

Viewing and Interacting with Wild Marine Mammals



Viewing and Interacting with Wild Marine Mammals

A Pre-Conference Workshop held before the
19th Biennial Conference on the Biology of Marine Mammals
Tampa, Florida, United States

Sunday, November 27, 2011

8:00 am – 5:00 pm

Room 15
Tampa Convention Center

Organized by:

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Cover photo credits – *Viewing killer whales*, Dawn Noren, NOAA Fisheries Northwest Fisheries Science Center; *Bottlenose dolphin*, NOAA Fisheries Southwest Fisheries Science Center; *Viewing Humpback whale*, Lynne Barre, NOAA Fisheries; *Harbor seals*, NOAA Fisheries; *Kayaker and killer whales*, Jeff Hogan, Killer Whale Tales.

INTRODUCTION

Opportunities to view and interact with marine mammals in the wild seem to be increasing world-wide via commercial watch cruises, recreational boating, diving and swimming activities, and visiting sensitive habitat areas. Some marine mammal biologists, government wildlife officials and wildlife interest groups have become increasingly concerned that individual marine mammals and entire populations are at increased risk of death, injury, displacement, or disturbance from diverse viewing activities encouraging interactions with the animals and/or activities conducted in contradiction to established wildlife viewing guidelines and regulations. This workshop will bring together marine mammal scientists and behavioral experts, government wildlife managers, and wildlife interest groups to discuss and identify activities that may impact marine mammal individuals and populations, and discuss and identify management solutions for minimizing potential impacts, including the known and potential advantages and disadvantages of each.

We recognize that the scope of the workshop is rather ambitious. It has been a challenge to incorporate a variety of species, issues of concern, and management options into a single day, and we have tried to balance spoken presentations to address different geographic areas. This workshop builds on previous conference workshops held at the 14th and 15th Biennial Conferences. In 2001, the National Oceanic and Atmospheric Administration's Fisheries Service (NOAA Fisheries) convened a workshop beginning conversations on viewing with a wide range of participants introducing guidelines and regulations for minimizing disturbance. In 2003, the discussion continued with updates on new research and emerging issues. This workshop takes the next step including information on population level impacts and an afternoon discussion session to provide the opportunity for all participants to share ideas, successes and concerns, and take steps towards recognizing the most effective management strategies.

This workshop report includes summaries of the spoken presentations and summaries of additional research, education and outreach, and/or conservation programs currently in progress^{*}. The report is intended to provide a snapshot of projects and programs from around the globe. The report is by no means comprehensive and only includes summaries that were submitted to us by interested parties in response to our workshop announcement. There are undoubtedly many more individuals and organizations working to monitor viewing activities and improve conditions for animals worldwide.

Further, this workshop report includes a compilation of guidelines and regulations for viewing or interacting with marine wildlife in the United States. For a thorough list of guidelines and regulations from other areas of the globe, we refer the readers to the International Whaling Commission's review of whale watch guidelines and regulations from around the world (http://www.iwcoffice.org/_documents/sci_com/WWREGS%202010%2020%20JULY.pdf).

Thank you for your interest in the workshop. We thank the Society for Marine Mammalogy for graciously assisting with the workshop logistics.

^{*} Please note that the summaries were edited for formatting purposes only (e.g., spacing, font type, font size, etc.). The content of the summaries was not altered or edited and appears exactly as submitted by the author(s).

TABLE OF CONTENTS

Agenda	5
Summaries from Spoken Presentations	8
Additional Summaries	28
Guidelines and Regulations for Viewing and Interacting with Marine Mammals in the United States	34

Viewing and Interacting with Marine Mammals in the Wild
Workshop at the 19th Biennial Conference on the Biology of Marine Mammals
November 27, 2011

8:00- 8:30 **Gather over coffee and bagels**

8:30 Welcome (**Melissa Andersen**, NOAA Fisheries, United States)

Session 1: Research on impacts of viewing and interacting with marine mammals in the wild

Research methods and techniques

8:45 Research approaches for studying the impacts of vessels on killer whales in British Columbia and Washington state (**Rob Williams**, University of St. Andrews, United Kingdom)

9:05 Methods for identifying important habitat: animal behavior and marine protected areas (**Erin Ashe**, University of St. Andrews, United Kingdom)

Species-specific studies: Physiological impacts

9:20 The effect of boat traffic on harbor seals (*Phoca vitulina*) in Alaska; combining physiological and behavioral observations (**Shawna A. Karpovich**, Alaska Department of Fish and Game, United States)

9:35 Estimation of southern resident killer whale exposure to exhaust emissions from whale-watching vessels and potential adverse health effects and toxicity thresholds (**Cara L. Lachmuth**, Straitwatch, Canada)

Species-specific studies: Behavioral impacts

9:50 Disturbance of harbor seals by cruise ships: the challenges of protecting against long-term impacts when only short-term effects are readily measurable (**John Jansen**, NOAA Fisheries, United States)

10:05 Inferring surface time of minke whales from inter-surfacing interval data using a hidden Markov model (**Fredrik Christiansen**, University of Aberdeen, United Kingdom)

10:20 – 10:35 Break

Bridging the gap between Science and Management

10:35 New approaches to inform the management of sub-lethal impacts on marine mammal populations (**David Lusseau** [via pre-recorded presentation], University of Aberdeen, United Kingdom)

Session 2: Management of activities for viewing and interacting with marine mammals in the wild

Voluntary guidelines and recognition programs

- 10:50** Voluntary recognition programs in the United States (NOAA Fisheries, United States)
- Dolphin SMART: Promoting responsible viewing of wild dolphins through recognition, incentives, and evaluation (**Jessica Powell, Stacey Horstman**)
 - Whale SENSE: Promoting responsible whale watching in the Northeast United States (**Allison Rosner**)
- 11:10** A Pool of Debate: Children’s Pool, La Jolla, California (**Monica DeAngelis**, NOAA Fisheries, United States)
- 11:25** Planet Whale – highlighting the commercial advantages of a sustainable approach to viewing and interacting with cetaceans (**Ian Rowlands**, Planet Whale, United Kingdom)
- 11:40** Viewing guidelines for Pacific walrus (**James MacCracken**, Fish and Wildlife Service, United States)
- 11:55** Dolphin Tourism in Zanzibar, Research and Mitigation measures (**Kristin Öhman**, Newcastle University, United Kingdom)

12:10 – 1:15 Lunch & Collection of potential plenary discussion questions

Marine Protected Areas

- 1:15** The Hawaiian Islands Humpback Whale National Marine Sanctuary: Protecting Hawaii’s humpback whales and their environment (**Ed Lyman**, Hawaii Humpback Whale National Marine Sanctuary, United States)

Regulations and Permits

- 1:30** Long-term monitoring and U.S. vessel regulations to protect killer whales in Washington State (**Kari Koski**, Soundwatch, United States; **Lynne Barre**, NOAA Fisheries, United States)
- 1:45** Polar Bear Viewing at Barter Island, Alaska (**Jennifer Reed**, Arctic National Wildlife Refuge, United States)
- 2:00** Marine mammal watching guidelines and regulation in Great Britain (**E.C.M. Parsons**, George Mason University, United States)

2:15 – 2:30 Break & Collection of potential plenary discussion questions

Session 3: End of Day Plenary

2:30 Kick off plenary discussions (**Melissa Andersen and Lynne Barre**, NOAA Fisheries United States)

2:45 Objectives/Questions to discuss:

- 1) To bridge science and management, what is the threshold that managers need to be looking for as signs of negative impacts to populations or individuals as a result of viewing activities?
- 2) Based on the presentations provided at the workshop and your experiences in your field or region, what do you think are the most effective strategies (e.g., voluntary guidelines, voluntary certification programs, regulations, education and outreach)? Why have these strategies been most effective? Where and how can we improve?
- 3) Selected questions provided by participants throughout the day.

4:45 – 5:00 **Workshop Wrap-up**

Summaries from Spoken Presentations
(In Order of Workshop Agenda)

Research approaches for studying the impacts of vessels on killer whales in British Columbia and Washington state

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Since 1995, my colleagues and I have conducted a series of studies, using control-exposure experiments and opportunistic observational approaches, to measure effects of boat traffic on the behaviour, activity budgets and energetics of northern and southern resident killer whales in the northeast Pacific. Our studies have taken place in Canadian and US waters, and take advantage of community-led, voluntary no-entry zones (Robson Bight and, less successfully, Lime Kiln State Park) to give us opportunities to measure whale behaviour in the absence of boats. We used two complementary approaches: fine-scale focal follows of individual whales engaged initially in one activity state; and coarse-scale scan-sampling of all whales in all activity states. The shore-based, focal-individual studies have allowed us to conduct experiments on northern residents to measure five behavioural variables in the absence of boats, then experimentally introduce a single 5.2m boat either following or violating whalewatching guidelines. When the experimental boat followed the guidelines (paralleling the whale at 100m, matching the whale's swimming speed), whales tended to adopt subtle evasive tactics by making slight adjustments to the smoothness or straightness of their swimming paths. When the boat violated the guidelines (leapfrogging, or behaving erratically), these evasive tactics became significantly stronger. These stereotypical evasive tactics were evident when 1, 2 or 3 boats approached simultaneously to within 1000m of the focal whale, but disappeared when 4 to 17 boats approached the whale. Opportunistic observations on both northern and southern residents were consistent with results from our experiments on northern residents, but required large sample sizes and sophisticated analytical techniques to show generally that as boats approached closer, the effect sizes became stronger. Our scan-sample studies set up natural experiments to model the probability that whales will or will not change activity states as boats do or do not approach. Using time-discrete Markov Chain models, boat presence was linked to significant changes in the probability that focal whales would switch from one activity state to another, which led to significantly different activity budgets in the presence and absence of boats. We found that whales tended to increase their time spent travelling and reduce time spent feeding as they spent increasing amounts of time with boats. This potential energetic impact creates an important link in the chain of evidence that repeated disturbance may cause population-level consequences for food-limited resident killer whale populations. We have recently published estimates of the energetic requirements of killer whales, and our newest work shows that the whales' responsiveness to disturbance is strongly influenced by prey availability. Integrating these two themes – energetics and disturbance – will be the key to modelling population-level consequences of boat traffic to resident killer whales.

Methods for identifying important habitat: animal behavior and marine protected areas

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Marine protected areas offer a valuable research tool to understand the impacts of human activities on marine mammals, and a powerful management tool for mitigating impacts. As a result, there are many international calls for identifying marine mammal habitats and hotspots, which are creating a sense of urgency to create marine mammal protected areas quickly. But MPAs can impose socio-economic costs, so it is essential to place the boundaries so that they achieve the greatest conservation impact for the least cost. Placing boundaries around the distribution of highly mobile species can be difficult, but the process relies on a marriage between good information on abundance, distribution and behavior and robust statistical methods for prioritizing habitats to protect. This process lends itself to a systematic conservation planning process, which involves management decisions that include the setting of explicit, quantitative conservation objectives, which clearly define the MPA's purpose (e.g. protection from threats, marine mammals as ecological indicators). A number of statistical tools are available to map distribution and density of marine mammals. Most of these analytical tools have emerged from studies to estimate abundance or habitat preference, so the response variables tend to be count data or probability of presence, and these tools are suitable for design and selection of many marine mammal protected areas. As the quantity and quality of available data increases, so too can the sophistication of the questions being asked, such that the area to be protected becomes increasingly narrow in focus. In southern resident killer whales, boat-based disturbance is anthropogenic stressor that could be mitigated through a protected-areas strategy. Previous studies have shown that resident killer whales are more vulnerable to disturbance when feeding than in other activity states. Spatial models were constructed in which the response variable was the whales' behavior or activity state. Although it is rare for animal behavior to be incorporated into marine spatial planning exercises, marine mammal behavior may be considered a conservation objective that is important to the protection of threatened and imperiled species. The talk will be illustrated using southern resident killer whales as a case study to explore the methods available to identify important habitats (either presence/absence; or preferred feeding habitats), and how this habitat-use information can inform the selection of a candidate MPA. New spatial modeling methods useful for mapping and modeling behavior will also be discussed.

The effect of boat traffic on harbor seals (*Phoca vitulina*) in Alaska; combining physiological and behavioral observations

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Energy balance is a key component of survival. Field measurements of heart rate (HR) can be used to predict relatively fine-scale activity-specific energy expenditure in free-ranging animals. **The first objective** of this study is to characterize harbor seal HR over a range of normal activities. To acquire paired measurements of activity and HR, 39 harbor seals were fitted with a time depth recorder (TDR) and a HR monitor during 2008-2010 in Endicott Arm, AK. Presented here are preliminary data collected from a single subadult female harbor seal from 2 May to 16 June, 2009. During this period 226 haulouts, 8,974 individual dives, and 217 dive bouts were characterized. Haulouts, defined as periods with TDR conductivity readings ≥ 248 , lasted $x=54 \pm 7$ mins. Average HR during haulouts was $x=88 \pm 7$ bpm. Resting HR, defined as the minimum 5 min average HR during haulouts lasting ≥ 5 mins, was $x=80 \pm 2$ bpm. During dives, HR is suppressed and the relationship between measurable energy expenditure and HR becomes disconnected. Consequently, diving HR was grouped into dive bouts, which included measurements during sequential dives < 60 mins apart, the inter-dive surface periods, and a corresponding 60 min post dive-bout recovery period. Average HR per dive bout was $x=67 \pm 1$ bpm, and did not vary significantly based on average bout dive depth, bout duration, dives/hr, or dives/bout. HR during non-haulout surface periods will also be examined.

Most studies examining anthropomorphic disturbance of phocids measure behaviors, and define disturbance as entry into the water. However, using behavior alone may not be a reliable indicator of the timing, magnitude or associated physiological cost of disturbances.

The second objective is to examine changes in HR and activity, describe the behavior associated with the first discernable physiological response, and estimate the associated increase in energetic costs when seals are confronted with vessels. During 2008-2010, remote VHF receivers and cameras were installed on shore. The VHF receivers recorded seal presence and the cameras recorded boat traffic. During 2008, we collected vessel presence data from 20 May to 26 June. Boat traffic was classified as low (0-4 boats/day) or high (5-7 boats/day). Average daily HR of individual seals was elevated, but not significantly different, on days with high boat traffic compared to days with low boat traffic. Also, instrumented animals were approached by boats with observers onboard (2008 $n=21$; 3 yr total $n=79$) to record the timing of behaviors such as head lifting, repositioning, and entering the water. While being approached, seals exhibited an elevated HR upon head lifting, up to 3.5 minutes before entering the water.

Preliminary conclusions: 1) vessel traffic may represent an additional energetic cost for harbor seals in Endicott Arm and 2) a physiological response occurs several minutes before entering the water, therefore, what researchers use to define a disturbance should be adjusted.

Estimation of southern resident killer whale exposure to exhaust emissions from whale-watching vessels and potential adverse health effects and toxicity thresholds

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Southern resident killer whales in British Columbia and Washington are exposed to heavy vessel traffic. This study investigates their exposure to exhaust gases from whale-watching vessels by using a simple dispersion model incorporating data on whale and vessel behavior, atmospheric conditions, and output of airborne pollutants from the whale-watching fleet based on emissions data from regulatory agencies. Our findings suggest that current whale-watching guidelines are usually effective in limiting pollutant exposure to levels at or just below those at which measurable adverse health effects would be expected in killer whales. However, safe pollutant levels are exceeded under worst-case conditions and certain average-case conditions. To reduce killer whale exposure to exhaust we recommend: vessels position on the downwind side of whales, a maximum of 20 whale-watching vessels should be within 800 m at any given time, viewing periods should be limited, and current whale-watch guidelines and laws should be enforced.

Disturbance of harbor seals by cruise ships: the challenges of protecting against long-term impacts when only short-term effects are readily measurable.

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Unequivocal evidence is rare for significant biological impacts from vessel disturbance of marine animals. Behaviors altered on short time scales may be readily discernible; declines in population vital rates are often not. Using observers aboard cruise ships and aerial surveys, we documented routine disturbance of harbor seals in Disenchantment Bay, an Alaskan tidewater-glacier fjord. Despite being remote and largely pristine, the fjord has been frequented by cruise ships for at least 2 decades with visits during the sensitive periods of seal pupping and molting rising ten-fold. Our studies showed that seals resting on ice increasingly fled into the water when ships approached closer than 500 m. Spatial distribution of seals was also altered by ships. Physiological models indicate that seal pups are close to an energetic threshold whereby greater time submerged in the ice-chilled water could reduce survival. We estimate up to 16% of seals (11% of pups) in Disenchantment Bay may flush off the ice in response to a single passing cruise ship; up to 5 ships may visit on a given day. Despite disturbance occurring regularly, as observed in the short-term responses of seals, we do not have a practical measure for potential long-term impacts. Although the U.S. Marine Mammal Protection Act prohibits the “taking” (defined to include disturbance) of marine mammals, managers can better protect species and establish effective limits on human activity if studies are better able to demonstrate long-term impacts, such as declines in abundance, survival, reproduction, and condition. We discuss the challenges of designing studies on the long-term effects of disturbance. We hope the workshop discussion will shed light on the paradox facing managers of adequately protecting wildlife before long-term impacts have become demonstrable, and thus before the resource has become significantly degraded.

Inferring surface time of Minke whales from inter-surfacing interval data using a hidden Markov model

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Surfacing rate data of Minke whales is an important factor used in the abundance estimates of Minke whale (*Balaenoptera acutorostrata*) stocks, both in aerial and vessel based surveys. Today, most abundance estimates of Minke whales rely on VHF-transmitters data rather than visual data. Visual data collected from land has the advantage of being relatively cheap to collect, which allows data to be collected from a larger number of individuals while causing no effect on the surfacing rates of the animals being studied, hence limiting biases. In this study, individual follows of Minke whales were conducted from a land-based station in Faxaflói bay, Iceland, and data on inter-breath intervals (IBI) were collected. Two distinct dive types were present within the surfacing data, which we defined as regular dives and deep dives. Those emerged from two different biological processes: whales spending time at the surface and whales engaging in foraging activities. A hidden Markov model was used to identify and define the density distribution of IBI as the observation state of these two hidden diving processes. Regular dives had a mean surfacing interval of 43 seconds (SD=44.8) and deep dives had a mean surfacing interval of 155 seconds (SD=115.1). The transition probabilities between the two dive types were estimated, from which the relative proportion spent in each dive type could be inferred. Minke whales perform regular dives during 62% and deep dives during 38% of their time. The relative proportions spent in each dive type can be used as estimates of how much time a whale will be typically at the surface available to be detected during cue counting surveys and to estimate the odds that a whale is in a long dive and therefore unlikely to be detected.

Data was also collected from commercial whalewatching boats in the same bay, and were analysed together with the land based data to measure the effect of whalewatching boat interaction on Minke whale surface intervals. The proportion of time spent in deep dives decreased from 38% to 14% during interactions with whalewatching boats, while regular dives increased from 62% to 86%.

The inter-surfacing interval used in abundance estimates of Minke whales in the North Atlantic today is derived from VHF-transmitter data and is about 77 seconds. Our mean values of surface intervals lies below and above this mean, which raises the question if a single mean value of surfacing interval can be used to make reliable abundance estimates of Minke whales, as both the dive type and the presence of vessels is likely to affect this value.

New approaches to inform the management of sub-lethal impacts on marine mammal populations

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We now know that in some instances repeated exposure to boat interactions can affect the viability of targeted marine mammal populations. Individual dolphins and whales perceive boat interactions as a risk and therefore modify their behavioural ecology to account for the presence of this hazard in their ecological landscape. These constraints can threaten their homeostasis and therefore alter vital rates. Under such constrained conditions, long-lived species tend to prioritise survival over reproduction. Therefore, as observed, individuals over-exposed to these risks will alter their reproductive outputs and the observed effects on this vital rate are large enough to threaten population viability.

These behaviourally-mediated sub-lethal impacts have to be managed in order to maintain cetacean population conservation status. The propensity for population-level consequences of whalewatching exposure depends on the ecological conditions to which targeted populations are exposed. If the ecological landscape offers opportunities to compensate for these disturbances then individuals should be able to behaviourally deal with this risk. However, if individuals face additional constraints in their ecological landscape, then they might have to alter vital rates to accommodate for this risk.

The Large-scale Whalewatching Experiment (LaWE) project, organised under the auspice of the International Whaling Commission, aims to define both these ecological conditions and behavioural/physiological mechanisms to identify sustainable exposure thresholds and hence inform whalewatching management. A full understanding of the mechanistic links between behavioural disruptions and population growth rate will enable us to manage these sub-lethal impacts as takes. In other words, we aim to relate exposure rate to likely removals from the population measured as predicted decrease in population growth rate. The estimated population-level effects would be defined using mechanistic simulations, that incorporates and propagates uncertainties, and account for the behavioural mediation of the effects.

This approach is attractive as it reduces the challenge of assessing the loosely-defined “biological significance” of risk exposure to estimating the level of takes corresponding to the observed sub-lethal impacts. In addition, we can then manage both lethal and sub-lethal ‘takes’ on the same scale, offering an avenue to manage additive and cumulative impacts on cetacean populations. Finally, we can estimate uncertainties surrounding estimated impacts using the proposed simulation approach. Identifying uncertainties provides a more robust avenue to make management decisions.

A wide number of management options are available once threats to population status are identified; ranging from time/area closure to quota allocation (e.g., through licensing). Crucially, this process will determine which populations, because of their life history strategies and their ecological landscape, are more likely to be sensitive to whalewatching. Hence, this project also offers an avenue to guide whalewatching development, helping the industry to focus on populations that are more resilient to the risk whalewatching activities pose.

Dolphin SMART: Promoting Responsible Viewing of Wild Dolphins through Recognition, Incentives, and Evaluation

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Potential harassment and adverse biological impacts to dolphins by commercial dolphin viewing activities is a concern worldwide, and especially in the United States (U.S.) where feeding and harassment of wild marine mammals is illegal under the Marine Mammal Protection Act. Management becomes crucial in the southeastern U.S. where viewing activities are popular with tourists, concentrated in small geographic areas, and target discrete, resident populations of *Tursiops truncatus*. To promote conservation of wild dolphins, the NOAA Fisheries Service, Office of National Marine Sanctuaries, Whale and Dolphin Conservation Society, Dolphin Ecology Project and commercial tour operators collaboratively developed and launched Dolphin SMART (DS) in 2007. DS is a voluntary education and recognition program promoting responsible viewing and stewardship of wild dolphins, while recognizing dolphin-viewing businesses who voluntarily participate. This is accomplished through a unique, multi-faceted program designed to reduce dolphin harassment that may result from commercial viewing activities, as well as reduce public expectations of closely interacting with wild dolphins in a manner that may cause harassment. Through workshops and interactive web-based training, DS educates operators on how to responsibly view wild dolphins and modify advertisements that may raise inappropriate expectations to engage in close interactions with dolphins, as well as educating their guests on how to responsibly view dolphins. By becoming DS and maintaining participation, businesses have a competitive edge by offering customers an enhanced tour, while demonstrating their commitment to dolphin conservation. Another important element of the program is *Proud Supporters* of DS that support the program's mission by raising public awareness for the program, while promoting responsible viewing and advertising of wild dolphins. Increased awareness of the program serves to further educate the public about the importance of booking Dolphin SMART and responsibly viewing wild dolphins to aid in conservation.

Field research and evaluations also help determine the program's effectiveness. In Key West, Florida, a longitudinal study is evaluating the effectiveness of the Dolphin SMART program in reducing boater disturbance of resident dolphins. The study was conducted over the summers of 2004, 2005, 2007, 2011. The study compares dolphin behavior in the presence/absence of boats

† Deceased.

in three different tourism zones of Key West prior to, during, and post Dolphin SMART implementation. Data analysis is ongoing and preliminary data will be presented. The Dolphin SMART program has been implemented in Key West and Southwest, Florida; and Orange Beach, Alabama to help prevent harassment to bottlenose dolphins, recognizing nine businesses. It was also recently expanded to Hawaii to help prevent harassment to spinner dolphins, where two businesses have been recognized to date. Program success is evidenced by national program growth and interest from other states including, Georgia, Texas, South Carolina, and North Carolina. The goal is to maintain a high-standard and flexible program that evolves and addresses local needs to help prevent harassment of wild dolphins, aiding conservation efforts.

Whale SENSE: Promoting responsible whale watching in the Northeast United States

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The Northeast United States currently utilizes voluntary whale watching guidelines for humpback, fin, minke, and sei whales[‡]. In order to engage the commercial whale watching industry and to foster guideline compliance, NOAA Fisheries Service Northeast Regional Office partnered with the Whale and Dolphin Conservation Society and NOAA Stellwagen Bank National Marine Sanctuary on the Whale SENSE pilot program in 2009. The Whale SENSE program offered a new, collaborative, engaging, education and recognition program for commercial whale watching companies from the states of Maine through Virginia. Whale SENSE offers specialized training for whale watch operators and naturalists that support responsible whale watching practices and utilizes marketing techniques as tools to gain industry participation. Though met with industry push back at the time of implementation, the Whale SENSE program has gained momentum and credibility within the commercial whale watching industry, expanding across three states and gaining international recognition. As the program expands, new challenges arise such as monitoring program compliance, increasing public recognition of the program, and maintaining the involvement of the industry in the future program development to help reach the ultimate goal of promoting whale conservation and responsible viewing practices. This presentation will address the challenges and successes of implementing the Whale SENSE program, providing lessons learned for implementing a voluntary educational program as a management tool within a contentious landscape.

[‡] North Atlantic right whales (*Eubalaena glacialis*) are protected by a regulatory approach restriction of 500-yards (50 U.S. Code of Federal Regulations 224.103c).

A Pool of Debate: Children’s Pool, La Jolla, California

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The Children's Pool, also known as Casa Beach, is located in the United States in La Jolla, California. The small beach is manmade, produced by the installation of a seawall in 1931 to create a tidal bathing pool. Over time sand has filled much of the area inside of the wall creating a gentle sloping beach. Children’s Pool is a harbor seal (*Phoca vitulina richardii*) rookery and haul-out site where approximately 200 harbor seals are found year round. Pupping occurs on this beach from January to May, with up to 40 pups born. The beach is also frequented and extensively used by the public. This is a very urban environment with high public exposure to local residents, tourists, and the media resulting in more frequent disturbance of the harbor seals when compared to other rookeries on the mainland. Consequently, the harbor seals at Children’s Pool Beach are likely more habituated to minor human activities (e.g. talking loudly, car doors slamming, loud music, etc.) than harbor seals at more remote locations.

What was once a beach “shared” by human and animal is now too small for both. Many of the town’s residents want the beach back for swimming, a move that has divided citizens and given rise to lawsuits, protests, and allegations of possible animal cruelty. On one side sits the citizens who would want their pool back. On the other sits those who say the pool is a breeding ground for seals, a rookery that should not be disturbed. The situation at Children’s Pool is further confounded by the uncertainty regarding responsibility for enforcing Federal (the U.S. Marine Mammal Protection Act), State, and City, laws, regulations, ordinances, policies, and rules.

Planet Whale – highlighting the commercial advantages of a sustainable approach to viewing and interacting with cetaceans

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Introducing Planet Whale

PlanetWhale.com is the online home of whale watching worldwide. Planet Whale works with whale and dolphin watch operators, charities, and communities around the world to develop responsible whale watching and encourage more people to see these amazing animals in the wild and in a sustainable way. Only then can we realise the potential that whale watching offers - to inspire millions of people to help us to protect our oceans.

The commercial advantages of a sustainable approach

Planet Whale believes that the most sustainable trips should also be the most profitable, and we intend to work with the world's whale and dolphin watch operators to make that happen. How? By seeking new promotional and marketing opportunities for those operators that offer the most sustainable approach and put the welfare of cetaceans first.

To achieve this Planet Whale has just launched the world's first review system that asks the public to rate and review trips based on five important questions. From now on, when customers review trips, they provide Planet Whale with feedback on five critical aspects of these trips:

How well did the trip publicise and use guidelines for safe approach to whales / dolphins?

How valuable was the trip as a learning experience?

How well did the trip meet your expectations?

How well did the trip minimise its impact on the marine environment?

Emphasis on the trip operator's own research or support for conservation?

These questions, defined as being the most important in developing a sustainable whale watching industry by a team of ethical whale watch operators and marine conservation charities, will be used by whale watchers across the world to rate their trips on PlanetWhale.com in the coming years.

Not only will highly rated whale and dolphin watch operators always appear first on Planet Whale's unique search engine, they will also be in line for awards, and receive new promotional opportunities developed by Planet Whale through online media, tourist boards and the press, because they are market leaders in sustainable whale and dolphin watching.

Feedback at the workshop

The initial results of our ethical rating system are being discussed during Europe's first Whale Festival on 4th November with whale watch operators from around the world, and we would be delighted to give feedback on these discussions at the 'Viewing and Interacting' workshop.

For more info on the review system click here: <http://www.planetwhale.com/browse>

Viewing Guidelines for Pacific Walrus

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Demand for viewing of Pacific walrus (*Odobenus rosmarus divergens*) is currently low. However, new opportunities are arising with the recent annual formation of large haulouts in the fall along the northwest coast of Alaska. The only data on walrus related viewing has been collected by the Alaska Department of Fish and Game (ADFG) which manages walrus related tourism at Round Island in Bristol Bay, Alaska. ADFG has kept records of visitor numbers and visitor rates since 1976. Visitation to Round Island varies annually due to a number of socio-economic factors and visitor use days have declined from 290 in 1999 to 75 in 2010 (-387%). Round Island managers have developed and enforced several access restrictions and wildlife viewing guidelines that are presented to visitors during island orientation sessions or when making reservations and inquiries. These include closed beaches and waters within 1.8 km of the island, a single access route, vessel size restrictions, airspace restrictions, demarcated viewing areas, no smoking areas, no flash photography, no pets, etc.

The U.S. Fish and Wildlife Service has also developed a set of viewing guidelines that are specific to water-based, land-based and aircraft-based viewing. These are centered on the NOAA Fisheries Alaska Marine Mammals Viewing Guidelines. Vessels are to maintain an 805 m (½ mile) buffer around coastal haulouts and avoid sudden changes in speed and direction. For viewing walrus on land, we suggest a cautious approach from downwind, maintaining a low profile, and use of cover objects. Pilots are requested to maintain an altitude of 607 m (2000 ft) within 805 m of a haulout and avoid circling, hovering, and landing and taking off near a haulout. Because walrus response to humans is site-specific, people are encouraged to be aware of the behavior of the animals at all times and retreat if anyone of a list of behaviors is observed. The primary enforcement mechanism for these guidelines is the harassment prohibition provisions of the Marine Mammal Protection Act.

An internet search and inquires of walrus biologists from Russia and Europe did not result in any other guidelines specific to walrus. However, we do know of a program for Russian haulouts that involve local haulout stewards that make sure tourists maintain an appropriate distance and efforts to mitigate disturbances by aircraft or boats. In addition, the Russian Federal Fisheries Agency develops Fisheries Rules that are revised annually and may contain some additional guidelines.

Dolphin Tourism in Zanzibar, Research and Mitigation measures

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Small resident populations of Indo-Pacific bottlenose (*Tursiops aduncus*) and Indo-Pacific humpback dolphins (*Sousa chinensis*) inhabit the Menai Bay Conservation Area (MBCA) off the southwest coast of Zanzibar, Tanzania (Stensland *et al.* 2006, Berggren *et al.* 2007). Historically these dolphins were hunted for their meat and used as shark bait, human consumption and to waterproof boats (Amir and Jiddawi 2001). Small scale dolphin tourism started with a few boats in 1992, but the tourism has grown every year and today approximately 55 community based and operated boats are active in the MBCA. By 1997 the dolphin tourism had completely replaced the previous hunt.

Tourism guidelines were first introduced in 1998, but with little effect. In 2002 revised guidelines were issued and distributed in a leaflet by the Zanzibar Department of Fisheries and Marine Resources and although stakeholders had agreed to these new guidelines there have been little compliance (Berggren 2009). Several studies conducted on the dolphins in the area have indicated negative effects on both individual and group level from the escalated dolphin tourism; short-term effects of tourist boats (Christiansen *et al.* 2010), short-term impacts of violated guidelines (Englund and Berggren 2002) and behaviour changes in female I-P bottlenose dolphins in response to boat based tourism (Stensland and Berggren 2007).

Workshops and tourism courses have been organised and a stakeholder association KIDOTOA (Kizimkazi Dolphin Tourism Operators Association) was formed to address the issues. However, to date there have been little improvement and hence the measures have been ineffective.

What now is needed is a regulation that can be enforced, improved information to tourists, and better organisation. A visitors' centre where tourists first are introduced to dolphin tourism and the regulation before going out on the water, would likely mitigate the situation. Further, a change in the payment scheme where local operators charge per person rather than per boat would allow larger revenues and improve the situation by reducing the number of boats operating at the same time.

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The Hawaiian Islands Humpback Whale National Marine Sanctuary: Protecting Hawaii's humpback whales and their environment.

Edward Lyman

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The Hawaiian Islands Humpback Whale National Marine Sanctuary (sanctuary) is one of 13 National Marine Sanctuaries and constitutes one of the world's most important humpback whale habitats. As many as 12,000 humpback whales may return to Hawaiian waters where they breed, calf and nurse their young. The sanctuary represents five separate Marine Protected Areas (MPAs), encompassing 1,370 square miles of federal and state waters around the main Hawaiian Islands. It is jointly managed by the National Oceanic and Atmospheric Administration and the State of Hawai'i, and strives to protect humpback whales and their habitat through education, research and resource protection. The sanctuary has established itself as a leader in education and outreach on the marine environment in Hawai'i, through a variety of programs and use of outreach materials that target the general public and the ocean user alike. It recognizes that an engaged and informed community is crucial to protecting our fragile marine environment, and does so by fostering stewardship within the community. The sanctuary's signature program, Ocean Count, now in its 15th season, is a prime example of public engagement, promoting the viewing of animals from shore and the collection of basic information. The sanctuary, with its partners, also provide a variety of programs, such as Ocean Protection and Cultural Awareness (OPACA) training, Ocean Awareness Training (OAT), and Boater Etiquette Workshops, that remind ocean users about regulations, guidelines, the potential cumulative impacts of wildlife viewing, and how their responsible operation may provide examples to others and assist with the monitoring of the animals. The sanctuary's efforts towards collision avoidance have also included distributing outreach materials, installing harbor signs, and contributing articles to appropriate publications and other media outlets. The sanctuary's science and research program began in 2003. Projects focus on the impact of entanglements, vessel collisions and other human activities affecting humpback whales and their habitat. The SPLASH (Structure of Populations, Levels of Abundance, and Status of Health) research, the largest whale research effort ever conducted, was started by the Sanctuary, and in part attempted to assess the magnitude of threats to the humpback whale. The sanctuary also plays a major role in documenting and responding to reports of animals hit by vessels and/ or entangled in gear, two major anthropogenic threats to humpback whales. The sanctuary advisory council sponsored a Vessel-Whale Collision Avoidance Workshop to assess ship strike risks to humpback whales in Hawai'i and to identify possible actions to reduce the occurrence of vessel-whale collisions. The sanctuary has been actively involved in a collaborative effort to assist with the response, rescue, and education and outreach efforts for other whales and dolphins, Hawaiian monk seals, and sea turtles. Regulations to protect all whales, and seals are provided by the Marine Mammal Protection Act of 1972. Humpback whales, sperm whales, monk seals and sea turtles are further protected by the Endangered Species Act of 1973 (ESA) and by the Hawai'i State Law. NOAA Hawaiian Islands Humpback Whale National Marine Sanctuary regulations provide additional protection for humpback whales and their habitat in Hawai'i. The sanctuary works closely with NOAA Fisheries and Hawai'i's Department of Land and Natural Resources.

Long-term monitoring and U.S. vessel regulations to protect killer whales in Washington State

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In 2005, the distinct population segment of Southern Resident killer whales was listed as endangered under the U.S. Endangered Species Act. With public input, NOAA Fisheries developed a Recovery Plan identifying threats and recovery actions. Disturbance and sound associated with vessels was identified as a primary threat to the Southern Resident killer whales and the Recovery Plan calls for evaluating current viewing guidelines and assessing the need for regulations and/or protected areas to address vessel impacts.

Much of the supporting information on killer whale-vessel interactions in this region comes from the Soundwatch Program (operated by The Whale Museum), which has conducted on-the-water vessel counts, as well as outreach efforts to educate boaters, since 1998. Soundwatch collects data on the number of vessels in the vicinity of killer whales and compliance with voluntary “Be Whale Wise” viewing guidelines. In addition to an active commercial whale watch industry, this region also attracts great numbers of private boaters (including kayakers) participating in whale watching, fishing, and general recreation. From 1998 to 2010, Soundwatch reported an average of about 15 to 20 boats (all types) within a half-mile of whales with a peak of 22.5 in 1998 and a decline to 13.5 in 2010. There is great daily and monthly variability in the numbers of boats with whales. For example, in 2010 the highest vessel count near the whales was 54 and in 1999 the highest vessel count was 120.

In recent years (2006-2010), there were between 1,067 (2010) and 2,527 (2009) incidents (events when vessels were observed not following viewing guidelines or laws) that put the whales at risk for disturbance. The most common vessel incidents include: vessels parked in the path of whales, vessels motoring inshore of whales, vessels motoring within 100 yards of whales, and vessels motoring fast within 400 yards of whales. Vessel incidents by vessel type have remained nearly the same since 2003 and are primarily committed by private operators (over 50%), followed by Canadian commercial operators, and then U.S. commercial operators.

While the voluntary guidelines were in place for many years, Soundwatch documented persistent non-compliance with these guidelines and there is a growing body of research documenting a variety of vessel impacts to the whales. In 2009, NOAA Fisheries issued a proposed rule to formalize elements of the existing “Be Whale Wise” voluntary guidelines. The regulations were based on the high number of observed incidents and concerns over the number of vessels in the immediate vicinity of the whales, as well as a suite of studies documenting behavioral changes and the potential for acoustic masking from vessels. After considering public comments and new information, NOAA Fisheries published final regulations in April 2011. The final rule includes two elements: 1) a prohibition on approaching killer whales within 200 yards, and 2) a prohibition on parking in the path of the whales. The new vessel regulations increased the appropriate viewing distance from a 100-yard guideline to a 200-yard mandatory regulation. Implementation of the new regulations includes education and outreach, enforcement and monitoring. Continued monitoring by the Soundwatch program is essential to evaluate the effectiveness of the regulations in protecting the whales and to determine whether additional protective regulations are necessary.

Polar Bear Viewing at Barter Island, Alaska

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Along the north coast of Alaska, polar bear viewing is attracting an increasing number of visitors to both the Arctic National Wildlife Refuge, and to Kaktovik, a small Inupiat community located on Barter Island within the Refuge. Here, we present information that describes bear viewing activities at Barter Island, and the Service's efforts to establish a community-based conservation program aimed at reducing human-bear conflicts associated with viewing. Specifically, we discuss: 1) the primary laws that affect bear viewing, 2) factors affecting the distribution and density of bears at Barter Island, e.g., ice trends, seal density, availability of whale carcasses as an alternative food source; 3) conservation concerns; and 4) development of bear viewing guidelines that include information on safety requirements, guide and viewer responsibilities; best viewing practices, and how to deal with bear encounters.

Marine mammal watching guidelines and regulation in Great Britain

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Marine mammal watching is a popular tourism activity in the UK, with whale-watching activities targeting predominantly bottlenose dolphins, minke whales and harbour porpoises and seal watching targeting substantial populations of grey and harbour seals. Key marine mammal-watching areas include western Scotland, the Shetland and Orkney Islands and the Moray Firth in Scotland, Pembrokeshire and Cardigan Bay in Wales and Southwestern England. In addition, the Norfolk and Lincolnshire coasts of England are particularly good sites for seal watching, as are the Farne Islands.

Economically, a survey in 2000 of marine wildlife tour operators in Scotland determined that 47% and 75% of those surveyed consider whale watching and seal watching to be important to local economies, respectively. In some remote coastal areas of Scotland, cetacean-related tourism may account for as much as 12% of the area's total tourism income which is substantial when one bears in mind that tourism is Scotland's number one industry and a major employer, particularly in a time when many traditional rural industries such as fishing, farming and forestry are in decline.

The majority of research on marine wildlife watching has so far been on whale watching in Scotland: the industry is generally considered to be economically viable in the long-term and the industry could have considerable potential for further development if developed responsibly. Surveys have indicated that members of the public seemed to be aware of the opportunities for whale watching in Scotland, especially in areas such as the Moray Firth. Although there are some concerns, most whale-watching operators in Scotland seem to be accepting of the need to follow whale-watching guidelines or codes of conduct. It is probably in the best interests of Scottish whale-watching operators to be as responsible and environmentally sustainable as possible, as whale-watching tourists in the region tend to be highly environmentally motivated and active. High awareness of marine wildlife-watching opportunities may be in part due to the popularity of nature-oriented TV programmes in the UK (such as *Springwatch* and *Countryfile*) that frequently feature marine mammals, and the marketing efforts of operator associations such as *Wild Scotland* (<http://www.wild-scotland.org.uk/>).

Cetaceans in British waters (from 12-200 nm) are protected under the EU "Habitats Directive" (Council Directive 92/43/EEC) which prohibits injury and "deliberate disturbance". From the coast to 12nm, intentional disturbance and injury was also prohibited under the 1981 Wildlife and Countryside Act. Proving intent in a court of law is difficult, however, and in 2000 the Countryside and Rights of Way (CROW) Act made it illegal to intentionally *or recklessly* disturb cetaceans. The 2004 Nature Conservation (Scotland) Act goes further and makes it illegal to intentionally or recklessly disturb or *harass* cetaceans (although disturbance and harassment are not defined). This latter Act also introduced a national marine wildlife-watching code (<http://www.marinecode.org>) which outlines ways to approach marine wildlife that cause

minimal disturbance. This code was developed with a high degree of stakeholder participation and many of the guidelines were the result of “bottom-up” participation. Previous research showed a resistance from operators in Scotland to use governmentally-produced “top down” guidelines, but more acceptance of operator or locally produced “bottom up” guidelines. For seals, the 2010 Marine (Scotland) Act calls for the designation of seal haul-out sites that should be protected from harassment.

Finally, a successful marine wildlife operator accreditation scheme exists in the UK (<http://www.wisescheme.org/>). The WiSE scheme has, to date, provided training for over 1000 marine wildlife operators, employees and others. Scheme affiliates received training materials and must watch a 90 minute presentation. Full accreditation, however, is limited to three years (but renewable) and requires attendance at a 6-8 hour training course and an obligation to obey relevant protective laws or guidelines. “Master” level membership requires 3 years of prior accreditation, attendance at a one day “masterclass workshop” and an agreement to provide species sightings and photo-ID data to a recognised body.

Additional Summaries
(In Alphabetical Order According to First Author)

Summary of organisational interest and involvement in issues relating to viewing and interacting with marine mammals

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As an animal welfare organisation, the World Society for the Protection of Animals (WSPA) is primarily concerned with the suffering of animals caused by humans, whether through deliberate or incidental interactions.

WSPA has an interest in the growth of the whale watching industry worldwide, due to its potential to provide substantial benefit and alternative livelihood to coastal communities who might otherwise engage in the lethal utilisation of marine mammals, and the opportunity it presents for humans to form a connection with these species in their natural environment as opposed to captivity. However we are also concerned about the potential welfare problems that these animals may experience if the industry is not properly regulated and codes of conduct are not adhered to.

WSPA's involvement in and exposure to this issue to date has primarily been via the Responsible Whale Watching work being carried out at the International Whaling Commission. More recently we have sponsored Planet Whale's first Whale Watch operator's workshop (to be held on 4th Nov in the UK) which aims to enable boat operators to share ideas and work together to develop strategies for improving the standards of whale and dolphin watching, aspiring to increase adherence to ethical codes of conduct (more here: <http://www.planetwhale.com/WhaleFest-Whale-Dolphin-Watch-Operators-Workshop>)

WSPA is keen to participate in this workshop both to share the experience and knowledge we have on this issue and to broaden our understanding of what is currently known about the impacts human interactions have on marine mammals and what can be done to reduce these impacts.

Assessing educational impacts of whale-watching and the potential change in whale behavior in various locations

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I am current graduate student at College of the Atlantic and I am currently finishing up my 2011 field season. While some studies have shown no impacts on the animals when whale-watching vessels are present, other studies have shown a change in short-term behavior, changes which have not been considered biologically significant. Before any assumptions may be made about the potential change in whale behavior due to vessel presence additional data must be collected. It is currently unknown if whale behavior varies from feeding ground to feeding ground, therefore, we need to observe different locations to determine if whales change their behavior from location to location. Almost no work exists on the long-term educational impact on passengers, and how the quality of the trip influences that impact.

My project has three objectives:

- To assess whether whale behavior impacts passengers and improves their knowledge and attitude towards conservation
- To assess the potential changes in whale behavior within the Gulf of Maine (Mount Desert Rock and Schoodic Ridges) and Bay of Fundy
- To assess whether trip quality impacts passengers' knowledge and attitude towards whales

I spent approximately 301 hours observing whale behavior in three feeding grounds, Mount Desert Rock, Schoodic Ridges, and the Bay of Fundy. Whale-watch data was collected from two separate operations: the Bar Harbor Whale Watch Company (Bar Harbor, Maine) and a Canadian whale-watching company, Whales-N-Sails Adventures, operating out of Grand Manan. *Logger* was used to collect weather data, behavioral data, and GPS data and pre and post surveys were given to randomly selected passengers to assess their attitude and knowledge of whales and whale watching.

My data is now shifting into the analysis phase in which behavioral change will be gauged by statistically comparing quantitative behavioral ethograms collected both aboard whale-watch vessels and from land-based platforms where data was collected from a lighthouse. Like the behavioral data, the surveys will go through a rigorous statistical analysis. In 6 months an additional post survey will be sent either by mail or email to all passengers who provided their contact information. This 6-month survey is being done to assess a passengers' retention of information from their whale-watch trip.

Upon completion of this project, I hope to better understand whether whale behavior changes from feeding ground to feeding ground and the potential impact that a unique experience on a whale-watch has on a person's attitude and knowledge of whales. This project could potentially be the start of a long-term collaboration with the whale-watching industry. The whale-watching companies can use the data to better understand their audience and develop efficient strategies in presenting information. Also the companies can use the data to assess whether there is a trend in retention based on the naturalist on board, the activity of the whales, and the passengers' response to the behavior of the whales.



Bar Harbor Whale Watch Co., Bar Harbor, Maine

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BHWW Co. committed to the education, research and conservation of marine mammals and their environment. We conduct 4- hour tours out 20 – 60 miles offshore between May and October from mid-coast Maine, USA. The two 100' plus boats we use are jet-powered catamarans making them safe for the whales and fishing gear. Over the last nine years, we have carried scientists from Allied Whale, based at College of the Atlantic, on each of whale watching trip we conduct. These scientists collect photo ID pictures of humpback, finback and right whales and record behavioral and location data. These data have been used for Right whale Management, Herring Fisheries Policy, and helped with long-term Photo ID research and stock assessments for each species. This research and associated research papers are highlighted in the list below.

- Thousands of Photo ID pictures of humpback, finback, and right whales (2003-2011)
- *“The effects of a shift in herring fishery gear-type on the abundance of two species of baleen whales off Eastern Maine.”* Milette, et.al (2005)
- *“Northern right whale (*Eubalaena glacialis*) use of coastal Maine waters: implications for fisheries management”.* (2007 NAWRC and SMM)
- Platform for acoustic research and recordings for PhD student (2009 and 2010)
- Winter right whale surveys: the search for the unknown mating ground. NEA (2010)
- Lobster buoy survey for Maine Dept. of Marine Resources (2010)
- Behavioral study compared to two other Gulf of Maine Locations, Grad Work (2011)
- The educational quality and value of whale watching study, Grad Work (2011)

We see ourselves partly as a watchdog in the sense that we are documenting what is happening in the ocean each day and monitoring whale populations locally. We strive to give back to the environment that supports our business. During each tour: buttons are sold for a whale scholarship fund, Adopt-a-whale kits are sold to raise money for Allied whale, and petitions are circulated for various conservation issues. Our company makes an annual donation to Allied Whale, Acadia National Park and other organizations.

Cetus Research & Conservation Society (Cetus)

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Cetus Research & Conservation Society (Cetus) is a marine mammal conservation organization operating throughout Vancouver Island, British Columbia (BC), Canada. Its mission is to facilitate the conservation of the marine environment by promoting community stewardship, conducting research and by fostering activities that directly preserve marine habitats and biological diversity. Cetus operates the stewardship-based marine mammal monitoring and education program Straitwatch which monitors vessel activity around marine mammals, especially killer whales & humpbacks, and provides boaters with interpretive talks and information on the Be Whale Wise – Marine Wildlife Viewing Guidelines for Boaters, Paddlers and Viewers (BWW). By increasing awareness of the threats these animals face, such as habitat degradation, decreased food availability, increasing underwater noise and contaminant levels, we encourage boaters to modify their behaviour to reduce their impact on these species (www.cetusociety.org).

Cetus operates Straitwatch in Johnstone Strait (from Port Hardy to Campbell River), and in the transboundary area of Haro Strait and Juan De Fuca Straits off Victoria as well as in Clayoquot and Barkley Sound on the west coast of Vancouver Island.

Current research involves quantifying the rate of interactions between vessels and both the southern resident killer whale (SRKW) and northern resident killer whale (NRKW) populations. The SRKWs ranging in southern BC and Washington state, are listed as *endangered* in Canada (under the Species at Risk Act (SARA)) and the United States (under the Endangered Species Act), while the NRKWs and transient killer whales ranging in BC are considered *threatened* under SARA. These populations of killer whale face a variety of threats, including reductions in prey populations, high levels of toxins, disturbance from vessels and acoustic disturbances. It is highly likely that these threats are cumulative, interactive, and synergistic. Further, these populations are the focus of a significant whale watching industry and attract viewers from a high number of recreational vessels in the region.

Since 2002, Straitwatch has educated boaters about the BWW guidelines and has monitored the type and level of vessel interactions with killer whales throughout their identified critical habitat. Numerous scientific studies have linked situations where vessels exceeding the BWW guidelines can lead to changes in killer whale behaviour, including: swimming faster; adopting less predictable travel paths; making shorter or longer dive times; moving into open water; and, altering normal patterns of behaviour at the surface. Monitoring data collected by Straitwatch measures both the number of vessels following a focal group of whales and a rate of vessel operator non-compliance with the BWW guidelines. These data characterize the interactions of killer whales with vessels both spatially and temporally throughout their critical habitat, provide a rate of interactions which may cause changes in their behaviour as identified in the scientific literature, and can provide management with a tool to identify where and when management actions would be most effective.

PhD Candidate Research on spinner dolphin swim-with programs in Hawai'i

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Swim-with dolphin programs have increased in popularity as demonstrated by the growing interest from the public. Dolphin tourism has been debated as a positive tool for education, conservation, and economic growth. In spite of this, the practice of swimming with these animals can negatively affect their ability to feed, reproduce, and socialize (Bejder *et al.*, 2006). In Hawai'i, dolphin swim programs have expanded and concern has grown over the health of the Hawaiian spinner dolphin (*Stenella longirostris*) population. Unfortunately, human actions are not often considered in biological studies, thwarting potential species protection. This project will combine both biological and social sciences to develop integrative analysis of the problems related to dolphin tourism in Hawai'i. Issues pertaining to why people want to swim with dolphins, what they are doing in the water, and the conservation values produced following dolphin swim activities will be evaluated. This study will take proposed management action and best-practice guideline programs such as Dolphin SMART and West Hawai'i Voluntary Standards into consideration, while looking at the effects of dolphin tourism on the communities, tourists, and dolphin populations.

The Hawaiian spinner dolphin has been viewed by some as a common property resource, which outlines the need for examination of human use. The economic values of natural resources are quite complex and should be carefully studied to obtain a complete analysis (Hu *et al.*, 2009). To date, none of the spinner dolphin population studies have been paired with social science work. Often, cultural and human dimensions are not properly addressed but are critical pieces to natural science research. The goal of this research will be to assess the potential social implications and effects of dolphin-based tourism. This study seeks to gather baseline data of human attitudes and physical interactions with Hawaiian spinner dolphins, and understand how possible management and education options will help to influence these attitudes and behaviors towards dolphin populations in high-tourism areas. With continued dolphin interactions and escalating user conflicts, this study will help to articulate what community problems exist, and what attitudes dolphin swim participants hold. By identifying the messages and reasons for participation in dolphin tourism I will be able to ascertain what brings visitors to these regions, and how we can further develop sustainable experiences. Using surveys, participant observation and interview methods, analysis of the perceived and actual threat of dolphin swim programs will occur. I will also quantify in-water human behavior in response to dolphin-swim tourism interactions. The purpose of these observations will be to categorize and quantify the types of movement that people engage in with the Hawaiian spinner dolphins. Data will also be collected on adherence to recommended viewing guidelines. By providing a comprehensive analysis of the attitudes and behaviors of human dolphin-swim participants, I will be positioned to provide a complete analysis of the Hawaiian spinner dolphin swim issue.

Guidelines and Regulations for Viewing and Interacting with Marine Mammals in the United States

The following pages include a summary of guidelines and regulations for viewing and interacting with marine mammals in each region of the United States, including examples of existing brochures and posters used for education and outreach. The information in this section includes guidelines and regulations from United States Federal agencies (including the NOAA Fisheries, U.S. Fish and Wildlife Service, and select National Marine Sanctuaries) and select non-governmental partners of these Federal agencies. It is important to note that this section does not provide the full extent of guidelines and regulations issued by the United States Government; instead, it provides a thorough summary the types of guidelines and regulations provided within the United States. Further, this section does not include guidelines or regulations specific to states, territories, or all non-governmental organizations. Website links are provided for those participants wishing to gather additional information or outreach materials available on a particular region or program.

The information provided in this section is for reference during the workshop plenary session. In addition to the information specific to the United States provided in this section, we refer the readers to the International Whaling Commission's review of whale watch guidelines and regulations from around the world (http://www.iwcoffice.org/_documents/sci_com/WWREGS%202010%2020%20JULY.pdf) and the guidelines for Scotland, which have been updated since the IWC report was published. These references are provided to workshop participants along with this workshop book.

NOAA Fisheries - National

NOAA Fisheries believes that watching marine animals in their natural habitat can be a positive way to promote conservation and respect for the animals and the marine environment. However, irresponsible human behavior can disturb animals, destroy important habitats, and even result in injury to animals and people. To promote responsible and sustainable marine animal viewing, NOAA Fisheries has developed numerous educational programs, viewing guidelines and regulations, and enforcement actions.

FEDERAL LAWS

The Marine Mammal Protection Act prohibits the “take” of all marine mammal species in U.S. waters. Take means "to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill," and harassment means "any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal or marine mammal stock in the wild; or has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to migration, breathing, nursing, breeding, feeding, sheltering." Take includes feeding or attempting to feed a marine mammal in the wild. Some exceptions are made for authorized scientific research and subsistence hunting by Alaska Natives.

The Endangered Species Act prohibits the “take” of species listed as endangered or threatened. The definition of take under the Endangered Species Act adds the terms harm, pursue, shoot, wound, trap and collect to the Marine Mammal Protection Act definition of take.

NOAA FISHERIES POLICY ON HUMAN INTERACTIONS WITH WILD MARINE MAMMALS

The Marine Mammal Protection Act does not provide for a permit or other authorization to view or interact with wild marine mammals, except for specific listed purposes such as scientific research. Therefore, interacting with wild marine mammals should not be attempted and viewing marine mammals must be conducted in a manner that does not harass the animals. NOAA National Marine Fisheries Service does not support, condone, approve, or authorize activities that involve closely approaching, interacting, or attempting to interact with whales, dolphins, porpoises, seals, or sea lions in the wild. This includes attempting to swim with, pet, touch, or elicit a reaction from the animals.

WEBSITES FOR ADDITIONAL INFORMATION

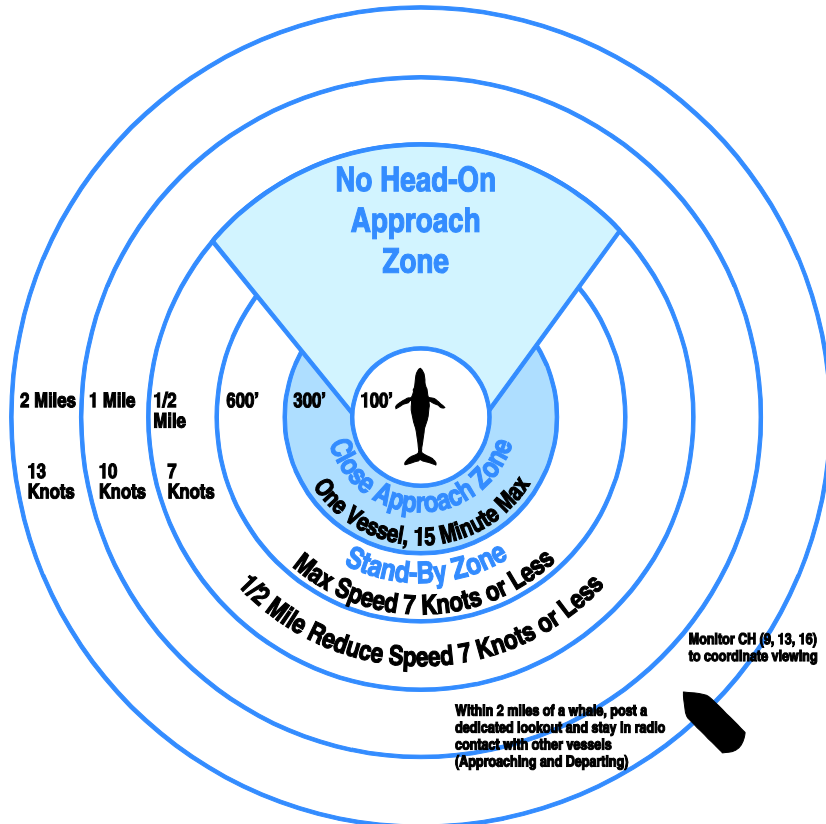
NOAA Fisheries Responsible Marine Wildlife Viewing:
<http://www.nmfs.noaa.gov/pr/education/viewing.htm>

NOAA Fisheries – Northeast Region

GUIDELINES

Large Whales

These guidelines apply to all large whale species, except the North Atlantic Right Whale which are protected from approach closer than 500 yards under federal and state regulations.



2 Miles to 1 Mile Away from Whales

- Reduce speed to 13 knots.
- Post a dedicated lookout to assist the vessel operator in monitoring the location of all marine mammals.
- Avoid sudden changes in speed and direction.
- Aircraft should maintain a minimum altitude of 1,000 ft over water.

1 Mile to 1/2 Mile Away from Whales: Reduce speed to 10 knots

1/2 Mile or Less Away from Whales

- Reduce speed to 7 knots.

- Maneuver to avoid a head-on approach

Close Approach Procedure: The following procedure applies to both the Stand-By and Close Approach Zone.

- Parallel the course and speed of moving whales up to the designated speed limit within that distance.
- Never attempt a head-on approach to whales.
- Approach and leave stationary whales at no more than idle or "no wake" speed, do not exceed 7 knots.
- Do not intentionally drift down on whales.
- Vessels in multi-vessel approach should maintain communication with each other (via VHF channels 9, 13, or 16 for hailing) to coordinate viewing.
- Take into account the presence of obstacles (vessels, structures, fishing gear, or the shoreline). All vessels in close approach must stay to the side or behind the whales so they do not box in the whales or cut off their paths.

Stand By Zone - 300 Feet to 600 feet away: Two vessel limit within the 300-foot to 600-foot Stand-By Zone at any one time

Close Approach Zone- 100 Feet to 300 Feet Away:

- One vessel limit.
- Other vessels standoff (up to two vessels in Stand By Zone- other outside of 600 feet).
- If more than one vessel is within 600 feet, the vessel within 300 feet should limit viewing time to 15 minutes in close approach zone.

No Intentional Approach within 100 Feet: Do not approach within 100 feet of whales. If whales approach within 100 feet of your vessel, put engines in neutral and do not re-engage propulsion until whales are observed clear of harm's way from your vessel

Departure Procedure:

- All vessels should leave the whales following the same speed and distance procedures described above.
- In order for vessels to be clear of whales before dark, vessels should cease whale watching and begin their return to port 15 minutes before sunset.

Sailing Vessels:

- When in sight of whales (or at 2 miles away from where whales are known to be), drop sails and engage propulsion system.
- Adhere to the speed & distance guidelines recommended above.

Whale SENSE: Educating and recognizing responsible whale watching companies

The mission of Whale SENSE is to promote responsible stewardship of large whales in the Northeast Region and recognize commercial whale watching companies that set a positive standard for responsible practices and education. This program is voluntary and offered to participating companies at no charge. The acronym SENSE stands for:

- Stick to NOAA’s Northeast whale watching guidelines to the best of operational ability;
- Educate naturalists, operators, and passengers to have SENSE when whale watching;
- Notify appropriate networks/agencies of right whales or whale problems;
- Set an example to others on the water;
- Encourage ocean stewardship.

The purpose for developing this program is to:

- minimize the potential harassment of large whales that may result from commercial viewing activities;
- reduce expectations of members of the public arising from wanting to closely interact with large whales in a manner that may cause harassment;
- reduce the potential causes of large whale harassment in the northeast including high density of boats in a small area, inexperience operating vessels around whales, lack of education about guidelines/regulations and laws among commercial operators, lack of awareness about large whale behavior and signs of disturbance;
- increase reliable and consistent messaging to whale watching passengers; and
- ensure participating whale watching companies emphasize a conservative, respectful and educated approach to whale watching.

On top of following the SENSE standards, all Whale SENSE participating whale watching companies also participate in yearly training; conduct educational briefings onboard vessel; visibly post whale watching operational procedures; promote marine stewardship through yearly conservation projects; participate in the “Naturalist List Serve” to foster communication between informal educators and be notified of local research or educational opportunities; use responsible advertisements captions; and participate in annual reviews to ensure active compliance. Upon successful completion of training and evaluation, Whale SENSE businesses receive materials identifying them as active Whale SENSE participants featuring the Whale SENSE logo and current calendar year.

***See a Spout Watch Out!* Education for Recreational Boaters**

The See a Spout program is a collaborative effort between NOAA’s Fisheries Service’s Northeast Regional Office, NOAA’s Stellwagen Bank National Marine Sanctuary Program and the Whale and Dolphin Conservation Society to increase the awareness of the Northeast Region Whale Watching Guidelines within the recreational boating community. As a part of this educational endeavor, brochures are distributed throughout the Northeast. Groups from Massachusetts, Rhode Island and New Hampshire may request educational presentations to be given by the program partners. The See a Spout Program focuses on the Northeast Whale Watching Guidelines as well as the following principles:

1. **See A Spout, Watch Out!** If you see a spout, tail, or a breaching whale, please slow down and post a lookout. Some whales may dive for 20 minutes or more while searching for food. If you've seen one whale, many more could be close-maybe too close to your boat and its spinning propellers. Proceed cautiously!
2. **Head On Is Wrong!** Don't alter a whale's path by cutting it off. When in sight of a whale, follow official approach guidelines and adhere to existing regulations that restrict or prohibit closely approaching whales. Always keep your boat a safe distance away; don't risk striking a whale. Federal law prohibits the harassment of all marine mammals. Federal regulations and Massachusetts law prohibit approaching the highly endangered North Atlantic right whale closer than 500 yards (1500 feet).
3. **Lots of Boats, Then Talk to Folks!** If there are other boats watching or traveling near whales, hail them on your VHF radio (channel 9, 13 or 16 for hailing) and coordinate your viewing efforts.
4. **Avoid Trouble, Steer Clear of Bubbles!** Humpback whales sometimes feed by creating "bubble clouds". They blow bubbles below the surface of the water to confuse and condense schools of small fish. With mouths wide open, the whales surface through the middle of the bubble cloud engulfing large numbers of dazed fish. Bubble clouds look like light green, foamy patches on the surface of the water. Birds often hover over them to take advantage of the readily available fish. Never approach, or drive through, a bubble cloud as a feeding whale is likely to be just below the surface.
5. **Don't Chase, Give The Whales Space!** Closely approaching a whale may cause the animal to move away from its food source. Respect the whale's behavior and keep your distance. If a whale moves away, don't chase it. A cautious boater may bet to see whales feeding, playing or breaching. Enjoy the whales; don't endanger them!
6. **Drop Your Sails When Watching Whales!** A boat under sail may not be able to reduce speed or stop at a safe distance from a surfacing whale. When in the vicinity of whales, it is best to utilize your auxiliary motor and proceed cautiously

Dolphins, Porpoises, and Seals

- Vessels should remain 150 feet away from dolphins, porpoise, and seals.
- Never attempt to feed dolphins, porpoise, or seals. THIS IS ILLEGAL.

Seals

If your presence causes any of the following reactions on land or in the water, then you are too close:

- Increased vocalizations by seals.
- Movement back into the water (single animal or the herd).
- All eyes are on you (single animal or several in the herd).
- Disturbance from normal resting position (lifting their head to watch you, stretching, waving foreflippers, yawning).

Responsible Seal Viewing Guidelines

- Never get in the water with seals. Seals are large, wild animals and can be extremely dangerous. If they feel threatened they may become aggressive in order to defend themselves.
- Never attempt to feed seals. Feeding seals is against the law and you could be seriously injured; you could be arrested and/or fined. Food that isn't a normal part of their diet will do more harm than good by impeding their ability to hunt and locate food on their own or by encouraging seals to approach boats looking for handouts, which can result in injuries from boat propellers.
- Always stay at least 50 yards (150 feet) away from resting seals. Seals that are continually being approached never get a chance to rest. Repeated interaction can exhaust seals, leaving them vulnerable to predation and illness. Increased contact with people will eventually lead seals to habituate to humans. Habituated seals are more likely to suffer from negative human interactions and less likely to avoid dangerous situations. Continued disturbance of mother/pup pairs could lead to abandonment and subsequent mortality of the pup.
- Be quiet. Noise may affect seal behavior.
- Limit your viewing time to no longer than 30 minutes. Your continued presence can cause the animal unnecessary stress.
- Keep pets on a leash. Inquisitive dogs are likely to startle a resting seal causing an aggressive, defensive response that might injure your pet or the seal.
- Kayaks & Canoes: Avoid close approaches to haulout sites. These engineless craft have been shown to elicit an alarm response, causing seals to rapidly enter the water.
- Jet Skis: Avoid areas near seal haulouts to minimize potential collisions.

REGULATIONS

Approaching Right Whales

Massachusetts state (*322 Code of Massachusetts Regulations 12:07*) and Federal regulations (*50 U.S. Code of Federal Regulations 224.103(c)*) prohibit approaching a right whale within a 500 yard (1500 ft) buffer zone. Any vessel finding itself within the 500 yard (1500 ft) buffer zone created by a surfacing right whale must depart immediately at a safe, slow speed. The only vessels allowed to remain within 500 yard (1500 ft) of a right whale are vessels with appropriate research permits, commercial fishing vessels in the act of hauling back or towing gear, or any vessel given prior approval by NOAA Fisheries to investigate a potential entanglement.

50 U.S. Code of Federal Regulations 224.103(c)

(1) Prohibitions. Except as provided under paragraph (c)(3) of this section, it is unlawful for any person subject to the jurisdiction of the United States to commit, attempt to commit, to solicit another to commit, or cause to be committed any of the following acts:

- (i) Approach (including by interception) within 500 yards (460 m) of a right whale by

vessel, aircraft, or any other means;

- (ii) Fail to undertake required right whale avoidance measures specified under paragraph (c)(2) of this section.

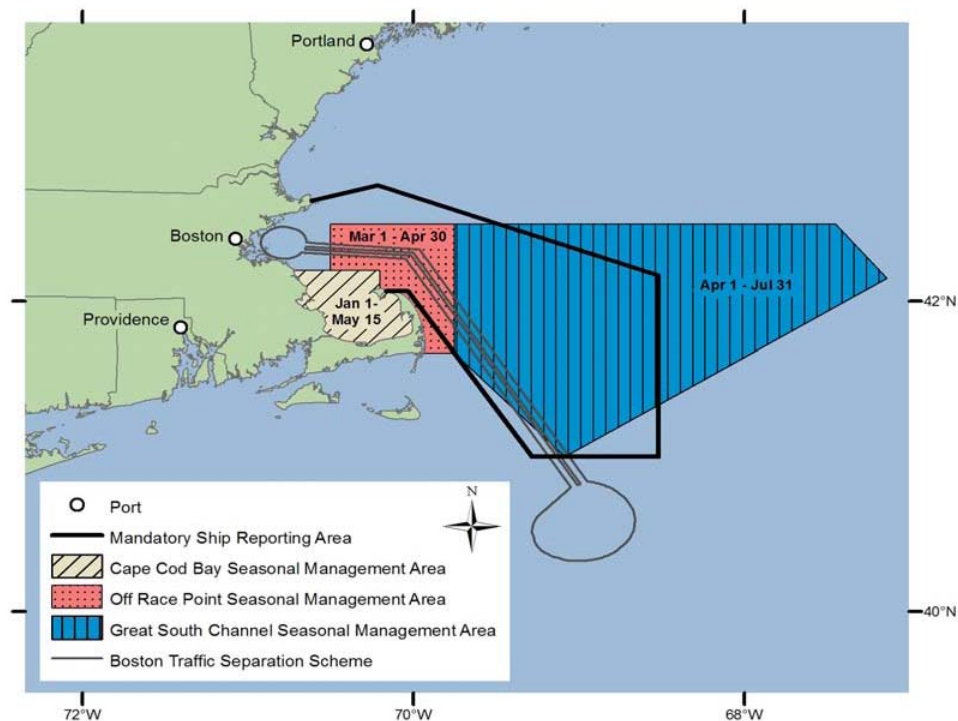
(2) Right whale avoidance measures. Except as provided under paragraph (c)(3) of this section, the following avoidance measures must be taken if within 500 yards (460 m) of a right whale:

- (i) If underway, a vessel must steer a course away from the right whale and immediately leave the area at a slow safe speed.
- (ii) An aircraft must take a course away from the right whale and immediately leave the area at a constant airspeed.

(3) Exceptions. The following exceptions apply to this section, but any person who claims the applicability of an exception has the burden of proving that the exception applies:

- (i) Paragraphs (c)(1) and (c)(2) of this section do not apply if a right whale approach is authorized by the National Marine Fisheries Service through a permit issued under part 222, subpart C, of this chapter (General Permit Procedures) or through a similar authorization.
- (ii) Paragraphs (c)(1) and (c)(2) of this section do not apply where compliance would create an imminent and serious threat to a person, vessel, or aircraft.
- (iii) Paragraphs (c)(1) and (c)(2) of this section do not apply when approaching to investigate a right whale entanglement or injury, or to assist in the disentanglement or rescue of a right whale, provided that permission is received from the National Marine Fisheries Service or designee prior to the approach.
- (iv) Paragraphs (c)(1) and (c)(2) of this section do not apply to an aircraft unless the aircraft is conducting whale watch activities.
- (v) Paragraph (c)(2) of this section does not apply to the extent that a vessel is restricted in her ability to maneuver and, because of the restriction, cannot comply with paragraph (c)(2) of this section.

Right Whale Ship Strike Reduction



50 U.S. Code of Federal Regulations 24.105

All vessels greater than or equal to 65 ft (19.8 m) in overall length must slow to 10 knots within Seasonal Management Areas. Additionally, Voluntary Dynamic Management Areas (DMAs) may also be established by NOAA Fisheries Service. Mariners are encouraged to avoid these areas or reduce speeds to 10 knots or less while transiting through these areas. NOAA Fisheries Service will announce DMAs to mariners through its customary maritime communication media.

WEBSITES FOR ADDITIONAL INFORMATION

NOAA Fisheries Right Whale Approach Restrictions: www.nmfs.noaa.gov/pr/pdfs/fr/50cfr224-103.pdf

Northeast Seal Watching Guidelines:
www.nero.noaa.gov/prot_res/stranding/NERSealWatching.pdf

NOAA's Northeast Whale Watching Guidelines: www.nero.noaa.gov/whalewatch

Massachusetts State Right Whale Approach Regulations:
www.mass.gov/dfwele/dmf/commercialfishing/322cmr12.htm#cmr1207

Right Whale Ship Strike Rule Compliance Guide:
http://www.nero.noaa.gov/shipstrike/doc/compliance_guide.pdf

See A Spout Watch Out: http://www.nero.noaa.gov/prot_res/mmv/spout.html

Whale SENSE: www.whalesense.org/

U.S. Code of Federal Regulations: <http://ecfr.gpoaccess.gov/>

**MINIMUM APPROACH DISTANCES FOR
OTHER NORTHEAST MARINE MAMMALS**

Dolphins, Porpoises & Seals: 150 feet



WDCS- Amanda White



NOAA

Contact Information

To Request Additional Information on
Marine Mammal Protection
978-281-9328

www.nero.noaa.gov/whalewatch

To Report Right Whale Sightings
978-585-8473 (pager)

To Report Entangled, Injured, Stranded,
Ship- Struck, or Dead Marine Mammals
866-755-NOAA (6622)
or USCG via CH-16

Please stand-by and keep the whale in sight until
help arrives, or arrange for another vessel to
maintain contact with the whale.

To Report Potential Marine Law Violations
NOAA Office of Law Enforcement Hotline:
800-853-1964

NOAA Fisheries Service
Northeast Regional Office
978-281-9300
www.nero.noaa.gov

U.S. Department of Commerce
National Oceanic and Atmospheric Administration (NOAA)



NORTHEAST REGIONAL WHALE WATCHING GUIDELINES

for Commercial & Recreational
Whale Watchers
from Maine through Virginia



WDCS/ Erica Magnusson

Large Whales of the Northeast Region

Fin Whale (*Balaenoptera physalus*)

Status: Endangered

Size: up to 72 feet in length, 80 tons

Western North Atlantic Population: approx. 2,000

Description: second largest whale species in the world; fast swimming; does not fluke when diving; asymmetrical coloration with lower right side of the head being white & left side dark.; "chevron" or white streak that starts behind blow hole and continues along each side used for identifying individuals. Feed on sand lance, herring, mackerel, other schooling fish, and krill.



Humpback Whale (*Megaptera novaeangliae*)

Status: Endangered

Size: up to 56 feet in length, 45 tons

Gulf of Maine Population: approx. 800

Description: stocky baleen whale; long, white pectoral flippers; lifts flukes, which have saw-toothed trailing edges, when it dives; variable black and white coloration on underside of each fluke used for identifying individuals; small dorsal fin; acrobatic behaviors including breaches, flipper and tail slaps. Feed on sand lance, herring, mackerel, other small schooling fish, and krill. Uses bubble clouds or "nets" to concentrate fish.

North Atlantic Right Whale (*Eubalaena glacialis*)

Status: Endangered (*See Right Whale Regulations)

Size: up to 55 feet in length, 70 tons

Worldwide Species Population: at least 325

Description: slow-moving; generally stays close to shore; robust body; long baleen; "callosities" on head and jaw used to identify individuals; usually lifts smooth-edged, triangular flukes when diving; lacks dorsal fin. Skim feed (surface and subsurface) on dense concentrations of zooplankton, particularly copepods.



Minke Whale (*Balaenoptera acutorostrata*)

Status: Protected

Size: up to 33 feet, 10 tons

Canadian East Coast Population: approx. 3,000

Description: smallest baleen whales in the northeast region, distinctive sickle-shaped dorsal fin; white bands on pectoral flippers; rarely lifts its flukes to dive; displays little or no visible breath or spout. Feed on prey similar to fin and humpback whales

All photos were taken in accordance with NOAA's whale watching guidelines & regulations.

Photo Credits (Top to bottom): WDCS- Karolina Jasinska, Whale Center of New England, SBNMS, Whale & Dolphin Conservation Society, WDCS-Aisling Heffernan, WDCS-Whale silhouettes designed by WDCS.

MARINE MAMMAL PROTECTION & GUIDELINES

All whales, dolphins, porpoises, and seals in the North-east region are federally protected by the Marine Mammal Protection Act (MMPA). Most large whales in the area are also protected by the Endangered Species Act (ESA). Under these laws, it is illegal to harass any marine mammal. Harassment is defined as any act of pursuit, torment, or annoyance which has the potential to injure or disturb a marine mammal by interrupting/ changing behavioral patterns such as migration, breathing, nursing, and feeding.

Even if you have good intentions, the operation of vessels around whales has the potential to harass them. Guidelines have been developed to help boaters (commercial & recreational) avoid harassing marine mammals, inadvertently violating the law, and potentially injuring the whales. Violations of these laws can result in penalties such as fines and imprisonment. Adhering to NOAA's whale watching guidelines not only helps protect whales, but also helps keep boaters and their passengers safe.

RIGHT WHALE REGULATIONS

North Atlantic right whales are especially vulnerable to ship strikes and therefore additional regulations are in



Illustration- Garth Mix

place to provide extra protection to this species. North Atlantic right whales are protected by regulations that prohibit approach within 500 yards (1500 ft.). Any vessel finding itself within the 500 yard (1500 ft.) buffer zone created by a surfacing right whale must depart immediately at a safe and slow speed. Only vessels with appropriate research permits, commercial fishing vessels in the act of hauling back or towing gear, or any vessel given prior approval by NOAA Fisheries Service to investigate a potential entanglement may remain within 500 yards of a right whale. **If you cannot identify the species of whale you are watching, assume it is a right whale and maintain a 500 yard buffer.**

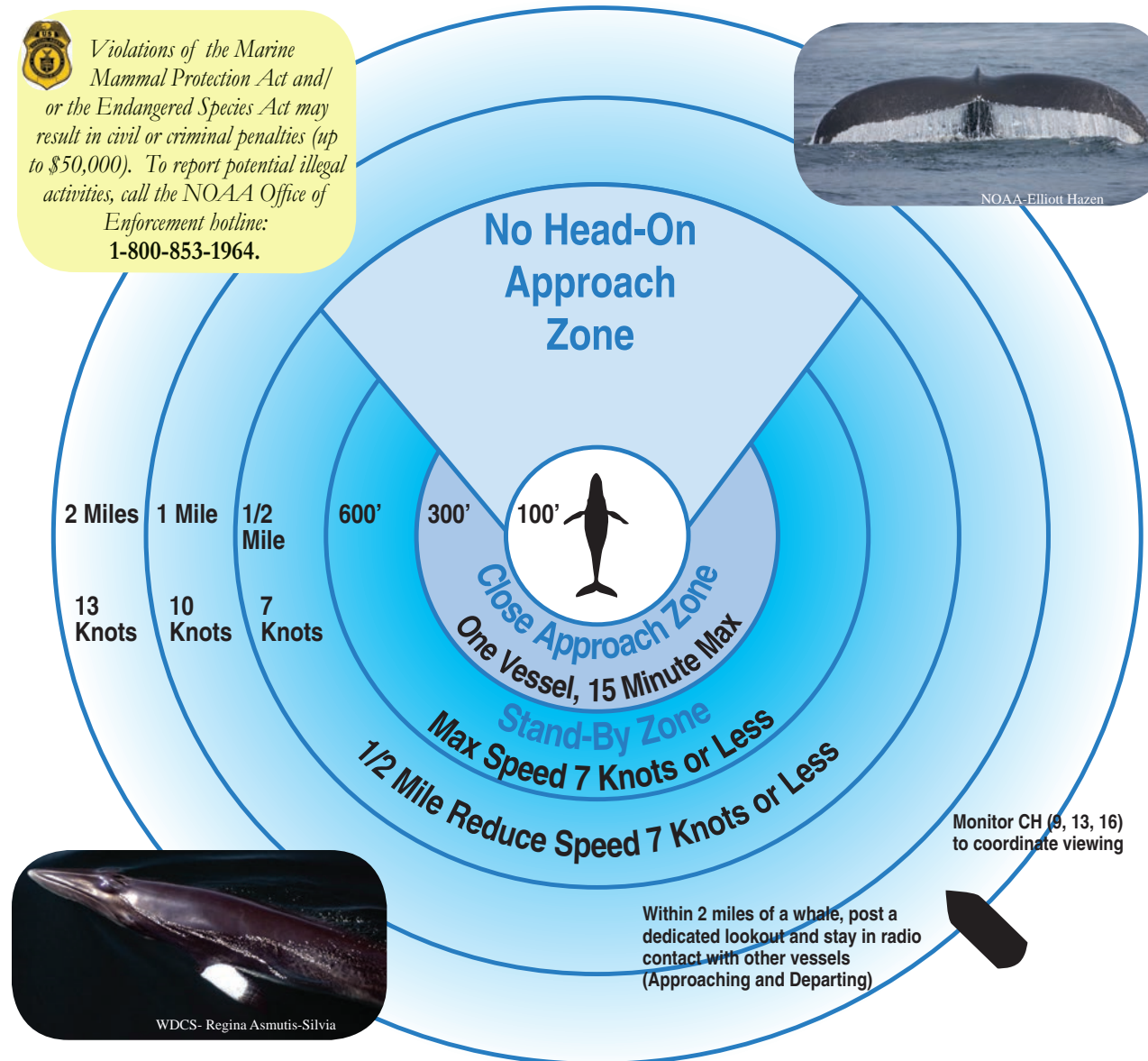
Additionally, mandatory vessel speed restrictions of 10 knots or less also apply to vessels, 65 feet in length or greater, in certain areas and times along the US east coast. For more information:

www.nmfs.noaa.gov/pr/shipstrike

OPERATIONAL GUIDELINES WHEN IN SIGHT OF WHALES



Violations of the Marine Mammal Protection Act and/ or the Endangered Species Act may result in civil or criminal penalties (up to \$50,000). To report potential illegal activities, call the NOAA Office of Enforcement hotline: **1-800-853-1964.**



2 MILES - 1 MILE AWAY FROM WHALES

- Reduce speed to 13 knots.
- Post a dedicated lookout to assist the vessel operator in monitoring the location of all marine mammals.
- Avoid sudden changes in speed and direction.
- AIRCRAFT: maintain a minimum altitude of 1,000 ft. over water.

1 MILE - 1/2 MILE AWAY FROM WHALES

- Reduce speed to 10 knots.

1/2 MILE OR LESS FROM WHALES other than Right Whales*

- Reduce speed to 7 knots.
- Maneuver to avoid head-on approach.

CLOSE APPROACH PROCEDURE

The following procedures apply to both the Stand-By & Close Approach Zones for all whales except right whales.*

- Always parallel the course and speed of moving whales up to the designated speed limit within that distance.
- Never attempt a head-on approach to the whale.
- Approach and leave stationary whales at no more than idle or "no wake" speed, not to exceed 7 knots.
- Do not intentionally drift down on whales.
- Vessels in multi-vessel approaches should maintain communication with each other (via channels 9, 13, or 16 for hailing) to coordinate viewing.
- Take into account the presence of obstacles (vessels, structures, fishing gear, or the shoreline). All vessels in close approach must stay to the side or behind the whales so they do not box in the whales or cut off their path

STAND-BY ZONE

300 feet - 600 feet away from whales:

- Two vessel limit within the 300- to 600- ft Stand-By- Zone at any one time.

CLOSE APPROACH ZONE

100 feet - 300 feet away from whales:

- One vessel limit.
- Other vessels stand off (up to two vessels in Stand-By Zone - others outside 600 feet).
- If more than one vessel is within 600 feet, the vessel within 300 feet should limit its time to 15 minutes in close approach to whales.

NO INTENTIONAL APPROACH WITHIN 100 FEET OF WHALES

If whales approach within 100 feet of your vessel, put engines in neutral and do not re-engage propulsion until whales are observed clear of harm's way from your vessel.

DEPARTURE PROCEDURES

All vessels should leave the whales following the same speed and distance procedures described above. In order for vessels to be clear of whales before dark, vessels should cease whale watching and begin their return to port 15 minutes before sunset.

NOAA Fisheries – Southeast Region

GUIDELINES

Bottlenose Dolphins

Dolphin SMART

Dolphin SMART is a unique voluntary recognition and education program encouraging responsible viewing of wild dolphins. Program participation is for commercial businesses conducting and booking wild dolphin tours, or any commercial vessel that may opportunistically view wild dolphins. The Dolphin SMART program offers participation incentives for businesses that follow the program criteria and educate their customers about the importance of minimizing wild dolphin harassment. It also includes an important research component that provides insight about the daily lives of the local, wild dolphin populations.

Mission: To promote responsible stewardship of wild dolphins in coastal waterways.

Stay back 50 yards from dolphins.

Move away cautiously if dolphins show signs of disturbance.

Always put your engine in neutral when dolphins are near.

Refrain from feeding, touching, or swimming with wild dolphins.

Teach others to be dolphin SMART.

Dolphin SMART Program Purpose:

- Minimize the potential of wild dolphin harassment caused by commercial viewing activities.
- Reduce expectations of close interaction with wild dolphins in a manner that may cause harassment.
- Eliminate advertising that creates expectations of engaging in activities that may cause harassment.
- Promote stewardship of local coastal waterways.

Dolphins, Porpoises, and Sea Turtles

Viewing “Code of Conduct”

- Remain a respectful distance from marine mammals and sea turtles. The minimum recommended distances are:
 - Dolphins, porpoises, seals = 50 yards
 - Sea turtles = 50 yards
 - Whales = 100 yards (*Federal law prohibits all approaches to right whales within 500 yards.)
- Limit your viewing time to ½ hour.
- Travel in a predictable manner.
- If you need to move around marine wildlife, do so from behind (i.e., never approach head-on). Marine mammals and sea turtles should not be encircled or trapped between

watercraft, or watercraft and shore. If approached by a marine mammal or sea turtle, put your watercraft's engine in neutral and allow the animal to pass. Any vessel movement should be from the rear of the animal. (Pursuit of marine mammals and sea turtles is prohibited by Federal law.)

- Be aware that marine mammals may surface in unpredictable locations.
- Be on the look-out for seals.
- Marine mammals are more likely to be disturbed when more than one boat is near them.
- Marine mammals have sensitive hearing and many species communicate by vocalizing underwater.
- Even if approached by a marine mammal or sea turtle, do not touch or swim with the animals.
- Cautiously move away from the animals if you observe any of the following behaviors:
 - Rapid changes in direction or swimming speed.
 - Erratic swimming patterns.
 - Escape tactics such as prolonged diving, underwater exhalation, underwater course changes, or rapid swimming at the surface.
 - Tail slapping or lateral tail swishing at the surface.
 - Female attempting to shield a calf with her body or by her movements.
- Never feed or attempt to feed marine mammals or sea turtles. (Federal law prohibits feeding or attempting to feed marine mammals.)

REGULATIONS

Approaching Right Whales

50 U.S. Code of Federal Regulations 224.103(c)

The right whale is protected by separate State and Federal regulations that prohibit approach within 500 yards of this species. Any vessel finding itself within the 500 yard buffer zone created by a surfacing right whale must depart immediately at a safe slow speed. The only vessels allowed to remain within 500 yards of a right whale are vessels with appropriate research permits, commercial fishing vessels in the act of hauling back or towing gear, or any vessel given prior approval by NOAA Fisheries to investigate a potential entanglement. (For more information, see REGULATIONS under the NOAA Fisheries – Northeast Region).

WEBSITES FOR ADDITIONAL INFORMATION

Dolphin SMART: <http://sanctuaries.noaa.gov/dolphinmart/>

NOAA Fisheries Southeast Region Bottlenose Dolphin Conservation:
<http://sero.nmfs.noaa.gov/pr/mm/dolphins/bdconservation.htm>

U.S. Code of Federal Regulations: <http://ecfr.gpoaccess.gov/>

Stay at least 50 yards from dolphins

Move away cautiously if dolphins show signs of disturbance

Always put your engine in neutral when dolphins are near

Refrain from feeding, touching, or swimming with wild dolphins

Teach others to be Dolphin SMART



Dolphin SMART Mission

To promote responsible viewing of wild dolphins in the Florida Keys National Marine Sanctuary



The development and implementation of Dolphin SMART involves all stakeholders, including federal government agencies, non-governmental organizations, researchers, commercial businesses, and members of the public.

To learn more about becoming Dolphin SMART or for a current list of active Dolphin SMART participants, email:

contact@dolphinSMART.org

Or visit the Dolphin SMART Web site:

www.dolphinSMART.org

All photos taken under NOAA Fisheries Service permit.

Dolphin SMART is made possible through support from the following sponsors:



Promoting **Responsible Viewing** of Wild Dolphins



Why Practice Responsible Viewing?

Bottlenose dolphins are frequently seen in coastal waters of the Southeastern U.S. and can easily be viewed from shore or by boat. Watching them in their natural habitat can be an exhilarating experience. However, when we approach wild dolphins too closely, move too quickly, or make too much noise, we increase the risk of disrupting their natural behaviors, such as migration, breathing, nursing, breeding, feeding, and sheltering. Disruption of these natural behaviors is a form of harassment and against Federal law.



What is Dolphin SMART?

Dolphin SMART is a unique, voluntary recognition and education program offering participation incentives for commercial businesses conducting and booking wild dolphin viewing that voluntarily follow the "program criteria," and educate their customers about the importance of responsible viewing of wild dolphins. The program also includes an important research component that provides insight about wild dolphin populations in local areas and helps to monitor the effectiveness of the program.



Dolphin SMART Program Purpose:

- Minimize the potential of wild dolphin harassment caused by commercial viewing activities.
- Reduce people's expectations of wanting to closely interact with wild dolphins in a manner that may cause harassment.
- Eliminate advertising that creates expectations to engage in activities that may cause harassment.

A SMART Start! History of Dolphin SMART.....



A special area of the Florida Keys National Marine Sanctuary is home to a resident group of bottlenose dolphins. It is also where many businesses conduct dolphin tours in a limited geographic area. The heightened amount of human activity in this area may cause unnecessary stress to the local population by disrupting their natural behaviors.

This prompted conservation agencies, including NOAA's National Marine Sanctuary Program and National Marine Fisheries Service, and the Whale and Dolphin Conservation Society, as well as local commercial operators and members of the public, to team up and develop a multifaceted program to promote responsible viewing of wild dolphins and recognize commercial businesses who participated. Before long the program called, Dolphin SMART, was off to a great start!



What it Means to be Dolphin SMART...

Dolphin SMART businesses provide an enhanced tour experience by offering customers:

- Detailed knowledge about the laws protecting wild bottlenose dolphins.
- Information on how to responsibly view wild dolphins and recognize signs of harassment.
- Fun and informative educational materials.
- Details about local dolphin populations and research.
- Up-to-date knowledge about wild dolphin conservation by attending continuing education workshops to enhance educational opportunities for themselves and their customers.

What it Takes to be Dolphin SMART...



All participants must voluntarily adhere to:

- **Program Criteria:** Legal requirements, policies, and guidelines, as well as best viewing and advertising practices to prevent harassment of wild dolphins.
- **Training and Education:** Participation in an initial training workshop and yearly online refresher training.
- **Evaluation for Participation and Recognition:** Initial evaluation to establish participation and receive program recognition. Annual evaluation to ensure active compliance with the program criteria and determine the program's effectiveness.

SMART-ly Recognized...



Upon successful completion of the training and evaluation, Dolphin SMART businesses receive materials identifying them as active Dolphin SMART participants, such as flags and decals featuring the Dolphin SMART logo and current calendar year.

Look Before You Book!

Only businesses with flags and decals featuring the current calendar year are considered active Dolphin SMART participants.

Get Off to a Great Start, Be Dolphin SMART!

By choosing to follow the Dolphin SMART criteria, businesses demonstrate their care and concern for dolphin conservation and responsible wildlife viewing.

NOAA Fisheries – Southwest Region

GUIDELINES

Large Whales

NOAA Fisheries recommends the following guidelines to help keep you and the whales safe on your next boating trip.

- Be alert and avoid disturbing whales and changing their normal behavior.
- ALWAYS attempt to stay 100 yards away from a whale.
- If a situation arises where you cannot avoid a whale or whales by 100 yards, DO NOT:
 - Move into the path of a whale
 - Move faster than a whale; DO operate at a no-wake speed.
 - Make erratic speed or directional changes, unless to avoid collision with a whale.
 - Get between two whales
 - Chase any whales
 - Feed any whales

REGULATIONS

No specific regulations. Abide by statutory requirements of the Marine Mammal Protection Act and Endangered Species Act.

WEBSITES FOR ADDITIONAL INFORMATION

NOAA Fisheries Southwest Region Whale Watching Guidelines:
<http://swr.nmfs.noaa.gov/psd/watching.htm>

Common Whale Species Found Off the Coast of California



D. Weller, NOAA



S. Wilkin, NOAA/NMFS SWR



I. Beasley, NOAA/NMFS SWFSC



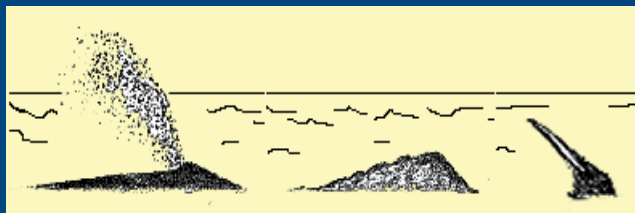
E. Crapo

Gray whale (*Eschrichtius robustus*): Body mottled gray; frequently with whale lice on head; no dorsal fin; bumps, ridges or knuckles on tail stock; heart-shaped blow; flukes raised high above the surface before deep dives; up to 46 feet in length; migrates from Alaska to Baja California; can be seen in California from October through July (most likely December through June); females with accompanying calves can be seen during late winter and early spring.

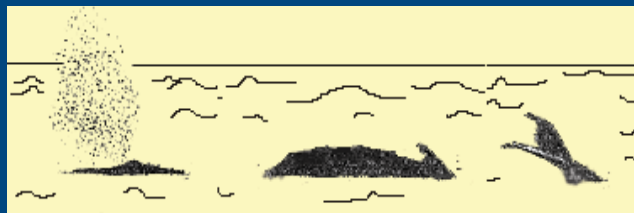
Humpback Whale (*Megaptera novaeangliae*): body dark gray with black and white patches on underside; long white and black flippers; head covered with knobs or nodules; two-step dorsal fin; single rounded bushy blow; flukes raised before deep dives; up to 52 feet in length; migrates from coastal Central America and Mexico to southern British Columbia; commonly seen in California in summer and fall; endangered.

Blue Whale (*Balaenoptera musculus*): body mottled bluish-gray; very small dorsal fin situated far on the back; flukes often raised before dives; tall, columnar blow; up to 85 feet in length (the largest living animal); migrates from coastal Central America and Mexico to Oregon; most commonly seen in California from May through September; endangered.

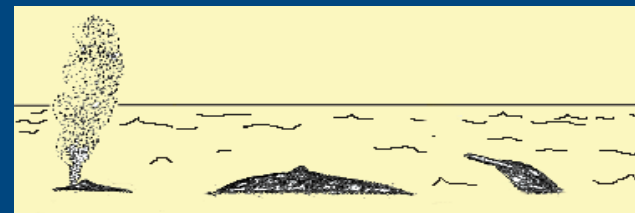
Fin Whale (*Balaenoptera physalus*): Body solid gray to black above and white below with a chevron pattern behind head often visible from above; long streamlined body; sharp, variably shaped dorsal fin; blow tall and shaped like an inverted cone; rarely raises flukes on long dives; up to 79 feet in length; the second-largest species of whale; can be seen year-round, but most often seen during the summer and winter months; endangered.



Blow is heart-shaped from a head-on view. No dorsal fin; knuckles are visible prior to dive. Flukes lifted high in the air for deep dives.



Blow is round and bushy. Dorsal fin drops below surface; tail arches prior to dive. Flukes are lifted high above surface prior to dive.



Blow is tall and columnar. Dorsal fin visible briefly prior to arching back before dive. Flukes raised slightly above the surface at a shallow angle.



Blow is tall and shaped like an inverted cone. Dorsal fin visible prior to dive. Rarely raises flukes.

NOAA

NOAA
FISHERIES
SERVICE

CALIFORNIA
WHALE
WATCHING
GUIDELINES



For more information or questions about these guidelines, contact:

**NOAA Fisheries Service
Southwest Regional Office**

(562) 980-3232

<http://swr.nmfs.noaa.gov>

To report incidents of harassment, please contact:

**Southwest Region
NOAA Office of Law
Enforcement**

(562) 980-4050

-or-

**NOAA Law Enforcement
Hotline**

(800) 853-1964

To report an injured or entangled whale, please call:

**1-877-SOS-WHALE
(767-9425)**

**or hail the U.S. Coast Guard
on VHF Channel 16.**

Whale watching can be a positive, enriching and educational experience when conducted safely and responsibly.

NOAA Fisheries Service recommends the following guidelines to help keep you and the whales safe on your next boating trip.

1. Be alert and avoid disturbing whales and changing their normal behavior.

2. ALWAYS attempt to stay 100 yards away from a whale.

3. If a situation arises where you cannot avoid a whale or whales by 100 yards, DO NOT:

- Move into the path of a whale
- Move faster than a whale;
DO operate at a no-wake speed.
- Make erratic speed or directional changes, unless to avoid collision with a whale.
- Get between two whales
- Chase any whales
- Feed any whales

NOAA Fisheries Service is responsible for protecting whales under the Marine Mammal Protection Act (MMPA) and the Endangered Species Act (ESA). California offers a unique opportunity for the public to view these wild, majestic animals in their natural habitat all year long.

However, efforts by the general public to closely approach or otherwise interact with whales can lead to harassment, which is illegal under the MMPA and ESA. Harassment is considered to be an act of pursuit, torment or annoyance which has the potential to injure a whale or disrupt its natural behavior.

From a biological and management standpoint, the harassment of whales by the general public continues to be a concern. In addition, there are significant public safety issues to consider, as people have been injured while attempting to interact too closely with whales in their natural habitat.

NOAA Fisheries – Northwest Region

GUIDELINES

Seals and Sea lions

Share the Shores

Seals and sea lions use shoreline habitat every day to rest and regulate their body temperature. Please share the shore and do not disturb seals and sea lions when they are on land.

Do:

- Give seals and sea lions space. Avoid approaching closer than 100 yards/meters.
- Keep dogs away at all times. Marine mammals carry diseases that can be transmitted to you and your pet.
- Report any injured or dead marine mammal, please call 1-800-853-1964 and provide information about the location and condition of the animal. You can also call your local stranding network.

Don't

- Disturb, move, feed or touch any marine mammal, including harbor seal pups. All marine mammals are protected under the Marine Mammal Protection Act and it is illegal for unauthorized persons to harass, handle, or feed them.

Seals, Sea Lions, and Birds on Land

- BE CAUTIOUS AND QUIET when around haul-outs and bird colonies, especially during breeding, nesting and pupping seasons (generally May to September).
- REDUCE SPEED, minimize wake, wash and noise, and then slowly pass without stopping.
- AVOID approaching closer than 100 meters/yards to any marine mammals or birds.
- PAY ATTENTION and move away, slowly and cautiously, at the first sign of disturbance or agitation.
- DO NOT disturb, move, feed or touch any marine wildlife, including seal pups. If you are concerned about a potentially sick or stranded animal, contact your local stranding network where available.

Whales, Porpoises and Dolphins

- **BE CAUTIOUS and COURTEOUS:** approach areas of known or suspected marine wildlife activity with extreme caution. Look in all directions before planning your approach or departure.
- **SLOW DOWN:** reduce speed to less than 7 knots when within 400 meters/yards of the nearest whale. Avoid abrupt course changes
- **KEEP CLEAR** of the whales' path. If whales are approaching you, cautiously move out of the way.
- **DO NOT APPROACH** from the front or from behind. Always approach and depart from the side, moving in a direction parallel to the direction of the whales, porpoises or dolphins.
- **DO NOT APPROACH** or position your vessel closer than 100 meters/yards to any whale, porpoise or dolphin.* (Killer whales have special protection in Canadian and U.S. waters. Be sure to educate yourself about new protections, including regulations with specific distances and recommendations for viewing killer whales.)
- If your vessel is not in compliance with the 100 meters/yards approach guideline, place engine in neutral and allow whales to pass.
- **STAY** on the **OFFSHORE** side of the whales when they are traveling close to shore.
- **LIMIT** your viewing time to a recommended maximum of 30 minutes. This will minimize the cumulative impact of many vessels and give consideration to other viewers.
- **DO NOT** swim with, touch or feed marine wildlife.
- **DO NOT** drive through groups of porpoises or dolphins to encourage bow or stern-riding.
- Should dolphins or porpoises choose to ride the bow wave of your vessel, avoid sudden course changes. Hold course and speed or reduce speed gradually.

Kayaker Code of Conduct to Assist in Adhering to the Laws

- If whales are present when launching from shore or another vessel, kayakers will assess their position relative to the whales to determine their course of action. Kayakers can safely launch as long as they can maintain at least a 200 yard distance and avoid the 400 yard corridor in front of on-coming whales considered to be the whales' path. Preferably, kayakers should view the whales from shore and/or launch after the whales have passed.
- When whales are approaching an area, kayakers will assess their position relative to the whales and the nearest shoreline to determine their course of action. Preferably kayakers will choose to paddle on the inshore side of whales. If paddling in a group, kayakers should stay close together.
- To avoid being in the path of whales, kayakers will need to start moving out of the path of on-coming whales well before the whales are within 400 yards.
 - Kayakers will need to determine if by moving to shore they can maintain a 200 yard distance from whales and if it is possible to make their way to shore while avoiding the potential path of whales.

- In some cases, kayakers may need to stay where they are, or move further offshore to avoid being within 200 yards of whales and to avoid being in the whales' path.
- If kayakers decide to remain where they are, or to move inshore of whales, or offshore of whales, they can remain paddling, or choose to stop paddling and raft-up, as long as they can maintain at least a 200 yard distance and avoid the path of the whales. Kayakers may need to continuously alter their course and/or position to keep out of the whales' path.
- If whales are approaching to within 200 yards of shore, inshore kayakers will move in as close to shore as possible (ideally in kelp beds), secure themselves, raft up and stop paddling until the whales have passed by. Kayakers will avoid headlands when deciding where to stop in order to avoid being in the potential path of whales.
- If kayakers have taken all measures to maintain a 200 yard distance and stay out of the path from whales and still unexpectedly find themselves out of compliance with the laws they shall:
 - Paddle out of the on-coming path of whales 400-200 yards from whales;
 - Immediately stop paddling within 200 yards until the whales have passed.
- Kayakers shall avoid disturbing haul out areas for seals/sea lions and/or sea bird nesting sites by paddling in at least a 100-yard arc, whenever possible. May through October is the most sensitive time of the year for birthing and breeding seals, sea lions and nesting sea birds. During these times, kayakers will use extra caution: avoiding noise, direct eye contact, and sporadic movements.
- Kayakers will avoid approaching within 200 yards of a National Wildlife Refuge to avoid disturbing haul out areas for seals/sea lions and/or sea bird nesting sites whenever possible. No landings are permitted except at designated areas.
- Do not disturb, move, feed, or touch any marine wildlife, including seal pups. If you are concerned about a potentially sick or stranded animal, contact the local stranding network hot-line number on this brochure.

REGULATIONS

Protective Regulations for Killer Whales in Washington State

50 U.S. Code of Federal Regulations 224.103(e)

(1) Applicability. The following restrictions apply to all motorized and nonmotorized vessels in inland waters of the United States east of a line connecting Cape Flattery, Washington (48°23'10" N./124°43'32" W.), Tatoosh Island, Washington (48°23'30" N./124°44'12" W.), and Bonilla Point, British Columbia (48°35'30" N./124°43'00" W.) and south of the U.S./Canada international boundary. The shoreline boundary is the charted mean high water line cutting across the mouths of all rivers and streams.

(2) Prohibitions. Except as provided in paragraph (e)(3) of this section, it is unlawful for any person subject to the jurisdiction of the United States to:

- (i) Cause a vessel to approach, in any manner, within 200 yards (182.9 m) of any killer whale.

- (ii) Position a vessel to be in the path of any killer whale at any point located within 400 yards (365.8 m) of the whale. This includes intercepting a killer whale by positioning a vessel so that the prevailing wind or water current carries the vessel into the path of the whale.
- (3) Exceptions. The following exceptions apply to this section:
- (i) The prohibitions of paragraph (e)(2) of this section do not apply to
 - (A) Federal Government vessels operating in the course of their official duty or state and local government vessels when engaged in official duties involving law enforcement, search and rescue, or public safety.
 - (B) Vessels participating with a Vessel Traffic Service (VTS) and following a Traffic Separation Scheme or complying with a VTS Measure of Direction. This also includes support vessels escorting ships in the traffic lanes, such as tug boats.
 - (C) Vessels engaged in an activity, such as scientific research, authorized through a permit issued by the National Marine Fisheries Service under part 222, subpart C, of this chapter (General Permit Procedures) or through a similar National Marine Fisheries Service authorization.
 - (D) Vessels lawfully engaged in commercial or treaty Indian fishing that are actively setting, retrieving, or closely tending fishing gear.
 - (E) Vessel operations necessary to avoid an imminent and serious threat to a person, vessel or the environment, including when necessary for overall safety of navigation and to comply with the Navigation Rules.
- (4) Affirmative defense. In connection with any action alleging a violation of the prohibitions of paragraph (e)(2) of this section, any person claiming the benefit of any exception listed in paragraph (e)(3) of this section has the burden of raising, pleading, and proving such affirmative defense.

WEBSITES FOR ADDITIONAL INFORMATION

Be Whale Wise: <http://www.bewhalewise.org/>

The Whale Museum: www.whalemuseum.org

Soundwatch Boater Education Program:
<http://www.whalemuseum.org/programs/soundwatch/soundwatch.html>

Straitwatch: <http://cetussociety.org/marine-stewardship-programs/straitwatch/>

Pacific Whale Watch Association: www.pacificwhalewatch.org

U.S. Code of Federal Regulations: <http://ecfr.gpoaccess.gov/>

Be Whale Wise

MARINE WILDLIFE GUIDELINES FOR BOATERS, PADDLERS AND VIEWERS (Revised 2011)



ALERT:
Check out updated
guidelines and new
regulations!

Guidelines for whales, porpoises and dolphins:

1. BE CAUTIOUS and COURTEOUS: approach areas of known or suspected marine wildlife activity with extreme caution. Look in all directions before planning your approach or departure.
2. SLOW DOWN: reduce speed to less than 7 knots when within 400 metres/yards of the nearest whale, porpoise or dolphin. Avoid abrupt course changes.
3. **KEEP CLEAR of the whales' path.** If whales are approaching you, cautiously move out of the way.
4. DO NOT APPROACH from the front or from behind. Always approach and depart from the side, moving in a direction parallel to the direction of the whales, porpoises or dolphins.
5. **DO NOT APPROACH or position your vessel closer than 100 metres/yards to any whale, porpoise or dolphin.***
6. If your vessel is not in compliance with the 100 metres/yards approach guideline (#5), place engine in neutral and allow whales to pass.
7. STAY on the OFFSHORE side of the whales when they are traveling close to shore.
8. LIMIT your viewing time to a recommended maximum of 30 minutes. This will minimize the cumulative impact of many vessels and give consideration to other viewers.
9. DO NOT swim with, touch or feed marine wildlife.
10. DO NOT drive through groups of porpoises or dolphins to encourage bow or stern-riding.
11. Should dolphins or porpoises choose to ride the bow wave of your vessel, avoid sudden course changes. Hold course & speed or reduce speed gradually.

Seals, sea lions and birds on land:

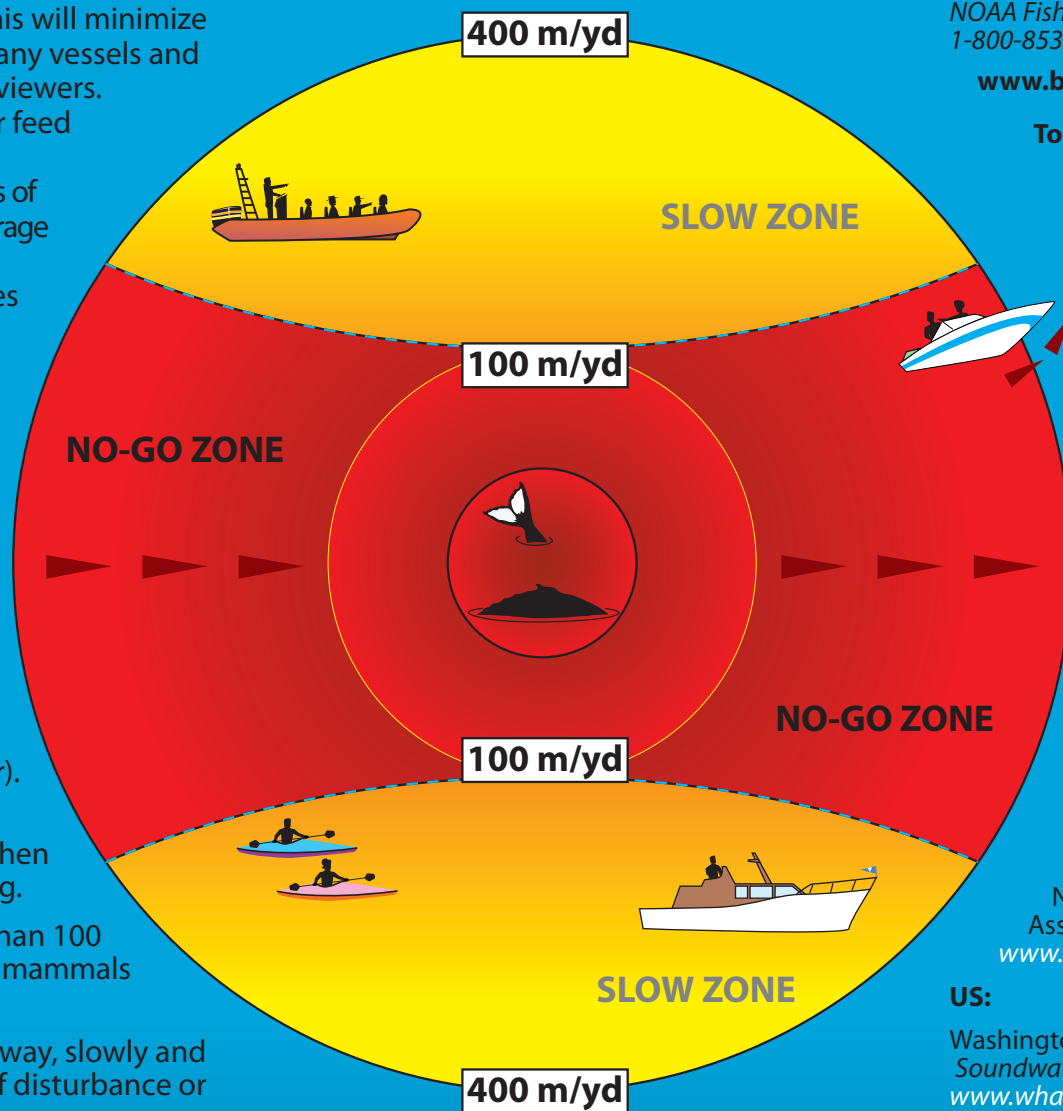
1. BE CAUTIOUS AND QUIET when around haul-outs and bird colonies, especially during breeding, nesting and pupping seasons (generally May to September).
2. REDUCE SPEED, minimize wake, wash and noise, and then slowly pass without stopping.
3. AVOID approaching closer than 100 metres/ yards to any marine mammals or birds.
4. PAY ATTENTION and move away, slowly and cautiously, at the first sign of disturbance or agitation.
5. DO NOT disturb, move, feed or touch any marine wildlife, including seal pups. If you are concerned about a potentially sick or stranded animal, contact your local stranding network where available.

Killer Whales:

* Killer whales have special protection in Canadian and U.S. waters. Be sure to educate yourself about new protections, including regulations with specific distances and recommendations for viewing killer whales.

Marine Protected Areas, Wildlife Refuges, Ecological Reserves & Parks:

1. CHECK your nautical charts for the location of various protected areas.
2. ABIDE by posted restrictions or contact a local authority for further information.



The Laws:

Regulations in Canada and the U.S. prohibit the harassment and disturbance of marine mammals. Many species are threatened or endangered and subject to additional protections under the Endangered Species Act (U.S.) and the Species at Risk Act (Canada).

Learn about and follow all local laws.

What is a disturbance?

Disturbance is when we interfere with an animal's ability to hunt, feed, communicate, socialize, rest, breed, or care for its young.

These are critical life processes, necessary for healthy marine wildlife populations.

To report a marine mammal disturbance or harassment:

CANADA:

Fisheries and Oceans Canada:
1-800-465-4336

US:

NOAA Fisheries, Office for Law Enforcement:
1-800-853-1964

www.bewhalewise.org

To report marine mammal sightings:

BC Cetacean Sightings Network (BC)
www.wildwhales.org or 1-866-1SAW ONE

The Whale Museum Hotline (WA state):
hotline@whalemuseum.org
or 1-800-562-8832

Orca Network (WA state)
info@orcaneetwork.org
or 1-866-ORCANET

Need more information?

CANADA:

Victoria and Southern Gulf Islands, Johnstone Strait and Northern Vancouver Island, West Coast Vancouver Island:
Straitwatch
www.straitwatch.org or 250-590-7723

Robson Bight (Michael Bigg) Ecological Reserve:
www.env.gov.bc.ca/bcparks/eco_reserve/robsonb_er.html

Fisheries and Oceans Canada:
www.dfo-mpo.gc.ca

North Island Marine Mammal Stewardship Association:
www.nimmsa.org

US:

Washington State, Haro Strait Region:
Soundwatch Boater Education Program
www.whalemuseum.org or 360-378-4710

Washington Department of Fish and Wildlife:
www.wdfw.wa.gov/conservation/orca/

NOAA Fisheries, Northwest Region:
www.nwr.noaa.gov

NOAA Fisheries, Office of Protected Resources:
www.nmfs.noaa.gov/pr/education/viewing.htm

Pacific Whale Watch Association:
www.pacificwhalewatch.org



NOAA Fisheries – Alaska Region

GUIDELINES

Humpback Whales

The humpback whale approach regulation has been in effect since July 2001 and requires that you:

- Not approach within 100 yards of a humpback whale.
- Not place your vessel in the path of oncoming humpback whales causing them to surface within 100 yards of your vessel.
- Operate your vessel at a slow, safe speed when near a humpback whale.
- Some exceptions apply (see below under REGULATIONS).

All Marine Mammals

A Code of Conduct

Federal law prohibits pursuit of marine mammals.

- Remain at least 100 yards from marine mammals.
- Time spent observing individual(s) should be limited to 30 minutes.
- Whales should not be encircled or trapped between boats, or boats and shore.
- If approached by a whale, put the engine in neutral and allow the whale to pass.

Even if approached by a marine mammal:

- Offering food, discarding fish or fish waste, or any other food item is prohibited.
- Do not touch or swim with the animals. They can behave unpredictably and may also transmit disease.

How to Observe Marine Mammal Behaviors and Minimize Your Impact

While viewing marine mammals, your actions should not cause a change in the behavior of the animals. Individual animal's reactions will vary; carefully observe all animals in the vicinity. Assume that your action is a disturbance and cautiously leave the vicinity if you observe behaviors such as these:

Seals, Sea Lions, and Fur Seals:

- Increased movements. . . away from the disturbance; hurried entry into the water by many animals, or herd movement towards the water
- Increased vocalization, aggressive behavior. . . by many animals towards the disturbance; several individuals raising their heads simultaneously.

Whales, Dolphins, and Porpoise:

- Changes in swimming. . . such as rapid changes in direction, speed; erratic swimming patterns. Escape tactics such as prolonged diving , underwater exhalation, underwater course changes, or rapid swimming at the surface. Female attempting to shield a calf with her body or by her movements.

- Surface displays. . . like tail slapping or lateral tail swishing at the surface.

Keep Your Distance

- Bring binoculars along on a viewing excursion to ensure a good view from the required viewing distance.
- Use extra caution when viewing seals and sea lions that are on land or ice, as harassment may occur at distances greater than 100 yards.
- When encountering seals or sea lions hauled out on land or ice, avoid making the animal(s) aware of your presence: keep noise low, stay hidden and stay downwind.
- Pups are often left alone while the mother feeds. They are not abandoned and should not be disturbed.
- Glacier Bay National Park and Preserve has specific marine mammal regulations. Vessel entry permits are required - consult National Park Service officials.
- All major Steller sea lion haulouts and rookeries throughout Alaska are protected by regulation. Extra caution is needed in these areas to prevent harassment of Steller sea lions in their critical habitat. Critical habitat includes the air, land and sea surrounding the site to 3,000 ft (0.9 km) in all directions. From Cape Suckling (144° West) throughout western Alaska protection is increased. Critical habitat at sea increases to 20 nautical miles (37 km). For rookeries, no-entry zones exist to 3 nautical miles (5.5 km) at sea and 0.5 miles (0.8 km) on land, or within sight of a rookery, whichever is greater. At Marmot Island, the no-entry zone is increased to 1.5 miles (2.4 km) on land. Critical habitat regulations and maps of critical habitat are available through the NOAA Fisheries. (For additional information, see below under REGULATIONS).
- Regulations prohibit persons from entering northern fur seal rookeries on St. Paul and St. George Islands without special permission.

How to Conscientiously View Marine Mammals from a Boat

Whales may surface in unpredictable locations.

- Breaching and flipper-slapping whales may endanger people or vessels.
- Feeding humpback whales often emit sub-surface bubbles before rising to feed at the surface. Stay clear of these light green bubble patches.
- Noise may help whales know your location and avoid whale and vessel collisions. For example, if your engine is not running, occasionally tap the side of the boat with a hard object.

If you need to move around a whale, do it from behind the whale.

- Vessels that wish to position themselves to allow whales to pass the vessel should do so in a manner that stays fully clear of whale's path.

Marine mammals are more likely to be disturbed when more than one boat is near them.

- Avoid approaching marine mammals when another vessel is near.
- Marine mammals should not be encircled or trapped between boats, or boats and shore.
- Always leave marine mammals an escape route.
- When several vessels are in an area, communication between vessel operators may reduce the potential for disturbance.

Limit your time with any individual or group of marine mammals to 30 minutes.

- Your vessel may not be the only vessel in the day that approaches the same animal(s). Please be aware that cumulative impact may occur.

Vessels traveling in a predictable manner appear to be less disturbing to animals.

- Pursuit of marine mammals is prohibited by law.
- Never attempt to herd, chase, or separate groups of marine mammals or females from their young.
- Avoid excessive speed or sudden changes in speed or direction in the vicinity of whales.
- The departure from a viewing area has as much potential to disturb animals as the approach.

How to View Marine Mammals from an Airplane or Helicopter

- Maintain a 1500-foot minimum altitude when viewing marine mammals from the air.
- Buzzing, hovering, landing, taking off, and taxiing near marine mammals on land or in the water is likely to harass the animals.

Alaska Marine Mammal Code of Conduct

A partnership with Alaska Sea Grant, NOAA Fisheries, U.S. Fish and Wildlife Service, U.S. National Park Service, and the Alaska Department of Fish and Game. Guidance relevant to marine mammals includes:

To avoid disturbance of whales, dolphins and porpoises the operator will:

- Slow the vessel to no-wake speed when within a quarter mile (400 yards) of whales.
- Stay at least 100 yards from whales, or further if needed to prevent animals from altering their behavior.
- Not chase, pursue, herd, encircle, or separate animals from their group.
- View whales from the side or from behind and travel parallel to them.
- Not “leapfrog” whales to get them to approach the boat.
- Not chase or cut into groups of porpoises to encourage bow-riding.
- Not make sudden speed or course changes.
- Minimize maneuvering to keep engine and vessel noise as low as safely possible.
- Limit time in the presence of each whale or group of whales to 30 minutes.
- Not crowd other vessels in the vicinity.

To avoid disturbance of other marine mammals the operator will:

- Slow to no-wake speed for sea otters, seals, and sea lions in the water and, if not intending to do viewing or photography, divert around them by a sufficient distance to prevent evasive actions by the animals.
- Never pursue animals, and stay far enough away that they do not change their behaviors.
- Give an extra margin of distance to females with their young.
- Maintain at least 100 yards from hauled out seals and sea lions, or more to prevent altering animals’ behavior.
- Wherever practical, remain downwind of haulouts.

REGULATIONS

Approaching Humpback whales in Alaska

50 U.S. Code of Federal Regulations 224.103(b)

(1) Prohibitions. Except as provided under paragraph (b)(2) of this section, it is unlawful for any person subject to the jurisdiction of the United States to commit, to attempt to commit, to solicit another to commit, or to cause to be committed, within 200 nautical miles (370.4 km) of Alaska, or within inland waters of the state, any of the acts in paragraphs (b)(1)(i) through (b)(1)(iii) of this section with respect to humpback whales (*Megaptera novaeangliae*):

- (i) Approach, by any means, including by interception (i.e., placing a vessel in the path of an oncoming humpback whale so that the whale surfaces within 100 yards (91.4 m) of the vessel), within 100 yards (91.4 m) of any humpback whale;
- (ii) Cause a vessel or other object to approach within 100 yards (91.4 m) of a humpback whale; or
- (iii) Disrupt the normal behavior or prior activity of a whale by any other act or omission, as described in paragraph (a)(4) of this section.

(2) Exceptions. The following exceptions apply to this paragraph (b), but any person who claims the applicability of an exception has the burden of proving that the exception applies:

- (i) Paragraph (b)(1) of this section does not apply if an approach is authorized by the National Marine Fisheries Service through a permit issued under part 222, subpart C, of this chapter (General Permit Procedures) or through a similar authorization.
- (ii) Paragraph (b)(1) of this section does not apply to the extent that a vessel is restricted in her ability to maneuver and, because of the restriction, cannot comply with paragraph (b)(1) of this section.
- (iii) Paragraph (b)(1) of this section does not apply to commercial fishing vessels lawfully engaged in actively setting, retrieving or closely tending commercial fishing gear. For purposes of this paragraph (b), commercial fishing means taking or harvesting fish or fishery resources to sell, barter, or trade. Commercial fishing does not include commercial passenger fishing operations (i.e. charter operations or sport fishing activities).
- (iv) Paragraph (b)(1) of this section does not apply to state, local, or Federal government vessels operating in the course of official duty.
- (v) Paragraph (b)(1) of this section does not affect the rights of Alaska Natives under 16 U.S.C. 1539(e).
- (vi) These regulations shall not take precedence over any more restrictive conflicting Federal regulation pertaining to humpback whales, including the regulations at 36 CFR 13.65 that pertain specifically to the waters of Glacier Bay National Park and Preserve.

(3) General measures. Notwithstanding the prohibitions and exceptions in paragraphs (b)(1) and (2) of this section, to avoid collisions with humpback whales, vessels must operate at a slow, safe speed when near a humpback whale. “Safe speed” has the same meaning as the term is defined

in 33 U.S.C. 2006 and the International Regulations for Preventing Collisions at Sea 1972 (see 33 U.S.C. 1602), with respect to avoiding collisions with humpback whales.

Eastern Steller sea lions

50 U.S. Code of Federal Regulations 223.202

- (a)(2) No approach in buffer areas. Except as provided in paragraph (b) of this section:
- (i) No owner or operator of a vessel may allow the vessel to approach within 3 nautical miles (5.5 kilometers) of a Steller sea lion rookery site listed in paragraph (a)(3) of this section;
 - (ii) No person may approach on land not privately owned within one-half statutory miles (0.8 kilometers) or within sight of a Steller sea lion rookery site listed in paragraph (a)(3) of this section, whichever is greater, except on Marmot Island; and
 - (iii) No person may approach on land not privately owned within one and one-half statutory miles (2.4 kilometers) or within sight of the eastern shore of Marmot Island, including the Steller sea lion rookery site listed in paragraph (a)(3) of this section, whichever is greater.

(b) Exceptions

- (1) Permits. The Assistant Administrator may issue permits authorizing activities that would otherwise be prohibited under paragraph (a) of this section in accordance with and subject to the provisions of part 222, subpart C--General Permit Procedures.
- (2) Official activities. The taking of Steller sea lions must be reported within 30 days to the Regional Administrator, Alaska Region. Paragraph (a) of this section does not prohibit or restrict a Federal, state or local government official, or his or her designee, who is acting in the course of official duties from:
- (i) Taking a Steller sea lion in a humane manner, if the taking is for the protection or welfare of the animal, the protection of the public health and welfare, or the nonlethal removal of nuisance animals; or
 - (ii) Entering the buffer areas to perform activities that are necessary for national defense, or the performance of other legitimate governmental activities.
- (3) Subsistence takings by Alaska natives. Paragraph (a) of this section does not apply to the taking of Steller sea lions for subsistence purposes under section 10(e) of the Act.
- (4) Emergency situations. Paragraph (a)(2) of this section does not apply to an emergency situation in which compliance with that provision presents a threat to the health, safety, or life of a person or presents a significant threat to the vessel or property.
- (5) Exemptions. Paragraph (a)(2) of this section does not apply to any activity authorized by a prior written exemption from the Director, Alaska Region, National Marine Fisheries Service. Concurrently with the issuance of any exemption, the Assistant Administrator will publish notice of the exemption in the Federal Register. An exemption may be granted only if the activity will

not have a significant adverse affect on Steller sea lions, the activity has been conducted historically or traditionally in the buffer zones, and there is no readily available and acceptable alternative to or site for the activity.

(6) Navigational transit. Paragraph (a)(2) of this section does not prohibit a vessel in transit from passing through a strait, narrows, or passageway listed in this paragraph if the vessel proceeds in continuous transit and maintains a minimum of 1 nautical mile from the rookery site. The listing of a strait, narrows, or passageway does not indicate that the area is safe for navigation. The listed straits, narrows, or passageways include the following:

Akutan Island.....Akutan Pass between Cape Morgan and Unalga Island.

Clubbing Rocks.....Between Clubbing Rocks and Cherni Island.

Outer Island.....Wildcat Pass between Rabbit and Ragged Islands.

Western Steller sea lions

50 U.S. Code of Federal Regulations 224.103(d)

Special prohibitions relating to endangered Steller sea lion protection. The regulatory provisions set forth in part 223 of this chapter, which govern threatened Steller sea lions, shall also apply to the western population of Steller sea lions, which consists of all Steller sea lions from breeding colonies located west of 144° W. long.

WEBSITES FOR ADDITIONAL INFORMATION

NOAA Fisheries Alaska Region Marine Mammal Viewing Guidelines and Regulations:
<http://www.fakr.noaa.gov/protectedresources/mmv/guide.htm>

U.S. Code of Federal Regulations: <http://ecfr.gpoaccess.gov/>

Marine Mammal Viewing in Alaska

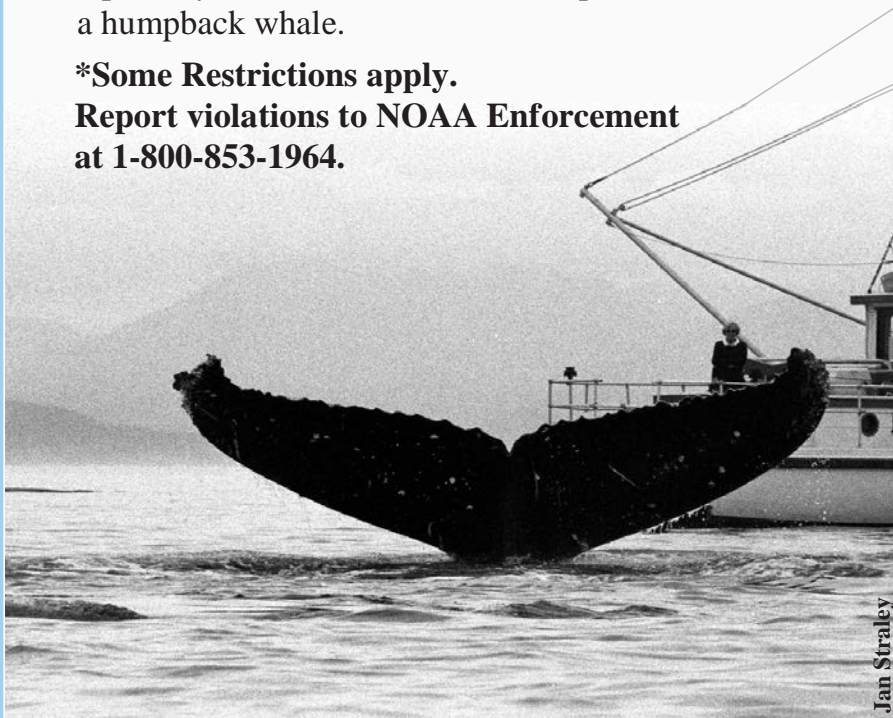
Humpback Whale Approach Regulation Effective July 2, 2001

Regulation requires* that you:

- Not approach within 100 yards of a humpback whale.
- Not place your vessel in the path of oncoming humpback whales causing them to surface within 100 yards of your vessel.
- Operate your vessel at a slow, safe speed when near a humpback whale.

***Some Restrictions apply.**

**Report violations to NOAA Enforcement
at 1-800-853-1964.**



“Code of Conduct” for Marine Mammal Viewing

1. Remain at least 100 yards from marine mammals.
2. Time spent observing individual(s) should be limited to 30 minutes.
3. Whales should not be encircled or trapped between boats, or boats and shore.
4. If approached by a whale, put the engine in neutral and allow the whale to pass.

Pursuit of marine mammals is prohibited by federal law.

Bring binoculars along on a viewing excursion to assure a good view from the required viewing distance.

The “Code of Conduct” is not a replacement for federal law.

See entire regulation and Marine Mammal Viewing Guidelines at www.fakr.noaa.gov

Please report injured or stranded marine mammals to NOAA Fisheries at 907-586-7235.



NOAA Fisheries – Pacific Islands Region

GUIDELINES

Dolphin SMART- See GUIDELINES above under the Southeast Region.

All Marine Wildlife

These guidelines do not replace Federal or state law. Pursuit and feeding of marine mammals is prohibited by Federal law.

- Remain at least 100 yards from humpback whales (Federal law prohibits approaching humpback whales within 100yds), and at least 50 yards from other marine mammals (dolphins, other whale species, and Hawaiian monk seals).
- Observe turtles from a distance.
- Bring binoculars along on viewing excursions to assure a good view from the recommended viewing distances.
- Do not attempt to touch, ride, or feed turtles.
- Limit your time observing an animal to 1/2 hour.
- Marine mammals and sea turtles should not be encircled or trapped between boats or shore.
- If approached by a marine mammal or turtle while on a boat, put the engine in neutral and allow the animal to pass. Boat movement should be from the rear of the animal.

Spinner Dolphins

- Remain at least 50 yards from spinner dolphins.
- Limit your time observing to 1/2 hour.
- Spinner dolphins should not be encircled or trapped between boats or shore.
- If approached by a spinner dolphin while on a boat, put the engine in neutral and allow the animal to pass. Boat movement should be from the rear of the animal.

Six facts about Swimming with Wild Spinner Dolphins

- 1) Swimmers and boats that come to visit wild spinner dolphins in sheltered bays and coastlines during the day could potentially be disturbing a critical period of spinner dolphin rest and potentially be harming the dolphins. Hawaiian spinner dolphins feed off-shore at night and return to sheltered bays and coastlines during the day to rest and tend to their young.
- 2) When people swim with resting wild spinner dolphins, the dolphins may be drawn out of their resting state to investigate the swimmers. This may be a change in behavior which may constitute “harassment” under the Federal law that protects them and other marine mammals - the Marine Mammal Protection Act. Any act of pursuit, torment, or annoyance that has the potential to disrupt a marine mammal's behavior is "harassment" under this Act and is, therefore, against the law.

- 3) Even when spinner dolphins are swimming, they actually may still be resting and sleeping. When dolphins sleep they must be partially awake to keep breathing, so they swim slowly, occasionally surfacing for air, allowing half their brain to sleep at a time.
- 4) If spinner dolphins are disturbed while in their nearshore resting habitat, they may be forced to move to a location not as favorable, putting themselves at risk of predation by animals, like sharks. They may also be forced to use more energy to reach their feeding grounds - energy that would otherwise be used to breed, nurse, and rear their young. Hawaiian spinner dolphins choose certain sheltered, sandy bottom areas to rest because they are close to their feeding sites. The white sand background also makes it easier for them to see predators.
- 5) Studies have shown that human interactions with wild dolphins may affect their behavior and populations.
- 6) The natural curiosity of wild dolphins should never be misinterpreted as "friendly" behavior in which they are purposefully seeking out human attention. Wild dolphins have unpredictable, untrained behaviors. Dolphins seen at marine parks are not "friendly" wild dolphins. These animals are trained dolphins that were either born or raised in human care.

Dolphins may approach people in the wild because they are naturally curious and may investigate unfamiliar objects in their habitat, but this is not safe for humans or the dolphins. The dolphins' natural behaviors are being disturbed when they abandon them to seek out humans. These are wild animals, and as such, need to be respected. People also need to remember that wild dolphins have unpredictable behaviors. Dolphins seen in marine parks are federally permitted to be there and are trained dolphins that were either born or raised in human care, not "friendly" wild dolphins.

REGULATIONS

Approaching humpback whales in Hawaii

50 U.S. Code of Federal Regulations 224.103(a)

Except as provided in part 222, subpart C, of this chapter (General Permit Procedures), it is unlawful for any person subject to the jurisdiction of the United States to commit, to attempt to commit, to solicit another to commit, or to cause to be committed, within 200 nautical miles (370.4 km) of the Islands of Hawaii, any of the following acts with respect to humpback whales (*Megaptera novaeangliae*):

- (1) Operate any aircraft within 1,000 feet (300 m) of any humpback whale;
- (2) Approach, by any means, within 100 yard (90 m) of any humpback whale;
- (3) Cause a vessel or other object to approach within 100 yd (90 m) of a humpback whale; or
- (4) Disrupt the normal behavior or prior activity of a whale by any other act or omission. A disruption of normal behavior may be manifested by, among other actions on the part of the whale, a rapid change in direction or speed; escape tactics such as prolonged diving, underwater course changes, underwater exhalation, or evasive swimming patterns; interruptions of breeding, nursing, or resting activities, attempts by a whale to shield a calf from a vessel or human observer by tail swishing or by

other protective movement; or the abandonment of a previously frequented area.

WEBSITES FOR ADDITIONAL INFORMATION

NOAA Fisheries Pacific Islands Region Marine Wildlife Viewing Guidelines:
http://www.fpir.noaa.gov/PRD/prd_laws_policies_guidelines1.html

NOAA Fisheries Pacific Islands Region Spinner Dolphin Information:
http://www.fpir.noaa.gov/PRD/prd_spinner.html

NOAA Fisheries Pacific Islands Region Swimming with Wild Spinner Dolphins:
http://www.fpir.noaa.gov/PRD/prd_swim_with_wild_dolphins.html

U.S. Code of Federal Regulations: <http://ecfr.gpoaccess.gov/>

Stay at least 50 yards
from dolphins

Move away cautiously if
dolphins show signs of
disturbance

Always put your engine in
neutral when dolphins
are near

Refrain from feeding,
touching, or swimming-
with wild dolphins

Teach others to be
Dolphin SMART



Dolphin SMART Mission

*To promote the responsible
advertising and viewing of wild
dolphins in coastal waters*



*The development and implementation of
Dolphin SMART involves all stakeholders, including
federal government agencies, non-governmental
organizations, researchers, commercial businesses, and
members of the public.*

To learn more about becoming Dolphin SMART
or for a current list of active Dolphin SMART
participants, email:

contact@dolphinSMART.org

Or, visit the Dolphin SMART Web site:

www.dolphinSMART.org

*All photos taken under NOAA NMFS and PIFSC, and SWFSC
permit #774-1714*

Dolphin SMART is made possible through support from the following sponsors:



Promoting responsible
advertising and viewing
of wild dolphins



Why Practice Responsible Viewing?

Hawaiian spinner dolphins are frequently seen in the nearshore, shallow coves and bays of the Hawaiian is-



lands and can be easily viewed from shore or boat. Watching them in their natural habitat can be an exhilarating experience. However, when we approach wild dolphins too closely, move too quickly, or make too much noise, we increase the risk of disrupting their natural behaviors, such as resting, nursing, breathing, breeding, sheltering, and socializing. Disruption of these natural behaviors is a form of harassment and against Federal law.

What is Dolphin SMART?

Dolphin SMART is a unique, voluntary recognition and education program offering participation incentives for commercial dolphin viewing businesses that voluntarily follow the “program criteria,” and educate their customers about the importance of responsible viewing of wild

dolphins in Hawaiian waters. The program also includes an important research component that provides insight about the daily lives of the local, wild marine mammal populations.



Dolphin SMART Program Purpose:

- Minimize the potential of wild dolphin harassment caused by commercial viewing activities.
- Reduce people’s expectations of wanting to closely interact with wild dolphins in a manner that may cause harassment.
- Eliminate advertising that creates expectations to engage in activities that may cause harassment.
- Educate the public about the importance of responsibly viewing wild dolphins.

A SMART Start! History of Dolphin SMART...

A special area of the Florida Keys National Marine Sanctuary is home to a resident group of bottlenose dolphins. It is also where many businesses conduct dolphin tours in a limited geographic area. The heightened amount of human activity in this area may cause unnecessary stress to the local population by disrupting their natural behaviors.

Therefore, NOAA’s National Marine Sanctuary Program and National Marine Fisheries Service, the Dolphin Ecology Project, and the Whale and Dolphin Conservation Society teamed up with local commercial businesses and members of the public to develop Dolphin SMART!

Dolphin SMART was designed for any area with wild dolphin viewing tours by incorporating conservation minded practices



that are good for both dolphins and businesses. Dolphin SMART is already a success in areas of the Southeastern United States and will benefit Hawaii where spinner dolphins frequently come into shallow waters and coves to rest, providing viewing opportunities.

What it Means to be Dolphin SMART...

Dolphin SMART businesses provide an enhanced tour experience by offering customers:

- Detailed knowledge about the laws protecting wild marine mammals.
- Information on how to responsibly view wild dolphins and recognize signs of harassment.
- Fun and informative educational materials.
- Details about local dolphin populations and research.
- Up-to-date knowledge about wild dolphin conservation by attending continuing education workshops to enhance educational opportunities for themselves and their customers.

What it Takes to be Dolphin SMART...

All participants must voluntarily adhere to:

- **Program Criteria:** Legal requirements, policies, and guidelines, as well as best viewing and advertising practices to prevent harassment of wild dolphins.
- **Training and Education:** Participation in an initial training workshop and yearly online refresher training.
- **Evaluation for Participation and Recognition:** Initial evaluation to establish participation and receive program recognition. Annual evaluation to ensure active compliance with the program criteria and determine the program’s effectiveness.



SMART-ly Recognized...

Upon successful completion of the training and evaluation, Dolphin SMART businesses receive materials identifying them as active Dolphin SMART participants, such as flags and decals featuring the Dolphin SMART logo and current calendar year.

Look Before You Book!

Only businesses with flags and decals featuring the current calendar year are considered active Dolphin SMART participants.



Get Off to a Great Start, Be Dolphin SMART!

By choosing to follow the Dolphin SMART criteria, businesses demonstrate their care and concern for dolphin conservation and responsible wildlife viewing and advertising.

Hawaiian Islands Humpback Whale National Marine Sanctuary

GUIDELINES

The Basics: Staying Safe and Legal

All ocean users (power boaters, sailors, jet skiers, kayakers, paddlers, windsurfers, swimmers, divers, etc.) must:

- Keep a Safe Distance – Do not chase, closely approach, surround, swim with, or attempt to touch humpback whales.
- Follow federal regulations that prohibit approaching humpback whales (by any means) within 100 yards (90 m) when on or in the water, and 1,000 feet (300m) when operating an aircraft. This regulation applies to all ocean users, year-round throughout the Hawaiian Islands.

Avoiding Collisions and Disturbance

- Keep a Sharp Lookout – Vessel operators should always stay vigilant for whales and other collision hazards. Look out ahead for “blows” (puffs of mist), dorsal fins, tails, etc. Operators are further advised to post at least one dedicated whale lookout, in addition to the operator, from November through May.
- Watch Your Speed - NOAA recommends that vessels travel at a slow, safe speed in areas where a whale strike may occur. This speed depends on vessel type, time of day, sea conditions, and other factors that affect whale detection and avoidance. Research shows that collisions occurring at vessel speeds above 10 knots cause more whale deaths and serious injuries than collisions occurring at slower speeds.
- Stay at the Helm – Keep hands on the wheel and throttle at all times, and be ready to take action immediately to avoid a whale in your path.
- Keep Your Distance – Once whales are sighted, stay more than 100 yards away.
- Stop Immediately if within 100 yards or less of a humpback whale. Leave engines running, out of gear (in neutral) until the whale moves away.
- Go Around Whales from Behind, while maintaining more than 100 yards distance, if you encounter whales in your path. Do not attempt to run out in front of whales to get past them.
- Warn Other Vessels – Use appropriate VHF radio protocol or other means to alert other vessels that may not be aware of whales in their path.
- Don't Assume Whales See You or will get out of the way. Calves are especially vulnerable since they are curious and may not have learned to be cautious of vessels.
- Plan Ahead for Delays in transit due to whale encounters; avoid nighttime operations if possible.
- Acceptable Maneuvers
 - Viewing from the side: Carefully approach and parallel the whale, remaining more than 100 yards away. If approaching from the rear, maneuver far out and to the side of the whale, before carefully viewing as above. While viewing, match the speed of the slowest whale and follow all other guidelines and regulations.
- Unacceptable Maneuvers

- Approaching head-on: Never approach a whale head-on or in the path of the animal. If a vessel finds itself in the path of the whale, it should safely maneuver out of the path of the animal, while maintaining a distance of more than 100 yards.
- Cutting a whale off from deep water.
- Running in front or cutting across a whale's path.
- Surrounding a whale.
- Placing your vessel between a mother and calf.
- Leapfrogging/Overtaking.

Responsible Wildlife Viewing

In addition to following the 100-yard approach regulation and other whale protection laws, ocean-going whale-watchers should:

- Bring along binoculars and telephoto lenses to assure good views and photographs.
- While passengers may scan in all directions for whales, the vessel operator should always follow the collision avoidance guidelines in this brochure.
- Once whales are sighted, slowly approach and carefully parallel along side, while maintaining more than 100 yards distance.
- Never operate your vessel faster than the slowest whale in the group.
- Never approach whales head-on.
- Never encircle, entrap, herd, or separate whales, especially mothers and calves.
- Always leave whales plenty of room toward the open ocean to use as an "escape route."
- Never "leapfrog" or cut in front of a whale's path.
- Minimize sudden, unnecessary maneuvers or speed changes in the vicinity of whales.
- Limit your observing time to 1/2 hour or less.
- When several vessels are in the area, communicate with the other vessel operators to ensure that you do not cause disturbance.
- Please be aware that cumulative impacts may also occur. You and your vessel may not be the only one that day to have approached the same animals.
- When leaving the viewing area, slowly and vigilantly steer your vessel away – there may be other unseen whales nearby.
- Dispose of trash and vessel waste responsibly.

Signs of Whale Disturbance

Cautiously move away if you observe any of the following behaviors:

- Rapid changes in swimming direction or speed.
- Erratic swimming patterns.
- Escape tactics such as prolonged diving, underwater exhalation, underwater course changes, or rapid swimming away from your location at the surface.
- Female attempting to shield calf with her body or by her movements.
- Sudden stop in important breeding, nursing, feeding or resting activities after your arrival.
- Abandonment of previously frequented areas.

REGULATIONS

All whales, dolphins and seals are protected by NOAA Fisheries under the Marine Mammal Protection Act of 1972 (MMPA). Humpback whales, sperm whales, monk seals and sea turtles are further protected by NOAA Fisheries under the Endangered Species Act of 1973 (ESA) and by the Hawai‘i Department of Land and Natural Resources under Hawai‘i State Law. NOAA’s Hawaiian Islands Humpback Whale National Marine Sanctuary regulations provide additional protection for humpback whales and their habitat in Hawai‘i.

Approaching humpback whales in Hawaii

50 U.S. Code of Federal Regulations 224.103(a)

By regulation, humpback whales cannot be approached closer than 100 yards (for more information, see REGULATIONS under the NOAA Fisheries – Pacific Islands Region).

WEBSITES FOR ADDITIONAL INFORMATION

Hawaiian Islands Humpback Whale National Marine Sanctuary:

<http://hawaiihumpbackwhale.noaa.gov>

Hawaiian Islands Humpback Whale National Marine Sanctuary Guidelines for Whale Protection and Human Safety: http://hawaiihumpbackwhale.noaa.gov/explore/whale_guidelines.html

Ocean Etiquette: http://hawaiihumpbackwhale.noaa.gov/res/ocean_etiquette.html

U.S. Code of Federal Regulations: <http://ecfr.gpoaccess.gov/>

NOAA Stellwagen Bank National Marine Sanctuary

GUIDELINES

The following operational procedures are intended to avoid harassment and possible injury to large whales, particularly finbacks, humpbacks and minke whales, commonly seen by vessels engaged in whale watching. Following the guidelines can help protect both you and the whale you wish to watch and keep you from accidentally violating federal law.

When in Sight of Whales Two miles to one mile away

- Reduce speed to 13 knots.
- Post a dedicated lookout to assist the vessel operator in monitoring the location of all marine mammals.
- Avoid sudden changes in speed and direction.
- Aircraft observe the FAA minimum altitude of 1,000 feet over water.

One mile to one-half mile away

- Reduce speed to 10 knots.

One half mile or less

- Reduce speed to 7 knots.
- Maneuver vessel to avoid a head-on approach to a whale.

Close Approach Procedure (600 feet or closer)

- Parallel the course and speed of moving whales up to the designated speed limit within that distance.
- Do not attempt a head-on approach to whale.
- Approach and leave stationary whales at no more than idle or "no wake" speed, not to exceed 7 knots.
- Do not intentionally drift down on whales.
- Vessels in multi-vessel approaches should monitor radios and communicate with each other (channel 9, 13, or 16 for hailing) to coordinate viewing.
- Take into account the presence of obstacles (vessels, structures, fishing gear, or the shoreline). All vessels in close approach must stay to the side or behind the whales so they do not box in the whales or cut off their path

Stand-by Zone (within 300 to 600 feet)

- Maximum of two vessels in the 300- to 600-foot Standby Zone at any one time.

Close Approach Zone (100 to 300 feet)

- Only one vessel at a time. 1 When one vessel is within 300 feet of a whale, up to 2 other vessels can be in the Stand-by Zone at least 300 feet from the whale; any additional vessels should remain outside the Stand-by Zone.
- If more than one vessel is within 600 feet, the vessel within 300 feet should limit its time to 15 minutes in close approach to whales.

No Intentional Approach (100 feet away or closer)

- Do not approach within 100 feet of whales. If whales approach within 100 feet of your vessel, put engines in neutral and do not re-engage propulsion until whales are observed clear of harm's way from your vessel.

Departure Procedures

- All vessels should leave the whales following the same speed and distance procedures described above.
- All vessels should begin their return to port and cease whale watching 15 minutes before sunset.

REGULATIONS

Approaching Right Whales

50 U.S. Code of Federal Regulations 224.103(c)

The right whale is protected by separate State and Federal regulations that prohibit approach within 500 yards of this species. Any vessel finding itself within the 500 yard buffer zone created by a surfacing right whale must depart immediately at a safe slow speed. The only vessels allowed to remain within 500 yards of a right whale are vessels with appropriate research permits, commercial fishing vessels in the act of hauling back or towing gear, or any vessel given prior approval by NOAA Fisheries to investigate a potential entanglement. (For more information, see REGULATIONS under the NOAA Fisheries – Northeast Region).

WEBSITES FOR ADDITIONAL INFORMATION

Whale Watching Guidelines – Northeast Region including Stellwagen Bank:
<http://stellwagen.noaa.gov/visit/whalewatching/guidelines.html>

U.S. Code of Federal Regulations: <http://ecfr.gpoaccess.gov/>

U.S. Fish and Wildlife Service

GUIDELINES

Manatees

Guidance to Avoid Harassment of Manatees when Swimming, Boating, or Diving in Kings Bay
(NOTE: The U.S. Fish and Wildlife Service proposed to expand Federal protection for manatees via a “Kings Bay Manatee Refuge.” When/if the protection is expanded, there will be updated guidance for that area. For more information, see below under **REGULATIONS**.)

The following guidelines are designed to help you better understand these regulations and explain how you can have a memorable experience while protecting the manatees.

- Do not enter designated/posted sanctuaries for any reason.
- Operate boat at idle/no wake speed when in areas known to have manatees present or when observations indicate manatees might be present. Observations which indicate manatees might be present in the area include: observing a swirl at the surface of the water, observing the back sticking out of the water and/or observing the snout of an animal or hearing the animal exhale when it surfaces.
- Avoid harassing manatees. Harassment is defined as any activity which alters the animal’s natural behavioral characteristics: Examples of harassment include the following:
 - Approaching a manatee before the animal first approaches you.
 - Actively pursuing/chasing (swimming after) or cornering a manatee while swimming or diving.
 - Poking, probing, stabbing a manatee at any time with any object. This includes but is not limited to a person's hand and /or feet.
 - Any activity which would separate a cow from her calf or an individual from a group.
 - Any attempt to snag, hook, hold, grab, pinch, or ride a manatee.
 - Any attempt to feed a manatee.
 - Touching or disturbing a resting manatee.

Manatee Manners Video: Visit <http://www.fws.gov/crystalriver/> to view the video.

Sea Otters

Guidelines for Sea Kayakers:

- Maintain a safe distance of at least 50 yards from sea otters whenever possible.
- Avoid making loud noises with your voice or kayak near sea otters.
- Alter course to avoid heading directly towards sea otters in your path.
- Do not pursue sea otters that are actively swimming away from you.
- Move away from any sea otter pup as soon as possible. Females often leave their pups on the surface while they are feeding - your presence in the area may prevent a female from rejoining its pup. It is normal for a pup to scream loudly for its mother.

- Don't be alarmed if you see and otter on land. This behavior is normal.
- Never feed sea otters!

By following these simple guidelines, sea kayakers can enjoy a unique wilderness experience: viewing sea otters in the wild. Respecting these animals also preserves the opportunity for those who come after you.

Guidelines for Approaching Sea Otters for the Purposes of Photography or Filming (without applying for a Marine Mammal Protection Act permit)

Approaching sea otter using vessels (boats, kayaks):

- If the sea otter is resting in the water, maintain required minimum distance of 50 meters (164 feet).
- If sea otter is swimming, traveling, diving, or feeding, no approaches closer than 50 meters (164 feet) may be attempted.

Approaching sea otter using dive gear:

- If the sea otter is resting in the water, maintain required minimum distance of 20 meters (66 feet).
- If sea otter is swimming, traveling, diving, or feeding, no approaches closer than 20 meters (66 feet) may be attempted

Approaching sea otter on land:

- No required minimum distance for sea otters in water, BUT permittee must not make any effort to alter sea otters' behavior (e.g., by enticing with food, waving, or trying to get them to move). No approaches to hauled out sea otters may be made.

Approaching sea otter by air:

- Must comply with guidelines of the relevant sanctuary, refuge, or state.

Alaska Marine Mammal Code of Conduct

A partnership with Alaska Sea Grant, NOAA Fisheries, U.S. Fish and Wildlife Service, U.S. National Park Service, and the Alaska Department of Fish and Game. Guidance relevant to sea otters includes:

To avoid disturbance of other marine mammals the operator will:

- Slow to no-wake speed for sea otters, seals, and sea lions in the water and, if not intending to do viewing or photography, divert around them by a sufficient distance to prevent evasive actions by the animals.
- Never pursue animals, and stay far enough away that they do not change their behaviors.
- Give an extra margin of distance to females with their young.
- Maintain at least 100 yards from hauled out seals and sea lions, or more to prevent altering animals' behavior.
- Wherever practical, remain downwind of haulouts.

Walrus

Minimizing disturbance by aircraft on Chukchi Sea, Alaska

Walrus are particularly sensitive to changes to engine noise and are more likely to stampede off beaches when planes turn or fly low overhead. To prevent unnecessary disturbances, please follow these general guidelines when operating aircraft near walrus herds along the coast:

- Fixed wing aircraft should remain at altitudes greater than 1,500 feet above ground level (AGL) and maintain a lateral distance of ½ mile of walrus groups. Please avoid circling over or turning near a walrus haulout.
- Helicopters should remain at altitudes greater than 3,000 feet AGL when traveling within one (1) mile of a known haulout.
- If cloud conditions necessitate flying lower than these recommended altitudes, please pass inland to avoid flushing walrus from the beach.

For walrus resting on local beaches

- When sea ice melts from off shore feeding areas, walrus come to shore to rest on land.
- Walrus may appear exhausted. They will typically spend 1 to 3 days resting on the beach, before going back out to sea to feed again. There is the potential for large haulouts to form along the northwest coast of Alaska.
- It is important that these walrus are allowed to rest undisturbed. Disturbances during this critical time may jeopardize the animals' survival. Large groups of resting walrus are particularly sensitive to disturbances from passing aircraft, boats and people. If disturbed, walrus may stampede into the water. When this happens, walrus calves are particularly vulnerable to trampling injuries.
- The Marine Mammal Protection Act prohibits the harassment or disturbance of any marine mammal.
- The MMPA provides an exemption for Alaska Coastal Natives to harvest marine mammals for subsistence purposes.
- If a walrus appears sick or injured, please do not approach it. Please contact the U.S. Fish and Wildlife Service, Marine Mammals Management Office

Polar Bears

Minimizing disturbance by aircraft on Bernard Spit, Alaska

Polar bears can be sensitive to changes in aircraft traffic patterns along Bernard Spit near the community of Kaktovik on Barter Island. Low-level flying to observe the bears can disturb or harass resting animals. To minimize unnecessary disturbances to polar bears, please follow these general guidelines when operating aircraft over Bernard Spit:

- When landing at Barter Island, if conditions warrant flying over Bernard Spit, all aircraft should maintain the standard flight path over Bernard Spit to minimize disturbance to polar bears.
- When traversing the Bernard Spit area, fixed-wing aircraft should remain at altitudes greater than 2,000 feet above ground level (AGL) and maintain a lateral distance of 1/2 mile from polar bears on Bernard Spit. Avoid circling over or turning near polar bears.

- Likewise, when traversing the Bernard Spit area, helicopters should remain at altitudes greater than 2,000 feet AGL when traveling within one (1) nautical mile of Bernard Spit.

Best Practices for Polar Bear Viewing in the Arctic National Wildlife Refuge

Before you view:

- Review the Polar Bear Viewing Information booklet with your guide.
- Review your guide's safety plan to find out what to do if an emergency arises (for example a vehicle breakdown).
- Know appropriate responses if a bear approaches you in a curious, nervous, threatening, or aggressive manner.
- Become familiar with wildlife alarm signals (listed in the Polar Bear Viewing Information) and avoid acting in ways that stress the bears.

When you view:

- Arrive and leave your viewing area using the same route, proceeding slowly, and using minimal lights and noise.
- Always stay within earshot of your guide.
- Avoid noisy conversations and sudden movements during viewing.
- Use extra caution if viewing during low light conditions (one way, for example, is to have a dedicated observer watching for bears from all directions).
- Remain in your vehicle or boat unless instructed by your guide.

Make sure:

- Do not herd, follow, chase, or displace bears.
- Do not attract bears with food, scents, sounds, etc.
- Do not allow physical contact between a bear and a vehicle or boat.
- Never separate a mother from her cubs.
- Never restrict the movements of swimming bears.
- Obey all local signs, barriers, guidelines, ordinances, etc., regarding bear viewing practices.

Arctic National Wildlife Refuge is Polar Bear Country

If a bear is encountered:

- Keep calm and assess the situation.
- If the bear does not know you are there, move to safe shelter or quietly leave the area.

If a bear is curious or approaches you:

- Gather in a group, make noise, wave your arms.
- Talk: let the bear know you are human.
- If the bear continues to approach, use deterrents such as cracker shells, rubber bullets, mace, rocks, etc.
- Do not run.

If you have surprised a mother with cubs:

- Back away slowly. Get away from the cubs.
- Act non-threatening: avoid direct eye contact, sudden movements or startling noises.
- If charged: roll in a ball, cover your neck with your hands.

If a bear attacks:

- Shout for help.
- Use deterrents or any weapon available.
- Defend yourself by fighting back: hit bear on the nose and face.

Polar Bear Viewing Guidelines on the Arctic National Wildlife Refuge, Alaska

What general activities are allowed near polar bears?

- *General Recreational Viewing:* It is legal to view and photograph polar bears for recreational purposes; it is illegal to disturb them. If you encounter polar bears and your viewing activities are conducted in a manner that does not result in a change to their natural behavior, the viewing activity is legal. Any change in the animal's natural behavior as a result of your presence can be considered harassment and, unless specifically authorized, is not legal, whether your viewing is commercially-guided or independent.
- *Commercial Recreational Viewing:* You are not required to use a guide to view polar bears on Refuge lands. However, encounters with polar bears can be dangerous, and using a guide for viewing polar bears on Refuge lands and waters can provide local knowledge which may benefit your experience and safety. If you wish to view polar bears with a guide, be sure that any guide service you use has a special use permit for conducting commercial activities on Refuge lands or waters. Business owners wishing to conduct guided polar bear viewing on Refuge lands and waters must apply for a permit. Permits must be renewed annually.
- *Commercial or Educational Photography:* Photographing and filming polar bears for educational or commercial purposes is allowed provided all required permits are in place in advance of the activity. If you intend to conduct this activity, please contact the Refuge well in advance (at least 45 days) to discuss whether you will need a Special Use Permit for commercial operations issued by the Refuge. In addition, when photography or filming has the potential to disturb polar bears, a photography permit issued by the FWS Division of Management Authority (DMA) is required. Please contact DMA to discuss whether your activities will require a photography permit. You should allow for a minimum of three months for DMA to process your permit application. If photography or filming can be done in a way that the animals remain unaware of the photographer, then DMA will likely conclude that a photography permit for Level B harassment will not be required. In addition to Federal permits, you may also be required to obtain a permit for commercial photography and filming on City of Kaktovik property.

When and where can I see polar bears?

- *Polar Bear Distribution in Alaska:* Polar bears can be found in the Bering, Chukchi, and Beaufort seas and the adjacent coastline during any time of the year, including the northern portions of the Arctic Refuge. Generally, polar bears are distributed in association with ice-covered marine waters during most of the year; they use the ice as a platform for seasonal movements, hunting, feeding, resting, and denning. Polar bears may use terrestrial habitats of the Arctic Refuge to rest, travel, or feed between July and October when sea ice recedes from the coast; and between October and April to travel or den. On land, polar bears are most likely to be encountered within about 25 miles of the coastline; sightings further inland are rare but do occur.

- *Viewing Opportunities:* Public lands and waters along Alaska's northern and northwestern coast are remote and their access usually requires careful (expedition-style) planning. There is no guarantee that polar bears will be present when you seek to view them since their distribution and use of coastal habitat varies.
 - Please be aware that the Arctic Refuge encompasses the traditional homeland of the Inupiat people of Kaktovik and perpetuates opportunities for their continuing traditional subsistence uses. The village of Kaktovik is located on Barter Island which serves as the primary commercial access point for visitors traveling to the northeastern region or the Arctic Slope and the Beaufort Sea coast. This coastal community consists of about 300 residents, primarily Alaska Natives, and has limited facilities available for visitors. Fall is an important time for subsistence whaling in Kaktovik, which coincides with the occurrence of polar bears in high densities along the Beaufort Sea coast. If you choose to visit Kaktovik, be as self-sufficient as possible by educating yourself about local resources before your arrival. Seek guidance from local residents about how to least impact the community's routine subsistence activities. Be respectful of local community activities and the rights of local citizens to privacy while you visit their community.
 - Nearly all lands in the vicinity of the Kaktovik Townsite are either privately owned by the Kaktovik Inupiat Corporation, or privately-owned parcels, or are military reserve lands. Entry onto non-Refuge lands is only allowed with prior approval from the appropriate landowner. It is the visitor's responsibility to learn about land status and receive prior approval before entering non-Refuge lands. Private lands probably will not be marked with signs, but maps depicting the Refuge boundary and private lands within the Refuge boundary are available at: <http://arctic.fws.gov/nonrefuelands.htm>. Please be respectful of these private land rights.

How should I behave around polar bears?

- The continued opportunity for recreational polar bear viewing depends on proper human conduct which avoids bear-human interactions.
- *Safety:* Anyone engaged in polar bear viewing is encouraged to become familiar with bear safety information prior to conducting such activities. Always remember that polar bears are wild animals: even though individual bears can demonstrate tolerance for human activity, they can respond dangerously at any given time. Polar bears are naturally curious and potentially predatory. These characteristics are factors that increase risk to humans. Polar bears spending extended periods of time on land without an adequate food source may be nutritionally stressed and, therefore, may be more dangerous. Your choice to be in proximity to these animals is potentially a hazardous activity. We recommend that you or your guide have a polar bear safety plan in place that addresses issues such as what communication/emergency procedures will be used if unforeseen circumstances arise or an injury occurs. All members of a viewing party should be familiar with recommended viewing practices described herein and your group's safety plan before embarking to view polar bears. We also recommend that the DVD "Polar Bears: a Guide to Safety" is viewed by everyone planning to view polar bears prior to embarking.

- *Laws and Ordinances:* People engaged in polar bear viewing are responsible for ensuring that their activities do not disturb polar bears. Groups (whether lead by commercial guides or independent visitors) should be familiar with polar bear habitat use and behavior, as well as Federal conservation laws and recommendations applicable to polar bears (described herein), and site-specific rules. For example, visitors viewing bears on private or other non-Refuge lands around Kaktovik may need to follow local governmental or private land owner requirements, such as being accompanied by a local guide to view bears.
- *Distance.* Insure that your actions do not cause a change in a polar bear's behavior. The best way to accomplish this is to avoid close encounters. Polar bears must be allowed to continue to do, unhindered, whatever they were doing before your arrival. The closer you are, the more likely you are to cause disturbance or have interactions with bears. Be aware that the distance at which bears tolerate humans varies by individual bear, and may also be affected by other factors such as type of conveyance (boat, ATV, truck, on foot), rate of speed of approach or departure, and presence or absence of noise, light, scents or other sensory stimuli. A distance that initially seems fine may suddenly become too close for the bear's comfort when additional stimuli (like an abrupt noise or the arrival of another bear) are added to the viewing scenario. Respect bears' "personal space" - insure that you don't crowd or displace bears by self-monitoring your distance from the bear.
- *Viewing location and method:* Viewing polar bears on foot is not recommended. Viewing bears from fixed locations (observation posts) at consistent times reduces overall stress to polar bears by making human behavior more predictable, and is appropriate for situations where guides, visitors, or residents repeatedly visit a viewing area, such as along barrier islands or at whale carcass remains near Kaktovik. Stay with your vehicle or boat to make the group more predictable to the bears. Polar bears have a keen sense of smell; therefore, observation posts located downwind from where bears occur would be most effective in avoiding their disturbance. Choosing a location for your observation post that is in the open will allow bears to avoid you, and avoid surprise encounters. Aerial polar bear viewing involving low level lights or circling causing disturbance is illegal.
- *Time of day:* Polar bears are typically most active during dusk, night, or dawn hours when visibility may be limited. Be aware of your surroundings, especially during limited visibility. Use extra caution while viewing in low-light and consider viewing only during daylight hours for increased safety.
- *Familiarity with bear behavior:* Polar bears that are foraging, nursing, swimming, playing, resting, or traveling in an uninterrupted manner are probably behaving naturally. Be aware that since animals' reactions will vary, all bears in an area must be carefully observed at all times during viewing in order to insure they continue to behave naturally. Be aware that viewing family groups (mothers with cubs) requires special consideration because of: 1) the highly protective nature of the mother; 2) the curious behavior of cubs (which may cause a defensive reaction by the mother when cubs approach humans); and 3) the increased nutritional demands of growing bears. Learn to recognize and respect wildlife alarm signals. Polar bears that stop what they are doing to turn their head or sniff the air in your direction may have become aware of your presence. Visitors should leave the vicinity if you see signs of disturbance. Signs of disturbance include:

- Behavioral reactions such as a pursed lip, lowered head with ears flat back or directly toward, looking directly at you;
- Vocalizations such as huffing, hissing, growling, or chomping;
- Rapid changes in direction or speed of movement (running away from, or toward you).
- *Attractants:* It is illegal to attempt to attract polar bears through the use of food, scents, or other attractants. When bears learn to associate humans or human activities with food, they have become "food conditioned." Bears can become food-conditioned quite quickly, even after one instance of obtaining human-related food or garbage. Food-conditioned bears are more likely to negatively interact with people, as they move through their home ranges and interact with other people, whether it is in hunting and fishing camps; or near cars, trucks, and snow machines; or at private cabins, etc. This behavior is often independent of where the food-conditioning first occurred. Allowing a bear to obtain human-associated food may increase the risk of the bear injuring people and may eventually lead to the bear's death.
- *Viewing Practices:* The following actions will help ensure that bears remain undisturbed during viewing:
 - Always conduct your viewing in a manner that does not attract bears or require you to defend yourself or your group;
 - Before viewing, plan on how your group will respond to encounters in which bears exhibit curious, nervous, threatened, or aggressive behavior, should they unexpectedly occur;
 - Approach and depart from viewing areas using the same route, proceeding slowly, and using minimal lights and noise;
 - Do not attempt to herd, follow, or chase a polar bear;
 - During viewing, all members of group should be asked to remain vigilant for bears at all times and not simply rely on their guides;
 - Stay as a group; do not leave (or lean out of) boats or vehicles while in close proximity to bears;
 - Avoid noisy conversation and movements during viewing;
 - Avoid carrying food with you or smelling like food during viewing;
 - Do not mimic a bear's vocalizations to attract it closer or in response to an aggressive bear;
 - Do not attempt to touch or feed a polar bear to attract it closer;
 - Do not separate a mother from her cubs; and
 - Do not allow a bear to make physical contact with you or your boat or vehicle. Bears that are allowed to make contact with people without being scared off may lose their natural sense of fear that could lead to increased aggression during future encounters. If contact occurs, make noise to scare the bear off, e.g., by revving engine or sounding a horn; use the minimum amount of noise or action necessary to stop the bear's behavior. If contact occurs repeatedly, move to a different location or leave the area, then report the incident to FWS.

What else should I take into consideration?

- *Swimming bears:* Polar bears are marine mammals and ocean waters are a significant part of their habitat. It is common to see bears in water. It is illegal to restrict movements of swimming bears.
 - If viewing from a boat, do not block the path in which the bear is travelling. If the bear is passing, put the engine in neutral to allow the bear to pass;
 - Do not approach, encircle, or trap a swimming bear between boats; do not pursue a swimming bear;
 - Do not separate a swimming mother from her cubs; and
 - If approached by a swimming bear, move the boat away to minimize interactions; if the bear persists, leave the area while avoiding sudden use of the throttle.
- *Denning bears:* Pregnant females spend October to late March or April in winter dens. On land, these maternal dens can be located in snow drifts that form along coastal bluffs and river drainages. Temporary shelter dens dug into snow are also used by resting polar bears and may be encountered throughout the year. Because of the high potential for maternal den disturbance and risk of den abandonment and cub death, viewing of polar bears within maternal denning habitat is not recommended. If you cannot avoid travelling in areas of potential denning:
 - Travel away from the edge of bluffs and avoid crossing large snow drifts formed along bluffs;
 - Be aware of bear signs such as tracks and holes in snowdrifts; and
 - If you find yourself near a den, immediately retreat to a distance of at least 1 mile.
- *Resting, sick, injured, or dead bears:* It is not uncommon for bears to rest without moving for days after completing long-distance swims; it is illegal to disturb them. Stay away from abandoned or sick wildlife and report such incidents to FWS. Depending on the situation, you may be asked to voluntarily provide information or collect samples.

FEDERAL LAW

Operating an aircraft or vessel in a manner which results in disturbing, harassing, herding, hazing, or driving of marine mammals is prohibited under provisions of the Marine Mammals Protection Act.

The Marine Mammal Protection Act prohibits the “take” of all marine mammal species in U.S. waters. Take means "to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill," and harassment means "any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal or marine mammal stock in the wild; or has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to migration, breathing, nursing, breeding, feeding, sheltering." Take includes feeding or attempting to feed a marine mammal in the wild. Some exceptions are made for authorized scientific research and subsistence hunting by Alaska Natives.

The Endangered Species Act prohibits the “take” of species listed as endangered or threatened. The definition of take under the Endangered Species Act adds the terms harm, pursue, shoot, wound, trap and collect to the Marine Mammal Protection Act definition of take.

REGULATIONS

Manatees

- Marine Mammal Protection Act and the Endangered Species Act make it illegal to harass, capture or kill any marine mammal-including the manatee.
- Florida Manatee Sanctuary Act states: "It is unlawful for any person, at any time, by any means, intentionally or negligently, to annoy, molest, harass, or disturb any manatee."
- Vessel speed limit and no-wake zones in many inland waters of Florida where manatees are found.
- Manatee sanctuary zones where entry by humans is prohibited in many wildlife refuges in Florida (e.g., the Crystal River National Wildlife Refuge).
- Following an emergency rule put in place by the U.S. Fish and Wildlife Service in November and December of 2010 for the protection of manatees, the Service is proposing a final rule for to establish the "Kings Bay Manatee Refuge." The proposal is to expand federal protection areas for manatees in Citrus County, Florida, by creating a manatee refuge including all of Kings Bay in Crystal River. The proposed area of the Kings Bay Manatee Refuge has not changed from what was previously identified in the emergency designation from the 2010-2011 season. For more information, visit <http://www.fws.gov/crystalriver/>.

Sea Otters, Walrus and Polar Bears

No specific regulations. Abide by statutory requirements of the Marine Mammal Protection Act and Endangered Species Act.

WEBSITES FOR ADDITIONAL INFORMATION

Florida Manatee sighting Guidance and Key Points:

<http://www.fws.gov/northflorida/Manatee/Rescue-Rehab/out-of-state-sightings-of-florida-manatees.htm>

Crystal River National Wildlife Refuge, including "Manatee Manners" video:

<http://www.fws.gov/crystalriver/>

Sharing the Near-Shore Ecosystem with Sea Otters in Alaska:

http://alaska.fws.gov/fisheries/mmm/seaotters/pdf/Sea_Otter_Appreciation_AMNWR_06.pdf

Arctic National Wildlife Refuge – Plan Your Visit: <http://arctic.fws.gov/visitors.htm>



Alaska Sea Otters

Guidelines for Sea Kayakers

Although less obtrusive than most other types of watercraft, sea kayakers can easily disturb or harass sea otters. In addition, well-meaning kayakers have mistakenly “rescued” pups that didn’t need help.

Sea Otter Biology

Sea otters are a member of the weasel family (Mustelidae) that live in the nearshore waters along the North Pacific Ocean. They are the smallest marine mammal - adult sea otters can reach lengths of up to 6 feet (1.8 m) but average about 4.5 feet (1.4 m). Mating occurs at all times of the year, and young may be born in any season. In Alaska, most pups are born in late spring. Pups weigh from 3 to 5 pounds (1.4 - 2.3 kg) at birth and stay with their mothers for 3 - 6 months.

Sea otters dive to gather food from the ocean floor in relatively shallow water, ranging from 5 - 300 feet deep (2 - 100 m). Foraging dives average 1-1½ minutes, though sea otters are known to remain under water for up to 4 minutes at a time. Sea otters eat a wide variety of benthic invertebrates including clams, crabs, sea urchins, snails, octopus, and occasionally fish and sea birds.

Laws Regarding Sea Otters

Sea otters in Alaska are protected under the U.S. Marine Mammal Protection Act (MMPA), which prohibits the take of all marine mammals in U.S. waters. Take is defined as “hunt, harass, capture, or kill.” Harassment is further defined as “any act of pursuit, torment, or annoyance” that “has the potential to disturb a marine mammal.” Penalties for violating the MMPA may include fines, imprisonment, or both.



Signs of Disturbance

Typical sea otter behavior includes feeding, resting, and grooming. Signs that your presence may be affecting a sea otter range from spyhopping (raising its head straight up for a better look) to actively swimming away from the source of the disturbance (i.e. you and your kayak). Resting otters may be easily startled if you approach too closely. Females with pups are often particularly sensitive to disturbance.



Female with pup showing typical signs of disturbance

Kayaker Guidelines

- Maintain a safe distance of at least 50 yards from sea otters whenever possible.
- Avoid making loud noises with your voice or kayak near sea otters.
- Alter course to avoid heading directly towards sea otters in your path.
- Do not pursue sea otters that are actively swimming away from you.
- Move away from any sea otter pup as soon as possible. Females often leave their pups on the surface while they are feeding - your presence in the area may prevent a female from rejoining its pup. It is normal for a pup to scream loudly for its mother.
- Don't be alarmed if you see an otter on land. This behavior is normal.
- Never feed sea otters!

By following these simple guidelines, sea kayakers can enjoy a unique wilderness experience: viewing sea otters in the wild. Respecting these animals also preserves the opportunity for those who come after you.

U.S. Fish & Wildlife Service
<http://www.fws.gov>

Otter Photo by Dr. Randall Davis,
Texas A&M University

May 2005

For more information please contact:
U.S. Fish & Wildlife Service
Marine Mammals Management Office
1011 East Tudor Road
Anchorage, AK 99503
907/786 3800
800/362 5148

LOOK, DON'T TOUCH!

For more information on what to do if you find a sea otter that appears to be in distress, visit the Marine Mammals Management home page at:

<http://alaska.fws.gov/fisheries/mmm>



U.S. Fish & Wildlife Service

Walrus Resting on Local Beaches

Please Do Not Disturb!

When sea ice melts from off shore feeding areas, walrus come to shore to rest on land.

Walrus may appear exhausted. They will typically spend 1 to 3 days resting on the beach, before going back out to sea to feed again. There is the potential for large haulouts to form along the northwest coast of Alaska.

It is important that these walrus are allowed to rest undisturbed. Disturbances during this critical time may jeopardize the animals' survival. Large groups of resting walrus are particularly sensitive to disturbances from passing aircraft, boats and people. If disturbed, walrus may stampede into the water. When this happens, walrus calves are particularly vulnerable to trampling injuries.

The Marine Mammal Protection Act (MMPA) prohibits the harassment or disturbance of any marine mammal. Examples of harassment include but are not limited to: throwing rocks or other objects, touching the animal, chasing the animal around the beach or back into the water. Any human behavior which alters the animal's behavior is considered harassment.

The MMPA provides an exemption for Alaska Coastal Natives to harvest marine mammals for subsistence purposes. Subsistence harvests must be accomplished in a non-wasteful manner and the harvest must be reported to the U.S. Fish and Wildlife Service within 30 days.

Subsistence harvests must comply with all local laws concerning the discharge of firearms. The City of Barrow Ordinance states: "It is unlawful for any person to discharge any firearm, within one hundred yards of any residential structure, any business, any area used for storage of equipment or vehicles, or any city playground, softball field, or



USFWS

As sea ice retreats farther away from land, large walrus herds have formed in recent years along the Arctic coast where animals are vulnerable to disturbance events.

cemetery, except in case where such is done justifiably in defense of oneself, of another person or of property."

If a walrus appears sick or injured, please do not approach it. Please contact the U.S. Fish and Wildlife Service, Marine Mammals Management Office at 1 800/362 5148. After hours, please call The Seward SeaLife Center at 1 888/774 7325. If you have public safety concerns please contact the North Slope Borough Public Safety Department at 907/852 6111.

The Pacific walrus is vulnerable because of climate change impacts on ice habitats and the threat of increased oil and gas development. We must all work together to provide opportunities for walrus to adjust to changing sea ice conditions.

For more information:

**U.S. Fish & Wildlife Service
Marine Mammals Management Office
907/786 3800**

**Native Village of Barrow
Wildlife Department
907/852 4411**

August 2009



Arctic

National Wildlife Refuge

Best Practices for Polar Bear Viewing

Hire an authorized business when viewing polar bears from the water

If you view polar bears from the water or use a water taxi service, hire an authorized business with registered boat operators and staff. They have participated in polar bear guide workshops and have the safety training—and knowledge of conservation laws and scientific studies—to provide professional, quality polar bear viewing opportunities. These guides are required to operate and maintain their boats and equipment to professional standards.

Arctic Refuge lists authorized businesses at <http://arctic.fws.gov/pbguide.htm>.

Legal boat operators keep a copy of their Arctic Refuge business permit on their boat. The permit also lists the name of the business's Coast Guard-licensed boat operator(s). If you request, legal boat operators will show you documentation that their business is authorized. They have worked hard to maintain this authorization.

How is Arctic Refuge involved?

The Refuge is required to oversee commercial activities on the water and Refuge lands surrounding Kaktovik to protect wildlife habitat and subsistence opportunities for local residents.

Arctic Refuge and its partners provide technical assistance and training opportunities for businesses and boat operators. To find out more contact Jennifer Reed at Arctic Refuge: (907) 455-1835, or jennifer_reed@fws.gov.

Though polar bears may appear tame, these animals are wild and their behavior can be unpredictable. Viewing polar bears in the wild is an inherently dangerous activity.

By law, polar bear viewing is dependent on avoiding disturbance to bears. You have an opportunity to view polar bears because people before you used responsible and safe viewing practices. Polar bear viewing will only continue if you and other viewers are careful to keep polar bears and people safe.

Each polar bear's reactions to people vary depending on the bear itself, the viewing circumstances, and other factors. For example, one bear may tolerate viewers within 100 feet while another may leave the area when approached to 600 feet. Bears may also react to a noisy or quickly approaching vehicle or boat rather than to one approaching slowly with minimal lights and noise.

Here's what you can do . . .

Follow these guidelines to ensure you have the least impact on polar bears

Before you view:

- Review the Polar Bear Viewing Information booklet with your guide
- Review your guide's safety plan to find out what to do if an emergency arises (for example a vehicle breakdown)
- Know appropriate responses if a bear approaches you in a curious, nervous, threatening, or aggressive manner
- Become familiar with wildlife alarm signals (listed in the Polar Bear Viewing Information) and avoid acting in ways that stress the bears

When you view:

- Arrive and leave your viewing area using the same route, proceeding slowly, and using minimal lights and noise
- Always stay within earshot of your guide
- Avoid noisy conversations and sudden movements during viewing
- Use extra caution if viewing during low light conditions (one way, for example, is to have a dedicated observer watching for bears from all directions)
- Remain in your vehicle or boat unless instructed by your guide

Make sure:

- Do not herd, follow, chase, or displace bears
- Do not attract bears with food, scents, sounds, etc.
- Do not allow physical contact between a bear and a vehicle or boat
- Never separate a mother from her cubs
- Never restrict the movements of swimming bears
- Obey all local signs, barriers, guidelines, ordinances etc. regarding bear viewing practices



Frequently asked questions

How close is “too close” to polar bears?

- There is no legally set distance for polar bear viewing. Instead, **guides and viewers are expected to view bears in a manner that avoids disturbing them.** Each bear’s reaction to humans is dependent on that bear’s individual tolerance and viewer’s actions.
- You are required to immediately stop your approach if a bear responds to your presence. If it continues to show signs of disturbance you must retreat.
- Viewing polar bears safely and legally requires an in-depth understanding of bear behavior. This is why you should hire guides committed to professional standards for quality polar bear viewing.

Whose job is it to decide how we view bears: the guide’s or the viewer’s?

- Professional guides and responsible viewers show respectful and legal conduct toward polar bears. Respect your guide’s decisions. It is their responsibility to choose actions that help protect both you and the bears.

Why are some activities allowed that disturb bears, but bear viewing is so carefully monitored?

- The Endangered Species Act and Marine Mammal Protection Act allow for certain types of disturbance (called “take”) such as for subsistence hunting, scientific research, and oil and gas activities. All of those instances require the hunter, researcher, or industry to minimize and report the disturbance. There is no such exception for polar bear viewing, which means that it can continue only if it is done in a way that does not disturb the polar bears.

Why are people allowed to hunt polar bears even though the bears are threatened?

- Polar bears were listed as threatened under the Endangered Species Act because of sea ice habitat loss, not because of subsistence hunting.
- The Endangered Species Act and Marine Mammal Protection Act provide for subsistence opportunities that allow Native coastal-dwelling peoples to hunt polar bears, recognizing this traditional use and its cultural importance. The Marine Mammal Protection Act also designates a number of Alaska Native co-management partners for polar bear conservation. Their involvement helps ensure a responsible harvest.
- The North Slope Inupiat and Canadian Inuvialuit peoples have a voluntary agreement to harvest polar bears in a responsible manner.

Do commercial photographers need a special permit?

- It depends on your activity. For further information, see the Polar Bear Viewing Information booklet.

What should I do if I see a bear in town?

- Move to safety and then call 911 to report the location of the bear.

The Arctic Refuge coast is unique because of its polar bear viewing opportunities and the role citizens play in polar bear conservation.

You have the chance to view polar bears because of the efforts of people before you to use safe viewing practices. Please do your part by following best practices when viewing polar bears.

Polar Bears (USFWS)



QUESTIONS FOR SPEAKERS

Q= question

A= answer

C= follow up comment (not by the speaker)

1. Rob Williams:

Q: Did you look at the curve in the presence/absence of boats (COT Cost of Transport/speed)?

A: No. We had a conservative filter- we just wanted to know the energetic cost. Based on our selection criteria, we didn't want boats included. We could look at that now, since we have better approaches now.

Q: Were there any potential acoustic effects?

A: To simplify, the behavioral response gets bigger as the received level gets bigger across the two experimental levels. We deployed pop-ups to the Northern and Southern residents and have great data on ambient noise. For more on this, see the talk on Tuesday.

Inextricably linked: boats, noise, Chinook salmon and killer whale recovery in the northeast Pacific

Williams, Rob ^{1,2}; Ashe, Erin ²; Clark, Christopher W. ³; Hammond, Philip S. ²; Lusseau, David ⁴; Ponirakis, Dmitri ³

(1) Marine Mammal Research Unit, University of British Columbia, 2202 Main Mall, Room 247, AERL, Vancouver, BC, V6T 1Z4, Canada

(2) Sea Mammal Research Unit, Scottish Oceans Institute, University of St Andrews, St Andrews, Fife, KY16 8LB, UK

(3) Bioacoustics Research Program Cornell Lab of Ornithology, 159 Sapsucker Woods Rd, Ithaca, NY, 14850, USA

(4) Institute of Biological and Environmental Sciences, University of Aberdeen, Aberdeen, AB24 2TZ, UK

2. Erin Ashe:

Q: When you mapped feeding activities, did you consider other anthropogenic effects (e.g., recreational boats)?

A: Not specifically, we did not explicitly include vessel presence. We just looked at feeding behaviors.

Q: Did you look at differences from boats (recreational vs. those not interacting (e.g., fishing)) and their effects?

A: Previous studies were included in the analysis, but we did not partition out boat activity.

C: You could look at fisheries and whale-watching.

Q: When planning a Marine Protected Area, did you look at prey type and fishery activity (i.e, the maximum conservation benefit)?

A: There have been some initiatives for habitat restoration, etc. Other management strategies incorporate this, but I did not specifically look at that.

C: There is a 20 year history of boat data. Next steps may be to include this data and incorporate all of the good models.

3. Shawna Karpovich:

Q: What is the cost of elevated heart rate over time?

A: We can calculate the increased energy consumption.

Q: As heart rate decreases, does that mean the animal consumes less energy during the activity?

A: The haul out period includes recovery. It is disconnected from energetics. Shape and duration of recovery curve is most telling. The initial increase in heart rate may be the seals gaining back what they lost during diving.

4. Cara Lachmuth:

Q: What was the worst case scenario you modeled?

A: Doubling the vessels and halving the distance between vessels and whales. In reality, the effects are really only from the boats that are right on top of the whales. So, even if there are 40 boats around, it's only the 20 or so closest to the whales that create the effects.

5. John Jansen:

NO QUESTIONS

6. Fredrik Christiansen:

Q: Why were there fewer longer dives?

A: This will be explained during my talk on Thursday at 5pm in room D.

Whalewatching boats disrupt the foraging activities of Minke whales in Faxaflói bay, Iceland

Christiansen, Fredrik ¹; Rasmussen, Marianne H ²; Lusseau, David ¹

(1) Institute of Biological and Environmental Sciences, University of Aberdeen, AB24 2TZ, Aberdeen, UK

(2) Húsavík Research Center, University of Iceland, Hafnarstett 3, Húsavík, 640, Iceland

Q: How do minke react to killer whales?

A: There is only one case known of killer whale predation on a minke in Iceland.

Q: What are the effects of whaling boats in Iceland?

A: Whaling in Iceland caused avoidance behaviors. There were no documented cases of the whales' behavior before whaling; therefore, we do not have a proper control. If the whales perceived the risk as higher, they would react differently.

Q: Could whales learn from one whaling kill?

A: We would have to know how the risk is perceived by the whale (e.g., through contact? Through other senses?).

Q: Are you concerned about your control? Are the whales using the habitats similarly?

A: There are environmental factors affecting the response. They have the same depth, same prey, different substrate—basically as similar as it gets. We need to look at that further, and we are currently analyzing that and have, so far, not found any differences.

7. David Lusseau:

NO QUESTIONS

8. Jessica Powell:

NO QUESTIONS

9. Monica DeAngelis:

NO QUESTIONS

10. Ian Rowlands:

Q: What about the negative reviews?

A: Bring it on! We want the worst. We want people to see who they should not go with. This website will show those operators how they can do it better.

11. James MacCracken:

Q: Why 805 meters?

A: That is equal to ½ mile.

12. Kristin Öhman:

Q: The boats are under power so close to the dolphins- do you ever see evidence of boat strikes?

A: Not in the southern part. A human was struck by a boat. We see propeller cuts on the animals, but I have never seen a boat strike a dolphin.

Q: What about the economic situation- are there any other options for income there?

A: It is the only option for now. Most of the profit goes towards one person (the middle man). Not a lot of profit is seen for the community.

Q: What is the tourism infrastructure? Were there tourists before the dolphin tours were available?

A: Not so many before the dolphin tours.

Q: How many people go there, and where are they from?

A: 90% are Italians. I do not have the exact numbers.

13. Ed Lyman:

NO QUESTIONS

14. Lynne Barre and Kari Koski:

NO QUESTIONS

15. Jennifer Reed:

NO QUESTIONS

16. ECM Parsons:

NO QUESTIONS

PLENARY DISCUSSION TOPICS

How to Deal with Scientific Uncertainty

- Uncertainty is not going to go away, which means scientists have to shoulder the burden of proof.
- In the U.S. we have a free-market enterprise for tourism industry. In other words, there is typically no gauntlet for industry to have to go through to obtain permits.
- Tolerance of vessels or swimmers on the part of the animals does not necessarily mean there is no impact to the animals.
- Wording is a problem in government documents. Often opponents of regulations zero in on government documents which may make uncertainty statements—they will disregard all the data provided and focus on the unknowns (“how can you say there’s a problem when you don’t know?”).
- “Lack of science” will be used against you (in management).
- Opponents often point to the fact that “the animals keep coming back,” but the important question is, “do they have an alternative?”

Precautionary Approach to Managing Viewing and Interaction Impacts

- “One size fits all” approach isn’t appropriate. Issues vary tremendously based on the species and location (e.g., habitat, government structure).. Therefore, management measures must be case-specific. Start with precautionary approach—as you gather more data, you can gradually increase use if necessary.
- A good argument for preventative measures is that we don’t know how the animals are being stressed. For example, animals assume an unobserved cost, or there is some unknown cost that the animal cannot observe, so it remains in the status quo. This does not necessarily mean it isn’t stressed. For example, harbor seal moms choosing not to leave the ice so pup won’t go into the water.
- Lessons learned about taking a precautionary approach:
 - Short-term leads to long-term impacts. If we don’t act now, it may already be too late.
 - The precautionary approach can work!
 - Permits are necessary—in the beginning, to start. But, they need to be limited in order to limit the number of vessels.

Population-Level Effects

- It is difficult to show long-term effects on a population. We need to find ways to communicate to vessel operators that, though there may be no observed effects on a day-to-day basis, that does not mean there isn’t a long-term impact to the population.
- St. Lawrence, Canada: Data exists for diving information on minke whales and vessel presence. There is no long-term population level effects data, but they worked with industry to develop regulations, agreeing that if something isn’t done, it will be too late. Now there is better compliance on speed restrictions and reduced level of vessel concentrations/crowding, although the distance from a vessel to a whale is still a problem.

Emerging Viewing and Interactions Industries

- Dominican Republic (DR): At one point, there were almost 90 whale watch boats. First thing needed was to control the amount of permits and the problems with speed. Research was conducted and five acoustic buoys found that noise was changing the behaviors of the whales during mating season. Operators also noted that cruise ships were causing whales to stay farther away. It was clear that they needed to control the number of captains/permits. DR doesn't let recreational boaters go to the nucleus area of whale concentration.
- Developing nations need to focus on bottom-up management measures and enforcement.
- Emerging situations have the opportunity to create a culture of ownership and stewardship (e.g., Kaktovik, Alaska).

Swim-with Programs

- Example of spinner dolphin situation in Hawaii
 - Currently NMFS is considering one of six alternatives under a draft Environmental Impact Statement and considering a potential proposed rule to implement management measures, (ranging from time-area closures to codifying guidelines into regulations)
 - Implemented the Dolphin SMART program on Oahu. This program is a voluntary recognition program for dolphin-watch tour operators that was first implemented in the Southeast United States (see presentation abstract from Jessica Powell et al.).
 - A study on the population dynamics of spinner dolphin populations in Hawaii, and the potential impacts of vessels and human interactions on these animals in certain resting bays is underway by researchers from Duke and Murdoch Universities.
- Manatee swim-with issues: There are now more regulations and enforcement than there was in the 1980s-1990s.

Research Needs

- There is a lack of linkage between behavior of marine mammals and energetics (e.g., what is the proportion of time the animals are doing other activities?).
- There is much imprecision and many constraints surrounding the parameters of behavior and energetics. Therefore, when trying to apply results from a specific study to other species, areas, or situations, it becomes problematic.
- Species vary from region to region and the same species can act differently when in different regions.
- Natural selection may mean that some animals have already left disturbed sites, which begs the question of whether only the compromised animals are left (e.g., we are studying animals that are already compromised). Populations you see now may not be representative of the entire population.
- How do we address the perceived hypocrisy of researchers making close approaches while the public/viewing industry cannot?

- Permitting process. Under our legal system, we have to weigh the benefits of research to the impact of the animal. The MMPA does not lay out a permitting process like this for tourism activities.

Improving Enforcement

- Lots of good regulations in U.S., but not enough enforcement. Also applies to other countries.
- For measures to be most enforceable, they must be simple and straight-forward to follow. Otherwise, may need observers, which is logistically complicated.
- Recommend voluntary conservation measures.
- Need more of an enforcement presence on the water and more education to the tour operators.
- Example of highway patrol in U.S.—speed limits are generally followed by drivers because of presence of police on the roads. If we had more of an enforcement presence on the water, we may see more compliance.
- We do have our own army to help education operators, an army of whale watchers; however, the problem is they first say “we don’t want to disturb the whales” then “how can we get closer?”
- One of the issues with setting a distance limit between a vessel and a whale is that humans are terrible judges, especially over water. However, many operators now have rangefinders.
- One of the most effective management measures seems to be self-policing. Whale watchers are out on the water every day with other operators and can communicate with each other when they see someone doing something contrary to guidelines or regulations.
- Group mentality problem – When a person is on a vessel and no one around them seems disturbed by the behavior of the vessel around the marine mammals, people convince themselves that what they are seeing is “okay,” otherwise other people would be reacting. This is a sociological problem
 - Guests believe that the captain knows more than they do, so they’ll believe anything thinking, “If there aren’t any regulations, what is the point of [doing the responsible thing] if nobody else is doing that?”
- Recreational boaters who aren’t trained may fall in line with ‘peer-pressure’ to follow viewing guidelines, a bottom up process.
 - But it needs legal underpinnings or it won’t be fully effective.
 - Peer-to-peer policing is essential, but not sufficient.
 - Permit systems are important, peer-pressure insufficient.
- In the U.S., the NMFS Office of Law Enforcement solicited comments on their priority plan. They are reevaluating the effectiveness of their enforcement guidelines.
- The International Whaling Commission recommends buy-in to local guidelines, with legal underpinnings. In other works, rely on bottom-up enforcement since government enforcement may be non-existent.
- Dominican Republic analysis of whale watch regulations: First problem was sea conditions. Also, many boats don’t have speedometers. The Dominican Republic

government got a police boat and boarded the vessel and operators behaved, but once the police were gone, they revert to bad behavior.

- Importance of third party monitoring groups like Soundwatch (U.S. Puget Sound) that can enhance enforcement efforts by providing coordination and preliminary data to inform enforcement efforts.
- Enforcement needs to better use the tools that they have—advertise when they issues citations, tickets, etc, so that the public knows there is a result for breaking the laws.
- What does Enforcement mean for different countries, and how does it vary within the U.S.?
 - In the DR, enforcement writes a ticket, arrests the boat for 3 days (i.e., boat cannot go out for those 3 days); if they have a second offense, may be taken out of business for 5 days.
 - Enforcement different for different regions of U.S. and depends on whether management measures are implemented under the Marine Mammal Protection Act (MMPA) or the Endangered Species Act (ESA) (e.g., approach regulations in Alaska and Hawaii for humpbacks = 100 yards, in Washington for killer whales = 200 yards, North Atlantic right whales = 500 yards).
- Need the fine to fit crime, but there are definitions under the MMPA/ESA which limit fine amounts
 - Monk seal shooting in Hawaii example.
 - Person killed an endangered species (*pregnant* Hawaiian Monk Seal), a federal offense (with a penalty up to \$50,000 and 1 year in prison), yet the fine was only for \$25 and 90 days in a detention center.
 - Two Sanctuary Act examples
 - Park Services example

International Issues re: Authority

- U.S. citizens are bound by MMPA and ESA in high seas and international waters, but not territorial waters.
- Baja example: You can touch and approach whales under a self-regulated system (without federal mandate) controlled by local *ejido*. They control amount of vessels, only allow whale watching in outer ¼ of lagoon, you have to let whales approach you, and you are only allowed 1.5 hrs in the whale watching area.
 - How will you know when it's not working well any longer? Abundance levels? There was a trend of fewer whales for five years, then in 2011 the number of whales exploded.
 - Research shows that whales were more active when boats were not there (University of La Paz).

Funding and Infrastructure

- Lack of funding for agencies & NGOs, yet marine tourism continues to explode—there must be some way to get a percentage of those funds for conservation (e.g., a stewardship fee or tax). Examples:

- St. Lawrence, Canada—research/stewardship fund fed by head tax, agreement with industry is that the government will match funds, continue to shoulder responsibility.
- Galapagos—tourist/tax fee goes toward enforcement, scientific research and to local community.
- Cabrillo Aquarium, southern California—, percentage of ticket sales comes back to fund the program.
- Soundwatch—even though may appear successful, the organization is very fragile. As a non-profit, it can't maintain the effort/high burnout (been at it for 20 yrs) of volunteers. The organization doesn't currently have the capacity to maintain the program forever.

Expectations

- Need to manage public expectations (e.g., how close they can expect to get to a marine mammal).
- We have expectations too, as scientists and managers, trying to change human behavior. We need to understand more about what will bring about changes in behavior.

Recommendations and Strategies for the Future

- Economic analysis for regulations— It is difficult to quantify the value of the benefit of marine mammals to humans. We need to collaborate with social scientists.
- Captains expect that passengers want to be as close to whales as possible, which some studies have shown isn't always true. We need to incorporate social science into the wildlife management/conservation arena.
- Whale watching vessels in various areas are being used as platforms of opportunity for data collection. The resulting citizen science is an important intersection between researchers and the wildlife viewing industry.
- Refer to Eric Hoyt's whale watching sustainability index as a valuable resource.
- No perfect model— A good whale watching model is like a 4-legged chair— education, enforcement, science/monitoring, stakeholder involvement—each element relies on another.
- Carrot vs. stick—depends on situation, often need combination.
- Should establish a timeline for when to re-evaluate all guidelines/regulations.
- Need to measure effectiveness of management measures by first ensuring that baseline data is collected before regulations go into effect.
- Federal budgets in the U.S. are getting worse. We can't rely on enforcement to be better staffed and, therefore, can't rely on an increase in enforcement pressure as a sole management measure. We have to instill sense of duty in the people—gets back to education as effective strategy.

CLOSING

In closing, participants expressed the value of sharing experiences in the forum of this workshop around the issues of marine mammal viewing practices and disturbance, as well as the current and future management and stewardship programs needed to address this.

NOTE: Over 65 participants attended the workshop representing and offering information from many countries including U.S., Canada, Mexico, U.K., Japan, Ecuador, Dominican Republic, Sweden, and Zanzibar.