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## Sex-related differences in the migration of Northern Saw-whet Owls

Sarah M. Musilli

Michael S. Hurban

Emily A. Caruana

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banded on Appledore Island, ME, we compared recapture rates and stopover lengths (both minimum and stopover duration analysis [SODA]) between the seasons. The recapture rate for most species analyzed was significantly higher during fall. The minimum stopover was also longer during fall. When each year's record of Red-eyed Vireo data was analyzed, there was a general pattern showing minimum stopover and SODA stopover to be longer during fall. Annual recapture rates for this species were also significantly higher during fall. It appears that there are seasonal differences in the stopover ecology of migrating birds. Birds have longer stopovers and higher rates of recapture during fall compared to spring. Our results are consistent with the hypothesis that avian behavior during spring migration is influenced by the need to arrive early on breeding grounds, while fall migrants are not time limited at this northern stopover site.

**Location, location, location: comparison of stopover at two sites.** KATHRYN E. MATTERN, *Canisius Coll., Buffalo, NY*, REBECCA W. SUOMALA, *Univ. New Hampshire, Durham, NH*, MELISSA S. MUSTILLO, PEGGY E. BUCKLEY, SARA R. MORRIS and H. DAVID SHEETS, *Canisius Coll.*

Migratory passerines utilize stopover sites to refuel fat stores, rest, and avoid predation. During fall migration, birds traveling from breeding to wintering grounds may stop at the Isles of Shoals in the Gulf of Maine. Because of differences in vegetation, migrants may be using individual islands differently. The goal of this project was to compare recapture rates and stopover lengths of migratory passerines on two islands, Appledore Island and Star Island, in the Isles of Shoals during fall migration during 1999 and 2000. Five species had adequate banding records for comparison. Magnolia Warblers had a greater recapture rate on Star Island during 2000, and Red-eyed Vireos had a greater rate on Appledore Island during both 1999 and 2000. Stopover length was significantly longer on Appledore for both Northern Waterthrushes during 1999 and Red-eyed Vireos during 2000. Only Red-eyed Vireos during 2000 could be compared using CMR models, as they tended to stay on Appledore longer than on Star Island. These results indicate that migrants are using

these two sites differently, despite the proximity of the sites. Further study is needed to establish the factors affecting stopover decisions of migrants and how best to determine the importance of individual sites.

**Sex-related differences in the migration of Northern Saw-whet Owls.** SARAH M. MUSILLI, MICHAEL S. HURBAN, EMILY A. CARUANA, *Canisius Coll., Buffalo, NY*, SCOTT WEIDENSAUL, *Ned Smith Center for Nature and Art, Millersburg, PA*, H. DAVID SHEETS and SARA R. MORRIS, *Canisius Coll.*

Northern Saw-whet Owls are small, nocturnal, migratory owls that show reverse sexual size dimorphism, in which the females are larger than the males. Although little is known about their migratory patterns, they are believed to show differential migration, in which one sex migrates before the other. The analysis of 2374 Northern Saw-whet Owls banded in Pennsylvania during the fall migration seasons of 1998 - 2003 documented several sex-related differences in migration. Our results confirmed that females were significantly larger than males, with higher mass and longer wing-chords. Females were in better body condition, having significantly higher condition indices ( $\text{mass} \times 100/\text{wing-chord}$ ) and keel scores. Although there were no differences found between the sexes in the date of arrival or the diel time of capture, males were captured at rates significantly lower than females, accounting for only 10% of the captures. Furthermore, males were recaptured significantly less frequently than females. The lack of male recaptures precluded additional comparisons of males and females with respect to stopover ecology. Additional study, particularly from other locations, is needed to determine whether the high capture rates of females is due to differential migration, differential capture probability, or both.



No. Saw-whet Owl  
by George West