

Figure SI 1. PCA of dietary variables (data from Kissling et al., 2014)

Dietary Loadings (Note that only PC1-PC5 are shown)

	PC1	PC2	PC3	PC4	PC5
Vertebrate	-0.366672292	-0.263801381	-0.348437848	-0.042474578	0.038295708
Mammal	-0.309538803	-0.322851003	-0.17786135	-0.006276887	-0.357704823
Bird	-0.173616267	-0.214346576	-0.400478695	-0.036622327	-0.086485187
Herptile	-0.261368781	-0.180670421	-0.23297021	-0.060846534	-0.025577865
Fish	-0.054155676	-0.01792445	-0.038899805	-0.021154972	0.052111122
Invertebrate	-0.410866882	0.133546615	0.121079804	-0.030543236	0.751220013
Seed	0.014104916	0.233053973	-0.083113163	-0.047134094	-0.137208758
Fruit	0.008259638	0.595916725	-0.664561415	-0.099304125	0.091795132
Nectar	0	-1.36E-20	5.42E-20	5.55E-17	2.22E-16
Root	0.000563924	0.133671465	-0.067166375	-0.075092202	-0.096108052
Leaf	0.507761536	-0.130940942	-0.200808943	-0.069350864	-0.056800373
Woody	0.327092956	-0.173353897	-0.319691884	0.707422601	0.304222951
Herbaceous	0.366649452	-0.300677204	-0.142631459	-0.678047184	0.334124982
Other	-0.005058768	0.405624183	0.013882674	-0.094902894	-0.226920624

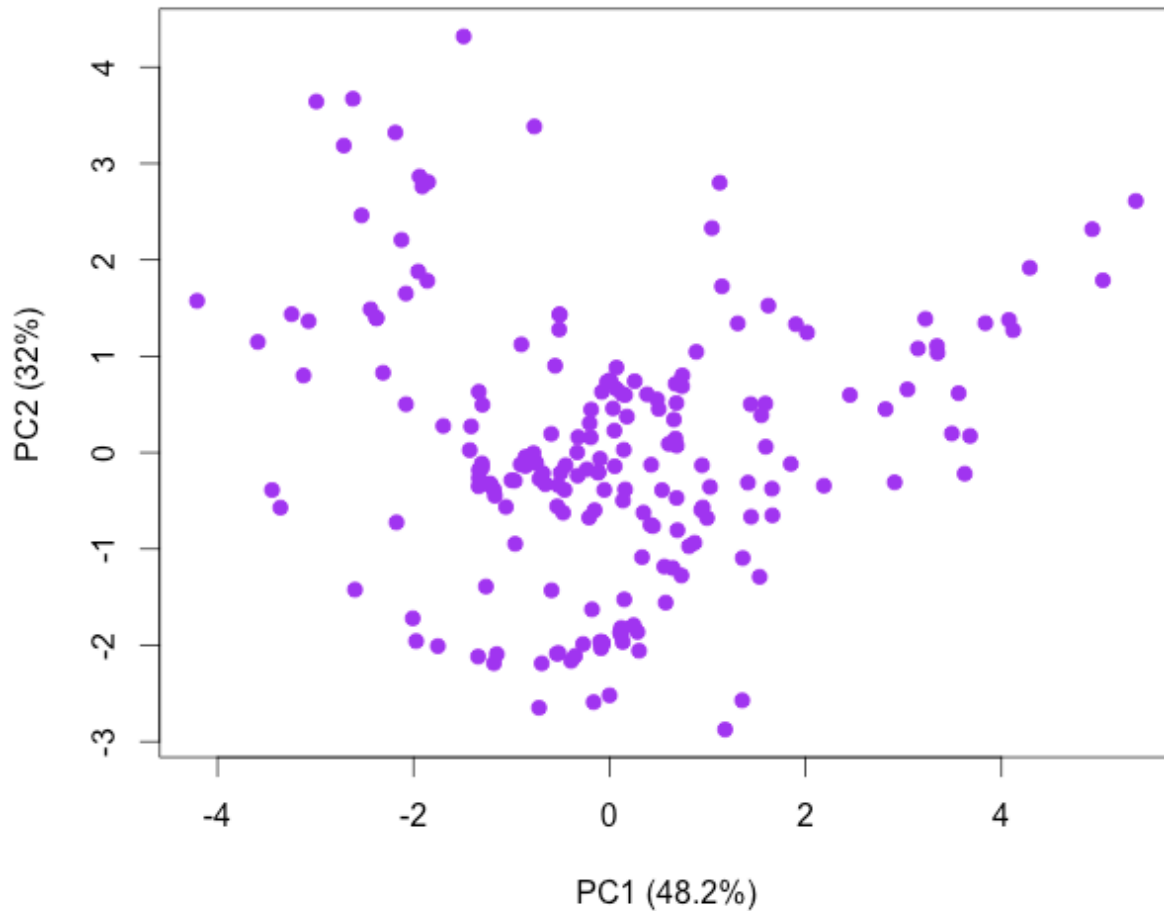


Figure SI 2. PCA of modern climate variables.

Modern Loadings

	PC1	PC2	PC3	PC4	PC5	PC6
BIO1_Mod_Avg	0.191978965	-0.588852448	-0.552780728	0.198454915	-0.148191833	-0.4994849
BIO4_Mod_Avg	-0.489889293	0.157158506	-0.505414229	0.472895453	-0.2409748	0.445159722
BIO6_Mod_Avg	0.493177592	-0.341895861	-0.189387724	-0.296268783	-0.093835397	0.712344789
BIO12_Mod_Avg	0.497513262	0.113013	0.377997825	0.643945867	-0.426236259	0.021968914
BIO14_Mod_Avg	0.422650875	0.393856663	-0.360843349	0.267273793	0.681614194	0.001433494
BIO15_Mod_Avg	-0.23189483	-0.586315793	0.360599411	0.403867288	0.514674642	0.210779196

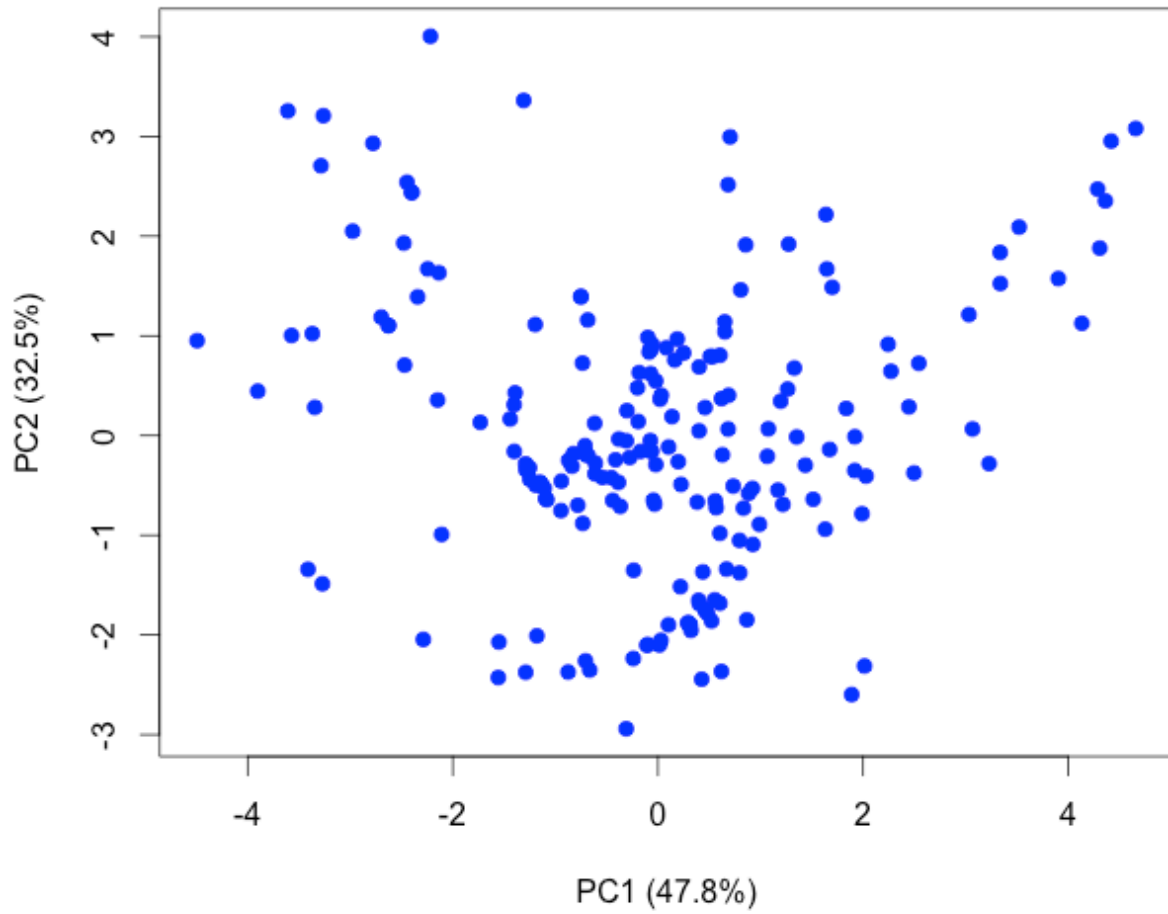


Figure SI 3. PCA of mid-Holocene climate variables.

Mid-Holocene Loadings

	PC1	PC2	PC3	PC4	PC5	PC6
BIO1_Hol_Avg	0.264096796	-0.545238239	-0.588865557	0.110113865	0.134370847	0.505989044
BIO4_Hol_Avg	-0.507428071	0.054570056	-0.551104743	0.423306879	0.203553467	-0.463896213
BIO6_Hol_Avg	0.533545279	-0.219421549	-0.176679324	-0.384630112	0.161384615	-0.679693106
BIO12_Hol_Avg	0.50199527	0.091973348	0.289335262	0.752460934	0.291697462	-0.067393559
BIO14_Hol_Avg	0.349272264	0.474745579	-0.418332534	0.13221105	-0.678310377	-0.006219488
BIO15_Hol_Avg	-0.118780071	-0.646335125	0.244107212	0.277612466	-0.607678443	-0.249423531

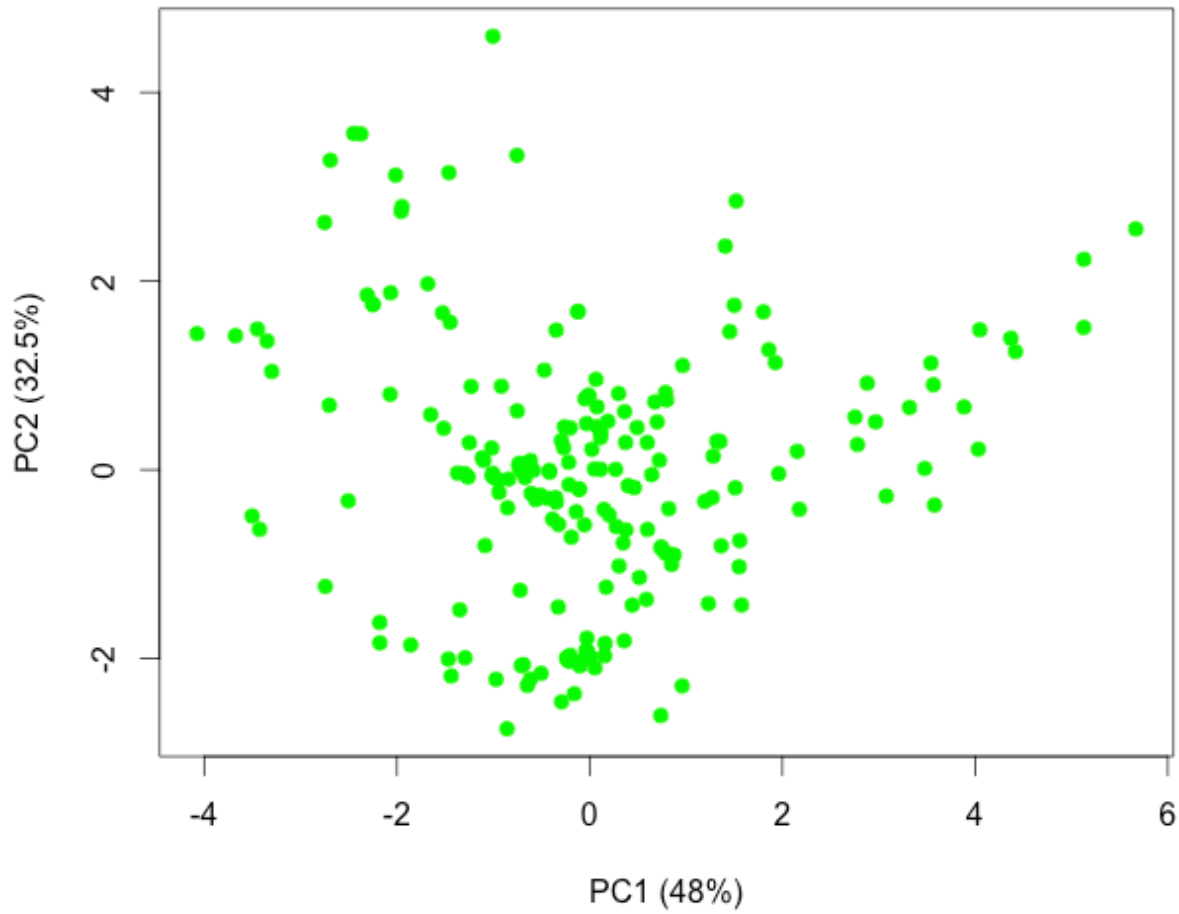
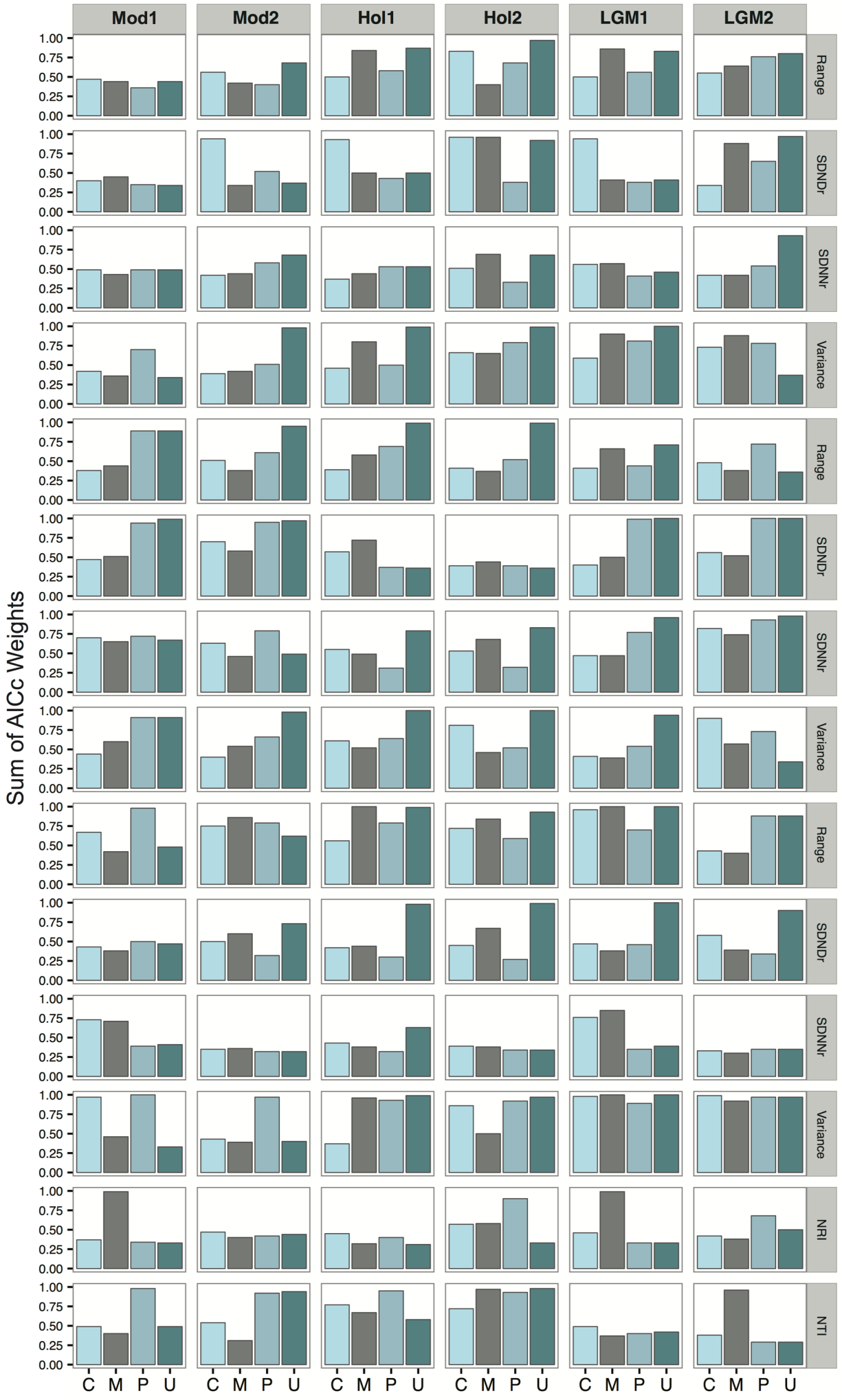


Figure SI 4. PCA of LGM climate variables.

LGM Loadings

	PC1	PC2	PC3	PC4	PC5	PC6
BIO1_LGM_Avg	0.18851477	-0.602067057	-0.502626662	0.188123581	-0.140981754	-0.542289168
BIO4_LGM_Avg	-0.475347643	0.178204245	-0.538289026	0.482871747	-0.279328259	0.375956632
BIO6_LGM_Avg	0.475185989	-0.385027591	-0.186550694	-0.236409471	-0.135899283	0.718883033
BIO12_LGM_Avg	0.490768653	0.12939913	0.395651029	0.658066023	-0.390785821	-0.009889858
BIO14_LGM_Avg	0.437981359	0.368677647	-0.392306436	0.239956754	0.67866571	0.013356353
BIO15_LGM_Avg	-0.282884312	-0.552127628	0.335210567	0.430028862	0.519933216	0.217968008

**Figure SI 5.
Barplot of
Sum of AICc
Weights**



Body Mass

Diet PC1

Diet PC2

Community

- Mammals (M)
- Carnivorans (C)
- Primates (P)
- Ungulates (U)