



Local Factors Affecting Subsistence Walrus Harvest on Saint Lawrence Island, Alaska



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Abstract: Saint Lawrence Island is located in the Bering Sea 60 kilometers southwest of the Chukotka Peninsula (Russia) and contains two predominately Native villages, Gambell and Savoonga. Over the past five years (2005 – 2009) the reported subsistence walrus harvest from Gambell and Savoonga on Saint Lawrence Island accounts for approximately 92 percent of the total reported Alaska harvest, indicating the importance of walrus to the two communities. We examined the timing of the subsistence harvest and several local factors that affect this harvest at Gambell and Savoonga. We examined harvest methods, self regulation, weather conditions, economics and factors that may compete with the harvest. Using recent harvest records for Gambell we were able to look at harvest chronology and define the conditions that are needed for an optimal harvest in both Gambell and Savoonga.

Реферат: Остров Св. Лаврентия расположен в Беринговом море в 60 км к юго-западу от Чукотского п-ва (Россия). На острове есть два поселка: Гэмбел и Савунга, - населенных преимущественно коренными жителями. Данные за последние пять лет (с 2005 по 2009 год) показывают, что традиционная добыча моржей в двух поселках составляла 92% от общего количества моржей, добываемых на Аляске для жизнеобеспечения коренных жителей, что свидетельствует о важности моржа для этих двух поселков. Мы рассмотрели время проведения добычи и некоторые местные факторы, которые влияют на добычу моржа в поселках Гэмбел и Савунга. Мы проанализировали методы добычи, имеющиеся самоограничения, погодные условия, местную экономику и ее аспекты, которые могли бы составить конкуренцию традиционной добыче. Используя данные о добыче в поселке Гэмбел, мы смогли проследить хронологию добычи и определить условия, необходимые для оптимального ее осуществления как в поселке Гэмбел, так и в Савунге.



Location of Gambell and Savoonga. MODIS satellite image from June 3, 2002



The village of Gambell as seen from the lookout on Sivouq Mountain May 1, 2007



The village of Savoonga as seen from the air looking inland March 20, 2009



Successful Hunt from Gambell May 6, 2010



Chukotka as seen from the beach in front of Gambell May 8, 2010



Boats used for walrus harvest, west boat launch, Gambell, May 18 and 22, 2010.



Hunting Crews Out on a Good Boating Day

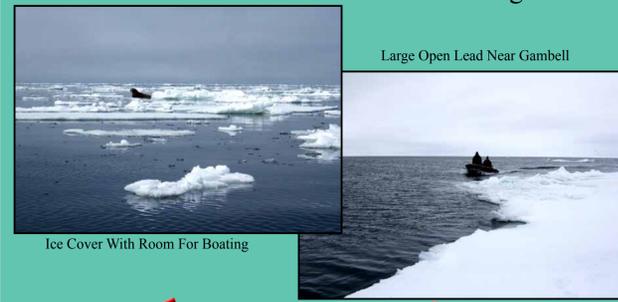
Walrus Close to Villages November to June



Walrus Seen From Boat Near Gambell

Walrus Seen From Gambell Shore

Favorable Ice Conditions for Boating

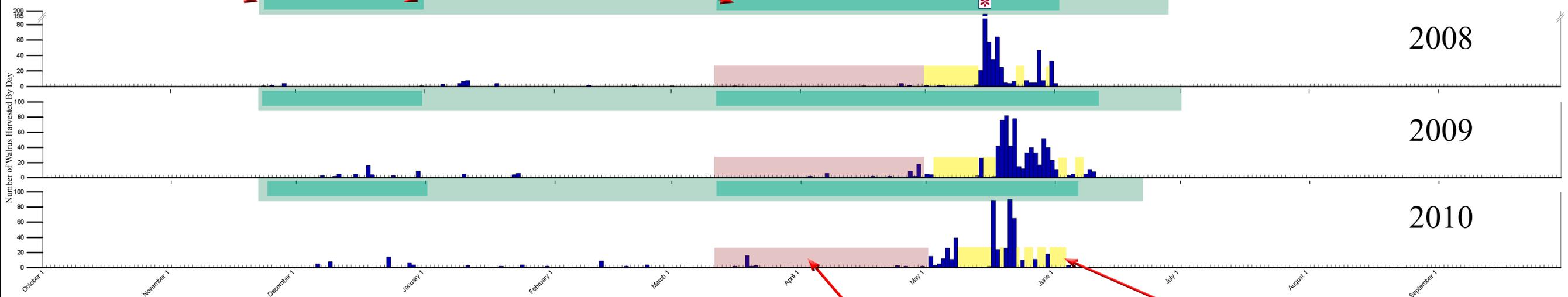


Large Open Lead Near Gambell

Ice Cover With Room For Boating

Optimal Harvest Conditions

- Ice conditions that allow boat launch, travel and return.
- Good weather, without fog, sleet, or wind; or light wind that keeps ice from blocking the launch area.
- Large concentrations of walrus in close proximity (less than 15 miles out).
- After spring whaling, including butchering, meat and blubber distribution.
- Later in May allows time for the captains and crew to set up their walrus hunting boats.
- Optimal conditions on a weekend allow captains and crew with a standard work week job to go hunting.
- Periods when the store is purchasing ivory, giving more captains the opportunity to purchase gas and supplies.
- Good weather forecast for the day, a bad forecast on a beautiful morning will keep captains from going hunting.
- Stable ice for butchering and hunters safety.



Conditions Limiting Harvest

- Fog, sleet, or wind that make ice or boating unsafe.
- Walrus are not in within boat range, from approximately mid June through late November
- Whaling is a priority over walrus harvest until early May.
- High gasoline prices reaching \$2.00 per liter.
- Many of the hunters have jobs that do not allow for hunting during good conditions.
- Unfavorable weather forecast or ice charts will keep hunters from going out.
- The death and funeral of someone from the island is respected with a time of mourning; little to no hunting occurs.
- Small boats used in harvest have limited abilities in open ocean.
- Self-imposed harvest guidelines limit harvest to four adult walrus per hunting trip.

Whaling Period Limits Walrus Harvest



Gambell Whaling Boat

Gambell Bowhead Harvest May 2, 2010

Bad Weather Events Exclude Harvest



Rough Water Forcing Boat to Return

Big Waves Breaking at Gambell

Conclusion: The Alaska Native villages of Gambell and Savoonga rely heavily on Pacific walrus as a food source and an important part of their subsistence culture. The difference between a poor and satisfactory harvest year can be decided in a few days. Walrus are close to the villages from late November through mid- June with two periods, early winter and spring, allowing for most of the boat access to the animals. Occasionally, during mid-winter, strong winds from the south or east may open up enough water to access walrus. The majority of walrus are harvested in the spring after the ice has started moving and before the ice retreats to the north. Only if optimal conditions occur during this time

period can a successful harvest occur for the season. There are several competing factors that can prevent this from happening. Bad weather events are the major factor in the spring that excludes walrus harvest. During spring break-up when the walrus are most accessible, the majority of hunters on the island focus on whaling before any real attempt to harvest walrus. An occasional walrus will be harvested during this period, after it is determined that no whales are in the area. Whaling typically ends in early May. In 2008 a week of good weather and optimal conditions allowed for 70 percent of that years harvest to occur, half of that in a single day.

Conclusion Russian: