

Summary:  
Canadian Porcupine  
Caribou Harvest  
2020-2021



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# Summary: Canadian Porcupine Caribou Harvest 2020-2021

## BACKGROUND

In the development of the *Harvest Management Plan for the Porcupine Caribou Herd in Canada* (HMP) and the accompanying Implementation Plan (IP), all Parties committed to collecting rigorous and verifiable caribou harvest data from their respective hunters. In 2016, representatives of each party attended the Annual Harvest Meeting (AHM) where implementation measures in the IP were reviewed and updated.

Briefly, hunter numbers and harvest information from each of the seven user groups is considered as a separate layer of information and is then summed to allow for an estimate of the Canadian harvest of the Porcupine caribou.

Licensed harvest reporting in Yukon and NWT and due June 1 while First Nation and Inuvialuit harvest Parties are to submit their harvest summary data to the Porcupine Caribou Management Board (PCMB) by July 15<sup>th</sup> each year as part of the IP procedures (Activity 1.2.1). The IP identifies the detail for the information to be included in this submission and includes the total number of caribou harvested by user community, animal sex, harvest location by grid cell or game management subzone (GMS), month of harvest and either the estimated or the total harvest depending on the harvester group. For Parties where harvest is estimated, the information also includes the variance in the estimated harvest. The PCMB forwards the data to the Porcupine Caribou Technical Committee (PCTC) to summarize and include in their Annual Summary Report, due to be submitted to the PCMB by November 15 each year. In practice, the harvest data from all parties has not been available in time for the Annual Summary Report but is presented at the Annual Harvest Meeting and consolidated in this report.

## METHODS

The approach used by each Party varies based on what has worked for their member communities and is subject to change through time as new programs are implemented or discontinued. The below methods identify the approach used by each Party for 2020-2021.

NWT Gwich'in are applying a modification of the original survey design methodology proposed in the HMP IP (Appendix 9). The modification of the design does not distinguish between key or active hunters when summarizing and evaluating the harvest reports. However, the difference in harvest number and sex of animals recorded for hunters interviewed is still used to estimate the range (the lowest possible to the highest possible) for caribou harvested by hunters that were not interviewed. These estimates are then summed for all communities within the NWT Gwich'in user group. Two survey waves are normally conducted and information is collected

from each community by surveyors and estimates developed by community and then summarized as the total PCH harvest in the four communities with variance.

VGFN is currently using a census approach to harvest reporting where all harvesters are encouraged to report in interviews, in person, via telephone, or with harvest calendars. VGFN has not been using a sample and estimate approach. This approach has been used in past, but now VGFN is attempting to document all harvest.

Harvest by Tr'ondëk Hwëch'in is determined through one-on-one interviews with citizens reporting a harvest and assume that the reporting rate is 100% although all citizens are not interviewed.

The First Nation of Na-Cho Nyäk Dun collects harvest data using mail out interviews. Similar to Tr'ondëk Hwëch'in, the harvest reporting rate is considered to be 100% although not all citizens report.

Following several years of the Inuvialuit harvest study, the study was discontinued in 2019 and has resulted in no harvest data being available for Inuvialuit for the current harvest report.

All Yukon resident and non-resident hunters are required by law to report their harvest. Yukon requires successful resident hunters to complete a compulsory harvest report and guided non-resident hunters to complete a mandatory harvest declaration. Harvest reporting is assumed to be 100%.

GNWT resident hunters are surveyed each year using three separate waves of mail-out surveys. Harvest is eventually estimated however this estimate is typically too late to be included in this report. GNWT provides the number of tags sold for barren-ground caribou each year as an interim estimate and follow up later with the actual harvest estimate.

## **RESULTS**

### ***Caribou distribution and availability for harvest:***

Caribou calving in June of 2020 occurred on the coastal plain from the Katakturuk River to the Kongakut River in Alaska. Concentrated calving occurred on the coastal plain between Marsh Creek and the Aichilik River in Alaska's 1002 Lands. About half the bull collars had moved into the Richardson Mountains rather than loosely following the cows during spring migration, which seems to have become quite common the past decade. Post-calving aggregations occurred on the coastal plains and in the foothills between the Okpilak River and Kongakut River in Alaska in mid to late June. In late June the bulk of the herd returned to the Yukon in similar fashion to 2019, moving along the North Slope towards Yukon, then along the foothills and through the British and Barn Mountains before arriving in the Richardson Mountains by mid July. Bull groups that had migrated into Alaska remained there rather than following the cows, while the bulls that were in the Richardson Mountains trended south and arrived on the Dempster Highway in early August. The bulk of the cows drifted slowly west from the Richardson to Barn Mountains in late July, with some caribou moving north to the coastal plain between the Blow and Babbage Rivers. In early to mid August, caribou began a mass movement west towards Alaska traveling

just north of the Old Crow flats to west of Arctic Village. The caribou didn't really slow down, sweeping around Arctic Village and heading back east towards and into the Yukon. By mid October 2020 the majority of the PCH were back in the Yukon and began to spread out onto winter range, though some caribou remained west of Arctic Village. In the Yukon, collared bulls distributed themselves south of Old Crow, while cows moved further east into the Richardson Mountains, and south towards the Dempster Highway adjacent to Eagle Plains. In mid December a considerable number of collared animals crossed the Richardson mountains into the NWT.

Hunters were able to access PCH in the Yukon from the Dempster Highway from the Rock Creek area in August, and then again in November / December 2020. Caribou were accessible to hunters in Old Crow and Aklavik throughout the winter.

As outlined in the Porcupine Caribou Harvest Management Plan, Yukon hunting regulations limit licensed hunters to a maximum of 2 bull caribou per year. For areas in Yukon where Porcupine caribou (PCH) are the predominant herd, seasons are open to licensed hunting between August 1<sup>st</sup> and January 31<sup>st</sup>. Where the PCH range overlaps with the Hart River woodland caribou herd, licensed hunting is limited to the Woodland caribou seasons of August 1<sup>st</sup> to October 31<sup>st</sup>. The season may be extended to January 31 should the PCH move into this area and are present in sufficient numbers. Porcupine caribou did not move into the southern part of their range along the Dempster highway therefore the licensed harvest in the southern Hart caribou range was closed after October 31.

***Total estimated PCH caribou harvest in Canada, 2020-2021:***

The total estimated harvest in Canada for the period June 1, 2020 to May 31, 2021 was 2333 caribou and made up of an estimated 1230 bulls and 1103 cows/unknown sex (Table 1). This does not include data for the Inuvialuit which was likely significant based on community reports (e.g., over 1000 caribou). This estimate includes NWT licensed resident harvest which for the purposes of this report is totaled as the number of tags sold. Harvest data will be updated for NWT licensed hunters when available in the coming year.

The NWT Gwich'in data were gathered and provided through the GRRB with data provided for the four user communities and summarized as per the established IP data reporting model including caribou number, sex and harvest grid reference locations. NWT Gwich'in user communities tallied 746 porcupine caribou harvested resulting in an estimate of 1743 caribou (90% confidence interval 981 to 2503) harvested in 2020-21, including approximately 56% being cow or unknown harvest.

Bull caribou were distributed along the border region of the Dempster Highway during summer 2020 although Gwich'in Elders and leadership had requested hunters refrain from harvesting during summer when meat spoilage could be an issue. Most harvest along the Dempster Highway occurred during the winter reporting period when caribou were readily available near the NWT and Yukon border.

Vuntut Gwitchin reported a minimum harvest of 413 caribou over 2020-21 with 115 caribou, or 38%, being cow or unknown harvest. Most of this harvest occurred from September through to April.

Tr'ondëk Hwëch'in reported no Porcupine Caribou harvest in 2020-21.

Na-Cho Nyäk Dun harvest will not be available until February 2022

Inuvialuit harvest is not reported for 2020-21, although harvest is understood to have been relatively significant (at least in the hundreds but likely greater than a 1000). Aklavik hunters accessed caribou during summer of 2020 near Shingle Point and throughout winter immediately adjacent to Aklavik and the West Channel area where caribou were numerous and available from late November through April. Although not reported, it is likely Inuvialuit from other communities also harvested along the Dempster Highway over the winter.

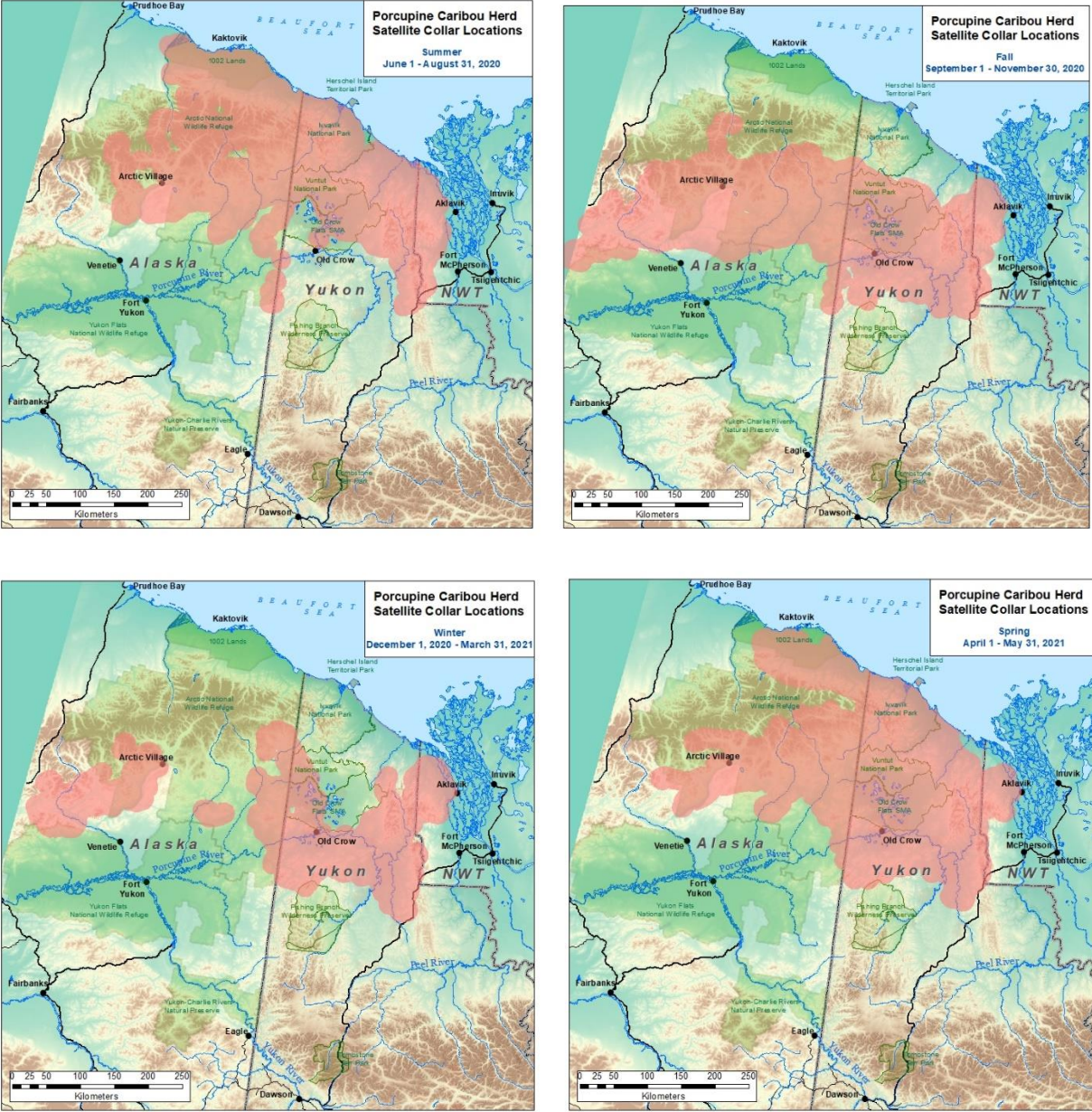
For the 2020-2021 caribou year, the Porcupine herd was accessible to licensed Yukon hunters in Old Crow and from the Dempster Highway near the NWT Border in fall (August to January). A total harvest of 138 male caribou and 5 female caribou (illegal harvest) were reported in The Yukon Government harvest management records.

Location information was provided for 96% of reported caribou harvest for this period. Harvest was mapped based on the Yukon GMS or a 10x10 km harvest grid.

The proportion of female caribou estimated harvested (47%) is above the annual average of 26% for the same reporting period. Given significant harvest occurred in the Aklavik area from December through spring, and most caribou in this area were cows, it's likely that many caribou harvested in this area were also cows although the exact number and ratio cannot be confirmed.

The timeliness of harvest data reporting continues to be a challenge as almost all Parties continue to miss the reporting timeline of July 15<sup>th</sup> to the PCMB as outlined in the IP. This timeline is intended to ensure that data are included in the Annual Summary Report produced by the PCTC prior to the Annual Harvest Meeting (AHM). Harvest is also a critical information need to model the size of the herd for the years when a census is not completed; another tool outlined in the HMP to provide additional information for the Annual Summary Report produced by the PCTC in advance of the AHM. The intention of using a common approach remains and more recently new approaches to collect harvest data that is more appropriate for each community are being considered. The collection of this data and generation of the above noted products are necessary requirements for management of the Porcupine Caribou.

**Figure 1: Seasonal distribution of Porcupine caribou during the 2002 - 2021 caribou year using generalized buffers on caribou GPS location data**



**Table 1: Total estimated harvest of Porcupine Caribou in Canada: June 2020 to May 2021. Note Vuntut Gwitchin harvest is a minimum count and no Inuvialuit harvest was reported for this year although it is known to have been significant.**

User Group	Inuvialuit	NWT Gwich'in (Estimated)	Tr'ondëk Hwëch'in (Reported)	First Nation of Na-Cho Nyäk Dun (Reported)	Vuntut Gwitchin (Reported)	YT licensed (Reported)	NWT licensed (tags sold)	Total
Male	n/a	760	0	0	298	138	34	1230
Female/Unknown	n/a	983	0	0	115	5	0	1103
Total	n/a	1743	0	0	413	143	34	2333

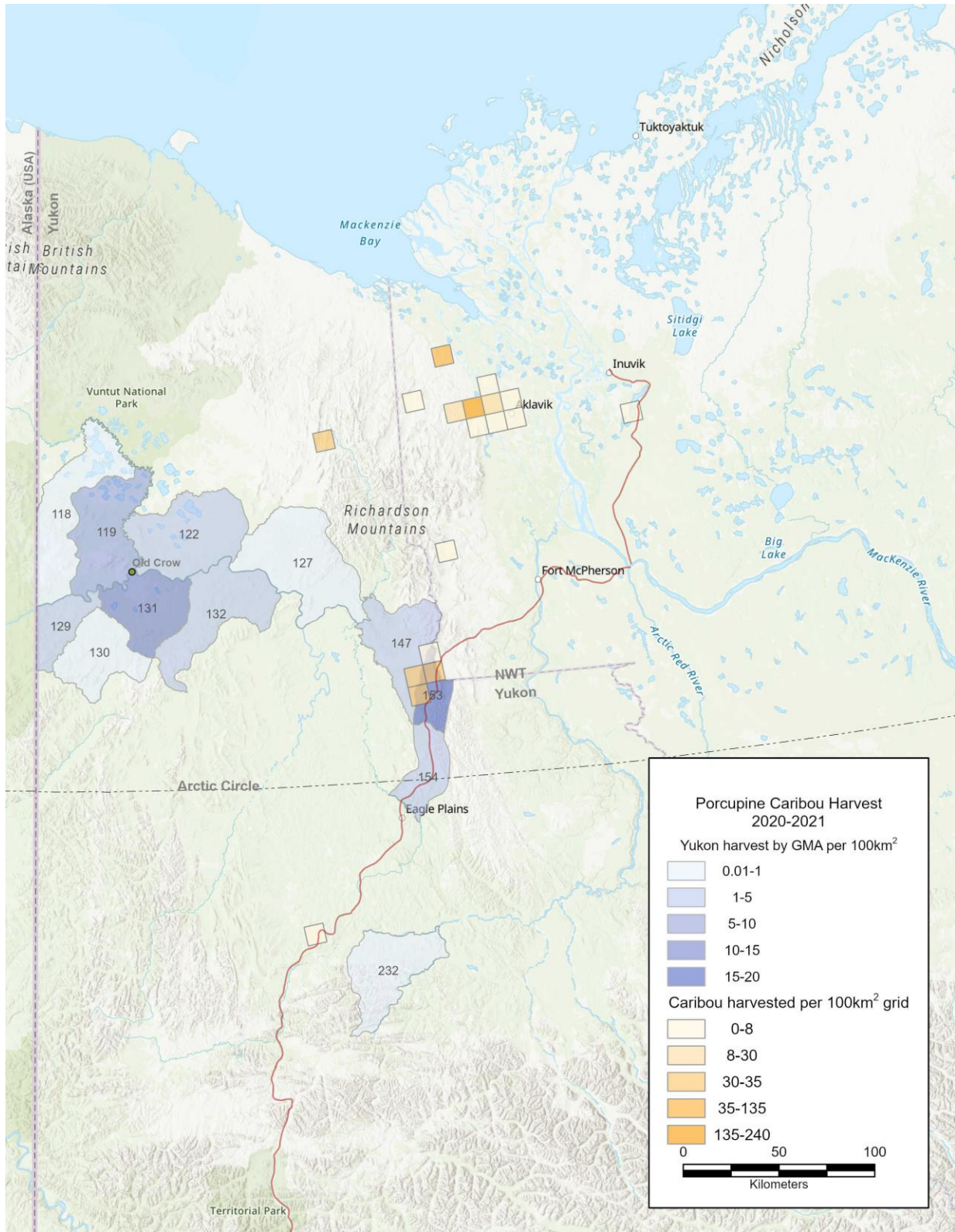


**Table 2: Reported caribou harvest in Canada, by location**

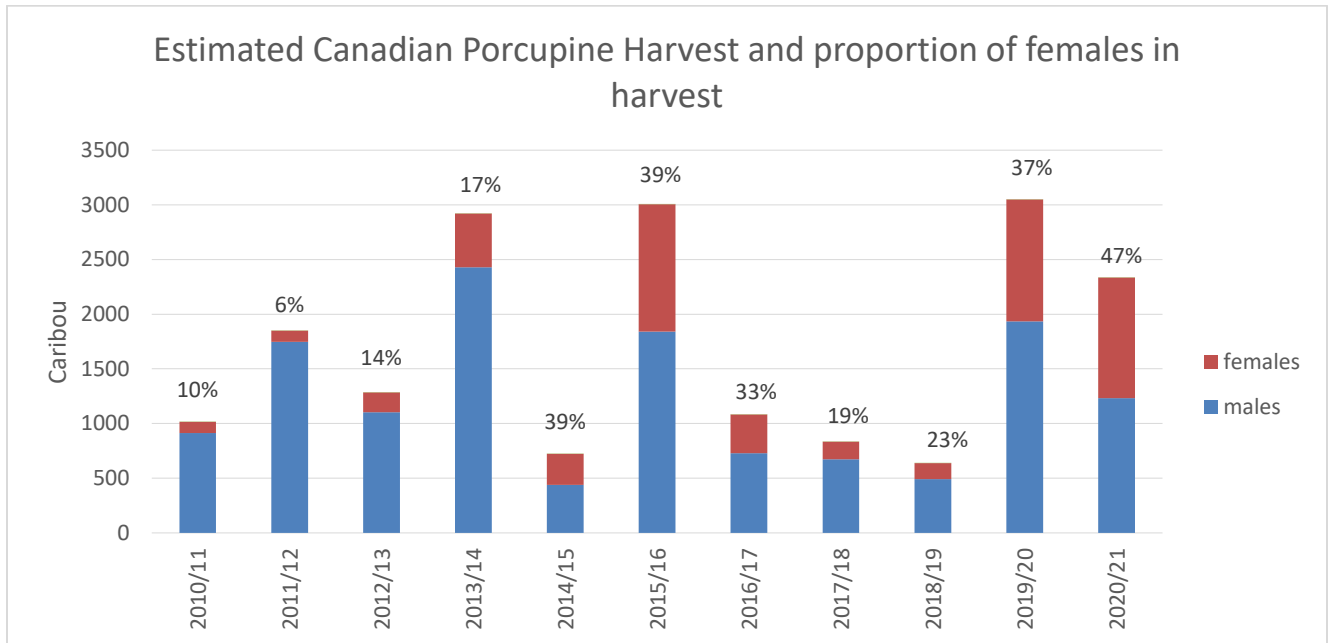
GMS	Male	Female/Unknown	Total
118	7	0	7
119	69	23	92
122	14	7	21
127	3	0	3
129	11	4	15
130	4	0	4
131	128	59	187
132	34	9	43
147	34	1	35
153	88	4	92
154	22	2	24
232	1	0	1
Yukon unknown	21	11	32
NWT mapped*	385	290	675
NWT unknown*	0	12	12
<b>Total</b>	<b>821</b>	<b>422</b>	<b>1243</b>

*\*Reported harvest only, estimated harvest not included in this table*

**Figure 2: Distribution of reported Porcupine Caribou harvest-2020-2021 caribou year.**



**Figure 3: Total estimated Porcupine Caribou harvest in Canada and the proportion of females in the harvest, 2010 to present**



**Notes:** Individual reports from each party must be considered for caveats and limitations to the data. Specific details include:

- 2010-11: Inuvialuit: Aklavik drop-in data only. VGG: Total reported. NWT licensed: updated with finalized GNWT estimates
- 2011-12: Inuvialuit: Aklavik interviews only. VGG: Total reported. NWT licensed updated with finalized GNWT estimates from 2018 ENR report
- 2012-13: Inuvialuit: Aklavik interviews only. NWT licensed updated with finalized GNWT estimates from 2018 ENR report
- 2013-14: Inuvialuit: Aklavik/Inuvik interviews. VGG total reported harvest. GRRB: estimated based on two survey waves. NWT licensed updated with finalized GNWT estimates from 2018 ENR report
- 2014-15: Inuvialuit: Aklavik interview data included. VGG total reported harvest, GRRB estimate based on two or three survey waves. NWT licensed updated with finalized GNWT estimates from 2018 ENR report
- 2015-16: Inuvialuit: Aklavik interview data was limited to the first survey wave. Additional Aklavik and Inuvik data were provided from IHS from January 2016. VGG total reported harvest from the community. GRRB estimate based on two survey waves, NWT licensed updated with finalized GNWT estimates from 2018 ENR report
- 2016-17 Inuvialuit harvest data from CBM Program. VGG total reported harvest from the community and GRRB estimate for two survey waves. NWT licensed updated with finalized GNWT estimates from 2018 ENR report.
- 2017-18 Inuvialuit harvest data from CBM Program. VGG total reported harvest from the community and GRRB estimate for two survey waves.
- 2018-19 Inuvialuit harvest data CBM Program and includes data from Aklavik and Inuvik for June-Sept. No VG harvest data available to date. YG: Active hunters refers to hunters that harvested Porcupine caribou.
- 2019-2020: Inuvialuit and NWT residents: no harvest data. NWT resident information estimated as total tags sold.
- 2019-2020: Inuvialuit and NWT residents: no harvest data. NWT resident information estimated as total tags sold.
- 2020-2021: Inuvialuit and NWT residents: no harvest data. NWT resident information estimated as total tags sold.