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E-Newsletter

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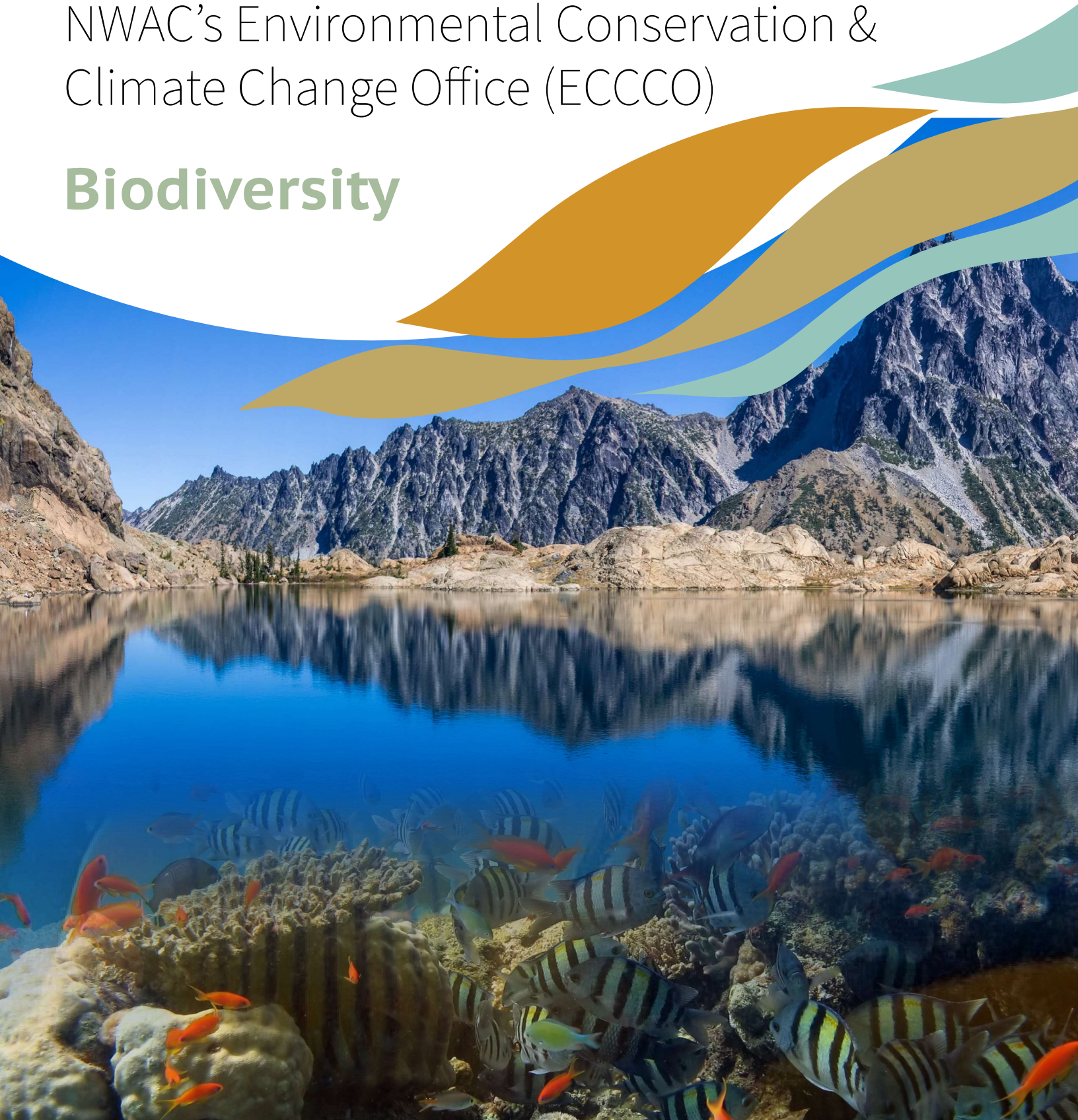
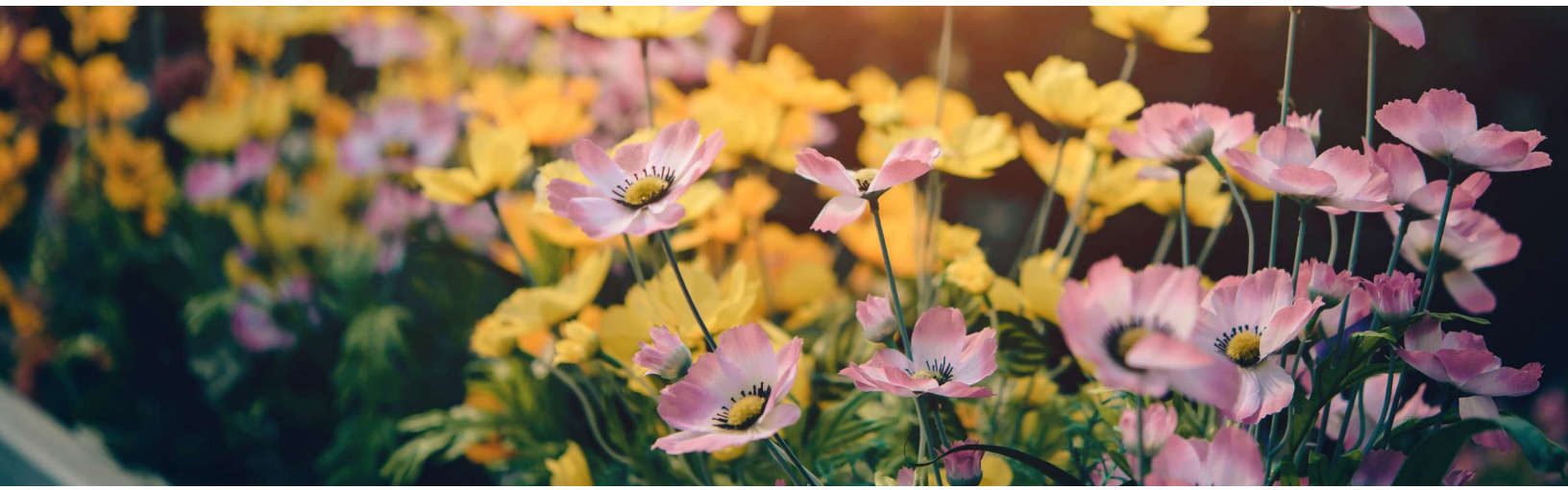
NWAC's Environmental Conservation & Climate Change Office (ECCCO)

Biodiversity



Biodiversity is the degree of richness among non-human lifeforms. We can evaluate balance in our relations by looking at biodiversity – when environments are not protected, biodiversity is threatened. This affects food security, health and the relationship balance we share with non-human life. Our goal is to inform and affect positive change and restore biodiversity by applying Indigenous traditional knowledge. Indigenous women, girls and gender-diverse people stand on the front lines as environmental stewards living in connection with all creation.



Grow Your Own Three Sisters Garden

By Sarah Niman

Sisters don't always get along, but when they do, goodness grows. The Haudenosaunee honour the special relationship among sisters and apply it to corn, bean and squash. When grown together, The Three Sister crops support each other to grow strong.

Corn grows in tall stalks, allowing the beans to climb and get out of the squash vines' way. Beans add nitrogen to the shared soil, benefitting the corn and squash. The large squash leaves shade the soil and prevent weeds, keeping moisture in the ground. This traditional teaching of biodiversity in action can be easily applied in your garden.

The Three Sisters garden has been adopted by Indigenous and non-Indigenous communities across Turtle Island.

"Support each other to grow strong"

How to Plant a Three Sisters garden:

The Haudenosaunee method plants all three sister seeds together in elevated mounds. The mounds help rainwater drain, preventing root rot. Use your hands to build mounds about four centimetres above the soil, keeping a small hole in the centre.

Plant corn seeds 3 inches deep. When corn has sprouted and grown for two weeks, plant bean seeds. They should start about halfway down the mound, 3 inches away from the corn, 1 inch deep.

When the beans have sprouted, plant squash seeds about a foot away from the mound, on opposite sides. Check the squash as they grow and encourage vines to grow away from the mound to prevent overcrowding the beans. Everyone needs space – just ask anyone with sisters.

Choose heirloom corn, bean and squash seeds specific to your climate. These sisters grow stronger when planted in their own lands and their own conditions.

Wolves Have a Role to Play in Biodiversity

By Isabel McMurray

When we think of biodiversity, we tend to think of beginnings. In essence, seeds are spread by natural means, pollinators fertilize flowers that will later produce fruit, and small animals move into existing biospheres and improve them for microbes, insects and other small creatures. In this picture of natural biodiversity, we seldom think of large predators.

Wolves are important to maintain biodiversity. Without wolves, coyote populations would explode and increase predation on small mammals. Foxes, badgers, martens, and other midsized predators who cannot cope with the competition would leave the area or die of starvation. Without wolves, hooved animal populations, like elk and deer, would start to rise and require more food. Eventually, crucial vegetation for fish and bird habitats would be stripped by hungry ungulates. Without wolf carcasses, scavengers would move on and local soil would fail to foster plant biodiversity due to the lack of rich nutrients.

Wolf kill policies run in disagreement with teachings that we must live in respectful co-existence with all our relations, including four-legged, two-legged, winged, finned, rooted and flowing.

Wolf kill policies were introduced in parts of Canada to protect fragile caribou populations. Wolf populations fluctuate parallel to how much prey is available. In Alberta, over 2,000 wolves have been killed since 2005 to protect the vulnerable Little Smoky Caribou herd, whose historical habitat is now 95% disturbed by oil and gas industrial development activity. British Columbia implemented similar wolf kill policies in 2015, to protect dwindling caribou populations that face habitat loss due to resource extraction.

Killing wolves may seem like a quick solution to a significant problem exacerbated by resource extraction. Continuing research shows large carnivores like wolves play a large role in fostering biodiversity. The Seven Sacred Teachings, although nuanced across Canada, highlight wolves as a representation of humility. Wolves as individuals cooperate with the pack – a reminder that we are all a part of creation. As human beings in co-existence with wolves, we must respect our place and re-evaluate how we interact with all of our relations.

To learn more:

https://californiawolfcenter.org/education/biodiversity/

https://wolf.org/wp-content/uploads/2013/08/361-Can-we-save-large-carnivores-without-losing-large-carnivore-science.pdf

https://www.sciencedaily.com/releases/2009/11/091102085819.htm

https://www.outsideonline.com/2255971/very-old-man-wolf

https://www.southernnetwork.org/site/seven-teachings

https://unitingthreefiresagainstviolence.org/services/the-seven-grandfather-teachings/

https://www.wolfawareness.org/wolf-kill

"Wolves as individuals cooperate with the pack – a reminder that we are all a part of creation."

Are Polar Bears Really Endangered?

By Soha Kneen

It is hard for some Inuit communities to think of polar bears as endangered when they are seeing more of them than before. Western scientists from the Polar Bear International, the United States' Endangered Species list, the WWF-US and the WWF-Arctic list polar bears as a vulnerable species.

From time immemorial, Inuit living in Inuit Nunangat have concluded that polar bear populations in Canada are not in decline. Their position balances human safety with environmental management. Aerial surveys and Inuit observations propose that polar bear populations are not shrinking –they're just moving. Polar bear biologist Joseph Cheek states that Inuit evidence in polar bear research is valuable because they live year-round among polar bears, and they are reporting more bear sightings.

Cheek's statement competes with other scientific observations, which find polar bears are vulnerable to extinction because of the reduction of biodiversity in face of the sea ice melting. This may force polar bear populations to redistribute themselves, but that does not mean their numbers have decreased.

In September 2019, the Government of Nunavut approved a polar bear management plan, which heavily draws on Inuit traditional knowledge (Inuit Qaujimajatuqangit). This plan encourages communities to "engage in polar bear deterrence" and provides bear safety programs geared towards hunters and Inuit community members. Western scientists do not dispute Inuit reports that polar bear sightings are increasing, but rather suggest these sightings occur because climate change is reducing sea ice. Inuit submit that polar bears are more adaptable than Western scientists give them credit for.

All parties agree climate change, habitat loss and biodiversity loss are taking place. While Western science and Inuit Qaujimajatuqangit remain at odds regarding polar bear endangerment in Canada, two things are clear – it is important to reduce the present levels of global greenhouse gas emissions in order to curb global warming, and Western science has not considered or integrated Inuit Qaujimajatuqangit sufficiently, if at all, in researching the impacts of climate change on polar bear populations.

"Inuit submit that polar bears are more adaptable than Western scientists give them credit for."

Biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people

NWAC Greenhouse Project Takes Biodiversity to the Rooftop

By Jamie Lavigne

Growing traditional foods and medicines sustains communities and supports biodiversity.

NWAC's own Greenhouse Grown Traditional Foods project will be on the roof of our new headquarters, set to open in 2020. We plan on hosting training workshops where Indigenous women, girls and gender-diverse people can learn about traditional foods and medicines, and techniques to set up gardens and greenhouses in their home communities. The greenhouse will produce year-round fresh foods for our commercial kitchen, culinary training and the NWAC Café.

Most Indigenous medicines are naturally found across Turtle Island within our own respective territories. Ultimately, climate change and habitat destruction are adversely affecting whole ecosystems and threatening biodiversity. Integrating native plants into our gardens will help create, support and conserve biodiversity.

Any gardener knows that you learn as you grow, so NWAC plans to create a guide for growing traditional foods in greenhouses and gardens. The greenhouse and the training workshops will address health and food security from a culturally relevant gender-based perspective. In addition, the greenhouse will provide economic opportunity for Indigenous women and their communities to engage with traditional foods and agriculture.

NWAC will soon form an advisory board consisting of Indigenous women, Elders, Knowledge Keepers, and Two-Spirit people – make sure to keep an eye out for upcoming opportunities on NWAC's social media channels.


Native Women's
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L'Association des
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du Canada
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