

In the debate over marine mammals in captivity, the public display industry maintains that marine mammal exhibits serve a valuable conservation function, people learn important information from seeing live animals, and captive marine mammals live a good life. However, animal protection groups and a growing number of scientists counter 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 habitats. The more we learn of marine mammals, the more evidence there is that the latter views are correct.

The public display industry has asserted for many years that the display of marine mammals serves a necessary educational purpose and that the animals' welfare need not necessarily be compromised to achieve this. Mostly, this assertion has gone unchallenged. But as news gets out about traumatic captures, barren concrete tanks, high mortality rates, and aberrant—even dangerous—animal behavior, people are changing the way they “see” animals in captivity.

Some facilities promote themselves as conservation enterprises; however, few such facilities are involved in substantial conservation efforts. Rather than enhancing wild populations, facilities engaged in captive breeding tend merely to create a surplus of animals who may never be released into the wild and are therefore only used to propagate the industry.

Contrary to popular perception, captures of wild marine mammals are not a thing of the past. Live captures, particularly of dolphins, continue around the world in regions where very little is known about the status of populations. For smaller stocks, live capture operations are a significant conservation concern. Even for those stocks not currently under threat, the lack of scientific

assessment or regard for welfare makes the proliferation of these operations an issue of global concern.

The public display industry maintains that it enhances the lives of marine mammals in captivity by protecting them from the rigors of the natural environment. The truth is that marine mammals have evolved physically and behaviorally to survive these rigors. For example, nearly every kind of marine mammal, from sea lion to dolphin, travels large distances daily in a search for food. In captivity, natural feeding and foraging patterns are completely lost. Stress-related conditions such as ulcers, stereotypical behaviors including pacing and self-mutilation, and abnormal aggression within groups frequently develop in predators denied the opportunity to forage. Other natural behaviors, such as those associated with dominance, mating, and maternal care, are altered in captivity, which can have a substantially negative impact on the animals.

Wild-caught marine mammals gradually experience the atrophy of many of their natural behaviors and are cut off from the conditions that allow the expression of cultural traits such as specialized vocalizations (“dialects”) and unique foraging techniques. Viewing captive animals gives the public a false picture of the animals' natural lives. Worse yet, it desensitizes people to captivity's inherent cruelties—for virtually all captive marine mammals, the world is a tiny enclosure, and life is devoid of naturalness.

Public display facilities often promote themselves as stranding and research centers. In fact, most stranded marine mammals die after they are rescued; few survive rehabilitation to be released to the wild; many releases are not monitored for success; and some animals, despite their suitability for release, are retained for public display. As for research, most studies using marine mammals in public display facilities are focused on improving captive



care and maintenance practices—very few of them address crucial conservation questions.

With any marine mammal exhibit, the needs of the visiting public come before the needs of the animals. Enclosures are designed to make the animals readily visible, not necessarily comfortable. Interactive programs such as swim-with-the-dolphins encounters and so-called petting pools do not always allow the animals to choose the levels of interaction and rest they prefer. This can elicit submissive behavior toward humans, which can affect the dominance structure within the dolphins' own social groups. Furthermore, petting pool dolphins, who are fed continuously by the visiting public, can become obese and are at risk of ingesting foreign objects.

The display industry fosters a benign—albeit mythical—reputation of marine mammals, particularly dolphins. This constitutes a form of miseducation. These species are—for the most part—carnivores with complex social hierarchies and are perfectly capable of injuring fellow group members, other marine mammals, and humans. The risk of disease transmission in both directions (marine mammal to human and human to marine mammal) is also very real. Marine mammal handlers have reported numerous health problems related to their work.

The ethical concerns raised by marine mammal captivity are especially marked for dolphins, as they may well merit the same moral stature as young human children. Although public display advocates will argue that claiming dolphins have "rights" is based solely on emotion and that these marine mammals are no different from other wildlife species in captivity, in fact the behavioral and psychological literature abounds with examples of the sophisticated cognition of dolphins. Their intelligence appears at least to match that of the great apes and perhaps of human toddlers—they are self-aware and capable of abstract thinking.

Fierce debate continues over the issue of mortality rates and longevity, especially of whales and dolphins, in captivity. The most conclusive data are for orcas; their



*The social environment of captive marine mammals is severely limited. No captive facility can adequately simulate the vast ocean or provide for their complex behavioral needs. Photo: WSPA*

annual mortality rates are significantly higher in captivity than in the wild. The mortality data related to live captures are more straightforward—capture is undeniably stressful and, in dolphins, results in a six-fold increase in mortality risk during and immediately after capture.

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. And while humans can subdivide the captive experience and even conclude that one aspect is more or less damaging to the animals than another, the totality of the captive experience for marine mammals is so contrary to their natural experience that it should be rejected outright. The HSUS and WSPA believe it is wrong to bring marine mammals into captivity for the purpose of public display.

## EDUCATION

Education is one of the most important methods of ensuring the humane treatment of the myriad other species with which we share the planet. Despite being under a legal obligation in several countries to provide an educational component in displays,<sup>3</sup> there is little objective evidence to indicate that the public display industry is furthering the public's knowledge of marine mammals and their habitats. While a few zoos, dolphinaria, and aquaria among the more than 1,600 licensed animal exhibitors operating in the United States are involved in serious education and conservation efforts, the main purpose of these operations is to display animals for entertainment rather than to convey information.

Traditional marine mammal exhibits center 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, so different from the environment from which these animals were taken. Despite arguments that such entertainment makes the experience of seeing marine mammals more memorable, 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.<sup>4</sup> In fact, four-fifths of the public in this survey stated that marine mammals should not be kept in captivity unless there are major educational or scientific benefits. 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. Only 14 percent felt that viewing cetaceans in captivity was educational.<sup>5</sup>

Almost nothing is taught about natural behaviors, ecology, demographics, or population distribution during marine mammal shows. 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.<sup>6</sup> Furthermore, it has been demonstrated that the information facilities present is sometimes scientifically incorrect or distorted to portray the facility in a better light.<sup>7</sup> The deliberate distortion—or ignoring—of current scientific knowledge is well illustrated by certain dolphinaria when representatives explain the so-called "drooping fin" syndrome<sup>8</sup> and the life spans of captive orcas (*Orcinus orca*, also known as killer whales)<sup>9</sup> to visitors.

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Traditional dogma states that the display of live animals is required to educate people about a species (and therefore to care about the species and its habitat). But animatronics (robots), DVDs, videotapes, IMAX® theaters, interactive and traditional museum-type displays, and virtual reality simulations could and should replace dolphin and sea lion shows and, in many cases, live exhibits altogether. 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 creature but with an idea of that creature that has been crafted by the facility.



The Case Against Marine Mammals in Captivity, published 2006, The Humane Society of the United States and the World Society for the Protection of Animals, reproduced with permission of The Humane Society of the United States.



Stranded cetaceans who do not die on the beach or are not pushed back into the ocean alive may be taken into captivity for rehabilitation, where survival is uncertain. Photo: WSPA

The HSUS and WSPA maintain that exposure to live captive animals does exactly the opposite of what the industry rhetoric claims: instead of sensitizing visitors to marine mammals and their habitat, it desensitizes humans to the cruelty inherent in removing these animals from their natural habitats and holding them captive.

Evaluation of the performances' scripts and settings, as well as observation of the audiences' reactions reveal that a performance is not an educational vehicle but a show in which miseducation (in the form of inaccurate representation of such things as normal behavior, life span, appearance, and social structure) occurs more often than not.<sup>10</sup> To illustrate, many actions performed by dolphins in shows that are portrayed as "play" or "fun" are actually displays that in wild animals would be considered aggressive, akin to a dog growling or snarling.<sup>11</sup>

When public display facilities assert their educational effectiveness, they frequently cite annual attendance figures, apparently convinced that visitors learn about marine mammals simply by walking through a turnstile. But the response that is elicited by mere exposure to live captive animals does not translate directly into practical action or even heightened ecological awareness, as public display rhetoric claims.<sup>12</sup> Some in the display industry recognize this; the president of the Zoological Society of Philadelphia 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."<sup>13</sup>

In fact, The HSUS and WSPA maintain that exposure to live captive animals does exactly the opposite of what the industry rhetoric claims: instead of sensitizing visitors to marine mammals and their habitat, it desensitizes humans to the cruelty inherent in removing these animals from their natural habitats and holding them captive.<sup>14</sup> Repeated exposure to a dolphin swimming in a pool or a polar bear (*Ursus maritimus*) pacing in a concrete enclosure encourages people to consider wildlife as isolated objects or as servants to human needs and desires<sup>15</sup> rather than as integral elements of an ecosystem with their own intrinsic value.

## THE CONSERVATION FALLACY

Public display facilities have increasingly promoted themselves as conservation centers, in some cases changing their names to reinforce this image. 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, this is not the case with cetaceans. At present there are no facilities engaged in the captive breeding of critically endangered cetacean species such as the baiji or Yangtze river dolphin (*Lipotes vexillifer*) or the vaquita (*Phocoena sinus*), despite these animals being two of the most endangered mammal species in the world.<sup>16</sup> In fact, only one member of the Alliance of Marine Mammal Parks and Aquariums (AMMPA)—the main industry association that represents captive dolphin facilities—routinely provides funding or grants to promote the conservation of critically endangered river dolphin species.<sup>17</sup>

Public display facilities with the financial resources, staff capability, and commitment to engage in or support conservation programs for any animal species have always been few in number. The requirements of providing the public with a satisfying recreational experience are often incompatible with those of operating a research

or breeding facility (this is the reason for the development of the off-premises breeding facilities associated with a handful of zoos). The claim that conservation is a primary purpose of the captivity industry as a whole is highly misleading at best. Fewer than five to 10 percent of zoos and dolphinariums are involved in substantial conservation programs either *in* or *ex situ*, and the amount spent on these programs is a mere fraction of the income generated by the facilities.<sup>18</sup>

Dolphinariums and aquaria still acquire several species of marine mammals directly from the wild. Contrary to conservation principles, little serious work has been done to ascertain what effect these captures have on the populations from which these animals are taken<sup>19</sup> or on the individuals who may be captured but then immediately released because they are deemed unsuitable. The U.S. government requires some environmental impact analyses to be made before captures are permitted, but the analyses are generally considered inadequate, and the same restrictions do not even hold in foreign waters, where only vaguely defined "humane methods" may be required.

If dolphinariums and aquaria were truly concerned about conserving species in the wild, they would be dedicated to determining the effects of their capture activities on the animals left behind and to improving disruptive and stressful capture techniques (see "Live Captures"). They would also willingly submit to strict national and international regulations. They do none of these things.

In fact, the public display industry has actively lobbied to prevent the International Whaling Commission (IWC) from adopting measures to regulate directed hunts of small cetaceans (a group that includes dolphins, porpoises, and beaked whales). Currently there are few international agreements or laws protecting these vulnerable and, in some areas, heavily exploited species; many activists, scientists, and politicians believe that the IWC should regulate the hunts and fisheries involving small cetaceans.<sup>20</sup> However, the public display industry opposes this extension of IWC authority, apparently because this much-needed oversight might interfere with the display industry's ability to capture animals for its collections in various locations around the world.<sup>21</sup>

### LIVE CAPTURES

Most cetacean capture methods are extremely traumatizing, involving high-speed boat chases and swimmers violently wrestling animals into submission before hauling them onto a boat in a sling and then dumping them

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into shallow temporary holding tanks. All cetacean capture methods are invasive, stressful, and potentially lethal, although the method generally considered the most humane by natural resource managers is seine-netting. During a seine-net capture, dolphins are chased by small boats and then herded together and encircled by the net. Chasing and net encirclement of dolphins is extremely stressful by itself and has led to the decline or hindered the recovery of some dolphin populations.<sup>22</sup> Accidents have also occurred, causing the deaths of entangled animals.<sup>23</sup> The whole process is so traumatic that mortality rates of bottlenose dolphins (*Tursiops truncatus*) captured from the wild shoot up six-fold in the first five days of confinement.<sup>24</sup> The dolphins not selected and released from the net may experience a similar risk of dying once the capture operators have left the area.

A capture method commonly used on oceanic cetaceans, such as Pacific white-sided dolphins (*Lagenorhynchus obliquidens*), is "hoop netting." This method takes advantage of the species' tendency to "bowride," or swim at the front of boats. The captor lowers a pole attached to a collar from the front of the capture vessel over the head of a swimming dolphin. This collar is attached to a



Holding pools of newly captured animals may be quite primitive—no more than boxes lined with plastic tarps, with no filtration. Photo: WSPA





*Standards for marine mammal care are woefully inadequate, if they exist at all. In Latin America, the Caribbean, and Asia, where captive marine mammal programs are opening at an unchecked rate, animals are often kept in deplorable conditions. Two dolphins were kept in this filthy, fresh-water swimming pool for three months and were on the brink of death when discovered. Photo: WSPA*



*Drive fishermen haul on a bloody net used to entrap bottlenose dolphins. Photo: Elsa Nature Conservancy*

break-away net, and as the dolphin swims away, the animal becomes entangled. The dolphin is pulled to the side of the vessel and then hoisted aboard.

The most violent and cruel method of collecting cetaceans for captive facilities is the drive fishery, used primarily in Taiji and Futo, Japan. This hunt involves a flotilla of small boats that—through producing loud noises when the crews bang on hulls, or clang metal pipes together underwater—herd cetacean groups into shallow water. Some of the animals are set aside for sale to captive display facilities, while the remainder are killed with long knives or spear-like tools and butchered.<sup>25</sup>

In 2003, 78 cetaceans were sold to aquaria and dolphinaria by hunters in Taiji.<sup>26</sup> In 2005, a hunt involving about 100 bottlenose dolphins in Futo was revived (no hunt had taken place there since 1999 and dolphin watching is now a growing industry), apparently solely to acquire animals for public display facilities in Japan.<sup>27</sup> Fourteen dolphins were sold to aquaria, five were killed for “scientific studies,” and at least four (and almost certainly more) were drowned in the panic and chaos of the entrapment in Futo port. The remainder were released to an uncertain fate. Each dolphin slaughtered in these hunts is worth only a few hundred U.S. dollars on the open market as meat or fertilizer, but live animals fetch up to tens of thousands—the large profits from the few animals sold from each hunt help to subsidize and maintain the drive fishery and the hunters’ employment.

Many drive-hunted animals, of several species, are found in Japanese and other Asian dolphinaria. Ocean Park in Hong Kong obtained animals from drive fisheries in Japan while Hong Kong was governed by the United Kingdom.<sup>28</sup> Ocean Adventures, a facility in Subic, the Philippines, received a shipment of false killer whales (*Pseudorca crassidens*) from a Taiji drive hunt in March 2004. The person who procured these animals for Ocean Adventures is an American.<sup>29</sup> The problem, however, is not confined to Asia—at least 20 false killer whales caught by this method have been imported into the United States. However, since 1993 no permits have been issued to U.S. facilities to import cetaceans collected from Japanese drive fisheries.<sup>30</sup>

Although drive-hunted animals have not been imported into the United States for more than a decade, the government has allowed the exporting of marine mammals caught in U.S. waters to facilities in Japan that hold drive-fishery-caught animals.<sup>31</sup> Sea World

Incorporated has also applied for permits that would have allowed it to collect reproductive and other tissues from animals captured and killed in drive fisheries.<sup>32</sup>

Aside from humane considerations, removal of animals from wild populations can have a substantial negative impact on the animals left behind. Research on bottlenose dolphins shows that certain individuals play a crucial role in holding dolphin communities together.<sup>33</sup> If these individuals are removed, the dolphin group might lose cohesion and disperse. This could have serious survival implications for the remaining animals, as having a well-organized group is crucial when dolphins forage for food or have to defend themselves against competitors and predators.

In a survey of the U.S. public, 60 percent of respondents disapproved of aquaria capturing marine mammals from the wild, and nearly 90 percent supported government restrictions on exporting marine mammals to facilities that do not meet U.S. educational or treatment standards.<sup>34</sup> Even the broader captive-animal industry disapproves of live capture,<sup>35</sup> yet does little or nothing to stop the practice. Captures of non-cetacean marine mammals occur only rarely today, as these species either breed relatively well in captivity (e.g., California sea lions, *Zalophus californianus*) or are acquired when dependent young are orphaned in hunts or through strandings (e.g., polar bears). Thus, deliberately organized live captures for public display remain a significant problem primarily for cetaceans.

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the treaty organization that governs international trade in wildlife species, requires an exporting country to provide a "non-detriment finding" (NDF) to support wildlife captures and trade involving certain species (including many cetaceans).<sup>36</sup> An NDF is supposed to be based on scientific studies of the abundance and status of the wild stock from which exported animals were taken, as well as a scientific assessment that shows that removing the animals will not cause the stock's depletion.

Despite this requirement, over the past few years there have been increasing numbers of captures of cetaceans from the wild for public display facilities, accompanied by weak or insubstantial NDFs. These captures have been very controversial, in part because no consideration was given to the impact of these removals on the wild populations. This is now considered a critical conservation issue by the World Conservation Union (IUCN).



*Bottlenose dolphins panic and thrash in their own blood, as snorkelers search for young, uninjured animals for sale to dolphinarium. Photo: Elsa Nature Conservancy*



*These false killer whales are destined for the slaughterhouse. They are still alive, although their spines are probably damaged from being suspended in the air. Photo: Elsa Nature Conservancy*



The natural foraging behaviors of most predators in captivity are severely compromised.<sup>177</sup> While all species of marine mammals held in captivity (with the exception of manatees and dugongs) are predators, none are allowed to exercise that part of their behavioral repertoire that is related to hunting and foraging. For display-only animals, such as polar bears and most seals, 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.<sup>180</sup>

Public display facilities claim that for those marine mammals who perform in shows, training adequately replaces the stimulation of hunting. This claim is absurd. 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 positive reinforcement. For many animals this means that satisfaction of hunger is dependent on performing tricks; for others, hunger is deliberately induced so the reinforcer will be effective. This is not food deprivation per se, for a complete food portion is ultimately provided each day, but the use of food as a reinforcer reduces some animals to little more than beggars. Their lives obsessively revolve around the food presented during shows and training sessions. Patrons of any captive marine mammal show can easily observe the animals' attention fixed on the buckets of food. For these animals, natural feeding and foraging rhythms and cycles, as well as independence of any kind, are lost. It is impossible to accept the self-serving argument put forward by the public display industry that training provides an adequate substitute for the stimulation of natural foraging or the other actions exhibited by wild animals.

Most pinniped shows are entertainment spectacles in which animals perform in a burlesque, exhibiting a

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series of wholly artificial tricks, such as "handstands" and balancing a ball, in the context of a cartoon story in which raucous music is played and jokes are told. Many dolphin and whale shows incorporate circus tricks such as trainers propelled into the air by an animal's snout or animals taking fish from a trainer's mouth. The animals are presented as clowns, and almost no effort is made to educate the audience about their natural behavior.

Natural behaviors and 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. The needs of the animals are secondary. For instance, weaning is timed to suit the needs of the facility, as opposed to the needs of the pup, cub, or calf, because the offspring may be disruptive to the social group or because space is limited. Dominance interactions can be aberrant and abnormally violent,<sup>181</sup> as the animals must adjust their behaviors in response to the small living space and the artificial age and sex composition of the captive social group.

Wild-caught captive marine mammals gradually experience the atrophy of many of their natural behaviors. Many are caught too young to have learned how to socialize properly and form relationships. For sea lions and cetaceans in particular, socialization and learned behavior and skills are undoubtedly crucial to normal and natural development.

