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Abstracts

SPECIAL SECTION: AVIAN DISPERSAL

BREEDING DISPERSAL AND PHILOPATRY IN THE TREE SWALLOW

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Abstract. To study the patterns and determinants of philopatry and breeding dispersal in the Tree Swallow (*Tachycineta bicolor*) we analyzed the records of 356 males and 1459 females captured in more than one breeding year around Ithaca, New York. Of these captures, only 4% of male and 14% of female breeders dispersed to a new site for breeding. With our combination of intensive study areas in Tompkins County, New York, and the efforts of volunteer banders throughout New York and surrounding states, we could have detected dispersal in excess of 400 km from the initial breeding site. Randomization tests revealed, however, that breeders dispersed much shorter distances than they could have been detected. Detailed analyses of recaptures in Tompkins County showed that over a 22-km range of distances, the chances of dispersal to a new breeding site declined with the distance from the original breeding site. Females that failed to fledge any offspring were much more likely to disperse than females that reproduced successfully, and the probability of dispersal declined gradually with female age. The spatial scale in which swallows gather and process information appears to be much larger than for passerines that defend all-purpose territories.

Key words: adult mortality, breeding success, dispersal, philopatry, spatial scale, *Tachycineta bicolor*, Tree Swallow.