

10 August 2001

Mr. David Cormany  
NOAA, National Marine Fisheries Service  
Alaska Regional Office  
P.O. Box 21668  
Juneau, Alaska 99802-1668

Dear Dave

Please find enclosed the Humane Observer Report for the 2001 northern fur seal subsistence harvest on St. Paul Island, Alaska.

The 2001 northern fur seal harvest was unusual this year. The harvest started on 28 June and ended on 8 August 2001 and only included 8 harvest days. A total of 429 animals were killed. There were no females killed and no cases of hyperthermia this year. Animals were gathered, handled, and killed in a humane fashion at all harvest. As of 10 August there were no documented wastage of seal meat that I could see.

As like last year pelts were not found this season that had been contaminated with oil. In 1994: 23 animals were found, in 1995: 3 animals were found, in 1996: 4 animals were found and in 1997: 1 and 1998 to 2001: none.

This summer a fresh 6 year-old bull was found dead on the Beach near the road at Big Zapadni. This bull had been shot with a 22 caliber rifle in the chest. The bullet ruptured a large pulmonary artery in the left lung and the animal bled to death. The bullet was recovered and given to you.

I hope all of the work with the co-management organization is working out. Please keep me informed. Have a great day.

Sincerely



Terry R. Spraker, DVM, PhD, DACVP

HUMANE OBSERVER REPORT  
Northern Fur Seal Subsistence Harvest  
St. Paul Island, Alaska  
July-August, 2001  
Terry R. Spraker

INTRODUCTION

Northern fur seals (*Callorhinus ursinus*) have been harvested for their pelts for the last 200 years on the Pribilof Islands. During this time period, the native Privilovians could freely take the meat of the harvested animals for food. On St. Paul Island, the commercial harvest for pelts ceased in 1984; therefore a subsistence harvest began with only immature males taken for food. This subsistence harvest has continued for the last eighteen years (1984-2001). The harvest is a well-planned and orderly procedure. Young male northern fur seals are gathered by driving them from their haul-out areas to a specific killing field where they are held in a large pod. Five to ten seals are then cut from this large pod and driven to a group of three to four men who stun the animals by hitting them on the skull or upper neck with a solid wooden club. The animals are dragged a short distance away from the killing area where the chest and heart are cut open. The animals are then skinned and butchered for human consumption. For a more detailed description of the procedures of the harvest, see Humane Observer Report: Stoskopf 1984; Letcher, 1985; Dorsey, 1986; Zimmerman et. al., 1986. This report will be limited to my observations of the humane activities of the northern fur seal harvest for July and August 2001.

Multiple factors were evaluated during this harvest. These factors included environmental conditions, methods of gathering and herding the animals, and the harvesting of animals. These three areas will be discussed separately.

Northern fur seals (*Callorhinus ursinus*) were harvested 8 times from 28 June through 8 August 2001 from four haul-out areas (Gorbatch - 3 times, Big Zapadni - 3 times, Polovina - once, Lukanin - once). A total of 429 subadult male animals were killed this year. Females were not killed this year (Table 1).

ENVIRONMENTAL CONDITION

The environmental conditions of the harvest from 28 June through 8 August were monitored including the average air temperature, degree of precipitation, wind, and cloud cover. The air temperature was taken when the drive began and ranged from 43°F to 48°F, with an overall average of 46°F. Rain occurred once during the harvests, it was misty five times and the air was

relative dry twice. A breeze was present during each of the harvests. The wind speed varied from 5 to 21 knots with an overall average of 11.6 knots. Cloud cover was complete and low most of the time (7 days) and light and high only once (Table 2). The environmental conditions were similar this year as compared to previous years.

#### GATHERING OF ANIMALS

Ten to fifteen men would go to a specific haul-out area and quickly form a line along the shore thus preventing the seals access to the ocean. Then the seals were gathered into several pods and driven to the killing field. The animals were gathered between 10:07am to 12:52pm this summer, but most drives began between 11:00 to 11:30am. Estimated distance of the drives ranged from 100 to 440 yards. Animals were driven from 17 to 30 yards/minute with an average of 23 yards/minute. The animals were usually rested during the drive. The drives were similar this year as compared to previous years (Table 3).

An estimated difficulty of the drive was graded on a scale of 1+ to 3+, with 1+ being the easiest, and 3+ being the most difficult. These same paths have been used for driving seals to the killing field for several hundred years and were all fairly easy drives (Table 3). The degree of wetness to the grass and terrain was monitored and estimated as this is believed to be an important cooling factor for the animals. The grass was wet 7 days and dry once. This was also similar as compared to previous years (Table 3).

#### HARVESTING PERIOD

The harvesting activity was characterized by holding the animals in a large pod approximately 20 to 30 yards from the stunning area. While a few young boys held the seals, three to four young men would cut out a small pod of seals and drive them to the stunners. The pod size usually was 8 to 15 animals. Animals were killed by hitting them on the skull at the level of the ears or over the 1st/2nd cervical vertebra. The majority of times, the animals were hit just once. These animals would immediately drop and were hit again on the skull. However, sometimes the first hit missed its mark and one or two more hits were required. The number of double- and triple- hits were not counted this year, but my overall impression was that the accuracy was about the same this year as in previous years.

Deep body core temperatures of approximately 18% of the animals were taken throughout each harvest. The temperatures were then divided into three equal time slots during the harvest

for each day. The average body temperatures are presented in Table 4. Temperatures ranged in individual animals from 99.0°F to 104.8°F. No animals died due to hyperthermia this year.

Hyperthermia is due to overheating caused by over activity of the animals. Predisposing factors include warm environmental temperatures, lack of cloud cover and/or mist, dry grass, lack of wind, animals being driven too fast (especially uphill), long drives, animals being held too tight in the large holding pods and having too much activity or moving around in the large holding pods. Another predisposing factor is the amount of rest an animal has had before the drive. For example, an animal that has just arrived on the haul-out from a feeding trip may not be "fully rested" and, if they are subjected to a harvest/drive, become exhausted quicker than a totally rested animal.

To avoid hyperthermia animals should be driven slowly, rested at least 15-20 minutes after the drive and the holding pods should be kept loose. If an animal lags behind during the gathering period they should be allowed to drop out of the pod. If the environment temperature is 55°F, great care has to be taken during the drive and the harvest and if the temperature is >60°F, no cloud cover, wind or mist, the harvest should not be done that day. When the animals in the holding pod show early signs of hyperthermia (including, flipper fanning, open mouth breathing and lying down) the harvest should be stopped and the animals released slowly.

#### HEALTH STATUS

The health status of the animals was evaluated by examining viscera and carcasses throughout the harvest. Stomachs were opened and checked for parasites and ulcers. A total of 261 stomachs were opened: 42 had no parasites, 213 had + (1 to 25 nematodes), and 6 had ++ (25 to 50 parasites). No stomachs had +++ (>50 parasites). A total of 24 animals had 29 small gastric ulcers. Most animals only had one small ulcer containing 1-2 parasites. A total of 45 animals had 54 small healed gastric ulcers. Most animals had only one small healed ulcers. Parasitic nodules were found in 217 animals and in 44 nodules could not be palpated. Gastric nodules were associated with parasitic feeding sites. Gastric parasites were Contracaecum sp. and Anisakis sp., both of which have been reported previously in fur seals. This year the ileum and caecum was examined for tapeworms. A total of 131 ileum/caecum of 131 animals were examined: 5 had no tapeworms, 67 had + (1-10 tapes), 37 had ++ (11-25 tapes), and 22 had +++ (>25 tapes). Parasite numbers were all estimated. The overall parasitic burden was comparable this year as in previous years. In general, the harvested animals appeared to be thinner for the last several years as previously

observed. This may suggest that the over-all nutrition of these animals is decreasing.

#### OIL CONTAMINATION OF ANIMALS

This year (as last year) animals were not found with oil on their pelts. The number of animals found with oil on their pelts has decreased since 1994 when 23 contaminated animals were found.

#### SUMMARY

This was an unusual year because there were only 8 harvests in the allowed time frame ending 8 August. The main reasons that there were only 8 harvest was that most of the men that usually did the harvesting were either fishing or working at some other job. However the harvests did go smooth and were uneventful.

This summer a fresh 6 year old bull was found dead on the Beach near the road at Big Zapadni. This bull had been shot with a 22 caliber rifle in the chest. The bullet ruptured a large pulmonary artery and the animal bled to death. The bullet was recovered and given to Mr. Dave Carmany.

Points to be remembered during the harvest include:

1. Drive the animals slowly to the killing field.
2. Do not unnecessarily harass the seals during the drive.
3. Rest the animals 10 to 15 minutes prior to the harvest.
4. Harvest in the morning; thus avoiding warmer afternoon environmental temperatures.
5. Drive small pods to the stunners. Five to seven animals are good, but not 10 to 15 animals at a time.
6. Take a little more time to isolate the selected animals to be killed.
7. If environmental temperatures are 55°F to 60°F, give the seals frequent rests during the drive and keep the holding pods loose. If environmental temperature is 60°F or above, do not have a harvest.
8. Try to "weed out" (release) older animals and females during the drive.
9. When the animals in the holding pod show early signs of hyperthermia (including, flipper fanning, open mouth breathing and lying down) the harvest should be stopped and the animals released slowly.
10. Discuss driving plans with drivers before drive starts. If driving plans are changed during a drive because not enough animals are gathered or too many big bulls or females are in the group, the animals should be released in a safe area not near cliffs. I am not sure what to do if animals are

running towards a cliff. My impression is that they probably should be left alone and not disturbed. I think the animals if not pushed will avoid them, but if scared will jump quickly.

11. Do not allow intoxicated persons to work in any of the positions at the harvest or even to be on the killing field because of the disruption that they cause and the danger to themselves and others especially if they have a knife.

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