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EVIDENCE FOR NORTHERN WATERTHRUSHES BREEDING IN SOUTHEAST WYOMING

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The Northern Waterthrush (*Seiurus noveboracensis*) is an uncommon but regular visitor to Wyoming during migration and has been documented across much of the state (Dorn and Dorn 1999, Luce et al. 1999). It is suspected to breed at least occasionally in Teton County in northwestern Wyoming (Dorn and Dorn 1999, Luce et al. 1999). In southeastern Wyoming, 20 miles west of the city of Laramie along the Little Laramie River, 11 individuals were captured during three seasons of bird banding for a MAPS (Monitoring Avian Productivity and Survivorship) study. During the summers of 2000, 2001, and 2002 six individuals were recaptured within the same year and three were recaptured in more than one year. Four males and three females were in breeding condition. For three months in 2002 at least two waterthrushes established territories along a small portion of the river, as evidenced by singing males observed each day of MAPS operation. If territories were established during the 2000 and 2001 seasons they remained undetected.

The Northern Waterthrush is known to breed from Virginia north through the northeastern United States, west across much of Canada and Alaska, and south through the Rocky Mountains of Idaho and western Montana (Eaton 1995, American Ornithologists' Union 1998). Disjunct populations are known from northern North Dakota, southern Manitoba, and Saskatchewan. These outposts lie relatively close to the species' core range farther north, but another outlying population, in south-central Oregon, is approximately 400 miles from the main breeding range in the northern Rocky Mountains (Eaton 1995). Northern Waterthrush breeding has been recently documented twice along the Michigan River in north-central Colorado and is suspected more widely in the area (Kingery 1998). These observations were approximately 45 miles south of capture locations along the Little Laramie River in Wyoming and 350 miles southeast of the known southern limit of distribution in the Rocky Mountains (Figure 1).

Although Wyoming was not mentioned specifically by the AOU (1998) or Eaton (1995), the Northern Waterthrush is a rare summer resident in the northwestern part of the state and an uncommon migrant throughout (Dorn and Dorn 1999, Luce et al. 1999). Most Wyoming observations have been presumed to represent migrants, a presumption that may need to be reconsidered in light of recent evidence of breeding in the southeast.

During three seasons of MAPS banding, I captured five males, two females, one juvenile, and three individuals of unknown sex and age between 3 June and 6 August (Table 1). Each year's banding consisted of a total of seven days each separated by at least one week. Sex was determined by the presence of a cloacal protuberance or brood patch, age by plumage or molt. Three individuals were captured over two consecutive seasons, and six were captured twice during a single season. It was unclear if the juvenile was fledged locally or captured during migration, but the same individual was recaptured the following year. Although external sexual characters can persist after breeding, the presence of these characters in combination with consistent recaptures, the capture of a juvenile, and the detection of at least two territories along 700 m of the stream are strong evidence for local breeding.

This finding raises two related questions. First, were Northern Waterthrushes

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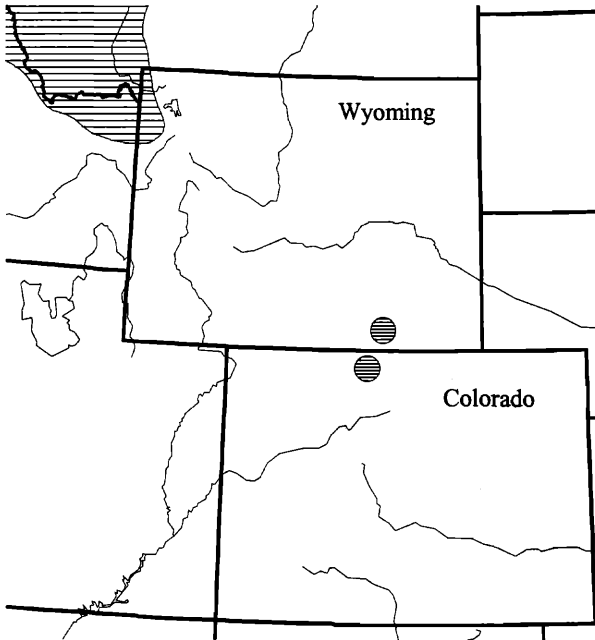


Figure 1. Currently recognized summer distribution of the Northern Waterthrush in northwestern Wyoming and suspected breeding populations in southeastern Wyoming and north-central Colorado.

breeding undetected along the Little Laramie River in the past or are they expanding their range? There is evidence that the range of the Northern Waterthrush is expanding in the Cascade Range of Washington and Oregon (Gilligan et al. 1994). Waterthrushes may be expanding their range in the southern Rocky Mountains of Wyoming and Colorado as well, but it is more likely that breeding populations have been overlooked in the past. Although males can be conspicuous while singing, in the West, waterthrushes select for breeding dense tangles of willow and alder along watercourses (Eaton 1995). Not only are these habitats difficult to navigate, most of the lower-elevation streamside habitat in the region is privately owned and difficult to reach, and therefore not adequately surveyed.

Second, are waterthrushes breeding elsewhere in Wyoming and Colorado or are these isolated populations? Riparian habitat along the Little Laramie River is dominated by narrowleaf cottonwood (*Populus angustifolia*), tangles of willow (*Salix bebbiana*, *S. monticola*, *S. exigua*) and shrubs such as Say's rose (*Rosa sayi*). Similar habitat can be found scattered through the foothills of most mountain ranges in Wyoming and Colorado, hence small breeding populations may exist elsewhere in these states.

Most published range maps display the southern limit for breeding distribution of Northern Waterthrush in the Rocky Mountains as extreme northwestern Wyoming. Although waterthrushes regularly pass through Wyoming and Colorado during migration, there is increasing evidence of multiple breeding populations further south. Distribution maps should reflect the waterthrush's status as a rare breeding species in

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Table 1 Sex, Sex Character, and Date of Capture of Northern Waterthrushes near Laramie, Wyoming

Bird	Sex	Sex Character ^a	Date Captured
1	M	CP	17 Jun 2000
		None	6 Aug 2000
2	M	CP	9 Jul 2000
3	?	None/Juv	16 Jul 2000
		None	1 Jul 2001
4	M	CP	4 Jun 2000
		CP	17 Jun 2000
		CP	10 Jun 2001
		CP	1 Jul 2001
5	?	None	5 Aug 2001
6	F	None	3 Jun 2001
		BP	1 Jul 2001
		BP	16 Jul 2002
7	?	None	29 Jul 2002
8	?	None	17 Jun 2002
		None	24 Jun 2002
9	M?	CP small	16 Jul 2002
10	M	None	9 Jun 2002
		CP	24 Jun 2002
11	F	BP	9 Jun 2002
		BP	8 Jul 2002

^aCP, cloacal protuberance; BP, brood patch.

the region, and field biologists should document occurrences and habitat use in the southern Rocky Mountains carefully.

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