Swallows

Tree Swallow *Tachycineta bicolor*

Ornithological History: Mailliard (1932) found Tree Swallow present on 1 May 1928 and *common* in all suitable places. Dead trees with woodpecker cavities in the bottomlands provided nesting sites.

Munro (1950) recorded Tree Swallow as a *common* summer visitant. He observed 50 individuals circling a flood pond on 20 August 1947, but considered these to be transients.

Butler et al. (1986) listed Tree Swallow as *common* with most sightings in West Creston from early March to late August. Nesting was observed in May and June.

Creston Valley Status: A *very common* to *very abundant* migrant; breeds.

Occurrence: Tree Swallow is widely distributed in open landscapes, often near water. It is mainly found in the lowlands but is seen occasionally at higher elevations at Boundary Lake and Bridal Lake where pairs may nest in tree cavities along lakeshores. Swallows are most commonly observed as they forage over fields, marshes, lakes, and rivers. Sightings of 1 to 10 birds account for 75% of all records while flocks of 30 or more birds account for 12% of records.

Early spring arrivals may trickle in during the first two weeks of March. The earliest record is on 6 March 2002 when I saw two birds feeding at the south end of Duck Lake. Migrant flocks are recorded from late March into the third week of May. Often the passage continues when local birds are on territory and have started nesting. On 17 April 2007, I recorded 530 birds foraging over the wetlands at Corn Creek Marsh for the highest spring count.

During the breeding season, Tree Swallows are most visible at Corn Creek Marsh where an established nest box route attracts many nesting pairs. They are also frequently seen in riparian stands of black cottonwoods where natural nesting cavities abound. Large feeding flocks of 100 or more adults and juveniles congregate from late June through mid-July. For example, on 13 July 2006, a flock of 200 birds captured winged insects during a major hatch at Duck Lake. Mid-July may also be the start of southbound passage which continues through late August. The largest migrant flock was an estimated 1,500 birds foraging over a hayfield and perched on utility wires along Channel Road on 26 July 1997 (pers. obs.).

There are few sightings for the autumn period when only one or two late migrants might be recorded. One exception was a flock of about 75 birds which I observed flying low over Corn Creek Marsh on 4 October 1998. This is also the latest autumn record.

Tree Swallows arrive each spring to the Creston valley from their wintering grounds in the southern United States and Mexico.

Seasonal Occurrence Records
Spring – 2,387 records from 6 March to 31 May (1 to 530 birds)
Summer – 2,291 records from 1 June to 31 August (1 to 1,500 birds)
Autumn – 6 records from 2 to 27 September and on 4 October (1 to 75 birds)
Winter – no records

Early in the season when nest sites are being selected, it is common to witness squabbles over a nest box between rival males. In this photo, four male Tree Swallows are vying for possession of a nesting box while another has already claimed the box. *Photo by Marcia Long.*

Breeding: Tree Swallow is a cavity nester that readily uses nest boxes as well as natural tree cavities and crevices. Often there is aggressive competition for nesting sites among males. Keen volunteers have monitored and maintained nest box routes in parts of the valley. Each season presents different challenges: cold and/or wet weather, difficult access due to wetland flooding, blowflies on nestlings, paper wasps in boxes, vandalism of boxes by humans, bears, and raccoons, and the loss of eggs and/or nestlings from unknown causes. These dedicated volunteers were motivated by the success of having young swallows fledge each season.

According to data collected from Creston nest box routes, Tree Swallows build grass-based nests lined with waterfowl feathers, usually white. Nest building has been observed from 4 April to 29 June, although a second, later nest may be built over the first one. It is common to find a completed but empty nest two to three weeks prior to egg-laying. Occasionally dead adults are found in nest boxes early in the season. Nests with eggs have been recorded between 22 April and 29 July (including second nestings). Clutch size ranged from 1 to 8 eggs. Nestlings have been observed between 12 May and 3 August with brood size ranging from 1 to 7 young. Fledging dates have ranged from 8 June to 1 August. Fledged young being fed by adults was recorded from 21 June to 12 July.

In British Columbia, clutch size is typically 4 to 6 eggs and brood size 4 to 5 young.

Notable breeding activity:

From 1999 to 2017, a combined total of 3,193 young Tree Swallows have fledged from three nest box routes. A synopsis of these routes follows.

Vic Cousineau. Vic monitored a nest box route in Lister from 1999 to 2010. He started with 10 boxes and built the route up to 37. They were mounted on utility poles and fenceposts that bordered agricultural lands,

mainly hayfields. A small stream and water hazards at a nearby golf course were the only water bodies in the area. The nest boxes were installed to attract bluebirds, but Vic encountered a variety of occupants. Tree Swallows were the main residents; Violet-green Swallow, Black-capped Chickadee, Western Bluebird, Mountain Bluebird, House Sparrow, Deer Mouse, Red Squirrel, and Northern Flying Squirrel also utilized the boxes.

During wet periods in early to mid-June, when nestlings were at a critical stage of development, it was frequently challenging for adults to find insects to feed their broods. For example, in 2003, although 53 young successfully fledged, another 50 nestlings were found dead.

On 6 July 2005, for Box #30, Vic noted: *one chick had deformed eye (closed and swollen). I held him to observe and let him fledge* and on 20 June 2007 for Box #21, he wrote: *took 2 dead birds out, cleaned blowflies off the 3 live ones, cleaned the nest and put them back in the nest.* A week later, the three nestlings had died.

In 1999, at Box #6, adjacent to the golf course on Mallory Road, a completed nest was in place from 17 to 28 May before the first egg appeared. A full clutch of 7 eggs was present on 7 June and by 26 June there were 7 nestlings. All fledged by 17 July.

During 12 years of monitoring his nest box route, Vic documented details on 272 Tree Swallow nestings where 744 young fledged, for an average of 62 fledglings per year.

Lorraine Scott and Sharon Laughlin. Lorraine and Sharon established a nest box route in 2006 as part of a stewardship project with the Yaquan Nukiy Wetlands Society. An average of 31 boxes was monitored annually on Lower Kootenay First Nations land at the south end of the valley. The habitat is an interfacing of crop fields, pastures, and wetlands. All boxes were mounted on wooden fenceposts. Some highlights follow.

On 18 May 2006, 6 eggs were in Box #16 and by 27 May, all had hatched. On the 15 June visit, dead

"Scottie" doing nest box maintenance. *Photo by Sharon Laughlin.*

Nestled in waterfowl feathers, a clutch of Tree Swallow eggs will take about 15 days to hatch.

chicks were found on the ground as the bottom of the box had been torn off. The nest box was repaired and attracted a pair of swallows. On 5 July a clutch of 5 eggs was present. A single infertile egg and 4 nestlings were observed on 13 July but only 3 chicks survived to fledging. It was determined that grazing cattle were rubbing the boxes and knocking them off the fenceposts. At the end of the 2006 season, all boxes were mounted higher to solve this problem.

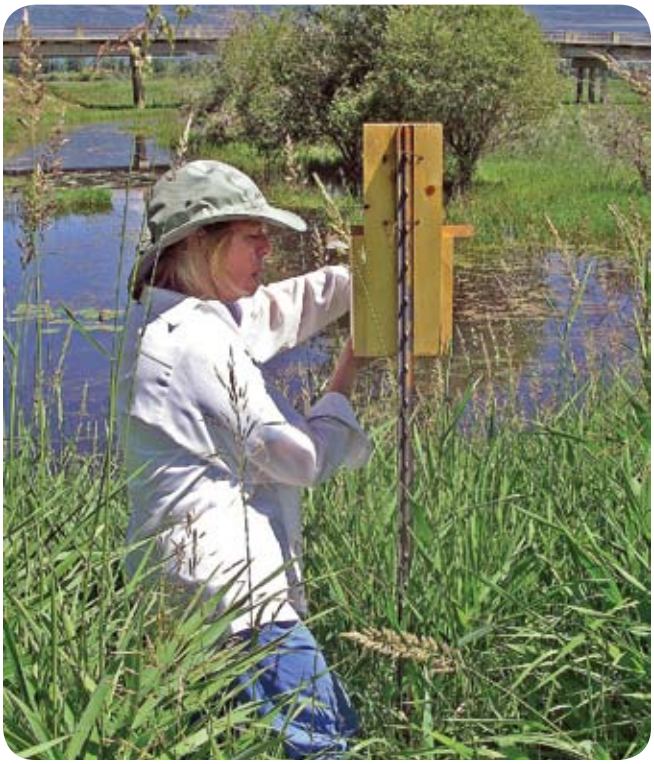
Often when cleaning out nest boxes in the autumn, Lorraine and Sharon found new occupants. On 13 October 2006, a Deer Mouse and her newborns were living in Box #17 with an abundant supply of seeds.

In 2013, wasp nests were found in 10 boxes and six of those were not used by swallows that season.

During 11 years from 2006 to 2016, Lorraine and Sharon recorded details for 297 Tree Swallow nests. A total of 808 young fledged for an average of 73 fledglings per year. In 2017, during the incubation period, the boxes were destroyed by a bear and my dedicated friends decided not to continue with this route.

Carla Ahern and Pat Huet. Carla and Pat coordinated a consistent approach to monitoring the longest nest box trail in the valley, located at Corn Creek Marsh within the Wildlife Management Area. Seasonal naturalists from the Wildlife Interpretation Centre assisted with the monitoring program. This route has an historical component, as 180 boxes were erected around the marshland trails in 1996 as part of a doctoral dissertation on *Metabolism and Performance – A Study of Provisioning in Tree Swallows* (Burness 2000). Many of the boxes were removed once the study was completed, but due to public interest a number of them were retained.

Most old boxes have now been replaced. In 2008, a woodworking class from JL Crowe Secondary School in Trail donated 44 boxes. The route started with 74 boxes (old and new), and currently there are 68 mounted on metal posts along the wetland trails. Tree Swallows are the sole occupants.



Pat Huet checking nest contents in one of the new boxes. *Photo by Carla Ahern.*

On 29 May 2009, a large clutch of 8 eggs was present in Box #1 and all but one had hatched by 12 June. On 25 June, 7 nestlings were well-feathered and close to fledging and when checked again, a single infertile egg remained.

In 2011, 4 nestlings hatched in Box #66 but did not survive, likely due to a paper nest built by vespid wasps under the box.

With extensive flooding of the wetlands in 2012, the seasonal naturalists at the Wildlife Centre had to check nesting activity by canoe. It was a banner year for the swallows as 62 of the 68 boxes were occupied and 222 young fledged. As impressive as 2012 was, 2013 proved to be the most productive year with 276 young fledging.

Over the 10 years from 2008 to 2017, details were documented on a total of 627 Tree Swallow nests. These nestings fledged 1,641 young for an average of 164 fledglings per year. In 2018, the route was monitored by Catherine Villeneuve to complete her studies on Tree Swallow for her Master's Degree in Biological Sciences at Simon Fraser University.

Databases: Occurrence records (4,684) and breeding records (2,026)

Habitat: During spring migration, flocks of Tree Swallows forage over Duck Lake, Kootenay River, and the many wetlands throughout Kootenay Flats. In autumn, although Duck Lake is still a popular site, many flocks search for aerial insects over agricultural fields. Breeding habitat includes natural cavities and crevices in riparian deciduous trees or stumps near water as well as strategically placed nest boxes.

Comments: A Tree Swallow banded at Creston on 23 June 1987 was recovered 3 months later near Yuma, Arizona (Campbell et al. 1997).

Nest Box Notes: During the 2017 season at one of the CVWMA nest boxes, Jillian Bjarnason was startled when a small brown weasel looked, then leapt out of the hole, and dashed away.

This paper nest was home to a colony of social vespid wasps in 2011. Two of the CVWMA naturalists, Jenny Wallace and Stephanie McDowell checked the box on 6 July and noticed the start of a nest underneath. Jenny attempted to open the box and was stung.