NOTES

BREEDING STATUS AND FIRST NEST RECORD OF THE LESSER GOLDFINCH IN MONTANA

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The range of the Lesser Goldfinch (*Spinus psaltria*) has expanded northward through the northern Rocky Mountain states of Wyoming, Idaho, and Montana since at least the early 1990s (Stephens et al. 1990, Stephens and Sturts 1998, Faulkner 2010, Montana Bird Distribution Committee 2012, Marks et al. 2016), although this went largely unrecognized on a range-wide scale until recently (e.g., Watt and Willoughby 2014). Initial colonization of Montana probably occurred both east of the Continental Divide through Wyoming and west of the divide through Idaho. However, movement across the divide within Montana is also a possibility, since Lesser Goldfinches were not reported in Montana west of the divide until 2011 even though they were present and breeding in southern Idaho by 1988 (Stephens et al. 1990, Stephens and Sturts 1998).

Breeding-season observations for Montana began with the first record for the state, a male reported by Kitty Lou Rusher on 26 May 1996 near Glasgow, Valley County. Since then, over half of more than 40 Montana records through 2015 have been from May through August (Marks et al. 2016), indicating that the Lesser Goldfinch has become a regular visitor during the breeding season. By 2020, breeding-season observations had been reported from 25 of Montanas' 56 counties: 18 east and 7 west of the Continental Divide (Montana Natural Heritage Program MapViewer database; https://mtnhp.org/mapviewer). Despite numerous and widespread breeding-season observations of the Lesser Goldfinch in Montana, documented breeding is based on just 3 records: a male with 3 or 4 fledglings reported by Debra Parry on 14 July 2006 at Ashland, Rosebud County, east of the Continental Divide; a female with a single fledgling reported by Nathan Senner on 19 July 2016 at Missoula, Missoula County, west of the Continental Divide; and a female feeding fledglings photographed on 30 August 2020 by Cole Wolf, also at Missoula (Marks et al. 2016, Montana Natural Heritage Program MapViewer database, https://ebird.org). No nests have been reported.

On 2 March 2021, in Greenough Park along the west side of Rattlesnake Creek, Missoula, Mitchell observed a pair of Lesser Goldfinches carrying nest material to what appeared to be an old goldfinch nest. We monitored this nest for several days but detected no additional activity. On 28 April, Mitchell observed copulation by a pair of Lesser Goldfinches near a picnic pavilion in the park on the east side of the creek, and the following day, 29 April, found a nest in the same area (46.8769° N, 113.9755° W; elevation 981 m). It was under construction by the female and approximately half completed, with the male singing nearby. The nest was 2.8 m above ground in a 16.6-m tall (diameter at breast height: 55.1 cm) Ponderosa Pine (*Pinus ponderosa*) near the tip of a lateral limb on the southeast side, 3 m from the trunk and near two trash containers (Figure 1). The nest tree was adjacent to a taller (20.5 m) pine in an otherwise open space in the immediate vicinity of the picnic pavilion.

We were unable to monitor activity at the nest on a daily basis because of other obligations, but by 10 May the female was on the nest incubating (Figure 2) and was present on the nest each day we checked thereafter (our visits usually lasted <15 minutes) through 24 May, when we observed the male feed her on the nest after

FIGURE 1. Ponderosa Pine in which a Lesser Goldfinch nested in Greenough Park, Missoula, Missoula County, Montana, 11 May 2021. Arrow marks the approximate location of the nest discovered on 29 April.

Photo by Paul Hendricks

she emitted a faint twitter accompanied by wing fluttering, behavior we had noted since at least 14 May. On 18 May we saw for the first time the female standing in the nest for up to 5 seconds and staring into it, as though eggs had hatched; she did this at least 3 times in 15 minutes. On 27 May the female arrived at the nest after a minimum absence of 14 minutes and fed at least 3 nestlings for 3 minutes via regurgitation, then settled on the nest, sheltering the nestlings from direct sunlight. The nestlings still retained some down on their heads, but our view was partly obscured, so it was difficult to determine their approximate age. On 30 May, the next check, we did not see any adults visiting the nest or the adjacent area in 30 minutes, and

FIGURE 2. Female Lesser Goldfinch on the nest, 10 May 2021.

Photo by Paul Hendricks

noted no evidence of nestlings, although we did not examine the nest contents. The nest was still in the tree when checked during late morning on 1 June but, again, no activity was noted at or near the nest. However, by late morning of 2 June Lisa Hendricks found the nest on the ground under the nest tree. Nest measurements were outside nest diameter at the rim: 7.0 × 5.5 cm, inside cup diameter: 4.5 × 4.0 cm, outside depth of nest: 4.2 cm maximum and 2.6 cm minimum, inside depth of cup: 2.3 cm. The nest (UMZM:Bird:22197) is now housed in the Philip L. Wright Zoological Museum at the University of Montana.

We are uncertain whether the nest attempt was successful. We do not know the dates of nest completion, start of egg laying, initiation of incubation, hatch day, nor even the number of eggs laid (at least 3). However, between the date the nest was found under construction and 30 May when no activity was seen at or near the nest, enough time transpired (31 days) for successful fledging. Incubation by Lesser Goldfinches often begins after 1 or 2 eggs are laid, followed by an incubation period lasting 12–15 days and a nestling period lasting 11–15 days, for a total of 24–32 days at a finished nest (Chambers 1915, Coutlee 1968, Prather et al. 2002, Watt and Willoughby 2014). That leaves up to 6 days for the nest we found to have been completed after it was discovered half built on 29 April, which conforms to a 4- to 8-day period of nest building reported elsewhere (Coutlee 1968). Also, suc-

FIGURE 3. Lesser Goldfinch nest (UMZM:Bird:22197) found on the ground below the nest tree, 2 June 2021. Note the accumulated droppings on the nest rim and the intact nest lining. Scale is in mm.

Photo by Paul Hendricks

cessful fledging is suggested by the condition of the nest when found on the ground (Figure 3), with accumulated droppings on the rim and an intact lining that showed no signs of disturbance by a predator (Martin and Geupel 1993).

From the time it was first recorded in 2015 through 2019, the Lesser Goldfinch was reported every month of the year in Missoula within a 0.5-km radius of Greenough Park (Montana Natural Heritage Program MapViewer database, https://ebird.org) where we found the 2021 nest. Furthermore, the two observations of fledglings at Missoula in mid-July 2016 and late August 2020 were in Greenough Park or nearby, and in 2021 breeding was confirmed three times (in addition to the nest we report) in the same area, when adults with fledglings were observed by Cole Wolf at his feeders on 23 May (pair with 4 fledglings) and 10 July (2 pairs with 4 fledglings total). Throughout the winter, Lesser Goldfinches regularly visit bird feeders about 160 m from the 2021 nest tree (pers. obs.). Thus it seems that the Lesser Goldfinch is now resident year round in Missoula, with a breeding season extending from at least mid-April through August. The Lesser Goldfinch's winter range has expanded during recent decades within some portions of its continental breeding range, a change attributed in part to an increased availability of bird feeders (Versaw 2000, Watt and Willoughby 2014), and our observations from Montana are consistent with this.

We thank Lisa Hendricks for finding and retrieving the 2021 nest, Angela Hornsby, curator of the Philip L. Wright Zoological Museum, for quickly providing us with an accession number for the nest, Dan Casey for help navigating through the eBird database, and Doug Faulkner for valuable comments that improved our manuscript.

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Accepted 15 April 2021
Associate editor: Douglas W. Faulkner