Southward Breeding Range Expansion for Magnolia Warbler in British Columbia

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The Magnolia Warbler (*Dendroica magnolia*) is a summer visitant to British Columbia, breeding primarily in the northern two-thirds of the province. In the southern part of the range, there are two pockets of distribution, one in the vicinity of Wells Gray Provincial Park and a second in the northern Rocky Mountain Trench near Golden.

Despite this widespread range within the province, breeding records are not numerous. Campbell et al. (2001), in *The Birds of British Columbia*, list 30 breeding records for the entire province since 1889. The southernmost breeding records are from the northern Rocky Mountain Trench.

In June 1999, I discovered two singing male Magnolia Warblers near Summit Lake, 15 km southwest of Nakusp in the West Kootenay region of British Columbia. One of these males remained in the area and continued singing for at least two weeks. I continued to monitor the area in successive years. Each year, from one to five males were present; some established territories and continued to sing for at least four weeks. Despite some searching, I was unable to establish that the birds were breeding.

The area in which I first discovered the birds was along an abandoned railway right-of-way. The surrounding forest was mixed woodland and included several species of coniferous and deciduous trees. The right-of-way was heavily overgrown with deciduous shrubs.

In 2008, I discovered a single singing male about one kilometre west of the lake but in similar habitat. This was also an area of fairly open, mixed woodland but with extensive patches of previously cleared land that had become overgrown with a dense shrubby layer (Figure 1). The surrounding forest included black cottonwood (*Populus balsamifera*), Douglas maple (*Acer glabrum*), paper birch (*Betula papyrifera*),



Figure 1. Nesting habitat for Magnolia Warbler included a mixed woodland of several species of coniferous and deciduous trees with dense shrubs. Near Summit Lake, BC. 24 June 2009 (Gary S. Davidson).

western redcedar (*Thuja plicata*), Douglas-fir (*Pseudotsuga menziesii*), western white pine (*Pinus monticola*), western hemlock (*Tsuga heterophylla*), and Englemann spruce (*Picea engelmannii*). The dense shrub layer consisted primarily of thimbleberry (*Rubus parviflora*) and bracken (*Pteridium aqualinum*) with a few scattered red-osier dogwood (*Cornus stolonifera*) and saskatoon (*Amelanchies alnifolia*) (Figure 1). The following year two males had moved into this location and I renewed my efforts to establish breeding.

The nearest known breeding location is in the Blaeberry valley near Golden (Doug Leighton pers. comm.). I had hoped that Doug's experience with finding nests would assist me in my search. He informed me that all of the nests he had located were less than two metres above the ground and had been built in dense stands of young spruce. Since there are no such stands of spruce in the vicinity of Summit Lake this information was not entirely helpful. The British Columbia Nest Record Scheme (R.W. Campbell pers. comm.) contains details of 16 nests containing eggs or young found in the province. Of these, nine nests were located in deciduous shrubs and just seven in conifers. Eleven of the sixteen nests were found either in red-osier dogwood (six nests) or unspecified spruce species (five nests). No nests had been situated in thimbleberry or bracken, the dominant shrubs at the Summit Lake site.

Since I still wasn't really sure where to look for a nest. I opted to follow the male, hoping he might eventually lead me to a nest. On 12 July 2009, while walking through the waist-high shrubs attempting to keep the male in sight. I flushed a small bird near the ground. It was a female Magnolia Warbler! As I watched her moving around in the shrubbery she was briefly joined by the male. They continued to hop around on, or near the ground, for several minutes. The pair remained within about five metres of my position during this time. Shortly thereafter, the male left, and the female settled onto a nest in a Thimbleberry. The nest contained three eggs (Figure 2). On 20 July, I returned to the nest and found one unhatched egg and one tiny nestling. The third egg was missing. On 25 July, I made my third and last visit; the nestling was growing and the unhatched egg remained in the bottom of the nest. In late August, when the birds were no longer in the area, I returned and collected the nest. It still contained the one unhatched egg. The nest was made of grasses and fine stems. The bottom of the cup was lined sparsely with very fine mosses (Figure 3). Some writers (e.g., Harrison 1978, Hall 1994) have suggested that the presence of such rootlets can be used to distinguish the species from others with similar nests. The nest was slightly elliptical and measured 55 mm along its long axis and 50 mm along the short axis. Overall height of the nest was 55 mm; depth of the cup was 30 mm.

Summit Lake is located at latitude 50° 10' N. The southernmost nest previously found in British Columbia was at latitude 51°26' N. This extends the known breeding range of Magnolia Warbler in the province about 140 km to the south.



Figure 2. The eggs of the Magnolia Warbler were creamy white, spotted and blotched with reddishbrown with a well-defined wreath at the larger end. Near Summit Lake, BC. 12 July 2009 (Gary S. Davidson).



Figure 3. The Magnolia Warbler nest was a flimsylooking cup of coarse and fine grasses and plant stems that was lined with fine grasses and bits of mosses. Near Summit Lake, BC. 30 July 2009 (Gary S. Davidson).

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About the Author

Gary's interest in birds began as a university student in Vancouver. After spending 1973 and 1974 in Fort Nelson, he and his wife Marie moved to Nakusp where they have lived ever since. He has been conducting Breeding Bird Surveys and co-ordinating Christmas Bird Counts for over 30 years. He is also an active participant in the British Columbia Nest Record Scheme; served as the first chair of the British Columbia Field Ornithologists Birds Records Committee, a position he held for six years; has served as the Kootenay Region sub-editor for North American Birds for over 20 years; and is currently the British Columbia Breeding Bird Atlas regional coordinator for the West Kootenays. He is presently a Director of the Biodiversity Centre for Wildlife Studies.

Gary has made five trips to Australia, one of which was to work as a birding guide at a birdwatchers' lodge in northern Queensland. He retired in June 2005 from teaching high school mathematics and looks forward to many more years of traveling and birding.