

Wintering area affects migration strategies in the trans-hemispheric migrant Red knot *Calidris canutus*

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In understanding population dynamics, estimation of population specific parameters is required. Often staging sites present an attractive opportunity to do so, but they may be used by individuals from a number of populations, complicating analyses. Red knot are amongst the longest avian migrants, with birds migrating between wintering areas in South America to breeding areas in the Canadian Arctic. Most birds stage in Delaware Bay prior to their final northward flight to the Arctic, with both short-distance and long-distance migrating individuals present in the Bay. We analysed moulted flight feathers for Carbon and Nitrogen Stable isotope ratios in a large sample of individually colour-marked birds over a three year period to differentiate between birds from different wintering populations in the Bay. Intensive observation efforts mean the majority of birds alive and returning each year are re-sighted. We use these techniques to examine the differing migration strategies and demographic parameters of the different wintering populations using the Bay. As well as elucidating the strategies of a long-distance migrant, these results are especially relevant given the large amount of conservation concern about this species, in the light of a massive population decline.