

SUPPLEMENTARY ONLINE MATERIAL FOR

Dietary ecology of the extinct cave bear: Evidence of omnivory as inferred from dental microwear textures

D. Brent Jones and Larisa R.G. DeSantis

Published in *Acta Palaeontologica Polonica* 2016 61 (4): 735-741.

<http://dx.doi.org/10.4202/app.00253.2016>

Supplementary Online Material

Table 1. Individual dental microwear texture analysis values for all specimens analyzed. All teeth analyzed are lower second molars. Asfc, Area-scale fractal complexity; DMTA, dental microwear texture analysis; epLsar, exact-proportion length-scale anisotropy of relief; HASfc_{3x3}, HASfc_{9x9}, heterogeneity of area-scale fractal complexity as inferred by comparing 9 (3 x 3) and 81 (9 x 9) subsampled surfaces; M, data from Donohue et al. (2013) with corrected locality data due to a typographic error; N, new data here reported; P, data previously published by Donohue et al. (2013); SSFA, scale sensitive fractal-analysis; Tfv, textural fill volume; * Specimens from Moravia, a historical country, which is now part of the Czech Republic.

Taxon	Specimen number	Location	Asfc	epLsar	Smc	Tfv	Hasfc (3x3)	Hasfc (9x9)	Status
<i>Ailuropoda melanoleuca</i>	NMNH258423	China	1.915	0.0050	0.267	14591.46	0.564	1.074	P
<i>Ailuropoda melanoleuca</i>	NMNH258425	China	1.047	0.0033	0.151	1782.86	0.530	0.933	P
<i>Ailuropoda melanoleuca</i>	NMNH258834	China	3.895	0.0004	0.208	12469.63	0.309	0.723	P
<i>Ailuropoda melanoleuca</i>	NMNH258836	China	1.920	0.0037	0.152	12141.64	0.434	0.715	P
<i>Ailuropoda melanoleuca</i>	NMNH259027	China	2.530	0.0029	0.155	4435.78	0.447	1.099	P
<i>Ailuropoda melanoleuca</i>	NMNH259028	China	1.680	0.0083	0.209	210.98	0.426	0.647	P

<i>Ailuropoda melanoleuca</i>	NMNH259074	China	1.849	0.0043	0.153	11433.07	0.579	1.158	P
<i>Ailuropoda melanoleuca</i>	NMNH259076	China	2.794	0.0030	0.151	11592.63	0.378	0.555	P
<i>Ailuropoda melanoleuca</i>	NMNH259401	China	3.015	0.0022	0.152	1790.61	0.327	0.639	P
<i>Ailuropoda melanoleuca</i>	NMNH259402	China	0.693	0.0065	0.417	14492.22	0.608	0.810	P
<i>Ailuropoda melanoleuca</i>	NMNH399447	China	0.618	0.0035	0.270	5585.80	0.385	0.573	P
<i>Arctodus simus</i>	LACMHC1292	La Brea (Pit 17)	3.902	0.0010	0.208	12310.81	0.618	0.988	P
<i>Arctodus simus</i>	LACMHC401	La Brea (Pit 77)	6.117	0.0012	0.268	17473.04	0.619	0.984	P
<i>Arctodus simus</i>	LACMHC57514	La Brea (Pit unknown)	2.799	0.0041	0.150	14683.15	0.365	0.698	P
<i>Arctodus simus</i>	LACMHC57520	La Brea (Pit unknown)	8.292	0.0019	0.151	14846.95	0.568	1.087	P
<i>Arctodus simus</i>	LACMHC57521	La Brea (Pit 9)	2.073	0.0010	0.152	16432.20	0.671	1.413	P
<i>Arctodus simus</i>	LACMHC618	La Brea (Pit 9)	2.364	0.0022	0.209	14032.90	0.807	1.507	P
<i>Arctodus simus</i>	LACMHC619	La Brea (Pit 9)	2.960	0.0028	0.151	15756.25	0.696	1.030	P
<i>Arctodus simus</i>	LACMHC626	La Brea (Pit 9)	5.151	0.0023	0.151	15409.44	0.478	1.263	P
<i>Arctodus simus</i>	LACMHC86	La Brea (Pit 9)	4.327	0.0016	49.532	15379.71	0.456	0.827	P
<i>Arctodus simus</i>	LACMHC88	La Brea (Pit 9)	7.483	0.0029	0.151	16416.19	0.464	1.064	P
<i>Arctodus simus</i>	LACMHC89	La Brea (Pit 9)	3.532	0.0020	0.150	12418.75	0.564	0.938	P
<i>Arctodus simus</i>	LACMHC90	La Brea (Pit 91)	1.160	0.0036	28.761	11985.39	0.769	0.991	P
<i>Arctodus simus</i>	LACMHCR52234	La Brea (Pit unknown)	2.153	0.0020	0.508	15867.95	0.380	0.637	P
<i>Arctodus simus</i>	LACMHCZ19	La Brea (Pit unknown)	7.093	0.0038	0.153	16155.99	0.593	0.901	P
<i>Arctodus simus</i>	LACMHCZ7	La Brea (Pit unknown)	6.952	0.0014	0.151	17652.23	0.771	0.950	P
<i>Arctodus simus</i>	LACMHCZ9	La Brea (Pit unknown)	7.026	0.0009	0.152	13622.03	0.566	1.185	P
<i>Tremarctos ornatus</i>	AMNH149302	Columbia	1.256	0.0026	0.269	19630.22	0.497	0.585	M
<i>Tremarctos ornatus</i>	AMNH67732	Ecuador	4.478	0.0024	0.150	9841.18	0.579	0.943	M
<i>Tremarctos ornatus</i>	AMNH99308	Peru	7.596	0.0043	0.151	16786.50	0.862	1.135	M
<i>Tremarctos ornatus</i>	NMNH155575	Venezuela	2.549	0.0040	0.416	15199.35	0.440	0.477	M
<i>Tremarctos ornatus</i>	NMNH170656	Venezuela	3.016	0.0034	0.150	11924.65	0.492	0.857	M
<i>Tremarctos ornatus</i>	NMNH171011	Venezuela	3.538	0.0023	0.151	4029.08	0.366	0.586	M
<i>Tremarctos ornatus</i>	NMNH210321	Ecuador	3.190	0.0031	0.418	15474.51	0.379	0.595	M
<i>Tremarctos ornatus</i>	NMNH210323	Ecuador	2.068	0.0014	0.267	9451.12	0.481	0.707	M
<i>Tremarctos ornatus</i>	NMNH210324	Ecuador	3.683	0.0032	0.155	16906.53	0.577	0.702	M
<i>Tremarctos ornatus</i>	NMNH271418	Bolivia	6.037	0.0019	0.209	10601.02	0.383	0.730	M
<i>Tremarctos ornatus</i>	NMNH582002	Unknown	8.478	0.0018	0.150	13012.03	0.335	0.979	M
<i>Ursus americanus</i>	NMNH177657	Alaska (USA)	13.13	0.0042	0.150	16868.50	0.462	0.910	P
<i>Ursus americanus</i>	NMNH177659	Alaska (USA)	10.62 1	0.0025	0.150	15787.35	0.436	0.601	P

<i>Ursus americanus</i>	NMNH180277	Alaska (USA)	7.140	0.0008	0.151	3140.26	0.290	0.348	P
<i>Ursus americanus</i>	NMNH231506	Alaska (USA)	10.71 7	0.0021	0.151	16432.32	0.383	0.582	P
<i>Ursus americanus</i>	NMNH231507	Alaska (USA)	6.659	0.0025	0.151	13262.26	0.481	0.915	P
<i>Ursus americanus</i>	NMNH231509	Alaska (USA)	3.788	0.0045	0.210	4561.03	0.470	0.578	P
<i>Ursus americanus</i>	NMNH231510	Alaska (USA)	16.55	0.0014	0.151	16630.29	0.449	0.617	M
<i>Ursus americanus</i>	UF13875	Florida (USA)	6.792	0.0019	0.150	16981.36	0.713	1.409	P
<i>Ursus americanus</i>	UF13876	Florida (USA)	6.357	0.0033	0.151	14230.14	0.566	0.902	P
<i>Ursus americanus</i>	UF28416	Florida (USA)	1.874	0.0008	0.345	6910.06	0.521	0.652	P
<i>Ursus americanus</i>	UF28423	Florida (USA)	14.57 2	0.0021	0.151	14416.00	0.628	0.776	P
<i>Ursus americanus</i>	UF28436	Florida (USA)	9.712	0.0013	0.155	12894.47	0.403	0.832	P
<i>Ursus americanus</i>	UF28445	Florida (USA)	4.189	0.0010	0.152	9240.17	0.829	1.048	P
<i>Ursus americanus</i>	UF28449	Florida (USA)	4.084	0.0019	0.153	10772.57	0.684	1.090	P
<i>Ursus americanus</i>	UF6496	Florida (USA)	1.530	0.0027	0.208	10748.10	0.731	1.781	M
<i>Ursus americanus</i>	NMNH209893	Alaska (USA)	1.901	0.0039	0.220	11914.53	0.553	0.783	N
<i>Ursus americanus</i>	NMNH210710	Alaska (USA)	1.445	0.0069	0.344	12119.60	0.293	0.475	N
<i>Ursus americanus</i>	NMNH228381	Alaska (USA)	1.817	0.0043	0.172	12438.95	0.982	1.060	N
<i>Ursus americanus</i>	SBMNH1218	California (USA)	1.854	0.0010	0.344	10359.14	0.189	0.489	N
<i>Ursus americanus</i>	SBMNH1381	California (USA)	3.560	0.0035	0.344	13613.47	0.293	0.526	N
<i>Ursus americanus</i>	SBMNH2037	California (USA)	3.468	0.0033	0.124	9424.87	1.113	2.288	N
<i>Ursus americanus</i>	SBMNH2049	California (USA)	3.224	0.0015	0.220	15677.66	0.452	0.906	N
<i>Ursus americanus</i>	SBMNH2050	California (USA)	1.401	0.0020	0.220	13499.28	0.238	0.519	N
<i>Ursus americanus</i>	SBMNH26	California (USA)	2.277	0.0018	0.344	12265.77	0.319	0.740	N
<i>Ursus americanus</i>	SBMNH27	California (USA)	1.989	0.0024	0.344	5189.19	0.245	0.497	N
<i>Ursus americanus</i>	SBMNH29	California (USA)	1.756	0.0093	0.420	15959.05	0.327	0.649	N
<i>Ursus americanus</i>	SBMNH937	California (USA)	3.233	0.0022	0.344	14209.54	0.359	0.748	N
<i>Ursus arctos</i>	LACM31256	Alaska	1.792	0.0023	0.282	10498.96	0.282	0.517	N
<i>Ursus arctos</i>	LACM31266	Alaska	3.854	0.0035	0.220	12744.00	0.502	1.031	N
<i>Ursus arctos</i>	LACM51344	Alaska	1.674	0.0019	0.220	9389.27	0.359	0.847	N
<i>Ursus arctos</i>	LACM88913	Alaska	9.830	0.0011	0.124	12090.75	0.694	1.126	N
<i>Ursus arctos</i>	LACM88914	Alaska	2.742	0.0028	0.124	5372.74	0.402	0.753	N
<i>Ursus arctos</i>	LACM92310	Alaska	3.464	0.0021	0.220	8702.39	0.438	0.980	N
<i>Ursus arctos</i>	LACM92311	Alaska	13.15 2	0.0008	0.124	15724.16	0.525	1.084	N
<i>Ursus arctos</i>	LACM92312	Alaska	10.98 1	0.0020	0.124	12513.67	1.015	2.847	N
<i>Ursus arctos</i>	NMNH223949	British Columbia	1.408	0.0040	0.172	8544.24	1.129	1.184	N

<i>Ursus arctos</i>	NMNH223950	British Columbia	2.755	0.0023	0.344	11964.21	0.558	1.055	N
<i>Ursus arctos</i>	NMNH223951	British Columbia	1.879	0.0017	0.344	13364.62	0.240	0.467	N
<i>Ursus arctos</i>	NMNH223956	British Columbia	1.288	0.0094	0.220	17014.34	0.422	0.605	N
<i>Ursus arctos</i>	NMNH223960	British Columbia	2.040	0.0050	0.282	14490.82	0.289	0.636	N
<i>Ursus arctos</i>	NMNH223961	British Columbia	3.288	0.0015	0.344	10268.95	0.469	0.991	N
<i>Ursus arctos</i>	NMNH227072	British Columbia	1.382	0.0041	0.344	12478.37	0.197	0.444	N
<i>Ursus arctos</i>	NMNH227073	British Columbia	4.250	0.0016	0.220	11436.46	0.351	0.633	N
<i>Ursus arctos</i>	NMNH235451	British Columbia	4.699	0.0020	0.282	14301.37	1.067	1.789	N
<i>Ursus arctos</i>	NMNH235452	British Columbia	2.338	0.0016	0.220	15509.28	0.282	0.469	N
<i>Ursus malayanus</i>	NMNH123138	Indonesia	1.052	0.0020	0.267	4242.61	0.285	0.474	M
<i>Ursus malayanus</i>	NMNH151866	Indonesia	3.280	0.0012	0.150	13214.45	0.616	0.978	P
<i>Ursus malayanus</i>	NMNH197254	Indonesia	1.325	0.0038	0.343	8850.77	0.378	0.676	P
<i>Ursus malayanus</i>	NMNH198713	Indonesia	6.703	0.0027	0.150	10240.48	0.285	0.679	P
<i>Ursus malayanus</i>	NMNH198715	Indonesia	6.762	0.0021	0.150	13791.05	0.289	0.802	P
<i>Ursus malayanus</i>	NMNH358645	Taiwan	4.664	0.0019	0.152	13493.89	0.633	1.158	M
<i>Ursus maritimus</i>	NMNH212589	Alaska (USA)	8.971	0.0012	0.151	11305.63	0.836	1.015	P
<i>Ursus maritimus</i>	NMNH212590	Alaska (USA)	4.802	0.0010	0.150	11527.68	0.388	0.572	P
<i>Ursus maritimus</i>	NMNH215714	Alaska (USA)	5.645	0.0012	0.150	13843.72	0.481	0.655	P
<i>Ursus maritimus</i>	NMNH227099	Alaska (USA)	9.140	0.0037	0.210	13518.11	0.735	1.636	P
<i>Ursus maritimus</i>	NMNH227105	Alaska (USA)	11.31 4	0.0013	0.150	10574.16	0.667	1.576	P
<i>Ursus maritimus</i>	NMNH265099	Alaska (USA)	12.42 2	0.0007	0.154	15122.78	0.508	0.709	P
<i>Ursus maritimus</i>	NMNH336269	Alaska (USA)	6.474	0.0015	0.152	10849.77	0.378	0.814	M
<i>Ursus maritimus</i>	NMNH512111	N. Hudson Bay (Canada)	2.381	0.0058	0.270	10662.71	0.504	0.562	P
<i>Ursus maritimus</i>	NMNH512113	N. Hudson Bay (Canada)	9.243	0.0023	0.151	11064.75	0.453	1.037	P
<i>Ursus maritimus</i>	NMNH512117	N. Hudson Bay (Canada)	1.74	0.0034	0.435	13472.12	0.483	0.918	P
<i>Ursus maritimus</i>	NMNH512121	N. Hudson Bay (Canada)	11.21	0.0025	0.163	12454.02	0.784	1.985	P
<i>Ursus maritimus</i>	NMNH512130	N. Hudson Bay (Canada)	6.813	0.0014	0.150	13830.8	0.373	0.895	P
<i>Ursus maritimus</i>	NMNH512133	N. Hudson Bay (Canada)	14.69	0.0030	0.159	14707.00	0.335	0.886	P
<i>Ursus maritimus</i>	NMNH512136	N. Hudson Bay (Canada)	12.41 8	0.0024	0.150	18800.07	0.335	0.575	P
<i>Ursus maritimus</i>	NMNH512151	N. Hudson Bay (Canada)	8.96	0.0012	0.156	13244.17	0.751	1.713	P
<i>Ursus maritimus</i>	NMNH512163	N. Hudson Bay (Canada)	9.564	0.0028	0.272	13599.32	0.353	0.755	P
<i>Ursus spelaeus</i>	AMNH11100	Germany	1.437	0.0054	0.22	13711.85	0.442	0.671	N
<i>Ursus spelaeus</i>	AMNH32756a	France	3.537	0.0031	0.282	16066.81	0.470	0.865	N
<i>Ursus spelaeus</i>	AMNH32756c	France	2.968	0.0029	0.344	16379.76	1.020	1.403	N
<i>Ursus spelaeus</i>	AMNH32756d	France	2.759	0.0029	0.22	1450.15	0.466	0.968	N

<i>Ursus spelaeus</i>	AMNH32756f	France	1.161	0.0069	0.344	12134.18	0.218	0.482	N
<i>Ursus spelaeus</i>	FMNH P 15412	Czech Republic*	4.646	0.0019	0.22	13064.68	0.166	0.265	N
<i>Ursus spelaeus</i>	FMNH P 15413	Czech Republic*	5.581	0.0015	0.344	12357.31	0.259	0.541	N
<i>Ursus spelaeus</i>	FMNH P M25408	Germany	0.815	0.0042	0.42	10013.23	0.460	1.042	N
<i>Ursus spelaeus</i>	FMNH P M24541	Germany	2.543	0.0013	0.358	2677.15	0.519	1.077	N
<i>Ursus spelaeus</i>	FMNH P M24554	Germany	1.543	0.0060	0.344	12396.1	0.548	0.776	N
<i>Ursus spelaeus</i>	FMNH P M8069	Northern Italy	6.352	0.0052	0.22	13254.21	0.423	0.647	N
<i>Ursus spelaeus</i>	FMNH P M8071	Northern Italy	2.073	0.0028	0.344	10616.77	0.292	0.563	N