

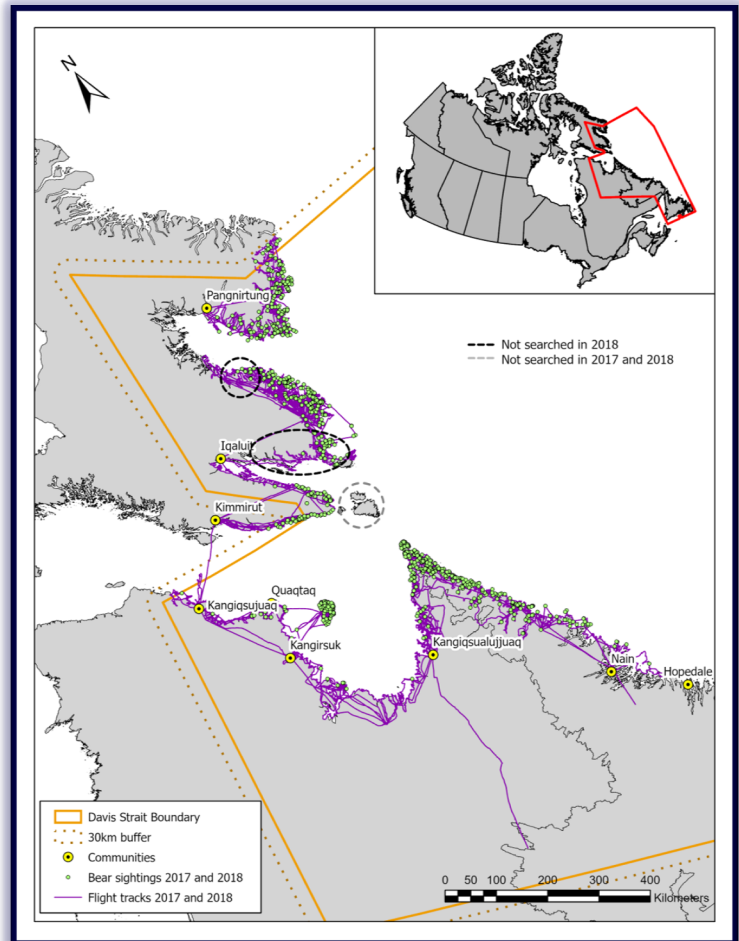
# Results of Davis Strait (DS) 2017-2018 polar bear study

## Key Points:

- The survey determined there are approximately **2,015** bears in DS (average between a possible low of 1,603 and possible high of 2,588).
- The number of bears is **slightly lower** than the 2005 - 2007 study.

Abundance estimates	
2005 –2007	2017 –2018
Average 2,158	Average 2,015

- Females are typically having between 1 and 2 cubs in each litter (**1.42 cubs in each litter** on average). This is lower than other polar bear subpopulations, but the cubs appear to be surviving well.
- Bears were **relatively fatter** in 2017 - 2018 than in 2005 - 2007 based on their body condition.
- The survey was conducted from August to early October when sea ice is melted and **most bears are on-shore** in DS.
- Communities preferred and supported the biopsy mark-recapture method.** No bears were physically handled or collared for this study.



Map showing Davis Strait area (orange line with 30 km buffer shown in dashed line) with flight tracks (purple lines) and bear observations (green dots) for 2017 and 2018 with inset showing the subpopulation area (red line) in relation to Canada.

## Davis Strait Polar Bear Study Timeline

2015-2016

### Planning & consultations

Study design, method choice, logistics planning, & consultations among all affected communities across jurisdictions

2017-2018

### Field work

NL, NU, Nunatsiavut, QC, Torngat Secretariat, and HTO/LNUK members conduct field work August – October for 2 years

2019-2022

### Analyses, Report, & Consultations

Collate and analyze data, prepare final report, and conduct consultations

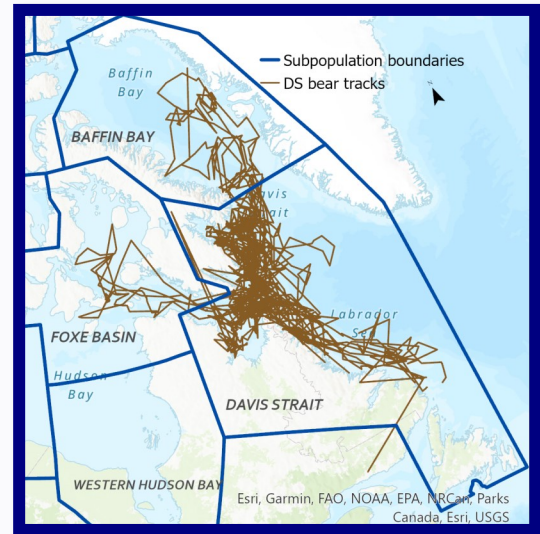


Summer coast habitat of DS polar bears. All the islands along the coast were surveyed as well as inland areas, where females with offspring are known to spend time, to ensure as complete sampling as possible.

# Results of Davis Strait (DS) 2017-2018 polar bear study

## Background on DS:

- Davis Strait **research and management is shared** by Newfoundland and Labrador (NL; Nunatsiavut), Nunavut (NU), and Québec (QC) in Canada.
- The DS subpopulation area becomes ice-free in the summer and the length of this **ice-free period has been increasing** since the 1980s.
- Seal numbers and **bear observations increased** from the 1970s-1990s.
- **Inuit have expressed concerns** about high numbers of **DS bears impacting seals and bird colonies** in recent years.
- Within Nunavut, local co-management partners wanted to **manage the DS population for a decline after the 2005 – 2007 study**.
- **Harvest quotas increased** after the 2005–2007 study.



*Example of polar bear movement data collected from collars worn in the 1990s for Davis Strait (DS). Few bears venture outside the DS boundary (blue lines). It is unknown if these movement patterns have changed over the past 30 years.*

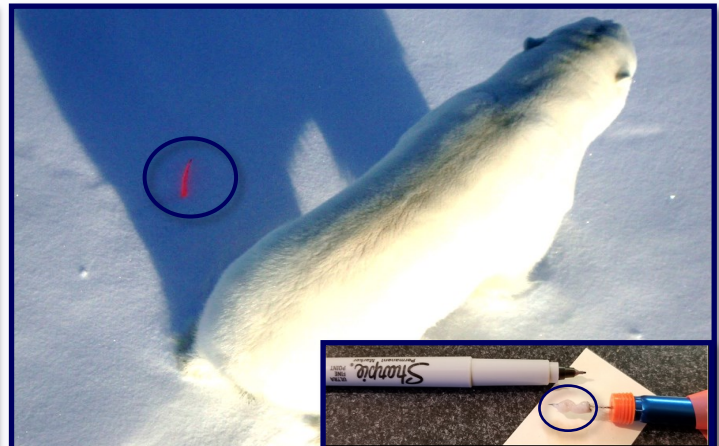
*Below: A male polar bear after being sampled. The dart (circle) is beside it with a biopsy sample inside. **As of 2021, no bears have been sedated for research purposes in DS for 14 years.** Inset shows the size of the sample (circled) compared to a fine-tip marker.*

*Left: Josipi Kulula and Charles Jutras surveying the coast for polar bear.*

Canadian jurisdiction	Harvest quotas	
	2005-07	2017-18
NL	6	12
NU	46	61
QC	No quota	No quota

- The **average harvest** across Canadian jurisdictions **increased** from a reported 62 to 85 bears per year after the 2005 - 2007 study, but accuracy is limited due to incomplete harvest reporting in QC.

- Neither the 2017 - 2018 study nor 2005 - 2007 used collars. Thus, there are **no scientific data to evaluate the habitat distribution or usage** of DS bears and whether that has changed since the 1970s.
- NL, NU, and QC, **consulted** in 2016 with community HTOs and LNUKs that hunt DS bears to **discuss research plans for the study**.
- **Participants from all jurisdictions** helped collect field data.



*For more information, please see the full study report which has been distributed to all co-management partners and can be found on relevant government or wildlife management board websites.*