7

HINDLIMB ELEMENTS

Hindlimb element sample

The various hind limb elements analyzed in this study are discussed separately below, followed by the classification of previously reported Northwest Coast material. Table 7-1 contains raw data and univariate statistics only for innominate samples. Tables 7-2, 7-4, 7-6, 7-8, 7-9, and 7-10a/b include raw data, the initial classification to type for other intact hindlimb elements (by division at the mean of the total length, GL), and the discriminant analysis results (probability of membership in the group to which specimens were classified) are presented at the end of the chapter. The classification of fragmented elements are presented in separate tables following the intact sample analysis tables.

Figures 7-1 and 7-2 are photographs of selected elements and Figures 7-3 through 7-7 are graphs showing the relationship of various dimensions of selected elements (femur, tibia, calcaneus) by classified type.

Innominates: The innominates or pelvic elements suffer from much the same taphonomic factors as the scapula and were rarely recovered fully intact. Table 7-1 presents the raw data and basic univariate statistics only for the small sample of intact specimens (n=7), as a more complete analysis was not possible using the method used for the rest of the dog sample.

Femur: The femur sample is comprised of twenty-five intact elements (Table 7-2) and an additional twenty-five fragments which could be confidently classified to one type or the other (Table 7-3). The femur was frequently chewed, sometimes extensively, and this was often the reason that a total length measurement could not be taken. The mean length of the total femur sample was 164.4 mm. The mean of the type 1 subsample was 154.3 mm and that of type 2, 175.3 mm. Figure 7-1 is a photograph of selected femur specimens and Figures 7-3 and 7-4 are graphic representations of the relationship between several breadth dimensions and the greatest length measurement of specimens of each defined type.

Tibia: There were twenty-four intact tibiae which could be used in the classification analysis (Table 7-4) and an additional thirty-one fragments which could be assigned to type 1 or type 2 (Table 7-5). The mean of the total tibia sample was 158.5 mm; the mean length of the type 1 subsample, 150 mm and that of type 2, 165.7 mm. Figure 7-2 is a photograph of selected tibia specimens and Figures 7-5 and 7-6 are graphic representations of the relationship between several breadth dimensions and the greatest length measurement of specimens of each defined type.

Fibula: The sample size for intact fibulae was only the minimum considered for the classification analysis (n=10, Table 7-6). An additional six fragments were classified to type (Table 7-7). It is not surprising that the sample for this element is so low, given the thin structure of the bone over most of its length. Most of the intact elements were recovered from complete or partial skeletons. The mean length of the total fibula sample was 148.2 mm; the mean of the type 1 subsample, 142.8 mm and that of type 2, 156.3 mm.

Talus: While the talus is a true tarsal bone (with no epiphysial ends), it was recovered in high enough numbers in association with other fully adult elements to warrant inclusion in the statistical analysis (n=17). The longest aspect of the talus was consider to correspond to greatest length. The talus measurement was subjected to a statistical analysis for type and the results listed in Table 7-8. The mean length of the total talus sample was calculated as 24.2 mm. The mean of the type 1 subsample was 23.1 mm and that of the type 2 subsample, 25.7 mm. There were no fragmented talus specimens evaluated and no multivariate analysis attempted..

Calcaneus: The calcaneus is the only tarsal bone that has a functional epiphysis that can be used for determining age. The calcaneus sample comprised the largest element set of the entire study, with a total of forty-nine intact specimens which could be used in the classification analysis (Table 7-9). There were no fragmentary specimens assessed. The mean length of the total calcaneous sample was 41.0 mm, with the mean of the type 1 subsample calculated as 38.4 mm and that of the type 2 subsample, 44.0 mm. Figure 7-7 is a graphic representation of the relationship between the breadth dimension and the greatest length measurement of specimens of each defined type.

Metatarsals: A total of one hundred and thirty-five intact metatarsals were analyzed. The results of the classification analysis for metatarsals II through V are presented in Tables 7-10a and 7-10b. The total sample of metatarsal II (n=32) had a mean length of 58.7 mm, while the mean of type 1 specimens was calculated as 55.2 mm and that of type 2, 62.7 mm. The total sample of metatarsal III (n=41) had a mean length of 67.1 mm, while the mean of type 1 specimens was calculated as 63.1 mm and that of type 2, 71.0 mm. The total sample of metatarsal IV (n=29) had a mean length of 68.6 mm, while the mean of type 1 specimens was calculated as 65.0 mm and that of type 2, 73.1 mm. The total sample of metatarsal V (n=33) had a mean length of 59.0 mm, while the mean of type 1 specimens was calculated as 55.7 mm and that of type 2, 62.5 mm. There were no fragmented specimens analyzed.

Previously reported Northwest Coast material: type classification

Montgomery (1979) reports a few intact adult hind limb elements that were recovered from the Semiahmoo Spit site. These measurements are listed in Table 7-11. Only one of the six elements was classified as a large dog (type 2) according to the criteria established by this analysis, while all of the other specimens were classified as small (type 1).

Gleeson (1970) had few intact long bones among his assemblage of dog elements recovered from the Ozette Village site and fewer still which came from prehistoric rather than historic deposits. However, the greatest length measurements of the two adult tibiae reported (Table 7-11) are well within the limits of the small dog type (1) as defined here. Neither Montgomery nor Gleeson included tarsals or metatarsals in their study.

Definition of measurement codes

GL.....Greatest length
LeP.....Greatest length excepting projection (metatarsal V)
Bp.....Greatest breadth of proximal end
Bd.....Greatest breadth of distal end
SD.....Smallest breadth of diaphysis
DC.....Greatest depth of caput (femur)
LS.....Length of symphysis, when fused
LAR.....Length of acetabulum on rim
SH.....Smallest height of shaft of ilium
SB.....Smallest breadth of shaft of ilium
LFo.....Inner length of foramen obturatum
GBA.....Greatest breadth across acetabula, when fused
GBTi.....Greatest breadth across ischial tuberosity, when fused
SBI.....Smallest breadth across bodies of ischia, when fused

Table 7-1. Innominate sample (intact only), univariate statistics.

Specimen	Sex	Side	GL	GBA (fused)	GBTc (fused)	SBI (fused)	GBTi (fused)	LFo	LS	SH	SC	LA/LAR
0400A09		R	131.0					26.4		17.2	8.0	19.8
0400A10		L	131.0							17.0	8.1	19.4
3001DD	M	R	134.0					27.9		14.8	8.1	19.9
3000KK	M	R	136.6							17.5	9.0	21.1
3018CCCC	M	R	144.1					29.3	41.0	18.4	10.5	22.2
3018DDDD	M	L	145.0	76.4	91.7	62.6	90.7	28.8	41.0	18.0	10.4	22.2
3004I	M	L	151.0	76.8		64.4	96.5	30.0	42.2	18.6	10.2	22.2
total count			7	2	1	2	2	5	3	7	7	7
total mean			139.0	76.6	91.7	63.5	93.6	28.5	41.4	17.4	9.2	21.0
total std			7.2	0.2	0.0	0.9	2.9	1.2	0.6	1.2	1.1	1.2
total min.			131.0	76.4	91.7	62.6	90.7	26.4	41.0	14.8	7.3	17.9
total max.			151.0	76.8	91.7	64.4	96.5	30.0	42.2	18.6	10.5	22.2
total CV			5.19	0.26	0.00	1.42	3.13	4.37	1.37	6.81	11.66	5.57

Table 7-2. Femur univariate statistics, division at the mean of the greatest length (GL) and results of multivariate crossvalidation of type classification.

Specimen	Sex	Side	Type	(GL)	Bd	Bp	SD	DC	** % Probability of group membership
1499		L	1	142.0	27.3	31.0	10.6	15.5	100.0
3001CC	M	R	1	148.0	29.7	33.3	11.5	16.3	100.0
0400A12		R	1	150.0	27.2	32.5	11.3	15.9	99.9
0400A11		L	1	150.0	28.6	32.7	11.1	15.9	99.9
2018A		L	1	150.0	32.2	35.9	12.1	17.1	100.0
3000MM	M	L	1	152.0	31.8	37.2	11.9	17.5	100.0
3000JJ	M	R	1	153.0	31.9	36.8	11.8	17.5	99.9
2040		R	1	156.0	32.3	35.2	12.1	17.4	99.9
0950PP		R	1	157.0	32.9		12.4	18.1	-
0950QQ		L	1	159.0	33.1	38.3	12.6	18.2	99.2
3018EEEE	M	L	1	162.0	31.7	37.5	13.6	19.3	100.0
3018FFFF	M	R	1	163.0	33.8	37.7	13.6	18.7	99.5
1277		L	1	164.0	32.6	38.3	12.9	19.1	97.0
3004L	M	R	2	167.0	35.1	39.9	13.6	19.1	21.2
3004K	M	L	2	169.0	33.3	40.2	13.0	19.0	98.6
0555		L	2	172.0	34.2	39.5	12.5	19.0	99.9
1083		R	2	173.0	35.4	40.5	13.7	19.4	99.9
1082		R	2	174.0	37.8	43.4	14.5	19.6	100.0
1089		R	2	175.0	36.3	40.7	13.4	19.4	100.0
1081		R	2	176.0	34.9	39.0	14.2	19.5	99.6
1084		L	2	177.0	35.3	42.1	14.5	19.8	100.0
0550		L	2	178.0	35.1	39.4	14.2	19.4	100.0
1088		R	2	179.0	36.9	41.4	14.3	19.5	100.0
1086		L	2	181.0	35.4	42.9	14.5	20.1	100.0
1094		R	2	182.0	37.5	40.3	13.7	19.6	100.0

Statistics	(GL)	Bd	Bp	SD	DC
total count	25	25	24	25	25
total mean	164.4	33.3	38.2	12.9	18.4
total std	11.8	2.8	3.3	1.1	1.3
total min.	142.0	27.2	31.0	10.6	15.5
total max.	182.0	37.8	43.4	14.5	20.1
total CV	7.18	8.51	8.59	8.88	7.33
type 1 count	13	13	12	13	13
type 1 mean	154.3	31.2	35.5	12.1	17.4
type 1 std	6.3	2.1	2.4	0.9	1.2
type 1 min.	142.0	27.2	31.0	10.6	15.5
type 1 max.	164.0	33.8	38.3	13.6	19.3
type 1 CV	4.08	6.82	6.86	7.19	6.89
type 2 count	12	12	12	12	12
type 2 mean	175.3	35.6	40.8	13.8	19.5
type 2 std	4.4	1.3	1.3	0.6	0.3
type 2 min.	167.0	33.3	39.0	12.5	19.0
type 2 max.	182.0	37.8	43.4	14.5	20.1
type 2 CV	2.49	3.54	3.29	4.46	1.58

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

Table 7-3. Femur fragments, type classification.

Specimen	Sex	Side	Type	Bd	Bp	SD	DC
0532		L	1			11.1	15.3
2401		L	1			11.3	15.7
2073		R	1			11.5	16.2
2402		R	1			11.5	16.2
2032F		L	1			11.8	17.2
2032G		R	1			12.2	16.7
1276		R	1		30.5	10.5	14.5
1090		L	1		31.2	12.3	
1432		R	1		32.8		15.7
0591		L	1		32.8		15.3
2403		L	1		32.9	11.2	16.3
2026		L	1		33.0	12.2	16.3
0317		L	1		37.0		17.9
1275		L	1	27.3			
0558		R	1	27.5			
0336F		L	1	27.6			
1522		R	1	27.7			
0596		R	1	28.3			
1546		L	1	29.0			
1584		R	1	29.6			
1269		L	1	30.0			
0599		L	1	30.4			
1093		L	1	30.9			
1091		R	1	30.9		12.5	
1092		L	2	34.8			

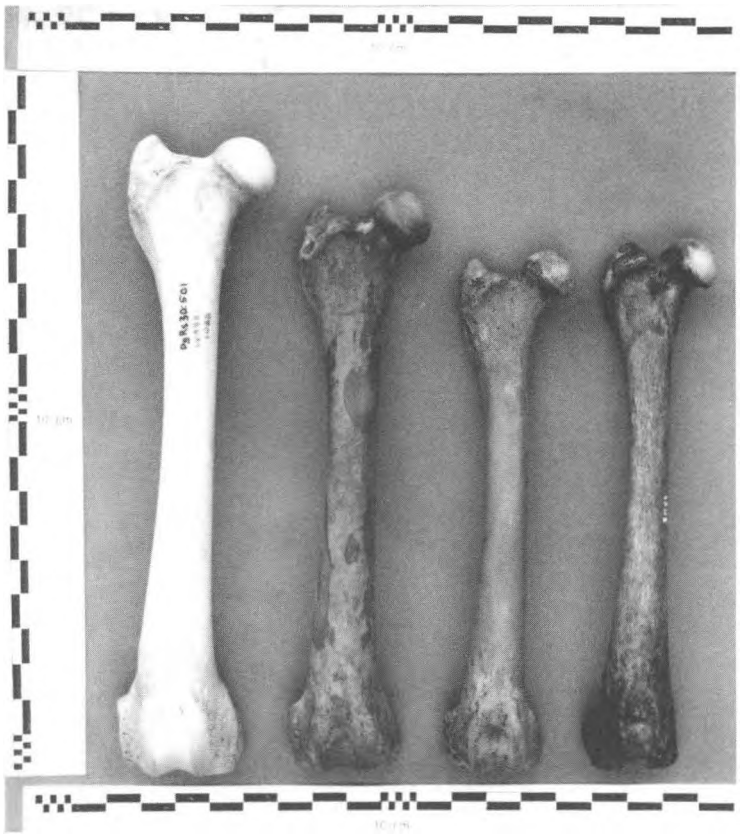

Figure 7-1. Photo, femur examples (R), left to right: specimen #1008, #3018, #3001, #0400.

Table 7-4. Tibia sample 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
1500		R	1	139.0	20.0	26.8	9.6	99.9
0560		R	1	141.0	17.9	28.6	9.2	100.0
3001FF	M	R	1	146.0	19.9	32.0	9.9	99.5
1075		R	1	147.0	20.7	31.5	9.4	85.5
3000QQ	M	L	1	150.0	21.9	34.8	11.7	90.6
3000PP	M	R	1	150.0	21.6	34.9	10.5	85.7
0950SS		R	1	153.0	21.1	33.8	10.7	89.6
0554		L	1	153.0	20.4	38.1	10.4	78.8
0400A14		L	1	156.0	18.7	24.2	9.6	70.0
0950RR		L	1	157.0	21.9	31.6	10.9	28.4
0400A13		R	1	158.0	19.0	29.5	9.6	79.7
3009		L	2	159.0	22.4	34.7	11.5	43.1
3018HHHH	M	R	2	159.0	22.8	35.9	10.9	84.8
0434		R	2	159.0	21.6	31.1	10.8	41.0
3018GGG	M	L	2	159.0	22.9	35.8	11.4	74.8
4042		R	2	160.0	21.5	33.9	10.5	65.2
3004M	M	L	2	167.0	24.0	37.1	11.2	99.7
3004N	M	R	2	167.0	23.0	37.1	11.0	98.8
1071		L	2	167.0	22.0	35.5	10.2	97.8
1077		R	2	168.0	22.4	36.1	10.9	98.0
1076		R	2	169.0	22.2	35.3	10.0	99.4
0557		L	2	169.0	22.9	36.5	10.9	99.4
1080		R	2	174.0	24.3	38.1	11.1	99.9
1078		R	2	177.0	25.6	39.2	12.6	100.0

Statistics	(GL)	Bd	Bp	SD
total count	24	24	24	24
total mean	158.5	21.7	33.8	10.6
total std	9.8	1.8	3.7	0.8
total min.	139.0	17.9	24.2	9.2
total max.	177.0	25.6	39.2	12.6
total CV	6.18	8.12	10.87	7.53
type 1 count	11	11	11	11
type 1 mean	150.0	20.3	31.4	10.1
type 1 std	6.0	1.3	3.8	0.7
type 1 min.	139.0	17.9	24.2	9.2
type 1 max.	158.0	21.9	38.1	11.7
type 1 CV	3.99	6.29	12.11	7.22
type 2 count	13	13	13	13
type 2 mean	165.7	22.9	35.9	11.0
type 2 std	5.8	1.1	1.9	0.6
type 2 min.	159.0	21.5	31.1	10.0
type 2 max.	177.0	25.6	39.2	12.6
type 2 CV	3.51	4.84	5.36	5.63

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

Table 7-5. Tibia fragments, type classification.

Specimen	Sex	Side	Type	GL	Bd	Bp
0215		L	1		20.4	
0335		R	1		20.4	
2614		L	1		20.4	
0594		R	1		20.3	
3016		L	1		20.3	
5045		R	1		20.5	
2261		R	1		20.9	
0130		R	1	141.0	20.4	
3002AA	F	R	1		20.7	
0598		R	1		20.5	
0509		L	1		20.6	
2025		L	1		18.1	
1528		L	1		18.2	
0327		R	1		18.9	
2666		R	1		17.5	
1497		L	1			25.6
0534		L	1			29.0
1284		L	1			29.5
1515		L	1		19.7	
1294		L	1		20.0	
1494		L	1		20.1	
1611		L	1		19.6	
0305		L	1		19.0	
1427		L	1		19.4	
2238B		L	1		19.6	
0630A09		L	2		23.0	
0348		R	2		23.3	
2036		R	2		23.5	
0630A11		R	2		22.7	
2038		L	2		22.8	
1079		L	2		22.9	

Table 7-6. Fibula sample univariate statistics, division at the mean (GL).

Specime	Sex	Type	(GL)	Bd	Bp
3001BB	M	1	135.5	10.0	9.4
3000NN	M	1	138.7	11.3	9.6
3000OO	M	1	140.0	11.3	9.6
0400A13		1	146.2	9.9	9.0
3018YY	M	1	148.2	11.7	12.1
3018ZZ	M	1	148.2	11.5	12.3
1044		2	154.5	11.1	
1042		2	155.8	11.4	11.9
1043		2	157.4	12.5	10.9
1047		2	157.6	11.2	12.1

Statistics	(GL)	Bd	Bp
total count	10	10	9
total mean	148.2	11.2	10.8
total std	7.70	0.73	1.30
total min	135.5	9.9	9.0
total max	157.6	12.5	12.3
total CV	5.20	6.50	12.13
type 1 count	6	6	6
type 1 mean	142.8	10.94	10.32
type 1 std	4.96	0.73	1.35
type 1 min	135.5	9.85	9
type 1 max	148.2	11.68	12.3
type 1 CV	3.48	6.68	13.07
type 2 count	4	4	3
type 2 mean	156.33	11.53	11.64
type 2 std	1.26	0.56	0.56
type 2 min	154.5	11.09	10.85
type 2 max	157.6	12.48	12.12
type 2 CV	0.81	4.82	4.82

Table 7-7. Fibula fragments, type classification.

Specimen	Sex	Side	Type	Bd	Bp
3013		R	1		9.9
2405I		L	1	8.9	
1049		R	1	10.9	
1048		R	2	13.1	
3004Z	M	L	2	12.6	
3004Y	M	R	2	12.5	

Figure 7-2. Photo, tibia examples (R), left to right: specimen #1078, #3018, #0400, #3001, #0130.

Table 7-8. Talus sample univariate statistics, division at the mean (GL).

Specimen	Sex	Type	(GL)
2405G	?	1	21.4
0400J	?	1	22.0
3001Y	M	1	22.7
3001Z	M	1	22.8
2256C	?	1	23.0
2256B	?	1	23.2
0950DD	?	1	23.9
0950EE	?	1	23.9
3000GG	M	1	24.2
3000FF	M	1	24.2
2024B	?	2	25.0
3018KK	M	2	25.2
3004R	M	2	25.6
2071C	?	2	25.6
2033D	?	2	25.7
3004Q	M	2	25 8
2601A	?	2	27.2

Statistics	(GL)
total count	17
total mean	24.2
total std	1.51
total min	21.4
total max	27.2
total CV	6.26
type 1 count	10
type 1 mean	23.1
type 1 std	0.89
type 1 min	21.4
type 1 max	24.2
type 1 CV	3.87
type 2 count	7
type 2 mean	25.7
type 2 std	0.67
type 2 min	25.0
type 2 max	27 2
type 2 CV	2.60

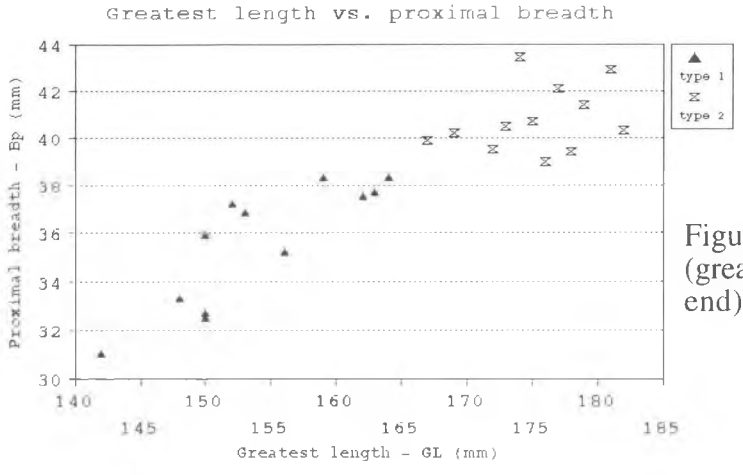

Figure 7-3. Plot of femur measurement GL (greatest length) vs. Bp (breadth of the proximal end).

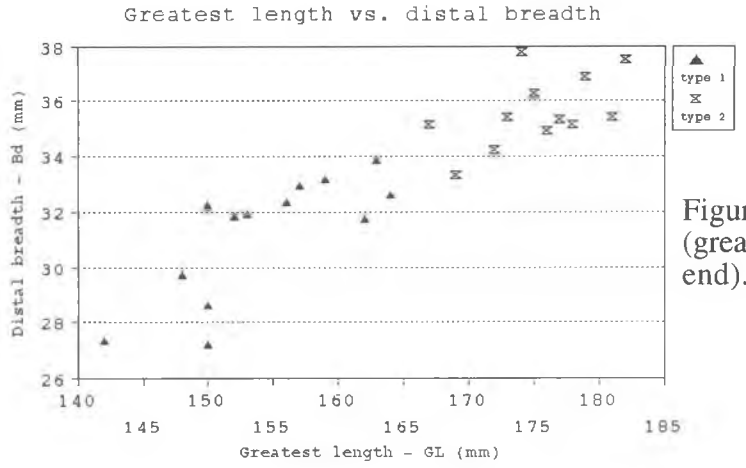

Figure 7-4. Plot of femur measurement GL (greatest length) vs. Bd (breadth of the distal end).

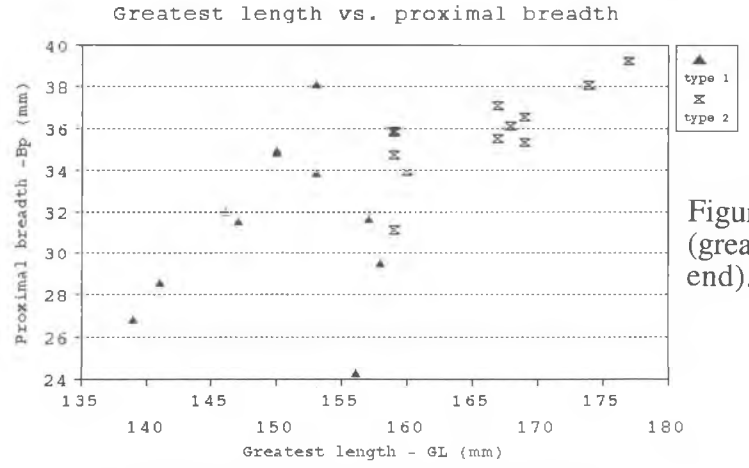

Figure 7-5. Plot of tibia measurement GL (greatest length) vs. Bp (breadth of the proximal end).

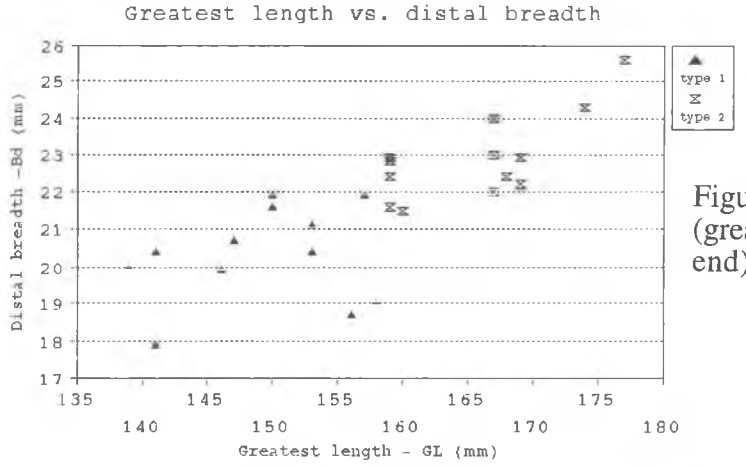

Figure 7-6. Plot of tibia measurement GL (greatest length) vs. Bd (breadth of the distal end).

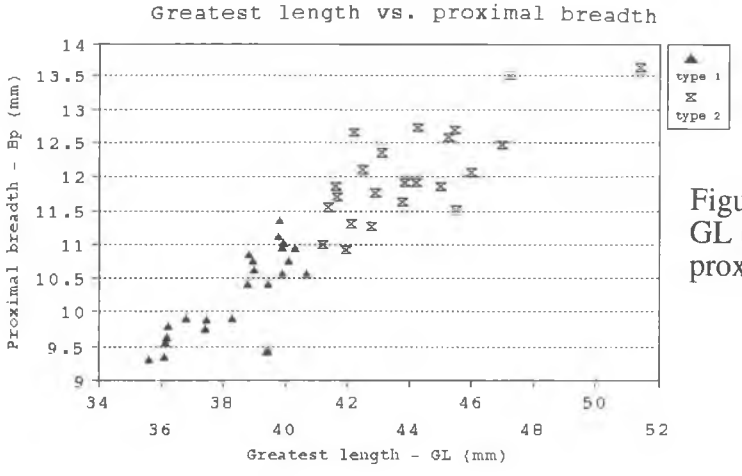

Figure 7-7. Plot of calcaneus measurement GL (greatest length) vs. Bp (breadth of the proximal end).

Table 7-9. Calcaneous univariate statistics, division at the mean (GL) and results of multivariate crossvalidation of type classification.

Specimen	Sex	Side	Type	(GL)	Bp	** % Probability of group membership
2224B	?	R	1	34.9		-
1524	?	L	1	35.6	9.3	99.9
0607	?	R	1	36.1	9.4	99.9
0118	?	L	1	36.2	9.6	99.9
2405F	?	R	1	36.2	9.6	99.9
2405E	?	L	1	36.2	9.8	99.9
0400D	?	L	1	36.8	9.9	99.6
0506	?	R	1	37.5	9.7	99.3
0400I	?	R	1	37.5	9.9	99.1
2028	?	R	1	38.3	9.9	97.8
0158	?	L	1	38.8	10.4	98.5
2415	?	L	1	38.9	10.8	95.6
3001AA	M	L	1	39.0	10.8	96.2
3002HH	F	L	1	39.0	10.6	97.1
0205	?	L	1	39.4	9.4	99.7
3002BB	F	R	1	39.5	10.4	97.3
2052	?	L	1	39.5	9.4	99.7
2048	?	L	1	39.8	11.1	83.1
1453	?	L	1	39.8	11.4	71.1
2256A	?	R	1	39.9	10.6	94.5
0610	?	L	1	39.9	10.9	87.7
1454	?	R	1	39.9	11.0	85.1
0160	?	L	1	40.1	10.8	90.3
0510	?	L	1	40.3	11.0	83.1
2062A	?	L	1	40.7	10.6	88.8
0142	?	L	2	41.2	11.0	26.1
2033C	?	L	2	41.4	11.6	61.7
3000EE	M	L	2	41.6	11.9	79.5
3000DD	M	R	2	41.7	11.7	75.1
2024A	?	L	2	42.0	10.9	35.1
1575	?	R	2	42.1	11.3	66.2
0121	?	L	2	42.2	12.7	97.2
2260	?	R	2	42.5	12.1	94.1
5040	?	L	2	42.8		-
1118	?	L	2	42.8	11.3	75.7
0950GG	?	R	2	42.9	11.8	92.3
0950FF	?	L	2	43.1	12.3	98.0
1286	?	R	2	43.8	11.6	94.8
0630B11	?	R	2	43.8	11.9	97.6
0630B12	?	L	2	44.2	11.9	98.1
3018JJ	M	L	2	44.2	12.7	99.7
1420	?	R	2	45.0	11.9	98.9
3004P	M	L	2	45.2	12.6	99.8
3004O	M	R	2	45.4	12.7	99.9
1052	?	L	2	45.5	11.5	98.3
1117	?	L	2	46.0	12.1	99.7
1051	?	R	2	47.0	12.5	99.9
1050	?	R	2	47.2	13.5	100.0
5017	?	R	2	51.4	13.7	100.0

Statistics	(GL)	Bp
total count	49	47
total mean	41.0	11.1
total std	3.4	1.1
total min	34.9	9.3
total max	51.4	13.7
total CV	8.37	10.00
type 1 count	26	24
type 1 mean	38.4	10.3
type 1 std	1.7	0.6
type 1 min	34.9	9.3
type 1 max	40.7	11.4
type 1 CV	4.31	6.16
type 2 count	24	23
type 2 mean	44.0	12.0
type 2 std	2.3	0.7
type 2 min	41.2	10.9
type 2 max	51.4	13.7
type 2 CV	5.27	5.79

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

Table 7-10a. Metatarsals II & III univariate statistics, division at the mean (GL)

Metatarsal II

Specimen	Sex	Side	Type	(GL)	Bd
2403E		L	1	49.2	6.4
2403G		R	1	49.8	6.5
2262		L	1	51.7	6.8
1521		R	1	52.0	6.3
1520		L	1	53.3	6.4
1459		R	1	55.6	7.4
1483		L	1	55.7	7.1
3001V	M	L	1	56.0	7.4
3001U	M	R	1	56.3	7.5
3002KK	F	L	1	56.3	7.2
3002EE	F	R	1	56.6	7.3
1251		L	1	56.8	7.2
2409A		L	1	57.3	7.4
3000X	M	R	1	57.4	7.9
0400E		R	1	58.1	7.0
0400A		L	1	58.2	7.0
3000Y	M	L	1	58.2	7.6
2110		R	2	59.3	7.8
3018XXX	M	R	2	60.3	8.2
1107		L	2	60.5	7.6
3018YYY	M	L	2	60.7	8.1
0630B09		L	2	61.3	8.1
3004OOO	M	L	2	61.4	8.5
2045		L	2	61.6	7.9
1249		R	2	61.8	7.8
3004MMM	M	R	2	61.8	8.3
1115		L	2	64.0	7.7
1067		L	2	64.1	8.0
2095		L	2	64.7	8.7
1127		L	2	65.4	8.5
1130		R	2	66.0	8.6
1064		R	2	67.9	8.7

Metatarsal III

Specimen	Sex	Side	Type	(GL)	Bd
2403C		R	1	55.5	6.5
2403A		L	1	55.9	6.4
2071B		L	1	60.1	6.8
0336E		R	1	60.4	6.7
1252		R	1	61.4	7.3
0314		L	1	61.6	6.9
1258		L	1	61.6	7.2
1131		L	1	62.4	6.8
1480		L	1	63.7	7.3
3002JJ	F	L	1	64.5	7.1
3001S	M	L	1	64.6	7.3
2035D		L	1	64.7	7.7
3001T	M	R	1	65.1	7.1
3015		L	1	65.2	7.8
3002CC	F	R	1	65.2	7.1
3000BB	M	L	1	65.3	7.7
0400F		R	1	65.6	7.0
0400B		L	1	65.7	7.0
3000CC	M	R	1	66.0	7.9
2110B		R	1	67.0	7.6
4050		L	2	67.5	7.7
1065		R	2	67.9	7.6
1516		L	2	68.0	7.2
1577A		R	2	68.7	7.8
1057		L	2	68.8	7.5
3014		L	2	69.0	8.0
2091		L	2	69.7	7.5
1250		R	2	69.8	7.9
3018WWW	M	R	2	70.4	8.4
3018TTT	M	L	2	70.6	8.1
3004LLL	M	L	2	71.4	8.5
0556A		L	2	71.6	8.1
1062		L	2	72.1	7.6
2249		L	2	72.2	7.8
3004PPP	M	R	2	72.3	8.5
2601		R	2	72.3	8.6
2092		L	2	72.7	8.3
1068		R	2	73.3	8.1
1055		L	2	73.4	8.1
1124		L	2	74.2	8.5
1060		R	2	74.5	8.5

Statistics

Metatarsal II	(GL)	Bd
total count	32	32
total mean	58.7	7.6
total std	4.6	0.7
total min	49.2	6.3
total max	67.9	8.7
total CV	7.79	8.88
type 1 count	17	17
type 1 mean	55.2	7.1
type 1 std	2.8	0.4
type 1 min	49.2	6.3
type 1 max	58.2	7.9
type 1 CV	5.11	6.34
type 2 count	15	15
type 2 mean	62.7	8.2
type 2 std	2.4	0.3
type 2 min	59.3	7.6
type 2 max	67.9	8.7
type 2 CV	3.82	4.24

Statistics

Metatarsal III	(GL)	Bd
total count	41	41
total mean	67.1	7.6
total std	4.8	0.6
total min	55.5	6.4
total max	74.5	8.6
total CV	7.09	7.71
type 1 count	20	20
type 1 mean	63.1	7.2
type 1 std	3.1	0.4
type 1 min	55.5	6.4
type 1 max	67.0	7.9
type 1 CV	4.97	5.71
type 2 count	21	21
type 2 mean	71.0	8.0
type 2 std	2.1	0.4
type 2 min	67.5	7.2
type 2 max	74.5	8.6
type 2 CV	2.93	5.06

Table 7-10b. Metatarsals IV & V univariate statistics, division at the mean (GL)

Metatarsal IV

Specimen	Sex	Side	Type	(GL)	Bd
2403B		R	1	57.6	6.1
2403D		L	1	57.7	6.3
1257		L	1	63.4	7.2
2033E		L	1	64.3	7.3
1460		R	1	64.9	6.9
3002II	F	L	1	65.6	7.0
3001X	M	L	1	65.7	7.2
3002DD	F	R	1	65.7	7.0
3001W	M	R	1	65.8	7.2
2035A		L	1	65.9	7.9
0400G		R	1	66.3	6.8
3000V	M	R	1	66.3	7.7
0400C		L	1	66.5	6.4
2105		R	1	67.5	7.3
3000W	M	L	1	67.8	
5038		R	1	68.6	7.4
1577B		R	2	69.1	7.6
1120		L	2	69.9	7.4
1248		R	2	71.2	7.8
3018UUU	M	R	2	71.8	8.0
3018ZZZ	M	L	2	72.4	8.2
2108		R	2	73.2	8.7
3004RRR	M	L	2	73.2	8.4
0556B		L	2	73.3	8.0
1056		L	2	73.5	7.3
1070		L	2	73.9	8.0
3004NNN	M	R	2	74.2	8.4
5026		R	2	77.5	8.4
1129		R	2	77.6	8.7

Metatarsal V

Specimen	Sex	Side	Type	(GL)	Bd
0811D		R	1		7.3
1419		R	1	48.5	6.5
1523		L	1	50.7	6.4
2033F		L	1	54.7	8.0
1247		L	1	54.9	7.1
1458		R	1	55.1	7.0
1478		L	1	55.3	6.8
3002FF	F	R	1	55.6	6.9
3002LL	F	L	1	56.0	7.0
3001R	M	R	1	56.1	7.1
1122		R	1	56.2	6.9
3001Q	M	L	1	56.6	7.0
2035B		L	1	57.4	7.8
0400H		R	1	57.5	
5042		R	1	57.6	7.3
3000AA	M	R	1	58.3	7.4
1610		R	1	58.5	7.4
3000Z	M	L	1	58.6	7.5
1577C		R	2	60.1	7.8
1066		L	2	60.3	7.4
0630B04		L	2	61.0	7.9
3018SSS	M	R	2	61.3	8.0
2071A		L	2	61.3	7.2
3018VVV	M	L	2	61.4	8.0
3004SSS	M	R	2	61.7	8.0
1246		R	2	62.0	7.4
3004QQQ	M	L	2	62.4	8.3
2093		R	2	62.7	8.3
1114		L	2	62.7	7.7
1111		R	2	63.2	7.7
0556C		L	2	63.5	8.0
1125		L	2	65.1	7.4
2240		R	2	65.4	8.9
1069		R	2	66.6	8.4

Statistics

Metatarsal IV	(GL)	Bd
total count	29	28
total mean	68.6	7.5
total std	4.9	0.7
total min	57.6	6.1
total max	77.6	8.7
total CV	7.14	9.16
type 1 count	16	15
type 1 mean	65.0	7.0
type 1 std	3.0	0.5
type 1 min	57.6	6.1
type 1 max	68.6	7.9
type 1 CV	4.65	6.86
type 2 count	13	13
type 2 mean	73.1	8.0
type 2 std	2.4	0.4
type 2 min	69.1	7.3
type 2 max	77.6	8.7
type 2 CV	3.25	5.49

Statistics

Metatarsal V	(GL)	Bd
total count	33	32
total mean	59.0	7.5
total std	4.1	0.6
total min	48.5	6.4
total max	66.6	8.9
total CV	6.89	7.62
type 1 count	17	16
type 1 mean	55.7	7.1
type 1 std	2.6	0.4
type 1 min	48.5	6.4
type 1 max	58.6	8.0
type 1 CV	4.61	5.79
type 2 count	16	16
type 2 mean	62.5	7.9
type 2 std	1.8	0.4
type 2 min	60.1	7.2
type 2 max	66.6	8.9
type 2 CV	2.87	5.37

Table 7-11. Measurements and classification of hind limb elements of previously reported Northwest Coast dog remains from Ozette Village and Semiahmoo Spit, Washington State (Fig. 1-1).

				Measurement codes			
Specimen	Type	Element	Side	GL	Bd	Bp	DC
Semiahmoo 32	1	Femur	R	144.0	26.0	-	15.5
Semiahmoo 34	1	Femur	R	148 0	28.6	-	16.6
Semiahmoo 37	1	Tibia	R	134.2	-	28.2	-
Semiahmoo 38	1	Tibia	R	148.2	-	34.3	-
Semiahmoo 40	1	Tibia	R	149.4	-		-
Semiahmoo 39	2	Tibia	L	167.1	-	33.0	-
Ozette A4/XII/1	1	Tibia	L	145.8	-		-
Ozette A4/X/3	1	Tibia	R	151.7	-		-

Figure 7-8. Photo, metatarsal IV examples (R), on left of photo, left to right: specimen #2403, #0400, #3018, #1129. Metacarpal III examples (R), on right of photo, left to right: specimen #1058, #3018, #0400, #2405.