## **RUBY-THROATED** HUMMINGBIRD NESTS NEAR EDENWOLD, SK

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Ruby-throated Hummingbirds (Archilochus colubris; hereafter ruby-throats) are considered a fairly common summer resident in many parts of Saskatchewan but large gaps exist in our basic life history knowledge of this species in the province.<sup>1</sup> Here I present data from nine nesting attempts on our farm near Edenwold, Saskatchewan (50° 39' 31" N, 104° 17' 58" W) by ruby-throats between 2015-2020. The farmyard is situated on the southern edge of the Aspen Parkland eco-region and is surrounded by cropland and tame pastureland, with numerous small wetlands. The yard

site is treed with large spruce trees (*Picea sp*), hybrid poplars (*Populus sp*) and Trembling Aspen (*Populus tremuloides*).

Nests were located opportunistically. Generally, the presence of a female rubythroat in a specific location twice suggested a nest was nearby and a more thorough search was then conducted. I did not keep many records on individual nest attempts, mostly taking photos as documentation, but I did observe the nests regularly once they were discovered.

Four out of nine nest attempts successfully fledged seven young (Table 1), while another four nests failed and one nest was too high to determine the outcome. Reasons for nest failure are unknown, although



One of two Ruby-throated Hummingbird chicks in the Net 6 nest on 5 August 2020. The other chick is behind the visible nestling. Photo credit: Jared Clarke.

the observation of a damaged nest suggests a predation event may have occurred. No dead chicks or eggs were ever found in or below the nest. Eastern Kingbirds and Baltimore Orioles have been documented killing adult hummingbirds, while



The Oak Tree Row nest with two Ruby-throated Hummingbird nestlings on 1 August 2017. Photo credit: Jared Clarke.

YEAR	NEST NAME	TREE SPECIES	HEIGHT (M)	OBSERVATION DATE	NEST CONTENTS	NOTES	NEST OUTCOME
2020	Net 5	Spruce	2.2	20 June 26 June	Unknown Empty	Female observed sitting on nest. No sign of female - nest damaged and empty.	Failed
2020	Chicken Coop	Spruce	8.8	4 July	Unknown	Female observed flushing from nest. This nest was too high to make any observations on.	Unknown
2020	Goat Path	Spruce	2.7	4 July 3 August 5 August 12 August	Unknown 1 chick 1 chick Empty	Female sitting on nest. Photo taken. Photo taken. Nest empty. Chick old enough to have fledged.	Successful
2020	Net 6 Oak	Oak	3.6	5 July 5 August 12 August	Unknown 2 chicks Empty	Female observed flushing from nest. Photo taken. Nest empty. Chick old enough to have fledged.	Successful
2018	Net 6	Spruce	2.9	16 July	Empty	Nest looks new, but damaged. No females observed near it.	Failed
2018	Storage Shed	Trembling Aspen	2.9	21 May 26 May	N/A Unknown	Female observed nest building. Nest just beginning. Female sitting on nest. Nest failed sometime later.	Failed
2017	Oak Tree Row	Oak	2.4	12 July 31 July	2 eggs 2 chicks	Observed female flushing from nest. Photo taken.	Successful
2016	DU Quarter	Trembling Aspen	Unknown	13 June 19 June	Unknown	Exact same spot as 2015. Female seen on nest. Nest appears damaged. No adult present.	Failed
2015	DU Quarter	Trembling Aspen	Unknown	15 June 6 July 10 July	Unknown 2 chicks 2 chicks	Female observed on nest. Photo taken. Very large - close to fledging.	Successful

a Blue Jay has been documented depredating nestlings, so many avian species likely pose a threat to rubythroat eggs and nestlings.<sup>2</sup>

Nests were located in three tree species; Trembling Aspen (n= 3), Burr Oak (n=2, *Quercus macrocarpa*) and Blue Spruce (n= 4, *Picea pungens*). The four instances of nests in spruce trees is interesting, as the ruby-throat account in *Birds of Saskatchewan* does not list any known nests occurring in spruce out of 23 records (one in a Tamarack is noted). Nests were generally not reused as nests deteriorate to almost nothing over the winter, however, the DU Quarter nest was rebuilt in 2016 in the exact same spot as it was in 2015.

Nest height was measured for seven of the nine nests and ranged from 2.4 to 8.8 m, with an average of 3.6 m (Table 1). However, six out of seven nests were between 2.4 and 3.6 m. It is possible the mean height is biased low, as it is easier to detect nests at lower heights than higher as females are more likely to flush due to my proximity. In 2020, when three nests were active at the same time, the distance between the closest nests was 60 m and 82 m.

It takes approximately 36-44 days for a female to initiate a nest and fledge young (nest building 6-10 days, incubation 12-14, nestlings 18-20).<sup>2</sup> Ruby-throats are known to raise two broods of young in a year in their more southern range.<sup>2</sup> However, given the average spring arrival of this species in Saskatchewan of mid to late May and subsequent fall migration departure by the first week of September, two broods would be challenging to complete here. Most dates of nest initiation and fledging are lacking in my data, but in one instance, a female was observed nest building on 21 May 2018 (the Storage Shed nest). This would place fledging around the end of June to beginning of July. Females will continue to feed young 4-7 days post fledging.<sup>2</sup> It is thus possible for an early nester like this to double-brood, although it would be very tight to fit in a second brood before migration.

One of the four successful nests did fledge in mid-July, while the other three fledged in early August. These three August nests would have been initiated in late-June and could have been renesting attempts after the first nest failed. It is also possible the females delayed nest initiation until June.

One observation of note was of the nest building by the Storage Shed nest female (Table 1). She was observed flying back and forth between a willow tree (*Salix sp*) collecting white fuzz from the tree. On returning to her nest the bird would scrape her bill from the base of her bill to the tip on the side of the nest to remove the fuzz and then stamp on the fuzz to pack it down.

1. Smith AR, Houston CS, and Roy, JF editors (2019) Birds of Saskatchewan. Nature Saskatchewan, Regina.

2. Weidensaul S, Robinson TR, Sargent RR, Sargent MB, Zenzal TJ (2020) Ruby-throated Hummingbird (*Archilochus colubris*), version 1.0. In Birds of the World (P. G. Rodewald, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA.