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Title

Foraging behavior, habitat, health, and survival of resident and translocated Hawaiian monk seals at Nihoa Island, Hawaii (http://scholarworks.sjsu.edu/cgi/viewcontent.cgi?article=7848&context=etd_theses)

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Abstract

Translocations aimed at promoting population recovery for threatened and endangered species also can function as forced dispersals. To assess the efficacy of translocating Hawaiian monk seals (Monachus schauinslandi) and examine post-dispersal effects on monk seals, in 2008-2009, 12 weanling seals were translocated from French Frigate Shoals (FFS) to Nihoa Island (NIH). In addition, nine adult and eight weanling resident seals were captured at NIH. Satellite instrument attachment, biological sampling, and morphometry were conducted on seals at capture. Focal video camera drops also were conducted at 45 sites around NIH (< 100 m) in 2010-2011. Translocated and resident weanlings primarily dove to 40-60 m and used sandy-bottomed habitat < 13 km from NIH. In contrast, resident adults had greater variability in foraging behavior and habitat use. There also was a low prevalence of infectious disease in translocated and resident seals, excluding *Chlamydophila abortus* and enteric bacteria. First-year survival was greater for translocated weanlings (50%, n = 12) than non-translocated weanlings at FFS (31%, n = 36) but was slightly less than non-translocated weanlings at NIH (69%, n = 16). The results of this study supported four main conclusions that have important consequences on population-level trends: 1) translocations are a viable conservation strategy for monk seals, 2) there was a low risk of spreading pathogens, 3) an abundance of benthic monk seal foraging habitat may exist at NIH, and 4) individuals that disperse with limited foraging experience may adapt rapidly to their post-dispersal habitat.

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