**Interior Population Trumpeter Swan annual movement and migration patterns**

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The Interior Population (IP) of trumpeter swans (Cygnus buccinator) was established through re-introduction efforts throughout the Upper Midwest beginning in the 1960s and has transitioned from a rare to a common component of the waterfowl community. However, unlike many other waterfowl species, little is known about migration patterns and seasonal distributions of IP trumpeter swans. Our objective is to provide a quantitative description of year-round swan movements, including the proportion of swans that migrate, spatial extent of migration, and the timing of fall departure and spring arrival. We deployed 113 GPS-GSM collars on swans throughout the IP breeding range, in 6 states and 1 Canadian province, between July 2019 and December 2021. Tracking data indicate the IP displays partial migration, with some individuals migrating each year while others remain resident in the vicinity of their breeding territory. We observed a spectrum of migration strategies that varied with latitude, from obligate migrants that breed furthest north (e.g., Manitoba), to a zone of facultative migrants that breed at middle latitudes (e.g., much of Minnesota), to obligate residents at breeding sites furthest south (e.g., Ohio). Anthropogenic sources of open water (lake aerators, power plants, gravel quarries) provided sites where some swans overwinter. Breeding individuals were more likely than non-breeders to overwinter near their breeding territory or undertake a short-distance migration, but there was substantial individual variability in movement patterns and breeding latitude had a much stronger relationship with migration distance than breeding status.

Category: Conservation and Ecology of Birds