
Observation of a Red-shouldered Hawk on Vancouver Island, British Columbia, during fall migration

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Abstract: The Red-shouldered Hawk (*Buteo lineatus*) is currently undergoing range expansion in western North America. In this paper, we briefly review records of the western subspecies of the Red-shouldered Hawk (*B. l. elegans*) in Oregon, Washington, and British Columbia. We also provide details of a sight record of an adult *elegans* subspecies Red-shouldered Hawk at Rocky Point Bird Observatory during fall migration 2009. Red-shouldered Hawk has occupied suitable habitats year-round in Oregon for over 30 years. In Washington, it has been of annual occurrence since the early 1990's; however, breeding has not been confirmed as of 2010. With the observed northward range expansion of the western subspecies, including documentation of breeding in Oregon and an increase in records from adjacent Washington, observations of this species in British Columbia may increase in frequency. In consideration of the fall 2009 observation, we suggest that the status of this species be elevated to "accidental" in British Columbia.

Keywords: Red-shouldered Hawk, *Buteo lineatus*, British Columbia, range expansion

Introduction

Anthropogenic landscape change has led to population declines in many forest-dwelling bird species in North America over the past 300 years (Mikko and Welsh 1994). Once a common species in eastern North America, Red-shouldered Hawk (*Buteo lineatus*) has not escaped these declines in abundance due to fragmentation and loss of habitat (Bednarz and Dinsmore 1981, Bryant 1986). Many researchers indicate that populations have remained stable over the past 40 years; however, many studies lack statistical resolution, finding both positive and negative non-significant trends in populations (Bednarz 1979, Sharp and Campbell 1982, Bryant 1986, Peterson and Crocoll 1992, Hussell and Brown 1992, Mueller *et al.* 2001, Sauer *et al.* 2005, Bildstein *et al.* 2008, Smith *et al.* 2008a, Smith *et al.* 2008b). Western populations likely suffered local declines due to habitat loss (Katibah 1984, Cohen 1970, McCrary 1981); however, they are currently considered stable and expanding in distribution (Wilbur 1973, Harlow and Bloom 1989, Wheeler 2003).

Northward expansion of the breeding range of both the western and northeastern (*B. l. lineatus*) subspecies has been noted. Current breeding distribution of the western subspecies is described as ranging from northern Baja California to northern California, west of the Sierra Nevada range, with a recent expansion northward into Oregon, eastward

into Arizona, and eastward of the Sierra Nevada range in California. This northward and eastward expansion has occurred in the last four decades, and especially during the last decade (Dykstra *et al.* 2008, Howell and Webb 1995, Wheeler 2003). *Oregon Birds* released a statement in May 1982 indicating that records of the species were no longer needed within the state.

The western subspecies of the Red-shouldered Hawk (*B. l. elegans*) is mostly non-migratory. However, this species regularly disperses multidirectionally after breeding, beginning in August (Carlisle *et al.* 2007, Pers. comm. B.K. Wheeler). At the Bonney Butte raptor monitoring site in northern Oregon, Red-shouldered Hawks are observed regularly in the fall, with a mean passage date (1995-2006) of September 24 (Carlisle *et al.* 2007, Wheeler 2003).

Extralimital observations have been documented in Washington, Idaho, Nevada, and Utah (Henny and Cornely 1985, Wheeler 2003). The first record of a Red-shouldered Hawk in Washington was of one in 1979; the second and third Washington records were from 1988 and 1992 (Wahl *et al.* 2005). Since 1993, the species has been seen annually in Washington, but breeding has not yet been confirmed (Pers. comm. D. R. Paulson, Slater Museum of Natural History, Tacoma, Wash., 2010 Sept.). A review of the eBird (2009) online resource indicates that approximately 40 observations have been recorded from seven locations in western Washington in the past four years. Washington records are predominantly

from the fall and winter (Wheeler 2003). In British Columbia, there are currently only anecdotal records of the Red-shouldered Hawk. Wheeler's Raptors of North America (2003) cites the British Columbia-Yukon Region National Audubon Society Field Notes (Bowling 1998) for a sight record of an individual at Cassidy, Vancouver Island, as the northernmost record of the species. There are no details available for this record. Four unconfirmed B.C. sight records, one recorded pre-1891, and the others between 1892 and 1948, are summarized in Campbell *et al.* (1990); these records all lack sufficient detail and therefore were regarded as "hypothetical."

Published data conclusively indicate that in the past four decades, the western population of Red-shouldered Hawk has undergone a range expansion northward from the historic range. Numbers of birds in western Oregon have significantly increased, with breeding now occurring, and concurrently there has been an increase in sightings from adjacent Washington.

Field Observations

The southern tip of Vancouver Island, B.C., is known to cause fall migrant birds to concentrate, due to the ecological barrier created by the overwater crossing of Juan de Fuca Strait (RPBO 2008). Annually, during fall migration, large groups of raptors kettle over the southern coast of Vancouver Island, building altitude and awaiting favourable weather conditions before embarking on their crossing of the Strait (RPBO unpublished data).

An adult Red-shouldered Hawk was observed while we were conducting migration monitoring at the Rocky Point Bird Observatory (48° 19' 18" N, 123° 32' 48" W) on 17 September 2009 at 11:10 A.M. At the time of observation, the temperature was 17 °C, with light southwest winds at 11 km/h and mainly clear skies. Several field ornithologists (including the authors) observed the individual circling in a kettle of raptors including Turkey Vulture (*Cathartes aura*), Red-tailed Hawk (*Buteo jamaicensis*), Broad-winged Hawk (*Buteo platypterus*), Sharp-shinned Hawk (*Accipiter striatus*) and Cooper's Hawk (*Accipiter cooperii*). The individual was observed for approximately 10 minutes. The characteristic body structure, flight pattern and colour of the Red-shouldered Hawk were clearly visible.

The species has a unique posture among the *Buteo* genus which was very obvious in the field. Wings were held level, while proximal and distal ends dipped down slightly giving a cupped downward appearance. The tail was proportionately slightly longer than that of Red-tailed Hawk. Overall size of the bird was intermediate between Broad-winged Hawk and Red-tailed Hawk. With both of these species present in the kettle of birds, as well as a Cooper's Hawk, the structure of the bird clearly set it apart. The flight pattern was most similar to that of Cooper's Hawk; however, the bird

was very different structurally. It most often exhibited a series of four to five quick, choppy wing beats separated by gliding. The upperside of the bird was checkered light and dark all over; the tail was banded with several dark and light narrow bands. While the striking checkered colour pattern of the upperside could be seen through the flight feathers of the wings and tail when backlit, no patagial bar or distinct marks were visible on the underwing. Light-coloured translucent crescents were visible in the proximal region of the primary flight feathers. As with structure and flight style, the colour patterns exhibited by this bird made it clearly different and easily identifiable.

The individual exhibited characteristics of the western subspecies. This included extensive rufous barring on the breast and underwing coverts. The black and white checkering and barring on rectrices and remiges was distinct and bold. The authors recognize that the absence of photos or measurement information leaves a level of uncertainty in identification to the subspecies level. During the observation, aggressive exchanges were seen between this bird and a Red-tailed Hawk. Common Ravens (*Corvus corax*) were also observed chasing the bird.

Conclusion

The authors have documented an observation of an individual Red-shouldered Hawk at the southern tip of Vancouver Island in fall migration. In light of this observation, we suggest that the status of Red-shouldered Hawk in British Columbia be elevated from "hypothetical" to "accidental". The western subspecies of the Red-shouldered Hawk has undergone a significant northward range expansion in the past several decades, with observations increasing in regularity in the adjacent states. Based on current trends, records of the Red-shouldered Hawk in British Columbia are likely to increase in the near future. The majority of recent records from Washington have occurred in fall and winter, which suggests that this species should especially be looked for in southern British Columbia in these seasons. However, future records may be possible in all seasons. We recommend a continued effort to document future observations of this species in British Columbia.

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