Farmland and Wildlife

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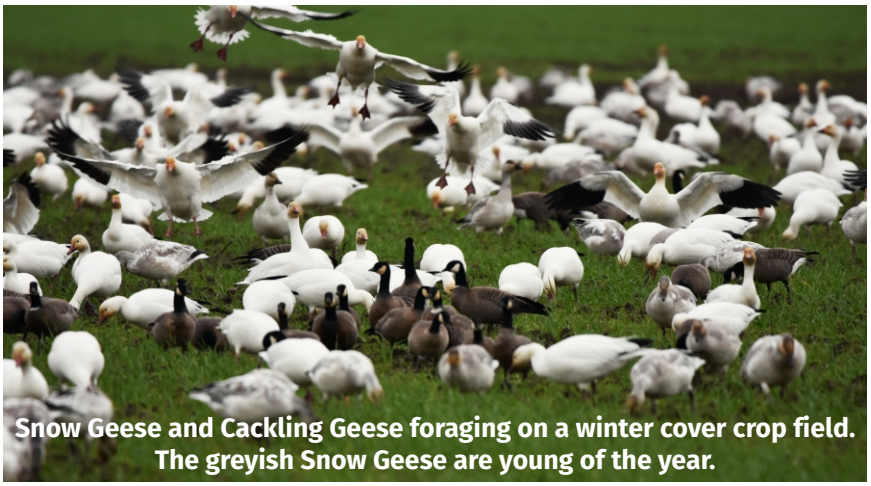
2018 - Year in Review

- Drew Bondar -

In 2018, the Delta Farmland & Wildlife Trust (DF&WT) distributed $380,000 in cost-share payments to 46 Delta and Richmond farmers committed to land stewardship. 500 acres of tall-grass habitat were maintained through the Grassland Set-aside Program which assists in supporting the highest density of over-wintering raptors in all of Canada. 2,897 acres of cover crops were planted through the Winter Cover Crop Program providing valuable habitat for wintering birds and supporting soil conservation. Our Laser Levelling and Field Liming Stewardship Programs supported the leveling of 245 acres and liming of 885 acres of farmland. Both programs support soil improvements. The second year of our Forage Enhancement Pilot assisted with the enhancement of 387 acres of grass forage fields. Through this pilot, DF&WT is sharing in the costs associated with over- and re-seeding forage fields in the spring due to waterfowl grazing to support these high-valued fields for both dairy cattle feed and critical waterfowl habitat. A 465 m hedgerow was planted in the fall that was comprised of 20 different native species of trees and shrubs. To-date, 9.54 kilometers of hedgerows have been established through our Hedgerow Stewardship Program. Another 1,470 m of grass margins were also enrolled in the Grass Margin Stewardship Program. Hedgerows and grass margins provide critical habitat for an array of bird and beneficial insect species. In total, over 4,000 acres of farmland was enhanced for wildlife habitat and soil conservation as a result of Delta and Richmond farmers' commitment to land stewardship.



Snow Geese and Cackling Geese foraging on a winter cover crop field. The greyish Snow Geese are young of the year.

DF&WT continued with three on-going studies in partnership with the University of British Columbia (UBC), British Columbia Institute of Technology (BCIT), Ducks Unlimited Canada (DUC), and Environment and Climate Change Canada (ECCC). A five-year study, in partnership with UBC, evaluating the effects of short- to medium-term grassland set-asides on enhancing soil quality went into its fourth year. To-date, four masters and over 30 undergraduate students have participated in the study. The results will assist farmers in optimizing the management of their set-asides. A multi-year study in partnership with DUC and ECCC to assess waterfowl use of agricultural land is now in its third year. This study will provide accurate assessments of the degree to which current waterfowl populations are supported by agricultural land. Last, a four-year study in partnership with the BCIT Ecological Restoration program, examining bird use of DF&WT planted hedgerows was completed. All studies will contribute to supporting best management practices for our stewardship programs and sustaining agriculture as a viable industry in Delta for the future.

Last September marked the 13th anniversary of our annual community event– Day at the Farm– co-hosted with the Ellis family. Day at the Farm brings families together with local farmers, commodity groups, academic institutions and conservation organizations to learn about local agriculture in a fun and engaging environment. Over 4,000 people from across the Lower Mainland attended the event. A record 1,280 guests enjoyed the farmer-led hay wagon tours, learning about the diversity of agriculture in Delta and some of the ongoing challenges farmers face.

On behalf of DF&WT, we would like to sincerely thank all of the hard-working, dedicated farmers of Delta and Richmond for their commitment to land stewardship. We would also like to thank and acknowledge the Ellis family and all the volunteers who helped out at Day at the Farm. Finally we thank our many generous funders that made all of this possible in 2018.

Our **Summer Solstice Fundraiser BBQ** will be held on **June 22, 2019**! Details and ticket information will be available on our website over the coming months.

Barley Cereal Habitat Enhancement Field

Spilling the Beans about Spilled Grain Fields

- Olga Lansdorp, M.Sc. -

When you drive though the farmland of Delta you will notice that some fields are green and others are brown. To farmers and wildlife biologists alike, green is good. For farmers, a green field can mean an early cut of hay, a field protected from erosion, or a buildup of organic matter for the soil. For wildlife biologists, green means food. Food for all kinds of waterfowl from Trumpeter Swans to Snow Geese to Mallards to American Wigeon.

For over twenty-five years DF&WT has been supporting green fields through our Winter Cover Crop Program. But were we excluding another kind of green field, one which was providing the same agricultural and wildlife benefits as cover cropped fields?

A spilled grain field is one that is planted to grain in spring and harvested when the grains mature in late summer. During harvest some grain is spilled. Wet fall weather and additional management applications cause the spilled grain to germinate and grow, turning the field a beautiful shade of green.

But we want to know more than whether these fields are beautiful. How do they compare to winter cover crop fields, in terms of vegetation characteristics? Do the various management techniques, such as using a tedder, make a difference? A tedder being a piece of equipment that uses forks to aerate the cut stalks of grain, technically known as “wuffling.”

For the past 3 years we have been examining spilled grain fields and comparing them to winter cover crop fields. What we found has implications for the continuation of the Cereal Habitat Enhancement pilot, which shares in the costs with farmers for these fields. So we made a model looking at a number of factors. It turns out that spilled grain fields are similar to winter cover crop fields in terms of vegetation height and cover.

And what of the wuffling, you wonder? All participating farmers were required to ensure the spilled grain was adequately re-spread through using either a chaff spreader or by tedding the stalks after harvest (wuffling), since these techniques are locally known to increase the evenness of germination. The other techniques we examined, including whether manure was spread, whether the field was tilled, and whether the straw was baled did not seem to make a difference to the vegetation on the field. We therefore will continue to require some form of spreading to optimize the amount of vegetation on spilled grain fields.

Overall our pilot project has us convinced that there is value in supporting spilled grain fields. Grain fields are not only beneficial for the soil, but also support wintering waterfowl populations. As vegetable processors continue to downsize or shutdown all together, Delta farmers are left with fewer options for crops to grow. Acres planted to peas and beans have been significantly reduced, which has left many farmers in Delta making adjustments to their crop rotations. Planting cereal grains is one of those options, despite it being relatively unprofitable. Including those fields in our Winter Cover Crop Program however, provides further incentive to include cereal grain fields in their rotation, which ensures that agricultural land is also optimized to support waterfowl populations over the winter. Now that we know a bit about the vegetation characteristics of these fields, the next big question we are working on is the degree to which wildlife use these spilled grain fields. Stay tuned, as we are actively pursuing answers to this question.

Waterfowl Surveys Update

- Olga Lansdorp, M.Sc. -

Since the 1970’s, researchers have been puzzling over why we see certain types of ducks and geese on certain farm fields. It turns out to be a complicated answer that includes many factors such as how close a field is to the marsh, the time of year, the weather, how wet a field is, what the birds

are used to, and what is on the field. We at DF&WT are collaborating with Environment and Climate Change Canada and Ducks Unlimited to learn more about why ducks and geese choose certain fields. The guiding principle is that the more we know, the better we can manage the wildlife populations that call our farmland home.

Ducks and geese were not always farmland fixtures. The local habitat has changed drastically since the 1800's. What used to be upland grass and shrub habitat is now dyked and drained agricultural habitat, and some species learned to use this new environment.

In the late 1970's several enterprising, most likely young, Snow Geese made a discovery that changed the fate of the Wrangle Island Snow Goose population. They discovered that they could feed and rest on the farmland of Westham Island. Since then every year thousands of Snow Geese spend time on farm fields throughout Delta. In fact, young geese continue to lead the way in an eastward expansion, with recent Snow Goose sightings as far east as Chilliwack.

For the ducks and geese that rely on farmland habitat, their fate is intertwined with ours; the way we manage our land has the power to determine the fate of individual ducks and geese as well as entire populations. With that responsibility in mind, our goal is to learn as much as possible about what supports duck and goose populations.

For the past three years, DF&WT has been conducting weekly waterfowl surveys that are not only interesting, but also provide us with a glimpse into the minds of waterfowl. We count ducks, geese and swans, recording how much water is on a field and note the presence of other wildlife. While in the field we have the opportunity to see enormous flocks of birds, birds fighting, mating and eating, and also observe other interesting bird species like Peregrine Falcons and Northern Shrikes.

Through these surveys we hope to gain insight on why they choose the fields they do and provide evidence to a growing body of work that shows the importance of farmland to wintering waterfowl species.

The fate of many species of waterfowl is tied to how we manage the land; what we plant and perhaps more importantly, that we preserve the farmland that we have left.

Home-grown Heron Habitat

- Olga Lansdorp, M.Sc. -

Great Blue Herons are large, unique birds that can live for 15 years. They are commonly seen in Delta, slowly stalking their prey in a ditch, sometimes flying away with a croak, and if you're lucky enough to see it, striking at their prey with a harpoon-like lunge. Government scientists are concerned about their fate: our local population is provincially Blue Listed (considered vulnerable) and is federally listed as a species of Special Concern.

Herons have many interesting adaptations. One of the bones in their neck has a unique, elongated shape that allows the heron to bend its neck into an S shape– a feat which is very rare in the bird world. This is what makes it possible for them to lunge at their prey. Great Blue Heron's eyes are also well adapted for hunting both at day and night, which make it a master at catching fish. They also use their third toe nail known as a pectinate claw to comb feather powder through their feathers, cleaning off slime from their prey.

Like many in the Heron family, Great Blues nest close together creating a loud and smelly haven for growing birds. These nesting sites are known as a heronry or heron rookery. Delta supports several heron rookeries including British Columbia's largest near the Tsawwassen Ferry Terminal.

With all these nesting herons, you may be wondering where they go to eat, and what they eat...

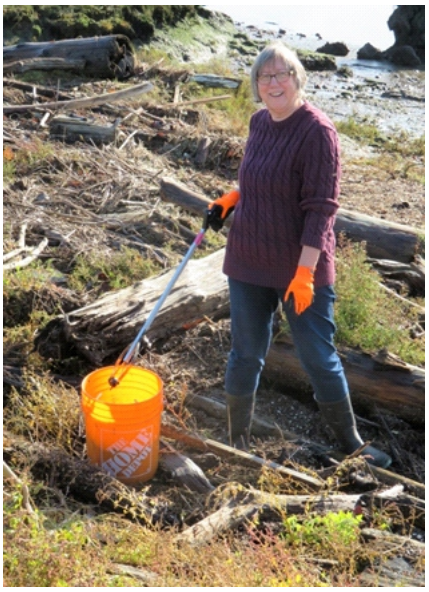
Herons and other hunting birds love to feast on voles, delighted to munch on a protein-rich, slightly fatty snack. It is thanks to the Grassland Set-Aside Stewardship Program that there are abundant vole populations for the herons to eat, and especially the young herons, which spend most of their time on farmland at high tide.

So next time you drive past a Great Blue Heron, take a moment to recognize how unique a bird it is. We are grateful that in 2018 DF&WT was able to secure a three-year $120,000 grant from the Habitat Stewardship Program to continue to support our Grassland Set-aside Program and the habitat it provides for the local Great Blue Heron population. We hope to continue to spot these unique creatures on farmland for years to come.

Great Blue Heron in stubble grain field.

DF&WT New Board Member: Liz Walker

After leaving her position of Environmental Specialist with Powertech Labs in 1990, Liz became an active volunteer and advocate in her community for schools, social issues, crime and the environment. Currently she is President and Education Chair for the White Rock and Surrey Naturalists, and serves on the boards of the Burns Bog Conservation Society and Surrey Environmental Partners. She is a member of the Boundary Bay Conservation Committee, the Green Timbers Urban Forest Advisory Committee, the Campbell Valley Regional Park Nature House Education team and has participated in a recent project, the Newton Sustainability In Action plan. Observing the rampant development in the Lower Mainland, Liz's focus is the protection of green spaces/natural assets and sustainable development within the region including the lower Fraser River and estuary. Recognizing that our agricultural lands have such an important role in the sustainability of our region, supporting the well-being of human and wildlife populations, Liz appreciates the significance of DF&WT and is grateful for the opportunity to be a member of the board.



Wildlife Tidbits by John Hatfield

Man made improvements where fresh water is either pumped in, or enters on a rising tide, can create an artificial pond for waterfowl. Heavy rainfalls can also help to fill basins. We created artificial ponds for several years at the Alaksen National Wildlife Area to see what kind of waterfowl we could attract. As we slowly filled the basin with water, dabblers, including Mallards, Pintails, Green Winged Teal and Gadwall, would move in to loaf and feed. Over time as water depth increased, divers such as Bufflehead and Goldeneye, also set up shop. Since the bottom of the basin was not flat, the dabblers would remain around the edges, while divers stayed out in the deeper portions.

Correction to July 2018 Newsletter (Vol. 24 No. 1) - "25 Years of Farmland and Wildlife Conservation"

It stated that "16 hedgerows have also been established through the Hedgerow Stewardship Program []", when in fact 24 hedgerows had been established prior to July 2018.

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Thank you to our 2018/19 Stewardship Program Supporters!

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