

CHALLENGES IN TRAINING A DOLPHIN SOCIAL GROUP TO WEAR DIGITAL DATA TAGS

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Research continues to expose bottlenose dolphins (*Tursiops truncatus*) as social savants, relying on elaborate techniques of cooperation, communication, and even competition to motivate their advanced network of cetacean groupings (Pack & Herman, 2006). During a long-term research study, trainers at Brookfield Zoo's Seven Seas experienced these dynamic social influences first hand while conditioning eight bottlenose dolphins of varying ages and relatedness to wear a digital data tag attached to their backs with suction cups for extended periods of time.

Each animal was assigned an individual trainer initially, but we quickly learned that this would require a cooperative effort. The goal was to have the animals wear these tags for six to nine hours at a time, outside of sessions. Within the group, there are three separate matrilineal lines, each showing unique patterns towards the training process. Team collaboration, brainstorming challenges, communication, and innovative training concepts all played pivotal roles in the development of this behavior.

Digital data tags (D-tag) have been deployed in cetacean research for over a decade, recording information on energy expenditure and swimming behavior in species where these metrics are otherwise difficult to obtain (Van der Hoop *et al.*, 2014). In a time where our intentions for animal welfare quality are constantly scrutinized, this project hopes to use empirical data to support the quality of care and welfare dolphins receive in human care. The Seven Seas' team would like to share their challenges in aim to inspire other facilities to take on similar daunting goals. This paper will discuss the unique experiences and training tactics taken to achieve our end goal.

References

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- Van der Hoop, J., Falman, A., Hurst, T., Rocho-Levine, J., Shorter, K.A., Petrov, V., Moore, M. (2014). Bottlenose dolphins modify behavior to reduce metabolic effect of tag attachment. *The Journal of Experimental Biology*, 217, 4229-4236.