

6

FORELIMB ELEMENTS

Forelimb element sample

The various forelimb elements included in the study are discussed separately below, ending with the classification of comparable previously reported Northwest Coast material. Tables containing raw data, classification of intact specimens (created by separating the sample at the mean of the greatest length), and discriminant analysis results (which assigns a probability value for group membership) of this sample are presented at the end of the chapter. Each of these tables are followed by a table containing the classification results of fragmented material for each element. As for the crania and mandibles, fragmented specimens with values that fell within the zone of overlap between the two types are not included in the classification tables. The definitions of the measurements used precede these tables. Figures 6-1 and 6-2 are photographs of selected elements and Figures 6-3 through 6-7 are graphs showing the relationship of various dimensions of selected elements (humerus, radius, ulna) by classified type.

Scapula: The scapula blade of the dog is thin and especially prone to depositional and post-depositional damage and like crania, was not often recovered intact. Only sixteen specimens were recovered which could be used in a characterization analysis (Table 6-1). However, an additional twenty-two specimens were recovered for which proximal end measurements could be taken and classified to type based on the limits established by the characterization analysis (Table 6-2). The mean length of the total scapula sample was 126.1 mm, with the mean of type 1 calculated to be 117.4 mm and that of type 2, 134.8 mm. One intact scapula had a significantly low discriminant function probability of group membership (5%).

Humerus: Humerus elements were recovered from archaeological assemblages in relatively high numbers. Many of the samples were slightly to extensively chewed on one end however, which dramatically reduced the numbers of intact

specimens available. A total of only twenty specimens out of forty-nine recovered were intact enough to use for determining types (Table 6-3). The mean length of the total humerus sample was 152.7 mm, with the mean of type 1 calculated as 143.5 mm and that of type 2, 161.3 mm. Broken or otherwise incomplete humerus elements were classified to type by comparison to the analysis of the intact sample and the results are listed in Table 6-4. Photographs of selected humerus elements are presented in Figure 6-1.

Radius: While a reasonably large sample of radii were recovered ($n=48$), many were damaged or missing one epiphysis. A sample of only twenty-one intact elements was available to characterize the radius (Table 6-5), while an additional twenty-seven specimens could be confidently assigned to type based on the analysis of the intact specimens (Table 6-6). The mean length of the total radius sample was 142.6 mm, that of the type 1 subsample 136.0 mm, and of the type 2 subsample, 149.9 mm.

Ulna: The ulna is both a fragile element and one which is rather difficult to measure consistently and accurately, due to the shape of the coronoid process and the way in which the olecranon process projects beyond the humeral articulation joint. The thin distal portion of the ulnae in this sample was often broken, but enough whole elements were recovered ($n=21$) to perform a statistical analysis (Table 6-7). The mean length of the total ulna sample was 168.6 mm; the mean of the subsample of type 1, 157.5 mm and that of the type 2 subsample, 180.0 mm. An additional thirty-three incomplete specimens could be assigned to type later by comparison to the analysis of the intact sample (Table 6-8). Photographs of selected ulnae are featured in Figure 6-2.

Metacarpals: A total of one hundred and twenty-five intact metacarpals were recovered.

Forelimb Elements

Each was subjected to individual statistical analysis to determine type (Table 6-9a and 6-9b), except for the first metacarpal (MCI), which did not have enough specimens for comparison ($n=6$). Metacarpal II ($n=31$) had a total mean length of 49.3 mm; the mean of type 1, 45.9 mm and of type 2, 54.7 mm. Metacarpal III ($n=30$) had a total mean length of 57.8 mm; the mean of type 1, 53.5 mm and of type 2, 63.4 mm. Metacarpal IV ($n=32$) had a total mean length of 59.1 mm; the mean of type 1, 53.8 mm and of type 2, 64.4 mm. Metacarpal V ($n=26$) had a total mean length of 49.8 mm; the mean of type 1, 45.8 mm and of type 2, 53.2 mm.

Previously reported Northwest Coast material: type classification

Montgomery (1979) reports the measurements of several complete adult front limb elements from the Semiahmoo Spit deposits (45WH17) which can be classified according to the criteria established by this analysis. Neither she nor Gleeson (1970) included metacarpals. Measurements of the

humerus and radius only are available and are listed in Table 6-10 below. All of these specimens are clearly of the small type.

Definition of measurement codes

HS.....	Height along the spine (scapula)
GL.....	Greatest length
SLC.....	Smallest length of neck (scapula)
GLP.....	Greatest length of glenoid process (scapula)
Bp.....	Greatest breadth of proximal end
Dp.....	Greatest depth of proximal end (humerus)
Bd.....	Greatest breadth of distal end
SD.....	Smallest breadth of diaphysis
SDO.....	Smallest depth of olecranon (ulna)
DPA.....	Shortest depth across oleocranon process, from oleocranon process to caudal border (ulna)

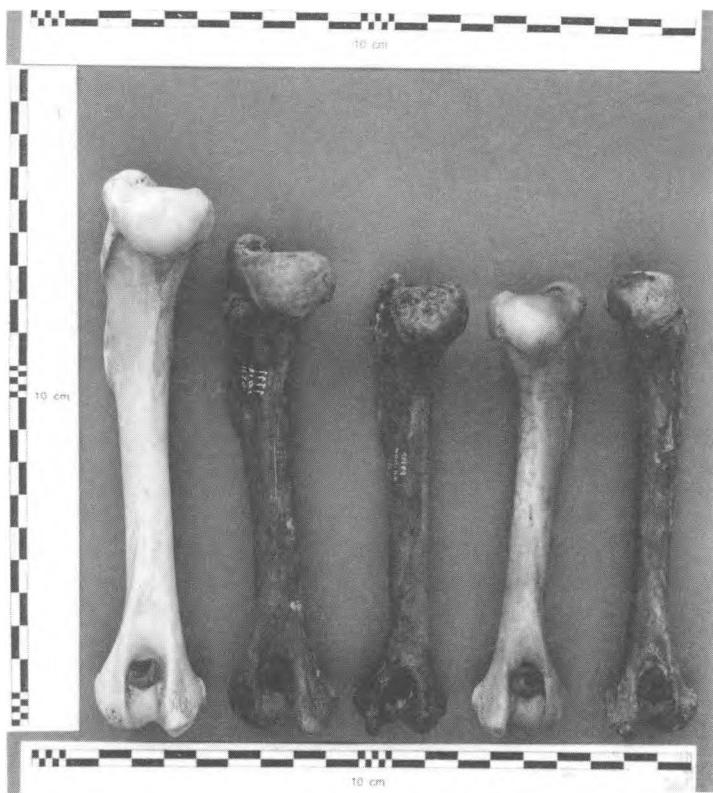


Figure 6-1. Photo, humerus examples, left to right: specimen #1134 (L), #3018 (L), #0400 (L), #2407 (R), #3008 (R).

Table 6-1. Scapula univariate statistics, division at the mean (HS) and results of multivariate crossvalidation of type classification.

Specimen	Sex	Side	Type	(HS)	SLC	GLP	BG	** % Probability of group membership
0207+		L	1	101.4	18.7	22.9	13.7	100.0
2411B		L	1	109.3	22.5	25.7	15.4	100.0
0300GG	M	L	1	114.9	22.7	26.6	16.4	100.0
0400A08		L	1	118.0	23.7	27.5	17.0	100.0
0400A07		R	1	119.1	24.1	27.3	17.1	100.0
0204+		R	1	125.0	25.6		19.2	100.0
3018AAAA	M	R	1	125.5	24.0	28.6	17.5	72.8
3018BBBB	M	L	1	125.7	26.1	31.2	19.0	5.1*
3004A	M	L	2	128.8	24.5	30.8	17.9	100.0
3004B	M	R	2	130.0	25.1	31.1	18.2	100.0
1098+		R	2	131.7	21.4	29.2	17.6	100.0
1097+		R	2	133.5	26.3	31.2	19.1	86.3
1096		L	2	136.5	28.8	32.0	19.1	99.9
2007		L	2	136.8	26.1	32.3	19.6	99.9
1099		R	2	139.0	26.0	31.1	18.5	100.0
1179		L	2	142.3	27.3	32.2	19.7	100.0

+ possibly subadult (juvenile texture), HS may be slightly underestimated

Statistics	(HS)	SLC	GLP	BG
total count	16	16	15	16
total mean	126.1	24.6	29.3	17.8
total std	10.9	2.4	2.7	1.6
total min.	101.4	18.7	22.9	13.7
total max.	142.3	28.8	32.3	19.7
total CV	8.63	9.66	9.22	8.88
type 1 count	8	8	7	8
type 1 mean	117.4	23.4	27.1	16.9
type 1 std	8.1	2.1	2.4	1.7
type 1 min.	101.4	18.7	22.9	13.7
type 1 max.	125.7	26.1	31.2	19.2
type 1 CV	6.90	9.11	8.72	10.00
type 2 count	8	8	8	8
type 2 mean	134.8	25.7	31.2	18.7
type 2 std	4.3	2.0	0.9	0.7
type 2 min.	128.8	21.4	29.2	17.6
type 2 max.	142.3	28.8	32.3	19.7
type 2 CV	3.22	7.91	3.00	3.90

* starred entries are missclassified, at < 5% probability of group membership.

** this is the probability of membership in the "type" group as initially classified, based on multivariate analysis using variables HS, SLC, GLP, BG together.

Table 6-2. Scapula fragments, type classification.

Specimen	Sex	Side	Type	SLC	GLP	BG
1597		L	1		26.9	17.4
1588		L	1	21.0	24.5	15.0
1270		R	1	21.1	26.1	15.6
1273		R	1	21.2	25.9	15.7
0437		R	1	21.5	26.8	17.5
1517		L	1	21.8	24.4	15.2
1103		L	1	21.8	26.3	16.7
3002S	F	L	1	21.9	26.8	15.8
0211		L	1	22.1	27.6	16.3
2109		L	1	22.2	25.6	15.3
0437		R	1	22.3	27.8	16.5
0338		R	1	22.7	25.9	15.8
1485		R	1	22.7	26.8	16.1
3002N	F	R	1	23.0	27.5	16.6
0351		L	1	23.1	26.0	15.8
0530		L	1	23.1	28.4	17.7
1101		L	1	23.3	27.5	17.1
1618		L	1	24.1	28.2	17.0
1271		L	1	24.4	28.0	17.2
2030		R	1	25.2	28.1	17.3
5076		R	2		32.0	18.8
1102		R	2	30.9	34.5	21.3

Table 6-3. Humerus univariate statistics, division at the mean (GL)
and results of multivariate crossvalidation of type classification.

Specimen	Sex	Side	Type	(GL)	Bd	Dp	SD	** % Probability of group membership
0400A02		L	1	137.0	27.5	33.0	11.7	99.9
2407		R	1	137.0	28.9	36.8	11.7	99.9
2032		R	1	137.6	27.0	36.3	11.4	99.9
0400A01		R	1	138.6	26.8	33.9	12.0	99.9
1509		R	1	140.5	28.4	35.5	11.4	99.9
0300FF	M	L	1	141.5	29.6	36.2	12.3	99.8
3008		R	1	142.0	27.5	35.2	10.7	99.8
2410		L	1	143.1	27.5	37.2	12.0	94.9
1434		R	1	146.5	30.8		11.7	-
3000SS	M	R	1	147.1	30.6	39.9	11.2	96.8
1030		R	1	147.5	29.3	37.3	11.6	95.8
0324		L	1	149.1	30.7	39.1	11.9	91.4
3018JJJJ	M	L	1	150.2	33.3	41.2	13.6	15.8
3018IIII	M	R	1	151.1	30.6	39.2	11.4	81.3
0950KK		L	2	152.7	31.4	39.8	11.6	6.7
0136		R	2	153.0	30.8		11.5	-
0950JJ		R	2	153.0	32.1		11.4	-
1036		L	2	155.5	30.9	39.8	12.2	82.7
1035		L	2	158.0	33.0	41.5	12.9	94.4
3004C	M	L	2	159.5	33.8	42.7	13.1	97.1
1034		R	2	160.3	31.6	41.5	12.3	98.5
3004D	M	R	2	160.4	33.9	42.7	12.5	95.6
1032		L	2	160.6	30.5	38.8	12.5	98.9
1029		R	2	161.5	30.0	40.1	11.6	98.8
1033		L	2	163.3	34.3	42.7	13.0	99.5
1132		R	2	166.0	33.8	42.9	12.9	99.9
1136		L	2	167.7	35.5	43.1	13.8	99.9
1134		L	2	168.3	33.7	44.0	14.0	100.0
1104C		L	2	179.1	34.4	43.4	11.6	100.0

Statistics	(GL)	Bd	Dp	SD
total count	29	29	26	29
total mean	152.7	31.0	39.4	12.1
total std	10.7	2.4	3.1	0.8
total min.	137.0	26.8	33.0	10.7
total max.	179.1	35.5	44.0	14.0
total CV	7.00	7.86	7.87	6.71
type 1 count	14	14	13	14
type 1 mean	143.5	29.2	37.0	11.7
type 1 std	4.9	1.8	2.3	0.6
type 1 min.	137.0	26.8	33.0	10.7
type 1 max.	151.1	33.3	41.2	13.6
type 1 CV	3.39	6.18	6.17	5.48
type 2 count	15	15	13	15
type 2 mean	161.3	32.6	41.8	12.5
type 2 std	6.8	1.6	1.6	0.8
type 2 min.	152.7	30.0	38.8	11.4
type 2 max.	179.1	35.5	44.0	14.0
type 2 CV	4.22	5.00	3.82	6.43

** this is the probability of membership in the "type" group as initially classified,
based on multivariate analysis using variables GL, Bd, Dp, SD together.

Forelimb Elements

Table 6-4. Humerus fragments, type classification.

Specimen	Sex	Side	Type	Bd	Dp	SD
2234B		L	1		38.0	
0213		R	1		38.3	
0212		L	1	24.7		10.1
0595		L	1	25.0		9.9
2039		L	1	25.0		10.1
0601		R	1	25.7		10.1
0611		L	1	25.9		9.4
0597		R	1	26.7		
1548		R	1	26.8		
2225		L	1	27.0		10.7
0350A		R	1	27.2		
1457		R	1	28.1		
0553		R	1	28.1		
3002V	F	R	1	28.5		10.3
1456		L	1	28.5		
2096		R	1	28.8		11.2
5023		R	1	29.0		
1133		R	2		42.4	
1031		L	2	34.6		14.4
5016		R	2	34.9		



Figure 6-2. Photo, ulna examples, left to right: specimen #1039 (R), #3004 (R), #3018 (L), #0400 (L).

Table 6-5. Radius univariate statistics, division at the mean (GL)
and results of multivariate crossvalidation of type classification.

Specimen	Sex	Side	Type	(GL)	Bd	Bp	SD	** % Probability of
								group membership
5029		L	1	123.0	19.5	14.4	9.6	100.0
1285		L	1	130.0	21.6	15.6	10.5	99.9
2012		L	1	134.0	17.4	16.3	11.2	100.0
4040		L	1	136.0	22.1	16.1	9.9	97.0
3000UU	M	R	1	137.0	23.1	16.9	10.5	91.9
3018LLLL	M	R	1	137.0	22.6	17.2	11.2	97.8
2200		R	1	139.0	21.8	15.6	10.5	89.5
3018KKKK	M	L	1	139.0	24.9	18.3	12.7	18.1
0400A06		R	1	140.0	17.0	15.8	10.3	99.6
1570		L	1	140.0	21.9	15.9	10.9	84.4
0400A05		L	1	141.0	19.8	16.1	10.5	95.2
4044		L	2	146.0	24.4	17.5	11.4	94.9
1041		R	2	147.0	23.5	17.4	11.1	94.0
4000		L	2	147.0	24.0	17.5	12.0	93.7
0114		L	2	148.0	23.7	17.2	11.2	97.6
3011E		R	2	148.0	25.4	18.7	11.5	97.3
3004H	M	R	2	150.0	25.0	17.7	12.2	99.6
3004G	M	L	2	151.0	25.6	17.8	12.2	99.9
0115		R	2	152.0	25.6	19.0	12.6	99.9
2621A		R	2	154.0	24.9	17.8	11.4	99.9
0507B		L	2	156.0	24.2	17.4	11.6	99.9

Statistics	(GL)	Bd	Bp	SD
total count	21	21	21	21
total mean	142.6	22.8	17.0	11.2
total std	8.2	2.5	1.1	0.8
total min.	123.0	17.0	14.4	9.6
total max.	156.0	25.6	19.0	12.7
total CV	5.72	10.93	6.64	7.37
type 1 count	11	11	11	11
type 1 mean	136.0	21.1	16.2	10.7
type 1 std	5.1	2.3	1.0	0.8
type 1 min.	123.0	17.0	14.4	9.6
type 1 max.	141.0	24.9	18.3	12.7
type 1 CV	3.75	10.88	5.93	7.29
type 2 count	10	10	10	10
type 2 mean	149.9	24.6	17.8	11.7
type 2 std	3.1	0.7	0.6	0.5
type 2 min.	146.0	23.5	17.2	11.1
type 2 max.	156.0	25.6	19.0	12.6
type 2 CV	2.10	3.00	3.14	4.03

** this is the probability of membership in the "type" group as initially classified,
based on multivariate analysis using variables GL, Bd, Bp, SD together.

Table 6-6. Radius fragments, type classification.

Specimen	Sex	Side	Type	Bd	Bp	SD
2067		R	1		14.0	
0606		R	1		14.2	
0129		L	1		14.4	9.6
1278		R	1		14.9	10.0
0602		L	1		15.2	
0300LL	M	L	1		15.4	10.7
2032E		R	1		15.7	10.8
1486		L	1		16.1	
1279		R	1		16.2	
1613		L	1		16.2	
3002T	F	R	1		16.2	10.0
1487		R	1		16.3	
2062B		L	1		16.3	
2065		L	1		16.4	
0420		R	1		16.4	10.6
3002O	F	L	1		16.4	10.2
1287		L	1		16.4	
0516B		L	1		16.5	10.3
2221E		L	1	17.7		8.5
0336D		R	1	21.0		
1289		L	1	21.7		10.7
5009		L	2		18.0	13.5
0214		L	2		19.4	14.0
1291		L	2		19.7	
1281		R	2		20.2	14.1
2238C		L	2		20.2	
1104A		L	2	25.6		

Forelimb Elements

Table 6-7. Ulna univariate statistics, subdivision at the mean (GL).
and results of multivariate crossvalidation of type classification.

Specimen	Sex	Side	Type	(GL)	SDO	DPA	BPC	** % Probability of group membership
1495		L	1	140.0	17.0	20.2	13.8	100.0
1296		R	1	150.0		20.0	14.1	99.7
2600		L	1	152.2	18.3	21.5	15.2	99.7
2032D		R	1	153.0	18.7	21.4	14.8	98.6
1293		L	1	155.6	18.3	21.7	14.7	89.9
0400A03		R	1	160.0			15.0	-
3018NNNN	M	R	1	162.5	20.3	24.9	17.3	71.0
0400A04		L	1	163.0		23.4		-
3000VV	M	R	1	163.1	20.4	23.7	16.6	83.0
3018MMMM	M	L	1	166.6	21.6	24.4	18.4	95.9
1292		L	1	167.0	20.7	23.1	16.7	77.2
2227		L	2	170.0	20.8	23.8	17.6	9.6
1037		R	2	174.7	20.8	23.6	16.5	94.8
4027		L	2	175.0			17.5	-
1040		R	2	176.2	21.0	25.2	17.8	89.6
3004E	M	L	2	177.0	21.7	25.3	17.9	91.0
2408		R	2	177.0	20.9	23.5	16.8	94.8
3004F	M	R	2	179.1	21.6	25.5	17.0	99.9
0507A		L	2	184.3	21.8	24.0	17.1	99.8
1104B		L	2	191.7				-
1039		R	2	203.2	21.8	25.0	19.4	100.0
Statistics				(GL)	SDO	DPA	BPC	
total count				21	16	18	19	
total mean				168.6	20.4	23.3	16.5	
total std				14.5	1.4	1.7	1.5	
total min.				140.0	17.0	20.0	13.8	
total max.				203.2	21.8	25.5	19.4	
total CV				8.58	7.03	7.14	9.06	
type 1 count				11	8	10	10	
type 1 mean				157.5	19.4	22.4	15.7	
type 1 std				7.9	1.5	1.6	1.4	
type 1 min.				140.0	17.0	20.0	13.8	
type 1 max.				167.0	21.6	24.9	18.4	
type 1 CV				4.99	7.51	7.23	9.16	
type 2 count				10	8	8	9	
type 2 mean				180.8	21.3	24.5	17.5	
type 2 std				9.3	0.4	0.8	0.8	
type 2 min.				170.0	20.8	23.5	16.5	
type 2 max.				203.2	21.8	25.5	19.4	
type 2 CV				5.17	2.03	3.21	4.57	

** this is the probability of membership in the "type" group as initially classified,
based on multivariate analysis using variables GL, DPA, BPC together.

Forelimb Elements

Table 6-8. Ulna fragments, type classification.

Specimen	Sex	Side	Type	SDO	DPA	BPC
2221D		L	1		12.0	
0128		L	1		13.3	
1607		L	1		13.8	
1426		R	1		13.9	
5007		R	1		14.3	
1529		L	1		14.5	
1430		L	1		14.9	
1418		R	1		15.0	
1295		L	1		15.2	
0552		L	1	20.1	14.0	
2229		L	1	20.5	13.9	
1441		R	1	21.1	14.7	
1489		R	1	21.2	14.8	
1583		L	1	21.2	15.9	
1573		L	1	21.3	16.0	
3002U	F	R	1	21.8	15.4	
0516A		L	1	21.8	16.3	
0110		L	1	22.0		
0208		L	1	22.1		
0950LL		R	1	22.4	15.9	
0206		L	1	16.7	18.9	13.5
2037		L	1	17.1	20.0	13.9
0350B		R	1	17.5	19.8	12.9
0605		R	1	17.7	20.5	13.6
2206		R	1	17.9	20.8	
1488		L	1	18.4	21.0	
0300HH	M	L	1	18.8	21.4	15.8
0422		R	1	18.9	22.5	15.2
3002R	F	L	1	19.0	22.0	16.4
0603		R	1	19.0	22.1	14.9
1038		R	1	19.2	22.1	15.2
0630A04		R	1	20.0	23.3	17.0
0132		R	1	20.2	24.4	17.7

Forelimb Elements

Table 6-9a. Metacarpals II & III univariate statistics, division at the mean (GL)

Metacarpal II						Metacarpal III					
Specimen	Sex	Side	Type	(GL)	Bd	Specimen	Sex	Side	Type	(GL)	Bd
2221B		L	1	37.9	5.0	2221A		L	1	44.6	4.5
1598		L	1	42.3	6.0	1589C		L	1	49.0	4.9
2405D		R	1	42.5	5.6	2405C		R	1	49.1	5.1
1589D		L	1	43.4	6.0	0608		R	1	51.0	5.6
2250		L	1	44.0	6.0	0811B		R	1	51.5	5.2
0811C		R	1	44.9	5.7	1448B		L	1	52.7	5.7
2610D		L	1	45.3	6.4	2610C		L	1	52.9	6.3
2031		R	1	45.3	6.1	2200D		R	1	54.0	5.9
1590		L	1	46.1	6.2	1603		L	1	54.1	6.1
3002X	F	R	1	46.7	6.3	1481		L	1	54.7	5.7
2200C		R	1	47.0	6.2	3002W		R	1	55.3	5.7
0313		R	1	47.7	6.8	4010		R	1	55.8	5.8
1482		L	1	47.8	6.6	1254		L	1	56.5	6.5
1461		R	1	47.9		0400F		R	1	56.6	5.5
3002P	F	L	1	48.0	6.4	0216B		L	1	57.0	6.2
0216C		L	1	48.5	7.0	0400Q		L	1	57.4	5.5
4058		R	1	48.6	5.8	3000S		R	1	57.8	6.5
3000T	M	R	1	49.1	6.5	3018WW	M	R	2	59.0	7.4
0433		R	1	49.3	7.6	4022		R	2	59.2	6.2
3018VV	M	R	2	50.2	7.8	0219		R	2	60.0	6.4
3018RR	M	L	2	51.9	7.3	3018TT	M	L	2	61.1	6.8
0630B07		R	2	53.4	7.4	0630B03		R	2	61.6	6.7
0220		L	2	53.5	7.6	0630B05		L	2	61.6	6.5
0630B02		L	2	54.0	7.3	3004W		R	2	62.5	7.2
3004U	M	R	2	54.2	7.3	2025		R	2	62.8	6.5
2074		R	2	54.3	7.6	3011C		R	2	64.6	7.1
2089C		L	2	54.4	6.7	1058		R	2	66.7	7.5
2022		R	2	56.9	7.8	1053		L	2	66.8	7.1
1128		L	2	57.4	7.8	1023		R	2	68.9	6.7
2112		L	2	58.3	7.7	1061		R	2	69.0	7.1
1119		R	2	58.4	8.2						

Statistics			Statistics		
Metacarpal II		(GL)	Metacarpal III		(GL)
total count		31	total count		30
total mean		49.3	total mean		57.8
total std		5.1	total std		6.0
total min		37.9	total min		44.6
total max		58.4	total max		69.0
total CV		10.29	total CV		10.32
type 1 count		19	type 1 count		17
type 1 mean		45.9	type 1 mean		53.5
type 1 std		2.8	type 1 std		3.5
type 1 min		37.9	type 1 min		44.6
type 1 max		49.3	type 1 max		57.8
type 1 CV		6.18	type 1 CV		6.50
type 2 count		12	type 2 count		13
type 2 mean		54.7	type 2 mean		63.4
type 2 std		2.5	type 2 std		3.4
type 2 min		50.2	type 2 min		59.0
type 2 max		58.4	type 2 max		69.0
type 2 CV		4.48	type 2 CV		5.30

Forelimb Elements

Table 6-9b. Metacarpals IV & V univariate statistics, division at the mean (GL)

Metacarpal IV					Metacarpal V						
Specimen	Sex	Side	Type	(GL)	Specimen	Sex	Side	Type	(GL)		
0400O		L	1	6.8	0400P		L	1	7.4		
2221C		L	1	44.8	5.6	0512		R	1	40.8	7.3
2405A		R	1	49.6	6.1	2211		L	1	42.3	7.8
1589B		L	1	49.9	6.1	1589A		L	1	42.4	7.4
5028		L	1	50.7	6.3	2403F		L	1	43.0	7.2
2069		R	1	51.0	6.6	2405B		R	1	43.0	7.2
0811A		R	1	52.3	6.2	4015		R	1	46.8	7.8
1448A		L	1	53.3	6.9	3002Y	F	R	1	47.6	7.9
2610B		L	1	54.2	7.4	1113		R	1	47.6	8.2
1479		R	1	55.9	6.8	0216A		L	1	48.5	8.5
4041		L	1	56.6	7.1	0531		L	1	48.6	7.9
4014		R	1	56.6	7.1	3000Q	M	R	1	49.0	8.3
3002Z	F	R	1	56.7	6.7	2259		L	1	49.6	8.7
1253		L	1	56.9	7.1	0582		L	2	50.1	8.3
0216D		L	1	57.0	6.3	5046		R	2	50.2	8.9
0400N		R	1	57.3	6.8	1256		R	2	50.2	8.4
3000R	M	R	1	58.2	7.6	1439		R	2	51.4	8.2
1112		L	2	59.5	7.0	4020		R	2	51.8	8.5
1255		R	2	59.9	7.3	4017		L	2	52.1	8.4
4013		R	2	60.3	7.8	3018QQ	M	L	2	52.3	9.2
0217		R	2	61.0	7.7	4061		L	2	53.5	9.0
4016		L	2	61.0	7.7	3011D		R	2	54.0	9.2
3018UU	M	L	2	61.1	8.1	2667		R	2	54.2	9.0
2101		L	2	62.5	7.1	0630B08		L	2	54.2	8.9
2089A		L	2	63.3	7.5	0630B01		R	2	54.2	8.9
3004V	M	R	2	64.1	8.0	1121		L	2	57.5	9.6
3011B		R	2	65.5	8.0	1110		R	2	59.7	9.4
1126		R	2	66.3	8.4						
1059		R	2	67.7	8.6						
1054		L	2	68.0	8.1						
1063		R	2	69.8	8.4						
5039		R	2	69.9	8.3						
1106		R	2	70.4	7.9						

Statistics			Statistics		
Metacarpal IV			Metacarpal V		
	(GL)	Bd		(GL)	Bd
total count	32	32	total count	26	26
total mean	59.1	7.3	total mean	49.8	8.4
total std	6.5	0.8	total std	4.7	0.7
total min	44.8	5.6	total min	40.8	7.2
total max	70.4	8.6	total max	59.7	9.6
total CV	10.91	10.64	total CV	9.43	8.06
type 1 count	16	16	type 1 count	12	12
type 1 mean	53.8	6.7	type 1 mean	45.8	7.8
type 1 std	3.7	0.5	type 1 std	3.1	0.5
type 1 min	44.8	5.6	type 1 min	40.8	7.2
type 1 max	58.2	7.6	type 1 max	49.6	8.7
type 1 CV	6.79	7.67	type 1 CV	6.67	6.35
type 2 count	16	16	type 2 count	14	14
type 2 mean	64.4	7.9	type 2 mean	53.2	8.8
type 2 std	3.7	0.5	type 2 std	2.7	0.4
type 2 min	59.5	7.0	type 2 min	50.1	8.2
type 2 max	70.4	8.6	type 2 max	59.7	9.6
type 2 CV	5.81	5.76	type 2 CV	5.01	4.61

Forelimb Elements

Specimen	Type	Element	Side	Measurement codes	
				GL	Bd
16	1	Humerus	L	125.7	23.8
15	1	Humerus	R	126.0	27.7
13	1	Humerus	L	131.0	25.4
14	1	Humerus	R	136.0	28.1
19	1	Humerus	R	136.9	23.7
24	1	Radius	R	127.3	17.1
22	1	Radius	R	137.2	22.1
21	1	Radius	L	138.1	21.2
28	1	Radius	R	141.7	22.7

Table 6-10. Selected measurements and classification of front limb elements of previously reported Northwest Coast dog remains from Semiahmoo Spit, Washington State (Fig. 1-1).

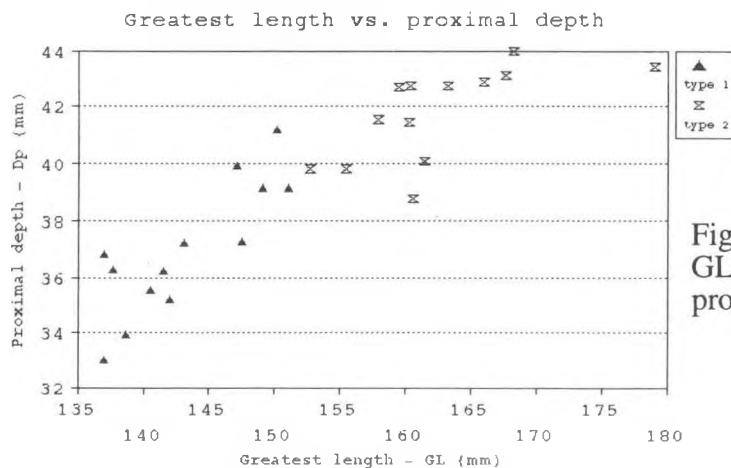


Figure 6-3. Plot of humerus measurement GL (greatest length) vs. Dp (depth of the proximal end).

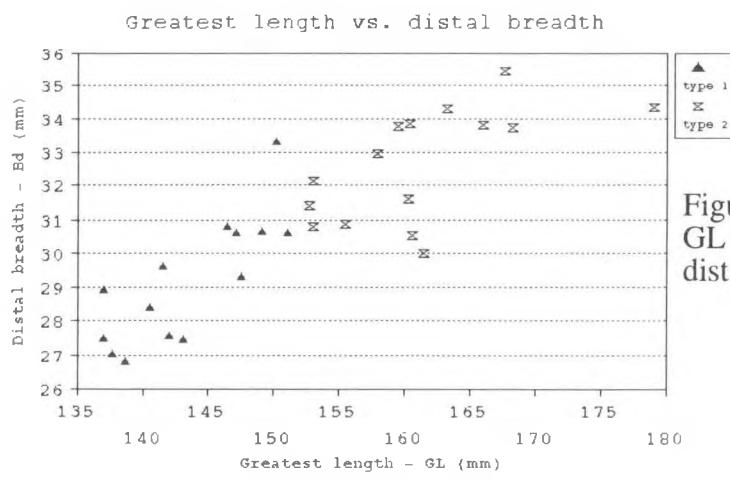


Figure 6-4. Plot of humerus measurement GL (greatest length) vs. Bd (breadth of the distal end).

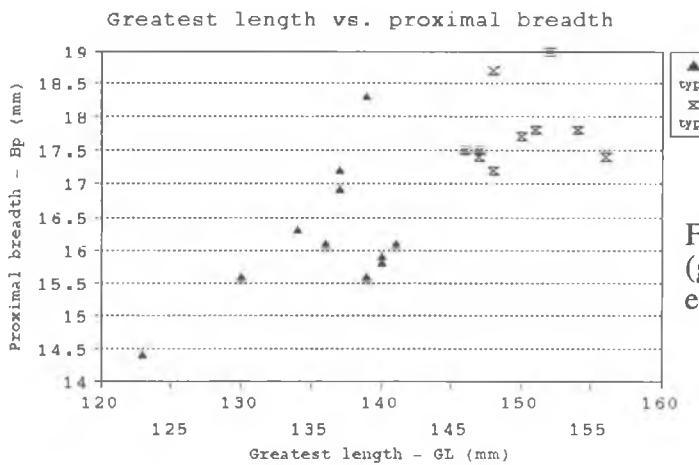


Figure 6-5. Plot of radius measurement GL (greatest length) vs. Bp (breadth of the proximal end).

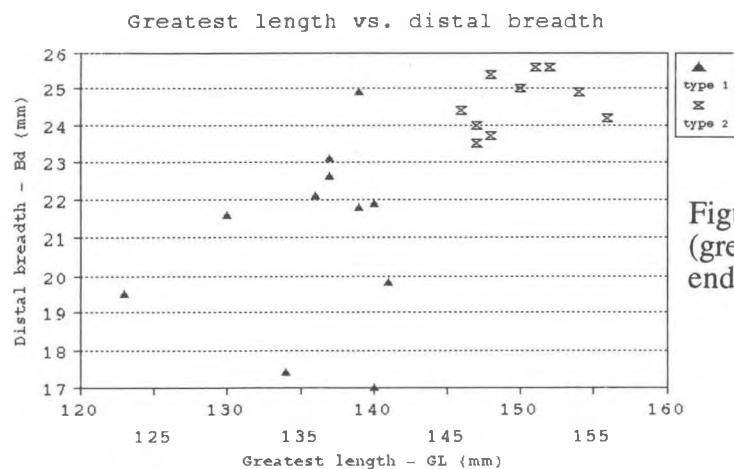


Figure 6-6. Plot of radius measurement GL (greatest length) vs. Bd (breadth of the distal end).

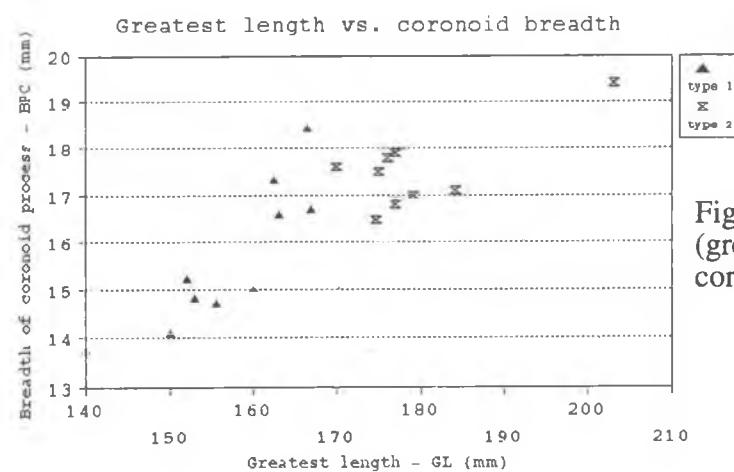


Figure 6-7. Plot of ulna measurement GL (greatest length) vs. BPC (breadth of the coronoid process).