

**Appendix 4.** Example of a randomized dataset simulating a fossil sample for which all molar positions are considered. Complexity (Asfc) and anisotropy (epLsar) are measured on disto-labial protoconid facets on lower molars and mesio-lingual paracone facets on upper molars.

Specimen	Sample	Tooth	Asfc	epLsar
20-939	Clover-fed	UM3	-	-
70-519	Clover-fed	lm2	10.211	0.00079
80-729	Clover-fed	UM1	3.181	0.00433
70-519	Clover-fed	UM3	4.556	0.00128
10-098	Clover-fed	UM1	7.091	0.00308
80-729	Clover-fed	UM3	-	-
80-140	Clover-fed	lm1	2.594	0.00573
08-045	Clover-fed	UM1	2.234	0.00109
11-723	Clover-fed	UM2	1.221	0.00155
31-042	Clover-fed	lm2	2.869	0.00019
11-739	Grass-fed	UM2	1.285	0.00314
80-718	Grass-fed	lm3	2.666	0.01029
31-028	Grass-fed	UM2	1.597	0.00177
70-520	Grass-fed	UM3	2.227	0.00214
80-718	Grass-fed	lm2	1.233	0.00605
07-898	Grass-fed	UM3	5.794	0.00188
70-520	Grass-fed	lm1	1.533	0.00303
80-133	Grass-fed	UM2	2.172	0.00157
07-898	Grass-fed	lm3	4.89	0.00191
20-965	Grass-fed	UM2	1.664	0.004
31-078	Barley + Clover fed	UM1	3.701	0.00283
31-078	Barley + Clover fed	lm2	1.342	0.00064
30-068	Barley + Clover fed	lm1	3.542	0.00173
21-253	Barley + Clover fed	lm3	8.951	0.00283
31-045	Barley + Clover fed	UM3	-	-
07-347	Barley + Clover fed	UM2	1.367	0.00737
90-237	Barley + Clover fed	lm3	1.791	0.00458
90-237	Barley + Clover fed	UM1	2.521	0.00079
31-045	Barley + Clover fed	UM1	5.573	0.01003
31-045	Barley + Clover fed	UM2	1.469	0.00067