

Black-capped Vireo Survey
Big Bend National Park, Brewster County, Texas
May-June 2008

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Introduction

Between 30 May and 3 June, Amber Jonker, John Maresh, and I surveyed drainages in the Chisos Mountains of Big Bend National Park (BBNP), Brewster County, Texas for Black-capped Vireos (*Vireo atricapillus*; BCVI). This survey was conducted as Study # BIBE-00221 for the National Park Service in accordance with Resource Activity Permit # BIBE-2008-SCI-0026. This was the 22nd annual BCVI survey since 1986.

Survey Methods

Survey sites were based on descriptions of locations used by BCVI in recent years (Maresh 2004, Williams 2005, Troy 2006 and 2007). Areas of appropriate habitat were surveyed by listening and watching for BCVI. Visual contact was attempted for most individuals. Universal Transverse Mercator (UTM) coordinates were recorded for each individual vireo or pair. UTM coordinates are referenced to North American Datum 1983. Observer hours were calculated for one individual when two or more observers surveyed together; hours were calculated separately when we surveyed separate areas during the same time period. Only total observer hours are reported below.

Results

Approximately 35.5 observer hours were spent surveying BCVI habitat over a period of 5 days (30 May-3 June). Between 33 and 35 adult BCVI were detected (23-25 males and 10 females). One BCVI nest (containing 1 egg and 1 nestling) was observed by John Maresh.

Switchbacks near Lost Mine Trailhead to Basin Campground – Habitat on both sides of Basin Road was surveyed from near the Lost Mine Trail trailhead, downhill into drainages northeast of Basin Campground (1800-1850 on 30 May; 1700-1800 on 31 May; 0800-1100 on 2 June). 4 (3 males; 1 female) adult BCVI observed. 1 BCVI nest (1 egg; 1 nestling).

- One BCVI pair observed with a nest at point (13R 0665749, 3239598), discovered by John Maresh. The nest was approximately 0.75 m high in an Evergreen Sumac (*Rhus virens*) in an arroyo. It contained 1 egg and 1 nestling (estimated 3-5 days old). Outcome of the nest is unknown.
- One male BCVI at point (13R 0665832, 3239746).
- One male BCVI at point (13R 0666238, 3239761).

Window Trail – Habitat was surveyed from the turnoff for Basin Campground to the Window pour-off (0700-1100 on 1 June). 4-5 (3-4 males; 1 female) adult BCVI observed.

- One male BCVI heard and seen in the drainage south of the road to the campground near point (13R 0665308, 3239482).
- One male BCVI heard and seen near the first large parking lot for Basin Campground near point (13R 0665101, 3239794). It is possible this individual was the same as the previous male.
- One additional male BCVI heard singing in an arroyo approximately 80 m north of the previous point. This individual was observed simultaneously singing with the previous male.
- One BCVI pair observed along the creek bed north of Window Trail approximately 50 m north of point (13R 0664300, 3239954).

Laguna Meadows Trail – John Maresh surveyed drainages west of Laguna Meadows Trail and south of Window Trail (0730-1330 on 1 June). 7 adult (5 males; 2 females) BCVI observed.

- One BCVI pair at point (13R 0664719, 3239015).
- One male BCVI at point (13R 0664520, 3239114).
- One male BCVI at point (13R 0664384, 3239084).
- One BCVI pair at point (13R 0664211, 3239084).
- One male BCVI at point (13R 0664168, 3239185).

Blue Creek Canyon – Habitat was surveyed along the main drainage between the trailhead near Homer Wilson Ranch and the Pinyon/Oak habitat in the Chisos (0800-1330 on 30 May). 7 adult BCVI (4 males; 3 females) observed.

- One BCVI pair heard only near point (13R 0662213, 3234620). Two different individuals were softly shradding; then a male sang in the vicinity (assumedly one of the shradding birds). The two individuals were assumed to be a mated pair because they did not appear aggressive toward each other and were likely shradding because of our presence in their territory.
- One BCVI pair heard near point (13R 0662638, 3234792). The male was singing and another individual was softly shradding nearby. As with the previous pair, the shradding bird was assumed to be the mate of the singing male.
- One BCVI pair seen near point (13R 0662938, 3234807). The male was singing with the female following him through the territory near the trail. This pair was very approachable.

- One additional male heard and seen near point (13R 0663230, 3234778).

Panther Canyon – Habitat was surveyed in both forks of Panther Canyon (1700-1930 on 1 June; 0700-0830 on 2 June). No BCVI observed.

Juniper Canyon – Habitat was surveyed along the mail drainage between the Juniper Canyon Trail trailhead and the Pinyon/Oak habitat in the Chisos (0700-1200 on 3 June). 6-7 (4-5 males; 2 females) adult BCVI observed.

- One BCVI pair heard and seen near point (13R 0669861, 3236538).
- One BCVI pair heard and seen in the main drainage south of the trail near point (13R 0668510, 3236878). A possible trade-off of incubation duties was witnessed. The male was observed singing while the female shraddled. The male then flew in the direction of the shraddling and stopped singing. The female was then visually observed on the territory. This behavior is likely indicative of a nest during the incubation stage, with both pair members trading incubation duties, engaging in self-maintenance activities (foraging, etc.) and territorial behavior (male singing) while the mate sits on the nest.
- One possible additional male BCVI heard on the opposite side of the main drainage between the previous pair and next male.
- One male BCVI, first heard and seen in the drainage on the north side of the trail near point (13R 0668135, 3237229). This individual flew across the trail and sang in the other drainage, indicating his territory likely incorporates areas of drainage on both sides of the trail.
- One male BCVI heard and seen in the drainage on the north side of the trail toward the Chisos Basin near point (13R 0667997, 3237242). This male was observed simultaneously singing with the previous male.

Green Gulch – We surveyed habitat in drainages scattered through Green Gulch on both sides of Basin Road (0730-1100 on 31 May). 5 (4 males; 1 female) adult BCVI observed.

- One BCVI pair heard and seen east of the largest rocky outcrop near point (13R 0668076, 3241281).
- One male BCVI heard near point (13R 0667964, 3241397), north of the northwest corner of the largest rocky outcrop.
- One male BCVI heard near point (13R 0667811, 3241756) in the drainage west of Basin Road and north of the dirt road near the “fire danger” sign.
- One male BCVI observed near point (13R 0668163, 3241925). This individual was observed simultaneously singing with the previous male.

Pine Canyon – Not surveyed in 2008.

Discussion

Most sites known to have BCVI breeding territories in recent years were surveyed (Maresh 2004, Williams 2005, Troy 2006 and 2007). Unvisited isolated patches of BCVI habitat in drainages surrounding and within the Chisos Mountains may harbor additional BCVI. Therefore, as in previous years, it is likely some BCVI within Big Bend National Park were not detected.

Between 33 and 35 adults were detected (23-25 males, 10 females). The 2008 survey yielded a greater number of adult BCVI than the previous two survey efforts (Troy 2006 and 2007). This increase is likely reflective of additional surveyors this season and survey of the area west of Laguna Meadows Trail and south of Window Trail. The number of adult BCVI recorded during this survey matched the second greatest number recorded during an annual survey in BBNP, and possibly surpassed it; the greatest number observed was 36 in 1995 (Peck et al. 1995) and the second greatest was 33 in 1997 (Peck and Barlow 1997). When only male BCVI are considered, this survey possibly surpassed the greatest number recorded in BBNP during a survey, which was 24 in 1995 (Peck et al. 1995). In addition, John Maresh found 1 BCVI nest containing 1 egg and 1 nestling. The outcome of nest is unknown.

BCVI were observed in almost all areas known to have held territories in recent years. Each site is individually discussed below and compared with results from previous surveys since 2000.

- Switchbacks near Lost Mine Trailhead to the Basin Campground revealed 4 (3 male; 1 female) adult BCVI in 2008. Between 6 and 7 adult BCVI in 2007. 4-6 adult BCVI (2-3 pairs) were observed in 2006. (4 adult BCVI detected in 2004; 2 in 2003; 3 in 2002; 3 in 2001; 6 in 2000). This site was not surveyed in 2005. This suggests consistent habitation of this area by BCVI.
- 4-5 (3-4 males; 1 female) adult BCVI observed from the turnoff to Basin Campground to the Window Trailhead and along Window Trail in 2008. 2 adult male BCVI observed along Window Trail in 2006 and 2007. (0 adult BCVI detected in 2005; 4 in 2004; 3 in 2003; 3 in 2002; 0 in 2001; 2 in 2002).
- 7 (5 males; 2 females) adult BCVI observed in drainages west of Laguna Meadows Trail and south of Window Trail in 2008. Laguna Meadows Trail was surveyed in 2007, yielding no BCVI. 1 male was observed along the trail in 2006. This area was not surveyed in 2004 or 2005. It appears that reasonably good BCVI habitat occurs along approximately the first 0.5 mile of Laguna Meadows Trail. The drainages west of the trail and south of Window Trail should be surveyed in the future as this area may continually harbor many BCVI territories.

- 7 adult BCVI (4 males; 3 females) observed in Blue Creek Canyon in 2008. 2 BCVI pairs observed here in 2007. 1 adult male was detected in 2006. (0 in 2005; 2-3 in 2004; 4 in 2003; 3 in 2002; 0 in 2001; 0 in 2000).
- No BCVI detected in Panther Canyon in 2008. 2 male BCVI were observed in Panther Canyon in 2007 (one in each canyon fork). The 2006 survey revealed a BCVI pair with 2 hatch-year birds in the right canyon. Panther Canyon was surveyed for the first time in 2004 (2 adult BCVI) and not visited in 2005. Though no BCVI were detected this season, both forks of Panther Canyon should continue to be surveyed during each future BCVI census.
- 6-7 adult BCVI (4-5 males; 2 females) observed in Juniper Canyon in 2008. This location revealed 6 adult BCVI (4 males and 2 females) in 2007. 8 adult BCVI were observed in this location in 2006 (6 males, 2 females). (3 adults in 2005; 3 in 2004; 5 in 2003; 4 in 2002; 5 in 2001; 6 in 2000).
- Pine Canyon was not surveyed in 2008. No BCVI observed in Pine Canyon in 2007.
- 5 (4 males; 1 female) adult BCVI observed in Green Gulch in 2008. 5-6 male BCVI in 2007. 5 adult (4 male; 1 female) BCVI observed in 2006. (5 adults in 2005; 8-9 in 2004; 5 in 2003; 1 in 2002; 1 in 2001; 0 in 2000). This suggests consistent habitation of BCVI in this site compared with the previous 3 years.

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