

## RECENT NESTING AND SUBSPECIES IDENTITY OF THE MERLIN IN IDAHO

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Three subspecies of the Merlin (*Falco columbarius*) are recognized in North America. The Black Merlin (*F. c. suckleyi*) breeds in humid forests of the Pacific Northwest and has the darkest plumage of the three North American subspecies. Richardson's Merlin (*F. c. richardsonii*) has pale plumage and breeds in the dry prairies of south-central Canada and the north-central USA. The Taiga Merlin (*F. c. columbarius*) breeds in forests across much of Alaska and Canada, extending south in some northern states and in western North America to parts of Washington, Idaho, and Montana; it is intermediate in plumage between the other two subspecies (Warkentin et al. 2005).

Available records suggest the Merlin is an uncommon but regular migrant and winter resident in Idaho (Craig and Craig 1989). In a statewide survey in 1989, the Taiga was the most frequently observed subspecies, followed by Richardson's and Black (Craig and Craig 1989). From 2007 to 2010, however, the Black Merlin was more common than Richardson's Merlin in winter in southwestern Idaho (Haak 2012).

Merlins breed rarely in Idaho (Table 1), but their subspecies has been unclear. Idaho is on the southern edge of the Taiga Merlin's breeding range and western edge of the Richardson's Merlin's breeding range (Craig and Craig 1989). The species typically uses abandoned stick nests built by other raptors, corvids, or other birds (Cade 1982:114), and nests of the Taiga Merlin are often associated with clearings and bodies of water (Trimble 1975). Of three Merlin nests Craig and Renn (1977) reported in southern Idaho, two were in Utah Juniper (*Juniperus osteosperma*) and one was in Quaking Aspen (*Populus tremuloides*). Here we review recent records of the Merlin nesting in Idaho and relate these to information from adjacent areas.

With the exception of Nevada (Alcorn 1988), Merlins have been reported breeding in all states bordering Idaho. The two subspecies breeding in Washington are the Black, which is limited to the western part of the state, and the Taiga, which nests in northeastern Washington between Okanogan County and the Idaho border (Gleason et al. 2005). Nests of Taiga Merlins were found in Republic, Ferry County, in 2004 (P. Debruyn pers. comm.) and Colville, Stevens County, in 2004 (T. Munson pers. comm.). On 12 July 2011, Haak, A. Henderson, and W. Mulvihill located two pairs

**Table 1** Historic Records of the Merlin Nesting in Idaho<sup>a</sup>

Year	County	Adults seen	Evidence of nesting	Young fledged
1885	Bingham		eggs collected <sup>b</sup>	
<1913	Bingham		yes	
<1913	Bingham		yes	
1973	Blaine	2	4 eggs	
1975	Butte	2		3
1977	Cassia	2	yes	—
1982	Bonneville	1		2
1982	Bonner	—	—	yes

<sup>a</sup>Source: Craig and Craig (1989).

<sup>b</sup>Western Foundation of Vertebrate Zoology 13343.

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**Table 2** Recent Records of the Merlin Nesting in Eastern Washington<sup>a</sup>

Year	City	County	Evidence
2004	Republic	Ferry	eggs
2011	Colville	Stevens	3 young fledged
2011	Newport	Pend Oreille	4 young fledged
2011	Spokane	Spokane	4 young fledged
2011	Spokane	Spokane	3 nestlings

<sup>a</sup>Both adults Taiga Merlins in all cases.

of Taiga Merlins in Spokane, Spokane County. And on 23 July 2011, Haak, E. Thomas, and J. Bradshaw located a family group of Taiga Merlins in Newport, Pend Oreille County. Table 2 details these records.

In Montana, Taiga Merlins nest on both sides of the continental divide (Trochlell 2002, J. Marks pers. comm.) and Richardson's Merlins nest east of the divide (Ellis 1976, Becker and Sieg 1985). In the Wasatch Mountains of Utah, Merlin eggs were collected in 1868 and 1869 (Western Foundation of Vertebrate Zoology 15342, Hayward et al. 1976) and the species summers in small numbers (Behle 1985, who inferred the birds are Richardson's Merlins). Sailer (1987) reported a pair, apparently of Richardson's Merlin, near Bryce Canyon National Park and a male in Canyonlands National Park in June 1984. Richardson's Merlin is the predominant subspecies in Wyoming, but the population breeding along the Green River, to the southeast of Idaho, was extirpated in recent decades (Ayers and Anderson 1999).

The current breeding range of the Black Merlin is closely associated with temperate rainforests in coastal western Washington, western British Columbia, including parts of Vancouver Island, and southern Alaska (Wheeler 2003, Warkentin et al. 2005). However, Black Merlins are known to nest outside this range. For example, in Oregon, a Black Merlin nest was found east of the Cascade Range crest in Klamath County in 1883 (Gabrielson and Jewett 1940), and eggs of the Black Merlin were collected in 1933 in the northern Willamette Valley near Rex, Yamhill County (Western Foundation of Vertebrate Zoology 44073). The distribution of nesting Black Merlins in British Columbia is not completely understood (Campbell et al. 1990, Haney and White 1999), but the subspecies has been documented as far east as the Okanogan Valley (Cannings et al. 1987). In fall and winter, Black Merlins spread beyond their currently known breeding range (Wheeler 2003, Stahlecker 2010), and they migrate and overwinter in Idaho (Burleigh 1972, Craig and Craig 1989, Haak 2012).

In the last several years we have accumulated five additional records of Merlin nests in Idaho (Table 3). In the spring of 2007, we observed a pair of Merlins in Sandpoint, Bonner County, approximately 70 km from Canada. The site is approximately 320 m from Lake Pend Oreille and at 650 m elevation. The pair used an American Crow (*Corvus brachyrhynchos*) nest situated 1.5 m below the top of a 36-m Western White Pine (*Pinus monticola*). The nest site was adjacent to a housing development with lawn and mature Western White Pine, Douglas-fir (*Pseudotsuga menziesii*), Western Larch (*Larix occidentalis*), and Western Red Cedar (*Thuja plicata*). Adults were first observed on territory on 11 April 2007. The adult female was typical of the Taiga Merlin, while the male had darker plumage. A rectrix molted by the adult male was identifiable as belonging to a Black Merlin (Hamilton and Schmitt 2000, N. J. Schmitt pers. comm.).

On 13 July 2010 Haak and R. Cavallaro visited a second Merlin nest on the eastern edge of the Snake River Plain in Jefferson County. This nest was located at 1536 m

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**Table 3** Recent Records and Subspecies of Merlins Nesting in Idaho

Year	City	County	Subspecies of adults	Evidence
2007	Sandpoint	Bonner	Taiga female, Black male	5 young fledged
2010		Jefferson	Richardson's (both)	1 nestling
2011	Sandpoint	Bonner	Taiga (both)	2 young fledged
2011	Priest River	Bonner	Taiga (both)	2 young fledged
2011	Coeur d'Alene	Kootenai	Taiga (both)	4 young fledged

in elevation in remote rangeland vegetated with grasses, sagebrush (*Artemisia* sp.), and isolated Utah Junipers. We found a single nestling, approximately 3 weeks of age, inside an abandoned Black-billed Magpie (*Pica hudsonia*) nest, approximately 2.4 m off the ground in a Utah Juniper 4.5 m tall. We observed no eggs, egg fragments, or prey remains inside the nest cavity or nearby. Both adults and the juvenile had the pale plumage characteristic of Richardson's Merlin (Temple 1972, Wheeler 2003, Warkentin et al. 2005).

In 2011 Merlins were confirmed breeding in three locations in Idaho. On 13 July 2011, Haak and E. Thomas watched an adult male Taiga Merlin with two fledged young fly to various perches in Priest River, Bonner County. On 14 July 2011, we observed two adult Taiga Merlins with two fledged young in an urban area on the southern edge of Sandpoint, Bonner County, adjacent to Lake Pend Oreille. The birds perched in a patch of trees dominated by mature Douglas-fir and Ponderosa Pine (*Pinus ponderosa*), 3.6 km from the 2007 nesting territory. On 15 July 2011, Haak and E. Thomas located a pair of Taiga Merlins with four fledged young in a patch of Western Larch in a commercial area of Coeur d'Alene, Kootenai County.

Craig and Craig (1989) considered the Merlin a rare breeding species in Idaho. It can be inconspicuous, possibly accounting for the dearth of records in Idaho over the last century. However, our observations of five nest sites, from 2007 to 2011, suggest its status has recently changed. Recently, Merlins have been found nesting in areas where they clearly had not nested previously (e.g., several examples in Washington; P. Debruyen pers. comm.). This pattern suggests that the Merlin is colonizing (or recolonizing) areas of the Pacific Northwest and northern Rocky Mountains, as has been documented in the northern Great Plains and the eastern United States (Snyder and Snyder 1991, Warkentin et al. 2005, Rucker 2009).

Our recent sample of nests included all three North American subspecies (three of the Taiga, one of Richardson's, and one with both the Taiga and Black). Our record of a Black Merlin at a nest site in Idaho is unprecedented, though nests of the Black Merlin have been reported from interior sites in British Columbia (Cannings et al. 1987) and Oregon (Gabrielson and Jewett 1940).

Mixed pairs and intergrades of the North American subspecies of the Merlin have been recorded previously: pairings of the Black and Taiga in southwestern British Columbia and of Richardson's and the Taiga Merlin in Montana (Wheeler 2003, Warkentin et al. 2005). Because of Idaho's proximity to the regions occupied by the three North American subspecies, the forests of the Pacific Northwest, northern boreal forests, and prairie parkland, it is perhaps not surprising that all three subspecies would be represented in Idaho's breeding population. If Merlins have any preference for mating with their own subspecies, the mixed-subspecies pairing suggests that Merlins are still uncommon breeders in the region and that mates are limited in northern Idaho.

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