

Case Scenario Template

Case author: Janice Lloyd

Scenario Theme: Aquatic Animals (Animals used for work, sport, recreation or display)

Scenario Topic: Orcas in captivity

Name of client: The Captive Marine Mammal Industry

Age, sex, species/breed of patient(s): Captive orcas (including 'Tilikum', a 30+ year old, breeding male)

Patient's problem(s): Captive lifestyle

Case ILO objectives: A1.4; B1.3; B1.4; C1.1

AW / Ethical challenges: Keeping large marine mammals for recreation and display in the captive environment

Background Information

Orcas, aka killer whales, are the largest of the ocean dolphins. These large, predatory marine mammals were first captured from the wild and displayed in public exhibitions in the early 1960s; they quickly became popular attractions due to their capacity for training, and striking size and appearance. Presently there are around 45 orcas in captivity worldwide, most of which are now captive-born.

Orcas are extremely intelligent, social animals with a highly evolved brain. Neurological imaging studies (MRI) show that orcas possess an extensive para-limbic system suggestive of an elaborate emotional life. In the wild orcas live in close family groups (or pods) and different groups are believed to have developed their own 'language' and 'culture'.

While much of the orcas lifestyle is a mystery they have been known to swim up to 160 kms in one day at speeds of up to 50 kms an hour, and typically dive 30-60 kms below the surface. Orcas create 'sound pictures' of their habitat using echolocation, and their diet consists of live: fish, seal, sea lion, seabirds, squid and other marine animals including whales.

Background Information

The practice of keeping orcas in captivity is controversial. The captive environment bears little resemblance to their wild habitat, and the social groups that these animals are put into are foreign to those found in the wild. Additionally, there have been numerous reports of injury and death caused by captive orcas to other animals in the environment including humans.



http://media.npr.org/assets/img/2013/07/17/1_wide-3f6ba5c3200afde5a3df438eac9c35a85b232966-s40-c85.jpg

Instructions to students

For this scenario, you are required to watch the documentary 'Blackfish'. This film, which was released in 2013, tells the story of 'Tilikum' – a male orca captured as a baby off the coast of Iceland in 1983. 'Tilikum' has been implicated in the deaths of three people.

Please click on this link to begin watching the documentary (83 minutes):

Insert (legal) hyperlink here

You will also find this link to a TV debate useful to consolidate your thinking, and direct you to other areas of self-study: <https://www.thedodo.com/10-ways-an-orca-scientists-deb-580335335.html>

Task:

List and discuss the moral and ethical issues that surround the acceptability of keeping large marine mammals such as orca in captivity for human entertainment.

Assessment:

You will receive a mark out of xx for your answer.

Model Answer

- Sourcing animals:
 - Although now uncommon, animals may still be captured from the wild. This involves herding animals into netted areas using aircraft, speedboats and bombs to separate the young orcas from the family group. Some orcas die during this highly stressful, traumatic activity.
- Lifespan/health issues:
 - Orcas in the wild have a lifespan not dissimilar to that of humans i.e. 80-100 years for females and 50-60 years for males. Eighty six percent of the orcas captured from the wild since 1961 (n=135) are apparently now dead. The average length of survival in captivity is reported to be around 6 years (although the documentary, 'Blackfish' mentions 25-35 years).
 - Dorsal fin collapse (aesthetic vs. indicator of welfare status): Only a small number of male orcas in the wild have collapsed dorsal fins compared to 100% of captive animals. Fins are supported by collagen, and collapse may be due to a combination of factors including diet, stress, water quality, temperature, space, exercise etc.
 - Exhibit Design: Captive orcas live in chlorinated water and are exposed to the constant noise of filtration pumps. However, crystal clear pools are designed for the enjoyment of the spectator, not necessarily the needs of the orcas.

- Diet:
 - Orcas are top predators in the wild. They have developed sophisticated hunting strategies, including cooperative behaviours, and a great deal of time is spent travelling and foraging. In captivity, orcas are fed a diet of frozen/thawed fish and do not have the opportunity to hunt live prey. They are required to perform behaviours desired for human entertainment for their food.

- Social behaviour:
 - Orcas in the wild live in close family groups (often for life), with adult offspring staying close to mum. It is common practice for orcas as young as 6 months to be separated from their mothers in captivity, despite the intense social bond they share.

A scientific analysis of the vocalisations of a captive mother orca whose calve was removed was described as “long range vocals” which had never been described before.
 - The mixing of different family groups results in animals with different genes, language and culture living in forced proximity.

- Lack of space and stimulation:
 - Orcas in the wild live in a vast ocean environment, easily swimming over 100 kms per day. Orcas in captivity are confined to dramatically smaller environments than their natural habitat. Animals cannot avoid each other due to lack of space, and hence many are kept in isolation to

avoid being injured by- or injuring other animals. In conjunction with limited natural light and stimulation, there is little opportunity to exhibit normal behaviour.

- Abnormal behaviours: Living in such an unnatural habitat creates unnatural behaviours. Orcas in captivity exhibit many abnormal behaviours including stereotypies (head bobbing, pacing/circling, tongue playing), lethargy, refusal to eat, self-inflicted injuries (e.g. slamming head or body into the wall of the tank) and aggression between orcas or towards trainers – activities that teach us nothing about the natural behaviour of wild orcas.
 - Acoustics: Orcas create 'sound pictures' of their habitat using echolocation. They are highly intelligent and inquisitive about their environment. In captivity, many of their reasons for vocalising are unnecessary. There is no opportunity to locate and track prey, and the super-clean, sterile tanks offer nothing to navigate or investigate. There is no need to communicate acoustically with other orcas using contact calls because of their physical proximity.
- Training:
 - Orcas that have been trained by being deprived of food for not exhibiting desirable behaviours (negative punishment) may become frustrated, which can lead to aggression. This aggression can be redirected to other animals including humans.

- Captive breeding programs:
 - Many captive bred pregnancies have resulted in miscarriage, stillbirth, or the death of the calf shortly after birth. Of 69 known pregnancies in captivity since 1968, only 29 calves have survived.
 - The male orca 'Tilikum', who was captured as a baby off the coast of Iceland in 1983, has been used to artificially inseminate over half of SeaWorld's orca collection. 'Tilikum' has been implicated in the deaths of two marine mammal trainers and one other person. Although 'Tilikum's' motivations for these actions are unclear (boredom? frustration? or psychosis?), breeding from any animal that has shown aggressive tendencies is contra-indicated.

- Profit:
 - Marine parks profit from keeping orcas and other marine animals in captivity despite evidence that captivity induces unnatural behaviors in orcas and endangers trainers. The marine park Industry has been criticised for conflicting evidence and apparent lack of accountability regarding these issues.

- [Note: Counterarguments for keeping orca in captivity – research, education, conservation? Etc. Useful for HCT?]