

DISTRIBUTION, ABUNDANCE AND STRUCTURE OF HARLEQUIN DUCK POPULATIONS IN PRINCE WILLIAM SOUND, ALASKA [SYMP. I]

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In response to mortality from the 1989 T/V Exxon Valdez oil spill, Harlequin Duck (*Histrionicus histrionicus*) populations were surveyed in Prince William Sound (PWS) in 1995 to assess the extent of recovery of ducks inhabiting oiled areas and determine if low reproductive success resulted in changes in age and sex structure of the population. Shoreline surveys monitored abundance, distribution, population structure, and productivity in oiled and unoiled areas. Surveys conducted from early May to mid-June compare temporal changes in abundance and population structure (number of breeding pairs, subadult males, unpaired adult males, and unpaired females), within and between oiled and unoiled areas. Breeding pairs were used to evaluate breeding chronology and estimate size of the local breeding population. Plumage patterns in spring were used to age males

to 1 of 3 classes (1 yr, 2 yr, adult). Surveys conducted from mid-June through mid-September identify molt chronology and compare changes in sex ratios and abundance. Brood surveys compare productivity. Seasonal changes in population structure throughout the two survey periods provide insight into Harlequin Duck movements to and from the study area.

Distribution, abundance, and structure of Harlequin Duck populations in Prince William Sound, Alaska

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