

Appendix S3. Additive genetic (co)variances and correlations in the Ram Mountain bighorn sheep population for sex-specific horn volume (cm<sup>3</sup>), horn length (cm), horn base circumference (cm) and body mass (kg) based on the restricted QTL mapping dataset. Standard errors generated by ASReml are presented in parentheses. Variance components are on the diagonal while covariance components are below the diagonal and correlations are above the diagonal (shaded area). MHV, male horn volume; MHL, male horn length; MHB, male horn base circumference; MBM, male body mass; FHV, female horn volume; FHL, female horn length; FHB, female horn base circumference; FBM, female body mass.

	MHV	MHL	MHB	MBM	FHV	FHL	FHB	FBM
MHV	0.30 (0.18)	0.94 (0.04)	0.96 (0.03)	0.98 (0.08)	0.79 (0.35)	0.93 (0.36)	0.32 (0.34)	0.52 (0.33)
MHL	0.40 (0.18)	0.42 (0.20)	0.80 (0.10)	0.73 (0.12)	1.00 (0.50)	1.00 (0.40)	-0.01 (0.28)	0.47 (0.30)
MHB	0.29 (0.17)	0.32 (0.17)	0.33 (0.16)	0.95 (0.08)	0.59 (0.30)	0.64 (0.32)	0.33 (0.29)	0.46 (0.29)
MBM	0.23 (0.12)	0.23 (0.08)	0.26 (0.12)	0.21 (0.10)	0.49 (0.35)	0.73 (0.36)	0.00 (0.30)	0.67 (0.30)
FHV	0.21 (0.10)	0.22 (0.09)	0.18 (0.10)	0.11 (0.08)	0.32 (0.13)	0.77 (0.11)	0.88 (0.08)	0.64 (0.20)
FHL	0.24 (0.10)	0.29 (0.10)	0.19 (0.10)	0.16 (0.08)	0.23 (0.13)	0.33 (0.16)	0.29 (0.25)	0.53 (0.25)
FHB	0.09 (0.10)	-0.01 (0.11)	0.11 (0.10)	0.00 (0.08)	0.26 (0.10)	0.09 (0.09)	0.37 (0.11)	0.47 (0.19)
FBM	0.10 (0.06)	0.10 (0.06)	0.09 (0.06)	0.10 (0.05)	0.12 (0.06)	0.10 (0.07)	0.09 (0.06)	0.11 (0.05)