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YEAR-ROUND RESIDENT WHITE-EYED VIREOS (*Vireo griseus*) IN THE FLORIDA PANHANDLE

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Abstract.—In the Panhandle of North Florida**,** White-eyed Vireos (*Vireo griseus*) are relatively common in the summer but quite rare in the winter. Because White-eyed Vireos farther south in peninsular Florida apparently are non-migratory, year-round residency might be assumed also for at least some individuals in the Florida Panhandle. Using data from recaptures of banded White-eyed Vireos on a study area in suburban Tallahassee in the Panhandle, I have confirmed permanent residency for four out of thirteen wintering individuals, and provide evidence that such a status is very likely for at least one other. Two of the year-round residents occupied their home range for several years.

The White-eyed Vireo (*Vireo griseus*) of North Florida is the nominate subspecies *Vireo g. griseus* and was described by Stevenson and Anderson (1994) as a permanent resident of most of Florida but "generally rare in the Panhandle" during the winter season. Wheeler (2003), in Florida's Breeding Bird Atlas, writes that "(i)n winter the resident population shifts southward." Nevertheless, among the White-eyed Vireos wintering in Florida's Panhandle may be non-migratory individuals from the local breeding population. A case of year-round residency of a White-eyed Vireo in the southern United States north of the Gulf coast has been reported by Somershoe and Twedt (2005) for Louisiana, but for the Florida Panhandle no evidence for year-round residency appears to have been published, and none exists among the encounter records of the USGS Bird Banding Laboratory. With data collected during banding operations covering the period from 2000 through 2010 I now document such a status for some individuals wintering in the Tallahassee area of the Florida Panhandle.

Methods

Mist nets for capturing passerine birds were distributed over approximately 1.5 ha consisting of my home's backyard in suburban Tallahassee and a partially wooded area to its south about six times larger (Homann 2008). I used four to nine nets (12 and 9 m), and the effort amounted to about 1,000 net hours per month (based on 12 m net length) in late summer and early fall but dropped to about 550 net hours per month in mid November through February. During the nesting period in the summer only 2-4 nets were used and effort was typically less than 200 net hours per month. All individuals were banded with USGS aluminum bands when first captured. A White-eyed Vireo was considered an overwinterer when I captured it at least once between 10 November and 20 February which I consider to be the period between the end of fall migration and the beginning of spring migration (cf. Crawford 1981).

Results

From 2000 through 2010 I banded 333 White-eyed Vireos, most of them transient migrants. On the basis of physiological characteristics like brood patch or cloacal protuberance (Pyle 1997), I identified 20 individuals to be breeders on or near my study area, and from observations of behavior like singing or association with confirmed breeders I suspected breeding of additional nine individuals. I counted the largest number of possible breeding birds in the summer of 2004 when I identified five breeders and one suspected breeder. The lowest number was one suspected breeder in the summer of 2006.

In the eleven winters covered by this study, I recorded 21 incidences of overwintering by 13 individuals, two of them documented to be present in two successive winters, one in three and one in five winters. Interestingly, all these individuals were hatch-year birds when I first recorded them in a winter except the one registered in five winters. I had banded it as an after-hatch-year bird on 28 February 2001, possibly after it had spent the winter on or near my study site. This individual and three other wintering birds turned out to be year-round residents because I recaptured them in breeding condition. The pattern of capture records of each of these four individuals as a function of calendar year is presented in Fig. 1 that identifies them by the last three digits of their band numbers 329, 328, 172 and 676, respectively. Next to the number of each individual I provide in parentheses the cumulative number of captures. Documented presence of an individual is shown as a horizontal bar on which confirmed breeder status is highlighted by black shading of the respective summer period.

Fig. 1 also provides information about two other birds that may have been year-round residents but not on the study-site proper. I banded White-eyed Vireo #464 as a very young fledgling on 15 July 2001; I recaptured it the following winter on 10 February, and again on 23 February, but after that not until 28 November. Lack of a record for the intervening summer precludes conclusions about breeding,

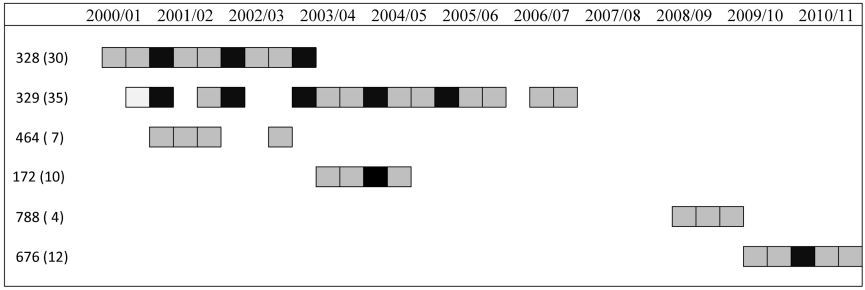

Figure 1. Documented and possible year-round resident White-eyed Vireos on a 1.5 ha suburban location in North Florida's Panhandle. Each individual is identified with the last three digits of its USGS aluminum band. The total number of captures for each is given by the number in parentheses. Each period is subdivided into breeding season (15 March-31 July), fall (1 September-10 November) and winter (10 November-20 February), and the captures documenting presence of an individual in any of these seasons are shown as horizontal gray bars on which evidence of breeding is highlighted by black shading. Wintering status of #329 in winter 2000/2001 is tentative because capture was on 28 February, 8 days after what I defined as winter. This is indicated by omitting the gray shading of the bar.

but because the bird had been raised locally it presumably remained not far from the study location. Individual #788 was banded on 6 November 2008, then twice in the winter and finally on 8 May 2009. Having neither a brood patch nor a distinct cloacal protuberance at that date it could have been a tardy migrant from the north, but I did not detect any fat deposits that would have suggested future migratory activity. This bird may have been single and left the study area to breed elsewhere.

Individuals #329 and #676 were males and individuals #172 and #328 were females, the latter sharing my location as a breeder with male #329 in 2001, 2002 and 2003 but pairing with it only in 2003. The female #172 was documented in 2004 near a banded male that I monitored during the years 2003 through 2007. Its very spotty capture history during that period did not allow me to confirm wintering unequivocally as the bird apparently spent much of its time outside my study area. On the other hand, for two other males recorded as breeders in more than one summer I obtained no hint at all at possible wintering.

Discussion

Because the nominate subspecies *Vireo g. griseus* of the White-eyed Vireo is a partial migrant (Hopp et al. 1995), it is to be expected that the proportion of non-migratory individuals in local populations

of any particular geographic region will increase as latitude decreases (Lack 1943, Biebach 1983). Studying the White-eyed Vireo 200 km ESE from here near Gainesville on the Florida peninsula, Bradley (1981) stated that the population there is "apparently nonmigratory" and, on the basis of data from a bird banding project, Richard Poole (in litt.) considers this to be the fact for central Florida 150 km farther south in the vicinity of Orlando. It is unknown, however, whether members of these populations, especially the latter one, carry traits of the sedentary *Vireo g. maynardi* subspecies of South Florida (cf. Stevenson and Anderson 1994). Such considerations do not apply to the White-eyed Vireos of North Florida's Panhandle for which I have now documented year-round residency of some individuals. The small size of my study area precluded gathering sufficient data to arrive at any definitive statement regarding the local wintering population. The records of the Bird Banding Laboratory list an after-hatch year individual that was banded with band #220085293 on 11 October 2002, approximately 250 km NNW of my site near Auburn, Alabama, and was found freshly dead in Tallahassee two months later on 16 December. This could be taken as evidence for migrants from farther north wintering in this area of the Florida Panhandle, but such an inference is compromised by the fact that a blood sample had been taken from the bird at the time of banding to test for West Nile Virus. While it is generally assumed that the procedure has no significant adverse effects, published reports to the contrary (cf. Voss et al. 2010) raise the possibility that the individual in question was weakened and might have continued its southward migration beyond Tallahassee under normal circumstances. Nevertheless, migrants from the north may well be among the local wintering population, but I suspect that most, if not all, the individuals that I did not recapture after having confirmed them to be wintering were birds from this area. All of them were hatch-year birds, and it is likely, therefore, that they were scouting the region for unclaimed territories where they could settle in the summer for breeding.

Note added in proof: Male #676 was recaptured 30 September 2011. It had been confirmed as an overwinterer before and after being documented as a breeder in 2010 (see Fig. 1). Even though I did not capture this individual in the summer of 2011, its recent capture very likely reveals another case of year-round residency in the same area for more than one year.

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