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THE BUZZ AT KEPO

The Official Newsletter of the Kahnawà:ke Environment Protection Office

Kahnawà:ke. Fall 2022.

WHAT'S THE BUZZ AT KEPO?

Welcome!

This is the official newsletter of the Kahnawà:ke Environment Protection Office (KEPO). The Buzz at KEPO is a new quarterly newsletter that will provide updates on current KEPO initiatives and events, as well as environmental information relevant to Kahnawa'kehró:non. Keep on reading to see what we've been doing to protect and better our environment.

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FIGHTING TO PROTECT & BETTER OUR ENVIRONMENT

PROJECT UPDATE

GIS at KEPO

by James Serendip, Environmental GIS Specialist

Geographic Information Systems (GIS) is the study of information from the perspective of where things are in the world. GIS combines the artistry of cartography with the science of statistical analysis and computer programming to both reveal patterns, and to clearly communicate it to others. Over the years, KEPO has collected a great deal of information on the different species and habitats in Kahnawà:ke and in Tioweró:ton. With GIS this information can be mapped and studied to identify trends, visualize patterns, and assist with decision-making.

Using GIS technology we are able to monitor things like the presence and spread of invasive species, changes in biodiversity, and changes in contaminants or the quality of water, soil, and air. GIS also helps us determine appropriate locations for new projects, from environmental restoration work to climate change preparedness.

GIS at KEPO works with information from lots of sources, from staff out collecting scientific data in the field with custom-made data collection apps or GPS devices, to satellite, aerial, and drone imagery, to in-place sensors and monitoring devices, to community input from online apps.

Current GIS projects at KEPO include making a predictive map of metals in the soil, tracking air quality changes with real-time air quality monitors throughout the community, monitoring changes in surface water quality, locating sites of illegal dumping, identifying key habitat areas for ecological preservation, and monitoring shipping traffic in the St. Lawrence Seaway.

Access GIS maps of ecosystems in Kahnawà:ke and our illegal dumping tracking app here.

PROJECT UPDATE

Contaminated Sites Remediation

by Stephanie Butera, Environmental Projects Coordinator - Contaminated Sites

KEPO has worked closely with consultants from BluMetric Inc. to design a remediation plan for the former Morris Dumpsite. Remediation of the site would involve a combination of techniques, including the excavation, segregation, and disposal of solid waste materials (recycling what is possible), treatment of well water, and ongoing monitoring to ensure that any risks are controlled. An important part of this project is the use of nature to heal the site. Known as phytoremediation, the team will be planting species that either remove contaminants or stabilize the soil. The process is slow working, however it is cost effective and requires little effort.

Former dumpsite.

Taking soil samples.

PROJECT UPDATE

Aquatic Stewardship Program

by Tyler Moulton, Environmental Projects Coordinator - Aquatic Habitats

Tioweró:ton. 2021.

KEPO is studying fish health in Kahnawà:ke and Tioweró:ton this winter. In Kahnawà:ke, we will be following up on work done in 1997 and 2010 to study mercury levels in fish. In previous studies, we found that fish generally had low mercury, with some larger predatory fish like bass, pike, and walleye had mercury levels near advisory limits. All fish, however, had very low levels of PCBs and pesticides. We will be working with community volunteers to collect small samples from fillets. It is important to monitor the concentration of mercury, PCBs, and pesticides because they can affect fish and the animals (including people) who eat them.

We will also be studying the growth rates of tiotià:kton (trout) populations in Tioweró:ton. This can be done by quickly measuring a fish and clipping off one of the pelvic fins (this doesn't hurt the fish when done right).

Want to help your community while you fish this winter? Contact KEPO for more information and to participate. **450-635-0600 or environmentprotection@mck.ca.**

MEET THE TEAM

Tim Law

Environmental Consultation Advisor

Tim joined the team at KEPO in March 2022 as an Environmental Consultation Advisor. He recently received his Master's degree in ecology at Concordia University studying distributions of fish across Ontario. Tim has worked in various organizations across Canada, mapping and characterizing wetlands, tracking turtles and researching biodiversity legislation. Now living in Montreal, Tim is excited to continue to learn more about the environment in Kahnawà:ke. As the environmental consultation advisor, Tim works on external projects that may impact Kanien'kehá:ka traditional territory. He works with a team at the Office of the Council Chiefs to analyze projects and develop position statements and recommendations. When not working on consultation files, Tim is an avid gardener defending tomatoes from squirrels. Tim is excited to be part of the team at KEPO and looks forward to working with the community!

Mallard, male and female.
Photo by Onawa K. Jacobs.

COMMUNITY SCIENCE

Christmas Bird Count

December 17, 2022

The Kahnawà:ke Environment Protection Office is happy to share that we will once again be participating in the annual Christmas Bird Count on Saturday, December 17th, 2022. KEPO has participated in the bird count for many years and supports this initiative which gathers valuable bird population data. This will be the 87th year that Bird Protection Quebec has conducted the Montreal area Christmas Bird Count. The area covered by this survey is a 24-km wide circle centered in Montreal West.

Two teams will begin at sunrise continuing until late afternoon and cover specific areas within the community. The Inland Team will be in the areas of Big Fence, Tekakwitha Island, green spaces along the seaway, old railroad tracks, Tower Road, the golf clubs along the 207, and common lands near Highway 30.

The Seaway Team will be in the area of the North Wall from the Ste. Catherine locks to the end of the Kahnawà:ke land base.

Community members who want to learn more or participate in the bird count can contact KEPO at 450-635-0600 or environmentprotection@mck.ca.

WILDLIFE PROFILE

American Kestrel

Ohsáhtara

Falco sparverius

The American Kestrel is North America's smallest falcon. They are roughly the size and shape of a Mourning Dove. Kestrels have a rusty brown spotted back and a spotted pale white breast. The males have grey wings, while the females have reddish brown wings. Both have black markings on their pale faces.

American Kestrels can be found in open spaces with short vegetation and few trees. They are often perched on posts or hovering in the wind to hunt. Their diet consists of large insects, some small mammals, birds and reptiles.

Kestrel migration counts suggest a long-term and gradual decline in populations within certain ranges. Population declines are likely the result of a decrease in nest site availability. You can help American Kestrels by putting up nest boxes.

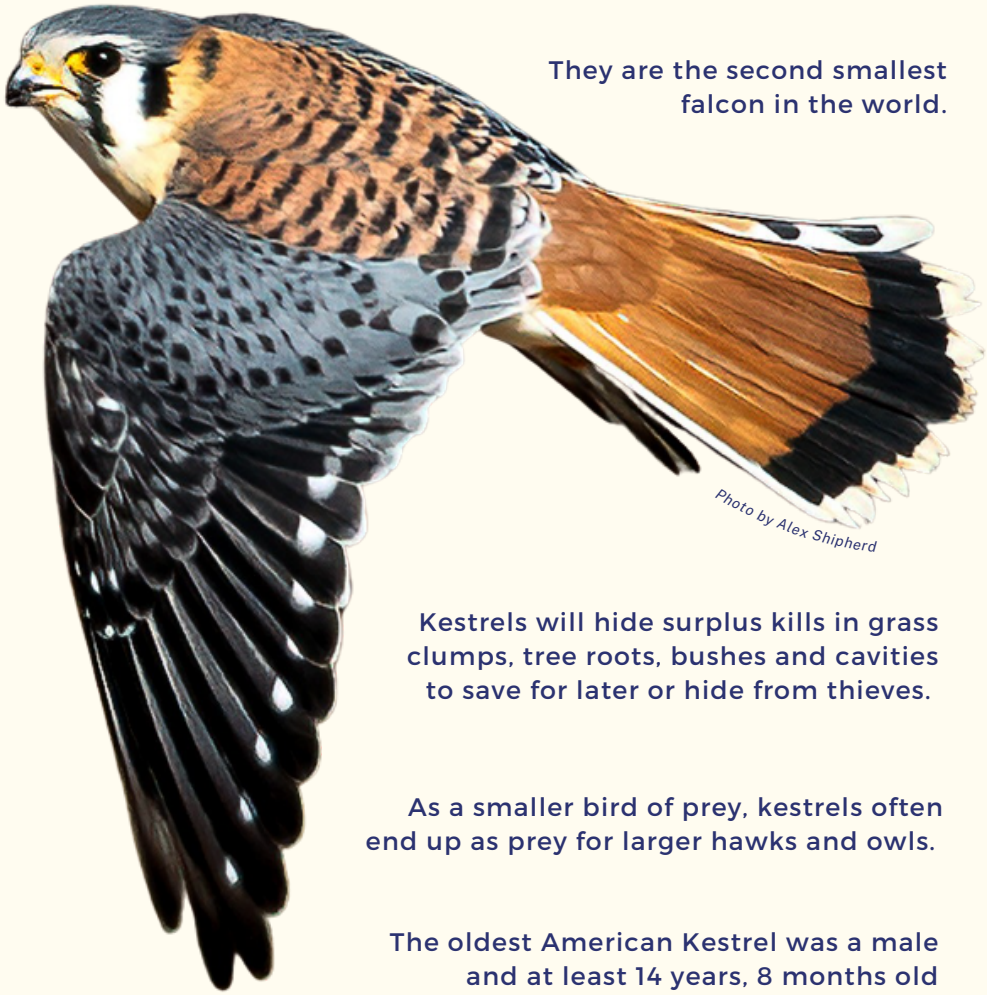

Photo by Alex Shipherd

They are the second smallest falcon in the world.

Kestrels will hide surplus kills in grass clumps, tree roots, bushes and cavities to save for later or hide from thieves.

As a smaller bird of prey, kestrels often end up as prey for larger hawks and owls.

The oldest American Kestrel was a male and at least 14 years, 8 months old when he was found in Utah in 2001.

PROJECT UPDATE

American Kestrel Nest Boxes

by Cole Delisle, Environmental Projects Coordinator - Terrestrial Habitats

In October KEPO installed 6 kestrel nesting boxes throughout the community to provide more habitat for the species. Kestrels are cavity nesters and will occupy woodpecker holes, rock crevices, or tree hollows. Since they don't excavate their own nests, they take to nest boxes easily. A great nesting site is by a large open field area where they can hunt for rodents and insects. Kestrels start nesting in early-Spring and the chicks fledge roughly 2-3 months later.

PROJECT UPDATE

KEPO at the United Nations Convention on Biological Diversity

by Benjamin Green-Stacey, Director of Environment Protection

The 15th Conference of the Parties to the **UN Convention on Biological Diversity (CBD)**, otherwise known as COP-15, will be held in Montreal from December 7-19, 2022. The primary objective of COP-15 is to finish negotiations on the Post 2020 Global Biodiversity Framework. Once adopted, the framework will outline a series of global goals and targets which will drive conservation priorities to the year 2030 and beyond.

When the CBD came into force on December 29, 1993, it became the first global agreement ever to cover all aspects of biological diversity including:

- the conservation of biological diversity
- the sustainable use of its components and
- the fair and equitable sharing of benefits arising from the use of genetic resources

The CBD also includes clear obligations to Indigenous Peoples and recognizes our critical role in achieving the objectives of the convention.

- Article 8(j) calls on countries to respect, preserve and maintain the knowledge, innovations and practices of Indigenous Peoples and to promote their wider application. It also says that this requires the approval and involvement of the holders of such knowledge as well as equitable sharing of benefits that arise from the use of such knowledge, innovations and practices;
- Article 10(c) Calls on countries to protect and encourage the customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use; and
- Article 18(4) Calls on Countries to find methods for cooperation in development and use of technologies, including indigenous and traditional technologies in pursuance of the objectives of this Convention.

KEPO attended COP-15 to present on the Tekakwitha Island and Bay Restoration project. We want to showcase the work that we have done here in Kahnawà:ke, and show the world that we as Onkwehón:we people are ready willing and able to play a key leadership role in protecting and preserving nature for current and future generations.

Benjamin Green-Stacey, Director of Environment Protection

KEPO TRAINING

National Tree Seed Center Training

by Stephanie Butera, Environmental Projects Coordinator - Contaminated Sites

Representatives from KEPO were invited to participate in a five-day training event at the National Tree Seed Center (NTSC) in Fredericton, New Brunswick. This training was organized by the center's Indigenous Seed Collection Program (ISCP) that aims to help indigenous communities across the country to preserve plant species that are important to them. The NTSC collects, receives, processes, and stores seed for use by researchers, conservationists, and in the forestry sector.

Germinating white birch.

During the training, NTSC staff explained the process of seed storage, from collection to freezing, and participants had the opportunity to get hands on experience. Going forward, KEPO's goal is to consult with our community to find out what plant species are priorities for conservation, and to create our own seed bank. Having our own seeds stored means that we will be able to use plants that share local genetics for future rehabilitation projects, support our seed sovereignty and supply seed to other communities within our ecoregion. The main objective of the ISCP is to create a network of seed banks that serve communities across Turtle Island and encourages collaboration between different indigenous groups.

COMMUNITY SCIENCE

Adopt a River Program

by Julie Delisle, Environmental Education Liaison

Niawenhkó:wa to the grade 10 Kahnawà:ke Survival School science classes for joining us for the first Tehont'nekanonhnha – Adopt a River program. Tehont'nekanonhnha was developed by Education and Water Monitoring Action Group (G3E) and adapted for Kanien'kehá:ka communities in collaboration with Ratihontsanonhstats Kanesatake Environment.

The students learned about monitoring water quality through fish sampling, macroinvertebrate collection and various water quality tests. The students got to experience the fieldwork that goes into KEPO's aquatic stewardship program and what an environmental science career could look like.

PROJECT UPDATE

KEPO and KORLCC Kanien'kéha Field Guide Collaboration

by Julie Delisle, Environmental Education Liaison

The Kahnawà:ke Environment Protection Office (KEPO) and the Kanien'kehá:ka Onkwawén:na Raotitióhkwa Language and Cultural Center (KORLCC) are pleased to announce the publication of , "Ohna'kenhró:non Otsi'ten'okòn:'a Ne Kahnawà:ke Nón:we Konwatiienteréstha Kahiatónshera - Backyard Birds of Kahnawà:ke: Field Guide" - a collaborative project to highlight cultural and ecological knowledge in our community.

This field guide features descriptions of ten common backyard birds and other bird watching and conservation tips in both Kanien'kéha and English. This is the first edition of a series of youth-focused Kanien'kéha field guides that will focus on flora and fauna in the community. It's the perfect companion to KEPO's annual bird count in the winter, and for exploring our community. Copies have been provided to Kahnawà:ke schools and are also available at the Kahnawà:ke Library and Iakwahwatsiratátie Language Nest. Copies are available for purchase at KORLCC.

Kahnawà:ke Environment Protection Office

450-635-0600
environmentprotection@mck.ca
@KahnawakeEnvironment

P.O. Box 720
Kahnawà:ke Mohawk Territory
J0L 1B0

Find past issues of the Buzz at KEPO here.