RURAL ECONOMY

Household and Moose Hunting Survey Results for Newfoundland

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Project Report 93-05

Project Report



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1.0 Introduction

Forests supply a diverse combination of market and nonmarket goods creating a complex management problem for the utilization of the forest resource. The values associated with conventional forest products, such as lumber and pulp and paper, pass directly through the market system. On the other hand, there are many benefits derived from nontimber resources that do not pass through the market system that are more difficult to measure, such as the value of a day spent hunting, fishing, or birdwatching. It is becoming increasingly important to identify these nonmarket benefits due to the increased pressures on our natural resources, the increased demand for nontimber resources, and society's strong desire to preserve our natural heritage for future generations.

Forest land managers on Crown lands are faced with managing forests not only for the timber and the wood products produced from it, but also for other uses such as wildlife and recreation. Managing the forest for multiple use is an enormous challenge and the key to success is the recognition of the interdependencies between uneven aged timber stands, wildlife habitat, watershed maintenance and forest recreation. The difficulty lies in the selection of the optimal management program so as to best provide the combined social net benefits from timber and other multiple use services where the optimal forest management program will depend on the relative values of wood production and nontimber resources.

A major constraint to integrated resource management in Newfoundland is inadequate information on forest land values apart from commercial timber. In Newfoundland, fish and wildlife living in forest habitats are important social benefits strongly linked to rural life throughout the province. Although some biophysical data exists, no research has been done to estimate the corresponding economic values. The objective of the project through personal interviews, a household survey and a moose hunting survey was to estimate some of the economic values associated with the nontimber resources in Newfoundland. As well as collecting data for travel cost analysis and contingent valuation analysis, the surveys also collected information on respondent's perception of the quality of the forest resource, the socioeconomic profiles of the respondents, and various other factors. The objective of this paper is to summarize the descriptives of the surveys, the survey design and the socioeconomic profile of the respondents. Chapter 2 reviews the survey design. Chapter 3 summarizes the results of the household survey and Chapter 4 summarizes the results of the moose hunting survey. The results of the personal interview survey are presented in Appendix A. For the exact wording of the surveys, refer to Appendix B.

2.0 Personal Interview, Household and Hunter Survey Design

Data were collected for this study through personal interviews, a mail out household survey and a mail out moose hunting survey. In total, 232 personal interviews were conducted across the island of Newfoundland during July and August in gravel pit camping areas, private parks, national parks and preselected provincial parks. The personal interviews served as a useful pretest to the household survey and were useful in reducing sample bias. The response rate of the personal interviews was 100%. The pretest was also used to determine a range of values for the dichotomous contingent valuation questions by asking individuals open-ended questions on their maximum WTP for an environmental quality change. Both nonresidents and residents were interviewed; however, only 18% of those surveyed were nonresidents.

The household survey was mailed to 2,859 randomly selected households on the island of Newfoundland during the first week of September following the end of the summer recreation season. The survey package included a questionnaire, a postage paid return envelope, cover letter explaining the importance of the survey, and an entry form for a prize draw. A second mailing was done 3 weeks later. 149 questionnaires were undeliverable, reducing the sample size to 2,710 households. Of these, 1,395 households responded giving an overall response rate of 51.48%.

The moose hunting survey was sent out to 1,506 randomly selected moose hunters on the island of Newfoundland. The 1,506 moose hunters were randomly selected from the population of individuals who obtained licences for the 1992 season. The survey was sent out the first week in January, with a second mailing during the third week of January. The survey package for the moose hunting survey included a questionnaire, a postage paid return envelope, cover letter

explaining the importance of the survey, and an entry form for a prize draw. 11 questionnaires were undeliverable reducing the sample size to 1495. Of these, 1255 moose hunters responded, giving an overall response rate of 83.95%.

3.0 Household Survey Results

This section provides an overview of the results of the household survey. The results of the personal interview survey are in Appendix A. For the exact wording of the questions, refer to Appendix B. The results are presented in the order the questions appear on the survey.

Section I of the survey dealt with factors that influenced the quality of the recreation trip. Using a 5 point Likert scale, respondents were asked how enjoyable they felt travel time was on a typical recreation trip where 1 was "not enjoyable" and 5 was "very enjoyable". Most respondents felt travel time was moderately to extremely enjoyable with a mean value of 3.97. Again, using a 5 point scale, where 1 was "not important" and 5 was "very important", respondents were asked what the most important factors were when deciding to go on an outdoor recreation trip (Table 3-1). The most important factors, when excluding the "other" category, were opportunities to view wildlife (4.14), opportunities to fish (3.90), opportunities to take part in activities with friends or family (3.85), and naturalness of the area or lack of development (3.84). The mean value for the "other" category (4.63) is high as generally respondents answered this category only if they felt strongly about a given factor.

| Factors | Mean |
|----------------------------------------------------------------|------|
| Naturalness/lack of development | 3.84 |
| Privacy from other recreationists | 3.55 |
| Familiarity with the area | 3.09 |
| Availability of nearby camping areas | 2.73 |
| Distance from home | 2.73 |
| Opportunity to take part in activities with family and friends | 3.85 |
| Opportunity to view wildlife | 4.14 |
| Opportunity to fish | 3.90 |
| Other* | 4.63 |

Table 3-1 Factors respondents feel are important when deciding to go on an outdoor recreation trip

Availability of services and gas, quiet serene environment, just a day in the country, * waterfront areas, sanitation dump and easy access to good water supply, view country, wild berry picking, more government control (wardens for rivers), boating, chemical free (no sprays), availability of dumping stations as trailers are being dumped everywhere, enjoy the great outdoors, to be able to learn about wildlife, cleanliness of sites and available public facilities, no garbage, NF history, opportunity to use ATV, break from city routine, hiking trails and nature sites, whale watching, no all terrain vehicles, good walking trails away from hunters, privacy, unpolluted, facilities (convenience, small store, bathroom, cleanliness), provisions for cooking such as cook shelters, utility such as electricity, security or recreation areas, entertainment, just being in the country, lack of garbage, quietness, services for the camping public but not over developed i.e. Gros Morne West. Brook Boat Tour, good roads to recreation areas, clean toilets in park areas, toilets away from picnic areas, photography, wildlife parks, daily facilities like picnic tables and outdoor toilets, cleanliness of sites and available public facilities, being around wildlife without alot of people around, toilet facilities, recreation facilities, security arrangements, grocery facilities.

Respondents were then asked if they contributed any time and/or money to a wildlife or environmental organization in 1992 (Table 3-2). 10.6% of the respondents contributed time and/or money. The mean dollar amount of those that donated was \$78.50 and the mean number of hours volunteered was 40.70.

| Response | Freq. | % |
|----------------|-------|-------|
| Yes | 143 | 10.6 |
| No | 1135 | 84.3 |
| Missing values | 64 | 5.1 |
| Total | 1342 | 100.0 |

 Table 3-2
 Contribution of money or time to a wildlife or environmental organization by respondents

The next question in the survey asked how respondents would allocate \$100 (that would be given to them) among various wildlife species. All the money had to be spent but they did not have to contribute to all categories (Table 3-3). The categories where individuals donated the most money, excluding the "other" category, was to threatened and endangered species (\$25.13), large mammals (\$18.21) and waterfowl (\$13.61).

| Wildlife Species | Mean (\$) |
|--------------------------------------------------------|-----------|
| Large mammals (moose, caribou, bear) | 18.21 |
| Furbearers (fox,lynx,mink,etc.) | 7.33 |
| Songbirds (robins, finches, warblers, etc.) | 11.48 |
| Gamebirds (grouse, ptarmigan) | 10.91 |
| Waterfowl (geese, ducks) | 13.61 |
| Seabirds (puffins, murres) | 11.04 |
| Threatened or endangered (pine marten, harlequin duck) | 25.13 |
| Other | 2.16 |
| -Birds of prey (eagles, hawks) | |
| -Fish (cod,salmon,caplin) | |
| -Sea mammals (whales, seals) | |
| -Rabbits | |
| -Scavenger birds (gulls, crows) | |

 Table 3-3
 Allocation of \$100 for the preservation of wildlife species

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Respondents were then asked how they would prefer funds to be raised for improving recreational opportunities and habitat enhancement for wildlife (Table 3-4a). Respondents could choose more than one policy, however, if they chose more than one, they were asked to choose the one policy they felt would be the most effective (Table 3-4b). The most common chosen policies were lottery funds (17.24%), donations (17.24%), and the sale of wildlife stamps and/or memberships (16.17%). The policy that was chosen the least was higher personal income taxes (0.98%).

| Policies Chosen | Freq. | % |
|---------------------------------|-------|-------|
| Higher Personal Income Taxes | 45 | 0.98 |
| Increase Fishing/Hunting Fees | 683 | 14.95 |
| Lottery Funds | 788 | 17.24 |
| Tax on Outdoor Recreation Goods | 208 | 4.55 |
| Tourist Tax | 227 | 4.97 |
| Donations | 788 | 17.24 |
| Sale of Wildlife Stamps and/or | | |
| Memberships | 739 | 16.17 |
| Sale of Provincial Fish and | | |
| Wildlife Magazines | 707 | 15.47 |
| Corporate Tax | 299 | 6.54 |
| Other* | 86 | 1.88 |

Table 3-4a Policies chosen by respondents to improve recreation opportunities and habitat enhancement for wildlife

* fish farms, better utilization of tax dollars, wildlife surcharge on whale watching, higher fines for wildlife offences, issue trout licences, impose fees on day users of provincial parks, toll fees for highway use, form provincial wildlife foundation, increase government funding, increase non-resident hunting/fishing fees, work programs for social assistance recipients, eliminate gravel pit camping, tax ATV's When respondents were constrained to choose only one policy they felt would be the most effective, 35.56% chose lottery funds and 22.05% chose increased hunting and fishing fees. Only 1.86% of the respondents felt higher personal income taxes were the most effective policy.

| Policies | Freq. | % |
|---------------------------------|-------|-------|
| Higher personal income taxes | 25 | 1.86 |
| Increase hunting/fishing fees | 297 | 22.05 |
| Lottery funds | 479 | 35.56 |
| Tax on outdoor recreation goods | 33 | 2.45 |
| Tourist tax | 44 | 3.27 |
| Donations | 103 | 7.65 |
| Sale of wildlife stamps and/or | | |
| memberships | 72 | 5.35 |
| Sale of provincial fish and | | |
| wildlife magazines | 58 | 4.31 |
| Corporate tax | 53 | 3.93 |
| Other | 48 | 3.56 |
| Missing values | 135 | 10.02 |
| Total | 1347 | 100.0 |

 Table 3-4b
 The one policy chosen by the respondent to be the most effective

3.1 Socioeconomic Characteristics

The next section is an overview of the socioeconomic characteristics of the individuals that responded to the household survey. There are some notable statistics; 72.77% of those that filled out the survey were male, 34.15% were between the ages of 40-49, 81.92% of the respondents have lived all their lives in Newfoundland, 50.82% of the respondents lived in rural areas in their youth, and 64.81% of the respondents currently live in areas with a population less than 5000.

| Characteristic | Freq. | % |
|--------------------------|-------|--------|
| a) Sex: | | Angula |
| Female | 342 | 25.4 |
| Male | 978 | 72.7 |
| Missing values | 24 | 1.79 |
| b) Age: | | |
| 18 - 25 | 72 | 5.30 |
| 26 - 39 | 398 | 29.63 |
| 40 - 49 | 459 | 34.15 |
| 50 - 64 | 274 | 20.39 |
| 65 and over | 117 | 8.71 |
| Missing values | 24 | 1.79 |
|) Number of years living | | |
| in Newfoundland | | |
| All my life | 1101 | 81.92 |
| 0 - 5 years | 12 | 0.89 |
| 6 - 10 years | 11 | 0.82 |
| 11 - 20 years | 47 | 3.50 |
| 21 - 40 years | 139 | 10.34 |
| Other | 12 | 0.89 |
| Missing values | 22 | 1.64 |

 Table 3-5
 Summary of personal statistics

Table 3-6 Household occupancy

| Characteristic | Freq. | Mean |
|-----------------------------------------|-------|------|
| a) Number of people living in household | 1324 | 3.46 |
| b) Number of children under the age of | | |
| 16 living in household | 1311 | 0.79 |

Table 3-7 Summary of population statistics

| Characteristic | Freq. | % |
|---------------------------------------------------|-------|-------|
| a) Population where respondent spent | | |
| majority of youth | | |
| Rural area (<1000) | 683 | 50.82 |
| Small town (1000 - 5000) | 367 | 27.31 |
| Urban area (>5000) | 259 | 19.27 |
| Missing values | 35 | 2.60 |
| b) Population of the area of current residence | | |
| Less than 500 | 293 | 21.80 |
| 500 - 999 | 245 | 18.23 |
| 1,000 - 4,999 | 333 | 24.78 |
| 5,000 - 9,999 | 102 | 7.59 |
| 10,000 - 24,999 | 86 | 6.40 |
| 25,000 - 49,999 | 38 | 2.83 |
| 50,000 - 99,999 | 223 | 16.59 |
| Missing values | 24 | 1.79 |

Table 3-8 Education

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| Characteristic | Freq. | % |
|------------------------------------------|-------|-------|
| Primary school (kindergarten to grade 3) | 12 | 0.89 |
| Elementary school (grades 4 to 6) | 56 | 4.17 |
| High school (grades 7 to 11/12) | 558 | 43.75 |
| Trade school or technical college | 339 | 25.22 |
| University with degree | 127 | 9.45 |
| University (not yet obtained degree) | 107 | 7.96 |
| Graduate | 77 | 5.73 |
| No school | 2 | 0.15 |
| Correspondence | 4 | 0.30 |
| Missing values | 32 | 2.38 |

| Annual Income | Freq. | % |
|---------------------|-------|-------|
| \$0 - \$4,999 | 23 | 1.71 |
| \$5000 - \$9,999 | 51 | 3.79 |
| \$10,000 - \$14,999 | 75 | 5.58 |
| \$15,000 - \$19,999 | 115 | 8.56 |
| \$20,000 - \$24,999 | 137 | 10.19 |
| \$25,000 - \$29,999 | 127 | 9.45 |
| \$30,000 - \$34,999 | 112 | 8.33 |
| \$35,000 - \$39,999 | 90 | 6.70 |
| \$40,000 - \$44,999 | 80 | 5.95 |
| \$45,000 - \$49,999 | 84 | 6.25 |
| \$50,000 - \$59,999 | 113 | 8.41 |
| \$60,000 - \$69,999 | 82 | 6.10 |
| \$70,000 - \$79,999 | 55 | 4.09 |
| \$80,000 - \$99,999 | 42 | 3.13 |
| over \$100,000 | 54 | 4.02 |
| Missing values | 104 | 7.74 |

Table 3-9 Annual household income

4.0 Moose Hunting Survey Results

This section summarizes the results of the moose hunting survey. For the exact wording of the questions, refer to Appendix B. The results are presented in the order the questions appear on the survey. Section I asks about factors moose hunters felt were important when selecting a hunting area. Again, using a 5 point Likert scale, where 1 was "not important" and 5 was "very important", respondents felt the most important factors were a good chance of bagging a moose (4.47) and familiarity with the area (4.13). When moose hunting was compared to other recreational activities, respondents felt moose hunting was quite important with a mean value of 3.93.

| Factors | Mean |
|----------------------------------------------------|------|
| Good chance of bagging a moose | 4.47 |
| Good chance of bagging a trophy moose | 1.54 |
| Naturalness of the area or lack of development | 3.35 |
| Number and quality of access roads | 3.24 |
| Privacy from other hunters | 2.95 |
| Familiarity with the area | 4.13 |
| Distance from home | 3.39 |
| Opportunity to visit with family or friends | 1.57 |
| Availability of nearby areas for camping | 1.97 |
| Importance of moose hunting as a recreation | |
| activity compared with other recreation activities | 3.93 |

Table 4-1 Factors respondents feel are important when deciding where to hunt

4.1 Socioeconomic Characteristics of Moose Hunters

There are some notable socioeconomic characteristics of the respondents; 91.11% of those that responded were male, 68.56% are between the ages of 26-49, 86.17% of the respondents have lived in Newfoundland all their lives, 49.47% lived in rural areas in their youth, and 67.49% of the respondents currently live in areas with a population less than 5000.

| Characteristic | Freq. | % |
|---------------------------|-------|-------|
| a) Sex: | | |
| Female | 96 | 7.90 |
| Male | 1107 | 91.11 |
| Missing values | 12 | 0.99 |
| b) Age: | | |
| 18 - 25 | 56 | 4.61 |
| 26 - 39 | 457 | 37.61 |
| 40 - 49 | 376 | 30.95 |
| 50 - 64 | 244 | 20.08 |
| 65 and over | 67 | 5.51 |
| Missing values | 15 | 1.23 |
| c) Number of years living | | |
| in Newfoundland | | |
| All my life | 1047 | 86.17 |
| 0 - 5 years | 5 | 0.41 |
| 6 - 10 years | 3 | 0.25 |
| 11 - 20 years | 21 | 1.73 |
| 21 - 40 years | 124 | 10.21 |
| Other | 3 | 0.25 |
| Missing values | 12 | 0.99 |

 Table 4-2
 Summary of personal statistics

Table 4-3 Household occupancy

| Characteristic | Freq. | Mean |
|-----------------------------------------|-------|------|
| a) Number of people living in household | 1199 | 3.72 |
| b) Number of children under the age of | | |
| 16 living in household | 1172 | 0.93 |

Table 4-4 Summary of population statistics

| Characteristic | Freq. | % |
|--------------------------------------|-------|-------|
| a) Population where respondent spent | | |
| majority of youth | | |
| Rural area (< 1000) | 601 | 49.47 |
| Small town (1000 - 5000) | 419 | 34.49 |
| Urban area (>5000) | 173 | 14.24 |
| Missing values | 22 | 1.81 |
| b) Population of area of | | |
| current residence | | |
| Less than 500 | 204 | 16.79 |
| 500 - 999 | 222 | 18.27 |
| 1,000 - 4,999 | 394 | 32.43 |
| 5,000 - 9,999 | 142 | 11.69 |
| 10,000 - 24,999 | 125 | 10.29 |
| 25,000 - 49,999 | 52 | 4.28 |
| 50,000 - 99,999 | 59 | 4.86 |
| Missing values | 17 | 1.40 |

Table 4-5 Education

| Characteristic | Freq. | % |
|------------------------------------------|-------|-------|
| Primary school (kindergarten to grade 3) | 23 | 1.89 |
| Elementary school (grades 4 to 6) | 78 | 6.42 |
| High school (grades 7 to 11/12) | 619 | 50.95 |
| Trade school or technical college | 373 | 30.70 |
| University with degree | 45 | 3.70 |
| University (not yet obtained degree) | 31 | 2.55 |
| Graduate | 30 | 2.47 |
| Missing values | 16 | 1.32 |

| Annual Income | Freq. | % |
|---------------------|-------|-------|
| \$0 - \$4,999 | 7 | 0.58 |
| \$5,000 - \$9,999 | 55 | 4.53 |
| \$10,000 - \$14,999 | 86 | 7.08 |
| \$15,000 _ \$19,999 | 139 | 11.44 |
| \$20,000 _ \$24,999 | 176 | 14.49 |
| \$25,000 _ \$29,999 | 143 | 11.77 |
| \$30,000 _ \$34,999 | 96 | 7.90 |
| \$35,000 _ \$39,999 | 93 | 7.65 |
| \$40,000 _ \$44,999 | 63 | 5.19 |
| \$45,000 _ \$49,999 | 73 | 6.01 |
| \$50,000 _ \$59,999 | 90 | 7.41 |
| \$60,000 - \$69,999 | 54 | 4.44 |
| \$70,000 - \$79,999 | 35 | 2.88 |
| \$80,000 - \$99,999 | 25 | 2.06 |
| over \$100,000 | 11 | 0.91 |
| Missing values | 69 | 5.68 |

Table 4-6 Annual household income

Appendix A

| Table | A-1 | Residence |
|-------|-----|-----------|
|-------|-----|-----------|

| Residence | Freq. | % |
|-----------------------------|-------|------|
| A. Resident of Newfoundland | 40 | 82.0 |
| B. Nonresident | 18 | 18.0 |
| 1) Rest of Canada: | 25 | 62.5 |
| Alberta | 1 | |
| British Columbia | 1 | |
| Ontario | 11 | |
| North West Territories | 1 | |
| Quebec | 1 | |
| New Brunswick | 4 | |
| Nova Scotia | 6 | |
| 2) Outside of Canada: | | |
| United States | 12 | 30.0 |
| England | 2 | 5.0 |
| Germany | 1 | 2.5 |

Table A-2 Number of years nonresidents have visited Newfoundland

| Response | Freq. | % |
|----------------|-------|------|
| First visit | 22 | 55.0 |
| 2 | 3 | 7.5 |
| 3 - 5 | 5 | 12.5 |
| 6 - 10 | 2 | 5.0 |
| 11 - 20 | 3 | 7.5 |
| 21 - 30 | 2 | 5.0 |
| Missing values | 3 | 7.5 |

Table A-3 Primary reason for nonresidents to visit Newfoundland

| Reason | Freq. | % |
|---------------------------------------|-------|------|
| Wildlife, natural areas | 13 | 32.5 |
| Visit family and friends | 10 | 25.0 |
| Rest and relaxation, vacation | 2 | 5.0 |
| Curiousity | 11 | 27.5 |
| Experience people, places and culture | 1 | 2.5 |
| Arbitrary | 1 | 2.5 |
| Missing values | 2 | 5.0 |

Table A-4 Factors respondents feel are important when deciding to go on an outdoor recreation trip

| Factors | Mean |
|----------------------------------------------------------------|------|
| Naturalness/lack of development | 4.30 |
| Privacy from other recreationists | 3.46 |
| Familiarity with the area | 3.12 |
| Availability of nearby camping areas | 4.05 |
| Distance from home | 2.49 |
| Opportunity to take part in activities with family and friends | 4.15 |
| Opportunity to view wildlife | 4.35 |
| Opportunity to fish | 2.84 |
| Other | 4.96 |

| Response | Freq. | % |
|---------------------------|-------|---------------|
| Yes | 33 | 14.86 |
| No | 189 | 85.14 |
| Total | 222 | 100.0 |
| | Freq. | Mean Bid Amt. |
| Dollars donated in 1992 | 31 | \$87.25 |
| Hours volunteered in 1992 | 11 | 60.27 |

| Table A-5 | Number of individuals that contributed money and/or time to a wildlife or |
|-----------|---------------------------------------------------------------------------|
| | environmental organization |

| Wildlife Species | Mean |
|--------------------------------------------------------|-------|
| Large mammals (moose, caribou, bear) | 8.38 |
| Furbearers (fox,lynx,mink,etc.) | 5.01 |
| Songbirds (robins, finches, warblers, etc.) | 7.18 |
| Gamebirds (grouse, ptarmigan) | 3.46 |
| Waterfowl (geese, ducks) | 15.59 |
| Seabirds (puffins, murres) | 8.43 |
| Threatened or endangered (pine marten, harlequin duck) | 45.88 |
| Other | 6.06 |
| -Birds of prey (eagles, hawks) | |
| -Fish (cod,salmon,caplin) | |
| -Sea mammals (whales, seals) | |
| -Rabbits | |
| -Scavenger birds (gulls, crows) | |

 Table A-6
 Allocation of \$100 for the preservation of wildlife species

| Policies | Freq. | % |
|---------------------------------|-------|-------|
| Higher personal income taxes | 5 | 0.77 |
| Increase fishing/hunting fees | 101 | 15.59 |
| Lottery funds | 110 | 16.98 |
| Tax on outdoor recreation goods | 17 | 2.62 |
| Tourist tax | 19 | 2.93 |
| Donations | 132 | 20.37 |
| Sale of wildlife stamps and/or | | |
| memberships | 106 | 16.36 |
| Sale of provincial fish and | | |
| wildlife magazines | 105 | 16.20 |
| Corporate tax | 50 | 7.72 |
| Other | 3 | 0.46 |

Table A-7 Policies chosen by respondents to improve recreation opportunities and habitat enhancement for wildlife

| Policies | Freq. | % |
|--------------------------------------------|-------|-------|
| Higher personal income taxes | 2 | 0.90 |
| Increase fishing/hunting Fees | 43 | 19.37 |
| Lottery funds | 57 | 25.68 |
| Tax on outdoor recreation goods | 0 | 0.00 |
| Tourist tax | 8 | 3.60 |
| Donations | 46 | 20.72 |
| Sale of wildlife stamps and/or memberships | 24 | 10.81 |
| Sale of provincial fish and wildlife | | |
| Magazines | 22 | 9.91 |
| Corporate tax | 19 | 8.56 |
| Other | 1 | 0.45 |
| Total | 222 | 100.0 |

Table A-8 The one policy chosen by the respondent to be the most effective

| Characteristic | Freq. | % |
|---------------------------|-------|-------|
| a) Sex: | | |
| Female | 79 | 35.59 |
| Male | 140 | 63.06 |
| Missing values | 3 | 1.35 |
| b) Age: | | |
| 18 - 25 | 16 | 7.21 |
| 26 - 39 | 88 | 39.64 |
| 40 - 49 | 49 | 22.07 |
| 50 - 64 | 42 | 18.92 |
| 65 and over | 26 | 11.71 |
| Missing values | 1 | 0.45 |
| c) Number of years living | | |
| in Newfoundland | | |
| All my life | 161 | 88.46 |
| 0 - 5 years | 0 | 0.00 |
| 6 - 10 years | 1 | 0.55 |
| 11 - 20 years | 4 | 2.20 |
| 21 - 40 years | 15 | 8.24 |
| Other | 7 | 0.55 |

Table A-9 Summary of personal statistics

Table A-10 Household occupancy

| Characteristic | Freq. | Mean |
|-----------------------------------------|-------|------|
| a) Number of people living in household | 182 | 3.57 |
| b) Number of children under the age of | | |
| 16 living in household | 182 | 0.87 |

Table A-11 Summary of population statistics

| Characteristic | Freq. | % |
|------------------------------------------------|-------|-------|
| a) Population where respondent spent | | |
| majority of youth | | |
| Rural area (<1000) | 64 | 35.16 |
| Small town (1000 - 5000) | 52 | 28.57 |
| Urban area (>5000) | 66 | 36.26 |
| b) Population of the area of current residence | | |
| Less than 500 | 6 | 3.30 |
| 500 - 999 | 25 | 13.74 |
| 1,000 - 4,999 | 59 | 32.42 |
| 5,000 - 9,999 | 25 | 13.74 |
| 10,000 - 24,999 | 20 | 10.99 |
| 25,000 - 49,999 | 16 | 8.79 |
| 50,000 - 99,999 | 30 | 16.48 |
| Missing values | 1 | 0.55 |

Table A-12 Education

| Characteristic | Freq. | % |
|------------------------------------------|-------|-------|
| Primary school (kindergarten to grade 3) | 2 | 0.90 |
| Elementary school (grades 4 to 6) | 18 | 8.11 |
| High school (grades 7 to 11/12) | 85 | 38.29 |
| Trade school or technical college | 63 | 28.38 |
| University with degree | 25 | 11.26 |
| University (not yet obtained degree) | 17 | 7.66 |
| Graduate | 11 | 4.95 |
| Missing value | 1 | 0.45 |

| Annual Income | Freq. | % |
|---------------------|-------|-------|
| \$0 - \$4,999 | 1 | 0.45 |
| \$5000 - \$9,999 | 2 | 0.90 |
| \$10,000 - \$14,999 | 5 | 2.25 |
| \$15,000 - \$15,999 | 13 | 5.86 |
| \$20,000 - \$24,999 | 7 | 3.15 |
| \$25,000 - \$29,999 | 29 | 13.06 |
| \$30,000 - \$34,999 | 33 | 14.86 |
| \$35,000 - \$39,999 | 18 | 8.11 |
| \$40,000 - \$44,999 | 19 | 8.56 |
| \$45,000 - \$49,999 | 16 | 7.21 |
| \$50,000 - \$59,999 | 19 | 8.56 |
| \$60,000 - \$69,999 | 10 | 4.50 |
| \$70,000 - \$79,999 | 13 | 5.86 |
| \$80,000 - \$99,999 | 14 | 6.31 |
| over \$100,000 | 16 | 7.21 |
| Missing values | 7 | 3.15 |

 Table A-13
 Annual household income

Appendix B

Household, Moose Hunting and Personal Interview Surveys for Newfoundland

Outdoor Recreation in Newfoundland

Section I

The following questions will give us an idea of the importance of outdoor recreation to you and your household and how you feel about forest management in Newfoundland. The information you provide will be extremely valuable in the management of Newfoundland's forestry resources.

- 1. Did you take any trips between May 1, 1992 and August 31, 1992 for which the primary purpose was outdoor recreation in Newfoundland (i.e., hiking, camping, fishing, etc.)? (An outdoor recreation trip is defined as a trip that was at least 20 km from your home.)
 - _____ Yes [Please go to Question 2]
 - No [Please go to Page 5, Section II, General Wildlife]

3. Please indicate, for ALL THE TRIPS LISTED ABOVE in question #2, the total amount of money you spent (if any) on the following items.

| Transportation (oil, gas, car rental, repairs, airfare, bus, ferries, etc.) | \$ |
|----------------------------------------------------------------------------------------|----|
| Accommodation (hotels, motels, etc.) | \$ |
| Campsite fees (private, provincial, etc.) | \$ |
| Food - groceries (including alcohol) | \$ |
| Restaurants | \$ |
| Rentals (boats, horses, etc.) | \$ |
| Equipment purchased specifically for the trip (i.e., propane, fishing equipment, etc.) | \$ |
| Fishing licence | \$ |
| Other | \$ |

4. Some people feel that time spent travelling is an inconvenience while others find it enjoyable. Please indicate how enjoyable you feel your travel time is for a typical outdoor recreation trip. Please circle only one number.

| Not at all | | Moderately | | Extremely | |
|------------|---|------------|---|-----------|--|
| Enjoyable | | Enjoyable | | Enjoyable | |
| 1 | 2 | 3 | 4 | 5 | |

5. Recreation areas are found in many areas throughout Newfoundland, and many other areas could potentially be managed for outdoor recreation. What are the most important factors you consider when deciding to go on an outdoor recreation trip? (Please circle the number that best reflects the importance of each item.)

| | Not Impo | ortant | | Very In | portant |
|--------------------------------------------------------------------|----------|--------|---|---------|---------|
| Naturalness or lack of development | 1 | 2 | 3 | 4 | 5 |
| Privacy from other recreationalists | 1 | 2 | 3 | 4 | 5 |
| Familiarity with the area | 1 | 2 | 3 | 4 | 5 |
| Availability of nearby camping areas | 1 | 2 | 3 | 4 | 5 |
| Distance from home | 1 | 2 | 3 | 4 | 5 |
| Opportunities to take part in activities with family or friends | 1 | 2 | 3 | 4 | 5 |
| Opportunities to view wildlife | 1 | 2 | 3 | 4 | 5 |
| Opportunities to fish | 1 | 2 | 3 | 4 | 5 |
| Other (please specify) | _ 1 | 2 | 3 | 4 | 5 |

| For each outdoor recreation trip you took between May 1, 1992 and August 31, 1992, please complete the following information. Again, for the purpose of this survey, an outdoor recreation trip is defined as a trip that was at least 20 km from your home . If you took more than 10 trips, only list the first 10. Please indicate the location of your trip as accurately as possible (provincial park, closest town, etc.) | To indicate all the activities that you took part in, please write the letter given to the activity in the space provided below. | gravel pit camping camping (provincial parks, national parks) camping (private parks) hiking hiking viewing, photographing wildlife j swimming | ip Distance from Distance from No. of Home to Site No. of Individuals Length of Trip time in hours) in Group (in davs) | b, c, f Witless Bay 100 km, 1 1/2 hrs 4 | | | | | | | | | | | If you took more than 10 outdoor contion tring to a second s |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|---|---|---|---|---|---|---|---|---|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| For each o informatio from your as possible | To indicate | a gravel b campin c campin d hiking e viewing | Trip No. | Example: | 1 | 2 | 3 | 4 | S | 9 | 7 | 8 | 6 | 10 | 1 J JL |

- 6. Have you visited a cabin/cottage since May 1, 1992?
 - Yes [Please continue with Question 7]
 - No [Please go to Section II, Page 5]
- 7. How often do you visit a cabin/cottage?
 - _____ about once a week
 - once every two weeks
 - once a month
 - only once or twice during the summer
 - _____ other (please specify)
- 8. How far is the cabin/cottage from your home? If you have more than one cabin, please answer the question for the cabin you visit the most.
 - less than 49 km
 - _____ between 50 km and 99 km
 - _____ between 100 km and 199 km
 - _____ between 200 km and 299 km
 - _____ between 300 km and 500 km
 - _____ other (please specify)

Section II - General Wildlife

1. In 1992, did you contribute any time or money to a wildlife or environmental organization?

____ Yes

_____ No [Please go to Question 2]

If yes, how much did you spend and/or approximately how much time did you volunteer?

\$_____

_____ hours

2. If you were given \$100 to donate to a wildlife organization, how would you allocate this money for the preservation of the following wildlife species? You must spend all the money but you do not have to contribute to all categories.

| Large mammals (moose, caribou, bear) | \$ |
|-------------------------------------------------------------------------------------|-------|
| Furbearers (beaver, foxes, lynx, mink, etc.) | \$ |
| Songbirds (robins, chickadees, etc.) | \$ |
| Game birds (grouse, ptarmigan) | \$ |
| Waterfowl (geese, ducks) | \$ |
| Seabirds (puffins, turres, etc.) | \$ |
| threatened * (i.e., pine marten) or endangered ** (i.e., harlequin duck) species | \$ |
| Other wildlife species (please indicate) | \$ |
| | |
| TOTAL | \$100 |

- * threatened likely to be endangered if the pressures from humans or natural causes making them threatened are not reversed.
- ** endangered threatened with immediate extinction or extirpation (no longer found in the wild in Canada although they may exist elsewhere).

- 3. Improving recreational opportunities and habitat enhancement for wildlife is often expensive. If these programs were to be put in place, please indicate how you would prefer the funds to be raised. (Please check all those you feel should be used)
 - a. _____ higher personal income taxes
 - b. _____ increase fishing/hunting fees
 - c. _____ lottery funds
 - d. _____ tax on outdoor recreation goods (i.e., binoculars, etc.)
 - e. _____ tourist tax (i.e., tax on hotels, car rentals, etc.)
 - f. _____ donations
 - g. _____ sale of wildlife stamps / memberships
 - h. _____ sale of provincial fish / wildlife magazines
 - i. _____ corporate tax
 - j. _____ other (please specify) _____
- 4. If you checked more than one answer in Question 3, please indicate which you feel would be the most effective by writing the letter in the space _____.

The following question asks about the amount of money you would be willing to pay for access to a specific recreation area. Depending on your situation the amount of money may seem very high or low, but it is important to answer these questions to collect a wide range of opinions.

1. There are many ways in which forests can be harvested. Clearcutting is one method where all the trees in an area of forest land are removed in a single cut and the area harvested is large enough to remove the forest influence. Clearcutting, as well as providing access to areas for recreational use, if carried out properly, is a safe, effective, and ecologically sound method of harvesting. Yet many individuals feel that clearcuts are generally not aesthetically appealing.

If you had a choice of two identical outdoor recreation areas, both the same distance from your home and offering the same facilities and recreation opportunities (i.e. camping, fishing, hiking), but in one outdoor recreation area the forests were clearcut while in the other an alternative method of harvesting was used (such as a shelterwood cut where there is a gradual removal of the entire stand in a series of partial cuttings) that reduced the visual impact of harvesting, would you be willing to pay an annual fee of

\$______ for a permit to enter the area where the alternative method of harvesting was used?

_____ Yes [Please go to Question 2]

____ No [Please go to Question 3]

- - Yes [Please go to Section IV, Page 8]
 - _____ No [Please go to Section IV, Page 8]
- 3. If your answer in question 1 was no, please tell us why. Please check only one.
 - I do not mind seeing clearcuts while I'm on an outdoor recreation trip.
 - I do not think clearcutting is environmentally sound and therefore I don't think there should be any clearcuts.
 - _____ I never notice any evidence of logging on my outdoor recreation trips.
 - _____ I would pay something other than the value stated above. Please indicate the value \$______
 - _____ Other (please explain) _____

The following question asks about the amount of money you would be willing to pay for the preservation of the Pine Marten. Depending on your situation the amount of money may seem very high or low, but it is important to answer these questions to collect a wide range of opinions.

The Newfoundland Pine Marten is a small mammal that is a member of the weasel family. It is about twice as large as a squirrel and its colour varies from dark brown or near black to pale buff with irregular markings on the throat and/or underside. The Pine Marten lives on the west coast of Newfoundland with the greatest concentrations between Grand Lake and Cornerbrook. It spends most of its time in tree tops and prefers large tracts of undisturbed mature forest. The Pine Marten is considered a threatened species due to logging, snaring and disease. Research has shown that clearcutting of forests reduces the population of Pine Martens in the affected areas by 60%.

Would you be willing to pay \$______ per year into a public trust fund that would set aside large areas of undisturbed mature forest for the Pine Marten to ensure the species does not suffer further losses in population.

_____ Yes [Please go to Section IV, Page 8]

_____ No [Please continue]

If your answer in the previous question was no, please tell us why. Please check only one.

- _____ I do not receive any benefits from the Pine Marten.
- _____ I am not interested in donating any money towards the preservation of the Pine Marten.
- I do not think the Pine Marten should get in the way of the forest industry.
- _____ I would pay something other than the value stated above.

Please indicate the value \$ _____

_ Other (please specify) _____

Section IV

The following questions are designed to tell us a little bit about you. This information will only be used to report comparisons among groups of people and you will not be identified in any way. Your answers will be very helpful in analyzing the data in a meaningful way.

| Are you: Male | e | Female | | | |
|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|--|--|
| In which of the f | ollowing age groups de | o you belong? | | | |
| 18 - 25 | | 50 - 64 | | | |
| 26 - 39 | | 65 yea | rs and over | | |
| 40 - 49 | | | | | |
| How many years | have you lived in New | vfoundland? | | | |
| all my life | | <u>.</u> | _ 11 - 20 years | | |
| 0 - 5 years | | | _ 21 - 40 years | | |
| 6 - 10 year | S | <u></u> | _other (please indicate) | | |
| How many people live in your household? | | | | | |
| How many children under the age of 16 live in your household? | | | | | |
| What is your plac | e of residence (name | of nearest city | or town)? | | |
| Did you spend th | e majority of your you | th in a: | | | |
| rural area | (under 1000) | | | | |
| small towr | ı (between 1000 - 5000 | 0) | | | |
| urban area | a (over 5000) | | | | |
| Which category comes closest to the population of the area you live now? | | | | | |
| less than 50 |)0 | | 10,000 - 24,999 | | |
| 500 - 999 | | | 25,000 - 49,999 | | |
| 1,000 - 4,99 | 19 | | 50,000 - 99,999 | | |
| | In which of the fermi series in the series of the series of the series in the series in the series in the series of the series in the series of the series in the series i | In which of the following age groups de 18 - 25 26 - 39 40 - 49 How many years have you lived in New all my life 0 - 5 years 6 - 10 years How many people live in your househow How many children under the age of 16 What is your place of residence (name Did you spend the majority of your your rural area (under 1000) small town (between 1000 - 5000 urban area (over 5000) Which category comes closest to the por less than 500 | In which of the following age groups do you belong? | | |

- 9. Please indicate the highest level of education you have completed. (Check the appropriate line)
 - _____ primary school (kindergarten to grade 3) _____ university with degree
 - elementary school (grades 4 to 6) _____ university (not yet obtained degree)
 - high school (grades 7 to 11/12) _____ graduate degree
 - _____ trade school or technical college
- 10. Which of the following categories best represents your annual household income before taxes? (Please check the appropriate category)

| \$0 - \$4,999 | \$25,000 - \$29,999 | \$50,000 - \$59,999 |
|---------------------|---------------------|---------------------|
| \$5,000 - \$9,999 | \$30,000 - \$34,999 | \$60,000 - \$69,999 |
| \$10,000 - \$14,999 | \$35,000 - \$39,999 | \$70,000 - \$79,999 |
| \$15,000 - \$19,999 | \$40,000 - \$44,999 | \$80,000 - \$99,999 |
| \$20,000 - \$24,999 | \$45,000 - \$49,999 | Over \$100,000 |
| | | |

11. How many persons contribute to this income?

If you have any other comments, please list them below or on the back of this sheet.

Thank you for completing this survey. Your cooperation is essential for effective management of the forestry resources. The card provided is an entry form for our prize draw. If you wish to enter this draw, please write your name and address on this card. The card will be separated from your survey when we receive it, so that your responses will remain confidential. Please return this survey, and the card, in the stamped, self-addressed envelope.

Section I

The following questions deal with the factors you feel are important in selecting a hunting area. The forests can be managed in many different ways and the information you provide is important in management decisions.

1. When you decide to go moose hunting, how important are the following factors in deciding where you want to hunt? Please circle one response for each question to indicate if the reason is important or not.

| | Not Important | | Somewhat Important | | Very Important |
|------------------------------------------------------------------------------------------------------------|------------------|---|-----------------------|---|-------------------|
| Good chance of bagging a moose | 1 | 2 | 3 | 4 | 5 |
| Good chance of bagging a trophy moose | 1 | 2 | 3 | 4 | 5 |
| Naturalness of the area or lack of development | 1 | 2 | 3 | 4 | 5 |
| Number and quality of access roads | 1 | 2 | 3 | 4 | 5 |
| Privacy from other hunters | 1 | 2 | 3 | 4 | 5 |
| Familiarity with the area | 1 | 2 | 3 | 4 | 5 |
| Distance from home | 1 | 2 | 3 | 4 | 5 |
| Opportunity to visit with family or friends | 1 | 2 | 3 | 4 | 5 |
| Availability of nearby areas for camping | 1 | 2 | 3 | 4 | 5 |
| How important is moose hunting as a recreation activity compared to your other recreation activities | 1 | 2 | 3 | 4 | 5 |

- 2. Did you hunt moose this season? (Please check).
 - Yes [Please continue with Question 3]
 - _____ No [Please go to Page 6, Section IV]
- 3. What management area did you hunt in this season (fall, 1992)?

4. For each moose hunting trip you took in the 1992 hunting season, please complete the following information. If you took more than 10 trips, only list the first 10.

| Trip No. | Distance from Home to Site (km one way and travel time in hours) | No. of Individuals in Group | Length of Trip (in days) | Did You or Anyone in Your Group Harvest a Moose |
|-------------|------------------------------------------------------------------------|--------------------------------|-----------------------------|-------------------------------------------------------|
| Example: | 50 km, 1 1/2 hrs | 4 | 5 days | yes |
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | н на | | | |
| 10 | | | | |

If you took more than 10 moose hunting trips, how many trips in total did you take?

_____ trips

5. Please indicate the amount of money spent on moose hunting trips during the fall of 1992. Transportation (incl. oil, gas, repairs, airfare, bus, etc.) \$ _____ Accommodation (hotels, motels, lodges, etc.) \$_____ Campsite fees (private, provincial, etc.) \$_____ \$_____ Food - groceries (including alcohol) Restaurants \$_____ \$_____ Rentals (boats, airplanes, etc.) Equipment purchased specifically for the trip (i.e., hunting equipment, etc.) \$ _____ Hunting licence \$_____ Other (i.e., books, guide fees, etc.) \$_____

3

Section II

| P | lease answer the following questions for <u>A T</u> | PICAL HUNTING TRIP. | | | | | | |
|----|-------------------------------------------------------------------------------|-------------------------------------------------|--|--|--|--|--|--|
| 1. | While moose hunting on your typical trip, did you (check applicable) | | | | | | | |
| | use a vehicle | use horses | | | | | | |
| | use a trail bike or ATV | hike or backpack | | | | | | |
| | use a snowmobile | boat | | | | | | |
| | use an aircraft | | | | | | | |
| 2. | About how far from a road did you spend r | nost of your time hunting? | | | | | | |
| | km | | | | | | | |
| 3. | Was the access to the management area? | | | | | | | |
| | poor | | | | | | | |
| | just right | | | | | | | |
| | too easy | | | | | | | |
| 4. | Please rank the following in order of impor hunting. (1st, 2nd, 3rd, etc.) | tance to you in terms of your reasons for moose | | | | | | |
| | recreation | | | | | | | |
| | sport | | | | | | | |
| | food | | | | | | | |
| | other (please specify) | | | | | | | |
| | | | | | | | | |

5. Some people feel that time spent travelling to the hunting zone is an inconvenience while others find it enjoyable. Please circle the number that indicates how enjoyable you felt the travel time was on a typical hunting trip.

| Not at all | | Moderately | | | Extremely |
|------------|---|------------|---|---|-----------|
| Enjoyable | | Enjoyable | | | Enjoyable |
| 1 | 2 | - | 3 | 4 | 5 |

Section III - Benefits to You of Improved Moose Habitat Management

The following questions ask about the value of moose hunting to you. The questions are asked in an attempt to develop information on hunter preferences and do not necessarily reflect actual changes in policy.

1. Were the benefits received during the season worth the money you spent moose hunting?

____ Yes

____ No

2. If the out-of-pocket costs incurred during the season were to increase by \$_____ would you still continue to hunt moose?

____ Yes

____ No

3. On your most recent most hunting trip, approximately how many moose did you see?

_____ number of moose seen

4. On your most recent trip, if everything about moose hunting was the same except you saw twice as many moose (if you saw none, one moose) and your expenses increased by \$_____, would you incur the cost?

____ Yes

____ No

5. If you answered no to question 2 or 4, please answer the following question.

Why did you answer no? (Please check only one).

The benefits I receive from moose hunting would not be worth the extra money

I cannot afford or would not pay any more than I already pay

Seeing more moose would not increase my benefit from moose hunting

____ Other (please specify) _____

Section III - Benefits to You of Improved Moose Habitat Management

The following questions ask about the value of moose hunting to you. The questions are asked in an attempt to develop information on hunter preferences and do not necessarily reflect actual changes in policy.

1. Were the benefits received during the season worth the money you spent moose hunting?

____ Yes ____ No

2. If the out-of-pocket costs incurred during the season were to increase by \$_____ would you still continue to hunt moose?

____ Yes

____ No

3. If everything about moose hunting was the same except the season length doubled so there were twice as many legal days you could hunt, and your licence fees increased by \$_____, would you incur the cost?

Yes

- _____ No
- 4. If you answered **no** to questions 2 or 3, please answer the following question. Why did you answer no? (Please check only **one**).
 - _____ The benefits I receive from moose hunting would not be worth the extra money
 - _____ I cannot afford or would not pay any more than I already pay
 - I do not believe any of the above would increase my benefit from moose hunting
 - _____ I already pay enough for licence fees
 - _____ Other (please specify) ______

Section III - Benefits to You of Improved Moose Habitat Management

The following questions ask about the value of moose hunting to you. The questions are asked in an attempt to develop information on hunter preferences and do not necessarily reflect actual changes in policy.

1. Were the benefits received during the season worth the money you spent moose hunting?

____ Yes No

2. If the out-of-pocket costs incurred during the season were to increase by \$_____ would you still continue to hunt moose?

____ Yes No

- 3. On your most recent moose hunting trip, how many other hunting parties did you see while hunting on a typical day? (Please circle one).
 - 0 1-2 3-5 6-10 11-15 16-20 21+
- 4. On average, how crowded did you feel this area was when you were hunting? (Please circle the appropriate number).

| Not at all | | Moderately | | Extremely | |
|------------|---|------------|---|-----------|--|
| Crowded | | Crowded | | Crowded | |
| 1 | 2 | 3 | 4 | 5 | |

5. If everything about moose hunting in the area you last visited was the same except you only saw half as many hunting parties and the licence fees increased by \$_____, would you incur the cost?

____ Yes

- ____ No
- 6. If you answered no to questions 2 or 5, please answer the following question. Why did you answer no? (Please check only one).
 - The benefits I receive from moose hunting would not be worth the extra money
 - _____ I cannot afford or would not pay any more than I already pay
 - _____ I do not believe any of the above would increase my benefit from moose hunting
 - _____ I already pay enough for licence fees
 - _____ Other (please specify) ______

Section IV

The following questions are designed to tell us a little bit about you. This information will only be used to report comparisons among groups of people and you will not be identified in any way. Your answers are very helpful for analyzing the data in a meaningful way.

| 1. | Are you: | Male | Female | | | | |
|----|-----------------------------------------------------------------|-----------------------------|-------------------------------------|--|--|--|--|
| 2. | In which of the following age groups do you belong? | | | | | | |
| | 18 | - 25 | 50 - 64 | | | | |
| | 26 | - 39 | 65 years and over | | | | |
| | 40 | - 49 | | | | | |
| 3. | How many | years have you lived in Ne | wfoundland? | | | | |
| | all m | ny life | 11 - 20 years | | | | |
| | 0-5 | years | 21 - 40 years | | | | |
| | 6 - 1 | 0 years | other (please indicate) | | | | |
| 4. | How many | people live in your househ | old? | | | | |
| 5. | How many | children under the age of | 16 live in your household? | | | | |
| 6. | What is your place of residence (name of nearest city or town)? | | | | | | |
| 7. | Did you spe | end the majority of your yo | uth in a: | | | | |
| | rura | l area (under 1000) | | | | | |
| | sma | ll town (between 1000 - 500 | 00) | | | | |
| | urban area (over 5000) | | | | | | |
| 8. | Which cate | gory comes closest to the p | opulation of the area you live now? | | | | |
| | less t | han 500 | 10,000 - 24,999 | | | | |
| | 500 - | 999 | 25,000 - 49,999 | | | | |
| | 1,000 |) - 4,999 | 50,000 - 99,999 | | | | |
| | 5,000 |) - 9,999 | | | | | |

- 9. Please indicate the highest level of education you have completed. (Check the appropriate line)
 - _____ primary school (kindergarten to grade 3) _____ university with degree
 - elementary school (grades 4 to 6) _____ university (not yet obtained degree)
 - high school (grades 7 to 11/12) _____ graduate degree
 - _____ trade school or technical college
- 10. Which of the following categories best represents your annual household income before taxes? (Please check the appropriate category)

| \$0 - \$4,999 | \$25,000 - \$29,999 | \$50,000 - \$59,999 |
|---------------------|---------------------|---------------------|
| \$5,000 - \$9,999 | \$30,000 - \$34,999 | \$60,000 - \$69,999 |
| \$10,000 - \$14,999 | \$35,000 - \$39,999 | \$70,000 - \$79,999 |
| \$15,000 - \$19,999 | \$40,000 - \$44,999 | \$80,000 - \$99,999 |
| \$20,000 - \$24,999 | \$45,000 - \$49,999 | Over \$100,000 |
| | | |

11. How many persons contribute to this income?

If you have any other comments, please list them below or on the back of this sheet.

Thank you for completing this survey. Your cooperation is essential for effective management of the forestry resources. The card provided is an entry form for our prize draw. If you wish to enter this draw, please write your name and address on this card. The card will be separated from your survey when we receive it, so that your responses will remain confidential. Please return this survey, and the card, in the stamped, self-addressed envelope.

OUTDOOR RECREATION IN NEWFOUNDLAND

PERSONAL INTERVIEW

| TIME AND DATE |
|------------------------------------------------------|
| LOCATION |
| Resident (on the island of Newfoundland) |
| Nonresident |
| If nonresident: |
| Where do you live? |
| How many years have you been coming to Newfoundland? |
| What is your primary reason for coming? |

SECTION I

The following questions will give us an idea of the importance of outdoor recreation to your household and how you feel about forest management in Newfoundland. The information you provide will be extremely valuable in the management of Newfoundland's forestry resources.

1. We would like some information on your current outdoor recreation trip (or any other trips made this year since May 1,1992) where an outdoor recreation trip is defined as a trip that was farther than 20 km from your home. Please indicate all the activities you took part in during your trip. Please do not include trips to cabins/cottages in the chart below. [Length of trip for current trip is the expected length of trip].

| a | gravel pit camping |
|-------------|--------------------------------------------|
| b | camping (provincial parks, national parks) |
| С | camping (private parks) |
| d | hiking |
| е | viewing, studying, photographing wildlife |
| f | boating |
| g | fishing |
| h | ATV, motorbiking |
| i j k | picnicking |
| j | swimming |
| k | viewing parks, forests (sightseeing) |
| 1 | walking |
| m | other (please specify) |
| | |

| Trip No. | Activity | Location | Home (km o | to Site ne way ravel time | Individual: in Group | Length s of Trip (in days) |
|--------------|-------------------|----------|---------------|---------------------------------|-------------------------|----------------------------------|
| exam | ple b,c,f Witl | ess Bay | 100km | ,1 1/2hrs | . 4 | 3 1/2 days |
| cur- rent | | | | | | |
| 2 | | | - | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |
| 6 | | | | | | <u></u> |

If there were more than 6 trips taken, list the information on the back on the sheet. If more than 10 outdoor recreation trips were taken, please indicate the number of additional trips that were taken.

_____trips

.

| 2. Please indicate, for ALL THE TRIPS LISTED ABOV question #1, the amount of money you spent (following items.[For current trips, use expected the trip] | if any) on the |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Transportation (including car rentals,oil, | |
| gas, airfare, bus, ferries, etc.) | ¢ |
| Accommodation (hotels, motels, etc) | \$ \$ |
| campsite fees (private, provincial, etc.) | \$ |
| food - groceries (including alcohol) | \$ |
| restaurants | \$ |
| rentals (boats, horses, etc.) | \$ |
| equipment purchased specifically for the trip (ie. binoculars,fishing equipment, etc.) | \$ |
| fishing licence | \$ |
| other | \$ |
| total | \$ |

3. Some people feel that time spent travelling is an inconvenience while others find it enjoyable. On a scale of 1 to 5, where 1 is not at all enjoyable and 5 is extremely enjoyable, please state how enjoyable you find time spent travelling on a typical outdoor recreation trip in Newfoundland. [current trip for nonresidents].

| not at | moderately | extremely |
|-----------|------------|-----------|
| all | | enjoyable |
| enjoyable | | |

1 2 3 4 5

4. Recreation areas are found in many areas throughout Newfoundland, and many other areas could potentially be managed for outdoor recreation. On a scale of 1 to 5 where 1 is not very important and 5 is very important, please state how important the following characteristics are to you on a **TYPICAL** outdoor recreation trip in Newfoundland. [current trip for nonresidents; D. is not applicable to campers]

| — •• | NOT | IMPOR | TANT | | VERY | IMPORTANT |
|-----------------------|-----|-------|------|---|------|-----------|
| A. naturalness or | | | | | | |
| lack of development | | 1 | 2 | 3 | 4 | 5 |
| B. privacy from other | | | | | | |
| recreationalists | | 1 | 2 | 3 | 4 | 5 |

| C. familiarity with the | | | | | | |
|-----------------------------------------------------------------------|-----------------|------------------|-----------------|-----------------|----------------|------------------------|
| area | 1 | 2 | 3 | 4 | 5 | |
| D. availability of nearby camping areas | 1 | 2 | 3 | 4 | 5 | |
| E. close to home F. opportunities to take | 1 | 2 | 3 | 4 | 5 | |
| part in activities with | - | | • | | - | |
| family or friends G. opportunities to | 1 | 2 | 3 | 4 | 5 | |
| view wildlife | 1 | 2 | 3 | 4 | 5 | |
| H. opportunities to fish | 1 | 2 | 3 | 4 | 5 | |
| I. other (please specify) | 1 | 2 | 3 | 4 | 5 | |
| 5. Have you visited a cabin/co 5,6,7 are not applicable to n | ottage onres | e sinc ident: | e May s] | 1, 1 | 992? [| Questions |
| YES | | | | | | |
| NО | | | | | | |
| | | | | | | |
| 6. How often do you visit the | cabi | n/coti | tage? | | | |
| about once a wee | k | | | | | |
| once every two w | eeks | | | | | |
| once a month | | | | | | |
| only once or twice | ce du: | ring 1 | the su | ummer | | |
| other | | | | | | |
| 7. How far is the cabin/cotta than one cabin, please answer the most. | ge fr the g | om yo uesti | our hc on fo | ome?] r the | f you cabin | have more you visit |
| less than 49 km | | | | | | |
| between 50 km and 9 | 99 km | | | | | |
| between 100 km and | 199] | ĸm | | | | |
| between 200 km and | 299] | cm | | | | |
| between 300 km and | 500) | ĸm | | | | |
| other | | | | | | |

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SECTION II

GENERAL WILDLIFE

1. In 1992, did you contribute any time or money to an environmental or wildlife organization? _______YES

_____ NO

If yes, how much did you spend or approximately how much time did you volunteer?

\$_____

hours

2. If you were given \$100 to donate to a wildlife organization, how would you allocate this money for the preservation of the following wildlife species? You must spend all the money (but you do not have to contribute to all categories).

| large mammals (moose, caribou, deer, bear) | \$ |
|------------------------------------------------------------------------------|----|
| furbearers (beaver, lynx, foxes, etc) | \$ |
| songbirds (robins chickadees etc) | \$ |
| game birds (grouse, pheasants) | \$ |
| waterfowl (geese, ducks) | \$ |
| seabirds (puffins, turres, etc) | \$ |
| threatened* (ie. pine martin) or endangered* (ie. harlequin duck) species | \$ |
| other wildlife species (please indicate) | \$ |

*threatened - likely to be endangered if the pressures from humans or natural causes making them threatened are not reversed *endangered - threatened with immediate extinction or extirpation (no longer found in the wild in Canada although they may exist elsewhere) 3. Improving recreational opportunities and habitat enhancement for wildlife is often expensive. If these programs were to be put in place, please indicate how you would prefer the funds to be raised. (Please check applicable)

| a | higher personal income taxes |
|---|-------------------------------------------------------|
| b | increase fishing/hunting fees |
| c | lottery funds |
| d | tax on outdoor recreation goods (ie. binoculars etc.) |
| e | tourist tax (ie. tax on hotels, car rentals etc.) |
| f | donations |
| g | sale of wildlife stamps / memberships |
| h | sale of provincial fish/wildlife magazines |
| i | corporate tax |
| j | other (please specify) |
| | |

4. If you choose more than one answer, please indicate which you feel would be the most effective.

SECTION III - CLEARCUTTING

1. There are many ways in which forests can be harvested. Clearcutting is one method where all the trees in an area of forest land are removed in a single cut and the area harvested is large enough to remove the forest influence. Clearcutting, as well as providing access to areas for recreational use, if carried out properly, is a safe, effective, and ecologically sound method of harvesting. Yet many individuals feel that clearcuts are generally not aesthetically appealing.

If you had a choice of two identical outdoor recreation areas, both the same distance from your home and offering the same facilities and recreation opportunities (i.e. camping, fishing, hiking), but in one outdoor recreation area the forests were clearcut while in the other an alternative method of harvesting was used (such as a shelterwood cut where there is a gradual removal of the entire stand in a series of partial cuttings) that reduced the visual impact of harvesting, would you be willing to pay an entrance fee of \$ _____ per trip to enter the area where the alternative method of harvesting was used?

YES

- NO
- - YES
 - _____ NO
- 3. If your answer in question 1 was no, please tell us why. Please check only one.
 - I do not mind seeing clearcuts while I'm on an outdoor recreation trip.
 - I do not think clearcutting is environmentally sound and therefore I don't think there should be any clearcuts.
 - I never notice any evidence of logging on my outdoor recreation trips.
 - _____ I would pay something other than the value stated above. Please indicate the value \$ _____
 - Other (please explain) _____

SECTION III

PINE MARTIN

The Newfoundland pine martin is a small mammal that is a member of the weasel family. It is about twice as large as a squirrel and its colour varies from dark brown or near black to pale buff with irregular markings on the throat and/or underside. The pine martin lives on the west coast of Newfoundland with the greatest concentrations between Grand Lake and Cornerbrook. It spends most of its time in tree tops and prefers large tracts of undisturbed mature forest. The pine marten is considered a threatened species due to logging, snaring and disease. Research has shown that clearcutting of forests reduces the population of pine martens in the affected areas by 60%.

Would you be willing to pay \$_____ per year into a public trust fund that would set aside large areas of undisturbed mature forest for pine marten to ensure the species does not suffer further losses in population.

YES

NO

If your answer in the previous question was no, please tell us why. Please only check one.

| I | do not re am not into preservati do not thi | erested in on of the | donating pine mart | any money .en | y towards | the |
|----|------------------------------------------------------|-------------------------|-----------------------|------------------|-----------|------|
| | of the for would pay above. \$ | estry indu something | stry g other t | han the | value sta | ated |
| ot | her (Please | specify)_ | | | | |

| SECTION IV The following questions are designed to tell us a little bit about you. This information will only be used to report comparisons among groups of people and you will not be identified in any way. Your answers will be very helpful for analyzing the data in a meaningful way, and again, will be strictly confidental.[Allow the individual to fill in this section out on their own to ensure confidentiality; Questions 3-7 are not applicable to nonresidents] |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Are you male |
| female |
| 2. Which of the following age groups do you belong? |
| 18-25 |
| 26-39 |
| 40-49 |
| 50-64 |
| 65 years and over |
| 3. How many years have you lived in Newfoundland? |
| all my life |
| 0 - 5 years |
| 6 - 10 years |
| 11 - 20 years |
| 21 - 40 years |
| other (please indicate) |
| 4. How many people live your household? |
| 5. How many children under the age of 16 live in your household? |
| 6. Did you spend the majority of your youth in a: |
| rural area (under 1000) |
| small town (between 1000 - 5000) |
| urban area (over 5000) |

7. Which category comes the closest to the population of the area in which you live now?

| less than 500 | 10,000 - 24,999 |
|------------------------|-----------------|
| 500 - 999 | 25,000 - 49,999 |
| 1000 - 4999 | 50,000 - 99,999 |
| 5000 - 9999 | |

8. Please indicate the highest level of education you have completed. (Check the appropriate line)

primary school (Kindergarten to grade 3)

- _____ elementary school (grades 4 to 6)
- _____ high school (grades 7 to 11/12)

_____ trades school or technical college

- _____ university (with degree)
- _____ university (without degree)
- _____ graduate or Phd.

9. Which of the following categories best represents your annual household income before taxes? (Please check the appropriate category)

| \$0 - \$4999 | \$25,000 - \$29,999 \$50,000 - \$59,999 |
|-------------------------|-------------------------------------------------------|
| \$5000 - \$9999 | \$30,000 - \$34,999 \$60,000 - \$69,999 |
| \$10,000 - \$14,999 | \$35,000 - \$39,999 \$70,000 - \$79,999 |
| \$15,000 - \$19,999 | \$40,000 - \$44,999 \$80,000 - \$99,999 |
| \$20,000 - \$24,999 | \$45,000 - \$49,999 over \$100,000 |

10. How many persons contribute to this income?

Please list any comments you have on the back of the sheet.