

ACKNOWLEDGEMENTS

I would like to acknowledge and thank St. Mary's River Association employees Sam Marshall, Emma Wattie, Megan Myers, and Danielle Murray for their field work during this creel survey as they conducted the interviews and entered/compiled the data. Funding was provided by the St. Mary's River Association.

Thank you also is extended to all of the anglers that agreed to participate in this survey. I trust that this report faithfully reflects their opinion, values and wishes.

EXECUTIVE SUMMARY

The St. Mary's River has historically been regarded as a salmon angling destination, famous throughout the Maritimes. However, there has been little information collected on the fishery of the St. Mary's River. The St. Mary's River Association (SMRA) recognizes that there is little contemporary information on the salmon fishery or angling community of this river. Therefore, we undertook during the regular salmon angling season of 2009 a roving creel survey to: (1) Document the existing fishery in terms of spatial and temporal distribution, (2) Describe the fishery in terms of angler demographic, experience and place of origin of its participants, and (3) If possible determine the effort and catch of this fishery.

The fishing season in the St. Mary's was from June 1-July 15, 2009 with the river being open to angling except for the West Branch upstream of the Glenelg bridge. A creel survey was conducted from June 2 to July 15, 2009 with survey effort stratified proportionally for weekday versus weekend, and equal effort applied in each of three sections (Section I: Sherbrooke Bridge to Silver's Pool; Section II: Silver's Pool to Newtown Bridge; Section III Newtown Bridge to Eden Lake). This stratification was preliminary and results from this survey intended to improve stratification in future surveys. Anglers were approached and asked an established series of questions.

During a total of 114 survey-hours, 39 anglers were interviewed. Silver's Pool, the Ford Pool and McKeen's Pool were the areas most frequented by anglers. This finding lends the system well to an access-point survey methodology in coming years. Sections I and II had almost all angling effort; Section III should be excluded from future creel surveys for salmon. Temporal stratification proportional to weekday versus weekend appear appropriate to representatively sample anglers. I could not correlate angler number with water levels as hydrometric data not available for this.

Anglers were all male, older, and, in general, having decades of salmon or trout fishing experience. The majority of anglers interviewed reside outside the St. Mary's River watershed and were pursuing salmon; however, 25% of the anglers were after trout. Trip information (angling day length, number of pools visited, time spent at pools, number of pools yet to visit, total number of pools to fish) was similar or salmon and trout anglers. Catch per Unit Effort was an order-of-magnitude greater for trout anglers over salmon anglers. It was not possible to estimate total angler effort or catch as I had no "instantaneous" counts of anglers on the river.

Anglers were asked for positive and negative attributes of fishing the St. Mary's River. Frequently mentioned positive attributes were: attractive scenery, availability of salmon, etiquette among anglers, access to fishing pools, and general low level of effort. Frequently mentioned negative attributes included shortage of fish, presence of biting insects, short salmon angling season, insufficient services, and distance from anglers home. Overall 82.5% of anglers rated fishing the St. Mary's as an 8 or greater on a scale of 1 to 10.

Concerns expressed by anglers were most frequently about the low abundance of salmon stocks, low water conditions, or a need for salmon stocking. There does not appear to be any identified single issue which the anglers perceive as a crisis.

TABLE OF CONTENTS

| Acknowledgements | i |
|---|----|
| Executive Summary | ii |
| 1.0 Introduction | 1 |
| 2.0 Study Area | 1 |
| 3.0 Methods | 1 |
| 4.0 Results & Discussion | 2 |
| 5.0 Conclusions | 9 |
| 6.0 Recommendations | 9 |
| 7.0 Literature Cited | 10 |
| 1' 1 2000 G 1 G 2 | |
| Appendix 1: 2009 Creel Survey, St. Mary's River | |
| Appendix 2: Comments provided by interviewed anglers | 14 |
| to surveyors during the 2009 Creel Survey, St. Mary's River. | |

LIST OF TABLES

| Table 1: Trip information of 39 anglers interviewed | _ 5 |
|--|------|
| in the St. Mary's River watershed June 2-July 15, 2009. | |
| | |
| <u>LIST OF FIGURES</u> | |
| Figure 1: Spatial (upper panel) and temporal (lower panel) | 3 |
| distribution of 39 angler interviews during 2009 St. Mary's River creel survey. | = |
| Figure 2: Age distribution of 34 anglers interviewed during | 4 |
| 2009 St. Mary's River creel survey. | = |
| Figure 3: Percent of respondents stating positive attributes | 7 |
| (upper panel) and negative attributes (lower panel) to angling on the St. Mary's R | iver |
| during the 2009 St. Mary's River creel survey. | |
| Figure 4: Percent of respondents stating concerns (upper panel) | _ 8 |
| and additional comments (lower panel) to angling on the St. Mary's River during | the |
| 2009 St. Mary's River creel survey. | |

1.0 INTRODUCTION

The St. Mary's River has historically been regarded as a salmon angling destination, famous throughout the Maritimes. However, there has been little information collected on the fishery of the St. Mary's River. One creel survey was conducted in the early 1980s but that data has been lost. Existing surveys for estimates of effort and catch are based on angler-returned cards associated with licences but this information is limited to only catch and effort and suffers from the typical non-response and positive response biases associated with mail out angling surveys.

The St. Mary's River Association (SMRA) recognizes that there is little contemporary information on the salmon fishery or angling community of this river. Therefore, we undertook during the regular salmon angling season of 2009 a roving creel survey to:

- 1. Document the existing fishery in terms of spatial and temporal distribution
- 2. Describe the fishery in terms of angler demographic, experience and place of origin of its participants
- 3. If possible determine the effort and catch of this fishery.

The survey took place soon after a more general public survey of households within the St. Mary's River watershed which assessed angling interest and experience by the public within the watershed (see Murray et al., 2009). The angling population that fishes the St. Mary's River can then be evaluated relative to the characteristics of the residents.

2.0 STUDY AREA

The St. Mary's River drains an area of 1,350 km² and is composed of four principal branches — the Main, West, East and North. The river has long been an Atlantic salmon angling destination. In 2009 only part of the river was opened to salmon angling. The season was from June 1 to July 15 and included the river except for the West Branch upstream of the highway bridge at Glenelg which was closed to angling. All salmon angling was catch-and-release, fly tackle only.

3.0 METHODS

A roving angler creel survey was conducted by SMRA personnel between June 2 and July 15, 2009 throughout the Main and East Branches St. Mary's River and the West Branch upstream to the Glenelg bridge within the areas open to Atlantic salmon angling. Survey effort was distributed by dividing each day into five, 3-hour time periods (0600-0900, 0900-1200, 1200-1500, 1500-1800, 1800-2100) and randomly selecting one time block (or a zero block if sampling not to take place that day) per day for each day of the survey period. Due to lack of previous data on distribution of angler effort through a week on which to stratify, the distribution of survey effort through the week was targeted to be proportional to weekdays and weekends (i.e., 70% of effort during weekdays; 30% during weekend days). This 2009 survey was intended to provide information to better stratify in future years.

Spatially effort was distributed by dividing the study area into three approximately equal length sections (Section I: Sherbrooke Bridge to Silver's Pool (river length17.25 km); Section II: Silver's Pool to Newtown Bridge (17.5 km); Section III Newtown Bridge to Eden Lake (17.5 km)). Due to lack of previous data on distribution of angler effort through the area on which to stratify, each section received equal effort. That is, each was randomly selected for each day with a probability of 0.333. This resulted in more effort in upper reaches than required, and possibly undersampling lower reaches (anecdotally thought to be more heavily fished). Again, this is a preliminary survey to provide information to allow us to stratify more accurately in the future.

Anglers were approached and asked if they would participate in the survey. If they assented, the angler was asked a series of questions (see Appendix 1).

4.0 RESULTS & DISCUSSION

In the 44 days between June 2 and July 15, 38 three-hour surveys were conducted throughout the Main Branch and East Branch St. Mary's River (total survey effort 114 hours); 9 surveys were conducted in Section I, 13 in Section II, and 16 in Section III. In this time 39 anglers were interviewed (i.e., 0.34 interviews/survey hour), of which 5 were repeat interviews (interviewing the same angler more than once) and these 5 have been excluded from much of the following analysis to avoid biasing results by multiple interviews with one individual. Silver's and the Ford Pools accounted for 33% and 31% of the interviews respectively, and McKeens Pool for 26% (Figure 1). Three other areas (Glenelg bridge, Archibald's Brook confluence, Eden Lake) each accounted for 5% or less of the interviews. This predominance of anglers at a few locations would lend itself in future to include access-point surveys at these thee pools in addition to a roving survey (see Recommendation #1). In terms of interviews per survey effort, Section II had the greatest success (0.64 interviews/survey hour), followed by Section I (0.48 interviews/survey hour), and distantly by Section III (0.021 interviews/survey hour). In future, Section III may be excluded allowing more focussed effort on Sections I and II (see Recommendation #2). Over time, 23% of the interviews took place on a single day (July 2). The only other days which accounted for two or more interviews (i.e., >5% of total interviews) were June 6, 11, 14, 19, 23, 24, 26, 30 and July 3 (Figure 1). All other days were represented by zero (28 days) or one interview (5 days). Only 12.8% of interviews were conducted on week-ends, the rest were during weekdays. From this, it is recommended that, as an order-of-magnitude estimate, distributing survey effort proportional to weekend versus weekday is an appropriate approximation until demonstrated otherwise using larger sample sizes (see *Recommendation #3*).

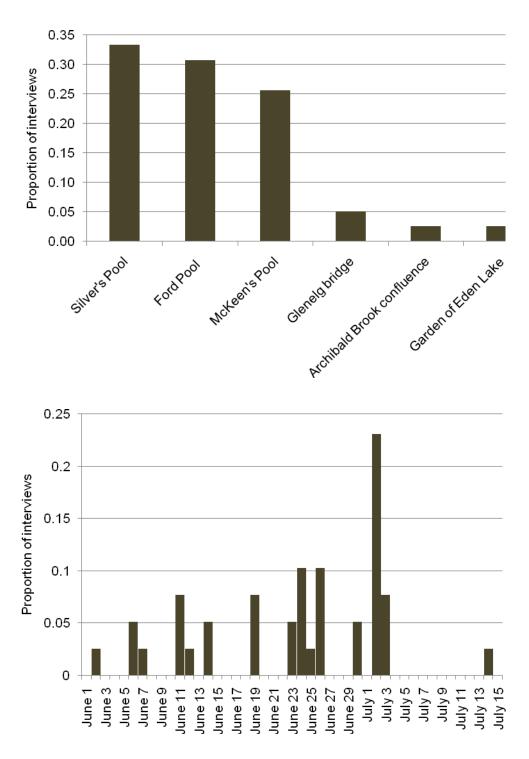


Figure 1: Spatial (upper panel) and temporal (lower panel) distribution of 39 angler interviews during 2009 St. Mary's River creel survey.

4

Angler effort depends to an extent upon river (hydrological) flow conditions. Water level is monitored by Water Survey of Canada at the Stillwater station¹. Unfortunately, for much of the period of interest here, the station was not operating (i.e., for 15 of the 45 days). Therefore, it is not possible to correlate angler effort with river discharge which would have been a valuable analysis to inform future survey design (i.e., at what river height, low flow and high flow, angling is not effective and so little value in surveying) (see *Recommendation #4*).

Of the 34 interviews retained representing individual anglers, all anglers were male. The angling population is an older one with 61.7% of the anglers between 50 and 70 years of age, and the youngest more than 30 years old (Figure 2). The angling population is experienced with a mean number of years spent angling salmon of 32.33 years (SD=17.8; N=33 interviews; range 0-65 years) and mean number of years spent angling trout of 39.06 years (SD=17.9; N=33 interviews; range 1-65 years). The mean number of days spent angling salmon per year in the last 5 years, as estimated by the anglers, was 25.1 days (SD=20.3; N=31 interviews; range 0-100 days) and 24.8 days spent angling trout (SD=27.4; N=32 interviews; range 0-100 days). Of 31 interviews (3 removed due to lack of, or incorrect recording of, postal code) 42% of anglers were from Halifax Co., 16% from Guysborough Co., 13% from Pictou Co., and 10% from Colchester Co. The remaining 19% were from Hants, Antigonish, Lunenberg, Cumberland, and Kings Counties. A large proportion of the angling community appears to come from outside the watershed.

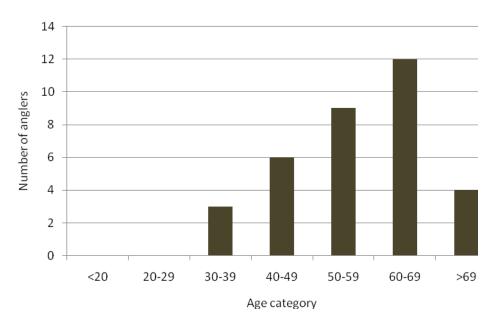


Figure 2: Age distribution of 34 anglers interviewed during 2009 St. Mary's River creel survey. Note, five interviews excluded as repeat interviews with same individual.

¹ Station identifier 01EO001, located at 45° 10' 27" N, 61° 58' 47" W, in operation 1915 to present.

.

5

The predominance of salmon anglers from outside the St. Mary's River watershed allows for an interesting comparison with reported salmon angling by residents. The latter information comes from a public survey of watershed residents on a range of topics conducted by the SMRA in March 2009 (Murray et al., 2009). The public survey indicated that 38.6% of residents that angle salmon had done so for less than 30 years and 54.1% less than 40 years². This appears similar to the creel survey. When asked how many days, on average, the respondent had fished salmon in the last 5 years, 44.4% of residents reported not fishing for salmon in the last 5 years. Of the residents that reported fishing salmon at all, 29.6% fished less than 20 days in a year and 40.7% less than 30 days. There is some indication from these results that most anglers come from outside the watershed and fish more extensively there than residents do (i.e., the visitors are committed and experienced anglers).

In terms of target species, of the 39 anglers interviewed 71.9% were pursuing salmon, 25.6% were after trout, and 2.5% after both. The length of angling day was equal between the two groups of anglers and was almost 6 hours of fishing per day (Table 1). The two groups intend to fish an equivalent number of pools during a trip but the salmon angler, on average, spends less time at each pool than the trout angler. Catch and Catch per Unit Effort (CPUE) were low for the salmon angler (0.04 salmon/hour) in 2009, and much higher (3 trout/hour) for the trout angler. While fishing for salmon, the catch of trout remained low (9 trout reported captured for a CPUE of trout by salmon anglers of 0.2 trout/hour).

Table 1: Trip information of 39 anglers interviewed in the St. Mary's River watershed June 2-July 15, 2009. One angler excluded (giving a total of 38) as he was after both salmon and trout. Notation is mean (SD); number of respondents.

| | Salmon anglers | Trout anglers |
|---------------------------------------|----------------|----------------|
| | | |
| Angling day length (hours) | 5.9 (3.1); 25 | 5.8 (3.1); 10 |
| Number pools visited | 2.1 (1.4); 28 | 1.5 (0.5); 10 |
| Time spent at pools visited (hours) | 1.1 (0.9); 28 | 2.4 (1.3); 10 |
| Number of pools to yet visit | 1.1 (1.4); 28 | 3.1 (2.37); 10 |
| Total number of pools to fish on trip | 3.2 (1.8); 28 | 4.6 (2.6); 10 |
| Catch (per angler) | | |
| Salmon | 0.04 (0.2); 28 | 0 |
| Trout | 0.3 (0.6); 28 | 2.2 (3.2); 10 |
| CPUE (fish/hour) | | |
| Salmon | 0.04 (0.2); 28 | 0 |
| Trout | 0.2 (0.7); 28 | 3.0 (4.2); 10 |
| | | |

² The manner in which the question was phrased and answered differed between the two surveys (public versus creel) making straightforward comparison impractical. The public survey asked for a range of years that an individual had been fishing; the creel survey asked explicitly how many years spent angling.

6

From the small sample size of interviews it is not possible to estimate a reliable statistic of total effort by all anglers over the six week period, nor of total catch. To do so will require instantaneous counts of all anglers on the river at selected periods of time (see *Recommendation* #5) and should be done in the future.

In evaluating the angler perception of fishing the St. Mary's River, 85.2% rated it as 8 or greater on a scale of 1 to 10^3 . One person ranked it 2.5, two as 6 and one at 7.5. Frequently mentioned positive attributes to angling the St. Mary's River included the attractive scenery, availability of salmon, etiquette among anglers, access to fishing pools, and the general low effort expended on the river (Figure 3; comments are compiled and presented in Appendix 2). Together comments in these five categories accounted for 77.8% of all positive comments. Negative attributes included shortage of fish, presence of biting insects, short salmon angling season, insufficient services, and distance from the anglers home (Figure 3). Factors affecting angler enjoyment (e.g., crowding, unethical anglers, poaching) were infrequently identified as being an issue on this river. A sizeable percentage of anglers (15%) had no negative comments at all.

Concerns expressed by greater than 5% of the anglers included low salmon stocks, low water conditions, and the need for stocking salmon (Figure 4). Fifteen other topics were raised as concerns but only infrequently. There were very few additional comments provided by anglers, almost one-half of interviewed anglers had no other comments while the remaining half had their comments spread over a wide range of topics (Figure 4). There does not appear to be any identified single issue which the anglers perceive as crisis, with the exception of the expected identification of low salmon stocks.

Thirteen of 34 (38.2%) of interviewed anglers indicated affiliation with conservation organizations, with the main organizations being the St. Mary's River Association (12 people), Atlantic Salmon Federation (11 people), and Nova Scotia Salmon Association (6 people). A smaller number (3 or less individuals) indicated affiliation with one or more of Margaree Salmon Association, Sackville Rivers Association, Musquodobit River Association, LaHave River Association, Trout Nova Scotia, Antigonish Town and County Anglers Association, and Ducks Unlimited. Twenty three of these 34 (67.6%) indicated that they were familiar with the activities of the St. Mary's River Association, 2 said they were not familiar. Nine of the 34 respondents (26.5%) were either past or present members of the SMRA.

³ The question asked "On a scale of 1 to 10, with 10 being excellent and 1 being "I will never come back here" how would you rate your experience angling on the St. Mary's River?"

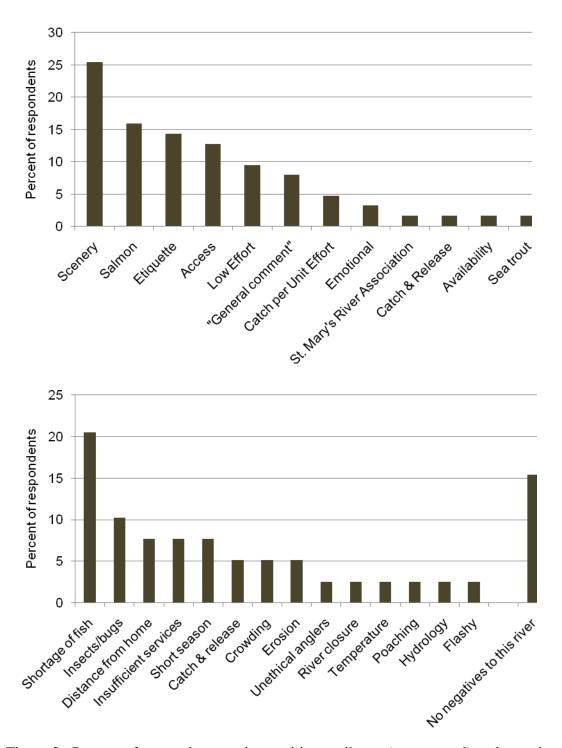


Figure 3: Percent of respondents stating positive attributes (upper panel) and negative attributes (lower panel) to angling on the St. Mary's River during the 2009 St. Mary's River creel survey. Number of positive comments was 34 (covering 63 points as multiple attributes mentioned per comment), number of negative comments was 34 (covering 39 points as multiple attributes mentioned per comment). These multiple points have been combined into the general categories displayed in the figure. See Appendix 2 for specific comments.

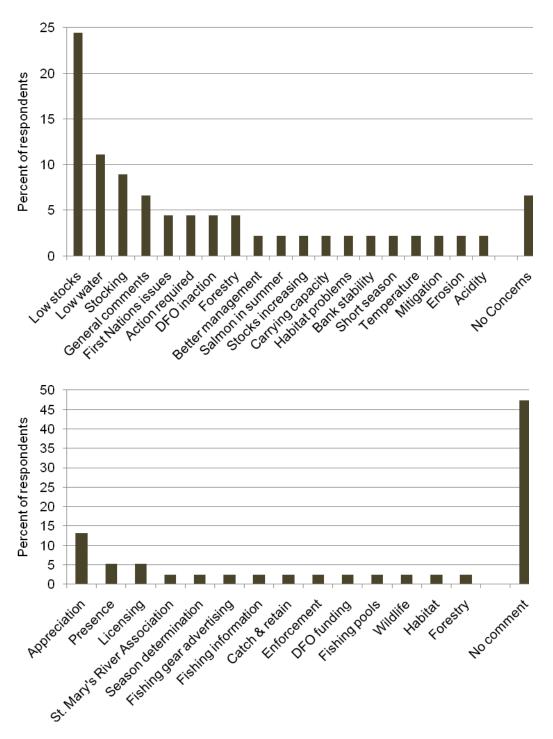


Figure 4: Percent of respondents stating concerns (upper panel) and additional comments (lower panel) to angling on the St. Mary's River during the 2009 St. Mary's River creel survey. Number of respondents with concerns was 35 (covering 45 points as multiple attributes mentioned per comment), number of additional comments was 38. These multiple points have been combined into the general categories displayed in the figure.

5.0 CONCLUSIONS

The 2009 creel survey was successful as the first step in a program of gaining an understanding of the fishery within the St. Mary's River. It identified areas on which to focus efforts in the future (e.g., access-point survey at pools; restrict survey to Sections I and II). It indicated that much of the fishery is prosecuted by people residing outside of the watershed and the angling population is an older, male, very experienced group. Anglers spend, on average, 6 hours fishing per trip and visit 3 pools. Catch per Unit Effort is low, but the positive attributes associated with fishing the St. Mary's River (e.g., scenery, etiquette, access) appears to balance this as the overall perception of the experience ranks quite high for most anglers. There does not appear to be a single issue or group of issues that anglers consistently identify as problematic on the St. Mary's River apart from the expected identification of low salmon stocks.

Building on what was learned in this first creel survey, it is recommended that similar surveys be conducted in 2011, 2013, 2015 and then every 5 years after that (*Recommendation #6*).

6.0 RECOMMENDATIONS

The following recommendations are presented not in order of priority, but rather order of appearance in the text.

- (#1) Given that Silver's Pool, the Ford Pool, and McKeen's Pool were identified as having the majority of interviews, these pools should be subject to access-point surveys in the future. Access-point surveys allow the interviewing of an angler at the end of his "trip" so complete trip information is collected rather than estimates and projections if the angler is encountered midway through his trip. Access-point surveys further allow the objective measurement of time spent fishing a pool rather than relying on the subjective memory of the angler.
- (2) It is apparent from this survey that Section III (Newtown bridge to Eden Lake) is not used by salmon anglers. Future surveys should exclude this section while keeping survey effort the same or greater than that reported here this would allow greater coverage of Sections I and II.
- (3) The initial temporal stratification of survey effort as 70% weekdays and 30% weekend does not appear to grossly misrepresent angler effort. Based on this survey this could be changed to 80% weekdays and 20% weekends, but it would seem reasonable to wait for a future survey to confirm these estimates before changing temporal survey effort.
- (4) In 2009 it was not possible to correlate angler interviews with river height (as a measure of "fishability" of water). Future surveys should conduct this analysis using the WSC data online (http://scitech.pyr.ec.gc.ca/waterweb/fullgraph.asp). Understanding how angler effort changes with streamflow will allow maximizing survey effort by reducing it under conditions of high or low water when zero to few anglers are fishing.

- (5) In order to estimate total angler effort or total salmon catch, it is necessary to have estimates of the total number of anglers on the river at a given time. It is recommended that in future surveys "instantaneous" surveys counting all anglers fishing the river be conducted a minimum of twice a week. By combining these "instantaneous" total angler counts with the detailed effort and catch from the roving and access-point surveys, it is possible to determine reliable estimates of effort and catch.
- (6) Future creel surveys, incorporating the above recommendations, should be conducted every second year for the next 6 years (2011, 2013, 2015) creating a series of four biannual surveys, and these followed, starting in 2015, with creel surveys every 5 years. By conducting 5 year creel surveys starting in 2015 they will be aligned with the 5 year nationwide sportfishing creel surveys which have been conducted since 1975.

In addition to these specific recommendation, the following recommendations were suggested by the field surveyors.

- (7) Hand out newsletters or information pamphlets.
- (8) Create some way to avoid having repeat interviewees restate their angler information and perceptions while maintaining confidentiality.
- (9) Provide surveyors with copies of the fishing regulations and restrictions for the river; several anglers inquired about specific rules.
- (10) One person can easily do the survey, but two people are good for companionship on slow days or extra hands for writing on very busy days.

7.0 LITERATURE CITED

Murray, D., M. Myers, P. Dowd, D. Pulsifer, and S. Mitchell. 2009. 2009 Social-Economic survey of the St. Mary's River watershed, Guysborough County, Nova Scotia. St. Mary's River Association Technical Report #005.

APPENDIX 1

2009 Creel Survey, St. Mary's River June 1-July 15, 2009

The following survey is to collect information on angler use and satisfaction of the fishery of the St. Mary's River. The survey is by the St. Mary's River Association and information gathered will be publicly available to interested persons, upon compilation and analyses. Results are confidential as we do not ask your name, address or other identifying questions.

| identif | ying questions. |
|---------|---|
| 1. | Are you willing to be interviewed as part of this survey? (Y / N) |
| 2. | Have you been interviewed previously this year? (i.e., since June 1, 2009). ($Y \ / \ N$) |
| ANGL | ER INFORMATION |
| 3. | Sex: M F |
| 4. | Which age class do you fall into? <20 yrs (); 20-29 yrs (); 30-39 yrs (); 40-49 yrs (); 50-59 yrs (); 60-69 yrs (); > 69 yrs (). |
| 5. | Where are you from (postal code): |
| 6. | How many years have you spent fishing: Salmon: Trout: |
| 7. | On average, in the last five years, how many days in a year did you fish for: Salmon: Trout: |
| TRIP | INFORMATION |
| 8. | What time did you leave home for today's trip (to nearest 15 minutes or half-hour)? Time of departure: |
| 9. | How much time since you left home would you estimate was: time with line in the water? time spent travelling and preparing to fish? |
| 10 | How much longer, from this time, do you intend to fish on this trip? (ROVING ONLY) Time remaining planning to fish: |
| 11 | . How many pools: have you visited on this trip? do you plan to visit between now and the end of today's trip? . |
| 12 | . What species are you after? Salmon () Trout () |

| 13. What type of | gear are you using (trout fishing only)? |
|--------------------|--|
| Salm | h have you caught to this point of your trip? on: t: |
| 1104 | " |
| | IONS 1 to 10, with 10 being excellent and 1 being "I will never come back here", how would you briences angling on the St. Mary's River? (please circle) |
| | 1 2 3 4 5 6 7 8 9 10 |
| 16. What are the a | attributes of the St. Mary's River that you like and enjoy with respect to angling? |
| | |
| | |
| | |
| 17. What are the a | attributes of the St. Mary's River that you dislike and don't enjoy with respect to angling? |
| | |
| | |
| | |
| | concerns about the state of the St. Mary's River and the salmon within it? what are these concerns? |
| | |
| | |
| | |
| | ated with any conservation organizations (e.g., Nova Scotia, Salmon Association; Atlantic ation; Trout Nova Scotia, etc.). If so, which ones? |
| | |
| 20. Are you famil | iar with the St. Mary's River Association and it's activities? |
| | |
| 21. Do you have a | any comments that you would like to pass on to the St. Mary's River Association? |
| | |
| | |
| | |

| Thank you for your time. | |
|--------------------------|---------|
| DATE: | . TIME: |
| LOCATION: | |
| WEATHER: | |
| RIVER HEIGHT/CONDITION: | |

APPENDIX 2

Comments Provided by Interviewed Anglers to Surveyors During the 2009 Creel Survey, St. Mary's River: June 2-July 15, 2009

From Questions 16, 17, 18, and 21 of Creel Survey

Positive Attributes (Question 16)

- 1. Unspoiled, quite pristine in comparison to other NS rivers
- 2. The way it is.
- 3. Summer salmon, beautiful, not very busy, close to home
- 4. SMRA
- 5. Scenic river, appreciation of fish
- 6. Scenery, memories
- 7. Scenery, good pools, nice guys, good social
- 8. Scenery, close to cabin
- 9. Scenery, cinnamon buns in Thorburn
- 10. Scenery
- 11. Pools easily road accessible, sea trout quick to replenish
- 12. Peaceful, nice place to fish
- 13. Peaceful
- 14. Not many anglers
- 15. Nice river, salmon, large river
- 16. Nice
- 17. Natural beauty, quiet, personal memories hopefully will produce more, emotional connection
- 18. Lots of pools, not too busy
- 19. Like the river
- 20. Good wading river, fish take well
- 21. Good salmon river, catch and release, not too busy
- 22. Fresh air
- 23. Fishing, people
- 24. Fish
- 25. Enjoy fish and water, easy accessibility,
- 26. Easy access, well marked, can fish any time
- 27. Easy access to pools, usually fish, good etiquette, not too busy
- 28. Easy access to pools, usually fish, good etiquette, not too busy
- 29. Beautiful, nice people
- 30. Beautiful, chance to catch salmon
- 31. Beautiful river, nice pools, fairly easy access
- 32. Beautiful river, friendly people (compared to Liscomb)

- 33. Beautiful
- 34. Amount of fish, peace, scenery, company, enjoy fishing
- 35. Accessibility

Negative Attributes (Question 17)

- 1. Anglers would prevent poachers
- 2. Bank erosion (there and upriver), clearcutting
- 3. Bank erosion (there and upriver), clearcutting
- 4. Bugs
- 5. Can't keep any
- 6. Catch and release
- 7. Declining stocks
- 8. Flies
- 9. Flies
- 10. Flies
- 11. Less fishermen, busy
- 12. Low fish stocks
- 13. Low numbers of fish, shortage on services
- 14. Low stocks
- 15. Low stocks
- 16. Low stocks
- 17. Low water levels, short season
- 18. More facilities?
- 19. None
- 20. None
- 21. None
- 22. None
- 23. None
- 24. None
- 25. Premise of fishing for trout.
- 26. Quick water level rise and fall after rain, very dirty after rain
- 27. River-side campsites, outhouses/firepits
- 28. Season closes too early
- 29. Season too short
- 30. Shortage of gasperaux and fish in general
- 31. Too busy
- 32. Too far from home.
- 33. Too far from home. Whole river should be open for catch + release
- 34. Too far to travel, low stocks
- 35. Un-ethical fishermen, fishing for salmon out of season under the
- 36. Warms early

Concerns (Question 18)

- 1. Acidity of West Branch, should lime
- 2. Effects of forestry practices, should do environmental assessment before going forward with any developments
- 3. Erosion below McKeen's Pool
- 4. Indian food fishery shouldn't be taking fish
- 5. Lack of DFO presences + funding
- 6. Limited knowledge of river
- 7. Low numbers
- 8. Low stocks
- 9. Low stocks
- 10. Low stocks
- 11. Low stocks
- 12. Low stocks, may be up a bit, water levels don't stay up
- 13. Low stocks, this year in particular
- 14. Low stocks, unknown reasons for decline
- 15. Low water levels, doing more to improve fishery, lack of stocking is it suitable?
- 16. Low water levels, doing more to improve fishery, lack of stocking is it suitable?
- 17. Natives retaining net rights, catch more fish in day than anglers all year, siltation, NGO's/volunteers doing work not DFO
- 18. Need bank stabilization program
- 19. Need more landuse control, less clearcutting
- 20. Need proper mangement, but doing a good job
- 21. No
- 22. None
- 23. None
- 24. Not familiar with river system
- 25. Population seems to be increasing
- 26. Quite concerned, low stocks, needs habitat work
- 27. River will only hold so many fish, carrying capacity
- 28. Salmon only come up June/July
- 29. Season seems short, should be later?
- 30. Should be more mitigation on the river, restocking etc.
- 31. Should stock river, not eggs but young fish
- 32. Stocks must be increased, high water temps
- 33. Sustain water level after rains
- 34. Water levels low
- 35. Would like more fish
- 36. Yes, need recovery plan

Additional Comments (Question 21)

- 1. 2 tier licence system? catch and release cheaper than catch and keep
- 2. Catch and release licence should be more accessible, should allow trout fishermen to release salmon caught accidently without penalty
- 3. DFO should be putting more funding into Atlantic stocks
- 4. Doing a good job.
- 5. Favorite pools: Harrisons, Silvers, Bungalow, the Bor, below Mitchell's
- 6. For sale section (newsletter, website, bulletin board)
- 7. Good to see people out
- 8. Harrison's eroding on far side, below Mitchell's eroding bank, run above Mitchell's great holding place for grilse
- 9. Haven't seen newsletter in some years
- 10. Hire summer students to monitor activities at pools
- 11. Keep up good work
- 12. Keep up the good work
- 13. More enforcement against off-season angling
- 14. Need better forestry practice
- 15. Nice to know research is being done
- 16. No
- 17. None
- 18. None
- 19. None
- 20. None
- 21. None
- 22. None
- 23. None
- 24. None
- 25. None
- 26. None
- 27. None
- 28. None
- 29. None
- 30. None
- 31. None
- 32. None
- 33. None
- 34. Season should be based on water temperatures (as long as not lethal to catch)
- 35. Should be able to keep fish
- 36. Thanks to NGO's and volunteers
- 37. Turtle at McKeen's Beach, bottom of Mitchell's pool good for turtles
- 38. Would like more fishing conditions information available at the museum on a daily basis