

Ottawa-Carleton Wildlife Centre

SERVING THE COMMUNITY FOR OVER 30 YEARS

Celebrating the Restoration of an Important Urban Wetland Thanks to the NCC and PSPC



The Ottawa-Carleton Wildlife Centre (OCWC) has worked for more than three decades in promoting the value of wetlands. These areas make an immense contribution to our quality of life and our community's sustainability. Given the significant challenges presented by climate change and the increased risks of both drought and flooding, wetlands will play an increasingly vital role.

So, there was real cause to celebrate this past Fall based on the results of one of the largest wetland restoration projects in the City. Thanks to the leadership of the National Capital Commission (NCC) and Public Services and Procurement Canada (PSPC), along with the help of the Rideau Valley Conservation Authority (RVCA), the Stillwater Creek Wetland is being reclaimed as a productive ecosystem as well as serving as a model green infrastructure project.

The City of Ottawa will also contribute to the project's next phase by utilizing and enhancing the wetland as an alternative to stormwater retention required by the construction of the planned Light Rail Transit (LRT) Station at Moodie Drive.

"This project has shown that multiple government authorities, including the National Capital Commission, Public Services and Procurement Canada, and the City of Ottawa, can work together to reach an idealistic and holistic solution to improve the environment and support habitat for species, while providing the public with the best possible experience" said Binitha Chakraburtty, Senior Municipal Engineer with the NCC and Manager of the Project.

Brian Armsden, Contract Manager for RP-2 Managed Assets was the representative for PSPC on the Project and he echoed these sentiments, "two of the key priorities of Public Services and Procurement Canada are improving the environment and lowering greenhouse gases. As Bina states the improvements to the environment are apparent, however what one may overlook is the increased ability of the wetland to sequester carbon thanks to the success of this project."

The Stillwater Creek Wetland

This expansive wetland, immediately west of Moodie Drive and north of Corkstown Road was once a vibrant area, home to many species of wildlife, including a Great Blue Heron Rookery. However, adjacent development along with inappropriate drainage, collapsed and blocked culverts and, yes, the removal of beavers, a keystone species critical to maintaining healthy wetlands, led to a badly degraded wetland.



The Centre first sounded the alarm about the drainage that was diverting substantial amounts of water from the wetland. While temporary fixes were put in place over a period of years, the cumulative damage was such that vegetation had taken over much of the former wetland, making it dysfunctional.

A Partnership Formed

It was clear that work had to be done if this wetland was to be restored. A site meeting was held with Binitha Chakraburtty of the NCC and Jennifer Lamoureux, the Aquatic and Fish Habitat Biologist with RVCA and Donna DuBreuil, President and Kate MacNeil, Executive Director of the Wildlife Centre. The first steps taken were to repair the site where the draining occurred while responding to the community's concern, through educational signage, that the wetland was valued as an environmentally-sensitive area.

continued on page 3

Campus Home to Amazing Biodiversity

The Ottawa-Carleton Wildlife Centre is located in the west end of the city and is part of the NCC Greenbelt. Much of the area around our Centre bears the highest designation within the Greenbelt, having Core Natural Area as well as Natural Link lands across Moodie Drive. So, it's not surprising that the Campus has a rich diversity of species, 21 mammal species, 130 bird species, 14 reptile and amphibian species and hundreds of insects, including at risk species, call the Campus home.

This means that when we take groups out on the trails, they get to hear the song of the Red-winged black bird, see the cavities created by the Pileated woodpecker, catch a glimpse of a Garter snake sunning itself or watch the Beaver slap its tail to let us know we have been spotted.

It also means that many community members value this wild oasis. There has been much change and development on and around the Campus. The concern about the impact this will have on this important ecosystem is one of the reasons we formed the Natural Environment Stewardship Committee. The committee brings together stakeholders from Public Services and Procurement Canada, the landlord, the Department of National Defence, the client department, local Community Associations as well as our Centre.

We take seriously the job of being 'backyard stewards' as the environmental anchor on the Campus. We have posted educational signage for our Lids off For Wildlife Campaign throughout the Campus, we have worked to ensure the wetland was restored, and we continue to promote positive environmental initiatives, such as tree wrapping and educating others about the site.

We hope you get a chance to explore the trail system and check out the restored wetland on Campus. If you do, here are some of the species you may encounter:



Pileated Woodpecker

The largest of Ontario's Woodpeckers with a distinct red hood. When searching for food, such as ants and beetles, they systematically hammer away at tree trunks and branches, creating impressive cavities that can provide habitat for other animals.

They typically mate for life and both parents help in the incubating and feeding of young.



Painted Turtle

The Painted Turtle is the most likely turtle we encounter in Ontario. It can often be found basking on logs or rocks around the wetlands on Campus. Their diet includes insects, snails and aquatic plants.

Editorial

Taking Action



This issue of the newsletter is all about celebrating ACTION. It is particularly encouraging when it takes place in your own 'back-yard'. We are delighted by the leadership of the National Capital Commission and Public Services and Procurement Canada,

working with the Rideau Valley Conservation Authority and our Centre to restore the Stillwater Creek Wetland.

It is a fine example of what can be accomplished when governments work with community groups on behalf of the environment and it will continue to serve as a highly visible and tangible example of the many benefits that accrue.

We are pleased to highlight other 'Best Practices' in this issue by providing an update on the City of London Ontario's progressive approach to managing Beavers and to Edmonton Alberta's award-winning Wildlife Passage Program.

We all benefit from sharing 'Best Practices' so it's something we hope to report more on from the City of Ottawa in an up-coming issue.

Donna DuBreuil President, OCWC



Red Fox

These small, dog-like mammals are found throughout Canada and adapt very well to coexisting with people. They have a wide diet that includes small mammals such as mice, voles and squirrels. Although related to dogs, they will pounce on their prey in a cat-like fashion.

Although their fur can vary in colour of reddish orange, they typically have a white tip at the end of their tail and black paws.





After restoration – pond created with basking island

continued from page 1

The local community along with naturalists from across the region have long used the trails and wetland habitat to observe wildlife and enjoy nature. People are very familiar with the site and feel a sense of 'ownership' with respect to this area of the Greenbelt.

The next steps in restoring the wetland required the funding support of PSPC, the engineering oversight and project management of the NCC and the watershed expertise of the RVCA. "We were extremely impressed with the team put together, their ability to work with the community and the efficiency shown in getting the work done, just days before the first snowfall", said Donna DuBreuil of the OCWC.

The work involved cleaning, relining and/ or replacing a large number of culverts along the Watts Creek and PSPC Pathways, work that was essential to ensure that water drained into the wetland.

Previously, the tributaries bypassed the wetland which resulted in its drying and



Beavers will continue to keep the restored wetland healthy

dysfunction. To restore and rehabilitate the drying wetland three (3) wetland cells were created, increasing the capacity of the wetland and reestablishing the flow.

These cells also provide a larger wetland feature that supports amphibian breeding, fish habitat, bird foraging and nesting sites and act as a water supply for wildlife. "It was remarkable to see a Great Blue Heron fishing in one of the newly-created cells even as the work was underway, a special sign that a respected symbol of wetland health had returned", said Kate MacNeil of the OCWC.

"The wetland cells were designed in partnership with the RVCA, to ensure they were properly located within the wetland and that appropriate native wetland seed mixes were used for revegetation", said Jennifer Lamoureux of RVCA.

"We were very pleased with the sensitivity shown by the contractor, George W. Drummond Ltd., in carefully carving out the new cells within the wetland, leaving an island in the middle of one as a basking area for turtles and waterfowl", said Bina Chakraburtty of the NCC.

Not only will this wetland provide costeffective environmental and ecological services, but the Ottawa-Carleton Wildlife Centre, located on Campus, will use its outdoor education program for students from across the region and across the country, through the Encounters with Canada program, to share knowledge about wetlands and the collaborative effort made in the nation's capital to see this wetland restored to health.

Wetlands

Essential Services

In Ontario's settled areas, over 70% of our wetlands have been lost to residential and commercial development, road infrastructure and agriculture. It is, therefore, critical to retain and/or restore those in urban areas such as the Stillwater Creek Wetland:

- Wetlands are among the most productive ecosystems in the world, comparable to rain forests and coral reefs, providing habitat for over 600 species of plants, animal and insects in Canada
- Wetlands provide flood control by acting as giant sponges, they absorb rainfall and control its flow into our streams and rivers, trapping sediments and lessening the impact of erosion
- Wetlands are equally critical during times of drought by maintaining surface water flow, helping both surrounding vegetation as well as recharging ground water over a very large area
- Wetlands clean water in a number of critical ways. Nutrients are taken up by wetland plants and pollutants such as phosphorous, heavy metals and toxins in the sediments of wetlands. They also filter up to 90% of bacteria in the water
- Wetlands store carbon within their plant communities and soil instead of releasing it to the atmosphere as carbon dioxide, thus helping to moderate global climate change conditions
- There is no other species as crucial to creating and maintaining healthy wetlands as Beavers

Revisiting Best Wildlife Management Practices

We find that there are common denominators in those cities that have established progressive policies in protecting wildlife and natural habitat. These cities are innovators and leaders with respect to municipal practices when it comes to the environment, they promote community engagement and they quickly move from planning to 'action' by implementing pilot projects, enlisting multiple partners in the process.

Almost always, these cities have forward-looking staff like Scott Mathers, City of London and Grant Pearsell, City of Edmonton willing to take on challenges, generously sharing the lessons learned and the successes with others. We thought it was time to catch up with what they are up to now.



Flow Device in Talbot Village Stormwater Pond, London, Ontario

London, Ontario: In 2014, the City of London approved a forward-looking Humane Urban Wildlife Conflict Policy. Little time was lost in developing Protocols to make the policy a reality.

The first Protocol was on Beavers. It recognized the many positive ecological benefits beavers contribute but the sometimes negative impacts such as flooding and tree loss. To keep beavers on the landscape while preventing the problems, the City adopted the use of flow devices where required to prevent flooding, tree protection for mature trees to be saved while planting fast growing native species of trees to provide food for beavers where needed.

The initial pilot project involved the installation of a flow device in the Hyde Park Stormwater Pond in May 2015. Dan Jones, Land Management Supervisor of the Upper Thames River Conservation Authority was contracted by the City to advise on regulations such as those of the Department of Fisheries and Oceans (DFO) and to carry out the installation of the flow device. He has become a strong advocate for the program. "Based on the success of the pilot project, we have been hired under contract by the City to manage and maintain

the program, having thus far installed 9 flow devices, including a number in stormwater ponds, that prevent flooding while leaving enough water depth for beaver survival as well as wrapping and planting trees at numerous conflict sites", said Dan.

"Education is an important part of the job — helping residents understand the need for maintaining wetlands and the key role played by beavers. There is pride in the community in seeing an approach by the City that is progressive, considerate of wildlife, benefits the environment and also happens to save money for taxpayers", said Scott Mathers, Director Water and Wastewater for the City of London.

Scott, who has a degree in Environmental (Civil) Engineering from the University of Waterloo and a Masters in Public Administration from the University of Victoria has been the key architect for this model program.



Dual culvert to connect tributary with creek in Edmonton, Alberta

Edmonton, Alberta: Over a decade ago, the City of Edmonton established a Wildlife Passage Program with the goal of maintaining habitat connectivity for the city's wildlife populations while also reducing human-wildlife conflict.

One of the first steps taken was to bring together city planners, ecologists and engineers to collaborate on the habitat needs of a wide range of species, to identify transportation and ecological network components, potential conflicts with wildlife and a detailed mitigation toolbox. The result was a 250-page document 'Wildlife Engineering Design Guidelines', considered to be a first in Canada.

"What we've worked on is to find a methodology that everyone can agree to, that we can get to the solution quite quickly that satisfies the needs of our transportation engineers and of our wildlife ecologists", said Grant Pearsell, Director of Urban Analysis at the City.

The program has resulted in the design of 27 wildlife passage structures over the last 8 years, leading to a reduction in wildlife collisions by 51% despite additional road infrastructure and a substantial increase in Edmonton's population.

A reorganization in 2016 brought together land use planners with transportation engineers, contributing even further to new environmental initiatives such as 'Breathe: Edmonton's Green Network Strategy' and an 'Urban Primary Land and Vegetation Inventory'.

Innovators like Grant Pearsell, whose professional expertise includes a background in civil engineering combined with a degree in Environmental Studies and a Master's degree in Urban Planning, continue to help make Edmonton a leader in environmental sustainability. His long list of awards include several from two different organizations in 2018 – one from the Canadian Institute of Planners for Planning Excellence, the other a National Award by the Canadian Society of Landscape Architects for Planning and Analysis.

National Capital Commission's Sustainable Development Strategy





Porcupines, along with many other mammals, are frequent casualties on area roads that cut through the NCC Greenbelt

The National Capital Commission recently reported on its Sustainable Development Strategy for 2018-2023. Although not currently required to report on the Federal Strategy, the National Capital Commission is voluntarily adopting the strategy's framework.

"We are pleased that, over the past few years, the Commission has taken the initiative to hold a number of public workshops to assist in identifying priority targets and actions on behalf of the Strategy", said Donna DuBreuil, President of the Ottawa-Carleton Wildlife Centre.

Commitments within the Strategy include action on climate change, clean energy, pristine lakes and rivers, sustainably managed lands and forests, healthy wildlife populations, sustainable food, and connecting Canadians with nature.

Much of the land in the NCC's care is green space – and much of it in its natural state – consisting of forests, wetlands and fresh water, as well as urban parkland. These lands and the ecosystem services they provide are invaluable to the Capital Region.

Given the Centre's long-standing focus on the preservation of natural habitat along with wildlife-sensitive planning, we are encouraged by the actions identified in many of the Strategy's goals. Namely, to "promote the connectivity of ecosystems and natural habitats in the National Capital Region", and to "develop guidelines to minimize wildlife mortality on roadways".

"This latter goal of the NCC is particularly relevant to our community given our concern about the impact that the DND campus, along with the new LRT station, will have on the Greenbelt. The major increase in traffic on Moodie Drive will very much threaten an important wildlife corridor connecting the Greenbelt's Natural Link lands to the Core Natural Area and its significant biodiversity", said Ian McConnachie of the Crystal Beach Lakeview Community Association.

The Centre is working with local community associations to urge the NCC to act on its commitment to minimize wildlife mortality by ensuring that wildlife underpasses are built to maintain the ecological connectivity of this important corridor.

"The leadership shown by the NCC and Public Services and Procurement Canada (see cover story) in restoring a valuable urban wetland, with habitat enhancements for a wide variety of species, within this Core Natural Area of the Greenbelt make it now even more critical to ensure safe passage for wildlife", said Leah Travis of the Belltown Neighbours Association.

Road Ecology

Richard Forman, considered the 'father' of landscape ecology, wrote in 'Road Ecology: Science and Solutions' in 2003, "a central goal of transportation is the delivery of safe and efficient services with minimal environmental impact. In practice, though, human mobility has flourished while nature has suffered".

Since then, there has been a great deal more attention paid to the subject, with many countries, including Canada, factoring wildlife sensitive-planning into road development.

Kari Gunson and Dr. Fred Schueler have recently published an excellent handbook 'Wildlife on Roads' that allows us to understand and measure the ecological footprint of roads and apply solutions. The handbook is one tool as part of a larger project. The handbook itself is meant to empower and guide submission of complete and accurate data by citizen scientists, naturalists and students that will then be used in mitigation planning. To this end, the handbook outlines why Ontario's vertebrates (amphibians, reptiles, birds and mammals) may be on roads, and provides descriptive text, coloured photos, and sketches to assist with identifications.

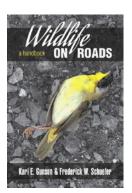
It is the intention of the authors to garner support through the sales of this book to provide workshops, summarize data for mitigation planning, and to build-on information for subsequent editions of the book that would include mitigation solutions.

Kari Gunson has worked in the field of road ecology since 1999, starting with the wild-life overpasses in Banff National Park. She continues, through her company Eco-Kare, in her proactive approach in Ontario and

elsewhere in North America, evaluating where animals are killed on roads, and designing and installing solutions such as fencing and wildlife crossing structures.

Dr. Fred Schuleler, a well-known biologist has spent decades researching and documenting natural history observations in Eastern Ontario, having amassed a database that contains about 25,000 road data records of vertebrate and invertebrate casualties.

'Wildlife on Roads' is a must read for all those interested in wild species and what we can do to encourage better protection for them. It is available for \$29.95 at https://eco-kare.com/shop/



Giving Wild Things A Chance



The four small baby squirrels, with eyes just open, were very dehydrated and ice cold. They would not survive for much longer as their mother had been gone for almost two days. A block away, the mother squirrel was frantically trying to escape a so-called 'humane trap'. The homeowner, unaware of the consequences, was preparing to take the trapped squirrel to a forest miles away.

This sad story is repeated hundreds of times during the spring and summer birthing season. It leaves thousands of baby animals like these young squirrels to die a slow and painful death and homeowners taking an action without realizing the very inhumane outcome for the animals.

You see, female animals come closer to our properties each spring, seeking out covered shelter in eaves, chimneys, garden sheds and under steps as a safe spot to have their young, away from predators when their newborn babies are most vulnerable. Those leaf nests or dreys that squirrels occupy high up in trees, for example, would offer little protection against the elements or predators while the trees are still bare.

This year, the very high winds, snow cover and rain have made it even more difficult for wildlife to find safe spots to have their young.

Each year people unwittingly barricade an animal's access to find it frantically chewing to get back to its young, or having trapped and relocated an adult mother, to find the abandoned babies having fallen between walls, requiring expensive drywall removal.

Even if the young are rescued, the homeowner is left with orphans to be euthanized, causing a lot of emotional distress for the family. Even those companies that say they offer a humane

Some Helpful Tips

- Giving an animal a temporary grace period is not only a humane solution but a wise decision for the homeowner in that babies are often in inaccessible spots and the mother is an insurance policy for getting them out once they are weaned
- Before taking down a tree or removing branches, check to make sure there aren't leaf nests or cavities that would be home to babies that would be too young to escape
- If you find a nest of baby squirrels or raccoons when cleaning out a shed or garage, put it back intact exactly as you've found it and give the mother a few days to relocate her young
- A nest of baby rabbits in your garden should also be left alone as the mother only returns during the night or at dusk to feed her young
- If your barbeque hasn't been used for a while, check it thoroughly before lighting as red squirrels and mice will sometimes have a nest of babies under the grill
- Do not try to smoke an animal out of a chimney. Babies would not be able to escape and you could cause a chimney fire
- The Ottawa-Carleton Wildlife Centre website helps thousands of homeowners each year with advice on the birthing season, proper animal-proofing techniques and deterrents to keep them out of your garden, resolving problems in a humane, cost-effective and permanent way
- Research all your options **BEFORE** taking any action. An ounce of prevention is worth a pound of cure when it comes to wildlife concerns. Take advantage of the free and experienced advice at www.wildlifeinfo.ca and keep it handy for wildlife questions throughout the year

service can give you no guarantee they won't end up creating orphans.

If you see a wild animal around your property at this time of the year, you can safely assume it's a female with babies



Squirrel leaf nest showing how little protection it offers in early spring

nearby. So, please do not barricade her access or trap and relocate her. Remember, it is a very **TEMPORARY** situation. Once the babies are weaned, the family will move back to a more natural area.

Board News

The Ottawa-Carleton Wildlife Centre is fortunate to have a diverse and talented group of individuals who volunteer their time and expertise on our Board of Directors.

Leah Travis joined the Centre's Board in 2018. Although new to the Board, Leah has been a member and supporter of the Centre since 1996, as well as an effective wildlife advocate for much of that time.

Leah has an MBA in International Business from the University of Western

Ontario, as well as degrees in Education and History. Her career in the private, public and non-profit sectors centered on organizational analysis, policy development, finance and administration and the management of change.

Since retirement Leah has volunteered for charitable organizations focused on the welfare of the most vulnerable. She is also engaged in community activities, currently serving on the Executive of the Belltown Neighbours Association.



Coyote Information Session in River Ward



Coyote pup: Courtesy of Alberta Institute for Wildlife Conservation.

OCWC's programs are rooted in the belief that education is a powerful tool and key in battling misunderstanding and fear. So, when Councillor Riley Brockington organized an information session last fall in response to questions and concerns by residents about coyotes in the area, we were pleased to be involved.

The session brought together the City of Ottawa, National Capital Commission, and the Ministry of Natural Resources and Forestry as the issue involves a variety of jurisdictions. The session was well attended with lots of questions and discussion.

Coyotes are becoming an increasing part of urban landscapes and are found in many major cities. With Ottawa's significant greenspace, it is not surprising that they are found throughout our City. The Centre had a booth and provided information on coyote biology and behaviour as well as ways to coexist. We were pleased that so many residents told us they valued local natural areas and the wildlife they are able to observe and enjoy. The presenters stressed that it is normal for there to be coyotes and talked about ways to coexist and that we have a role to play in mitigating conflicts. Taking small steps to prevent conflicts means we can enjoy nature instead of fearing it.

Tips for Coexisting with Coyotes

- DON'T FEED COYOTES. Their life and your safety depend on coyotes remaining wild and naturally wary of people. Remove or secure any food source, including garbage, composters, pet food, fruit and berries. Remember, birdfeeders attract birds and small animals, which coyotes feed on.
- KEEP PETS SAFE. Pets left unattended are a potential food source for animals like coyotes and fishers. For smaller dogs and cats this means keeping them indoors and staying with them while outside. For larger dogs, it is good to keep them contained in a fenced yard or dog run. Walk dogs on leashes. Pick up your small dog if you see a coyote.
- DISCOURAGE BOLD COYOTES. Because coyotes have become used to seeing people, some may appear bold on occasion. You should discourage this behaviour by making noise, waving your hands, clapping and shouting.
- ENCOUNTERING A COYOTE WHILE WALKING. Don't run. Wave your arms and make noise until he retreats. Be 'Big, Bad and Loud'

Connecting to Nature is a Gift at Any Age

OCWC's Education and Outreach Programs aim to help people of all ages better understand and appreciate the wildlife they share their spaces with and to promote a connection with nature.

For children the benefits of this connection is far reaching and means improved concentration, building confidence, promoting creativity, getting them moving as well as creating future stewards.

We help foster this connection through our on-site Nature Discovery Workshops. We are fortunate that the Centre's 'backyard' is within the NCC's Greenbelt, with walking trails and a variety of habitats to explore. Workshops are offered to a range of age groups and are designed to expose people of all ages to the wonders of nature. We recently hosted a Beaver Group that included children ages 6-8, they got to try their hand at dam-building using sticks, rocks and plasticine before heading out to see the beaver lodge on Campus. They were excited to see a heron as well as to spread milkweed seeds to help the monarch butterflies.

At the other end of the spectrum would be the 3rd year Forestry and Environment college students who spent a day at the Centre. This session focused on the important role beavers play and the effectiveness, cost savings and environmental benefits of modern flow devices. It is rewarding to make an impact with students who will soon be working at jobs where they can implement progressive environmental practices.

But what does nature have to offer those of us who are not kids anymore? According to research, the answer is a lot. Positive impacts such as people walking on an outdoor track moved at a faster pace, perceived less exertion and experienced more positive emotions than those walking on an indoor treadmill. Another study indicated that looking at natural scenes, such as mountains and forests, activates parts of the brain associated with balance and happiness. One study even suggests that spending more time in nature can make us nicer and enhance our social interactions. Even if only some of these benefits are valid, I think it is worth taking a chance on nature.

So where to start? Through our Programs we work to promote the importance and intrinsic value of all natural spaces. Urban habitats are just as valuable as a provincial park. Perhaps more so when you consider that these areas are far more accessible and have fewer barriers for most people to connect to nature. You don't need the weekend and a car full of camping equipment to go exploring.



Before heading out to explore the beaver lodge on Campus, kids tried their hand at constructing their own beaver dams.

While our Programs always made an effort to reach audiences of all ages, we have formally begun an expansion of our Outreach aimed at engaging seniors. We have started visiting seniors' residences giving presentations about local wildlife as well as promoting the benefits of a connection to nature and providing information about ways they can enjoy nature in their areas.

Donation Coupon Yes I want to help wildlife \$35 \$50 \$100 Other \$ Name: Address: City: Province: Postal Code: Email: Telephone: Please make cheques payable to: email: ocwc@ncf.ca Ottawa-Carleton Wildlife Centre, P.O. Box 11051, Station H, Ottawa, Ontario, K2H 7T8. Pes I want to help wildlife Telephone: Information is used only by the OCWC. It is not shared.

OUR THANKS
OCWC gratefully acknowledges: Ruth and Ray Wesenberg Wildlife Fund The William Muir Hawes Wildlife Fund
OTTAWA COMMUNITY FOUNDATION invested for good
Special thanks to: Ryan Kelson, Design - RyanKelson.com

OCWC Website www.wildlifeinfo.ca