

CAPTURE OF GRAY-HEADED JUNCO (*Junco hyemalis caniceps*)
IN PAYNE COUNTY, OKLAHOMA

PAUL VAN ELS, CASSONDRA M. WALKER, AND TIMOTHY J. O'CONNELL
*Department of Natural Resource Ecology and Management, Oklahoma State
University, Stillwater, OK 74078; E-mail: vanels@okstate.edu*

Abstract—The Gray-headed Junco (*Junco hyemalis caniceps*) is a morphologically distinct subspecies of the Dark-eyed Junco that breeds in the central Rocky Mountains from southern Wyoming to northern New Mexico, and west to the Great Basin mountain ranges. The occurrence of the Gray-headed Junco in Oklahoma away from the western Panhandle has rarely been documented. Here, we describe a winter 2008 record of a second-year female Gray-headed Junco captured in Payne County, north-central Oklahoma.

Dark-eyed Junco (*Junco hyemalis*) is a widespread emberizid occurring in northern Mexico and much of the U.S. and Canada (AOU 1998). Currently within the Dark-eyed Junco complex, 5 groups, several with multiple subspecies, are recognized (Nolan et al. 2002). The “hyemalis” group (Slate-colored Junco) is the most widespread, occurring in much of Canada and the eastern U.S. This is the dominant form of Dark-eyed Junco in much of eastern and central Oklahoma. The “oreganus” group (Oregon Junco) breeds in Pacific North America, including the northern Rocky Mountains. The *J. h. montanus* (Oregon Junco) and *J. h. mearnsi* (Pink-sided Junco) subspecies of this group can winter in western Oklahoma. The “caniceps” group is formed by 2 subspecies—*J. h. caniceps* (Gray-headed Junco) and *J. h. dorsalis* (Red-backed Junco)—breeding in the Rocky Mountains from New Mexico to southern Wyoming,



Fig. 1. Adult Gray-headed Junco (*Junco hyemalis caniceps*) captured in Payne Co., 26 January 2008. Notice the discrete rufous patch on the back of the bird (left, photo by PVE) and the mostly light upper and lower mandibles and the dark lore and eye (right, photo by CMW).

including the Great Basin mountains of Utah, Arizona and Nevada.

The Dark-eyed Junco is well known for its diverse subspecies that can cross and form intergrades with each other. Gray-headed Junco is known to intergrade with the

J. h. dorsalis subspecies in northern Arizona and northern New Mexico. The “caniceps” group also hybridizes with *mearnsi* and *thurberi* of the “oreganus” group in Wyoming and eastern California respectively (Miller 1939, 1941; Nolan et al. 2002).

Capture of Gray-headed Junco in Payne County. — On 26 January 2008, PVE and CMW captured a Gray-headed Junco in a mist net at 1450 CST (Fig. 1). Mist nets were set up in a dense plantation of eastern redcedar (*Juniperus virginiana*) and loblolly pine (*Pinus taeda*). The plantation is managed by the Department of Natural Resource Ecology and Management at Oklahoma State University. This site is located approximately 12 km W of Stillwater, just south of Highway 51 (36°10'N–97°21'W). Weather conditions were clear, without wind, and the temperature was 10°C.

We took standard morphometric measurements and marked the bird with a metal USFWS leg band (band number 2460-86431). The bird weighed 21.0 g, and had visible fat deposits scored 3 out of 3 (Helms and Drury 1960). Culmen length was 10.6 mm, tarsal length was 22.4 mm and unflattened wing chord was 72.6 mm. The bird exhibited several characteristics that were diagnostic of the “caniceps” group: a discrete dark rufous patch on the back, some rufous feathers on the nape, dark lore, dark eye, and a mostly pinkish white bill. Outer rectrices were white; primaries and secondaries were largely dark slate with some brown (Figs. 1 and 2). We also observed a light gray breast and light gray flanks, just slightly darker than the white belly.

In contrast, birds in the “hyemalis” group lack a discrete large rufous dorsal patch, even though males of the *J. h. cismontanus* subspecies/intergrade and females of the *J. h. hyemalis* subspecies may show faint, ill-defined rufous spotting on the back. Subspecies in the “oreganus” group show a less discrete and less vividly colored rufous-brown patch combined with a dark hood. In addition, individuals of the *J. h. dorsalis* subspecies have a dark upper mandible. We aged the bird as a second-year individual given the presence of a moderate amount of brown wash on the head (Fig. 1), which is less pronounced in older birds. We did not verify skull pneumatization. We identified the bird as a female, because the wing chord fell within the lower part of the typical range for female *caniceps* juncos (72–80 mm) which is well outside the range for males (76–86 mm) (Pyle 1997; Sibley 2000). The Oklahoma Bird Records Committee accepted our bird as a type-pattern caniceps (28 June 2008).

Discussion.—Birds in the various subpopulations of Dark-eyed Junco may wander widely during migration, and the Gray-headed subspecies is no exception. Gray-headed Juncos typically winter in the foothills surrounding their breeding range in the southern Rockies, but individuals have been found in Montana in wintertime (Wright 1976) and Oregon (Littlefield 1981). An historical record from Durango in Mexico (De Witt Miller 1906) of *Junco caniceps* probably refers to *J. h. dorsalis*, because the male bird had a “bill brownish flesh,” a characteristic inconsistent with type-pattern Gray-headed Juncos.

In Oklahoma, most records of Gray-headed Junco are from the western Panhandle, where 8 specimens have been taken to date in Texas and Cimarron counties (Nice 1931; Sutton 1967). A limited amount of undocumented observations come from the western one-half of the state, primarily from the Wichita Mountains or the Norman and Oklahoma City areas (e.g. Nice 1931; Tyler 1979). Recently, Victor Fazio (in litt.) reported a Gray-headed Junco from the Medicine Park sewage lagoons near the Wichita Mountains on 23 February 2008. From the eastern part of Oklahoma, there are

8 records, all but 2 undocumented. Birds have been sighted in Tulsa County (1970, Sutton unpublished), Payne County (1960, Baumgartner unpublished) and Rogers County (Scissortail 40(4):51, 1990). An apparent type-pattern *caniceps* (discrete rufous back patch and all-white bill) was photographed by Lloyd and Glenda Leslie from a backyard in Blackwell, Oklahoma (Kay County) on 2 February 2007 (J. Grzybowski, pers. comm.). One remarkable breeding season capture was on 25 May 1992 in Wagoner County (Varner 1995). In short, there are only 11 clearly documented records, 8 of which are Panhandle specimens, and just 2 from the eastern part of the state. The number of undocumented sightings decreases from west to east. This may indicate that there is a trend of decreasing abundance of Gray-headed Junco from west to east in Oklahoma.

Adult type-pattern *caniceps* juncos are generally indistinguishable morphologically from intergrades of *caniceps* with *dorsalis* or other subspecies of Dark-eyed Junco because intergrades are likely to retain phenotypic characteristics of only 1 of the parent birds (Miller 1939; Milá et al. 2007). The breeding range of *caniceps* is closer to our capture location than are the breeding ranges of other junco subspecies, which may increase the probability that the subject was a type-pattern *caniceps* junco. The bird we captured exhibited all morphological characteristics of a type-pattern *caniceps*. Despite this, only genetic analysis could determine with absolute certainty that the bird was not an intergrade of *caniceps* and 1 of the other subspecies of Dark-eyed Junco.

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Errata –

- Heck, B.A. 2001. History and status of the Swainson's Warbler in Oklahoma. 34: 1-11. Page 5. The first sentence should be changed to: The Swainson's Warbler (*Limnothlypis swainsonii*) was first reported breeding in Oklahoma in 1914 in Washington County (Nice 1931).
- Revels, M. R. 2003. First Swainson's Warbler nest documented in Oklahoma since 1917. 36:1-3. Page 1. The first sentence should be changed to: Swainson's Warbler was first documented breeding in Oklahoma in Washington County in 1914 by Albert J. Kim (Nice 1931)

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