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# Chapter 11

## Public Opinion on Sealing

*There can be little doubt that the public of Canada, and the publics of other industrialized countries of Europe and Asia, in particular, have developed new attitudes towards living marine resource husbandry over the past few decades (Fisheries Council of B.C., 1985).*

### Introduction

In Chapter 8 the Royal Commission reviewed the range of human attitudes towards animals, and considered how these attitudes relate to the problems presented by seal hunting in its various forms. It has also considered, in Chapter 9, the efforts that have been made by the anti-sealing groups to influence public opinion in the direction of opposition to seal hunting, particularly to the hunt for harp seal pups, and the responses by pro-sealing organizations.

In the present chapter the Royal Commission reviews the information available to it concerning the present state of public opinion on these questions. The anti-sealing campaign has been conducted not only in Canada, but also in the United States and in Western Europe, where it was important in bringing about the European Community's (EC) ban on the sale of products from harp and hooded seal pups. This review has therefore been extended to include the United States and a number of European countries.

Since the purpose here is to obtain an unbiased picture of the state of public opinion, the Royal Commission has drawn its information from professionally conducted public opinion polls, rather than, for example, considering the numbers of letters and postcards which have been addressed to politicians and public servants in response to the campaigns of the anti-sealing groups. The Royal Commission undertook its own poll on a number of questions relating to the sealing controversy; it used for this purpose the services of Canadian Gallup Poll Limited and affiliated organizations. It has also been given access to the results of several other professionally conducted surveys sponsored by bodies interested in sealing issues.

**Material Available**

The results available to the Royal Commission were obtained from:

- the Royal Commission's own poll, referred to as the Royal Commission poll (Canadian Gallup Poll Limited, 1986a, 1986b);
- a poll conducted for the Canadian Sealers Association (the CSA poll) (Research Dimensions, 1985);
- a poll conducted for the International Fund for Animal Welfare (the IFAW poll) (Ryder, 1985a, 1985b);
- a poll on public attitudes towards wildlife in the United States conducted by Kellert and Berry (the Kellert poll) (Kellert and Berry, 1980);
- a review of the importance of wildlife to Canadians: highlights from a 1981 national survey (the CWS poll) (Canada, CWS, 1983).

**The Royal Commission Poll**

The Royal Commission poll was conducted by Canadian Gallup Poll Limited in Canada, the United States, the United Kingdom, France, West Germany and Norway during February 1985. It was conducted as part of a multi-subject (omnibus) survey, using sampling and interviewing techniques identical with those used by the company for predicting the vote in general elections. All interviewing was done in person, at the homes of the respondents, who were 18 years of age or older. The sample sizes in the countries surveyed were:

Canada	1,060
U.S.A.	1,557
U.K.	1,042
France	1,000
West Germany	947
Norway	929

Nine questions were asked; they were directed towards determining:

- the attitude of the respondent to the killing of animals in general;

- his/her awareness of, and attitudes to, seal hunting and the reasons underlying these attitudes;
- his/her knowledge of seals and sealing;
- his/her perceived sources of information about seals and sealing.

Some questions were "closed" questions in which the respondent was asked to select one (or more) of a number of options presented by the interviewer; others were "open ended" questions in which the respondent could reply in any way he/she wished.

### **The CSA Poll**

The CSA survey was conducted for the Canadian Sealers Association by Research Dimensions of Toronto. Interviews were conducted by telephone in December 1984. Respondents in various parts of Canada numbered:

Western Canada	220
Central (Ontario)	201
Quebec (French)	201
Maritimes	201

Respondents were between 18 and 70 years of age. The choice of respondents was highly selective because the avowed aim of the survey was to "reflect the views and opinions of potential *consumers* of seal skin in original products". (Emphasis in original). For this reason the following categories of persons were excluded from the survey:

- anyone who was a member of, or who had ever donated to
  - Greenpeace, International Fund for Animal Welfare;
  - World Wildlife Fund;
  - Canadian Wildlife Federation;
  - any other animal-rights organization;
  - any other wildlife-conservation group;
- any person whose occupation was hunting, trapping or fishing;
- any person who objected or disapproved in principle to the use of animals (such as farm or wild animals) for food or clothing.

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Of 1,092 contacts, the following numbers and percentages were disqualified on the basis of:

Association	199	18%
Views on animal use	59	5%
Occupation	<u>11</u>	<u>1%</u>
Total	269	25%

The process of selecting respondents may have introduced a bias into the results of the survey compared to the views of the population as a whole, but it is impossible to say to what extent. Many of those potential respondents who were rejected as being members of animal-protection bodies and conservation associations would be likely to oppose the seal hunt. Some of these bodies, however, have publicly supported the hunt, and their members might be expected to concur in these views. The smaller groups engaged in fishing, hunting or similar activities, or disapproving in principle of the use of animals would probably be supporters or opponents of the hunt respectively.

A major purpose of the CSA poll was to ascertain the views of the public about ownership of goods made of fur or leather and, in particular, of goods made from sealskin as compared to other skins. Nine of the 20 questions asked in the survey were directed to this topic. Most of the other questions were more directly related to the matters of concern to the Royal Commission. Respondents were asked to

- identify the social, economic and environmental issues (including the seal hunt) of most concern to the respondent;
- identify those aspects of the seal hunt seen as either beneficial or wrong;
- indicate whether killing of wild animals was acceptable and, if so, under what circumstances;
- indicate whether more information, and of what kinds, could assist the respondent in forming an opinion about the seal hunt;
- identify those who should provide such information;
- suggest how further information on certain topics would influence the respondent's views about the hunt.



**The IFAW Poll**

The IFAW poll was conducted in four national sections, as follows, with interviews of respondents 18 years of age and over:

Canada	January 1985	1,058	personal interviews
West Germany	December 1984–January 1985	881	personal interviews
U.S.A.	December 1984	1,004	telephone interviews
U.K.	November 1984–December 1984	1,989	telephone interviews

Only three questions were asked. These were:

- whether respondents had seen or heard about the harp seal hunt;
- how respondents felt about the killing of baby seals;
- how the idea of the hunt affected respondents' feelings about Canada.

For about half of the U.K. sample, only the last question was asked.

IFAW had also conducted a poll in Canada in 1982 (Ryder, 1985b). In this poll 1,040 persons were asked in personal interviews whether they favoured or opposed the seal hunt and their reasons for their opinion. Both IFAW polls were included in omnibus polls conducted by the Gallup organization.

**The Kellert Poll**

The Kellert poll was part of a study of "American Attitudes, Knowledge and Behavior toward Wildlife and Natural Habitats", funded by the U.S. Fish and Wildlife Service. The main topics examined were:

- knowledge and awareness;
- species preference;
- attitudes towards animals.

On account of the breadth of the study, only a few of the questions were directly relevant to the work of the Royal Commission.

The survey was carried out by professional organizations throughout the United States in 1978. A total of 3,107 respondents, 18 years of age and older, were interviewed personally.

The respondents were first asked how much they knew about a selected set of eight wildlife issues, including "killing baby seals for their fur." None of the other questions among those intended to test knowledge of wild animals related to seals. In the study of species preference, seals were not included in a list of 33 animals, ranging from dogs to cockroaches, which respondents were asked to rank in order of liking. Walrus were included and were ranked seventeenth by respondents, exactly in the middle, and immediately below whales.

The remaining nine questions were designed to determine which of a set of ten possibilities best described the respondent's basic attitude to animals. These individual attitudes were called:

- naturalistic
- moralistic
- utilitarian
- ecologicistic
- scientific
- dominionistic
- neutralistic
- humanistic
- aesthetic
- negativistic

It was considered that an individual could be oriented toward more than one of these attitudes. These attitudes as defined by Kellert and Berry (1980) are listed in Table 11.3. They bear some, but not a clear, relation to the attitudes identified in the Royal Commission's poll, since the latter dealt specifically with attitudes to killing animals. They also bear a rather general relation to the attitudes discussed in Chapter 8.

### **The CWS Poll**

The poll conducted by the Canadian Wildlife Service (CWS) was directed towards obtaining information on attitudes to wildlife, participation in wildlife-related activities, and related expenditures. It was organized by the Canadian Wildlife Service and a number of other interested bodies, both governmental and non-governmental. It was conducted by the Special Survey Group at Statistics Canada and incorporated with the Labour Force Survey in February–May 1982. Questionnaires were distributed personally to 99,601 individuals aged 15 years and over; 76,201 of these were returned. There was thus some selection among the responses, since it is not known

whether those persons who did not return questionnaires would manifest the same opinions and behaviour as those who did. The organizers of the survey implicitly assume that there was no difference, but there is no good evidence on this point.

The only material from this poll which has been found directly relevant to this chapter is that concerning the geographic distribution across Canada of attitudes to animals.

## Results

### Awareness of, and Concern about, the Seal Hunt

Questions aimed at finding out whether respondents were aware of, or concerned about, the seal hunt were included in the polls conducted by the Royal Commission, the CSA, the IFAW and Kellert.

In an open-ended question the Royal Commission poll asked respondents to name the animals whose killing for food and other products caused them concern. In all countries seals were most frequently named by groups of respondents ranging from 16% in Norway (where 60% were not concerned about any animal), to 63% in West Germany. In Canada 33% were concerned. In Canada, the United States, the United Kingdom and France, whales were the animals next most frequently nominated, but in West Germany and Norway other fur-bearing animals occupied second place. The detailed results are given in Table 11.1.

In the CSA poll respondents were asked to identify their degree of interest (great, some, little, none) in a specified set of issues of public concern, including the Canadian seal hunt. The following data show the percentages recording "great", and "great" plus "some", interest in these issues:

	Great	Great + Some
Capital punishment	62	91
Conservation of our national resources	53	90
Nuclear waste disposal	65	89
Wildlife management	29	74
Acid rain	33	71
Use of animals in scientific & medical experiments	28	67
Humane treatment of farm animals	26	66
Canadian seal hunt	30	65

**Table 11.1**  
**Concern about Killing Animals**

	Canada	U.S.A.	United Kingdom	France	West Germany	Norway
Number of respondents	1060	1557	1042	1000	947	929
Responses <sup>a</sup>						
Concerned about killing of:						
Seals	33	36	38	51	63	16
Whales	12	22	21	25	<sup>b</sup>	1
Deer	11	11	7	8	9	3
Others listed: wild fowl, lambs, horses, pigs, dogs	13	24	27	26	47	11
Other fur-bearing animals	10	9	20	20	30	11
Other animals	11	20	13	26	12	20
No concern; don't know; can't say	<u>46</u>	<u>36</u>	<u>33</u>	<u>29</u>	<u>25</u>	<u>60</u>
Total response <sup>c</sup>	134	158	159	180	187	122

Source: Royal Commission poll (Canadian Gallup Poll Limited, 1986a, Table 1).

Question: "In countries round the world, man kills a variety of animals living on land and sea to obtain meat, skins, oil and other products. Are there any animals in particular whose killing causes you concern?"

- a. Entries are percentages of respondents.
- b. Included in "other animals" category.
- c. Percentages may not add exactly to totals because of rounding.

The seal hunt appears at the bottom of the CSA poll list on the basis of "great" and "some" concern combined, but it is one of a group of five issues, all relating to the treatment of animals or to the environment, about which roughly one-third of Canadians are greatly concerned, and another third have "some" concern. On the average, each respondent named rather more than three issues which were of "great" concern to him/her.

The IFAW 1985 poll asked two questions bearing on this issue. The first was, "Have you seen or heard about the harp seal hunt, sometimes known as the baby seal hunt off the east coast of Canada?" The percentages responding yes to this question were:

Canada: 88      U.K.: 84      U.S.A.: 71      West Germany: 81

The second question asked for the respondent's feeling about the hunt; the results, expressed as percentages of those who responded yes to the first question, were:

	Canada	U.K.	U.S.A.	West Germany
Strongly in favour	11	1	1	3
Somewhat in favour	24	12	4	1
Somewhat opposed	22	24	23	10
Strongly opposed	38	54	67	84
Don't know	5	9	5	3

The proportion of Canadians opposed to the hunt (60%) in the IFAW poll is similar to, but rather lower than, the proportion recording "some" or "great" interest in the CSA poll (65%). The proportion of respondents in the former poll who are strongly opposed is, however, rather greater than the proportion expressing "great" interest in the CSA poll. The 1982 IFAW poll also found that 60% of Canadian respondents were opposed to the seal hunt (Ryder, 1985b).

In the IFAW poll the hunt was categorized as the "baby seal hunt"; the possible effect of this identification on the response will be considered later.

The Kellert poll, which was conducted in only the United States, asked respondents to classify their knowledge of each of a set of designated wildlife issues on a scale from "very knowledgeable" to "never heard of it".

The proportion regarding themselves as very knowledgeable or moderately knowledgeable about the seal hunt was, in sum, higher than that scored for any other issue; the first group represented 14.7% and the second 28.5%, with a total of 43.2%. The next highest scores were for "effects of pesticides such as DDT on birds" and "using steel leg-hold traps to trap wild animals", with totals of 42.0% and 38.3% respectively. In this survey the seal hunt was defined as "killing baby seals for their fur". The 43.2% of respondents who considered themselves very or moderately knowledgeable may be compared to the 36% of U.S. respondents to the Royal Commission survey who expressed concern about seals. The 12.5% who responded to the Kellert survey with "never heard of it" is significantly lower than the 20% in the United States who replied similarly to the IFAW poll. This response suggests either some increase in public awareness of the seal hunt between 1978 and 1984, or a difference in the methodology of the polls.

## Attitude to Animals

Questions bearing on the general attitude of respondents to animals or the killing of animals were asked by the Royal Commission, CSA and Kellert polls.

The Royal Commission poll asked respondents to identify themselves, if possible, with one of four views on human relations with animals. The extremes were:

- that man has the right to use animals in any way he wishes; or
- that all use of animals by man is wrong and should be stopped.

One intermediate position required that any killing should be controlled to prevent suffering or extinction; the other added that use should be for non-trivial purposes, but dropped the need to prevent extinction. The detailed results are given in Table 11.2. In all countries, 87%–97% of respondents identified with one of the four views, with the great majority (83–88%) taking one of the intermediate positions. Only 2% (West Germany) to 5% (Norway) thought that man was entitled to use animals any way he wished, as against 2% (West Germany, Norway) to 7% (United Kingdom) who adhered to the fully protective view. In Canada, the United States and Norway the first intermediate position was preferred, but in France, the United Kingdom and West Germany, there was a majority in favour of the second intermediate position.

**Table 11.2**  
**Different Attitudes to Relations Between Humans and Animals**

	Canada	U.S.A.	United Kingdom	France	West Germany	Norway
Number of respondents	1060	1557	1042	1000	947	929
<b>Responses</b>						
Man has the right to use animals in any way he wishes	4	3	4	3	2	6
The use or killing of animals should be properly controlled to minimize suffering and prevent extinction	48	47	41	27	37	42
Man should kill animals only when needed for important non-trivial uses and then only if there is little or no suffering	40	38	44	58	46	41
All use of animals by man even for food or vital medical research is wrong and should be stopped	5	5	7	5	2	2
None of them	1	1	1	1	3	1
No views on animals; can't say	3	7	4	5	10	11

*Source:* Royal Commission poll (Canadian Gallup Poll Limited, 1986a, Table 2).

*Question:* "The following statements represent different attitudes to the relation between man and animals - which one comes nearest to your own views?"

*Note:* Entries are percentages of respondents. Percentages may not add exactly to 100, because of rounding.

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In the CSA poll, respondents were asked to agree or disagree with a number of statements as to conditions under which the killing of animals would be acceptable. The questions were phrased to refer to animals in general, but were presented under the heading of attitudes toward the seal hunt, and were inserted among other questions specifically related to the seal hunt. In the following data, the questions have been arranged in such an order that the left-hand column of percentages represents a diminishing degree of support for an activity involving the killing of animals. The level of support ranges from 90% of respondents agreeing that it is acceptable to kill animals for survival or livelihood, down to 21% who do not consider it wrong to kill animals for sport.

	Agree (%)	Disagree (%)
The killing of wild animals is acceptable if a person's survival or livelihood depends on it.	90	4
It is important to maintain a balance in the population of wild animals by controlling their numbers.	81	12
It is acceptable to hunt and kill wild animals provided it's done humanely.	76	16
	Disagree (%)	Agree (%)
Wild animals should not be used for luxury fur products.	32	54
Whether or not the animal is an <i>endangered</i> species, it is <i>wrong</i> to kill wild animals for commercial purposes.	29	58
The killing of wild animals for sport is wrong.	21	73

The summarized results of the Kellert poll, as they relate to attitudes to animals, are reproduced in Table 11.3. These categories cannot be directly related to responses to the questions in the Royal Commission poll (Table



**Table 11.3**  
**Attitudes Towards Wildlife among U.S. Citizens**

Attitude	Estimated % of American Population Strongly Oriented towards Attitude <sup>a</sup>	Common Behavioural Expressions	Most Related Values/Benefits
Naturalistic	10	outdoor wildlife-related recreation - backcountry use, nature birding and nature hunting	recreational
Ecologistic	7	conservation support, activism and membership, ecological study	ecological
Humanistic	35	pets, wildlife tourism, casual zoo visitation	companionship, affective
Moralistic	20	animal welfare support/membership, kindness to animals	ethical, existential
Scientistic	1	scientific study/hobbies, collecting	scientific
Aesthetic	15	nature appreciation, art, wildlife tourism	aesthetic
Utilitarian	20	consumption of furs, raising meat, bounties, meat hunting	consumptive, utilitarian
Dominionistic	3	animal spectator sports, trophy hunting, animal training	sporting
Negativistic	2	cruelty, overt fear behaviour	little or negative
Neutralistic	35	avoidance of animal behaviour	little or negative

Source: Kellert poll (Kellert and Berry, 1980, Table 24).

Note: This table is based on analysis of a series of questions.

- a. Totals more than 100% as persons can be strongly oriented toward more than one attitude.

11.2), or to the categories developed in Chapter 8. It should also be noted that because a person may relate to more than one attitude, the percentages in Table 11.3 add up to much more than 100.

Probably the categories "dominionistic" and "negativistic" correspond roughly to the first category in the Royal Commission poll ("man has the right to use animals in any way he wishes"), and the proportion in the Kellert category (between 3% and 5%) is virtually the same as that in the Royal Commission poll in all countries. The other extreme category in the Royal Commission poll ("all use of animals is wrong") cannot be identified with a single Kellert category, but probably represents the extreme of the "moralistic" category. The rest of the Kellert categories would then correspond broadly to the two central attitudes of the Royal Commission poll. In general the Kellert results seem to correspond well with those of the Royal Commission poll in suggesting a rather symmetrical distribution of views on human relations with animals, with the very great majority of people occupying intermediate positions.

## Reasons for Disliking the Harp Seal Pup Hunt

All the surveys dealt, either explicitly or implicitly, with attitudes to the "whitecoat" hunt, and questions as to public views on other seal hunts did not arise. The Royal Commission poll, the CSA poll, and the 1982 IFAW poll examined the reasons why the majority of the respondents disliked this hunt to some degree.

The results of the Royal Commission poll are given in Table 11.4. This poll posed a closed question, offering respondents specific alternatives.

Those respondents who objected to the hunt and could identify a reason for doing so usually identified more than one reason. In Canada the average number of reasons cited was something over two, and the number was higher in all the other countries except Norway. The two principal reasons for objection in all countries were that the respondents considered the hunt inhumane and that baby or pup seals were killed; the next most frequently cited reasons were the belief that the hunt endangered the species and objections to the use of the skins as the main product of the kill. There was also substantial objection to the hunt as "unnecessary". The percentages of respondents in Canada who objected on each ground follows; the percentage of each group among those who identified a reason for objection appears in brackets:

**Table 11.4**  
**Unacceptable Aspects of the Seal Hunt**

	Canada	U.S.A.	United Kingdom	France	West Germany	Norway
Number of respondents	1060	1557	1042	1000	947	929
Reasons Given <sup>a</sup>						
The manner in which seals are killed, inhumane methods	47	51	65	58	66	28
The fact that baby or pup seals are killed	38	51	40	61	57	26
Endangers the species	26	43	25	39	39	16
Objection to use of skins as main product	21	26	30	35	43	13
Killing of seals is unnecessary	13	29	25	22	28	8
Objection to killing wild animals	7	13	16	21	6	6
Objection to killing all animals	6	12	13	17	12	5
Other reasons (volunteered)	1	1	2	6	11	13
Don't know; can't say	10	16	6	11	13	14
Nothing objected to; find all seal hunting acceptable <sup>b</sup>	<u>13</u>	<u>2</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>21</u>
Total Response <sup>c</sup>	181	244	224	268	266	138

Source: Royal Commission poll (Canadian Gallup Poll Limited, 1982a, Table 5).

Question: "What is it about seal hunting that you find unacceptable? Please choose as many or as few as you wish."

- Entries are percentages of respondents.
- Exceeds the proportion shown in Table 11.6, since additional respondents mentioned this at this point.
- Percentages may not add exactly to total, due to rounding.

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Inhumane methods	47	(61)
Baby seals killed	38	(49)
Endangers species	26	(34)
Use of skins as main product	21	(27)
Killing unnecessary	13	(17)
Objection to killing wild animals	7	(9)
Objection to killing all animals	6	(8)

Since some respondents named more than one reason, the total is greater than 100%.

The CSA question on this point was open-ended, permitting more than one answer. The percentages among those who objected to the hunt and who named each of the principal bases for objection, appear to have been:

Inhumane methods	51
Killing for clothing	13
Endangers species	14
Baby seals killed	11
Sympathy	20

Because some respondents named more than one reason, the total is greater than 100%.

Again, the method of killing is the dominant source of objection; but the percentages of respondents objecting on the grounds of the killing of baby seals and on the use of skins and danger to the species are much lower. This applies even to the samples polled by CSA in Ontario and western Canada, distant from the area of the hunt.

The 1982 IFAW poll asked rather similar questions (Ryder, 1985b). In this survey it appears that all respondents included in the original table, where only one reason for objection was allowed, had objected to the hunt. Combining the results into categories of objection similar to those given above produces the following percentages:

Inhumanity, cruelty	41
Unnecessary, unneeded products	23

Killing baby seals	13
Endangers species	10
Objection to killing animals	14

The perceived cruelty is again the dominant reason for objection, and the other proportions are not dissimilar to those obtained in the CSA survey. The level of objection to killing baby seals is similar to the CSA figure and much lower than that in the Royal Commission poll. The relatively high response to killing baby seals in the Royal Commission poll may be because of the fact that this poll both identified this reason specifically as a possible source of objection and also allowed multiple responses; the CSA and IFAW polls did not suggest possible reasons and allowed only a single response. It seems, therefore, that the fact that "baby" seals are killed is less actively present in the minds of respondents than is cruelty as a reason for objecting to the hunt.

### Benefits from, and Justification for, the Hunt

Only the CSA poll asked respondents specifically to identify worthwhile or beneficial features of the hunt; they were not prompted as to what features to consider. Only 70% of respondents found any beneficial features, but of those that did, a majority (56%) thought that providing jobs was a good feature. The other relatively high scores were for providing clothing (17%), controlling the seal population (13%), and putting money into the economy (11%).

The CSA poll asked 12 questions in the form of:

*"How would you feel about the seal hunt if you knew . . . ?"*

The detailed results are reproduced in Table 11.5. The only suppositions which drew strong positive responses were:

*"Every sealer is licensed and the established quota is watched closely by the Federal Department of Fisheries and Oceans", and*

*"There has been no commercial killing of baby seals for 2 years."*

Moderately positive responses were given for:

*"The seal industry includes the use of seal oil and meat as well as fur and leather";*

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*"Fishermen and native people rely on sealing as an important part of their yearly income"; and*

*"Canada's policy on the management of seals is similar to its policies on the management of the entire fishing industry."*

On most of the other propositions, a substantial majority of respondents did not feel differently on hearing the information. The proportion who felt differently on being told that: "Other countries including Norway, the U.S.S.R. and the U.S.A., also have a seal harvest" amounted to only about one-third of the respondents, but among these a significant majority believed that the knowledge would make them feel worse.

**Table 11.5**  
**Reactions to Knowledge of Details of Seal Hunts<sup>a</sup>**

	Better	Worse	No Different	Don't Know	Don't Believe It
How would you feel about the seal hunt if you knew ...					
that harp seals are in no danger of becoming extinct	38	3	48	9	3
that harp seals eat as much fish as all European countries	20	9	58	10	3
that there has been <i>no commercial</i> killing of baby seals for 2 years	59	2	32	4	4
that overpopulation of seals <i>could</i> have negative effects on the ecological chain in the area	38	14	33	9	6
that some seal species carried parasites which infect fish stocks	35	20	32	8	5

**Table 11.5**  
**Reactions to Knowledge of Details of Seal Hunt<sup>a</sup> (continued)**

	Better	Worse	No Different	Don't Know	Don't Believe It
that most sealers are actually fishermen who fish for other marine life during the fishing season	24	7	60	7	2
that fishermen and native people rely on sealing as an <i>important part</i> of their yearly income	49	4	40	6	1
that many fishermen who take or kill seals have made the same financial investment as Canadian farmers	25	6	57	9	3
that other countries including Norway, the U.S.S.R. and the U.S.A. also have a seal harvest	11	17	65	6	1
that the seal industry includes the use of <i>seal oil</i> and <i>seal meat</i> as well as fur and leather	54	4	38	3	2
that every sealer is <i>licensed</i> , and the established quota is watched closely by the Federal Department of Fisheries and Oceans	71	1	25	2	2
that Canada's policy on the management of seals is similar to its policies on the management of the entire fishing industry	47	4	39	8	2

Source: CSA poll (Research Dimensions, 1985, Table 23).

a. Entries are percentages of respondents.

A striking feature of these results is the desire to believe that the government is managing the hunt in a responsible way, but any interpretation must take into account the fact that a substantial number of people interested in the protection of animals and/or the environment, and a smaller number of professional fishermen and hunters have been excluded from the responding population.

The Royal Commission poll approached this problem in a rather different way, by asking respondents which of a set of specified hunts they found acceptable. The results for all countries are given in Table 11.6.

The proportion taking the extreme views of either accepting or rejecting all types of seal hunts are small and about equal. Nearly all the remainder accept subsistence hunting by aboriginal peoples, and about half also accept subsistence hunting by other local communities. The proportions accepting hunting for cash by the same groups are much smaller and, rather unexpectedly, even smaller if the cash is to be used to support other subsistence activities. This reaction may perhaps imply little general understanding of the essential economic structure of either aboriginal communities or the other isolated communities of the Newfoundland/Labrador coasts. These economies are examined at some length in Chapters 13 and 14.

## Knowledge of Seals and the Sealing Industry

The Kellert poll asked respondents to assess their own level of knowledge of "killing baby seals for their fur". The percentages were:

	%
Very knowledgeable	14.7
Moderately knowledgeable	28.5
Slightly knowledgeable	24.9
Very little knowledge	19.3
Never heard of it	12.5

The Royal Commission poll, on the other hand, attempted to assess the respondents' level of knowledge objectively, and asked a series of questions for this purpose. The results for Canada and the United States are given on the following pages; the latter figures are given for comparison with the Kellert poll results.



**Table 11.6**  
**Acceptability of Specified Hunts**

	Canada	U.S.A.	United Kingdom	France	West Germany	Norway
Number of respondents	1060	1557	1042	1000	947	929
<b>Responses<sup>a</sup></b>						
Find <i>all</i> types acceptable	7	2	2	3	1	16
Hunting by native people, such as Eskimo and Inuit:						
• for food/clothing	81	81	77	80	58	72
• for cash	28	13	16	11	12	20
• finance hunting for food	19	13	15	9	10	8
Hunting by local communities in Newfoundland and Quebec:						
• for food/clothing	47	63	50	54	29	67
• for cash	19	11	8	6	5	17
• to finance fishing operations	17	9	10	7	5	6
Hunting by large-scale operations:						
• purely for commercial purposes	4	7	2	1	1	1
None of these types are acceptable	5	6	13	14	22	6
Have no views on this/can't say	<u>4</u>	<u>6</u>	<u>4</u>	<u>6</u>	<u>13</u>	<u>2</u>
Total response <sup>b</sup>	230	211	197	190	156	214

Source: Royal Commission poll (Canadian Gallup Poll Limited, 1986a, Table 4).

Question: "Seals are hunted by different groups of people for different purposes. Which, if any, of the following types of sealing do you find acceptable?"

a. Entries are percentages of respondents

b. Percentages may not add exactly to total, due to rounding.

*Public Opinion on Sealing*

*"What countries can you think of that are involved in seal hunting?" (unprompted)*

Countries Named	Canada %	U.S.A. %
Canada	75	30
U.S.A.	17	30
U.S.S.R.	17	28
Norway	14	8
Denmark	5	3
Iceland/Greenland	5	5
Japan	4	13
Others	11	7
Cannot name any	19	34

This list omits Uruguay and South Africa, which have important sealing industries, but includes Japan, which takes only a few seals for subsistence purposes or as incidental catches in its fisheries.

*"There are nine kinds of seals living in Canadian waters, can you name any of them?" (unprompted)*

Species Named	Canada %	U.S.A. %
Harp	17	6
Grey	5	2
Harbour	6	2
Hooded	3	1
Northern fur	3	2
Sea lions	3	3
Others	5	5
Cannot name any	72	83

*Public Opinion on Sealing*

*"How many seals do you think live in Canadian waters?" (ranges offered)*

	Canada %	U.S.A. %
Over 10 million	4	2
3-10 million	13	10
500,000-3 million	24	13
50,000-500,000	19	18
50,000 or fewer	9	13
Don't know	31	44

*"In 1983, about 60,000 harp seals were killed in Canada; what effect do you think this had on the seal population?"*

	Canada %	U.S.A. %
No difference	23	12
Population increased	3	2
Population decreased	57	81
Don't know	17	6

According to the Kellert poll, 43% of respondents thought that they were moderately to very knowledgeable about the harp seal pup hunt. In contrast, in the Royal Commission poll, only 30% of U.S. respondents even knew that Canada hunted seals, and only 66% could name any sealing country; only 6% could name the harp seal, and only 17% could name any kind of Canadian seal; 44% could not make a guess at the number of seals in Canadian waters, and a further 31% thought the number less than 500,000 (i.e., less than 10-15% of the true number); finally, 81% thought that the harp seal population would have decreased under a catch of 60,000 in 1983, whereas it is virtually certain that it increased.

Although the Kellert and Royal Commission polls involved different respondents, both were based on random samples. It therefore seems probable that a large proportion of the Kellert respondents who regarded themselves as moderately to very knowledgeable about the seal hunt would, in fact, know very little about it, and that many of them would have substantial misconceptions.

The Canadian respondents to the Royal Commission poll scored significantly higher than the U.S. respondents in relation to all four of the above questions. A large majority of them knew that Canada was engaged in sealing, and their idea of the total size of the Canadian seal population was more or less symmetrically arranged about the true value. However, only 17% were able to volunteer the name of the harp seal, in spite of the vast amount of publicity that has been given to the hunt over the last two decades.

### Sources of Information

The Royal Commission poll asked respondents where they thought they had obtained their information about seals. A very large majority identified the media in general as the source of their information. This group formed 87% of the Canadian sample, and between 70% and 88% of the sample in other countries. With one exception, only small numbers (1%–8%) identified any other source (e.g., seal protection organizations, sealing organizations, government, friends) as contributing to their knowledge. The exception was in France, where 35% named Brigitte Bardot and 8% Jacques Cousteau as their sources. Respondents were allowed to name more than one source of information, but except in France, only about 10% seem to have done so. Only 2.3% of Canadians viewed their information as coming from government sources.

Probably a large proportion of the news stories relating to seals that are carried by the media have originated in the activities of, or information put out by, special-interest groups such as seal-protection organizations, sealing organizations and the government, but it is apparent that the public sees the media as the channel by which information comes to it. Direct approaches such as mail campaigns conducted by the protection groups are not widely recognized as an important source of information.

The CSA poll took an inverted approach to the question of the public's source of information by asking whether respondents wanted more information about seals; if so, what kind of information was wanted, and who should supply it. Slightly more than half the respondents (54%) did want more information, and the kinds requested in response to an open-ended question covered a wide range of interest.

	%
Use of seals killed	21
Methods of killing seals	20
General knowledge of conduct of hunt	17
Reasons for hunt	16
Number of seals killed per year	15
How many seals are there?	14
Danger of kill to survival of the species	10
Both sides of the story	8

An open-ended question asking who should provide the information discovered a large majority (66%) who considered that provision of information was a government responsibility. Small (8%–11%) proportions thought that the special-interest groups should take this responsibility, and the interests named were fairly well balanced among protectionist, sealing and conservationist groups.

## Demographic Differences

### Differences among Countries

Most of the information concerning differences among countries came from the Royal Commission poll, but some was also derived from the IFAW poll.

As already noted, seals were most frequently nominated in all countries examined as the animals whose killing caused concern. (See Table 11.1.) France and West Germany showed a considerably higher percentage concerned about seals, and Norway a much lower percentage. Other animals giving rise to high levels of concern were whales in countries other than Norway and West Germany, other fur-bearing animals (especially in West Germany), and deer (except in Norway).

There were no great differences among countries in the distribution of attitudes to animals in the Royal Commission poll. In all countries 83%–88% of respondents fell into the two central categories. Within these two

categories the proportion regarding it as important that animals not be used for trivial purposes was much higher in France (68%) than elsewhere; in the other countries this proportion was: West Germany: 55%; United Kingdom: 52%; Norway: 49%; United States: 45%; Canada: 45%.

The reasons for objecting to the seal hunt were summarized in Table 11.4. Norway and Canada are the only countries in which an appreciable number of respondents (21% and 13% respectively) find no reason to object to the hunt. Among all countries the three dominant reasons for objection are the perception of an inhumane method of killing, killing of baby seals, and endangering the species; they occur in that order, except that in France rather more people are concerned about the killing of baby seals than about the method of killing. This reaction in France may well be a particular consequence of the Brigitte Bardot campaign.

That the proportion who did not object to the seal hunt was higher in Canada than in the United Kingdom, the United States and West Germany was confirmed by the IFAW poll; this poll did not investigate opinion in France or Norway.

In response to the Royal Commission poll's question asking which countries were engaged in sealing, Canada was most commonly named in all countries except the United States and Norway. In the United States only 30% of respondents knew that Canada undertook sealing, the same figure as for the United States itself (presumably based on knowledge of the Pribilof operations). In Norway a very large proportion (83%) knew of Norway's own sealing operations, while relatively few (46%) knew of Canada's.

Ability to name any species of seal was poor among respondents in all countries; the number who could name even one species ranged from 35% in Norway to 11% in France. Harp seals were most commonly named in Canada (17%), West Germany (22%) and Norway (18%). The high percentage able to name harp seals (recorded as *Sattelrobbe*) in West Germany seems remarkable, but it was consistent in all sections of the population. The only other species commonly named were harbour and hooded seals in Norway (both 11%) and grey seals in the United Kingdom (17%). This last result was to be expected in view of the publicity given to the culling of this species in the United Kingdom in recent years.

In the Royal Commission poll's question about the number of seals in Canadian waters, the Norwegians represented the largest group of respondents who chose the right category (3-10 million). In all other countries except the United States, the distribution of the selections was centred on

the 500,000 to 3 million range; in the United States the most common selection was 50,000–500,000. The proportion of respondents unable to make a guess ranged from 31% in Canada to 56% in West Germany and Norway.

The final question which examined the respondents' knowledge of seals asked for their expectation of the effect of killing 60,000 harp seals in 1983. At one extreme was the response from the United States, where 94% thought that they knew the answer; of these, 81% of the whole sample thought that the population would decrease. At the other extreme, in Norway, only 61% had a view on the question, and the greatest number of these respondents (31% of the total) thought that there would be no effect; 26% thought that the population would decrease. Canada, the United Kingdom, France and West Germany stood in intermediate positions; even in Norway only 4% gave the answer consistent with generally accepted scientific information, that the population would increase.

In general it appears that the proportions of respondents, and therefore, presumably of the population, who take a highly protective view of seals and seal hunting is highest in France and West Germany, and only slightly lower in the United States and the United Kingdom. It is lowest in Norway and slightly higher in Canada. Such a statement can, however, be made only in very general terms, since there are quite marked inconsistencies among the responses to different questions when they are viewed in this way. Knowledge of the seal populations tends to be lowest in the United States and highest in Norway and Canada; the other countries occupy an intermediate position.

## Differences among Provinces

Both the Royal Commission poll and the CSA poll examined the differences among provinces in the responses to the various questions. The percentage composition of the responses by province for the Royal Commission poll is summarized in Table 11.7. Although there is little variation among provinces in the attitudes to animals, there are other quite substantial differences among provinces, but they do not seem to follow any clear-cut pattern.

In all provinces seals are the animals whose killing causes most concern. The percentage of respondents concerned about them increases westward, but concern about other animals, particularly other fur-bearers and whales, increases more sharply.

**Table 11.7**  
**Differences among Provinces in Responses to the Royal Commission Poll<sup>a</sup>**

	Atlantic	Quebec	Ontario	Prairies	B.C.
<b>Species causing concern:</b>					
Deer	13	12	9	11	8
Seals	25	22	40	30	44
Other fur-bearers	2	5	13	11	18
Whales	3	5	13	11	31
<b>Acceptable use of animals:</b>					
Any use	6	4	2	5	3
Prevent extinction, minimize suffering	42	47	50	50	45
Non-trivial use, minimize suffering	46	37	39	38	45
No use	1	4	6	3	4
<b>Countries known to take seals:</b>					
Canada	87	63	81	74	71
Norway	23	9	15	15	17
U.S.A.	9	14	22	17	16
U.S.S.R.	11	6	22	23	26
Japan	1	1	5	5	11
<b>Acceptable hunting:</b>					
<b>Native people</b>					
Food & clothing	85	69	86	84	81
Cash	27	22	29	32	32
Cash for hunting	15	15	20	27	16
<b>Local communities</b>					
Food & clothing	51	35	50	52	56
Cash	21	15	20	23	20
Cash for fishery	22	11	17	20	20
Large-scale commercial	8	6	1	3	3
<b>Object to seal hunt because of:</b>					
Inhumaneness	43	28	52	49	54
Killing pups	27	31	42	44	40
Unnecessary	5	8	18	11	22
Use of skins	19	14	21	21	36



**Table 11.7**  
**Differences among Provinces in Responses to the Royal Commission Poll<sup>a</sup> (continued)**

	Atlantic	Quebec	Ontario	Prairies	B.C.
Endangers species	23	22	25	30	36
Killing wild animals	3	7	8	4	8
Killing all animals	7	4	9	4	4
<b>Seals identified:</b>					
Harp	27	4	20	14	44
Hooded	13	3	1	0	4
Harbour	10	5	3	3	19
Grey	13	2	6	2	6
Northern fur	0	4	1	1	10
Steller sea lion	3	1	2	1	11
California sea lion	4	1	3	0	9
<b>Numbers of seals:</b>					
Over 10 million	6	5	4	2	3
3 million to 10 million	16	11	17	10	8
500,000 to 3 million	33	17	24	26	32
50,000 to 500,000	20	21	20	15	18
50,000 or fewer	6	6	11	10	9
Don't know	18	39	24	37	30
<b>Effect of killing 60,000 harp seals:</b>					
No difference	35	23	24	23	12
Increase	7	2	3	3	1
Decrease	49	49	59	62	68
Don't know	9	25	14	11	18

Source: Extracted from Canadian Gallup Poll Limited (1986b).

a. Entries are percentages of respondents.

Knowledge that Canada and Norway are engaged in sealing is greatest, not surprisingly, on the Atlantic coast. Similarly, knowledge of the sealing activities of the United States and the U.S.S.R., which are involved in taking northern fur seals, is highest on the Pacific coast; so also is the belief that Japan is taking seals.

The kinds of hunting which are found acceptable vary little among provinces, although Quebec shows a lower level of acceptance of sealing in local communities, whether aboriginal or not, than does any other province. Acceptance of large-scale commercial hunting is not quite as low in the Atlantic provinces and Quebec as elsewhere.

There is a tendency for the proportion of respondents objecting to the seal hunt on each of the various grounds, except as part of an objection to killing all animals, to increase westward. The proportion objecting on the grounds of inhumaneness is particularly low in Quebec.

Knowledge of the various species of seals is best, broadly speaking, in British Columbia and, for the local species, in the Atlantic provinces. It is low in Quebec, where, surprisingly, only 4% of respondents named the harp seal. Views on the size of the Canadian seal population showed no significant difference among provinces. In general, a protective attitude towards seals tended to increase westward, but it was lowest in Quebec.

Part of the CSA poll results were also available broken down by regions, and some of the most significant figures are summarized in Table 11.8. In this table the Maritimes apparently are taken to include Newfoundland, while the West includes both the prairie provinces and British Columbia. In this poll, also, there is a general tendency for a protective attitude towards seals to increase westward, although Quebec shows a high level of concern about the effect of the hunt on the survival of the species.

The CWS poll gives some information about the distribution of attitudes to wildlife across the provinces and some results are summarized in Table 11.9. The belief that preventing extinction of species is important and the participation in non-consumptive activities relating to wildlife, such as bird-watching, both show a strong tendency to increase towards the West.

**Table 11.8**  
**Differences among Provinces in Responses to CSA Poll<sup>a</sup>**

	Maritimes	Quebec	Ontario	West
Some or great interest in seal hunt	83	80	91	89
Benefits of seal hunt:				
Jobs	55	28	42	44
Clothing	9	17	11	10
Meat/food	14	10	5	2
Controls seal population	21	10	5	12
Disadvantages of seal hunt:				
Cruelty	33	30	51	46
Killing for clothing	6	7	12	14
Endangers species	7	15	9	15
Killing pups	5	7	11	10

Source: Extracted from Research Dimensions (1985).

a. Entries are percentages of respondents.

Participation in consumptive activities such as hunting shows no simple trend, although there are quite strong differences among provinces. This suggests that the tendency for a protective attitude to seals to increase westward, shown by the Royal Commission and CSA polls, is not a simple matter of distance from the main seal hunt, but a reflection of a more deep-seated trend in attitude.

A rather similar tendency for knowledge to increase from East to West was shown in the United States by the Kellert poll. There the level of knowledge of animals in general was much higher in the Rocky Mountain and Pacific states than in the northeast and north central states. It was highest of all in Alaska.

**Table 11.9**  
**Attitudes of Canadians to Wildlife**

	A	B	C
Newfoundland	77.9	71.4	39.1
Prince Edward Island	78.3	76.8	26.3
Nova Scotia	83.1	81.1	32.4
New Brunswick	77.6	79.3	36.6
Quebec	75.5	82.6	29.5
Ontario	83.3	81.5	22.1
Manitoba	81.8	83.8	28.4
Saskatchewan	84.0	84.7	33.8
Alberta	88.4	86.5	29.7
British Columbia	89.1	87.0	24.1

*Source:* Canada, CWS (1983, Tables 5.12, 5.21, 5.22).

*Note:* Percentage of Canadians relating to wildlife as:  
 A = believe preserving endangered species important;  
 B = take part in non-consumptive wildlife activities;  
 C = take part in consumptive wildlife activities.

### Other Demographic Attributes

The results of the Royal Commission poll were analysed by the Gallup organization on the basis of a number of other attributes of the respondents: sex, mother tongue, income, level of education, age, occupation and size of community (Canadian Gallup Poll Limited, 1986b). The following paragraphs refer to the analysis of the Canadian responses.

Concern about seals is mentioned more often by women than by men, by young people more often than by older people, by those with a high school education more often than by those with either a public school or a university education, and by anglophones more frequently than by franco-phones.

In attitudes to animals, women considered that animals should be taken only for important uses rather more often than did men.

Canada was recognized as a sealing country more often by men than by women and more often by respondents at higher rather than lower levels of income and education.

Men generally found hunting by Inuit and local communities to be acceptable more often than did women. The exception was hunting by Inuit to provide food and clothing, which was equally acceptable to men and women. Large-scale commercial hunting was equally unacceptable to a great majority of both men and women.

The proportion of respondents finding the seal hunt unacceptable was higher for women than for men, for younger as compared with older age groups, for those with higher levels of education rather than lower, and for anglophones as compared with francophones.

Ability to name any of the Canadian species of seals tended to be higher among men than among women, at higher levels of education, possibly at higher income levels, and among anglophones as compared to francophones. The remarkably small number of people in Quebec who could name the harp seal is reflected, again, in a similarly small number of francophones naming this species.

Men and people with higher levels of education were most willing to guess at the size of the Canadian seal population, but men also tended to underestimate it to a greater extent than did women.

Probably the strongest difference between the sexes was in the expected effect of a catch of 60,000 harp seals in 1983. Many more women than men thought that this catch would reduce the species population.

No very clear-cut differences were found among respondents from rural communities, communities of 1,000–100,000 people, and communities of over 100,000 people.

## **Discussion**

This chapter has compared the findings of several different polls as indicators of public opinion on most of the important issues related to the hunting of seals in Canada. In general, these results have shown a substantial degree of consistency among the polls, and where differences have been apparent, it has been possible to ascribe them reasonably to differences in timing or in details of the particular questions asked. This consistency

must add to the confidence with which the results of these inquiries can be viewed.

## Awareness and Concern

The public awareness of, and concern about, the "seal hunt" can be considered here from three points of view. These are:

- awareness that the hunt exists and knowledge about it;
- level of concern about the hunt as compared with other broad issues of interest to the public;
- level of concern about the killing of seals as compared with the killing of other animals, both wild and domestic.

In this context, the "seal hunt" can safely be interpreted as meaning the killing of harp seal pups in Canada by clubbing. Knowledge of, and concern about, other aspects of hunting seals in Canada are probably very small by comparison.

The level of awareness of the seal hunt and of self-assessed knowledge about it is undoubtedly very high in all countries examined. The IFAW poll found that 88% of Canadians and 71% of U.S. citizens were aware of the hunt, and the Kellert poll found the self-assessed level of knowledge higher for seals than for any other wildlife issue examined.

The CSA poll found, however, that the level of interest in the seal hunt was much lower than that in three non-wildlife issues: capital punishment, conservation of national resources (wildlife might be seen as a component of these by some respondents), and nuclear waste disposal. It was about equal to the interest in a number of other animal issues: wildlife management, use of animals in scientific experiments, and humane treatment of farm animals.

The discarding by the CSA poll of nearly one-quarter of those approached because of their association with environmental activities could have had some effect on these results, but is unlikely to account entirely for the greater degree of selection of non-wildlife over animal issues. If all the people discarded had nominated the same animal/environmental issues as causing them concern and had not nominated any of the other issues, the proportions nominating the two groups would have been about the same, and

the most favoured animal/environmental issues would still not have scored significantly higher than the other issues.

The level of concern was specifically related to killing in the Royal Commission poll. Here the killing of seals caused concern to more people than the killing of any other animals. This was true in all the countries where the poll was conducted. In Canada one-third of those examined named seals as causing them concern; the next most frequently named animals were whales and deer, which were named by 12% and 11% of respondents respectively; 46% of respondents did not name any animal as causing them concern.

The IFAW poll examined support for, or opposition to, the hunt and found a very high level of opposition. In Canada 38% of respondents were strongly opposed, and 22% somewhat opposed; only 5% had no views. In the United States, the United Kingdom and West Germany, the percentages opposed were even higher. At first sight there seems to be some inconsistency between this result of 60% of respondents opposed to the hunt and the Royal Commission poll in which only 33% identified seals as animals whose killing caused them concern. The difference probably arises from the fact that the Royal Commission poll did not prompt respondents by suggesting what animals they might nominate – indeed, at the time the question was asked, respondents did not know that the poll was about seals at all – while the IFAW poll asked specifically: “How do you feel about the killing of baby seals?” The response to the unprompted question probably reflects more accurately the extent to which the issue is in the minds of Canadians. About one-third are sufficiently aware of, and concerned about, the harp seal pup hunt to identify it without being reminded of its existence. About another third state concern after they have been reminded that the hunt occurs. This division is consistent with the CSA poll, in which about one-third of respondents expressed “great interest” in the seal hunt and one-third expressed “some interest”.

## Attitudes to Animals

All the evidence indicates that within the broad spectrum of views of humanity's relation with animals (Chapter 8), the great majority of people take an intermediate position. The proportions who believe that any use of animals is permissible, and, at the other extreme, that any use is wrong, are both under 8% of the population in all the countries examined. Within the middle ground, minimization of suffering, prevention of the extinction of any

species and use only for non-trivial purposes are generally regarded as important limitations on the use of animals.

The CSA poll also indicated a high level of acceptance (81%) for killing animals to maintain the balance of the population; if all the potential respondents who were discarded on account of their environmental affiliations had been included, and if all those included had been opposed to this view, the percentage supporting it would have been reduced to about 66%.

### Aspects of the Hunt Causing Concern

Information on this point was drawn from the Royal Commission, CSA and IFAW polls. The results agree in identifying the perceived inhumaneness of the hunt as being much the most common reason for objection to it. They also agree in identifying three other reasons as important; these are that baby seals are killed, that the species is endangered, and that the skins are used for a trivial or unnecessary purpose, such as providing luxury clothing. There is no consistency among the three polls on the relative frequency with which these three reasons were identified. The frequency probably depends on the precise wording of the questions and the context in which they are presented. It may, for instance, be significant that the killing of baby seals was named considerably more often in the Royal Commission poll in which this reason was specifically offered to respondents than in the CSA poll which was open ended.

The proportions of Canadians responding to the Royal Commission poll by recording an objection to killing wild animals or killing any animals were 7% and 6% respectively, not much greater than those who, in replying to a previous question, considered all use of animals wrong.

The CSA poll was the only one which specifically elicited views on clubbing as a method of killing seals. The proportion of respondents who considered that clubbing should be banned (presumably because it was thought to be cruel) was 79%, and only 12% disagreed; the other 9% had no views. To the subsequent proposition that killing with rifles was more humane than clubbing, 60% agreed and only 22% disagreed.

### Good Features of the Hunt

The only polls which asked for reasons that influenced respondents favourably toward the hunt were the CSA poll and the 1982 IFAW poll (Ryder,



1985b). Both polls were open ended, and in both provision of jobs was seen as the principal beneficial feature. Across the country 39% of respondents to an open-ended question in the CSA poll thought that the job factor was a beneficial feature, as compared with 30% who thought that there were no beneficial features. Provision of food and/or clothing was much less frequently mentioned.

## **Social and Economic Bases of Seal Hunting**

The Royal Commission and CSA polls explored in rather different ways respondents' attitude to the fact that communities may engage in seal hunting for a variety of reasons, and showed that the purpose behind the hunt may have a great effect on public reaction to it. The Royal Commission poll found strong support (81%) for sealing to provide food/clothing (i.e., for subsistence) for Inuit communities, and less, but still substantial, support (47%) for similar activities in "local communities in Newfoundland and Quebec." The CSA poll found that 90% of respondents agreed with the proposition that "killing of wild animals is acceptable if a person's survival or livelihood depends on it." There are two uncertainties about this response. First, the question refers to "animals" and not "seals", although it was inserted among other questions specifically relating to seals. Secondly, the term "livelihood" might be ambiguous; to some people it might be equivalent to subsistence (i.e., food or clothing); to other people it might include provision of the cash income on which a person lives. The CSA poll, at least, supports the view that there is strong public approval of taking seals for subsistence purposes.

As has been outlined above, the much lower percentages of people willing to accept hunting of seals by Inuit and other local communities to provide cash, and particularly to provide cash to enable them to undertake the hunting and fishing essential for their survival, suggests that the public has very little understanding of the socio-economic realities by which these communities survive.

## **Implications for Management**

In a democratic country such as Canada, government policies and actions will normally have the support of a large part of the population or, at least, will not be opposed by a larger and more vocal group of the population than that which supports them. The seal hunt has been a rather unusual

issue in that it has aroused strong and conflicting feelings among quite large segments of the population while remaining essentially outside the realm of party-political debate.

In such circumstances the issues facing government are basically twofold: how it should modify its policies and activities to satisfy the wishes of particular sections of the public, and whether it should try to modify public opinion where it is internally inconsistent or based on false premises such as ignorance of the size of the seal populations. The surveys reviewed in this chapter provide examples of the kinds of information on public knowledge and opinion which should be helpful to the government in the development of policy regarding seals and sealing. The immediate implications of this knowledge to the development of present policy are discussed in later chapters, particularly Chapters 12 and 30. The concern here is with the problems of collecting and interpreting useful information on the state of public opinion.

The public opinion polls have confirmed what was already apparent: that there is a substantial segment of the public strongly opposed to continuance of the killing by clubbing of large numbers of harp and hooded seal pups for their fur. The bases for this view are primarily the apparent cruelty of the killing and, secondarily, that pups rather than older animals are killed, that the skins are used mainly for luxury goods, and that the hunt is believed to endanger the survival of the species.

If the large-scale pup hunt were discontinued, the major focus for opposition to seal hunting in general would be removed, and polls show relatively low levels of opposition to other aspects of the hunt. There is, in fact, strong positive support for continuance of subsistence hunting to provide food and clothing, particularly by Inuit, and opposition to the hunt as a means to provide cash applies much less to Inuit and local communities than to groups engaged in large-scale commercial hunting.

Whatever policies are adopted toward seal hunting, acceptance by the public is likely to be improved by increased knowledge of all the aspects involved, including the status of the seal stocks, the nature of the hunt, and the significance of the hunt to people who undertake it. The polls have shown clearly that the general level of public knowledge of all these aspects is extremely low. If public knowledge of seals in Canada is similar to that of the United States, then the results of the Royal Commission and Kellert polls would suggest that the Canadian public also know much less than they think they do. The CSA found that about half the respondents polled would

like to have more information about the seal hunt and identified all the aspects listed above as areas in which they would be interested.

Given the low level of public knowledge about seals and sealing, and the likelihood that raising that level should help to increase support for government policies on these matters, it is significant that the CSA poll showed that a substantial majority of people considered the government responsible for providing this information. Only a few people thought that this undertaking should be the responsibility of the special-interest groups on one or both sides of the debate.

It is also significant that in spite of the large amount of publicity material which has been directly distributed by the anti-sealing organizations, as well as much smaller amounts originating with other interested bodies, the overwhelming majority of respondents to the Royal Commission poll stated that they had obtained their information about seals from news items in the media. This statement seems to imply that if the government is to make a successful attempt to raise the level of public knowledge about seals and sealing, it should try to make as much use as possible of the media by providing information and drawing attention to events which the media will see as interesting to the public. There can be no doubt that much of the success of the anti-sealing campaign has come from the ability of the protest groups to use the media in this way. This success has been helped by the fact that to many elements of the media, controversy, "horror stories" and confrontations are much more newsworthy than the successful development of management policies for wildlife resources and their contribution to the prosperity of local communities.

The present study has added to the understanding of the feelings and knowledge of Canadians about seals and sealing. It has identified many of the matters which are of concern to them, as well as showing the deficiencies in their knowledge of the subject. It has therefore provided a basis on which programs of public information could be built to develop knowledge and understanding of future policies relating to seal hunting and the management of the seal populations; it is assumed, of course, that any such policies would have sound social, economic and biological bases. If such programs are to be effective, it will be essential to continue to monitor public knowledge and opinion on at least some of the critical issues. This undertaking will be necessary to determine what effect the program is having so that any necessary modifications may be made.

The Royal Commission recommends, therefore, that the government take more effective steps to ensure that the public is well informed on the

bases for any programs and policies it may develop in relation to seals; that it make as much use of the media as possible; and that it also undertake public opinion surveys at regular intervals to find out how opinion is changing on matters which may affect these policies.

## **Conclusions**

1. Opinions on the killing of animals range from the view that any utilization of animals is permissible, to the view that all use by human beings is wrong. The great majority of the public hold intermediate views and accept the killing of animals to provide food and clothing, subject to the prevention of unnecessary cruelty and the preservation of species and populations.
2. The public is more concerned about the killing of seals than about the killing of any other animals, but this concern is exceeded by concern about a number of other issues, including some of an environmental nature, such as wildlife management.
3. The principal cause of public concern about seals is the cruelty believed to be involved; other important aspects are the killing of "baby" animals, survival of the species, and luxury use of the products.
4. There is considerable sympathy with the traditional hunting of seals for food and clothing, by both aboriginal and non-aboriginal peoples, and somewhat less for hunting seals to provide cash to support other subsistence activities.
5. Only a very small proportion of the public views large-scale commercial seal hunting as acceptable.
6. The public sees nearly all its information as coming from the media, rather than from either protest groups or the government; nevertheless, it strongly expects the government to be the primary source of information.
7. There are no major differences in the range of public opinion between Canada and the other western countries examined. There is, in general, greater support for the seal hunt in eastern Canada. This is partly

because of proximity to the communities directly affected, but may also be partly the result of a general tendency for sympathy for wildlife to increase westward across the continent.

## **Recommendations**

1. The Canadian government should develop a more constructive approach to public information about sealing and should ensure, on a continuing basis, that public opinion is much more fully informed on the grounds of government policies relating to seals.
2. This approach should include facilitating greater balance in the public presentation of the views of the sealing communities and those of other interested groups.
3. The government should make the most effective use possible of the media in disseminating information about sealing.
4. The government should undertake regular studies to examine public knowledge and views regarding seals, both to assist it in taking account of these views in formulating Canadian seal management policies, and to enable it to ensure that its activities aimed at keeping the public fully informed about the issues underlying these policies are effective.

## **References**

- Canada. Canadian Wildlife Service (CWS). 1983. The importance of wildlife to Canadians. Canadian Wildlife Service, Environment Canada, Ottawa.
- Canadian Gallup Poll Limited. 1986a. A survey of public attitudes in six countries to seals and sealing. Technical Report 6, Royal Commission on Seals and the Sealing Industry in Canada. Deposited with DFO Headquarters Library, Ottawa.
- Canadian Gallup Poll Limited, 1986b. Statistical reports on seal hunt. Technical Report 7, Royal Commission on Seals and the Sealing Industry in Canada. Deposited with DFO Headquarters Library, Ottawa.
- Fisheries Council of British Columbia, 1985. Brief to the Royal Commission on Seals and the Sealing Industry in Canada. Vancouver.

---

*Public Opinion on Sealing*

Kellert, S.R., and J.K. Berry. 1980. Knowledge, affection and basic attitudes toward animals in American society. U.S. Dept. of the Interior, Fish and Wildlife Service, Washington, D.C.

Research Dimensions. 1985. A quantitative report on attitudes among Canadians toward the seal hunt, Phase II. A report prepared for the Canadian Sealers Association. Research Dimensions, Toronto.

Ryder, R.D. 1985a. Some notes on public opinion in Canada and abroad. Brief to the Royal Commission on Seals and the Sealing Industry in Canada. On behalf of International Fund for Animal Welfare, Haytor Vale, Devon, U.K.

Ryder, R.D. 1985b. International Fund for Animal Welfare, Haytor Vale, Devon, U.K. Letter to Judge A. Malouf, Royal Commission on Seals and the Sealing Industry in Canada, 16 April 1985.

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# Chapter 12

## Should Seals Be Killed?

*If we are to accept the killing of hundreds of millions of animals for human consumption, which, in spite of legislation, involves a degree of physical suffering and mental trauma far in excess of that suffered by the seal, then it seems difficult to understand how the proper killing of seals can be considered unethical (Hughes, 1985).*

### Introduction

In considering Canadian policy towards seals and sealing, it is clear that before examining details of policy (which will be done in Chapter 30) some broad questions of principle need to be addressed: Should all killing of seals be prohibited? And if some killing is permitted, under what conditions? Should these conditions be more or less stringent for different types of sealing? – large-scale industrial sealing; subsistence sealing; that based on older seals or on pups, and so forth.

Earlier chapters have shown that there is a wide range of opinions on these matters. At the same time it is also clear that by and large, those who would not immediately rule out all killing of animals as a matter of principle agree on certain limiting factors. These factors must be taken into account in determining whether a given operation that involves killing seals (or other animals) should be considered acceptable:

- the degree of cruelty inflicted;
- the conservation of the seal stocks and the environment in which they live;
- the importance of sealing and the products of sealing to those engaged in this activity, including the importance of any benefits to fishermen if culls of seals were undertaken to protect fishing interests.

In some circumstances, consideration of these factors will give clear guidance as to whether a particular type of sealing should be allowed. There is near unanimity that killing of seals should not be permitted if it involves excessive cruelty, or if it endangers the survival of the stocks, and these points can often be settled by reference to objective and verifiable facts, such as how much pain is inflicted, or what is the status of the stocks.

In many other circumstances the issue is much less clear cut. How important must the uses of the product from a given seal hunt be if the hunt is to be considered acceptable? Given that occasional pain is bound to be inflicted when large numbers of seals are killed, how much pain can occur in a given hunt before that hunt should be considered as unacceptable? In such cases appeal may have to be made, on the one hand, to moral and ethical considerations, and, on the other, to public opinion and examination of what, on other occasions, may have been considered important purposes or minor degrees of suffering.

In this chapter the Royal Commission examines the evidence for these criteria in order to reach a decision on whether seals should, in fact, be killed.

## **The Humaneness of the Seal Hunt**

The Commissioners state categorically that if seals are to be killed, for whatever purpose, this action must be done "humanely". Unfortunately, humaneness was frequently of little concern during the very large-scale hunts of the 1800s. During the past two decades, the Government of Canada has intervened extensively to improve the conditions under which the hunting of whitecoat seals is permitted, and the methods by which seals are killed. Still, there continue to be practices that the Commissioners find to be unacceptable. The netting of seals is a method of kill that results in slow suffocation and protracted suffering. Again, some sealers shoot seals in the water with the intent of wounding the animals so as to assist in recovering them before they sink. Both practices are inhumane, and the Royal Commission has made recommendations concerning them. (See Chapter 20.) The shooting of seals on land or ice, or even in the water is as humane as, and in most cases more humane than, much big game hunting. Unfortunately, there are known to have been instances where, because of ice conditions and/or unskilled hunters, seals have not been killed outright by shooting. The same can be said of deer and many other species of game animals and birds.



Most public attention has focused on the whitecoat hunt. At the outset, it must be recognized that there are two perspectives on the humaneness (or lack of it) of clubbing seal pups. One perspective is that of the pain caused to the victim, that is, the seal pup. The other perspective is the effect on the witness, that is, the general public. These two perspectives are addressed in turn.

From the perspective of the victim, the clubbing of seal pups involves little if any suffering when done "properly". (See Chapter 20.) The kill itself is virtually painless, as the animal is rendered instantly unconscious. Virtually no stress occurs prior to the kill, and there is little evidence of stress to the mother seal or to other seals when the pup is clubbed. Various estimates have been given about the proportion of seal pup killing that has not been done properly in recent years. That percentage does not seem to have been large in most years (with some serious exceptions, such as when the seals came close to Prince Edward Island in 1981). It is nevertheless disturbing.

From the perspective of the bulk of the North American and European general public, the clubbing of seal pups presents a brutal and, literally, bloody image that is extremely shocking to those seeing pictures on television or in magazines. Whatever the actual degree of pain and stress inflicted on the individual seal, the impact on the public is wholly negative. Clubbing is widely viewed as unacceptable, whatever the arguments about its "humaneness" and the actual pain involved.

## Conservation

Some basic principles of conservation have been set out in the World Conservation Strategy (IUCN, 1980). The function of this strategy is:

- to maintain essential ecological processes and life support systems;
- to preserve genetic diversity;
- to ensure the sustainable utilization of species and ecosystems.

Seal hunting has not always been consistent with these principles. (See Chapters 21 and 22.) Until the application of quotas in the 1970s, the harp seal stock was declining. Earlier the fur seal stock was severely depleted before international conservation measures were introduced in 1911.

The grey seal stock is now increasing fairly rapidly. It is not clear why its numbers were so low in the 1930s, since there are references in descriptions of the early days of European settlement in Canada which suggest that grey seals were then reasonably abundant. It is therefore possible that we are seeing the later stage of the recovery of the grey seals from an earlier time of severe overexploitation.

The present situation is different. Where there has been significant exploitation, catches have been controlled to approximate the sustainable yield or less, and it is clear that no species or stock is endangered. The only seal for which significant concern about its continued existence might be justified is the northern fur seal. (See Chapters 22 and 23.) There has been a continued decline which, while not yet threatening, could lead to a low and dangerous stock abundance, if it is not halted. However, the decline seems the result less of hunting than of entanglement in debris or other circumstances.

Similarly, bearing in mind the non-selective nature of the hunt, there seems no threat to the genetic diversity of any seal stock in Canada, nor does present sealing threaten the maintenance of essential ecological processes. (See Chapter 27.) There is therefore no reason, on conservation grounds, to prohibit any current type of sealing, though as a matter of principle, any activity involving the killing of significant numbers of seals should be accompanied by a monitoring of the resource to ensure that conservation objectives are satisfied.

It should be noted that the protest movement against sealing can have an effect on the successful implementation of conservation principles to other wildlife or environmental issues. While the conservation movement is supported in most of Canada and the rest of the world, it is not supported in some areas where sealing is carried on. To many people in those areas the anti-sealing movement is seen as an attempt, by people remote from the seal areas, and often badly informed about seals and sealing, to impose inappropriate urban values on others, often much poorer than themselves. This adverse reaction to this aspect of the conservation movement has had the effect of reducing the credibility of all conservation activities in regions such as Newfoundland. (See Chapter 9.)

## **The Importance of Sealing**

Many argue that the ultimate use of many sealskins to make luxury coats or other products which the wearer could well do without is an impor-

tant consideration in determining whether seals should be killed. When judged only by such end uses much sealing can be seen as trivial and thus, from several viewpoints, unjustifiable. This seems a narrow view, for a broader view would take account of all those involved, from the seal hunter, to the processor, to the ultimate user.

The actual amount of cash earned by all but the most economically successful sealer may appear small by the standards of the average Canadian per capita income, but for many sealers it is of great consequence. Moreover, when allowance is made for all the relevant factors – the value of the meat and skins consumed by the sealer and his family, the low average income in most areas in which sealing occurs, and the absence of alternative employment, especially during the sealing season – it is clear that sealing is very important, and that the cash returns grossly underrepresent the real economic and social importance of sealing to communities directly concerned. There may be exceptions but in general, if the serving of a significant practical purpose is a criterion of the justification for the killing of animals, most current forms of killing seals are equally justifiable or more so than most other occasions of human killing of animals. The killing of seals to protect fishing interests is a more complex issue. Few would deny that in most communities, fishing is an important activity. It is often less clear whether the expected benefits to fisheries from a cull are sufficiently large or have been demonstrated with sufficient certainty to justify a cull. This issue is considered in Chapters 29 and 30.

In summary, therefore, consideration of the three factors identified earlier indicate that with some minor exceptions, sealing in Canada appears to avoid undue cruelty, not to threaten the stocks, and to serve important purposes. Nevertheless, it may still be argued that sealing is unacceptable in principle on ethical or moral grounds. These arguments will now be examined.

## **Ethical Considerations**

Several presentations to the Royal Commission stressed that the question of the acceptability of killing of seals should be treated as an ethical and moral issue. Two versions of the basic ethical argument against sealing were put forward:

- the absolutist view that killing of seals was in itself, regardless of cruelty or conservation considerations, wrong (e.g., Hamilton, 1985); and

- the judgmental view, that the interests of seals should be taken into account, and that killing of seals could be acceptable only if benefits to humanity from sealing exceeded the harm inflicted on the seals (e.g., Singer, 1985).

Few people supported the absolutist view but it is important to examine it, since if it is followed, further consideration of the actual conditions and importance of sealing is irrelevant, as any sealing would be unacceptable. It is therefore examined at some length. It has been most clearly stated in respect of killing farm animals for food (e.g., Clark, 1977). Those holding this view believe that all killing is wrong and therefore abstain from eating meat. Applied to domestic animals, this approach can be internally consistent, and opponents of sealing who hold these views avoid the complaints against those who protest sealing and then go home to eat meat.

Application of the absolutist viewpoint only to wild animals meets logical problems. To be consistent, any human act leading to the death or suffering of an animal should be opposed. As noted earlier, deliberate killing is only one element, and in most cases only a minor element, of humanity's impact on the numbers and well-being of wild animals. Urbanization, clearing of forests, ploughing of grasslands for agriculture, and spraying to protect crops all have much more harmful effects on the ecosystem and the general welfare of animals than have properly controlled levels of hunting. It is questionable, therefore, whether even if the absolutist view were generally adopted – and it is held at present by only a very small minority of the population – it would really be of much net benefit to animals. Some philosophers (e.g., Frey, 1983) therefore reject this view, and the views that animals should necessarily be considered as having "rights". They point out that the occurrences – some kinds of factory farming, or animal experimentation – that give particular offence to those holding absolutist views and, indeed, to many ordinary members of the public are better tackled directly on the well-established grounds of prevention of cruelty and animal welfare.

Adoption of an absolutist attitude also implies at its logical extreme that animal rights always take precedence over human interests. Most upholders of animal rights would reject this concept. Thus, even Singer (1985), one of the foremost spokespersons of the animal-rights movement, in his submission to the Royal Commission stated:

*It is not necessary, for the arguments that follow, to give the same weight to the suffering of seals and humans; all*

*that is required is that we accept that nonhuman animals should not be killed or made to suffer significant pain except when there is no other way of satisfying vital human needs. (Emphasis in original.)*

If "vital" does, in fact, mean "matters of life and death" this statement would appear to rule out virtually all sealing, including occasions when killing seals may be the only alternative to going hungry and possibly suffering a period of malnutrition. It would seem to imply putting the interests of seals at a level at least as high as those of humans. If a less narrow interpretation of "vital" is used, the question becomes one of judgmental ethics, and of determining which interests of humankind are sufficiently "vital" to justify killing seals. This view of the ethical or moral questions – that the issue is essentially one of balancing harm to seals against benefits to humans – was clearly put by Sumner (1982, 1985).

This "bookkeeping" approach has the attraction of appearing objective and scientific. In practice the lack of any common scale on which both costs to seals and benefits to mankind can be measured and weighed against each other makes the value of this approach questionable. If one's mind is already made up in favour of seals, it is easy to believe that the slaughter on an immense scale in a vast open-air abattoir, together with the doubts about conservation issues and the degree of pain inflicted, outweigh the minor marginal contribution to the economy of the province. If one holds preconceived views in favour of sealing, the weights on the costs side will be reduced by the possibility that death by clubbing may be less painful than other forms of death that a seal faces; and that its life expectancy (as distinct from its potential life span of 25–30 years) is relatively short: about 10 years for an adult and less for a pup. Similarly, the elements in the benefits side can be given greater weight by noting the importance of sealing to many inhabitants of small isolated communities, in their annual cycle of activities. Stop sealing, and the whole cycle is disrupted. In both cases what may be intended as an objective assessment can easily become no more than confirmation of existing prejudices.

Ethical and moral considerations, therefore, necessitate balancing the interests of humanity and seals, but even this approach is of little help in determining, in any particular case, whether killing of seals should be permitted. In this situation appeal to the public offers one way of determining what should be accepted.

## Public Opinion

National and international public opinion on any issue certainly exercises a powerful influence on governments. Governments elected to serve their constituents ignore widely held views at their peril. That is the nature of the democratic process. This reality, therefore, dictated a serious examination of public opinion. This examination was conducted in two ways: directly through opinion polls and indirectly by examining the conditions under which the public accepts the large-scale killing of other species of animals, domestic and wild.

The public opinion poll conducted by the Royal Commission (Chapter 11) indicated that the great majority of Canadians (88%) accept, in general, the killing of animals. This high percentage, however, must be qualified. Canadians are concerned that any use or killing of animals be properly controlled to minimize suffering and to prevent extinction of the stock and that animals be killed only when such killing serves non-trivial uses. Similar majorities were found in the other five countries where the Royal Commission conducted a poll.

Logic might presumably dictate that this conclusion applies equally to the killing of seals. There appear to be few, if any, reasons why seals should be viewed differently from other sentient animals, such as hogs, sheep, cattle and deer. The Royal Commission poll indicated that a small minority (5%) of Canadians and a somewhat larger, but still small, percentage (6%–22%) of people in the other five countries surveyed find all killing of seals unacceptable. It also indicated that a sharp distinction is drawn between killing of adult seals and the clubbing of harp and hooded seal pups. Only 7%–11% of Canadians accept the clubbing for commercial purposes of harp and hooded seal pups. As reported in Chapter 11, other countries share the aversion to the seal pup hunt. Further, there is no evidence that changing the method of killing (e.g., to use of the Hughes pistol) would make the hunt more acceptable. Public opinion against the seal pup hunt is strong, and it appears unlikely to change in the foreseeable future. Of course, large numbers of cows, pigs and other domestic animals are killed in slaughterhouses for food, and large numbers of deer and other wild mammals, as well as birds, are shot for sport. While there are those who oppose all these killings as matters of principle or ethics, the killings appear to be generally acceptable to the Canadian public. Judged by the criteria of conservation, cruelty or importance, however, many of these killings would appear to differ little, if at all, from sealing.

It is clear that the public tends to take a more protective attitude towards seals, especially young seals, than they take towards other animals. Before examining the implications of this attitude for future policy, it is worth considering why this distinction might occur.

## Why Seals?

A number of studies, such as those made by zoologist Desmond Morris and the Walt Disney interests in modifying the original form of Mickey Mouse, have investigated the attributes, explicit or implicit, that make an animal attractive. An attractive animal is well rounded, with big eyes, a large head and short limbs. Add dark eyes and white fur, and you have the ideal animal. You also have the whitecoat pup. Further, add white ice, red blood and a sealer with a large club and a skinning knife, and you have a picture that will give rise to widespread public concern. It is this public concern that is one of the major factors in the sealing issue. It exists quite apart from any evidence concerning the state of stocks. It is also distinct from scientific evidence about the pain felt by the seal, the time taken for the animal to reach unconsciousness or death, or the intensity of bonds between mother and pup. The concern is also strengthened by the perceived brutality of clubbing. It is serious because sealing, unlike, say, killing in a slaughterhouse, takes place in the open and potentially under the public eye and the eye of the television camera. Attempts to reduce the publicity by denying observers access to the sealing grounds would probably be unsuccessful and almost certainly counter-productive.

Another source of a sealing problem, over and above objective concerns with conservation of the stocks or undue suffering, is the lack of knowledge of a large segment of the public, particularly in the towns, of what life in the wild is really like. It would be exaggerating to imply that men or women living in Montreal or Toronto believe that in nature no seal would ever suffer or be killed, but there does seem to be a lack of appreciation that violent death is an inseparable part of the natural system.

A related, but more understandable, misconception is that killing of individual seals is incompatible with an interest in the long-term preservation of seals as a species or stock. Here the animal-rights, "thou shalt not kill" view, which would imply leaving animal populations completely undisturbed, and would seem to encourage the notion that humans should somehow separate themselves from nature, is in many ways directly opposite to the general view of the ecology or green movement, which stresses that

humans are part of the natural system and must behave as responsible members of that system, in respect of all their activities.

The latter view has a much sounder scientific base. In killing seals and other wild animals humans are behaving like another predator, albeit a well-equipped and sometimes a ruthless or short-sighted one. Natural predators co-exist with their prey, since any predator that exterminated its prey would soon follow it into extinction. In many cases, indeed, predation has little effect on the abundance of prey, which is more closely related to food supply or other environmental factors than to predation. Provided that humans behave like prudent predators, there is no reason why substantial sealing and large seal stocks cannot co-exist indefinitely. This is no mere theory, but is backed up by the practical experience of the only sealing operation – that in Uruguay – that has been controlled virtually since its beginning, shortly after the first coming of Europeans to the Americas, and has continued successfully ever since. (See Chapter 28.)

There are circumstances in which the opposition to any form of killing can be harmful to the cause of conservation and to the interests of the animal population as a whole. Destruction of habitat is a much greater threat to the survival of a species than all but the most intense and uncontrolled harvesting. Policy makers are best persuaded by economic arguments, and the existence of a sustained and economically valuable harvest can often provide the best ammunition for those wishing to preserve a sensitive habitat against the threats of "development". Many scientists, for example, believe that the best chance of preserving African wildlife, outside a few national parks, is to emphasize its economic value as a source of meat.

Given these factors affecting the public attitude to sealing and particularly the killing of seal pups, it is not surprising that the public makes a distinction between the clubbing of baby seals, and the shooting of adults. The former practice seems to be wholly unacceptable to current public opinion and would probably remain unacceptable however often it might be explained that the pups suffer little if at all, and that the hunt presents no threat to the stock. The reasons for the public's antipathy may be emotional, but the reasons are real, and they have to be taken into account in setting Canadian policy.

The public seems to make less distinction between the shooting of older seals and the killing of other animals. The hunting of adult seals is therefore, on the whole, no less, though no more, acceptable than hunting or



the slaughtering of domestic animals. The results of the Royal Commission poll indicate, however, that the public does make some distinction in the acceptability of different forms of hunting for older seals. (See Chapter 11.) The hunting of seals for subsistence by aboriginal peoples is widely acceptable, while the balance of public opinion is opposed to seal hunting in Newfoundland and Quebec for purely commercial purposes.

## Conclusions

At the beginning of this chapter two questions were raised: Should all sealing be prohibited? And if some sealing is to be permitted, under what conditions?

The Royal Commission can answer the first question unequivocally. A complete ban would be justified only if the extreme ethical viewpoint that all killing of animals is unacceptable were adopted. This view is held by only a very small minority. To adopt it in relation only to seals would be inconsistent with the Canadian policy towards domestic and game animals. The Royal Commission therefore rejects the concept of a ban on all killing of seals. Some forms of sealing should be allowed to continue as legitimate activities. Any sealing that is permitted should, however, be allowed to proceed only if certain conditions are satisfied:

- There should be no undue suffering.
- The seal population must be properly conserved.
- Sealing should serve an important purpose and should involve a minimum of waste.
- The form of sealing should be broadly acceptable to general Canadian opinion.

The rejection of a comprehensive ban on sealing does not imply that the Royal Commission believes that seals should be treated only as an economic resource to be used for commercial purposes. Indeed, the consideration that sealing should serve an important purpose implicitly recognizes that the interests of seals must be taken into account.

If the killing of seals is therefore acceptable in principle, the specific circumstances of each occasion on which seals are killed need to be examined

to determine whether or not they satisfy the conditions listed above. To do this for each type of sealing would be a lengthy process, and will not, with one exception, be attempted here, though the circumstances relating to some hunts including culling of harp and grey seals are discussed later, in Chapter 30 on Canadian management.

The exception is the whitecoat hunt. This hunt has attracted far more attention than any other aspect of sealing. It is clear that the clubbing of young harp seal pups (and also that of hooded seal pups) is not acceptable to the mass of the Canadian public, and that there would be wide public support of a formal ban on clubbing whitecoat and blueback seals. There are purely utilitarian reasons for supporting such a ban. As long as killing of baby seals continues or seems likely to be renewed, there will be protests. Some of them will be aimed at the market for seal products, and these, as recent experience in Europe shows, can cause serious loss of markets for products which were not the target, such as those from Inuit or other sealing.

It is likely that if the clubbing of seal pups ceases, protests against the seal hunt will die down, and the immediate public opposition to this form of sealing will weaken. If ever this form of sealing did recommence, however, the incentives for the protest will still exist, and the protests are likely to be as effective as before.

The Royal Commission wishes to stress that the proposal for such a ban is not based on consideration of humaneness or conservation. The Royal Commission believes that if a strong majority of the Canadian public is opposed to an activity, as appears to be the case for clubbing of baby seals, there need to be very strong arguments in favour of that activity, if the activity is to be permitted. No such arguments appear to support this form of sealing. The Royal Commission therefore concludes, albeit with some hesitation, that the killing of young harp and hooded seals (whitecoats and bluebacks) for commercial purposes cannot continue.

## **Recommendations**

1. The killing of seals should be permitted only when subject to appropriate controls on the numbers killed, the methods of killing, and the purposes for which they are killed.

2. The commercial hunting of the pups of harp seals (whitecoats) and hooded seals (bluebacks) is widely unacceptable to the public and should not be permitted.

## References

- Clark, S.R.L. 1977. *The moral status of animals*. Clarendon Press, Oxford.
- Frey, R.G. 1983. *Rights, killing and suffering: moral vegetarianism and applied ethics*. Basil Blackwell, Oxford.
- Hamilton, P. 1985. *Brief to the Royal Commission on Seals and the Sealing Industry in Canada*. On behalf of Liferforce Foundation, Vancouver.
- Hughes, T. 1985. *Testimony before the Royal Commission on Seals and the Sealing Industry in Canada*. On behalf of the Committee on Seals and Sealing (COSS). Toronto, 30 January 1985. Vol. 3, p. 75-125.
- International Union for the Conservation of Nature and Natural Resources (IUCN). 1980. *World conservation strategy: living resource conservation for sustainable development*. Gland, Switzerland.
- Singer, P. 1985. *Ethical considerations relevant to the "harvesting" of seals*. Brief to the Royal Commission on Seals and the Sealing Industry in Canada. On behalf of the International Fund for Animal Welfare, London.
- Sumner, L.W. 1982. *The Canadian harp seal hunt*. In *The Canadian harp seal hunt: a moral issue*. Proceedings of a symposium, Toronto, 17 February 1982. Sponsored by the Canadian Federation of Humane Societies, Ottawa.
- Sumner, L.W. 1985. *Testimony before the Royal Commission on Seals and the Sealing Industry in Canada*. On behalf of the Canadian Federation of Humane Societies. Toronto, 28 January 1985. Vol. 1, p. 13-72.

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PART IV

Economic, Social and  
Cultural Issues

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*Justice Malouf, we don't understand  
Why your Royal Commission has come to our land,  
But thanks anyway for allowing your time  
And our story will tell you in this little rhyme.*

*Our fathers before us and their fathers too  
Came to our island, a living to pursue.  
They took stock of their riches, and what did they find?  
They found birds, fish, and seals. Oh, God was so kind!*

*For hundreds of years we have harvested our lot  
But if protesters win, then what have we got?  
The jobs they are scarce and nothing comes free,  
We don't want to burden our country.*

*We are hard working people, honest and strong,  
To kill seals for a living, we see no wrong.  
So, Justice Malouf, when your work is done  
Think of the sealer who is also God's son.*

*The judgement you make we beg, hope, and pray  
Will be for sealers to live his own honest way,  
Cause if you recommend that sealing not be pursued  
What's the next species will protesters use?*

*Now to conclude and to finish this song  
It's not our intention to do things that's wrong.  
But fighters for rights we are known to be  
And will continue to do so throughout history.*

Song presented by the Local Development Committee of  
Fleur-de-Lys. 1985. Lyrics by John H. Lewis.

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## **Introduction**

For many centuries the aboriginal peoples of Canada, particularly Inuit, have engaged in sealing for subsistence reasons. Early European presence in what is now Atlantic Canada was first motivated by the abundance of cod and whales, but interest in sealing soon followed. By the middle of the 19th century commercial seal hunting was a major enterprise. Until recently, with the exception of relatively brief periods, the Atlantic seal hunt has continued on a large scale. Seals and seal hunting have influenced where people lived and many aspects of the social and economic structures of the North and parts of Atlantic Canada, including coastal Newfoundland and Labrador, the north shore of the Gulf of St. Lawrence, the Magdalen Islands, and the northern part of Cape Breton Island.

Canadians living in communities that rely in part on seals have pursued a way of life which is hard for many in urban centres to understand and appreciate. Secondary industry in these remote communities is virtually absent, and agriculture is at best marginal or, in northern parts, impossible. These areas depend to a large extent on the renewable natural resources of fisheries and wildlife. While seals are not the sole means of support for northern Inuit, they are a vital component. In Atlantic Canada sealing fits into a natural annual cycle of fishing activities, at a time when there are few other employment opportunities.

Though sealing, for both Inuit and other groups of Canadians, is very much a traditional activity, it has been subject to continual change. The hunting equipment of Inuit has changed considerably as they have taken to using motorboats instead of kayaks, for example, and rifles instead of harpoons. For all sealers there have been changes in products and markets, with greater emphasis, for instance, on pelts rather than oil. This pattern of gradual or evolutionary change was shattered in 1982/1983, when the main market for seal pelts, that in Western Europe, abruptly collapsed. This brought about a condition of crisis in what were, for several reasons, already marginal economies.

This part of the Royal Commission's Report concentrates on three main matters: sealing as it existed in recent years; the changes that have occurred since 1982, including the reasons for these changes and their impact on the communities involved; and the outlook for the future, including measures that might be taken to alleviate the impact of recent changes on those most seriously affected. Because of differences in many aspects of sealing, the situation in the North and in Atlantic Canada will be discussed separately.

## Sealing in the North

Hunting of marine mammals (seals, walrus and whales) has been, and continues to be, an integral part of the way of life of Inuit, as well as of some Indian groups. Sealing is carried out year-round, though there are seasonal changes in the methods of hunting and the species caught. Ringed seals provide the major part of the catch throughout the year, but in some areas harp seals, at the northern end of their summer migration, are important. Smaller numbers of bearded and harbour seals and a very few hooded seals are also taken. The seals killed are mostly adults or sub-adults, and there is no hunt by northern aboriginal people of harp or hooded seal pups.

In the past, the hunt was purely for subsistence; the sealer used the products of the seal hunt for food, clothing and the harnessing and feeding of dog teams. With greater contact between North and South, and especially the changes from harpoon to rifle and from dog-sled to snowmobile, the need for cash increased. Before resettlement into larger communities, moreover, Inuit lived close to the better sealing grounds. The sealer still uses the proceeds of previous hunts to travel to the next hunt, but by selling skins to buy fuel, rather than feeding seal meat to his dog team. When the price of seal pelts is favourable, fewer seals are required to fulfill the needs of the sealer and his family.

Because of the nature of the Inuit hunt, accurate figures on the number of seals killed are not available. Most statistics refer to the number of sealskins sold, which may considerably understate the total kill, especially in years when prices for skins are low. Annual kills probably have amounted to several tens of thousands, with considerable year-to-year variation.

For similar reasons it is very hard to put a dollar value on the seal hunt in the North. Only a part of the product of the hunt is sold for cash. The value of the meat and skins used by the hunter can be calculated on the basis of the labour and other costs involved in the hunt, or on the basis of the cost of equivalent store-bought clothing and store-bought food. To compare the value of purchased food to that of seal meat may be to underestimate the true value of the latter because much store-bought food has less nutritional value than seal meat. Moreover, the low standard of living in the North must be acknowledged; a given number of dollars in cash earned from sales of seal products will have a significance far above that of the same sum for the usually much more affluent urban Canadian.

## Sealing in the Atlantic Region

The dividing line between the Arctic and Atlantic regions is not distinct, and sealing in much of Labrador and in some northern Newfoundland outports shares many features with sealing in the Arctic. Seal hunting in the rest of the Atlantic region, by contrast, is much more specifically directed to commercial purposes than that farther north. This focus has influenced the timing, location and nature of the hunt.

None of the species of hair seals in the North Atlantic collect in the dense breeding rookeries that made fur seals so attractive, and so vulnerable, to 18th and 19th century sealers throughout the world. Nonetheless, harp and hooded seals do collect in somewhat dispersed breeding patches. These patches provide the best opportunity for the high daily catch rates necessary for successful large-scale commercial operations.

Another factor favouring harvesting at the breeding patches is that, after the first week or so of life, the young pup has thick blubber as well as a valuable fur. From the commercial aspect, killing harp and hooded seal pups provides good returns in the production of both oil and skins. As a result, the large-scale commercial hunt in Atlantic Canada has always included a high proportion of seal pups.

While, in the public mind, the Atlantic hunt has been dominated by the whitecoat hunt, there are many other elements. The current situation can only be understood by looking at the individual components of the total hunt.

Three main groups of sealers are involved in the commercial hunt: landmen, those on longliners and those on large vessels. Statistics of the recent hunt for each group are given in Table IV.1. The nine large vessels that participated in the seal hunt until 1981 – some until 1983 – were the inheritors of the great days of the seal hunt. A majority of these ships were more recently owned by companies or individuals located in St. John's, and they engaged in sealing only during a short season in early spring. The extra crew of up to 200 or more taken on for the seal hunt came largely from the outports of eastern Newfoundland, with some latterly from the Magdalen Islands. Most sealers were fishermen. The earnings per sealer on the large vessels were relatively high. The catch consisted almost entirely of seal pups, taken by clubbing on the breeding patches. By regulation, only 5% of the catch might consist of adult seals.



**Table IV.1**  
**Estimated Average Sealing Income, Atlantic Coast Seal Hunt,**  
**by Hunting Group, 1981-1984**

Hunting Group	1981	1982	1983	1984 <sup>b</sup>
<b>Large Vessels</b>				
Number of ships	9	8	3	-
Number of sealers	217	204	65	-
Estimated average sealing income <sup>a</sup>	\$4,600	\$5,100	\$850	-
<b>Longliners</b>				
Number of ships	143	134	85	41
Number of sealers	577	628	371	152
Estimated average sealing income <sup>a</sup>	\$2,500	\$1,800	\$690	\$300
<b>Landsmen</b>				
Number of sealers <sup>c</sup>	2,500	2,500	2,500	1,000
Estimated average sealing income <sup>a</sup>	\$750	\$380	\$250	\$300

- a. Estimates reflect incomes from pelts, meat and oil.
- b. Large-vessel activity in 1984 was mainly for scientific research purposes. The catch of seals was very small, and no commercial sealing incomes have been estimated.
- c. Averages are based on estimates of the number of hunters who participate on a commercially intensive basis. Total numbers of reported landsmen hunters were at least double the numbers shown above in each year, and numbers licensed (but evidently inactive) are far larger again. (See Table 14.1.)

Longliners are multi-purpose fishing vessels, up to 65 feet (20m) in length. In the last decade or two, the number of longliners participating in the hunt tended to increase, and in the peak seasons of 1980-1981, up to 150 of these craft, carrying 650 or more sealers took part. Longliners are not suitable for entering thick ice, where the main breeding patches are found, and catches were mainly of older seals killed by rifle. Sealing is conducted in the early spring before it is possible to go fishing. Though earnings may not

be high, they are gained when there are few other employment opportunities for vessels or men. The income earned is important in preparing for the summer fishing.

Landsmen depend on favourable ice conditions to bring the seals, especially the breeding patches, close to shore. The landsmen approach the seals either on foot or in small boats, and kill the seals usually by clubbing, occasionally by shooting and in some areas by capture in trap nets. The catch in most operations consists of both pups and adults. Participation of landsmen in the hunt is highly variable, depending on ice conditions. In recent years, participants numbered 5,000–6,000. Except in very favourable seasons many more people take out sealing licences than actually go sealing.

Longliners operated predominantly from northern Newfoundland, as did landsmen. For many of the communities in this area, sealing provided a significant part of annual earnings. Around St. Anthony, for example, sealing accounted for over a quarter of the total revenue of longliners in 1980 and 1981.

For all three groups of sealers, the main cash return has been from the sale of pelts, usually with the blubber attached. The oil rendered from the blubber contributed approximately 15% to the total earnings of the sealing industry. The seal meat is seldom wasted: a large proportion is retained by the sealers for their own consumption, some is sold locally on landing and some is canned for sale.

In northern Labrador, conditions are very similar to those in the Arctic: seals are available for most of the year, and hunting is pursued primarily for subsistence reasons. In southern Labrador, conditions become increasingly similar to those on the Island of Newfoundland: sealing is concentrated in the winter and early spring, and is undertaken primarily for commercial purposes.

In Quebec, along the north shore of the Gulf of St. Lawrence, sealers intercept the migration of harp seals to their breeding grounds in the Gulf. Sealing is particularly important along the lower north shore where nets are used, and in good years several thousand adult seals may be killed. Along the upper north shore sealers hunt from small boats, using rifles.

Sealing around the Magdalen Islands has been very similar to that based in Newfoundland. Frequently, the ice fields on which harp seals breed in the Gulf lie close enough to be accessible to landsmen hunting on foot or by small boat. In recent years one or two large vessels, based in Quebec and

Nova Scotia, but operating in the Gulf, have carried crews from the Magdalens as a condition of their sealing licence. A number of longliners also participate in the Magdalens seal hunt. Like the landsmen and large vessels, they have taken mostly pups. As in Newfoundland, the local consumption of meat and the sale of oil are significant supplements to the income from the sale of skins.

It would be misleading to attempt to assess the importance of sealing throughout Arctic and Atlantic Canada merely by looking at the total income generated or at the income per individual, even among the most active sealers. Few, if any, sealers obtained all their annual income or even the main part of it from sealing. Sealing is part of an annual cycle by which a livelihood is obtained from the sea and land. In the harsh environment characteristic of the areas dependent on sealing, this cycle provides an adequate livelihood only if each segment plays its part. The importance of sealing and the impact of changes in sealing need to be considered against the background of the entire way of life of the people involved, and in the light of possible alternatives to sealing in the annual cycle.

## Processing

Sealskins go through a number of processes before they can be used in fashion furs or for other purposes. The final stages are undertaken by a few specialized companies, notably in Norway. In the North, the preliminary process of removing the blubber and stretching and drying the skin is done by the sealer and his family. In the Atlantic region, the sealer may do no more than remove the skin with the blubber attached, which then undergoes initial preparation of the skin and rendering of the oil in a sealskin-processing plant. Facilities for this purpose are located at Dildo in Newfoundland and at Blandford in Nova Scotia. Work in these plants has been an important source of seasonal employment in the local communities. Work in a plant for processing seal meat, at Comfort Cove in Newfoundland also provided local employment.

## The Collapse of the Sealskin Market

In the last few years the pattern of sealing has changed dramatically, with very serious consequences for many sealers. The principal market for seal pelts has been Western Europe, especially since the closure of the U.S. market following adoption of the U.S. *Marine Mammal Protection*

*Act of 1972.* The market for seal pelts has always been variable, in accordance with the whims of fashion, but in 1982/83 it collapsed completely. Sealskins and furs are almost unsaleable in Western Europe today.

For many people in Canada this collapse is associated with the Directive issued by the European Community (EC) in October 1983. This Directive banned, for member countries, the import of products from the pups of harp and hooded seals. In fact, however, the market for those and for ringed-seal products had collapsed before the Directive took effect, as a result of public support for the sustained anti-sealing campaign. The nature of this campaign and its relation to the European ban are discussed in Chapters 9 and 10.

The impact of the collapse of European markets on Canadian sealing has been traumatic. Very few people now find it worthwhile to continue sealing. Despite the much reduced catches, prices for seal pelts are very low. The landed value of pelts in Atlantic Canada in 1984 was less than 10% of that in 1981, reflecting a sharp drop in both price and landings. In the Northwest Territories, the income from sealing in 1983/84 was only about 15% of that in 1981/82.

It may be too early for a proper assessment of the economic and social effects of this situation, especially if it continues for a protracted period. There are already reports that the decline of sealing and the switch to store-bought foods is having a serious effect on nutrition and health in some Inuit communities. The effects in parts of the Atlantic region may be equally serious. Without cash income from sealing at the beginning of each fishing season, the ability of many fishermen to equip their boats properly is undermined. If there are no alternative employment opportunities in early spring, the long-term viability of whole communities may be destroyed.

## The Issues

The collapse of the market raises several questions. The ethical or biological issues are discussed elsewhere in this Report. The possible obstacles to renewed sealing, and the public attitudes to different types of sealing, which can have a critical impact on future markets, are also discussed in other parts of the Report. In this part, the Royal Commission examines the market for seal products as it appears at present, and the economic and social consequences of severely depressed conditions for the industry. Economically viable alternatives to sealing, especially those that

might replace sealing as the early spring element of a complete seasonal cycle, are then broadly assessed. This part of the Report concludes with an examination of some development and compensation options to assist individuals and communities in the North and Atlantic Canada. The experience of Norway and Greenland is discussed, to determine whether or not the approaches they have adopted toward their sealing industries in similar circumstances might be applicable to Canada.

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PART IV

Economic, Social and  
Cultural Issues

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PART IV a

The North

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## Chapter 13

# Sealing in Northern Communities

### Portrait of the North

*This is the way I think. A person is born with animals. He has to eat animals. That is why the animals and a person are just like one (P. Oktiv, quoted by Brody, 1976).*

### The Northern Environment

The Canadian North covers a vast area from the Yukon-Alaska boundary to the eastern coast of Baffin Island; from the more southerly regions of James Bay and the Labrador coast to the high Arctic, including the settlements of Resolute and Grise Fiord. The terrain differs significantly over this extensive territory. James Bay is surrounded by boreal forest, while most of the rest of the North is above the tree line. The north shore of the Yukon and the Northwest Territories slopes fairly gradually toward the sea, while the coast of northern Baffin Island is mountainous.

Weather patterns also differ, as one might expect, from the more southern areas to the higher North. The main difference is the length of the seasons; generally speaking, the winters are longer in the higher North than in areas such as James Bay and the Labrador coast.

Consistent with variations in topography, vegetation and weather, wildlife also varies throughout the North, in type and abundance. This variation in turn affects the economic activities of Inuit and Indian hunters. While some groups focus their hunting on land mammals, others are more oriented toward marine mammals. As this Chapter will indicate, however, hunting is an adaptive activity in which people vary their approach to meet environmental conditions and to take account of the relative abundance of particular species.

Marine mammal hunting has dominated Inuit economies for thousands of years (Giddings, 1967; Bandi, 1969; Morrison, 1983), and the geographical distribution of whales and seals has been the determining factor in Inuit settlement patterns until quite recently (Boas, 1888; Manning, 1943). Ringed seals gradually replaced the bowhead whale as a staple (Wenzel, 1986), and Europeans' destruction of whale stocks in the 19th century increased Inuit dependence on seals (Anders et al., 1967; Kapel and Petersen, 1982). Of the more than 20,000 Inuit of Labrador, northern Quebec and the Northwest Territories (Labrador Inuit Association, 1985; Makivik Corporation, 1985, p. 20, 43), one-half the adult work force hunt seals for all or part of their livelihood (Canada, DIAND, 1985).

Seal hunting is less intensive for the Cree of Hudson Bay and James Bay, the Naskapi and Montagnais of Labrador and the Gulf coast of Quebec, and the aboriginal peoples of the B.C. coast. On the other hand, these groups hunt seals to supplement their regular diets, and this dietary resource can be especially significant at times when other food sources, such as moose or fish, are not readily available.

This Chapter will examine seal hunting and other economic activities of aboriginal peoples in greater detail in the sections to follow.

## **Inuit and Indian Cultures**

*My name is Christopher Aningmiuq. I am 10 years old and I am in Grade 5 here in Attagoyuk School. I am an aboriginal man and as an aboriginal Inuk I would want to be able to hunt seals and live the traditional hunting life style of a hunter when I grow up.*

*My name is Ilean Kilabuk. I am 9 years old and I am in grade 4. I am an aboriginal woman, the skills of the aboriginal woman should not be forgotten or vanish because our ancestors lived that way for survival and we are still Inuit and we must not forget and would like to be able to carry on the tradition from generation to generation. (Two students from Attagoyuk School, Pangnirtung, NWT before members of the Royal Commission.)*

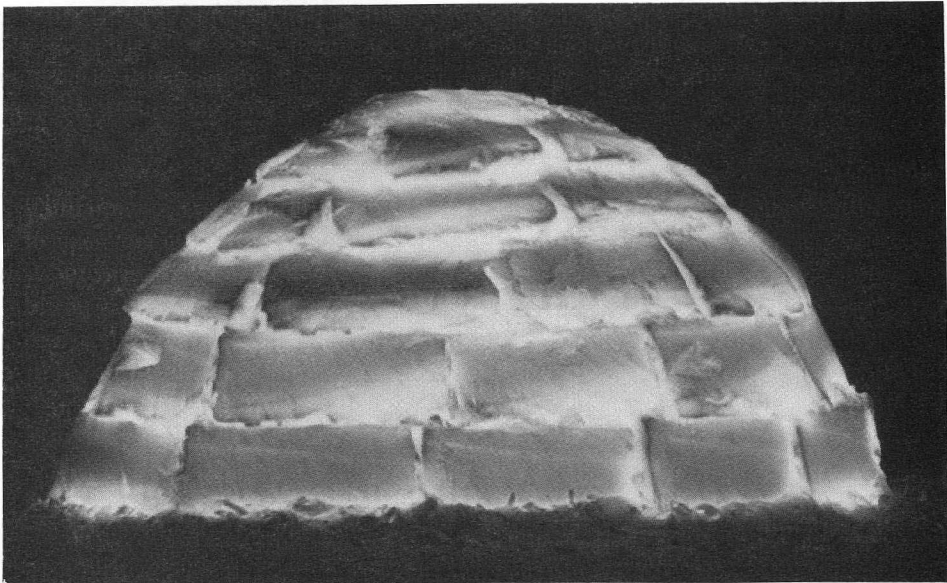
The Commissioners were convinced of the importance of bearing in mind the social and cultural context of the lives of Inuit and Indian people when approaching the issue of sealing in the North. Moreover, it is not possible to generalize concerning different aboriginal groups, since each group is unique in its history, social organization, culture and economy. The differences provide people with their own sense of community and guidelines for daily living. In addition, each culture has its own special relationship with the land it occupies and uses, a relationship that has existed for many generations according to the requirements imposed by a harsh environment.

Geography is the most obvious factor distinguishing one aboriginal group from another. The Quebec-Labrador peninsula is home to the Naskapi, Cree and Montagnais Indians, all of whom inhabit the interior; it is also home to the Inuit, who live along the coast on the east and west sides of the peninsula. As the Labrador Inuit Association points out, however, both Indians and Inuit have access to the territories of the other group (Labrador Inuit Association, 1977, p. 311). This mutual accommodation has enabled the development of an adaptive pattern of hunting for both land and marine mammals in order to supplement the primary food source, especially during periods of scarcity. Cree territory covers much of the Province of Quebec and includes the eastern shores of Hudson Bay and James Bay, where the Cree continue to engage in some seal hunting. The remainder of the North – the Arctic – is Inuit land.

It is fair to say that although Inuit and Indian groups have experienced varying degrees of change in technology and values, they remain closer to the land than do most Canadians. Almost every community in the North depends to a significant extent on hunting, fishing and trapping. The products derived from these activities may be consumed locally or sold for cash. In either event, the benefits typically filter through a community by means of an established network (usually kin based) of exchange and support. As a result, it is unusual for more dependent individuals, such as the elderly, to be neglected in northern communities that rely on the land.

In light of the long-established importance to northern aboriginal peoples of hunting, fishing and trapping, it is understandable that much of their social organization and world view tends to be bound up with their close relationship to the land. This concept applies, for example, to household make-up, which traditionally is flexible in order to allow the maintenance of effective hunting units; in other words, families might unite for purposes of co-operative hunting and sharing (Guemple, 1976, p. 181-186). Similarly, the spiritual identification of Inuit and Indian people tends to be

oriented to the natural world, a fact that they do not perceive as conflicting with attendance at Christian churches. In these respects the aboriginal communities that are involved in sealing are much the same. The traditional identification with the land remains strong, and this was emphasized for the Commissioners during public hearings in the North and through written submissions.



*Igloo at night (circa 1960)*

Nevertheless, while general similarities exist among northern communities, there are specific differences in terms of the ways in which they have dealt with externally imposed changes, and the extent to which they have maintained their relationship to the land in terms of economic and social organization.

## Recent Changes in the North

The 1960s and 1970s saw unprecedented industrial development in the North. Oil and gas exploration, along with mining and highway construction (e.g., the Dempster Highway), were consistent with the view widely held among representatives of government, industry and the social

sciences that development was the key to the future well-being of aboriginal peoples. For its part, the federal government encouraged corporations to develop the North. Moreover, in the 1950s, the government began to implement a program of Inuit resettlement, whereby people were induced to move from their camps and small settlements to larger, more central communities. The program's rationale lay in a need perceived by Ottawa to provide readily available health and education services. Critics of the program have maintained that resettlement was established partly to allow the federal bureaucracy to manage the Inuit population more easily, as well as to contribute to Inuit "Westernization" (Brody, 1975; Wenzel, 1983, p. 82). Besides being more open to the importation of southern goods and services, resettlement communities such as Frobisher Bay have majorities or large minorities of inhabitants of European origin, many of whom emigrated from southern Canada.

As Wenzel points out, resettlement "at least in part, formed a background for the widespread acceptance of new technological items, a greater susceptibility to external market forces, and the need for a diversified employment environment" (Wenzel, 1983, p. 82-83). The removal of Inuit from their usual hunting and trapping areas necessitated an increased reliance on transfer payments and wage income in order to survive. Dependence on the latter opened the door to "remote site labour"; that is, men travelling away from home for extended periods to work on industrial development projects such as mining. Resettlement and remote site labour have had an impact on the social organization of the people involved; the accompanying decline in hunting, for example, has resulted to some extent in the weakening of cooperative bonds linking families. By the same token, Inuit who have remained in or returned to their camps and smaller, more isolated settlements have more often managed to maintain the integrity of their own social and economic organization (Wenzel, 1983, p. 83). Accompanying this phenomenon has been the maintenance in the smaller communities of the Inuit language, knowledge of the land, technical skills, kinship and sense of cultural identity.

As the Commissioners discovered, and as will be elaborated below, the cash economy has become important, although to varying degrees, throughout Inuit and Indian societies. The critical issues are, however, the achievement of a balance among the components of the aboriginal economies (Brody, 1980, p. 16), and the assurance that a viable balance is maintained into the future. Seal hunting meets these needs by providing both subsistence and cash, as will be shown later in this chapter.

## Sealing in the Northern Economy

*To tell you in a few minutes about the significance of seals to our people is much like you having to explain to us the significance of agriculture for your civilization (Ernerk, 1985).*

### The Extent of Northern Hunting

Unlike land mammals, seals are abundant, widely distributed and available year-round throughout the Arctic. While not always the largest or most preferred component of traditional Inuit diets, seals have generally been the most reliable, providing a "secure ecological base" that can support higher-risk hunting activities (Wenzel, 1986). They are particularly important in the spring and fall, when travel conditions over unsafe ice are hazardous, and in winter, when other marine mammals retreat from the advancing ice and wind, and when the cold and darkness limit the hunting range. At these times communities must rely on nearby wildlife, while in summer, when greater dispersal is possible, seals are taken more opportunistically to supply scattered hunting camps and long-range hunting trips (Wenzel, 1986).

Ringed seals are very nearly ubiquitous in the Arctic and resident year-round. Bearded and harbour seals occur in smaller numbers, mostly in the eastern Arctic (Braham et al., 1982; Kemp et al., 1977). During their seasonal migrations, harp seals and small numbers of hooded seals are also briefly available in the eastern Arctic, chiefly along the Labrador and southeast Baffin Island coasts (Freeman, 1977; Mackey, 1981). Although all five Arctic seal species are hunted, nearly nine-tenths of these animals are ringed seals (Canada, DFO, 1985, p. 100) as Table 13.1 shows. Ringed seals contribute up to two-thirds of the edible weight of all wildlife harvested in the eastern Arctic (the Baffin region), and in northern Quebec, where caribou are more readily available, they contribute one-sixth of that weight (Kemp et al., 1977; Wenzel, 1981; James Bay Northern Quebec Native Harvesting Research Committee, 1982; Kemp, 1971; Treude, 1977; Riewe, 1977).

Inuit must take advantage of the seasonal availability of all food resources (Freeman, 1983; Mackey, 1981). Winter hunting depends on ringed seal and bear, which are resident year-round and are usually found in

association; it may include fox trapping and fishing char through the ice. Summer (open water) hunting includes migrating mammals such as whales, bearded seals and caribou, as well as birds, hares, fish and migrating waterfowl, which are harvested for variety or in periods of scarcity (Freeman, 1982; Wenzel, 1981, 1986). While more varied, summer hunting also tends to be more opportunistic and less productive in caloric terms (Kemp, 1971). Animals' summer migratory routes vary with weather and ice conditions, and the community tends to disperse and forage over a much greater area (Wenzel, 1981, 1986; Freeman, 1977; McCarthy, 1985).

**Table 13.1**  
**Estimates of Inuit Seal Harvests**

Region	Year	Ringed	Bearded	Harp	Harbour	Hooded
Northern Quebec Inuit	1980	9,297	1,098	102	52	-
Baffin Region Inuit	1981	36,000	1,297	6,263	96	14
Keewatin District, NWT	1981-1982	1,462	667	56 <sup>b</sup>	-	-
Kitikmeot District, NWT	1982-1983	4,869	687	18 <sup>b</sup>	-	-
Baffin Region, NWT	1973-1982 <sup>a</sup>	21,830	3,920	3,078 <sup>b</sup>	-	-
All other NWT	1973-1982 <sup>a</sup>	6,480	1,462	74 <sup>b</sup>	-	-

Source: Canada, DFO (1985).

a. Average for the decade.

b. Assumed to be all or mostly harp seals where reported as "other seals".

There is also some degree of regional variability in animal stocks (see Table 13.2): whales and fox are somewhat more important in the west, caribou in the south, and seals and bears to the north and east (Freeman, 1976, Finley and Miller, 1980).

Figure 13.1 compares seasonal harvesting activity in Clyde River, in the eastern Arctic, with Grise Fiord, a high Arctic community (Finley and Miller, 1980). The "battleship curves" show how much of each species is taken by month, while the histograms indicate how much each species contributes to total edible weight of animals taken. Clyde hunters depend about equally on ringed seal and caribou, both hunted year-round. At Grise Fiord,

**Table 13.2**  
**Sealskins Sold to the Hudson's Bay Company, 1943-1984 (by region)**

Period	Average Price	Northwest Territories			Quebec
		Western	Central	Eastern	
1943-1952	n.a.	94	387	4,080	1,792
1953-1962	n.a.	734	867	8,501	2,519
1963-1973	9.09	8,185	6,302	24,348	7,197
1973-1982	17.79	4,043	2,283	23,506	2,075
1983	11.92	1,154	184	9,376	46
1984	8.43	372	23	4,084	13

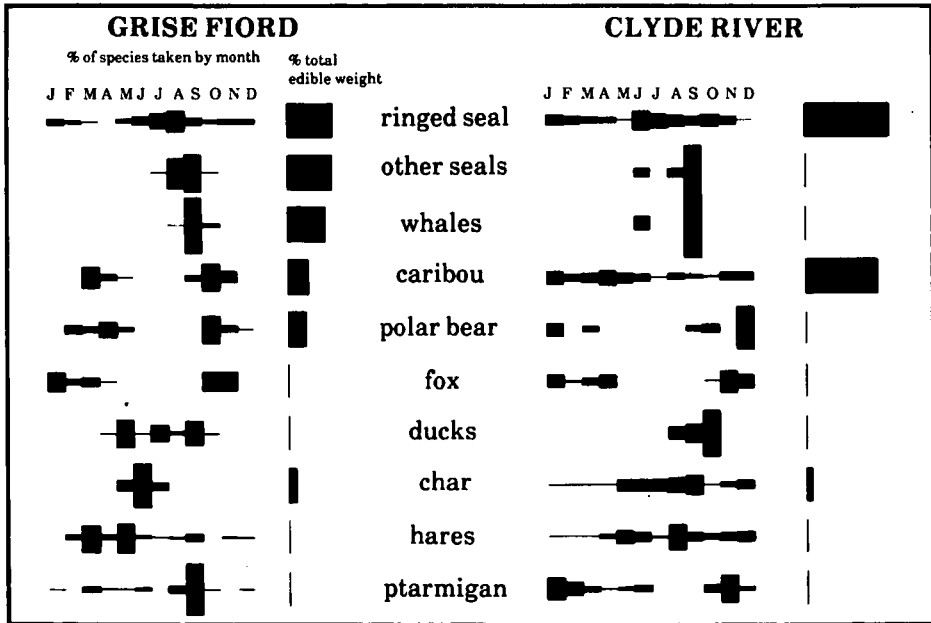
*Source:* Hudson's Bay Company employee (pers. comm.).

greater use is made of summer migrations of relatively more abundant whales and bearded seal, but their economy is accordingly also more sensitive to seasonal factors such as late summers or changing migratory routes. Harp seals are significant only for Labrador Inuit and for Pangnirtung on Baffin Island (Baffin Regional Inuit Association, 1982; Labrador Inuit Association, 1985).

Some hunters "specialize" in caribou or char, but nearly all take seals (Finley and Miller, 1980). Depending on seals' relative importance regionally, Inuit may require up to 10 seals per capita yearly for food (Anders et al., 1967; Brakel, 1977). In Holman the average was 38 seals per hunter yearly until sealskin markets collapsed in 1983 (Holman H.T.A., 1985). Seals' large but regionally varied role is suggested by figures for three eastern Arctic communities, as recorded in Table 13.3. The total Inuit seal harvest is not reliably known. Harvest figures have been based on observations by RCMP officers or on questionnaires distributed to a sample of hunters (Brakel, 1977; Boles et al., 1983; Freeman, 1977; Finley and Miller, 1980). Data from pelt sales are particularly unreliable, since the number of pelts sold compared to the total number of seals taken depends on prices (Miller et al., 1982). Three sets of estimates based on hunters' reports are summarized in Table 13.3.



**Figure 13.1**  
**Seasonal Use of Wildlife in Two Inuit Communities**



Source: Finley and Miller 1980

Although by far the greatest use of seals is made by Inuit, many other aboriginal peoples also hunt seals for subsistence; among these groups are the Micmacs in Newfoundland, the Innu or Naskapi-Montagnais of Labrador and the Gulf coast of Quebec, the Cree of northern Quebec on Hudson and James Bays, and coastal peoples of British Columbia. Virtually no harvest figures are available except for the Cree of Quebec, who report taking an average of 657 seals of all species yearly (Moses, 1985). This represents only about 5 kg per capita, compared with as much as 100 kg per capita on Baffin Island, but the importance of occasional seal meat in coastal Indian diets should not be disregarded. In places where, as in British Columbia, the bulk of the country food available is fish, seal meat can be an indispensable source of iron and vitamin B, besides contributing variety to an otherwise monotonous diet. Pacific coast aboriginal peoples commonly eat dried salmon with seal oil, which adds fat-soluble vitamins as well as flavour. In the east, seal supplements diets in the winter and spring, when other meats, such as caribou and moose, are not readily available. The role

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of seals in coastal Indian economies deserves further study. For the time being, no regulatory regime should be implemented for sealing in these areas without conscientious and public assessment of the potential effects on Indian subsistence.

**Table 13.3**  
**Estimated Harvest Levels for Three Baffin Region Communities, 1979**

	Average Number Taken per Hunter		
	Clyde River	Grise Fiord	Pond Inlet
Ringed seal	54.4	31.2	20.4
Other pinnipeds <sup>a</sup>	0.2	9.1	0.6
Whales <sup>b</sup>	0.1	1.3	1.2
Polar bear	0.2	1.1	0.1
Char	33.0	38.2	38.4
Caribou	11.4	3.4	9.4
Furbearers	5.8	17.5	2.5
Birds	8.3	36.9	10.6

Source: Finley and Miller (1980).

a. Other seals and walrus.

b. Beluga and narwhal.

### The Mixed Economy: The Importance of Cash and Hunting

Early 19th-century whaling stations offered some limited wage opportunities for Inuit, but they had largely disappeared by 1900 (Anders et al., 1967). Post-war construction of airbases, weather stations and the DEW Line also brought a decade or two of cash prosperity. Now mining projects offer temporary employment, but nearly half of all work is found at government facilities, and the ratio of casual to steady employment has doubled (Kemp et al., 1977; Brakel, 1977; Baffin Regional Office of Economic Development and Tourism, 1985). In Holman only one-third of adults are regularly employed, but nearly half of all hunters participate in some casual work (Holman H.T.A., 1985). According to the Northwest Territories Bu-

reau of Statistics (1985), only 37% of employable Inuit over the age of 15 years worked at all in 1984, compared with 78% among non-Natives.

Northern development emphasizes capital-intensive mineral-extraction industries which produce small numbers of temporary jobs in remote places. Most steady work involves either rotation periods away from home (remote site labour) or permanent relocation. Rotation work is analogous to men's absence during prolonged hunting trips and may be less disruptive of family and community life, but long absences and relocation are associated with loneliness, frustration, increased frequency of family breakup, and domestic violence (Kleinfeld, 1981; Kleinfeld et al., 1983; Hobart, 1982a, 1982b; Kruse, 1982; Klausner, 1982). Hence while northern employers often rate Inuit higher than non-aboriginal employees, staff turnover is very high (Hobart, 1982a, 1982b). Inuit women tend to be somewhat more successful than Inuit men in finding steady work in larger towns (Kleinfeld, 1981; Kruse, 1982), but they also suffer more from unemployment because town living leaves them unable to fall back on traditional community responsibilities (Hobart, 1982a).

Casual employment does not eliminate the social or nutritional incentives for hunting, and may actually increase the intensity and efficiency of hunting by providing capital for more equipment (Freeman, 1977; Hobart, 1982a, 1982b; Kruse, 1982; Wenzel, 1983). Employed Inuit have less time to hunt, however, and this restriction encourages shorter winter trips targeted on cash species such as polar bear (Kemp et al., 1977), short summer open-water hunts for seals (Anders et al., 1967), and greater use of nearby caribou and fish as food (Kemp et al., 1977; Brakel, 1977; Hobart, 1982b). Increased emphasis on cash hunting may lead to greater waste (Kemp et al., 1977; Anders et al., 1967) and less co-operative enterprise (Wenzel, 1981). The scarcity of steady work increases income inequalities among hunters (Kruse, 1982; Freeman, 1982). Those few Inuit able to invest "large amounts of time in wage-labour and who have access to money and, therefore, capital and expendible forms of equipment must, by virtue of their projected needs and limited time, restrict access to equipment from those men who are most able to invest time in harvesting" (Wenzel, 1986).

For many communities, handicrafts are an important secondary industry derived from sealing. In Holman, for example, the local "Co-op" employed nearly all of the women to sew at home on a piecework basis, and about half of their work involved sealskins. This project required about 1,000 skins yearly, or half the skins taken by Holman hunters. Ninety-six seamstresses, together, earned a total of \$60,000 yearly, or three to four times the primary value of the pelts used (Holman H.T.A., 1985). Whale

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bone and ivory carvings were briefly successful, but prices collapsed after closure of the U.S. market to marine mammal products in 1972. Soapstone carvings were popular in the 1970s, but markets now suffer from competition with imported counterfeits. Prices for the unique prints produced at Co-op studios in Holman, Cape Dorset, Clyde and Pangnirtung have remained high only because of a strict limit on the number of prints and copies released each year. As a whole, Inuit fine arts may enjoy highly priced markets, but these markets are small and unpredictable.



*Conditioning sealskin by chewing it (circa 1951)*

Social assistance will pay rent and fuel for qualifying Inuit households, as well as a cash allowance based on family size and cost of living, often administered through an account at the Hudson's Bay Company store. For instance, an Inuit family of five living in Holman, receiving assistance

from the Department of Social Services of the Northwest Territories government, could be credited \$541 a month at the Bay. This is equal to about \$3.60 per capita per day. This amount of money will buy about 0.47 kg of meat – not nearly enough to replace a normal Inuit diet – or a bare adequacy, in caloric terms, of breads and sugars. But the problem is not merely nutritional. Everywhere the Royal Commission travelled in the North, people emphasized that they were “proud Inuit” and reluctant to accept any more government benefits. If financial aid is necessary, most would prefer direct support for hunting, such as fuel vouchers, rather than unrestricted cash grants.

Inuit economies today, therefore, are typically “mixed”. Baffin Inuit have derived up to half of their cash income from wages, one-fourth from fur sales, and one-fourth from transfer payments (Anders et al., 1967). For Labrador Inuit, wages, transfer payments and fur sales each contribute equally to cash income (Labrador Inuit Association, 1985). In the relatively industrialized western Arctic community of Inuvik, only one-tenth of households still depend on hunting alone, while in Holman, a more isolated town, the proportion is one-third (Brakel, 1977). In all cases, however, employment and transfer payments help to maintain the hunting economy by providing the necessary cash “grubstake” for motorization and by reducing the risk inherent in relying entirely on wildlife for survival (Cox, 1985). Usher (1982), for example, estimated that Labrador Inuit invested \$1.5 million in hunting and produced \$3 million in food products, but only \$1 million in cash. Hunting is economical in real terms, but requires a cash source if it is to continue.

## Human Resources, Equipment and Technique in the Seal Hunt

In winter seals must be shot at their widely dispersed breathing holes (*aglu*), in spring they can be stalked while basking (*uutuq*) on the ice, and in summer they may be pursued swimming in open water. A study of Baffin Inuit found that hunts on the ice tended to be longer (lasting about a week), farther from the hunter’s base (69 km per seal taken), and more efficient, with eight-tenths of the seals fired upon being taken. Open water hunts were brief (lasting about three days), nearer the hunter’s base (38 km per seal taken), and relatively wasteful, with more shots fired at each seal and up to two-thirds of the seals lost (Anders et al., 1967). Wenzel (1986) similarly found that Clyde hunters fired 1.1 shots per seal in *aglu* hunting, 2.6 hunting *uutuq*, and 3.5 in open-water hunting. After fasting through their spring moult, seals are lean and sink quickly (Smith, 1973; McLaren, 1962). One-fifth of ringed seals and as many as half the harp seals are lost

after being shot in open water (Anders et al., 1967). Indeed, because harp seals are wary, fast swimmers, sink quickly and are not highly valued as food outside Labrador, few Inuit pursue them (Freeman, 1977).

Since ringed seals prefer dynamic land-fast ice for maintaining *aglu* and birth lairs, their numbers depend on the complexity of the coastline and annual fluctuations in ice conditions (McLaren, 1958; Kapel and Petersen, 1982; Freeman, 1984; Smith and Hammill, 1981; Stirling et al., 1977). "Inuit knowledge of sea ice conditions allows efficient utilization of those areas most likely to contain high densities of seals [such as] near the mouths of fiords, near grounded or trapped icebergs, and off points and near islands where currents and winds produce dynamic ice" (Wenzel, 1986; see also Anders et al., 1967). An Inuk may cross several thousand square kilometres of land and sea ice yearly, but obtain most of his seals from a few productive and relatively reliable hunting areas less than one-tenth as large (Wenzel, 1986; Freeman, 1984). "The Eskimos know the seal as well as a seal might" (Pryde, 1972, p. 134).

Weather conditions affect the availability of seals. The ice is unsafe for weeks or months during freeze-up and break-up, depending on the vagaries of the weather (Wenzel, 1981, 1986). "The ice is like a mean dog," an Inuk explains. "He always waits for you to stop watching him and then he tries to get you" (Nelson, 1969, p. 129). Even when the ice is stable, a warm day causes melting and hinders travel (Boles et al., 1983). Wind can make winter travel miserable and summer transportation on open water extremely dangerous, reducing the duration and distance of hunts (Freeman, 1984; Anders et al., 1967). Moreover, seals prefer to bask on calm sunny days. Haul-outs are fewer, briefer and less visible when there is a brisk wind (Smith, 1980; Smith and Hammill, 1981).

European tools and clothing became generally available to Inuit after the Second World War, and firearms, powerboats and snowmobiles were adopted in the 1960s (Wenzel, 1981; Kemp et al., 1977; Anders et al., 1967). Imported technology "did not permit the Inuit to exert any greater degree of physical control over the ecosystem", however (Wenzel, 1981, p. 76). The Arctic environment is simply too variable. Moreover, many innovations involve trade-offs. Rifles reduce stalking time as compared to harpoons, for example, but increase sinking losses. Greenlandic Inuit actually opposed the use of rifles for this reason until powerboats improved the speed of recovery of shot animals (Kapel and Petersen, 1982). Greenlandic Inuit also prohibited hunting from powerboats or snowmobiles to reduce pressure on wildlife and to discourage townsmen from engaging in part-time hunting for cash (Kapel and Petersen, 1982).

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Despite the increased speed of snowmobiles, Inuit hunters have not expanded their annual range appreciably or changed hunting areas (Wenzel, 1986; Freeman, 1983). Rather, Inuit have used motorization to compensate for their resettlement in centralized communities (Freeman, 1984; Smith, 1973). Centralized towns place hunters farther from traditional hunting areas. Moreover, since towns are relatively noisy, seals avoid them. Hunters therefore need speed to cover a greater distance. Speed also improves hunters' ability to track and pursue bear and fox (Freeman, 1984), and reduces wastage of ammunition from missed shots (Baxter, 1981). Snowmobile hunters can rush basking seals, avoiding the need for time-consuming stalking on foot with little loss of efficiency (Wenzel, 1981, 1986; Smith, 1973). With speed, an Inuk can participate in wage employment for part of the week and still hunt over weekends (Kruse, 1982; Hobart, 1982a; Freeman, 1977; Riewe, 1977). In this respect, motorized hunting supported by fur sales and wages represents a necessary development following Inuit resettlement.

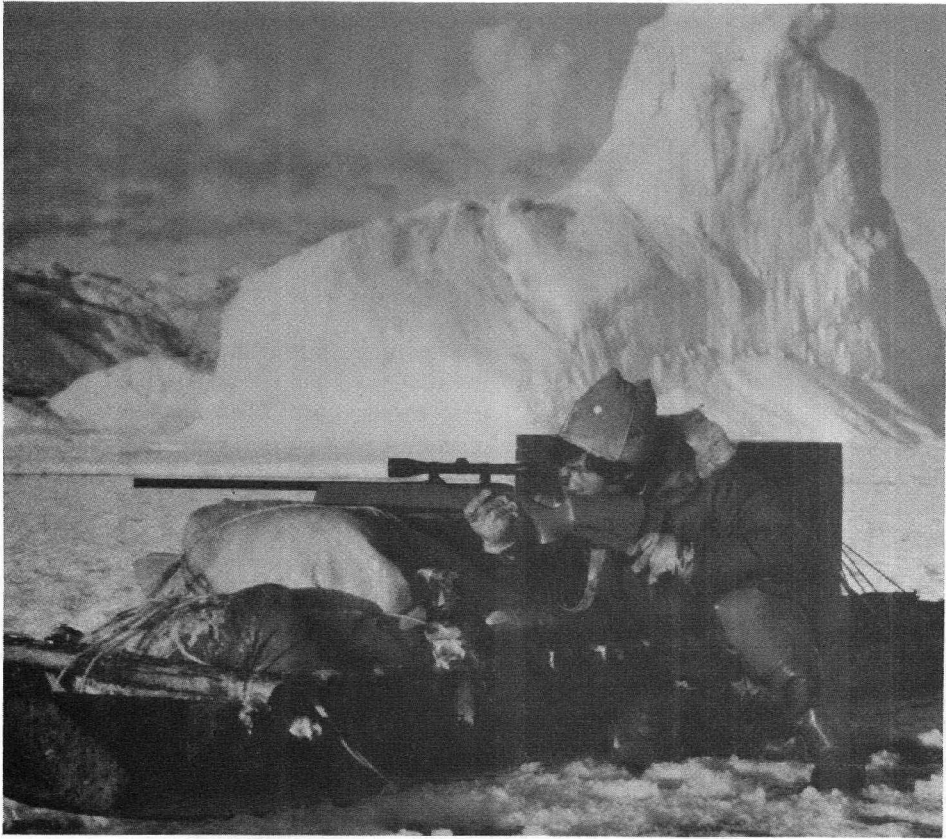
Use of snowmobiles involves trade-offs. Although a snowmobile can cover a course across smooth ice in one-tenth the time of a dog team, it can easily slow down to dogs' leisurely 3–4 kilometres per hour or less on rough terrain (Wenzel, 1981; Anders et al., 1967). The motorized hunter loses dogs' sensory aid in judging ice safety and locating prey (Freeman, 1984; Wenzel, 1981; Smith, 1973). Travel with snowmobiles may also be more hazardous. Heavy machines break ice that sleds easily cross, and breakdowns can be fatal because machines cannot be used for warmth or food in an emergency (Boles et al., 1983). Widespread reliance on snowmobiles may also involve health risks. Vertebral compression from vibration (Rode and Shephard, 1984) and hearing loss from engine noise (Baxter, 1981) have been observed clinically.

The financial costs of snowmobile maintenance under harsh arctic conditions are considerable (Wenzel, 1985). Motorization has more than tripled hunters' capital requirements (Riewe, 1977; Canada, DFO, 1985), as prices for fuel and spare parts continue to rise. Twenty years ago, East Baffin hunters spent about 35 cents on ammunition and \$2 on petrol per seal (Anders et al., 1967). Since then prices have increased harply (Wenzel, 1978): snowmobile operation costs as much as \$30 per day in Labrador (Boles et al., 1983) or \$200 for a weekend hunt in northern Quebec that might, at best, produce 10 seals.

Although each dog used for transport purposes consumed some 400 kg of meat yearly, much of this meat consisted of by-products of animals taken for human use, particularly walrus and whales (Kapel and Petersen,

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1982; Anders et al., 1967). Quebec Inuit told the Royal Commission that the traditional rule of thumb was two seals for the dogs for every seal taken home. This produced three skins, which could be sold to produce a cash surplus. With motorized transport today, the skins rather than the meat provide "fuel" for transportation, and each seal taken for food must have a pelt value of at least \$20 simply to cover costs. This necessity can amount to a significant cost barrier and may encourage more harvesting of species taken for pelts or ivory, but little valued as food, such as harp seals, walrus and narwhal (Anders et al., 1967; Brakel, 1977).



*Inuit seal hunter and sled*

Despite the contemporary importance of firearms and snowmobiles, Inuit hunters continue to depend on a variety of locally made tools:



*A typical hunter's outfit for a day on the ice would consist, along with his snowmobile and rifle, of a home-made harpoon, a caribou parka, a long-handled gaff or hook, a saw or snowknife, a cooking pot, and a set of tools for snowmobile emergency repairs. In addition, each hunter would carry gasoline, extra ammunition, extra drive belts and spark plugs, and spare mittens and boots. All these items would be carried on a homebuilt wooden kamatik (sled).*

*As [this] shows, much of a hunter's equipment is locally made. Indeed, one of the keys to successful harvesting for Clyde Inuit is the development of expertise not only in the capturing of seals and other animals, but in the manufacture and/or maintenance of nearly all the artifacts which support harvesting activities. In general, the creation of a Clyde Inuk's basic outfit, including clothing, requires at least 150 hours of labour by the hunter and others (Wenzel, 1986).*

In addition, hunters frequently modify imported equipment for Arctic conditions, reboring snowmobile engine parts, painting snowmobile windscreens white to function like traditional *tilawak* or seal-stalking shields, and shortening rifle barrels (Wenzel, 1986).

### Sealing: A Cultural Perspective

Hunting is more than subsistence. Most Inuit over the age of 40 grew up "on the land", moving from campsite to campsite in groups of several households. Many still remember building winter houses insulated with heather, lined with sealskins, and heated with seal oil. Many also remember periods of starvation and cold, when severe winters limited hunters' range, and concealed *aglu* under shifting snows (Worl, 1986). Although government programs and stores have reduced these risks, contemporary Inuit remain highly conscious of their physical environment and its power, and continue to relate to it and to conduct themselves in a manner fundamentally different from southern Canadians.

Small and relatively undiversified Inuit economies are highly vulnerable to the supply of wildlife (Brakel, 1977). While industrial economies

produce a cash surplus which can be saved, Inuit must rely on conserving and underexploiting wildlife as security against the uncertainty inherent in Arctic ecosystems. Social organization also helps to reduce these risks (Wenzel, 1981, 1983). The basic harvesting unit is the *ilaagit* or extended family, usually organized around a man who serves as *isumataq* (leader) and sons or brothers who owe him *nalartuk* (respect and obedience). Clyde Inuit view the role of *isumataq* as "keeping people out of danger, showing people how to do things, thinking [decision making], settling or preventing internal disputes, [and] taking care of food," including co-ordinating hunting and distributing harvests (Wenzel, 1986). *Ilaagit* share equipment and co-ordinate their efforts (Wenzel, 1981), and harvests are distributed widely (Wenzel, 1978, 1981; Freeman, 1977, 1982). As long as some hunters are successful, no one goes completely hungry.

Baffin Inuit food-sharing arrangements include *tuqugaujuk*, or the immediate distribution of harvested food within the *ilaagit* by the group's *isumataq* or leader; *tigutwinaq*, the right of more distant kinsmen to "take without asking"; *nirriyaktuktuk*, or invitational communal meals of boiled seal in winter, or fresh caribou, char or other important summer foods; *paiyuktuq*, sending food to a neighbour; and *ningiktuq*, dividing among the entire community scarce foods such as whale, walrus, bearded seal or bear (Wenzel, 1986). *Ningiktuq* reflects a more general conception of reciprocity that used to include hunting equipment, but is now "under considerable strain" because of rising costs; fewer Inuit can afford imported gear, and they are increasingly reluctant to share it (Wenzel, 1986). Similarly, centralized town living has increased the importance and frequency of *paiyuktuq*.

The Inuit universe teems with life, both physical and supernatural, all bound by ties of kinship and responsibility. Clyde Inuit, for example, explain that they share Baffin Island not only with seals and caribou, but also with five other races of intelligent beings: *inurajat* (caribou people), *inugagulligaarjut* (miniature people), *tariaksut* (invisible people), *iqalupaluk* (mermaids), and *qalipalik* (trolls). Some Clyde residents are considered descendants of "ordinary" people and caribou or invisible people, and members of the community may expect aid from these spirit kinsmen in times of distress (Worl, 1986). Other communities have traditions of marriages and alliances with seal people (e.g., Hall, 1975, p. 197).

Invisible people can appear and disappear at will, but otherwise "they live much the same way as Inuit people do." They are frequently seen visiting in the community and, like Inuit, live in houses, eat store-bought food and drive snowmobiles. Hunters report food taken by invisible people,

"but they never use up the meat" and often return the favour with good luck. "They have been said to take meat from a hunter – let's say twenty pounds – but when they finish, there will still be twenty pounds of meat left." Someone at Clyde recalled:

*He was building a house by himself and these two people came to visit him. He felt like he was dreaming, but he was really awake, he cannot move though. He had been making some tea and these Invisible People had emptied the tea pot. He could talk to them, since they could talk to him too, but he couldn't move at all. And he was thankful of them for visiting him, because the other one had said there was a polar bear just in a site somewhere, and the next day he went there and got the polar bear (Worl, 1986).*

Two tribes of caribou people, one good and the other bad, also inhabit the interior near Clyde, and some of their Inuit descendants can transform themselves back into caribou people in times of danger. One man explained that, "His grandfather was very old, and he walked with a stick. He was very incapable of walking by himself, but when he would start chanting or singing, the streams, the small streams would start singing along with him, and he'd start to grow very big and could walk very well too." Others have been helped by caribou people: "He was up on the ice and got into open water, and he was starting to drown along with the skidoo, he shouted out to those people, and they came down to help him as in a form of clouds, they came in as a form of clouds" (Worl, 1986).

Not all sealing traditions have survived external influences. The *issuarq*, or smallest rib of the seal, is no longer placed on the heads of children to prevent them from growing "too big", for instance. Clyde hunters no longer release the spirit of the seal from the bone (*qannirq*) at the tip of the spinal cord, nor is the *qannirq* still used as a "tool" by novice shamans, although it survives in Inuit art as a symbol of the seal's power (Worl, 1986). "Nonetheless it is through the hunting of seals and their butchering and distribution that young people can readily be taught the virtues of cooperation, patience, sharing, and their responsibilities in the community," Peter Ernerk (1985) of Rankin Inlet told the Royal Commission. "Sharing is an important part of Inuit ethics, and in some parts of the Arctic seals are the chief product, which is shared among families and even sent from one community to another, to reinforce the bonds of solidarity among relatives."

"When our people hunt," explained Toby Andersen (1985) of Labrador, "they bring the whole seal back. Everything comes home. The only thing not used is the bones." If bones are left with a little meat on them, according to a Yupik story, they will cry because they were not appreciated (McCarthy, 1985). "The Inuit of Labrador did not harvest the seal to get rich," stated William Andersen III (1985) of the Labrador Inuit Association. "They harvested seals to maintain a social order."

Public education has had a significant impact on Inuit hunting ethics. Boys have far less time to spend with their fathers on the land, especially during the spring and fall, when most sealing on the ice is pursued. They may not begin hunting until they finish school, already have casual employment, and are less responsive to parental guidance. It has also been suggested that missionary activities and technological pragmatism have begun to erode traditional concepts of kinship and trust with animals (Kemp, 1971). Young and old alike object to changes imposed from the outside. "I feel, as many other people here and in other places must be feeling, that we have seen enough changes in our way of life," explained David Kilabuk (1985) of Pangnirtung, a member of the Advisory Committee to the Minister of State for Youth. "Putting a stop to hunting seals is one change we are not ready to live with."

Many Inuit see hypocrisy in growing southern opposition to wildlife harvesting. "The whale had been slaughtered by white people, including American whalers from New England," observed Jeela Moss-Davies (1985) of the Inuit Women's Association, recalling the 1972 U.S. import ban on whalebone carvings. "When the Inuit found a way to use the bones left by the whalers, their descendants passed a law which prevented [it]." "You don't know the pressure we are under to protect our culture," a Clyde elder concluded.

## **Benefits of the Seal Hunt**

*I was raised on seal in my days; today I still enjoy a good meal of seal meat (Papiglok, 1985).*

### **Economic Product of Sealing**

Inuit were attracted to towns by the promise of medical services and educational opportunities (Duhaime, 1983), but town employment is inade-

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quate to maintain traditional levels of nutrition and health, and is likely to remain so. Hunting is still an efficient use of labour, and even part-time hunting makes it possible for Inuit to enjoy a higher standard of living than would otherwise be possible in the Arctic. At the same time, part-time employment has become necessary to keep up with the rising costs of hunting. Sealing today, therefore, is part of a "mixed" economy in which wildlife-product sales, occasional wages and government aid each play necessary and related roles.



*Naalak Nappaaluk (seal hunter) with Charlie Arngak*

A survey conducted by the Holman Hunters and Trappers Association (1985) illustrates the diverse utilization of seal products by Inuit. Nearly all Inuit families in Holman sold sealskins to the local Inuit-owned Co-op, and 12% kept some skins for their own use. Some 67% used seal meat for dog food, 53% still used seal oil for cooking and heating fuel, and 75% shared seal meat routinely with relatives. Seal meat was also used to bait

fox traps. Hunters throughout the Arctic still prefer sealskin *kamiks* (boots) and are abandoning imported synthetics in favour of more traditional, but superior sealskin outerclothes (Wenzel, 1986). Many are also recognizing the enormous financial burden of imported heating fuel, which not only requires a cash income, but tends to be used less efficiently (Kemp, 1971).

It is difficult to place a cash value on Inuit food products, since they are not routinely bought and sold. The price at which they *would* be sold, or "shadow" price, might be estimated by observing occasional transactions, or by assuming that it would equal or exceed the cost of hunting. Using the first method, Brakel (1977) put the shadow price of ringed seal meat at 20 cents per pound or \$8 per seal. Using the second, Anders et al. (1967) estimated the value of seal meat as three to seven cents per pound, which is about 20 cents per pound in 1977 dollars. The transactions method fails to account for the scarcity of money in Inuit communities, which depresses the price of all commodities traded among the Inuit themselves and thus makes all indigenous products appear of much lower value than imported products. The cost method estimates or, in Anders' case, ignores the value of labour and returns to capital.

Pricing substitute foods probably offers the most realistic estimate of seals' economic value to Inuit. With frozen ground beef selling in Holman for \$7.58 per kg, or pork chops in Clyde River for \$8.60 (Holman H.T.A., 1985; Borré, 1986), seal is still a bargain at costs of up to \$150 per animal or six hunting days per seal. The comparison is rough because northern prices may be inflated by as much as 20% by the Hudson's Bay Company's virtual retail monopoly (Mackey, 1981; Canada, DIAND, 1984a; Kemp et al., 1977). It also assumes that Inuit would buy nutritionally equivalent foods if they were able to afford them. With these factors in mind, Clyde River Inuit, for instance, would need more than \$1,200 per capita yearly simply to replace the nutritional value of ringed seals, using Wenzel's (1981) estimates of the number of seals consumed per family. This is about one-third of their per capita cash income from all sources, including wages, fur sales and transfer payments (Canada, DIAND, 1984a, Table 2).

The productivity of hunters' labour is another way of looking at the economic value of Arctic sealing. Wenzel (1981) estimated that hunters produced the equivalent in food of \$37 at Clyde River and \$9 at Holman for every hour spent hunting, including time travelling and repairing equipment. Expressed in other terms, a kg of seal meat costs hunters \$1.55 in capital and 0.15 hours labour at Clyde, and \$1.75 in capital and 0.55 hours labour at Holman. At these rates, sealing compares favourably with conven-

tional employment. In purely ergonomic terms, moreover, all forms of Inuit hunting produce a substantial energy surplus over human and mechanical inputs (Kemp, 1971; Truede, 1977; Riewe, 1977). Clyde hunters generally used more gear and worked less, indicating the effect of technology on hunting efficiency.

Sealing also provides cash for Inuit households, but most of it must be reinvested in maintaining or replacing hunting equipment (Anders et al., 1967; Wenzel, 1983). Seals replaced fox as the main source of Inuit hunters' cash income in the 1950s because of changing prices, but while the physical supply of seals has remained adequate, prices have been extremely variable, with highs in 1963, 1971 and 1981 of more than \$12 and lows in 1967 and 1977 of \$2.50 or less (Anders et al., 1967; Brakel, 1977; Wenzel, 1978). Few Inuit have earned more than \$500 per year from sealing even at peak prices, while the costs of hunting equipment and fuel have increased by 50% to 100% over the past decade (Wenzel, 1978, 1983). The supply of other furs still taken by Inuit, such as bear and fox, varies greatly and is already fully exploited. Although a bear skin may fetch \$1,000, there is a strict quota system, and a hunter is fortunate to obtain a single tag. Fox vary with the seven-year Arctic hare cycle.

Thus, in terms of subsistence and cash for the maintenance of subsistence hunting, sealing is important. As the following section shows, seal meat also holds considerable nutritional value.

## Diet and Health

Arctic hunting continues to provide essential nutrients at a significantly lower cost than importing food from the south, and this is likely to remain true for the foreseeable future. Increased employment and social assistance payments simply have not made nutritionally equivalent southern foods affordable in the North. Moreover, Inuit who are already employed tend to use their wages to continue hunting. Wherever hunting has declined as a result of development, Inuit dependent on low-cost, imported carbohydrates and fats have experienced deteriorating health. By reducing hunting, the collapse of sealskin markets has served to jeopardize Inuit health.

There is considerable fluctuation in the amount and composition of foods eaten in Inuit communities (Draper et al., 1979). Some of these fluctuations simply reflect the seasonal availability of wildlife and the opportunistic nature of hunting; food preferences also vary regionally. In the central

and eastern Arctic, for example, young ringed seals (aged one year) are the most favoured food, followed by older ringed seals, bearded seals, and other seals (Freeman, 1983; Boles et al., 1983). Western Inuit may prefer bearded seals (Geraci and Smith, 1979). Fresh seal is preferred to meat that has been frozen or cooked (Freeman, 1983). In any case, seal is the food of choice. "In winter, seal is eaten in nearly every household on a daily basis," writes Wenzel (1986). "It is common to be told by Inuit that only boiled seal (*uyuk*) with its rich broth (*kaiyuk*) can keep a person warm."

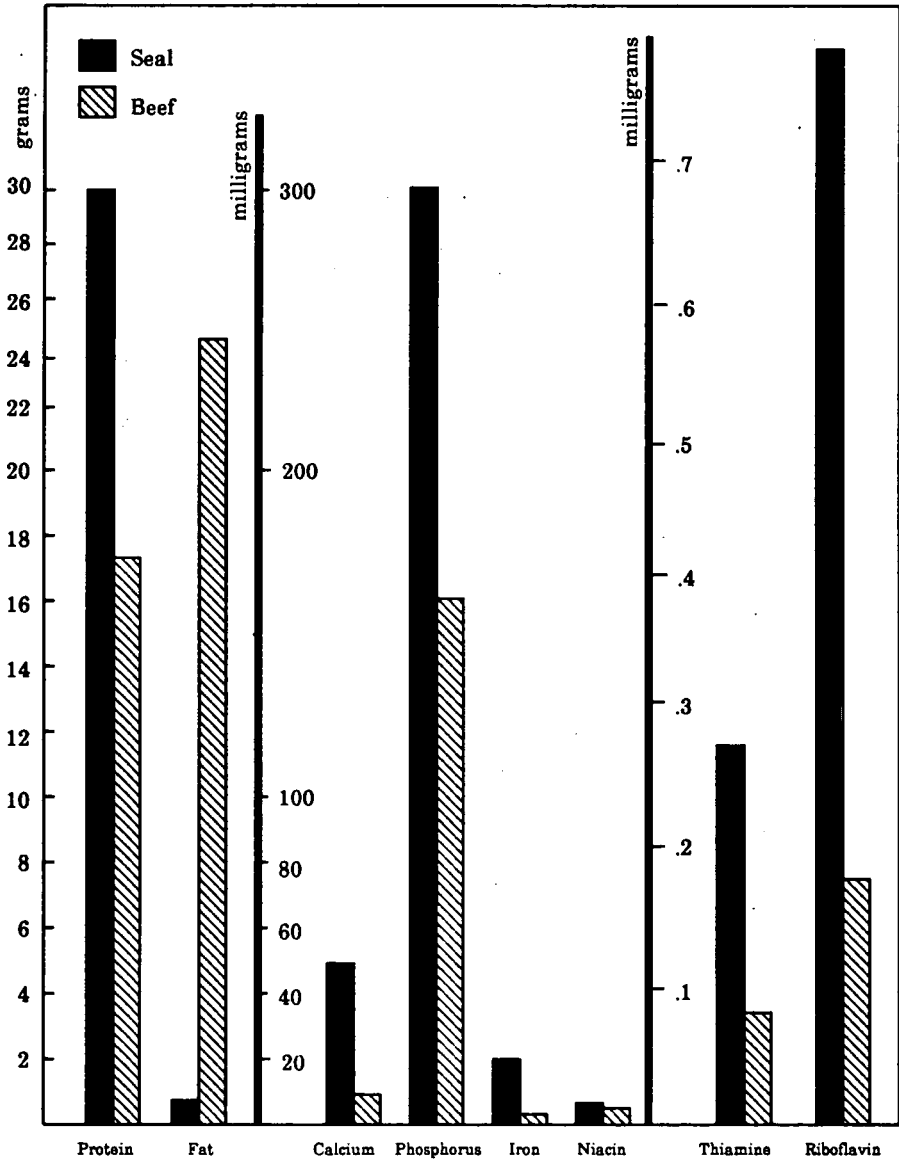
Euro-Canadians derive most of their metabolic energy from the breakdown of sugars and starches into glucose. Since country foods contain few carbohydrates, Inuit synthesize glucose from animal protein, or metabolize ketones synthesized from animal fats (Draper, 1977; Schaefer and Steckle, 1980; Draper et al., 1979). About 400 kg of seal meat or the equivalent per capita annually is necessary to meet minimum energy requirements. Caribou and seal contain less total fat and fewer saturated fats than "marbled" beef. Seal meat is 32% protein and 2% fat, for example, while beef is only 17% protein and 23% fat (Schaefer and Steckle, 1980; Draper, 1977; Hoppner et al., 1978). Moreover, humans store polyunsaturated marine fats without modification, but synthesize saturated storage fats from carbohydrates (Draper, 1977). The traditional Inuit diet is therefore associated with low blood-serum cholesterol levels and a low risk of cardiovascular disease (Anonymous, 1984).

Seal meat also contains (by weight) at least twice as much protein, calcium, phosphorus, iron, vitamin C, thiamine and riboflavin as beef (Figure 13.2; Boles et al., 1983; Hoppner et al., 1978; Schaefer and Steckle, 1980; Draper et al., 1979). This is important because Inuit absorb dietary iron more slowly than Euro-Canadians and require iron-rich foods to avoid anemia (Draper et al., 1979; Schaefer and Steckle, 1980; Hoppner et al., 1978). Seal-liver fat is rich in vitamin A, and like other marine mammal blubbers contains significant amounts of vitamin D (Draper, 1977; Rodahl, 1949; Rodahl and Davies, 1949). Indeed, Inuit avoid eating polar bear liver, which can contain toxic accumulations of vitamin A from the bears' seal-rich diet (Fay, 1960). Small quantities of vitamin E are also available in seal meat (Draper, 1977).

Vitamin C is seasonally available in small quantities from the contents of caribou rumen, berries and wild herbs, many of which are richer in vitamins A and C than spinach or citrus fruits (Schaefer and Steckle, 1980). The most consistent Arctic sources of vitamin C are seal liver, *muktuk* (whale skin) and, to a lesser extent, seal meat (Geraci and Smith, 1979;



**Figure 13.2**  
**Proximate Composition of Seal Meat and Beef**



Sources: DFO 1985; Mackey 1981

Draper, 1977; Schaefer and Steckle, 1980). A traditional Inuit diet of 800 g–1000 g of seal meat daily is just sufficient to prevent clinical manifestations of vitamin C deficiency. Since cooking degrades these vitamins, eating raw meat is nutritionally best, but cooking eliminates parasites such as *Trichinella*, which occurs occasionally in seals and commonly in bears (Borré, 1986; Fay, 1960). Consuming the broth (*kaiyuk*) reduces the loss of nutrients (Geraci and Smith, 1979; Hoppner et al., 1978).

Chewing fish and animal bones, especially the soft bones of young seals, is still widespread (Borré, 1986) and may be the single most important traditional source of dietary calcium (Draper, 1977; Draper et al., 1979). Since traditional foods are relatively low in calcium and rich in phosphorus and magnesium, Inuit should suffer from osteoporosis, a gradual resorption of bone calcium that progresses with age (Draper et al., 1979; Jeppesen et al., 1984). Clinical manifestations of osteoporosis are rare, however. This suggests that more calcium is available physiologically in organ meats and bones than in the cereals eaten by Europeans, or that Inuit absorb dietary calcium more efficiently than Europeans (Schaefer and Steckle, 1980; Fraser, 1975). Magnesium-rich country foods may also be responsible for the reported infrequency of urinary calculi among Inuit (Jeppesen et al., 1984).

Seal meat is clearly beneficial to Inuit health. The negative health effects arising from the decline of the hunt are discussed in a subsequent section.

## Social Organization and Culture

The Royal Commission was consistently informed in public meetings and through written submissions that seal hunting is required for the physical and cultural health of people who depend on it. For Inuit and Indians living in the North, social, cultural and economic issues are inseparable. Brody says of the Inuit:

*For them, to be a person with prospects for a happy life in the future it is necessary to be, or to have children who are, practitioners of the hunting and trapping economy. This sense of general well-being, however, is inseparable, both in theory and as expressed by the people, from the strength of culture. The skills, the knowledge, the very language in which to communicate such skills and knowledge – these are integral to the economic practices,*

*and they are the hallmarks of cultural strength. In communities or ethnic groups where the economic basis for distinctive identity has changed or disappeared, cultural issues stand alone. They are not therefore unimportant: distinctiveness of language, dress, education, and spiritual life represent vitally significant matters to many groups of people. To the Inuit of the Northwest Territories, however, whose economic basis for distinctiveness seems not to have been undermined in anything like a final way, protection of cultural distinctiveness cannot be conceived apart from the strength of its basis, the socio-economic system itself (Brody, 1980, p. 14).*

Seal hunting and other such pursuits affirm Inuit and Indian control over their land; wage labour or transfer payments, while they might be beneficial in some ways, sacrifice political and cultural control. Inuit concern therefore arises that this loss of control will sooner or later result in irreparable environmental damage and ultimately the destruction of their socio-economic system. Aside from the immediate benefits of sealing, then, the hunt is also a defence against future cultural catastrophe. Moreover, this defence is taken seriously by the Inuit: the Inuit Land Use and Occupancy Study (Freeman, 1976) found that seal hunting has always represented a substantial component of land use.

## Impacts of the Market Decline

*How do you replace seals for the Inuit? There's food, there's clothing, there's cash, and there's pride (Kupeuna, 1985).*

## Background

The market for harp seal pelts began to decline in the 1970s as a result of changing fashions, hastened by public awareness of the anti-sealing campaign. Prices for ringed sealskin remained relatively strong and actually peaked in 1981, however, then fell dramatically in 1983 following the European Community (EC) directive (see Table 13.2). As of May 1985, there was "no demand" for hair seal pelts at Canadian fur auctions, although Inuit Co-ops and, in some communities, the Hudson's Bay Company were still

purchasing and stockpiling skins at reduced prices (Holman H.T.A., 1985). For the Northwest Territories as a whole, Inuit sealing revenue fell from \$476,999 in 1981/82 to \$76,555 in 1983/84 (Cournoyea, 1985; Struzik, 1985). In Labrador lost sealing revenue has reduced total Inuit income by one-third (Labrador Inuit Association, 1985). In Pangnirtung the Royal Commission was told that hunters' average income fell from \$1,100 in 1981/82 to \$202 in 1983/84. This drop in income has been aggravated by restrictions on the sale of whalebone handicrafts and declining consumer interest in soapstone carvings (Wenzel, 1983). The Bay's purchases of soapstone carvings have fallen by two-thirds since 1980.

Established hunters are having difficulty paying for fuel and spare parts (Table 13.4 indicates equipment costs). Young Inuit are finding it impossible to afford the capital costs of getting started. As a result, the number of Inuit hunting in the Northwest Territories fell from 1,286 to 562 over the past three winters, and social assistance payments rose by amounts that range from 176% at Clyde River to 443% at Hall Beach (Cournoyea, 1985). Inuit have reacted with surprise and anger. "The life has been taken away from the people, and they don't know why", protested David Omingmak (1985), Holman hunter. "We're not hurting anyone up here, we're just trying to live," added Jack Kupeuna (1985) of the Kitikmeot Inuit Association. "What are people from the outside trying to do to us?" No northerner can understand the point of banning sealskins, since skins are an unavoidable by-product of hunting seals for food and will otherwise go to waste. Many hunters also say that they have stopped sealing because taking enough skins, at today's prices, to pay for fuel would mean having to abandon and waste too much meat.

To continue hunting, many Inuit are going into debt for the first time in their lives. The Kangiqsujuak Inuit Co-op estimates that it extended one-third more credit in 1983/84 than in previous years. Snowmobiles are deteriorating, and men are increasingly reluctant to lend them to kinsmen (Wenzel, 1986). At Holman, hunters are doing more char fishing, because they can fish closer to the hamlet. All communities report increased use of dog teams, but only by the most skilled and dedicated hunters willing to move back out to camps, and there are few harnesses and teams yet available. The most widespread adaptation is increased reliance on welfare support to purchase cheap imported foods, chiefly biscuits and sugars. The negative effects have been extensive. Many Inuit attribute increased adolescent delinquency and suicide to hopelessness aggravated by the collapse of hunting opportunities (Borré, 1986).

**Table 13.4**  
**Cost of an Inuit Hunting Outfit, Clyde River, 1983/84**

	Price Range <sup>a</sup>	
	Lower	Upper
<b>Capital Goods (fixed cost)</b>		
Snowmobile	2,795.00	3,998.00
Canoe/boat	2,998.00	7,959.00
Outboard motor	1,595.00	4,300.00
Rifle	99.95	659.00
Sleeping bag	50.00	289.98
Camp stove	52.98	69.98
Tent	229.00	229.00
<b>Spare Parts and Fuel (variable cost)</b>		
Track assembly	388.98	489.98
Snowmobile ski	71.89	71.89
Slider rail	19.98	23.98
Crankshaft	499.00	499.00
Piston	79.98	112.73
Gasoline (per litre)	.64	.64
Oil (per litre)	2.92	2.92
White gas (per litre)	12.25	12.25
Ammunition (box of 20)	11.50	19.98
<b>Entry and Operating Costs<sup>b</sup></b>		
Total fixed	8,552.98	18,036.98
Total variable	2,090.79	2,090.79
Total first year	10,643.77	20,127.77

a. Based on 1984 price list, Hudson's Bay Co., Clyde River.

b. Annual average from field observations, 1983-84 (Wenzel, 1986).

Canadian Inuit hunting cannot continue at current sealskin, fuel and equipment prices unless \$1–2 million (\$500–1,000 per hunter) in lost annual harvesting income is replaced as a minimal measure, at least temporarily. In 1984, the Department of Fisheries and Oceans instituted a seal-pelt price-support program, paying Inuit an average of \$6.00 per pelt sold in 1983. This support has been matched by \$5.00 per-pelt "compensation" payments from the Government of the Northwest Territories (Canada, DFO, 1985). The Province of Quebec has also been paying small cash bonuses to hunters for pelts sold, and in Greenland, where Inuit sealers have also been hard hit by declining markets, the Home Rule government has made a commitment to continue to buy pelts whether or not they can be resold. By paying for hunting, these programs tend to maintain the traditional food supply, while direct cash grants would encourage the purchase of low-cost, nutritionally poor substitutes.

The following sections examine the effects of the lost markets on diet and health, and social organization and culture.

## Diet and Health

Centralization, wage-employment, transfer payments and contact with southern food preferences have led to an increasing proportion of imported store-bought foods in Inuit diets. While a nutritionally adequate diet can be assembled from southern foods, of course, all of the necessary elements are not always available or affordable in isolated northern communities (Mackey, 1981). One nutritional consequence of importing foods is increased dependence on carbohydrates and saturated fats for metabolic energy. Increased consumption of imported saturated fats has been linked with a 300% increase in serum cholesterol levels, cardiovascular disease and high blood pressure among Inuit (Draper, 1977; Schaefer et al., 1980; Schaefer and Steckle, 1980).

Obesity and acne are also increasingly widespread, and some physicians anticipate the future development of adult-onset diabetes, as among Indian populations in the south (Schaefer and Steckle, 1980; Mackey, 1981; Draper et al., 1979). A marked increase in gall-bladder disease among Inuit women may be linked to rising cholesterol levels (Schaefer et al., 1980; Schaefer and Steckle, 1980). The lower fibre content of processed foods may be associated with increased incidence of constipation, other gastro-intestinal complaints, and certain forms of cancer (Borré, 1986).

Sugar is replacing flour among the imported carbohydrates in Inuit diets. In one village, for example, sugar rose from 18% to 44% of calories from carbohydrates over the period 1959–1967, and Inuit now consume more sugar, on the average, than Euro-Canadians (Schaefer and Steckle, 1980). In some communities Inuit now derive as much as one-third of their calories from cookies, candy and soft drinks (Kemp et al., 1977). Dental caries, virtually unknown among Inuit a generation ago, have now increased to epidemic proportions (Mackey, 1981; Schaefer et al., 1980; Schaefer and Steckle, 1980; Draper et al., 1979; Mayhall, 1975). At Clyde River, for example, premature tooth loss is common among those under the age of 35 (Borré, 1986). Traditionally prepared dried and raw-frozen meats are tougher to chew than imported foods, resulting in healthier dentition generally (Draper et al., 1979).

Another result of relying on sugary imported foods is hypoglycemia. Metabolism of fats and protein is slow and maintains relatively constant blood-sugar and energy levels, while sugar metabolism is rapid. Sugary diets produce significant fluctuations in blood-sugar levels and energy, resulting in periodic spells of lethargy. In Arctic conditions, hypoglycemia can be lethal by causing sudden drops in body temperature. Early European explorers quickly learned to stay warmer by eating seals instead of the biscuits and sugars they carried with them.

Inuit lived for thousands of years without exposure to dairy products or fruit sugars. Both lactase and sucrose deficiencies are accordingly common, affecting up to two-thirds and one-fourth of adult Inuit respectively. One cup of milk at a sitting is the limit for most adult Inuit; greater lactose loads can result in discomfort and diarrhea (Draper, 1977; Draper et al., 1979). Sucrose intolerance can result in discomfort after consuming even small amounts of refined sugars in cakes or candies (Draper, 1977; Draper et al., 1979; Schaefer and Steckle, 1980). As a practical matter, this means that Inuit are less adaptable to low-cost imported foods, most of which contain sugar, and have difficulty using dairy products to compensate for vitamin deficiencies.

Vitamin and mineral deficiencies represent a serious problem. Store-bought foods contain fewer vitamins. Vitamin A deficiency, increasing among Inuit, has been attributed to eating fewer seals (Schaefer et al., 1980; Murray, 1975). Vitamin C deficiency is also increasing, except where vitamin-enriched fruit drinks have become popular (Schaefer and Steckle, 1980). Low vitamin C intake coupled with a high-protein diet can result in elevated serum tyrosine levels – already observed in Inuit – and there is

some evidence linking this change with developmental learning disabilities (Scriver and Clow, 1975).

The added salt in imported foods is not only associated with hypertension, but may also aggravate underlying calcium deficiencies (Goulding et al., 1983). Drinking tea may also be a concern with diets deficient in both calcium and vitamin D because the oxalates in tea precipitate calcium and may contribute to kidney-stone formation (Fassett, 1973). Lactase deficiency complicates the introduction of dairy products to compensate for reduced dietary calcium.

Compensation for iron deficiencies in imported foods is difficult because Inuit absorb dietary iron slowly (Schaefer and Steckle, 1980; Schaefer et al., 1980). Anemia is now a widespread problem in Inuit communities where employment has replaced hunting to a significant degree (Draper et al., 1979), and it is a particular concern for Inuit women (Schaefer and Steckle, 1980). Children, in whom chronic anemia may be associated with severe diarrhea (Hamilton, 1975) and learning disabilities (Bender et al., 1975), are also at high risk, and they consume the largest proportion of imported foods (Draper et al., 1979). Traditionally, Inuit children were fed pre-masticated meat and fish, beginning at four to six months of age, but an increasing number today are bottle-fed and then weaned on sugary cereals (Borré, 1986; Schaefer, 1975). While Inuit children eating imported foods tend to grow more quickly and achieve sexual maturity earlier, this more rapid development does not indicate improved overall health (Schaefer et al., 1980; Sayed et al., 1975).

These nutrition problems are aggravated by the poor water quality, inefficient sanitation and poorly ventilated housing of centralized Inuit communities (Freeman, 1983; Mackey, 1981), leaving Inuit much more susceptible to infectious and contagious disease than their southern Canadian neighbours (Schaefer et al., 1980). Increased bottle-feeding, which prevents the transmission of antibodies from mother to child, has been blamed for recent increases in infant diarrhea and childhood respiratory and ear diseases (Schaefer et al., 1980; Schaefer and Steckle, 1980; Baxter, 1981). Wage-earners tend to acquire smoking and drinking habits not commonly found among hunters (Rode and Shephard, 1984; Schaefer et al., 1980). In addition to their direct health consequences, tobacco increases smokers' vitamin C requirements, and alcohol abuse contributes to hypoglycemia (Borré, 1986).

Infant nutrition poses special problems. Even in relatively traditional communities such as Clyde River, where most infants are breast-fed,



adopted children usually must be fed substitutes. *Kaiyuk* (boiled seal broth), commonly used in the past, is giving way to packaged formulas such as Enfalac (Borré, 1986). Enfalac currently costs \$807 per infant per year, or nearly one-fourth of household income, leading often to dilution or to replacement with plain powdered milk, which is considerably cheaper, but nutritionally less complete. While adults' main, midday meal still usually incorporates country meats or fish, children tend to be given store-bought processed foods and commonly snack on "junk foods" after school (Borré, 1986). Infants and children therefore bear the greatest impact of changing diets and limited income at the ages when nutritional adequacy is most critical.

Costs associated with imported foods have posed difficulties for northerners. The median income of Inuit households averages \$3,000 to \$6,000 per year, compared with \$15,000 or more in mining settlements (Canada, DIAND, 1984a, Table 2), but a minimally adequate diet of familiar southern foods costs twice as much in Clyde River, for example, as it does in Montreal and would absorb more than one-fourth of Inuit households' income (Borré, 1986). Southern Canadians need to spend less than 15% of their disposable cash income on food (Canada, DIAND, 1984a, Table 3.2). Moreover, while flour, sugar, fats and oils cost twice as much in the North, fresh fruits and vegetables cost up to twenty times as much (Borré, 1986; Canada, DIAND, 1984a, Tables 12 and 13), a disadvantage aggravated by the Hudson's Bay Company's system of variable, rather than fixed percentage price mark-ups (Borré, 1986). The most costly imported nutrients are vitamin A, calcium, and vitamin C, all of which Inuit traditionally obtained from seals (Borré, 1986; Canada, DIAND, 1984a, Table 18.1).

As a whole, country food has greater "nutrient density" – that is, more nutrients per kg of edible weight – than the imported food that Inuit can afford to use. Table 13.5 compares the average nutrient density of the country and imported foods actually eaten by Clyde River Inuit households in mid-1985. As a whole, country foods make a greater contribution to Clyde River Inuit households' intake of protein, thiamin, riboflavin, niacin, vitamin A and iron than imports, while imports are important for folate, vitamin C and calcium, as seen in Table 13.6. Under these conditions, hunting is essential even if only to complement imported carbohydrates (Cox, 1985). "There is simply no practical, acceptable substitute for seals from a nutritional standpoint" (Borré, 1986, p. 26).

Judging from the Clyde River study (Borré, 1986), Inuit are aware of the nutritional effects of changing diets. Eating country food several times a week is generally considered necessary for good health; indeed, most Inuit

**Table 13.5**  
**Relative Nutrient Density of Country and Store Foods<sup>a</sup>**

Nutrient	Unit	Relative Density	
		Country Foods	Store Foods
Protein	(kg/mJ)	.040	.010
Fat	(kg/mJ)	.008	.008
Saturated Fat	(kg/mJ) <sup>b</sup>	.002	.002
Vitamin A	(re/mJ)	91.490	31.966
Vitamin C	(mg/kJ)	2.989	3.649
Thiamin	(mg/mJ)	.580	.090
Riboflavin	(mg/mJ)	1.670	.220
Niacin	(mg/mJ)	6.280	1.200
Folate	( $\mu$ g/mJ) <sup>b</sup>	.010	7.780
Calcium	(g/mJ)	.030	.560
Iron	(g/mJ)	.014	.001

Source: Borré (1986).

a. Based on a study of 12 Clyde River Inuit Households, June–August 1985.

b. Estimated.

over the age of 50 said that they would die without it. They explained that an Inuk raised on country food has thick dark blood like a seal's, and that store-bought food makes blood weak, thin and watery. They blame imported foods for weakness, sluggishness, depression, headaches and irritability (symptoms of anemia and hypoglycemia), as well as stomach aches and other gastro-intestinal problems. Instead of going to the nursing station for relief of these complaints, Clyde River Inuit prescribe more country food for themselves, especially seal. While Inuit enjoy fresh fruits and fruit juices and recognize their nutritional value, they simply cannot afford them. Reluctance to share purchased foods as freely as hunted meats is a poignant indicator of just how expensive they can be.

**Table 13.6**  
**Relative Contribution of Country and Imported Foods to Total Nutrition<sup>a</sup>**

Nutrient	Unit	Actual Intake	Proportional Derivation	
			Country Foods (%)	Imported Foods (%)
Protein	(kg)	2,030.3	71.9	28.1
Carbohydrate	(kg)	1,823.0	0.2	99.8
Fat	(kg)	697.4	39.2	60.8
Saturated Fat	(kg) <sup>b</sup>	137.2	38.6	61.4
Cholesterol	(kg) <sup>b</sup>	1,676.4	0.3	99.7
Vitamin A	(re)	4,869,275.2	63.2	36.8
Vitamin C	(mg)	275,170.2	24.6	75.4
Thiamin	(mg)	24,664.7	80.3	19.7
Riboflavin	(mg)	68,485.9	82.0	18.0
Niacin	(mg)	279,518.9	75.5	24.5
Folate	( $\mu$ g) <sup>b</sup>	667,331.7	34.7	65.3
Calcium	(g)	4,055.6	20.7	79.3
Iron	(g)	523.1	88.3	11.7
Sodium	(g)	20,255.1	17.7	82.3

Source: Borré (1986).

a. Based on a study of 12 Clyde River Inuit Households, June–August 1985.

b. Estimated.

### **Social Organization and Culture: The Similar Experience of Trappers**

Comparing the effects of the decline in fur trapping and the decline in seal hunting is useful because the trapping experience has been going on for much longer, and the overall effects can be seen more easily. The comparison should serve as a warning.

Indians and Inuit had been trapping for fur long before the Hudson's Bay Company introduced cash exchange to the aboriginal economies. Furs had been used for a variety of purposes, primarily as clothing, and were the basis of substantial trading networks among tribal groups in various parts of the country. The arrival of the Hudson's Bay Company increased the demand for furs at a time when European colonization was reducing aboriginal territories. As the fur industry grew, it compensated for this territorial contraction by enabling hunters to earn cash from animals (or parts of animals) not previously fully exploited. At the same time, aboriginal communities became dependent on cash trading to maintain the new demographic equilibrium. The trapping industry flourished from the early years of the 19th century to the late 1940s, when the fur market began to decline.

There are many reasons for the decline, including the invention and mass production of warm synthetic materials and the vagaries of fashion. Since the late 1940s, fur prices have fluctuated significantly, thus making trapping a somewhat risky business. In addition, more recent problems have plagued trappers, such as inflation resulting in high fuel and equipment costs, declining animal populations in some areas as a result of industrial development, and public anti-trapping sentiment engendered by animal-rights groups. The effects of the decline in the fur market have been serious for Indians, who typically trap beaver, marten, mink and lynx, and for Inuit, who trap, primarily, arctic fox.

The impact of the decline can be identified within two categories: revenue and culture. Revenues from trapping vary with fluctuations in fur prices and the inflation rate. For example, in the Northwest Territories during the seven-year period from 1975/76 to 1982/83, the total nominal value of fur sales peaked in 1978/79 and was approximately the same in 1975/76 and 1982/83. Taking account of inflation and rising costs, however, average trapping income in the Northwest Territories actually declined, in real terms, to 58% of 1975/76 levels (Canada, EIC, 1984, p. 26). In 1982/83 only 36.3% of the trappers earned over \$600 per year from this activity (Canada, EIC, 1984, p. 27).

Trapping has traditionally been one component of the mixed (subsistence and cash) economies of Indian and Inuit societies. Cash derived from trapping supplements family incomes to enable the purchase of consumer goods and the maintenance of other economic pursuits such as hunting and fishing. In order to fill the increasing gap created by declining fur prices and inflation, many families have been obliged to accept transfer payments from the federal government. Transfer payments represent a significant option for cash income, especially in view of the perennial scarci-



*Inuit hunting camp (circa 1940)*

ty of wage employment for Indians and Inuit in the North. Yet the acceptance of this kind of assistance has created a relationship of dependence that has led many aboriginal communities and organizations to attempt to find alternatives to transfer payments. The need to re-establish local economic productivity and to regain control of local economies is one of the major rationales underlying the recent stress that aboriginal peoples have been placing on the development of self-government.

Culture has been negatively affected by the difficulties posed for trappers. When social organization and cultural identity are intimately bound up with the land, as they often are in Inuit and Indian societies, weakening of ties to the land can easily result in cultural decline. One loss, for example, is in the educational aspect of fathers and sons trapping together. Not only are skills transferred, but the setting provides an opportunity to pass from one generation to another the history and values of a particular culture. It was pointed out to the Royal Commission that the same is true for the seal hunt.

Seal hunting and fur trapping are the same inasmuch as both pursuits have provided cash income for families and have contributed to the maintenance of a strong sense of cultural identity. In this regard, the importance of sealing and trapping for the mixed economy must not be overlooked.

Both activities enable Inuit and Indians to carry out other land-based enterprises, such as hunting, by providing cash for the purchase of equipment. Moreover, this process helps aboriginal peoples to avoid complete dependence on transfer payments and wage employment for their survival. It also enables the procurement of country foods which, as has been explained above, are significant in the maintenance of good health. It is these factors – land-based economic activities and good health – that provide the context in which aboriginal cultures will survive. The alternative is a dependent lifestyle for which aboriginal social organization and culture may be redundant.

## The Future

*People have a right, within their own environment, to be economically independent (Cournoyea, 1985).*

## Economic Options

Greenlandic Inuit have successfully developed halibut, cod and prawn fisheries in the southern Davis Strait, but few individuals can participate because the capital requirements of mobile marine gear are so high (Kapel and Peterson, 1982). In most of arctic Canada, the only fishery with significant commercial potential is for char. With a flavour and texture comparable to Atlantic salmon, char can command a premium wholesale price, and there have been a number of experiments with netting and freezing char in the western Arctic (Brakel, 1977). A commercial char fishery established at Cambridge Bay in the 1960s has an annual quota of 100,000 fish and chiefly serves southern Canadian markets for fresh/frozen fish.

The sustainable yield of arctic char stocks is not known, but char is an extremely slow-growing fish that usually spawns repeatedly in fresh water. Physical yield is therefore low, and shore netting, while inexpensive and efficient, must be conducted with extreme care to avoid overharvesting spawners. Costs of air transportation to southern markets also pose a barrier. More shore-netting and freezing operations probably could be developed, but the total direct payroll in the Arctic likely would not exceed \$1 million annually.

Many groups opposed to wildlife harvesting have suggested the development of "non-consumptive" wildlife activities, that is, tourism based

on opportunities to view animals. Auyuittuq National Park on Baffin Island currently attracts about 300 visitors yearly, generating a local payroll of about \$200,000 for guides and support staff, but this cost is borne chiefly by government. Visits are restricted to the brief arctic summer, and most tourist dollars go to transportation because arctic travellers are rarely interested in premium indoor accommodations. In Alaska, most casual visitors rely on tour ships for both transport and lodging, and their shore visits contribute money chiefly to producers of local handicrafts.

Sport fishing for char is presently the main attraction for Canada's arctic visitors, who may pay up to \$1,000 per day for air transport and modest accommodations. Recreational hunting would increase the attractiveness of the Arctic to tourists, but only a few very scarce species, such as musk-ox and polar bear, would be more valuable to a sport hunter than as food and fur to an Inuk. Limited development of the sport fishery offers the greatest potential, but will create only a few seasonal local jobs, and Inuit will benefit significantly only if they can control and expand air services, such as Air Inuit of Quebec.

By comparison, industrialization based on minerals and petroleum extraction would generate substantial short-term wages, but it would threaten the habitat on which Inuit must rely for survival in the long term. Although the mineral potential of the Canadian Arctic is enormous, arctic mining is extremely capital intensive, on the order of \$700,000 per job created, and most benefits are realized by capital rather than by labour. It is likely that Inuit would be unable to control this technology and would tend to become more dependent on outside institutions. Moreover, mining creates new, temporary communities, rather than strengthening existing ones. The potential environmental costs of mining must also be considered, particularly the effect on seals and other local sources of food.

Custom industries based on by-products of hunting involve the lowest capital requirements and offer the greatest promise for local employment. Everything depends on the development and marketing of premium products. At present, most Inuit sealskin products are toys and small articles of clothing for sale to tourists from craftshops and hotels in the Northwest Territories. A few are exported to Japan, and the Vancouver Expo 86 has made a commitment to feature Inuit sealskin handicrafts. High-quality boots and coats are made, but not adequately marketed in Canada or abroad. Experiments conducted by the Territorial and Greenlandic Home Rule governments demonstrate that a fine-textured, durable leather can also be made from ringed sealskin, offering an opportunity to produce goods that do not "look like seal". Both potential markets should be explored actively:

premium clothing which is identifiably Inuit in styling and craftsmanship and handcrafted leather products derived from locally tanned sealskins.

No discussion of the Inuit economy would be complete without consideration of the pervasive role of the Hudson's Bay Company as a monopoly retailer of imported food, equipment and fuel in most arctic communities (Canada, DIAND, 1984a). The Bay did not co-operate fully with the Royal Commission, and Commissioners were unable to assess the volume of its sales or the nature of its pricing practices. Those commercial records that Commissioners did obtain were internally inconsistent. In most communities, Bay stores also act as bankers, receiving government cheques and extending limited credit so that many Inuit see no cash and must rely on local store managers to determine what they have or owe. Although some Bay stores continued to purchase a limited number of sealskins at reduced prices after overseas markets collapsed, this practice appears to have been restricted to communities where there was no retail competition: that is, where the money paid for seals had to be spent at the Bay.

### Compensation and Adjustment Assistance

To be meaningful and acceptable to Inuit, a relief package must be designed to permit, if not to encourage, continued hunting of seals and other wildlife. The available evidence (Canada, DFO, 1985, p. 99-107) indicates that, just prior to 1983, approximately 60,000 seals were harvested annually in the Northwest Territories and northern Quebec and that about 40,000 sealskins were marketed, on average, by the Hudson's Bay Company and other channels. At the average price of roughly \$20 per skin which prevailed during the late 1970s, this would represent total gross returns of \$800,000. Since the sales data are known to be somewhat deficient, however, it is likely that gross returns in fact approached or exceeded \$1,000,000 annually. Gross returns per hunter therefore may be estimated at \$500, more or less, each year.

Revenue from commercial sealing thus contributed significantly to the financing of Inuit hunting enterprises, in which annual operating costs appear to be roughly \$2,000 per hunter (Table 13.4) - that is, assuming approximately 2,000 hunters, a total of \$4,000,000 annually. These hunting enterprises, in varying proportions according to area, depend on the harvest of caribou, polar bear and fox as well as seals. Without the support of sealing revenue, the entire Inuit hunting economy may be unsustainable. Indeed, reduced hunting activity since the 1983 collapse of sealskin markets has resulted in deterioration of equipment, which will now require replacement





*Inuit hunter and catch*

if hunting is to be renewed. It follows that a relief package must provide *at least* \$1,000,000 (1983 dollars) yearly to replace lost sealing revenue, and up to \$4,000,000 to re-finance the Inuit hunting economy as a whole, over a reasonable period of adjustment.

The Royal Commission prefers to take a flexible approach to this issue: one that respects the diversity and self-determination of Inuit communities. The Commissioners consider, therefore, that an annual adjustment payment of up to \$4,000,000 should be distributed through contracts with Inuit community organizations, such as hunters and trappers associations, for a period of adjustment of five years, and should be allocated on the basis of the number of community residents hunting in 1981/82 just before the collapse of the sealskin market. This would leave to each community the determination of eligibility for assistance, and the forms of assistance.

Human communities cannot realistically survive in the Arctic without hunting or importing far more costly southern substitutes. If Canada is committed to maintaining an arctic presence, it must accept the possibility of underwriting the costs of continued hunting as an alternative to subsidizing permanently costlier food imports. Depending on the future of seal-product markets, arctic communities may require some level of aid indefinitely. At the same time, the government should be aware that encouraging further population growth in the Arctic in connection with mineral and oil and gas development, while attractive in the short term, will lead

to the evolution of a greater number of larger permanent arctic settlements incapable of feeding themselves in the long term. Such development may reduce the need for public aid for one or two generations, but would lead eventually to an increase in dependence on southern imports and subsidies.

## Management in the North

*The methods of conservation used by the Inuit of Labrador were not scientific methods, but they worked for thousands of years (Andersen, 1985).*

### The Arctic Ecosystem

The Arctic is at the limits of environmental conditions that can support life. The arctic ecosystem is fragile and can easily be damaged by disturbances that could take years to reverse. Human activities of all kinds, including hunting and mineral development, must be controlled carefully if the Arctic is to remain habitable. The situation on land, where a motor vehicle can leave tracks in the permafrost visible years later, may be more sensitive than that of the sea, but this does not justify regarding arctic marine resources as secure or inexhaustible. Serious attention must be given to strengthening the management regime in the Arctic and, for efficacy as well as policy reasons, devolving major responsibility to the Inuit themselves.

### Harvest Effort

Little is reliably known about long-term changes in intensity of Inuit sealing. There is evidence that the Inuit population declined significantly during the last century owing to mortality from epidemic diseases introduced by European whalers (Anders et al., 1967). While Inuit have probably increased again since the introduction of public health programs in the 1950s (Hamelin, 1979; Anders et al., 1967), it is not known whether they have yet exceeded their original numbers (Schaefer and Steckle, 1980). In any case, since the late 1950s, they have been increasingly concentrated in towns (Draper et al., 1979; Freeman, 1976). Although this centralization has been offset by the range and speed of snowmobiles (Freeman, 1982), employment has reduced the proportion of Inuit who depend entirely on wildlife (Kemp et al., 1977; Anders et al., 1967; Kapel and Petersen, 1982), and de-

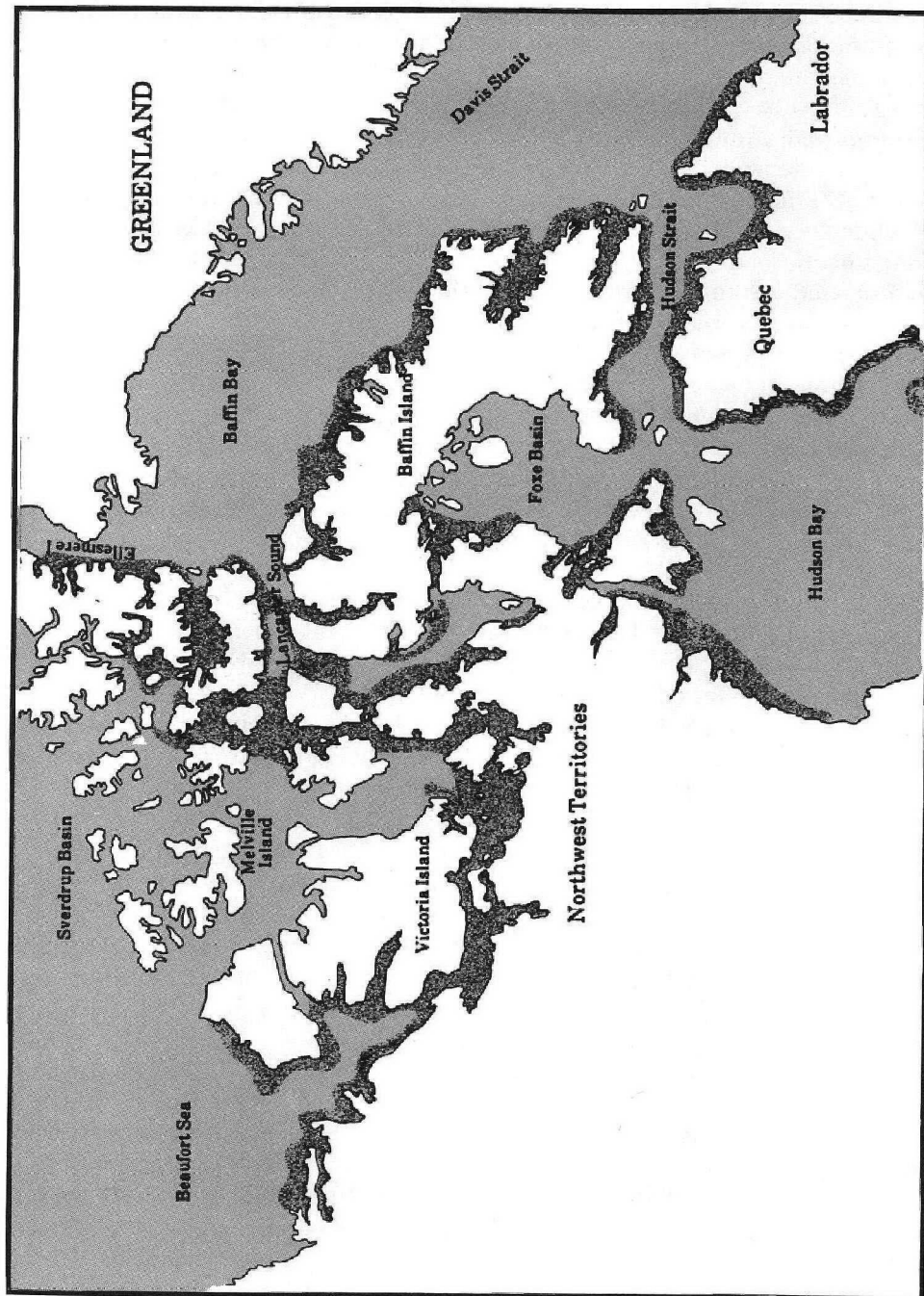
creased use of dog traction means less pressure on wildlife for dog food (Schaefer and Steckle, 1980). The total biomass of sea mammals required by Inuit may therefore have changed little since the last century.

Inuit camps were formerly small and widely scattered, and they were moved often, greatly dispersing hunting effort. Since ringed seals abandon intensely hunted areas and recolonize depleted ones, often at great distances, the geographic distribution of Inuit sealing prevented any long-term depletion of stocks (Figure 13.3; Kapel and Peterson, 1982). Conservation problems will arise only if there is an increase in the proportion of seal's habitat that is hunted intensively. This could result from an increase in the number and distribution of settlements in the North or from the degradation of unexploited areas of seal habitat by mining or other industrial activities. Wages and transfer payments will also tend to permit population growth beyond the food-producing capacity of the arctic ecosystem. If an expanding northern population continues to rely on hunting for some of its nutritional requirements – a pattern reported for industrialized towns in the Mackenzie Delta in the 1970s – harvesting of ringed seals could eventually exceed the sustainable yield of some local stocks.

It is often suggested that seal hunting has increased or will increase in response to opportunities to convert sealskins into cash. In Greenland, where much more precise hunting statistics have been kept, Inuit harvests of commercially valuable harp and hooded seals did increase in the 1970s (Kapel and Petersen, 1982), but Lars Emil Johannsen, Minister of Renewable Resources for the Home Rule government, told the Royal Commission that this development reflects the growing numbers of these seals along the country's west coast. Estimates made available to the Royal Commission by the Baffin Regional Inuit Association (1985) suggest that harp seal harvests have been more sensitive to prices than have ringed seal harvests. When harp seal prices rose by 20% in the 1970s, harvests rose by 96%, while a 30% increase in ringed seal prices led to only a 38% increase in harvests. Prices and harvests for both species fell at the same rate after 1981, however, suggesting that Inuit have not only lost cash opportunities, but can no longer finance the minimum requirements of hunting either species.

Inuit and Indians teach their children respect for life and avoidance of waste (Kapel and Peterson, 1982; McCarthy, 1985), and have a long tradition of self-regulation under the guidance of community elders (Labrador Inuit Association, 1985). Over-harvesting may nevertheless result from underestimating the efficiency of new technologies, as already has occurred as a result of the use of fishing nets (Wenzel, 1981). Inuit children are also increasingly exposed today to Euro-Canadian education and media, which

**Figure 13.3**  
**Inuit Sealing**



promote a new kind of individualism, consumption and belief in human superiority over the animal world. Hunter education and renewed emphasis on Inuit values may have an important role to play in the future of ringed seal management. A significant step in this direction has been taken in northern Quebec, where Inuit communities contribute to the expenses of equipping and training young hunters through school programs.

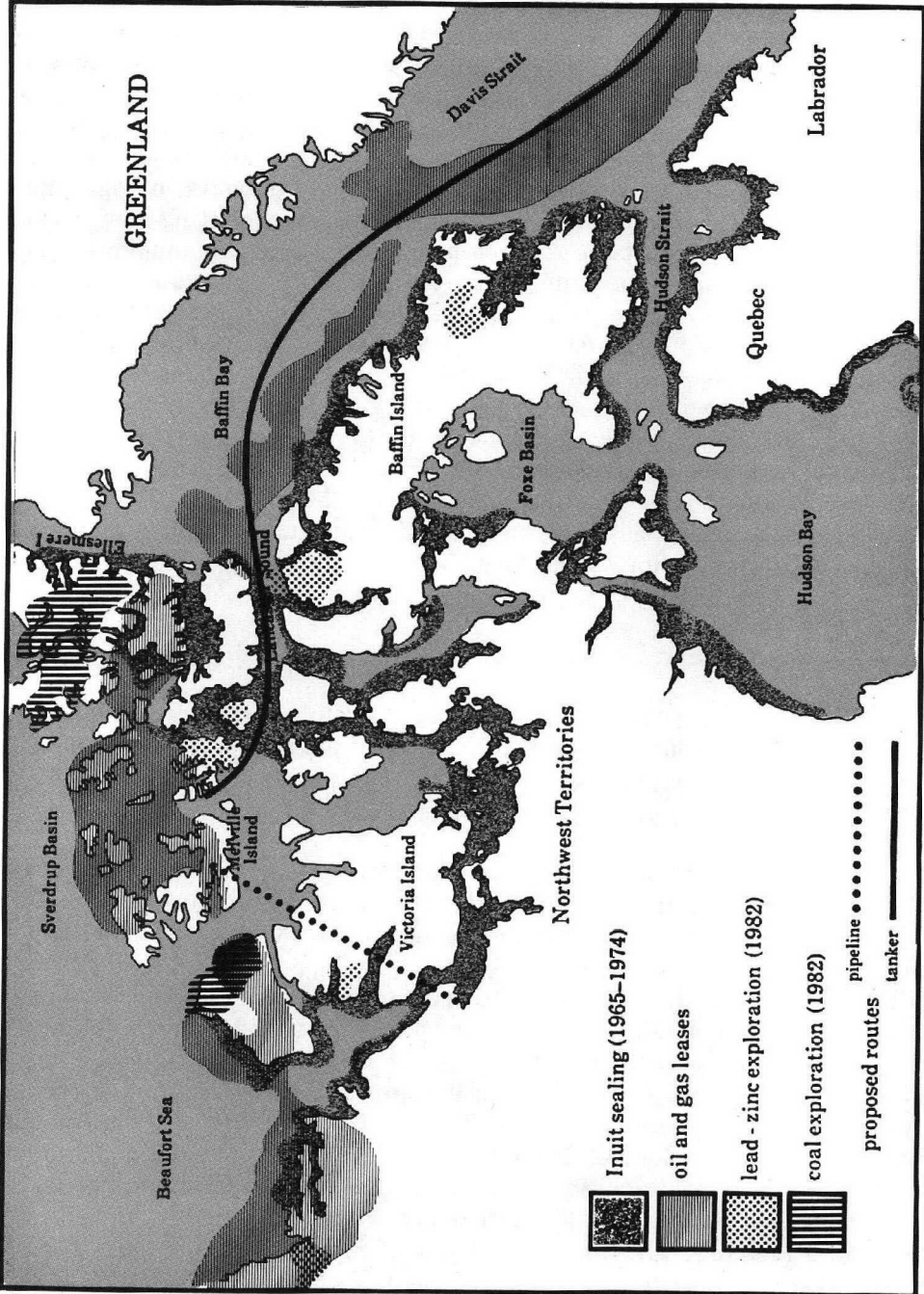
Regional quotas, already established for polar bears, beluga and narwhal, area restrictions (sanctuaries), limitations on hunting equipment and licensing may also have roles to play in the future management of ringed seals. Any attempt at imposing restrictions from the outside will be resisted strenuously, however, because of ringed seals' central contribution to northern food supplies. All of the communities contacted by the Royal Commission emphasized their right and responsibility to manage hunting locally, through their own institutions. Many of them stressed the importance of their familiarity with their own local environments. Others criticized what appeared to be arbitrary and unduly restrictive federal actions, such as the enforcement of sealing regulations, designed primarily for the Newfoundland commercial harp seal hunt, against Inuit hunters in northern Labrador (Labrador Inuit Association, 1985).

## Effects of Northern Development

A number of ongoing and potentially harmful effects on seals and the overall arctic environment result from industrial development. These effects, in turn, reduce the ability of the Inuit to hunt seals and, therefore, further erode their unique way of life.

Development of arctic mining and oil exploitation can have a significant impact on the abundance of seals and their availability to hunters (Davis, 1981). Much of the Beaufort Sea, Sverdrup Basin (Parry Islands), and Baffin Bay have already been leased for petroleum exploration (Figure 13.4). Inuit hunt seals on the Beaufort Sea ice and along the shores of Davis Strait, and ship transport through the ice to the Sverdrup oilfield would necessarily pass through Inuit sealing areas in Lancaster Sound and Barrow Strait. A proposed pipeline route from Melville Island would cross sealing areas in the Coronation Gulf. Potential conflicts with respect to seals and seal hunting include toxic effects of heavy-metal wastes from mining operations, oiling of seals from a tanker or drill-rig spill, destruction of seal habitat by ice-breakers, and disruption of hunters' travel on ice broken by shipping. Mercury, which accumulates naturally in ringed seals in some areas, when combined with other heavy-metal accumulation, can result in

Figure 13.4  
Inuit Sealing and Northern Development



seal meat with potentially high risks for human health. The effects of arctic development on seals are considered further in Chapter 23.

Reduction in the availability of seals to hunters as a result of ship traffic through the ice may be particularly important. For Inuit and other northern hunters, stable sea-ice is a travelling surface, not an obstacle (Boles et al., 1983). Ice-breaker tracks are impassable when fresh, and rough and relatively unstable when refrozen, resulting in reduced mobility and greater risk of injury for hunters. Persistent ice traffic would also interrupt the seasonal movements of caribou, reducing their access to the region's sparse and widely dispersed vegetation. Accordingly, Inuit have generally opposed ice-breaker traffic, forming a human barricade at Rigolet in 1982 to block ice-breaker tests (Labrador Inuit Association, 1985) and a dog-sled barricade of oreships in Greenland a decade earlier.

## Management Responsibility

Centralized Inuit communities strengthen Canada's presence in the Arctic (Boyd, 1984; Denhez, 1984; Pharand, 1984). It would appear that Grise Fiord and Resolute, the most recent and northerly arctic settlements, have been established exclusively for this purpose. The most economical, environmentally appropriate way to maintain that presence is the continuation of subsistence hunting by the Inuit. Inuit land claims acknowledge that fact and aim to give the Inuit sufficient control over arctic territory and resources to manage the subsistence hunt effectively.

Canada's recognition of Inuit claims to the Arctic is reflected in the policy, in place since 1973, of negotiating "comprehensive claims settlements" in the North and compensating the aboriginal owners for the parts relinquished to the Crown. Moreover, the *Constitution Act, 1982*, section 35, now expressly reserves "aboriginal and treaty rights" from legislative encroachment, and it would be difficult to regard Inuit land use for wildlife harvesting as anything but a matter of aboriginal right (Tarnopolsky, 1983, p. 256; Sanders, 1983, p. 329). Federal action restricting Inuit harvesting, except under the terms of a claims settlement, could therefore become the subject of a constitutional challenge and should be avoided.

Wildlife-harvesting rights and management have been a major issue in all land-claims negotiations and settlements in the north, beginning with the 1975 James Bay and Northern Quebec Agreement (Whyte, 1982; Rostaing, 1985). Currently there are several comprehensive land claims (i.e., claims based on traditional use and occupancy of land) under negotia-

tion with the federal government. Four of those claims are by organizations whose members are actively engaged in seal hunting: Tungavik Federation of Nunavut (TFN), Labrador Inuit Association (LIA), Naskapi-Montagnais Innu Association (NMIA), and Conseil Attikamek-Montagnais (CAM). In June 1985, the Inuvialuit Final Agreement was initialled; it covers much of the western Arctic. All such agreements, whether proposed, pending or final, have substantial portions dedicated to wildlife management. For two reasons it is of the utmost importance that these agreements be taken into account when governments engage in management planning: first, the agreements contain detailed and comprehensive plans based on extensive, high quality research; and secondly, failure to account for those plans might result in conflicting management strategies.

Under the James Bay and Northern Quebec Agreement, a tripartite co-ordinating committee with Inuit and Cree representation advises the federal and provincial governments on matters of harvest management. Under the Inuvialuit Final Agreement, the Northwest Territories Wildlife Management Advisory Council fixes the total allowable harvest of each species and a subsistence quota which, in turn, is allocated among communities by the Inuvialuit Game Council (Canada, DIAND, 1984b). Local hunters and trappers associations are to be represented on both agencies. Inuit (TFN) territorial claims to the central and eastern Arctic are still under negotiation, but an agreement-in-principle has been initialled which anticipates Inuit autonomy in wildlife management (Nunavut Constitutional Forum, 1983). Inuit recognize the importance of sound conservation and believe that they have the experience and commitment to assume full responsibility (Payne and Graham, 1984). CAM has tabled a wildlife proposal modeled on the TFN plan, and LIA has tied their proposal into the wildlife section of the James Bay and Northern Quebec Agreement.

A trend in favour of aboriginal self-government may also be discerned in proposals such as the 1983 House of Commons Special Committee report, *Indian Self-Government in Canada*, the last Liberal government's proposed Bill C-52, tabled in 1984, and the present government's *Proposed Accord Relating to the Aboriginal Peoples of Canada*, tabled at the April 1985 First Ministers Conference on the Constitution, which would have amended the constitution to clarify aboriginal peoples' "authority over and responsibility for lands that have been or may be reserved for their use." The Special Committee observed in its report that Canada is a party to the International Covenant on Civil and Political Rights, which *inter alia* emphasizes the right to self-determination and provides that "in no case may a people be deprived of its own means of subsistence". In its presentation to this Royal Commission, the Department of Fisheries and Oceans emphasized



its policy of negotiating standards with local Inuit organizations, rather than regulating the Inuit seal harvest directly (Canada, DFO, 1985, p. 91-92).

Entirely apart from questions of self-regulation, aboriginal wildlife harvesting already enjoys a limited degree of legal priority in relation to species otherwise restricted or controlled (Bennett, 1982). Most federal provisions address personal or family use for food and clothing as distinct from trade, barter or sale, although the recently adopted beluga and narwhal regulations (S.O.R./80-376 and 80-739) and walrus regulations (S.O.R./80-338) permit trade or barter. Priority for aboriginal users is also entrenched by a number of claims settlements. Under the James Bay and Northern Quebec Agreement, aboriginal hunters enjoy what is referred to as a "guaranteed harvest", that is, the right to harvest wildlife for personal and community use up to 1975 levels, with priority to subsistence uses, subject only to conservation requirements (Moses, 1985). Under the Inuvialuit agreement, Inuvialuit communities enjoy an exclusive right to hunt polar bear, musk-ox and furbearers on reserved lands, and a preferential right to the use of other wildlife and fishery resources, including the right to "sell, trade or barter" inedible by-products.

## International Aspects

Inuit have been affected not only by the collapse of European sealskin markets, but also by the effective closure of U.S. markets to marine mammal products under the United States *Marine Mammal Protection Act of 1972*, which restricts the importation of these products to countries certified as managing their marine stocks consistently with the Act. The Act nonetheless exempts Alaska's Indians and Inuit from most restrictions (Schoolcraft, 1983, p. 289). Canada could usefully raise this discrimination with the American authorities and propose corrective legislation, particularly in light of the 1794 Treaty of Amity, Commerce and Navigation between the United States and Great Britain, which secured aboriginal North Americans' "full liberty to pass and repass by land or inland navigation . . . and freely to carry on trade" across the U.S. border.

Canada is a party to several international conventions under which arctic marine mammal management is shared variously with the United States, the U.S.S.R., Norway and Japan. It is in the interests of northern peoples that this circumpolar approach to wildlife management be continued and strengthened. At the same time, the legitimacy and enforceability of regulations will be greatest if Inuit themselves are directly represented in administering existing conventions and negotiating new ones. The influence

of the Alaska Eskimo Whaling Commission serves as a model. There is also an important new factor in circumpolar wildlife management: the autonomy of Greenland. Although still nominally represented by Denmark in external affairs, Greenland is entirely independent in fisheries and wildlife management. Since Canada shares with Greenland the Davis Strait and its harp, hooded, bearded and ringed seal stocks, it would be highly desirable to begin negotiations with the Home Rule government with a view to making Greenland a full partner in circumpolar management. This is a task in which Canadian Inuit could and should play a significant role.

Since the 1880s, Inuit wildlife harvesting in Greenland has been regulated to some extent by local Hunters' Councils. Under the terms of the *Home Rule Act* and Greenlandic legislation, quotas, gear requirements and licensing regulations are established in the capital, Nuuk, but licences are issued, and regulations enforced, at the local level. There are separate classes of hunting licences for persons whose sole income is from hunting, for those who obtain only supplemental income from hunting, and for those who are fully employed (Kapel and Peterson, 1982; Johannsen, 1985). Danes provide only technical advice. Denmark completed the transfer of all authority over fisheries and wildlife to the Home Rule government on 1 January 1985. Greenland and Canadian Inuit are currently active in efforts of the Inuit Circumpolar Conference (ICC) to establish a comprehensive environmental policy for the circumpolar region as a whole. The Canadian government made a substantial financial contribution to the ICC in September 1985.

Aboriginal management autonomy also exists to some extent in other countries. In Alaska, where a division of territory was legislated in 1971, the United States has accepted Inupiat self-regulation of the bowhead-whale harvest (Langdon, 1984). Native whaling captains elect the members of the Alaska Eskimo Whaling Commission (AEWC). The AEWC suggests quotas and harvest regulations, which the United States ordinarily joins in proposing annually to the IWC. However, the final decision rests with the IWC and has frequently varied from the proposals submitted by the Inupiat and the U.S. government. Enforcement of this final decision by the IWC is left to the Inupiat community. Efforts are now being made to organize an Alaska Native Marine Mammal Commission to secure community control of seal and walrus harvesting, as well. In the contiguous United States, all wildlife harvesting on Indian reservations is managed by tribal councils, under the terms of their federally approved constitutions. According to a 1983 decision of the United States Supreme Court, *New Mexico v. Mescalero Apache Tribe*, this management is independent of government direction.

Russian fur hunters began exploring the Aleutian Islands in the mid-1740s, and by 1786 they had discovered the large fur-seal rookeries on St. Paul and St. George Islands (the Pribilof Islands), where 80% of the population breeds (Hansen, 1982; Veltre and Veltre, 1981). Lacking fresh water streams, protected bays or forests, the Islands have no anadromous fisheries, few shellfish and little driftwood for fuel (Veltre and Veltre, 1981). Hence they remained uninhabited until 1799, when the Russian America Company obtained a monopoly of seal and sea otter harvesting, and began importing Aleuts to the Pribilofs as seasonal hunters through a system of forced labour. Permanent Aleut settlements were established in the 1820s, to reduce the costs associated with the annual transportation of hunters. The company failed financially in the 1830s, however, and in 1867, its interests passed, with the Islands, to the United States by treaty (Veltre and Veltre, 1981).

The Americans governed the Aleuts on the Pribilofs strictly, isolating them from other aboriginal communities, paying poor wages, regulating marriages, closing Russian schools, and prohibiting Islanders' use of the Aleut language until the emergency evacuation of the Islands during the Second World War (Veltre and Veltre, 1981). They also doubled the annual harvest of fur seals under a policy of leasing monopoly harvesting rights to private companies. While Russian sealers had sought out silver pup fur, the Americans preferred the dark fur of three- to four-year-old "bachelor" seals. Harvest quotas and restrictions, begun by the Russians in the 1820s, were strengthened but the number of seals declined rapidly. Beginning in 1909, the U.S. Administration assumed direct control of the harvest, hiring Aleuts to herd and kill the seals (Hansen, 1982).

Fur-seal meat was necessarily always a staple for the Aleuts. Although halibut, reindeer (on St. Paul Island), birds and eggs are seasonally available, seals, including phocid seals and sea lions, are by far the most abundant and reliable food source in the Pribilofs. Subsistence use has remained at about 400 pounds (roughly 8-10 seals) per capita yearly since the stock was first studied in 1914. From 1870 to 1889, the Islanders took 10,000 seals yearly for food, about half of them pups, and took another 85,000 for fur alone. Killing of pups was forbidden in 1891, although they were preferred as food. By the 1970s, St. Paul Islanders were taking about 2,000 seals yearly for food and 25,000 for fur. Villagers on St. George Island, where there has been no commercial sealing since 1972, and a subsistence quota of only 350 seals, depend on surplus meat from St. Paul (Veltre and Veltre, 1981). In July 1985, there was no commercial hunt at all, but 3,400 seals were taken for subsistence.

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*Sealing in Northern Communities*

Restrictions on pelagic sealing were instituted by international treaty in 1911. The treaty lapsed in 1941, but was revived in 1957 in the form of the *Interim Convention on Conservation of North Pacific Fur Seals*. The Convention, which expired in 1984, stated that restrictions on pelagic sealing did not apply to "Indians, Ainos, Aleuts, or Eskimos dwelling on the coast . . . who carry on pelagic sealing in canoes not transported by or used in connection with other vessels, and propelled entirely by oars, paddles or sails . . . without the use of firearms [and] not in the employment of other persons." This retained little practical significance, since the traditional hunting methods contemplated are no longer in use. The Convention also provided, however, that in recommending any harvest reductions on conservation grounds, the Commission was to give "due consideration to the subsistence needs of Indians, Ainos, Aleuts or Eskimos who live on the islands where fur seals breed." This provision was in essence a commitment to subsistence harvesting as long as conservation goals could be met, whether or not there was any commercial harvest.

From 1909 to 1984, the federal Administration provided security for the Islanders by paying them wages for the annual hunt. Deblubbered pelts were sold to the Fouke Fur Company in Greenville, South Carolina, for finishing and resale. A number of other seal products were produced on the Islands, including glycerin (during the First World War), tanning oils (used by the government until 1962), and feed for fox and mink farming (until 1978) (Veltre and Veltre, 1981; Riley, 1961). The harvest employed 85 Aleuts in 1979, and made US \$500,000 profit (Hansen, 1982), but costs and public pressures were rising. Congress resolved to transfer responsibility to the Islanders with the aim of gradually replacing sealing with some other source of local income. Public Law 98-129 (1983) conveyed all federal seal-processing facilities on the Islands to Tanadgusix Corporation, an Aleut-controlled corporation organized under the 1971 *Alaska Native Claims Settlement Act*, extended federal employee retirement benefits to Aleuts who had formerly worked as government harvesters, and established a trust fund for local economic development.

Tanadgusix Corporation obtained a monopoly of the distribution of the meat, export of penis bones, and processing of the remaining fur seal carcasses as dog food and crab bait (Veltre and Veltre, 1981). Under the terms of the transfer legislation, the corporation also obtained a monopoly of pelt sales. It organized the 1985 hunt at an anticipated cost of about US \$300,000, but anti-harvesting protests resulted in a compromise under which seals were taken only for subsistence, and this arrangement is likely to hold for the foreseeable future. Trust funds are now being used to capi-

talize a fleet of groundfishing vessels to compete for the promising Bering Shelf fishery, on the assumption that this enterprise will prove a more stable (and more acceptable) source of employment for the Islanders than sealing. The Pribilof case is distinguishable from the Canadian case in two respects: the availability of a growing, rather than a declining, regional fishery as an employment alternative and the very small number of people involved.

Subsistence harvesting and, especially, Native subsistence enjoy special legal status under laws particularly applicable to Alaska. The United States *Marine Mammal Protection Act of 1972* permits harvesting of protected marine mammals by Natives for "nonwasteful" uses such as food and clothing, including the sale of processed articles made from inedible by-products (authentic handicraft articles). In 1981, the Act was amended to permit the State of Alaska to assume responsibility for marine-mammal management, provided that it demonstrated a commitment to prioritizing "rural" subsistence. Aboriginal Alaskans have organized an Alaska Native Marine Mammal Commission to challenge the State's recent efforts to take advantage of this option, on grounds that the State has so far adopted no satisfactory guidelines or regulations for the protection of aboriginal harvesting rights.

The 1978 *Alaska National Interest Lands Conservation Act* (ANILCA), sections 804 and 805, establishes a priority for "nonwasteful subsistence uses" in the management of wildlife on federal lands in that State, and requires the State to apply the same priority in managing the lands that it acquired from the federal Administration. In accordance with its responsibilities under ANILCA, the State of Alaska established a statewide subsistence priority in public lands management in 1978 (A.S. 16.05.940). Covered are all "customary and traditional uses", which include "direct personal or family [blood kin or household members] consumption as food, shelter, fuel, clothing, tools, or transportation, for the making or selling of handicrafts" from inedible by-products, and for participation in "customary trade, barter, or sharing". If restrictions on harvesting must be imposed to ensure conservation, the State must favour subsistence users who have "customary and direct dependence" on the resource, who are local residents, and who have no reasonable economic alternatives available to them. Refinement of these terms has been troublesome (Langdon, 1984) because aboriginals see them as too restrictive on selling furs and other unprocessed by-products, and too favourable to non-aboriginals recently arrived in the North.

## **Findings and Conclusions**

There are three factors that underlie the Royal Commission's recommendations regarding sealing by aboriginal peoples. First, northern aboriginal communities are characterized by a complex interplay of social, economic, cultural and political factors that must be considered in the design and implementation of new policies and programs. Secondly, sealing is vitally important to the physical, social and cultural health of the Inuit and, to a lesser extent, the Indians living in the North and in the Atlantic and Pacific regions. Thirdly, the EC's ban on the importation of certain seal products, in combination with other factors such as resettlement, has had a devastating impact on Inuit people. In view of these three factors, the Royal Commission believes that innovative steps must be taken. Furthermore, solutions will not be successful in the long term if they deal only with the sealing component of aboriginal economies; in fact, the entire interplay must be addressed.

## **Equilibrium and Change in the North**

Northern aboriginal peoples have lived for thousands of years in a fragile and demanding environment. They have been able to do so by balancing their needs with environmental conservation, through effective strategies of resource use, social organization and cultural design. Human relationships are close and supportive, thereby contributing to community survival. Co-operation among families is geared to effective hunting, and children learn at an early age about the hunt and the importance of working together. Moreover, when people depended entirely on the hunt for their livelihood, their strategies were adaptive; changes in weather and animal populations that could have resulted in starvation were usually handled by travelling and/or by using alternative resources, at least temporarily.

Sealing has long been a critical part of the strategy for northern survival, particularly among Inuit. The ringed seal is the most reliable and abundant food source in most of the Arctic, and it meets the nutritional needs of the Inuit much better than foods imported from southern Canada. Contemporary events have not changed this situation significantly, and permanent northern communities will depend, for the foreseeable future, on the ringed seal.

Since the 1950s, however, a number of factors have changed the nature of sealing in the North, although these factors have not lessened the

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importance of seals to the physical health and culture of the Inuit. In the 1950s, the resettlement of many Inuit from their remote camps and small villages to larger, more centralized communities effectively removed these people from their sealing areas. The move had the effect of providing easier access to outside services, as the federal government had intended, but it also necessitated increased energy and speed to travel to sealing areas. Motorization, especially the use of snowmobiles, compensated for this necessity, but required cash to buy the machines, spare parts, lubricants and fuel. The only way in which Inuit could acquire enough cash was to export seal pelts and, to a lesser extent, seal products such as handicrafts.

While many families were able to cope reasonably well from the 1950s to the early 1970s, the rapidly rising inflation rate of the 1970s made transportation increasingly difficult to finance. Wage-labour, though scarce, did provide some income for a number of Inuit families; however, the bulk of



*Cleaning sealskins*

such labour was at "remote" resource-extraction sites, thus precluding the chance for wage-earning hunters to engage in sealing. In addition, transfer payments provided by the federal government were inadequate to cover the costs of travel to sealing areas. Thus sealing began to decline, not because it had lost any importance for the Inuit, but because it was becoming increasingly difficult to finance the hunt.

To the extent that lack of cash from wages and export sales has reduced the intensity of hunting, the nutrition and health of Inuit have suffered. A host of problems ranging from dental caries to cardiovascular disease and cancer can be attributed directly or indirectly to the lack of seal meat in some communities. The replacement of seal meat by imported foods of considerably lower nutrient value has obviously had severe effects.

While sealing was being affected by resettlement and rising costs over the years, an acute blow came with the EC's 1983 ban on the importation of certain seal products. The market for ringed sealskin products was never the target of anti-sealing protests and was exempted explicitly from the EC's 1983 directive. Indeed, ringed seal products moved through separate channels (the Bay and Inuit Co-ops) and remained largely distinct (handicrafts) from products of harp-seal (whitecoat) pelts. The protests and subsequent directive nonetheless appear to have triggered a general reaction against all seal products, regardless of species or origin. Within two years of the EC directive, Canadian Inuit had lost more than three-fourths of their income from sealing, and up to one-third of their cash income from all sources.

While the decline in hunting is more difficult to quantify than health problems, there is little doubt that it has started to affect the cultural integrity of northern aboriginal peoples, especially the Inuit. The northern cultures are oriented to hunting in every way, from co-operation among families to mythology and education. A sudden decline in hunting is bound to leave a vacuum. When combined with the increase in health problems and the removal of the working life (i.e., hunting) of many people, the vacuum could open the way for the demise of Inuit culture.

## Addressing the Problem

Since public sentiment favours the survival of Inuit culture as unique, distinctions between Inuit products and products of large-scale commercial sealing can be re-established through product identification and public information. Secondary processing by Inuit themselves, rather than by southern manufacturers, is likely to improve the public acceptability of



products. Above all, Inuit themselves are in the best position to judge how to proceed and how to represent their own interests to governments and potential consumers.

The structural challenge in the Arctic is to develop a "mixed" (cash and subsistence) economy that is consistent with the limited biological surplus and fragility of arctic ecosystems. Wildlife harvests cannot be much increased, and liquidating non-renewable resources may have a negative effect on the long-term productivity of the environment. The most promising foundation for the long-term habitability of the North, without a permanent subsidy, is processing and exporting the by-products of existing harvesting activities and exploring alternative transport, housing and energy technologies to minimize northern communities' dependence on southern imports.

For the short term, the Royal Commission recommends the establishment of an assistance package to permit, if not to encourage, continued subsistence hunting of seals and other wildlife. An annual adjustment of up to \$4 million should be distributed through contracts with Inuit community organizations, such as hunters and trappers associations. This money should be allocated on the basis of the number of community residents hunting in 1981/82, before the collapse of sealskin markets.

If Canada is serious about maintaining its arctic presence, viable and conservationally sound arctic communities must exist. Inuit sealing must therefore be supported.

## References

- Anders, G., (ed.) 1967. The east coast of Baffin Island. An area economic survey. AESR No. 66/4. Dept. of Indian Affairs and Northern Development, Ottawa.
- Andersen, T. 1985. Testimony before the Royal Commission on Seals and the Sealing Industry in Canada. St. John's, 22 May 1985. Vol. 2, p. 273-311.
- Andersen, W. 1985. Testimony before the Royal Commission on Seals and the Sealing Industry in Canada. St. John's, 22 May 1985. Vol. 2, p. 273-311.
- Anonymous. 1984. Eskimo diets and diseases. *Lancet* 1 (8334): 1139-1141.
- Baffin Regional Office of Economic Development and Tourism. 1985. Testimony before the Royal Commission on Seals and the Sealing Industry in Canada. Pangnirtung, Northwest Territories, 22 May 1985.

---

*Sealing in Northern Communities*

- Baffin Region Inuit Association. 1982. Summary of harvests reported by hunters in the Baffin Region, Northwest Territories, during 1981.
- Baffin Region Inuit Association. 1985. Brief to the Royal Commission on Seals and the Sealing Industry in Canada. Frobisher Bay.
- Bandi, H.G. 1969. Eskimo prehistory. University of Alaska Press, College, Alaska.
- Baxter, D. 1981. The evolving attitude in Canada toward the management of chronic otitis media in the Inuit population. *J. Otolaryngol.* 10 (2): 81-88.
- Bender, T.R., J.M. Burks, C. Baum, J.K. Fleshman, and T.A. Viera. 1975. Intellectual development of children who were anemic or ill in infancy. *In* J.C. Haworth (ed.) Nutrition of Indian and Eskimo children. Report of the Second Canadian Ross Conference on Pediatric Research, Montreal.
- Bennett, D. 1982. Subsistence v. commercial use. The meaning of these words in relation to hunting and fishing by Canada's native peoples. Working paper 3. Canadian Arctic Resources Committee, Ottawa.
- Boas, F. 1888. The central eskimo. Bureau of American Ethnology Annual Report No. 6: 499-699.
- Boles, B., L. Jackson, and M.G. A. Mackey. 1983. Breaking the ice: seal and seal harvesting patterns and benefits in relation to navigational ice breaking in Lake Melville, Labrador. Rep. by Labrador Inst. North. Studies, Memorial Univ. Newfoundland, for Dept. Develop. Gov. Newfoundland Labrador, and Dept. Regional Economic Expansion. Goose Bay, Labrador.
- Borré, K. 1986. Dietary and nutritional significance of seal and other country foods in the diet of the Inuit of Clyde River, NWT. Technical Report 11, Royal Commission on Seals and the Sealing Industry in Canada. Deposited with DFO Headquarters Library, Ottawa.
- Boyd, S. 1984. The legal status of the Arctic sea ice: a comparative study and a proposal. *Can. Yearbook of Intl. Law* 1984: 98-152.
- Bradstreet, M., and K.J. Finley. 1983. Diet of ringed seals (*Phoca hispida*) in the Canadian high Arctic. Rep. by LGL Ltd. (Toronto) to Petro-Canada, Calgary.
- Braham, H.W., J.J. Burns, G.A. Fedoseev, and B.D. Krogman. 1982. Habitat partitioning by ice-associated pinnipeds: distribution and density of seals and walrus in the Bering Sea, April 1976. *In* F.H. Fay (ed.) Pinnipeds of the north Pacific region. Soviet-American Cooperative Studies on Marine Mammals.

---

*Sealing in Northern Communities*

- Brakel, W.D. 1977. Socio-economic importance of wildlife resource utilization in the southern Beaufort Sea. Beaufort Sea Tech. Project, Rep. 32. Can. Dept. of Environ., Victoria, B.C.
- Brody, H. 1975. The people's land: Eskimos and Whites in the eastern Arctic. Penguin, Toronto.
- Brody, H. 1976. Land occupancy: Inuit perceptions. *In* M.M.R. Freeman (ed.) Inuit land use and occupancy study. Minister of Supply and Services Canada, Ottawa.
- Brody, H. 1980. Notes on the problem of socio-economic impact assessment. Report for the Union of B.C. Indian Chiefs.
- Canada. Dept. of Fisheries and Oceans (DFO). 1985. Brief to the Royal Commission on Seals and the Sealing Industry in Canada. Ottawa.
- Canada. Dept. of Indian Affairs and Northern Development (DIAND). 1984a. Northern food costs. Ottawa.
- Canada. Dept. of Indian Affairs and Northern Development (DIAND). 1984b. The western arctic claim. The Inuvialuit Final Agreement. Ottawa.
- Canada. Dept. of Indian Affairs and Northern Development. 1985. Brief to the Royal Commission on Seals and the Sealing Industry in Canada. Ottawa.
- Canada. Employment and Immigration Commission (EIC). 1984. NWT labour market review. Ottawa.
- Cournoyea, N. 1985. Minister of Renewable Resources, Government of Northwest Territories. Brief to the Royal Commission on Seals and the Sealing Industry in Canada. Yellowknife.
- Cox, B.A. 1985. Prospects for the northern Canadian native economy. *Polar Record* 22 (139): 393-400.
- Davis, R.A. 1981. Report of a workshop on arctic marine mammals. Can. Tech. Rep. Fish. Aquat. Sci. 1005.
- Davis, R.A., K.J. Finley, and W.J. Richardson. 1980. The present status and future management of arctic marine mammals in Canada. Science Advisory Board of the Northwest Territories, Yellowknife.
- Denhez, M. 1984. Inuit rights and Canadian Arctic waters. *In* A. Cooke and E. Van Alstine (ed.) Sikumiut: "the people who use the sea ice." Canadian Arctic Resources Committee, Ottawa.

---

*Sealing in Northern Communities*

- Draper, H.H. 1977. The aboriginal eskimo diet in modern perspective. *American Anthropologist* 79: 309-316.
- Draper, H.H., F.A. Milan, W. Osborn, and O. Schaefer. 1979. Report of the nutrition panel for the aboriginal/subsistence whaling panel meetings of the International Whaling Commission. U.S. National Marine Fisheries Service, Seattle.
- Duhaime, G. 1983. La sédentarisation au Nouveau-Québec inuit. *Études Inuit* 7 (2): 25-52.
- Ernerk, P. 1985. Testimony before the Royal Commission on Seals and the Sealing Industry in Canada. On behalf of the Keewatin Inuit Association. Montreal, 25 January 1985. Vol. 5, p. 53-77.
- Fassett, D.W. 1973. Oxalates. In National Academy of Sciences (ed.) *Toxicants occurring naturally in foods*. 2nd ed. Washington, D.C.
- Fay, F.H. 1960. Carnivorous walruses and some arctic zoonoses. *Arctic* 13: 111-112.
- Finley, K.J. 1978. Behaviour and density of ringed seals *Phoca hispida* during haul-out in the high Arctic, June 1977. Rep. by LGL Ltd. (Toronto) to Polar Gas Project.
- Finley, K.J., and C.R. Evans. 1983. Summer diet of the bearded seal (*Erignathus barbatus*) in the Canadian high Arctic. *Arctic* 36: 82-89.
- Finley, K.J., and G.W. Miller. 1980. Wildlife harvest statistics from Clyde River, Grise Fiord and Pond Inlet, 1979. Rep. by LGL Ltd. (Toronto).
- Freeman, M.M.R. (ed.) 1976. Inuit land use and occupancy study. Minister of Supply and Services Canada, Ottawa.
- Freeman, M.M.R. 1977. A cultural-ecologic analysis of harp seal hunting in the eastern Canadian Arctic, northern Labrador and west Greenland. Report prepared for the Donner Foundation-University of Guelph Harp Seal Project.
- Freeman, M.M.R. 1982. An ecological perspective on man-environment research in the Hudson and James Bay region. *Naturaliste Canadien* 109: 955-963.
- Freeman, M.M.R. 1983. Tradition and change: problems and persistence in the Inuit diet. In I. de Garine and G.A. Harrison (ed.) *Coping with uncertainty in food supply*. Cambridge University Press, Cambridge.

- Freeman, M.M.R. 1984. Contemporary Inuit exploitation of the sea-ice environment. *In* A. Cooke and E. Van Alstine (ed.) *Sikumit: "the people who use the sea ice."* Canadian Arctic Resources Committee, Ottawa.
- Fraser, D. 1975. Calcium, phosphorus and vitamin D. *In* J.C. Haworth (ed.) *Nutrition of Indian and Eskimo children. Report of the Second Canadian Ross Conference on Pediatric Research, Montreal.*
- Furnell, D.J., and D. Ooloooyuk. 1980. Polar bear predation on ringed seals in ice-free water. *Can. Field-Nat.* 94: 88-89.
- Geraci, J.R., and T.G. Smith. 1979. Vitamin C in the diet of Inuit hunters from Holman, Northwest Territories. *Arctic* 32: 135-139.
- Giddings, J.L. 1967. *Ancient men of the Arctic.* Alfred A. Knopf, New York.
- Goulding, A., and D. Campbell. 1983. Dietary NaCl loads promote calciuria and bone loss in adult oophorectomized rats consuming a low calcium diet. *J. Nutrition* 113: 1409-1414.
- Guemple, L. 1976. The institutional flexibility of Inuit social life. *In* M.M.R. Freeman (ed.) *Inuit land use and occupancy study.* Minister of Supply and Services Canada, Ottawa.
- Hall, E.S. 1975. *The Eskimo storyteller. Folktales from Noatak, Alaska.* University of Tennessee, Knoxville.
- Hamelin, L. 1979. Contribution to the Northwest Territories population studies, 1961-1985. Science Advisory Board of the Northwest Territories, Yellowknife.
- Hamilton, J.R. 1975. Intractable diarrhoea in infancy. *In* J.C. Haworth (ed.) *Nutrition of Indian and Eskimo children. Report of the Second Canadian Ross Conference on Pediatric Research, Montreal.*
- Hansen, C.A. 1982. Seals and sealing. *Alaska Geographic* 9 (3): 41-73.
- Helle, E., and O. Stenman. 1984. Recent trends in levels of PCBs and DDT compounds in seals from the Finnish waters of the Baltic Sea. *ICES CM* 1984/E: 43.
- Hobart, C.W. 1982a. Industrial employment of rural indigenes: the case of Canada. *Human Organization* 41: 54-63.
- Hobart, C.W. 1982b. Inuit employment at the Nanisivik Mine on Baffin Island. *Études Inuit* 6 (1): 53-74.

---

*Sealing in Northern Communities*

- Holman Hunters and Trappers Association (H.T.A.). 1985. Brief to the Royal Commission on Seals and the Sealing Industry in Canada. Holman, N.W.T.
- Hoppner, K., J.M. McLaughlin, D.G. Shah, J.N. Thompson, J. Beare-Rogers, J. Ellestad-Sayed, and O. Schaefer. 1978. Nutrient levels of some foods of Eskimos from Arctic Bay, N.W.T. *J. Am. Dietetic Assoc.* 73: 257-261.
- Hyvarinen, H., and T. Sipila. 1984. Heavy metals and high pup mortality in the saimaa ringed seal population in eastern Finland. *Mar. Poll. Bull.* 15: 335-337.
- James Bay Northern Quebec Native Harvesting Research Committee. 1982. Harvests by the Inuit of northern Quebec, Phase II. Montreal.
- Jeppesen, B.B., A. Black, and B. Harvald. 1984. Serum magnesium in Greenland Eskimos. *Acta Medica Scandinavica* 215: 477-479.
- Johannsen, L.E. 1985. Testimony before the Royal Commission on Seals and the Sealing Industry in Canada. On behalf of the Greenland Home Rule Government. St. John's, 21 May. Vol. 1, p. 9-26.
- Kapel, F.P., and R. Petersen. 1982. Subsistence hunting – the Greenland case. Rep. International Whaling Commission (Special Issue 4).
- Kemp, W.B. 1971. The flow of energy in a hunting society. *Scientific American* 224: 105-115.
- Kemp, W.B., G. Wenzel, N. Jensen, and E. Val. 1977. The communities of Resolute and Kuvinaluk: a social and economic baseline study. McGill University, Office of Industrial Research, Montreal.
- Kilabule, D. 1985. Testimony before the Royal Commission on Seals and the Sealing Industry in Canada. Pangnirtung, Northwest Territories, 29 May 1985.
- Klausner, S.Z. 1982. Eskimo capitalists: oil, politics and alcohol. Allanheld, Osman, Totowa, N.J.
- Kleinfeld, J. 1981. Different paths of Inupiat men and women in the wage economy. *Alaska Rev. Social and Economic Condition* 18: 1-28.
- Kleinfeld, J., J. Kruse, and R. Travis. 1983. Inupiat participation in the wage economy – effects of culturally adapted local jobs. *Arctic Anthropology* 20: 1-22.
- Kruse, J. 1982. Energy development on Alaska's north slope: effects on the Inupiat population. *Human Organization* 41: 97-106.

---

*Sealing in Northern Communities*

- Kupeuna, J. 1985. Testimony before the Royal Commission on Seals and the Sealing Industry in Canada. Holman Island, Northwest Territories, 18 June 1985.
- Labrador Inuit Association. 1977. Our footprints are everywhere: Inuit land use and occupancy in Labrador. Nain.
- Labrador Inuit Association. 1985. Brief to the Royal Commission on Seals and the Sealing Industry in Canada. St. John's.
- Langdon, S.J. 1984. Alaskan native subsistence: current regulatory regimes and issues. Alaskan Native Review Commission, Anchorage.
- Mackey, M.G. 1981. Country food use in selected Labrador coast communities. A comparative report. Memorial University of Newfoundland, St. John's.
- Makivik Corporation. 1985. Employment and income patterns in northern Quebec. Montreal.
- Manning, T.H. 1943. Notes on the mammals of south and central west Baffin Island. *J. Mammalogy* 24: 47-49, 57-59.
- Mansfield, A.W. 1980. Impact of oil production on marine mammals. In C.R. Upton (ed.) Proceedings of the Ninth Environmental Workshop. Arctic Institute of North America, Calgary.
- Mayhall, J.T. 1975. Dental caries and nutrition. In J.C. Haworth (ed.) Nutrition of Indian and Eskimo children. Report of the Second Canadian Ross Conference on Pediatric Research, Montreal.
- McCarthy, M. 1985. Yup'ik seal hunters. Lessons in subsistence on the tundra. *Oceans* (March) 34-38.
- McLaren, I.A. 1958. The biology of the ringed seal (*Phoca hispida*) in the eastern Canada Arctic. *Bull. Fish. Res. Board Can.* 118.
- McLaren, I.A. 1962. Population dynamics and exploitation of seals in the eastern Canadian Arctic, p. 168-183. In E.D. LeCren and M.W. Holdgate (ed.) The exploitation of natural animal populations. Blackwell, Oxford.
- Miller, G.W., R.A. Davis, and K.J. Finley. 1982. Ringed seals in the Baffin Bay region: habitat use, population dynamics and harvest levels. Rep. by LGL Ltd. (Toronto) to Arctic Pilot Project, Calgary.

---

*Sealing in Northern Communities*

- Morrison, D.A. 1983. Thule sea mammal hunting in the western central Arctic. *Arctic Anthropology* 20 (2): 61-78.
- Moses, T. 1985. Testimony before the Royal Commission on Seals and the Sealing Industry in Canada. On behalf of the Grand Council of the Cree and the Cree Regional Authority. Montreal, 22 April 1985. Vol. 7, p. 76-97.
- Moss-Davies, J. 1985. Testimony before the Royal Commission on Seals and the Sealing Industry in Canada. Montreal, 22 April 1985. Vol. 7, p. 32-53.
- Murray, T.K. 1975. Vitamin A nutrition of Eskimo children. In J.C. Haworth (ed.) *Nutrition of Indian and Eskimo children. Report of the Second Canadian Ross Conference on Pediatric Research*, Montreal.
- Nelson, R.K. 1969. *Hunters of the northern ice*. University of Chicago Press, Chicago.
- Northwest Territories. Bureau of Statistics. 1985. *Employment and welfare statistics provided in the Government of the Northwest Territories presentation to the Royal Commission on Seals and the Sealing Industry in Canada*.
- Nunavut Constitutional Forum. 1983. *Building Nunavut: a working document with a proposal for an arctic constitution*. Yellowknife.
- Omingmale, D. 1985. Testimony before the Royal Commission on Seals and the Sealing Industry in Canada. Holman Island, Northwest Territories, 18 June 1985.
- Papiglok, F. 1985. Testimony before the Royal Commission on Seals and the Sealing Industry in Canada. Holman Island, Northwest Territories, 18 June 1985.
- Payne, R.J., and R. Graham. 1984. Non-hierarchical alternatives in northern resource management. *Études Inuit* 8 (2): 117-130.
- Pharand, D. 1984. The legal status of the waters of the Canadian archipelago. In A. Cooke and E. Van Alstine (ed.) *Sikumiut: "the people who use the sea ice."* Canadian Arctic Resources Committee, Ottawa.
- Pryde, D. 1972. *Nunaga: ten years of Eskimo life*. MacGibbon and Kee, London.
- Riewe, R.R. 1977. The utilization of wildlife in the Jones Sound region by the Grise Fiord Inuit. In L.C. Bliss (ed.) *Truelove Lowland, Devon Island, Canada: A high arctic ecosystem*. University of Alberta Press, Edmonton.



- Riley, F. 1961. Fur seal industry of the Pribilof Islands 1786-1960. Fishery Leaflet 516. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C.
- Rodahl, K. 1949. Vitamin sources in arctic regions. *Norsk Polarinstitut Skrifter* 91.
- Rodahl, K., and A.W. Davies. 1949. Vitamin A in seals. *Biochem. J.* 45: 408-412.
- Rode, A., and R.J. Shephard. 1984. Ten years of 'civilization': fitness of Canadian Inuit. *J. Applied Physiology* 56: 1472-1477.
- Rostaing, J.P. 1985. Native regional autonomy: the initial experience of the Kativik regional government. *Études Inuit* 8 (2): 3-40.
- Sanders, D. 1983. The rights of the aboriginal peoples of Canada. *Can. Bar Rev.* 61: 314-338.
- Sayed, J.E., J.A. Hildes, and O. Schaefer. 1975. Nutrition of the Canadian Eskimo child. *In* J.C. Haworth (ed.) *Nutrition of Indian and Eskimo children. Report of the Second Canadian Ross Conference on Pediatric Research, Montreal.*
- Schaefer, O. 1975. Food resources and changing dietary patterns of the Eskimo child. *In* J.C. Haworth (ed.) *Nutrition of Indian and Eskimo children. Report of the Second Canadian Ross Conference on Pediatric Research, Montreal.*
- Schaefer, O., and J. Steckle. 1980. Dietary habits and nutritional base of native populations of the Northwest Territories. Science Advisory Board of the Northwest Territories, Yellowknife.
- Schaefer, O., J.F.W. Timmermans, R.D.P. Eaton, and A.R. Matthews. 1980. Generalized nutritional health in two Eskimo populations at different stages of acculturation. *Can. J. Public Health* 71: 387-405.
- Schoolcraft, K., Jr. 1983. Congress amends the Marine Mammal Protection Act. *Oregon L. Rev.* 62: 257-295.
- Scriver, C.R., and C.L. Clow. 1975. The unresolved problem of neonatal hypertyrosinemia and ascorbate deficiency in arctic and sub-arctic peoples. *In* J.C. Haworth (ed.) *Nutrition of Indian and Eskimo children. Report of the Second Canadian Ross Conference on Pediatric Research, Montreal.*
- Smith, T.G. 1973. Management research on the Eskimo's ringed seal. *Canadian eastern Arctic. Bull. Fish. Res. Bd. Can.* 181.

---

*Sealing in Northern Communities*

- Smith, T.G. 1980. Polar bear predation of ringed and bearded seals in the land-fast ice habitat. *Can. J. Zool.* 58: 2201-2209.
- Smith, T.G., and M.O. Hammill. 1981. Ecology of the ringed seal, *Phoca hispida*, in its fast ice breeding habitat. *Can. J. Zool.* 59: 966-988.
- Stirling, I., W.A. Archibald, and D. DeMaster. 1977. Distribution and abundance of seals in the eastern Beaufort Sea. *J. Fish. Res. Board Can.* 34: 976-988.
- Struzik, E. 1985. Seal-skin boycott hazardous to health of Inuit community. *The Citizen*, Ottawa (18 April 1985).
- Tarnopolsky, W.S. 1983. The new Canadian Charter of Rights and Freedoms compared and contrasted with the American Bill of Rights. *Human Rights Quarterly* 5: 227-274.
- Terhune, J.M., and K. Ronald. 1975. Underwater hearing sensitivity of two ringed seals (*Pusa hispida*). *Can. J. Zool.* 53: 227-231.
- Treude, E. 1977. Pond Inlet, northern Baffin Island: the structure of an Eskimo resource area. *Polar Geography* 1: 95-123.
- Usher, P. 1982. Renewable resources in the future of Labrador. Labrador Inuit Association, Nain.
- Veltre, D.W., and M.J. Veltre. 1981. A preliminary baseline study of subsistence resource utilization in the Pribilof Islands. Alaska Dept. of Fish and Game, Division of Subsistence. Technical Paper 57.
- Wenzel, G.W. 1978. The harp-seal controversy and the Inuit economy. *Arctic* 31: 3-6.
- Wenzel, G.W. 1981. Clyde Inuit adaptation and ecology: the organization of subsistence. *Can. Ethno. Serv. Paper 77*. (Mercury Ser.) National Museums of Canada, Ottawa.
- Wenzel, G.W. 1983. The integration of "remote" site labour into the Inuit economy of Clyde River, N.W.T. *Arctic Anthropology* 20 (2).
- Wenzel, G.W. 1986. The ecology and organization of Inuit sealing activities at Clyde River, N.W.T. Technical Report 10, Royal Commission on Seals and the Sealing Industry in Canada. Deposited with DFO Headquarters Library, Ottawa.
- Whyte, K. 1982. Aboriginal rights: the native American's struggle for survival. *Human Organization* 41: 178-182.

Worl, R. 1986. Sociocultural values of Clyde River Inuit. Technical Report 18, prepared for the Royal Commission on Seals and the Sealing Industry in Canada. Deposited with DFO Headquarters Library, Ottawa.