

## Status and Occurrence of the Hermit Warbler (*Setophaga occidentalis*) in British Columbia.

By Rick Toochin (Revised: April 2014).

### Introduction and Distribution

The Hermit Warbler (*Setophaga occidentalis*) is a secretive species of warbler that breeds in coniferous forests, from western Washington State (the Olympic Peninsula, east of the Olympic Mountains, rarely at the southern end of Puget Sound), south through the Cascades into western Oregon, south through the Sierra Nevada Mountains of California, and in the coast ranges of Marin County (Curson *et al.* 1994, Dunn and Garrett 1997, Wahl *et al.* 2005). There is a small population of breeding birds in the Santa Cruz Mountains as well as the San Gabriel and San Bernardino Mountains of Southern California (Dunn and Garrett 1997). The Hermit Warbler winters primarily in the montane forests of western Mexico from Sinaloa, Durango and southern Nuevo Leon, south through the highlands of northern Central America to Nicaragua (Curson *et al.* 1994, Dunn and Garrett 1997). The Hermit Warbler regularly winters in coastal California from north of San Francisco to San Diego, and is recorded occasionally further north as far as Washington State, and as far inland as central California (Dunn and Garrett 1997, Sibley 2000, Wahl *et al.* 2005, Dunn and Alderfer 2011). In migration the Hermit Warbler is recorded in southern Nevada, with most birds passing through Arizona, and some birds passing through New Mexico and West Texas (Dunn and Garrett 1997, Sibley 2000, Wahl *et al.* 2005, Dunn and Alderfer 2011). As a vagrant, the Hermit Warbler has been recorded throughout the eastern United States and Canada (Godfrey 1986, Dunn and Garrett 1997, Dunn and Alderfer 2011). The Hermit Warbler is an accidental vagrant to south east Alaska (West 2008).

In British Columbia this species occurs as a casual vagrant. There have been 30 records of the Hermit Warbler recorded with all records coming from coastal areas of the Province (Campbell *et al.* 2001, Toochin *et al.* 2013).

It is important to note that just south of British Columbia, the Hermit Warbler freely hybridize with the closely related Townsend's Warbler (*Setophaga townsendi*) in northern Washington in the Olympic Mountains, as well as in the Cascade Mountains around Mount Rainier and Mount Adams (Dunn and Garrett 1997, Eckert 2001). This hybridization zone also runs south along the western slope of the Cascades into northern Oregon (Dunn and Garrett 1997, Eckert 2001). The common occurrence of hybrid birds in these regions makes identification of Hermit Warblers out of range in British Columbia problematic and difficult. Observers need to get both upper views and underside views of birds to try and rule out hybrid birds. Some birds are impossible to identify without having them in the hand (Dunn and Garrett 1997, Eckert 2001). The Hermit Warbler is a species that should be looked for in British Columbia in the future by keen observers.

## **Identification and Similar Species**

The identification of the Hermit Warbler is covered in all North American field guides. Most standard field guides include drawings of the various types of hybrids between the Hermit Warbler and the Townsend's Warbler. There is a great amount of variation between hybrid birds so keen observers should refer to specialized articles on that subject. Encountering a pure Hermit Warbler is an exciting observation, and it is important to key out the important field marks.

Adult males are striking with a clean bright yellow head, face and crown (Curson *et al.* 1994, Dunn and Garrett 1997). The eye is surrounded in yellow and is black (Curson *et al.* 1994). The bill is black as is the throat (Curson *et al.* 1994). The nape on the adult male Hermit Warbler is dark black (Dunn and Alderfer 2011). The back is gray with dark streaks (Dunn and Garrett 1997). This gray color extends onto the wings where there are two bold wing bars (Dunn and Garrett 1997). The edges of the tertials are white (Dunn and Garrett 1997). The rump is gray in color (Sibley 2000). Below the throat is a clean white breast with very light dark streaks on the flanks (Curson *et al.* 1994, Dunn and Garrett 1997). The undertail coverts are white with no dark streaks (Dunn and Garrett 1997). The legs are dark in color (Dunn and Alderfer 2011). The tail is not long in shape, but is often spread open as the bird feeds, and the outer feathers are very white recalling a Dark-eyed Junco (*Junco hyemalis*) (Curson *et al.* 1994). The underside of the tail is very white and the edges of the outer most tail feathers are black-edged (Dunn and Garrett 1997).

Adult females are similar to males, but the face is less striking or boldly colored (Curson *et al.* 1994, Dunn and Garrett 1997). The dark of the nape comes up onto the crown of the head with the yellow of the face subjugated by a dark auricular ear patch and a dark eye (Sibley 2000, Dunn and Garrett 1997). The chin of the throat is white with the rest of the throat black (Curson *et al.* 1994, Dunn and Garrett 1997). The back is gray with dark streaks with a gray rump (Sibley 2000). The breast is white with dirty light streaks on the upper sides with the white of the breast extending down to the undertail coverts (Curson *et al.* 1994, Sibley 2000, Dunn and Garrett 1997). The wings are gray in color with two distinct wing bars (Sibley 2000, Dunn and Alderfer 2011). The tail has white outer tail feathers that are similar to the adult male (Curson *et al.* 1994, Dunn and Garrett 1997).

In first winter birds, the colors of the face are more washed out looking, but have a distinct yellow face with a yellow eye ring and dirty auricular patch (Curson *et al.* 1994, Dunn and Garrett 1997). The back is a dull brownish color but there are two bold wing bars (Sibley 2000, Dunn and Garrett 1997). There is no black on the throat as in adult birds because the throat is yellow in color (Dunn and Garrett 1997, Sibley 2000). The yellow-buffy wash extends down onto the chest and the flanks are buffy, but not streaked, with the undertail coverts white (Dunn and

Garrett 1997, Sibley 2000). The tail has white outer tail feathers, but less than on adult birds (Dunn and Garrett 1997, Sibley 2000). The legs are dark in color (Dunn and Garrett 1997, Sibley 2000). The song is highly variable, but is a fast and rapid “ze-ze-ze-ze-ze-ze-zee-sitew” (Dunn and Garrett 1997, Sibley 2000). The call notes are a sharp, flat “tip” or “tsik, very similar to the Townsend’s and Black-throated Green Warbler (*Setophaga virens*) (Dunn and Garrett 1997, Sibley 2000, Dunn and Alderfer 2011).

The Townsend’s Warbler is similar looking to the Hermit Warbler, but with important differences. The adult male Townsend’s Warbler has a bold black crown that extends from the top of the bill to the nape (Curson *et al.* 1994, Dunn and Garrett 1997). The face has a black auricular patch that runs through the eye to the bill base (Curson *et al.* 1994, Dunn and Garrett 1997). There is a yellow eye arc below the dark eyes (Dunn and Garrett 1997, Dunn and Alderfer 2011). The bill is black, as is the throat, and the black color extends down the chest with black streaks on the flanks (Sibley 2000, Dunn and Alderfer 2011). Below the black throat is yellow that extends onto the flanks as well (Curson *et al.* 1994, Dunn and Garrett 1997). The white of the belly extends down to the undertail coverts which have dark streaks (Dunn and Alderfer 2011). The legs are black in color (Sibley 2000, Dunn and Alderfer 2011). The back of the adult male Townsend’s Warblers is green with dark black streaks that are limited to the back. (Sibley 2000). The green found on the upper back extends down to the rump (Curson *et al.* 1994, Dunn and Garrett 1997). The wings are gray in color with two bold white wing bars (Dunn and Garrett 1997). The outer tail has bold white feathers that are like a Dark-eyed Junco (Dunn and Garrett 1997, Sibley 2000). The underside of the tail is white (Curson *et al.* 1994, Dunn and Garrett 1997). The adult females are similar to the adult males with the black colors on the head looking more subdued in tone (Curson *et al.* 1994, Dunn and Alderfer 2011). The chin is white with most of the upper throat yellow (Curson *et al.* 1994, Dunn and Garrett 1997). The sides of the throat have a black malar stripe that goes down onto the sides of the breast with the black extending across the chest (Curson *et al.* 1994, Dunn and Garrett 1997). Below the throat the yellow extends down the flanks which also have black streaks (Sibley 2000, Dunn and Alderfer 2011). The lower belly is white as are the undertail coverts (Sibley 2000, Dunn and Alderfer 2011). The legs are black in color (Sibley 2000). The back is green and is mostly un-streaked and extends down to the rump (Sibley 2000). The wings are gray in color and have two white wing bars (Curson *et al.* 1994, Dunn and Garrett 1997). The tail of the adult female is like that of the adult male, but has less white on it (Curson *et al.* 1994, Dunn and Garrett 1997). The first winter birds are like the adult female and have a yellow face with a dark auricular patch and crown (Dunn and Garrett 1997, Dunn and Alderfer 2011). The throat of the first winter birds is all yellow down onto the breast, lacking the black throat found on adult birds (Dunn and Garrett 1997, Sibley 2000, Dunn and Alderfer 2011). There are dark streaks on the side of the neck that extend down the sides of the breast (Dunn and Garrett 1997, Dunn and Alderfer

2011). Also on the breast and sides of the breast is a bright yellow color (Sibley 2000). The lower belly and undertail coverts are white (Dunn and Garrett 1997, Sibley 2000). The back and rump are green with gray wings and two weaker white wing bars (Sibley 2000).

The songs of the Townsend's Warbler are highly variable and are usually slower and thinner compared with the Black-throated Gray Warbler (*Setophaga nigrescens*) and the Black-throated Green Warbler (Dunn and Garrett 1997, Sibley 2000). The song of the Townsend's Warbler overlaps extensively with the Hermit Warbler to the point where observers should track down singing birds and not assume they are just Townsend's Warblers (Eckert 2001). The standard song for the Townsend's Warbler is a "zi-zi-zi-zi-zi-zeedle-zeedle" (Dunn and Garrett 1997, Sibley 2000). The call notes are exactly like the Hermit Warbler and the Black-throated Green Warbler (Dunn and Garrett 1997, Dunn and Alderfer 2011).

Hybrids do occur between the Hermit Warbler and the Townsend's Warbler, and these birds are highly variable (Dunn and Garrett 1997, Sibley 2000). Many birds will have the head of one parent and the body of the other (Dunn and Garrett 1997, Sibley 2000, Dunn and Alderfer 2011). It is important to note that some Hermit Warbler males can look perfect, except they have a light yellow wash below the black throat and subtle green spots on the back or heavy dark streaks down the sides (Curson *et al.* 1994, Dunn and Garrett 1997, Sibley 2000, Eckert 2001, Dunn and Alderfer 2011). Some birds are not possible to identify unless seen from every angle. The first winter birds can look very similar to the Black-throated Green Warbler, and it is important to note that these birds will lack the yellow vent and are white on the ventral area (Sibley 2000). Hybrids between the Hermit Warbler and the Townsend's Warbler will also show a yellow breast and forehead, and have a streaked back (Sibley 2000).

The Black-throated Green Warbler is a localized species in British Columbia, and is only found breeding in the Peace River region of the north eastern part of the Province (Curson *et al.* 1994, Dunn and Garrett 1997, Campbell *et al.* 2001). The Black-throated Green Warbler has turned up on the coast of British Columbia as a rare vagrant and should be checked for by observers (Campbell *et al.* 2001, Toochn 2012a, Toochn 2012b, Toochn 2012c). Vagrant birds could be mistaken for a Hermit Warbler by less experienced observers. In overall size and structure, the Black-throated Green Warbler is compact with a short tail and a plump body shape (Sibley 2000). Adult males have a bright yellow face with dark olive ear coverts, a dark olive line from the eye to the bill and olive crown (Curson *et al.* 1994, Dunn and Garrett 1997). The bill and eyes are black as is the throat (Sibley 2000). The black on the throat extends far down on to the flanks which have large black streaks with a little yellow mixed into the dark feathers (Curson *et al.* 1994, Dunn and Garrett 1997). The legs are black in color (Sibley 2000). The back of the head is green as is the back down to the rump (Dunn and Garrett 1997). The wings are black with two bold white wing bars (Sibley 2000, Dunn and Alderfer 2011). The tail is short with extensive

white outer tail feathers (Sibley 2000). The underside of the tail is white (Dunn and Garrett 1997). Adult females are similar to males, but have a white chin with white on the upper throat (Sibley 2000). Below the white upper throat is an area of black on the lower throat (2000 Sibley). This black is more limited to the chest area (Curson *et al.* 1994, Dunn and Garrett 1997). The first winter birds are similar to females, but lack a black throat, and have a black malar stripe that goes down onto the side of the neck (Curson *et al.* 1994, Dunn and Garrett 1997). The song of the Black-throated Green Warbler is a slow, relaxed “zee-zee-zee-zee-zo-zeet” (Dunn and Garrett 1997). The call notes of the Black-throated Green Warbler are a sharp “tsik” or “tek”, similar to that of the Hermit Warbler (Dunn and Garrett, Sibley 2000, Dunn and Alderfer 2011).

### **Occurrence and Documentation**

Records of the Hermit Warbler in British Columbia reflect the known peak migration period for this species. In Arizona and California, peak migration period is from April 25 to May 10, with smaller numbers of birds moving north in the latter half of May into early June (Dunn and Garrett 1997). Over half of the records found in British Columbia come from the April 25 to May 10 time period, and are mostly overshoots of adult males heading north (Dunn and Garrett 1997, Campbell *et al.* 2001, Toochin *et al.* 2013, Please see Table 1). The number of records decreases as May progresses with a few June records; there is a scattering of summer records and few fall records (Toochin *et al.* 2013). The Hermit Warbler is like the Townsend’s Warbler in that both species like to live in the tops of tall coniferous trees making them difficult to see (Dunn and Garrett 1997, Dunn and Alderfer 2011). Another problem for observers is that the vocalizations of Hermit Warbler completely overlap those given by the more common Townsend’s Warbler (Dunn and Garrett 1997, Eckert 2001). The Hermit Warbler has been found paired off with Townsend’s Warbler at Toad Lake, near Pt. Alberni on Vancouver Island (Innes 1995). Also, a pair of Hermit Warblers responded to tape play-back at Sooke Mountain Provincial Park in Sooke (Toochin *et al.* 2013, Toochin 2012b, please see Table 1). It should be noted that for three summers after this sighting, a hybrid Hermit Warbler and Townsend’s Warbler was photographed and seen on territory in the park (L. Haviland Pers. Comm.). Hybrid Hermit Warblers have been recorded multiple times along the coast of British Columbia from Vancouver, Victoria, Duncan, Campbell River, Gold River, Port Alberni, Tofino, Chilliwack and as far east as Manning Park (Campbell *et al.* 2001). With any observation of a suspected Hermit Warbler, observers must see both the underside and upper side of the bird to rule out potential hybrid birds (Campbell *et al.* 2001, Eckert 2001). Of the 30 records only a handful are photographed, but given the recent explosion of digital cameras used by birders, it is likely that future records will be photographed (Toochin *et al.* 2013, Please see Table 1). The Hermit Warbler is often found in mixed flocks of Black-throated Gray Warblers and Townsend’s Warblers and in known warbler migrant traps along the coast of British Columbia. Any odd

sounding “Townsend’s Warbler” should be tracked down by observers and checked with a visual identification because Hermit Warbler vocalizations overlap extensively with Townsend’s Warbler (Campbell *et al.* 2001, Eckert 2001). With more observer coverage, it is almost certain there will be more Hermit Warblers found British Columbia in the future.

**Table 1: British Columbia records of Hermit Warbler:**

- 1.(1) adult male May 15, 1946: George Hardy: Lost Lake, Saanich, near Victoria (Hardy 1947, Toochin *et al.* 2013)
- 2.(1) adult breeding plumage singing male June 12, 1971: Roger Taylor Thetis Lake Park, outside Victoria (R. Taylor Pers. Comm.) (Toochin *et al.* 2013)
- 3.(1) adult male plumage May 8, 1982: Ian Kinman: Chancellor Boulevard, Vancouver (Weber 1985, Toochin 2012a)
- 4.(1) adult breeding plumage singing male May 2, 1990: Mike Chutter: west of Nanaimo (Campbell 1990, Toochin *et al.* 2013)
- 5.(1) adult breeding plumage female May 8, 1991: Rick Toochin: Klanawa River, just outside Pacific Rim National Park (Campbell 1991, Toochin *et al.* 2013)
- 6.(1) adult breeding plumage singing male April 25, 1992: Mark Wynja, mobs (photo) Queen Elizabeth Park, Vancouver (Bowling 1992, Dorsey 1996, Toochin 2012a)
- 7.(1) adult breeding plumage singing male April 28-29, 1992: Bryan Gates, mobs: Mt. Douglas Park, Victoria (Bowling 1992, Davidson 1993, Campbell *et al.* 2001, Toochin *et al.* 2013)
- 8.(1) adult breeding plumage singing male April 29, 1994: L. Grover: Reifel Migratory Bird Sanctuary, Ladner (Toochin 2012a)
- 9.(1) adult breeding plumage male May 18-June 20, 1994: Doug Innes, mobs: Toad Lake, near Pt. Alberni (Siddle 1994, Innes 1995, Toochin *et al.* 2013)
- 10.(1) ad breeding plumage female May 30, 1994: Derrick Marven, mobs: Toad Lake, near Pt. Alberni (w/male hybrid) (Siddle 1994, Toochin *et al.* 2013)
- 11.(1) adult breeding plumage female May 6, 1999: Mike Toochin: Queen Elizabeth Park, Vancouver (Bowling 1999, Toochin 2012a)
- 12.(1) adult breeding plumage singing male May 6, 1999: Rick Toochin, GB: Queen Elizabeth Park, Vancouver (Toochin 2012a)
- 13.(1) adult breeding plumage singing male May 2, 2000: Nathan Hentze: Courtenay (N. Hentze pers. Comm.) (Toochin *et al.* 2013)
- 14.(1) adult breeding plumage singing male May 11, 2001: Dan Petersen: Burnaby Mountain Park, Burnaby (Bain 2003, Toochin 2012a)
- 15.(1) adult breeding plumage singing male May 18, 2001: Rick Toochin: Derby Reach Regional Park, North Langley (Cecile 2001, Toochin 2012a)

- 16.(1) adult male June 30, 2002: Sandy McRuer, mobs: Two River Arm, Sproat Lake  
(Yahoo message #2011 BCBIRDINGVANISLAND, Toochin *et al.* 2013)
- 17.(1) adult breeding plumage singing male May 14, 2003: Dan Petersen: Burnaby Mountain  
Park, Burnaby (Cecile 2003, Toochin 2012a)
- 18.(1) adult breeding plumage singing male May 9, 2004: fide John Kalman: Bridal Veil Falls,  
Chilliwack (Toochin 2012c)
- 19.(1) adult breeding plumage male May 21, 2006: Bryan Gates, and other observers: Mount  
Tolmie, Victoria (Cecile 2006, Toochin *et al.* 2013)
- 20.(1) adult breeding plumage male April 21, 2007: Rick Toochin: Jordan River  
(Cecile 2007, Toochin 2012b)
- 21.(1) adult male breeding plumage May 1, 2007: Chris Saunders: Observatory Hill, Victoria  
(Yahoo message #12182 BCVIBIRDS, Toochin *et al.* 2013)
- 22.(2) adult male and female May 12, 2007: Rick Toochin, Corina Isaac: Sooke Mountain Park  
(Cecile 2007, Toochin 2012b)
- (1) adult male May 13, 2007: Rick Toochin, Louis Haviland: Sooke Mountain Park  
(Cecile 2007, Toochin 2012b)
- 23.(1) adult breeding plumage female May 16, 2008: Chris Turner: Lighthouse Park, West  
Vancouver (Toochin 2012a)
- 24.(1) adult breeding plumage male May 25, 2009: John Vroegop: along Carolin Mine Road,  
Sowugia River off Coquihalla Highway (Toochin 2012c)
- 25.(1) fall plumage August 6, 2009: Ruth Herman Kerryview Drive, near Prospect Lake, Victoria  
(Yahoo message #11398 BCVIBIRDS)
- 26.(1) male September 8, 2009: mobs: Lynus Lane and River Road, Richmond (Toochin 2012a)
- 27.(1) adult male June 3, 2010: Guy Monty: Spider Lake Provincial Park, outside Qualicum  
Beach (Yahoo message #14526 BCVIBIRDS)
- 28.(1) adult male May 29, 2011: Doug Brown: along the Stillwater Main forest road near Powell  
River, just past the Lois Lake dam (BC Bird Alert: Accessed June 2, 2011)
- 29.(1) adult breeding plumage female July 19, 2011: fide Dan Petersen: Central Park, Burnaby  
(Toochin 2012a)
- 30.(1) adult breeding plumage singing male May 5, 2013: Rick Toochin: Emory Creek Provincial  
Park, outside Yale (R. Toochin Pers. Comm.)

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