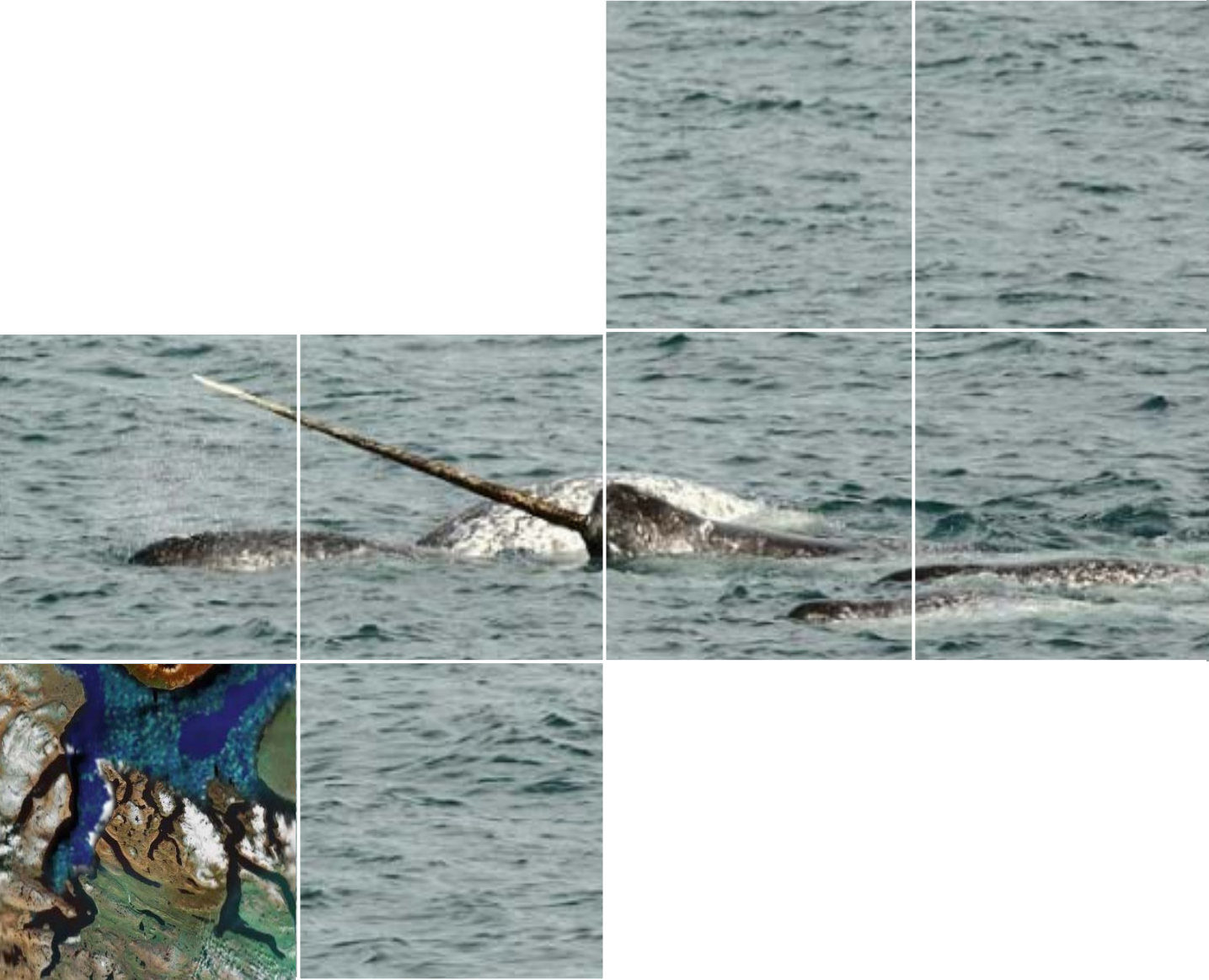
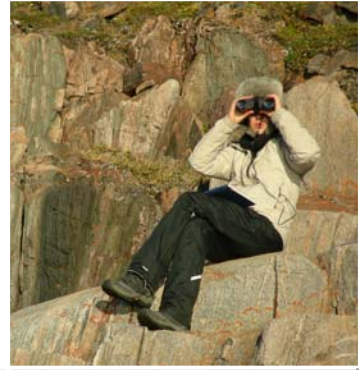


2006 Annual Report Narwhal Research Project



ICE UNICORN



Narwhal Expedition

Investigators:

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Dates: August 18th –September 6th

Campsite location: Bruce Head,
Koluktoo Bay (72° 04' 22"N, 80° 32' 02"W)

Total number of days spent with narwhals: 18 days



Objectives

1. To take photographs of the narwhals in order to identify them individually;
2. To study the narwhal's behaviour, and;
3. To take underwater recording of their vocalizations.



Results and Findings

1. Photographs

We took over two thousands photographs of narwhals. We believe will are able to identify individual narwhals with the scars on the back of the narwhals as well as the notches on their dorsal ridges.

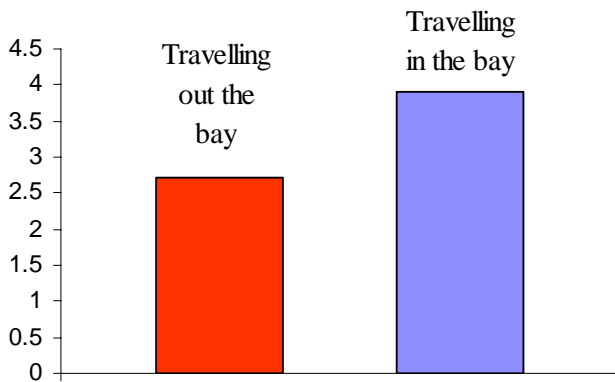


2. Behaviour

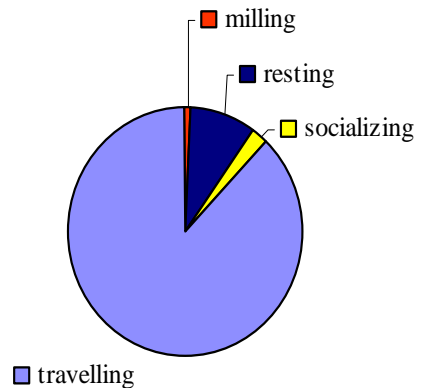
We observed the narwhal from a cliff of 98 feet of elevation. We noted the behaviour of around 4 thousand narwhals during 55 hours. This corresponds to 1057 different groups of narwhals. The mean group size was made of 3.5 individuals (group size ranging from 1 to 25 individuals)

The narwhals that we observed from Bruce Head were mainly observed travelling in and out the bay. The narwhals preferred to enter in the bay when the tide was high. They were coming in the bay in bigger groups and higher densities than when they were leaving the bay.

Size of narwhal's groups



Behaviour of narwhals



3. Recordings

We took over 12 hours of underwater recordings. Most of the recordings were done when the narwhals were travelling in and out of the bay. On one occasion, we recorded when two males were crossing their tusks.

4. Other observations

- **Bowhead whale:** we saw a bowhead whale travelling out of the bay on August 21st at 7:32 PM. The whale was 5 miles away from Bruce Head.
- **Polar bear:** we saw a polar bear on September 5th at 4:30 PM. The bear was swimming at 3 miles from Bruce Head.



Improvements for the future

- The use of a zodiac boat or of kayaks would greatly improve the quantity of the observations we can gather. We could therefore follow the narwhal into the bay.
- We could also camp somewhere else further into the bay (N 71° 59' W 80° 43')
- A longer field season would allow us to see more narwhals, thus we would like to be in the field during two months next year.



Acknowledgements

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