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HOW DO THE LIFESPANS OF DOLPHINS IN THE WILD AND THOSE IN PUBLIC DISPLAY FACILITIES COMPARE?

Recent scientific research concludes that dolphins living in aquariums have a “better than or equal to survival” compared to dolphins in the wild.

The most recent lifespan study focused on the bottlenose dolphin and was conducted by Drs. Deborah Duffield of Portland State University and Randall Wells of the Chicago Zoological Society’s Brookfield Zoo, which is a member of the Alliance of Marine Mammal Parks and Aquariums. It shows that the average age of dolphins in marine life parks, aquariums, and zoos is similar to that of dolphins in their natural environment.

The study is based on comparative demographic census data for dolphins in public display facilities and a wild dolphin population in the waters of Sarasota, Florida, studied by Dr. Wells, the only wild dolphin population for which such data are available. This work corroborates a study published in 1988 by DeMaster and Drevenak who pointed out that survival of dolphins in aquariums “may be better than or equal to survival in the wild.”

Dolphins and whales in public display facilities breed successfully, form complex social groups, and exhibit excellent physical health.

The dolphins and whales in Alliance member marine life parks, aquariums, and zoos consume consistently high-quality, nutritional food, receive excellent medical attention, and are kept free of debilitating parasites. This is in stark contrast to the predators, disease, pollution, well-documented commercial fishing and recreational boating dangers and other challenges they face at sea, resulting in thousands of deaths each year.

DO MARINE MAMMALS GET STRESSED?

Wild animals live daily with many challenges to their survival. Predators, hunger, noise, parasites, and environmental pollution are just a few of the challenges animals in the wild must contend with every day. Animals in Alliance member facilities live without the stress of these considerable daily challenges.

The U.S. government reports that it “is unaware of any valid scientific research or other information that documents or supports that [shows or] performances...cause additional unnecessary stress for the animals."

Additionally, a recent scientific study of steroid hormones produced by the adrenal cortex, a common measure of stress in animals, demonstrates that stress is not an issue in marine mammals in in-water interactive programs. This Dolphin Quest/Sea World study was submitted to the U.S. government in September of 2000 and provides clear evidence that the animals are in a healthy environment.

The results of behavioral and medical evaluations of animals in public display facilities indicate the animals breed very successfully, form social groupings, eat well and exhibit the same behaviors they do in the wild. In addition, symptoms commonly referred to as stress indicators, such as ulcers, are more common in wild animals that have been found stranded than in animals in responsible public display facilities.

ARE PEOPLE LEARNING ABOUT MARINE MAMMALS FROM ZOOS AND AQUARIUMS?
In an online poll released in 2005 by the Alliance of Marine Mammal Parks and Aquariums and conducted by Harris Interactive®, 97 percent of respondents agree that marine life parks, aquariums and zoos play an important role in educating the public about marine mammals they might not otherwise have the chance to see. In addition, 96 percent agree that marine life parks, aquariums and zoos provide people with valuable information about the importance of oceans, waters and the animals that live there. The poll also shows that if looking for educational information about marine mammals, 75 percent of the survey participants would either visit a marine life park, aquarium or zoo or go to their Web sites.

A 1998 Roper Starch poll also provides clear evidence that programs at Alliance member marine life parks, aquariums, and zoos are educational and provide the public with a heightened appreciation of the importance of conserving marine mammals. Ninety-four percent (94%) of the park visitors interviewed for the poll said, “I learned a great deal about marine mammals today.”

Responses to the poll indicate that seeing living marine mammals enhances the educational experience for the visitors to these zoological parks and aquariums. Almost everyone (97%) interviewed said their experience with living marine mammals had an impact on their appreciation and knowledge of the animals. The impact was greater for those visiting facilities where they actually had an opportunity to interact with marine mammals.

The Roper poll shows that Alliance member marine life parks, aquariums, and zoos successfully teach visitors about marine mammals and, additionally, serve to inform visitors about environmental issues that may have an impact on the animals.

Results of the Harris Interactive® and Roper polls indicate that visitors are coming away from their marine mammal experiences with a heightened overall environmental concern and additional interest in taking environmental action.

DO DOLPHINS AND WHALES HAVE UNIQUE INTELLIGENCE?
Certainly these magnificent marine mammals are smart and their amazing capabilities have fascinated people for centuries.

Animals from the honeybee to the giraffe also have amazing capabilities. As with all animals, marine mammals are as intelligent as they need to be to survive in their environment. Because of the incredible variety of the habitats in which animals live and the diverse skills they need to survive, it is impossible and inappropriate to compare the intelligence of different species.

Yet, people continue to infer that dolphins and whales are uniquely intelligent. Dolphins, for example, are large animals with proportionally sized brains. However, brain size does not indicate intelligence. More important is how much of the brain’s area is dedicated to certain functions. One exploration of the issue offered by marine mammal scientists involves comparing specific parts of the brain. For instance, 15 percent of the dolphin brain is its cerebellum, which coordinates muscular activities. Only 11 percent of the human brain is cerebellum, but since humans are less muscular than dolphins, the difference is proportional. Conversely, the volume of a dolphin’s cerebral cortex is only 80 percent of a human cerebral cortex, which coordinates complex functions like memory, language and perceptual awareness. Again, the difference is proportional: humans perform more complex brain functions than do dolphins.

HOW IS POSITIVE REINFORCEMENT USED TO TRAIN MARINE MAMMALS?

Marine mammal experts have learned that successful training is always done in a positive manner. Excellent relationships develop when the animal and trainer have a good rapport, based on mutual respect and trust. Anything but positive interaction would hurt that bond.

Desired behaviors are rewarded or reinforced to increase the probability that the animal will repeat them when asked to do so in the future. If an animal does not respond or offers the incorrect response, the behavior is ignored. Every animal is fed a highly nutritious diet specific to its daily needs. Food rewards during training are simply a portion of that balanced diet.

Food is, by definition, a primary reinforcer for marine mammals; however, it is not the only reinforcer used in marine mammal training. Tactile stimulation, toys, or the opportunity to perform favorite behaviors are just a few of the other possible reinforcers available to trainers. Dolphins, for example, often continue to offer behaviors long after they have eaten all of their food, seeming to do so simply for the positive interaction with their trainers.

An important aspect of training marine mammals is conditioning the animals to voluntarily participate in routine physical examinations and sampling procedures that are essential to maintaining the animals' health. These learned behaviors involve procedures that are conducted on a regular basis, and may include mouth and eye examinations, the collection of blood, blowhole, urine, and fecal samples, as well as ultrasound examinations necessary for monitoring pregnancies in females.

Although training may serve a variety of purposes, it is also a form of exercise for the animals, stimulating them mentally and physically. Participation by an animal in any training program, project, or show is voluntary.

HOW DOES A DOLPHIN’S ECHOLOCATION ABILITY WORK FOR AN ANIMAL IN A PUBLIC DISPLAY FACILITY?

Numerous studies conducted over 40 years prove that dolphins and whales know exactly how to compensate for their environment, using their sonar only when they choose to do so. Dolphins' sonar abilities or echolocation was first discovered at Marineland of Florida (Dolphin Societies edited by Pryor and Norris). Simply put, dolphins use their sonar to produce sound and bounce it off objects, which the animals then interpret. This echolocation is used to search for food, escape predators, navigate, stay with their pod, acoustically communicate with each other, and define the forms that make up their environment.

Research has demonstrated that dolphins have voluntary control over the frequency and amplitude of their signals. They can echolocate loudly, quietly, or not at all -- as they choose. Dolphins in the wild echolocate often while fishing and moving, but they periodically go silent, especially while resting. In the face of these studies and others, it is inaccurate to suggest that the sophisticated sonar of a dolphin or whale is like a horn that cannot be turned off and that the resulting "noise" and echoes annoy or injure the animals.

Scientific studies on echolocation and other acoustic behaviors have been fundamental and vital in understanding the nature of acoustic behavior at sea. For 30 years, the Navy has been training dolphins and whales to use their sonar for tasks related to underwater surveillance for object detection, location, and recovery purposes. These natural behaviors are beyond the capabilities of human divers. Dolphins and whales trained in these tasks save millions of dollars in retrieving expensive equipment used in military exercises.

HOW SAFE ARE IN-WATER INTERACTIVE PROGRAMS WITH DOLPHINS?
In-water-interactive programs have a remarkable, well-established record of dolphin and human safety. The health and safety records of these innovative programs have been studied, analyzed, and restudied for almost 20 years, each time reaffirming their exemplary safety.

Since these programs originated in the United States, most of these studies have involved U.S. government agencies. The very first, experimental in-water interactive programs were the subject of numerous federal or federally directed studies. (Final Environmental Impact Statement on the use of Marine Mammals in Swim-with-the-Dolphin Programs, NMFS, NOAA, 1990) A conclusive study funded in 1994 by the government demonstrated that interactive programs using well-trained dolphins do not pose any risks to either the dolphin or human participants. The study refers to these as “controlled” programs. (A. Samuels, et. al., Quantitative Behavioral Study of Bottlenose Dolphins in Swim-With-the-Dolphin Programs in the United States, 1994)

Additionally, the U.S. government agency responsible for inspecting marine mammal facilities has stated that these programs are safe

The continued safety of animal and human participants is important to Alliance member facilities that conduct in-water marine mammal interactive programs. An informal survey of Alliance members featuring these programs shows an excellent safety record. Since 1985, almost 1,000,000 guests have participated in Alliance programs with a 99.9% safety record. No animals have been injured.

CAN I MAKE A DOLPHIN SICK IF I PARTICIPATE IN AN IN-WATER INTERACTIVE PROGRAM?
Since the initiation of in-water marine mammal interactive programs in 1985, there has not been one instance of disease transmission between humans and dolphins reported at any of the facilities that offer “swim with the dolphin” programs, as the programs are popularly known.

To affirm these observations, a member of the Alliance undertook a study to demonstrate that dolphins participating in these programs are not vulnerable to respiratory health risks. The study included a retrospective review of medical records and shows without question that transmission of respiratory disease from humans to the animals in these programs does not occur. The in-depth, three-year review, “A Retrospective Study of Bottlenose Dolphins Participating in In-Water Interactive Programs Showing an Overall Absence of Clinical and Subclinical Respiratory Disease,” has been provided to government regulators.

Alliance members are dedicated to maintaining the health of the animals in their care. All Alliance members have attending veterinarians who conduct regular examinations of the animals, ensuring their best possible care.

CAN INTERACTING WITH DOLPHINS BE A FORM OF THERAPY?
It’s well documented that animals enrich the lives of people in many ways. For many years, a variety of animal species have participated in special programs with people with physical disabilities and mental health concerns.

Some Alliance members, for example, work with organizations such as the Make-A-Wish Foundation to provide memorable experiences for children with life-threatening afflictions whose “wish” is to interact with marine mammals. Alliance members also adjust their interactive programs so that children and adults with disabilities may enjoy them as fully as possible. In-water interactive programs with marine mammals offer a welcome respite from the daily concerns

of those living with a serious illness and provide participants motivation to try to reach beyond the limitations of their disabilities.

No Alliance member institution featuring in-water interactive programs offers a dolphin sonar or energy therapy program for people with behavioral or physical disabilities. There is no peer-reviewed scientific documentation substantiating relief or improvement for individuals who participate in programs that purport to use dolphin echolocation to diagnose or cure the disability. The Alliance does not advocate these so-called “dolphin therapy” programs.

IS IT SAFE TO RELEASE WHALES AND DOLPHINS TO THE WILD THAT NOW LIVE IN ZOOLOGICAL PARKS AND AQUARIUMS?

The issue of releasing to the wild whales and dolphins that are currently cared for in marine life parks, aquariums, and zoos can be challenging both emotionally and scientifically. However, to experts concerned about the risks to which release exposes both the individual animal and the wild population, the issue is a simple one. Without a compelling conservation need such as sustaining a vulnerable species, release may be neither a reasoned approach nor a caring decision.

The survival of marine mammals in the wild requires an elaborate series of skills including the ability to detect and avoid predators and forage for food. Many animal care experts believe marine mammals that have spent a substantial portion of their lives in zoological parks and aquariums most likely have lost their ability to find food. Additionally, the animals may have diseases that are transmittable to wild populations and may not be immune to diseases for which wild animals have immunities.

A November 1992 report of the Canadian Advisory Committee on Marine Mammals concludes that the release of whales and dolphins that have been in marine life parks for extended periods is "inappropriate." The committee reviewed a number of exploratory projects to learn something of the problems and potential of the concept. The advisory group noted that retraining to kill prey is essential, though not a "sufficient capability." Survival, the Committee pointed out, "requires a series of complex skills plus physical and physiological competence.”

The Alliance supports proper, scientifically based reintroduction programs that are anchored in principles of conservation biology and have the ultimate goal of sustaining marine mammal species. Such programs utilize recognized methods of conservation biology in efforts to re-establish or reinforce an endangered native wild population. Also, the Alliance understands the value of using surrogate non-endangered species to conduct an experimental return to the wild for the purpose of generating data and developing technology applicable to future projects aimed at conserving endangered species.

The Alliance knows of no responsible conservation organization that supports releases of non-endangered species, except under specific protocols used to develop reintroduction techniques for closely related species. For example, the International Union for the Conservation of Nature emphasizes in guidelines that “it must be determined that returning [animals] to the wild will make a significant contribution to the conservation of the species, or populations of other interacting species.”

Alliance member knowledge of marine mammals suggests that any decisions about an animal’s release or return to the wild should be made with caution and compassion. The safety of the individual animal as well as the continued well-being of the wild host population should be given paramount consideration.