

## BELL'S VIREO CAPTURED ON LOWER DELMARVA PENINSULA

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The Bell's Vireo (*Vireo bellii*) is a small, migratory vireo that breeds in North America and overwinters primarily along the Pacific Coast from Baja California to Honduras. The species has been subdivided into four recognized subspecies including *V. b. belli* that breeds from eastern Colorado, South Dakota and Iowa south to Arkansas, Louisiana and central Texas, *V. b. medius* breeds from southwest Texas south to Durango and Coahuila, Mexico, *V. b. arizonae* breeds from Nevada and southwest Utah and central Arizona to California and Sonora and *V. b. pusillus* breeds in southwest California and Baja (Brown 1993). Subspecies vary somewhat in plumage color with the westernmost Least (*V. b. pusillus*) appearing mostly gray above and pale below and the easternmost *V. b. belli* appearing greenish above and yellow below (Pyle 1997). Southwestern birds including *V. b. medius* and *V. b. arizonae* are intermediate in color.

The Bell's Vireo is a nearly complete migrant with very little overlap between breeding and winter ranges. Individuals leave the northernmost breeding grounds by August or September and most have left the U.S. by early October (Barlow 1962, Brown 1993). Birds begin to arrive on portions of the winter grounds by early September (Monroe 1968, Binford 1989). Migratory routes remain poorly documented.

On 19 September 2010 while operating a fall banding station on the Eastern Shore of Virginia National Wildlife Refuge in Northampton County, we captured a Bell's Vireo in a mist net (Figure 1). The bird was captured within scrub vegetation between the visitor's center and the monarch trail. Upon extraction, the bird was immediately identified as a vireo by its thick grayish bill and thick legs and feet that were bluish-gray in color. Overall, the bird was washed greenish-gray on the dorsum with a slightly grayer, contrasting head and a yellowish wash on the

breast, sides, and belly. This bird was differentiated from other vireo species by small size compared to Philadelphia Vireo (which was compared side-by-side to the Bell's at the time of capture), Gray Vireo, White-eyed Vireo, and Hutton's Vireo. The bird had a noticeable whitish spectacle and two pale indistinct yellowish wing bars, ruling out either Philadelphia or Warbling Vireo, and the wing chord was too short for a typical Warbling Vireo. The head shape, body proportion, and overall coloration were inconsistent with either Hutton's Vireo or Gray Vireo.

The bird was taken to the banding station and processed. It was aged as a hatch-year based on the extent of skull pneumatization (less than one third ossified). Sex could not be determined. Linear morphometric measurements included wing chord – 56 mm, tail length – 51 mm, exposed culmen – 8.9 mm and the difference in length between the tenth primary and the outermost primary covert – 4.8 mm. Mass was 9.8 g. Fat score was graded 3 on a scale of 5 (furcular hollow filled with fat but still concave) and keel score was graded 3 on a scale of 3 (pectoralis muscle even with sternum to slightly bulging). No body molt was observed.

The Bell's Vireo reported here represents the second accepted record for Virginia (Ealding, 2012). The first individual was observed on 12 August, 1962 within Pocahontas State Park in Chesterfield County (Rottenborn and Brinkley 2007). Based on the amount of green in the dorsum, the bird reported here appears to have been from the eastern portion of the breeding range (*V. b. belli*).

Several characteristics of the Bell's Vireo captured in 2010 are consistent with a growing list of fall records for this species along the outer Atlantic Coast. Although accepted fall records for this species prior to 1990 are rare (e.g. Jehl 1960, Bull 1975, Post 1986), we located more than 30 accepted records since 2000 (e.g. Garvey and Iliff 2011,

Hanson et al. 2015, Mirick 2015, Persons et al. 2015) with records reported from virtually every coastal state from Nova Scotia through Georgia (winter records are now annual in Florida). More than 90% of first detections have occurred during September and October. All birds (N = 10 since 1897) that were either captured as part of banding operations and/or collected were determined to be hatching-year birds. All available descriptions are suggestive of the more colorful eastern subspecies (*V. b. bellii*). All descriptions of habitat have indicated birds were using shrub or coastal scrub vegetation.

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#### Figure Legends

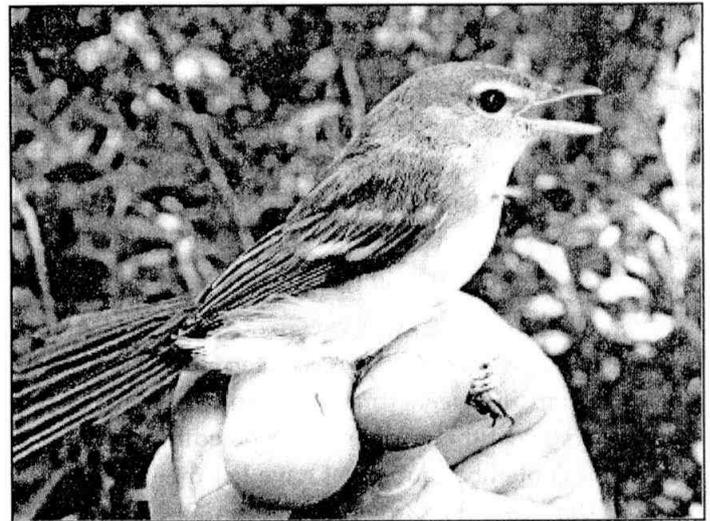


Figure 1. Profile photo of a Bell's Vireo captured on 19 September, 2010 on the Eastern Shore of Virginia National Wildlife Refuge. Photo by Todd Jones.