

The First Record of Black-capped Vireo (*Vireo atricapilla*) in British Columbia.

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Introduction and Distribution

The Black-capped Vireo (*Vireo atricapilla*) is a small passerine that is listed as an Endangered Species in its very limited breeding range in the United States (Grzybowski 1991). The historic breeding range is believed to have extended from extreme south-central Kansas, broadly through central Oklahoma, south through central Texas to the Edwards Plateau, then west and south to northern and central Coahuila, Mexico and Big Bend National Park, in Texas (Graber 1957, American Ornithologists' Union 1983); possibly also in southern Nuevo León and southwestern Tamaulipas (Grzybowski 1995). The current breeding range includes portions of western Oklahoma, central Texas, and Coahuila, in Mexico (Grzybowski 1995). In Oklahoma, recent breeding is documented only in portions of the Wichita Mountains in Comanche County, and in Blaine and Cleveland Counties (Grzybowski 1995). The Texas breeding range during the 1980s, through 1994, included; Brewster, Pecos, Terrell, Crockett, Val Verde, Irion, Tom Green, Coke, Nolan, Taylor, Sutton, Edwards, Kinney, Kimble, Kerr, Real, Uvalde, Zavala, Bandera, Medina, Gillespie, Kendall, Bexar, Comal, Blanco, Hays, Llano, Burnet, San Saba, Mills, Travis, Williamson, Bell, Coryell, Bosque, Somervell, Erath, Johnson, Dallas, and Pala Pinto Counties (Grzybowski 1995). Much of the eastern and southern margin of its range in central Texas is marked distinctly by the Balcones Escarpment (Grzybowski 1995). The breeding range in Coahuila, Mexico includes the mountainsides south to Sierra San Marcos (Marshall *et al.* 1985, Benson and Benson 1990b).

There have been many threats to the Black-capped Vireo's habitat. This has led to the species' serious decline over the past number of decades. Most of the activities that have led to the decline have been caused indirectly through land-management and land-use practices that affect habitat and the presence of Brown-headed Cowbird (Grzybowski 1995). There is little to no direct evidence of vireos being taken by hunting or trapping (Grzybowski 1995).

The Black-capped Vireo occupies a successional stage of scrubland habitat that passes through periods of suitability and unsuitability (Grzybowski 1995). Fire suppression is likely the most serious threat to habitat across much of this species' range as it allows succession to proceed to more advanced stages, which are unsuitable for this vireo (Grzybowski 1995). Much of western-central Oklahoma is now substantially covered by junipers; large areas of north-central and central Texas have also undergone such conversion and maturation (Grzybowski 1995).

Another threat is from urban and suburban development, or agricultural conversion (Grzybowski 1995). This may remove areas of, or with potential to become, vireo habitat

(Grzybowski 1995). Urban development has been a factor in the Austin, Texas area and may be so in a few other areas (Grzybowski 1995). Also the conversion to agriculture of areas capable of supporting vireo habitat may also be a factor in Oklahoma (Grzybowski 1995).

Another factor that threatens the Black-capped Vireo is overgrazing, particularly by browsers, which remove the vegetation in exactly the right height zones that are required by vireos (Grzybowski 1995). Many areas of the Edwards Plateau are seriously overgrazed by goats and sheep, which remove much potential habitat from use by Black-capped Vireos. In addition, cattle attract the Brown-headed Cowbird (Grzybowski 1995).

The above circumstances have led colonies and satellite groups to become increasingly isolated in much of this vireo's former range (Grzybowski 1995). As Black-capped Vireo populations become more and more fragmented, the potential for dispersal between subunits in these populations becomes more difficult, and the potential for colony or satellite-group extinction becomes more likely (Grzybowski 1995). The population thus deteriorates below the capacity of the fragmented habitats (Grzybowski 1995).

Current Management practices have focused on Brown-headed Cowbird removal on selected sites in Oklahoma and Texas. This has been done in Wichita Mountains, in Oklahoma; Fort Hood, in Texas; Kerr Wildlife Management Area, in Texas, and where this has been accomplished successfully and intensively, vireo populations have been increasing (Grzybowski 1995). In these areas and others, attention has also been given to creation and maintenance of habitat (Grzybowski 1995). Prescribed burning appears to be the primary tool of this management, although wild fires, and fires set by ordinance explosion on Fort Hood, have been as effective (or more so) in actually creating (rather than maintaining) vireo habitat (Grzybowski 1995). Other methods of habitat manipulation such as hydro-axing, chaining, and bulldozing have also generated good habitat in some cases, although they may more frequently destroy the potential of areas to recover into vireo habitat (Grzybowski 1995). Hand removal of junipers is also being pursued at a few sites (Grzybowski 1995).

There have been strong recommendations for Brown-headed Cowbird control and habitat management put forward and specified in the Black-capped Vireo Recovery Plan (U.S. Fish Wildl. Serv. 1991). Unfortunately there has been little broad-scale application of these recommendations and they have not been broadly undertaken, or considered from the perspective of overall population viability (Grzybowski 1995).

The wintering range of the Black-capped Vireo is much less well known than the breeding range (Grzybowski 1995). This species winters on the Pacific slope of Mexico, with records primarily

from extreme western Durango, southern Sinaloa, Nayarit, Jalisco, and Colima; only a few records exist for other areas east to Oaxaca with one sight record for southern Sonora (Graber 1957, Marshall *et al.* 1985, Phillips 1991).

Vagrants have been found outside of the restricted breeding range in North America, but these records are very few when compared to other North American passerines. There are 7 accepted records for New Mexico by the New Mexico Bird Records Committee (NMBRC 2017). There is 1 historical record for Arizona (Monson and Phillips 1984), as well as a single accepted record for Mississippi (Turcotte and Watts 1999) and there are 2 historic records for Nebraska (NBL 2017).

Incredibly the Black-capped Vireo has been found in eastern Canada twice with the first record coming from Ontario when a female was photographed and banded at Long Point Bird Observatory on April 27, 1991, (Weir 1991), and another record from Quebec when an adult was photographed at Point-aux-Outards on May 5, 2009 (LOQ 2017). There are no records of the Black-capped Vireo for California (Hamilton *et al.* 2007, Tietz and McCaskie 2017), Oregon (OFO 2016) or for Washington State (Wahl *et al.* 2005, WBRC 2016). This species is an accidental vagrant in British Columbia with a single well-photographed record from the interior of the province (Toochin *et al.* 2014).

Identification and Similar Species

The identification of the Black-capped Vireo is found in all standard North American field guides. This species is very small measuring 11 cm in length, with a wingspan of 17 cm, and weighing 8.5 grams (Sibley 2000, Dunn and Alderfer 2011). In the context of British Columbia, the Black-capped Vireo is similar in size to a Ruby-crowned Kinglet (*Regulus calendula*) which measures 11 cm in length, with a wingspan of 19 cm, and weighs 6.5 grams (Sibley 2000, Dunn and Alderfer 2011). The Black-capped Vireo is a very obvious species that should not pose any identification challenges for observers. There is no other regularly occurring vireo or passerine species that looks similar to the Black-capped Vireo and this species should not cause any identification issue if encountered in British Columbia. This species is known for its secretive and skulky nature and stays buried in oak scrub and thickets (Dunn and Alderfer 2011).

The adult male Black-capped Vireo has a glossy-black head, nape, face and crown (Dunn and Alderfer 2011). There are bold white spectacles around each dark red eye (Sibley 2000). The bill is black, short and thick, and the bird has a white throat (Dunn and Alderfer 2011). The back is yellow-olive, as are the wings, the latter with 2 yellowish-green wingbars (Sibley 2000). The olive-green extends down to the rump and the short tail (Dunn and Alderfer 2011). The folded wings and tertials have black edges and centres to the feathers (Dunn and Alderfer 2011). Along

the sides and flanks is a dull yellowish wash (Dunn and Alderfer 2011). From the throat to the under-tail coverts is white (Sibley 2000). The legs and feet are black (Dunn and Alderfer 2011). The adult female is very similar, but is distinguished by having a duller slaty-back head, a duller red eye (Sibley 2000).

Immature plumage is held from August to March (Sibley 2000). In this plumage the head has olive extending up the nape onto the crown and the black of the head is reduced to around the eye and on the cheek (Sibley 2000). The red eye is duller in brightness (Sibley 2000). The throat down onto the chest has a yellow wash (Dunn and Alderfer 2011). Birds at this age in shape and structure are the same as adults (Sibley 2000, Dunn and Alderfer 2011).

The Black-capped Vireo's song is comprised of well-spaced complex phrases of "*grrtzeepididid*", "*prididzeegrrt*" that has a husky chattering quality (Sibley 2000). The call is a long and harsh, rising "*zhreee*" similar to a Bewick's Wren (*Thryomanes bewickii*) scold, but there are many variations (Sibley 2000). This species also gives a short, dry "*tidik*" similar to a Ruby-crowned Kinglet (Sibley 2000).

Occurrence and Documentation

The Black-capped Vireo is an accidental vagrant in British Columbia. The only record was of an immature male that was photographed and banded at the Vaseux Lake Bird Banding Station, which is a few kilometers south of Okanagan Falls, in the South Okanagan on September 27, 2008 (Toochin *et al.* 2014). Despite extensive searching by many observers this bird was not re-found after its release (D. Brown Pers. Comm.). This species is not found out of its limited range very often, likely due to the low population and its shy retiring nature. It is interesting to note that most of the extra-limital records for this species around North America come from banding stations. The Black-capped Vireo completely withdraws from its breeding range in North America in the late summer and in the early fall. The entire North American population returns in early spring. The timing of fall migration occurs mostly between the months of August and September. The young birds disappear from the breeding grounds first, normally by late August, and are then followed by the adult females, with most individuals having left by early September, and then finally followed by the adult males (Graber 1961). It has been found that the males linger longest, being observed until mid- to late September in Oklahoma (Grzybowski 1995) and until late September to early October in Austin, Texas (Grzybowski 1995), and Coahuila, Mexico (Marshall *et al.* 1985). Post-season wandering of the Black-capped Vireo may occur away from breeding territory. The arrival of birds on the wintering grounds in Nayarit has been noted with a specimen as early as August 27 (Graber 1957). The timing of the British Columbia record does fit well with when young Black-capped Vireos migrate south to winter in Mexico. It is likely the reason this individual travelled north instead of south is because it did a

reverse migration. It is impossible to know exactly what caused this individual to travel so far north, but with the lack of vagrancy records from around North America, it is likely not to be repeated anytime soon in the future.



Figure 1: Record #1: Black-capped Vireo immature banded at Vaseux Lake Bird Observatory on September 27, 2008. Photo © Richard Cannings.

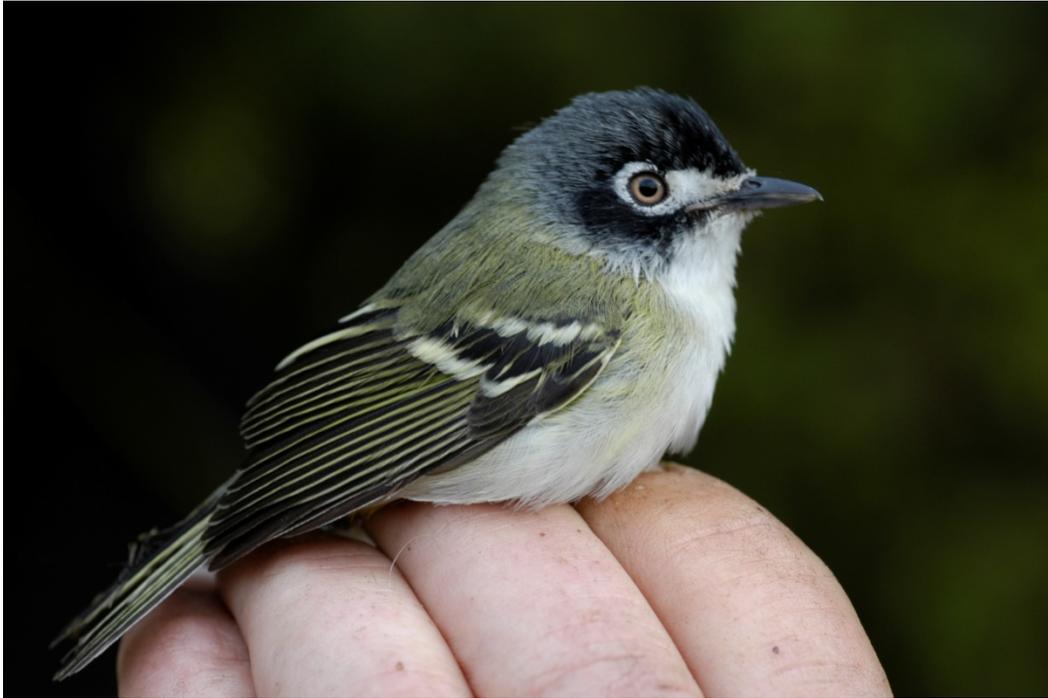


Figure 2: Record #1: Black-capped Vireo immature banded at Vaseux Lake Bird Observatory on September 27, 2008. Photo © Barry Lancaster.



Figure 3: Record #1: Black-capped Vireo immature banded at Vaseux Lake Bird Observatory on September 27, 2008. Photo © Barry Lancaster.



Figure 4: Record #1: Black-capped Vireo immature banded at Vaseux Lake Bird Observatory on September 27, 2008. Photo © Barry Lancaster.



Figure 5: Record #1: Black-capped Vireo immature banded at Vaseux Lake Bird Observatory on September 27, 2008. Photo © Barry Lancaster.



Figure 6: Record #1: Black-capped Vireo immature banded at Vaseux Lake Bird Observatory on September 27, 2008. Photo © Barry Lancaster.

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References

Grzybowski, J. A., "Black-Capped Vireo Recovery Plan". 1991. Endangered Species Bulletins and Technical Reports (USFWS). Paper 26. [Online Resource] Retrieved from <http://digitalcommons.unl.edu/endangeredspeciesbull/26> [Accessed: February 11, 2017].

- Grzybowski, J. A. 1995. Black-capped Vireo (*Vireo atricapilla*), The Birds of North America (P. G. Rodewald, Ed.). Ithaca: Cornell Lab of Ornithology [Online Resource] Retrieved from the Birds of North America: <https://birdsna.org/Species-Account/bna/species/bkcvir1> [Accessed: February 10, 2017].
- LOQ. 2017. Les Oiseaux du Quebec: Dates records et liste des mentions rares: Black-capped Vireo. [Online Resource] Retrieved from <http://www.oiseauxqc.org/details.jsp?no=5668> [Accessed: February 10, 2017].
- NBL. 2017. Nebraska Bird Library: Black-capped Vireo. [Online Resource] Retrieved from <http://www.nebraskabirdlibrary.org/passeriformes/vireonidae/black-capped-vireo/> [Accessed: February 11, 2017].
- NMBRC. 2017. New Mexico Ornithological Society: Database: Black-capped Vireo. [Online Resource]. Retrieved from <http://nm-cis.unm.edu/partners/nmos/results.php5> [Accessed: February 11, 2017].
- Turcotte, W. H., and D. L. Watts. 1999. Birds of Mississippi. Mississippi Department of Wildlife, Fisheries, and Park. 459 pp.
- Weir, R. D. 1991. The spring season, March 1-May 31, 1991, Ontario region. Am. Birds No. 45: 439-443.