

BEHAVIORAL OBSERVATIONS OF LESSER GOLDFINCHES IN PULLMAN, WASHINGTON

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ABSTRACT: In Pullman, Washington, to which the Lesser Goldfinch (*Spinus psaltria*) had spread by the late 1990s, regular observations of the species over four years revealed several notable insights. Seeds of the nonnative Tansy (*Tanacetum vulgare*) are a major and apparently preferred constituent of the bird's diet at Pullman. There, as elsewhere in its range, the Lesser Goldfinch imitates other birds; within an interval of 30 seconds, one singing male imitated the sounds of 10 species, including the European Starling (*Sturnus vulgaris*), previously unreported as one of the goldfinch's models.

The Lesser Goldfinch (*Spinus psaltria*) is a widespread and familiar species across much of the western United States and south to northern South America, but many aspects of its life history and ecology remain undocumented (Watt and Willoughby 2020). Much of its behavior as recorded in published literature exists only as compiled field notes, leaving some aspects of regular behavior not fully documented despite being widely observed. Therefore, additional documentation and publication of the Lesser Goldfinch's behavior as descriptive natural history, especially when not otherwise recorded in existing literature, is warranted. Even observations that reinforce existing literature are beneficial, especially when that literature is similarly somewhat anecdotal.

From fall 2019 to spring 2023, I attended Washington State University in Pullman, Washington. During this time, I birded the campus and environs frequently and took an interest in the Lesser Goldfinches in the area, especially given their recent arrival and establishment in the city (Maron et al. 2025). Although I did not conduct any formal surveys, I extensively documented my experiences through iNaturalist.org and eBird.org, two community-science initiatives. Here I summarize some of my noteworthy observations that increase the scope of documented Lesser Goldfinch behaviors.

In winters from 2019 to 2023, I regularly observed Lesser Goldfinches feeding extensively on heads of Tansy (*Tanacetum vulgare*; <https://www.inaturalist.org/observations/68786797>, <https://www.inaturalist.org/observations/68785781>). Tansy is invasive in the United States, having arrived in Washington around the 1920s, but its prominence in the Lesser Goldfinch's diet in Pullman aligns with its documented habit of feeding on nonnative weeds (Gucker 2009, Watt and Willoughby 2020). Although often in single-species flocks, the Lesser Goldfinch was also typically the most common member in the flock when feeding alongside American Goldfinches (*Spinus tristis*), Pine Siskins (*S. pinus*), House Finches (*Haemorhous mexicanus*), and occasionally Redpolls (*Acanthis flammea*; <https://www.inaturalist.org/observations/68786801>). Tansy was clearly a preferred food, and a large patch at the southwestern corner of Koppel Farm, a nonprofit community garden in southeast Pullman, quickly stood out to me as a frequent foraging location for the species. I often observed Lesser Goldfinches clashing over Tansy heads, pushing against each other while aggressively flapping their wings and sometimes culminating with one bird chasing the other away from the plant entirely (<https://www.inaturalist.org/observations/68786793>).

Across all seasons and years, Lesser Goldfinches regularly attended local bird feeders, typically consuming millet, niger, and shelled black sunflower seeds. This was often alongside other finches (<https://www.inaturalist.org/observa->

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tions/66912384), House Sparrows (*Passer domesticus*), Black-capped Chickadees (*Poecile atricapillus*), and Dark-eyed Juncos (*Junco hyemalis*). As spring progressed from winter, these groups generally shrank; while the feeders were still regularly visited, the number of Lesser Goldfinches attending at a time seemed to decrease considerably. Although I rarely saw Lesser Goldfinches on the ground, for about a week in May 2021, I regularly observed them in the grass at Koppel Farm, picking through the seed-filled heads of the Common Dandelion (*Taraxacum officinale*; <https://www.inaturalist.org/observations/87925509>), another plant not native to North America. Additionally, in late fall, I often saw Lesser Goldfinches sharing sunflower heads with American Goldfinches, House Finches, and Red-winged Blackbirds (*Agelaius phoeniceus*) in the community gardens at Koppel Farms. It seemed to me that, when in the community gardens, they were often less easily flushed than usual, apparently habituated by the regular presence of people working on their garden plots. I occasionally observed Lesser Goldfinches feeding on cones of planted alders (*Alnus* sp.) both at Koppel Farms specifically and generally around Pullman during the winter as well, although typically alone or with Pine Siskins rather than in large single-species flocks (<https://www.inaturalist.org/observations/66907279>).

On 4 April 2023, I recorded a male Lesser Goldfinch imitating other species in its song near the College of Veterinary Medicine building. Mimicry in Lesser Goldfinch song is well documented, and the selection of species mimicked varies geographically (Watt and Willoughby 2020). In this individual's phrases, I noted imitations of the American Goldfinch, American Kestrel (*Falco sparverius*), American Robin (*Turdus migratorius*), Bewick's Wren (*Thryomanes bewickii*), European Starling (*Sturnus vulgaris*), House Sparrow, Killdeer (*Charadrius vociferus*), Pine Siskin, Violet-green Swallow (*Tachycineta thalassina*), Yellow-rumped Warbler (*Setophaga coronata*), and possibly the American Dipper (*Cinclus mexicanus*), all within a span of 30 seconds. While most of these species have been documented within Lesser Goldfinch's repertoire from California by Remsen et al. (1982) or Arizona by Goldwasser (1987), the European Starling represents a newly recorded model of the Lesser Goldfinch's mimicry. The American Dipper would also represent a newly recorded model, but the imitation was too brief to be certain of its identity beyond all doubt.

All the above documented behavior, while part of unstructured observation, augments existing knowledge of Lesser Goldfinch life history and ecology, especially in a location on the forefront of its range expansion (Maron et al. 2025). By formally reporting these cases, past observational literature is reinforced, and a reference is established for any new observations.

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