Abstract

Behavior of Rehabilitated Surf Scoters (Melanitta perspicillata) Oiled During the Cosco Busan Oil Spill on San Francisco Bay

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Following the spill of bunker oil into San Francisco Bay, California, we evaluated the foraging characteristics and movements of Surf Scoters (*Melanitta perspicillata*) that had been rehabilitated following formal rehabilitation protocols. We compared these behavioral attributes of oiled Surf Scoters to Surf Scoters that were not oiled, but instead captured and released or put through the same rehabilitation procedure (thus separating the procedure effects from the oiling). Radios transmitters were implanted into each of these three groups and locations determined on 34 subsequent aerial searches between Dec 16, 2007 and May 7, 2008. Mean home range size was greatest for control birds while smallest for oiled and rehabilitated birds ($p=0.029$). Oiled and rehabilitated birds were closer to shore than either rehabilitated only or control birds ($p=0.002$). Oiled and rehabilitated and the rehabilitated only groups used different areas of the Bay after release than did the control birds ($p=0.02$) and dive duration differed between sites ($p=0.008$) but not between treatment groups ($p=0.87$). Although Surf Scoters can be cleaned of oil and rehabilitated, issues related to captivity may influence the distances that they travel after release. Foraging characteristics appeared to be similar between groups after release, despite the foraging occurring at different areas of the Bay. Because rehabilitated-only scoters behaved more like oiled and rehabilitated scoters, future investigations of post-release differences in behavior of Surf Scoters may benefit from a focus on captivity as an impact on individual birds.