

A SUMMARY OF  
"The case against Marine Mammals in Captivity"  
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In this document, The Humane Society of the United States (The HSUS) and the World Society for the Protection of Animals (WSPA) employ scientific and ethical arguments to debunk the myths about marine mammals in captivity.

## Introduction

**p.1** "Many domestic statutes and international agreements incorporated the viewpoint, and wherever 'take'- such as capture- was prohibited, an exemption for education and conservation was included" <sup>1</sup>

<sup>1</sup> p. 51 "Examples of such agreements include the CITES and the SPAW Protocol of the Cartagena Convention.

However, it is notable that these agreements generally fail to define what is meant by 'educational' or specifically how public display furthers conservation."

"This platform was adopted without the benefit of scientific research. In fact, it has only been in the last decade or two that research efforts have caught up with and begun to rebut the claims made by those who are marketing and making a profit from captive marine mammals."

Indeed, many believe that public display is no more than commercial exploitation of captive animals and that traumatic captures, concrete tanks, and forced confinement are inhumane."

**p.2** "Rather than having a positive effect on education and conservation, some consider the effect of marine mammal displays to be negative."

"U.S. records chart a history of disturbing causes of death, high mortality rates, and low birth rates."

"The HSUS, WSPA, and other animal protection advocates maintain that this history clearly indicates that marine mammals do not adapt well to captivity."

"Internationally,..... very few countries have any requirements for maintaining adequate animal records."

"...animal protection groups and a growing number of scientists say that the lives of captive marine mammals are impoverished, people do not receive an accurate picture of a species from captive representatives, and the trade in live marine mammals negatively impacts populations and habitat. The more we learn of marine mammals, the more evidence there is that the latter view is correct."

# Education, Conservation, and Research

5 p. 51 ...“professionally recognized standards of the public display community.

These standards emphasize that “current scientific knowledge” must form the basis for education programs but are offered merely as guidelines rather than requirements, and many of the standards are ignored by dolphinariums in some cases, all are.”

6 p. 51 “Little to no systematic research regarding the impact of visits to individual zoos and aquariums on visitor conservation knowledge, awareness, affect, or behavior has been conducted and presented at conferences and/or subsequently published.” L. D. Dierking et al., *Visitor Learning in Zoos and Aquariums: A Literature Review* (Silver Spring, Maryland: American Zoo and Aquarium Association, 2001–2002).

**p.3** “Traditional marine mammal display centers on animals such as sea lions, dolphins, or whales performing tricks that are exaggerated variations of their natural behaviors. These tricks prevent the audience from contemplating the stark concrete and Plexiglas enclosures.”

“...in a survey of 1,000 U.S. citizens by researchers from Yale University, respondents overwhelmingly preferred to see captive marine mammals expressing natural behaviors rather than performing tricks and stunts.”

“In a 2003 survey of members of the Canadian public, 74 percent of respondents thought that the best way to learn about the natural habits of whales and dolphins is by viewing them in the wild, either directly through whale-watching tours or indirectly through television and cinema or on the Internet.”

**“In fact, zoo and aquarium visitors want to be entertained, with those seeking an education in the minority.”**

**“In general, almost nothing is taught at dolphinariums during marine mammal shows about natural behaviors, ecology, demographics, or population distribution.”**

12 p. 52 “In her book on SeaWorld’s corporate culture, Susan Davis, professor of communications at the University of California, San Diego, notes that “the Shamu show reveals very little actual scientific or natural historical information, and discussions of research goals and discoveries are hazy. True, not much can be packed into a twenty-minute performance, but a look at what is included is revealing. The audience is asked whether Shamu is a fish or a mammal and is told that it is a mammal—but the definition of mammals, or the significance of mammalian status, or the importance of differences between marine mammals and fish is never discussed.”

S. G. Davis, *Spectacular Nature: Corporate Culture and the Sea World Experience* (Berkeley: University of California Press, 1997), 298.

**p.3** “The show ‘Believe,’ recently developed for SeaWorld, focuses more on emotional showmanship and the bond between the animal and her trainer than the biology of orcas (*Orcinus orca*, also known as killer whales). Indeed, the one thing that virtually all marine mammal public display facilities consistently avoid is providing in-depth educational material concerning marine mammal natural history or how the animals live and behave in their natural habitats”.

“Furthermore, it has been demonstrated that the information facilities present is sometimes scientifically incorrect or distorted to portray the facility in a better light.”

“Examples of the deliberate distortion—or ignoring—of current scientific knowledge include SeaWorld’s directive to staff not to use the word “evolve,” as many visitors consider the theory of evolution to be controversial;<sup>15</sup> its explanation of the so-called “drooping fin” syndrome;<sup>16</sup> (in their educational materials, talks, and shows, many dolphinariums suggest that collapsed fins are genetic, heritable traits, like eye color.) and its description of the life spans of captive orcas.”

“It is true that people may respond on a basic emotional level to seeing a live animal on display, and performances may also reinforce the bond with an individual animal felt by members of the audience. But because of the nature of these performances, the perceived bond is not with an actual animal but with an idea of that animal that has been crafted by the facility.”

“To illustrate, many actions performed by dolphins in shows or observed being directed toward visitors or trainers that are portrayed as “play” or “fun”—such as the rapid opening and closing of the mouth and the slapping of the water surface with the tail flukes or flippers—are actually displays that in wild animals would usually be considered aggressive, akin to a dog growling or snarling.”

<sup>22</sup> p. 52 “In a study on learning at American zoos, researchers found that the typical zoo visitor’s concern for and interest in the biology and ecology of animals actually decreased after a zoo visit. An attitude of dominion and mastery/control over animals increased in visitors, as did negative attitudes toward animals (avoidance, dislike, or indifference). The study also found that people who were more interested in learning about conservation issues were also more concerned about the ethical treatment of animals—a result suggesting that those most interested in learning about conservation would probably avoid or be uncomfortable with visiting a zoo due to ethical considerations.”

**p.4** “...the president of the Zoological Society of Philadelphia (W. V. Donaldson) stated in a welcoming speech to a conference on education: “The surveys we have conducted ... show that the overwhelming majority of our visitors leave us without increasing either their knowledge of the natural world or their empathy for it. There are even times when I wonder if we don’t make things worse by reinforcing the idea that man is only an observer of nature and not a part of it.”

#### THE CONSERVATION FALLACY

**p.4** “Public display facilities.....Through skillful marketing and public relations, they miss no opportunity to emphasize their role as modern arks, hedges against the extinction of endangered species in the wild. Most public display facilities, however, do no more than produce multiple generations of a limited group of species and do not maintain true conservation programs at all.”

“While several zoos have programs to breed endangered species in captivity with the intention that these animals be used in restocking depleted populations,<sup>27</sup> this is not the case with cetaceans.”

“The claim that conservation is a primary purpose of the public display industry as a whole is highly misleading at best.”

35 p. 54 “For example, as a result of the 1996 EU Council Directive CE 338/97, “On the protection of species of wild fauna and flora by regulating trade therein,” facilities importing threatened species (including cetaceans) into Europe have to ensure that removals are sustainable and also that the animals will be used “for breeding or propagation purposes from which conservation benefits will accrue to the species concerned” (Art. 8, §3(f)) or will be used “for research or education aimed at the preservation or conservation of the species” (Art. 8, §3(g)). Portraying a dolphinarium (legitimately or not) as a conservation or captive breeding facility would thus allow imports of animals to and from Europe.”

**p.5** “What is worse is that many dolphinariums and aquaria, including facilities that actively market themselves as centers for conservation, are actually depleting wild populations of cetaceans. Many facilities still acquire several marine mammal species directly from the wild.”

--Dead calves at Harderwijk note 103--

THE PUBLIC DISPLAY INDUSTRY “DOUBLE STANDARDS”

**p.12** “In the United States, four bottlenose dolphins have been released from captive research facilities, 114 with one of the releases involving a considerable effort to monitor the fate of the animals after their release. This latter effort demonstrated scientifically that wild-caught dolphins kept in captivity can be returned to the wild. Probably the best-known released captive cetacean was Keiko, the orca from the movie *Free Willy*.”

**“The lack of industry-backed rehabilitation and release programs for captive cetaceans or industry funding for the development of such is very marked.”**

“In fact, the public display industry has actively hindered the efforts of those who wish to conduct the work necessary to determine successful and safe methods of returning captive cetaceans to the wild.”

“It seems clear that what the public display industry says and what it does are two entirely different things. ‘Captive breeding’ and ‘conservation’ are simply buzzwords used to gain the approval of an unsuspecting public.”

**p.13 ETHICS AND CAPTIVE BREEDING**

“To make such programs morally justifiable, the animals being placed in captivity should be better off, or no worse, than they would be in the wild. 118 This is not possible with regard to captive marine mammals, as exemplified by orcas, who experience far shorter lives in captivity when compared to the wild”

**p.13 STRANDING PROGRAMS**

“...even stranding programs, as they are now conducted, give cause for concern, especially in the United States. Often the rescue efforts of the industry seem motivated by

the desire to create better public relations.”

“....facilities persuade the public that they are altruistic and that they care for marine mammals in the wild—a public relations benefit worth the large investment of funds. While rescues are frequently heavily advertised in the media and releases even more so, failed rescues (when an animal dies while in a facility’s care or soon after release) are played down.”

**“Also disturbing is the fact that public display facilities that rescue stranded animals appear to evaluate each animal in terms of display potential. Species that are highly desirable, such as orcas,<sup>123</sup> or rarely observed in captivity, such as spotted dolphins (*Stenella frontalis*) or Risso’s dolphins (*Grampus griseus*), may be determined to be unsuitable for release; these determinations are made with little oversight from either independent or government agencies. By rescuing these animals, a facility acquires an exotic exhibit at little cost, either financial or in terms of public relations.”**

**p.14 “The social environment for captured dolphins is radically changed. Individuals who might never socialize in the wild are forced into close proximity, which can lead to stress and injury.”** Figure Caption

<sup>123</sup> p. 60 “An attempt to acquire a stranded orca for public display occurred in April 2007. A calf believed to be no more than a few days old was found stranded on a beach in Mexico. It was never determined how she was separated from her mother. Named Pascuala, or Pascualita, she was taken to a local dolphinarium, which voiced concern from the outset that the enclosure (designed for bottlenose dolphins) was unsuitable for an orca and that the staff was not trained in orca care. However, others pointed out that moving her any distance would have caused her considerable stress and probably hastened her death. Nevertheless, an American dolphinarium sought to acquire her, despite the fact that cetacean exports have been illegal in Mexico since 2006. Her deteriorating condition, the plan to transfer her, and the conflict with the law caused considerable controversy, but before it could be resolved, Pascualita died in June 2007. Many blamed Mexico’s environmental authorities and animal protection advocates who opposed the transfer, but her survival, regardless of treatment, was always unlikely, without a mother’s care in the crucial first months. The public display industry, rather than face this tragic reality and make her welfare its first priority, instead pursued a plan whose first priority was to add a new female orca to the captive gene pool. A Reuters article from May 2007 describes some of the details of this situation: <http://uk.reuters.com/article/2007/05/18/oukoe-uk-mexico-whale-idUKN1627003520070518>”

## STRANDING PROGRAMS

**p.14 “Captive studies have been known to give erroneous and misleading information, not borne out by comparative studies on wild animals, and researchers using captive animals have admitted that the constraints put on cetaceans, such as small pool sizes limiting natural behaviors, lead to biases in their results.”**

**“...much of what can be learned from captive marine mammals has in fact already been learned. Reproductive physiology, such as length of gestation, and general**

**physiology, such as visual acuity, have already been examined in some detail. Furthermore, using reproductive information from captive cetaceans may actually be detrimental to conservation and management due to unnatural and atypical breeding behavior in the artificial groupings of captive animals.”**

“There may be some research questions that the study of captive animals can answer most directly (such as questions regarding cognition or the impacts of human-caused noise on hearing), but research programs that are not part of the entertainment industry could address those questions. Indeed, due to advancements in technology, such as biopsy darts, electronic tags, and underwater video, as well as improvements in capture and release techniques, in-depth study of the behavior and physiology of freeranging marine mammals is now possible, adding to the redundancy of captive animals as research subjects.”

**p.15 To illustrate the relative paucity of marine mammal research contributed by public display facilities, papers presented at the 2007 Society for Marine Mammalogy (SMM) Biennial Conference on the Biology of Marine Mammals included 571 presentations dealing with aspects of cetacean biology; only 5.1 percent of these were the result of work with captive animals. Of these few studies, more than a third were conducted through institutions that are not open to the public. There were only two abstracts submitted by SeaWorld....”**

## Husbandry and Health Care

**p.23** “The limited choices offered to captive animals in regard to food and its methods of provision are cause for concern. The lack of behavioral and physical stimulation (when foraging is eliminated from the behavioral repertoire) and the lack of dietary variety may contribute to behavioral disturbances and health problems.”

“Medical isolation enclosures are frequently much smaller than primary enclosures; facilities claim that medical tanks are only temporary quarters and insist this distinction makes their restrictiveness acceptable.<sup>184</sup> However, some animals, such as sexually mature males or aggressive individuals of either sex, are often sequestered in these tiny pools on a routine basis.”

“Another abnormally stressful procedure for marine mammals, and for cetaceans in particular, is transport from one location to another, whether it is between tanks within a single facility or between facilities.

It is unnatural for cetaceans to remove themselves wholly from the water...”

## Risks to Human Health

### INJURY AND DEATH

**p.31** “...captive orcas are the marine mammals most associated with human injuries and deaths. In 1991, a group of orcas killed trainer Keltie Byrne at Sealand of Victoria, Canada. In front of a shocked audience, the orcas held Byrne underwater until she drowned. Eight years later, one of those same orcas, Tillikum, was discovered one morning with the dead body of a man, named Daniel Dukes, draped on his back at SeaWorld Orlando.”

“....orca called Ky attacked his trainer, Steve Aibel, at SeaWorld San Antonio in July 2004. During a show, the animal hit Aibel, pushed him underwater, and positioned himself between the trainer and the exit ramp of the pool.”

“In November 2006, the orca Kasatka held trainer Ken Peters underwater by his foot, at SeaWorld San Diego.<sup>237</sup> On 6 October 2007, trainer Claudia Vollhardt was injured by an orca named Tekoa at the dolphinarium Loro Parque, in Tenerife, Canary Islands. The whale broke the trainer’s forearm in two places and inflicted chest injuries.”

Since the Rose et al., (2009) publication, there have been various incidents, including altercations between individual animals, injuries to animals and trainers and deaths of two trainers: Alexis Martinez and Dawn Brancheau.<sup>a</sup>

The comparison between these incidents in captivity and those of orca interacting with humans in the wild has been noted by Visser (2010) in a report to the USA, Department of Labour, OSHA, with respect to a case against SeaWorld and their alleged disregard for safety.

A overview of such incidents has been compiled in the database of Mr. Jacobs (see letter dated and appendix attached)

<sup>a</sup> “Blood in the water” by Tim Zimmerman published on the on line version of Outside Magazine July 22, 2011 <http://www.outsideonline.com/author-bios/Tim-Zimmermann.html>

“The killer in the pool” by Tim Zimmerman published on the on line version of Outside Magazine July 30, 2010 <http://www.outsideonline.com/outdoor-adventure/nature/The-Killer-in-the-Pool.html>

## Behavior

**p.35** “The natural foraging behaviors of most predators in captivity are severely compromised.”

**“....boredom is a serious concern. Stereotyped behaviors, severe aggression toward conspecifics and humans, and other behavioral problems frequently arise in predators denied their natural foraging behavior.”**

“Public display facilities claim that for those marine mammals who perform in shows, training adequately replaces the stimulation of hunting. This claim is without proof or indeed logic. Performing animals are trained to demonstrate a series of conditioned behaviors.”

“Some of these behaviors are also naturally occurring behaviors, but many are merely based on natural behaviors that have been performed out of context and exaggerated and altered almost beyond recognition. The most common training method, called operant conditioning, uses food as a primary positive reinforcer. For some animals, this means that satisfaction of hunger is dependent on performing tricks; for others, hunger is deliberately induced so the reinforcer will be effective.”

**“...the use of food as a reinforcer reduces some animals to little more than beggars.”**

“The animals are presented as clowns, and almost no effort is made to educate the audience about their natural behavior.

Natural behaviors and social interactions, such as those associated with mating, maternal care, weaning, and dominance, are altered significantly in captivity. In most cases, these behaviors are strictly controlled by the needs of the facility and the availability of space.”

# Stress

**p.35** “Stress in mammals can manifest in many ways, including weight loss, lack of appetite, anti-social behavior, reduced calving success, arteriosclerosis (hardening of the arteries), stomach ulcers, changes in blood cell counts, increased susceptibility to diseases (reduced immune response), and even death.”

“Scientific studies have noted significant physiological impacts from pursuit and handling, particularly in cetaceans.”

**“Confinement exacerbates stressful situations for marine mammals in many ways. Captive animals are in artificial social groupings determined by humans, in small restricted areas, and the social pressures and stress they experience can escalate when they have no avenue for escape. In dolphins, for example, adding new members to a captive group...”**

# Cetacean Intelligence

**p.39** “In his book ‘The Ethics of Science’, David Resnik highlights eight factors potentially possessed by animals.<sup>281</sup> The more of these factors a species possesses, the more it should be considered morally and ethically equivalent to humans. It could be argued that bottlenose dolphins have demonstrated –or have demonstrated the potential for- at least seven of these eight factors...”<sup>282</sup>

<sup>282</sup> p. 73 “Resnik lists these factors as (1) the ability to feel pain; (2) consciousness; (3) the ability to grasp concepts or form beliefs; (4) the ability to form abstract concepts or self-concepts; (5) reasoning; (6) language use; (7) the ability to experience moral emotions such as sympathy, love, and guilt; and (8) the ability to understand and follow moral rules.”

Orca are the largest of the dolphin family, therefore they can be expected, or have been demonstrated, to show these same seven capabilities.

# Mortality and Birth Rates

## **p.42** ORCAS AND OTHER SMALL WHALES

“Of at least 193 orcas held in captivity since 1961 (wild-caught or captive-born), 151 (78 percent) are now dead. Almost all of the orcas in the United States, and about half of the captive orcas kept worldwide, are owned by SeaWorld. For years the corporation persistently and erroneously maintained that the maximum life span of orcas was 35 years, but its website now states instead that “no one knows for sure how long killer whales live....”

“The maximum life span for orcas is currently estimated to be 60 years for males and 80 or



90 years for females.”

“Various analytical approaches have demonstrated that the overall mortality rate of captive orcas is at least two and a half times as high as that of wild orcas and age- and sex-specific annual mortality rates range from two to six times as high.

Twenty-two orcas have died at SeaWorld parks since 1985: four were young calves, and the others were in their teens and twenties. To date, less than 20 orcas are known to have survived more than 20 years in captivity, and only two have survived in captivity for more than 35 years.”

**“...captive orcas continue to experience a greatly and significantly increased risk of dying at any given time in life than do wild orcas. Their size and complex physical and social requirements clearly cause them to suffer serious negative consequences when they are confined in tanks.”**

**p.43** “As for birth rates, after more than 45 years in which at least 193 orcas have been held in captivity, with 83 known pregnancies, only 40 viable calves (surviving past one year) have been produced (a 51.8 percent mortality rate).