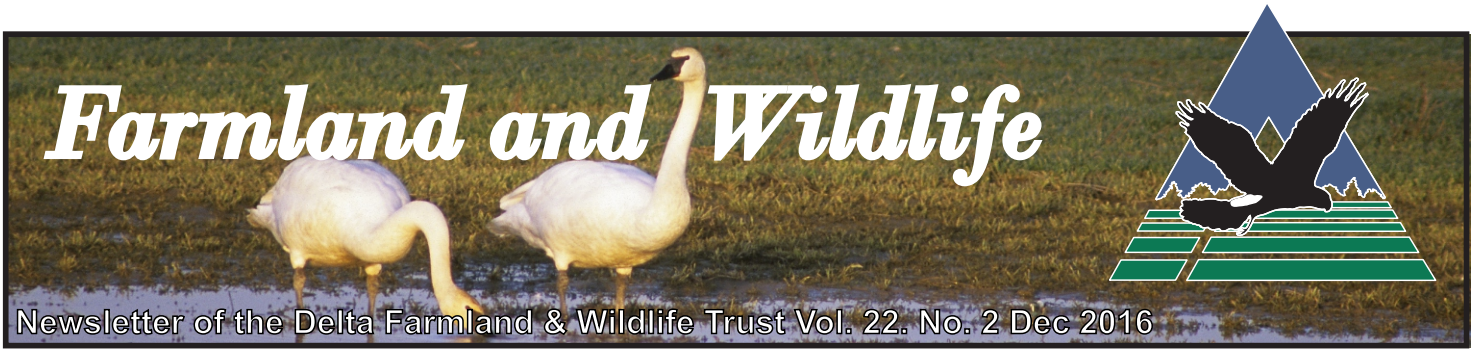
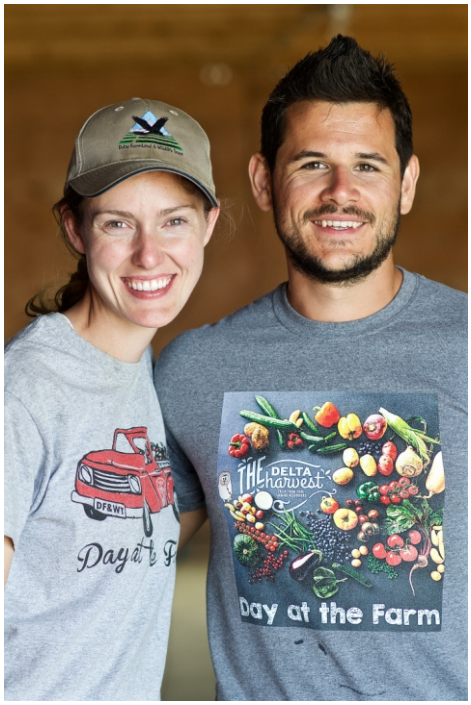


New DF&WT Program Manager

The Trust is pleased to welcome Drew Bondar to the organization. Originally from Alberta, Drew worked as a civil engineer before moving out to the West Coast. The mild weather and beautiful landscape, coupled with a desire to pursue a career in a field he's passionate about are what eventually led Drew to Vancouver in 2011. Upon arriving, he returned to school to pursue a Bachelor of Science in Agroecology at the University of British Columbia.



Although Drew is relatively green when it comes to Delta agriculture, he did grow up working throughout the summer months on his family's tree farm just outside Edmonton. Speaking about his new role as Program Manager, Drew emphasized his belief in the importance of conserving farmland and wildlife habitat. "As pressures from both urban and industrial development and demands on food production continue to increase, developing effective strategies to also accommodate wildlife habitat is going to become more and more critical," says Drew.

"Recognizing the incredibly challenging job farmers are faced with - producing the food that sustains us all while also providing essential wildlife habitat - is imperative as we move forward. Continuing to develop practical means to support our local farmers is vital to preserving both existing farmland and the wildlife that depend on that habitat – something I believe we as a society are all responsible for."

Drew is looking forward to bringing his experience in project management and training in agroecology to the position.Outgoing Program Manager, Christine Terpsma, will be relocating to Alberta over the winter holidays. Christine recently reflected on her time at DF&WT. "It's been an honour to work for this organization," she remarked."Growing up on my family farm, I was immersed in all aspects of agricultural production. During my post-secondary education, my interest in wildlife conservation grew into a passion. Even after four years, I'm still in awe that I had an opportunity to work with some of the most knowledgeable farmers, wildlife conservationists, and researchers within our community."

Christine continued: "I've marveled at the many hats that DF&WT wears. I've often found myself in the field, taking a soil sample, while simultaneously recording raptor sightings. However the most important thing I've learned is that our community is undertaking incredible work to maintain farmland and habitat, recognizing that farmland IS part of the environment. Even growing up here, I had no idea how many good people, both farmers and conservationists, are invested in the Fraser River delta. This community is resilient, kind-hearted and strong; I'm proud to say I've been a part of it."

DF&WT Chair, Dr. Mary Taitt echoed Christine's sentiments and reflected on the history of the organization. "The Trust will celebrate its 25th anniversary in 2017" says Mary. The organization's strength lies in the continued support of the Delta farmers who participate in stewardship programs that benefit farmland and provide wildlife habitat. Equal numbers of conservationists and farmers volunteer their time and expertise to the Board."

"We'd also like to thank our vital financial supporters for their continued contributions to our farmland stewardship efforts," continues Mary. Farmland and habitats in the Fraser River estuary are under pressure, but the Trust continues to develop and research new stewardship programs. As a result, citizens of the region continue to enjoy high quality local food and a priceless, globally significant environment."

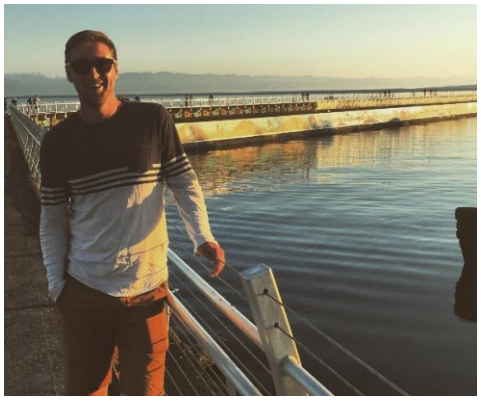
Photos: Banner photo - Trumpeter Swans feeding in Delta by David Blevins; Drew and Christine by Kelsey Baran Freelance Photography

Summer GIS Practicum in Delta

Owen Page, BCIT GIS Student

During my practicum at the Pacific Wildlife Research Center I was tasked with helping the Canadian Wildlife Service (CWS) and Delta Farmland and Wildlife Trust (DF&WT) in their efforts to monitor and manage sensitive ecological ecosystems in the Fraser Valley using specialized Geographic Information Systems (GIS) software. Among the various projects I undertook, two in particular were very interesting.

The first was that DF&WT and CWS were optimistic that GIS could be used to replace traditional methods of conducting crop surveys of the fields in the Delta farmland region, which are done by visual identification through road side surveying. This method is time consuming, opens the possibility of crop misidentification, and is not completely robust, as many fields are not accessible by public roads. A successful GIS survey method would reduce time spent on field surveying from weeks to days, and potentially increase the accuracy of crop identification. The GIS survey method essentially works using this principle; all crops reflect sunlight in a different manner based on various factors, such as their plant structure, health, and growth stage. This is why plants appear the colour they are. Using this knowledge, a series of satellite images were acquired from the previous year's summer growing season and analysed using GIS.Using the satellite images, I was able to group like fields into crop classes, which I was then able to cross check to the last season road side survey of crops. Using this information, I was able to determine how accurate the GIS survey method was, and develop a framework to be used in future crop surveys.Not only are these crop surveys useful in identifying and recording the crops grown in the Delta region from year to year, but they also provide insight how



farming impacts vital feeding grounds in the region of migratory birds which in turn helps inform their management. The second project was tracking the changes that have occurred in the marshes along Roberts and Sturgeon Bank marshes at the mouth of the Fraser River over the past 3 decades. The concern is that the Sturgeon Bank marsh is rapidly receding, while Roberts Bank has remained largely unchanged, and even expanded in some regions. Among the various aspects of that this project entailed, one was an attempt to analyze historic air photos and surveys conducted on site over the years to quantify the rate of change and areachange at the Sturgeon and Roberts marshes throughout the years. This involved recording the geographic location of both marshes leading edge at a given time period and comparing these various leading edges to determineoverall variations.

Overall, my practicum with CWS and DF&WT allowed me the opportunity to apply my skill set acquiredfrom my time at BCIT's GIS program in the field of agriculture and ecological management. I came to appreciate the capabilities and advantagesthat GIS can provide to the conservation and strategic planning of land use appliednot only to the Lower Mainland, but to larger geographic regions.I came away from this practicum with an appreciation of the incredible work that is put into the management and understanding of vulnerable habitats, and aconsiderable interest in continuing a career in environment conservation and monitoring.

As 2016 comes to a close, DF&WT wishes to extend a sincere thanks to our Stewardship Program and Project supporters:

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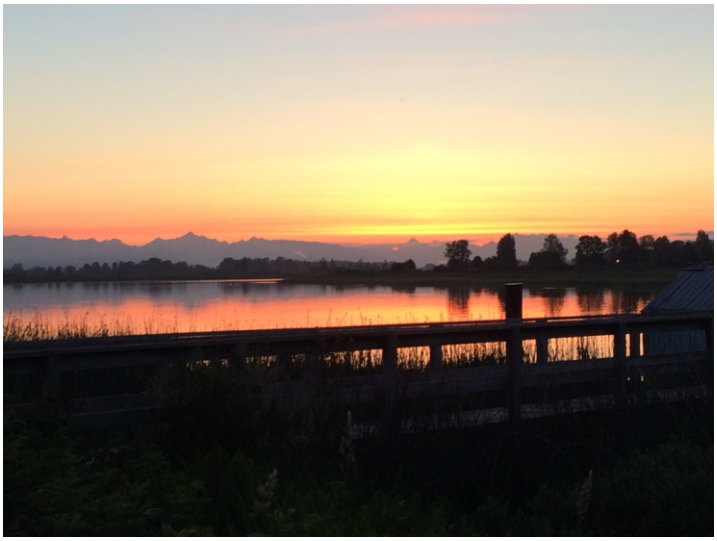
Richmond

Delta

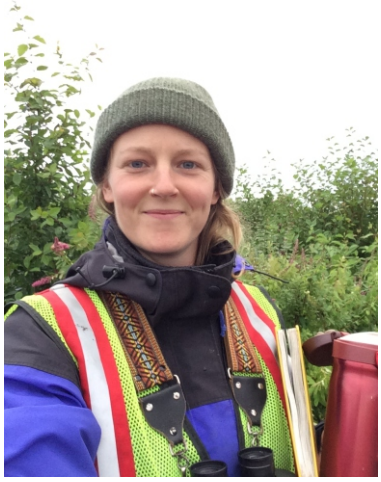
Summer with the Birds: a BCIT student and DF&WT Intern studies Songbirds in Delta Hedgerows

Jennifer Sibbald, BCIT Ecological Restoration Student

Each morning from May through July, I was up with the sunrise. Not because I had trouble sleeping or because I am naturally an early-riser; I was there for the birds. In spring, as migrating songbirds travel toward their food-rich breeding grounds, many stop in the productive agricultural lands of Delta, BC. This stop-over results in a flurry of morning activity, known by many as the 'dawn chorus'. This musical cacophony is the sound of many male birds singing to attract a mate, each with their own unique song. In the birding world, these moments are the perfect time to survey birds, as one can identify them by sight as well as sound.



Though waking with the dawn may not be for everyone, it was the perfect way for me to spend a summer. As a student in the Ecological Restoration Program at British Columbia Institute of Technology (BCIT), I jumped at the offer of an internship with Delta Farmland and Wildlife Trust (DF&WT). With generous funding from Habitat Conservation Trust Foundation (HCTF), the City of Surrey, BCIT Rivers Institute, and DF&WT, an internship was created to study the richness (number of species), abundance (number of individuals) and diversity of songbirds using hedgerows planted by DF&WT in Delta, B.C.



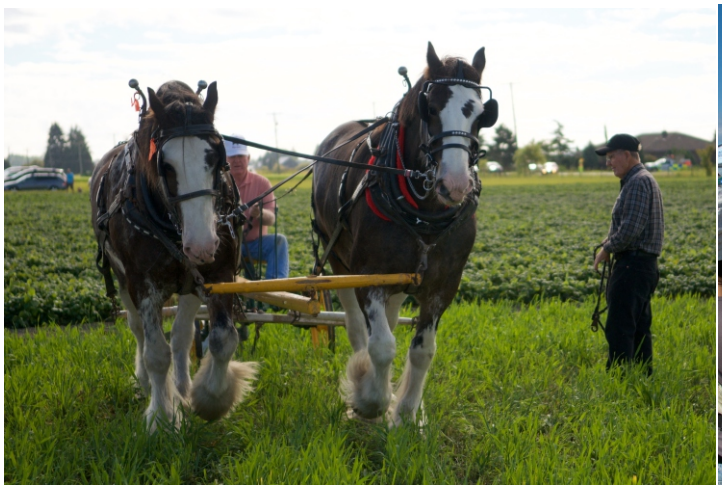
In Europe, it is well studied and understood that hedgerows provide many ecological and economic benefits to agricultural landscapes. Hedgerows provide shade for livestock, help reduce soil erosion, give homes to beneficial pollinating insects, and provide necessary breeding habitat for many species of songbirds. DF&WT has long recognized the importance of hedgerow habitats, and has sought to create more of these areas through their 'Hedgerow Stewardship Program'. In recent years, DF&WT is initiating some of the first hedgerow studies that I am aware of in British Columbia, including the songbird study I was given the opportunity to be a part of.

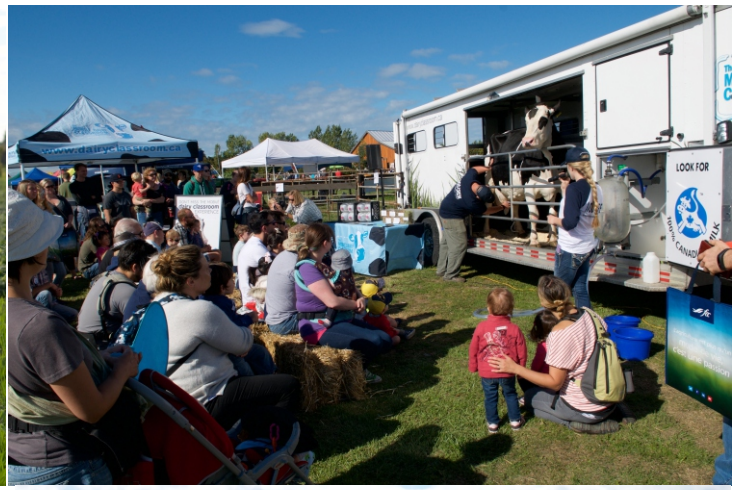
In the spring of 2015, BCIT Ecological Restoration student Arthur Kujawiak began the pilot study focusing on the abundance and diversity of songbirds using DF&WT hedgerows. In 2016, I continued the study to establish a multi-year dataset of the birds using these hedgerows. Additionally, I was empowered by DF&WT to expand the study and ask a few questions of my own. I focused my questioning on whether differences in plant composition of the hedgerows impacted bird communities.

Having been recently immersed in school and ecological theory, I knew that increases in the diversity of plant structure (e.g., different heights) and composition (e.g., different species)typically lead to the increased biodiversity of animals living in an ecosystem. I hypothesized that in hedgerows where plant diversity is greater, we would see a greater diversity of songbirds. From careful study design, data collection, and data summarizing, this is what we found to be true of DF&WT hedgerows. These findings support the management actions of DF&WT, which strive to plant a diversity of native trees and shrubs along their hedgerows.

After many sunrises, countless hours of data entry, and time spent just listening to the birds, I was able to provide some insight into how songbirds use hedgerows in Delta, BC. As a student, this was a fantastic opportunity ask questions of my own, independently conduct fieldwork, and learn to identify over fifty species of birds by sight and sound! Thanks to the support from DF&WT, HCTF, City of Surrey, and the BCIT Rivers Institute, I have gained invaluable experience for my future as a biologist, and had a summer I will never forget.

Top photo: Sunrise on Westham Island before Jen's bird survey
Bottom photo: BCIT student, Jennifer Sibbald (all photos by Jen)



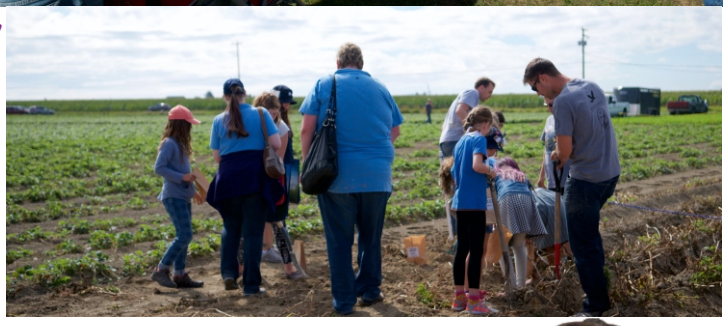


Record attendance at Day at the Farm!

On September 10th, 2016, DF&WT, in partnership with Westham Island Herb Farm owner Sharon Ellis and the Ellis family, held the11th Annual "Day at the Farm" agricultural awareness event.

Our gate counts estimated that crowds grew to **4,525 people** this year - a record for the event. 1,224 people took part in the hay wagon farm tours hosted by Delta farmers, and Farm Credit Canada collected 365 pounds of non-perishable food donations for the food bank!

A huge thank you to our event sponsors, the Ellis family, local farmers and dedicated volunteers for helping make this event a continued success!



Wildlife Tidbits *by John Hatfield*

During the winter months, Boundary Bay has a large accumulation of Bald Eagles, along with thousands of shorebirds and waterfowl. While walking my twelve pound Lancaster Heeler one day on the Bay, I noticed Bald Eagles eyeing him while flying overhead. Later I heard that a Bald Eagle had actually taken a small dog, so those of you who have small dogs…watch out for Eagles while walking your dog! I know of cases where an Eagle actually scooped up a newly emerged Black Bear cub. Bald Eagles will also scoop up carp, while the Carp swims lazily near the surface during the warm summer months. Should an Osprey catch a fish, I've seen Bald Eagles harass the Osprey until it is forced to drop the fish and the Eagle scoops up the fish in mid-air and flies off with it.

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