



AN ANALYSIS OF WHALEWATCHING CODES OF CONDUCT

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Abstract: Whalewatching has grown into a major tourist activity, yet there are many concerns about its negative impacts. This has stimulated the development of a large number of codes of conduct. This paper presents the results of a manifest content analysis of 58 such codes from around the world. The analysis revealed considerable variation among them, not least in terms of the detail of the various guidelines they contain. This variation is not considered to be propitious for the sustainable development of whalewatching, particularly given how little is currently known about the nature of human-cetacean interactions and the complex and highly fragmented regulatory context in which this activity tends to take place. **Keywords:** whales, dolphins, cetaceans, impacts, codes. © 2004 Elsevier Ltd. All rights reserved.

Résumé: Une analyse des codes de conduite pour aller regarder les baleines. Regarder les baleines est devenu une activité touristique importante, pourtant on est assez inquiet devant les impacts négatifs de cette activité. Cela a stimulé le développement d'un grand nombre de codes de conduite. Cet article présente les résultats d'une analyse du contenu manifeste de 58 de ces codes de partout dans le monde. L'analyse a révélé une variation considérable entre eux, en particulier sur le plan du degré de détail qui se trouve dans les différents conseils. Cette variation se considère comme peu propice au développement durable de l'activité de regarder les baleines, surtout quand on considère le manque de connaissances actuelles au sujet de la nature des interactions entre humains et cétacés et le contexte complexe et extrêmement fragmenté des régulations dans lequel cette activité a lieu. **Mots-clés:** baleines, dauphins, cétacés, impacts, codes. © 2004 Elsevier Ltd. All rights reserved.

INTRODUCTION

From small beginnings in California in the 50s, whalewatching has grown into a major tourist activity, and one that is evidently capable of delivering substantial socioeconomic benefits to the many communities around the world in which it takes place. It has also been advocated as a potent tool for the conservation of whales, particularly as a non-extractive alternative to whaling. Yet there are also widespread concerns that this recreational activity may have serious impacts on the

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animals being watched. Such concerns have led to a plethora of whale-watching regulations being developed in recent years, notably in the form of codes of conduct. This paper presents a manifest content analysis of 58 such codes, drawn from all around the world, the purpose being to identify similarities and differences in the behavioural guidelines being put forward by such codes. The implications for their use in promoting the sustainable development of global whalewatching are then considered.

The term "whalewatching" is used to denote a wide range of activities involving human interaction with various species of whales, dolphins, and porpoises, collectively known as cetaceans. Indeed, strictly speaking one should refer to the activity as "cetacean watching", but this term has never caught on. Consequently, a tour focusing explicitly on dolphins may be referred to as "whalewatching", and this can be confusing to the uninitiated. It is also relevant to note that the term encompasses both formal and informal whalewatching. This is important, since experts believe there to be a considerable amount of whalewatching around the world that is undertaken on a recreational, non-commercial basis. Such activities are capable of having substantial impacts on the animals being targeted, as well as on the local community. Indeed, in some cases these impacts may be more substantial than those associated with commercial tours. This paper uses the term "whalewatching" generically to cover all forms of cetacean observation.

The global socioeconomic benefits of whalewatching are believed to be substantial and rising. According to a report by Hoyt (2000), the total number of participants worldwide was around 2 million in 1990, while by 1999 this had grown to 9 million, signifying an average rate of growth of approximately 12% per annum through the 90s. Meanwhile the total expenditure associated with global whalewatching grew at an average rate of 18.6% per annum at current prices over that same period (Hoyt 2000). This compares to an average growth rate of international tourism receipts during the 90s of 7.3% per annum at current prices (WTO 2001) and a nominal rate of global economic growth of around 3.5 to 4% per annum over the final quarter of the twentieth century (Larsen 1999). Whalewatching took place in 87 countries in 2000: more than twice the number recorded in 1991 (Hoyt 2000). Three countries recorded over a million participants per year in 1999, namely the United States, Canada, and the Canary Islands (Spain), while two recorded more than half a million, those being Australia and South Africa. It should be noted that since Hoyt's report focuses exclusively on tours with at least some commercial basis, these figures may be considered underestimates of the true socioeconomic impact of whalewatching as a whole.

As well as having significant global impacts, whalewatching can also represent an important economic lifeline for coastal peripheral communities (Garrod and Wilson 2002). Indeed, Hoyt estimates that it is now undertaken in nearly 500 communities worldwide, in locations ranging as widely as Kaikoura in New Zealand, Princetown in the United States, Ogata in Japan, San Julian in Argentina, Monkey Mia in Australia, and Dingle in Ireland. The contribution made to the local

economies of these places can be considerable. In the case of Dingle in Ireland, for example, Berrow (2002) notes that just one dolphin (named “Fungi”) attracts between 150,000 and 200,000 tourists a year. Watching bottlenose dolphins (*Tursiops truncatus*) in the Shannon Estuary, meanwhile, is reported to be on the verge of becoming an industry worth more than a million dollars (Berrow 2003a:201).

Whalewatching also has an important contribution to make to world-wide cetacean conservation efforts. This contribution can take many forms, including the use of tour vessels as platforms for scientific research. Indeed, the Whale and Dolphin Conservation Society (WDCS 2003a) points out that although there have been many scientific studies of dead whales, surprisingly little is known about living ones. This is simply because research on live whales is so expensive. Tour operators around the world help subsidize a number of scientific activities that would otherwise be too costly for the scientific community to undertake. Hoyt (2000), for example, suggests that photo-identification is a component of whalewatching in more than half the countries in which it takes place. The activity is also capable of generating substantial funds for cetacean conservation activities, particularly when tourists are willing to pay a premium price in order to ensure that a contribution to cetacean conservation is made on their behalf (Berrow 2002). It is often further argued that whalewatching can serve as a medium for increasing awareness of cetacean conservation issues. This can in turn lead to behavior change on the part of participants, encouraging them to adopt more environmentally friendly behavior both in the tourism destination and when they have returned home (Forestell 1993; Orams 1997). Whalewatching can also arguably give local communities more incentive to care about cetaceans and their conservation. Indeed, given the open-access, multiple-use, and inter-related nature of the coastal and marine environments in which the activity tends to take place, gaining widespread community support can be crucial to the success of cetacean conservation (Gjerdalen and Williams 2000; Hoxtor 2003).

Another important, if sometimes neglected, contribution of whalewatching relates to its role in providing an alternative to extractive uses of whales such as whaling. According to Hoyt (2000), of the 40 member countries of the International Whaling Commission, 34 are now host to at least some amount of watching activity. This activity can also encourage better management of target species and the habitats that support them. The logic is that in order to continue to prosper, tour operators must ensure that their activities do not compromise the ability of their clients to receive enjoyable tourism experiences in the future. Testament to this paradigmatic change is that in 1993 the commission formally recognized whalewatching as a legitimate sector providing for the (more) sustainable use of cetaceans (Orams 2000). The WDCS (2003a) also points out that it can represent a viable alternative to another use of cetaceans that has often been questioned on ethical grounds: keeping and breeding whales and dolphins in captivity for public display.

Negative Impacts of Whalewatching

Whalewatching clearly also has a range of potentially very significant negative impacts, both on the animals that are the subject of attention and possibly on the whalewatchers themselves. Indeed, as the WDCCS argues:

... does whale watching do the whales any harm? The short answer is that it probably does—if the area is overcrowded or it's done in an irresponsible way. [Hence, the WDCCS wants] to encourage responsible whale watching which doesn't harass or injure the whales and which results in a minimum level of disturbance (2003a:1)

Perhaps the most commonly cited impact on cetaceans is disturbance due to the close approach of boats and aircraft (Orams 2000). If cetaceans feel threatened by the proximity of humans, their typical response is to move away, either by diving or by swimming to a different location. Many target species spend a considerable part of their lives in the open seas, where whalewatching is impractical due to the time it would take vessels to travel out to the animals and back within the context of a leisure-based day trip. However, when cetaceans do come close to land, it tends to be at critical points in their lifecycle, such as feeding, breeding, giving birth, and nursing calves. At these times, the animals involved are particularly vulnerable to disturbance. A prominent concern is that repeated disturbance may impact negatively on foraging and/or hunting patterns (Duffus 1996). There are also reported instances of vessels maneuvering between a mother and its calf in order to afford better views for whalewatchers. Carwardine, Hoyt, Fordyce and Gill (1998) point out that this can cause the calf to become separated and, unable to locate its food supply, eventually to die. The close approach of vessels and aircraft to cetaceans is also thought to have potential negative impacts in terms of engine noise (Orams 2000). This is thought to disturb cetaceans and cause them to leave the area in question, possibly away from rich feeding grounds, rubbing grounds or potential mates.

At the extreme, tour boats can approach their targets so closely that they cause them physical injury. For example, the WDCCS (2003b) reported that a "friendly" dolphin that had been spending time close to the shores of Dorset, United Kingdom, during the spring of 2002, had quickly picked up a serious propeller injury. The WDCCS (2003b:1) believed this was caused by "over-exuberance" on the part of people interacting with the dolphin from private craft. Such injuries can be life threatening for the individual animal concerned and may even put the survival of threatened species at risk.

Two particularly contentious activities associated with whalewatching are swimming with wild cetaceans and feeding them. Swimming with cetaceans as part of a commercial tour has seen a dramatic increase in recent years (Hoyt 2000). There is, however, a mounting body of evidence relating to the negative impacts of "swim-with" tours. For example, the WDCCS (2003c) refers to studies suggesting that dolphins are moving away from areas frequented by "swim-with" tour boats, presumably in search of quieter locations. This may have important

impacts in terms of the disruption of normal feeding, breeding, resting, nursing, and other activities. There are also issues relating to the safety of both the animals and the swimmers. Cetaceans are large and powerful creatures, capable of injuring or even, in at least one documented case, killing swimmers (Orams 2002). Indeed, the WDCS (2003c) suggests that swimming with dolphins is in fact a “high risk activity” and advises tourists intending to do so to take out additional travel insurance. Therefore, the WDCS currently recommends against “swim-with” tours and refuses to list them in its online database of tour operators (2003d).

The feeding of wild cetaceans has also attracted much criticism. This may involve tour operators deliberately using food as “bait” to attract cetaceans to their boats. In other cases tourists are permitted to feed the animals as part of their overall tour experience. A prominent example of the latter is the well-established commercial feeding by hand of semi-wild dolphins at Monkey Mia, Western Australia. Feeding cetaceans can be an exhilarating and highly valued experience for tourists. However it can also lead to alteration of the animals’ natural behavior patterns, dependency and habituation, aggression towards humans, and associated issues relating to health, disease and injury (Orams 2002).

Regulation of Whalewatching

Given the actual and potential impacts on cetaceans, governments around the world are increasingly recognizing that intervention in respect of whalewatching is desirable (Gjerdalen and Williams 2000). What is less clear, however, is what form such intervention should take. It might range from imposing “command and control” regulations, at one extreme, simply to exhorting tour operators and tourists themselves to adopt more responsible forms of behavior, at the other. In the middle ground lies a range of semi-formal, essentially voluntary measures. These include “guidelines” or “codes of conduct”.

With regard to the more formal, “command and control” approach, Gjerdalen and Williams (2000:28) argue that while this has been a popular response to the problems implicit to whalewatching and the difficult-to-control marine environment in which it tends to take place, this has in many cases resulted in a “complex array” of regulations being introduced. They go on to note by way of illustration that there are no fewer than 36 federal and 20 provincial and territorial acts in Canada relating to the protection and use of the marine environment. The problem is that no workable mechanism as yet exists for coordinating these regulations so that they can be meaningfully applied to whalewatching. In many countries, the complexity of marine legislation is such that there are considerable areas of overlap and substantial gaps in the regulatory framework into which whalewatching often falls: largely because it is a relatively new activity, and one that has grown at a pace regulators have typically failed to anticipate. According to Gjerdalen and Williams (2000), one such gray area relates to how “harassment” should be interpreted. While many regulations around

the world prohibit the chasing, shooting, or harassing of cetaceans generally, it is not clear how far irresponsible acts on the part of whale-watchers might fall within the remit of such regulations. Meanwhile in those cases where such regulations do exist relating specifically to whalewatching, the WDCS (2003e) point out they often are poorly or incompletely enforced. This is hardly surprising given the immensity of the policing task that is implied, with many operators interacting with many highly mobile targets across a potentially vast sea area (Wilson 2003).

All of this suggests a role for more informal intervention such as through the implementation of codes of conduct. These are essentially voluntary measures, enforced primarily by ethical obligation and peer pressure. They may be used to fill the regulatory void while more formal national regulations are being formulated and introduced (WDCS 2000f). The advantage of this is that voluntary codes tend to be relatively easy to introduce in a short space of time, helping to plug the regulatory gap. Formal regulations can then be constructed based on the experience gained, therefore being more likely to build on local knowledge and incorporate "common sense" rules of behavior. Alternatively, voluntary codes could be used to supplement more broadly applicable regulations designed to achieve minimum standards of operation across the board. This mixing of formal and informal regulation allows the relevant authorities to tailor whalewatching regulation to local conditions while maintaining a common set of basic provisions.

A good example of a voluntary code of conduct supplementing formal regulations is that introduced by Whale Watch Operators North West. This has been adopted by several dozen tour operators both from British Columbia, Canada, and Washington State, United States, who share a common population of orca (*Orcinus orca*). The code contains more stringent provisions than existing regulations in either country. It is also promoted outside of the boundaries of San Juan Islands National Wildlife and Wilderness Area, being applied wherever orca are encountered (Berrow 2003b).

On the other hand, codes of conduct clearly have their limitations. For example, while being good at regulating the commercial whalewatching industry, they may have more limited effect with regard to non-commercial activities. For example, New Zealand introduced whalewatching regulations as long ago as 1992, yet awareness of what is appropriate behavior among the many casual whalewatchers there still remains relatively low (Gjerdalen and Williams 2000).

ANALYZING WHALEWATCHING CODES OF CONDUCT

While the initial intent of the study was to collect as many whalewatching codes of conduct from the literature as possible, it became clear that one compilation (Carlson 2001) was particularly suitable. While not strictly a review of the codes (there being no analytical content to the report), the document did have the advantage of being recent, accessible, and reasonably representative of whalewatching codes and regulations currently in use around the world. Initially it

was thought that only codes relating to whales would be incorporated in this study. This, however, proved difficult to operationalize, in that many of the codes that have been amassed on the topic involved reference to other cetaceans. As such, it was difficult to separate the information regarding whales from these other species, at least without making certain inferences that might not be completely accurate. In total, 58 codes of conduct are listed in the Carlson document, all of which are included in this study ($n = 58$). The sampling units are the codes as a whole rather than the individual statements found within each. This differs from the approach adopted by Malloy and Fennell (1998), who analyzed 414 different guidelines within 40 separate codes of ethics for sustainable tourism. This decision was made because of the considerable variation between the codes in terms of length and content. For example, the one for whalewatching in Ogata, Japan, contains only four guidelines, while the Australian National Guidelines for Cetacean Observation contains several pages of documentation, with guidelines specific to various modes of observation (including boats, aircraft, and even surfboards).

The coding of documents for the present study took place in February 2003. First an independent survey of the Carlson document by both researchers was undertaken in an attempt to extract common themes for use as main categories for examination. Further refinement then took place, as well as the development of sub-categories within each theme to determine units of measurement. Twenty-two themes were identified through this process (Table 1).

The procedure used is typical of a manifest content analysis perspective (Weber 1990), involving an analysis of the visible surface material of a communication (Bos and Tarnai 1999). Coding errors can occur with this method due to the reliance on human judgement. In view of the size of the database it was decided to employ the use of another coder to repeat the exercise. The results of this process produced a 93% inter-coder reliability figure.

Table 1. Study Themes

Approach Data	Interaction Data	Management Orientation Data	General Information
Aircraft allowances	Swimming	Permit requirements	Region of code
Aircraft approach distance	Touching	Control of pollution	Code developed for
Boat allowances	Feeding	Restrictions on	Code developed by
Boat approach distance	Noise	viewing pods with	Date put in use
Number of boats at a time	Dwell time for specific species	calves	
	Dwell time/minutes	Specific basis of rule	
		Application of rule	
		Marine park protection	
		Ethical orientation	

Study Results

The results of the content analysis are organized into four sections.

General Information. As illustrated in Table 2, most of the codes were derived from the Americas, with 29.3% originating from North America and 24.1% coming from South America. European whalewatching codes represented 24.1% of the overall number, with a significant drop to only 8.4% coming from Asia, 6.9% from Africa, and 5.2% from Australia, New Zealand, and Micronesia. The most prominent stakeholder involved in their development was government, which developed almost half (46.6%) of all codes. This group was followed by non-government organizations (NGOs), which developed almost a quarter of the codes (22.4%), and lastly industry, which developed only 6.9% of the codes in the study. The last variable in Table 2, "Date Put in Use", refers to the publication dates associated with the codes. Of the 58 codes, seven (12.1%) were put in place between 1990 and 1994, followed by six (10.3%) activated between 1995 and 1999.

Approach Characteristics. The information provided in Table 3 includes data on aircraft and boats in relation to allowance (whether they can or cannot approach cetaceans) as well as minimum approach distances in metres. Data are also included on the number of boats at a time that may approach one or a group of animals. Table 3 shows that only 17 of the 58 codes allow aircraft to observe cetaceans. Of

Table 2. General Information

Variable	n = 58	%
Region of Code		
North America (including Mexico)	17	29.3
South and Central America (including Caribbean)	14	24.1
Europe	14	24.1
Asia	5	8.6
Africa	4	6.9
Australia, New Zealand, Micronesia	3	5.2
Antarctic and Arctic	–	–
Global	1	1.7
Code Developed By		
No data	13	22.4
Industry	4	6.9
NGO	13	22.4
Government	27	46.6
Other (e.g. individual)	1	1.7
Date Put in Use		
No data	37	36.2
2000 to present	4	6.9
1995 - 1999	6	10.3
1990 - 1994	7	12.1
1985 - 1989	2	3.4
1980 - 1984	1	1.7
More than one date	1	1.7

this number, 13 allow observation without stated conditions, while four provide guidelines. Three codes explicitly stated that aircraft were not allowed to observe cetaceans, with another 38 provided no information. Of those that did specifically refer to viewing by aircraft and permit it in some form, 12 specified a 300 and three a 450-metre minimum approach distance. These distances normally, although not invariably, related to altitude as well as radius around the animals on the surface of the water, so that aircraft could not fly low over the animals (“buzz” them). The mean minimum approach distance for aircraft was 307.2 metres (s.d. = 90.6).

Given the predominance of boats as the preferred method by which to observe cetaceans in the wild (Hoyt 2000), the subvariables on boat allowance differ from those relating to aircraft. Of the 58 codes, 19 stated restrictions concerning the number of boats permitted to be in

Table 3. Approach Characteristics

Approach Characteristics	n = 58	%
Aircraft: Allowance		
No data	38	65.5
No viewing by aircraft	3	5.2
Viewing allowed, with no stated conditions	13	22.4
Viewing allowed, with stated conditions	4	6.9
Aircraft: Approach Distance (metres)		
No data	41	70.7
100	1	1.7
150	1	1.7
300	12	20.7
450	3	5.1
Boats: Allowance		
No data	24	41.4
Restrictions by number of boats at same time	19	32.8
Restrictions by species	1	1.7
Restrictions by “other”	2	3.4
More than one of the above	12	20.7
Boats: Approach Distance (metres)		
No data	7	12.1
10–49	3	5.1
50–99	24	41.4
100	15	25.9
200	3	5.2
300	2	3.4
400–499	3	5.1
500	1	1.7
Number of Boats at a Time		
No data	27	46.6
No more than 1 boat at a time	15	25.9
No more than 2 boats at a time	9	15.5
No more than 3 boats at a time	6	10.3
No more than 6 boats at a time	1	1.7

the close vicinity of cetaceans at the same time. Meanwhile, one code cited restrictions by species alone, two according to some other basis, and 12 on the basis of some or all of the aforementioned subvariables, representing 20.7% of all the codes analyzed. The most common approach distance limit was in the range 50 to 99 metres (41.4% of all codes), followed by 100 metres (approximately 25%). It is worth noting, however, that three codes of conduct included minimum approach distances of between 400 and 499 metres, and one suggested a limit of 500 metres. The mean for the 51 codes where this was indicated was 122.5 metres (s.d. = 109.6). The final variable in Table 3, "Number of Boats at a Time", highlights the relatively tight controls over vessel traffic in cetacean space. Of the 31 codes providing this information, almost half (15) suggested no more than one boat at a time, nine specified two, six recommended three boats, and one suggested six boats.

Interaction with Cetaceans. As indicated earlier in this paper, one of the most contentious issues raised in the literature on whalewatching is the nature and degree of human interaction that is deemed acceptable. In particular, the discussion has surrounded the acceptability of swimming, touching, feeding, and noise. As Table 4 illustrates 13 codes of conduct specify that swimming is allowable or allowable under certain conditions. These conditions include not jumping into the water, which can disturb the cetaceans, or to swim into their path, which may cause them to divert from their desired course (and possibly away from critical feeding or mating grounds). Other codes recommend snorkelling as opposed to scuba diving, while some ban the latter in the vicinity of whales altogether. Twenty or 34.5% explicitly prohibited swimming with cetaceans, although almost half (44.8%) did not explicitly include this as a guideline. Perhaps the most marked of these data surround the prohibition of any type of feeding of these animals. While 75% of codes made no mention of this type of behavior, almost 25% prohibited this activity. Only one suggested that feeding might be acceptable under certain conditions, while none recommended touching, even with conditions.

Twenty-eight codes provided information on the length of time that people are allowed to dwell in the close vicinity of specific species. Table 4 illustrates that 22.4% made reference to a dwell time for whales, 6.9% for dolphins, and 15.5% for whales and dolphins (beyond the reference to these groups individually, as outlined above), while 3.4% provided dwell-time information on marine fauna in general. The most common maximum allowable amount for boats was 30 minutes, included in 31% of the codes of conduct. Factoring out the missing data, this represents 67% of dwell times identified in the Carlson document. Others included 10 (1.7%), 15 (8.6%), 20 (1.7%), and 60 minutes (1.7%). Of particular note is that the French guidelines outline a maximum of 7 hours (420 minutes) of time that a maximum of two boats can follow a group of bottlenose dolphins. The mean dwell time for the 27 codes of conduct providing information of this sort was 41.7 minutes (s.d. = 76.2).

Management Orientation. Table 5 shows that 69% of codes made no

Table 4. Interaction with Cetaceans

Interaction Characteristic	n = 58	%
Swimming		
No data	26	44.8
No swimming allowed	20	34.5
Swimming allowed	2	1.7
Swimming allowed, with conditions	11	19.0
Touching		
No data	44	75.9
No touching allowed	14	24.1
Touching allowed	–	–
Touching allowed, with conditions	–	–
Feeding		
No data	39	67.2
No feeding allowed	18	31.0
Feeding allowed	–	–
Feeding allowed, with conditions	1	1.7
Noise		
No data	45	77.6
No noise allowed	11	19.0
Noise allowed	–	–
Noise allowed, with conditions	2	3.4
Dwell Time for Specific Species		
No data	30	51.7
Whales only	13	22.4
Dolphins only	4	6.9
Whales and dolphins	9	15.5
Marine fauna in general	2	3.4
Dwell Time (minutes) No Distinction Between Species		
No data	31	53.4
10	1	1.7
15	5	8.6
20	1	1.7
30	18	31.0
60	1	1.7
420	1	1.7

mention of the requirement of a permit (issued, for example, by a marine park authority) to view cetaceans. Of those that did, 5.2% wrote that a permit was not required; 13.8% required one for all activities related to cetaceans; and 12.1% expected one for certain whalewatching activities. The control of pollution/rubbish was not mentioned in almost 80% of codes of conduct. Just over half (51.7%) of the cases included a restriction on viewing pods with calves. Nine (15.5%) indicated that viewing under these circumstances was not recommended, while 10.3% said that viewing pods with calves was allowed. Just over 25% allowed the same under certain conditions.

One of the emergent themes in the literature on tourism codes of conduct surrounds the voluntary and nonvoluntary basis of the rules

Table 5. Management Orientation

Management Characteristic	n = 58	%
Permit Required		
No data	40	69.0
No permit required	3	5.2
Permit required for all activities	8	13.8
Permit required for certain whale watching activities	7	12.1
Control of Pollution/Rubbish		
No data	46	79.3
Controls stated	12	20.7
Restrictions on Viewing Pods with Calves		
No data	28	48.3
Viewing not allowed	9	15.5
Viewing allowed	6	10.3
Viewing allowed, with conditions	15	25.9
Specific Basis of Rule		
Voluntary	36	62.0
Regulatory (statutory or nonvoluntary)	22	37.9
Application of Rule		
No specific species	4	6.9
Whales only	23	39.7
Dolphins and porpoises only	8	13.8
Cetaceans in general	14	24.1
Marine fauna in general	9	15.5
Marine Park Protection		
Cetacean protected through marine park guidelines	16	27.6
No protection through park guidelines	42	72.4
Ethical Orientation		
Completely deontological	47	81.1
Completely teleological	3	5.1
Mostly deontological, with some teleology	6	10.3
Mostly teleological, with some deontology	2	3.4

governing behavior. In this study, it was found that 62% were voluntary, whereas 37.9% were regulatory (nonvoluntary) in nature. Irrespective of this distinction, 39.7% dealt specifically with whales, 13.8% with dolphins and porpoises, and 24.1% with cetaceans in general. Meanwhile, 15.5% involved marine fauna generally and the remaining 6.9% of rules applied to no specific species. The research also sought to identify whether cetaceans were afforded any sort of protection through marine protected areas. The results found that just 16 (27.6%) indicated that cetaceans were protected through marine park guidelines, the remainder making no mention of such.

The final variable in Table 5, "Ethical Orientation", is considered for the purpose of examining the theoretical link to normative ethics built into the whalewatching code of conduct, and includes deontology and teleology. Deontology (or rule-based ethics) includes ethical perspectives which assess rightness or wrongness on the basis of actions and duties, rather than the consequences of these actions. As such,

this standpoint is means- rather than ends-based. Conversely, the teleological perspective advocates that good behavior is that which produces the best consequences for the greatest number of people. This position is thus more concerned with the ends, rather than the means. The following two examples, drawn from Carlson, illustrate deontological and teleological perspectives, respectively: Oman Code of Conduct: “Slow down to a “no wake” speed 300 metres from whales or dolphins”; and Turks and Caicos Code of Conduct: “Never allow a boat or person to come between a mother and a calf. Disruption of parental care may reduce a calf’s chance of survival and mothers may be aggressive” (2001:70,84). The first guideline simply provides a rule to follow, whereas the second sets a rule as well as a description of the consequences of not following it. These theoretical perspectives are operationalized in this study by categorizing the deontological and teleological basis of the codes in four different ways: those completely deontological; those completely teleological; those mostly deontological, with some teleological statements; and those mostly teleological, with some deontological statements. Table 5 shows that the deontological perspective was overwhelming in this study, as 81.1% of codes were completely deontological with a further 10.3% mostly deontological. Only 5.1% were completely teleological, while another 3.4% were mostly so.

Chi-square analysis was completed for the purpose of examining whether “Region of Code” and “Code Developed By” were associated with the category “Basis of Rule” (voluntary or nonvoluntary guidelines). Only three world regions were used in this analysis due to the response categories, comprising North America, South and Central America, and Europe for a three-by-two table. The results confirm a statistically significant association (Chi-square = 8.00; d.f. = 2; $p = 0.018$) between region and basis of rule. It was found that North America developed many more nonvoluntary than voluntary codes, whereas Europe developed significantly more voluntary than nonvoluntary ones. A Phi test (the coefficient that measures the strength of the relationship between the two variables) was conducted, yielding a coefficient of 0.422, indicating a moderately positive relationship between the two variables. The second test, which was on “Basis of Rule” (nonvoluntary or voluntary) and “Code Developed By” (the two categories used were NGOs and governments, due to the categories of response), also confirmed a statistically significant association (Chi-square = 6.69; d.f. = 1; $p = 0.01$). The results indicate, perhaps not surprisingly, that NGOs opted for the development of voluntary codes of conduct, whereas governments favored the development of nonvoluntary codes (Phi coefficient of -0.409).

Problems and Prospects for Whalewatching Codes

The clearest feature to emerge from the above analysis is the considerable variability among the provisions of the many codes that exist around the world. This is despite calls by NGOs such as the WDCCS and the International Whalewatching Commission for a more inter-

nationally recognized code of whalewatching conduct applicable across the wide spectrum of target species, modes of observation, geographical locations, and regulatory contexts.

There are several dimensions to this variability. First, there is evidently a strong geographical bias towards the Americas and Europe, with more than three quarters of all of the codes analyzed being implemented on one of these continents. Therefore, it would seem, that some parts of the world are better provided-for than others. Given the growth and global spread of whalewatching during the 90s identified by Hoyt (2000), this would not be seen as a positive sign by those either concerned with the conservation of cetaceans or interested in the future development of the industry.

Further, Chi-square analysis identified a significant relationship between the region in which the code is implemented and the basis of the rules it contains, there being a tendency for North American codes to be nonvoluntary and European codes to be voluntary. While there may indeed be some relative advantages of voluntary regulation in terms of the flexibility of response, efficiency of implementation and ability to harness peer pressure in order to improve compliance, there are clearly also some inherent disadvantages. These include less certainty over the effectiveness of the provisions, as well as the difficulty of establishing a critical mass of operators adopting the code and able to exert meaningful peer pressure on the others (Garrod, Wilson and Bruce 2001). Clearly, if peer pressure is to be the driving force behind the adoption of whalewatching codes of conduct, as well as the means by which compliance is encouraged, those involved must both understand the rules and "believe" in them.

This raises difficult issues relating to the ethical orientation of many whalewatching codes of conduct, which the content analysis suggested to be overwhelmingly deontological. The extent to which this particular style facilitates the development of "ownership" on the part of those involved must surely be questioned. Indeed, Gjerdalen and Williams (2000) suggest that codes that do not appear to make sense to the potential user, or expect them to adopt forms of behavior that appear ill founded or irrelevant, are unlikely to be effective. Blangy and Epler Wood (1993) suggest that for voluntary guidelines to be effective they should be self-explanatory, positive and avoid prohibitive language. This would suggest more of a teleological orientation than is evident in most of the codes included in this study.

Voluntary codes are more likely to be "owned" by their intended users if those groups have been allowed to participate in determining which provisions should be included, and how they are formulated and communicated (Garrod, Wilson and Bruce 2001; UNEP 1995). Yet, a notable finding of the content analysis was that 44.6% of all codes were developed by government agencies of some kind, while 22.6% were developed by NGOs. Only 6.9% had been developed by the industry itself. The ultimate effectiveness of whalewatching codes of conduct may depend on the extent to which they have been developed in collaboration with local stakeholders. Unfortunately, governments do not have an impressive track record of encouraging full stakeholder partici-

pation in policymaking of this kind (Brandon 1993; Mowforth and Munt 2003).

The inherent dangers of not achieving sufficient “ownership” are illustrated by the example of the Dolphin Space Program’s code of conduct (Hughes 2001). This was developed and championed by Scottish Natural Heritage (a government agency) in the mid-90s. While the code met with initial enthusiasm by whalewatching tour operators, it was ultimately considered by them to be too heavily biased towards “science-led” provisions and the interests of conservation rather than the whalewatching industry. The scheme effectively collapsed within three years of being introduced and it is reported that an industry-led code is now being promoted in its place (Hughes 2001).

A second dimension to the variability of whalewatching codes of conduct relates to the provisions they contain. The content analysis suggests that while these codes tend to comprise the same sorts of recommendation—minimum approach distances perhaps being the most popular (as confirmed by Orams 2000)—there is clearly no widespread agreement as to the precise content of these propositions. Similarly, while many such codes make recommendations pertaining to swimming with cetaceans, their actual content can vary from at one extreme a general exhortation to take care when swimming with cetaceans, to outright prohibition at the other. The same might be said of touching cetaceans, feeding them in the wild, and making excessive noise in their proximity.

Many codes do not even make reference to these highly controversial issues. Given how little is currently known in scientific terms about cetaceans (Berrow 2003b), let alone about the nature of the human-cetacean interactions involved in whalewatching (Orams 2000), it might be argued that guidelines relating to such sensitive issues should be developed according to the precautionary principle. There is, however, a major problem in knowing what constitutes sufficient precaution. How close an approach does the precautionary perspective permit and what kinds of “swim-with” operation, if any, are consistent with this? Should feeding wild cetaceans be permitted at all? If so, what, if any, conditions should be specified? In the absence of scientific evidence that whalewatching is in fact benign in terms of its impacts on the cetaceans it engages with, it is hard to apply the precautionary principle. This, in turn, makes it difficult to argue that watching is in fact a “sustainable” activity. Indeed, there are some who suggest that in the absence of compelling scientific evidence, the precautionary principle should be strictly employed and whalewatching of all kinds should be prohibited, at least until the necessary data is available (Fennell and Ebert *in press*; Vanderzwaag 1999).

The importance of all of these difficulties comes into sharp focus when it is realized that cetacean species are often highly mobile, typically traveling vast distances in their annual migration patterns. In doing so, individuals may pass through a number of different sea areas, some of which may have strenuous whalewatching regulations; others partially formed or poorly enforced regulations; and others no meaningful regulations at all. Hence the regulation of whalewatching suffers

from a shortcoming similar to that faced by commercial sea fisheries policies (Wise 1984): cetaceans, like fish, are no respecters of international boundaries. The major implication is that regulations are dependent for their effectiveness on the robustness of any policies that might be imposed by neighbouring areas. Irresponsible behavior in on the part of one area's whalewatchers may spell disaster for the activity in neighbouring waters. For example, if the former cause the cetaceans to change their migration patterns, the animals may completely bypass the next area, rendering whalewatching infeasible.

CONCLUSION

This paper has investigated the content of a sample of whalewatching codes of conduct from around the world. The results do not appear especially encouraging, either from the perspective of the further development of the sector (and those holding a stake in its growing socioeconomic benefits) or from the viewpoint of cetacean conservation. Indeed, this activity is growing very fast—several times faster than tourism more generally—and is doing so in such a patchy regulatory environment that there must be concerns over its sustainability.

One possible solution to the policy challenges described in this paper might be for an international whalewatching regulation to be developed. However, as the WDCS (2003f) point out, no contender for this position presently exists, nor is one likely to emerge in the near future. For the present, the best that can be hoped for is an internationally recognized voluntary code of conduct to emerge from among many that exist around the world today. The considerable variation evident among these codes does not, however, serve to facilitate such a process. While there have been some success stories in developing joint codes of conduct—the Whale Watch Operators North West code being a good example—such cases are unfortunately very rare. Indeed, it might be argued that there is so little common ground among the many codes that any hope of international harmonization could be viewed as being wildly optimistic. This is not to mention the problem of identifying an organization with the scope and influence required to oversee the application of such a code. Again, none would appear to exist at present.

Perhaps of even greater concern is that whalewatching clearly has a wide range of potentially very serious impacts on the cetaceans that are being targeted. Yet so very much is still unknown either about the basic biology of many cetacean species or about the nature of the relationship between humans and cetaceans implied in the whalewatching experience. The latter has been highlighted by Orams (2000), who argues that although getting close to whales as an intrinsic (and indeed focal) part of the whalewatching experience is aggressively promoted, close-up encounters are not in fact especially highly valued by tourists. Relatively little is known about the nature of whalewatching, so application of the precautionary principle might suggest that the activity should be developed in a modest fashion and that only the most careful forms of it should be permitted. Yet, as Hoyt's (2000)

report suggests, this is quite far from what is happening in practice at present.

However, there are some positives to take away from this analysis. Whalewatching is clearly an attractive tourist product and one that is capable of generating considerable socioeconomic benefits, particularly in locations where alternative means and sources are few and far between (Garrod and Wilson 2002). The activity is also clearly capable of generating funds for cetacean conservation and, perhaps more importantly, providing an economic rationale for such. As Ceballos Lascurain has commented, because of whalewatching, nowadays “a live whale is worth more than a dead whale” (quoted in Mader 2003:vii). The voluntary approach is increasingly being accepted as the best regulatory way forward. Therefore, what needs to be done is to find ways to maximize the benefits of the voluntary approach while avoiding its many pitfalls. Perhaps the best means of achieving this would be wider sharing of knowledge and experience. Tour operators, local communities, NGOs, and cetacean scientists all have critical roles to play in this process. By sharing what actually works and what does not, those responsible for whalewatching codes of conduct may be able to move progressively towards an internationally recognized code, based on sound scientific advice, implemented locally and completely owned by its various stakeholders. **A**

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