(A-) A good final faunal report for a single house portion. Good cultural background discussion of surprising number of seal species in the area locality. Good seasonality discussion. Species life history songs could be expanded.
Howard Savage

Final Report on the Faunal Analysis of House 2 of the Nunainguq-1 Site (JcDe-1)

For
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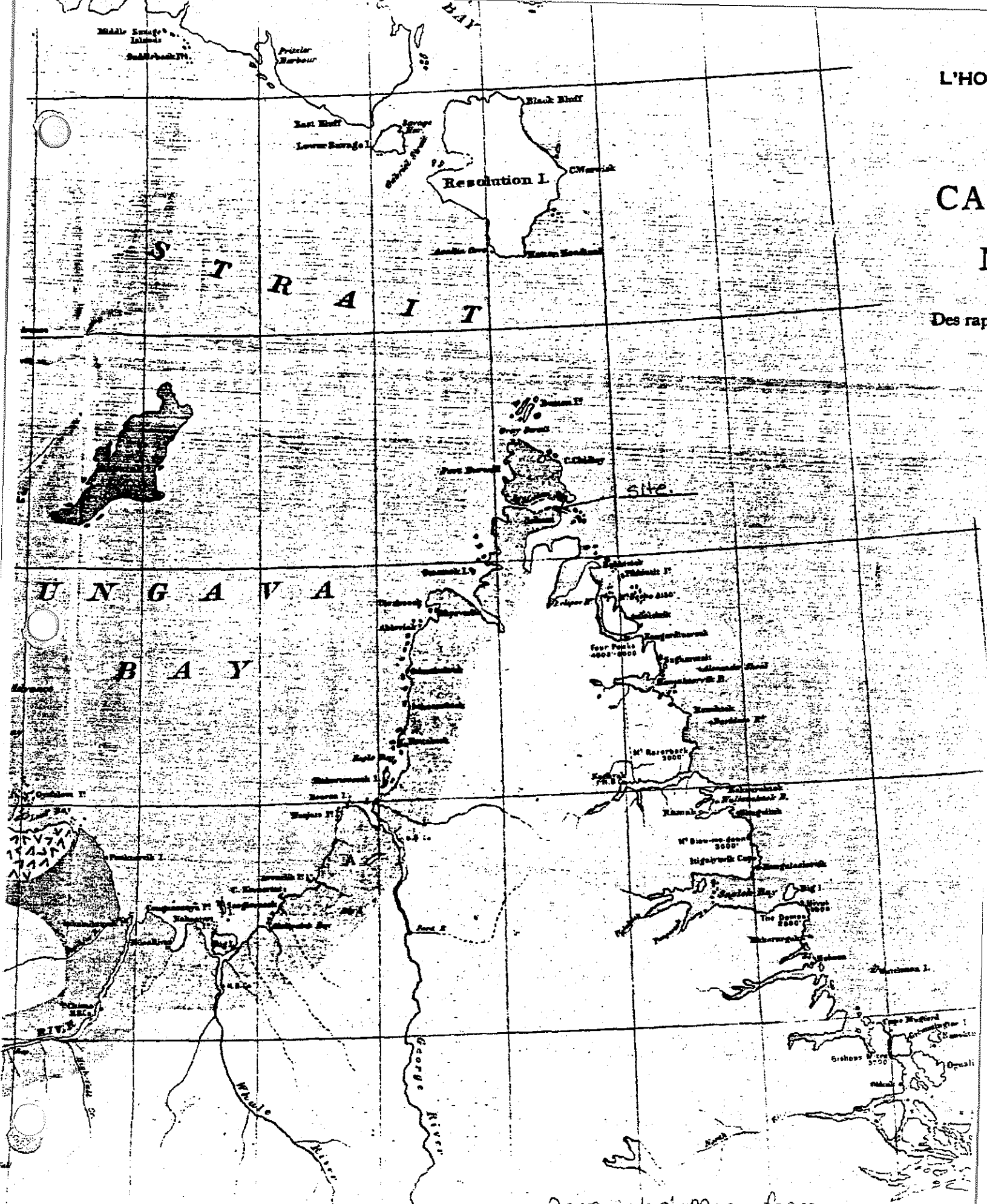

Associated Map from
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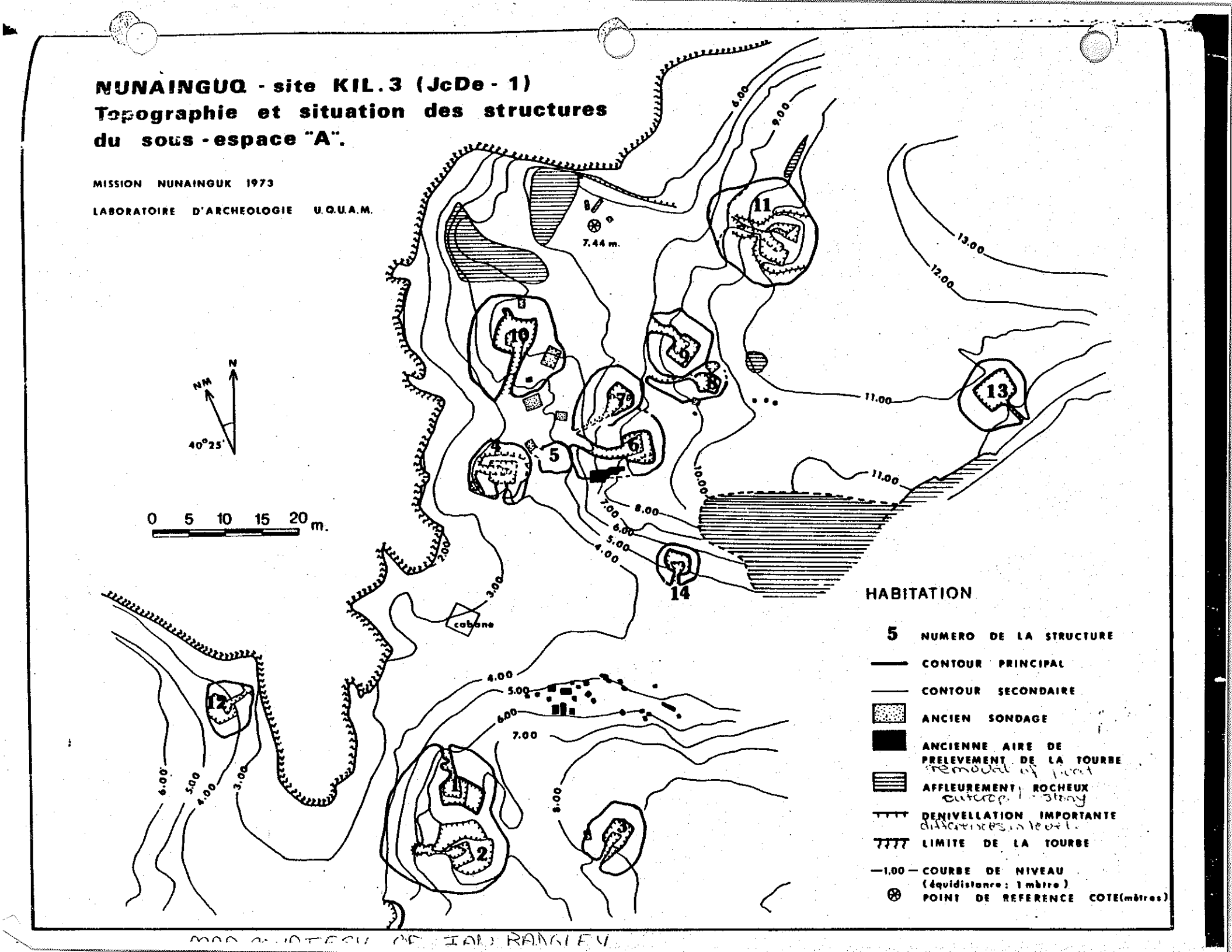
NUNAINGUQ - site KIL.3 (JcDe - 1)
Topographie et situation des structures du sous-espace "A".

MISSION NUNAINGUK 1973

LABORATOIRE D'ARCHEOLOGIE U.Q.U.A.M.



MAP COURTESY OF IAN RANLEY

Introduction

The following report presents the analysis of the faunal material retrieved from the House 2 occupation of the Nunainguq-1 site (JcDe-1). The Nunainguq-1 site is located at the extreme northern tip of the Quebec-Labrador Peninsula and is between Young Inlet to the south, and the Strait of McLelan to the north, facing Killineq Island.

The Nunainguq site first appeared in the literature in 1884 when Robert Bell, a geologist/naturalist, headed an expedition up along the east coast of Hudson's Bay. After setting up a station at Port Burwell, he continued further up the coast to the tip where he encountered the remains of many Eskimo houses which appeared to him to be quite ancient, except for one, which he noted, appeared to have been last lived in no more than one year previously. (Stewart, 1979). From Bell's descriptions of where this house was located, it was determined, that House 2 was the occupation in question (Stewart, 1979; Archambault, 1978). It can then be safely assumed that the House 2 occupation was in use at least up until 1883.

House 2, itself, is situated, along with House 1, on a small mound or rise in terrain, and is separated from the other 13 structures (which together with Houses 1 and 2 comprise the Nunainguq-1 site) by a shallow valley.

Excavation of the Nunainguq-1 site was begun in 1977 by William Fitzhugh and was undertaken quickly with a salvage operation approach as a large portion of the site was disappearing, through the action of erosion, into the ocean. At that time, Fitzhugh concentrated on this area (Houses 4,5, and 10) and also completed a survey map for all 7 of the main occupation sites, of which Nunainguq-1 is but one. Excavation was again undertaken in 1978

during which time House 2 was excavated. To determine the stratigraphic nature of Houses 1 and 2, a test trench was dug along the west slope of the mound on which these two Houses are situated. From the excavated material, the top layer of House 2 was determined to be the result of an occupation by Labrador Eskimos, and the layer below it was ascribed to a Thule occupation, based on the abundance of characteristic Thule implements and whale remains (eg. baleen plates). A sample was taken from the base of this trench by Fitzhugh and was subsequently given a radiocarbon date of 400 ± 60 B.P. for the Thule occupation. (Archambault, 1978:78) From this date, and that provided by Bell, it can be stated that HOuse 2 was first occupied by people belonging to the Thule culture ca. A.D. 1500 and was last occupied in the late 1800's by Labrador Eskimos. The point at which the latter took over from the former is as yet undetermined.

House 2 itself is fairly quadrangular in shape and is comprised of a domestic/living space that is relatively small and which is surrounded to the south and east by a meter-wide platform. As is the case with House1, House 2 appears to have originally been quite a bit larger. The evidence that suggests that subsequent occupations became smaller is the presence of another wall foundation 50cm north of the most recent wall. From the orientation of the set of wall foundations, the archaeologists have determined that House 2 was probably reconstructed two or more times with each subsequent structure being slightly smaller than the previous one (Stewart, 1979). The domestic space inside the house is entirely covered by flat stones, several of which appeared to be in their original place. Many of these paving stones are impregnated with burned seal grease. It is the archaeologist's opinion that these stones are too numerous to have been part of the wall structure. The northern extremity of the platform was also covered in seal grease. The southern part of the platform was covered with flat rocks which are thought to have formed the interior peripheral wall (Stewart

1979). The entrance way measured approximately 4m in length and runs northwest away from the house. Half way through the entrance way, the tunnel goes down at a steep angle and then goes up again as one moves towards the house. This feature in the entrance way is commonly referred to as a cold-air trap, for the space that descends will hold the cold air and keep it from travelling up into the house. Semi-subterranean houses with cold-air traps in the tunnels are frequently found in the high arctic, and are often associated with both Paleo- and Neo-Eskimo occupations. Bell noted that the local Inuit he encountered commonly lived in semi-subterranean houses from early November to the end of January at which time they would move into snowhouses. However, as some of the houses at Nunainguq-1 do not have cold-air traps, the archaeologists feel it is unlikely that the presence or absence of a cold trap is related to the season during which the House was being occupied.

Geographically, the Nunainguq site is ideally located, for nearby there is a small inlet at the widest part of the strait, and because of the strong current through the strait, this area remains ice free throughout the year. And, as this area attracts large numbers of seals year-round a year-round occupation of the Nunainguq site is quite feasible (Archambault, 1978:73). The continuous abundance of seals in this area explains the high concentration of occupation remains (Nunainguq sites 1-7).

In terms of the geology of the area, the northernmost tip of the Labrador Peninsula is Precambrian rock with volcanic and glacial till sediments (sand and clay) (Quebec Dept. of Mines 1929:14). According to Hare's photo-reconnaissance survey of the area, the northern tip is far above the tree-line and is part of what he calls "Lichen-dominated Tundra" (Hare 1959 :30), and peat moss (Stewart 1979; Archambault 1978). The terrain is primarily bold hills that are part of the Torngat mountain range (Hare 1959).

The abundance of peat is a significant factor in that peat sods were frequently used to form the roofs of semi-subterranean houses, particularly in the Thule culture (McCartney 1979:305).

Because of the rapid erosion of the Nunainguq site, excavation was approached as a salvage operation (as mentioned above). and as Jordan notes (1985:4), much of the artifactual material was retrieved without exact provenience, However, the excavation of HOuse 2 seems to have been more systematic as proveniences and lots were provided for the faunal material received for analysis. The excavation of House 2 was undertaken in sub-operations. The nature of each is provided in Table 1.

Table 1
Sub-Operations of HOuse 2.

Sub-operation 2A Level I - activity area north of platform
Sub-operation 2AI Level I - hearth area
Sup-operation 2B Level I - platform
sub-operation 2C level I - entrance floor
Sub-operation 2C Level II - entrance floor
Sub-operation 2D Level I - north wall
Sub-operation 2E Level I - east wall
Sub-operation 2F Level I - south part of west wall
Sub-operation 2G Level I - north part of west wall.

Unfortunately, only the material from sub-operations 2A through to 2C Level II arrived with the other faunal material from the site, and as such, only the faunal material from these areas has been analysed for presentation in this report. Therefore, the complete analysis of the faunal material from House 2 must remain incomplete until the rest of the sample can be located.

Faunal Findings - Body Portions

The gross bone count from the five sub-operations totalled 500 bones. Of that 500, 488, or 97.6%, were Mammalian, and 12, or 2.4% were Avian. No

other Classes were represented. (See Table 2). A certain percentage of each class was unidentifiable past Class: 12 of the 488, or 2.4% of the total sample; and 1 of the 12 Avian specimens, or 0.2% of the total sample. Sub-operation 2C, the entrance-way, yielded by far the most faunal material at 70.6% of the total sample. The other sub-operations 2A, 2AI, and 2B each yielded 9.4%, 1.6%, and 18.4% respectively of the total sample. (See Appendix C) The relative absence of faunal material in the living area inside the house seems to suggest that the inhabitants kept their living space fairly clean and possibly swept their garbage into the entrance-way. It is reported by M. Staab (1979:351) that Thule houses were kept relatively clean and that garbage was dumped into middens outside at intervals.

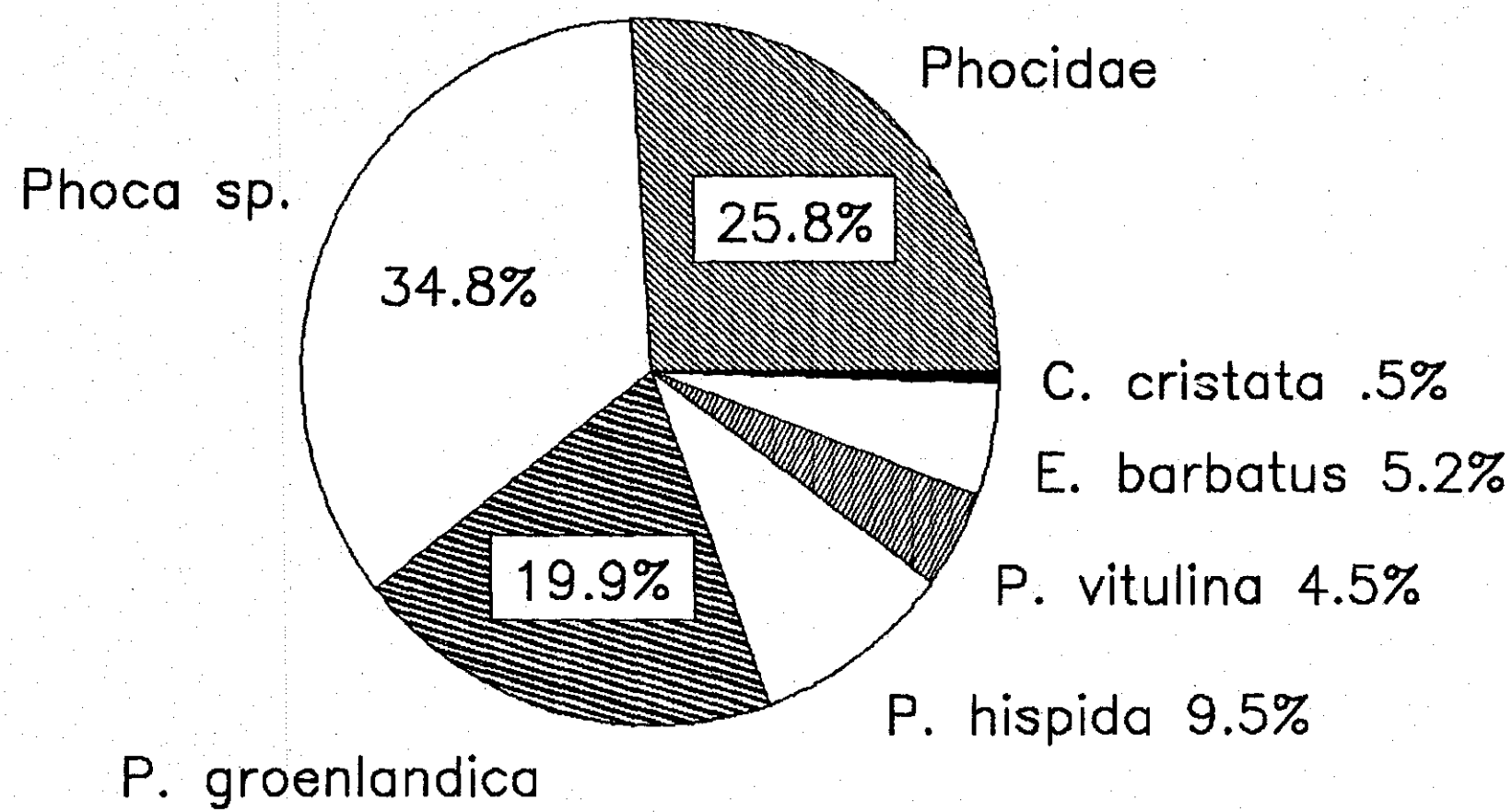
Despite the lack of detailed information that is specific as to the nature of the soil matrix from which the sample was recovered (information not provided), it should be noted that the majority of the bone shows varying degrees of erosion, particularly of the inner cortex. However, those specimens with the highest degree of inner cortex erosion, suggesting a high acid content in the soil (perhaps from the local vegetation), also demonstrate a marked preservation of the outer layer of the bone cortex suggesting, perhaps, a high iron content in the soil. As the last occupation was by Labrador Eskimos in a post-contact period, it is conceivable that an iron content in the soil may be the result of metal European trade items. A description of artifacts associated with each level and sub-operation has not been provided so this suspicion cannot be confirmed. A pinkish-red or green staining has been noted on much of the bone but these are most likely various molds that have developed on the bone either on the site or during the storage period after excavation. Those specimens that have not deteriorated to such a high degree demonstrate various degrees of weathering and erosion (eg. split lines that may or may not run deeply into the bone cortex; sunbleaching of those specimens found on the surface or

sub-operation 2A, Lot 5; abrasion of processes; and general erosion of the bone).

As seen in Table 3, 43.4% of the total sample could be identified to at least Genus. 95.2% of the total sample was identifiable below Class among the Mammalian specimens, and 2.2% of the total sample was identifiable below Class Aves. The species most represented skeletally in this sample was the harp seal (Phoca groenlandica Erxleben) which comprised 19.9% of the total Phocidae. The second most common species was the ringed seal (Phoca hispida Schreber) 9.5% (See Chart 1). Even within each sub-operation and level, harp seal was the most frequent species represented. The percentage representation of the other species in descending order after ringed seal is bearded seal (Erignathus barbatus (Erxleben)) - 5.2%; harbour seal (Phoca vitulina Linnaeus) - 4.5%; and hooded seal (Cystophora cristata (Erxleben)) - .5%

However, when an MNI calculation is made (see Table 3), it appears that only 5 harp seal individuals can be positively counted as is also the case for ringed seal. All of the main body portions of all seal specimens are represented skeletally, so it must be concluded that the whole seal carcass was being brought back to the house for processing. The close proximity of the occupation areas to the main seal catchment area may help to explain why all portions of even bearded seal (the largest) are represented at the house assuming that the larger carcasses would be sectioned at the kill site and only the primary portions would be taken to the house. It is strongly suspected, however, that a large portion of those specimens identified to Genus (Phoca) only (on the basis of size) are probably harp seal. Those specimens identified to ~~Order~~ Family only (Phocidae) was also based on size in that with those specimens that were considerably larger than the Phoca specimens and where no particular feature could be identified, it was assumed that these specimens could also possibly be immature bearded or hooded seal, therefore not Phoca sp.

Distribution of Phocidae
Nunainguq Site (JcDe-1)



In addition to the Phocidae, Rangifer tarandus caribou (Gmelin) was another principal Mammalian species, comprising 24 specimens or 5.0% of the total sample (MNI= 2) (see Chart 2). All body portions are represented skeletally with the highest percentage coming from the trunk portion (48%), and the second greatest percentage (24%) coming from the head portion. It does not seem likely then, as Spiess (1984) suggested, that the occupants of the Nunainguq site were migrating south to hunt caribou during the summer, for if this were the true, one would expect to find a greater percentage of limb elements being transported back to the site for either their marrow content, or for use in tool making, rather than trunk elements such as ribs and vertebrae which contain the smallest proportion of meat in comparison to the haunches, which is the case at the House 2 occupation. It is therefore strongly suspected that the caribou individuals represented on the site were probably lone individuals that strayed north of their normal range and were taken advantage of by the Nunainguq hunters.

The other mammalian species, Lepus arcticus Ross, or arctic hare; Vulpes vulpes (Linnaeus) and Alopex lagopus (Linnaeus) - red and artic fox - were probably hunted for their furs as the meat of rabbit is not very nutritious and neither is fox meat commonly eaten. However fox pelts are prized as trim for around the neck and hood edges of parkas because water does not condense on their fur, and rabbit fur is prized as a lining for socks and mittens.

The fact that only one Ursus maritimus Phipps, or polar bear, specimen was recovered poses more questions than answers. It is highly likely that polar bear was hunted, both for meat and fur, but why only the patella remains is a question that cannot be answered at this point.

The one Canis species specimen - a rib - could give evidence to the presence of domestic dogs on the site, however the specimen could also be representative of a small wolf. The presence of a butcher mark on this

specimen does not give evidence either way.

The small percentage of whale bone on the site does question to some extent the placing of the lowest level with the Thule culture which characteristically contains a great deal of whale, particularly ribs which were used as roof supports for their semi-subterranean houses (McCartney 1979). However, Freeman (1979) claims that the association of Thule culture and whale hunting is too general and that the predominance of whale in some Thule sites is more the result of good whale hunting or scavenging grounds rather than cultural preference or selection. As only a few Cetacean specimens were recovered from House 2, it is likely then that the occupants of this house, whether or not they were Thule, were probably not hunting whale, or at least not avidly, and the specimens present are the result of scavenging.

The few Avian specimens recovered may be more the result of poor preservation or collection rather than the result of cultural non-selection, for it is ethnographically reported that at least the Labradar Eskimo exploited the local Avian species as well as many of the fish species . (Hawkes, 1916:34). Significantly, no fish specimens were recovered either.

Archaeological Aspects of Faunal Findings

Thirty-eight specimens, or 7.6% of the total sample of bone show evidence of butchering either in the form of cut marks or definite sectioning. 36.84% were ribs; 28.95% were limb bones; 10.53% were either skull or mandible bones; and the other 23.68% is comprised of various other bones such as metatarsals, phalanges, innominate portions, and caribou antler (See Appendix D). There appears to be little patterning in the butchering techniques from the small sample analysed . The only point worth noting is that the two Avian specimens - both coracoids, and both Somateria sp. - that show signs of butchering have the cutmark in a similar location - on the

anterior/ventral portion. Whether or not this factor is significant cannot be determined from two specimens only.

There is no evidence of cooking or heat exposure, in the form of charring or calcination, evident in any of the specimens analysed. However, it is known at at least seal grease was being cooked from the abbve mentioned patina on the flat stones in the living area of House 2.

Only two specimens show evidi dence, or even suggest, the formation of an artifact from the faunal bone. The first, a ringed seal metatarsal, has had a hole hollowed out of the ventral side of the bone, just below the proximal epiphysis. The intention of such an alteration is not known. A suggestion might be the preparation of a hole for the placement of a gouge of some sort, resulting in a composite tool. The second specimen in mind is a fractured antler fragment that , due to the nature of the fracturing, is a roughly triangular shape and has one edge that appears to have once been sharpened. Perhaps this was a knife or scraper of sorts. Other specimens that have been fractured or butchered have pointed aspects to them, but whether or not these points were intended or were the result of butchering is indeterminable. It is likely that if a serviceable point was manufactured unintentionally during butchering that it probably would have been utilized.

Only three specimens suggest any form of pathology. The first is a harbour seal distal humerus; the second is a harp seal proximal innominate; and the third is a harp seal thoracic vertebra. In all three cases, the evidence is a slight lipping around the edges of the articular facets which may be evidence of mild arthritis or, because of the minimal nature of this bone development, may simply be the result of well developed muscle or tendon attachments of a robust animal. The evidence is too slight to be certain either way.

There do not appear to be any intrusive elements in the sample to date,

as all species identified naturally occur in the area. However, it is prudent to note at this point, as it is known that there have been at least two separate cultural occupations of HOuse 2, and that for the majority of the House, except for the entrance way, there is only one level, that the Level I is undoubtedly a mixture of all occupations of this HOuse. All sub-operations and levels contain, generally, the same variety of species all with the greatest emphasis on harp seal. The primary difference between Levels I and II in the entrance-way (sub-op. 2C) is that Level I - the top level - contains more faunal bone than does Level II. (see Chart 2) However, percentage-wise it is a difference of only 2.2%. Other differences are an increased percentage of caribou in Level II as opposed to Level I (a difference of 1.45%); and a complete absence of Avian specimens from Level II where they are present in Level I which may be due to preservation considering the greater antiquity of Level II. Despite these meager differences (for further comparison refer to p.2 of Appendix C and Chart 2), there appears to be little difference between the resource exploitation strategies of the Thule culture and the later Labrador Eskimos. The greater percentage of faunal material in Level I is probably the result of either a longer duration of occupation (considering also the fact that the size, and presumably the population, of the latter occupation is smaller), or the result of better preservation considering that the latter occupation may be less than 100 years old.

Seasonality

The determination of the season(s) of occupation as demonstrated by the House 2 faunal material is a difficult task and involves the consideration of more factors other than the ages of the specimens when they were dispatched. As mentioned above, because of the geographical location of the site in close proximity to a small water inlet which remains ice-free throughout the year, it is economically feasible for Inuit people to survive

Distribution of Principal Species by Sub-Operations and Levels

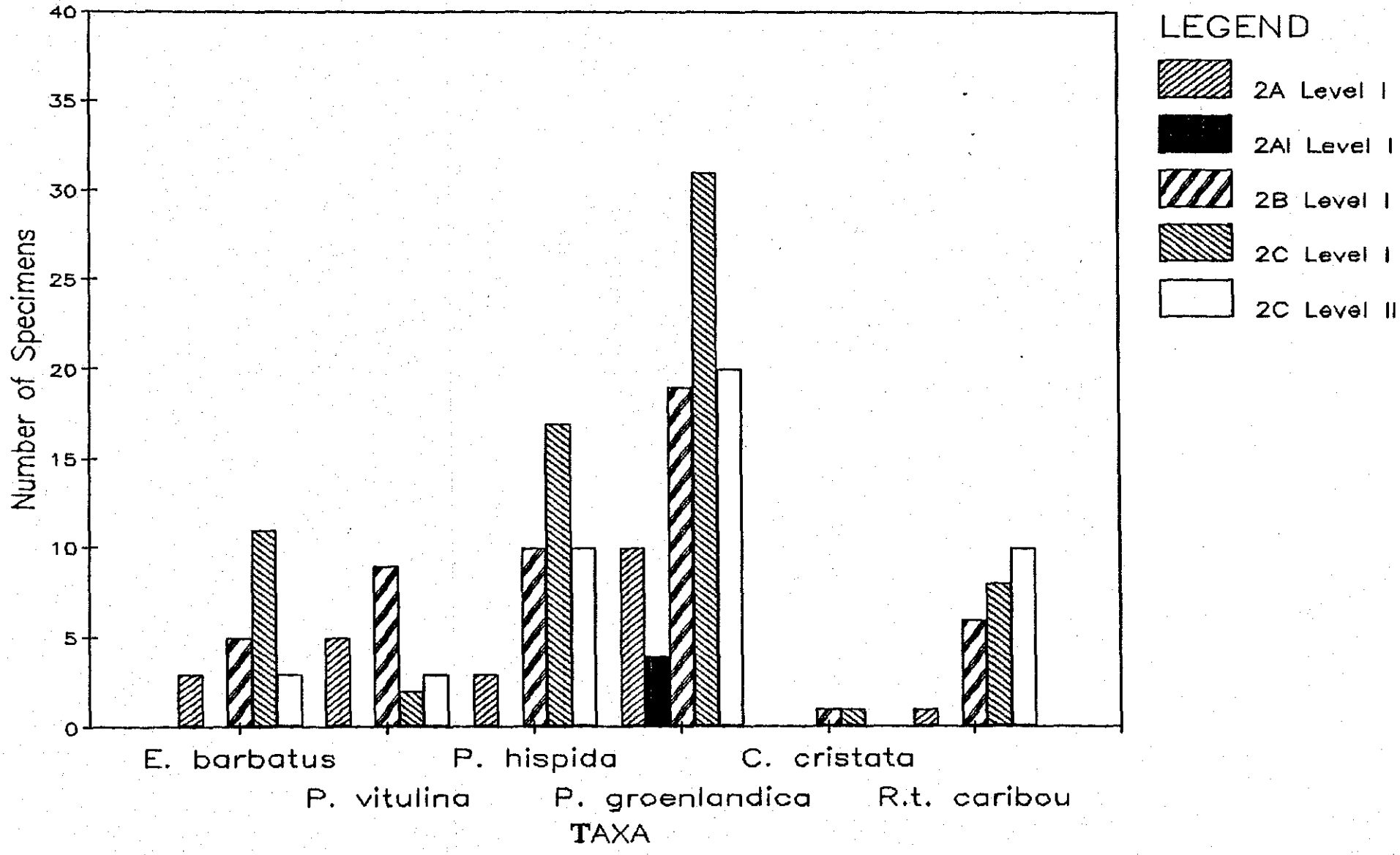


CHART 2

year long at this site, provided they have the technology to hunt sea mammals, particularly seal, either from the shore, or from the water. It is known that Thule people at other sites had a boating technology (Freeman 1979), and it is known ethnographically that Labrador Eskimo used kayaks to hunt aquatic mammals (Hawkes 1916). To hunt ringed seal who remain near to fast ice, the hunters would have need of boats. To hunt harp seal who prefer open water, the hunters would have need of boats. So, provided the hunters had access to boats, which they probably did, and provided seals were accessible year round in the area, there is no reason to assume they could not have occupied the site year-round. All of the species identified, except for the caribou and the harp seal, both Mammalian and Avian, are, for the most part, available in the site area all year. The majority of the seal specimens are either immature or older, which cannot pinpoint any definite season. The presence of an immature bearded seal suggests that the hunters were present at the site some time in late summer/early fall (the individual is quite young - but no juvenile cortex). Harp seal are migratory and are presumably available in extreme northern Ungava in late May to early June on their way north to the waters around Greenland from their principal breeding areas further south along the coast near to the mouth of the St. Lawrence River (Mansfield 1967:12), and again around mid-October on their way south. Harp seal pupping begins somewhat earlier than the other Phocidae in mid-February rather than between mid-March and mid-June. The presence of a juvenile Harp seal calcaneum suggests that occupation of the site must also have included the very early spring as well. (This juvenile specimen asks further questions that will be dealt with below.) As it is feasible economically for people to inhabit the region during the winter and by the immature bearded seal, likely they were there in late summer to mid-fall, it is also likely, with the presence of the harp seals during the summer (considering also the large proportion of harp seal in the sample),

that these people were also at Nunainguq during the summer. It seems quite possible that House 2 was occupied the year through. However, the most likely occupation is from late fall, early winter to late spring, considering that no significant proof can be provided for a summer occupation.

Inter-site, Inter - cultural Comparisons

Unfortunately, there is very little accessible or published reports of sites in the north Ungave/Killineq Island region, other than the data concerning the other Nunainguq occupation sites, none of which are reported to contain either Thule or Labrador Eskimo culture remains (Jordan 1985:31). A comparison of other Thule site evidence and the evidence from House 2, as used above, is only useful for very general aspects of the culture such as whether or not whale is a primary cultural component, the types of houses built, or whether or not the people had a boating technology. The only significant point to note concerning Thule exploitation habits is that other Thule sites contain, as the predominant species, ringed seal rather than harp seal (Staab, 1979). This may be due primarily to the availability or non-availability of harp seals in some areas. As for Spiess' faunal analysis of Nunainguq-1 material he found that harp seals out-numbered ringed seals either 2:1 (66%) or 3:2 (60% using bone counts and MNI calculations respectively (Spiess 1984:16). It is likely that had the sample for this report been larger, there would have been a greater difference in favour of harp seals as appeared in Spiess' analysis. The uniqueness of the faunal findings of this site is due in large part to the location of the site and the obvious abundance and accessibility of harp seals.

Biological Aspects of Faunal Findings

No known species that has occurred in House 2 has become extinct or

extirpated from the region as yet, although the bounties on seals are at present quickly depleting many seal species of various along the Labrador coast. Only the Labrador duck is known to be now extinct, but no skeletons are in existnce, so it is impossible to know when a specimen shows up in a sample.

As mentioned above, it is more likely that the caribou specimens are the result of individuals straying north of their normal range rather than the result of human transportation of bone from southern hunting grounds. However, there is no reason to suggest that previously, the range of this species actually extended further north than it does at present.

The presence of the juvenile harp seal calcaneus does, however, pose some problems. This specimen was compared to two lab specimens in an effort to determine approximate age based on how quickly is the juvenile cortex lost, and the rate of growth within a known period of time. The first test specimen was 1-2 weeks old, was covered in juvenile cortex, like the HOuse 2 specimen, but was slightly smaller than the House 2 specimen, (the lab specimen was male.) However, the degree of facet and overall feature development was approximately the same. The second lab specimen was 10 months old, had no remnants of juvenile cortex, had a greatly increased degree of facet and feature development, and was nearly twice the size of the House 2 specimen. No study has been located that discusses the duration of juvenile cortex in phocids so based on the complete covering of juvenile cortex of the House 2 specimen, it must be assumed that the age is closer to 2 weeks than 10 months. If this is the case, and also considering that harp seals do not begin to migrate from the pupping grounds until the young have more than tripled their weight and almost doubled their length, which takes about 3 months (Mansfield 1967), it is more likely that the House 2 specimen is that of an individual that has not yet reached 3 months of age, and has therefore probably not yet begun migrating, which asks the question, where was this animal born? A suggestion is that perhaps there was once a pupping and

breeding area further north along the Labrador coast than those that exist presently. An alternate explanation, of course, is that, for some reason, an individual harp seal gave birth at a comparatively late date and that the young animal was able to travel as far north as Nunainguq despite its young age. It will be interesting to see if any other juvenile harp seals appear in assemblages from Nunainguq that might support this suggestion.

Osteometrics

An osteometric study was undertaken, primarily as an exercise, using the distal end of the various species of Phocidae humeri. The general assumption was that the morphological differences between species might be represented by a ratio of width to depth. It was hoped that the contrived ratio would remain a constant despite the age of the specimens as all of the House 2 specimens were of indeterminate age beyond immature+. The lab specimens were also measured for comparison as a group to the specimens from House 2. The data is presented in Table 4. The width measurement was taken at the broadest point at the distal end at the proximal extremity of the condyles (medial to lateral); and the depth measurement was taken at the mid-point of the lateral fossa while holding the calipers at right angles to the shaft of the bone. The measurements were taken twice to assure of accuracy The conclusion made is that the depth measurement cannot be taken consistently because of the lack of any feature that would suggest a placement of the calipers. Generally speaking, it appears that the House 2 specimen ratios are comparatively smaller than the lab specimens. Whether or not this is a significant factor concerning the size of seals of 100 years ago or more cannot be determined because of the unreliability of the data.

Summary and Conclusions

In summary, whether or not the occupation was of the Thule culture or the later Labrador Eskimo culture, House 2 of the Nunainguq-1 site represents the occupation of groups of people whose primary source of food was sea mammals, primarily harp and ringed seal. Whale was most probably not hunted, and caribou was hunted on an opportunistic basis. Small fur-bearing animals were trapped presumably for furs. The presence of a juvenile harp seal calcaneus may or may not indicate a previous, no longer existent, breeding gound further north along the Labrador coast. The seasons of occupation were most likely mid-fall to late-spring, and possibly year-round, however the inclusion of the summer months in the seasons of occupation requires further support.

In conclusion, House 2 represents the last few hundred years of occupation of a key region - Nunainguq-1 site - that gives ividence of intensive occupation from the Pre-Dorsets to the Neo- Eskimos, in effect, the last 3000 years.

BIBLIOGRAPHY

Archambault, Marie-France
1978 Nunainguq: Un Site de Polynie Dans L'Arctique Oriental Quebecois. Dossier No. 49., Ministere des Affaires culturelles, Direction generale du Patrimoine. pp. 73-81

Banfield, A.W.F.
1974 The Mammals of Canada. University of Toronto Press, Toronto

Department of Highways and Mines
1929 Extracts from Reports on the District of Ungava or New Quebec. Bureau of Mines, Quebec

Freeman, Milton M.R.
1979 "A critical View of Thule Culture and Ecological Adaptation" in Thule Eskimo Culture : An Anthropological Retrospective, ed. by Allen P. McCartney. National Museum of Man Mercury Series Paper No. 88, National Museums of Canada, Ottawa. pp. 278-285

Hare, F.K.
1959 A Photo-Reconnaissance Survey of Labrador - Ungava. Memoir 6. Dept. of Mines and Technical Surveys, Ottawa.

Hawkes, E.W.
1916 The Labrador Eskimo. Dept. of Mines Geological Survey, Memoir 91 Government Printing Bureau, Ottawa.

Jordan, Richard H.
1985 "Paleo-Eskimo Occupations of Nunainguq 1-7 Killinek Region, Arctic Quebec". Dept. of Anthropology, Bryn Mawr College, Bryn Marwr, Pa.

Mansfield, A.W.
1967 Seals of Arctic and Eastern Canada. Fisheries Research Board of Car Canada, Ottawa.

Spiess, Arthur
1984 Faunal Analysis of the Nunainguq Labrador Eskimo Site (JcDe-1). Maine Historic Preservation Commission, Maine.

Staab, Margie L.
1979 "Analysis of Faunal Material Recovered from a Thule Eskimo Site of the Island of Silumiut, N.W.T., Canada." National Museum Man Mercury Series, Paper No.88, pp. 349-379.

Stewart, Henry
1979 "Rapport de la Mission Nunainguq 78 (KIL.3 - JcDe-1)" Laboratoire D'Archaeologie de L'UQAM Mission Nunainguq.

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Table 2.

DISTRIBUTION OF IDENTIFIED BONES BY CLASS

CLASS	NUMBER OF BONES IDENTIFIED	PERCENTAGE
Mammalia	488	97.60
Aves	12	2.40
Osteichthyes	0	0.00
Reptilia	0	0.00
Amphibia	0	0.00
Pelecypoda	0	0.00
Gastropoda	0	0.00
TOTAL	500	100.00

Table 3

MNI AND PERCENTAGE OF SPECIES IDENTIFIED TO GENUS/SPECIES

Genus/sp.	Zoologist	No.	%	ELEMENT	MNI	% of Total sample
MAMMALIA						
Lepus arcticus	Ross	2	.94	general	1	.4%
Delphinapterus leucas	(Pallas)	1	.47	general	1	.2%
Canis sp.	-	1	.47	rib	1	.2%
Alopex lagopus	(Linnaeus)	7	3.3	general	1	1.4%
Vulpes vulpes	(Linnaeus)	2	.94	general	1	.4%
Ursus maritimus	Phipps	1	.47	patella	1	.2%
E. barbatus	(Erxleben)	22	10.33	r. scapula	2	4.4%
Phoca vitulina	Linnaeus	19	8.9	r. femur	2	3.8%
Phoca hispida	Schreber	40	18.78	r. ulna	5	8%
P. groenlandica	Erxleben	83	38.97	r. temporal	5	16.6%
Cystophora cristata	(Erxleben)	4	1.88	r. femur	2	.8%
Rangifer t. caribou	(Gmelin)	25	11.74	l. scapula	2	5.8%
AVES						
Somateria sp.	-	3	1.4	r. coracoid	2	.6%
Mergus sp.	-	3	1.4	general	1	.6%
TOTAL		213	100%		27	43.4% of 500

Table 4

OSTEOMETRIC CALCULATIONS

2 measurements on the same bone?

J[illegible]-1 Specimens

Specimen	Species	$Width_1$	$Depth_1$	$Ratio_1$	$Width_2$	$Depth_2$	$Ratio_2$
2B5LI-42	P. groenlandica	42.57mm	17.22mm	2.5:1	40.55mm	17.05mm	2.4:1
2A5LS-1	P. hispida	46.97mm	19.98mm	2.4:1	46.44mm	20.00mm	2.3:1
2C3LI-39 c	P. hispida	31.21mm	12.83mm	2.4:1	31.69mm	12.09mm	2.5:1
2C4LI-31	P. vitulina	45.42mm	16.83mm	2.7:1	45.76mm	17.62mm	2.6:1
2C1LI-10	E. barbatus	61.48mm	23.01mm	2.7:1	59.43mm	23.59mm	2.5:1
2C3LI-38	E. barbatus	56.60mm	22.13mm	2.6:1	58.42mm	22.84mm	2.6:1

Lab Specimens

Fa 303-3	P. hispida	35.53mm	14.04mm	2.5:1	34.50mm	12.28mm	3:1
FA 303-1	P. hispida	33.36mm	11.02mm	3:1	33.13mm	11.02mm	3:1
FA 303-9	P. hispida	36.48mm	13.57mm	2.7:1	35.33mm	10.37mm	3.4:1
F[illegible]304-5	P. groenlandica	41.06mm	17.72mm	2.3:1	40.63mm	17.44mm	2.3:1
FA 304-9	P. groenlandica	37.26mm	15.25mm	2.4:1	37.25mm	14.33mm	2.6:1
FA 302-5	P. vitulina	35.49mm	11.69mm	3:1	35.36mm	11.12mm	3.1:1
FA 305-7	E. barbatus	63.13mm	21.25mm	3:1	63.53mm	21.68mm	2.9:1

Appendix A

DISTRIBUTION OF SKELETAL ELEMENTS BY BODY PORTION

Class: Mammalia

Order	Family	Genus/Species	Head	Trunk	Ant L	Pos L	Limb	Total
** unidentifiable	**	**	2	0	0	0	8	10
Lagomorpha	Leporidae	*Lepus arcticus*	0	1	0	1	0	2
Cetacea	**	**	2	1	0	0	0	3
Cetacea	Monodontidae	**	1	0	0	0	0	1
Cetacea	Monodontidae	*Delphinapterus leucas*	0	0	1	0	0	1
Carnivora	Canidae	**	0	1	0	1	1	3
Carnivora	Canidae	*Canis sp*	0	0	1	0	0	1
Carnivora	Canidae	*Alopex lagopus*	4	1	1	1	0	7
Carnivora	Canidae	*Vulpes vulpes*	0	0	2	0	0	2
Carnivora	Canidae	*Vulpes sp*	1	1	3	0	2	7
Carnivora	Ursidae	*Ursus maritimus*	0	0	0	1	0	1
Pinnipedia	Phocidae	**	14	72	7	5	9	107
Pinnipedia	Phocidae	*Erignathus barbatus*	4	5	9	3	1	22
Pinnipedia	Phocidae	*Phoca vitulina*	0	4	8	7	0	19
Pinnipedia	Phocidae	*Phoca hispida*	3	14	15	7	1	40
Pinnipedia	Phocidae	*Phoca groenlandica*	25	22	22	14	0	83
Pinnipedia	Phocidae	*Phoca sp*	44	52	21	28	3	148
Pinnipedia	Phocidae	*Cystophora cristata*	0	1	0	2	1	4
Artiodactyla	**	**	0	0	0	0	1	1
Artiodactyla	Cervidae	*Rangifer t. caribou*	6	12	4	2	0	24
*** TOTALS ***			106	187	94	72	27	486

Class: Aves

Order	Family	Genus/Species	Head	Trunk	Ant L	Pos L	Limb	Total
** unidentifiable	**	**	0	0	0	0	1	1
Anseriformes	Anatidae	**	0	0	0	0	3	3
Anseriformes	Anatidae	*Somateria sp*	0	0	2	1	0	3
Anseriformes	Anatidae	*Mergus sp*	0	0	2	1	0	3
Charadriiformes	Laridae	**	0	0	1	1	0	2
*** TOTALS ***			0	0	5	3	4	12

Note: Total is equal to 500, however, 2 specimens were unidentifiable to body portion (Class Mammalia

APPENDIX B

LIST OF SPECIES THAT RANGE INTO EXTREME NORTHERN UNGAVA

MAMMALIA

Lepus arcticus Ross	arctic hare
Peromyscus maniculatus (Wagner)	deer mouse
Clethrionomys gapperi (Vigors)	red-backed mouse
Ondatra zibethicus (Linnaeus)	muskrat
Dicrostonyx hudsonius (Pallas)	Ungava lemming
Dicrostonyx torquatus (Pallas)	collared lemming
Phenacomys intermedius (Merriam)	heather vole
Microtus pennsylvanicus (Ord)	meadow vole
Erethizon dorsatum (Linnaeus)	porcupine
Hyperoodon ampullatus (Forster)	northern bottlenosed whale
Physeter catodon Linnaeus	sperm whale
Delphinapterus leucas (Pallas)	white whale (beluga)
Monodon monoceros Linnaeus	narwhal
Lagenorhynchus albirostris Gray	white-beaked dolphin
Globicephala melaena (Traill)	Atlantic pilot whale
Phocoena phocoena (Linnaeus)	harbour porpoise
Balaenoptera acutorostrata Lacepede	minke whale
Balaenoptera musculus (Linnaeus)	blue whale
Balaena mysticetus Linnaeus	bowhead whale
Canis lupus (labradorius) Linnaeus	gray wolf
Vulpes vulpes (Linnaeus)	red fox
Alopex lagopus ungava (Linnaeus)	arctic fox
Ursus maritimus Phipps	polar bear
Mustela erminea richardsonii Linnaeus	ermine or stoat
Mustela rixosa Linnaeus	least weasel
Mustela vison Schreber	mink
Martes americana (Turton)	marten
Gulo luscus or Gulo gulo (Linnaeus)	wolverine
Lutra canadensis (Schreber)	river otter
Odobenus rosmarus (Linnaeus)	walrus
Phoca vitulina Linnaeus	harbour seal
Phoca hispida Schreber	ringed seal
Phoca groenlandica Erxleben	harp seal
Halichoerus grypus (Fabricius)	grey seal
Erignathus barbatus (Erxleben)	bearded seal
Cystophora cristata (Erxleben)	hooded seal
Rangifer tarandus caribou (Gmelin)	caribou

AVES

Gavia stellata (Pontoppidan)	Red-throated Loon
Gavia immer (Brunnich)	Common Loon
Puffinus gravis (O'Reilly)	Greater Shearwater
Branta canadensis (Linnaeus)	Canada Goose
Aythya marila (Linnaeus)	Greater Scaup
Somateria mollissima (Linnaeus)	Common Eider
Somateria spectabilis (Linnaeus)	King Eider
Camptorhynchus labradorius (Gmelin)	Labrador Duck
Histrionicus histrionicus (Linnaeus)	Harlequin Duck
Clangula hyemalis (Linnaeus)	Oldsquaw
Bucephala islandica (Gmelin)	Barrows Goldeneye
Mergus serrator Linnaeus	Red-breasted Merganser
Buteo lagopus (Pontoppidan)	Rough-legged Hawk
Aquila chrysaetos (Linnaeus)	Golden Eagle
Falco peregrinus Tunstall	Peregrine Falcon
Falco rusticolus Linnaeus	Gyr Falcon
Dendragapus canadensis (Linnaeus)	Spruce Grouse
Lagopus lagopus (Linnaeus)	Willow Ptarmigan
Lagopus mutus (Montin)	Rock Ptarmigan
Charadrius semipalmatus Bonaparte	Semipalmated Plover
Actitis macularia (Linnaeus)	Spotted Sandpiper
Numenius borealis (Forster)	Eskimo Curlew
Calidris pusilla (Linnaeus)	Semipalmated Sandpiper
Gallinago gallinago (Linnaeus)	Common Snipe
Phalaropus lobatus (Linnaeus)	Red-necked Phalarope
Stercorarius parasiticus (Linnaeus)	Parasitic Jaeger
Larus argentatus Pontoppidan	Herring Gull
Larus hyperboreus Gunnerus	Glaucus Gull
Larus marinus Linnaeus	Great Black-backed Gull
Rissa tridactyla (Linnaeus)	Black-legged Kittiwake
Sterna paradisaea Pontoppidan	Arctic Tern
Uria lomvia (Linnaeus)	Thick-billed Murre
Cepphus grylle (Linnaeus)	Black Guillemot
Nyctea scandiaca (Linnaeus)	Snowy Owl
Eremophila alpestris (Linnaeus)	Horned Lark
Corvus corax Linnaeus	Common Raven
Oenanthe oenanthe (Linnaeus)	Northern Wheatear
Anthus spinoletta (Linnaeus)	Water Pipit
Spizella arborea (Wilson)	American Tree Sparrow
Passerculus sandwichensis (Gmelin)	Savannah Spaarrow
Zonotrichia leucophrys (Forster)	White-crowned Sparrow
Calcarius lapponicus (Linnaeus)	Lapland Longspur
Plectrophenax vivalis (Linnaeus)	Snow Bunting
Carduelis flammea (Linnaeus)	Common Redpoll

APPENDIX C

List of Identifications by Sup-operations and Levels

Sub-op.	Level	Order	Family	Genus/Species	No. I.D.s	% per sub-
MAMMALIA						
2A	I	-	-	-	1	2.13%
2A	I	Cetacea	Monodontidae	-	1	2.13%
2A	I	Pinnipedia	Phocidae	-	9	19.15%
2A	I	"	"	Phoca sp.	9	19.15%
2A	I	"	"	E. barbatus	3	6.4%
2A	I	"	"	Phoca vitulina	5	10.64%
2A	I	"	"	Phoca hispida	3	6.4%
2A	I	"	"	Phoca groenlandica	10	21.28%
2A	I	Artiodactyla	Cervidae	Rangifer t. caribou	1	2.13%
AVES						
2A	I	-	-	-	1	2.13%
2A	I	Anseriformes	Anatidae	-	1	2.13%
2A	I	"	"	Mergus sp.	1	2.13%
2A	I	Charadriiformes	Laridae	-	2	4.3%
Total					47	100%
MAMMALIA						
2AI	I	Pinnipedia	Phocidae	-	2	25%
2AI	I	"	"	Phoca sp.	2	25%
2AI	I	"	"	Phoca groenlandica	4	50%
Total					8	100%
MAMMALIA						
2B	I	-	-	-	2	2.17%
2B	I	Lagomorpha	Leporidae	Lepus arcticus	1	1/09%
2B	I	Cetacea			1	1.09%
2B	I	"	Monodontidae	Delphinapterus leucas	1	1.09%
2 B	I	Carnivora	Canidae	-	1	1.09%
2B	I	"	"	Canis sp.	1	1.09%
2B	I	"	"	Alopex lagopus	1	1.09%
2B	I	"	"	Vulpes vulpes	1	1.09%
2B	I	Pinnipedia	Phocidae	-	16	17.39%
2B	I	"	"	E. barbatus	5	5.43%
2B	I	"	"	Phoca sp.	17	18/48%
2B	I	"	"	Phoca vitulina	9	9.8%
2B	I	"	"	Phoca hispida	10	10.87%
2B	I	"	"	Phoca groenlandica	19	20.65%
2B	I	"	"	Cystophora cristata	1	1.09%
2B	I	Artiodactyla	Cervidae	Rangifer t. caribou	6	6.52%
total					92	100%

APPENDIX C CONT.

Sub-op.	Level	Order	Family	Genus/species	No. I.D.s	% per sub-op
MAMMALIA						
2C	I	-	-	-	6	3.3%
2C	I	Lagomorpha	Leporidae	Lepus arcticus	1	.55%
2C	I	Cetacea	-	-	2	1.1%
2C	I	Carnivora	Canidae	-	2	1.1%
2C	I	"	"	Vulpes sp.	3	1.65%
2C	I	"	"	Alopex lagopus	6	3.3%
2C	I	"	"	Vulpes vulpes	1	.55%
2C	I	Pinnipedia	Phocidae	-	42	23.08%
2C	I	"	"	E. barbatus	11	6.04%
2C	I	"	"	Phoca sp.	42	23.08%
2C	I	"	"	Phoca vitulina	2	1.1%
2C	I	"	"	Phoca hispida	17	9.34%
2C	I	"	"	Phoca groenlandica	31	17.03%
2C	I	"	"	Cystophora cristata	1	.55%
2C	I	Artiodactyla	Cervidae	Rangifer t. caribou	8	4.4%
AVES						
2C	I	Anseriformes	Anatidae	-	2	1.1%
2C	I	"	"	Somateria sp.	3	1.65%
2C	I	"	"	Mergus sp.	2	1.1%
Total					182	100%
MAMMALIA						
2C	II	-	-	-	3	1.75%
2C	II	Carnivora	Canidae	Vulpes sp.	4	2.34%
2C	II	"	Ursidae	Ursus maritimus	1	.58%
2C	II	Pinnipedia	Phocidae	-	40	23.39%
2C	II	"	"	E. barbatus	3	1.75%
2C	II	"	"	Phoca sp.	77	45.03%
2C	II	"	"	Phoca vitulina	3	1.75%
2C	II	"	"	Phoca hispida	10	5.85%
2C	II	"	"	Phoca groenlandica	20	11.70%
2C	II	Artiodactyla	Cervidae	Rangifer t. caribou	10	5.85%
Total					171	100%

Totals and Percentages of Whole Sample

2A	47	9.4%
2AI	8	1.6%
2B	92	18.4%
2C	182	36.4%
2C	171	34.2%
2CII	500	100.0%

APPENDIX D

List of Specimens Showing Signs of Butchering

Order	Family	Genus/sp.	Catalogue No.	Specimen
MAMMALIA				
Cetacea	-	-	2C2LI-1	vertebral epiphysis
Cetacea	-	-	2B5LI-18	mandible
Carnivora	Canidae	-	2B3LI-7	mid-thor. rib
"	"	Canis sp.	2B5LI-44	mid-thor. rib
Pinnipedia	Phocidae	-	2A4LI-10	" "
"	"	-	2C4LI-6	" "
"	"	-	2C4LI=10	" "
"	"	-	2C4LI-11	" "
"	"	-	2C4LI-13	" "
"	"	-	2C4LI-19	" "
"	"	E. barbatus	2B5LI-46	radius
"	"	"	2C4LI-57	5th metatarsal
"	"	"	2B5LI-58	radius
"	"	"	2B5LI-46	radius
"	"	Phoca sp.	2B2LI-5	mid-thor. rib
"	"	"	2B5LI-15	post-thor. rib
"	"	"	2C1LII-40	skull fragment
"	"	"	2B5LI-16	mid-thor. rib
"	"	P. vitulina	2B5LI-3	fibula
"	"	"	2B5LI-50	ulna
"	"	P. hispida	2B5LI-53	ulna
"	"	"	2C4LI-21	fibula
"	"	"	2C4LI-23	ulna
"	"	"	2B4LI-1	metatarsal
"	"	"	2B5LI-48	humerus
"	"	"	2B5LI-42	humerus
"	"	P. groenlandica	2B5LI-25	mandible
"	"	"	2B5LI-36	pubis
"	"	"	2B5LI-35	innominate
"	"	"	2B5LI-30	frontal
Artiodactyla	Cervidae	Rangifer t. caribou	2C2LI-2	mid-thor. rib
"	"	" "	2C4LI-2	" "
"	"	" "	2C1LII-102	" "
"	"	" "	2B5LI-49	femur diaphysis
"	"	" "	2C1LII-166	antler
"	"	" "	2C4LI-37	antler
AVES				
Anseriformes	Anatidae	Somateria sp.	2C4LI-63	coracoid
"	"	" "	2C4LI-65	coracoid

Totals: ribs=14 (36.84%); limb=11 (28.95%); head=4 (10.53%)

38 = 7.6% of total sample

Appendix E

LIST OF IDENTIFIED SPECIMENS

Legend:
Cat. = Catalogue Number | ShNo = Sheet Number | Age = Age class | PAT = Pathology
SEA = Seasonality | NAL = Natural Alterations | CAL = Cultural Alterations | SID = Side
SRM = Specimen Remarks | COM = Comments | x => Entry exists | (blank) => Not available
Age Class Conventions: I = Immature, A = Adult, I+ = Immature+, S = Sub-adult, J=Juvenile

i.e. not in computer file?

Class: Mammalia
Order: (not in library) *
Family: (not in library) *
Genus/Species: *(not in library)* *
Zoologist:

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2B1LI-4	7	H2 2B I L1 7	unidentifiable	diaphysis		I+				x			x
2B5LI-23	50	H2 2B I L5	unidentifiable			I+						x	
2A4LI-11	107	H2 2A I L4	unidentifiable			I+						x	x
2C3LI-44	237	H2 2C I L3	skull	fragment		I+				x		x	x
2C4LI-38	278	H2 2C I L4	limb	diaphysis		I+				x	x	x	
2C4LI-70	312	H2 2C I L4.	unidentifiable			I+				x			
2C4LI-83	324	H2 2C I L4	unidentifiable			I+				x			
2C4LI-88	329	H2 2C I L4	unidentifiable	epiphyseal surface		I				x			
2C4LI-89	330	H2 2C I L4	unidentifiable			I+				x			
2C1LII-22	354	H2 2C II L1	limb			I+				x		x	
2C1LII-30	362	H2 2C II L1	skull	fragment		I+				x		x	
2C1LII-57	389	H2 2C II L1	unidentifiable	fragment		I+				x		x	

Class: Mammalia
Order: Lagomorpha
Family: Leporidae
Genus/Species: *Lepus arcticus*
Zoologist: Ross

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2C4LI-64	306	H2 2C I L4	tibia	distal	L	I+				x			
2B3LI-1	20	H2 2B I L3 11	innominate	ilium,ischium,acet	L	I+						x	

Class: Mammalia
Order: Cetacea
Family: (not in library) *
Genus/Species: *(not in library)* *
Zoologist:

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2B5LI-18	45	H2 2B I L5	mandible	whole	L	I+					x		
2C1LI-36	101	H2 2C I L1	skull	fragment		I+				x			
2C2LI-1	216	H2 2C I L2	vertebra	epiphyseal fragmen		I+				x	x		

Class: Mammalia
Order: Cetacea
Family: Monodontidae
Genus/Species: *(not in library)* *
Zoologist:

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2A9LI-2	142	H2 2A I L4	skull	fragment		I+				x			

Class: Mammalia
Order: Cetacea
Family: Monodontidae
Genus/Species: *Delphinapterus leucas*
Zoologist: (Pallas)

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2B5LI-45	72	H2 2B I L5	ulna	middle (diaphysis)	R	A				x			

Class: Mammalia
Order: Carnivora
Family: Canidae
Genus/Species: *(not in library)* *
Zoologist:

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2B3LI-7	26	H2 2B I L3 11	rib - mid thoracic	middle/proximal	R	I+				x	x		
2C4LI-62	304	H2 2C I L4	tibia	diaphysis	R	I+				x		x	
2C4LI-71	313	H2 2C I L4	unidentifiable			I+				x		x	

Class: Mammalia
Order: Carnivora
Family: Canidae
Genus/Species: *Canis sp*
Zoologist:

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2B5LI-44	71	H2 2B I L5	humerus	proximal epiphysis	L	I				x	x	x	

Class: Mammalia
Order: Carnivora
Family: Canidae
Genus/Species: *Alopex lagopus*
Zoologist: (Merriam)

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2B5LI-55	82	H2 2B I L5	femur	distal	L	A				x		x	
2C1LI-33	178	H2 2C I L1	radius	proximal	L	A				x			
2C4LI-41	282	H2 2C I L4	skull	whole		I+				x			
2C4LI-42	283	H2 2C I L4	nasal	whole	L	I+				x		x	
2C4LI-43	284	H2 2C I L4	nasal	whole	R	I+				x		x	
2C4LI-44	285	H2 2C I L4	zygomatic	arch	R	I+				x		x	

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2C4LI-68	310	H2 2C I L4	innominate	ilium and proximal	R	I+				x			

Class: Mammalia
Order: Carnivora
Family: Canidae
Genus/Species: *Vulpes vulpes*
Zoologist: (Linnaeus)

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2B2LI-4	16	H2 2B I L2 12	humerus	diaphysis	R	I+				x		x	
2C4LI-80	321	H2 2C I L4	carpal 3	whole	L	I+				x			

Class: Mammalia
Order: Carnivora
Family: Canidae
Genus/Species: *Vulpes sp*
Zoologist:

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2C4LI-76	317	H2 2C I L4	skull fragment			I+				x			
2C4LI-77	318	H2 2C I L4	proximal phalanx	whole		I+				x			
2C4LI-81	322	H2 2C I L4	posterior lumbar verteb	posterior		I+				x			
2C1LII-13	345	H2 2C II L1	limb	diaphysis		I+				x		x	
2C1LII-105	437	H2 2C II L1	ulna	diaphysis	L	I+				x			
2C1LII-155	487	H2 2C II L1	radius	diaphysis		I+				x			
2C1LII-165	497	H2 2C II L1	proximal phalanx, 2nd	whole	R	I+				x			

Class: Mammalia
Order: Carnivora
Family: Ursidae
Genus/Species: *Ursus maritimus*
Zoologist: Phipps

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2C1LII-114	446	H2 2C II L1	patella	whole	L	I+				x		x	

Class: Mammalia
Order: Pinnipedia
Family: Phocidae
Genus/Species: *(not in library) **
Zoologist:

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2B1LI-1	1	H2 2B I L1 7	humerus	proximal	R	A				x			
2B1LI-5	4	H2 2B I L1 7	proximal phalanx; 1st d	complete		I+				x			
2B2LI-1	8	H2 2B I L2 12	tooth - post canine	complete		I+							
2B2LI-2	9	H2 2B I L2 12	tooth - post canine	complete		I+							
2B2LI-8	10	H2 2B I L2 12	fibula	proximal/medial	L	I+				x			
2B2LI-12	13	H2 2B I L2 12	tooth - post canine	root		I+							

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2B5LI-6	33	H2 2B I L5	rib - mid thoracic	middle		I+				x			
2B5LI-26	53	H2 2B I L5	rib - mid thoracic	middle		I+				x			
2B5LI-37	64	H2 2B I L5	sacrum	anterior		I				x			
2B5LI-51	78	H2 2B I L5	distal phalanx	middle		I+				x		x	
2B5LI-66	89	H2 2B I L5	unidentifiable limb	middle		I+				x			
2B5LI-68	91	H2 2B I L5	middle phalanx	whole		I+							
2B5LI-64	88	H2 2B I L5	anterior thoracic rib	distal/middle		I+				x			
2A1LI-4	95	H2 2A I L1	sternal segment, 8th	body		I+				x			
2AI7LI-7	139	H2 2AI I L7	scapula	fragment		I+				x			
2AI7LI-8	140	H2 2AI I L7	mid-thoracic rib	diaphysis		I+				x			
2A6LI-11	132	H2 2A I L6	posterior thoracic rib	diaphysis		I+				x			
2A6LI-3	124	H2 2A I L6	lumbar vertebra	body - anterior		I+				x			
2A4LI-12	108	H2 2A I L4	cranium	fragment		I+				x		x	
2A4LI-10	106	H2 2A I L4	mid-thoracic rib	diaphysis	L	I+				x	x		
2A4LI-5	101	H2 2A I L4	ischium	middle		I+				x			
2A4LI-3	99	H2 2A I L4	cranium	fragment		I+				x			
2A4LI-1	97	H2 2A I L4	mid-thoracic rib	diaphysis		I+				x			
2A4LI-14	110	H2 2A I L4	mid-thoracic rib	diaphysis		I+				x			
2C1LI-24	169	H2 2C I L1	mid-thoracic vertebra	epiphysis		I+				x			
2C1LI-20	165	H2 2C I L1	mid-thoracic vertebra	body		I+				x			
2C1LI-17	162	H2 2C I L1	humerus	diaphysis	L	I+				x			
2C1LI-11	156	H2 2C I L1	mid-thoracic rib	diaphysis	R	I+				x			
2C1LI-30	175	H2 2C I L1	mid-thoracic rib	middle	L	I+				x			
2C1LI-31	176	H2 2C I L1	mid-thoracic rib	middle		I+				x			
2C1LI-32	177	H2 2C I L1	frontal	fragment		I+				x			
2C1LI-34	179	H2 2C I L1	costal cartilage	whole		I+				x			
2C1LI-35	180	H2 2C I L1	posterior thoracic rib	middle	L	I+				x			
2C1LI-37	182	H2 2C I L1	skull	fragment		I+				x			
2C1LI-38	183	H2 2C I L1	skull	fragment		I+				x			
2C1LI-39	184	H2 2C I L1	canine tooth	whole		I+				x			
2C1LI-40	185	H2 2C I L1	fibula	diaphysis	L	I+				x			
2C1LI-41	186	H2 2C I L1	costal cartilage	whole		I+				x			
2C1LI-42	187	H2 2C I L1	canine tooth	whole		I+				x			
2C3LI-18	205	H2 2C I L3	mid-thoracic rib	middle fragment	R	I+				x			
2C3LI-19	206	H2 2C I L3	limb	fragment		I+				x	x		
2C2LI-4	219	H2 2C I L2	proximal phalanx 1st di	whole	R	I+				x			
2C2LI-6	221	H2 2C I L2	mid-thoracic rib	middle fragment		I+				x			
2C3LI-30	223	H2 2C I L3	carpal 3	whole	L	I+				x			
2C3LI-32	225	H2 2C I L3	anterior thoracic rib	proximal	L	I+				x			
2C3LI-41	234	H2 2C I L3	thoracic vertebra	body		I+				x			x
2C3LI-45	238	H2 2C I L3	mid-thoracic rib	fragment		I+				x			x
2C3LI-46	239	H2 2C I L3	mid-thoracic rib	fragment		I+				x			x
2C3LI-47	240	H2 2B I L3	rib	middle fragment		I+				x			
2C4LI-4	244	H2 2C I L4	mid-thoracic rib	middle	L	I+				x			
2C4LI-5	245	H2 2C I L4	mid-thoracic rib	middle	L	I+				x			
2C4LI-6	246	H2 2C I L4	mid-thoracic rib	middle	L	I+				x	x		
2C4LI-8	248	H2 2C I L4	mid-thoracic rib	middle	L	I+				x			
2C4LI-9	249	H2 2C I L4	posterior thoracic rib	middle	L	I+				x			
2C4LI-10	250	H2 2C I L4	posterior thoracic rib	middle	L	I+				x	x		
2C4LI-11	251	H2 2C I L4	mid-thoracic rib	middle		I+				x	x		
2C4LI-12	252	H2 2C I L4	mid-thoracic rib	middle	L	I+				x			
2C4LI-13	253	H2 2C I L4	mid-thoracic rib	middle	L	I+				x	x		
2C4LI-14	254	H2 2C I L4	mid-thoracic rib	middle	R	I+				x			

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2C4LI-15	255	H2 2C I L4	mid-thoracic rib	middle	L	I+				x			
2C4LI-16	256	H2 2C I L4	mid-thoracic rib	middle	R	I+				x			
2C4LI-18	258	H2 2C I L4	mid-thoracic rib	middle fragment		I+				x			
2C4LI-54	295	H2 2C I L4	tibia	distal	R	I+				x			
2C4LI-78	319	H2 2C I L4	premolar	whole		I+				x			
2C4LI-79	320	H2 2C I L4	premolar	whole		I+				x			
2C4LI-82	323	H2 2C I L4	canine	crown		I+				x		x	
2C4LI-84	325	H2 2C I L4	unidentifiable			I+				x			
2C1LII-8	340	H2 2C II L1	phalanx, prox. 5th	whole	L	I+				x			
2C1LII-12	344	H2 2C II L1	metacarpal, 3rd	whole	R	I+				x			
2C1LII-25	357	H2 2C II L1	carpal intermediate	whole	L	I+				x		x	
2C1LII-33	365	H2 2C II L1	mid-thor. rib	proximal	R	I+				x		x	
2C1LII-42	374	H2 2C II L1	mid-thor. rib	fragment		I+				x		x	
2C1LII-43	375	H2 2C II L1	mid-thor. rib	fragment	L	I+				x			
2C1LII-44	376	H2 2C II L1	mid-thor. rib	fragment	L	I+				x		x	
2C1LII-45	377	H2 2C II L1	mid-thor. rib	fragment	L	I+				x		x	
2C1LII-47	379	H2 2C II L1	mid-thor. rib	middle	R	I+				x			
2C1LII-48	380	H2 2C II L1	mid-thor. rib	middle	L	I+				x		x	
2C1LII-50	382	H2 2C II L1	mid-thor. rib	middle	R	I+				x			
2C1LII-51	383	H2 2C II L1	mid-thor. rib	middle fragment	L	I+				x		x	
2C1LII-52	384	H2 2C II L1	mid-thor. rib	middle fragment	L	I+				x			
2C1LII-56	388	H2 2C II L1	limb	fragment		I+				x			
2C1LII-68	400	H2 2C II L1	tibia	diaphysis		I+				x			
2C1LII-96	428	H2 2C II L1	mid-thor. rib	middle fragment	L	I+				x			
2C1LII-98	430	H2 2C II L1	mid-thor. rib	distal	R	I+				x		x	
2C1LII-99	431	H2 2C II L1	mid-thor. rib	middle fragment	L	I+				x			
2C1LII-100	432	H2 2C II L1	mid-thor. rib	middle fragment	R	I+				x			
2C1LII-101	433	H2 2C II L1	mid-thor. rib	middle	L	I+				x			
2C1LII-103	435	H2 2C II L1	mid-thor. rib	middle	L	I+				x			
2C1LII-104	436	H2 2C II L1	mid-thor. rib	distal fragment	L	I+				x		x	
2C1LII-106	438	H2 2C II L1	mid-thor. rib	middle fragment	L	I+				x			
2C1LII-108	440	H2 2C II L1	mid-thor. rib	middle		I+				x			
2C1LII-122	454	H2 2C II L1	limb	diaphysis fragment		I+				x		x	
2C1LII-127	459	H2 2C II L1	ant.-thor. rib	middle	L	I+				x			
2C1LII-128	460	H2 2C II L1	post-thor. rib	middle	R	I+				x			
2C1LII-131	463	H2 2C II L1	mid-thor. rib	distal		I+				x			
2C1LII-138	470	H2 2C II L1	skull	fragment		I+				x		x	
2C1LII-139	471	H2 2C II L1	mid-thor. rib	middle	L	I+				x			
2C1LII-141	473	H2 2C II L1	mid-thor. rib	middle fragment		I+				x			
2C1LII-145	477	H2 2C II L1	mid-thor. rib	distal		I+				x			
2C1LII-146	478	H2 2C II L1	ulna	diaphysis		I+				x			
2C1LII-149	481	H2 2C II L1	mid-thor. rib	distal	L	I+				x			
2C1LII-150	482	H2 2C II L1	mid-thor. rib	middle	L	I+				x			
2C1LII-151	483	H2 2C II L1	mid-thor. rib	middle	R	I+				x		x	
2C1LII-152	484	H2 2C II L1	mid-thor. rib	middle	R	I+				x			
2C1LII-153	485	H2 2C II L1	mid-thor. rib	middle		I+				x			
2C1LII-154	486	H2 2C II L1	mid-thor. rib	middle	L	I+				x		x	
2C1LII-156	488	H2 2C II L1	mid-thor. rib	middle		I+				x			

Class: Mammalia
Order: Pinnipedia
Family: Phocidae
Genus/Species: *Erignathus barbatus*
Zoologist: (Erxleben)

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2B1LI-3	3	H2 2B I L1 7	mandible	complete	L	I				x		x	
2B2LI-6	12	H2 2B I L2 12	occipital	right condyle		I+				x		x	
2B5LI-20	47	H2 2B I L5	scapula	ventral	R	I+							
2B5LI-58	85	H2 2B I L5	radius	proximal	R	I+				x	x		
2B5LI-46	73	H2 2B I L5	radius	whole	R	A				x	x		
2A1LI-3	94	H2 2A I L1	mid-thoracic rib	middle	L	I+				x			
2A5LS-7	117	H2 2A Surface L5	temporal	anterior/dorsal	L	I+				x		x	
2A4LI-4	100	H2 2A I L4	frontal	posterior fragment	L	I+				x			
2C1LI-6	152	H2 2C I L1	mid-thoracic rib	diaphysis	R	I+				x			
2C1LI-10	155	H2 2C I L1	humerus	whole	R	A				x			
2C3LI-1	188	H2 2C I L3	scapula	proximal end fragm	R	I+				x			
2C3LI-2	189	H2 2C I L3	metatarsal, 1st	whole	L	I+				x			x
2C3LI-3	190	H2 2C I L3	metatarsal, 1st	whole	L	I+				x		x	x
2C3LI-10	197	H2 2C I L3	carpal radiale and inte	whole	R	I+				x			
2C3LI-27	214	H2 2C I L3	distal phalanx	whole		I+				x			
2C3LI-38	231	H2 2C I L3	humerus	distal	L	I+				x			x
2C4LI-1	241	H2 2C I L4	anterior thoracic rib	middle	L	I+				x			
2C4LI-57	298	H2 2C I L4	5th metatarsal	whole	L	I+				x	x		
2C4LI-59	300	H2 2C I L4.	distal phalanx	whole		I+				x			
2C1LII-6	338	H2 2C II L1	scapula	whole	R	I+				x			
2C1LII-76	408	H2 2C II L1	mid-thor. vertebra	body		I+				x			
2C1LII-78	410	H2 2C II L1	ant.-thor. vertebra	transverse process	L	I+				x			

Class: Mammalia
Order: Pinnipedia
Family: Phocidae
Genus/Species: *Phoca vitulina*
Zoologist: Linnaeus

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2B3LI-3	22	H2 2B I L3 11	femur	diaphysis	R	I							
2B3LI-6	25	H2 2B I L3 11	radius	proximal	R	I				x			
2B5LI-3	30	H2 2B I L5	fibula	middle		I+				x	x		
2B5LI-4	31	H2 2B I L5	fibula	middle	L	I+				x		x	
2B5LI-7	34	H2 2B I L5	rib - mid thoracic	middle		I+							
2B5LI-11	38	H2 2B I L5	rib - mid thoracic	proximal/middle		I+							
2B5LI-19	46	H2 2B I L5	scapula	proximal	R	I+				x			
2B5LI-21	48	H2 2B I L5	scapula	proximal	L	I+				x			
2B5LI-50	77	H2 2B I L5	ulna	middle	R	I+				x	x		
2A1LI-5	96	H2 2A I L1	anterior lumbar vertibr	body		I+				x			
2A6LI-2	123	H2 2A I L6	tibia	distal epiphysis	L	I+				x			
2A5LS-3	113	H2 2A Surface L5	thoracic vertebra 1st	posterior body		I+				x			
2A4LI-2	98	H2 2A I L4	tibia	diaphysis-distal	R	I+				x		x	
2A4LI-6	102	H2 2A I L4	humerus	diaphysis	R	I+				x		x	
2C4LI-27	267	H2 2C I L4	femur	diaphysis	R	I+				x		x	
2C4LI-31	271	H2 2C I L4	humerus	distal	L	I+		x		x			
2C1LII-21	353	H2 2C II L1	radius	distal epiphysis		I				x			

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2C1LII-26	358	H2 2C II L1	metatarsal, 5th	proximal epiphysis	L	I				x			
2C1LII-117	449	H2 2C II L1	radius	distal (no epiph)	L	I				x			

Class: Mammalia
Order: Pinnipedia
Family: Phocidae
Genus/Species: *Phoca hispida*
Zoologist: Schreber

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2B1LI-6	5	H2 2B I L1 7	distal phalanx	complete		I+				x			
2B2LI-9	15	H2 2B I L2 12	vertebra - mid thoracic			I+				x			
2B4LI-1	27	H2 2B I L4 1	metatarsal	complete	L	I+				x	x		
2B5LI-29	56	H2 2B I L5	temporal	auditory bulla	R	I+						x	
2B5LI-59	86	H2 2B I L5	innominate	proximal	R	I+				x		x	
2B5LI-48	75	H2 2B I L5	humerus	proximal	L	A				x	x	x	
2B5LI-47	74	H2 2B I L5	humerus	distal	R	I				x			
2B5LI-42	69	H2 2B I L5	humerus	distal epiphysis	L	A				x	x		
2B5LI-31	58	H2 2B I L5	temporal	auditory bulla	R	I+						x	
2A1LI-1	92	H2 2A I L1	cervical vertebra -axis	whole		I+				x			
2A5LS-5	115	H2 2A Surface L5	ulna	middle	R	I+				x		x	
2A5LS-1	111	H2 2A Surface L5	humerus	distal	R	I+				x			
2C1LI-26	171	H2 2C I L1	axis - 2nd cervical ver	body		I+				x			
2C1LI-14	159	H2 2C I L1	cervical vertebra, 1st	whole		I+				x			
2C1LI-8	153	H2 2C I L1	scapula	proximal epiphysis		I+				x			
2C1LI-29	174	H2 2C I L1	radius	distal epiphysis	L	I+				x			
2C3LI-7	194	H2 2C I L3	tarsal centrali	whole	L	I+				x			
2C2LI-5	220	H2 2C I L2	proximal phalanx, 5th d	whole	L	I+				x			
2C3LI-39	232	H2 2C I L3	humerus	whole	R	A				x			x
2B5LI-53	80	H2 2B I L5	ulna	distal	L	A				x	x		
2C4LI-21	261	H2 2C I L4	fibula	diaphysis	L	I+				x	x		
2C4LI-22	262	H2 2C I L4	tibia	distal	L	I+				x		x	
2C4LI-23	263	H2 2C I L4	ulna	proximal/diaphysis	R	I+				x	x	x	
2C4LI-24	264	H2 2C I L4	fibula	diaphysis	L	I+				x			
2C4LI-32	272	H2 2C I L4	innominate	distal	L	I+				x		x	
2C4LI-33	273	H2 2C I L4	innominate	proximal	L	I+				x		x	
2C4LI-34	274	H2 2C I L4	ulna	diaphysis	L	I+				x			
2C4LI-45	286	H2 2C I L4	mid cervical vertebra	whole		I+				x			
2C4LI-56	297	H2 2C I L4	talus	whole	R	I+				x			
2C4LI-58	299	H2 2C I L4	sacral segments 1,2,3,4	whole		I+				x		x	
2C1LII-79	411	H2 2C II L1	post.-lumbar vertebra	body & trans/proc.		I+				x			
2C1LII-81	413	H2 2C II L1	thoracic vertebra, 11th	whole		I+				x			
2C1LII-84	416	H2 2C II L1	thor. vertebra, 1st	body		I+				x			
2C1LII-112	444	H2 2C II L1	cervical vertebra, 2nd	whole		I+				x			
2C1LII-113	445	H2 2C II L1	mid-thor. vertebra	body		I+				x			
2C1LII-118	450	H2 2C II L1	ulna	proximal/diaphysis	R	I+				x			
2C1LII-124	456	H2 2C II L1	tibia	diaphysis	R	I+				x			
2C1LII-161	493	H2 2C II L1	ulna	anterior	R	I+				x			
2C1LII-162	494	H2 2C II L1	ulna	anterior	R	I+				x			
2C1LII-163	495	H2 2C II L1	mandible	whole	R	I+				x			

Class: Mammalia
Order: Pinnipedia
Family: Phocidae
Genus/Species: *Phoca groenlandica*
Zoologist: Erxleben

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2B2LI-8	14	H-2 2B I L2 12	mandible	anterior	R	I+				x		x	
2B2LI-10	17	H-2 2B I L2 12	ischium	middle	L	I+				x		x	
2B3LI-4	23	H2 2B I L3 11	femur	distal epiphysis	L	I				x			
2B3LI-5	24	H2 2B I L3 11	radius	proximal	R	I+				x		x	
2B5LI-1	28	H2 2B I L5	rib - mid thoracic	proximal/middle		I+				x		x	
2B5LI-12	39	H2 2B I L5	rib - posterior thoraci	proximal	R	I+				x			
2B5LI-17	44	H2 2B I L5	ischium	anterior	R	I+							
2B5LI-22	49	H2 2B I L5	mandible	complete	L	I+				x		x	x
2B5LI-24	51	H2 2B I L5	maxillae, premaxillae	anterior		I+						x	
2B5LI-25	52	H2 2B I L5	mandible	anterior	R	I+				x	x		
2B5LI-67	90	H2 2B I L5	lumbar vertebra	anterior articular	L	I+				x			
2B5LI-60	87	H2 2B I L5	calcaneus	body	L	Ju				x		x	
2B5LI-57	84	H2 2B I L5	carpal rad.& intermedia	whole	R	I+				x		x	
2B5LI-54	81	H2 2B I L5	ulna	proximal	L	I+				x		x	
2B5LI-40	67	H2 2B I L5	posterior lumbar verteb	whole		I				x		x	x
2B5LI-39	66	H2 2B I L5	sacrum	anterior portion	L	I+				x			x
2B5LI-36	63	H2 2B I L5	pubis	anterior/proximal	R	I+				x	x		
2B5LI-35	62	H2 2B I L5	innominate	anterior/proximal	R	I+		x		x	x	x	
2B5LI-30	57	H2 2B I L5.	frontal	middle	R	I+				x	x		
2A1LI-2	93	H2 2A I L1	proximal phalanx	whole		I+				x			
2AI7LI-1	133	H2 2AI I L7	posterior thoracic vert	body		I+				x			
2AI7LI-2	134	H2 2AI I L7	temporal	auditory bulla	L	I+				x			
2AI7LI-3	135	H2 2AI I L7	ischium and pubis	proximal symphysis	L	I+				x			
2AI7LI-5	137	H2 2AI I L7	temporal	auditory bulla	R	I+				x			
2A6LI-1	122	H2 2A I L6	thoracic vertebra	body - posterior		I+				x			
2A5LS-9	119	H2 2A Surface L5	lumbar vertebra	body		I+				x			
2A5LS-8	118	H2 2A Surface L5	lumbar vertebra	posterior body		I+				x			
2A5LS-4	114	H2 2A Surface L5	maxilla	anterior	L	I+				x			
2A5LS-2	112	H2 2A Surface L5	lumbar vertebra	body		I+				x			
2A5LS-11	121	H2 2A Surface L5	thoracic vertebra	body		I+				x			
2A4LI-13	109	H2 2A I L4	middle phalanx	whole		I+				x			
2A9LI-3	143	H2 2A I L4	occipital	condyle & basiocci	R	I+				x			
2A9LI-4	144	H2 2A I L4	carpal 2	whole	L	I+				x			
2C1LI-25	170	H2 2C I L1	temporal	anterior/dorsal		I+				x		x	
2C1LI-21	166	H2 2C I L1	scapula	distal fragment		I+				x			
2C1LI-19	164	H2 2C I L1	ulna	proximal diaphysis	L	I+				x		x	
2C1LI-18	163	H2 2C I L1	temporal	auditory bulla	R	I+				x			
2C1LI-15	160	H2 2C I L1	radius	proximal	L	I+				x			
2C1LI-13	158	H2 2C I L1	temporal	petrous & bulla	L	I+				x			
2C1LI-5	151	H2 2C I L1	skull	whole		I+				x		x	
2C3LI-4	191	H2 2C I L3	mandible	whole	L	I+				x			
2C3LI-12	199	H2 2C I L3	radius	proximal	R	I+				x			
2C3LI-21	208	H2 2C I L3	metacarpal, 2nd	whole	L	I+				x			
2C3LI-22	209	H2 2C I L3	metacarpal, 3rd	whole	L	I+				x			
2C3LI-23	210	H2 2C I L3	metatarsal, 4th	whole	L	I+				x			
2C3LI-24	211	H2 2C I L3	metacarpal, 5th	whole	L	I+				x			
2C3LI-25	212	H2 2C I L3	proximal phalanx, 2nd d	whole	L	I+				x			
2C3LI-26	213	H2 2C I L3	middle phalanx, 3rd	whole	L	I+				x			

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2C3LI-29	222	H2 2C I L3	radius	proximal	R	I+				x			
2C3LI-31	224	H2 2C I L3	temporal	anterior/dorsal	L	I+				x			
2C3LI-35	228	H2 2C I L3	mandible	horizontal ramus	R	I+				x			
2C3LI-37	230	H2 2C I L3	cervical vertibra, atla	whole		I+				x			
2C3LI-40	233	H2 2C I L3	mid-thoracic vertebra	body & dorsal arch		I+				x			x
2C4LI-20	260	H2 2C I L4	tibia	diaphysis	R	I+				x			
2C4LI-25	265	H2 2C I L4	fibula	diaphysis	L	I+				x			
2C4LI-28	268	H2 2C I L4	femur	diaphysis	R	I				x			
2C4LI-29	269	H2 2C I L4	femur	diaphysis	R	I+				x			
2C4LI-30	270	H2 2C I L4	femur	diaphysis	R	I+				x			
2C4LI-35	275	H2 2C I L4	humerus	distal epiphysis	R	I+				x			
2C4LI-36	276	H2 2C I L4	humerus	distal epiphysis	L	I+				x		x	
2C4LI-47	288	H2 2C I L4	mandible	horizontal ramus	L	I+				x			
2C4LI-49	290	H2 2C I L4	mandible	mandibular condyle	L	I+				x			
2C4LI-55	296	H2 2C I L4	temporal	petrous portion	R	I+				x			
2C4LI-61	302	H2 2C I L4	proximal phalanx	whole		I+				x			
2C1LII-1	333	H2 2C II L1	femur	lateral half	L	A				x		x	
2C1LII-3	335	H2 2C II L1	femur	distal epiphysis	R	I				x			
2C1LII-4	336	H2 2C II L1	ulna	diaphysis	L	I+				x		x	
2C1LII-5	337	H2 2C II L1	scapula	whole	L	I+				x			
2C1LII-59	391	H2 2C II L1	skull	anterior		I+				x		x	x
2C1LII-65	397	H2 2C II L1	temporal	petrous and bulla	L	I+				x			x
2C1LII-66	398	H2 2C II L1	temporal	petrous fragment	L	I+				x			x
2C1LII-67	399	H2 2C II L1	occipital	condyles		I+				x		x	x
2C1LII-70	402	H2 2C II L1	temporal	auditory bulla	R	I+				x			x
2C1LII-77	409	H2 2C II L1	post-thor. vertebra	body & dorsal arch		I+				x			
2C1LII-80	412	H2 2C II L1	cervical vertebra, 7th	whole		I+				x			
2C1LII-90	422	H2 2C II L1	mid-thor. vertebra	body		I+				x			
2C1LII-95	427	H2 2C II L1	metatarsal, 5th	whole	R	I+				x			
2C1LII-110	442	H2 2C II L1	ethmoid	crista galli		I+				x			
2C1LII-111	443	H2 2C II L1	thor. vertebra, 1st	whole		I+		x		x			
2C1LII-115	447	H2 2C II L1	radius	distal (no epiph)	L	I				x			
2C1LII-116	448	H2 2C II L1	radius	proximal	L	I+				x		x	
2C1LII-132	464	H2 2C II L1	radius	distal epiphysis	L	I				x			
2C1LII-164	496	H2 2C II L1	femur	proximal diaphysis	R	I+				x			

Class: Mammalia
Order: Pinnipedia
Family: Phocidae
Genus/Species: *Phoca sp*
Zoologist:

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2B1LI-7	6	H2 2B I L1 7	middle phalanx	middle		I+				x		x	
2B2LI-5	11	H2 2B I L2 12	rib - mid thoracic	medial		I+				x	x		
2B5LI-2	29	H2 2B I L5	rib - mid thoracic	middle		I+							
2B5LI-5	32	H2 2B I L5	rib - mid thoracic	middle		I+				x		x	
2B5LI-8	35	H2 2B I L5	rib - mid thoracic	middle		I+				x			
2B5LI-9	36	H2 2B I L5	rib - mid thoracic	middle		I+				x			
2B5LI-10	37	H2 2B I L5	rib - mid thoracic	middle		I+							
2B5LI-13	40	H2 2B I L5	rib - mid thoracic	middle		I+				x		x	
2B5LI-14	41	H2 2B I L5	rib - mid thoracic	middle		I+				x		x	

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2B5LI-15	42	H2 2B I L5	rib - posterior thoraci	middle		I+				x	x		
2B5LI-16	43	H2 2B I L5	rib - mid thoracic	middle		I+				x	x		
2B5LI-28	55	H2 2B I L5	parietal	anterior	R	I+				x		x	
2B5LI-32	59	H2 2B I L5	canine	whole	R	I+							
2B5LI-33	60	H2 2B I L5	post canine	whole		I+							
2B5LI-34	61	H2 2B I L5	post canine	whole		I+							
2B5LI-56	83	H2 2B I L5	humerus	distal	R	I				x			
2B5LI-52	79	H2 2B I L5	metatarsal, 2nd	proximal	R	I+				x		x	
2AI7LI-6	138	H2 2AI I L7	lumbar vertebra	articular-facet po	R	I+				x			
2AI7LI-4	136	H2 2AI I L7	parietal	fragment		I+				x			
2A6LI-10	131	H2 2A I L6	lumbar vertebra	articular facet -	L	I+				x			
2A6LI-9	130	H2 2A I L6	fibula	distal / middle	L	I+				x			
2A6LI-7	128	H2 2A I L6	parietal	fragment		I+				x			
2A6LI-6	127	H2 2A I L6	lumbar vertebra	epiphysis		I+				x			
2A6LI-4	125	H2 2A I L6	parietal	fragment	R	I+				x			
2A6LI-5	126	H2 2A I L6	phalanx, 1st	whole		I+				x			
2A5LS-10	120	H2 2A Surface L5	lumbar vertebra	articular facet po	R	I+				x			
2A4LI-9	105	H2 2A I L4	canine	whole		I+				x			
2A4LI-7	103	H2 2A I L4	pubis	diaphysis fragment		I+				x			
2C1LI-27	172	H2 2C I L1	radius	distal		I+				x			
2C1LI-23	168	H2 2C I L1	pubis	proximal	L	I+				x			
2C1LI-22	167	H2 2C I L1	parietal	fragment	L	I+				x			
2C1LI-16	161	H2 2C I L1	parietal	mid-line	L	I+				x		x	
2C1LI-1	147	H2 2C I L1	malleus of auditory oss	proximal	R	I+				x			
2C1LI-2	148	H2 2C I L1	incus of auditory ossic	whole	L	I+				x			
2C1LI-3	149	H2 2C I L1	stapes of auditory ossi	whole		I+				x			
2C1LI-4	150	H2 2C I L1	malleus of auditory oss	whole	L	I+				x			
2C1LI-28	173	H2 2C I L1	tibia	left diaphysis	L	I+				x			
2C3LI-5	192	H2 2C I L3	pubis	diaphysis fragment	R	I+				x			
2C3LI-6	193	H2 2C I L3	4th tarsal	whole	R	I+				x			
2C3LI-8	195	H2 2C I L3	fibula	proximal	R	I+				x		x	
2C3LI-9	196	H2 2C I L3	rib ant.thor. #1	proximal	L	I+				x			
2C3LI-11	198	H2 2C I L3	innominate	proximal	L	I+				x		x	
2C3LI-13	200	H2 2C I L3	mandible	horizontal ramus	R	I+				x			
2C3LI-14	201	H2 2C I L3	mid-thoracic rib	middle fragment	L	I+				x			
2C3LI-15	202	H2 2C I L3	posterior thoracic rib	proximal end	R	I+				x			
2C3LI-16	203	H2 2C I L3	femur	distal medial cond	L	I+				x			
2C3LI-20	207	H2 2C I L3	phalanx	middle		I+				x		x	
2C3LI-28	215	H2 2C I L3	sternal segment	whole		I+				x			
2C2LI-3	218	H2 2C I L2	sternal segment, 1st	whole		I+				x			
2C4LI-39	280	H2 2C I L4	sternal segment - 1st	whole		I+				x			
2C3LI-33	226	H2 2C I L3	phalanx	middle		I+				x		x	
2C3LI-34	227	H2 2C I L3	tibia	proximal	R	I+				x		x	
2C3LI-42	235	H2 2C I L3	thoracic vertebra	ventral half of bo		I+				x			x
2C3LI-43	236	H2 2C I L3	thoracic vertebra	transverse process	R	I+				x			x
2C4LI-17	257	H2 2C I L4	costal cartilage	whole		I+				x			
2C4LI-19	259	H2 2C I L4	costal cartilage	whole		I+				x			
2C4LI-40	281	H2 2C I L4	scapula	proximal epiphysis	R	I+				x			
2C4LI-26	266	H2 2C I L4	tibia	proximal	R	I+				x			
2C4LI-46	287	H2 2C I L4	mandible		L	I+				x		x	
2C4LI-48	289	H2 2C I L4	mandible	horizontal ramus		I+				x		x	
2C4LI-50	291	H2 2C I L4	thoracic vertebra	posterior epiphysi		I				x			
2C4LI-51	292	H2 2C I L4	cervical vertebra	posterior epiphysi		I				x			

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2C4LI-52	293	H2 2C I L4	lumbar vertebra	dorsal spine		I+				x			
2C4LI-53	294	H2 2C I L4	parietal	fragment		I+				x			
2C4LI-60	301	H2 2C I L4	mid-thoracic rib	middle		I+				x			
2C4LI-67	309	H2 2C I L4	fibula	diaphysis	R	I+				x		x	
2C4LI-85	326	H2 2C I L4	metacarpal, 4th	whole		I+				x			
2C4LI-86	327	H2 2C I L4	middle phalanx, 3rd dig	whole	R	I+				x			
2C4LI-87	328	H2 2C I L4	middle phalanx, 3rd dig	whole	L	I+				x			
2C4LI-90	331	H2 2C I L4	carpal 3	whole	L	I+				x			
2C1LII-41	373	H2 2C II L1	mid-thor. rib	proximal	L	I+				x		x	
2C1LII-9	341	H2 2C II L1	parietal	fragment	R	I+				x			
2C1LII-10	342	H2 2C II L1	parietal	fragment		I+				x			
2C1LII-11	343	H2 2C II L1	metatarsal, 5th	whole	R	I+				x			
2C1LII-14	346	H2 2C II L1	lumbar vertebra	post. artic. facet	L	I+				x			
2C1LII-15	347	H2 2C II L1	temporal	auditory bulla		I+				x		x	
2C1LII-16	348	H2 2C II L1	metacarpal, 2nd	whole	L	I+				x			
2C1LII-17	349	H2 2C II L1	metatarsal, 5th	whole	L	I				x			
2C1LII-18	350	H2 2C II L1	scapula	proximal epiphysis	L	I				x			
2C1LII-19	351	H2 2C II L1	mid-thor. vertebra	anterior epiphysis		I				x			
2C1LII-20	352	H2 2C II L1	cervical vertebra	epiphysis		I				x			
2C1LII-23	355	H2 2C II L1	temporal	auditory bulla		I+				x		x	
2C1LII-24	356	H2 2C II L1	cervical vertebra	epiphysis		I				x			
2C1LII-27	359	H2 2C II L1	skull	fragment		I+				x			
2C1LII-28	360	H2 2C II L1	cervical vertebra	epiphysis		I				x			
2C1LII-29	361	H2 2C II L1	phalanx, 2nd	whole		I+				x		x	
2C1LII-31	363	H2 2C II L1	parietal	fragment	L	I+				x			
2C1LII-32	364	H2 2C II L1	cervical vertebra	epiphysis		I				x			
2C1LII-34	366	H2 2C II L1	maxilla	zygomatic portion	L	I+				x			
2C1LII-35	367	H2 2C II L1	tarsal 1	whole	R	I+				x			
2C1LII-36	368	H2 2C II L1	mid-thor. vertebra	lat. artic. proces	R	I+				x		x	
2C1LII-37	369	H2 2C II L1	canine tooth	whole		I+				x			
2C1LII-38	370	H2 2C II L1	mid-thor. rib	fragment		I+				x			
2C1LII-39	371	H2 2C II L1	mid-thor. vertebra	ant. articular fac	L	I+				x			
2C1LII-40	372	H2 2C II L1	skull	fragment		I+				x	x	x	
2C1LII-46	378	H2 2C II L1	mid-thor. rib	proximal	L	I+				x		x	
2C1LII-53	385	H2 2C II L1	metatarsal, 5th	middle	L	I+				x		x	
2C1LII-54	386	H2 2C II L1	post canine tooth	whole		I+				x			
2C1LII-55	387	H2 2C II L1	post canine tooth	whole		I+				x			
2C1LII-58	390	H2 2C II L1	ulna	middle	L	I+				x		x	
2C1LII-60	392	H2 2C II L1	parietal	fragment	L	I+				x			x
2C1LII-61	393	H2 2C II L1	frontal	fragment	R	I+				x			x
2C1LII-62	394	H2 2C II L1	frontal	fragment	L	I+				x			x
2C1LII-63	395	H2 2C II L1	basioccipital	central fragment		I+				x			x
2C1LII-64	396	H2 2C II L1	parietal	fragment		I+				x			x
2C1LII-69	401	H2 2C II L1	jugal	whole	L	I+				x			x
2C1LII-71	403	H2 2C II L1	parietal and frontal	suture fragment	L	I+				x			x
2C1LII-72	404	H2 2C II L1	temporal	bulla fragment		I+				x			x
2C1LII-73	405	H2 2C II L1	incus	whole	L	I+				x		x	x
2C1LII-74	406	H2 2C II L1	malleus	head	R	I+				x		x	x
2C1LII-75	407	H2 2C II L1	malleus	manubrium/lat. pro		I+				x		x	x
2C1LII-82	414	H2 2C II L1	mid-thor. vertebra	ant. articular fac	L	I+				x			
2C1LII-83	415	H2 2C II L1	lumbar vertebra	transverse process	R	I+				x			
2C1LII-85	417	H2 2C II L1	mid.-cervical vert.	arch-artic. facet	L	I+				x			
2C1LII-86	418	H2 2C II L1	mid.-cervical vert.	dorsal arch fragme	L	I+				x			

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2C1LII-87	419	H2 2C II L1	thoracic vertebra	anterior epiphysis		I				x			
2C1LII-88	420	H2 2C II L1	thoracic vertebra	epiphysis		I				x			
2C1LII-91	423	H2 2C II L1	pubis	middle	L	I+				x			
2C1LII-92	424	H2 2C II L1	tibia	diaphysis fragment	L	I+				x			
2C1LII-93	425	H2 2C II L1	phalanx, 1st	whole	R	I+				x			
2C1LII-94	426	H2 2C II L1	temporal	auditory bulla fra		I+				x			
2C1LII-97	429	H2 2C II L1	scapula	body & spine frag.	R	I+				x			
2C1LII-107	439	H2 2C II L1	costal cartilage	whole		I+				x			
2C1LII-109	441	H2 2C II L1	ulna	distal epiphysis	R	I				x			
2C1LII-119	451	H2 2C II L1	tibia	diaphysis	L	I+				x			
2C1LII-120	452	H2 2C II L1	tibia	diaphysis	L	I+				x			
2C1LII-121	453	H2 2C II L1	tibia	diaphysis	L	I+				x			
2C1LII-123	455	H2 2C II L1	tibia	diaphysis	R	I+				x			
2C1LII-125	457	H2 2C II L1	limb	diaphysis		I+				x			
2C1LII-126	458	H2 2C II L1	tibia	proximal/diaphysis	R	I+				x			
2C1LII-129	461	H2 2C II L1	phalanx, 2nd	middle	L	I				x			
2C1LII-130	462	H2 2C II L1	tibia	distal/diaphysis	L	I+				x			
2C1LII-133	465	H2 2C II L1	proximal phalanx	distal		I+				x			
2C1LII-134	466	H2 2C II L1	tibia	diaphysis	L	I+				x			
2C1LII-135	467	H2 2C II L1	tarsal, 4th	whole	L	I+				x			
2C1LII-136	468	H2 2C II L1	sternal segment	whole		I+				x		x	
2C1LII-137	469	H2 2C II L1	metacarpal, 5th	whole	R	I+				x			
2C1LII-143	475	H2 2C II L1	sternal segment	whole		I+				x		x	
2C1LII-144	476	H2 2C II L1	lumbar vertebra	epiphysis		I				x			
2C1LII-147	479	H2 2C II L1	occipital	condyle	R	I+				x		x	
2C1LII-148	480	H2 2C II L1	costal cartilage	whole		I+				x			
2C1LII-157	489	H2 2C II L1	mandible	horizontal ramus	L	I+				x			
2C1LII-159	491	H2 2C II L1	scapula	proximal	R	I+				x			
2C1LII-167	499	H2 2C II L1	skull	fragment		I+				x			
2C1LII-168	500	H2 2C II L1	mandible	asc.& hor. ramus	L	I+				x			
2C1LII-169	501	H2 2C II L1	scapula	fragment	L	I+				x			
2C1LII-170	502	H2 2C II L1	patella	whole	L	I+				x			
2C1LII-171	503	H2 2C II L1	metatarsal, 1st	proximal epiphysis	L	I				x			

Class: Mammalia
Order: Pinnipedia
Family: Phocidae
Genus/Species: *Cystophora cristata*
Zoologist: (Erxleben)

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2B3LI-2	21	H2 2B I L3 11	femur	diaphysis	R	I+				x			
2B2LI-11	19	H2 2B I L2 12	limb	distal or proximal		I+				x			
2B5LI-43	70	H2 2B I L5	femur	proximal + middle	R	I+				x		x	
2C1LI-9	154	H2 2C I L1	innominate	whole	L	I+				x			

Class: Mammalia
Order: Artiodactyla
Family: (not in library) *
Genus/Species: *(not in library)* *
Zoologist:

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2C3LI-17	204	H2 2C I L3	limb	diaphysis fragment		I+				x			

Class: Mammalia
Order: Artiodactyla
Family: Cervidae
Genus/Species: *Rangifer t. caribou*
Zoologist: (Gmelin)

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2B1LI-2	2	H2 2B I L1 7	rib	middle		I+				x		x	
2B2LI-7	18	H2 2B I L2 12	carpal ulnare	complete	R	I+				x			
2B5LI-27	54	H2 2B I L5	jugal	lateral	R	I+				x			
2B5LI-49	76	H2 2B I L5	femur	distal diaphysis	L	I+				x	x	x	
2B5LI-41	68	H2 2B I L5	posterior thoracic vert	whole		I				x		x	
2B5LI-38	65	H2 2B I L5	thoracic vertebra	anterior		I				x			
2A9LI-1	141	H2 2A I L4	metapodial	proximal	R	I+				x			
2C1LI-12	157	H2 2C I L1	posterior lumbar verteb	body		I+				x			
2C2LI-2	217	H2 2C I L2.	mid-thoracic rib	middle	L	I+				x	x		
2C4LI-2	242	H2 2C I L4	mid-thoracic rib	middle		I+				x	x		
2C4LI-3	243	H2 2C I L4	mid-thoracic rib	middle		I+				x			
2C4LI-7	247	H2 2C I L4	mid-thoracic rib	middle		I+				x		x	
2C4LI-37	277	H2 2C I L4	antler			I+				x	x	x	
2C1LII-2	334	H2 2C II L1	mid-thoracic rib	fragment		I+				x			
2C1LII-7	339	H2 2C II L1	antler	fragment		I+				x			
2C1LII-49	381	H2 2C II L1	mid-thor. rib	middle		I+				x			
2C1LII-89	421	H2 2C II L1	scapula	proximal/body	L	I+				x			
2C1LII-102	434	H2 2C II L1	mid-thor. rib	middle	R	I+				x	x		
2C1LII-140	472	H2 2C II L1	cervical vertebra, 1st	articular surface	R	I+				x			
2C1LII-142	474	H2 2C II L1	carpal radiale	whole	R	I+				x			
2C1LII-158	490	H2 2C II L1	scapula	proximal	L	I+				x			
2C1LII-160	492	H2 2C II L1	antler	fragment		I+				x			
2C1LII-166	498	H2 2C II L1	antler	fragment		I+				x	x		
2C3LI-36	229	H2 2C I L3	antler			I+				x			

Class: Aves
Order: (not in library) *
Family: (not in library) *
Genus/Species: *(not in library)* *
Zoologist:

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2A6LI-8	129	H2 2A I L6	unidentifiable			I+				x		x	

Class: Aves
Order: Anseriformes
Family: Anatidae
Genus/Species: *(not in library)* *
Zoologist:

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2A9LI-5	145	H2 2A I L4	unidentifiable	diaphysis		I+				x			
2C4LI-74	315	H2 2C I L4	limb	unidentifiable		I+				x		x	
2C4LI-75	316	H2 2C I L4	limb	unidentifiable		I+				x		x	

Class: Aves
Order: Anseriformes
Family: Anatidae
Genus/Species: *Somateria sp*
Zoologist:

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2C4LI-63	305	H2 2C I L4	coracoid	body	R	I+				x	x	x	
2C4LI-65	307	H2 2C I L4	coracoid	body	R	I+				x	x	x	
2C4LI-66	308	H2 2C I L4	tibiotarsus	proximal	R	I+				x			

Class: Aves
Order: Anseriformes
Family: Anatidae
Genus/Species: *Mergus sp*
Zoologist:

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2A5LS-6	116	H2 2A Surface L5	ulna	distal	R	I+				x			
2C4LI-69	311	H2 2C I L4	tibiotarsus	whole	L	I+				x		x	
2C4LI-72	314	H2 2C I L4	carpometacarpus	whole	R	I+				x			

Class: Aves
Order: Charadriiformes
Family: Laridae
Genus/Species: *(not in library)* *
Zoologist:

Cat.	ShNo	Provenience	Bone	Bone Portion	SID	Age	Sex	PAT	SEA	NAL	CAL	SRM	COM
2A4LI-8	104	H2 2A I L4	ulna	proximal	L	I+				x		x	
2A9LI-6	146	H2 2A I L4	tibiotarsus	proximal	R	I+				x			