

**SEASONAL MOVEMENTS AND DISTRIBUTION OF WINTERING PACIFIC STELLER'S EIDERS (*POLYSTICTA STELLERI*) DURING THE ANNUAL CYCLE**

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The Pacific population of Steller's Eiders (*Polysticta stelleri*) is recognized as having two distinct breeding populations: a large population (>100,000 birds) that breeds in Russia and another much smaller population (<1000 birds) that breeds in Alaska, USA. Both populations mix on non-breeding areas that are located primarily in Alaska. The Pacific population is thought to have declined by 50% in recent decades which prompted a listing of the species as rare in the Yakutsk Republic of Russia. In the USA, the Alaska breeding population was listed as *Threatened* in 1997 in response to the population decline and a severe reduction in their breeding distribution. As with many sea duck species, limited life-history information is available to identify population-limiting factors and develop conservation action plans. In particular, knowledge of cross-seasonal affiliations and temporal and spatial use of habitat are deficient. We used satellite telemetry to characterize the annual movements and habitat use of a small segment of the Pacific population of Steller's Eiders. We captured wintering birds at Chiniak Bay, Kodiak Island, Alaska in late-February and early-March (2004-2006) and monitored the movements of 24 satellite-tagged birds (16 ASY females, 1 SY female and 7 ASY males) that departed the study area. All birds used the same inter-continental migration corridor during spring, but fine-scale patterns and chronology of spring migration appeared to vary by year and among individuals. During spring migration, birds primarily followed the Alaskan coastline, but also used overland crossings of the Alaska Peninsula and offshore pathways across Bristol Bay and the Bering Sea south of St. Lawrence Island. In Russia, the migration corridor included an overland route from the Gulf of Anadyr, across the Chukotka Peninsula to the Russian arctic coast where final movements were over coastal tundra wetlands. In summer, thirteen females and 3 males used inland locations along the arctic coast of Russia; five birds spent the summer in near-shore waters of Russia and Alaska. Inland sites included those from the Chukotka Peninsula to the Taymyr Peninsula and the New Siberian Islands. However, half of the birds were located on the Indigirka-Yana lowlands, suggesting this may be a relatively high-density nesting area. In late summer, thirteen birds migrated from inland locations, along the northern coastline of Russia around the Chukotka Peninsula and across the Bering Sea to molting locations in Alaska. Molting areas were broadly distributed in coastal Alaska and included St Lawrence Island (n=1), Kuskokwim Shoals (n=1), Kamishak Bay (n=3) and three sites along the Alaska Peninsula (n=8). Three of 4 birds returned to the same molting location in a consecutive year. Following molt, most birds (12 of 13) returned to winter at Kodiak Island. Steller's eiders appear to lack strong connectivity between breeding and non-breeding areas, but results also suggest high fidelity to molting and wintering areas.

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