

Swainson's Hawk

Buteo swainsoni

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Disclaimer: The following document was compiled based on a review of information currently available for this species as of November 25, 2005. This document can be used to assist with the identification of this species and to support the development of management recommendations as they relate to forestry activities. For more information on this species, please refer to the reference section or consult with a Species at Risk specialist.

Description

The Swainson's Hawk a slender buteo with a long tail and pointed wings. It is commonly confused with the Red-tailed Hawk. However the Swainson's Hawk has a longer wingspan, more variation in colour, and flies in a slight dihedral (wings are held in the shape of a 'V' during gliding and soaring) pattern^{1, 2}.

The Swainson's Hawk varies in length from 48 to 56 cm and has a wingspan of 119 to 145 cm. An average weight for a male is 0.8 kg, while the average for the female is approximately 1.1kg. The tail is grayish with narrow, dark bands. The last dark band in the tail is the widest and bounded below by a white or buffy band¹.

The most unique feature of the Swainson's Hawk is its variation in colour. When seen from below, light morphs have darker flight feathers than wing-linings. Light morphs also have a dark breast band or bib and include white patches on the forehead, the throat and the belly. The remainder of the body is a dark brown¹.

Dark morphs are less common and appear to be uniformly coloured underneath, except for the tail which has a white patch. Other variations between these two distinct extremes have been observed. Juveniles have a similar underwing pattern as the adult of the same morph and streaking on the underparts with spotting on the breast¹.

The Swainson's Hawk is usually quiet outside of nesting season. The typical call is a shrill, plaintive kr-e-e-e-e-e-e¹. [Click here](#) for more information on this species including a recording of its vocalization.



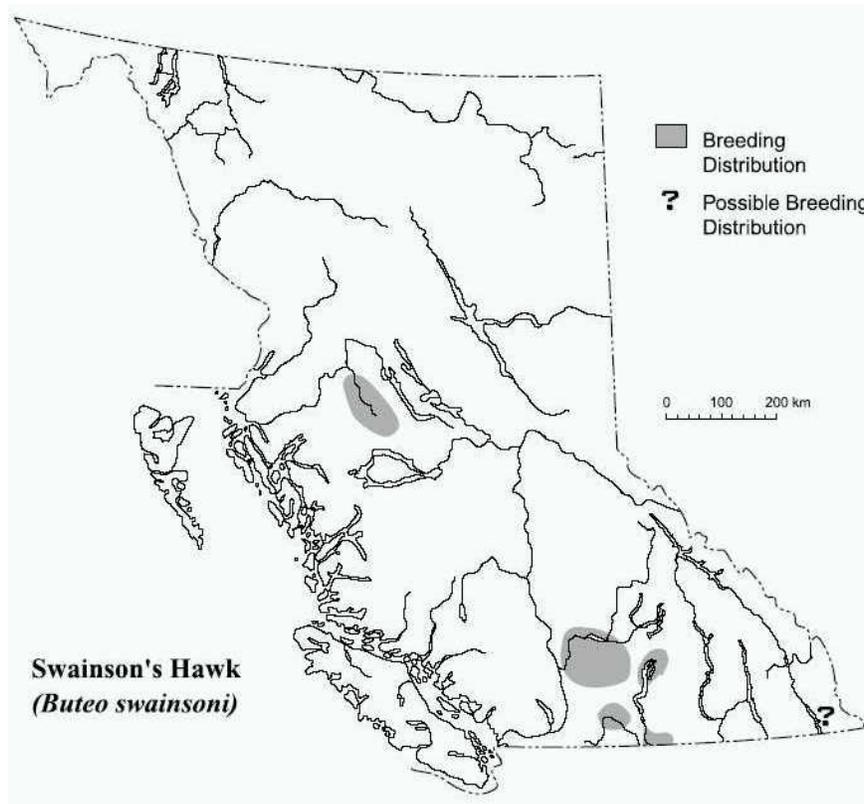
Light Morph Swainson's Hawk.



Photo courtesy of Brian K. Wheeler

Distribution

Swainson's Hawks occur in southern British Columbia in the interior valleys³. The species breeds mainly in the Thompson-Okanagan Plateau, from Princeton and Anarchist Mountain north to the northern Okanagan and Thompson River valleys and also locally in the Bulkley Basin. The majority of records are from the southern interior where breeding is concentrated in the Nicola, the north Okanagan, and the plateau east of Osoyoos⁴.



Distribution of Swainson's Hawk in British Columbia⁴

Forest Districts⁵

- **Cascades Forest District (DCS)**
- **Kamloops Forest District (DKA)**
- Okanagan Shuswap Forest District (DOS)

Biogeoclimatic Units⁵

- BG - Bunchgrass
- IDF - Interior Douglas-fir

Elevation

335 and 975 m, generally in upland areas of foothills and valleys⁴

Map of Known Locations

Swainson's Hawk occurrence data is considered sensitive by the Conservation Data Centre (CDC). Therefore, known location data for this species is not available to the public. Please contact the CDC to request this data at:

Phone: (250) 356-0928

Fax: (250) 387-2733

Biology

Swainson's Hawks have the second longest migration of all raptor species, migrating over 10,000 km every spring and fall between its breeding grounds in North America to its wintering grounds in South America¹.

Reproduction

Swainson's Hawks reach sexual maturity at two years of age. In British Columbia, Swainson's Hawks usually begin nesting and laying eggs from May to June⁶. The female lays two to three eggs which are whitish coloured with brown flecks² and incubation lasts for 34-35 days. The young hawks usually fledge at 42-44 days old (early August) but remain dependent on the parents for 4-4.5 weeks after fledging⁶. Migration occurs from late August to early September⁴.

Foraging

The Swainson's Hawk is an aerial hunter that feeds mainly on small mammals including: voles, deer mice, ground squirrels, and pocket gophers, but also takes large numbers of insects such as grasshoppers. Small birds, bats, rabbits, reptiles, amphibians and muskrats are also taken⁴.

Habitat

Swainson's Hawks prefer open habitats. These include: mixed and short grass grasslands with scattered trees or shrubs for perching; dry grasslands; irrigated meadows; and edges between two habitat types (ecotones)².

Important Habitats and Habitat Features

Habitat use by breeding birds occurs at the landscape scale, rather than microsite as may be the case for many nesting songbirds. Placement of nests is dependant on proximity to foraging habitats that are entirely different from the vegetation selected for

nest sites. The abundance and spatial distribution of riparian forest as well as high-quality foraging habitat such as fallow fields and alfalfa fields are both critical determinants of territory suitability⁷.

Nesting

Swainson's Hawks typically nest in scattered trees in riparian areas, planted shelter belts, wetland borders, abandoned farmyards or prairie bluffs. In British Columbia, they nest in open woodlands with mixed forests and groves adjacent to grasslands, farmlands and wetlands. The nests are usually found near the tops of ponderosa pine, black cottonwood and trembling aspen, 4.6–23 m above the ground. They have been recorded breeding at elevations between 335 to 975m⁴.

Foraging

While Swainson's Hawks nest in open woodlands, the vast majority of home ranges consist of grasslands or treeless agricultural lands used for foraging. The size of territories varies greatly with an average of about 5km² per nest and 1.4-2.4km between nests⁷.

Swainson's Hawks mainly hunt mice, ground squirrels, rabbits, birds, and reptiles during the breeding season, and largely live off insects like grasshoppers, locust, and beetles during the non-breeding season⁶.



Photo courtesy of Cherilyn Drew

Conservation and Management

Status⁵

Provincial Rank: S2B (Provincially Imperiled, breeding population)

BC List: Red (Endangered)

Threats

On a global scale, reductions in population size significantly impact those areas that are considered to be at the limit of a species' range. This is the case for Swainson's Hawks in British Columbia where reductions in the global population have caused a significant impact on the local populations. On a landscape level, population declines in British Columbia have been attributed to loss of grassland habitat to urban sprawl and

agriculture, as well as to current pesticide control which reduces prey abundance Forest encroachment into grasslands (a result of fire suppression) is also a threat⁵.

Management Recommendations

Consult with a Registered Professional Biologist prior to implementing the following management recommendations because certain situations may require custom solutions based on specific site characteristics.

- Budget permitting, develop a habitat model to help identify high value habitat found within your areas of interest. The complexity of the model, and therefore its accuracy, will be dependent on budgetary constraints.
- Identify locations where this species is known to occur: if available, obtain occurrence data from the Conservation Data Centre (<http://srmwww.gov.bc.ca/cdc/>) and if necessary conduct surveys to confirm presence or absence of this species.

In areas where this species is identified:

- Establish a 60 m no harvest buffer zone around nest trees (J. Cooper pers comm.).
- Outside of the no harvest zone, avoid disturbance to active nest sites during the breeding season between April 1 and September 1. In general, avoid harvesting, salvage, blasting (within 1km), road construction, helicopter activity (within 500m) or other prolonged disturbance.
- Maintain mature nest trees such as Ponderosa Pine, Black Cottonwood and Trembling Aspen near foraging habitat located adjacent to the nest site.
- Where possible, avoid road construction through potential Swainson's Hawk hunting habitat (open grasslands and fields).
- Do not use pesticides near nests or in foraging areas.

References

- ¹ Brown, N. 1996. "Swainson's hawk profile." Website: <http://esrp.csustan.edu/>.
- ² Stabler, K. 2000. "*Buteo swainsoni*." Website: http://animaldiversity.ummz.umich.edu/site/accounts/information/Buteo_swainsoni.html.
- ³ Riverside County Integrated Project, Vol 2—The MSHCP Document. 2003. <http://www.rcip.org/mshcpdocs/Vol2/appendixB/Sec-02.Birds/34.SwainsonsHawk.pdf>.
- ⁴ Fraser, D.F., W.L. Harper, S.G. Cannings, and J.M. Cooper. 1999. Rare birds of British Columbia. Wildl. Branch and Resour. Inv. Branch, B.C. Minist. Environ., Lands and Parks, Victoria, BC. 244pp.
- ⁵ BC Conservation Data Center. Website: <http://srmapps.gov.bc.ca/apps/eswp/>.
- ⁶ NatureServe. 2005. NatureServe Explorer: An online encyclopaedia of life [web application]. Version 4.5. NatureServe, Arlington, Virginia. Website: <http://www.natureserve.org/explorer>.
- ⁷ Woodbridge, B. 1998. Swainson's Hawk (*Buteo swainsoni*). In The Riparian Bird Conservation Plan: a strategy for reversing the decline of riparian-associated birds in California. California Partners in Flight. Website: http://www.prbo.org/calpif/htmldocs/riparian_v-2.html.