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# Probable cougar (*Puma concolor*) predation on a Sandhill Crane (*Antigone canadensis*)

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**Abstract:** A probable predation by a cougar on a Sandhill Crane was observed in 2014 on northern Vancouver Island. Birds are seldom consumed by wild cougar and this is likely the first record of predation on a Sandhill Crane.

**Key words:** Sandhill Crane, *Antigone canadensis*, cougar, *Puma concolor*, predation, Vancouver Island

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## Introduction

The Sandhill Crane (*Antigone canadensis*) is a very large, long-legged and large-winged bird that inhabits bogs, wetlands and grasslands. Adults can weigh 4–5 kg and measure more than a metre in length, depending on subspecies. In coastal British Columbia, about 3,500 migrant Sandhill Cranes pass through during spring and fall migrations, with occasional stopovers (Campbell *et al.* 1990). As many as 1,500 Sandhill Cranes are thought to summer in coastal British Columbia (Campbell *et al.* 1990). A small breeding population exists in sheet bogs on northern Vancouver Island (Cooper 1996, 2006), where cranes may be present from mid April to September.

The cougar (*Puma concolor*) is a secretive and opportunistic apex predator that is distributed throughout Vancouver Island, much of southern British Columbia, and large parts of western North and South America. Cougars prey mainly on small to large mammals, occasionally on birds, insects, fish and domestic animals, including horses, sheep, cats, and dogs (Naughton 2014). Large mammals such as deer, elk, and sheep are favoured prey (Cowan and Guiguet 1973; Ross *et al.* 1993). The cougar is usually an ambush predator, leaping onto the backs of prey, and killing them with a powerful bite to the neck. The use of carrion as food is rarely reported, although carcasses of large mammals have been documented to be used as food (Bauer *et al.* 2005) and scavenging of baits placed by trappers occasionally attracts cougars (Knopff *et al.* 2010). Predation on birds occurs very occasionally with species such as Ruffed Grouse (*Bonasa*

*umbellus*), Sooty Grouse (*Dendragapus fuliginosus*), California Quail (*Callipepla californica*), Canada Goose (*Branta canadensis*), Mourning Dove (*Zenaida macroura*), Red-tailed Hawk (*Buteo jamaicensis*), Great Horned Owl (*Bubo virginianus*), Red-naped Sapsucker (*Sphyrapicus nuchalis*), other woodpeckers, and bluebirds (*Sialia* sp.) being documented (Elbroch *et al.* 2013; Ewanyk 2020).

## Field Observations

In 2014, during surveys by helicopter for nesting Sandhill Cranes on northern Vancouver Island, a cougar was spotted in a sparsely treed bog. The animal quickly bounded into a small copse of coniferous trees. We circled around and hovered over the copse and viewed a large adult cougar lying beside what looked like a bird carcass (Figure 1). We noted a large wing and speculated that the cougar was on a Sandhill Crane or Canada Goose kill. The cougar left the area moments later; we then landed the helicopter and inspected the site. A partial wing, feathers, bones and other scraps were present. We retrieved a partially intact wing and identified the species as a Sandhill Crane.

## Discussion

It is impossible to know for certain if the cougar had preyed upon a live Sandhill Crane or if it was scavenging a



Figure 1. Adult cougar (*Puma concolor*) holding the wing of a Sandhill Crane. A few feathers, meat scraps and bone fragments were also present. 20 May 2014.

found carcass, but I suspect the former. It appeared that the cougar left the cover of trees on approach of the helicopter, but then returned to the carcass and appeared to guard the remains as we hovered over it. The fresh condition of meat remnants suggested a recent predation event. Preferred prey such as Roosevelt elk (*Cervus canadensis roosevelti*) or black-tailed deer (*Odocoileus hemionus columbianus*) were extremely scarce in the bog habitat of the study area, with only a few individuals and sets of tracks observed during several years of wildlife studies conducted by the author and others from 2004–2014 (J. Cooper unpublished data). As an opportunistic predator, it is reasonable to suggest the cougar captured a live Sandhill Crane.

At the time, the Sandhill Crane was a species of conservation concern in British Columbia, especially in the B.C. Lower Mainland and Vancouver Island. In the 1990s, the very small (4–8 pairs) breeding population in the B.C. Lower Mainland and the presumed very small, but undocumented breeding population on Vancouver Island, resulted in those populations being designated as a Blue-listed (Vulnerable) species by the B.C. Government (Cooper 1996; Blood and Backhouse 1999), with the Lower Mainland population moving to the Red List (threatened or endangered) for a few years. After several years of surveys for nesting Sandhill Cranes on northern Vancouver Island, where several crane nests were found (Cooper 2006; J. Cooper unpublished data), and numbers of nests found during work on the B.C. Breeding Bird Atlas (Hearne 2015), the species was eventually assessed only at the provincial level and down-listed to the Yellow List (population is secure) (see B.C. Conservation Data Centre 2018).

## Conclusion

The observation reported here is likely the first probable case of a cougar preying upon a Sandhill Crane. Given the small numbers of breeding Sandhill Cranes on northern Vancouver Island, it is possible that predation by cougars, if it occurred regularly, could negatively affect annual productivity of the crane population.

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