

DISABLED BUT NOT DISCOUNTED: A CASE STUDY OF TWO *TURSIOPS TRUNCATUS*

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Zoological facilities and aquariums have housed disabled animals for years, but they are rarely integrated into educational shows or public interactions. As the prevalence of disabled animals in human care increases, their trainers and zookeepers are challenged with the task of creating new and innovative animal care, training, and enrichment techniques (Hepting 2006). The training staff at Dolphins Plus (Key Largo, Florida) has developed unique integration programs for two special needs dolphins (*Tursiops truncatus*) in their care.

Jessica, an adult, female dolphin suffered acute eye trauma during a transport to Dolphins Plus, in May of 2003, which resulted in severe, permanent visual impairment. Thus, the animal care staff was faced with a significant training obstacle. Within the first week of her injury, her training regimen included lowered criteria for remaining at control and stationing and the establishment of a precursor for primary reinforcement. Subsequently, the staff paired Jessica with a sighted dolphin to encourage mimicking behaviors, incorporated the participants' location and body positioning into the S^Ds, and allowed her to anticipate and selectively participate in behaviors. Six days post trauma, her trainers began developing a new "language" for Jessica including tactile, verbal, and underwater S^Ds, eventually encompassing her entire behavioral repertoire. Within one month, Jessica was successfully responding to and completing 50% of the initiated behaviors. Utilizing this new communication regimen, the criteria for behaviors increased over time, anticipatory behaviors were extinguished, mimicking was no longer reinforced, and Jessica's behavioral repertoire doubled in four years.

Castaway, a wild, rescued, non-releasable dolphin began a basic training regimen at Dolphins Plus in July 2007. Despite her inability to hear, limited sight, and apparent cognitive deficits, the following training tools were implemented successfully within the first two months: the use of a non-auditory bridge, targeting, visual and tactile recalls, and vertical positioning at station (Sayre et al. 2007). As part of her integration scheme, the existent Dolphins Plus human-interaction program was adapted to consider her limitations and thus create a unique, safe, and enriching interaction program. The biggest challenge in the development of the training protocol was Castaway's restricted spatial awareness and orientation. Thus, strict criteria were developed for appropriate stationing with her in-water trainer and the program participants, including the elimination of undesirable behaviors and the establishment of topographical awareness and flexibility. In addition, Castaway's ability to focus was augmented via training, eventually resulting in her ability to switch focus interchangeably between her trainer and the program participants. Other training protocols that were critical to her success included the development of a tactile bridge and conditioning Castaway to respond to S^Ds delivered from different perceptual fields.

By successive approximations and the adaptation of responses to reflect their respective learning disabilities, both Castaway and Jessica were successfully "mainstreamed" into the daily operations of a marine mammal facility. Don't discount the disabled!

Hepting D (2006) The Blind Leading the Blind: Engaging Visually Impaired Animals in Enrichment. *Soundings* 31(3): 28-29

Sayre S, Andersen S, Richardson J, and N Cooper (2007) Contacting Castaway: Training a Wild, Deaf, Offshore Atlantic Bottlenose Dolphin (*Tursiops truncatus*). 35th Annual IMATA Conference, Indianapolis. Abstract: