moricetown	RD	ST	BR	-	00271	F	57
1999/08/27 4:43	mt	Moricetown	RD	ST	BR	-	00270	F	72
1999/08/27 5:24	mt	Moricetown	RD	ST	BR	-	00272	F	83
1999/08/27 6:17	mt	Moricetown	RD	ST	BR	-	00274	M	55
1999/08/27 6:22	mt	Moricetown	RD	ST	BR	-	00550	F	68
1999/08/27 6:52	mt	Moricetown	RD	ST	BR	-	00551	M	80
1999/08/27 7:01	mt	Moricetown	RD	ST	BR	-	00552	F	68
1999/08/27 7:11	mt	Moricetown	RD	ST	BR	-	00553	F	67
1999/08/27 7:11	mt	Moricetown	RD	ST	BR	-	00554	F	69
1999/08/27 7:29	bj	Moricetown	RD	ST	BR	-	21198	F	60
1999/08/27 7:30	bj	Moricetown	RD	ST	BR	-	21197	F	71
1999/08/27 7:31	bj	Moricetown	RD	ST	BR	-	21200	F	78
1999/08/27 7:39	et	Moricetown	RD	ST	BR	-	00535	F	92
1999/08/27 7:53	em	Moricetown	RD	ST	BR	-	00557	F	70
1999/08/27 8:00	bj	Moricetown	RD	ST	BR	-	21202	M	78
1999/08/27 8:02	jr	Moricetown	RD	ST	BR	-	00558	F	67
1999/08/27 8:16	em	Moricetown	RD	ST	BR	-	00559	F	71
1999/08/27 8:22	bj	Moricetown	RD	ST	BR	-	21203	F	92
1999/08/27 8:25	bj	Moricetown	RD	ST	BR	-	21204	F	60
1999/08/27 8:26	mw	Moricetown	RD	ST	BR	-	21205	M	82
1999/08/27 8:29	bj	Moricetown	RD	ST	BR	-	21206	F	74
1999/08/27 8:39	bj	Moricetown	RD	ST	BR	-	21208	F	89
1999/08/27 8:52	mw	Moricetown	RD	ST	BR	-	21209	F	72
1999/08/27 8:55	mw	Moricetown	RD	ST	BR	-	21210	F	74
1999/08/27 9:10	mw	Moricetown	RD	ST	BR	-	21211	F	54
1999/08/27 9:10	mw	Moricetown	RD	ST	BR	-	21226	F	75
1999/08/27 9:10	bj	Moricetown	RD	ST	BR	-	21213	F	80
1999/08/27 9:48	mw	Moricetown	RD	ST	BR	-	21214	M	74
1999/08/27 9:50	mw	Moricetown	RD	ST	BR	-	21215	M	77
1999/08/27 9:55	bj	Moricetown	RD	ST	BR	-	21216	F	78
1999/08/30 1:06	mw	Moricetown	RD	ST	BR	-	21598	F	81
1999/08/30 1:07	bj	Moricetown	RD	ST	BR	-	21599	M	57
1999/08/30 1:18	bj	Moricetown	RD	ST	BR	-	21525	F	69
1999/08/30 1:21	bj	Moricetown	RD	ST	BR	-	21526	F	76

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/08/30 1:47 mt		Moricetown	RD	ST	BR	-	21527 F		60
1999/08/30 1:49 mt		Moricetown	RD	ST	BR	-	21528 M		75
1999/08/30 1:58 mt		Moricetown	RD	ST	BR	-	21529 F		72
1999/08/30 10:01 mw		Moricetown	RD	ST	BR	-	21576 F		76
1999/08/30 10:02 mw		Moricetown	RD	ST	BR	-	21577 M		68
1999/08/30 10:04 mw		Moricetown	RD	ST	BR	-	21578 F		78
1999/08/30 10:09 mw		Moricetown	RD	ST	BR	-	21579 M		62
1999/08/30 10:10 mw		Moricetown	RD	ST	BR	-	21580 F		76
1999/08/30 10:12 bj		Moricetown	RD	ST	BR	-	21581 M		78
1999/08/30 10:42 mw		Moricetown	RD	ST	BR	-	21583 F		61
1999/08/30 10:42 mw		Moricetown	RD	ST	BR	-	21582 F		78
1999/08/30 10:43 mw		Moricetown	RD	ST	BR	-	21584 F		82
1999/08/30 10:46 mw		Moricetown	RD	ST	BR	-	21585 F		75
1999/08/30 10:47 mw		Moricetown	RD	ST	BR	-	21586 F		74
1999/08/30 10:54 mw		Moricetown	RD	ST	BR	-	21587 M		79
1999/08/30 11:23 mw		Moricetown	RD	ST	BR	-	21588 M		92
1999/08/30 11:32 mw		Moricetown	RD	ST	BR	-	21589 F		84
1999/08/30 11:34 mw		Moricetown	RD	ST	BR	-	21590 F		60
1999/08/30 11:37 mw		Moricetown	RD	ST	BR	-	21591 F		61
1999/08/30 11:37 mw		Moricetown	RD	ST	BR	-	21592 M		78
1999/08/30 12:11 mw		Moricetown	RD	ST	BR	-	21594 F		72
1999/08/30 12:11 mw		Moricetown	RD	ST	BR	-	21593 F		92
1999/08/30 12:15 mw		Moricetown	RD	ST	BR	-	21595 F		59
1999/08/30 12:19 mw		Moricetown	RD	ST	BR	-	21596 M		86
1999/08/30 12:22 mw		Moricetown	RD	ST	BR	-	21597 F		86
1999/08/30 2:14 mt		Moricetown	RD	ST	BR	-	21531 F		57
1999/08/30 2:14 mt		Moricetown	RD	ST	BR	-	21530 F		59
1999/08/30 2:17 mt		Moricetown	RD	ST	BR	-	215311 F		71
1999/08/30 2:17 mt		Moricetown	RD	ST	BR	-	21533 M		51
1999/08/30 2:17 em		Moricetown	RD	ST	BR	-	21532 M		52
1999/08/30 2:23 mt		Moricetown	RD	ST	BR	-	21534 F		55
1999/08/30 2:27 dj		Moricetown	RD	ST	BR	-	21535 F		73
1999/08/30 2:32 dj		Moricetown	RD	ST	BR	-	21601 F		65
1999/08/30 2:32 dj		Moricetown	RD	ST	BR	-	21600 F		79
1999/08/30 2:35 em		Moricetown	RD	ST	BR	-	21603 F		55
1999/08/30 2:35 em		Moricetown	RD	ST	BR	-	21602 F		71
1999/08/30 3:03 mt		Moricetown	RD	ST	BR	-	21605 F		54
1999/08/30 3:03 mt		Moricetown	RD	ST	BR	-	21604 F		73

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/08/30 3:35	em	Moricetown	RD	ST	BR	-	21606	F	70
1999/08/30 3:47	mt	Moricetown	RD	ST	BR	-	21607	M	71
1999/08/30 4:00	mt	Moricetown	RD	ST	BR	-	21608	F	67
1999/08/30 4:01	mt	Moricetown	RD	ST	BR	-	21609	F	70
1999/08/30 4:13	mt	Moricetown	RD	ST	BR	-	21613	F	61
1999/08/30 4:13	mt	Moricetown	RD	ST	BR	-	21610	M	85
1999/08/30 4:18	mt	Moricetown	RD	ST	BR	-	21614	M	84
1999/08/30 4:33	mt	Moricetown	RD	ST	BR	-	21615	F	65
1999/08/30 4:38	mt	Moricetown	RD	ST	BR	-	21617	F	81
1999/08/30 4:45	mt	Moricetown	RD	ST	BR	-	21618	M	58
1999/08/30 4:53	mt	Moricetown	RD	ST	BR	-	21620	F	52
1999/08/30 4:53	mt	Moricetown	RD	ST	BR	-	21619	M	58
1999/08/30 4:59	mt	Moricetown	RD	ST	BR	-	21621	M	65
1999/08/30 5:00	mt	Moricetown	RD	ST	BR	-	21622	M	87
1999/08/30 5:04	mt	Moricetown	RD	ST	BR	-	21624	F	56
1999/08/30 5:04	mt	Moricetown	RD	ST	BR	-	21623	M	76
1999/08/30 5:05	mt	Moricetown	RD	ST	BR	-	21625	M	60
1999/08/30 5:19	mt	Moricetown	RD	ST	BR	-	21626	M	81
1999/08/30 5:20	mt	Moricetown	RD	ST	BR	-	21627	M	56
1999/08/30 5:25	mt	Moricetown	RD	ST	BR	-	21628	M	73
1999/08/30 6:08	mt	Moricetown	RD	ST	BR	-	21629	M	79
1999/08/30 6:11	mt	Moricetown	RD	ST	BR	-	21630	F	58
1999/08/30 6:14	mt	Moricetown	RD	ST	BR	-	21631	M	58
1999/08/30 6:15	mt	Moricetown	RD	ST	BR	-	21632	M	67
1999/08/30 6:18	mt	Moricetown	RD	ST	BR	-	21635	F	66
1999/08/30 6:18	mt	Moricetown	RD	ST	BR	-	21633	F	70
1999/08/30 6:18	mt	Moricetown	RD	ST	BR	-	21634	M	67
1999/08/30 6:38	mt	Moricetown	RD	ST	BR	-	21637	F	68
1999/08/30 6:38	mt	Moricetown	RD	ST	BR	-	21636	F	72
1999/08/30 7:12	mt	Moricetown	RD	ST	BR	-	21638	M	81
1999/08/30 7:14	mt	Moricetown	RD	ST	BR	-	21639	F	80
1999/08/30 7:21	mt	Moricetown	RD	ST	BR	-	21640	M	61
1999/08/30 7:24	mt	Moricetown	RD	ST	BR	-	21642	F	67
1999/08/30 7:25	mt	Moricetown	RD	ST	BR	-	21643	F	58
1999/08/30 7:38	mt	Moricetown	RD	ST	BR	-	21645	F	78
1999/08/30 7:38	mt	Moricetown	RD	ST	BR	-	21646	U	0
1999/08/30 7:45	em	Moricetown	RD	ST	BR	-	216451	F	69
1999/08/30 7:50	mt	Moricetown	RD	ST	BR	-	216461	F	54

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/08/30 7:55	mt	Moricetown	RD	ST	BR	-	21647	F	58
1999/08/30 8:01	mt	Moricetown	RD	ST	BR	-	21648	F	55
1999/08/30 8:07	mt	Moricetown	RD	ST	BR	-	21650	F	53
1999/08/30 8:07	mt	Moricetown	RD	ST	BR	-	21649	M	57
1999/08/30 8:08	mt	Moricetown	RD	ST	BR	-	21651	F	87
1999/08/30 8:17	dj	Moricetown	RD	ST	BR	-	21652	F	56
1999/08/30 8:18	dj	Moricetown	RD	ST	BR	-	21653	M	67
1999/08/30 8:19	dj	Moricetown	RD	ST	BR	-	21654	M	74
1999/08/30 8:35	mw	Moricetown	RD	ST	BR	-	21560	F	73
1999/08/30 8:42	mw	Moricetown	RD	ST	BR	-	21561	F	80
1999/08/30 8:47	mw	Moricetown	RD	ST	BR	-	21563	F	60
1999/08/30 8:47	mw	Moricetown	RD	ST	BR	-	21562	F	77
1999/08/30 8:52	mw	Moricetown	RD	ST	BR	-	21564	F	76
1999/08/30 8:52	mw	Moricetown	RD	ST	BR	-	21565	F	89
1999/08/30 8:53	mw	Moricetown	RD	ST	BR	-	21566	F	57
1999/08/30 8:55	mw	Moricetown	RD	ST	BR	-	21567	F	69
1999/08/30 9:00	mw	Moricetown	RD	ST	BR	-	21568	F	62
1999/08/30 9:07	mw	Moricetown	RD	ST	BR	-	21569	F	89
1999/08/30 9:11	mw	Moricetown	RD	ST	BR	-	21570	F	59
1999/08/30 9:14	mw	Moricetown	RD	ST	BR	-	21571	M	82
1999/08/30 9:18	mw	Moricetown	RD	ST	BR	-	21572	F	74
1999/08/30 9:28	mw	Moricetown	RD	ST	BR	-	21573	F	75
1999/08/30 9:34	mw	Moricetown	RD	ST	BR	-	21574	F	76
1999/08/30 9:37	mw	Moricetown	RD	ST	BR	-	21575	F	58
1999/08/31 1:00	bj	Moricetown	RD	ST	BR	-	21724	F	58
1999/08/31 1:00	bj	Moricetown	RD	ST	BR	-	21723	F	78
1999/08/31 1:22	mw	Moricetown	RD	ST	BR	-	21725	F	83
1999/08/31 1:23	mw	Moricetown	RD	ST	BR	-	21726	F	87
1999/08/31 1:24	mw	Moricetown	RD	ST	BR	-	21728	F	76
1999/08/31 1:24	mw	Moricetown	RD	ST	BR	-	21727	M	63
1999/08/31 1:25	mw	Moricetown	RD	ST	BR	-	21730	F	60
1999/08/31 1:26	mw	Moricetown	RD	ST	BR	-	21731	M	63
1999/08/31 1:27	mw	Moricetown	RD	ST	BR	-	21732	F	58
1999/08/31 1:27	mw	Moricetown	RD	ST	BR	-	21733	F	58
1999/08/31 1:28	mw	Moricetown	RD	ST	BR	-	21734	F	53
1999/08/31 1:29	mw	Moricetown	RD	ST	BR	-	21735	F	72
1999/08/31 1:30	mw	Moricetown	RD	ST	BR	-	21736	F	61
1999/08/31 1:30	mw	Moricetown	RD	ST	BR	-	21737	F	72

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/08/31 1:34 mw		Moricetown	RD	ST	BR	-	21738	F	82
1999/08/31 1:55 mt		Moricetown	RD	ST	BR	-	21740	F	63
1999/08/31 1:57 mt		Moricetown	RD	ST	BR	-	21751	F	59
1999/08/31 10:07 mw		Moricetown	RD	ST	BR	-	21679	F	80
1999/08/31 10:11 mw		Moricetown	RD	ST	BR	-	21681	F	61
1999/08/31 10:11 mw		Moricetown	RD	ST	BR	-	21680	F	73
1999/08/31 10:12 mw		Moricetown	RD	ST	BR	-	21684	F	72
1999/08/31 10:14 mw		Moricetown	RD	ST	BR	-	21685	F	61
1999/08/31 10:18 mw		Moricetown	RD	ST	BR	-	21686	F	65
1999/08/31 10:19 mw		Moricetown	RD	ST	BR	-	21688	F	75
1999/08/31 10:21 mw		Moricetown	RD	ST	BR	-	21689	F	74
1999/08/31 10:25 mw		Moricetown	RD	ST	BR	-	21690	F	74
1999/08/31 10:26 mw		Moricetown	RD	ST	BR	-	21692	F	75
1999/08/31 10:35 bj		Moricetown	RD	ST	BR	-	21687	F	82
1999/08/31 10:36 bj		Moricetown	RD	ST	BR	-	21694	F	74
1999/08/31 10:36 bj		Moricetown	RD	ST	BR	-	21693	M	75
1999/08/31 10:37 bj		Moricetown	RD	ST	BR	-	21695	M	92
1999/08/31 10:53 bj		Moricetown	RD	ST	BR	-	21696	F	77
1999/08/31 11:05 bj		Moricetown	RD	ST	BR	-	21697	M	82
1999/08/31 11:13 bj		Moricetown	RD	ST	BR	-	21698	M	72
1999/08/31 11:13 bj		Moricetown	RD	ST	BR	-	21699	M	76
1999/08/31 11:15 bj		Moricetown	RD	ST	BR	-	21700	M	78
1999/08/31 11:16 bj		Moricetown	RD	ST	BR	-	21701	F	74
1999/08/31 11:30 bj		Moricetown	RD	ST	BR	-	21702	M	82
1999/08/31 11:33 mw		Moricetown	RD	ST	BR	-	21703	M	82
1999/08/31 11:36 bj		Moricetown	RD	ST	BR	-	21704	F	59
1999/08/31 11:42 bj		Moricetown	RD	ST	BR	-	21705	F	59
1999/08/31 11:48 bj		Moricetown	RD	ST	BR	-	21706	F	86
1999/08/31 11:49 mw		Moricetown	RD	ST	BR	-	21707	F	70
1999/08/31 11:52 bj		Moricetown	RD	ST	BR	-	21708	F	61
1999/08/31 12:00 bj		Moricetown	RD	ST	BR	-	21709	M	76
1999/08/31 12:09 bj		Moricetown	RD	ST	BR	-	21710	F	73
1999/08/31 12:12 bj		Moricetown	RD	ST	BR	-	21711	M	74
1999/08/31 12:15 bj		Moricetown	RD	ST	BR	-	21712	M	78
1999/08/31 12:22 bj		Moricetown	RD	ST	BR	-	21713	F	70
1999/08/31 12:27 bj		Moricetown	RD	ST	BR	-	21714	F	64
1999/08/31 12:28 bj		Moricetown	RD	ST	BR	-	21715	F	72
1999/08/31 12:33 bj		Moricetown	RD	ST	BR	-	21716	F	74

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/08/31 12:39 bj		Moricetown	RD	ST	BR	-	21717 F		72
1999/08/31 12:40 mw		Moricetown	RD	ST	BR	-	21718 M		89
1999/08/31 12:43 bj		Moricetown	RD	ST	BR	-	21719 F		77
1999/08/31 12:44 mw		Moricetown	RD	ST	BR	-	21720 F		73
1999/08/31 12:50 bj		Moricetown	RD	ST	BR	-	21721 F		77
1999/08/31 12:54 bj		Moricetown	RD	ST	BR	-	21722 F		84
1999/08/31 2:36 em		Moricetown	RD	ST	BL	-	21067 F		68
1999/08/31 2:36 kp		Moricetown	RD	ST	BL	-	21066 M		49
1999/08/31 2:38 em		Moricetown	RD	ST	BL	-	21068 M		50
1999/08/31 2:38 em		Moricetown	RD	ST	BL	-	21069 M		57
1999/08/31 2:39 mt		Moricetown	RD	ST	BL	-	21071 M		69
1999/08/31 2:39 mt		Moricetown	RD	ST	BL	-	21070 M		72
1999/08/31 2:41 mt		Moricetown	RD	ST	BR	-	21752 F		64
1999/08/31 2:43 em		Moricetown	RD	ST	BR	-	21753 F		63
1999/08/31 2:46 em		Moricetown	RD	ST	BL	-	21075 M		47
1999/08/31 2:46 em		Moricetown	RD	ST	BL	-	21072 M		61
1999/08/31 2:46 em		Moricetown	RD	ST	BL	-	21074 M		62
1999/08/31 2:46 em		Moricetown	RD	ST	BL	-	21073 M		75
1999/08/31 2:46 hole		Moricetown	RD	ST	BL	-	21076 M		48
1999/08/31 2:50 em		Moricetown	RD	ST	BL	-	21076 M		48
1999/08/31 2:50 em		Moricetown	RD	ST	BL	-	21077 M		53
1999/08/31 2:59 m		Moricetown	RD	ST	BR	-	21754 M		74
1999/08/31 3:02 m		Moricetown	RD	ST	BL	-	21078 M		48
1999/08/31 3:02 m		Moricetown	RD	ST	BL	-	21078 M		69
1999/08/31 3:05 m		Moricetown	RD	ST	BR	-	21755 F		66
1999/08/31 3:06 m		Moricetown	RD	ST	BL	-	21080 M		60
1999/08/31 3:06 m		Moricetown	RD	ST	BL	-	21079 M		70
1999/08/31 3:08 m		Moricetown	RD	ST	BR	-	21756 F		71
1999/08/31 3:11 em		Moricetown	RD	ST	BL	-	21082 F		62
1999/08/31 3:11 m		Moricetown	RD	ST	BL	-	21081 M		45
1999/08/31 3:12 em		Moricetown	RD	ST	BL	-	21083 M		66
1999/08/31 3:13 m		Moricetown	RD	ST	BR	-	21757 F		72
1999/08/31 3:13 em		Moricetown	RD	ST	BR	-	21758 F		75
1999/08/31 3:14 em		Moricetown	RD	ST	BL	-	21084 F		47
1999/08/31 3:14 em		Moricetown	RD	ST	BL	-	21085 M		69
1999/08/31 3:14 em		Moricetown	RD	ST	BL	-	21086 M		70
1999/08/31 3:20 mt		Moricetown	RD	ST	BL	-	21087 M		63
1999/08/31 3:23 em		Moricetown	RD	ST	BL	-	21088 F		62

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/08/31 3:24 em		Moricetown	RD	ST	BL	-	21089	M	63
1999/08/31 3:25 em		Moricetown	RD	ST	BL	-	21090	M	52
1999/08/31 3:26 mt		Moricetown	RD	ST	BL	-	21092	M	56
1999/08/31 3:26 mt		Moricetown	RD	ST	BL	-	21091	M	70
1999/08/31 3:27 mt		Moricetown	RD	ST	BL	-	21093	M	65
1999/08/31 3:28 mt		Moricetown	RD	ST	BR	-	21759	M	70
1999/08/31 3:30 mt		Moricetown	RD	ST	BR	-	21760	F	81
1999/08/31 3:31 hole		Moricetown	RD	ST	BL	-	21094	M	56
1999/08/31 3:32 mt		Moricetown	RD	ST	BL	-	21095	M	65
1999/08/31 3:35 rn		Moricetown	RD	ST	BR	-	21761	M	56
1999/08/31 3:41 rn		Moricetown	RD	ST	BL	-	21096	M	51
1999/08/31 3:45 rn		Moricetown	RD	ST	BR	-	21762	M	59
1999/08/31 3:47 rn		Moricetown	RD	ST	BL	-	21097	M	64
1999/08/31 3:48 rn		Moricetown	RD	ST	BL	-	21098	M	71
1999/08/31 3:49 rn		Moricetown	RD	ST	BL	-	21099	F	67
1999/08/31 3:52 rn		Moricetown	RD	ST	BL	-	21100	M	61
1999/08/31 3:54 rn		Moricetown	RD	ST	BL	-	21101	M	72
1999/08/31 3:55 rn		Moricetown	RD	ST	BL	-	21102	M	73
1999/08/31 3:56 rn		Moricetown	RD	ST	BR	-	21763	F	71
1999/08/31 3:58 rn		Moricetown	RD	ST	BL	-	21103	F	70
1999/08/31 4:01 em		Moricetown	RD	ST	BR	-	21764	F	77
1999/08/31 4:11 mt		Moricetown	RD	ST	BL	-	21104	M	66
1999/08/31 4:17 em		Moricetown	RD	ST	BR	-	21765	M	67
1999/08/31 4:18 em		Moricetown	RD	ST	BR	-	21766	F	64
1999/08/31 4:22 mt		Moricetown	RD	ST	BL	-	21105	M	67
1999/08/31 4:25 em		Moricetown	RD	ST	BL	-	21106	M	65
1999/08/31 4:28 mt		Moricetown	RD	ST	BL	-	21107	M	67
1999/08/31 4:30 mt		Moricetown	RD	ST	BL	-	21108	M	47
1999/08/31 4:33 dm		Moricetown	RD	ST	BL	-	21109	F	61
1999/08/31 4:36 em		Moricetown	RD	ST	BR	-	21767	F	72
1999/08/31 4:39 mt		Moricetown	RD	ST	BL	-	21111	F	69
1999/08/31 4:39 mt		Moricetown	RD	ST	BL	-	21110	M	66
1999/08/31 4:40 mt		Moricetown	RD	ST	BL	-	21112	M	66
1999/08/31 4:42 mt		Moricetown	RD	ST	BL	-	21113	M	64
1999/08/31 4:46 em		Moricetown	RD	ST	BL	-	21115	M	68
1999/08/31 4:46 em		Moricetown	RD	ST	BL	-	21114	M	84
1999/08/31 4:49 em		Moricetown	RD	ST	BL	-	21116	M	59
1999/08/31 4:51 em		Moricetown	RD	ST	BR	-	21768	F	79

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/08/31 4:53 mt		Moricetown	RD	ST	BL	-	21117 M		50
1999/08/31 4:54 mt		Moricetown	RD	ST	BR	-	21769 M		56
1999/08/31 4:57 mt		Moricetown	RD	ST	BR	-	21770 F		62
1999/08/31 4:58 mt		Moricetown	RD	ST	BL	-	21118 M		66
1999/08/31 5:03 em		Moricetown	RD	ST	BR	-	21771 F		65
1999/08/31 5:06 mt		Moricetown	RD	ST	BR	-	21772 F		73
1999/08/31 5:07 mt		Moricetown	RD	ST	BL	-	21119 M		60
1999/08/31 5:13 mt		Moricetown	RD	ST	BR	-	21773 F		75
1999/08/31 5:15 em		Moricetown	RD	ST	BL	-	21121 M		47
1999/08/31 5:15 mt		Moricetown	RD	ST	BL	-	21120 M		54
1999/08/31 5:22 em		Moricetown	RD	ST	BR	-	21774 M		57
1999/08/31 5:25 em		Moricetown	RD	ST	BL	-	21122 M		70
1999/08/31 6:10 mt		Moricetown	RD	ST	BL	-	21123 M		49
1999/08/31 6:12 mt		Moricetown	RD	ST	BL	-	21124 M		68
1999/08/31 6:15 em		Moricetown	RD	ST	BR	-	21775 F		68
1999/08/31 6:18 em		Moricetown	RD	ST	BL	-	21125 F		57
1999/08/31 6:20 em		Moricetown	RD	ST	BR	-	21776 F		52
1999/08/31 6:23 mt		Moricetown	RD	ST	BL	-	21126 M		56
1999/08/31 6:24 em		Moricetown	RD	ST	BL	-	21127 M		60
1999/08/31 6:28 ep		Moricetown	RD	ST	BL	-	21128 F		61
1999/08/31 6:30 mt		Moricetown	RD	ST	BL	-	21129 M		66
1999/08/31 6:32 mt		Moricetown	RD	ST	BR	-	21777 M		78
1999/08/31 6:35 mt		Moricetown	RD	ST	BR	-	21778 M		81
1999/08/31 6:40 em		Moricetown	RD	ST	BL	-	21130 M		59
1999/08/31 6:40 mt		Moricetown	RD	ST	BL	-	21131 M		63
1999/08/31 6:42 em		Moricetown	RD	ST	BL	-	21132 M		60
1999/08/31 6:42 em		Moricetown	RD	ST	BL	-	21133 M		75
1999/08/31 6:55 em		Moricetown	RD	ST	BL	-	21134 M		54
1999/08/31 7:04 em		Moricetown	RD	ST	BR	-	21779 M		59
1999/08/31 7:07 mt		Moricetown	RD	ST	BR	-	21780 M		69
1999/08/31 7:08 mt		Moricetown	RD	ST	BR	-	21781 M		78
1999/08/31 7:12 mt		Moricetown	RD	ST	BR	-	21782 F		73
1999/08/31 7:24 mt		Moricetown	RD	ST	BR	-	21783 M		64
1999/08/31 7:25 bj		Moricetown	RD	ST	BR	-	21655 M		79
1999/08/31 7:26 mt		Moricetown	RD	ST	BR	-	21786 F		71
1999/08/31 7:26 mt		Moricetown	RD	ST	BR	-	21785 F		72
1999/08/31 7:26 em		Moricetown	RD	ST	BR	-	21784 F		81
1999/08/31 7:39 mt		Moricetown	RD	ST	BR	-	21787 M		85

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/08/31 7:40 bj		Moricetown	RD	ST	BR	-	21636	M	83
1999/08/31 7:50 mt		Moricetown	RD	ST	BR	-	21788	F	73
1999/08/31 7:54 mt		Moricetown	RD	ST	BR	-	21789	M	60
1999/08/31 7:55 bj		Moricetown	RD	ST	BR	-	21656	F	74
1999/08/31 7:58 mw		Moricetown	RD	ST	BR	-	21658	F	76
1999/08/31 7:58 mw		Moricetown	RD	ST	BR	-	21659	M	79
1999/08/31 7:59 mw		Moricetown	RD	ST	BR	-	21660	F	76
1999/08/31 8:03 mw		Moricetown	RD	ST	BR	-	21661	F	55
1999/08/31 8:04 em		Moricetown	RD	ST	BR	-	21790	F	69
1999/08/31 8:05 em		Moricetown	RD	ST	BR	-	21791	M	58
1999/08/31 8:35 bj		Moricetown	RD	ST	BR	-	21662	F	75
1999/08/31 8:37 mw		Moricetown	RD	ST	BR	-	21664	F	70
1999/08/31 8:37 mw		Moricetown	RD	ST	BR	-	21663	F	95
1999/08/31 8:47 mw		Moricetown	RD	ST	BR	-	21666	F	90
1999/08/31 8:52 bj		Moricetown	RD	ST	BR	-	21667	F	76
1999/08/31 9:00 bj		Moricetown	RD	ST	BR	-	21669	F	74
1999/08/31 9:07 bj		Moricetown	RD	ST	BR	-	21670	F	88
1999/08/31 9:50 mw		Moricetown	RD	ST	BR	-	21676	F	55
1999/08/31 9:50 mw		Moricetown	RD	ST	BR	-	21677	F	64
1999/08/31 9:59 mw		Moricetown	RD	ST	BR	-	21678	F	76
1999/09/01 1:07 mw		Moricetown	RD	ST	BR	-	21849	F	71
1999/09/01 1:10 mw		Moricetown	RD	ST	BR	-	23001	F	55
1999/09/01 1:10 mw		Moricetown	RD	ST	BR	-	23000	M	76
1999/09/01 1:14 mw		Moricetown	RD	ST	BR	-	23002	F	85
1999/09/01 1:18 mw		Moricetown	RD	ST	BR	-	23003	F	54
1999/09/01 1:19 mw		Moricetown	RD	ST	BR	-	23004	F	84
1999/09/01 1:22 mw		Moricetown	RD	ST	BR	-	23006	F	76
1999/09/01 1:26 mw		Moricetown	RD	ST	BR	-	23007	F	73
1999/09/01 1:28 mw		Moricetown	RD	ST	BR	-	23008	M	77
1999/09/01 1:31 mw		Moricetown	RD	ST	BR	-	02300	F	75
1999/09/01 10:01 bj		Moricetown	RD	ST	BR	-	21812	F	80
1999/09/01 10:12 mw		Moricetown	RD	ST	BR	-	21813	F	59
1999/09/01 10:23 bj		Moricetown	RD	ST	BR	-	21814	F	80
1999/09/01 10:26 bj		Moricetown	RD	ST	BR	-	21815	F	77
1999/09/01 10:44 mw		Moricetown	RD	ST	BR	-	21817	F	77
1999/09/01 10:44 mw		Moricetown	RD	ST	BR	-	21816	F	89
1999/09/01 10:47 mw		Moricetown	RD	ST	BR	-	21818	F	61
1999/09/01 10:50 mw		Moricetown	RD	ST	BR	-	21819	F	59

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/09/01 10:51	mw	Moricetown	RD	ST	BR	-	21820	F	62
1999/09/01 10:55	mw	Moricetown	RD	ST	BR	-	21821	F	80
1999/09/01 10:56	mw	Moricetown	RD	ST	BR	-	21823	F	77
1999/09/01 10:56	mw	Moricetown	RD	ST	BR	-	21822	F	86
1999/09/01 10:58	mw	Moricetown	RD	ST	BR	-	21824	F	60
1999/09/01 11:08	bj	Moricetown	RD	ST	BR	-	21825	M	83
1999/09/01 11:17	bj	Moricetown	RD	ST	BR	-	21826	F	80
1999/09/01 11:28	bj	Moricetown	RD	ST	BR	-	21828	F	70
1999/09/01 11:28	bj	Moricetown	RD	ST	BR	-	21829	F	74
1999/09/01 11:29	mw	Moricetown	RD	ST	BR	-	21830	F	66
1999/09/01 11:35	bj	Moricetown	RD	ST	BR	-	21831	M	79
1999/09/01 11:53	mw	Moricetown	RD	ST	BR	-	21832	F	78
1999/09/01 11:54	bj	Moricetown	RD	ST	BR	-	21833	F	62
1999/09/01 11:57	bj	Moricetown	RD	ST	BR	-	21834	F	76
1999/09/01 12:02	bj	Moricetown	RD	ST	BR	-	21837	F	68
1999/09/01 12:02	bj	Moricetown	RD	ST	BR	-	21835	F	75
1999/09/01 12:02	bj	Moricetown	RD	ST	BR	-	21836	F	79
1999/09/01 12:09	bj	Moricetown	RD	ST	BR	-	21838	F	86
1999/09/01 12:15	mw	Moricetown	RD	ST	BR	-	21859	F	84
1999/09/01 12:24	mw	Moricetown	RD	ST	BR	-	21840	F	80
1999/09/01 12:25	bj	Moricetown	RD	ST	BR	-	21841	F	71
1999/09/01 12:27	mw	Moricetown	RD	ST	BR	-	21842	F	73
1999/09/01 12:28	bj	Moricetown	RD	ST	BR	-	21843	F	58
1999/09/01 12:28	bj	Moricetown	RD	ST	BR	-	21845	F	74
1999/09/01 12:34	mw	Moricetown	RD	ST	BR	-	21844	F	62
1999/09/01 12:39	bj	Moricetown	RD	ST	BR	-	21846	F	78
1999/09/01 12:41	bj	Moricetown	RD	ST	BR	-	21847	F	71
1999/09/01 12:58	mw	Moricetown	RD	ST	BR	-	21848	F	58
1999/09/01 2:15	mt	Moricetown	RD	ST	BR	-	23010	M	61
1999/09/01 2:33	mt	Moricetown	RD	ST	BR	-	23012	M	54
1999/09/01 2:35	mt	Moricetown	RD	ST	BR	-	23013	F	57
1999/09/01 2:45	em	Moricetown	RD	ST	BL	-	23014	M	75
1999/09/01 3:04	em	Moricetown	RD	ST	BR	-	23015	F	76
1999/09/01 3:06	em	Moricetown	RD	ST	BR	-	23016	F	68
1999/09/01 3:11	em	Moricetown	RD	ST	BR	-	23017	F	64
1999/09/01 7:30	bj	Moricetown	RD	ST	BR	-	21792	F	78
1999/09/01 7:36	bj	Moricetown	RD	ST	BR	-	21793	F	85
1999/09/01 7:39	bj	Moricetown	RD	ST	BR	-	21794	F	73

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/09/01 7:47	bj	Moricetown	RD	ST	BR	-	21795	F	75
1999/09/01 7:49	bj	Moricetown	RD	ST	BR	-	21796	F	75
1999/09/01 7:52	bj	Moricetown	RD	ST	BR	-	21797	M	80
1999/09/01 8:00	bj	Moricetown	RD	ST	BR	-	21798	F	70
1999/09/01 8:23	bj	Moricetown	RD	ST	BR	-	21799	F	78
1999/09/01 8:35	bj	Moricetown	RD	ST	BR	-	21803	F	76
1999/09/01 8:45	mw	Moricetown	RD	ST	BR	-	21801	F	61
1999/09/01 8:45	mw	Moricetown	RD	ST	BR	-	21802	F	76
1999/09/01 8:54	bj	Moricetown	RD	ST	BR	-	21804	F	71
1999/09/01 9:03	mw	Moricetown	RD	ST	BR	-	21800	F	63
1999/09/01 9:03	mw	Moricetown	RD	ST	BR	-	21807	F	75
1999/09/01 9:03	mw	Moricetown	RD	ST	BR	-	21806	F	77
1999/09/01 9:03	mw	Moricetown	RD	ST	BR	-	21805	M	83
1999/09/01 9:25	mw	Moricetown	RD	ST	BR	-	21808	F	72
1999/09/01 9:26	mw	Moricetown	RD	ST	BR	-	21809	F	79
1999/09/01 9:36	mw	Moricetown	RD	ST	BR	-	21810	F	57
1999/09/01 9:58	bj	Moricetown	RD	ST	BR	-	21811	F	59
1999/09/02 1:11	mw	Moricetown	RD	ST	BR	-	21907	F	62
1999/09/02 1:20	bj	Moricetown	RD	ST	BR	-	21908	F	51
1999/09/02 1:23	bj	Moricetown	RD	ST	BR	-	21909	F	85
1999/09/02 1:23	mw	Moricetown	RD	ST	BR	-	21910	M	79
1999/09/02 1:27	bj	Moricetown	RD	ST	BR	-	21912	F	63
1999/09/02 1:27	mw	Moricetown	RD	ST	BR	-	21911	F	65
1999/09/02 1:29	bj	Moricetown	RD	ST	BR	-	21914	F	74
1999/09/02 1:29	mw	Moricetown	RD	ST	BR	-	21913	F	78
1999/09/02 10:24	bj	Moricetown	RD	ST	BR	-	21889	F	73
1999/09/02 10:45	mw	Moricetown	RD	ST	BR	-	21890	F	75
1999/09/02 11:46	mw	Moricetown	RD	ST	BR	-	21891	F	79
1999/09/02 12:30	mw	Moricetown	RD	ST	BR	-	21892	F	83
1999/09/02 12:39	mw	Moricetown	RD	ST	BR	-	21893	F	55
1999/09/02 12:39	mw	Moricetown	RD	ST	BR	-	21897	F	74
1999/09/02 12:39	mw	Moricetown	RD	ST	BR	-	21895	F	83
1999/09/02 12:39	mw	Moricetown	RD	ST	BR	-	21894	F	95
1999/09/02 12:39	mw	Moricetown	RD	ST	BR	-	21896	M	59
1999/09/02 12:45	mw	Moricetown	RD	ST	BR	-	21898	F	65
1999/09/02 12:45	mw	Moricetown	RD	ST	BR	-	21899	F	78
1999/09/02 12:45	mw	Moricetown	RD	ST	BR	-	21900	F	78
1999/09/02 12:45	mw	Moricetown	RD	ST	BR	-	21901	F	80

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/09/02 12:46	mw	Moricetown	RD	ST	BR	-	21902	F	77
1999/09/02 12:49	bj	Moricetown	RD	ST	BR	-	21903	F	72
1999/09/02 12:49	mw	Moricetown	RD	ST	BR	-	21905	F	74
1999/09/02 12:49	mw	Moricetown	RD	ST	BR	-	21904	F	82
1999/09/02 12:52	mw	Moricetown	RD	ST	BR	-	21906	F	57
1999/09/02 2:08	mt	Moricetown	RD	ST	BR	-	21915	F	65
1999/09/02 2:09	em	Moricetown	RD	ST	BR	-	21916	F	82
1999/09/02 2:12	em	Moricetown	RD	ST	BR	-	21917	F	58
1999/09/02 2:15	em	Moricetown	RD	ST	BR	-	21918	M	62
1999/09/02 2:16	em	Moricetown	RD	ST	BR	-	21919	M	73
1999/09/02 2:22	em	Moricetown	RD	ST	BR	-	21920	F	85
1999/09/02 2:25	em	Moricetown	RD	ST	BR	-	21921	M	76
1999/09/02 2:45	em	Moricetown	RD	ST	BR	-	21922	F	79
1999/09/02 2:54	em	Moricetown	RD	ST	BR	-	21923	F	81
1999/09/02 2:55	mt	Moricetown	RD	ST	BR	-	21924	M	71
1999/09/02 3:07	em	Moricetown	RD	ST	BR	-	21925	F	62
1999/09/02 3:09	em	Moricetown	RD	ST	BR	-	23026	M	53
1999/09/02 3:16	em	Moricetown	RD	ST	BR	-	23027	F	70
1999/09/02 3:17	em	Moricetown	RD	ST	BR	-	23028	F	87
1999/09/02 3:28	em	Moricetown	RD	ST	BR	-	23029	M	64
1999/09/02 3:55	em	Moricetown	RD	ST	BR	-	23032	M	74
1999/09/02 3:58	em	Moricetown	RD	ST	BR	-	23033	M	77
1999/09/02 4:11	em	Moricetown	RD	ST	BR	-	23034	F	71
1999/09/02 4:11	em	Moricetown	RD	ST	BR	-	23035	F	78
1999/09/02 4:21	em	Moricetown	RD	ST	BR	-	23036	F	71
1999/09/02 4:34	em	Moricetown	RD	ST	BR	-	23037	M	55
1999/09/02 4:47	em	Moricetown	RD	ST	BR	-	23038	F	73
1999/09/02 5:20	em	Moricetown	RD	ST	BR	-	23039	F	58
1999/09/02 5:20	em	Moricetown	RD	ST	BR	-	23040	F	72
1999/09/02 6:12	em	Moricetown	RD	ST	BR	-	23041	M	66
1999/09/02 6:16	mt	Moricetown	RD	ST	BR	-	23042	M	53
1999/09/02 6:22	em	Moricetown	RD	ST	BR	-	23043	F	71
1999/09/02 6:24	em	Moricetown	RD	ST	BR	-	21045	F	59
1999/09/02 6:24	em	Moricetown	RD	ST	BR	-	21045	F	59
1999/09/02 7:42	mw	Moricetown	RD	ST	BR	-	21857	F	81
1999/09/02 7:46	mw	Moricetown	RD	ST	BR	-	21856	F	73
1999/09/02 7:48	mw	Moricetown	RD	ST	BR	-	21855	F	75
1999/09/02 7:48	mw	Moricetown	RD	ST	BR	-	21854	F	85

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/09/02 8:27 mw		Moricetown	RD	ST	BR	-	21853	F	61
1999/09/02 8:28 mw		Moricetown	RD	ST	BR	-	21852	F	77
1999/09/02 8:33 mw		Moricetown	RD	ST	BR	-	21851	F	69
1999/09/02 8:34 mw		Moricetown	RD	ST	BR	-	21875	F	55
1999/09/02 8:34 mw		Moricetown	RD	ST	BR	-	21850	F	79
1999/09/02 8:39 mw		Moricetown	RD	ST	BR	-	21876	F	66
1999/09/02 8:40 mw		Moricetown	RD	ST	BR	-	21877	F	77
1999/09/02 8:42 mw		Moricetown	RD	ST	BR	-	21878	F	62
1999/09/02 8:43 mw		Moricetown	RD	ST	BR	-	21879	F	73
1999/09/02 8:44 mw		Moricetown	RD	ST	BR	-	21880	F	72
1999/09/02 8:48 mw		Moricetown	RD	ST	BR	-	21881	F	58
1999/09/02 8:51 mw		Moricetown	RD	ST	BR	-	21882	F	73
1999/09/02 8:58 mw		Moricetown	RD	ST	BR	-	21883	M	72
1999/09/02 9:12 mw		Moricetown	RD	ST	BR	-	21884	F	59
1999/09/02 9:25 mw		Moricetown	RD	ST	BR	-	21885	F	84
1999/09/02 9:30 mw		Moricetown	RD	ST	BR	-	21886	F	79
1999/09/02 9:40 mw		Moricetown	RD	ST	BR	-	21887	F	73
1999/09/02 9:57 bj		Moricetown	RD	ST	BR	-	21888	F	73
1999/09/03 1:01 bj		Moricetown	RD	ST	BR	-	23080	F	54
1999/09/03 1:14 bj		Moricetown	RD	ST	BR	-	23081	F	73
1999/09/03 1:15 mw		Moricetown	RD	ST	BR	-	23082	F	73
1999/09/03 1:21 bj		Moricetown	RD	ST	BR	-	23084	F	71
1999/09/03 1:21 bj		Moricetown	RD	ST	BR	-	23083	F	74
1999/09/03 10:15 mw		Moricetown	RD	ST	BR	-	23069	F	53
1999/09/03 10:18 mw		Moricetown	RD	ST	BR	-	23070	F	61
1999/09/03 10:24 mw		Moricetown	RD	ST	BR	-	23071	F	72
1999/09/03 11:05 bj		Moricetown	RD	ST	BR	-	23072	F	68
1999/09/03 11:10 bj		Moricetown	RD	ST	BR	-	23073	F	71
1999/09/03 11:20 mw		Moricetown	RD	ST	BR	-	23074	F	89
1999/09/03 11:23 bj		Moricetown	RD	ST	BR	-	23075	F	78
1999/09/03 11:25 mw		Moricetown	RD	ST	BR	-	23076	F	81
1999/09/03 11:36 bj		Moricetown	RD	ST	BR	-	23077	F	63
1999/09/03 12:37 mw		Moricetown	RD	ST	BR	-	23078	F	78
1999/09/03 12:58 bj		Moricetown	RD	ST	BR	-	23079	F	83
1999/09/03 8:40 bj		Moricetown	RD	ST	BR	-	23061	F	72
1999/09/03 8:46 mw		Moricetown	RD	ST	BR	-	23062	F	88
1999/09/03 9:05 mw		Moricetown	RD	ST	BR	-	23063	F	55
1999/09/03 9:26 mw		Moricetown	RD	ST	BR	-	23064	F	53

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/09/03 9:40 bj		Moricetown	RD	ST	BR	-	23065	F	72
1999/09/03 9:47 bj		Moricetown	RD	ST	BR	-	23067	F	59
1999/09/03 9:47 bj		Moricetown	RD	ST	BR	-	23066	F	72
1999/09/03 9:54 bj		Moricetown	RD	ST	BR	-	23060	F	71
1999/09/07 2:19 mw		Moricetown	RD	ST	BR	-	23101	F	64
1999/09/07 2:42 bj		Moricetown	RD	ST	BR	-	23102	F	63
1999/09/07 2:55 mw		Moricetown	RD	ST	BR	-	23103	F	58
1999/09/07 2:56 mw		Moricetown	RD	ST	BR	-	23104	F	76
1999/09/07 2:59 mw		Moricetown	RD	ST	BR	-	23106	F	74
1999/09/07 3:04 mw		Moricetown	RD	ST	BR	-	23107	F	59
1999/09/07 3:04 bj		Moricetown	RD	ST	BR	-	23108	F	80
1999/09/07 3:33 mw		Moricetown	RD	ST	BR	-	23109	F	76
1999/09/07 3:41 bj		Moricetown	RD	ST	BR	-	23111	F	62
1999/09/07 3:41 mw		Moricetown	RD	ST	BR	-	23117	F	63
1999/09/07 3:41 bj		Moricetown	RD	ST	BR	-	23119	F	65
1999/09/07 3:41 bj		Moricetown	RD	ST	BR	-	23121	F	74
1999/09/07 3:41 mw		Moricetown	RD	ST	BR	-	23115	F	77
1999/09/07 3:41 mw		Moricetown	RD	ST	BR	-	23112	F	78
1999/09/07 3:41 bj		Moricetown	RD	ST	BR	-	23120	F	78
1999/09/07 3:41 mw		Moricetown	RD	ST	BR	-	23114	F	79
1999/09/07 3:41 mw		Moricetown	RD	ST	BR	-	23116	F	81
1999/09/07 3:41 bj		Moricetown	RD	ST	BR	-	23113	F	85
1999/09/07 5:30 bj		Moricetown	RD	ST	BR	-	23122	F	62
1999/09/07 5:31 bj		Moricetown	RD	ST	BR	-	23127	F	57
1999/09/07 5:31 mw		Moricetown	RD	ST	BR	-	23126	F	59
1999/09/07 5:31 bj		Moricetown	RD	ST	BR	-	23125	F	67
1999/09/07 5:31 bj		Moricetown	RD	ST	BR	-	23124	F	73
1999/09/07 5:31 bj		Moricetown	RD	ST	BR	-	23123	F	76
1999/09/07 6:10 mw		Moricetown	RD	ST	BR	-	23128	F	58
1999/09/07 6:10 mw		Moricetown	RD	ST	BR	-	23129	F	59
1999/09/07 6:10 bj		Moricetown	RD	ST	BR	-	23132	F	59
1999/09/07 6:10 mw		Moricetown	RD	ST	BR	-	23134	F	59
1999/09/07 6:10 mw		Moricetown	RD	ST	BR	-	23135	F	60
1999/09/07 6:10 mw		Moricetown	RD	ST	BR	-	23131	F	63
1999/09/07 6:10 mw		Moricetown	RD	ST	BR	-	23130	F	82
1999/09/07 6:10 mw		Moricetown	RD	ST	BR	-	23133	F	82
1999/09/07 6:53 bj		Moricetown	RD	ST	BR	-	23136	F	63
1999/09/07 6:53 bj		Moricetown	RD	ST	BR	-	23137	F	75

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/09/07 7:06 bj		Moricetown	RD	ST	BR	-	23138	F	82
1999/09/07 7:15 bj		Moricetown	RD	ST	BR	-	23139	F	78
1999/09/07 7:15 mw		Moricetown	RD	ST	BR	-	23141	F	81
1999/09/07 7:15 bj		Moricetown	RD	ST	BR	-	23140	F	96
1999/09/07 7:29 bj		Moricetown	RD	ST	BR	-	23142	F	85
1999/09/07 7:30 bj		Moricetown	RD	ST	BR	-	23143	F	71
1999/09/07 7:40 bj		Moricetown	RD	ST	BR	-	23144	F	74
1999/09/07 7:40 bj		Moricetown	RD	ST	BR	-	23145	F	74
1999/09/07 7:41 mw		Moricetown	RD	ST	BR	-	23146	F	80
1999/09/07 7:42 bj		Moricetown	RD	ST	BR	-	23148	F	77
1999/09/08 1:00 em		Moricetown	RD	ST	BR	-	23162	F	70
1999/09/08 1:08 em		Moricetown	RD	ST	BR	-	23164	F	65
1999/09/08 1:12 em		Moricetown	RD	ST	BR	-	23165	F	77
1999/09/08 1:21 em		Moricetown	RD	ST	BR	-	23166	F	76
1999/09/08 1:50 mw		Moricetown	RD	ST	BR	-	23168	F	63
1999/09/08 1:53 mw		Moricetown	RD	ST	BR	-	23170	F	63
1999/09/08 1:53 mw		Moricetown	RD	ST	BR	-	23169	F	64
1999/09/08 10:51 mt		Moricetown	RD	ST	BR	-	23154	M	72
1999/09/08 11:00 mt		Moricetown	RD	ST	BR	-	23155	F	80
1999/09/08 11:32 mt		Moricetown	RD	ST	BR	-	23156	F	66
1999/09/08 11:49 em		Moricetown	RD	ST	BR	-	23157	F	71
1999/09/08 12:08 jr		Moricetown	RD	ST	BR	-	23158	F	55
1999/09/08 12:20 em		Moricetown	RD	ST	BR	-	23159	M	80
1999/09/08 12:38 em		Moricetown	RD	ST	BR	-	23160	M	54
1999/09/08 12:44 mt		Moricetown	RD	ST	BR	-	23161	F	63
1999/09/08 2:08 mw		Moricetown	RD	ST	BR	-	23171	F	71
1999/09/08 2:10 mw		Moricetown	RD	ST	BR	-	23172	F	81
1999/09/08 2:20 mw		Moricetown	RD	ST	BR	-	23173	F	66
1999/09/08 2:41 bj		Moricetown	RD	ST	BR	-	23174	F	61
1999/09/08 2:41 bj		Moricetown	RD	ST	BR	-	23175	F	71
1999/09/08 2:46 bj		Moricetown	RD	ST	BR	-	23176	F	71
1999/09/08 2:48 bj		Moricetown	RD	ST	BR	-	23178	F	60
1999/09/08 2:48 bj		Moricetown	RD	ST	BR	-	23177	F	72
1999/09/08 3:06 bj		Moricetown	RD	ST	BR	-	23179	F	59
1999/09/08 3:22 bj		Moricetown	RD	ST	BR	-	23180	F	74
1999/09/08 3:35 bj		Moricetown	RD	ST	BR	-	23181	F	77
1999/09/08 3:45 bj		Moricetown	RD	ST	BR	-	23182	F	69
1999/09/08 3:51 bj		Moricetown	RD	ST	BR	-	23183	F	57

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/09/08 4:06	MW	Moricetown	RD	ST	BR	-	23184	F	53
1999/09/08 4:14	bj	Moricetown	RD	ST	BR	-	23185	F	56
1999/09/08 4:35	mw	Moricetown	RD	ST	BR	-	23186	F	62
1999/09/08 4:49	bj	Moricetown	RD	ST	BR	-	23187	F	73
1999/09/08 5:01	bj	Moricetown	RD	ST	BR	-	23188	F	64
1999/09/08 5:30	mw	Moricetown	RD	ST	BR	-	23189	F	79
1999/09/08 5:33	bj	Moricetown	RD	ST	BR	-	23190	F	57
1999/09/08 5:56	bj	Moricetown	RD	ST	BR	-	23191	F	55
1999/09/08 6:00	mw	Moricetown	RD	ST	BR	-	23192	F	80
1999/09/08 6:03	mw	Moricetown	RD	ST	BR	-	23193	F	65
1999/09/08 6:04	mw	Moricetown	RD	ST	BR	-	23194	F	59
1999/09/08 6:20	bj	Moricetown	RD	ST	BR	-	23195	F	65
1999/09/08 6:24	bj	Moricetown	RD	ST	BR	-	23197	F	60
1999/09/08 6:47	mw	Moricetown	RD	ST	BR	-	23198	F	64
1999/09/08 6:51	mw	Moricetown	RD	ST	BR	-	23199	F	58
1999/09/08 6:57	bj	Moricetown	RD	ST	BR	-	23200	F	60
1999/09/08 7:10	bj	Moricetown	RD	ST	BR	-	23201	F	63
1999/09/08 7:22	bj	Moricetown	RD	ST	BR	-	23202	F	58
1999/09/08 7:29	mt	Moricetown	RD	ST	BR	-	23149	M	64
1999/09/08 7:38	em	Moricetown	RD	ST	BR	-	23150	F	74
1999/09/08 7:56	em	Moricetown	RD	ST	BR	-	23151	F	63
1999/09/08 8:08	em	Moricetown	RD	ST	BR	-	23152	M	75
1999/09/08 8:58	em	Moricetown	RD	ST	BR	-	23153	M	58
1999/09/09 1:05	jr	Moricetown	RD	ST	BR	-	23232	F	57
1999/09/09 1:06	jr	Moricetown	RD	ST	BR	-	23233	F	73
1999/09/09 1:07	jr	Moricetown	RD	ST	BR	-	23234	F	90
1999/09/09 1:08	jr	Moricetown	RD	ST	BR	-	23235	F	59
1999/09/09 1:12	em	Moricetown	RD	ST	BR	-	23236	F	60
1999/09/09 1:15	em	Moricetown	RD	ST	BR	-	23237	F	49
1999/09/09 1:15	jr	Moricetown	RD	ST	BR	-	23238	M	76
1999/09/09 1:20	mt	Moricetown	RD	ST	BR	-	23239	F	54
1999/09/09 1:21	jr	Moricetown	RD	ST	BR	-	23240	F	86
1999/09/09 1:52	mw	Moricetown	RD	ST	BR	-	23241	F	78
1999/09/09 1:53	mw	Moricetown	RD	ST	BR	-	23243	F	75
1999/09/09 1:53	mw	Moricetown	RD	ST	BR	-	23242	F	84
1999/09/09 12:39	jr	Moricetown	RD	ST	BR	-	23228	F	72
1999/09/09 12:40	jr	Moricetown	RD	ST	BR	-	23229	F	59
1999/09/09 12:50	jr	Moricetown	RD	ST	BR	-	23230	M	77

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/09/09 12:51 jr		Moricetown	RD	ST	BR	-	23231 M		87
1999/09/09 2:00 mw		Moricetown	RD	ST	BR	-	23244 F		62
1999/09/09 2:05 mw		Moricetown	RD	ST	BR	-	23245 F		60
1999/09/09 2:06 bj		Moricetown	RD	ST	BR	-	23246 F		61
1999/09/09 2:07 mw		Moricetown	RD	ST	BR	-	23247 F		76
1999/09/09 2:08 mw		Moricetown	RD	ST	BR	-	23248 M		76
1999/09/09 2:09 mw		Moricetown	RD	ST	BR	-	23249 F		75
1999/09/09 2:27 mw		Moricetown	RD	ST	BR	-	23250 F		75
1999/09/09 2:40 mw		Moricetown	RD	ST	BR	-	23251 F		60
1999/09/09 2:43 mw		Moricetown	RD	ST	BR	-	23252 F		84
1999/09/09 2:46 mw		Moricetown	RD	ST	BR	-	23253 F		94
1999/09/09 2:50 mw		Moricetown	RD	ST	BR	-	23255 F		62
1999/09/09 2:50 mw		Moricetown	RD	ST	BR	-	23254 F		63
1999/09/09 3:11 bj		Moricetown	RD	ST	BR	-	23256 F		52
1999/09/09 3:14 mw		Moricetown	RD	ST	BR	-	23257 F		59
1999/09/09 3:14 mw		Moricetown	RD	ST	BR	-	23258 F		73
1999/09/09 3:14 mw		Moricetown	RD	ST	BR	-	23259 F		77
1999/09/09 3:41 mw		Moricetown	RD	ST	BR	-	23260 F		90
1999/09/09 3:59 bj		Moricetown	RD	ST	BR	-	23261 F		62
1999/09/09 4:27 bj		Moricetown	RD	ST	BR	-	23262 F		73
1999/09/09 4:30 am		Moricetown	RD	ST	BR	-	23263 F		78
1999/09/09 4:36 am		Moricetown	RD	ST	BR	-	23264 F		77
1999/09/09 4:40 am		Moricetown	RD	ST	BR	-	23265 F		71
1999/09/09 4:48 mw		Moricetown	RD	ST	BR	-	23266 F		75
1999/09/09 4:49 am		Moricetown	RD	ST	BR	-	23267 F		77
1999/09/09 4:51 bj		Moricetown	RD	ST	BR	-	23268 F		57
1999/09/09 4:53 mw		Moricetown	RD	ST	BR	-	23269 F		75
1999/09/09 4:57 bj		Moricetown	RD	ST	BR	-	23270 F		57
1999/09/09 5:02 mw		Moricetown	RD	ST	BR	-	23271 F		65
1999/09/09 5:05 mw		Moricetown	RD	ST	BR	-	23272 F		77
1999/09/09 5:06 bj		Moricetown	RD	ST	BR	-	23273 F		60
1999/09/09 5:10 mw		Moricetown	RD	ST	BR	-	23274 F		77
1999/09/09 5:15 mw		Moricetown	RD	ST	BR	-	23275 F		57
1999/09/09 5:15 bj		Moricetown	RD	ST	BR	-	23276 F		67
1999/09/09 5:26 mw		Moricetown	RD	ST	BR	-	23277 F		71
1999/09/09 5:34 mw		Moricetown	RD	ST	BR	-	23278 F		63
1999/09/09 5:38 bj		Moricetown	RD	ST	BR	-	23279 F		79
1999/09/09 5:54 mw		Moricetown	RD	ST	BR	-	23280 F		60

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/09/09 6:00 mw		Moricetown	RD	ST	BR	-	23281	F	65
1999/09/09 6:09 bj		Moricetown	RD	ST	BR	-	23282	F	59
1999/09/09 6:24 bj		Moricetown	RD	ST	BR	-	23284	F	53
1999/09/09 6:28 bj		Moricetown	RD	ST	BR	-	23285	F	72
1999/09/09 6:37 mw		Moricetown	RD	ST	BR	-	23286	F	59
1999/09/09 7:25 jr		Moricetown	RD	ST	BR	-	23203	F	71
1999/09/09 8:15 mt		Moricetown	RD	ST	BR	-	23204	F	58
1999/09/09 8:51 mt		Moricetown	RD	ST	BR	-	23205	M	60
1999/09/10 1:12 em		Moricetown	RD	ST	BR	-	23309	M	60
1999/09/10 1:14 em		Moricetown	RD	ST	BR	-	23310	F	70
1999/09/10 11:05 mt		Moricetown	RD	ST	BR	-	23291	M	67
1999/09/10 11:14 em		Moricetown	RD	ST	BR	-	23292	F	69
1999/09/10 11:17 em		Moricetown	RD	ST	BR	-	23294	M	79
1999/09/10 11:26 mt		Moricetown	RD	ST	BR	-	23296	F	57
1999/09/10 11:33 em		Moricetown	RD	ST	BR	-	23297	U	80
1999/09/10 11:36 mt		Moricetown	RD	ST	BR	-	23298	F	71
1999/09/10 12:12 em		Moricetown	RD	ST	BR	-	23299	F	64
1999/09/10 12:15 mt		Moricetown	RD	ST	BR	-	23300	F	66
1999/09/10 12:29 em		Moricetown	RD	ST	BR	-	23301	M	60
1999/09/10 12:31 em		Moricetown	RD	ST	BR	-	23302	F	67
1999/09/10 12:34 mt		Moricetown	RD	ST	BR	-	23303	U	0
1999/09/10 12:37 mt		Moricetown	RD	ST	BR	-	23304	F	65
1999/09/10 12:38 em		Moricetown	RD	ST	BR	-	23305	F	71
1999/09/10 12:40 em		Moricetown	RD	ST	BR	-	23307	M	62
1999/09/10 12:44 em		Moricetown	RD	ST	BR	-	23308	F	72
1999/09/10 2:00 bj		Moricetown	RD	ST	BR	-	23311	F	69
1999/09/10 2:06 bj		Moricetown	RD	ST	BR	-	23312	F	75
1999/09/10 2:11 mw		Moricetown	RD	ST	BR	-	23313	F	60
1999/09/10 2:24 mw		Moricetown	RD	ST	BR	-	23314	F	71
1999/09/10 2:28 bj		Moricetown	RD	ST	BR	-	23315	F	63
1999/09/10 2:31 bj		Moricetown	RD	ST	BR	-	23316	F	73
1999/09/10 2:38 bj		Moricetown	RD	ST	BR	-	23318	F	60
1999/09/10 2:38 bj		Moricetown	RD	ST	BR	-	23317	F	76
1999/09/10 2:55 bj		Moricetown	RD	ST	BR	-	23319	F	65
1999/09/10 2:57 mw		Moricetown	RD	ST	BR	-	23320	F	82
1999/09/10 3:12 bj		Moricetown	RD	ST	BR	-	23321	F	61
1999/09/10 3:50 mw		Moricetown	RD	ST	BR	-	23322	F	63
1999/09/10 3:54 bj		Moricetown	RD	ST	BR	-	23323	F	79

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/09/10 4:10 bj		Moricetown	RD	ST	BR	-	23324	F	83
1999/09/10 4:17 bj		Moricetown	RD	ST	BR	-	23325	F	73
1999/09/10 4:20 bj		Moricetown	RD	ST	BR	-	23326	F	85
1999/09/10 4:27 bj		Moricetown	RD	ST	BR	-	23327	F	65
1999/09/10 4:30 bj		Moricetown	RD	ST	BR	-	23328	F	73
1999/09/10 4:31 bj		Moricetown	RD	ST	BR	-	23329	F	55
1999/09/10 4:46 mw		Moricetown	RD	ST	BR	-	23330	F	91
1999/09/10 5:03 mw		Moricetown	RD	ST	BR	-	23331	F	76
1999/09/10 5:03 mw		Moricetown	RD	ST	BR	-	23334	F	78
1999/09/10 5:03 mw		Moricetown	RD	ST	BR	-	23333	F	80
1999/09/10 5:22 mw		Moricetown	RD	ST	BR	-	23335	F	78
1999/09/10 5:30 mw		Moricetown	RD	ST	BR	-	23336	F	71
1999/09/10 5:39 mw		Moricetown	RD	ST	BR	-	23337	F	86
1999/09/10 5:41 bj		Moricetown	RD	ST	BR	-	23338	F	63
1999/09/10 6:00 mw		Moricetown	RD	ST	BR	-	23339	F	74
1999/09/10 6:19 bj		Moricetown	RD	ST	BR	-	23340	F	67
1999/09/10 6:22 bj		Moricetown	RD	ST	BR	-	23341	F	60
1999/09/10 6:29 bj		Moricetown	RD	ST	BR	-	23342	F	60
1999/09/10 6:37 bj		Moricetown	RD	ST	BR	-	23343	F	58
1999/09/10 6:38 bj		Moricetown	RD	ST	BR	-	23344	F	62
1999/09/10 6:52 mw		Moricetown	RD	ST	BR	-	23345	M	96
1999/09/10 7:03 bj		Moricetown	RD	ST	BR	-	23346	M	75
1999/09/10 7:05 bj		Moricetown	RD	ST	BR	-	23347	F	72
1999/09/10 7:10 bj		Moricetown	RD	ST	BR	-	23348	F	66
1999/09/10 7:14 mw		Moricetown	RD	ST	BR	-	23349	F	55
1999/09/10 7:15 mw		Moricetown	RD	ST	BR	-	23350	F	72
1999/09/10 7:17 bj		Moricetown	RD	ST	BR	-	23351	F	74
1999/09/10 8:00 em		Moricetown	RD	ST	BR	-	23288	F	61
1999/09/10 8:00 em		Moricetown	RD	ST	BR	-	23287	M	57
1999/09/10 8:30 em		Moricetown	RD	ST	GY	-	23289	F	67
1999/09/10 8:43 jr		Moricetown	RD	ST	BR	-	23290	M	58
1999/09/13 11:06 mt		Moricetown	RD	ST	BR	-	22362	F	78
1999/09/13 11:13 em		Moricetown	RD	ST	BR	-	22363	F	84
1999/09/13 11:19 em		Moricetown	RD	ST	BR	-	22364	M	76
1999/09/13 11:54 em		Moricetown	RD	ST	BR	-	22365	F	53
1999/09/13 12:15 mt		Moricetown	RD	ST	BR	-	22366	F	61
1999/09/13 12:34 em		Moricetown	RD	ST	BR	-	22367	F	72
1999/09/13 2:37 mw		Moricetown	RD	ST	BR	-	23368	F	77

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/09/13 2:53	mw	Moricetown	RD	ST	BR	-	23369	F	77
1999/09/13 2:55	mw	Moricetown	RD	ST	BR	-	23370	F	70
1999/09/13 3:00	bj	Moricetown	RD	ST	BR	-	23372	F	73
1999/09/13 3:00	mw	Moricetown	RD	ST	BR	-	23371	F	86
1999/09/13 3:22	mw	Moricetown	RD	ST	BR	-	23373	F	69
1999/09/13 4:01	mw	Moricetown	RD	ST	BR	-	23375	F	63
1999/09/13 4:01	mw	Moricetown	RD	ST	BR	-	23374	F	74
1999/09/13 4:03	mw	Moricetown	RD	ST	BR	-	23376	F	75
1999/09/13 4:31	mw	Moricetown	RD	ST	BR	-	23377	F	70
1999/09/13 4:34	mw	Moricetown	RD	ST	BR	-	23378	F	73
1999/09/13 5:01	mw	Moricetown	RD	ST	BR	-	23379	F	68
1999/09/13 5:02	mw	Moricetown	RD	ST	BR	-	23380	F	56
1999/09/13 5:25	mw	Moricetown	RD	ST	BR	-	23381	F	85
1999/09/13 5:28	mw	Moricetown	RD	ST	BR	-	23382	F	74
1999/09/13 5:31	mw	Moricetown	RD	ST	BR	-	23383	F	57
1999/09/13 6:55	mw	Moricetown	RD	ST	BR	-	23384	F	74
1999/09/13 7:21	mw	Moricetown	RD	ST	BR	-	23385	F	83
1999/09/13 7:32	em	Moricetown	RD	ST	BR	-	23352	F	80
1999/09/13 7:39	em	Moricetown	RD	ST	BR	-	23353	M	60
1999/09/13 7:43	em	Moricetown	RD	ST	BR	-	23354	F	68
1999/09/13 8:12	mt	Moricetown	RD	ST	BR	-	23356	F	54
1999/09/13 8:33	em	Moricetown	RD	ST	BR	-	23357	F	57
1999/09/13 8:48	mt	Moricetown	RD	ST	BR	-	23358	M	62
1999/09/13 9:20	em	Moricetown	RD	ST	BR	-	23359	F	89
1999/09/13 9:46	em	Moricetown	RD	ST	BR	-	23360	F	56
1999/09/13 9:55	em	Moricetown	RD	ST	BR	-	22361	F	71
1999/09/14 1:07	em	Moricetown	RD	ST	BR	-	23407	F	76
1999/09/14 1:33	mw	Moricetown	RD	ST	BR	-	23408	F	61
1999/09/14 1:35	mw	Moricetown	RD	ST	BR	-	23429	F	57
1999/09/14 1:50	mw	Moricetown	RD	ST	BR	-	23430	F	88
1999/09/14 1:52	mw	Moricetown	RD	ST	PU	-	23409	F	58
1999/09/14 1:59	mw	Moricetown	RD	ST	BR	-	23431	F	76
1999/09/14 10:37	em	Moricetown	RD	ST	BR	-	23393	F	76
1999/09/14 10:44	mt	Moricetown	RD	ST	BR	-	23394	F	73
1999/09/14 10:49	mt	Moricetown	RD	ST	BR	-	23395	F	57
1999/09/14 10:52	em	Moricetown	RD	ST	BR	-	23396	M	55
1999/09/14 10:58	em	Moricetown	RD	ST	BR	-	23397	M	70
1999/09/14 11:17	em	Moricetown	RD	ST	BR	-	23399	M	71

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/09/14 11:33 em		Moricetown	RD	ST	BR	-	23400	F	73
1999/09/14 11:44 mt		Moricetown	RD	ST	BR	-	233401	M	69
1999/09/14 11:44 MT		Moricetown	RD	ST	BR	-	23401	M	69
1999/09/14 11:51 em		Moricetown	RD	ST	BR	-	23402	M	72
1999/09/14 12:14 mt		Moricetown	RD	ST	BR	-	23404	F	57
1999/09/14 12:30 em		Moricetown	RD	ST	BR	-	23405	F	73
1999/09/14 12:42 em		Moricetown	RD	ST	BR	-	23406	F	78
1999/09/14 2:00 bj		Moricetown	RD	ST	BR	-	23410	F	54
1999/09/14 2:13 bj		Moricetown	RD	ST	BR	-	23433	F	80
1999/09/14 2:16 in		Moricetown	RD	ST	BR	-	23432	F	78
1999/09/14 2:25 mw		Moricetown	RD	ST	BR	-	23434	F	85
1999/09/14 2:29 mw		Moricetown	RD	ST	BR	-	23435	F	86
1999/09/14 2:51 mw		Moricetown	RD	ST	BR	-	23437	F	55
1999/09/14 2:51 bj		Moricetown	RD	ST	BR	-	23436	F	72
1999/09/14 2:57 bj		Moricetown	RD	ST	BR	-	23438	F	61
1999/09/14 3:08 in		Moricetown	RD	ST	BR	-	23439	F	65
1999/09/14 3:28 mw		Moricetown	RD	ST	BR	-	23440	F	75
1999/09/14 3:35 mw		Moricetown	RD	ST	BR	-	23441	F	91
1999/09/14 3:54 bj		Moricetown	RD	ST	BR	-	23442	F	80
1999/09/14 4:19 bj		Moricetown	RD	ST	BR	-	23443	F	81
1999/09/14 4:30 mw		Moricetown	RD	ST	BR	-	23411	F	790
1999/09/14 4:35 bj		Moricetown	RD	ST	BR	-	23444	F	65
1999/09/14 4:39 bj		Moricetown	RD	ST	BR	-	23412	F	58
1999/09/14 4:40 mw		Moricetown	RD	ST	BR	-	23446	F	77
1999/09/14 4:40 mw		Moricetown	RD	ST	BR	-	23445	F	93
1999/09/14 4:46 mw		Moricetown	RD	ST	BR	-	23447	F	81
1999/09/14 4:49 mw		Moricetown	RD	ST	BR	-	23448	F	78
1999/09/14 4:52 bj		Moricetown	RD	ST	BR	-	23413	F	87
1999/09/14 5:07 bj		Moricetown	RD	ST	BR	-	23414	F	67
1999/09/14 5:31 in		Moricetown	RD	ST	BR	-	23415	F	56
1999/09/14 5:36 bj		Moricetown	RD	ST	BR	-	23449	F	62
1999/09/14 6:11 ibj		Moricetown	RD	ST	BR	-	23416	F	61
1999/09/14 6:15 in		Moricetown	RD	ST	BR	-	23450	F	62
1999/09/14 6:41 bj		Moricetown	RD	ST	BR	-	23417	F	88
1999/09/14 6:43 mw		Moricetown	RD	ST	BR	-	23451	F	78
1999/09/14 6:44 bj		Moricetown	RD	ST	BR	-	23452	F	74
1999/09/14 6:52 bj		Moricetown	RD	ST	BR	-	23418	F	60
1999/09/14 6:58 bj		Moricetown	RD	ST	BR	-	23453	F	64

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/09/14 7:09	mw	Moricetown	RD	ST	BR	-	23454	F	83
1999/09/14 7:09	mw	Moricetown	RD	ST	BR	-	23419	F	87
1999/09/14 7:38	em	Moricetown	RD	ST	BR	-	23386	M	89
1999/09/14 7:49	em	Moricetown	RD	ST	BR	-	23387	F	66
1999/09/14 8:55	em	Moricetown	RD	ST	BR	-	23388	F	57
1999/09/14 9:42	em	Moricetown	RD	ST	BR	-	23389	F	67
1999/09/14 9:49	em	Moricetown	RD	ST	BR	-	23391	F	75
1999/09/14 9:53	em	Moricetown	RD	ST	BR	-	23392	F	80
1999/09/15 1:04	em	Moricetown	RD	ST	BR	-	23426	M	76
1999/09/15 1:05	in	Moricetown	RD	ST	BR	-	23427	F	71
1999/09/15 10:44	in	Moricetown	RD	ST	BR	-	23423	F	72
1999/09/15 11:56	em	Moricetown	RD	ST	BR	-	23424	F	60
1999/09/15 12:04	in	Moricetown	RD	ST	BR	-	23425	F	58
1999/09/15 7:38	mt	Moricetown	RD	ST	BR	-	23420	M	54
1999/09/15 9:03	mt	Moricetown	RD	ST	BR	-	23421	F	57
1999/09/15 9:09	mt	Moricetown	RD	ST	BR	-	23422	M	60
1999/09/16 1:04	mt	Moricetown	RD	ST	BR	-	23461	M	70
1999/09/16 1:43	mw	Moricetown	RD	ST	BR	-	23462	F	63
1999/09/16 1:45	mw	Moricetown	RD	ST	BR	-	23463	F	83
1999/09/16 1:46	mw	Moricetown	RD	ST	BR	-	23464	M	77
1999/09/16 11:23	em	Moricetown	RD	ST	BR	-	23457	M	73
1999/09/16 11:47	em	Moricetown	RD	ST	BR	-	23458	F	73
1999/09/16 12:03	em	Moricetown	RD	ST	BR	-	23459	F	72
1999/09/16 12:50	mt	Moricetown	RD	ST	BR	-	23460	F	58
1999/09/16 2:29	mw	Moricetown	RD	ST	BR	-	23465	F	55
1999/09/16 2:48	mw	Moricetown	RD	ST	BR	-	23467	F	74
1999/09/16 2:48	mw	Moricetown	RD	ST	BR	-	23466	F	85
1999/09/16 2:54	bj	Moricetown	RD	ST	BR	-	23468	F	87
1999/09/16 2:59	mw	Moricetown	RD	ST	BR	-	23469	F	65
1999/09/16 3:41	mw	Moricetown	RD	ST	BR	-	23470	F	57
1999/09/16 3:41	mw	Moricetown	RD	ST	BR	-	23471	F	59
1999/09/16 4:06	bj	Moricetown	RD	ST	BR	-	23472	F	57
1999/09/16 4:08	mw	Moricetown	RD	ST	BR	-	23473	F	62
1999/09/16 4:18	bj	Moricetown	RD	ST	BR	-	23474	F	58
1999/09/16 4:33	mw	Moricetown	RD	ST	BR	-	23475	F	80
1999/09/16 4:50	mw	Moricetown	RD	ST	BR	-	23476	F	77
1999/09/16 4:53	bj	Moricetown	RD	ST	BR	-	23477	F	83
1999/09/16 4:56	bj	Moricetown	RD	ST	BR	-	23478	F	67

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/09/16 4:58 bj		Moricetown	RD	ST	BR	-	23479	F	74
1999/09/16 5:10 mw		Moricetown	RD	ST	BR	-	23480	F	74
1999/09/16 5:15 bj		Moricetown	RD	ST	BR	-	23481	F	65
1999/09/16 5:33 mw		Moricetown	RD	ST	BR	-	23482	F	60
1999/09/16 5:45 bj		Moricetown	RD	ST	BR	-	23483	F	79
1999/09/16 6:10 mw		Moricetown	RD	ST	BR	-	23484	F	77
1999/09/16 6:15 mw		Moricetown	RD	ST	BR	-	23485	F	85
1999/09/16 6:34 mw		Moricetown	RD	ST	BR	-	23486	F	74
1999/09/16 6:40 bj		Moricetown	RD	ST	BR	-	23487	F	76
1999/09/16 7:20 bj		Moricetown	RD	ST	BR	-	23488	F	57
1999/09/16 8:40 wp		Moricetown	RD	ST	BR	-	23455	F	62
1999/09/16 9:41 em		Moricetown	RD	ST	BR	-	23456	F	55
1999/09/17 1:02 bj		Moricetown	RD	ST	BR	-	23525	F	69
1999/09/17 1:05 mw		Moricetown	RD	ST	BR	-	23526	F	62
1999/09/17 1:12 mw		Moricetown	RD	ST	BR	-	23527	F	69
1999/09/17 10:54 mt		Moricetown	RD	ST	BR	-	23491	M	71
1999/09/17 10:58 bj		Moricetown	RD	ST	BR	-	23521	F	57
1999/09/17 11:28 mw		Moricetown	RD	ST	BR	-	23522	F	63
1999/09/17 11:30 mw		Moricetown	RD	ST	BR	-	23523	F	84
1999/09/17 11:51 mt		Moricetown	RD	ST	BR	-	23492	F	76
1999/09/17 12:00 mw		Moricetown	RD	ST	BR	-	23524	F	81
1999/09/17 3:23 mw		Moricetown	RD	ST	BR	-	23493	F	77
1999/09/17 3:35 mw		Moricetown	RD	ST	BR	-	23494	F	60
1999/09/17 4:05 mw		Moricetown	RD	ST	BR	-	23500	F	80
1999/09/17 4:18 mw		Moricetown	RD	ST	BR	-	23501	F	58
1999/09/17 4:33 bj		Moricetown	RD	ST	BR	-	23502	F	77
1999/09/17 5:17 mw		Moricetown	RD	ST	BR	-	23503	F	82
1999/09/17 5:22 mw		Moricetown	RD	ST	BR	-	23504	F	75
1999/09/17 5:23 bj		Moricetown	RD	ST	BR	-	23505	F	55
1999/09/17 5:41 mw		Moricetown	RD	ST	BR	-	23506	F	58
1999/09/17 5:42 mw		Moricetown	RD	ST	BR	-	23507	F	80
1999/09/17 5:48 mw		Moricetown	RD	ST	BR	-	23508	M	84
1999/09/17 5:48 mw		Moricetown	RD	ST	BR	-	23509	M	98
1999/09/17 5:54 mw		Moricetown	RD	ST	BR	-	23510	M	76
1999/09/17 6:13 bj		Moricetown	RD	ST	BR	-	23511	F	60
1999/09/17 6:19 mw		Moricetown	RD	ST	BR	-	23512	F	77
1999/09/17 6:20 bj		Moricetown	RD	ST	BR	-	23513	M	76
1999/09/17 6:22 mw		Moricetown	RD	ST	BR	-	23514	F	82

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/09/17 6:22 bj		Moricetown	RD	ST	BR	-	23515 F		92
1999/09/17 6:25 mw		Moricetown	RD	ST	BR	-	23516 M		64
1999/09/17 6:44 bj		Moricetown	RD	ST	BR	-	23517 F		79
1999/09/17 8:05 bj		Moricetown	RD	ST	BR	-	23518 M		74
1999/09/17 8:06 bj		Moricetown	RD	ST	BR	-	23519 F		63
1999/09/17 8:09 bj		Moricetown	RD	ST	BR	-	23520 F		55
1999/09/17 8:47 em		Moricetown	RD	ST	BR	-	23495 F		58
1999/09/17 8:59 em		Moricetown	RD	ST	BR	-	23496 F		51
1999/09/17 9:06 em		Moricetown	RD	ST	BR	-	23497 M		58
1999/09/17 9:10 em		Moricetown	RD	ST	BR	-	23498 M		57
1999/09/17 9:30 em		Moricetown	RD	ST	BR	-	23499 M		56
1999/09/20 1:53 em		Moricetown	RD	ST	BR	-	23528 F		72
1999/09/20 1:55 em		Moricetown	RD	ST	BR	-	23529 F		78
1999/09/20 2:33 em		Moricetown	RD	ST	BR	-	23530 F		56
1999/09/20 3:57 mt		Moricetown	RD	ST	BR	-	23531 F		79
1999/09/20 4:14 mt		Moricetown	RD	ST	BR	-	23532 F		76
1999/09/20 5:39 em		Moricetown	RD	ST	BR	-	23533 F		77
1999/09/20 6:42 mt		Moricetown	RD	ST	BR	-	23534 F		53
1999/09/21 1:35 em		Moricetown	RD	ST	BR	-	23542 F		60
1999/09/21 11:52 bj		Moricetown	RD	ST	BR	-	23541 F		66
1999/09/21 3:35 em		Moricetown	RD	ST	BR	-	23543 F		84
1999/09/21 4:08 mt		Moricetown	RD	ST	BR	-	23544 F		53
1999/09/21 4:51 kp		Moricetown	RD	ST	BR	-	23545 F		58
1999/09/21 5:46 mt		Moricetown	RD	ST	BR	-	23546 F		61
1999/09/21 6:00 em		Moricetown	RD	ST	BR	-	23547 M		56
1999/09/21 8:10 bj		Moricetown	RD	ST	BR	-	23535 M		67
1999/09/21 8:28 mw		Moricetown	RD	ST	BR	-	23536 F		80
1999/09/21 8:47 mw		Moricetown	RD	ST	BR	-	23537 F		60
1999/09/21 9:01 mw		Moricetown	RD	ST	BR	-	23538 M		80
1999/09/21 9:47 mw		Moricetown	RD	ST	BR	-	23539 F		64
1999/09/21 9:51 mw		Moricetown	RD	ST	BR	-	23540 F		79
1999/09/22 10:17 bj		Moricetown	RD	ST	BR	-	23556 F		62
1999/09/22 10:52 mw		Moricetown	RD	ST	BR	-	23557 F		82
1999/09/22 10:54 mw		Moricetown	RD	ST	BR	-	23558 F		56
1999/09/22 11:24 bj		Moricetown	RD	ST	BR	-	23559 F		57
1999/09/22 11:42 bj		Moricetown	RD	ST	BR	-	23560 F		76
1999/09/22 11:57 bj		Moricetown	RD	ST	BR	-	23561 F		74
1999/09/22 2:51 em		Moricetown	RD	ST	BR	-	23562 M		40

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/09/22 3:11 mt		Moricetown	RD	ST	BR	-	23563 F		55
1999/09/22 5:49 mt		Moricetown	RD	ST	BR	-	23564 M		77
1999/09/22 6:10 em		Moricetown	RD	ST	BR	-	23565 M		67
1999/09/22 7:57 bj		Moricetown	RD	ST	BR	-	23548 F		73
1999/09/22 8:03 bj		Moricetown	RD	ST	BR	-	23549 M		57
1999/09/22 8:30 mw		Moricetown	RD	ST	BR	-	23550 F		72
1999/09/22 8:36 mw		Moricetown	RD	ST	BR	-	23551 F		66
1999/09/22 8:42 mw		Moricetown	RD	ST	BR	-	23552 M		64
1999/09/22 8:55 mw		Moricetown	RD	ST	BR	-	23553 F		87
1999/09/22 9:06 mw		Moricetown	RD	ST	BR	-	23554 F		77
1999/09/22 9:43 bj		Moricetown	RD	ST	BR	-	23555 M		57
1999/09/23 11:10 mw		Moricetown	RD	ST	BR	-	23570 F		89
1999/09/23 12:26 mw		Moricetown	RD	ST	BR	-	23571 F		73
1999/09/23 12:34 bj		Moricetown	RD	ST	BR	-	23572 F		86
1999/09/23 2:25 mt		Moricetown	RD	ST	BR	-	23573 M		75
1999/09/23 3:59 em		Moricetown	RD	ST	BR	-	23574 F		62
1999/09/23 5:56 em		Moricetown	RD	ST	BR	-	23575 F		59
1999/09/23 8:21 mw		Moricetown	RD	ST	BR	-	23566 F		64
1999/09/23 8:22 bj		Moricetown	RD	ST	BR	-	23567 F		80
1999/09/23 8:52 mw		Moricetown	RD	ST	BR	-	23568 M		62
1999/09/23 9:30 mw		Moricetown	RD	ST	BR	-	23569 F		58
1999/09/24 10:31 bj		Moricetown	RD	ST	BR	-	23577 F		65
1999/09/24 11:08 bj		Moricetown	RD	ST	BR	-	23578 F		78
1999/09/24 3:42 mt		Moricetown	RD	ST	BR	-	23579 F		56
1999/09/24 5:17 em		Moricetown	RD	ST	BR	-	23580 F		66
1999/09/24 6:47 mt		Moricetown	RD	ST	BR	-	23581 F		60
1999/09/24 8:05 bj		Moricetown	RD	ST	BR	-	23576 M		65
1999/09/27 2:09 em		Moricetown	RD	ST	BR	-	23584 F		60
1999/09/27 3:19 em		Moricetown	RD	ST	BR	-	23585 F		73
1999/09/27 3:37 em		Moricetown	RD	ST	BR	-	23586 F		72
1999/09/27 4:09 em		Moricetown	RD	ST	BR	-	23587 F		78
1999/09/27 5:13 em		Moricetown	RD	ST	BR	-	23589 F		59
1999/09/27 5:14 em		Moricetown	RD	ST	BR	-	23590 F		75
1999/09/27 5:51 em		Moricetown	RD	ST	BR	-	23592 F		58
1999/09/29 10:44 mw		Moricetown	RD	ST	BR	-	23594 F		75
1999/09/29 10:49 mw		Moricetown	RD	ST	BR	-	23595 F		76
1999/09/29 11:14 mw		Moricetown	RD	ST	BR	-	23583 F		78
1999/09/29 2:15 em		Moricetown	RD	ST	BR	-	23596 F		78

Tagging gear: RS = beach seine, RD = dipnet, RA = angling
 Sex: F = female, M = male
 Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/09/29 3:34 em		Moricetown	RD	ST	BR	-	23597	M	63
1999/09/29 6:08 em		Moricetown	RD	ST	BR	-	23598	F	73
1999/09/29 8:19 mw		Moricetown	RD	ST	BR	-	23582	F	78
1999/09/29 9:20 bj		Moricetown	RD	ST	BR	-	23593	M	62
1999/09/30 12:50 mw		Moricetown	RD	ST	BR	-	23605	F	73
1999/09/30 8:25 mw		Moricetown	RD	ST	BR	-	23600	M	80
1999/09/30 9:36 bj		Moricetown	RD	ST	BR	-	23601	M	57
1999/09/30 9:46 mw		Moricetown	RD	ST	BR	-	23602	F	83
1999/09/30 9:47 mw		Moricetown	RD	ST	BR	-	23603	F	83
1999/10/01 11:53 mw		Moricetown	RD	ST	BR	-	23609	F	74
1999/10/01 12:56 mw		Moricetown	RD	ST	BR	-	23610	F	76
1999/10/01 2:59 em		Moricetown	RD	ST	BR	-	23612	F	63
1999/10/01 5:13 mt		Moricetown	RD	ST	BR	-	23613	F	72
1999/10/01 9:04 bj		Moricetown	RD	ST	BR	-	23608	F	74
1999/10/04 1:34 mw		Moricetown	RD	ST	BR	-	23616	F	61
1999/10/04 2:20 mw		Moricetown	RD	ST	BR	-	23615	M	69
1999/10/04 3:43 mw		Moricetown	RD	ST	BR	-	23618	F	71
1999/10/04 3:43 mw		Moricetown	RD	ST	BR	-	23617	F	80
1999/10/04 3:45 mw		Moricetown	RD	ST	BR	-	23619	M	86
1999/10/04 4:17 bj		Moricetown	RD	ST	BR	-	23620	M	59
1999/10/04 5:09 mw		Moricetown	RD	ST	BR	-	23621	M	82
1999/10/04 5:42 mw		Moricetown	RD	ST	BR	-	23622	F	76
1999/10/04 6:05 mw		Moricetown	RD	ST	BR	-	23623	F	75
1999/10/04 6:38 mw		Moricetown	RD	ST	BR	-	23624	M	83
1999/10/04 9:35 em		Moricetown	RD	ST	BR	-	23614	F	59
1999/10/05 10:25 mt		Moricetown	RD	ST	BR	-	23625	F	79
1999/10/05 11:12 em		Moricetown	RD	ST	BR	-	23626	F	60
1999/10/05 12:23 em		Moricetown	RD	ST	BR	-	23627	F	65
1999/10/05 4:59 u		Moricetown	RD	ST	BR	-	23628	F	75
1999/10/06 11:22 mt		Moricetown	RD	ST	BR	-	23629	F	63
1999/10/06 3:15 mw		Moricetown	RD	ST	BR	-	23630	F	99
1999/10/07 12:07 em		Moricetown	RD	ST	BR	-	23633	F	93
1999/10/07 2:56 mw		Moricetown	RD	ST	BR	-	23634	F	62
1999/10/07 3:50 bj		Moricetown	RD	ST	BR	-	23635	F	59
1999/10/07 4:32 mw		Moricetown	RD	ST	BR	-	23636	F	61
1999/10/07 4:50 mw		Moricetown	RD	ST	BR	-	23637	F	76
1999/10/07 5:40 mw		Moricetown	RD	ST	BR	-	23638	F	64
1999/10/07 8:05 em		Moricetown	RD	ST	BR	-	23631	F	82

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/10/07 9:11 jr		Moricetown	RD	ST	BR	-	23632	F	66
1999/10/08 1:01 em		Moricetown	RD	ST	BR	-	23640	F	59
1999/10/08 1:30 mw		Moricetown	RD	ST	BR	-	23641	M	64
1999/10/08 10:01 em		Moricetown	RD	ST	BR	-	23639	F	63
1999/10/12 12:16 mt		Moricetown	RD	ST	BR	-	23650	F	69
1999/10/13 10:15 em		Moricetown	RD	ST	BR	-	23651	M	78
1999/10/14 1:45 mw		Moricetown	RD	ST	BR	-	23652	M	96
1999/10/18 9:43 mw		Moricetown	RD	ST	BR	-	23653	F	85
1999/10/19 5:25 em		Moricetown	RD	ST	BR	-	23642	F	61
1999/10/19 9:56 bj		Moricetown	RD	ST	BR	-	23654	M	63
1999/10/20 11:48 mw		Moricetown	RD	ST	BR	-	23644	F	79
1999/10/20 12:32 mw		Moricetown	RD	ST	BR	-	23645	F	82
1999/10/20 4:31 em		Moricetown	RD	ST	BR	-	23646	M	78
1999/10/20 9:05 bj		Moricetown	RD	ST	BR	-	23643	F	55
1999/10/21 2:36 em		Moricetown	RD	ST	BR	-	23648	M	84
1999/10/21 4:26 em		Moricetown	RD	ST	BR	-	23649	F	72
1999/10/21 5:40 mt		Moricetown	RD	ST	BR	-	23656	M	80
1999/10/21 5:41 mt		Moricetown	RD	ST	BR	-	23657	F	76
1999/10/21 9:18 bj		Moricetown	RD	ST	BR	-	23647	F	56
1999/10/22 10:22 bj		Moricetown	RD	ST	BR	-	23663	F	63
1999/10/22 10:23 bj		Moricetown	RD	ST	BR	-	23664	F	73
1999/10/22 10:30 bj		Moricetown	RD	ST	BR	-	23665	F	69
1999/10/22 10:44 mw		Moricetown	RD	ST	BR	-	23676	F	71
1999/10/22 11:31 mw		Moricetown	RD	ST	BR	-	23678	F	77
1999/10/22 11:34 bj		Moricetown	RD	ST	BR	-	23666	F	79
1999/10/22 11:35 mw		Moricetown	RD	ST	BR	-	23677	F	69
1999/10/22 11:42 bj		Moricetown	RD	ST	BR	-	23667	F	94
1999/10/22 12:13 bj		Moricetown	RD	ST	BR	-	23668	F	64
1999/10/22 12:31 bj		Moricetown	RD	ST	BR	-	23669	F	61
1999/10/22 12:40 bj		Moricetown	RD	ST	BR	-	23671	F	45
1999/10/22 12:40 bj		Moricetown	RD	ST	BR	-	23670	F	60
1999/10/22 12:41 bj		Moricetown	RD	ST	BR	-	23672	M	71
1999/10/22 12:45 bj		Moricetown	RD	ST	BR	-	23673	M	63
1999/10/22 3:30 mt		Moricetown	RD	ST	BR	-	23674	M	69
1999/10/22 4:26 mt		Moricetown	RD	ST	BR	-	23701	F	84
1999/10/22 5:35 mt		Moricetown	RD	ST	BR	-	23702	F	75
1999/10/22 5:35 em		Moricetown	RD	ST	BR	-	23680	F	79
1999/10/22 5:35 em		Moricetown	RD	ST	BR	-	23679	F	80

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 2. Tagging data for steelhead tagged during dipnetting at Moricetown Canyon.

Date	Who recaptured	tagging location	tagging gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
1999/10/22 5:35 mt		Moricetown	RD	ST	BR	-	23700	U	0
1999/10/22 8:57 bj		Moricetown	RD	ST	BR	-	23658	F	76
1999/10/22 9:13 bj		Moricetown	RD	ST	BR	-	23659	F	82
1999/10/22 9:23 bj		Moricetown	RD	ST	BR	-	23660	F	80
1999/10/22 9:29 bj		Moricetown	RD	ST	BR	-	23661	F	75
1999/10/22 9:48 bj		Moricetown	RD	ST	BR	-	23662	F	75
1999/10/22 9:55 mw		Moricetown	RD	ST	BR	-	23675	F	73
1999/10/25 10:34 bj		Moricetown	RD	ST	BR	-	23681	F	59
1999/10/25 11:11 bj		Moricetown	RD	ST	BR	-	23682	F	81
1999/10/25 3:55 mt		Moricetown	RD	ST	BR	-	23683	M	86

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 3. Data for recaptured steelhead during dipnetting and beach seining.

Appendix 3. Data for recaptured steelhead during dipnetting and beach seining.								
Date	tagging gear	recapture gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
31-Aug-99		RD	ST	BL		21725	M	62
23-Sep-99		RD	ST	BL		6523	M	71
29-Sep-99		RD	ST	BL		6465	M	68
23-Aug-99	RD		ST	BR		21469	F	55
31-Aug-99	RD		ST	BR		21303	U	
31-Aug-99	RD		ST	BR		21445	U	
01-Sep-99	RD		ST	BR		21452	F	54
02-Sep-99	RD		ST	BR		21122	F	60
02-Sep-99	RD		ST	BR		21365	F	83
03-Sep-99		RD	ST	BR		21351	F	56
03-Sep-99	RD	RS	ST	BR		21100	F	76
03-Sep-99	RD	RS	ST	BR		21450	M	75
07-Sep-99	RD	RS	ST	BR		21126	F	69
07-Sep-99	RD	RD	ST	BR		21285	F	76
08-Sep-99	RD	RA	ST	BR		21337	U	
08-Sep-99	RD	RD	ST	BR		21563	M	58
08-Sep-99	RD	RD	ST	BR		21450	F	76
09-Sep-99	RD	RD	ST	BR		21259	F	73
09-Sep-99	RD	RD	ST	BR		23078	F	79
09-Sep-99	RD	RS	ST	BR		21061	F	64
09-Sep-99	RD	RD	ST	BR		21857	F	80
09-Sep-99	RD	RD	ST	BR		21058	F	74
09-Sep-99	RD	RD	ST	BR		21661	F	55
13-Sep-99		RD	ST	BR		21522	F	60
13-Sep-99	RD	RD	ST	BR		21391	F	56
13-Sep-99	RD	RD	ST	BR		21812	F	82
13-Sep-99	RD	RD	ST	BR		21172	F	78
13-Sep-99	RD	RD	ST	BR		23227	F	58
13-Sep-99	RD	RD	ST	BR		23280	F	61
13-Sep-99		RD	ST	BR		23085	F	71
13-Sep-99	RD	RD	ST	BR		23162	F	69
14-Sep-99		RD	ST	BR		23306	F	57
14-Sep-99	RD	RD	ST	BR		21776	F	50
16-Sep-99	RS	RD	ST	BR		20967	F	92
16-Sep-99	RD	RS	ST	BR		21077	F	71

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm

Appendix 3. Data for recaptured steelhead during dipnetting and beach seining.								
Date	tagging gear	recapture gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
17-Sep-99		RS	ST	BR		23219	F	82
17-Sep-99	RD	RD	ST	BR		21420	F	71
17-Sep-99	RD	RS	ST	BR		21880	F	67
17-Sep-99		RS	ST	BR		20972	F	78
20-Sep-99	RD	RD	ST	BR		21528	F	83
20-Sep-99	RD	RS	ST	BR		23467	F	68
20-Sep-99	RS	RS	ST	BR		20112	F	64
22-Sep-99	RD	RS	ST	BR		23407	F	74
23-Sep-99	RD	RS	ST	BR		23467	F	68
24-Sep-99	RD	RD	ST	BR		21006	F	73
30-Sep-99	RD	RD	ST	BR		21635	F	67
01-Oct-99		RS	ST	BR		20939	F	59
04-Oct-99	RS	RS	ST	BR		20044	F	84
04-Oct-99	RD	RD	ST	BR		21061	F	69
04-Oct-99	RD	RS	ST	BR		23605	M	68
06-Oct-99	RD	RD	ST	BR		23600	F	79
07-Oct-99		RD	ST	BR		21947	M	100
08-Oct-99	RD	RS	ST	BR		23608	F	70
08-Oct-99	RS	RS	ST	BR		23627	F	63
08-Oct-99	RS	RD	ST	BR		20048	F	62
12-Oct-99	RD	RS	ST	BR		23150	F	74
13-Oct-99	RD	RS	ST	BR		23650	F	58
18-Oct-99	RS	RS	ST	BR		20112	M	84
18-Oct-99	RS	RS	ST	BR		20108	F	62
19-Oct-99	RD	RS	ST	BR		23172	F	75
20-Oct-99	RD	RS	ST	BR		23619	M	80
21-Oct-99	RS	RS	ST	BR		20129	F	72
22-Oct-99	RS	RD	ST	BR		20101	F	66
22-Oct-99	RS	RD	ST	BR		20084	F	80
22-Oct-99	RD	RS	ST	BR		23677	F	66
22-Oct-99	RS	RD	ST	BR		20973	F	87
22-Oct-99	RS	RD	ST	BR		20182	M	75
22-Oct-99	RS	RD	ST	BR		20112	M	86
22-Oct-99	RS	RD	ST	BR		20050	M	79
27-Oct-99	RS	RS	ST	BR		20139	F	74

Tagging gear: RS = beach seine, RD = dipnet, RA = angling
Sex: F = female, M = male
Fork length are given in cm

Appendix 3. Data for recaptured steelhead during dipnetting and beach seining.

Date	tagging gear	recapture gear	Species	Tag - colour	Tag - letter	Tag - number	Sex	Fork length
29-Oct-99	RS	RS	ST	BR		20938	F	75
24-Aug-99		RS	ST	IO		2010	F	45
29-Sep-99		RD	ST	OR		6964	F	63
10-Sep-99		RD	ST	PI		6725	F	81
10-Sep-99		RD	ST	PI		7444	M	74
13-Sep-99		RD	ST	PI		953	F	74
23-Sep-99		RD	ST	PI		5231	M	84
27-Sep-99		RD	ST	RD		5166	F	89
23-Sep-99		RD	ST	UN		6441	M	70
30-Aug-99		RD	ST	WY		2057	F	85

Tagging gear: RS = beach seine, RD = dipnet, RA = angling

Sex: F = female, M = male

Fork length are given in cm