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Appendix 1

Supplemental Tables

Table A1. Five uncorrelated ($R \leq 0.7$) climatic variables.

Code	**Bioclimatic variable**
BIO1	Annual mean temperature
BIO2	Mean diurnal range (mean of monthly (max temp - min temp))
BIO8	Mean temperature of wettest quarter
BIO12	Annual precipitation
BIO18	Precipitation of warmest quarter

Table A2. Locality information (site numbers match Fig. 1), sample size (N), and population genetic summary statistics: expected heterozygosity (H_E), observed heterozygosity (H_O), rarefied allelic richness (A_R), and rarefied private allelic richness (pA_R).

Site	**Latitude**	**Longitude**	**n**	**H_E**	**H_O**	**A_R**	**pA_R**
1	41.58404	-82.84023	19	0.33	0.26	2.29	0.18
2	41.54521	-82.8148	31	0.51	0.43	2.93	0.03
3	41.389167	-82.82485	33	0.39	0.38	2.31	0.00
4	41.41289	-82.60341	15	0.39	0.39	2.46	0.01
5	41.28728	-82.64306	17	0.41	0.40	2.71	0.05
6	41.322641	-82.498534	30	0.31	0.27	2.31	0.01
7	41.34070	-82.48906	31	0.32	0.31	2.43	0.08
8	41.33131	-82.35005	17	0.35	0.38	2.53	0.13
9	41.38110	-82.32103	27	0.27	0.26	2.18	0.05
10	41.40607	-82.23343	28	0.30	0.29	2.38	0.08
11	41.42552	-82.23048	18	0.32	0.31	2.24	0.03
12	41.45887	-82.10595	29	0.30	0.30	2.27	0.06
13	41.46008	-82.09644	14	0.30	0.30	2.33	0.14
14	41.41602	-82.10184	26	0.26	0.23	2.21	0.05
15	41.37416	-82.10906	14	0.37	0.34	2.72	0.05
16	41.48644	-81.93446	30	0.37	0.39	2.63	0.14
17	41.42073	-81.85917	33	0.41	0.41	2.88	0.05
18	41.39006	-81.69121	30	0.36	0.34	2.71	0.06
19	41.22628	-81.71442	27	0.36	0.34	2.67	0.06
20	41.31902	-81.61631	25	0.36	0.33	2.74	0.06
21	41.229616	-81.518825	34	0.55	0.58	3.46	0.07
22	41.37557	-81.57355	17	0.56	0.51	3.17	0.06
23	41.49361	-81.593533	15	0.54	0.57	2.91	0.08
24	41.42324	-81.4207	24	0.52	0.50	3.00	0.09
25	41.496453	-81.417458	12	0.49	0.53	2.88	0.02
26	41.456753	-81.324957	12	0.55	0.46	3.28	0.17
27	41.597586	-81.356861	23	0.53	0.52	2.98	0.06
28	41.61772	-81.20503	17	0.53	0.49	3.02	0.04

Table A3. Pairwise estimates of F_{ST} (below diagonal) and associated p-values based on 999 permutations (above diagonal) based on 10 microsatellite loci across 28 populations. Population numbers correspond with Fig. 1.

Pop	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
1	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.28	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.50	0.23	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.53	0.25	0.16	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.50	0.22	0.06	0.08	--	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.58	0.33	0.10	0.17	0.04	--	0.00	0.04	0.00	0.01	0.13	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.58	0.35	0.09	0.14	0.06	0.02	--	0.00	0.00	0.08	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.56	0.29	0.10	0.14	0.03	0.02	0.03	--	0.00	0.00	0.01	0.00	0.00	0.01	0.24	0.01	0.01	0.04	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.61	0.35	0.09	0.21	0.06	0.05	0.06	0.04	--	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.60	0.35	0.10	0.17	0.08	0.03	0.01	0.05	0.09	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.57	0.31	0.06	0.13	0.03	0.01	0.02	0.03	0.06	0.03	--	0.00	0.00	0.00	0.17	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.60	0.34	0.07	0.17	0.05	0.05	0.04	0.04	0.05	0.06	0.05	--	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.61	0.33	0.11	0.16	0.08	0.11	0.07	0.06	0.09	0.09	0.09	0.03	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.62	0.36	0.13	0.19	0.07	0.04	0.04	0.03	0.03	0.08	0.06	0.04	0.06	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.53	0.27	0.06	0.14	0.02	0.01	0.04	0.01	0.03	0.04	0.01	0.04	0.07	0.04	--	0.03	0.20	0.61	0.30	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.54	0.30	0.08	0.16	0.04	0.05	0.05	0.02	0.06	0.07	0.04	0.03	0.03	0.05	0.02	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.49	0.26	0.08	0.16	0.04	0.06	0.07	0.02	0.07	0.07	0.06	0.06	0.06	0.05	0.01	0.02	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.54	0.28	0.08	0.16	0.03	0.03	0.06	0.01	0.03	0.08	0.03	0.05	0.09	0.04	0.00	0.04	0.02	--	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.56	0.31	0.08	0.14	0.04	0.01	0.02	0.02	0.04	0.01	0.02	0.04	0.05	0.05	0.00	0.03	0.04	0.03	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.55	0.28	0.10	0.13	0.03	0.04	0.06	0.03	0.04	0.09	0.04	0.07	0.08	0.04	0.01	0.06	0.04	0.01	0.03	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.37	0.17	0.10	0.14	0.07	0.12	0.13	0.09	0.13	0.14	0.11	0.13	0.13	0.13	0.06	0.08	0.04	0.09	0.11	0.09	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.38	0.26	0.33	0.31	0.30	0.41	0.40	0.35	0.41	0.42	0.37	0.40	0.36	0.41	0.32	0.33	0.29	0.37	0.37	0.35	0.14	--	0.04	0.44	0.29	0.52	0.14	0.22
23	0.41	0.27	0.32	0.30	0.29	0.40	0.38	0.34	0.40	0.41	0.36	0.38	0.34	0.40	0.32	0.32	0.29	0.36	0.36	0.34	0.14	0.02	--	0.05	0.06	0.01	0.01	0.01
24	0.41	0.30	0.36	0.34	0.33	0.43	0.42	0.38	0.43	0.44	0.40	0.42	0.39	0.43	0.35	0.36	0.32	0.39	0.40	0.37	0.16	0.00	0.02	--	0.43	0.81	0.05	0.85
25	0.41	0.29	0.40	0.36	0.36	0.48	0.46	0.42	0.49	0.49	0.45	0.47	0.44	0.49	0.39	0.40	0.35	0.43	0.44	0.42	0.18	0.01	0.02	0.00	--	0.39	0.02	0.03
26	0.38	0.26	0.35	0.33	0.30	0.43	0.42	0.37	0.43	0.44	0.39	0.42	0.39	0.44	0.33	0.35	0.30	0.38	0.39	0.37	0.14	0.00	0.04	0.01	0.00	--	0.09	0.57
27	0.40	0.28	0.32	0.30	0.28	0.39	0.37	0.33	0.39	0.40	0.36	0.37	0.34	0.38	0.30	0.31	0.27	0.35	0.35	0.33	0.13	0.01	0.03	0.01	0.03	0.02	--	0.06
28	0.42	0.29	0.35	0.33	0.30	0.42	0.41	0.36	0.42	0.43	0.39	0.41	0.38	0.42	0.33	0.34	0.29	0.37	0.38	0.36	0.14	0.01	0.03	0.01	0.03	0.00	0.01	--

Table A4. Pairwise estimates of standardized F_{ST} (F'_{ST} below diagonal) and Jost's D (D_{est}; above diagonal) based on 10 microsatellite loci across 28 populations. Population numbers correspond with Fig. 1.

Pop	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
1	--	0.33	0.61	0.70	0.64	0.66	0.69	0.69	0.70	0.69	0.66	0.71	0.75	0.70	0.66	0.68	0.63	0.64	0.69	0.69	0.54	0.55	0.58	0.59	0.52	0.53	0.56	0.60
2	0.41	--	0.25	0.30	0.27	0.36	0.39	0.35	0.37	0.40	0.35	0.37	0.40	0.38	0.33	0.36	0.31	0.31	0.37	0.33	0.25	0.42	0.42	0.47	0.44	0.42	0.44	0.46
3	0.75	0.41	--	0.12	0.04	0.06	0.06	0.07	0.05	0.06	0.04	0.04	0.07	0.07	0.04	0.06	0.06	0.05	0.06	0.07	0.11	0.44	0.40	0.47	0.51	0.45	0.41	0.45
4	0.77	0.45	0.24	--	0.06	0.11	0.09	0.10	0.13	0.11	0.09	0.11	0.11	0.11	0.11	0.12	0.14	0.12	0.11	0.09	0.16	0.44	0.39	0.47	0.49	0.47	0.41	0.46
5	0.73	0.42	0.09	0.13	--	0.02	0.04	0.02	0.04	0.05	0.02	0.03	0.06	0.04	0.01	0.03	0.03	0.02	0.03	0.02	0.07	0.43	0.40	0.45	0.50	0.43	0.37	0.41
6	0.80	0.55	0.14	0.23	0.05	--	0.01	0.01	0.02	0.01	0.01	0.03	0.06	0.02	0.00	0.03	0.03	0.01	0.01	0.02	0.11	0.51	0.47	0.54	0.58	0.52	0.46	0.50
7	0.82	0.59	0.14	0.21	0.09	0.03	--	0.02	0.03	0.00	0.01	0.02	0.04	0.02	0.02	0.03	0.04	0.03	0.01	0.04	0.12	0.49	0.43	0.52	0.56	0.52	0.44	0.49
8	0.79	0.52	0.14	0.21	0.04	0.01	0.04	--	0.02	0.02	0.02	0.02	0.03	0.01	0.00	0.01	0.02	0.01	0.01	0.02	0.09	0.49	0.44	0.51	0.56	0.49	0.43	0.47
9	0.83	0.58	0.13	0.30	0.10	0.06	0.08	0.05	--	0.04	0.03	0.02	0.04	0.01	0.01	0.03	0.04	0.02	0.02	0.02	0.11	0.48	0.43	0.50	0.55	0.49	0.43	0.47
10	0.82	0.59	0.14	0.23	0.11	0.03	0.01	0.05	0.11	--	0.02	0.03	0.04	0.03	0.02	0.04	0.05	0.04	0.01	0.05	0.13	0.53	0.47	0.55	0.60	0.54	0.48	0.51
11	0.76	0.53	0.08	0.17	0.03	0.01	0.02	0.02	0.06	0.03	--	0.02	0.05	0.03	0.01	0.03	0.04	0.01	0.01	0.02	0.11	0.50	0.45	0.53	0.57	0.51	0.45	0.49
12	0.84	0.57	0.11	0.25	0.08	0.06	0.05	0.05	0.06	0.07	0.05	--	0.01	0.02	0.02	0.01	0.04	0.03	0.02	0.03	0.12	0.48	0.42	0.50	0.54	0.50	0.42	0.47
13	0.83	0.58	0.16	0.24	0.13	0.14	0.10	0.08	0.12	0.12	0.10	0.03	--	0.02	0.04	0.02	0.04	0.05	0.03	0.05	0.14	0.48	0.41	0.50	0.54	0.51	0.41	0.47
14	0.83	0.59	0.18	0.26	0.10	0.05	0.06	0.03	0.05	0.10	0.06	0.05	0.07	--	0.02	0.02	0.03	0.02	0.02	0.02	0.11	0.48	0.42	0.49	0.54	0.49	0.42	0.47
15	0.74	0.50	0.09	0.22	0.03	0.00	0.06	0.00	0.04	0.05	0.00	0.06	0.11	0.06	--	0.01	0.00	0.00	0.00	0.00	0.07	0.45	0.42	0.48	0.53	0.46	0.40	0.44
16	0.80	0.54	0.13	0.24	0.06	0.07	0.07	0.03	0.08	0.09	0.05	0.03	0.05	0.06	0.03	--	0.02	0.03	0.02	0.03	0.08	0.43	0.39	0.45	0.49	0.45	0.37	0.42
17	0.77	0.48	0.13	0.27	0.07	0.08	0.10	0.03	0.10	0.11	0.08	0.09	0.10	0.08	0.01	0.03	--	0.02	0.03	0.03	0.04	0.39	0.36	0.41	0.45	0.39	0.34	0.37
18	0.78	0.49	0.13	0.25	0.05	0.03	0.09	0.02	0.05	0.11	0.03	0.08	0.13	0.05	0.01	0.06	0.04	--	0.02	0.00	0.08	0.48	0.44	0.50	0.55	0.49	0.43	0.46
19	0.82	0.55	0.13	0.23	0.07	0.01	0.02	0.02	0.06	0.01	0.02	0.05	0.08	0.07	0.01	0.05	0.07	0.05	--	0.02	0.11	0.50	0.45	0.53	0.58	0.52	0.44	0.49
20	0.80	0.50	0.15	0.18	0.04	0.05	0.09	0.02	0.05	0.12	0.04	0.08	0.10	0.05	0.00	0.07	0.06	0.01	0.05	--	0.09	0.46	0.42	0.49	0.54	0.48	0.41	0.46
21	0.66	0.37	0.19	0.27	0.13	0.20	0.23	0.16	0.22	0.24	0.19	0.22	0.25	0.21	0.12	0.15	0.07	0.16	0.20	0.16	--	0.21	0.22	0.23	0.27	0.21	0.19	0.20
22	0.61	0.56	0.62	0.61	0.60	0.70	0.69	0.66	0.70	0.72	0.67	0.68	0.67	0.69	0.63	0.61	0.57	0.67	0.69	0.64	0.31	--	0.03	0.00	0.01	0.00	0.01	0.01
23	0.63	0.56	0.57	0.55	0.57	0.66	0.64	0.61	0.65	0.67	0.61	0.62	0.60	0.64	0.59	0.57	0.54	0.63	0.64	0.59	0.32	0.04	--	0.02	0.03	0.06	0.03	0.04
24	0.60	0.60	0.63	0.62	0.60	0.70	0.70	0.66	0.69	0.72	0.67	0.68	0.66	0.68	0.63	0.62	0.57	0.68	0.70	0.64	0.33	0.02	0.01	--	0.00	0.01	0.02	0.01
25	0.52	0.57	0.68	0.64	0.66	0.76	0.75	0.72	0.75	0.77	0.73	0.74	0.72	0.74	0.69	0.67	0.63	0.73	0.75	0.70	0.38	0.01	0.01	0.04	--	0.00	0.04	0.03
26	0.54	0.56	0.63	0.63	0.60	0.71	0.72	0.67	0.71	0.74	0.68	0.71	0.70	0.71	0.64	0.63	0.58	0.68	0.71	0.65	0.32	0.01	0.09	0.05	0.03	--	0.02	0.01
27	0.65	0.59	0.58	0.57	0.54	0.65	0.64	0.61	0.64	0.67	0.62	0.62	0.60	0.63	0.57	0.55	0.51	0.62	0.63	0.58	0.29	0.02	0.05	0.01	0.04	0.03	--	0.02
28	0.61	0.60	0.63	0.63	0.58	0.69	0.69	0.64	0.69	0.71	0.66	0.67	0.66	0.68	0.61	0.60	0.54	0.66	0.68	0.63	0.30	0.01	0.06	0.04	0.03	0.02	0.02	--

Table A5. Mean, consistent, rates of gene flow determined by MIGRATE-N between pairs of populations. The left population is the source population, and the right population is the recipient population.

Gene flow (population) direction			Mean rate	95% CI
15	→	10/11	0.022	0.007, 0.037
3/5	→	10/11	0.016	-0.007, 0.039
12/13	→	10/11	0.011	0.002, 0.020
8	→	10/11	0.007	-0.008, 0.023
4	→	10/11	0.019	-0.005, 0.043
19/20	→	14	0.050	0.010, 0.091
16	→	14	0.016	-0.003, 0.036
9	→	14	0.053	0.039, 0.067
8	→	14	0.012	-0.006, 0.031
14	→	19/20	0.080	0.032, 0.128
16	→	19/20	0.097	0.078, 0.115
17/18	→	19/20	0.115	0.085, 0.145
19/20	→	15	0.024	0.016, 0.032
9	→	15	0.015	-0.003, 0.034
10/11	→	3/5	0.032	0.008, 0.057
19/20	→	3/5	0.034	0.022, 0.045
6/7	→	3/5	0.042	0.021, 0.063
12/13	→	3/5	0.037	-0.004, 0.078
16	→	3/5	0.023	-0.002, 0.049
9	→	3/5	0.031	-0.020, 0.082
10/11	→	6/7	0.037	-0.007, 0.080
14	→	6/7	0.025	-0.018, 0.067
19/20	→	6/7	0.022	0.008, 0.036
15	→	6/7	0.024	-0.010, 0.057
3/5	→	6/7	0.026	-0.005, 0.058
12/13	→	6/7	0.027	-0.001, 0.055
16	→	6/7	0.026	0.001, 0.052
8	→	6/7	0.022	-0.031, 0.074
4	→	6/7	0.015	0.003, 0.027
8	→	12/13	0.047	0.022, 0.071
4	→	12/13	0.046	-0.002, 0.093
3/5	→	16	0.050	0.022, 0.077
6/7	→	16	0.063	0.034, 0.091
9	→	16	0.035	0.020, 0.049
17/18	→	16	0.039	0.016, 0.061
8	→	16	0.028	-0.006, 0.061
4	→	16	0.059	0.014, 0.104

15	→	9	0.023	0.000, 0.046
3/5	→	9	0.036	0.010, 0.062
6/7	→	9	0.034	-0.014, 0.082
12/13	→	9	0.019	-0.005, 0.043
8	→	9	0.026	-0.018, 0.069
4	→	9	0.020	-0.010, 0.051
14	→	17/18	0.020	0.010, 0.029
19/20	→	17/18	0.021	-0.005, 0.048
3/5	→	17/18	0.036	0.007, 0.065
6/7	→	17/18	0.027	-0.009, 0.062
12/13	→	17/18	0.033	0.004, 0.063
16	→	17/18	0.012	-0.011, 0.035
8	→	17/18	0.034	-0.001, 0.070
4	→	17/18	0.034	-0.004, 0.072
3/5	→	8	0.024	-0.009, 0.057
16	→	8	0.029	0.009, 0.048
9	→	8	0.047	0.023, 0.070
4	→	8	0.029	-0.005, 0.063
10/11	→	4	0.036	0.004, 0.069
19/20	→	4	0.023	-0.002, 0.049
3/5	→	4	0.007	-0.004, 0.018
6/7	→	4	0.020	-0.023, 0.063
9	→	4	0.022	-0.023, 0.067
17/18	→	4	0.029	-0.004, 0.063

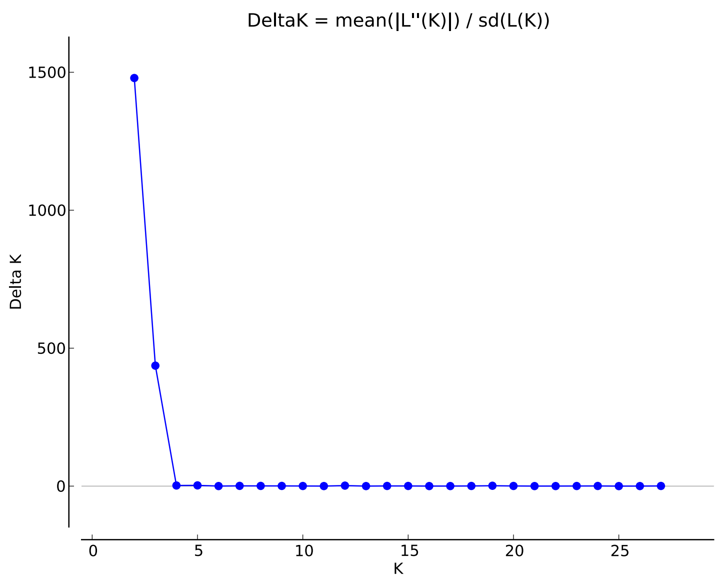

Figure A1. Evanno method ΔK plot from initial STRUCTURE run with all 28 populations.

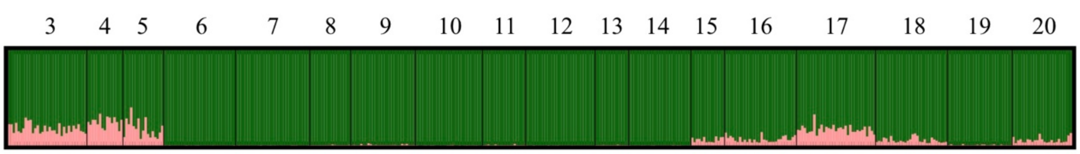

Figure A2. STRUCTURE run on populations in the Central Cluster after the removal of site 21.

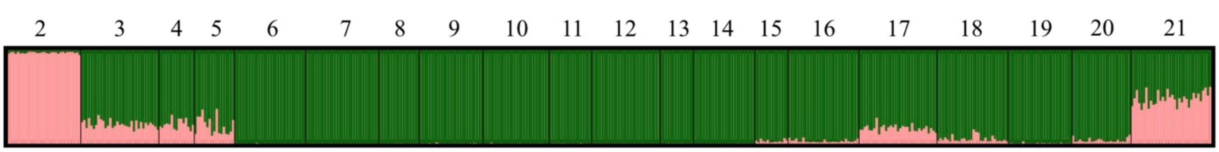

Figure A3. STRUCTURE run on populations in the Central Cluster with the addition of site 2.

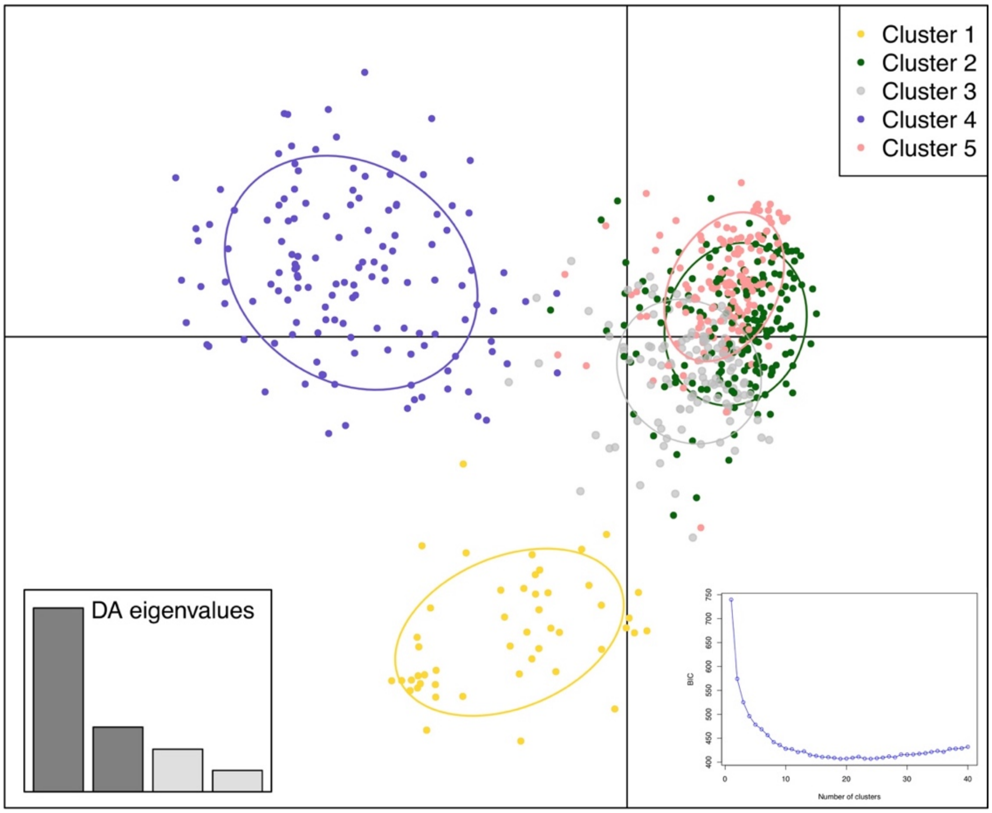

Figure A4. DAPC for 15 retained principle component axes and 4 discriminant functions. We interpret the data as having 5 clusters. Cluster 1 = sites 1-2; Clusters 2, 3, 5 = sites 3-21, and 1 individual from site 2; Cluster 4 = sites 22-28, and 13 individuals from site 21, and one individual from sites 2 and 17. Colors correspond with STRUCTURE plots.

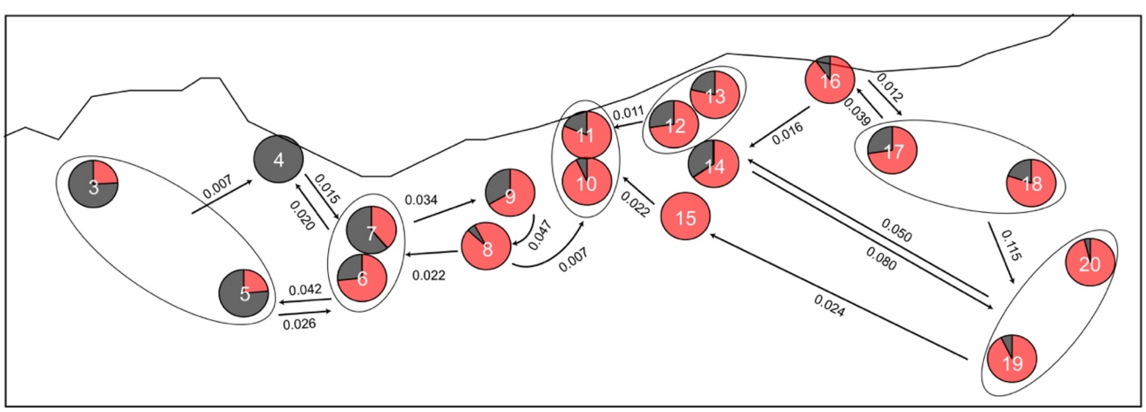

Figure A5. Gene flow rates within the Central Cluster (except population 21) in northern Ohio. Population numbers are in the center of each pie and correspond with Fig. 1. Circles indicate combined populations in the MIGRATE-N analysis.

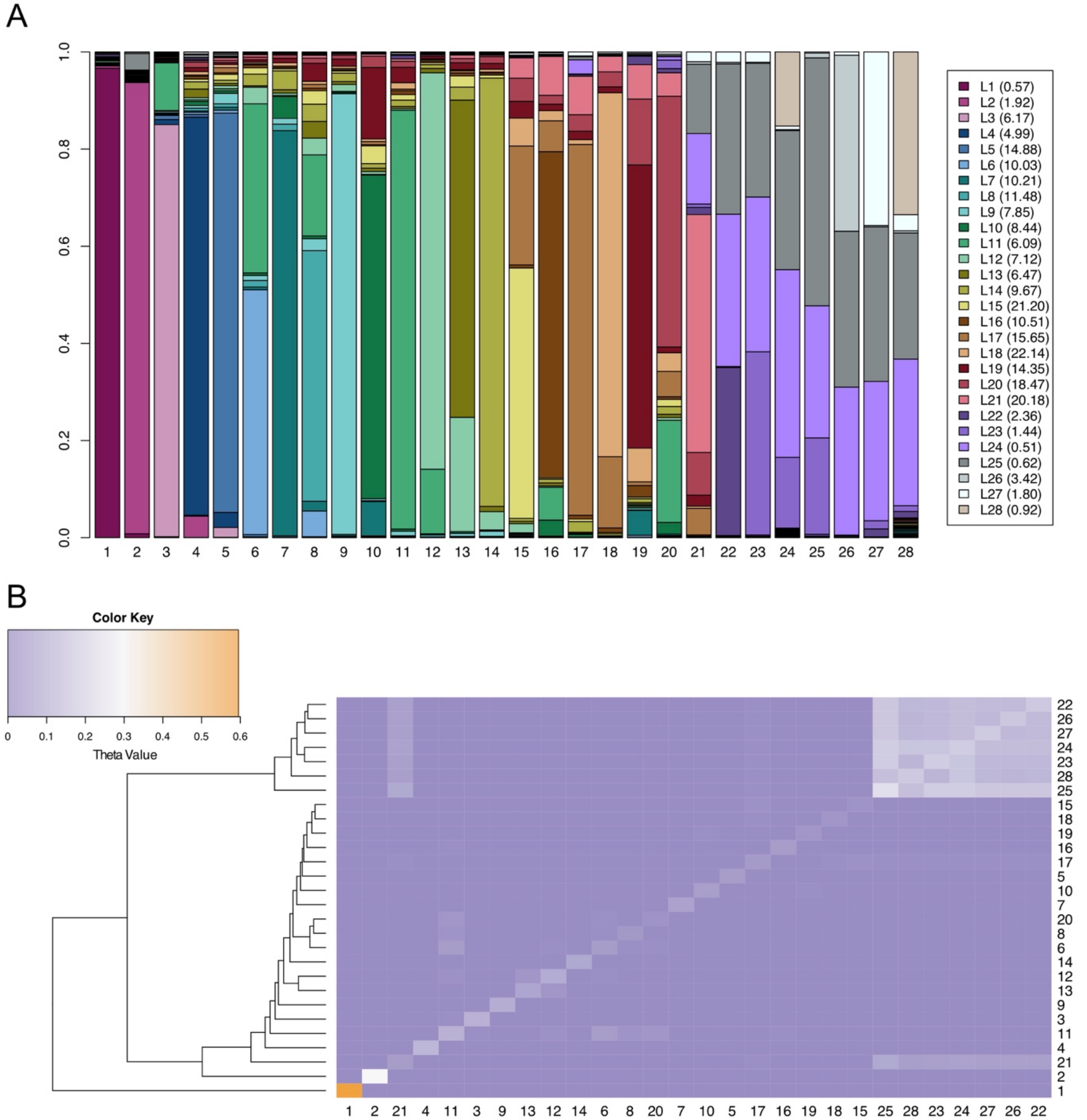

Figure A6. (A) Across all populations the admixture F-model (AFM) identified 28 linages (L1-L28) from the putative ancestral population contributing to the 28 sampled sites (bar plot). Kappa estimates indicate a high degree of admixture within distinct genetic clusters (bar plot). Alpha parameter estimates varied largely among lineages (0.51-22.14), with sharp differences among clusters – low alpha estimates in the Eastern Cluster (0.51-3.42) and Western Cluster (0.57-1.92) and high estimates in the Central Cluster (4.99-22.14; alpha values in parentheses next to each lineage name). (B) Theta parameter estimates indicate high population-level similarity within the Western Cluster, whereas all sites in the Eastern Cluster are highly similar, and the Central Cluster sites are also homogenous.

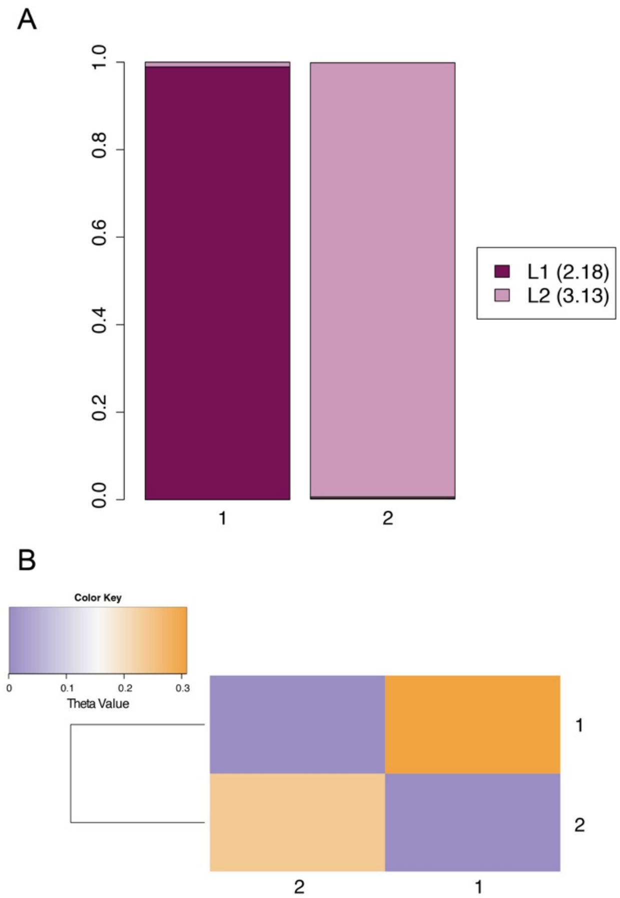

Figure A7. (A) In the Western Cluster the AFM identified 2 lineages (L1-L2) from the reputed ancestral population contributing to the 2 sites in this cluster, and kappa estimates indicate a high degree differentiation between sites (bar plot). Alpha parameter estimates are relatively low in this cluster (2.18-3.13). (B) Theta estimates show a high degree of differentiation among sites, while individuals within sites are highly similar.

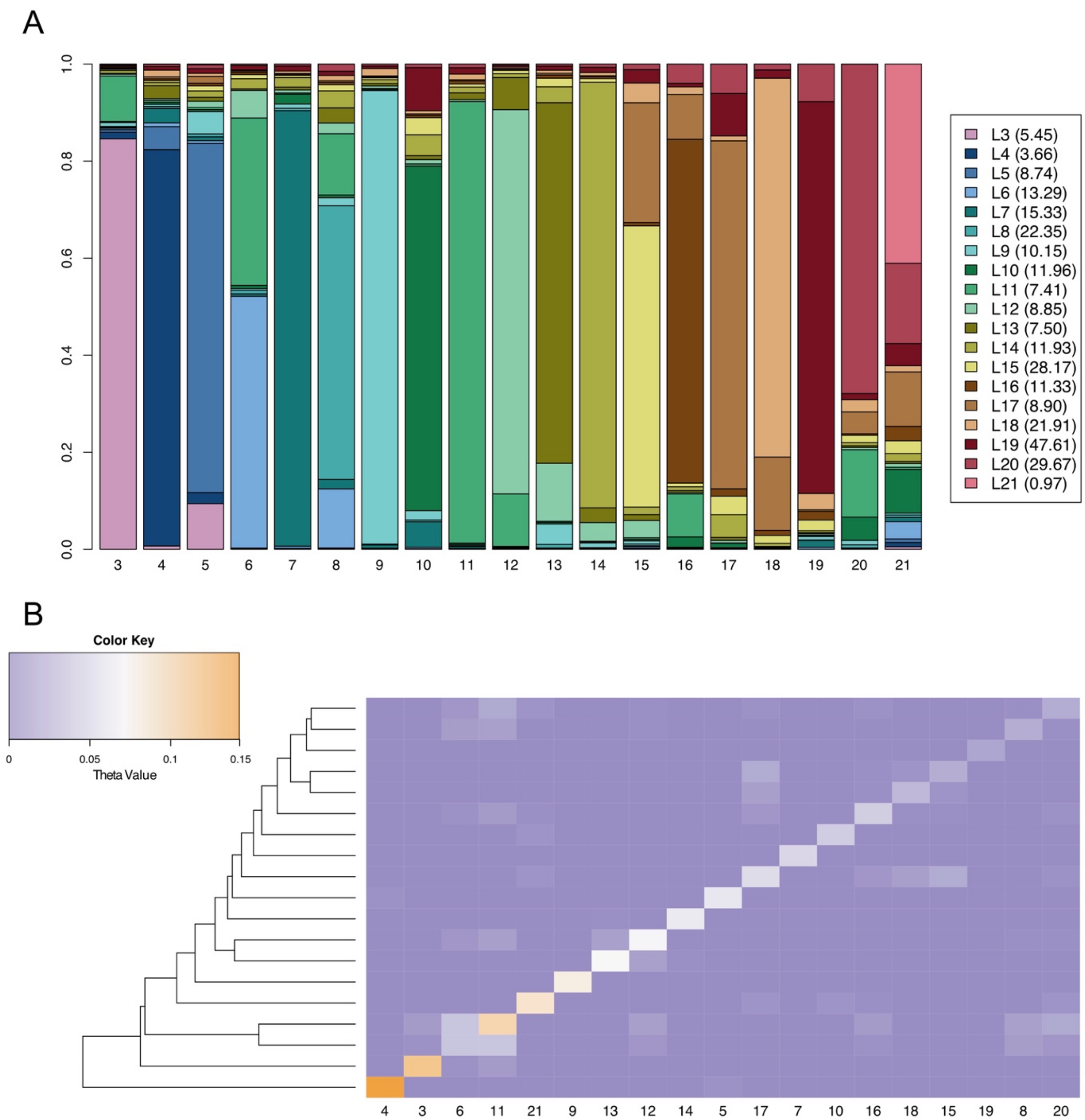

Figure A8. (A) In the Central Cluster the AFM identified 19 lineages (L3-L21) from the hypothetical ancestral population contributing to the 19 sites in this cluster, and the kappa estimates are relatively homogenous (bar plot). Alpha estimates are variable, but relatively high within lineages (3.66-47.61); however, population 21 has a low alpha estimate (0.97), suggesting that this population is highly admixed between the Central and Eastern Clusters (also see Fig. 1, A6). (B) Theta parameter estimates indicate coancestry coefficients across sites are homogenous.

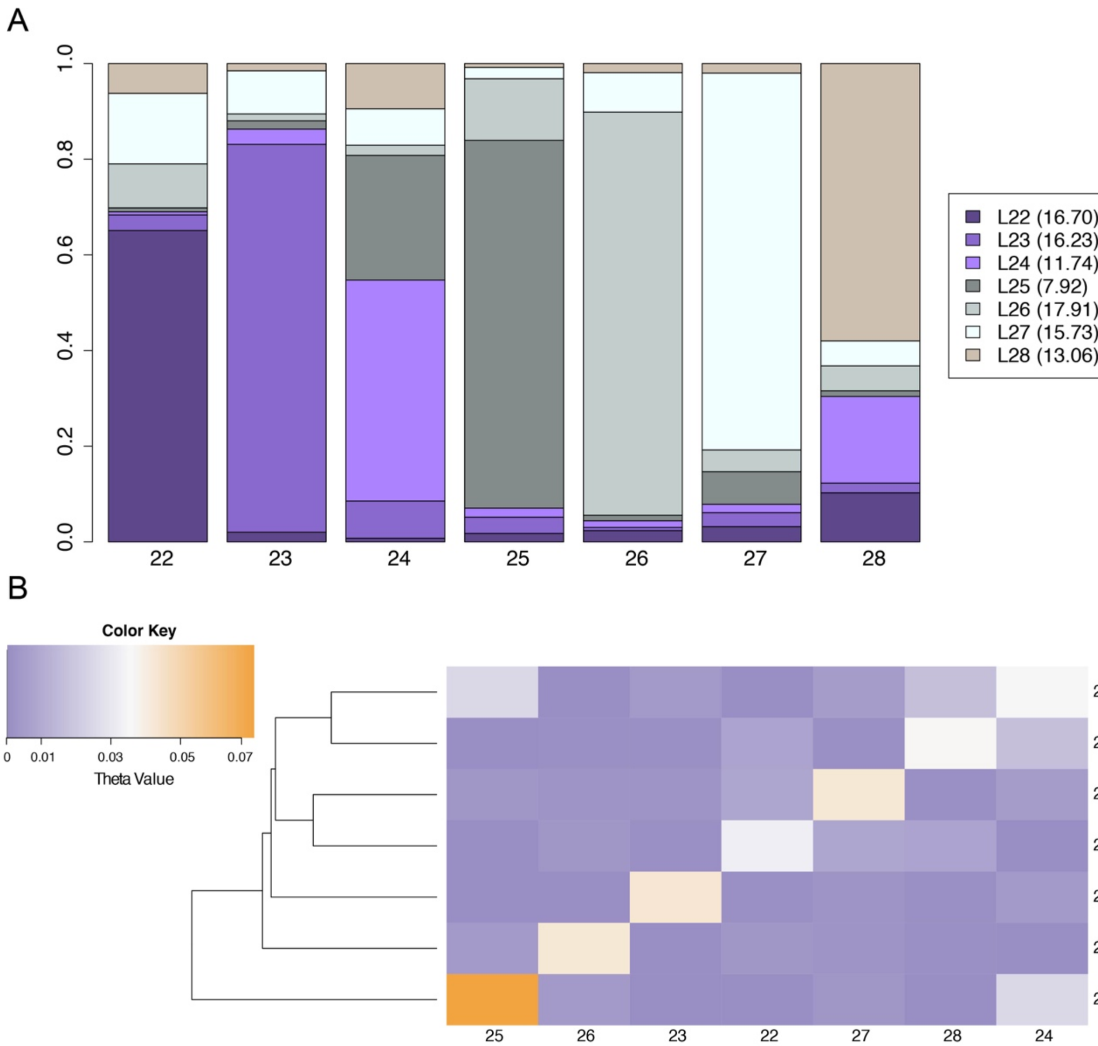

Figure A9. (A) AFM results from the Eastern Cluster identified 7 lineages (L22-L28) from the putative ancestral population contributing to the 7 sites in this cluster, and kappa values indicate a high degree of admixture (bar plot). Alpha parameter estimates are all relatively high within this cluster (7.92-17.91). (B) Theta estimates are not indicative of high variation among sites.