Appendix 1 Measurements of the lower dentition of type and referred material of *Ganguroo bilamina* in mms. L – anteroposterior length, AW = anterior width, PW = posterior width, dp = deciduous premolar, p = premolar, m = molar.

		dp2		dp3		p3		m1			m2			m3			m4		
Specimen	Locality	L	W	L	W	L	W	L	AW	PW	L	AW	PW	L	AW	PW	L	AW	PW
QM F19870	Camel Sputum Site							3.67	2.56	2.86	3.67	2.76	2.88	3.98	2.88	3.06	3.9	2.82	2.67
QM F19868	Camel Sputum Site					6.05	3.05				3.92	2.85	2.73	4.04	2.71	2.72			
QM F19966	Camel Sputum Site					5.76	3.13	3.3	2.59	2.66	3.75	2.54	2.83	3.88	2.73	2.78	3.84	2.72	2.51
QM F30400	Camel Sputum Site										3.73	2.49	2.76	3.9	2.81	2.83	3.73	2.79	2.59
QM F56996	Camel Sputum Site			3.45	2.31	6.19	2.64	3.51		2.54	3.87	2.73	2.8	4.09	2.91	3.02			
QM F19607	Camel Sputum Site					5.7	3.05	3.59	2.49	2.56	3.93	2.74	2.7	3.78	2.97	2.9			
QM F20248	Camel Sputum Site	3.6	3	3.21	2.4			3.46	2.47	2.84									
QM F20254	Camel Sputum Site																3.83	2.63	2.39
QM F23486	Camel Sputum Site										3.99	3.01	3.05	4.05	3.17	2.99	4.04	2.86	2.78
QM F20246	Camel Sputum Site					5.65	3.36												
QM F20019	Camel Sputum Site	3.43	2.36					3.45	2.43	2.6									
QM F56994	Camel Sputum Site					5.65													
QM F19903	Camel Sputum Site	2.97	2.73	3.35	2.33	5.76	2.85	3.27	2.57	2.83	3.69	2.92	2.87	3.89	2.93	2.92			
QM F56254	Camel Sputum Site	3.2	2.72	3.07	2.47	6.03		3.51	2.44	2.57	3.65	2.79	2.72	3.9	2.85	2.78			
QM F56259	Camel Sputum Site					6.44	3.17	3.62	2.82	2.83	3.98	3.11	3.04	4.18	3.34	3.12	3.93	3.34	2.73
QM F24744	Camel Sputum Site	3.45	2.97	3.34	2.61			3.5	2.6	3.01	3.75	2.96	2.98	3.91	2.94	2.95			
QM F20006	Inabeyance Site	3.6	2.88			5.82	2.99	3.54	2.5	2.62	3.59	2.79	2.71	4.09	2.71	2.86			
QM F36351	Judith's Horizontalis Site					5.34	3.18	3.5	2.37	2.58	3.77	2.69	2.65	3.67	2.7	2.71	3.97	2.79	2.4
UCMP 88221	Leaf Locality					5.88	3.16	3.28	2.8	2.97	3.84	3.14	3.18	4.1	3.34	3.05	3.86	2.99	2.64
QM F19988	Mike's Menagerie Site													3.86	2.83	2.78	3.87	2.78	2.52
QM F19844	Mike's Menagerie Site							3.45	2.56	2.8	3.76	2.98	2.96						
QM F24190	Neville's Garden Site												2.72	3.87	2.95	2.91			
QM F20039	RSO Site										3.74	2.74	2.83	4.09	2.9	2.88			
QM F30396	Upper Site					5.41	2.67	3.66	2.18	2.42	3.76	2.61	2.66	4.08	2.81	2.78			
QM F19642	Upper Site					5.77	2.59	3.75	2.35	2.59									
QM F30397	Upper Site							3.36	2.54	2.43	3.66	2.83	2.78	3.93	3.01	2.8	3.96	2.86	2.51
QM F20293	Upper Site										3.98	2.61	2.78	3.91	2.73	2.86	3.76	2.77	2.43
QM F56999	Upper Site	2.72	2.69	2.89	2.26	5.58		3.03	2.42	2.7	3.81	2.73	2.67						

QM F20271	Upper Site															4.01	2.85	2.6
QM F19643	Upper Site							3.7	2.69	2.99	3.92	3.22		3.85	2.96	2.9	3.73	2.95	
QM F20295	Upper Site									2.75	3.89	2.88	2.9	4.1	2.85	2.76			
QM F19947	Upper Site	3.11	2.59	3.22	1.88	5.56		3.43	2.17	2.39									
QM F56991	Upper Site	3.03	2.48	2.78	1.82	5.56		3.37	2.13	2.29	3.9	2.57	2.61						
QM F20272	Upper Site													3.89	2.71	2.92			
QM F19640	Upper Site	3.47	2.8	3.14	2.16	6.33	2.8	3.62	2.43	2.56									
QM F19646	Upper Site													4.02	3.17	2.91			
QM F19688	Upper Site	3.43	2.74	3.45				3.58	2.48	2.68	3.93	2.81	2.81	4.01	2.87	2.84			
QM F19814	Wayne's Wok Site					5.99	3.3	3.4	2.56	2.89	3.89	2.89	2.87						
QM F30399	Wayne's Wok Site					6.15	2.88	3.49	2.3	2.69	3.86	2.48	2.75	4.05	2.59	2.75	3.76	2.69	2.55
QM F19591	Wayne's Wok Site													3.93	2.72	2.72			
QM F19810	Wayne's Wok Site							3.66	2.4	2.56	3.68	2.84	2.6	3.8	2.75	2.76	3.79	2.63	2.38
QM F19835	Wayne's Wok Site	3	2.77	2.92	2.27	5.52	2.72	3.71	2.61	2.65									
QM F57022	Wayne's Wok Site	3.59	2.83	3.38	2.47	5.85	2.89	3.58	2.44	2.77	3.69	2.79	2.74	3.98	2.84	2.74			
QM F19836	Wayne's Wok Site																		
QM F57021	Wayne's Wok Site					6.22	2.98	3.63	2.63	3.08	4.13	2.82	3.06	4.01	3.03	2.98	3.96	2.95	2.53
QM F56998	Wayne's Wok Site							3.52	2.5	2.69	4.08	2.69	2.82	4.04	3.1	2.97	3.97	2.92	2.67
QM F19834	Wayne's Wok Site					6.11	2.88	3.19	2.61	2.63	3.78	2.94	2.8						
QM F19827	Wayne's Wok Site										3.87	3	2.79	3.93			4.04	2.9	2.57
QM F20082	Wayne's Wok Site																3.97	2.85	2.69
QM F19597	Wayne's Wok Site					5.83	3.67	3.51	2.63	2.76	3.75	3.14	2.86	4.01	3.08	2.59	3.71	2.84	2.55
QM F24480	Wayne's Wok Site							3.33	2.61	2.54	3.76	2.71	2.59						
QM F56997	Wayne's Wok Site					5.67	2.93	3.44	2.57	2.65	3.86	2.83	2.73						
QM F20108	Wayne's Wok Site			3.36	2.53	5.23		3.69	2.42	2.63									
QM F20109	Wayne's Wok Site					6.29	3.38												
QM F19915	Wayne's Wok Site					5.81	3.34	3.67	2.5	2.76	3.89	2.87	2.92	3.95	2.87	2.78	3.87		2.68
QM F19602	Wayne's Wok Site							3.77	2.78	2.75	3.77	2.86	2.93	3.92	3.07	2.95			
QM F50519	Wayne's Wok Site					6.37	3.22	3.3	2.88	3.02	3.84	3.16	3.13	3.65	3.17	3.06	3.69	2.93	
QM F50519	Wayne's Wok Site					5.9	3.24	3.32	2.66	2.79	3.47	2.93	2.92	3.79	3.05	2.86	3.43	2.72	2.39
QM F24050	Wayne's Wok Site					5.9	2.78	3.78	2.66	2.75	3.62	2.93	2.88	3.77	2.89	2.81			
QM F30721	Wayne's Wok Site					5.7	3.06	3.56	2.57	2.85	4.08	3.04	3.03		3.2				
QM F20081	Wayne's Wok Site					6	3.16	3.59	2.5	2.75	3.98	2.87	2.87	3.77	3.02	2.84	3.95	2.85	2.56

QM F36364	Wayne's Wok Site	3.31	3.23	3.07	2.51			3.37	2.73	2.74	3.96	2.79	2.88						
QM F24477	Wayne's Wok Site																4.01	2.94	2.8
QM F30398	Wayne's Wok Site					5.91	3.16	3.65	2.67	2.72	3.71	3	2.9	3.84	3.04	2.78	3.54	2.74	2.36
QM F56257	Wayne's Wok Site					5.85	3.11	3.64	2.66	2.75	3.89	3.05	2.92	3.86	3.04	2.86	3.97	2.86	2.23
QM F24482	Wayne's Wok Site										4.09	3.07	3.01	4.13	3.15	3.03			
QM F31405	Wayne's Wok Site					6.24	3.27	3.54	2.64	2.65	3.56	2.92	2.71	3.81	2.95	2.81	4.01	2.94	2.43
QM F56260	Wayne's Wok Site							3.72	2.72	3.08	3.78	3.23	3.36	3.74	3.27	3.33	4.02	2.96	2.79
QM F36363	Wayne's Wok Site													4.34	3.02	2.82	4.27	3	2.45
QM F36470	Wayne's Wok Site						3	3.35	2.36	2.69	3.45	2.82	2.96	3.78	2.99	2.75	4.04	2.82	2.52
QM F56264	Wayne's Wok Site					5.7	2.98	3.34	2.42	2.51	3.44	2.65	2.69	3.65	2.92	2.68			

Appendix 2 Measurements of the upper dentition of type and referred material of *Ganguroo bilamina* in mms. L – anteroposterior length, AW = anterior width, PW = posterior width, dP = deciduous premolar, P = premolar, M = molar.

		dP2		dP3		P3		M1			M2			M3			M4		
Specimen	Riversleigh Locality	L	W	L	W	L	W	L	AW	PW	L	AW	PW	L	AW	PW	L	AW	PW
QM F56318	Cadbury's Kingdom Site					6.17	2.93												
QM F56995	Camel Sputum Site			3.54	2.77	6.37	3.03	3.8	3.39	3.21									
QM F19696	Camel Sputum Site					6.56	3.54	3.99	3.9	3.47	3.89	4.09	3.34	4.04	3.51	3.21			
QM F19696	Camel Sputum Site					6.4	3.71	3.84	3.75	3.43	3.99	3.77	3.68	4.23	3.96	3.45	3.75	3.55	2.7
QM F19958	Camel Sputum Site							3.88	3.73	3.27	4.03	3.86	3.57	3.92	3.67	3.38			
QM F20705	Camel Sputum Site					6.48	3.38	3.9	3.77	3.48	4.11	3.75	3.45		4.13				
QM F19900	Camel Sputum Site							3.79	3.56	3.42	3.98	3.79	3.35	3.97	3.7	3.31	3.97	3.4	2.75
QM F19695	Camel Sputum Site					6.01	3.05	4	3.81	3.35	4.17	3.92	3.19						
QM F20253	Camel Sputum Site					6.26	3.12	4.05	3.65	3.3	4.15								
QM F19861	Camel Sputum Site	3.98	2.92	3.48	2.99			3.94	3.64	3.45	4.19	3.85	3.38	3.98	3.73	3.08			
QM F19976	Camel Sputum Site	3.79	2.85	3.56	3.23			4.06	3.84	3.22									
QM F19957	Camel Sputum Site										4.18		3.35	4.07	3.68	3.39	3.61	3.3	2.36
QM F19857	Camel Sputum Site	3.95	3	3.66	2.9			3.87	3.87	3.54	4.48	3.97	3.5	4.13	3.85	3.21			
QM F19975	Camel Sputum Site							3.87	3.6	3.14	4	3.94	3.6	4	3.85	3.15			
QM F19959	Camel Sputum Site										4.06	3.73	3.7	3.89	3.96	3.15			
QM F20017	Camel Sputum Site					6.66	3.51	3.79	3.75	3.44	4.14	3.94	3.43	4.08	3.85	3.02	3.82	3.41	2.6
QM F56990	Camel Sputum Site																3.73	3.52	3.05
QM F30436	Camel Sputum Site							3.65	3.65	3.46	3.85	3.89	3.34	3.96	3.81	3.19			
QM F30343	Camel Sputum Site	3.91	3.1	3.74	3			4.01	3.74	3.26	4.2	3.77	3.34						
QM F36230	Camel Sputum Site							3.96	4.06	3.9	4.51	4.29	3.62	4.29	4.21	3.48			
QM F19668	Mike's Menagerie Site							3.73	3.98	3.27	4.16	3.6	3.39						
QM F19692	Mike's Menagerie Site							3.87	3.45	3.12	4.01	3.87	3.37	3.88	3.68	3.1	3.63	3.3	2.52
QM F234604	Mike's Potato Patch Site	3.97	2.89					3.9	3.75	3.39									
QM F19987	Neville's Garden Site							3.77	3.8	3.41	3.94	3.75	3.62	4.06	3.83	3.51			
QM F23202	Neville's Garden Site							3.93	3.56	3.31	4	3.79	3.42	3.99	3.71	3.12	3.95	3.47	2.92
QM F20269	RSO Site							3.8	3.84	3.58									
QM F56993	Upper Site					6.81	3.36	3.76	3.54	3.41	4.06	3.8	3.24	4.18	3.59	3.25	3.83	3.46	2.68
QM F19801	Upper Site																		

QM F19673	Upper Site			3.18	3.12			3.88	3.75	3.44	4.22	4	3.64	3.94	3.72	3.48			
QM F56992	Upper Site					6.03	3.37	3.72		3.37	4.06	3.84	3.51	3.84	3.79	3.31			
QM F19985	Upper Site							3.99	3.78	3.63									
QM F19885	Upper Site					5.96	3.28	3.78	3.38	3.31	3.96	3.69	3.45	3.87	3.56	3.25			
QM F19687	Upper Site	3.54	2.81					3.88	3.34	3.2	4.03	3.62	3.15	3.83	3.66	3.07	3.88	3.07	2.68
QM F19651	Upper Site					6.08	3.46	3.75	3.87	3.2									
QM F19689	Upper Site							3.94	3.76	3.48	4.34	3.93	3.35	4.06	3.74	3.05	3.84	3.49	2.91
QM F19629	Upper Site	3.98	2.9	3.2	2.89			3.9	3.48	3.4									
QM F19674	Upper Site					6.58	3.57	3.28	3.58	3.32	3.65	3.87	3.39	3.99	3.84	3.37	3.64	3.46	2.73
QM F52814	Wayne's Wok Site													4.09	3.81	3.22	3.81	3.52	2.48
QM F52814	Wayne's Wok Site					6.38	3.29	3.84	3.56	3.51	3.95	3.84	3.56	4.1	3.91	3.38	3.57	3.42	2.59
QM F57020	Wayne's Wok Site	3.55	2.92	3.55	2.88			3.94	3.52	3.29	3.92	3.85	3.5						
QM F57020	Wayne's Wok Site	4.09	2.89	3.61	2.84			3.72	3.5	3.31	3.99	3.76	3.35						
QM F20261	Wayne's Wok Site	4.03	2.91	3.69	3.01	6.2	3.49	3.8	3.81	3.26	4.07	3.91	3.34	3.96	3.79	3.17			
QM F19589	Wayne's Wok Site							3.83	3.56	3.25	4.05	3.68	3.26	3.95	3.6	3.3	3.68	3.41	2.72
QM F19617	Wayne's Wok Site					6.22	3.05	3.87	3.58	3.43	4.07	3.77	3.38						
QM F19590	Wayne's Wok Site					6.47	3.27	3.92	3.69	3.14	4.11	3.82	3.25	4.08	3.69	3.18	3.81	3.44	2.71
QM F24219	Wayne's Wok Site			3.29	3.13	6.66	3.43	3.86	3.96	3.58	4.18	4.05	3.21	4.1	4.14	3.37			
QM F20163	Wayne's Wok Site							3.81	3.52	3.43	3.95	3.63	3.21	4.07	3.6	3.36			
QM F56256	Wayne's Wok Site			3.79	3.4			3.79	3.85	3.47	3.96	3.85	3.48	3.69	3.86	3.28			
QM F56258	Wayne's Wok Site					6.53	3.69	3.7	3.82	3.29	3.89	4.05	3.26	3.78	3.88	3.12	3.52	3.24	2.52
QM F56265	Wayne's Wok Site					6.17	3.47	3.82	3.68	3.51	3.74	3.89	3.39	3.99	3.79	3.42	3.59	3.47	2.89
QM F56265	Wayne's Wok Site					6.38	3.33	3.76	3.7	3.68	4.16	3.82	3.8	3.79	3.83	3.37	3.49	3.52	2.88
QM F24475	Wayne's Wok Site							3.91	3.9	3.93	3.99	4.16	3.49						
QM F24476	Wayne's Wok Site			3.67	2.96			3.69	3.79	3.35	4	4.01	3.52						
QM F50518	Wayne's Wok Site													4.38	3.95	3.14	3.97	3.49	2.44
QM F56261	Wayne's Wok Site							3.45	3.44	3.1	3.69	3.68	3.16						
QM F56255	Wayne's Wok Site					6.92	3.88	4.12	3.32	3.36	4.09	3.69	3.52	3.92	3.75	3.08	3.64	3.44	2.57
QM F56255	Wayne's Wok Site					6.7	3.81	3.99	3.68	3.01	4.06	3.91	3.24	3.97	3.68	2.97	3.75	3.39	2.29
QM F24216	Wayne's Wok Site	3.45	3.02	3.45	3.12			3.68	3.76	3.6	4.08	4.07	3.38						
QM F56263	Wayne's Wok Site					6.64	3.34	3.62	3.72	3.57	4.09	3.96	3.46						

Appendix 3 Measurements of the lower dentition of type and referred material of *Ganguroo bites* in mms. L – anteroposterior length, AW = anterior width, PW = posterior width, dp = deciduous premolar, p = premolar, m = molar.

		dp2		dp3		p3		m1			m2			m3			m4		
Specimen	Riversleigh Locality	L	W	L	W	L	W	L	AW	PW	L	AW	PW	L	AW	PW	L	AW	PW
QM F23776	BitesAntennary Site					6.44	2.64	3.61	2.76	2.92	4.28	3.22	3.29	4.8	3.53				
QM F23775	BitesAntennary Site							3.92	2.88	2.87	4.01	3.12	3.23						
QM F23777	BitesAntennary Site	3.9	2.29	3.25	2.36	6.66	2.21	3.66	2.81	3.06									

Appendix 4 Measurements of the lower dentition of type and referred material of *Bulungamaya delicata/'Nowidgee matrix'* in mms. L – anteroposterior length, AW = anterior width, PW = posterior width, dp = deciduous premolar, p = premolar, m = molar.

		dp2		dp3		p3		m1			m2			m3			m4		
Specimen	Riversleigh Locality	L	W	L	W	L	W	L	AW	PW	L	AW	PW	L	AW	PW	L	AW	PW
QM F30390	Camel Sputum Site					6.24	3.16	3.61	2.25	2.86	4.06	3.16	3.06	4.26	3.06	3.06	4.19	3.18	2.87
QM F22761	Camel Sputum Site							3.8	2.56	3.08	4.41	3.16	3.26						
QM F19961	Camel Sputum Site							3.69	2.46	2.86	4.26	3.08	3.08	3.89	2.93	2.94	4.03	2.7	2.54
QM F20255	Camel Sputum Site													4.07	3.42	3.14	4.12	2.96	2.98
QM F30392	Camel Sputum Site			3.41	2.53	6.48	3.06	3.88	2.76	3.32	4.29	3.06	3.06						
QM F30394	Camel Sputum Site					6.94	3.17	3.78	2.73	2.84	4.2	3.06	2.92	4.27	3.12	2.96	3.94	2.76	2.66
QM F19962	Camel Sputum Site																3.75	2.88	2.48
QM F19984	Camel Sputum Site							3.69	2.46	2.86									
QM F19974	Camel Sputum Site							3.62	2.68	2.71	4.06	2.96	2.89						
QM F30723	Camel Sputum Site							3.71	2.9	2.85	4.16	3.1	2.93	3.88	2.95	2.59			
QM F24651	Dirk's Towers Site					6.58	3.49	4.02	2.94	3.14	4.26	3.34	3.15	3.84	3.48	3.42	4.02	3.32	2.9
QM F30718	Dirk's Towers Site					6.39	3.47	3.74	2.99	3.02	3.64	3.25	3.03	3.86	3.16	3.02	4.12	3.11	2.69
CPC 22187	G Site					6.67	3.48	4.05	2.64	2.89	4	3.08	2.89	3.93	3.16	2.87	3.95	2.84	2.3
QM F57012	Keith's Chocky Block Site							3.98	2.48	2.82									
QM F30393	Upper Site			3.25	2.32			4.08	2.62	2.88									
QM F20080	Wayne's Wok Site	4.33	3.39	3.33	2.68	6.36	3.24	3.59	2.82	2.96	3.74	3.03	2.97	4	3.02	2.81			
QM F20069	Wayne's Wok Site	4.16	2.78	2.87	2.15	6.36	3.08	3.69	2.67	2.74	3.92	3.08	2.75						
QM F19937	Wayne's Wok Site					6.3	3.87	3.58	2.71	2.75	3.79	3.08	2.84	4.02	3.12	2.76	3.98	2.95	2.56
QM F30391	Wayne's Wok Site							4	2.76	2.86	4.09	3.08	2.89						
QM F56988	Wayne's Wok Site					6.42	3.91	3.46	2.76	2.87	4.17	3.07	2.84	3.97	3.15	2.92	3.83	2.92	2.66
QM F19579	Wayne's Wok Site					6.66	3.33	4.02	2.82	2.84	4.03	3.15	3.03	4.31	3.26	3.11			
QM F24184	Wayne's Wok Site										3.96	3.13	3.06	4.04	3.12	2.93			
QM F19586	Wayne's Wok Site	3.86	2.86			6.46	3.03	3.91	2.51	2.83	4.1	3.06	2.93	4.37	3.12	2.94			
QM F24191	Wayne's Wok Site	3.51	2.76	3.55	2.16			3.83	2.32	2.68									
QM F20165	Wayne's Wok Site							3.51	2.66	2.73	4.07	2.96	2.86						
QM F56253	Wayne's Wok Site	3.47	3.2	3.38	2.51			3.8	2.84	2.84	3.99	3.15	2.99	4.24	3.05	2.89			
QM F19991	White Hunter Site													4.04	3.13	2.85	4.34	3.08	

Appendix 5 Measurements of the upper dentition of type and referred material of *Bulungamaya delicata/'Nowidgee matrix'* in mms. L – anteroposterior length, AW = anterior width, PW = posterior width, dP = deciduous premolar, P = premolar, M = molar.

		dP2		dP3		P3		M1			M2			M3			M4		
Specimen	Riversleigh Locality	L	W	L	W	L	W	L	AW	PW	L	AW	PW	L	AW	PW	L	AW	PW
QM F57023	Camel Sputum Site					7.26	3.59	4.14	3.55	3.34	4.13	3.7	3.47	3.76	3.88	3.23	3.56	3.34	2.76
QM F19965	Camel Sputum Site					6.83	3.5	3.78	3.66	3.57	4.04	3.75	3.83		3.96				
QM F19954	Camel Sputum Site										4.22	4.26	3.5	3.87	3.94	3.3	3.48	3.49	2.41
QM F19953	Camel Sputum Site			3.74	3.06			3.99	3.76	3.63	4.26	3.64	3.45						
QM F23491	Camel Sputum Site							3.98	3.96	3.67	3.91	4.03	3.36	4.07	3.72	3.26			
QM F20285	Camel Sputum Site			3.68	3.08			4.24	4.08	3.93	4.2	3.96	3.53						
QM F19675	Camel Sputum Site					7.52	3.51	3.89	4.02	3.55	4.26	4.07	3.67						
QM F20310	Camel Sputum Site										4.07	4.26	3.26	4.56	3.69	3.31	4.06	3.51	2.76
QM F29702	Dirk's Towers Site					6.46	3.56	3.8	3.81	3.47	4.04	4.08	3.4	3.78	3.73	3.15			
QM F57024	Judy's Jumping Joint Site	3.95	2.76	3.49	3.14			4.1	3.78	3.58	4.09	4.02	3.47						
QM F20011	Neville's Garden Site							4.36	4.17	3.99	4.13	4.19	3.51						
QM F19986	Upper Site							3.77	3.53	3.7	4.14	3.75	3.76						
QM F19619	Upper Site					7.56	3.46	3.81	3.93	3.63									
QM F19616	Wayne's Wok Site							3.78	3.9	3.64	3.95	3.88	3.38	3.91	3.81	3.16			
QM F19939	Wayne's Wok Site							3.86	3.68	3.53	3.92	3.93	3.52	3.7	3.72	3.36	3.43	3.35	2.46
QM F56989	Wayne's Wok Site					6.96	3.33	3.87	3.88	3.61	4.09	3.88	3.47						
QM F19918	Wayne's Wok Site					8.11	3.98	4.02	3.95	3.65	4.03	4.08	3.58	3.89	3.86	3.3	3.67	3.15	2.76
QM F30831	Wayne's Wok Site							3.9	3.85	3.33	4.07	3.76	2.87	4.19	3.74	3.29	3.56	3.33	
QM F24478	Wayne's Wok Site										4.05	4.03	3.43	3.96	3.82	3.3	4.13	3.51	2.59

Appendix 6 Measurements of the lower dentition of additional specimens used in analyses, in mms. L – anteroposterior length, AW = anterior width, PW = posterior width, p = premolar, m = molar.

			p3			m1			m2			m3			m4		
Species	Specimen	Sex	L	AW	PW	L	AW	PW	L	AW	PW	L	AW	PW	L	AW	PW
Thylogale stigmatica	QM J9423	Male	5.93	2.22	2.11	4.98	3.31	3.57	5.3	3.96	4.09	5.62	4.37	4.34	5.92	4.43	3.98
Thylogale stigmatica	QM J11302	Male	6.65	2.44	2.26	4.91	3.44	3.81	5.28	4.26	4.48	6.67	4.81	4.99	6.6	4.95	4.82
Thylogale stigmatica	QM JM13899	Male	5.82	2.45	2.32	5.29	3.46	3.56	5.48	4.04	4.01	6.12	4.74	4.59	6.46	4.71	4.25
Thylogale stigmatica	QM J21473	Male	6.49	2.77	2.83	4.57	3.31	3.39	5.13	3.91	3.91	5.75	4.52	4.4	5.7	4.67	3.99
Thylogale stigmatica	QM JM13862	Male	5.99	2.46	2.18	4.27	2.98	3.42	4.88	3.77	3.84	6.17	4.45	4.55	6.53	4.91	4.65
Thylogale stigmatica	QM JM8711	Male	5.76	2.4	2.28	4.23	2.78	3.42	5.7	3.86	4.07	5.67	4.59	4.45	6.26	4.9	4.26
Thylogale stigmatica	QM J14842	Male	6.38	2.47	2.51	4.54	3.09	3.6	5.66	3.88	4.16	5.85	4.68	4.73	6.18	4.77	4.18
Thylogale stigmatica	QM JM5705	Male	6.66	2.38	2.11	5.59	3.6	3.65	5.96	4.25	4.24	6.5	4.92	4.7	6.44	4.9	4.41
Thylogale stigmatica	QM J3616	Male	5.88	2.37	2.14	4.34	3.2	3.39	5.52	3.92	3.95	5.99	4.47	4.4	6.05	4.79	4.36
Thylogale stigmatica	QM JM17548	Male	6.35	2.48	2.13	4.55	3.3	3.58	5.36	3.91	4.12	5.86	4.58	4.36	5.87	4.91	4.52
Thylogale stigmatica	QM JM10562	Female	6.11	2.03	1.91	4.42	3.16	3.38	5.04	3.7	4.05	5.45	4.3	4.42	6.19	4.62	4.41
Thylogale stigmatica	QM J13229	Female	6.29	2.9	2.22	4.6	3.24	3.32	5.2	3.82	3.8	5.57	4.22	3.93	5.7	4.52	3.91
Thylogale stigmatica	QM JM5707	Female	7.12	2.69	2.7	4.65	3.24	3.53	5.38	3.99	4.06	5.68	4.51	4.38	5.74	4.61	3.82
Thylogale stigmatica	QM JM5709	Female	6.12	2.47	2.39	4.85	2.99	3.31	5.58	3.78	3.84	5.79	4.23	4.39	6.34	4.45	4
Thylogale stigmatica	QM JM5768	Female	6.88	2.74	3.05	4.85	3.25	3.48	5.72	3.94	3.97	5.98	4.48	4.58	6.36	4.72	4.43
Thylogale stigmatica	QM JM9412	Female	7.46	2.55	2.62	5.06	3.31	3.46	5.67	3.98	3.95	5.69	4.66	4.27	6	4.74	3.94
Thylogale stigmatica	QM J9955	Female	6.98	2.45	2.4	4.52	3.07	3.36	5.32	4.06	3.66	6.02	4.66	4.33	5.78	4.48	4.04
Thylogale stigmatica	QM JM10386	Female	7.13	2.78	2.78	4.65	3.11	3.33	5.18	3.9	3.76	5.96	4.41	4.31	6.49	4.58	4.01
Thylogale stigmatica	QM J3658	Female	6.19	2.41	2.07	4.65	3.34	3.58	5.38	3.92	4	5.82	4.54	4.32	5.89	4.38	3.95
Thylogale stigmatica	QM J4320	Female	6.69	2.59	2.44	5.1	3.29	3.45	5.48	3.91	3.94	5.88	4.25	4.3	6.03	4.51	3.87
Thylogale thetis	QM J21558	Female	4.64	1.65	1.85	4.28	2.77	3.26	5.04	3.64	3.67	6.07	4.33	4.3	6.15	4.65	4.35
Thylogale thetis	QM J4323	Female	5.73	1.92	2.28	4.67	2.9	3.86	5.71	3.96	4.27	6.71	4.88	5.01	6.18	4.99	4.58
Thylogale thetis	QM J2293	Female	5.64	1.84	2.14	4.71	3.21	3.3	5.65	3.94	4.07	6.53	4.98	4.85	6.24	5.39	4.67
Thylogale thetis	QM JM5715	Female	5.73	1.92	2.5	4.56	3.25	3.88	5.93	4.12	4.21	6.62	5.07	4.96	6.38	5.09	4.71
Thylogale thetis	QM J13370	Female	5.08	1.91	2.01	4.44	2.93	3.49	5.53	3.74	4.04	5.86	4.16	4.25	5.91	4.51	4.21
Thylogale thetis	QM J11300	Female	5.52	1.56	1.8	4.36	3.13	3.94	5.87	4.39	4.6	6.25	4.85	5.09	6.31	5.15	4.75
Thylogale thetis	QM J3713	Female	4.49	1.81	2.03	3.67	2.73	2.85	5.09	3.29	3.6	5.68	4.09	4.2	5.6	4.48	3.96
Thylogale thetis	QM JM5661	Female				5.24	2.84	4.03	6.46	4.49	4.75	6.32	5.2	4.97			

Thylogale thetis	QM J11092	Male	5.23	1.86	2.15	4.54	3.26	3.95	5.58	4.34	4.35	6.28	4.97	4.8			
Thylogale thetis	QM JM5671	Male				3.96	2.9	3.27	4.82	3.57	3.84	5.57	4.08	4.03	6.18	4.22	4.12
Thylogale thetis	QM JM15711	Male				5.2	3.39	3.75	6.03	4.18	4.37	6.1	5.06	4.75			
Thylogale thetis	QM J11299	Male				5.41	3.64	3.78	5.53	4.09	4.25						
Thylogale thetis	QM J10385	Male	5.36	1.79	2.16	5.29	3.54	3.78	6.06	4.22	4.4	6.42	4.97	4.8	6.69	5.13	4.69
Thylogale thetis	QM J8173	Male				5.29	3.49	3.77	5.46	4.13	4.19						
Thylogale thetis	QM J20260	Male	6	1.97	2.33	4.47	3.21	3.6	5.67	3.88	3.91	6.69	4.69	4.8	6.78	5.55	4.99
Thylogale thetis	QM J17770	Male				5.28	3.43	3.94	5.85	4.21	4.46	6.27	5.08	5.08			
Ngamaroo archeri	SAMP23626		8.1		3.8	4.2		3.4	4.9		3.7	5.1		3.6			
Ngamaroo archeri	SAMP27817					3.8		3.15	4.3		3.6	4.7		4			
Ngamaroo archeri	SAMP27818		7.6			3.7		3.25	4.4		3.5	4.9		3.85	4.7		
Ngamaroo archeri	SAMP31834					4.15		3.6	4.7		3.8	5.5		4.25	4.9		3.8
Purtia mosaicus	SAMP17873		6.6		3.3	3.7	3.1	3.3	4	3.55	3.6	4.1	3.6	3.55			

Appendix 7 Measurements of the uppers dentition of additional specimens used in analyses, in mms. L – anteroposterior length, AW = anterior width, PW = posterior width, P = premolar, M = molar.

			P3			M1			M2			M3			M4	
Species	Specimen	Sex	L	AW	PW	L	AW	PW	L	AW	PW	L	AW	PW	L	AW	PW
Thylogale stigmatica	QM J9423	Male	6.73	2.53	3.5	5.32	4.82	4.6	6.03	5.29	4.88	6.32	5.41	4.74	6.17	5.18	4.06
Thylogale stigmatica	QM J11302	Male	7.32	3.17	3.8	5.01	5.41	5.3	6.17	5.77	5.24	6.83	6.01	4.74	7.15	5.63	4.4
Thylogale stigmatica	QM JM13899	Male	7.14	2.99	3.54	5.45	5.21	5.18	6.71	5.7	5.27	6.98	6.32	5.57	7.12	5.55	4.32
Thylogale stigmatica	QM J21473	Male	7.23	3.68	3.71	4.77	4.56	4.6	5.13	5.02	4.69	6.12	5.17	4.89	5.82	4.93	3.97
Thylogale stigmatica	QM JM13862	Male	6.95	2.69	3.46	4.84	4.77	4.99	5.58	5.3	5.11	5.95	5.42	4.92	6.54	5.47	4.85
Thylogale stigmatica	QM JM8711	Male	6.68	3.17	3.84	5.27	5.2	4.81	5.33	5.79	5.58	5.94	5.99	5.45	6.46	5.54	4.69
Thylogale stigmatica	QM J14842	Male	7.03	3.3	3.73	4.99	5.2	5.22	6.03	5.6	5.16	6.32	5.78	4.95	6.62	5.48	4.74
Thylogale stigmatica	QM JM5705	Male	7.75	3.04	3.96	5.5	5.13	5.5	6.61	5.85	5.33	7.05	6.21	5.48	7.29	5.66	4.89
Thylogale stigmatica	QM J3616	Male	6.68	2.93	3.54	4.79	4.93	4.99	5.54	5.36	5.25	6.2	5.8	4.91	6.38	5.89	4.43
Thylogale stigmatica	QM JM17548	Male	7.62	2.66	3.6	4.7	5.28	5.33	5.87	5.74	5.25	6.4	5.92	5.4	6.66	5.87	5.09
Thylogale stigmatica	QM JM10562	Female	6.86	2.6	3.47	5.21	5.01	4.78	5.81	5.39	4.67	6.26	5.54	4.64	6.6	5.39	4.44
Thylogale stigmatica	QM J13229	Female	7.53	3.5	3.58	4.96	4.54	4.3	5.61	5.05	4.5	6.18	5.15	4.71	5.75	4.79	4.01
Thylogale stigmatica	QM JM5707	Female	7.92	3.64	4.01	5.04	4.74	4.8	5.99	5.16	4.84	6.63	5.42	4.73	6.57	4.95	4.13
Thylogale stigmatica	QM JM5709	Female	6.81	2.95	3.04	5.14	4.5	4.32	5.72	4.8	4.47	6.35	5.4	4.69	6.58	4.91	4.2
Thylogale stigmatica	QM JM5768	Female	7.54	3.31	4.12	4.98	4.53	4.5	5.9	4.97	4.56	6.73	5.14	4.71	6.19	5.07	4.18
Thylogale stigmatica	QM JM9412	Female	7.67	3.11	3.74	5.63	4.85	4.87	6.02	5.36	4.91	6.97	5.57	4.99			
Thylogale stigmatica	QM J9955	Female	7.79	3.01	3.8	5.17	4.88	3.86	5.64	5.56	5.26	6.43	5.55	4.64	6.25	5.21	4.21
Thylogale stigmatica	QM JM10386	Female	8	3.37	3.9	4.97	4.76	4.88	5.55	5.24	5.03	6.94	5.7	5.04	6.9	5.75	4.26
Thylogale stigmatica	QM J3658	Female	6.87	2.85	3.5	5.07	4.78	4.84	5.62	5.35	5.34	6.27	5.86	5.18	5.8	4.89	4.27
Thylogale stigmatica	QM J4320	Female	7.38	3.68	3.79	5.09	4.78	4.73	5.89	5.54	4.77	6.11	5.86	4.55	6.4	5.53	4
Thylogale thetis	QM J21558	Female	5.11	1.98	2.65	4.92	4.47	4.31	5.66	4.92	4.58	6.37	5.16	4.78	6.34	5.01	4.3
Thylogale thetis	QM J4323	Female	6.55	3.03	3.48	6.11	5.24	5.25	5.71	5.6	5.51	6.91	5.87	5.5	6.88	5.69	4.28
Thylogale thetis	QM J2293	Female	6.5	3.05	3.4	5.24	4.9	4.91	5.89	5.18	5.32	7.08	5.73	5.7	7.12	5.51	4.88
Thylogale thetis	QM JM5715	Female	6.51	2.71	3.57	5.42	5.2	5.05	6.27	5.63	4.61	7.04	6.2	5.31	6.7	5.37	4.43
Thylogale thetis	QM J13370	Female	5.65	2.66	2.81	5.01	4.82	4.55	5.72	5.2	4.47	6.33	5.47	4.84	6.13	5.24	4.12
Thylogale thetis	QM J11300	Female	5.93	2.47	3.24	5.17	4.65	4.86	6.16	5.32	4.95	6.83	5.27	5.05	6.47	5.05	4.71
Thylogale thetis	QM J3713	Female	5.58	2.62	3.28	4.44	4.47	4.63	5.59	4.78	4.96	6.39	5.19	4.71	5.9	4.59	4.12
Thylogale thetis	QM JM5661	Female				5.12	5.16	5.05	6.31	5.44	4.73	6.71	5.84	4.94			

Thylogale thetis	QM J11092	Male	6.4	2.76	3.81	5.07	4.67	4.8	6.44	5.14	4.74	6.54	5.43	4.84			
Thylogale thetis	QM JM5671	Male	6	2.65	2.95	5.7	4.67	4.91	6.07	5.24	4.38	6.46	5.15	4.74			
Thylogale thetis	QM JM15711	Male				5.65	5.03	4.9	6.32	5.36	5.23						
Thylogale thetis	QM J11299	Male				5.45	4.95	4.33	6.28	4.78	4.52	7.06	5.42	4.96			
Thylogale thetis	QM J10385	Male	6.39	2.72	3.25	5.27	5	5.13	6.6	5.45	5.02	7.63	5.76	5.1			
Thylogale thetis	QM J8173	Male				5.29	4.7	4.47	6.05	4.86	4.49						
Thylogale thetis	QM J20260	Male	6.3	2.64	3.54	5.8	4.85	5.04	5.68	5.28	5.18	6.8	5.74	5.35	7.11	6.16	5.36
Thylogale thetis	QM J17770	Male				5.15	5.02	5.07	6.56	5.52	5.24	6.78	5.77	5.14			

Appendix 8 Univariate statistics of specimens of *Thylogale stigmatica*. N = number of specimen, Min = minimum measurement, Max = maximum measurement, L = anteroposterior length, AW = anterior width, PW = posterior width, p = lower premolar, P = upper premolar, m = lower molar, M = upper molar.

	N	Min	Max	Mean	Standard error	Variance	Standard deviation	Coefficient of Variation
p3L	20	5.76	7.46	6.444	0.109452	0.239594	0.489483	7.596
p3AW	20	2.03	2.9	2.5025	0.045206	0.040872	0.202169	8.0787
p3PW	20	1.91	3.05	2.3725	0.066249	0.087778	0.296273	12.488
m1L	20	4.23	5.59	4.731	0.077913	0.12141	0.348439	7.365
m1AW	20	2.78	3.6	3.2235	0.041721	0.034813	0.186584	5.7882
m1PW	20	3.31	3.81	3.4795	0.028805	0.016594	0.12882	3.7022
m2L	20	4.88	5.96	5.411	0.058449	0.068325	0.261391	4.8307
m2AW	20	3.7	4.26	3.938	0.031158	0.019417	0.139344	3.5385
m2PW	20	3.66	4.48	3.995	0.040675	0.033089	0.181905	4.5533
m3L	20	5.45	6.67	5.902	0.066636	0.088806	0.298004	5.0492
m3AW	20	4.22	4.92	4.5195	0.043082	0.037121	0.192668	4.263
m3PW	20	3.93	4.99	4.437	0.048298	0.046654	0.215995	4.868
m4L	20	5.7	6.6	6.1265	0.066536	0.08854	0.297556	4.8569
m4AW	20	4.38	4.95	4.6775	0.040399	0.032641	0.180668	3.8625
m4PW	20	3.82	4.82	4.19	0.063291	0.080116	0.283047	6.7553
P3L	20	6.68	8	7.275	0.097323	0.189437	0.435243	5.9827
P3AW	20	2.53	3.68	3.109	0.078873	0.12442	0.352732	11.345
P3PW	20	3.04	4.12	3.6815	0.054417	0.059224	0.24336	6.6103
M1L	20	4.7	5.63	5.095	0.055419	0.061426	0.247843	4.8644
M1AW	20	4.5	5.41	4.894	0.060439	0.073057	0.27029	5.5228
M1PW	20	3.86	5.5	4.82	0.088231	0.155695	0.394582	8.1863
M2L	20	5.13	6.71	5.8375	0.08515	0.145009	0.380801	6.5233
M2AW	20	4.8	5.85	5.392	0.066963	0.08968	0.299466	5.5538
M2PW	20	4.47	5.58	5.0055	0.071681	0.102763	0.320567	6.4042
M3L	20	5.94	7.05	6.449	0.079336	0.125883	0.3548	5.5016
M3AW	20	5.14	6.32	5.661	0.076144	0.115957	0.340524	6.0152
M3PW	20	4.55	5.57	4.9465	0.069922	0.097782	0.312701	6.3216
M4L	19	5.75	7.29	6.486842	0.100569	0.192167	0.438369	6.7578
M4AW	19	4.79	5.89	5.352105	0.080567	0.123329	0.351182	6.5615
M4PW	19	3.97	5.09	4.375789	0.075755	0.109037	0.330207	7.5462

Appendix 9 Univariate statistics of specimens of *Thylogale thetis*. N = number of specimen, Min = minimum measurement, Max = maximum measurement, L = anteroposterior length, AW = anterior width, PW = posterior width, p = lower premolar, P = upper premolar, m = lower molar, M = upper molar.

	N	Min	Max	Mean	Standard error	Variance	Standard deviation	Coefficient of Variation
p3L	10	4.49	6	5.342	0.154731	0.239418	0.489303	9.1596
p3AW	10	1.56	1.97	1.823	0.040826	0.016668	0.129104	7.0819
p3PW	10	1.8	2.5	2.125	0.06768	0.045806	0.214022	10.072
m1L	16	3.67	5.41	4.710625	0.131398	0.276246	0.525591	11.158
m1AW	16	2.73	3.64	3.16375	0.072479	0.084052	0.289917	9.1637
m1PW	16	2.85	4.03	3.653125	0.082783	0.10965	0.331134	9.0644
m2L	16	4.82	6.46	5.6425	0.103741	0.172193	0.414962	7.3542
m2AW	16	3.29	4.49	4.011875	0.081026	0.105043	0.324103	8.0786
m2PW	16	3.6	4.75	4.18625	0.079665	0.101545	0.318661	7.6121
m3L	14	5.57	6.71	6.240714	0.095177	0.126823	0.356122	5.7064
m3AW	14	4.08	5.2	4.743571	0.107379	0.161425	0.401777	8.4699
m3PW	14	4.03	5.09	4.706429	0.095184	0.12684	0.356146	7.5672
m4L	10	5.6	6.78	6.242	0.108134	0.116929	0.341949	5.4782
m4AW	10	4.22	5.55	4.916	0.136343	0.185893	0.431154	8.7704
m4PW	10	3.96	4.99	4.503	0.103312	0.106734	0.326702	7.2552
P3L	10	4.49	6	5.342	0.154731	0.239418	0.489303	9.1596
P3AW	11	5.11	6.55	6.083636	0.142499	0.223366	0.472616	7.768635
P3PW	11	1.98	3.05	2.662727	0.085579	0.080562	0.283834	10.65953
M1L	11	2.65	3.81	3.270909	0.10511	0.121529	0.34861	10.6579
M1AW	16	4.44	6.11	5.300625	0.098381	0.15486	0.393522	7.424068
M1PW	16	4.47	5.24	4.8625	0.060605	0.058767	0.242418	4.985468
M2L	16	4.31	5.25	4.82875	0.072249	0.083518	0.288995	5.98489
M2AW	16	5.59	6.6	6.081875	0.084248	0.113563	0.336991	5.540906
M2PW	16	4.78	5.63	5.23125	0.069239	0.076705	0.276957	5.294274
M3L	16	4.38	5.51	4.870625	0.088197	0.12446	0.352788	7.243183
M3AW	14	6.33	7.63	6.780714	0.095673	0.128146	0.357974	5.279301
M3PW	14	5.15	6.2	5.571429	0.085207	0.101644	0.318817	5.722347
M4L	14	4.71	5.7	5.068571	0.080567	0.090875	0.301454	5.947522
M4AW	8	5.9	7.12	6.58125	0.158761	0.201641	0.449045	6.82309
M4PW	8	4.59	6.16	5.3275	0.168446	0.226993	0.476438	8.942988

Appendix 10 Univariate statistics of combined specimens of *Thylogale stigmatica and T. thetis*. N = number of specimen, Min = minimum measurement, Max = maximum measurement, L = anteroposterior length, AW = anterior width, PW = posterior width, p = lower premolar, P = upper premolar, m = lower molar, M = upper molar.

	N	Min	Max	Mean	Standard error	Variance	Standard deviation	Coefficient of Variation
p3L	30	4.49	7.46	6.076667	0.130442	0.510451	0.714458	11.757
p3AW	30	1.8	3.05	2.29	0.053481	0.085807	0.292928	16.327
p3PW	30	1.56	2.9	2.276	0.067846	0.138094	0.37161	12.792
m1L	36	3.67	5.59	4.721944	0.071571	0.184405	0.429424	9.0942
m1AW	36	2.85	4.03	3.556667	0.042051	0.063657	0.252304	7.3908
m1PW	36	2.73	3.64	3.196944	0.03938	0.055828	0.236279	7.0938
m2L	36	4.82	6.46	5.513889	0.058807	0.124499	0.352844	6.3992
m2AW	36	3.6	4.75	4.08	0.044338	0.070771	0.266029	6.0096
m2PW	36	3.29	4.49	3.970833	0.039772	0.056945	0.238632	6.5203
m3L	34	5.45	6.71	6.041471	0.061769	0.129722	0.360169	5.9616
m3AW	34	3.93	5.09	4.547941	0.052844	0.094944	0.30813	6.7705
m3PW	34	4.08	5.2	4.611765	0.053549	0.097494	0.31224	6.7752
m4L	30	5.6	6.78	6.165	0.056969	0.097364	0.312032	5.0613
m4AW	30	3.82	4.99	4.294333	0.060038	0.108136	0.32884	6.3815
m4PW	30	4.22	5.55	4.757	0.055423	0.092153	0.303567	7.6575
P3L	31	5.11	8	6.852258	0.130778	0.530191	0.728142	10.626
P3AW	31	1.98	3.68	2.950645	0.070199	0.152766	0.390853	13.246
P3PW	31	2.65	4.12	3.535806	0.06167	0.117899	0.343364	9.7110
M1L	36	4.44	6.11	5.186389	0.055391	0.110452	0.332344	6.4079
M1AW	36	4.47	5.41	4.88	0.042524	0.065097	0.255141	5.2283
M1PW	36	3.86	5.5	4.823889	0.057815	0.120333	0.346891	7.1910
M2L	36	5.13	6.71	5.946111	0.062928	0.142556	0.377566	6.3497
M2AW	36	4.78	5.85	5.320556	0.049475	0.08812	0.29685	5.5792
M2PW	36	4.38	5.58	4.945556	0.05621	0.113745	0.337262	6.8194
M3L	34	5.94	7.63	6.585588	0.066514	0.150419	0.387839	5.8892
M3AW	34	5.14	6.32	5.624118	0.05657	0.108807	0.329859	5.8650
M3PW	34	4.55	5.7	4.996765	0.053086	0.095816	0.309542	6.1948
M4L	27	5.75	7.29	6.514815	0.083723	0.189257	0.435036	6.6776
M4AW	27	4.59	6.16	5.344815	0.073693	0.146626	0.382918	7.1642
M4PW	27	3.97	5.36	4.42	0.069524	0.130508	0.361259	8.1732

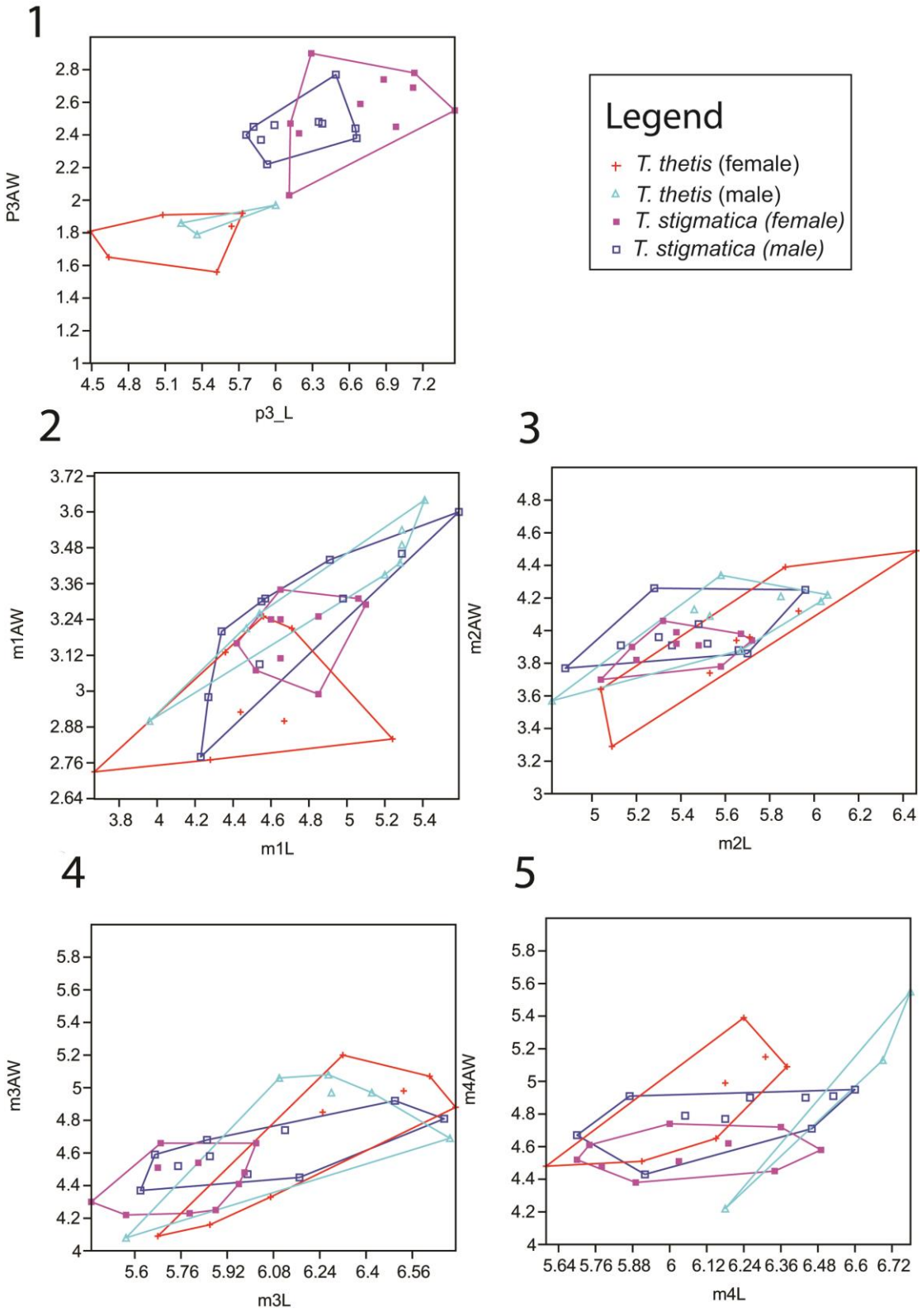
Appendix 11 Univariate statistics of type and referred material of *Ganguroo bilamina*. N = number of specimen, Min = minimum measurement, Max = maximum measurement, L = anteroposterior length, AW = anterior width, PW = posterior width, p = lower premolar, P = upper premolar, m = lower molar, M = upper molar.

	N	Min	Max	Mean	Standard error	Variance	Standard deviation	Coefficient of Variation
p3L	37	5.23	6.44	5.86054	0.035171	0.086589	0.294259	5.021
p3W	32	2.59	3.67	3.04469	0.029089	0.059232	0.243377	7.9935
m1L	48	3.03	3.78	3.51292	0.019458	0.026502	0.162794	4.6342
m1AW	47	2.13	2.88	2.52809	0.018988	0.025238	0.158863	6.2839
m1PW	49	2.29	3.08	2.70306	0.02037	0.029047	0.170431	6.3051
m2L	49	3.44	4.13	3.80653	0.019323	0.026136	0.161665	4.247
m2AW	49	2.48	3.23	2.85061	0.021368	0.03196	0.178774	6.2714
m2PW	49	2.59	3.36	2.84	0.017937	0.022521	0.150069	5.2841
m3L	46	3.65	4.34	3.9287	0.017167	0.020629	0.143629	3.6559
m3AW	46	2.59	3.34	2.93913	0.020046	0.028128	0.167714	5.7063
m3PW	45	2.59	3.33	2.86333	0.01585	0.017586	0.132614	4.6314
m4L	30	3.43	4.27	3.88567	0.020105	0.028294	0.168209	4.329
m4AW	29	2.63	3.34	2.85172	0.016188	0.018343	0.135438	4.793
m4PW	28	2.23	2.8	2.54571	0.017215	0.020744	0.144027	5.6576
P3L	24	5.96	6.92	6.40167	0.034251	0.069215	0.263086	4.1097
P3W	24	2.93	3.88	3.39	0.03201	0.060452	0.24587	7.2528
M1L	52	3.28	4.12	3.83462	0.018916	0.021112	0.145298	3.7891
M1AW	51	3.32	4.06	3.6849	0.022244	0.029194	0.170861	4.6368
M1PW	52	3.01	3.93	3.38942	0.023355	0.032182	0.179393	5.2927
M2L	47	3.65	4.51	4.05106	0.021221	0.026571	0.163005	4.0238
M2AW	45	3.6	4.29	3.86044	0.018931	0.021145	0.145414	3.7668
M2PW	46	3.15	3.8	3.41587	0.019669	0.022825	0.151079	4.4228
M3L	36	3.69	4.38	4.00194	0.018427	0.020033	0.141539	3.5368
M3AW	37	3.51	4.21	3.79216	0.020477	0.02474	0.157288	4.1477
M3PW	36	2.97	3.51	3.24694	0.018804	0.020862	0.144436	4.4484
M4L	21	3.49	3.97	3.73714	0.01884	0.020941	0.144712	3.8723
M4AW	21	3.07	3.55	3.41762	0.014578	0.012539	0.111978	3.2765
M4PW	21	2.29	3.05	2.66619	0.025507	0.038385	0.19592	7.3483

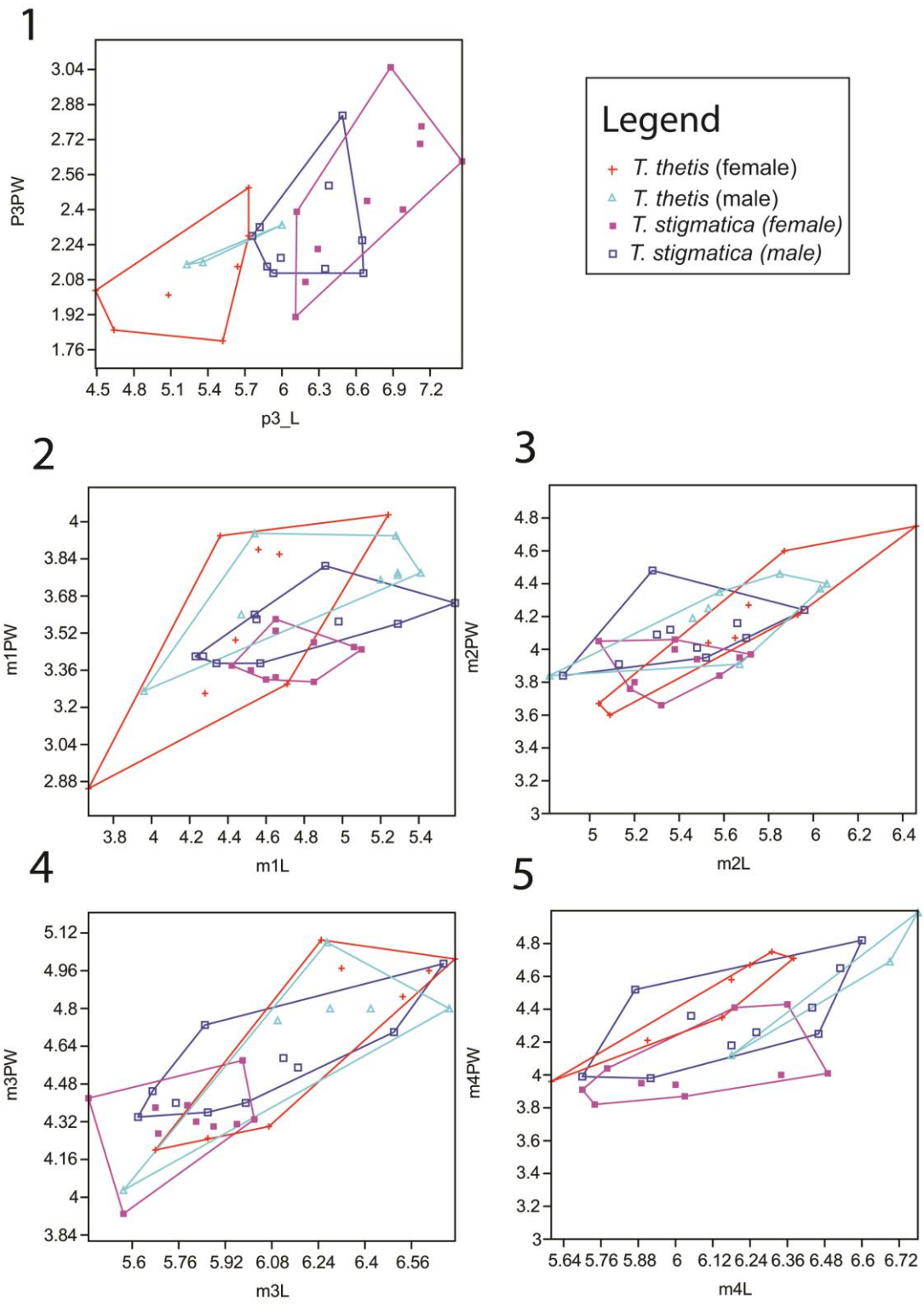
Appendix 12 Univariate statistics of type and referred material of *Bulungamaya delicata/'Nowidgee matrix'*. N = number of specimen, Min = minimum measurement, Max = maximum measurement, L = anteroposterior length, AW = anterior width, PW = posterior width, p = lower premolar, P = upper premolar, m = lower molar, M = upper molar.

	N	Min	Max	Mean	Standard error	Variance	Standard deviation	Coefficient of Variation
p3L	12	6.24	6.94	6.488333	0.056419	0.038197	0.195441	3.0122
p3W	12	3.03	3.91	3.3575	0.085927	0.088602	0.297661	8.8656
m1L	23	3.46	4.08	3.784348	0.03806	0.033317	0.182528	4.8232
m1AW	23	2.68	3.32	2.879565	0.030435	0.021304	0.14596	5.0688
m1PW	23	2.25	2.99	2.666957	0.03966	0.036177	0.190202	7.1318
m2L	20	3.64	4.41	4.06	0.042624	0.036337	0.190622	4.6951
m2AW	20	2.75	3.26	2.9715	0.027128	0.014719	0.121321	4.0828
m2PW	20	2.96	3.34	3.102	0.019529	0.007627	0.087335	2.8154
m3L	16	3.84	4.37	4.061875	0.043582	0.03039	0.174326	4.2918
m3AW	16	2.93	3.48	3.140625	0.03652	0.02134	0.146081	4.6513
m3PW	16	2.59	3.42	2.950625	0.045939	0.033766	0.183756	6.227
m4L	11	3.75	4.34	4.024545	0.049824	0.027307	0.165249	4.106
m4AW	11	2.7	3.32	2.972727	0.055858	0.034322	0.185262	6.232
m4PW	10	2.3	2.98	2.664	0.065933	0.043471	0.208497	7.8265
P3L	7	6.46	8.11	7.242857	0.206613	0.298824	0.546648	7.5474
P3W	7	3.33	3.98	3.561429	0.076576	0.041048	0.202602	5.6888
M1L	16	3.77	4.36	3.955625	0.044281	0.031373	0.177124	4.4778
M1AW	16	3.53	4.17	3.844375	0.045074	0.032506	0.180295	4.6898
M1PW	16	3.33	3.99	3.61375	0.043059	0.029665	0.172235	4.7661
M2L	18	3.91	4.26	4.088889	0.024547	0.010846	0.104143	2.547
M2AW	18	3.64	4.26	3.959444	0.044247	0.035241	0.187726	4.7412
M2PW	18	2.87	3.83	3.47	0.04802	0.041506	0.20373	5.8712
M3L	10	3.7	4.56	3.969	0.080256	0.06441	0.253791	6.3943
M3AW	11	3.69	3.96	3.806364	0.028389	0.008865	0.094157	2.4737
M3PW	10	3.15	3.36	3.266	0.021302	0.004538	0.067363	2.0626
M4L	7	3.43	4.13	3.698571	0.106445	0.079314	0.281628	7.6145
M4AW	7	3.15	3.51	3.382857	0.0497	0.01729	0.131493	3.887
M4PW	6	2.41	2.76	2.623333	0.065659	0.025867	0.160831	6.1308

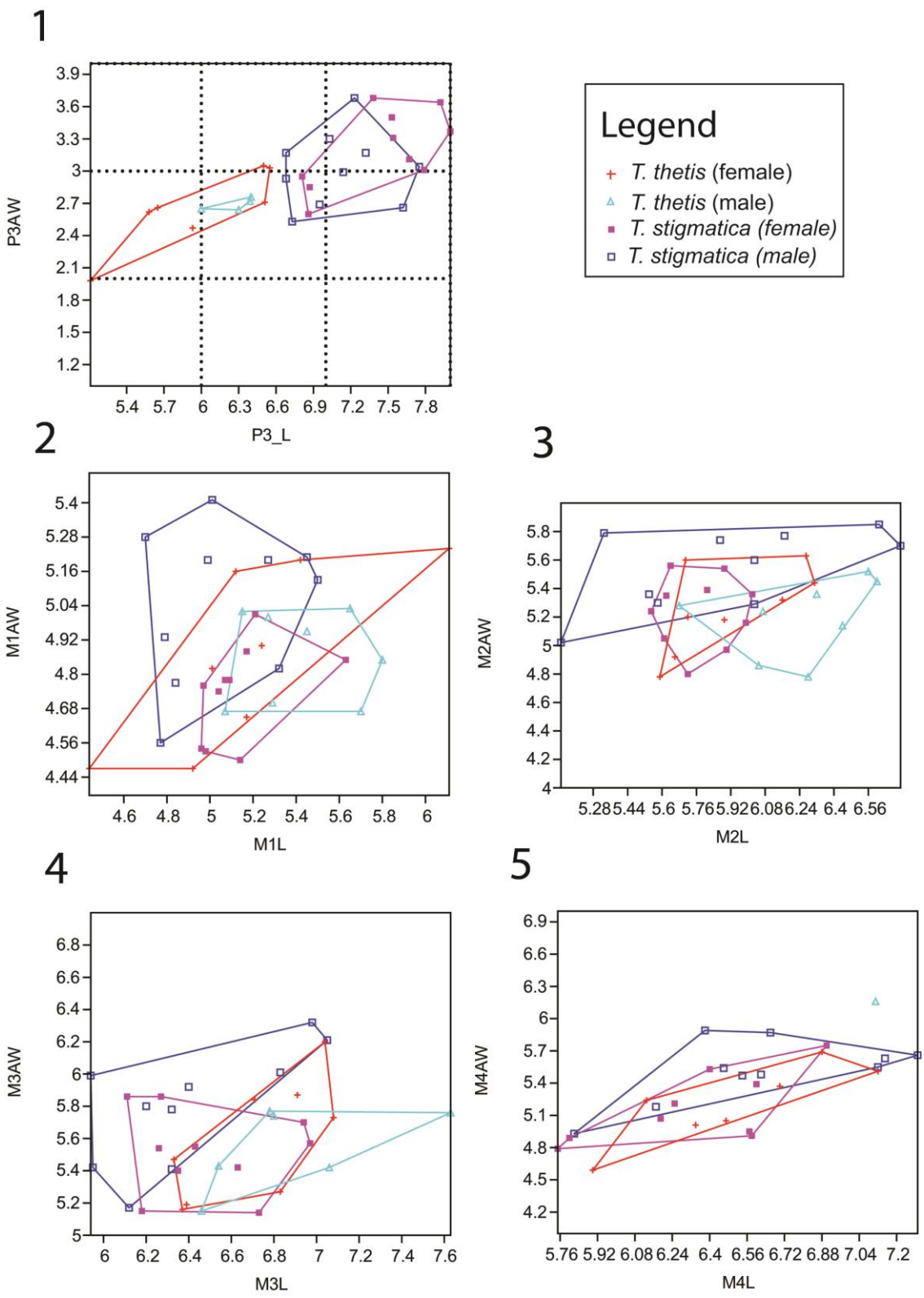
Appendix 13. Bivariate plots with convex hulls of lower dentition of *Thylogale stigmatica* and *T. thetis*, using anterior width. L – anteroposterior length, AW = anterior width, p = premolar, m = molar.



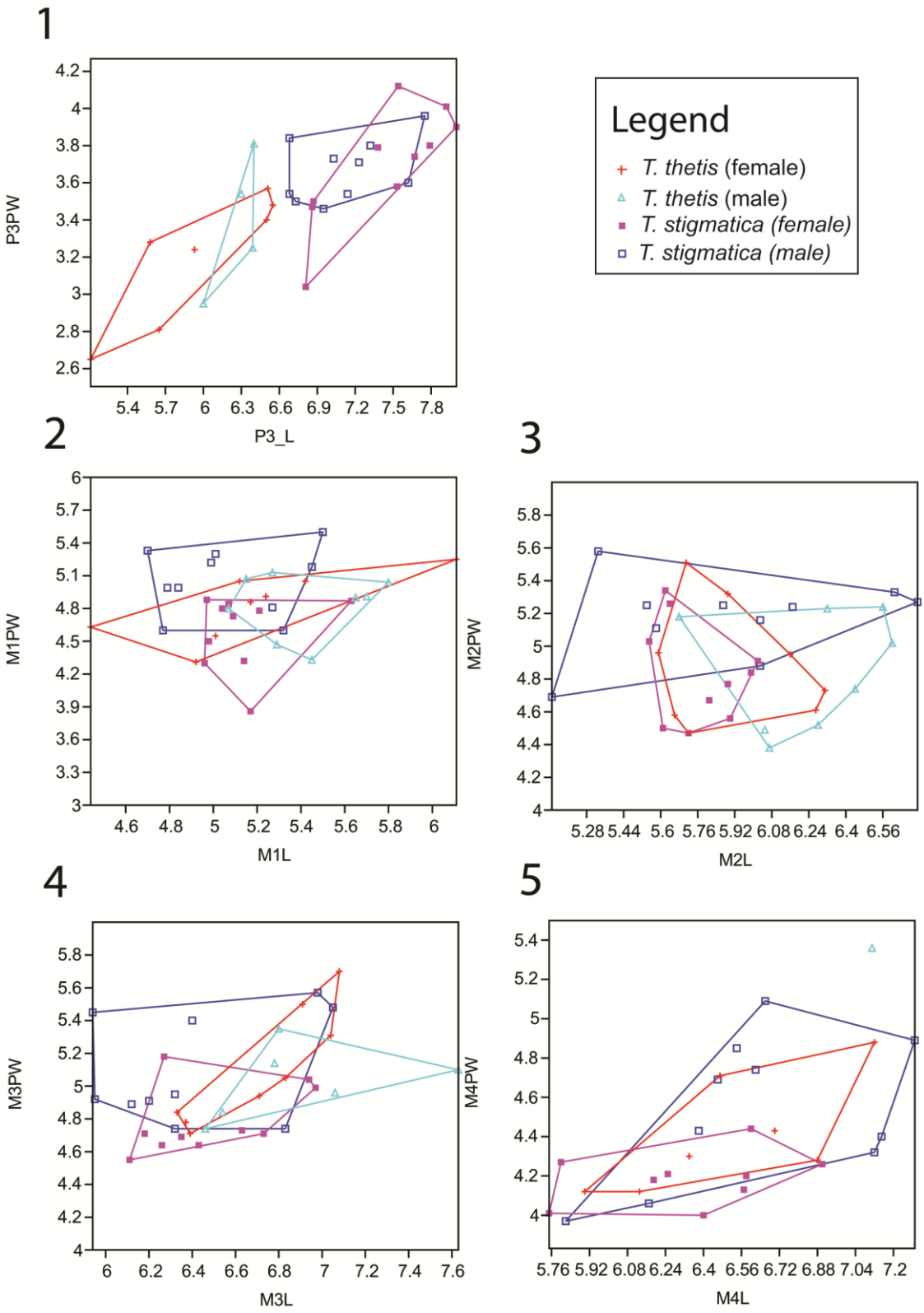
Appendix 14. Bivariate plots with convex hulls of lower dentition of *Thylogale stigmatica* and *T. thetis*, using posterior width. L – anteroposterior length, PW = posterior width, p = premolar, m = molar.



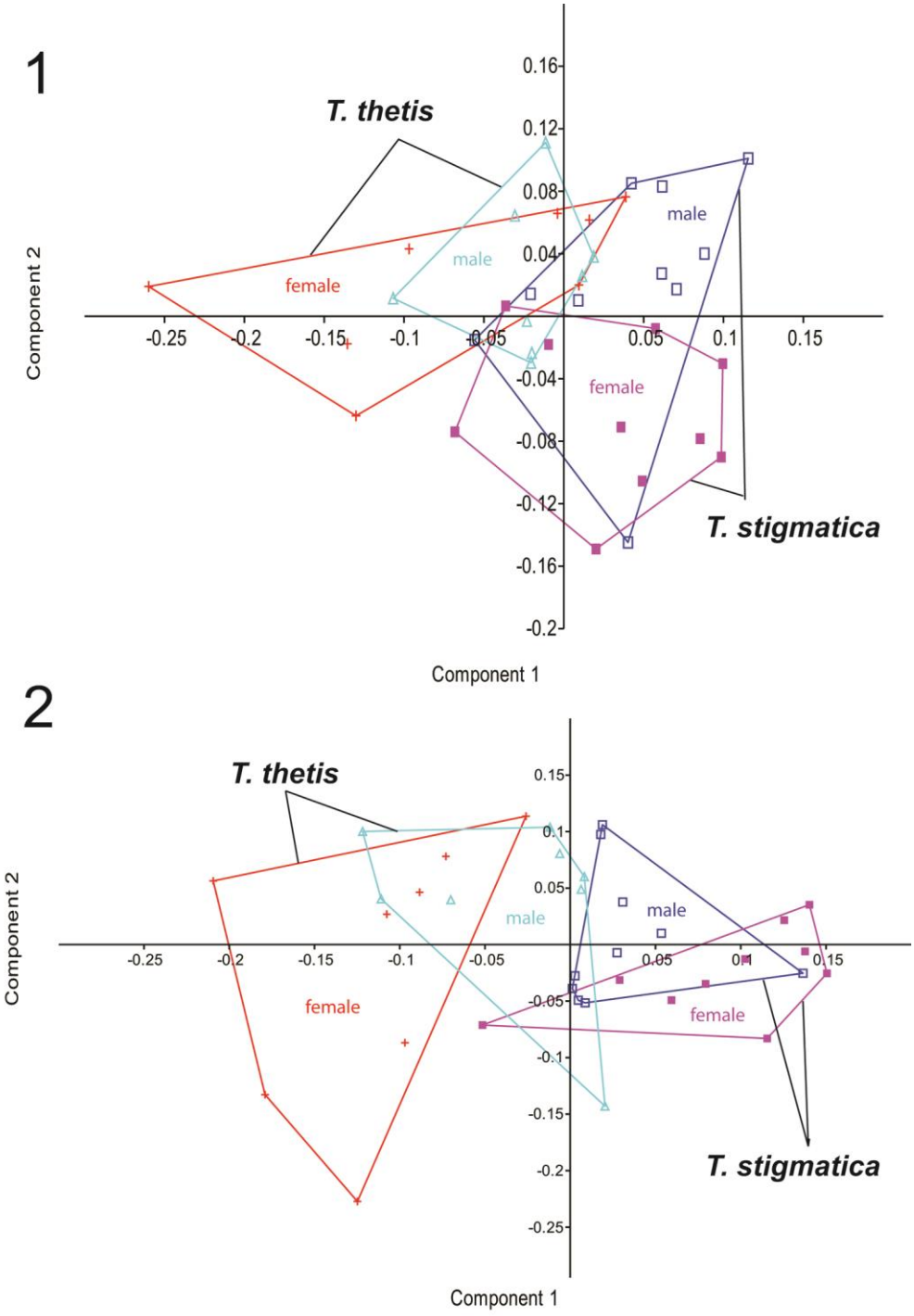
Appendix 15. Bivariate plots with convex hulls of upper dentition of *Thylogale stigmatica* and *T. thetis*, using anterior width. L – anteroposterior length, AW = anterior width, P = premolar, M = molar.



Appendix 16. Bivariate plots with convex hulls of upper dentition of *Thylogale stigmatica* and *T. thetis*, using posterior width. L – anteroposterior length, PW = posterior width, P = premolar, M = molar.



Appendix 17. Principle Component Analysis with convex hulls of upper (**1**) and lower (**2**) dentition of *Thylogale stigmatica* and *T. thetis.*



Appendix 18. Results of the Multivariate Analysis Of Variance (MANOVA) analysis showing the P-values for the mean comparison of upper (**1** and **3**) and lower (**2** and **4**) log transformed dental measurements of *Thylogale stigmatica* and *T. thetis*, with separation of sexes (**1** and **2**) and without separation (**3** and **4**).

1

		T. stigmatica		*T. thetis*	
		Male	Female	Female	Male
	Male	0	0.551	0.77	0.71
T. stigmatica	Female	0.55	0	0.51	0.56
	Female	0.77	0.51	0	Fail
T. thetis	Male	0.71	0.56	Fail	0

2

		T. stigmatica		*T. thetis*	
		Male	Female	Female	Male
	Male	0	0.78	0.44	0.87
T. stigmatica	Female	0.78	0	0.34	0.66
	Female	0.44	0.34	0	Fail
T. thetis	Male	0.87	0.66	Fail	0

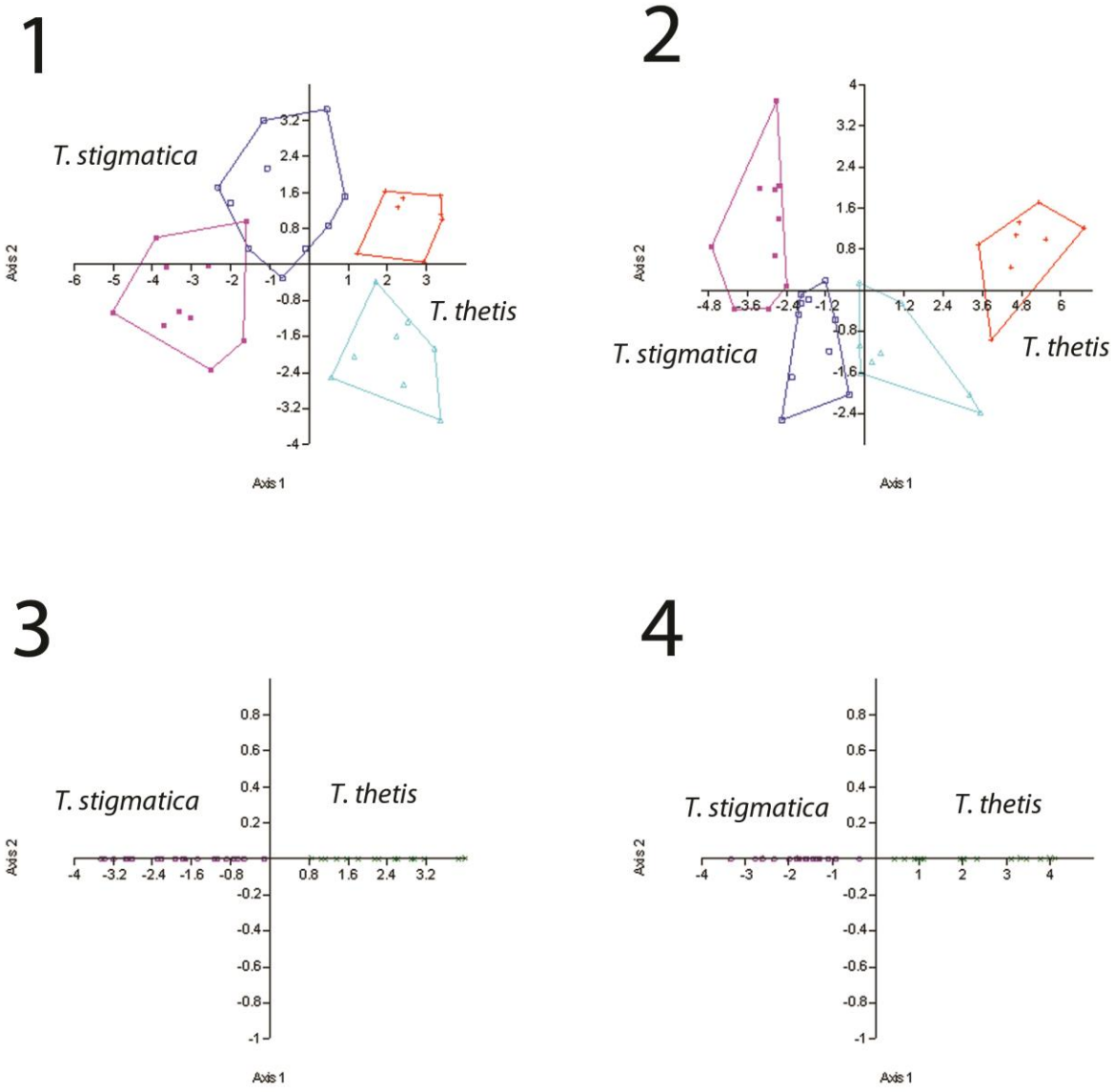
3

	T. stigmatica	*T. thetis*
T. stigmatica	0	1.45 E-04
T. thetis	1.45 E-04	0

4

	T. stigmatica	*T. thetis*
T. stigmatica	0	3.02E-04
T. thetis	3.02E-04	0

Appendix 19. Canonical Variates Analysis with convex hulls of upper (**1** and **3**) and lower (**2** and **4**) log transformed dental measurements of *Thylogale stigmatica* and *T. thetis*, with separation of sexes (**1** and **2**) and without separation (**3** and **4**).



Appendix 20. Results of the Canonical Variates Analysis (CVA) reclassification using log transformed dental measurements of *Thylogale stigmatica* and *T. thetis,* with separation of sexes (**1**) and without separation (**2**).**1,** group 1 = *T. stigmatica* male; group 2 = *T. stigmatica* female; group 3 = *T. thetis* female; group 4 = *T. thetis* male; **2,** group 1 = *T. stigmatica*; group 2 = *T. thetis*. Incorrect reclassifications are highlighted in grey.

1

Specimen	Given group	Upper dentition CVA Classification	Lowers dentition CVA Classification
J9423	1	1	1
J11302	1	1	1
JM13899	1	1	1
J21473	1	**2**	1
JM13862	1	1	1
JM8711	1	1	1
J14842	1	1	1
JM5705	1	1	1
J3616	1	1	1
JM17548	1	1	1
JM10562	2	**1**	2
J13229	2	2	**1**
JM5707	2	2	2
JM5709	2	2	2
JM5768	2	2	2
JM9412	2	2	2
J9955	2	2	2
JM10386	2	2	2
J3658	2	2	2
J4320	2	2	2
J21558	3	3	3
J4323	3	3	3
J2293	3	3	3
JM5715	3	3	**4**
J13370	3	3	3
J11300	3	3	3
J3713	3	3	3
JM5661	3	3	3
J11092	4	4	4
JM5671	4	4	4
JM15711	4	4	4
J11299	4	4	4
J10385	4	4	4

J8173	4	4	4
J20260	4	4	4
J17770	4	4	4

2

Specimen	Given group	Upper dentition CVA Classification	Lowers dentition CVA Classification
J9423	1	1	1
J11302	1	1	1
JM13899	1	1	1
J21473	1	1	1
JM13862	1	1	1
JM8711	1	1	1
J14842	1	1	1
JM5705	1	1	1
J3616	1	1	1
JM17548	1	1	1
JM10562	1	1	1
J13229	1	1	1
JM5707	1	1	1
JM5709	1	1	1
JM5768	1	1	1
JM9412	1	1	1
J9955	1	1	1
JM10386	1	1	1
J3658	1	1	1
J4320	1	1	1
J21558	2	2	2
J4323	2	2	2
J2293	2	2	2
JM5715	2	2	2
J13370	2	2	2
J11300	2	2	2
J3713	2	2	2
JM5661	2	2	2
J11092	2	2	2
JM5671	2	2	2
JM15711	2	2	2
J11299	2	2	2
J10385	2	2	2
J8173	2	2	2
J20260	2	2	2
J17770	2	2	2

Appendix 21. Nexus-formatted character matrix for the 29 taxa included in our phylogenetic analyses. Outgroup taxa was *Trichosurus vulpecula*. ? = missing data; - = inapplicable.

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#NEXUS

BEGIN TAXA;
      DIMENSIONS NTAX=29;
      TAXLABELS
            'Trichosurus vulpecula'
            'Balbaroo fangaroo'
            'Bettongia moyesi'
            'Bettongia penicillata'
            'Bulungamaya delicata'
            'Dendrolagus lumholtzi'
            'Dorcopsis muelleri'
            'Dorcopsoides fossilis'
            'Ekaltadeta ima'
            'Ganawamaya acris'
            'Ganguroo bilamina'
            'Ganguroo bites'
            'Hadronomas puckridgi'
            'Hypsiprymnodon moschatus'
            'Macropus rufus'
            'Nambaroo gillespieae'
            'Ngamaroo archeri'
            'Petrogale penicillata'
            'Potorous tridactylus'
            'Procoptodon goliah'
            'Purtia mosaicus'
            'Rhizosthenurus flanneryi'
            'Simosthenurus occidentalis'
            'Thylogale thetis'
            'Wabularoo naughtoni'
            'Wakiewakie lawsoni'
            'Wallabia bicolor'
            'Wanburoo hilarus'
            'Wururoo dayamayi'
            ;
ENDBLOCK;

BEGIN CHARACTERS;
      DIMENSIONS NCHAR=108;
      FORMAT DATATYPE=STANDARD MISSING=? GAP=- SYMBOLS="012345";
      CHARLABELS
            [1] 'Basioccipital/basisphenoid '
            [2] 'FRONTAL REGION '
            [3] 'FRONTAL SINUSES '
            [4] 'POSTORBITAL CONSTRICTION OF SKULL '
            [5] 'MASSETERIC PROCESS '
            [6] 'CHEEK REGION OF SKULL '
            [7] 'LATERAL WALL OF NEUROCRANIUM '
            [8] 'PAROCCIPITAL PROCESS-ALISPHENOID CONTRIBUTION '
            [9] 'MASTOID PROCESS '
            [10] 'INFLATED ALISPHENOID FORMING AUDITORY BULLA'
            [11] 'ALIGNMENT OF MOLAR DORSOVENTRAL AXES '
            [12] 'DIGASTRIC EMINENCE '
            [13] 'MANDIBULAR SYMPHYSIS '
            [14] 'ANTERIOR PENETRATION OF MASSETER (ADULT)'
```

```
            [15] 'MASSETERIC AND INFERIOR DENTAL CANALS '
            [16] 'MANDIBULAR CANAL '
            [17] 'POSTERIOR MENTAL FORAMEN '
            [18] 'i1 OCCLUSAL SURFACE '
            [19] 'CANINIFORM TOOTH PRESENT IMMEDIATELY POSTERIOR TO I1'
            [20] p2
            [21] C1
            [22] p3
            [23] 'P3/p3'
            [24] MOLARS
            [25] m4
            [26] P3
            [27] p3
            [28] 'm1 PROTOCONID '
            [29] 'm1 PROTOCONID '
            [30] 'Trigonid basin on m1 '
            [31] 'm1 protostylid '
            [32] 'Hypocingulid on lower molars'
            [33] 'Hypolophid formation '
            [34] 'i1 dorsal enamel flange '
            [35] 'i1 enamel '
            [36] '''Forelink'' (preprotocrista) on M1'
            [37] 'M1 stylar cusp C '
            [38] 'M1 stylar cusp D '
            [39] 'M1 anterolingual cingulum '
            [40] 'M1 postprotocrista '
            [41] 'M1 neometaconule and ''postlink'' '
            [42] 'Postmetacrista-postmetaconule crista '
            [43] 'Mental foramen'
            [44] 'P3 lingual cingulum '
            [45] 'Internal carotid foramen'
            [46] 'Foramen ovale '
            [47] 'Occlusal edge of i1 '
            [48] 'MEDIAL MALLEOLAR FOSSA OF ASTRAGALUS '
            [49] 'MEDIAL MALLEOLAR PROCESS OF ASTRAGALUS '
            [50] 'MALLEOLAR FOSSA BORDER OF ASTRAGALUS '
            [51] 'TROCHLEAR RIDGES ON ASTRAGALUS '
            [52] 'POSTERIOR EDGE OF LATERAL TROCHLEAR CREST OF
ASTRAGALUS'
            [53] 'ASTRAGALAR NECK'
            [54] 'NAVICULAR FACET OF ASTRAGALUS '
            [55] 'Sustentaculum tali of calcaneum '
            [56] 'TUBER CALCIS OF CALCANEUM '
            [57] 'ASTRAGALUS-CALCANEUM FACET'
            [58] 'PLANTAR RUGOSITY ON THE CALCANEUM'
            [59] 'LONG AXIS OF DORSOLATERAL FACET OF CALCANEUM '
            [60] 'CUBOID BODY'
            [61] 'MEDIAL PLANTAR TUBEROSITY OF CUBOID '
            [62] 'GROOVE BETWEEN MEDIAN AND LATERAL PLANTAR TUBEROSITIES
OF CUBOID '
            [63] 'CALCANEUM-CUBOID FACET'
            [64] 'GROOVE BETWEEN DORSOMEDIAL AND VENTROMEDIAN FACETS OF
CUBOID '
            [65] 'NAVICULAR BODY '
            [66] 'NAVICULAR PLANTAR EMINENCE '
            [67] 'ASTRAGALAR FACET OF NAVICULAR '
            [68] 'MESOCUNEIFORM/NAVICULAR CONTACT'
            [69] 'CUBOID FACET OF NAVICULAR '
```

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            [70] 'POSTERIOR NODE ON ENTOCUNEIFORM'
            [71] 'METATARSAL I'
            [72] 'METATARSAL I PROXIMAL FACET MARGIN '
            [73] 'METATARSAL IV '
            [74] 'PLANTAR CREST OF METATARSAL IV'
            [75] 'METATARSAL V FACET OF METATARSAL IV'
            [76] 'CUNEIFORM FACET OF METATARSAL IV '
            [77] 'INTRA-ARTICULAR GROOVE OF METATARSAL IV '
            [78] 'PEDAL DIGIT V'
            [79] 'LATERAL TUBEROSITY OF METATARSAL V'
            [80] 'VENTROMEDIAN PROCESS OF METATARSAL V'
            [81] 'METATARSAL V CUBOID FACET '
            [82] 'PEDAL DIGIT IV PROXIMAL AND MEDIAL PHALANGES'
            [83] 'CRUCIATE FOSSA OF PEDAL DIGIT IV PROXIMAL PHALANX '
            [84] 'CROSSED SESAMOID AND OBLIQUE SESAMOID LIGAMENT SCARS
OF PEDAL DIGIT IV PROXIMAL PHALANX'
            [85] 'UNGUAL PROCESS OF PEDAL DIGIT IV DISTAL PHALANX '
            [86] 'POSTERIOR SURFACE OF FEMORAL SHAFT '
            [87] 'CONDITION OF FEMORAL HEAD'
            [88] 'DISTAL PORTION OF FIBULA SHAFT '
            [89] 'TIBIA SHAFT '
            [90] 'ACROMION PROCESS OF SCAPULA '
            [91] 'SUPRASPINOUS FOSSA OF SCAPULA '
            [92] 'CORACOID PROCESS OF SCAPULA'
            [93] 'SUPINATOR CREST OF HUMERUS'
            [94] 'DELTOID CREST OF HUMERUS'
            [95] 'LATERAL DELTOID RIDGE OF HUMERUS'
            [96] 'ENTEPICONDYLE OF HUMERUS'
            [97] 'CORONAL DEPRESSION OF HUMERUS'
            [98] 'CAPITELLUM AND TROCHLEA OF HUMERUS'
            [99] 'SHAFT OF ULNA'
            [100] 'OLECRANON PROCESS OF ULNA '
            [101] 'DISTAL APEX OF ILIUM'
            [102] 'ILIOPECTINEAL PROCESS OF ILIUM'
            [103] 'VENTRAL PROFILE OF ANTERIOR LUMBAR CENTRA'
            [104] 'CAUDAL CENTRA '
            [105] 'Ventral margin of mandible'
            [106] 'p3 transcristids'
            [107] 'p3 transcristid number'
            [108] 'Lower molar occlusal outline'
            ;
      STATELABELS
            1
                  coplanar
                  angled,
            2
                  'NOT FLAT'
                  FLAT,
            3
                  'NOT MARKEDLY INFLATED'
                  'MARKEDLY INFLATED',
            4
                  ABSENT
                  PRESENT,
            5
                  'NOT EXTENDING BELOW ALVEOLAR MARGIN'
                  'EXTENDING BELOW ALVEOLAR MARGIN',
            6
```

```
                'SMOOTH TRANSITION OF ZYGOMA TO CHEEK'
                'WITH SULCUS ANTERIOR TO ZYGOMA',
           7
                'ALISPHENOID-PARIETAL CONTACT'
                'WITH SQUAMOSAL-FRONTAL CONTACT',
           8
                'DOES NOT CONTRIBUTE'
                'CONTRIBUTES TO ANTERIOR FACE',
           9
                'SMALL (<PAROCCIPITAL PROCESS)'
                'HYPERTROPHIED (>PAROCCIPITAL PROCESS)',
           10
                ABSENT
                PRESENT,
           11
                'CHANGING IN ANTEROPOSTERIOR DIRECTION '
                'ALIGNED ',
           12
                'CENTRALLY POSITIONED '
                'POSTERIORLY POSITIONED ',
           13
                'NOT ANKYLOSED '
                'ANKYLOSED ',
           14
                'MASSETER NOT INVADING MANDIBLE '
                'PENETRATION ANTERIOR TO M4 '
                'PENETRATION NOT ANTERIOR TO M4',
           15
                'MASSETERIC CANAL NOT DEVELOPED '
                'CANALS CONFLUENT ANTERIOR TO MASSETERIC FOSSA '
                ' ',
           16
                'MASSETERIC FORAMEN ABSENT '
                'DISTINCT CANAL SEPARATES MANDIBULAR AND MASSETERIC
FORAMINA '
                'CANAL LENGTH REDUCED, FORAMINA OVERLAP'
                'CANAL LOST, SINGLE MANDIBULAR FORAMEN',
           17
                'PRESENT '
                'ABSENT ',
           18
                'REACHING TO LEVEL OF MOLAR OCCLUSAL PLANE '
                'BELOW MOLAR OCCLUSAL PLANE ',
           19
                'PRESENT '
                'ABSENT ',
           20
                'PRESENT, NOT REDUCED, PERSISTS AFTER p3 ERUPTION '
                'PRESENT, NOT REDUCED, DISPLACED BYp3 ERUPTION '
                ' ',
           21
                'PRESENT '
                'ABSENT ',
           22
                'BUCCALLY FLEXED '
                'ALIGNED WITH MOLAR ROW ',
           23
                'SHORT (<1.5M1/1)'
```

```
            'ELONGATE (>1.5M1/1)',
        24
            'BUNODONT '
            'BUNOLOPHODONT '
            'LOPHODONT, BRACHYODONT'
            'LOPHODONT, HYPSODONT',
        25
            'MARKEDLY SMALLER '
            'NOT MARKEDLY SMALLER THAN ANTERIOR MOLARS ',
        26
            'LACKING POSTEROLINGUAL CUSP OR RIDGE '
            'WITH POSTEROLINGUAL CUSP '
            'WITH POSTEROLINGUAL RIDGE',
        27
            'cingulids absent'
            'with distinct labial and/orlingual cingulids',
        28
            'CENTRAL '
            'BUCCAL ',
        29
            'DOMINATES TRIGONID '
            'SUBEQUAL TO METACONID '
            REDUCED,
        30
            'not developed '
            'narrow transversely '
            'broad transversely',
        31
            'present as cuspid '
            'present as enamel ridge '
            absent,
        32
            Present
            'absent ',
        33
            'hypolophid and buccal crestfrom entoconid absent'
            'formed by buccal crest fromentoconid with
posthypocristid low and posteriorly positioned'
            'formed by elevated posthypocristid, buccalcrest from
entoconid reduced or lost',
        34
            'present '
            'absent ',
        35
            'buccal surface only '
            'buccal and dorsolingual surfaces '
            'buccal and lingual surfaces',
        36
            'absent '
            'present, diagonal '
            'buccally displaced, anteroposteriorly directed',
        37
            'present '
            'reduced to stylar crest '
            absent,
        38
            'present '
            'reduced to stylar crest '
```

```
                absent,
           39
                'present '
                'absent ',
           40
                'contacts metaconule '
                'contacts metaloph buccal to metaconule '
                absent,
           41
                'absent '
                'present ',
           42
                'separated '
                'continuous '
                overlap,
           43
                'anterior to p3, well below diastemal margin '
                'close to p3, well below diastemal margin '
                'close to p3, close to diastemal margin',
           44
                'absent '
                'present '
                'present and elevated',
           45
                'anterior to suture '
                'close to or posterior to basioccipital/basisphenoid
suture ',
           46
                'lateral, floored by alisphenoid process from tympanic
wing '
                'lateral, with narrow ventral alisphenoid process '
                'mesial, with incomplete ventral alisphenoid process',
           47
                'not sinuous '
                'sinuous ',
           48
                'LARGE AND OVOID '
                'SMALL AND CIRCULAR ',
           49
                'TRANSVERSELY BROAD AND LATERALLY FLARING '
                'REDUCED AND TRANSVERSELY NARROW ',
           50
                'SHORT AND NARROWING TOWARDS EXTREMITIES '
                'ELONGATE AND UNIFORMLY THICK ALONG LENGTH ',
           51
                'INDISTINCT WITH NO CLEAR ORIENTATION '
                'OBLIQUELY ORIENTED RELATIVE TO LONG AXIS OF PES,
GIVING RHOMBOIDAL OUTLINE '
                'SUBPARALLEL TO LONG AXIS OF PES, GIVING RECTANGULAR
DORSAL OUTLINE TO ARTICULAR FACET',
           52
                'CONTINUOUS '
                'TRUNCATED ',
           53
                'ELONGATE AND ANTERIORLY DIRECTED '
                'SHORT AND ANTERIORLY DIRECTED '
                'VERY SHORT AND PLANTARLY DIRECTED',
           54
```

```
                'ELONGATE AND CONDYLE LIKE '
                'ANTEROPOSTERIORLY SHORT AND ANTERIORLY DIRECTED ',
            55
                'horizontally oriented and transversely broad '
                'steeply inclined and transversely narrow ',
            56
                'DORSOVENTRALLY DEEP AND POSTERIORLY FLARING '
                'DORSOVENTALLY NARROW AND SUBCYLINDRICAL ',
            57
                'BROAD WITH MEDIAL CONSTRICTION ABSENT '
                'MEDIALLY CONSTRICTED OR COMPLETELY DIVIDED ',
            58
                'ANTEROPOSTERIORLY SHORT WITH BROAD, SHALLOW PLANTAR
SULCUS '
                'ANTEROPOSTERIORLY LONG WITH PLANTAR SULCUS NARROW,
DEEP, OR ABSENT ',
            59
                'OBLIQUELY ORIENTED '
                'DORSOVENTRALLY ORIENTED ',
            60
                'NOT PROXIMODISTALLY COMPRESSED '
                'PROXIMODISTALLY COMPRESSED ',
            61
                'WEAKLY DEVELOPED '
                'WELL DEVELOPED, FORMING PROMINENT RAISED TUBERCLE ',
            62
                'ABSENT '
                'PRESENT ',
            63
                'WEAKLY STEPPED AND SIGMOIDAL '
                'DISTINCTLY STEPPED ',
            64
                'ABSENT '
                'PRESENT ',
            65
                'CRESCENTIC IN LATERAL VIEW WITH VENTRAL EDGE LONGER
THAN DORSAL '
                'SUBRECTANGULAR IN LATERAL VIEW WITH DORSAL EDGE
LONGER OR SUBEQUAL TO VENTRAL EDGE ',
            66
                'PROMINENT AND CONDYLE LIKE '
                'REDUCED ',
            67
                'TRANSVERSELY NARROW AND DORSOVENTRALLY ELONGATE '
                'TRANSVERSELY WIDE AND DORSOVENTRALLY SHORTENED ',
            68
                'PRESENT '
                'ABSENT ',
            69
                'DORSOVENTRALLY SHORT '
                'DORSOVENTRALLY ELONGATE ',
            70
                'PRESENT '
                'ABSENT ',
            71
                'PRESENT '
                'ABSENT ',
            72
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                'WITH PLANTAR LIP '
                'WITHOUT PLANTAR LIP ',
           73
                'SHORT AND ROBUST WITH TOTAL LENGTH < THREE TIMES
TRANSVERSE WIDTH OF DISTAL FACET '
                'LONG AND SLENDER WITH TOTAL LENGTH > THREE TIMES
TRANSVERSE WIDTH OF DISTAL FACET ',
           74
                'ABSENT '
                'PRESENT ',
           75
                'CONTINUOUS WITH MEDIAN GROOVE ABSENT '
                'SUBDIVIDED BY DISTINCT MEDIAN GROOVE ',
           76
                'CONVEX OR PLANAR '
                'CONCAVE AND INSET ',
           77
                'LATERALLY OPENING '
                'VENTRALLY OPENING ',
           78
                'WELL DEVELOPED '
                'REDUCED ',
           79
                'WELL DEVELOPED AND POSTERIORLY EXTENDING '
                'REDUCED ',
           80
                'PRESENT '
                'ABSENT ',
           81
                'SHALLOW AND TRANSVERSELY ELONGATE '
                'DEEP AND CUP-SHAPED ',
           82
                'NOT COMPRESSED '
                'DORSOVENTRALLY COMPRESSED ',
           83
                'DEEP AND NARROW '
                'SHALLOW AND BROAD ',
           84
                'WEAKLY DEVELOPED '
                'WELL DEVELOPED ',
           85
                'TAPERING AND POINTED OR DISTINCTLY CLEFT '
                'ROUNDED AND HOOF LIKE ',
           86
                'MIDLINE BOSS VERY WEAKLY DEVELOPED OR ABSENT '
                'BEARING PROMINENT MIDLINE BOSS ',
           87
                'SPHERICAL WITH CIRCULAR SECTION AND ORIENTED OBLIQUE
TO LONG AXIS OF SHAFT '
                'WITH DOMED SEMICIRCULAR SECTION ORIENTED
PERPENDICULAR TO LONG AXIS OF SHAFT ',
           88
                'D-SHAPED IN CROSS SECTION '
                'CRESCENTIC IN CROSS SECTION ',
           89
                'STRAIGHT OR SLIGHTLY CURVED IN ANTEROPOSTERIOR VIEW '
                'SINUOUS IN ANTEROPOSTERIOR VIEW ',
           90
```

```
                'WELL DEVELOPED AND ANTERODORSALLY PRODUCED '
                'POORLY DEVELOPED AND ROUNDED ',
          91
                'ANTEROPOSTERIORLY ELONGATE AND SUBEQUAL IN LENGTH TO
INFRASPINOUS FOSSA '
                'ANTEROPOSTERIORLY SHORTENED RELATIVE TO INFRASPINOUS
FOSSA ',
          92
                'LARGE WITH NECK '
                'REDUCED WITHOUT NECK ',
          93
                'WELL DEVELOPED AND TRANSVERSELY BROAD WITH DISTINCTLY
POINTED APEX '
                'REDUCED AND TRANSVERSELY NARROW WITH ROUNDED APEX ',
          94
                'NOT UNIFORM IN HEIGHT WITH DISTAL EXTREMITY FORMING A
STEEP INCLINE THAT MAY BEAR A RUGOSE BOSS AT ITS APEX '
                'UNIFORM IN HEIGHT ALONG ITS LENGTH WITH DISTAL
EXTREMITY FORMING A SHALLOW INCLINE ',
          95
                'POORLY DEVELOPED '
                'WELL DEVELOPED AND PROMINENT ',
          96
                'SEPARATED FROM TROCHLEA BY A DISTINCT GROOVE '
                'CLOSELY ABUTS TROCHLEA ',
          97
                'SHALLOWLY EXCAVATED AND WEAKLY DELINEATED '
                'DEEPLY EXCAVATED AND STRONGLY DELINEATED ',
          98
                'DISTINCTLY UNEQUAL IN SIZE WITH CAPITELLUM LARGER
THAN TROCHLEA '
                'SUBEQUAL IN SIZE ',
          99
                'STRAIGHT VENTRAL-EDGE PROFILE '
                'DISTINCTLY SINUOUS VENTRAL-EDGE PROFILE ',
          100
                'DORSOVENTRALLY TALL WITH DISTINCT TRANSVERSE DORSAL
CREST '
                'DORSOVENTRALLY SHORT AND ROUNDED IN LATERAL VIEW ',
          101
                'TRANSVERSELY NARROWED BY POOR CONTRIBUTION OF DISTAL
END OF ILIAC CREST '
                'TRANSVERSELY BROADENED BY CONTRIBUTION OF THE RAISED
DISTAL END OF THE ILIAC CREST ',
          102
                'REDUCED AND RESTRICTED TO A SLIGHT RIDGE '
                'PROMINENT AND SUBCYLINDRICAL ',
          103
                'SMOOTH AND ROUNDED '
                'BEARS DISTINCT MEDIAN KEEL ',
          104
                'CYLINDRICAL WITH SUBCIRCULAR CROSS SECTION '
                'MARKEDLY DORSOVENTRALLY COMPRESSED WITH OVOID CROSS
SECTION ',
          105
                'convex (anteriormandible steeply inclined)'
                'straight (anterior mandibleshallowly inclined)',
          106
```

```
            absent
            'coarse, deeply incised'
            'fine, shallowly incised',
      107
            'transcristae absent'
            orless
            'between 5 and 10'
            '10 or more',
      108
            'rectangular (length atleast 0.3 > width)'
            'square (sub-equal length/width)',
;
MATRIX
      'Trichosurus vulpecula'          0001100001 0010000002
0000100000 1110012210 0110010000 0000000000 0000000000 0000000000
0000000000 0000000000 00000000
      'Balbaroo fangaroo'              0011001010 000121?001
0002110010 202??01211 1100100??? ?????????? ?????????? ??????????
?????????? ?????????? ?????120
      'Bettongia moyesi'               ?000000??? 0?01111001
0111000112 2111010200 1010??0??? ?????????? ?????????? ??????????
?????????? ?????????? ?????130
      'Bettongia penicillata'          1000000101 1001011011
0111000112 2111010200 1020100000 1100100000 1111010?11 1010010000
0000011100 0000001000 01100120
      'Bulungamaya delicata'           ????00???? 1001110001
?111000112 2110010201 1110??0??? ?????????? ?????????? ??????????
?????????? ?????????? ????0120
      'Dendrolagus lumholtzi'          0010110100 1102211111
0112110112 2120001211 0111100000 1010001000 0111111111 1000010011
0000001001 1100101100 10101110
      'Dorcopsis muelleri'             1000010100 0102211111
0113110112 2120002211 021?100000 1011001100 1111111111 1011010011
0000001111 1100111111 11101110
      'Dorcopsoides fossilis'          ????1???11 1?01111??1
?102110112 2020000111 0100??0000 1010001100 111111111? ??11010000
00000??00? ????????1?? ??101110
      'Ekaltadeta ima'                 0011001?10 0001211000
?000000000 0011112210 0100100??? ?????????? ?????????? ??????????
?????????? ?????????? ?????1120
      'Ganawamaya acris'               ????00???? 0001111101
?112111000 1021122201 0101??0??? ?????????? ?????????? ??????????
?????????? ?????????? ?????1120
      'Ganguroo bilamina'              1100000001 1001110101
0112010112 2120010101 1110100??? ?????????? ?????????? ??????????
?????????? ?????????? ????0120
      'Ganguroo bites'                 ?????????? ?001110??1
?112??011? 212???????? ??1???????? ?????????? ?????????? ??????????
?????????? ?????????? ????0120
      'Hadronomas puckridgi'           1110000??? 1101?11111
?112111112 2120201111 0111100110 2111100110 0011111111? ??11111001
1111111100 10????0?1?0 ?1101121
      'Hypsiprymnodon moschatus'       0000001001 0001110000
0000000000 0011012210 0100100000 1000000000 0010000110 0010000000
0000001010 0001010000 00001120
      'Macropus rufus'                 1000110100 1102211111
1113121112 2120002211 0001100000 1111111100 1111111111 1011010011
0000011101 1100100111 11101110
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           'Nambaroo gillespieae'          0011001010 0001110001
0002010000 0020102211 0100100001 1000000000 0010000100 0110000000
0000001010 00??0?0000 01011120
           'Ngamaroo archeri'              ?????????? 100111???1
??111?1112 211??????? ?????????? ????000000 0010?????? ???000????
?????01?0? ???101111? ????0230
           'Petrogale penicillata'         1000110101 1102211111
1113120112 2120022211 0001120000 1111001100 1111111111 1011010011
0000011101 1100100111 11101110
           'Potorous tridactylus'          ?000000??? 0001111011
0111000112 2110010200 1010??000? 1000000000 001100010? ??10000000
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           'Procoptodon goliah'            1?10?10101 1112210011
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1111111101 1001101111 1?101110
           'Purtia mosaicus'               ?????????? 00?111??11
?011??1112 21110????? ??1??????? ?????????? ?????????? ??????????
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           'Rhizosthenurus flanneryi'      1110000?00 1101111111
0112111112 ?12020???? ?111100000 2111000110 001111111? ??11010001
11111??10? ??0???1??0 ???01121
           'Simosthenurus occidentalis'    1100110?00 1112210011
1113120112 2120202212 0212101110 2111100111 001111111? 1011111101
1111111101 1001101111 11101110
           'Thylogale thetis'              1001110100 0102211111
1113110112 2120022211 0111100000 1011001100 1111111111 1011010011
0000011101 1100100111 11101110
           'Wabularoo naughtoni'           ?????????? 0001??0??1
?0120?0112 212??????? ?????????? ?????????? ?????????? ??????????
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           'Wakiewakie lawsoni'            ?????????? 1001110?1
?1110?0112 211??????? ?????????? ?????????? ?????????? ??????????
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           'Wallabia bicolor'              1000110100 1102211111
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           'Wanburoo hilarus'              ?????0???? 1101110?1
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?????????? ?????????? ?????1121
           'Wururoo dayamayi'              ?????????? ??01110?1
?102??0011 10111????? ??1???0??? ?????????? ?????????? ??????????
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BEGIN ASSUMPTIONS;
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     TYPESET * default = ORD: 14 - 15 24 26 29 33 35 37 44 46 53 106;
ENDBLOCK;

BEGIN NOTES;
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     [Character state comments]

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      [Taxon pictures]

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