Appendix 1.

METHODS

DNA extraction and genotyping details

We prepared hair samples for extraction by selecting 10 guard hairs when available and supplementing with five underfur hairs per missing guard where needed. When no guard hairs were present in a sample, 30 underfur hairs were chosen.

For microsatellite genotyping, we labeled primers with FAM, HEX, HEX, TET, or NED dye groups. We amplified DNA on a MJ Research PTC-100 thermocycler with PCR reagent concentrations optimized for each primer pair (Table A1.1). We utilized a quality control protocol that involved subsampling each sample and removing samples that were poor quality or had three or more alleles at a locus (Paetkau 2003). This protocol has previously resulted in error rates of 0.002-0.005 per locus per sample (Kendall et al. 2009).

The amelogenin locus for sex determination was amplified using 10 pM of each primer (Forward:CAGCCAAACCTCCCTCTGC Reverse:CCCGCTTGGTCTTGTCTGTTGC), 200uM dNTPs, and 0.9 units of Taq polymerase on a MJ Research PTC-100 thermocycler. We distinguished between male and female individuals using gel electrophoresis with female sample producing a single 280bp fragment and male samples producing a 280 and a 217 bp fragment. To avoid Y allele dropout, we only sexed samples that produced high confidence scores for all other microsatellite loci (Paetkau 2003). This method has previously produced error rates of 0.0007 per locus per sample (Kendall et al. 2009).

Hardy Weinberg proportions

Deviations from Hardy Weinberg equilibrium (HWE) were investigated with the web-based version of Genepop (Rousset 2008). Identifying deviations is important as they can provide information on population size, gene flow, and the presence of selection (Allendorf et al. 2012). Additionally, HWE is an essential assumption underlying the model-based clustering algorithms performed by STRUCTURE and Geneland (Pritchard et al. 2000, Guillot et al. 2005).

Connectivity and Resistance Estimation with Mantel tests

Initially, we utilized partial Mantel tests in R (version 3.2.4, 2018) package *ecodist* to identify individual landscape variables that explained a significant proportion of variation in the genetic distance variable beyond that explained by geographic distance alone.

RESULTS

Global deviation from HWE found in one genetic group

We found significant ($p < 0.05$) heterozygote deficiency at three loci (G10C, $p = 0.017$; G10L, $p = 0.026$; and MSUT2, $p = 0.030$ in population G3, G2, and G1 respectively). We observed significant ($p < 0.05$) heterozygote excess at four loci: G10B ($p = 0.028$) and G10U ($p = 0.040$) in population G1, and MU59 ($p = 0.023$) and X145P07 ($p = 0.030$) in population G3. Using global HWE tests, we did not find any populations with a significant heterozygote deficit, whereas G1 was the only population that showed significant ($p < 0.050$) global deviation from HWE in the form of heterozygote excess ($p = 0.015$). This heterozygote excess suggests that G1 may be receiving gene flow from other areas or represents the unification of previously separated populations (Allendorf et al. 2012). Though these deviations from HWE can be problematic for the use of STRUCTURE and Geneland, deviation is only globally present in one genetic group and the breaks between groups are confirmed with sPCA, a method that does not require the assumptions of HWE to be met (Jombart 2008).

Initial Mantel tests showed high multicollinearity between variables

We validated modern and archaeological surfaces separately using partial Mantel tests, which identified only waterways ($p = 0.001$), fish traps ($p = 0.010$), and Indigenous language family boundaries ($p = 0.010$) as being significant beyond the influence of geographic distance. However, we found a high level of multicollinearity between the resulting significant variables (waterways and fish traps (Mantel $R = 0.817$), which prohibited the testing of models with all variables simultaneously against the genetic distance matrix using multiple regression of distance matrices (MRM).

Allendorf, F. W., G.H. Luikart, and S.N. Aitken. 2012. *Conservation and the Genetics of Populations*. Wiley Blackwell.

Guillot, G., F. Mortier, and A. Estoup. 2005. Geneland : A program for landscape genetics. *Molecular Ecology Notes.* 5: 712-715.

Jombart, T. 2008. adegenet: a R package for the multivariate analysis of genetic markers. *Bioinformatics* 24(11):1403–1405.

Kendall, K. C., J. B. Stetz, J. Boulanger, A. C. Macleod, D. Paetkau, and G. C. White. 2009. Demography and Genetic Structure of a Recovering Grizzly Bear Population. *The Journal of Wildlife Management* 73(1):3–16.

Paetkau, D. 2003. An empirical exploration of data quality in DNA-based population inventories. *Molecular Ecology* 12(6):1375–1387.

Pritchard, J. K., M. Stephens, and P. Donnelly. 2000. Inference of population structure using multilocus genotype data. *Genetics* 155(2):945–959.

Rousset, F. 2008. genepop’007: a complete re-implementation of the genepop software for Windows and Linux. *Molecular Ecology Resources* 8(1):103–106.

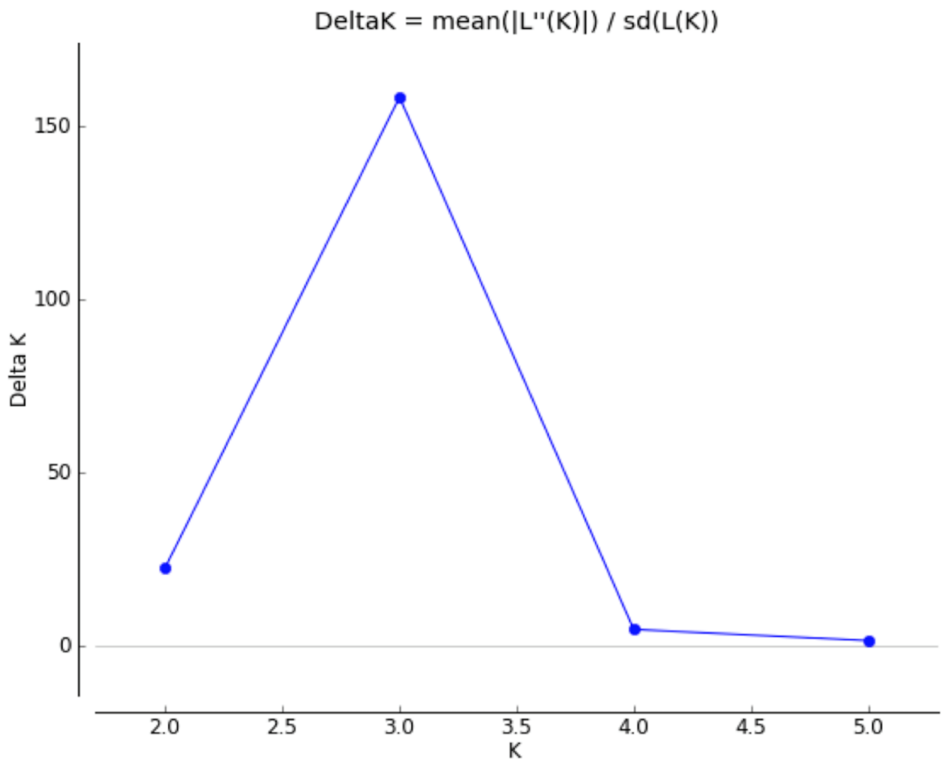

Figure A1.1 Delta *K* plot identifying the most probable *K* using the Evanno method as implemented in Structure Harvester for the results of STRUCTURE analysis.

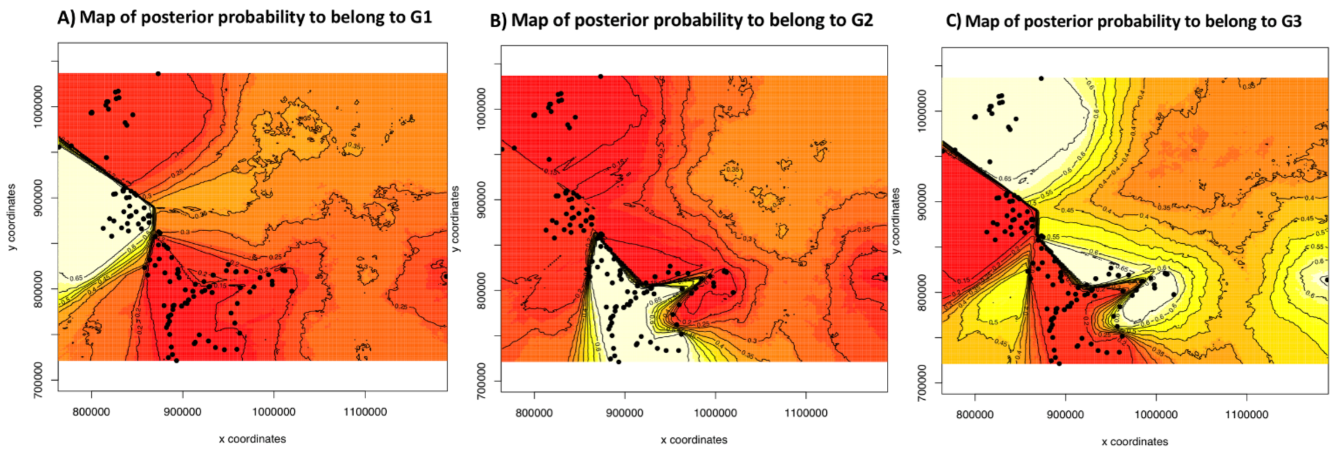

Figure A1.2 Spatial grizzly bear population structure map produced by Bayesian clustering model implemented in Geneland. High population membership is indicated by yellow and cream colors and genetic discontinuities between populations are represented by dense contour lines. **A)** Spatial output for G1. **B)** Geneland spatial output for G2.**C)** Geneland spatial output for G3.

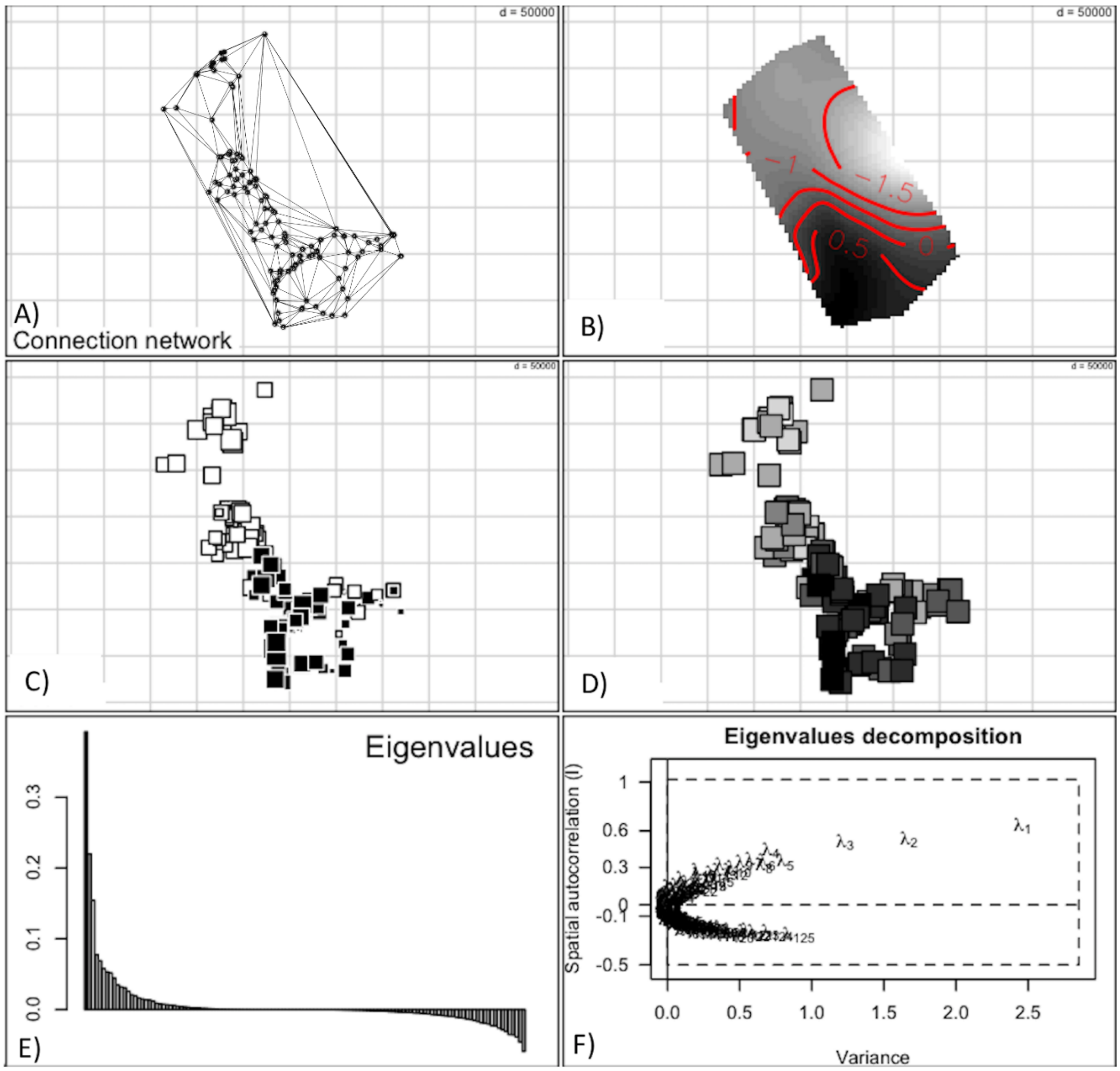

Figure A1.3 Spatial Principal Components Analysis of grizzly bear population structure for male and female bears conducted with a **A)** Delauney Connection Network and producing **B-D)** three representations of the first score and **E-F)** two eigenvalue plots.

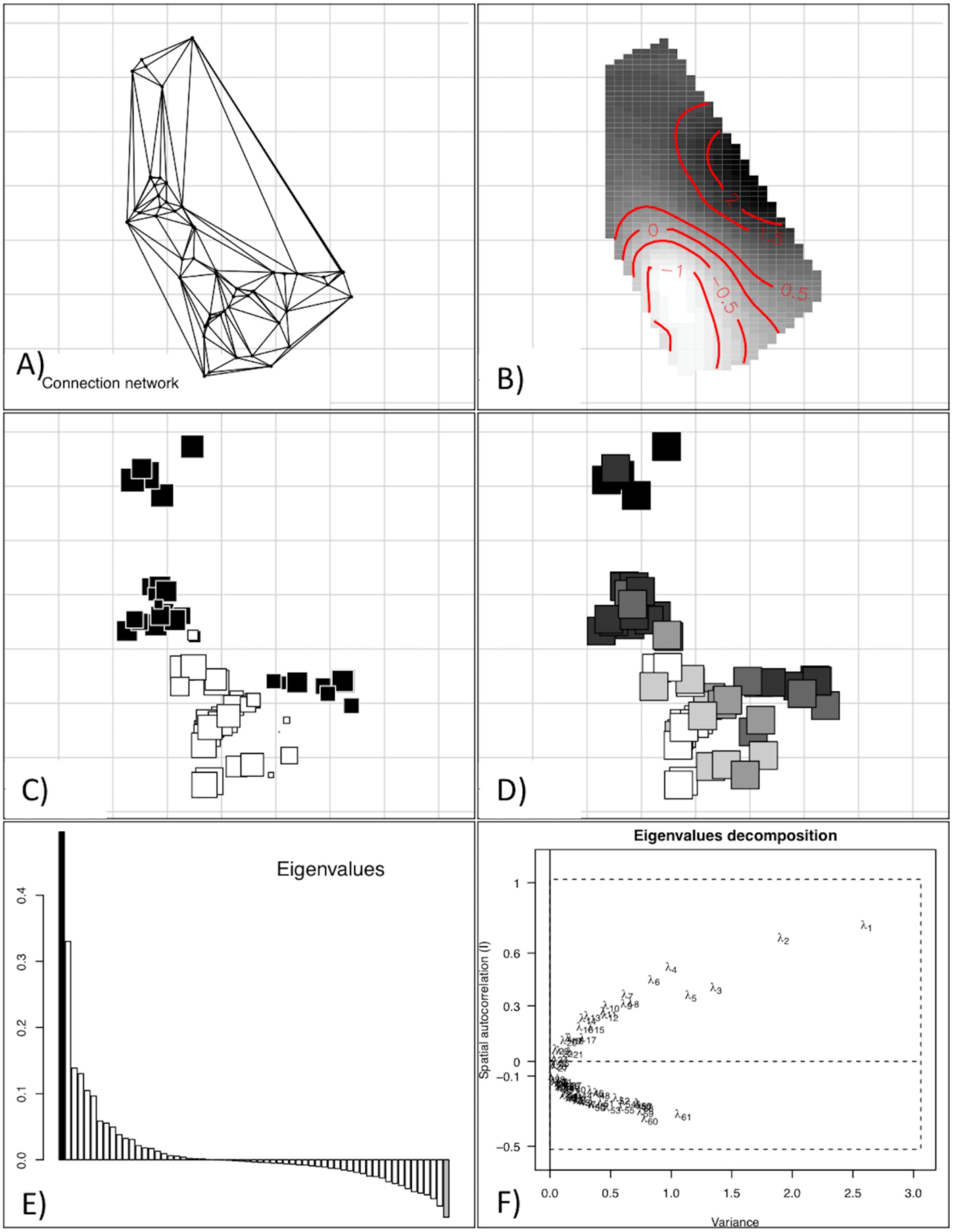

Figure A1.4 Spatial Principal Components Analysis of grizzly bear population structure for female bears conducted with a **A)** Delauney Connection Network and producing **B-D)** three representations of the first score and **E-F)** two eigenvalue plots.

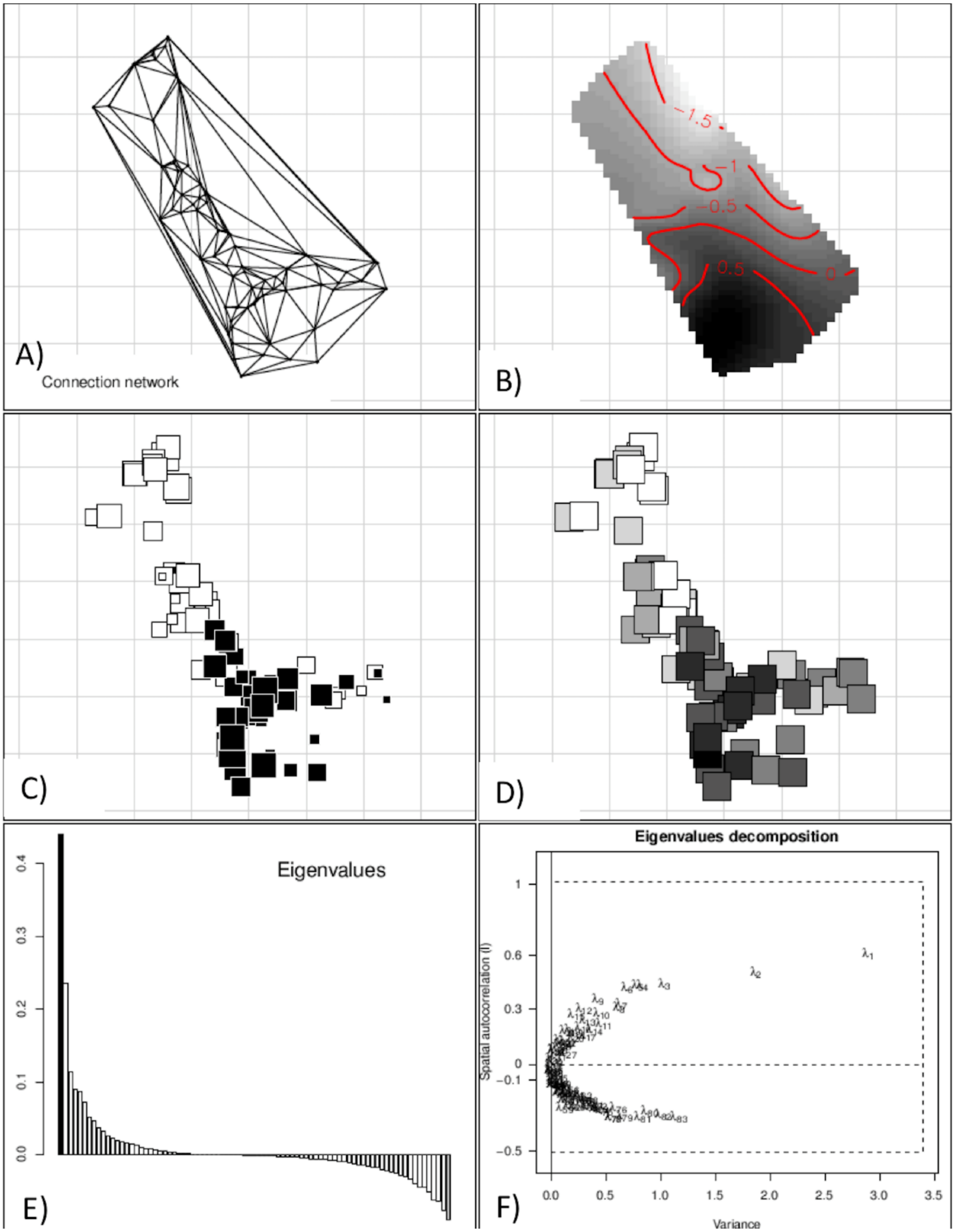

Figure A1.5 Spatial Principal Components Analysis of grizzly bear population structure for male bears conducted with a **A)** Delauney Connection Network and producing **B-D)** three representations of the first score and **E-F)** two eigenvalue plots.

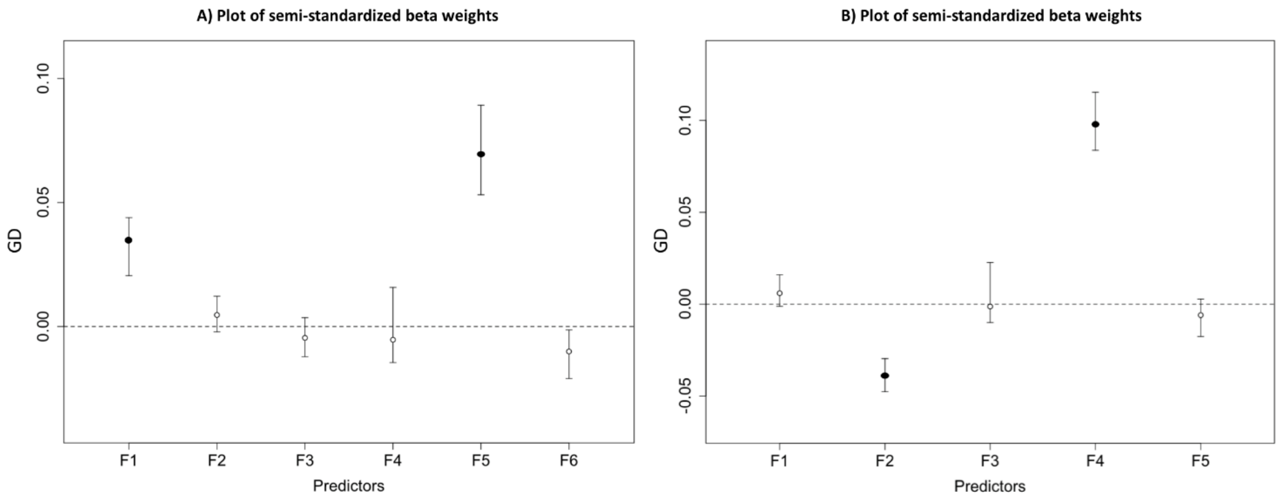

Figure A1.6 Commonality analysis beta weights with filled circles indicating significant beta weights for the **A)** archaeological surface with 95% bootstrap confidence intervals. (F1=Language family residuals, F2=Fish trap residuals, F3=Midden residuals, F4=Ice and snow residuals, F5=Waterway residuals, F6=Ruggedness residuals) and **B)** the modern surface with 95% bootstrap confidence intervals. (F1 = Modern settlement residuals, F2 = Forestry residuals, F3 = Ice and snow residuals, F4 = Waterway residuals, F5 = Ruggedness residuals).

Table A1.1 Microsatellite loci, primer pairs, and PCR reagent concentrations

Locus	Forward primer	Reverse primer	Primer concentration (nM)	$MgCL_2$ (mM)	Units of Polymerase (Taq)
G1A[1]	GACCCTGCATACTCTCCTCTGAT	GCACTGTCC'ITGCGTAGAAGTGAC	160	1.9	0.5
G1D[1]	GATCTGTGGGTTTATAGGTTACA	CTACTCTTCCTACTCTTTAAGAG	160	1.9	0.5
G10B[1]	GCCTTTTAATGTTCTGTTGAATTTG	GACAAATCACAGAAACCTCCATCC	160	1.9	0.5
G10C[1]	AAAGCAGAAGGCCTTGATTTCCTG	GGGGACATAAACACCGAGACAG	160	1.9	0.5
G10L[1]	GTACTGATTTAATTCACATTTCCC	GAAGATACAGAAACCTACCCTGC	160	1.9	0.5
G10M[1]	TTCCCCTCATCGTAGGTTGTA	GATCATGTGTTTCCAAATAAT	160	1.9	0.5
G10P[1]	AGGAGGAAGAAAGATGGAAAAC	TCATGTGGGGAAATACTTCAA	160	1.9	0.5
G10X[1]	CCCTGGTAACCACAAATCTCT	TCAGTTATCTGTGAAATCAAAA	160	1.9	0.5
G10J[2]	GATCAGATATTTTCAGCTTT	AACCCCTCACACTCCACTTC	253	1.9	2.4
G10H[2]	CAACAAGAAGACCACTGTAA	AGAGACCACCAAGTAGGATA	227	1,9	2.0
G10U[2]	TGCAGTGTCAGTTGTTACCAA	TATTTCCAATGCCCTAAGTGAT	320	2.1	3.2
CXX110[2]	TGCTTTGGGTTAAATCTAAGCC	CCCCAGAGATGTGGCATC	320	2.1	3.2
CXX20[2]	AGCAACCCCTCCCATTTACT	TTGTCTGAATAGTCCTCTGCG	187	2.1	3.2
MU23[3]	GCCTGTGTGCTATTTATCC	TTGCTTGCCTAGACCACC	600	2.0	0.5
MU50[2]	GGAGGCGTTCTTTCAGTTGGT	TGGAACAAAACTTAACACAAATG	320	1.9	2.0
MU59[2]	GCTGCTTTGGGACATTGTAA	CAATCAGGCATGGGGAAGAA	320	1.9	2.8
MU51[3]	AGCCAGAATCCTAAGAGACCT	GAAAGGTTAGATGGAAGAGATG	600	2.0	0.5
CPH9[5]	CAGAGACTGCCACTTTAAACACAC	AAAGTTCTCAAATACCATTGTGTTACA	300	59	0.6
144A06[6]	TTTTATGGTTGAGTGCTATTCC	GAAATTGGCCACAGTTCCAT	160	1.9	0.5
MSUT2[4]	AGTGAATCCTAAACAGGTTA	TAATATGAATATGGTGTGCT	500	1.5	0.5

145P07[6]	TGGAAAGGTTTGCACTCTGA	AGCCTCCCCATTTCACAGAT	160	1.9	0.5

[1]Paetkau (1995), [2]Paetkau (1998), [3]Bellemain and Taberlet (2004), [4]Kitahara et al. (2000),[5]Fredholm and Winterø (1995),[6]Kamath (2015)

Table A1.2 Primary sources for archaeologically recorded shell middens and fish traps in the study area

Site Number	Reference	Shell Midden	Fish Trap
FaSx-14	(Apland 1974)	X	
FaSx-15	(Apland 1974)	X	
FaSx-5	(Apland 1974)		X
FaTa-14	(Hester 1968)	X	
FbSr-4	(Bedard 1993)	X	
FbSr-6	(Bedard 1993)		X
FbSr-9	(Dahm and Hobler 1996)	X	
FbSu-1	(Carlson 1970; Carlson 1971)	X	
FbSv-2	(Luebbers 1971)	X	
FbSw-3	(Hobler 1968)	X	
FbSw-6	(Luebbers 1971)		X
FbSx-12	(Apland 1974)	X	
FbSx-2	(Hester 1968)		X
FbSx-3	(Hester 1968)	X	
FbSx-4	(Hester 1968)	X	
FbSx-6	(Luebbers 1971)	X	
FbSx-9	(Carlson 1972)	X	
FbTa-1	(Hester 1968)	X	
FbTa-10	(Luebbers 1971)	X	
FbTa-11	(Luebbers 1971)		X
FbTa-12	(Luebbers 1971)	X	
FbTa-13	(Luebbers 1971)	X	
FbTa-14	(Luebbers 1971)		X
FbTa-15	(Luebbers 1971)	X	X
FbTa-16	(Luebbers 1971)	X	
FbTa-17	(Mitchell 1969)	X	
FbTa-18	(Luebbers 1971)		X
FbTa-19	(Luebbers 1971)		X
FbTa-21	(Luebbers 1971)	X	
FbTa-22	(Luebbers 1971)	X	
FbTa-23	(Luebbers 1971)	X	
FbTa-25	(Pomeroy 1980)	X	
FbTa-26	(Seymour et al. 1980)	X	
FbTa-27	(Maxwell et al. 1997)	X	
FbTa-28	(Maxwell et al. 1997)	X	
FbTa-29	(Maxwell et al. 1997)	X	
FbTa-3	(Hobler 1977)	X	X
FbTa-30	(Maxwell et al. 1997)	X	
FbTa-33	(Maxwell et al. 1997)		X
FbTa-34	(Maxwell et al. 1997)		X
FbTa-43	(Maxwell et al. 1997)	X	
FbTa-5	(Dahm and Hobler 1996)	X	
FbTa-59	(White 2006; White 2011)		X
FbTa-6	(Hester 1969)	X	
FbTa-7	(Luebbers 1971)	X	
FbTa-8	(Luebbers 1971)		X

Site Number	Reference	Shell Midden	Fish Trap
FbTa-9	(Luebbers 1971)	X	
FbTb-1	(Hester 1968)	X	
FbTb-10	(Luebbers 1971)		X
FbTb-11	(Luebbers 1971)		X
FbTb-12	(Luebbers 1971)	X	
FbTb-13	(Brown 1989)		X
FbTb-14	(Luebbers 1971)		X
FbTb-16	(Brown 1989)		X
FbTb-17	(Luebbers 1971)	X	
FbTb-18	(Luebbers 1971)	X	
FbTb-19	(Luebbers 1971)		X
FbTb-20	(Luebbers 1971)		X
FbTb-21	(Brown 1989)	X	
FbTb-22	(Maxwell et al. 1997)	X	
FbTb-23	(Maxwell et al. 1997)	X	
FbTb-24	(Maxwell et al. 1997)	X	
FbTb-4	(Mitchell 1969; Simonsen 1973)	X	
FbTb-5	(Simonsen 1992)	X	
FbTb-6	(Luebbers 1971)	X	
FbTb-7	(Luebbers 1971)		X
FbTb-9	(Luebbers 1971)		X
FbTc-1	(Hester 1969)	X	X
FbTc-10	(Luebbers 1971)	X	
FbTc-11	(Luebbers 1971)	X	
FbTc-12	(Luebbers 1971)	X	
FbTc-13	(Luebbers 1971)	X	
FbTc-14	(Luebbers 1971)		X
FbTc-15	(Luebbers 1971)		X
FbTc-16	(Luebbers 1971)		X
FbTc-19	(Maxwell et al. 1997)		X
FbTc-2	(Luebbers 1971)	X	
FbTc-20	(Maxwell et al. 1997)		X
FbTc-21	(Maxwell et al. 1997)		X
FbTc-22	(Maxwell et al. 1997)		X
FbTc-29	(Maxwell et al. 1997)		X
FbTc-3	(Luebbers 1971)	X	
FbTc-30	(Maxwell et al. 1997)		X
FbTc-4	(Luebbers 1971)	X	
FbTc-5	(Luebbers 1971)	X	
FbTc-6	(Luebbers 1971)	X	
FbTc-7	(Luebbers 1971)	X	
FbTc-8	(Luebbers 1971)	X	
FcSt-1	(Hobler 1968)	X	
FcSt-10	(Maxwell et al. 1995b)		X
FcSt-12	(Maxwell et al. 1995b)	X	
FcSt-13	(Maxwell et al. 1995b)	X	
FcSt-3	(Hobler 1968; Maxwell et al. 1995b)	X	
FcSt-8	(Blacklaws 1980)		X

Site Number	Reference	Shell Midden	Fish Trap
FcSu-1	(Hobler 1983)	X	
FcSv-4	(Hester 1969)		X
FcSw-1	(Hester 1968)		X
FcSx-14	(Luebbers 1971)		X
FcSx-15	(Luebbers 1971)		X
FcSx-19	(Apland 1974)		X
FcSx-2	(Hester 1969)		X
FcSx-3	(Hester 1969)		X
FcTa-11	(Hobler 1977)		X
FcTa-12	(Hobler 1977)		X
FcTa-17	(Maxwell et al. 1997)	X	
FcTa-18	(Maxwell et al. 1997)		X
FcTa-19	(Maxwell et al. 1997)	X	
FcTa-2	(Luebbers 1971)		X
FcTa-20	(Maxwell et al. 1997)		X
FcTa-22	(Maxwell et al. 1997)		X
FcTa-3	(Luebbers 1971)	X	X
FcTa-5	(Luebbers 1971)		X
FcTa-6	(Luebbers 1971)		X
FcTa-7	(Luebbers 1971)		X
FcTa-78	(Engisch et al. 2011)	X	
FcTb-10	(Maxwell et al. 1995a)		X
FcTb-2	(Finnis et al. 1993)		X
FcTb-3	(Luebbers 1971)		X
FcTb-4	(Luebbers 1971)		X
FcTc-2	(Mitchell 1969)	X	
FcTc-3	(Luebbers 1971)	X	
FcTc-4	(Mitchell 1969)	X	
FcTc-5	(Mitchell 1969; Simonsen 1973)	X	
FcTc-6	(Simonsen 1973)		X
FcTc-7	(Simonsen 1970)	X	
FcTc-8	(Luebbers 1971)		X
FcTc-9	(Luebbers 1971)	X	
FcTd-1	(Simonsen 1973)	X	
FcTd-2	(Simonsen 1970)		X
FcTe-1	(Simonsen 1973)	X	
FcTe-2	(Simonsen 1973)	X	
FcTe-3	(Simonsen 1973)	X	
FcTe-4	(Simonsen 1973)	X	
FcTe-5	(Simonsen 1973)		X
FcTe-6	(Simonsen 1970)	X	
FcTe-7	(Simonsen 1970)		X
FcTe-8	(Simonsen 1970)		X
FcTe-9	(Simonsen 1970)		X
FcTf-2	(Radke and Radke 2005)		X
FcTg-1	(Radke and Radke 2005)		X
FcTg-2	(Radke and Radke 2005)		X
FdSt-5	(Hobler and Dahm 1999)		X

Site Number	Reference	Shell Midden	Fish Trap
FdSx-12	(Hobler 1968)		X
FdSx-5	(Luebbers 1971)	X	
FdTa-16	(Maxwell and Vincent 1996)		X
FdTa-2	(Luebbers 1971)		X
FdTa-4	(Luebbers 1971)		X
FdTa-5	(Hobler 1977)		X
FdTa-7	(Hobler 1977)	X	
FdTb-1	(Simonsen 1973)	X	
FdTb-4	(Simonsen 1989a)	X	
FdTb-5	(Simonsen 1989b)		X
FdTb-6	(Simonsen 1989b)	X	
FdTb-7	(Simonsen 1989b)		X
FdTc-2	(Simonsen 1973)		X
FdTc-4	(Simonsen 1973)	X	
FdTc-5	(Mitchell 1969)	X	
FdTc-6	(Simonsen 1973)		X
FdTc-7	(Hill and Hill 1973)	X	
FdTd-1	(Simonsen 1973)	X	
FdTd-2	(Simonsen 1973)	X	
FdTd-4	(Simonsen 1973)	X	
FdTe-11	(Simonsen 1973)		X
FdTe-2	(Simonsen 1973)	X	
FdTe-3	(Simonsen 1973)		X
FdTe-5	(Simonsen 1973)		X
FdTe-6	(Simonsen 1973)	X	
FdTe-7	(Simonsen 1973)	X	
FdTe-8	(Simonsen 1973)	X	
FdTe-9	(Simonsen 1973)	X	
FdTg-1	(Radke and Radke 2005)		X
FdTg-10	(Radke and Radke 2005)		X
FdTg-11	(Radke and Radke 2005)		X
FdTg-12	(Radke and Radke 2005)		X
FdTg-13	(Radke and Radke 2005)		X
FdTg-14	(Radke and Radke 2005)		X
FdTg-15	(Radke and Radke 2005)		X
FdTg-16	(Radke and Radke 2005)		X
FdTg-17	(Radke and Radke 2005)		X
FdTg-18	(Radke and Radke 2005)		X
FdTg-19	(Radke and Radke 2005)		X
FdTg-2	(Radke and Radke 2005)		X
FdTg-20	(Radke and Radke 2005)		X
FdTg-21	(Radke and Radke 2005)		X
FdTg-22	(Radke and Radke 2005)		X
FdTg-23	(Radke and Radke 2005)		X
FdTg-24	(Radke and Radke 2005)		X
FdTg-25	(Radke and Radke 2005)		X
FdTg-26	(Radke and Radke 2005)		X

Site Number	Reference	Shell Midden	Fish Trap
FdTg-28	(Radke and Radke 2005)		X
FdTg-27	(Radke and Radke 2005)		X
FdTg-29	(Radke and Radke 2005)		X
FdTg-3	(Radke and Radke 2005)		X
FdTg-30	(Radke and Radke 2005)		X
FdTg-31	(Radke and Radke 2005)		X
FdTg-4	(Radke and Radke 2005)		X
FdTg-5	(Radke and Radke 2005)		X
FdTg-6	(Anonymous 2001)		X
FdTg-7	(Radke and Radke 2005)		X
FdTg-8	(Radke and Radke 2005)		X
FdTg-9	(Radke and Radke 2005)		X
FdTh-1	(Radke and Radke 2005)		X
FdTh-2	(Radke and Radke 2005)		X
FeSr-5	(Simonsen 1989a)	X	
FeSr-7	(Hobler 1971)	X	
FeSx-6	(Simonsen 1989b)		X
FeTa-5	(Simonsen 1989a)		X
FeTa-6	(Simonsen 1989b)	X	
FeTb-2	(Simonsen 1989b)		X
FeTc-1	(Simonsen 1973)		X
FeTd-1	(Simonsen 1973)	X	
FeTd-2	(Simonsen 1973)	X	
FeTe-1	(Simonsen 1973)		X
FeTe-3	(Somogyi-Csizmazia et al. 2010)		X
FeTe-4	(Somogyi-Csizmazia et al. 2010)		X
FeTe-5	(Somogyi-Csizmazia et al. 2010)		X
FeTe-6	(Somogyi-Csizmazia et al. 2010)		X
FeTf-1	(Simonsen 1973)	X	
FeTf-2	(Simonsen 1973)		X
FeTg-1	(Simonsen 1973)		X
FeTg-2	(Simonsen 1973)		X
FeTh-1	(Mitchell 1969)		X
FeTh-10	(Radke and Radke 2005)		X
FeTh-11	(Radke and Radke 2005)		X
FeTh-12	(Radke and Radke 2005)		X
FeTh-13	(Radke and Radke 2005)		X
FeTh-14	(Radke and Radke 2005)		X
FeTh-8	(Radke and Radke 2005)		X
FeTh-9	(Radke and Radke 2005)		X
FfTa-1	(Foster and Coombes 1980)		X
FfTa-2	(Simonsen 1989a)	X	
FfTd-5	(Engisch et al. 2008)	X	
FfTd-8	(Somogyi-Csizmazia et al. 2010)		X
FfTe-1	(Simonsen 1973)		X
FfTe-2	(Somogyi-Csizmazia et al. 2010)		X
FfTe-3	(Somogyi-Csizmazia et al. 2010)		X

Site Number	Reference	Shell Midden	Fish Trap
FfTe-4	(Somogyi-Csizmazia et al. 2010)		X
FfTe-5	(Somogyi-Csizmazia et al. 2010)		X
FfTe-6	(Somogyi-Csizmazia et al. 2010)		X
FfTf-1	(Simonsen 1973)		X
FfTg-1	(Simonsen 1973)		X
FgTc-1	(Simonsen 1973)		X
FgTc-2	(Simonsen 1973)	X	
FgTd-1	(Simonsen 1973)		X
FgTd-2	(Simonsen 1973)		X
FgTe-1	(Simonsen 1970)	X	
FgTf-1	(Simonsen 1973)		X
FgTf-11	(Bonner et al. 2001)		X
FgTf-2	(Simonsen 1973)		X
FgTf-25	(Eldridge and Robinson 2001)		X
FgTf-3	(Wilson 1992)	X	
FgTg-1	(Simonsen 1973)		X
FgTg-2	(Simonsen 1973)		X
FgTg-3	(Simonsen 1973)		X
FgTh-1	(Simonsen 1973)	X	
FgTh-2	(Simonsen 1973)		X
FiTc-2	(Mackie and Eldridge 1988)	X	
FiTc-3	(Mackie and Eldridge 1988)	X	
FiTc-4	(Mackie and Eldridge 1988)		X
FiTd-13	(Harrison and Farvacque 2014)	X	
FiTd-14	(Harrison and Farvacque 2014)	X	
FiTe-1	(Wilson 1989)	X	
FiTe-2	(Simonsen 1997)	X	
FiTf-1	(Simonsen 1970)	X	
FiTf-10	(Shortland and Wilson 1997)	X	
FiTf-2	(Simonsen 1973)	X	
FjTe-2	(Harrison and Farvacque 2014)	X	
FjTe-2	(Simonsen 1973)		
FjTe-30	(Harrison and Farvacque 2014)	X	
FjTe-33	(Harrison and Farvacque 2014)	X	
FjTe-34	(Harrison and Farvacque 2014)	X	
FjTe-37	(Harrison and Farvacque 2014)	X	
FjTf-1	(Simonsen 1973)	X	
FjTf-22	(Hall 2004)	X	
FjTf-3	(Wilson 1993)	X	
FjTg-1	(Simonsen 1970)	X	X
FkTe-1	(Howe 1993)	X	
FkTe-32	(Golder Associates Ltd. 2008)	X	
FkTf-1	(Leen 1985)	X	
FkTf-5	(Simonsen 1970)	X	
FkTf-6	(Simonsen 1973)	X	
FlTd-1	(Leen 1985)	X	
FlTe-24	(Stafford and Eldridge 1997; Streeter 2006)	X	

FlTe-4	(Mishra 1975)	X	
	Totals	**133**	**155**

Table A1.3 Observed and expected heterozygosity for North American grizzly bear populations. (Abbreviations: H_E = expected heterozygosity; H_O = observed heterozygosity; N = sample size)

Sampling Area	N	H_O	H_E
Rockies South[1]	99	-	0.67
Rockies North[1]	122	-	0.66
Kluane[2]	100	0.79	0.76
Richardson Mountains[2]	238	0.77	0.76
Brooks Range[2]	296	0.77	0.75
Flathead Range[2]	80	0.69	0.69
Selkirk South[1]	43	-	0.54
Yellowstone[2]	114	0.55	0.55
G1	31	0.60	0.56
G2	59	0.56	0.55
G3	38	0.70	0.68

[1]Proctor (2005), [2]Paetkau (1998)

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