FAUNAL MATERIAL FROM EIGHT ARCHAEOLOGICAL SITES: A PRELIMINARY REPORT

Birute Galdikas-Brindamour

INTRODUCTION

The paucity of information on the faunal remains recovered from archaeological sites in British Columbia can probably be attributed to two factors; first, the lack of faunal type collections with which the archaeological material could be compared and second, an absence of qualified personnel to undertake analysis of these remains. Site reports have either only barely summarised the species of animals present within the site as a whole (see Calvert 1970) or going one step further, they have in some detail noted the identity of bones present at each level of the site without mentioning their number (Fisher 1943). In no case, however, has there been any explicit enumeration of different bones at each level nor any sophisticated attempt to relate and explicate the meaning of the faunal assemblage in terms of and to the rest of the site. Indeed, it would be no exaggeration to conclude that "faunal analysis" as such does not exist in British Columbia archaeology since concern with faunal remains seems to terminate once these remains have been excavated.

The work to be described here was conducted during the four summer months of 1971. It represents an attempt to assemble the beginning nucleus of a provincial faunal type collection for the Department of Archaeology at Simon Fraser University and to thoroughly examine every single scrap of faunal material recovered from salvage excavations conducted by Simon Fraser University during the summer of 1971. It is eventually hoped that the identification of faunal material compiled during the duration of this project will provide the basis for the most exhaustive and systematic study of intra-

site and inter-site variability in prehistoric subsistence ever undertaken in British Columbia archaeology. The actual analysis of the faunal material examined and identified over the summer has only just been initiated and will require several years to complete. Consequently, this preliminary report will concentrate first on the setting up of the type collection and secondly on a summary of the bones identified from each site.

THE TYPE COLLECTION

The absolute necessity of a type collection for the identification of faunal material can perhaps be best demonstrated by the fact that the corresponding bones of many animals of different species, even different genera, can be differentiated only with difficulty and might be lumped together by even a relatively practised eye. And, of course, a type collection is mandatory for the teaching and learning of simple faunal identifications in a classroom situation. Further, even specialists of a dozen years standing need recourse to a type collection when confronted with anomalous specimens.

Surprisingly, there were only two type collections of British Columbia fauna in the entire province - a rather extensive one at the Vertebrate Museum, Department of Zoology, University of British Columbia, and a smaller one at the Provincial Museum in Victoria. Both of these, although previously utilised for work with archaeological material had been initiated and were primarily maintained for zoological purposes. Indeed, although there was some post-cranial faunal material at the University of British Columbia, the bulk of it consisted of skulls. Both these institutions loaned out materials from their collections on such a long-term basis and

so extensively that there was often a dearth of material at the actual institution. It became obvious that setting up a small core type collection for archaeological purposes at Simon Fraser University was imperative before any large scale faunal identification and subsequently, analysis could commence.

To set up a type collection, carcasses and parts of carcasses in any state of deterioration were collected by whatever means possible wherever possible from zoos, slaughterhouses, taxidermists, students and locals, or even picked up off the sides of roads when animals had been run over. Once obtained, the carcass was skinned and boiled in water. Then it was manually defleshed (if the carcass was decayed, a gas mask was used) and put into a ten percent solution of acetone for at least 24 hours in order to degrease the bones. The final steps consisted of immersion in a three percent solution of hydrogen peroxide for less than 24 hours in order to bleach the bones and then the animal or animal part was catalogued with as much information on the individual animal as was available noted. Occasionally, other steps and chemicals were used as well but the essential process remained unaltered.

In this manner, a collection of 11 skulls, approximately 10 whole skeletons and some partial skeletal material was accumulated. In addition, the skeletal remains of several animals were collected by the archaeologists working at Kwatna and a beaver skeleton was brought in piece-meal by a local resident. These bones were washed and chemically treated. Several rodent carcasses, one mole and one bird carcass were skinned and boiled but, due to their small size and delicate bones, the final defleshing was completed by the dermestid colony kept for that purpose by the Zoology Department at the University of British Columbia.

IDENTIFICATION

The standard practise of dealing with faunal material in North American sites has traditionally consisted of saving so-called "identifiable" bone, having them identified by an outside expert, usually a zoologist, and then listing the species and perhaps the minimum number of individuals from each species present at the site in the report. Particular attention was paid to "exotic" fauna as this might indicate environmental shifts which had occurred since site occupation. However, the most recent work with faunal remains in both Europe and North America has rendered this approach somewhat inadequate and examination of the totality of a site's faunal material is rapidly becoming commonplace. It has also become clear that systematic analysis of faunal material by an archaeologist interested solely in archaeological problems can often yield implications as to the extractive activities carried out at the site, far beyond a simple knowledge of species utilised in subsistence.

However, the first step in any faunal analysis still remains the identification of the types of bone and species of animal present within the site. An attempt was made to examine all material from the sites concerned, no matter how fragmentary or splintered this material turned out to be. Once examined, the bone was identified whenever possible and then sorted into the following categories:

1. Fish bone
2. Bird bone
3. a) Land mammal identified as to species
   b) Sea mammal identified as to species
4. Mammal bone identifiable only as to part of skeleton
5. Unidentifiable mammal bone.

Both human material and worked bone were occasionally encountered among the faunal remains. These were simply separated out and then given to the agency responsible for their processing. Category 4 consisted primarily of amorphous long bone and rib fragments. It would have been ludicrous to try and assign these fragments to species although their identity as parts of the skeleton could be distinguished. Most of the bone was also weighed in terms of the categories above; cut marks or butchering marks were also noted as was the occurrence of both unfused and burned bone.

The following table presents a summary of the mammal species present within the faunal assemblages of eight archaeological sites and a minimum number of individual mammals present within each site. Extensive tables incorporating the unidentifiable mammal bone and organized by provenience are now under preparation for the final reports. The analytical utility of the "minimum individual" concept has been currently debated among archaeologists but there can be no doubt it provides a useful descriptive tool for presenting the relative significance of bones from different species and different sites. A "minimum individual" is arrived at for each species by counting the most frequently occurring bone type and then dividing by the number of times this specific bone appears in the skeleton of a single animal. Precision in determining left and right for each type of bone increases the accuracy of the number of minimum individuals tabulated for a site.

It should be stressed that an effort was made to examine the total sample of faunal material available from each site. This goal was successful with the salvage excavations carried out during the 1971 summer season. However, Glenrose (DgRr 6) had been excavated as a salvage project in 1969 and

	Lower Mainland						Gulf Islands				Kwatna				Kamloops	
	DgRr 6		DhRq 1		DhRr 6		DeRt 1		DeRt 11		FaSu 1		FaSu 2		EcKh 10	
	No.	Ind.	No.	Ind.	No.	Ind.	No.	Ind.	No.	Ind.	No.	Ind.	No.	Ind.	No.	Ind.
Odocoileus hemionus Blacktail deer	11	2	67	2	820	14	72	3	17	2	184	6	1025	43	92	3
Cervus canadensis Elk	4	1	4	1	30	1	2	1	-	-	-	-	-	-	-	-
Oreamnos americanus Mountain goat	-	-	-	-	41	2	-	-	-	-	56	4	73	4	-	-
Alces alces American moose	4	1	1	1	-	-	-	-	-	-	-	-	-	-	11	1?
Canis familiaris Domestic dog	11	2	1	1	330	5	18	1	3	1	34	3	121	3	3	1
Ursus americanus Black bear	3	2	-	-	39	2	-	-	-	-	1	1	14	1	-	-
Canis lupis Wolf	-	-	-	-	10	1	-	-	-	-	-	-	-	-	34	1
Lynx rufus Bobcat	-	-	27	1?	-	-	-	-	-	-	-	-	-	-	-	-
Vulpes vulv. Red fox	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41	1?
Procyon lotor Raccoon	-	-	-	-	56	4	W	1	-	-	-	-	-	-	-	-
Spinogale gracilis Spotted skunk	-	-	-	-	12	1	-	-	-	-	-	-	-	-	-	-
Mephitis mephitis Striped skunk	1	1	1	1	-	-	-	-	-	-	-	-	-	-	2	1
Erithizon dorsatum Porcupine	1	1	1	1	11	2	-	-	-	-	7	2	65	5	3	1
Lepus americanus Snowshoe hare	1	1	-	-	-	-	-	-	-	-	-	-	-	-	148	5
Martes americana Marten	-	-	-	-	16	2	4	1	-	-	-	-	19	2	-	-
Martes pennati Fisher	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Mustela vison Mink	-	-	1	1	141	2	2	1	-	-	192	6	2	1	-	-
Castor canadensis American beaver	10	2	-	-	46	3	3	1	9	1	5	1	19	1	31	1
Lutra canadensis Canadian river otter	-	-	-	-	25	3	-	-	1	1	1	1	12	3	-	-
Enhydra lutris Sea otter	-	-	-	-	-	-	-	-	-	-	1	1	29	1	-	-
Callorhinus ursinis Northern fur seal	-	-	-	-	7	1	-	-	-	-	5	1	38	4	-	-
Phoca vitulina Hair seal	2	1	-	-	132	3	3	1	-	-	35	4	81	4	-	-
Eumetopias jubata Northern sea lion	-	-	-	-	21	1?	1?	1?	-	-	1	1	147	1	-	-
Dolphin species Dolphin	-	-	-	-	-	-	1	1	-	-	23	?	56	?	-	-
Microtus species Field mice	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	?
Vole species Vole	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	?

No. refers to number of bones

Ind. refers to minimum number of individuals and has been calculated without reference to provenience within a site

W means a complete or nearly complete skeleton

? means the identification is questionable

Table 17. Faunal remains from excavated sites

unidentifiable fragments and splinters had not been kept. In the case of FaSu 1 and 2, the extensive faunal material had been separated out in the field into identifiable, unidentifiable, fish and bird and only pressing time considerations prevented the author from examining all but the identifiable material. Further,as a result of constant re-examination and re-evaluation of the data throughout analysis, a number of minor changes in bone frequencies are anticipated from this brief preliminary paper to the final conclusive reports.

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