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CONSERVATION STORIES

News from the land



Parcs Nunavik
Parks

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הַדָּמָה, הַבִּיבָה!
Dam it, beavers!

Parc national Tursujuq

Climate change is impacting ecosystems and habitats. In the North, shrubs and bush-type vegetation are increasing, creating valuable habitat for southern species like beaver. In Nunavik, the impact of beavers is not well understood. It is likely that the building of dams and the subsequent creation of ponds is increasing permafrost thaw and accelerating shrubification—the expansion of shrub growth and presence.

Beaver dams affect Arctic char migration.



Photo: Bobby Tooktoo

A beaver dam in Tursujuq park

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Moreover, a dam can act as a barrier to Arctic char migration, which is a local concern.

The Nunavik Research Centre at Makivvik is investigating the effects of beaver dams on the northern ecosystem near Kuujjuaq and Tasiujaq.

The increasing beaver population is a local concern and is linked to the effects of climate change. As a national park, it is our mandate to improve the monitoring of beavers and better understand the effects of their presence on park territory.



Photo: Bobby Tooktoo

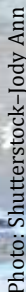
Incomplete beaver dam in Tursujuq park

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This summer, we surveyed 228 km of river habitat to have a better idea of beaver dam distribution in the region. We counted 13 beaver territories; a territory sometimes consisted of up to 3 dams. The data collected was shared with Makivvik and Anguvigaq¹.

This first exploratory survey is the beginning of a long-term program to monitor beaver distribution, activity, and persistence in the park. We hope to continue this work to further our knowledge on the beaver's impact on northern ecosystems and species such as Arctic char.

¹ Nunavik Hunting Fishing Trapping Association (NHFTA)

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Beaver

4 nunavikparks.ca

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Can you handle it?

Artefact revival in Umiujaq

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2 <e^b: <D>P₂DP^b ነል^b <D>C^qCD^j_q <D>NΓ^b Δ^cጋርድ^qወ^c.
ነድሚ^cነነድፓ^aወ^q <L>Lጋ ምልድ^c ጎረ^cነነሲፓ^aወሪሚድ^b.

Snow knife used to build igloos. It can be made of bone and walrus tusk.



3 $eDc^b: D\dot{c}^c \Delta^d \Delta^e \dot{c}^f$
 $D^g d^h J N^b.$

Harpoon head.

4 $\Delta^{\circ} P \Delta^{\circ} L \Gamma^{\circ} \mathfrak{J}^{\circ} \mathfrak{b}^{\circ}$: $\Delta^{\circ} \mathfrak{r}^{\circ} \dot{\mathfrak{z}}^{\circ} \mathfrak{z}^{\circ} \mathfrak{r}^{\circ} \mathfrak{D}^{\circ} \mathfrak{r}^{\circ} \mathfrak{b}^{\circ}$
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*Small lure used when fishing.
Originally made of walrus tusk.*

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Brushing the qiviut from the hide

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Spinning the fibers into yarn

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Photos: Rachel Guindon, Patrick Maltais

Carding the fibers to line them up

2



nimmak to skeins of wool

Qiviut workshop with Rachel Guindon

- Rachel Guindon visited Kuujjuaraapik and Umiujaq to share her knowledge on how to transform qiviut into yarn. The qiviut is the undercoat of Arctic mammals like the muskox. Wool made of qiviut is one of the softest and finest in the world. It can be brushed from hides, collected from branches, or gathered from the ground.

Napaartuit and fires

Parc national Kuururjuaq

$\Delta d \Delta c \uparrow L \downarrow^{\text{q}_b}$ 2022- Γ
 $\downarrow^{\text{q}_b} \Gamma \sigma \sigma^L \Gamma^b$ $\Delta d \Delta c \rightarrow \uparrow L \downarrow^{\text{q}_b}$
 $\sigma \langle \cdot \rangle \sigma^b$.

The fire of 2022 burned around 42 km² of forest.

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We have invited researchers to start investigating how forest fires may have contributed to the formation of the Kuururjuaq River Valley's forest oasis.

Photo: Corentin Chaillon

In Quebec, every part of the boreal forest has been affected by fire at one time or another. These fire events have been leaving their mark and shaping the forests we see today.

In June 2022, a forest fire burned part of the boreal forest in the Kuururjuaq River Valley in Kuururjuaq Park. This fire presented an opportunity to further study this northern forest ecosystem and its dynamics over time, as well as to address local community concerns about the mercury released by fire.

During this first year of exploratory field work, we were able to observe that the fire did not burn hard enough, thus leaving the mineral soil unexposed. A layer of burnt forest litter was still covering the ground. This may prevent black spruce seeds from germinating. Black spruce (**napaartuq**) must start growing on mineral soil to prevent its small baby roots from rotting.



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Dominique Arsenault looking at a tree core sample

Photos: Corentin Chaillon

The absence of newly exposed mineral soil might be the reason why we only found one (1) spruce seedling during our field campaign.

Water samples were also taken to check for the presence of mercury.



Black spruce cone - gimminquait

The absence of baby spruce would likely make the 42 km² of burnt forest look like an open meadow of thickets and brush. The first trees to recolonize the burnt area would be tamaracks (**pingiit**), but only in many years' time.

This first exploratory field work will lead to more detailed research in the years to come, and to more public outreach in the community to share what we have learned.

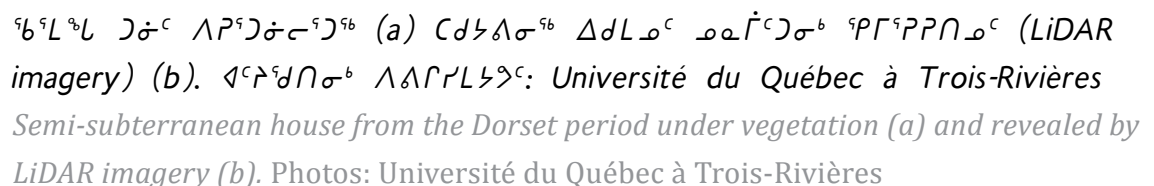
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A photograph showing two people, likely researchers, crouching on the bank of a shallow stream. They are wearing outdoor clothing and gloves, suggesting field work. The background features steep, rocky mountains under a clear blue sky. The stream is surrounded by green vegetation and small white flowers in the foreground.

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A team from Centre for Northern Studies (CEN), Laval University, Université du Québec à Trois-Rivières, and Avataq has launched a project to document archeological sites around Kangiqsualujjuaq using drone imagery. Their goal is to digitally preserve the sites and assess the degradation risk they face due to vegetation encroachment and erosion. Some of these sites are in the coastal area of Kuururjuaq Park. The results of the 3D images are quite surprising.



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Lighting the qulliq requires some learning and practice. It provides a meditative experience that connects you to the land.



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Lighting the qulliq

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