

# **PUBLIC ATTITUDES TO WHALES**

## **Results of a Six-Country Survey**

**Milton M.R. Freeman**  
University of Alberta

and

**Stephen R. Kellert**  
Yale University

**Canadian Circumpolar Institute**  
University of Alberta  
Edmonton, Alberta  
Canada T6G 2E9

**School of Forestry and  
Environmental Studies**  
Yale University  
New Haven, CT 06511 USA

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## INTRODUCTION

This study has been designed to determine how people in six countries view issues related to the management of whales and whaling. A further goal of the research is to assess how informed people in selected countries are about whales and whaling.

Though knowledge of public perceptions is not necessarily the most important influence in formulating policy (especially in politically-sensitive areas of concern), nevertheless it is hoped that the results of this study may have some relevance to current discussions taking place in several fora concerning the appropriate management of whales.

The following report contains findings of a general nature relating to the issues surveyed. Later analyses of the considerable data base obtained during this study will indicate what influence age, gender, formal education levels, socio-economic status and urban or rural residence variously has upon the viewpoints expressed. However, this first report provides a quantitative assessment of the differences in attitudes and knowledge about whales and whaling that exist between each of the six countries surveyed, rather than examining the variation to be found within each country.

## ADMINISTRATION OF THE SURVEY

The questionnaire (Appendix 1), designed by the co-principal investigators, was administered to a representative random sample of about 500 adults in each of Australia, England, Germany, Japan, and Norway; in the case of the United States the sample size was about 1000. Appendix Table I shows the actual sample sizes and the selected characteristics used to describe these national samples. Appendix Table II indicates the level of accuracy in polling results from representative samples of the sizes used in these national surveys.

Survey companies in these six countries were selected by Gallup Canada, which company administered the technical aspects of the project. In nearly all cases the polling companies selected (listed in Appendix 2) were affiliated with the Gallup Organization.

This study was funded from a variety of sources. Initially letters were sent to the Whaling Commissioners in each of the 36 member governments of the International Whaling Commission, inviting those governments' financial support and advice in the design and conduct of the study. Thirteen replies to these letters were received, and subsequent correspondence with those who indicated interest in the study resulted in most of the funding being obtained from these sources. No government agency requested changes to the preliminary survey questionnaire provided by the researchers.

Additional funds needed to complete the study were obtained from a number of research agency sources and are listed in Appendix 3.

## **ACKNOWLEDGEMENTS**

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## **DESIGN OF THE SURVEY**

The purpose of the study was to determine public attitudes and knowledge concerning the conservation of whales and the management of whaling. Six questions were asked in order to determine peoples' views on the issue of whaling (Appendix Table III). A further fifteen questions were asked to determine the importance of various policy goals likely to be considered important in whaling management (Appendix Tables IV and V).

At the present time, human food is the main purpose for hunting whales. Therefore, to provide one particular context for understanding prevailing attitudes toward killing animals for food, nine questions asked people the degree to which they approved of the production and sale of a number of domesticated and wild animals (including whales) as food (Appendix Table VI).

Additional analytical context is provided by ten questions that seek to assess how much factual information people possess about whales and whaling (Appendix Tables VII and VIII).

For most questions respondents were asked to answer on a scale of 1 to 5, where 1 indicated their strong disapproval/disagreement, and 5 their strong approval/agreement with a particular statement; a response rated 3 indicates the respondent held no strong opinion for or against the proposition. Respondents could also answer that they held no opinion or did not know.

Some of the knowledge-testing questions asked respondents if they believed the statement was either "true" or "false". Respondents could also answer "don't know" to these particular knowledge-testing questions.

## **RESULTS**

As mentioned above, respondents could rank their answers on a five-point scale. For purposes of presenting some preliminary results, an "approve"/"agree" response represents the summing of responses obtained in the "strongly" or "moderately" approve/agree categories (i.e. 1+2 on the five-point scale). In similar manner, the rates obtained for "moderately" or "strongly" disapprove/disagree (4+5) responses are summed to obtain the "disapprove"/"disagree" response rate expressed as a percentage.



## **Questions Concerning the Acceptability of Whaling**

The summary results presented in Text Table 1 indicate that respondents in Australia, England, Germany and the U.S. held opinions markedly different from those expressed by Japanese and Norwegians when each was questioned about whaling.

For example, when asked whether they "opposed the hunting of whales under any circumstances" a sizeable majority of respondents in Australia and Germany agreed (by a two to one margin). However, even larger sized majorities (two and a half to three to one) in Japan and Norway did not agree with the statement that whales should not be hunted under any circumstances. Opposition to whaling under any circumstances was more moderated in the U.S. (a four to three majority opposing whaling) and even more evenly divided in England with 43% opposed to whaling, 37% not opposed, and a further 19% expressing no strong opinion one way or the other.

In a related questions ("I can't imagine why anyone would want to kill anything as intelligent as a whale") respondents in England followed the same trend as those in Australia, Germany and the U.S. in opposing the killing of whales. Again, clear majorities in Japan and Norway disagreed with that particular statement.

In response to the statement that "there is nothing wrong with whaling if it is properly regulated", about two-thirds of respondents in Australia and England disagreed, whereas between two-thirds and three-quarters of Japanese and Norwegians respectively agreed that regulated whaling was an acceptable practice. The U.S. position (55% disagreeing with the statement) appeared intermediate between these extremes (Text Table 1).

## **Policy Questions to be Addressed by a Whaling Authority**

The answers to these questions showed varying priorities in different countries for fifteen listed policy objectives (Appendix Tables IV and V).

The top policy priority for respondents in Australia, England, Germany, Norway and the U.S. was that the most humane methods of killing be utilized and that strict international controls be put into place.

In Japan respondents placed highest priority on the sustainability of the whale fishery and minimizing wasteful practices.

Respondents in every country indicated high levels of support for the requirement that harvests should be based upon the best scientific advice.

In further questions about broad areas of policy to be followed in future management initiatives, all respondents placed protection of the whales' environment (against pollution or industrial disturbance) as the highest goal. There was also high priority accorded in each country to the importance of managing whales in the context of marine ecosystem considerations.

	Australia	England	Germany	Japan	Norway	U.S.A.
Can't imagine why anyone would kill anything as intelligent as whales	Agree	64%	59%	25%	22%	57%
	Neither agree/disagree	13	18	24	16	20
	Disagree	22	24	50	57	25
Opposed to hunting of whales under any circumstances	Agree	60	43	24	21	48
	Neither agree/disagree	11	19	18	18	17
	Disagree	29	37	57	61	34
There is nothing wrong with whaling if it is properly regulated	Agree	21	19	26	74	27
	Neither agree/disagree	13	17	14	9	17
	Disagree	66	64	60	15	55

**Text Table 1:** Public attitudes toward whaling, response rate by country.

(From Appendix Table III.)

"Agree" is when respondents reply "Agree strongly" or "Agree moderately"; "Disagree" is the addition of "Disagree strongly" and "Disagree moderately".

In each country, strictly economic goals (i.e. the profitability of the whaling industry) ranked as the lowest policy priority.

Policies in support of social and cultural goals (i.e. maintaining the wellbeing of traditional whaling communities) were afforded relatively high priority in both Japan and Norway compared to the opinions expressed in Australia, England, Germany, and the U.S. However, in respect to maintaining the cultural traditions of whaling communities, responses in England and the U.S. appeared intermediate between the higher levels of support in Japan and Norway and the lower levels of support indicated for this policy goal in both Australia and Germany (Text Tables 2 and 3, extracted from Appendix Tables IV and V).

Norwegian respondents indicated strong support (60% in favour, 15% opposed) for a policy that views whales as a protein food source for human use (Appendix Table IV). This policy enjoyed decreasing levels of support by respondents in Japan (33% opposed), Germany and the U.S. (44%), England (50%) and Australia (60%).

### **Questions Concerning Peoples' Attitudes to Different Animal Meats**

It is apparent that answers to questions about the acceptability of producing and consuming various food animals reflect both varying national, as well as respondents' personal, food habits. Thus, as might be expected, Australians (at 28%) exhibited levels of acceptance of kangaroo meat twice as high as found among Germans, Japanese and Norwegians. Factors other than familiarity influence food preferences or acceptability, and these various factors likely account for the very low rates of acceptance (around 7%) of kangaroo among respondents in England and the U.S., compared to higher rates from other countries where kangaroo meat is likely equally rarely encountered (Appendix Table VI).

Similarly, whereas very strong disapproval was expressed for eating horseflesh in England and the U.S. (only 4% and 10% approving), a more tolerant position toward consumption of horseflesh was expressed by Germans (23%), Japanese (26%) and Norwegians (27%).

In the case of eating lamb, Norwegians indicated the highest approval ratings (81%), with respondents in Australia (67%) and England (61%) registering lower approval rates and German and U.S. respondents (both at 45%) and Japanese (40%) even lower levels of approval.

In regard to eating whale meat, very small numbers of Australian, English, German, and U.S. respondents indicated approval (in the 2 - 8% range). Considerably higher levels of support for eating whale meat were registered in both Japan (33%) and Norway (37%).

However, in both Japan and Norway those disapproving the use of whale meat were 38% and 41% respectively, with a further 26% and 21% respectively registering no strong opinion for or against the production and sale of whale meat. These response rates are quite similar to those registered by U.S. respondents in regard to approval and disapproval of both deer and wildfowl.



	Most supportive				Least supportive			
Whaling policy should support cultural goals (traditional whaling communities' way of life)	Japan (3.71)	United States (3.42)	Norway (3.35)	England (3.31)	Australia (3.12)	Germany (3.01)		
Whaling policy should support social goals (jobs and local residents' wellbeing in traditional whaling communities)	Norway (3.62)	Japan (3.61)	United States (3.14)	Germany (3.04)	England (2.87)	Australia (2.80)		
If whales species are not endangered, economic and cultural needs of traditional whalers justifies continued hunting	Japan (3.92)	Norway (3.70)	United States (2.79)	Australia (2.63)	Germany (2.54)	England (2.44)		
If whales become plentiful again, harvesting them for useful products is acceptable	Norway (4.04)	Japan (3.87)	United States (2.59)	England (2.44)	Germany (2.31)	Australia (2.19)		
Non-endangered whales can be killed to provide food for humans	Norway (4.14)	Japan (3.40)	United States (2.44)	Germany (2.41)	Australia (2.10)	England (2.00)		
Nothing wrong with harvesting whales if properly regulated	Norway (4.10)	Japan (3.79)	United States (2.46)	Germany (2.31)	Australia (2.15)	England (2.11)		

**Text Table 2:** Ranking of countries according to level of support expressed for selected whaling policies (from Appendix Tables III and IV).  
(See Appendix Table III for response scale).

Question	Reply	Norway	Japan	United States	England	Australia	Germany
Whaling policy to support social goals (jobs and whaling communities)	Agree	56%	59%	38%	33%	30%	33%
	Disagree	18	20	30	39	40	39
	Neutral	21	20	32	25	29	25
	Mean	3.62	3.61	3.14	2.87	2.80	2.87
Harvesting non-endangered whales justified to meet economic and cultural needs of traditional whalers	Agree	56	67	34	23	30	28
	Disagree	19	19	44	53	49	52
	Neutral	18	11	21	23	21	19
	Mean	3.70	3.92	2.79	2.44	2.63	2.54
Whaling policy to support cultural traditions	Agree	44	59	49	46	40	37
	Disagree	25	16	23	27	33	37
	Neutral	26	22	26	26	25	23
	Mean	3.35	3.71	3.42	3.31	3.12	3.01
Small-scale whaling to primarily benefit local communities	Agree	47	53	57	77	72	77
	Disagree	25	21	22	9	13	10
	Neutral	23	23	19	11	12	8
	Mean	3.39	3.58	3.64	4.29	4.13	4.34

**Text Table 3:** Response rates in regard to whaling in support of traditional communities (from Appendix Tables III, IV, and V.)  
See Appendix Table III for response scale.



Commodity	Australia	England	United States	Germany	Japan	Norway
Horse	1.86 (72%)	1.44 (85%)	1.65 (81%)			
Kangaroo		1.54 (81%)	1.60 (80%)		1.95 (68%)	
Seal	1.38 (89%)	1.28 (91%)	1.42 (88%)	1.40 (87%)		
Whale	1.23 (93%)	1.23 (93%)	1.41 (88%)	1.63 (79%)		
Wildfowl				1.70 (78%)		

**Text Table 4:** Moderate - high negative attitudes to selected foods, by country.  
 (From Appendix Table VI; see Appendix Table III for 5-point response scale.)  
 Percentages shown are the proportion of the national sample expressing both strong or moderate disapproval of the production and sale of that particular food

Commodity	Australia	England	Germany	Japan	Norway	United States
Deer	2.59 (50%)	2.13 (63%)				
Horse			2.28 (60%)	2.21 (61%)	2.46 (51%)	
Kangaroo	2.61 (48%)		2.01 (64%)	2.51 (52%)	2.02 (55%)	
Lobster			2.65 (48%)			
Seal				2.06 (66%)		
Whale				2.81 (41%)	2.71 (44%)	
Wildfowl	2.53 (49%)	2.68 (48%)		2.75 (42%)		

**Text Table 5:** Moderately negative attitudes to selected foods, by country.  
 (From Appendix Table VI; see Appendix Table III for 5-point response scale.)  
 Percentages shown are the proportion of the national sample expressing both strong or moderate disapproval of the production and sale of that particular food

The German respondents disapproval rate for whale meat production and sale (at 79%) was about equal to Germans' equally high disapproval rate for eating wildfowl (78%), a food source that Australian, English, Japanese, Norwegian, and U.S. respondents find varyingly more acceptable (disapproval ratings ranging from 32% [in the case of Norway], to 49% [in the case of Australia]).

Text Table 4 indicates the moderate to high disapproval ratings for five of nine listed food animals in the six countries surveyed, and Text Table 5 the seven moderately disapproved of food animals (out of nine).

### **Peoples' Knowledge about Whales and Whaling**

One set of ten questions concerned general knowledge about the natural history of whales, whaling, and the use of whale products (Appendix Table VII). Another set of questions was directed toward obtaining some measure of public perceptions of whale species' scarcity or abundance (Appendix Table VIII).

As these representative national surveys overwhelmingly question non-specialists, and the questions asked tend to be of a more "technical" or specialized nature, it is reasonable to anticipate that many people would answer "Don't know" to many questions, and indeed, this was often the case. For example, in answer to the question "Is the sperm whale the only great whale to use teeth to feed?" in the six countries an average of 40% percentage answered "Don't know". (In Appendix Table VII the categories "True" or "False" used in the questionnaire have been replaced by "Correct" or "Incorrect" for ease of interpreting the data).

A much higher number of people in Australia, England, Germany, and the U.S. compared to Japan and Norway incorrectly believe that "all large whale species are currently in danger of extinction".

A similar response pattern emerged in answer to the statement "Some whale species have become extinct in modern industrial times", where about 80% of Australian, English, German, and U.S. respondents believed, incorrectly, that statement to be true.

In answer to the statement "Some countries continue to kill more than a thousand whales every year for scientific research" around 70% of Australian, English, and German respondents provided the incorrect answer, as did 67% of U.S. respondents, compared with 40% of Japanese and 34% of Norwegian.

These examples indicate the extent to which people fail to provide factually correct answers to these questions. This same pattern of correct and incorrect answers was to a great extent repeated throughout the questionnaire sequence dealing with matters of fact. Thus, the proportion of Australian (at 44%), German (50%), U.S. (54%) and English (57%) respondents believing, again incorrectly, that the main reason for whaling is to supply cheap sources of edible oils, is much higher than 22% of Norwegians and 30% of Japanese sharing that belief.

A somewhat similar pattern of incorrect responses is obtained to the statement that most

whale meat today is being consumed in expensive Japanese restaurants (where only 18% and 20% of English and German respondents recognized that to be an incorrect statement). However, about half of the U.S. respondents recognized that proposition to be factually untrue.

More Japanese (62%) and U.S. (60%) respondents knew that the blue whale has been protected for a quarter century by international agreement (compared to only 39% of Germans) whereas correct answers to the question about echo-locating abilities of the great whales were provided by only 4% (U.K.) to 18% (Japan) of respondents.

It appears that in each country the general public tends to perform quite poorly when asked factual questions about whales, whaling and the use of whale products. The average correct score for the six countries was only about 40%, with a range of 31% (in the U.K.) to 52% (in Norway) correct answers.

### **Knowledge Concerning Whale Population Levels**

One idea yet to be statistically explored is the idea that peoples' beliefs concerning population status of whales might influence their level of approval or disapproval of whaling. Or stated differently, that opposition to whaling may be influenced by a widespread belief that "whales are (an) endangered species". In order to obtain data needed to further consider this question, respondents were asked to indicate where, over a broad range of population numbers, they would place each of the seven species of large (i.e. the baleen and the sperm) whale.

A high level of knowledge of whale populations was not expected. However, in order to allow respondents in different geographical locations to have an opportunity to find a regionally-significant whale on the list, species named included those most often mentioned in the mass media and the "environmental" literature that enjoys widespread distribution.

The level of correct answers was, as expected, low (see Appendix Table VIII). Thus less than 1% of Germans, about 2% of Australian and English respondents and 8% and 9.5% of U.S. and Norwegian respondents respectively knew that sperm whales numbers exceed 1 million. In Germany about half the respondents believed the sperm whale population numbers fewer than 10,000.

In Germany and Australia about half the respondents (60% in the U.S.) believe there are less than 10,000 minke whales in the world, and only about 5% thought that the number was greater than 100,000. Respondents in Japan and Norway were three to four times as likely to select a correct answer for minke whale population levels compared to those in Australia, England, Germany, or the U.S.

## **CONCLUSIONS**

From the results presented and discussed in this report some general conclusions can be offered at this time.



1. Substantial differences appear to exist between public attitudes toward whale management and use in the four non-whaling countries where widespread opposition to whaling is found, and the two whaling countries where only a minority opposes whaling. (Alaskan whaling is ignored when characterizing the U.S. as a non-whaling country for the purposes of this study).
2. There appears to be a shared perspective in all six countries regarding the great importance of (i) protecting whale habitat from pollution and disturbance, (ii) maintaining an ecosystem perspective in whale management, and (iii) basing harvest levels upon the best scientific advice.
3. Though there exists widespread opposition to whaling in the non-whaling countries, in the event that further whaling is to be sanctioned in the future, respondents in most countries place high priority on ensuring that whales be killed in as humane a fashion as is technologically possible and that strict international inspection of whaling be in effect.
4. In further regard to whale management policy, the public in all countries appear to place least importance upon strictly economic goals in comparison to environmental goals.
5. In regard to the acceptability of producing and selling whale meat for human consumption, considerable differences exist between the two whaling countries and the four non-whaling countries. Thus whale meat received the highest disapproval ratings of any meats in the four non-whaling countries; in the two whaling countries whale meat enjoyed neither high approval nor disapproval ratings.
6. The public in each country appears to have only a limited amount of information concerning whales and issues related to whaling. This appears surprising, given the public's apparent interest and (potential) political influence in regard to whale/marine mammal conservation in most of these countries.
7. There appears to be only a weak link between public attitudes toward whaling and the knowledge possessed about whales and whaling, although somewhat greater knowledge was possessed by the public in those countries inclined to support whaling activities.



**Appendix 1:**

*Questionnaire Master  
(Australia)*

*Gallup Canada, Inc.*



WHALING SURVEY

Hello. My name is <SAY NAME>. I'm from the Roy Morgan Research Centre, the people who conduct the Morgan Gallup Poll. Today we're conducting a survey about people's attitudes and knowledge about whales and whaling.

May I speak to the youngest male at home aged 18 years or over?  
 IF NO MALES ASK: Then could I speak to the youngest female at home aged 18 years or over?

IF RESPONDENT CHANGES REPEAT THE FIRST PARAGRAPH OF THE INTRODUCTION AND PRESS RETURN

The purpose of this survey is to learn more about how people regard marine animals, whales and other environmental problems. We are asking these questions in various countries throughout the world. Your opinions will help governments in these countries to develop better policies for managing and conserving marine mammals, especially whales. There are no right or wrong answers to most of these questions and this survey will require no more than 15 minutes of your time. We very much appreciate your help.

On a scale that goes from 1 to 5, where 1 means strongly disapprove and 5 means strongly approve, how do you view the production and sale of the following animals for human consumption?

Q1A. (First)(And CHICKEN). How do you view the production and sale of CHICKEN for human consumption?  
 (Please rate using a scale of 1 to 5 where 1 means you disapprove strongly and 5 means you approve strongly.)

- 1-STRONGLY DISAPPROVE.. 5 1 (14)
- 2..... 2
- 3..... 3
- 4..... 4
- 5-STRONGLY APPROVE..... 5
- CAN'T SAY..... 6

Q1B. (First)(And DEER). How do you view the production and sale of DEER for human consumption?  
 (Please rate using a scale of 1 to 5 where 1 means you disapprove strongly and 5 means you approve strongly.)

- 1-STRONGLY DISAPPROVE.. 6 1 (15)
- 2..... 2
- 3..... 3
- 4..... 4
- 5-STRONGLY APPROVE..... 5
- CAN'T SAY..... 6

Q1C. (First)(And HORSE). How do you view the production and sale of HORSE for human consumption?  
 (Please rate using a scale of 1 to 5 where 1 means you disapprove strongly and 5 means you approve strongly.)

- 1-STRONGLY DISAPPROVE.. 7 1 (16)
- 2..... 2
- 3..... 3
- 4..... 4
- 5-STRONGLY APPROVE..... 5
- CAN'T SAY..... 6

Q1D. (First)(And KANGAROO). How do you view the production and sale of KANGAROO for human consumption?  
 (Please rate using a scale of 1 to 5 where 1 means you disapprove strongly and 5 means you approve strongly.)

- 1-STRONGLY DISAPPROVE.. 8 1 (17)
- 2..... 2
- 3..... 3
- 4..... 4
- 5-STRONGLY APPROVE..... 5
- CAN'T SAY..... 6

Q1E. (First)(And LAMB). How do you view the production and sale of LAMB for human consumption?  
 (Please rate using a scale of 1 to 5 where 1 means you disapprove strongly and 5 means you approve strongly.)

- 1-STRONGLY DISAPPROVE.. 9 1 (18)
- 2..... 2
- 3..... 3
- 4..... 4
- 5-STRONGLY APPROVE..... 5
- CAN'T SAY..... 6

Q1F. (First)(And LOBSTER). How do you view the production and sale of LOBSTER for human consumption?  
 (Please rate using a scale of 1 to 5 where 1 means you disapprove strongly and 5 means you approve strongly.)

- 1-STRONGLY DISAPPROVE.. 10 1 (19)
- 2..... 2
- 3..... 3
- 4..... 4
- 5-STRONGLY APPROVE..... 5
- CAN'T SAY..... 6

Q1G. (First)(And SEAL). How do you view the production and sale of SEAL for human consumption?  
(Please rate using a scale of 1 to 5 where 1 means you disapprove strongly and 5 means you approve strongly.)

1-STRONGLY DISAPPROVE.. 11 1 (20)  
2..... 2  
3..... 3  
4..... 4  
5-STRONGLY APPROVE..... 5  
CAN'T SAY..... 6

Q1H. (First)(And WHALES). How do you view the production and sale of WHALES for human consumption?  
(Please rate using a scale of 1 to 5 where 1 means you disapprove strongly and 5 means you approve strongly.)

1-STRONGLY DISAPPROVE.. 12 1 (21)  
2..... 2  
3..... 3  
4..... 4  
5-STRONGLY APPROVE..... 5  
CAN'T SAY..... 6

Q1I. (First)(And WILDFOWL for example pheasant, wild ducks etc). How do you view the production and sale of WILDFOWL for human consumption?  
(Please rate using a scale of 1 to 5 where 1 means you disapprove strongly and 5 means you approve strongly.)

1-STRONGLY DISAPPROVE.. 13 1 (22)  
2..... 2  
3..... 3  
4..... 4  
5-STRONGLY APPROVE..... 5  
CAN'T SAY..... 6

I'm now going to read a series of statements to you and I would like you to tell me how strongly you agree or disagree with each one.  
I would like you to make your ratings using a 5 point scale where 1 means that you disagree strongly and 5 means that you agree strongly.

Q2A. (Firstly)(Next), Non-endangered whales can be killed in order to provide food for humans.  
(Please rate using a scale of 1 to 5 where 1 means you disagree strongly and 5 means you agree strongly.)

1-STRONGLY DISAGREE.... 14 1 (23)  
2..... 2  
3..... 3  
4..... 4  
5-STRONGLY AGREE..... 5  
CAN'T SAY..... 6

Q2B. (Firstly)(Next), You see nothing wrong with harvesting whales if it is properly regulated.  
(Please rate using a scale of 1 to 5 where 1 means you disagree strongly and 5 means you agree strongly.)

1-STRONGLY DISAGREE.... 15 1 (24)  
2..... 2  
3..... 3  
4..... 4  
5-STRONGLY AGREE..... 5  
CAN'T SAY..... 6

Q2C. (Firstly)(Next), If a whale species is not endangered, the economic and cultural needs of people who traditionally hunt these animals justifies their continued hunting.  
(Please rate using a scale of 1 to 5 where 1 means you disagree strongly and 5 means you agree strongly.)

1-STRONGLY DISAGREE.... 16 1 (25)  
2..... 2  
3..... 3  
4..... 4  
5-STRONGLY AGREE..... 5  
CAN'T SAY..... 6

Q2D. (Firstly)(Next), You cannot imagine why anyone would want to kill anything as intelligent as a whale.  
(Please rate using a scale of 1 to 5 where 1 means you disagree strongly and 5 means you agree strongly.)

1-STRONGLY DISAGREE.... 17 1 (26)  
2..... 2  
3..... 3  
4..... 4  
5-STRONGLY AGREE..... 5  
CAN'T SAY..... 6

Q2E. (Firstly)(Next), If whale populations become plentiful again, you think people should be allowed to harvest them for useful products.  
(Please rate using a scale of 1 to 5 where 1 means you disagree strongly and 5 means you agree strongly.)

1-STRONGLY DISAGREE.... 18 1 (27)  
2..... 2  
3..... 3  
4..... 4  
5-STRONGLY AGREE..... 5  
CAN'T SAY..... 6

Q2F. (Firstly)(Next), You are opposed to the hunting of any kind of whale under any circumstances, (Please rate using a scale of 1 to 5 where 1 means you disagree strongly and 5 means you agree strongly.)

- 1-STRONGLY DISAGREE..... 19 1 (28)
- 2..... 2
- 3..... 3
- 4..... 4
- 5-STRONGLY AGREE..... 5
- CAN'T SAY..... 6

Now I'd like to know, how important you believe the following goals should be when the International Whaling Commission establishes whaling policies?  
I would like you to make your ratings using 5 point scales where 1 means very unimportant and 5 means very important.

Q3A. (First)(Next), Ecological goals, such as the role whales play in ocean ecosystem management. (Please rate using a scale of 1 to 5 where 1 means very unimportant and 5 means very important.)

- 1-VERY UNIMPORTANT..... 20 1 (29)
- 2..... 2
- 3..... 3
- 4..... 4
- 5-VERY IMPORTANT..... 5
- CAN'T SAY..... 6

Q3B. (First)(Next), Ethical goals such as the right of whales to exist without harm from human interference. (Please rate using a scale of 1 to 5 where 1 means very unimportant and 5 means very important.)

- 1-VERY UNIMPORTANT..... 21 1 (30)
- 2..... 2
- 3..... 3
- 4..... 4
- 5-VERY IMPORTANT..... 5
- CAN'T SAY..... 6

Q3C. (First)(Next), Economic goals, such as the profitability of the whaling industry. (Please rate using a scale of 1 to 5 where 1 means very unimportant and 5 means very important.)

- 1-VERY UNIMPORTANT..... 22 1 (31)
- 2..... 2
- 3..... 3
- 4..... 4
- 5-VERY IMPORTANT..... 5
- CAN'T SAY..... 6

Q3D. (First)(Next), Resource use goals, to ensure a continued supply of protein or meat for human consumption. (Please rate using a scale of 1 to 5 where 1 means very unimportant and 5 means very important.)

- 1-VERY UNIMPORTANT..... 23 1 (32)
- 2..... 2
- 3..... 3
- 4..... 4
- 5-VERY IMPORTANT..... 5
- CAN'T SAY..... 6

Q3E. (First)(Next), Animal welfare concerns, such as the possible pain and suffering inflicted on whales by whaling. (Please rate using a scale of 1 to 5 where 1 means very unimportant and 5 means very important.)

- 1-VERY UNIMPORTANT..... 24 1 (33)
- 2..... 2
- 3..... 3
- 4..... 4
- 5-VERY IMPORTANT..... 5
- CAN'T SAY..... 6

Q3F. (First)(Next), Social goals, such as maintaining jobs and the local residents, wellbeing in traditional whaling communities. (Please rate using a scale of 1 to 5 where 1 means very unimportant and 5 means very important.)

- 1-VERY UNIMPORTANT..... 25 1 (34)
- 2..... 2
- 3..... 3
- 4..... 4
- 5-VERY IMPORTANT..... 5
- CAN'T SAY..... 6

Q3G. (First)(Next), Environmental goals, such as protection of whales' habitat from the threat of marine pollution or industrial activity. (Please rate using a scale of 1 to 5 where 1 means very unimportant and 5 means very important.)

- 1-VERY UNIMPORTANT..... 26 1 (35)
- 2..... 2
- 3..... 3
- 4..... 4
- 5-VERY IMPORTANT..... 5
- CAN'T SAY..... 6



Q3H. (First)(Next), Cultural goals, such as maintaining traditional whaling communities and their way of life. (Please rate using a scale of 1 to 5 where 1 means very unimportant and 5 means very important.)

1-VERY UNIMPORTANT..... 27 1 (36)  
 2..... 2  
 3..... 3  
 4..... 4  
 5-VERY IMPORTANT..... 5  
 CAN'T SAY..... 6

A possibility exists that whaling may be resumed in the future. If whaling is resumed please indicate your support for the following conditions that should be observed. I would like you to make your ratings using 5 point scales where 1 means very unimportant and 5 means very important.

Q4A. (First)(Next), Only hunting a limited number from abundant, non-endangered species. (Please rate using a scale of 1 to 5 where 1 means very unimportant and 5 means very important.)

1-VERY UNIMPORTANT..... 28 1 (37)  
 2..... 2  
 3..... 3  
 4..... 4  
 5-VERY IMPORTANT..... 5  
 CAN'T SAY..... 6

Q4B. (First)(Next), The number of whales to be caught should be based upon the best scientific information. (Please rate using a scale of 1 to 5 where 1 means very unimportant and 5 means very important.)

1-VERY UNIMPORTANT..... 29 1 (38)  
 2..... 2  
 3..... 3  
 4..... 4  
 5-VERY IMPORTANT..... 5  
 CAN'T SAY..... 6

Q4C. (First)(Next), Regular and strict international inspection and regulation of whaling operations be put in place. (Please rate using a scale of 1 to 5 where 1 means very unimportant and 5 means very important.)

1-VERY UNIMPORTANT..... 30 1 (39)  
 2..... 2  
 3..... 3  
 4..... 4  
 5-VERY IMPORTANT..... 5  
 CAN'T SAY..... 6

Q4D. (First)(Next), Killing of whales should be carried out in as humane a fashion as is technically possible. (Please rate using a scale of 1 to 5 where 1 means very unimportant and 5 means very important.)

1-VERY UNIMPORTANT..... 31 1 (40)  
 2..... 2  
 3..... 3  
 4..... 4  
 5-VERY IMPORTANT..... 5  
 CAN'T SAY..... 6

Q4E. (First)(Next), Whaling should be carried out on a small scale primarily to provide benefits to local communities. (Please rate using a scale of 1 to 5 where 1 means very unimportant and 5 means very important.)

1-VERY UNIMPORTANT..... 32 1 (41)  
 2..... 2  
 3..... 3  
 4..... 4  
 5-VERY IMPORTANT..... 5  
 CAN'T SAY..... 6

Q4F. (First)(Next), All edible parts of the whale to be UTILIZED for human food only. (Please rate using a scale of 1 to 5 where 1 means very unimportant and 5 means very important.)

1-VERY UNIMPORTANT..... 33 1 (42)  
 2..... 2  
 3..... 3  
 4..... 4  
 5-VERY IMPORTANT..... 5  
 CAN'T SAY..... 6

Q4G. (First)(Next), Distribution of all edible products be required to prevent wastage. (Please rate using a scale of 1 to 5 where 1 means very unimportant and 5 means very important.)

1-VERY UNIMPORTANT..... 34 1 (43)  
 2..... 2  
 3..... 3  
 4..... 4  
 5-VERY IMPORTANT..... 5  
 CAN'T SAY..... 6

Now I'm going to read a list of statements and would like you to tell me, to the best of your knowledge, which of them are true or false.

Q5A. All large whale species are currently in danger of extinction. (Do you believe that statement to be true or false?)

TRUE..... 35 1 (44)  
 FALSE..... 2  
 CAN'T SAY..... 3

Q5B. Some whale species have become extinct in modern industrial times. (Do you believe that statement to be true or false?)

TRUE..... 36 1 (45)  
 FALSE..... 2  
 CAN'T SAY..... 3

Q5C. The largest whale species for example the blue and the humpback, mostly feed on moderate-sized fish like cod and salmon. (Do you believe that statement to be true or false?)

TRUE..... 37 1 (46)  
 FALSE..... 2  
 CAN'T SAY..... 3

Q5D. Today it's possible to kill whales quickly using modern technology. (Do you believe that statement to be true or false?)

TRUE..... 38 1 (47)  
 FALSE..... 2  
 CAN'T SAY..... 3

Q5E. Some countries continue to kill more than a thousand whales every year for "scientific research". (Do you believe that statement to be true or false?)

TRUE..... 39 1 (48)  
 FALSE..... 2  
 CAN'T SAY..... 3

Q5F. All whales can navigate by echo-location. (Do you believe that statement to be true or false?)

TRUE..... 40 1 (49)  
 FALSE..... 2  
 CAN'T SAY..... 3

Q5G. The sperm whale is the only great whale using teeth to feed. (Do you believe that statement to be true or false?)

TRUE..... 41 1 (50)  
 FALSE..... 2  
 CAN'T SAY..... 3

Q5H. The main justification for commercial whaling is to provide cheap oil for various industrial uses. (Do you believe that statement to be true or false?)

TRUE..... 42 1 (51)  
 FALSE..... 2  
 CAN'T SAY..... 3

Q5I. Nearly all the whale meat sold today is consumed in expensive Japanese restaurants. (Do you believe that statement to be true or false?)

TRUE..... 43 1 (52)  
 FALSE..... 2  
 CAN'T SAY..... 3

Q5J. The blue whale has been protected from whaling for a quarter century by international agreement. (Do you believe that statement to be true or false?)

TRUE..... 44 1 (53)  
 FALSE..... 2  
 CAN'T SAY..... 3

Now I'm going to read a list of different species of whales and would like you to tell me what you think the global or worldwide population of each is.

Q6A. Do you think that the global population of BLUE WHALES is less than 1,000, between 1,000 and 9,999, between 10,000 and 99,999, between 100,000 and 999,999 or one million or more? (IF DOESN'T KNOW: Well your best guess?)

LESS THAN 1,000..... 45 1 (54)  
 1,000 - 9,999..... 2  
 10,000 - 99,999..... 3  
 100,000 - 999,999..... 4  
 1 MILLION OR MORE..... 5  
 DON'T KNOW..... 6

Q6B. Do you think that the global population of GRAY WHALES is less than 1,000, between 1,000 and 9,999, between 10,000 and 99,999, between 100,000 and 999,999 or one million or more? (IF DOESN'T KNOW: Well your best guess?)

LESS THAN 1,000..... 46 1 (55)  
 1,000 - 9,999..... 2  
 10,000 - 99,999..... 3  
 100,000 - 999,999..... 4  
 1 MILLION OR MORE..... 5  
 DON'T KNOW..... 6

Q6C. Do you think that the global population of SPERM WHALES is less than 1,000,  
 between 1,000 and 9,999  
 between 10,000 and 99,999  
 between 100,000 and 999,999  
 or one million or more?  
 (IF DOESN'T KNOW:Well your best guess?)

LESS THAN 1,000.....	47	1	(56)
1,000 - 9,999.....		2	
10,000 - 99,999.....		3	
100,000 - 999,999.....		4	
1 MILLION OR MORE.....		5	
DON'T KNOW.....		6	

Q6D. Do you think that the global population of MINKE WHALES is less than 1,000,  
 between 1,000 and 9,999  
 between 10,000 and 99,999  
 between 100,000 and 999,999  
 or one million or more?  
 (IF DOESN'T KNOW:Well your best guess?)

LESS THAN 1,000.....	48	1	(57)
1,000 - 9,999.....		2	
10,000 - 99,999.....		3	
100,000 - 999,999.....		4	
1 MILLION OR MORE.....		5	
DON'T KNOW.....		6	

Q6E. Do you think that the global population of HUMPBACK WHALES is less than 1,000,  
 between 1,000 and 9,999  
 between 10,000 and 99,999  
 between 100,000 and 999,999  
 or one million or more?  
 (IF DOESN'T KNOW:Well your best guess?)

LESS THAN 1,000.....	49	1	(58)
1,000 - 9,999.....		2	
10,000 - 99,999.....		3	
100,000 - 999,999.....		4	
1 MILLION OR MORE.....		5	
DON'T KNOW.....		6	

Q6F. Do you think that the global population of FIN WHALES is less than 1,000,  
 between 1,000 and 9,999  
 between 10,000 and 99,999  
 between 100,000 and 999,999  
 or one million or more?  
 (IF DOESN'T KNOW:Well your best guess?)

LESS THAN 1,000.....	50	1	(59)
1,000 - 9,999.....		2	
10,000 - 99,999.....		3	
100,000 - 999,999.....		4	
1 MILLION OR MORE.....		5	
DON'T KNOW.....		6	

Q6G. Do you think that the global population of RIGHT WHALES is less than 1,000,  
 between 1,000 and 9,999  
 between 10,000 and 99,999  
 between 100,000 and 999,999  
 or one million or more?  
 (IF DOESN'T KNOW:Well your best guess?)

LESS THAN 1,000.....	51	1	(60)
1,000 - 9,999.....		2	
10,000 - 99,999.....		3	
100,000 - 999,999.....		4	
1 MILLION OR MORE.....		5	
DON'T KNOW.....		6	

Q6H. And do you think that the global population of ALL SPECIES OF WHALES is less than 1,000,  
 between 1,000 and 9,999  
 between 10,000 and 99,999  
 between 100,000 and 999,999  
 or one million or more?  
 (IF DOESN'T KNOW:Well your best guess?)

LESS THAN 1,000.....	52	1	(61)
1,000 - 9,999.....		2	
10,000 - 99,999.....		3	
100,000 - 999,999.....		4	
1 MILLION OR MORE.....		5	
DON'T KNOW.....		6	

To make sure we have a true cross-section of people, I'd like to ask you a few questions about yourself.

QAGE. Would you mind telling me your approximate age please?

IF REFUSES READ OUT.  
 IF STILL REFUSES ESTIMATE

18-19.....	3	(62-63)
20-24.....	4	
25-29.....	5	
30-34.....	6	
35-39.....	7	
40-44.....	8	
45-49.....	9	
50-54.....	10	
55-59.....	11	
60-64.....	12	
65+.....	13	
	53	1 2





**Appendix 2: Companies conducting the polls in each country.**

**Australia:** The Roy Morgan Research Centre PTY. Ltd.  
411 Collins Street  
G.P.O. Box 2282 U  
Melbourne 3001, Australia

**England:** Social Surveys (Gallup Poll) Ltd.  
Gallup House  
307 Finchley Road  
London, NW3 6EH, U.K.

**Germany:** EMNID-INSTITUTE GmbH & Co.  
Bodenschwinghstrsse 25A  
Bielefeld 1, Germany.

**Japan:** Nihon Keiai Shimbun America, Inc.  
1325 Avenue of the Americas, Suite 2500  
New York, N.Y. 10019

**Norway:** Norsk Gallup Institutt A/S  
Grensevn. 86 A  
Postboks 6251 Etterstad  
N-0603 Oslo 6, Norway

**Project Manager:** Gallup Canada, Inc  
180 Bloor Street West  
Toronto, Ontario M5S 2V6  
Canada

### **Appendix 3: Financial Sponsors of the Study.**

This study has been made possible by generous financial support from the following sources:

Canadian Circumpolar Institute, Edmonton  
Føroya Fiskasøla, Torshavn  
Greenland Home Rule - Fisheries Department  
Home Rule Government of the Faroe Islands  
Hvalur h.f., Hafnarfjordur, Iceland  
The Institute of Cetacean Research, Tokyo  
National Science Foundation, Washington, D.C.  
Norwegian Fisheries Research Council  
Social Sciences and Humanities Research Council of Canada  
University of Alberta, Central Research Fund

	Australia	England	Germany	Japan	Norway	U.S.
Sample Size	517	517	507	517	536	1006
Urban/Rural	+	+	+	+	+	+
Age	+	+	+	+	+	+
Gender	+	+	+	+	+	+
Marital Status		+				
Household Composition		+	+			
Education	+	+	+	+	+	+
Occupation	+	+	+		+	+
Income	+		+	+	+	+
Race						+
Date of polling	January 9-12 1992	February 1992	January 23-26 1992	January 15-18 1992	Early Feb. 1992	Early June 1992

**Appendix Table I: Polling information: sample size and data characteristics**



	Sample Size				
	1,000	600	500	400	200
Percentages near 10	2	3	3	3	4
Percentages near 20	2	3	4	4	6
Percentages near 30	3	4	4	4	6
Percentages near 40	3	4	4	5	7
Percentages near 50	3	4	4	5	7
Percentages near 60	3	4	4	5	7
Percentages near 70	3	4	4	4	6
Percentages near 80	2	3	4	4	6
Percentages near 90	2	3	3	3	4

**Appendix Table II:** Percentage variation (error) contained in survey results at 95% confidence level (i.e., results expected to occur with the stated variation 19 times out of 20).

Questions	Response	Australia	England	Germany	Japan	Norway	U.S.A.
Non-endangered whales can be killed for human food	Disagree	65.9%	66.9%	61.5%	29.2%	12.7%	55.0%
	Neither agree/disagree	14.3	15.5	15.4	14.9	11.9	18.0
	Agree	19.2	16.6	21.9	54.7	62.7	26.3
	Can't say	0.6	1.0	1.2	0.8	2.6	0.6
	Mean score	2.10	2.00	2.21	3.40	4.13	2.44
Harvesting whales is acceptable if properly regulated	Disagree	65.8	63.5	59.6	21.8	14.6	55.2
	Neither agree/disagree	12.6	17.0	14.2	13.2	8.6	17.0
	Agree	20.9	19.0	26.1	64.2	74.1	27.2
	Can't say	0.8	0.6	0.2	0.8	2.8	0.5
	Mean score	2.15	2.11	?	3.79	4.10	2.46
Harvesting non-endangered whales justified for economic and cultural needs of traditional whalers	Disagree	49.1	52.6	52.0	18.9	19.2	44.0
	Neither agree/disagree	20.5	22.6	18.7	11.2	18.3	21.4
	Agree	29.6	23.2	28.2	68.6	55.6	34.2
	Can't say	0.8	1.5	1.0	1.0	6.9	0.4
	Mean score	2.63	2.44	2.54	3.92	3.70	2.79
Can't imagine why anyone would kill anything as intelligent as whales	Disagree	21.7	20.1	23.5	47.9	57.1	24.8
	Neither agree/disagree	13.3	13.0	17.6	23.8	15.5	19.6
	Agree	63.9	64.2	55.8	24.6	21.8	57.0
	Can't say	1.2	2.7	2.4	3.7	5.6	0.7
	Mean score	3.89	3.85	3.67	2.63	2.36	3.61
Harvesting plentiful whales for useful products is acceptable	Disagree	62.9	54.6	55.9	17.2	15.9	49.8
	Neither agree/disagree	15.3	16.1	20.3	15.9	9.0	21.7
	Agree	21.2	27.3	31.3	65.6	71.6	28.0
	Can't say	0.6	2.1	2.6	1.4	3.5	0.5
	Mean score	2.19	2.44	2.31	3.87	4.04	2.59
Opposed to whale hunting under any circumstances	Disagree	29.0	37.1	26.5	56.6	61.0	34.4
	Neither agree/disagree	11.0	19.3	18.1	18.4	15.7	17.1
	Agree	60.0	43.1	54.3	23.5	21.1	48.4
	Can't say	0	0.4	1.2	1.6	2.2	0.2
	Mean score	3.66	3.18	3.57	2.41	2.27	3.30

Appendix Table III: Public attitudes toward whaling, by country.

Response given on a five-point scale: 1 = strongly disagree, 2 = moderately disagree, 3 = no position for or against, 4 = moderately agree, 5 = strongly agree. In tabulating responses, "Disagree" = strongly & moderately disagree; "Agree" = strongly and moderately agree

Questions	Response	Australia	England	Germany	Japan	Norway	U.S.A.
<b>Environmental</b> (protection against pollution, industrial activity, etc.)	Disagree	3.5%	5.4%	3.6%	9.8%	5.0%	7.0%
	Neither agree/disagree	4.8	5.0	3.9	12.4	13.4	9.2
	Agree	91.1	88.0	91.3	75.6	77.3	83.0
	Can't say	0.6	1.5	1.2	2.1	4.3	0.8
	Mean score	4.68	4.54	4.70	4.19	4.35	4.44
<b>Ecological</b> (part played by whales in marine ecosystems)	Disagree	3.6	6.0	2.8	12.0	7.4	6.7
	Neither agree/disagree	6.0	8.7	3.7	16.1	14.4	12.9
	Agree	87.4	80.1	90.9	65.3	71.1	78.2
	Can't say	2.9	5.2	2.6	6.6	7.1	2.2
	Mean score	4.62	4.43	4.74	4.06	4.21	4.33
<b>Cultural</b> (maintaining traditions in whaling communities)	Disagree	33.3	26.9	37.3	15.8	24.9	24.3
	Neither agree/disagree	24.6	25.9	22.7	22.1	25.6	25.8
	Agree	40.0	45.5	36.9	58.9	44.2	48.7
	Can't say	2.1	1.7	3.2	3.1	5.4	1.1
	Mean score	3.12	3.31	3.01	3.71	3.35	3.42
<b>Social</b> (jobs, social wellbeing in traditional whaling communities)	Disagree	39.6	39.3	34.1	19.7	18.3	29.7
	Neither agree/disagree	29.2	25.3	28.2	19.7	20.9	31.5
	Agree	30.0	32.9	35.5	58.6	56.1	37.5
	Can't say	1.2	2.5	2.2	1.9	4.7	1.3
	Mean score	2.80	2.87	3.04	3.61	3.62	3.14
<b>Animal Welfare</b> (avoid pain and suffering of whales)	Disagree	9.7	8.1	6.0	23.6	10.6	16.6
	Neither agree/disagree	6.6	5.2	6.7	29.8	11.2	14.0
	Agree	83.2	85.5	85.4	42.5	74.4	68.5
	Can't say	0.6	1.2	2.0	4.1	3.7	0.9
	Mean score	4.42	4.48	4.56	3.32	4.20	3.97
<b>Ethical</b> (whales' right to exist)	Disagree	5.2	6.9	6.3	16.3	26.5	12.1
	Neither agree/disagree	12.4	13.7	10.8	25.5	27.1	17.9
	Agree	81.4	78.5	81.0	53.4	41.0	69.4
	Can't say	1.0	0.8	1.8	4.9	5.4	0.7
	Mean score	4.45	4.31	4.43	3.67	3.32	4.07
<b>Resource Use</b> (to provide protein/ food supply for humans)	Disagree	59.2	49.2	43.9	32.9	15.4	43.6
	Neither agree/disagree	15.3	22.6	17.2	24.2	19.4	24.2
	Agree	24.5	26.1	34.7	40.6	60.2	41.1
	Can't say	1.0	2.1	4.2	2.3	4.9	1.1
	Mean score	2.33	2.56	2.80	3.12	3.76	2.74
<b>Economic</b> (ensure profitability of the whaling industry)	Disagree	69.6	50.3	66.9	45.4	33.2	51.8
	Neither agree/disagree	15.5	20.7	13.8	25.7	26.1	23.8
	Agree	14.1	25.2	17.1	24.8	36.3	22.9
	Can't say	0.8	3.9	2.2	4.1	4.3	1.6
	Mean score	2.02	2.52	2.09	2.64	2.97	2.48

Appendix Table IV: Public attitudes toward selected whaling policies, by country.  
(Response scale as in Appendix Table III).

Policy	Response Rate	Australia	England	Germany	Japan	Norway	U.S.A.
Only limited harvest from abundant non-endangered species	Disagree	7.4%	9.2%	11.9%	6.4%	13.6%	9.5%
	Neither agree/disagree	4.1	10.4	11.2	10.4	16.8	8.7
	Agree	86.1	76.0	73.6	81.1	65.9	90.1
	Can't say	2.5	4.3	3.4	2.1	3.7	1.7
	Mean score	4.55	4.29	4.22	4.40	4.01	4.30
Harvest level based on best scientific advice	Disagree	4.1	8.7	10.3	8.1	5.8	8.1
	Neither agree/disagree	2.3	6.2	5.5	8.9	10.1	8.4
	Agree	90.7	80.1	80.7	80.2	80.2	81.7
	Can't say	2.9	5.0	3.6	2.7	3.9	1.8
	Mean score	4.72	4.39	4.42	4.34	4.41	4.40
Distribution of product to ensure complete utilization and to minimize waste	Disagree	9.4	12.0	7.7	9.1	9.4	8.8
	Neither agree/disagree	7.9	13.5	10.7	7.7	15.7	11.0
	Agree	78.0	64.6	75.0	80.5	70.6	77.6
	Can't say	4.6	9.9	6.7	2.7	4.5	2.6
	Mean score	4.33	4.08	4.35	4.34	4.14	4.31
Use most humane killing method technologically possible	Disagree	1.4	5.1	4.0	12.1	3.9	6.9
	Neither agree/disagree	1.5	3.1	1.8	15.5	4.5	5.7
	Agree	95.0	88.6	91.0	66.9	89.8	85.0
	Can't say	2.1	3.3	3.5	5.4	1.9	2.5
	Mean score	4.88	4.68	4.78	4.03	4.68	4.54
Whaling on a small-scale to primarily benefit local communities	Disagree	12.9	8.7	10.1	20.7	25.4	21.9
	Neither agree/disagree	12.4	11.0	7.5	22.6	23.3	19.2
	Agree	72.2	76.8	77.0	53.2	47.2	57.1
	Can't say	2.5	3.5	5.5	3.5	4.1	1.8
	Mean score	4.13	4.29	4.34	3.58	3.39	3.64
All edible whale products for human consumption only	Disagree	24.0	22.8	15.6	31.9	28.0	28.1
	Neither agree/disagree	19.0	18.8	15.6	24.0	17.2	23.2
	Agree	52.1	46.6	62.5	39.7	49.1	46.3
	Can't say	5.0	11.8	6.3	4.4	5.8	2.5
	Mean score	3.57	3.51	3.97	3.18	3.41	3.34
Regular and strict international inspection of whaling to be in place	Disagree	1.5	4.5	5.5	9.6	5.3	4.7
	Neither agree/disagree	1.2	3.7	3.0	11.6	10.1	6.4
	Agree	95.7	89.8	88.3	77.0	82.1	87.3
	Can't say	1.5	2.1	3.2	2.7	2.6	1.6
	Mean score	4.89	4.66	4.66	4.26	4.47	4.57

Appendix Table V: Response rates to selected whaling policies, by country.  
(Response scale as in Appendix Table III.)



Species	Response Rate	Australia	England	Germany	Japan	Norway	U.S.A.
Chicken	Disapprove	8.5%	10.7%	16.4%	10.3%	6.5%	5.8%
	Neither approve/disapprove	14.9	22.8	22.3	16.1	12.7	10.0
	Approve	76.2	66.1	60.4	71.5	79.3	84.1
	Mean score	4.25	3.93	3.85	4.09	4.31	4.48
Deer	Disapprove	49.7	62.6	35.7	61.3	23.9	39.2
	Neither approve/disapprove	21.5	18.2	22.5	19.3	22.8	21.9
	Approve	27.5	17.6	40.2	17.2	51.5	38.2
	Mean score	2.59	2.13	3.07	2.21	3.47	2.96
Horse	Disapprove	72.3	84.9	60.2	52.2	51.4	80.6
	Neither approve/disapprove	13.7	10.1	16.0	20.1	19.2	8.8
	Approve	13.4	4.4	23.1	26.3	27.1	10.0
	Mean score	1.86	1.44	2.28	2.51	2.46	1.65
Kangaroo	Disapprove	47.7	80.9	64.1	67.7	55.2	79.6
	Neither approve/disapprove	23.6	9.7	14.8	14.7	15.5	11.0
	Approve	28.2	6.8	15.9	13.2	12.9	7.5
	Mean score	2.61	1.54	2.01	1.95	2.02	1.60
Lamb	Disapprove	9.8	16.1	29.0	33.0	7.2	30.9
	Neither approve/disapprove	13.3	22.4	24.7	25.3	10.4	23.4
	Approve	66.6	61.3	45.3	40.1	80.6	45.2
	Mean score	4.22	3.75	3.29	3.07	4.32	3.27
Lobster	Disapprove	16.6	26.3	48.2	21.2	10.4	13.3
	Neither approve/disapprove	18.6	21.5	17.8	17.6	18.1	18.7
	Approve	63.9	49.9	30.4	57.1	68.6	67.5
	Mean score	3.88	3.36	2.65	3.58	4.01	3.99
Seal	Disapprove	89.0	91.1	86.6	65.6	44.2	87.8
	Neither approve/disapprove	5.2	5.0	4.9	16.4	20.7	5.3
	Approve	5.2	2.9	6.3	14.4	31.7	6.3
	Mean score	1.38	1.28	1.40	2.06	2.71	1.42
Whale	Disapprove	93.1	92.8	79.1	40.7	38.5	87.7
	Neither approve/disapprove	4.8	4.4	10.7	25.9	21.3	4.9
	Approve	2.0	2.3	8.5	32.5	37.4	6.7
	Mean score	1.23	1.23	1.63	2.81	2.96	1.41
Wildfowl	Disapprove	48.8	44.7	78.1	42.2	32.2	38.2
	Neither approve/disapprove	26.3	24.0	10.1	25.1	30.8	22.7
	Approve	24.1	30.6	10.7	31.1	34.1	38.5
	Mean Score	2.53	2.68	1.70	2.75	3.00	2.99

Appendix Table VI: Public attitudes toward production and sale of selected animal meats.  
(Response scale as in Appendix Table III).

Question	Answer	Australia	England	Germany	Japan	Norway	U.S.A.
All large species of whales in danger of extinction	Correct	24%	20%	18%	38%	41%	31%
	Incorrect	70	68	69	50	41	65
	Don't know	5	12	13	11	19	4
Some whale species have become extinct in modern times	Correct	15	7	6	22	22	11
	Incorrect	80	81	81	65	55	84
	Don't know	5	12	13	12	22	5
Largest whales largely feed on moderately-sized fish	Correct	30	35	42	42	39	42
	Incorrect	57	37	39	40	36	48
	Don't know	13	28	18	18	24	9
Whales can be quickly killed using modern technology	Correct	50	50	64	60	72	66
	Incorrect	42	33	25	23	12	29
	Don't know	8	17	11	16	17	5
Some countries kill > 1,000 whales/year for scientific research	Correct	22	12	16	37	31	24
	Incorrect	69	70	71	40	34	67
	Don't know	9	18	13	22	35	9
All whales can navigate by echolocation	Correct	9	4	6	18	6	17
	Incorrect	82	82	75	56	71	77
	Don't know	10	14	18	25	23	6
Sperm whales only great whale using teeth for feeding	Correct	28	20	31	27	22	30
	Incorrect	45	20	21	39	22	53
	Don't know	27	60	48	34	56	17
Main reason for commercial whaling is to provide cheap industrial oils	Correct	50	22	32	30	49	40
	Incorrect	44	57	50	52	22	54
	Don't know	6	21	18	18	29	6
Nearly all whale meat today sold to expensive Japanese restaurants	Correct	30	14	20	41	36	49
	Incorrect	57	64	54	49	32	40
	Don't know	13	22	25	10	32	11
Blue whale protected for a quarter century	Correct	47	52	39	62	50	60
	Incorrect	31	14	24	20	17	26
	Don't know	22	34	37	18	32	14

Appendix Table VII: Response rate for knowledge questions about whales and whaling.

	Australia	England	Germany	Japan	Norway	U.S.A.
<b>Blue Whale (7,500-15,000*)</b>						
< 1,000	19%	13%	21%	9%	14%	21%
1,000 - 9,999	39	26	43	28	24	37
10,000 - 99,999	23	12	17	29	20	25
100,000 - 999,999	4	3	2	7	5	6
> 1 Million	1	1	<1	2	2	1
Don't know	15	45	17	25	36	10
<b>Fin Whale (105,000-122,000*)</b>						
< 1,000	16	8	13	8	7	24
1,000 - 9,999	31	10	21	19	10	30
10,000 - 99,999	20	10	12	22	14	22
100,000 - 999,999	5	3	2	10	7	4
> 1 Million	1	<1	<1	3	2	1
Don't know	27	69	51	37	61	19
<b>Gray Whale (ca. 19,000*)</b>						
< 1,000	13	5	15	10	6	14
1,000 - 9,999	37	18	29	18	18	36
10,000 - 99,999	26	15	15	19	18	30
100,000 - 999,999	4	5	4	9	6	8
> 1 Million	2	2	1	2	2	2
Don't know	19	55	35	43	50	11
<b>Humpback (ca. 10,000*)</b>						
< 1,000	16	11	18	9	7	18
1,000 - 9,999	43	22	20	16	13	37
10,000 - 99,999	22	12	12	23	14	28
100,000 - 999,999	4	4	2	12	7	6
> 1 Million	<1	1	<1	3	2	2
Don't know	14	50	47	37	58	10
<b>Minke Whale (ca. 800,000**)</b>						
< 1,000	24	13	10	10	6	32
1,000 - 9,999	30	10	19	14	9	29
10,000 - 99,999	16	9	14	19	19	14
100,000 - 999,999	3	4	6	12	13	4
> 1 Million	<1	1	<1	5	5	1
Don't know	25	64	50	39	48	21
<b>Right Whale (ca. 3,000*)</b>						
< 1,000	17	10	13	16	8	26
1,000 - 9,999	36	10	19	20	9	33
10,000 - 99,999	22	5	8	17	8	20
100,000 - 999,999	4	2	1	7	5	3
> 1 Million	<1	<1	<1	2	1	1
Don't know	21	72	58	39	70	18
<b>Sperm Whale (ca. 1,500,000*)</b>						
< 1,000	13	7	22	8	5	17
1,000 - 9,999	36	21	27	15	15	36
10,000 - 99,999	30	14	12	27	19	28
100,000 - 999,999	5	5	3	15	7	7
> 1 Million	2	2	<1	3	2	1
Don't know	14	51	40	33	52	11
<b>All Whale Species (&gt; 1 Million*)</b>						
< 1,000	<1	<1	1	2	1	1
1,000 - 9,999	7	4	9	6	3	6
10,000 - 99,999	32	15	36	18	8	31
100,000 - 999,999	36	22	26	28	30	36
> 1 Million	15	20	7	29	28	19
Don't know	10	40	22	16	38	8

Appendix Table VIII: Response rate to knowledge questions about whale population levels.  
(Rates may not total 100 due to rounding and a small number not answering).

\* Population data from W. Aron, *Coastal Management* 16: 99-110 (1988).

\*\* Not listed in Aron (1988); IWC-accepted estimate since 1990.