

DISTRIBUTION, ABUNDANCE AND COMPOSITION OF HARLEQUIN DUCKS IN PRINCE WILLIAM SOUND, ALASKA

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We surveyed Harlequin Ducks inhabiting coastal waters of Prince William Sound, Alaska, during 3 spring and 3 fall surveys in 1995, 1996 and 1997 and during 1 winter survey in March 1997. We used the number of breeding pairs, age and sex composition of the population, chronology of molt, and the number of brood observations to determine whether Harlequin Ducks in areas of the western (oiled in 1989) and eastern (not oiled in 1989) Sound exhibited similar demographic characteristics. The number and composition of Harlequin Ducks varied among survey periods because of seasonal movements by ducks into and out of the study area. During the spring, a relatively greater proportion of breeding pairs departed the eastern than western Sound. The relatively small number of paired females remaining on our study areas suggests that local breeding females contribute substantially less to annual production than do non-local breeding females. A significantly lower proportion of paired females in the western Sound coupled with a greater proportion of flightless females earlier in the fall may indicate that breeding propensity of female Harlequin Ducks may be lower in the western than eastern Sound. Numerically, however, the relatively larger number of non-paired females in the western Sound can be attributed to sexually immature birds as opposed to non-breeding adults. The small number of local breeding pairs in the western Sound combined with the absence of broods for the third consecutive year suggest that suitable breeding habitat is limiting breeding activity on our western Sound study area.

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