

Taloyoak, ᑕᑭᑦᑲᑦᑲᑦ, “Large caribou blind”

Introduction

Taloyoak, in the Kitikmeot region, is on the Boothia Peninsula at the heart of the Northwest Passage. It is the northernmost community on the Canadian mainland, situated northeast of Gjoa Haven and northwest of Kugaaruk¹. In 2016, the population was 1029. Integrated with wage-based activities, the wildlife economy plays an important role with many residents supporting themselves by hunting, trapping, and fishing². The community’s hunting and fishing area includes both coasts of the Boothia Peninsula and many inland lakes, extending from Franklin Lake on the Back River system to areas around Prince of Wales and King William islands. The area also extends to the Bellot Strait, and Kuugaruk to Fort Ross with the most use occurring in Lord Mayor Bay³. Artists, carvers, and artisans contribute to the economy, and are well-known for their handmade packing dolls¹. There are no national or territorial parks in the region, but some residents would like to establish an Indigenous Protected and Conserved Area to safeguard important habitat for species that provide food and income for residents².

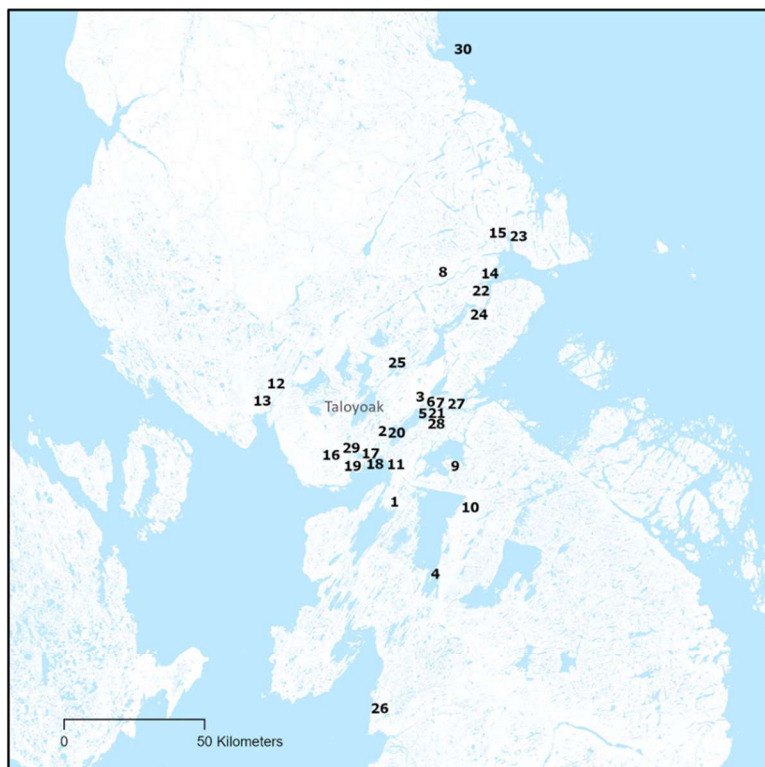
Community Restoration Priorities

1. The restoration of key fishing rivers and the monitoring of fish health in local waterbodies. Water levels are currently too low, and rivers are drying up, and remediation and new infrastructure will be required; and **2.** Changes in fish appearance and abundance have also been observed and long-term, community-led fish health monitoring programs need to be implemented.







Community Map and Workshop Highlights

The CRN research team visited the community in March 2019.

Taloyoak



Map Legend

-  **Debris and garbage:** **1** River system heavily used, lots of garbage; ghost nets, **3, 5-6** Ghost net clean-up needed, **4** Netsilik Lake; ghost net clean-up completed.
-  **Building or structure:** **2** Dangerous access road, **16** Cabins, and **18** Heavily used travel route – ATV.
-  **Harvesting areas:** **7** Too many gill nets; over-netting, **9** Panikto Lake; over-netting and declining lake trout populations, **10** Commercial char quota – Netsilik Lake, **11 & 19** Fishing site – gill nets, **12** Commercial char quota, **14** Commercial char quota – Lord Lindsay Lake, and **25** Hunting grounds; caribou hunting and berry-picking.
-  **Water issues:** **8** Char migration route; river drying up, difficult for char to swim upstream, **13** Char migration route; decreasing water levels, **17** River drying up – connects to Redfish Lake; very shallow at mouth of river, **20** Water crossing, **23** Char migration route; key fishing site, but drying up, **27** Char migration route; river drying up; deepen river feeding into Lord Mayor Bay, **28** Very shallow river crossing, and **30** Low water levels; skinnier char.
-  **Species change:** **15** Changes in char: longer and skinnier, **21** Lake trout are smaller and less abundant – Middle Lake, and **24** Krusenstern Lake; decline in lake trout.
-  **Fish migration routes:** **22** Char migration route, **26** Shepard Bay; sea-run char congregate here; sometimes parasite in fish, and **29** Redfish Lake – monitoring health of char populations is desired.

Literature Review

Taloyoak is characterized by rocky terrain with many lakes and rivers and well-vegetated lowlands, which provide important habitat for a variety of plants and animals³. Land-fast lead systems are areas of separated land-fast ice and pack ice and are common in Taloyoak. Due to the high productivity of land-fast lead systems, large congregations of sea birds and marine mammals can be found at the edges of these systems in late spring and early summer³.

Attributes	Examples of Environmental Changes and Observations
Sea ice	<ul style="list-style-type: none"> Sea ice in the Taloyoak region is becoming thinner and there is less multi-year ice⁴. Community members have also noticed a longer ice-free season (earlier break-up and later freeze-up) and an increase in variable and unpredictable weather⁴.
Seasonal events	<ul style="list-style-type: none"> There appeared to be less snowfall, an increase in unpredictable weather, and warmer winters. Summers appeared to be longer, snow melts earlier or quicker than previously, and there is a shorter duration of freshwater ice⁴. In 2013/2014 limited snowfall resulted in a shortage of available country foods that year. There has also been an increase in unpredictable weather, which poses risks to the safety of the community since they are less able to predict when extreme storm events may occur. Changes in wind patterns and precipitation could also have impacts on the abundance and composition of species⁵.
Permafrost	<ul style="list-style-type: none"> Permafrost subsistence is a concern in the community and building foundations may need to be retrofitted to accommodate changing ground conditions⁶.
Glacier melt	<ul style="list-style-type: none"> Due to glacial retreat in several areas, including Taloyoak, the land is rebounding to its former height, resulting in what appears to be declining sea levels. Land uplift is also leading to lower freshwater levels in lakes and rivers, which is affecting the health and abundance of fish such as Arctic char⁴.

Attributes	Examples of Ecosystem Changes and Observations
Polar bears	<ul style="list-style-type: none"> An increased presence of polar bears on the east side of the peninsula, specifically in the Lord Mayor Bay and Thom Bay areas. Bears also appeared to be more abundant near the community than they were in the past and were spending less time on the coast and ice, where they used to be commonly found³.
Walrus	<ul style="list-style-type: none"> Overall, walrus appear to be increasing in abundance with most sightings reported on the west side of the Boothia Peninsula³. Residents have also reported an increased presence of walrus in the Franklin Strait area and noted that they are gradually getting closer to the community³.
Seals	<ul style="list-style-type: none"> Some residents noted that there was an increased abundance of ringed seals on the east side of the Boothia Peninsula near Lord Mayor Bay, while bearded seals appeared to be more abundant on the west side near King William Island³.
Whales	<ul style="list-style-type: none"> Residents are seeing an increased presence of whales. There are also natural variations in whale populations annually, with unusually high numbers of beluga and narwhal passing near the community every few years. Belugas and narwhal also appear to be changing their migration routes³.
Fisheries	<ul style="list-style-type: none"> Several lakes have an abundance of fish that could support current subsistence harvesting in addition to commercial quotas. For example, Netsilik Lake and Middle Lake were identified as having abundant sources of sea-run Arctic char³.
Birds	<ul style="list-style-type: none"> There appeared to be an increased presence of geese and an increase in the number and diversity of other birds near the community³.

Based on the Current Gaps in the Literature, Research Needs Include:

- Economic development:** Presently, no commercial fishing takes place in the community; however, residents have expressed an interest in establishing a commercial fishery for Arctic char and lake trout⁷.
- Shipping and transportation studies:** Concerns regarding the increase in shipping, and the impacts this may have on wildlife⁸.

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