

---

## NEWS, NOTES, COMMENTS

---

### Subsequent-year Recapture of Savannah Sparrow Pair on Wintering Grounds: Evidence of Winter Site Fidelity in the Georgia Piedmont

*Katie J. Stumpf<sup>1</sup> and Charlie M. Muise*

Georgia College & State University  
Department of Biological and Environmental  
Sciences CBX 081, Milledgeville, GA 31061  
[katie.stumpf@gcsu.edu](mailto:katie.stumpf@gcsu.edu)<sup>1</sup>

Recaptures of banded birds are rare and recaptures of birds on wintering grounds are even less frequently reported. On 6 January 2019 two banded Savannah Sparrows (*Passerculus sandwichensis*; SAVS) were captured at 0840 in the same net at a year-round banding station at Panola Mountain State Park (PANO) in Rockdale County, in the piedmont region of Georgia. Both birds were originally captured and banded at PANO on 4 February 2017, at 0830 am, also in the same net. The only other documented incidence of a cocapture across years is of two Brewer's Sparrows cocaptured in 2003 and 2007 (Knick et al. 2017) though it is not clear whether they were captured in the same net and at the same time or simply on the same date. Here, we explore possible explanations for this rare occurrence and discuss its significance.

First, we must explore the unlikely possibility that Savannah Sparrows could be unreported residents in or near this area. Savannah Sparrows are small, ground-nesting passerines that breed throughout the northern US and overwinter in southern US. They are often found in grasslands in their northern breeding range and in their southern winter range. However, PANO lies south of the very southern edge of the breeding range of SAVS and there are no records of SAVS breeding in the area. From 2007 through 2018, 99.6% (562 of 564) of all SAVS captured at PANO were caught between October and April, and only two were captured in May (9/May/2010 and 2/May/2017) which is outside of their breeding period (Wheelwright and Rising 2008). Additionally, no SAVS has ever been documented in breeding condition (e.g. cloacal protuberance or brood patch) at PANO. Further, based on

126 observations on eBird, SAVS have been documented at PANO only between Oct and May (Sullivan et al. 2009). Given that, we are confident in concluding that these were overwintering, non-resident individuals.

Second, these could be a pair of individuals that have formed a multi-year pair bond, though this also seems an unlikely explanation. SAVS can only be sexed during the breeding season and only by the presence of a brood patch or cloacal protuberance, so we were unable to determine sex on either occasion. SAVS tend to be polygynous across their breeding range (Wheelwright and Rising 2008), therefore it is extremely unlikely, even if a rare pair bond did form, that it would remain across years. Given their breeding chronology, the observed pattern of capture at Panola, and the rarity of monogamy across the entire annual cycle, it's safe to say that these two individuals were unlikely to be pair-bonded.

Last, and the explanation we feel the most confident with, is that these individuals are highly philopatric and are evidence of winter site fidelity. Research on wintering ecology of birds has become more common in recent years, but our overall knowledge of wintering ecology still lags behind breeding biology for most species (Berlanga et al. 2010). Winter site fidelity may be advantageous if species can learn predator avoidance methods and resource locations and may also help maintain territorial dominance across years (Brown et al. 2002, Pakannen et al. 2018) so is seemingly an evolutionarily adaptive trait. While site fidelity of wintering birds is not well-studied, studies using long-term mist-netting data have documented over-winter site fidelity in several passerine species in the United States and Mexico (Somershoe et al. 2009, Monroy-Ojeda et al. 2013). We know that the SAVS are highly philopatric on their breeding grounds (Jones et al. 2007) but, like most passerines, we know very little about their wintering ecology.

Even lacking a conclusive explanation, we believe this occurrence is important to note for conservation purposes. Conditions on wintering

grounds tend to not be limiting for generalist species, as they are able to move between wintering habitats, including those of lower quality (Blackburn and Cresswell 2016) but can be much more critical for specialists. Savannah Sparrows are grassland specialists during their breeding season and some show habitat specificity on their wintering grounds as well (Korosy et al. 2013). Site fidelity on wintering grounds is only advantageous if the habitat quality is both high and predictable from year to year. The banding station is located in the middle of 110 acres of land that is in the late stages of restoration to a warm season native grassland that began in 2006. Restoration efforts are ongoing, but these captures represent a small, but positive, sign of successful restoration efforts. If this observation is indeed indicative of winter site fidelity in a grassland specialist as we suspect, the continued threat to grassland habitats may have more far reaching negative consequences than previously thought.

### Literature Cited

- Berlanga, H., J. A. Kennedy, T. D. Rick, M. C. Arizmendi, C. J. Beardmore, P. J. Blancher, G. S. Butcher, A. R. Couturier, A. A. DaYer, D. W. DeMarest, W. E. Easton, M. Gustafson, E. Inigo-Elias, E. A. Krebs, A. O. Panjabi, V. Rodriguez Contreras, K. V. Rosenberg, J. M. Ruth, E. Santana Castellon, R. MA Vidal, and T. Will. 2010. Conservando a nuestras aves compartidas: La vision trinacional de Compañeros en Vuelo para la conservación de las aves terrestres. Cornell Laboratory of Ornithology, Ithaca, N.Y.
- Blackburn, E. and Cresswell, W. 2016. High winter site fidelity in a long-distance migrant: implications for wintering ecology and survival estimates. *Journal of Ornithology* 157:93–108.
- Brown, D. R., C. Strong, and P. C. Stouffer. 2002. Demographic effects of habitat selection by Hermit Thrushes wintering in a pine plantation landscape. *Journal of Wildlife Management* 66:407- 416.
- Jones, S. L., Dieni, J. S., Green, M. T. and Gouse, P. J. 2007. Annual Return Rates of Breeding Grassland Songbirds. *The Wilson Journal of Ornithology* 119:89–94.
- Knick, S. T., Leu, M. and Hanser, S. E. 2017. Subsequent-year recaptures at winter sites in three species of Shrubland Sparrows (Emberizidae). *The Southwestern Naturalist* 62:165–169.
- Korosy, M. G., Reece, J. S. and Noss, R. F. 2013. Winter habitat associations of four grassland sparrows in Florida dry prairie. *Wilson Journal of Ornithology* 125:502–512.
- Monroy-Ojeda, A., Grosselet, M., Ruiz, G. and Valle, E. D. 2013. Winter site fidelity and winter residency of six migratory Neotropical Species in Mexico. *The Wilson Journal of Ornithology* 125:192–196.
- Pakanen, V.-M., Karvonen, J., Mäkelä, J., Hietaniemi, J.-P., Jaakkonen, T., Kaisanlahti, E., Kauppinen, M., Koivula, K., Luukkonen, A., Rytönen, S., Timonen, S., Tolvanen, J., Vatka, E., and Orell, M. 2018. Cold weather increases winter site fidelity in a group-living passerine. *Journal of Ornithology* 159:211–219.
- Somershoe, S. G., Brown, C. R. D. and Pooled, R. T. 2009. Winter-site fidelity and over-winter site persistence of passerines in Florida. *The Wilson Journal of Ornithology* 121:119-125.
- Sullivan, B.L., C.L. Wood, M.J. Iliff, R.E. Bonney, D. Fink, and S. Kelling. 2009. eBird: a citizen-based bird observation network in the biological sciences. *Biological Conservation* 142:2282-2292.
- Wheelwright, N. T. and J. D. Rising. 2008. Savannah Sparrow (*Passerculus sandwichensis*), version 2.0. In: The Birds of North America (A. F. Poole, Editor). Cornell Laboratory of Ornithology, Ithaca, N.Y.

---

### A VISIT TO THE WARNER PARK BIRD BANDING STATION IN TENNESSEE

Twenty years ago, I took a sabbatical leave to sharpen my skills as a bird bander. In the process, I visited numerous banding stations across California and Oregon. I learned every station does things a little different, even the MAPS stations that are suppose to follow an identical protocol. The second thing I