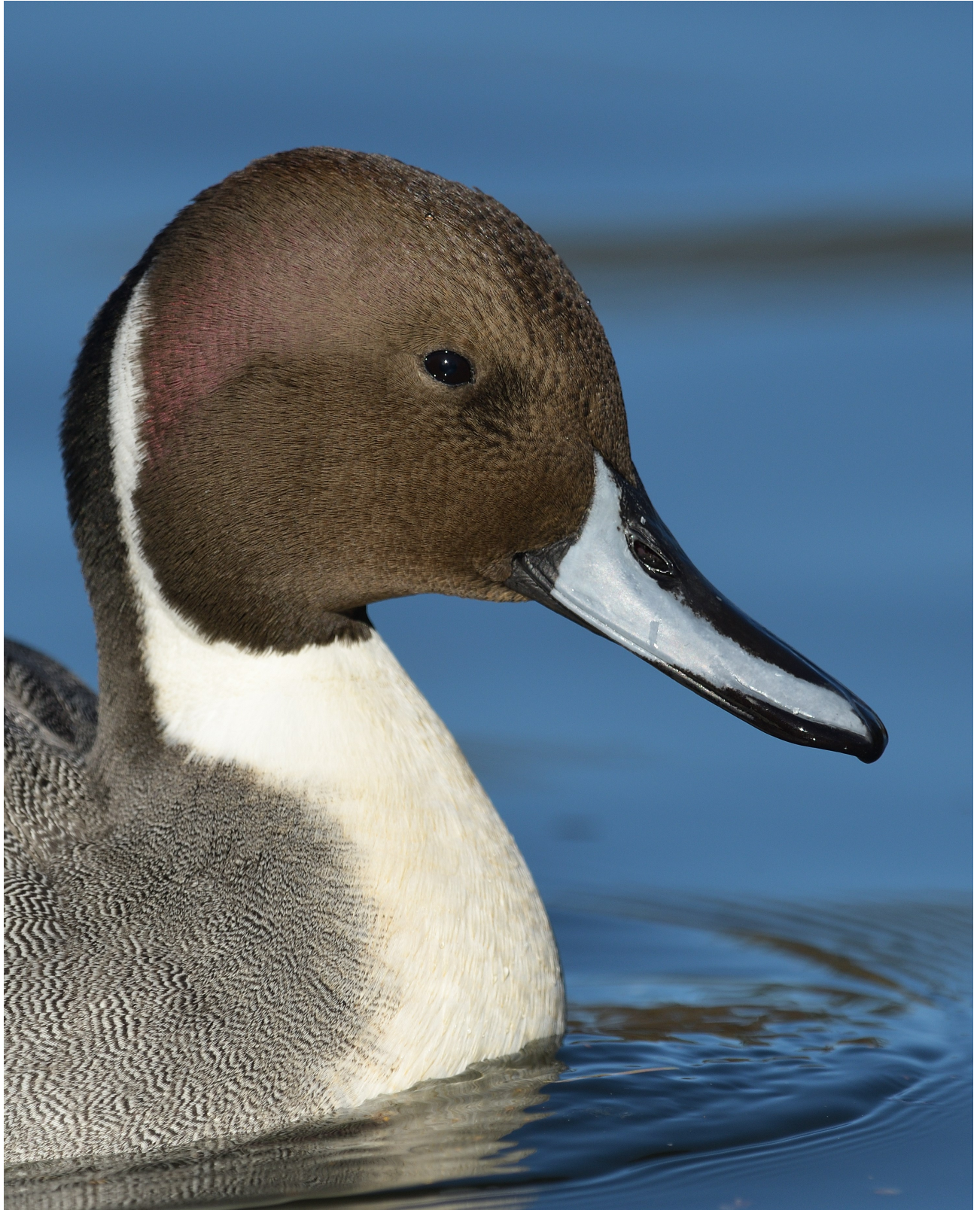


Marshnotes[®]



**BRITISH COLUMBIA WATERFOWL SOCIETY
SPRING 2020**

BRITISH COLUMBIA WATERFOWL SOCIETY

Managers of the George C. Reifel Migratory Bird Sanctuary Since 1963

dedicated to the conservation and study of migratory waterfowl

Marshnotes:

Editor: Kathleen Fry

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Submissions, articles, photographs and letters for publication may be sent to the above email and postal addresses marked for attention of Marshnotes Editor. Please include your telephone number or email and the Editor will contact you.

DEADLINE FOR THE NEXT ISSUE OF MARSHNOTES

July 15th, 2020



*Planning a visit, but not sure if we are really busy?
We now send out a tweet from @ReifelSanctuary
when it looks like parking is going to be an issue.
That account is often inactive if not needed for this.*

Executive:

| | |
|-----------------|-------------------|
| President: | Jack Bates |
| Vice President: | George C. Reifel |
| Treasurer: | James A. Morrison |
| Secretary: | Barney W. Reifel |

Directors:

Jack Bates
F. Wayne Diakow
Kevin Husband
Mark McDonald
James A. Morrison
Gerald S. Oyen
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Barney W. Reifel
George C. Reifel
Liam Reifel
Kenneth I. Thompson

Committee Chairs:

| | |
|---------------------------|------------------|
| Buildings/ Grounds: | Barney W. Reifel |
| Community Relations: | George C. Reifel |
| Interpretation/Education: | F. Wayne Diakow |
| Outreach: | George C. Reifel |

Staff:

| | |
|-----------------------|-----------------------------------|
| Sanctuary Manager: | Kathleen Fry |
| Gift Shop Manager: | Varri Raffan |
| Reception: | Susan Norris |
| Biologist: | Dan Dixon |
| Maintenance: | Dave McClue |
| Part-time Assistants: | Cynthia Crumley Kristina Breit |

Hours of Operation: 9:00 a.m. to 4.00 p.m. The Sanctuary is wheelchair accessible.

| | |
|---------------------|---|
| Admission: Members: | Free |
| Non-Members: | Adults: \$5 Children (2-14 yrs) and Seniors (60 years +): \$3 |
| School Groups: | Special discounts available; pre-booking is required. |

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COVID 19 (Coronavirus) Sanctuary Closure In Effect

Dear Sanctuary Visitors,

After careful consideration, our Board of Directors made the decision to close the Sanctuary until further notice on March 15th, 2020.

We regret the impact on our visitors who have anticipated a trip to the Sanctuary this spring. However, the situation with COVID-19 is evolving rapidly and our top priority is the safety of our visitors and staff. Due to the high risk associated with social and physical contact, the Sanctuary has a responsibility to slow the potential spread of the virus due to the high number of visitors that generally visit here. A typical busy weekend day all throughout the year may involve 1,000 visitors or more.

We understand the closure will have a significant impact on our visitors.

The continuation of this closure is being re-assessed regularly but we anticipate the Sanctuary will remain closed well into May. Visitors can also anticipate restricted hours of operation and a limit on the number of visitors that will be permitted access to the Sanctuary at any one time. Please check our Twitter account @ReifelSanctuary or our website www.reifelbirdsanctuary.com for updates on anticipated re-opening dates.

Thank you for your understanding and our apologies for inconvenience as we navigate these challenging times.

Sanctuary Locations Map

About Our Covers

Front Cover: Northern Pintail

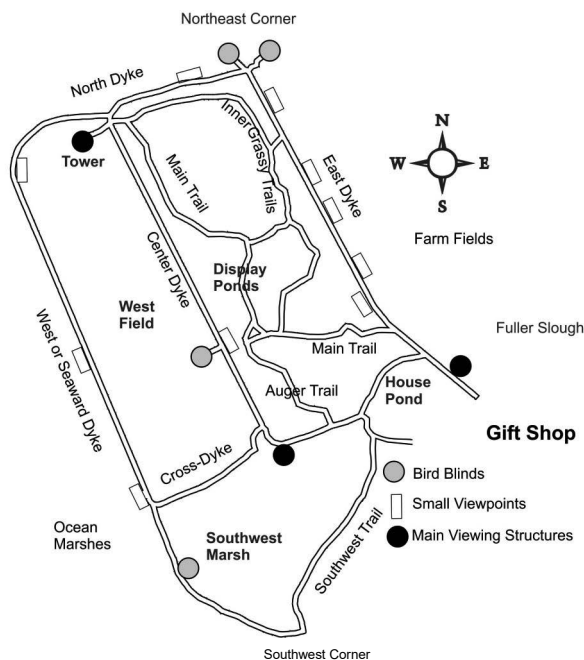
© Jim Martin

Back Cover: Male Bushtit

© Sandy Paiement

Editor's Note:

Please refer to the location map to the right to locate place names used in the Marshnotes articles.



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Varri Raffan
Kathleen Fry
Kathleen Fry

Varri Raffan
Varri Raffan

Manager's Report

Every year, we track visitor numbers and compare statistics from one year to the next. Winter visitor numbers are quite variable each year and dependent upon the weather. This year, in January, a month with very cold winds, some short closures due to snow, and then a week or so of heavy rains, we had only 4,363 visitors compared to the nearly 8,000 of 2019. Visits in February 2020 were the opposite, with a much higher than usual 9,490 visitors out to see owls in spite of a short snow closure at the beginning of the month. In March, of course, we only had visitors for the first half of the month (5,475) before the Sanctuary was closed on March 15th because of the Coronavirus concerns pertaining to large crowds anticipated during Spring Break. March numbers in recent years have ranged from 6,693 (2017) to 15,862 (2019), so it is hard to predict what the month would have tracked should we have remained open.

Some long-term members have noted that we seem to have more snow closures than in past years. This is correct, but as we had over 100,000 visitors last year, a large component of new customers were unprepared for driving or walking conditions during winter weather. We do not clear the many kilometers of nature trails. Our driveway and fronting roads can be very icy and it takes a while to clear the parking lot to accommodate vehicles. Just to cover off public safety on trails and to reduce the potential for car accidents we have been closing during significant snow events.

One of the biggest visitor draws at this time of year are owls. We monitor numbers and locations of all owls as best we can on a daily basis at this time of year as it helps us to document and protect the most popular roost sites. The East Dyke is a good spot to look, particularly in the northeast corner. In the January to March period, one or two Northern Saw-whet Owls

were seen nearly every day, with three seen on January 19th, February 1st and 10th, and March 3rd. Long-eared Owl sightings were very infrequent (January 13th, 18th and 19th). The pair of Great Horned Owls roosted regularly together but out of sight of public trails for all of January and up to the 19th of February, and are presumably now nesting somewhere nearby in the woodlots of Alaksen National Wildlife Area. Short-eared Owls were seen offshore in January and February, hunting in with the Northern Harriers. Barred Owl sightings occurred regularly over the three months, and the species is likely nesting locally.

In February, staff and volunteers carried out nest box maintenance in between hosting visitors, bird surveys and trail maintenance. Most Wood Duck boxes are checked for last year's nesting success and provided with new wood shavings unless they have been damaged somehow, in which case they are replaced. February is a good month to do this, as the Wood Ducks are just starting to check out potential nest sites and are up in the trees but are not actually on nests yet.

We try not to disrupt the larger Barn Owl boxes unnecessarily. This owl species tends to flush if people are too close, and can be nesting early in the season. The need to replenish nest materials is reduced because the pellets from previous nesting years make key nesting materials for these birds. There are various dramas associated with these boxes every year, though. An owl box that has been used for years along the back road is probably not in use this year as a pair of Bald Eagles built a big stick nest only 5 meters or so above it in the same tree this spring. Another box overlooking Fuller Slough had a family of Raccoons using it in March. An older box in our works yard is missing part of its roof and was used by squirrels over the winter. It was then taken over by the Barn Owls in mid-February. There is still a big wad of grass from the squirrel nest partly blocking the entrance hole but there is a hole in the roof that the owls now use as a door. We have not noticed any action in the box over by the tower, but one year it had Raccoons and a pair of Wood Ducks checking it out.

"If you build it, something will want to live in it!"

This is the time of year we also look over our bird survey results. These counts have been done fairly consistently since 2013 every two weeks to detect overall trends in numbers of species. Each survey consists of a complete count of all birds seen in the Sanctuary.

For example, although we see 30 waterfowl species wintering here each year, half of these are represented by only one or two individual birds. The bulk of wintering duck numbers come from species listed in the following table, along with peak numbers seen



Raccoons at the Owl Box

Photo: Kristina Breit

during surveys over this winter between September 2019 and April 2020. Most waterfowl, for example, tend to follow the pattern seen in Mallards, with peaks in fall and spring as waves of migrants pass through, then big peaks in numbers mid-winter when waterfowl are all concentrated out in the foreshore marshes of the Sanctuary during the coldest periods. In March most waterfowl species migrate out for their summer nesting areas.

Table 1. Common Waterfowl September 2019 to March 2020 and Peak Numbers Recorded During Surveys

| <i>Species</i> | <i>Peak #</i> | <i>Date</i> |
|------------------------|---------------|--------------|
| Snow Geese | 17,500 | December 21 |
| Trumpeter Swan | 273 | December 7 |
| Mallard | 22,025 | January 20 |
| Wood Duck | 79 | September 14 |
| American Wigeon | 3,768 | March 14 |
| Northern Gadwall | 197 | September 28 |
| Northern Pintail | 17,381 | December 21 |
| Green-winged Teal | 321 | November 23 |
| Ring-necked Duck | 26 | November 9 |
| Greater / Lesser Scaup | 28 | March 28 |
| Bufflehead | 40 | February 29 |
| Hooded Merganser | 57 | November 9 |
| Common Merganser | 27 | January 4 |
| Red-breasted Merganser | 17 | April 11 |

Canada Geese and Cackling Geese are exceptions. Canada Goose peak numbers for the year (800+) are usually in late July or August just as they are finishing their annual moult after nesting locally. Numbers over the winter are low. Cackling Geese pass through here in the fall and the spring, with matching peaks in each season of 200 to 250 birds.

Wood Ducks number were highest in September (79 birds) but we have noticed a decline in winter and early spring numbers for this species in the past two years. Until recently at least 40 birds (20 pairs) have been present in spring and have used our duck boxes. In the last couple of years, however, we have seen a lot of predation of both the birds themselves and the nests, with relatively few broods produced. Surveys this March and April only show a high count of 27 Wood ducks, so we may need to protect sites from predators a bit better.

In general, during the first three months of the year, there are many predators exploring the Sanctuary. Mink are common, and even if ponds are frozen you are likely to see these small dark brown weasels out chasing ducks. In the spring, Mink and Raccoon find many of our ducks nests, as they are both good swimmers and can access most shoreline areas and climb trees to explore cavities and nest boxes. Otters visit from the river and foreshore, and often feed on the carp in the big sloughs (Fuller, Robertson and Ewen Sloughs).

Spring is here now according to the birds. Canada Geese paired up in early March and we saw our first Goose egg on March 26th. Yes, Daffy and Dilly have been into the daffodils again to make a nest in the garden in front of the Museum door.

Photo: Kathleen Fry



Sandhill Cranes wintering in the Fraser Delta tend to congregate in the Sanctuary in mid-winter. In January, particularly when the ponds were all frozen, we had a continuation of some of the high numbers (17) seen in December. In February, most of these departed, leaving just our resident pair here with their 2018 offspring "Louie" and two regular associates, plus a few extras off and on. By early February, our pair began courtship dances and staking, and by the end of February, they had chased out all extra cranes except Louie who then became the target of their territorial displays and aggression off and on for the next month. Cranes do seem to take the time to show even grown up young cranes how to do certain aspects of courtship, and still respond to alarm calls apparently even when the young are almost two years old. However, as the young cranes get closer to sexual maturity, they are also likely perceived more as a threat to a nesting territory. Louie turns 2 years old in June, and will not be welcome near this year's nest.

Text: Kathleen Fry, R.P. Bio,
Sanctuary Manager



Mink

Photo: Jen Gfeller

A Month Behind Closed Gates



Parking Lot



Viewing Platform ramp



Northern Saw-whet Owl



East Dyke trail edge

On March 15th 2020, we spent most of the day dealing with about 1,000 visitors on a very cold sunny day, informing as many of them as we could that we would be closing the gates to the public at the end of the day for an unknown period because of the perceived problems associated with the Coronavirus pandemic and large crowds visiting here. It has now been more than a month without visitors, so here is a brief update of staff and volunteer activities behind the closed gates.

On the first day of the closure staff were here and spent most of the day cleaning up from the day before and sanitizing washrooms, office equipment and workspaces, then we began to work on a number of projects. One of the big tasks was the re-surfacing of the parking lot. The parking lot itself is a big sand fill area, and years ago, a layer of river cobbles and fine sediments were laid over the sand to make a firm surface. A protective layer of gravel over this has prevented disruption of the underlying layers, but it has been hard until now to replenish this gravel as cars have been constantly present. Many thanks to Bob and Rudi from South Delta Groundworks for their hard work bringing truckloads of gravel, and grading and compressing it to make a new look for the area.

We have also needed to address some sagging supports for the wheelchair access ramp to the Viewing Platform overlooking Southwest Marsh. After several weeks of careful dismantling this ramp, our maintenance staff Dave McClue is completely rebuilding it.

Blackberry never stops growing in the spring, and some grassy areas need re-seeding. Vegetation management has started and will be ongoing for the next few months.

The bird survey crew has continued to carry out counts every two weeks and staff have checked on various bird species to keep our bird knowledge and records current for the Sanctuary. The Sandhill Cranes, for example, have an active nest now on their usual island as of Easter Monday.

Although we have not allowed the public to visit, we did make an exception for people from OWL (Orphaned Owl Rehabilitation Society) who brought out a Northern Saw-whet Owl on March 21st. This bird was rescued from here February 1st with a broken wing, and had been recovering at their facilities. Its wing had healed, so a small group took the bird down East Dyke to where it was originally captured and let it fly up into the trees.

A few improvements have also been made along trails. East Dyke Douglas Firs have developed some raised roots and surrounding trail surfaces are compacted. To even this out for a more consistent walking surface, staff Dan and Kristina have engineered strong reinforced lumber walls to contain enough fill material to create a flatter terrain with more cushioning over the roots. Approximately 30% of this path is set up now for trail re-surfacing.

At the Observation Tower in West Field, a small fence has been erected between the tower and the waterway to the north of it. When the tower was painted in 2018, small trees and other vegetation were removed from this area to accommodate the work. Mountain Ash seedlings have now been planted there now. The fence is designed to prevent undue trampling by waterfowl and visitors until these trees and ground cover plants get re-established.

BRITISH COLUMBIA WATERFOWL SOCIETY

Report on the 59th Annual General Meeting

The 59th Annual General Meeting took place on Thursday April 16, 2020 by teleconference due to COVID-19. BCWS President Jack Bates called the Meeting to order at 7:00 pm and welcomed everyone. A quorum was in attendance. Moira Moore acted as recording Secretary.

APPROVAL OF MINUTES OF THE 58th AGM: The Minutes of the 58th Annual General Meeting, held on Tuesday April 16, 2019 were approved.

FINANCIAL STATEMENTS: The financial statements for the year ending December 31, 2019 along with the Accountant's Report prepared by KPMG, were presented by the Society's Treasurer Jim Morrison together with a brief summary of the highlights. Questions from attendees were responded to by the Treasurer.

APPOINTMENT OF THE ACCOUNTANTS FOR 2020: KPMG were appointed as the Society's Accountants for the fiscal year ending December 31, 2020, with remuneration to be determined by the Board.

REPORT OF THE BOARD OF DIRECTORS: The President introduced the Society's Directors, members and staff who were present and gave a brief report on the Society and the Board's activities for the year 2019, noting the Society remains in a strong financial position. He thanked the staff, volunteer Directors and all of the other volunteers for their contributions to the Society in 2019.

Due to the global pandemic caused by COVID – 19, the unprecedented decision was made to close the Sanctuary on March 15th for the first time in 57 years except for rare closures due to extreme weather. At this point in time it remains unknown when the Sanctuary will re-open.

During the year the BCWS provided the Delta Farmland & Wildlife Trust \$31,000 for the 2019-2020 Greenfields winter cover crop program with \$10,000 going towards a cost benefit analysis of DF&WT's various programs. Over the past 21 years the, BCWS has provided approximately \$700,000 in funding for the Greenfields program.

The Sanctuary closure has enabled staff to undertake a number of maintenance projects which are difficult to address when there were vehicles in the parking lot and visitors on the trails.

The management plan for the Telus property on Robertson Road to return it to soil based agriculture is being implemented. The early results are very encouraging. The 2020 property tax assessment was also successfully appealed to reflect the property's return to agricultural status.

SANCTUARY MANAGER'S REPORT: The Sanctuary Manager's report was pre-circulated to the Board prior to the meeting. The report noted there are 2732 Members as of December 31, 2019 with the majority being family memberships. In total there were 102,334 visitors to the Sanctuary in 2019. March was the busiest month with 15,862 visitors followed by May, with 9,683 visitors through the gate. Warm sunny days around spring breaks and long weekends continued to see an increase in daily visitor counts.

The report recognized all of the volunteers who have helped keep the Sanctuary tidy and welcoming for visitors, hosting visitors on busy days, filling bird feeders, leading Sunday bird walks, work parties, surveys and maintaining bird records and gardening.

ELECTION OF DIRECTORS: In accordance with the Society's Bylaws, three Directors were elected for a two year term by acclamation: Wayne Diakow, Jim Morrison and Gerry Oyen.

OTHER BUSINESS: Varri Raffan was recognized for her recent 35th anniversary as the Society's longest serving employee. It was unanimously agreed to record a resolution of appreciation to Varri in these Minutes.

The meeting was adjourned at 7:20 pm.

The British Columbia Waterfowl Society
gratefully acknowledges the continuing support of its Accountants

KPMG Peat Marwick Thorne Inc.,

Suite 400, North Tower, 5811 Cooney Road, Richmond, B.C. V6X 3M1

Bird Highlights

January 2020 ended with 100 species reported. This is certainly one of the higher tallies for a January, and is partially due to more waterbirds being seen off-shore.

December 29 – January 4

On January 1st from the tower, one of our members had spotted Surf Scoter, Red-breasted Merganser, Red-throated Loon and Horned Grebe. Also on the 1st at the south end of the Seaward Dyke 6 Western Meadowlark and 2 American Pipits were found. The elusive Swamp Sparrow also made an appearance below the Tower on the same day. From January to April Fuller Slough and Ewen Slough have been the best waterways to see Pied-billed Grebes. This duck like diver is not a very big bird. When threatened by predators, they avoid flying to escape. For that they need a lengthy waterway and have a lot of foot splashing and wing flapping before they are airborne which attracts even more attention to themselves. Instead the Pied-billed Grebe will squeeze much of the air out of its feathers and partially deflate its air sacs in order to either fully or partially submerge out of harm's way. The juvenile Northern Goshawk seen in November and December is still showing up mainly around the Southwest Marsh. Black Phoebe, Chestnut-backed Chickadee and Pine Siskin were 3 other highlights for this week which ended with a total of 78 species.

January 5 – January 11

Throughout this week birds of prey viewing was very good. One highlight was the 2 Short-eared Owls spotted hunting off the Seaward Dyke. Shorebird numbers are scarce now with only a handful of Greater Yellowlegs and Long-billed Dowitchers seen in the West Field and Southwest Marsh.

January 12 – January 18

With cooler temperatures and heavy snow on the 15th we closed early and stayed closed on the 16th as well. Two Red-breasted Sapsuckers were spotted on the 18th along the Auger Trail. A little further along the trail towards the Viewing Platform a Barn Owl was found in a Fir tree. A small flock of 15 Cedar Waxwings were located on the 12th. As berries become sparse, Cedar Waxwings will now head to northern USA and even as far south as Panama for the winter. One or two Northern Saw-Whet Owls are now consistently seen along the East Dyke and with any luck we will be able to locate them until around the end of March. Common Loon and Wilson's Snipe were highlights from this week's list.

January 19 – January 25

With continued cool temperatures and a bit of snow cover, the Red-winged Blackbirds, Black-capped

Chickadees and Red-breasted Nuthatches are happy to augment their food source with the Black Oil Sunflower seeds visitors offer. They will gladly take these and stash them for a later meal. Keep in mind we only sell the Black Oil Sunflower seeds from November to mid-March. By mid-March most of the wintering population of Black-capped Chickadees has moved to higher elevations to nest and the remaining population will be more interested in attracting mates and establishing nest sites rather than hand feeding. Fox Sparrows and Song Sparrows, Golden and White-crowned Sparrows are all very busy getting seed at and around feeding stations. At first glance Fox and Song Sparrows appear very similar. The larger stocky Fox Sparrow has a uniform sooty smooth brown plumage with a densely spotted breast. Song Sparrows are slender with a paler belly and dark rusty streaks converging to a center spot on its chest. As for the White and Golden-crowned Sparrows they are easy to distinguish from each other. The Golden-crowned Sparrow has indeed a golden crown patch and the White-crowned Sparrow has a bold white and black striped crown.



White-crowned Sparrow

Photo: Sandy Cameron



Golden-crowned Sparrow

Photo: Michelle Lamberson

January 26 – February 1

January 29th we had an early but encouraging sight of 2 Barn Swallows and 1 Tree Swallow. Both were

observed flying over Fuller Slough near the Sign Kiosk. Also on the 29th a pair of Cinnamon Teal were found in the outflow channel in front of the North Dyke deck. The 1st was a busy birding day with 1 Greater Scaup, 1 American Bittern, some Mew Gulls, 5 Common Redpolls and 3 Northern Saw-whet Owls. We ended up calling OWL (Orphaned Wildlife Rehabilitation Society) to come out and capture one of the Northern Saw Whets as it had a broken wing which was only noticed after zooming in on a photo taken by one of the visitors. They estimated a 6 week healing period before it will be brought back to be released here.

February and into March begins the spring movement of large numbers of Bald Eagles as they follow the coast along rivers and through valleys congregating in areas with the most available food source. Towards the end of February expect to see Canada Geese pairing up and lots of courting among Mallards. February 2020 ended with a bird species list of 80.

February 2 – February 8

With only 58 species reported this was not one of the larger weekly counts. February is usually a quieter month as most species have already migrated south. We are now waiting for spring migration when birds migrate northward. The inner grassy trails are the best areas to locate Ruby-crowned Kinglets, Golden-crowned Kinglets and Bushtits. Bushtits are one of the smallest songbirds in North America. They eat small insects, spiders and some seeds which the trees and habitat of this area provide. Bushtits tend to be gregarious and always busy gleaning the foliage for insects. Plumage of the male and female is the same but the female has yellow eyes while the male has dark eyes. Both Kinglet species are also very small (3 ¾ to 4 ½ inches) and are a challenge to locate in the dense branches and thickets. Ruby-crowned Kinglets have a small patch of red on their crown which is not always easily visible. Quick identifiers for Ruby-crowned Kinglets are 2 pale wing bars, a complete white eye ring and an olive green body. Golden-crowned Kinglets have a yellow crown with a red center and only 1 pale wing bar. Kinglets build oblong hanging nests with the opening at the top which they construct using moss, lichen, dead leaves then line the inside with fine materials.

February 9 – February 15

On the 10th 3 Northern Saw-whet Owls were found in the northeast corner of East Dyke. February 12th a Merlin was spotted flying over the parking lot and 5 Common Redpolls were seen near the portable toilet. A large number of Northern Pintails are present this week. Unlike the Pied-billed Grebe, who needs a long water runway in order to take off, the Northern Pintail, a dabbling duck, doesn't need the same open distance to become airborne. Other dabbling ducks present this

week include the Northern Shoveler, American Wigeon, Northern Gadwall, Green-winged Teal and Mallards who all have large wings relative to body weight aiding in lifting straight up into flight. Other ducks are known as "diving ducks". Diving ducks have smaller wings relative to body weight and must remain in open water in order to take flight. Divers present on this week's list were Bufflehead, Ring-necked Duck, Lesser Scaup, Hooded and Common Merganser.

February 16 – February 22

Great Horned Owls are early nesters will now disappear until around the 2nd week of June when we will see them return with their fledged young usually in the larger trees of the East Dyke. Throughout various parts of the Sanctuary, visitors have noticed 2 Northern Goshawks hunting. Offshore bird sightings for this week included Surf Scoter, Red-breasted Mergansers, Red-throated Loons, Double-crested Cormorants, Short-eared Owls, Trumpeter Swans and Black-bellied Plovers.

February 23 – February 29

February 25th a small number of Cackling Geese gathered in the pond below the tower. Of the 61 species on this week's list, highlights were American Bittern, Northern Goshawk, Northern Saw-Whet Owl, Belted Kingfisher, Barn Swallow, Tree Swallow and Pine Siskin. On the 27th 7 Tree Swallows were seen over the parking lot. To me spring isn't too far away when I begin to see the return of swallows and hear their cheery high pitched chattering calls. It won't be long until the Tree Swallows are nesting in the smaller boxes atop posts located near most of our waterways. Tree Swallows have a pale belly, almost white in males, and a beautiful glossy iridescent blue back.

March is the start of spring migration northward and bird activity really picks up at the Sanctuary. Even though we lose many waterfowl species we gain the much awaited Rufous Hummingbirds, Warblers and Lesser Snow Geese. By mid-March the daffodils are at their peak along the East and North Dykes and we start to see a tinge of green from the newly opening buds of the trees. This March had 76 species and was the lowest March for a bird count since I started reporting the "Bird Highlights" in March 2009. This low count stands to reason as the Sanctuary was closed to the public from March 16th onward due to COVID-19 and we didn't have as many bird watchers reporting their sightings.

March 1 – March 14

Some early nesting birds such as Bald Eagles, Great Horned Owls, Barn Owls, Red-tailed Hawks and Bushtits have already got a nest site or are in the process of constructing one. The Red-tailed Hawks have rebuilt their wind damaged nest from last year. It

(..... /continued on page 10)

(Continued from page 9)

is high up in a tree on the south side of the driveway just before you come into the parking lot. Barn Owls have already established a nest in one of the boxes. So far, we have now been able to find 3 Bushtit nests but unfortunately a very visible one near the Auger cairn was vandalized most likely by crows.

In the second week of March, with sightings of Northern Saw-whet Owls dwindling, many visitors spent hours instead watching and photographing an American Bittern in the ditch that runs along the Southwest Marsh Trail. It was present every day for a week, and was also seen a few times in the last few weeks of March. Last year at this time was also a good period for Bittern watching.

On March 12th the first male Rufous Hummingbird showed up at the feeder in front of the house and by the 14th a female had joined him. On the 14th a Common Goldeneye was also spotted in Ewen Slough. On sunny and warmer days watch for turtles, mainly Red-eared Sliders, as they perch on the floating logs and logs along the left bank of Fuller Slough. This week up to 13 turtles were spotted.

March 15- March 28

Since the Sanctuary has been closed since March 16th with an unknown re-opening date, we have continued to prepare a weekly list and highlights from staff. If you wish to view these and ongoing weekly lists while the closure is in effect, go to our website page www.reifelbirds sanctuary.com/birds2.html. In this next month, species lists will reflect the passage of warblers, shorebirds and songbirds as they move northwards from their southern wintering grounds.

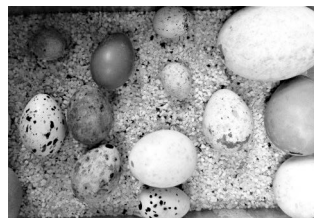
Text: Varri Raffan
Gift Shop Manager



American Bittern

Photo: John Whitmore

Egg-cetera



*Eggs from our
museum
collections*

Have you ever thought about why eggs have different colored shells? Well for ground dwelling birds such as Plovers and Killdeer it is important for their eggs to blend in to the surrounding ground where they nest. That is why their eggs are earth toned and have streaks and stripes aiding in disguising them from predators. Cavity nesters such as owls, woodpeckers and Wood Ducks lay eggs with white shells. Since their eggs are already hidden in cavities they don't need to be heavily pigmented. Also to have a white shelled egg would be an advantage for seeing it in the dark nest box or tree cavity. Open nesting birds such as ducks, geese and grebes also have light colored eggs but they cover them up with vegetation or their own down when they leave the nest.

So you may wonder how the egg gets its color and how it is formed. Formation of an egg starts with an ovum, which is a protein packed yolk, being released into the oviduct where it is fertilized. Next a series of enveloping layers of albumen (gelatinous egg white) is added. The protein packed ovum, now encased in a soft, stretchy layer of membrane plumps up with water. Next calcium carbonate is deposited to the exterior of the egg from special cells lining the uterus. The last step, if any, is pigmentation. As the egg moves through the oviduct the walls secrete the color. From start to finish this whole process takes about 24 hours.

Ducks, geese, small shorebirds and most passerines (song birds) have intervals of 24 hours between laying each egg. Herons, bitterns, cranes and owls can take 38 to 48 hours between the creations of each egg. Once the female bird has laid as many eggs as she wants this is when the incubation clock starts. Ducks usually take 25 to 28 days to hatch while geese can take up to 30 days. The bigger the bird the longer it takes to form. For example, a Trumpeter Swan will take 33 to 37 days while a Rufous Hummingbird takes 12 to 14 days.

Text: Varri Raffan
Gift Shop Manager

The Volunteer Corner

Special thanks to:

- ♦ Mary Taitt for leading our regular Sunday Bird Walk and Istvan Orosi for filling in when she is absent.
- ♦ Jim Martin, Brian Self, Emma Turgeon, Kelly Mitchell, Claire Melanson and David Bruce for helping host visitors and answer questions along trails.
- ♦ Justin Makonin, Eric Rossicci, and Eileen Axford for bagging seed.
- ♦ Our winter newsletter mailout team of Eileen Axford, Eric Rossicci, Debbie Carr, Su Langlois, and Jim Martin.
- ♦ Brian Self, Janice White, Claire Melanson, Marissa Sasaki, Evan Gogal and Kristina Breit for their assistance with our bi-weekly Sanctuary Bird Surveys.
- ♦ Oliver Balisky, Claire Melanson, Marissa Sasaki, Evan Gogal and Gabriel Thompson for helping with trail work and fencing in March this year.

Volunteers needed:

- ♦ Sanctuary visitor hosts on busy days. Our visitors have lots of questions. If you would like to share your knowledge, come out and be a trail host.
- ♦ Museum host for Sunday mornings.
- ♦ Helping with bird surveys every two weeks.

For more information, ask at the Gift Shop or visit our website. www.reifelbirdsantuary.com and explore the Volunteer page. Please leave your name and contact information at our office 604-946-6980 or send me an email.

Kathleen (kathleen@reifelbirdsantuary.com.)

Calendar Reminder

If you would like to submit pictures for the upcoming Sanctuary Calendar, contact Varri Raffan or more information and instructions.

Phone: 604-946-6980

Email: varri@reifelbirdsantuary.com

Photos must be taken at the Sanctuary. No emails over 8 MB in size please.

Why be a Member?

As a Member, you receive the following benefits:

Free admission to the George C. Reifel Migratory Bird Sanctuary for a year.

Quarterly issue of the BCWS publication "Marshnotes".

A 10% discount on purchases in the Sanctuary Gift Shop.

Membership in one of British Columbia's most respected conservation organizations.

With your support, the British Columbia Waterfowl Society is able to:

Staff, maintain and expand facilities at the Sanctuary for the benefit of its visitors and members; provide interpretive and education programs, including guided tours for organized groups of all ages; contribute towards important scientific research on waterfowl to determine their life cycle needs for survival; and provide support for like-minded organizations who are working on waterfowl-related projects.

Enclosed is my cheque or VISA/MasterCard number for:

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5191 Robertson Road, Delta BC V4K 3N2

Telephone: 604 946 6980 Fax: 604 946 6982

Website: www.reifelbirdsantuary.com

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