

Williamson's Sapsucker Inventory, Carmi Recreational Trails, 2019

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INTRODUCTION

BC Timber Sales has proposed cutblocks (Timber Sale Licence A95836, Blocks K713 and K7HO, Figure 1) within the Carmi Recreational Trail area about 8 km east of the city center of Penticton. This area was not included in the Endangered Williamson's Sapsucker (WISA) contiguous Area of Occupancy because we did not detect any WISA in that area in the limited surveys of 1997 and 2004 (Gyug, unpublished data).

I was contacted in late March, 2019, by Bryn White, the SOSCP Program Manager about the potential for WISA to occur in the Carmi area, triggered by the proposed BCTS cutblocks. While much of the area has been partially logged in the distant past, the area still contains old-growth Douglas-fir and some Western Larch, and therefore is potentially suitable WISA breeding habitat. Okanagan Wildlife Consulting conducted call- and drum-playbacks (CPB) in May, 2019, to determine if WISA were present in the area.

METHODS

The Carmi Recreational Trail area is about 400 ha in size (Figure 1), and is about 8 km east of the city center of Penticton. Call and drum playbacks were conducted on May 14 and 15, 2019, to determine if WISA are present. WISA return from migration to breeding sites in late March or early April, establish breeding territories through early May, with successful nests fledging young usually by late June or early July. 47 CPB survey points were spaced out over the entire area so that all proposed cutblocks were sampled plus additional points using approximate 400 m between-point distance to cover the remainder of the area (Figure 1).

Each CPB point sample consisted of three broadcasts of a 10-15 second Williamson's Sapsucker drum and call combination repeated three times in three directions, and then a silent listening period of 3 minutes, for a total listening time of 4 minutes and 20 seconds. CPB equipment used was a FoxPro electronic game caller with WISA calls and drums played through an external FoxPro speaker with front bell dimensions of 25-cm x 17-cm.

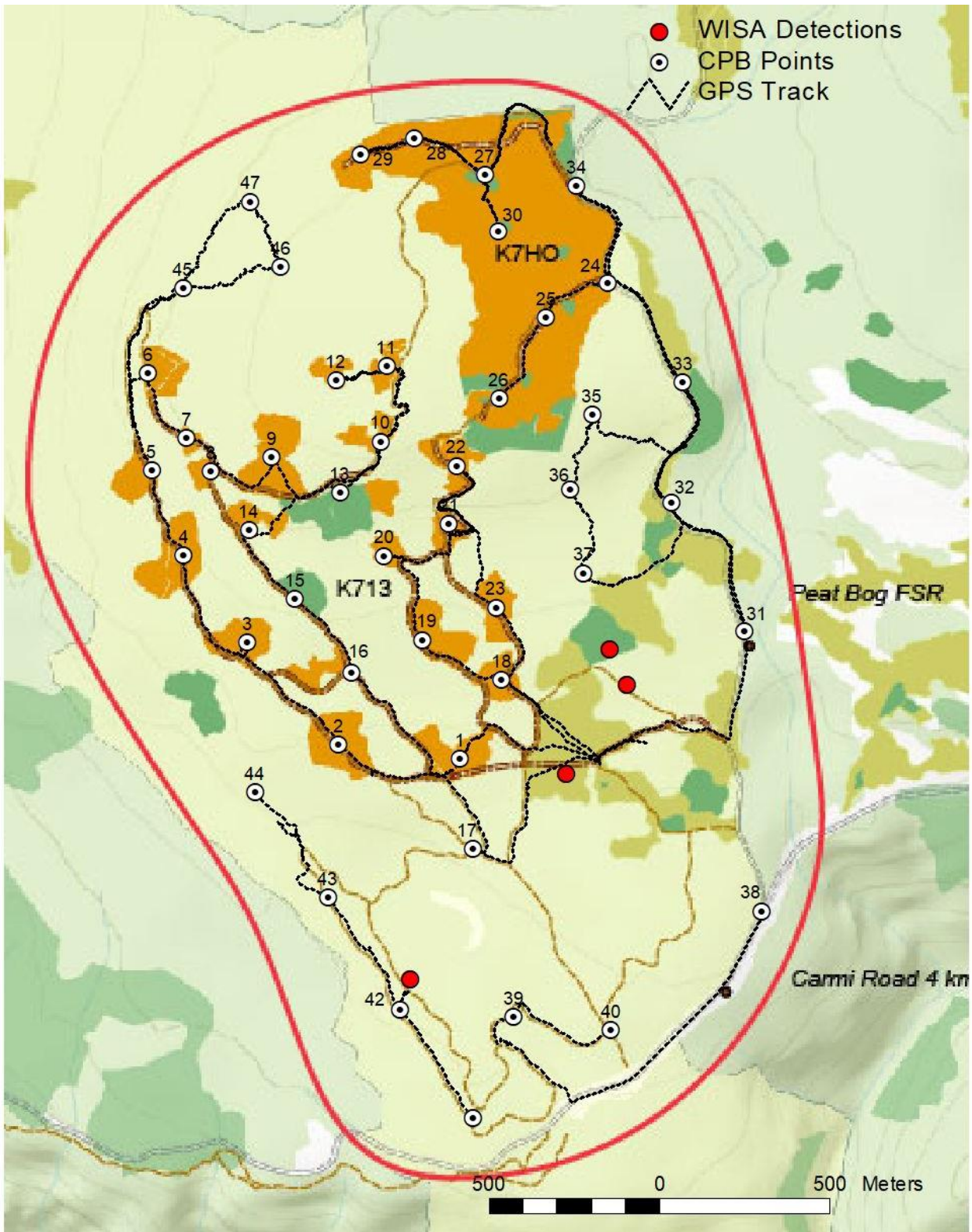


Figure 1. Carmi Recreational Trail area east of Penticton showing Williamson's Sapsucker call playback (CPB) survey points from May 14-15, 2019. The three WISA detections at the east-central side of the area were almost certainly the same male, and the single WISA detection near Point 42 a different WISA.

Location using GPS was recorded at each CPB point. For each WISA detection, I recorded the time (seconds) of the initial response from the beginning of the CPB; the sex (male, female, unknown or pair), the number and the type of responses (visual, drum and/or call), the estimated distance (m) and direction (degrees from a compass reading) to each WISA. In addition, all other birds heard or seen at the CPB points were recorded. All mammals seen were recorded, ungulate pellet groups were counted when walking between survey points, and other mammal sign was recorded incidentally, except for mouse, vole, Snowshoe Hare or Red Squirrel sign, which were generally very common. Cattle were grazing in the area at the time of the surveys.

Notes were made on veteran tree densities at each survey point. Each species of veteran trees (tree surviving previous fire events) greater than 60-cm dbh were tallied within circular plots around each point to estimate density. The radius used for each circular plot depended on how much area was visible from the point, with a minimum of 17.84 m (0.1 ha plot), and a maximum of 56.42 m (1 ha plot). In particular, I looked for potential WISA nesting trees, i.e. veteran Western Larch trees with dbh of 60 cm or greater (Gyug et al. 2009), during the entire survey including when walking or driving between points.

Field data was entered into the WISA Excel file template that was designed in 2007 in consultation with the Wildlife Species Inventory (WSI) for submission to the WSI Species Inventory (SPI) system of the BC Ministry of Environment. This file will be submitted to SPI by Okanagan Wildlife Consulting in conjunction with other concurrent WISA field surveys that will finish after late June.

RESULTS

Williamson's Sapsucker

Two WISA were detected in the Carmi Recreational Trail area. The first WISA, a male, was heard drumming at the east side of the area before CPB had started on May 14, while I was still at the truck. What was almost certainly the same bird was also detected twice more from CPB points 17 and 37, on May 14 and 15 respectively, within about 300 m of the initial detection. No more than one WISA was detected at any time in this area, so I do not know if this male was paired with a mate. This bird was primarily in the forest between existing cuts, but appeared to come into the cutblock in response to the CPB from point 17, where it was seen drumming on a remnant tree within the cut after I walked towards the drumming bird.

The second WISA was detected on May 15 near CPB point 42 at the south side of the area. This bird gave one set of calls and one drum, and was not heard again. This detection was 1.1 km from where the first WISA had been re-detected on May 15, an hour before this second WISA was detected. While possibly the same bird as the first, it was far enough away (1.1. km) from the first WISA, that it was most likely a different WISA.

If there are two WISA breeding territories in this 400-ha area, that would be a breeding density of 0.5/km². This would classify the overall breeding density of this area as Low compared to the benchmark breeding density of 3.1 pairs/km² in B.C. (Gyug 2010).

Tree Species and Densities

Douglas-fir dominated the area except for some younger stands in the northern section of the area where Lodgepole Pine, or a mix of Lodgepole Pine and Western Larch dominated. Much of the proposed K7H0 block was dominated by Lodgepole Pine. Except for these younger stands, the entire area appeared to have been partially logged sometime in the past. Many well-decayed stumps greater than 60-cm diameter could be seen, but none of them appeared to have been Western Larch, and all appeared to have been Douglas-fir.

Trees greater or equal to 60-cm dbh were tallied at 41 of the survey plots, i.e. did not include plots on major roads, but did include plots on the current recreational trails, which were for the most part old, narrow logging roads. Most of these trees were “veterans”, having survived one or more fires. Average density of these trees was 14.5/ha. All of these trees tallied were Douglas-fir except for one Ponderosa Pine.

No Western Larch greater than or equal to 60-cm dbh were seen anywhere in the area. Very large Western Larch veteran trees with heart rots, typically with broken tops or other outward signs of decay, are the preferred nesting tree of WISA in the Okanagan, making up 76% of known nest trees (Gyug et al. 2009). Lack of these probably contributed to the lack of detections made in the original (admittedly cursory) WISA surveys of 1997 and 2004, and to the Low density found in 2019.

Other Birds

Nineteen other bird species were detected from survey points (Table 1). Of these, only Evening Grosbeak is a species-at-risk, COSEWIC Special Concern, and is not on any of the Species at Risk Act schedules. The species most commonly detected was a cavity-nesting bird, the Red-breasted Nuthatch, which was detected from 62% of the survey points.

Mammals

Red Squirrels were quite common in the area, being detected from 30 of the 47 WISA CPB survey points. No other mammals were seen. Ungulate winter pellet groups tallied included 13 deer, 3 Moose and 2 Elk, which I consider to be generally low numbers of these pellet groups given the length of track covered on foot in the area. The area appears to be generally higher in elevation than the main deer winter range, and neither moose nor elk would appear to be particularly abundant in this area. Pocket Gopher pushups were only occasionally seen, and were quite uncommon. No bear sign was seen at all, and no other mammal sign, e.g. American Badger, was seen.

Table 1. Other bird species detected from the 47 WISA CPB survey points in Carmi Recreational Trail area, May 14-15, 2019.

Species	Number of survey points from which the species was detected
American Robin	8
Barred Owl	1 (two birds, probably a pair)
Cassin's Vireo	3
Common Raven	11
Dark-eyed Junco	4
Evening Grosbeak	6
Golden-crowned Kinglet	3
Mountain Chickadee	4
Northern Flicker	2
Orange-crowned Warbler	1
Pine Siskin	3
Pileated Woodpecker	1
Red-breasted Nuthatch	29
Ruby-crowned Kinglet	7
Red Crossbill	4
Red-naped Sapsucker	5
Townsend's Warbler	6
Western Tanager	7
Yellow-rumped Warbler	17

DISCUSSION

WISA occur in many areas of the southern interior at very low densities outside the contiguous Area of Occupancy that was established in the COSEWIC Status Report (COSEWIC 2005) and in the Recovery Plan (Environment and Climate Change Canada 2016). Quantifying and locating occupied WISA breeding sites within the very large regions outside the contiguous Area of Occupancy has been problematic and inefficient because densities are so low. Williamson's Sapsucker field surveys have concentrated on annual monitoring to determine population trends within the contiguous Areas of Occupancy since 2010. No surveys since 2009 have searched areas outside the Area of Occupancy for possible breeding, even though this was identified as one of the goals of the original monitoring plan (Marmorek and Pickard 2010).

Areas like Carmi that may have WISA breeding in them at low densities, and should therefore be within the Area of Occupancy and have Critical Habitat identified to guide forest management, have "fallen through the cracks", due to past cursory surveys, and to the lack of any ongoing attempts to find WISA breeding sites outside the contiguous Area of Occupancy. However, now that WISA are known to occur in the breeding season in the Carmi area, proposed timber harvest should take that knowledge into account in developing cutting plans and harvest

strategies that are consistent with the Best Management Practices (B.C. Ministry of Forests, Lands and Natural Resource Operations 2014).

LITERATURE CITED

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