

Multiple nuclear and mitochondrial DNA sequences provide new insights into the phylogeny of South African Lacertids (Lacertidae, Eremiadinae)  
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**Table S1.** Pairwise distances of all marker genes (*c-mos*, *RAG-1*, *RAG-2*, *EXPH5*, *KIF24*, *PRLR*, *12S*, *16S* and *cyt b*) in percent.

<i>c-mos</i> p-distance																							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
(1) <i>M. suborbitalis</i> ABJ25																							
(2) <i>M. suborbitalis</i> ABJ39	0.69																						
(3) <i>M. knoxii</i> ABM15	2.41	2.24																					
(4) <i>M. cuneirostris</i> ABL18	2.24	1.89	2.75																				
(5) <i>I. squamulosa</i> ABH3	2.24	1.89	3.10	2.75																			
(6) <i>I. squamulosa</i> ABH9	2.93	2.58	3.44	3.10	0.86																		
(7) <i>I. capensis</i> ABC2	4.13	3.96	4.48	3.61	4.82	5.16																	
(8) <i>T. gularis1</i> ABT1	4.13	3.96	4.48	3.61	4.48	4.82	3.79																
(9) <i>T. gularis3</i> ABT3	4.30	4.13	4.65	3.79	4.65	4.99	3.96	0.17															
(10) <i>T. montana2</i> ABY2	5.16	4.99	5.16	4.65	5.51	5.85	4.65	1.38	1.55														
(11) <i>T. montana3</i> ABY3	5.16	4.99	5.34	4.65	5.51	5.85	4.65	1.55	1.72	0.69													
(12) <i>T. montana4</i> ABY4	4.99	4.82	5.16	4.48	5.34	5.68	4.48	1.20	1.38	0.69	0.69												
(13) <i>T. essexii</i> ACK1	4.82	4.65	5.16	4.30	5.16	5.51	4.13	1.72	1.89	2.58	2.93	2.58											
(14) <i>T. cottrell</i> _ACJ1	4.30	4.13	4.65	3.79	4.65	4.99	3.96	1.20	1.38	2.07	2.41	2.07	0.86										
(15) <i>A. australis</i> ABU5	4.13	3.96	4.48	3.61	4.82	5.16	3.61	2.24	2.41	3.27	3.44	3.10	2.93	2.41									
(16) <i>A. rupicola</i> ADW5	4.99	4.82	5.34	4.65	4.99	5.51	4.82	3.10	3.27	4.13	4.30	3.96	3.79	3.27	3.61								
(17) <i>P. undata</i> ABE423	4.82	4.65	4.99	4.48	5.51	6.20	4.82	2.75	2.93	3.96	4.13	3.79	3.79	3.27	3.61	4.65							
(18) <i>P. lineoocellata</i> ABA18	6.02	5.51	6.37	5.68	6.20	6.88	6.37	4.65	4.82	5.51	5.68	5.34	5.34	4.82	4.82	5.68	3.61						
(19) <i>N. lalandii</i> NUL1	6.02	5.85	6.37	5.51	6.37	6.71	4.82	3.61	3.79	4.30	4.48	4.13	3.96	3.44	4.13	4.82	4.99	6.54					
(20) <i>H. lugubris</i> ABB20	7.24	7.07	7.41	6.72	7.76	8.10	6.03	5.34	5.52	6.03	6.21	5.86	5.69	5.17	5.00	6.55	6.72	7.76	4.83				
(21) <i>L. longicaudata</i> ATA13	6.54	6.37	6.71	5.68	7.06	7.40	5.34	4.30	4.48	4.99	5.16	4.82	4.99	4.48	4.48	5.34	5.68	7.06	3.79	3.10			
(22) <i>O. elegans</i> OJ1	6.88	6.71	7.06	6.37	7.57	7.92	6.20	4.30	4.48	4.65	4.82	4.82	4.99	4.48	5.16	5.34	5.68	7.06	5.16	6.90	6.02		
(23) <i>A. andreansky</i> LN4	4.48	4.30	4.82	3.96	4.48	4.82	3.61	2.75	2.93	3.44	3.61	3.27	3.44	2.93	2.75	4.13	4.13	4.99	3.27	5.00	4.13	4.99	
(24) <i>L. agilis</i> WT1	4.48	4.30	4.82	4.30	4.82	5.16	3.79	2.41	2.58	3.10	3.27	2.93	3.10	2.58	3.10	4.13	4.13	5.68	3.79	5.52	4.48	4.99	2.75

**RAG-1 p-distance**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
(1) <i>M. suborbitalis</i> ABJ25																							
(2) <i>M. suborbitalis</i> ABJ39	0.70																						
(3) <i>M. knoxii</i> ABM15	1.70	1.79																					
(4) <i>M. cuneirostris</i> ABL18	2.29	2.58	2.59																				
(5) <i>I. squamulosa</i> ABH3	2.71	2.69	2.21	3.00																			
(6) <i>I. squamulosa</i> ABH9	2.99	3.08	2.59	3.28	1.20																		
(7) <i>I. capensis</i> ABC2	4.59	4.67	4.10	4.78	4.60	5.07																	
(8) <i>T. gularis1</i> ABT1	3.68	3.57	3.19	3.77	3.59	3.97	4.08																
(9) <i>T. gularis3</i> ABT3	3.58	3.47	3.09	3.67	3.49	3.87	3.98	0.30															
(10) <i>T. montana2</i> ABY2	2.99	3.37	2.99	3.37	3.49	4.07	4.17	1.98	1.88														
(11) <i>T. montana3</i> ABY3	3.18	3.37	2.99	3.37	3.49	3.87	3.98	1.78	1.68	0.59													
(12) <i>T. montana4</i> ABY4	3.38	3.77	3.19	3.47	3.69	4.46	4.08	2.28	2.18	0.89	0.89												
(13) <i>T. essexi</i> ACK1	3.48	3.57	2.89	3.37	2.99	3.67	3.88	2.08	2.08	1.98	1.78	2.08											
(14) <i>T. cottrelli</i> ACJ1	3.78	3.87	3.29	3.67	3.49	3.97	3.98	1.78	1.78	1.88	1.68	1.98	0.89										
(15) <i>A. australis</i> ABU5	3.78	4.06	3.49	3.67	3.49	4.07	4.47	2.58	2.48	2.87	2.87	3.17	2.87	2.97									
(16) <i>A. rupicola</i> ADW5	4.18	4.06	3.89	4.07	3.99	4.17	4.67	3.47	3.37	3.47	3.07	3.77	3.27	3.57	3.37								
(17) <i>P. undata</i> ABE423	5.27	5.55	4.89	5.36	5.49	6.05	4.77	4.26	4.26	4.36	4.36	4.66	3.96	4.26	4.56	5.45							
(18) <i>P. lineoocellata</i> ABA18	5.12	5.20	4.63	5.01	5.14	5.71	4.81	3.80	3.70	4.20	4.00	4.30	4.20	4.10	4.20	4.90	3.40						
(19) <i>N. lalandii</i> NUL1	4.58	4.66	4.09	4.77	4.70	5.06	4.98	4.07	3.97	3.87	3.87	4.37	3.87	3.97	4.17	4.37	5.26	5.11					
(20) <i>H. lugubris</i> ABB20	7.16	7.23	6.38	6.94	7.19	7.34	7.16	6.44	6.34	6.64	6.64	6.74	6.05	6.34	6.24	6.94	7.23	6.80	6.35				
(21) <i>L. longicaudata</i> ATA13	5.48	5.56	5.19	5.46	5.89	6.26	5.57	5.06	4.96	5.06	5.06	5.16	4.56	5.06	4.96	5.26	5.95	5.91	4.57	5.95			
(22) <i>O. elegans</i> OJ1	5.77	5.65	5.58	6.25	5.99	6.15	6.66	6.05	6.05	6.14	5.75	6.34	6.05	6.05	6.44	6.54	7.23	7.30	6.75	9.12	7.54		
(23) <i>A. andreanskyi</i> LN4	3.98	4.06	3.39	4.27	4.19	4.27	4.47	3.67	3.57	3.67	3.27	3.96	3.47	3.57	3.96	3.77	4.66	4.70	4.07	6.44	5.16	5.15	
(24) <i>L. agilis</i> WT1	4.58	4.66	4.49	4.76	4.99	5.16	5.57	4.36	4.26	4.36	4.36	4.46	4.36	4.26	4.66	5.05	5.35	5.60	5.16	6.64	5.95	6.05	3.07

**RAG-2 p-distance**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
(1) <i>M. suborbitalis</i> ABJ25																							
(2) <i>M. suborbitalis</i> ABJ39	1.06																						
(3) <i>M. knoxii</i> ABM15	2.34	2.12																					
(4) <i>M. cuneirostris</i> ABL18	2.67	2.46	3.10																				
(5) <i>I. squamulosa</i> ABH3	2.98	2.98	3.40	2.57																			
(6) <i>I. squamulosa</i> ABH9	2.87	2.87	3.08	2.46	0.32																		
(7) <i>I. capensis</i> ABC2	4.35	4.14	4.35	3.95	4.26	4.04																	
(8) <i>T. gularis1</i> ABT1	3.40	3.19	3.83	2.89	3.41	3.09	3.93																
(9) <i>T. gularis3</i> ABT3	3.29	3.08	3.72	2.67	3.30	2.98	3.72	0.21															
(10) <i>T. montana2</i> ABY2	3.72	3.50	4.14	3.10	3.72	3.40	4.14	1.38	1.17														
(11) <i>T. montana3</i> ABY3	3.61	3.61	4.25	3.21	3.72	3.40	4.25	1.38	1.17	0.85													
(12) <i>T. montana4</i> ABY4	3.40	3.19	3.83	2.78	3.41	3.09	3.83	0.96	0.74	0.64	0.85												
(13) <i>T. essexi</i> ACK1	2.56	2.35	3.20	1.93	2.67	2.56	3.42	1.39	1.17	1.49	1.71	1.28											
(14) <i>T. cottrelli</i> ACJ1	2.76	2.44	3.40	2.14	2.77	2.66	3.40	1.49	1.28	1.59	1.81	1.38	0.00										
(15) <i>A. australis</i> ABU5	3.29	3.08	3.93	3.10	3.83	3.72	4.03	2.76	2.55	2.97	3.08	2.66	2.03	2.13									
(16) <i>A. rupicola</i> ADW5	3.82	3.61	4.25	3.31	3.83	3.72	4.46	3.51	3.29	3.72	3.82	3.40	2.45	2.55	3.18								
(17) <i>P. undata</i> ABE423	3.76	3.55	4.41	3.25	3.99	3.88	4.19	3.55	3.33	3.76	3.87	3.44	2.70	2.80	3.33	3.87							
(18) <i>P. lineocellata</i> ABA18	3.54	3.33	4.29	3.02	3.98	3.87	4.51	3.44	3.22	3.65	3.76	3.44	2.59	2.69	3.11	3.65	1.52						
(19) <i>N. lalandii</i> NUL1	4.04	3.83	4.78	3.42	4.37	4.26	4.68	3.62	3.40	3.61	3.72	3.30	2.99	3.09	3.72	4.36	4.31	4.08					
(20) <i>H. lugubris</i> ABB20	6.50	6.28	6.71	6.11	6.19	6.08	6.60	5.97	5.86	6.07	6.18	5.76	5.46	5.54	6.28	6.82	6.47	6.46	5.44				
(21) <i>L. longicaudata</i> ATA13	5.53	5.31	6.16	5.24	5.32	5.32	5.53	5.21	4.99	5.10	5.42	4.79	4.38	4.36	5.10	5.63	5.49	5.26	4.57	5.65			
(22) <i>O. elegans</i> OJ1	4.46	4.25	5.31	4.27	4.36	4.36	5.52	3.72	3.50	3.93	4.03	3.61	3.31	3.40	4.14	4.88	4.62	4.51	4.57	6.71	6.06		
(23) <i>A. andreanskyi</i> LN4	2.35	2.13	2.99	2.04	2.78	2.67	3.20	2.03	1.81	2.24	2.35	1.92	1.18	1.28	2.13	2.56	2.49	2.37	2.67	4.93	4.06	2.45	
(24) <i>L. agilis</i> WT1	3.73	3.51	4.37	3.32	3.95	3.84	4.15	2.88	2.66	3.19	3.30	2.88	2.36	2.45	3.30	3.94	3.88	3.44	3.84	5.77	5.12	3.62	1.71

**EXPH5 p-distance**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
(1) <i>M. suborbitalis</i> ABJ25																							
(2) <i>M. suborbitalis</i> ABJ39	1.80																						
(3) <i>M. knoxii</i> ABM15	2.91	2.47																					
(4) <i>M. cuneirostris</i> ABL18	4.74	4.19	3.95																				
(5) <i>I. squamulosa</i> ABH3	5.04	4.38	4.37	5.19																			
(6) <i>I. squamulosa</i> ABH9	5.17	4.74	4.27	5.44	1.24																		
(7) <i>I. capensis</i> ABC2	8.85	8.08	7.72	8.58	8.74	9.24																	
(8) <i>T. gularis1</i> ABT1	7.05	6.29	5.82	7.00	6.94	7.09	7.15																
(9) <i>T. gularis3</i> ABT3	6.73	6.18	5.94	7.23	6.84	7.21	7.39	1.01															
(10) <i>T. montana2</i> ABY2	7.28	6.62	5.94	7.34	7.17	7.20	7.95	2.80	3.03														
(11) <i>T. montana3</i> ABY3	6.51	5.85	5.39	6.67	6.62	6.88	7.51	2.36	2.36	0.90													
(12) <i>T. montana4</i> ABY4	7.61	6.96	6.49	7.79	7.73	7.99	8.17	3.14	3.14	1.68	1.23												
(13) <i>T. essexi</i> ACK1	7.97	7.20	6.51	7.69	7.86	7.89	8.30	3.25	3.37	4.26	3.82	4.26											
(14) <i>T. cottrelli</i> ACJ1	6.72	6.17	5.49	7.00	7.28	7.42	7.15	3.25	3.14	3.81	3.14	3.81	2.24										
(15) <i>A. australis</i> ABU5	6.18	5.18	4.94	5.89	6.29	6.66	6.26	3.37	3.49	3.93	3.38	4.04	4.39	3.48									
(16) <i>A. rupicola</i> ADW5	6.64	6.09	5.07	6.58	6.64	6.56	6.62	4.50	4.40	4.73	4.40	5.07	5.19	4.50	3.39								
(17) <i>P. undata</i> ABE423	8.77	8.33	7.74	9.07	9.45	9.61	8.78	6.49	6.61	6.83	6.28	6.95	7.31	6.61	5.60	6.19							
(18) <i>P. lineoocellata</i> ABA18	8.57	7.57	7.33	8.18	8.46	8.49	9.03	6.09	6.09	6.31	5.76	6.65	6.67	5.86	4.98	5.56	5.85						
(19) <i>N. lalandii</i> NUL1	7.84	6.85	6.49	6.77	7.73	8.10	7.95	5.82	5.49	6.38	5.84	6.72	6.40	5.60	4.49	5.07	6.83	6.31					
(20) <i>H. lugubris</i> ABB20	10.11	9.57	9.10	9.51	10.67	11.06	10.02	8.31	8.44	9.10	8.33	8.88	9.12	7.98	7.22	8.02	8.80	8.82	6.40				
(21) <i>L. longicaudata</i> ATA13	12.00	11.24	10.87	11.07	12.11	12.50	11.82	9.87	9.65	10.65	10.00	10.31	10.56	9.53	8.77	9.47	10.72	10.72	7.85	7.99			
(22) <i>O. elegans</i> OJ1	10.92	9.90	9.99	10.19	11.03	11.55	11.07	8.25	8.37	9.18	8.50	8.83	9.20	8.36	7.58	9.11	10.40	10.18	8.59	11.77	12.79		
(23) <i>A. andreanskyi</i> LN4	7.17	6.40	5.94	6.66	7.39	7.76	7.38	5.04	5.16	5.60	5.05	5.94	6.06	5.15	3.71	4.84	6.95	6.65	5.15	7.42	9.30	8.25	
(24) <i>L. agilis</i> WT1	7.84	7.07	6.61	7.67	7.61	8.21	8.29	5.15	5.04	5.94	5.05	5.82	5.95	5.04	4.61	5.63	8.20	7.44	5.60	7.98	9.87	7.55	4.70

**KIF24 p-distance**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
(1) <i>M. suborbitalis</i> ABJ25																							
(2) <i>M. suborbitalis</i> ABJ39	1.06																						
(3) <i>M. knoxii</i> ABM15	1.91	2.12																					
(4) <i>M. cuneirostris</i> ABL18	1.56	1.78	0.44																				
(5) <i>I. squamulosa</i> ABH3	7.01	6.36	6.36	4.89																			
(6) <i>I. squamulosa</i> ABH9	6.37	5.72	5.30	4.67	2.33																		
(7) <i>I. capensis</i> ABC2	12.53	12.29	12.08	11.11	15.04	13.98																	
(8) <i>T. gularis1</i> ABT1	7.43	7.20	6.78	6.22	9.53	8.69	11.02																
(9) <i>T. gularis3</i> ABT3	7.86	7.63	7.20	6.44	9.96	9.11	11.44	0.42															
(10) <i>T. montana2</i> ABY2	7.64	7.42	7.42	6.89	10.17	9.32	11.02	1.69	2.12														
(11) <i>T. montana3</i> ABY3	7.04	6.60	6.81	6.25	9.57	8.72	11.28	1.06	1.49	0.43													
(12) <i>T. montana4</i> ABY4	7.22	6.99	6.99	6.44	9.75	8.90	11.44	1.27	1.69	0.85	0.21												
(13) <i>T. essexi</i> ACK1	7.92	7.69	7.05	6.50	9.62	8.76	12.18	2.56	2.99	3.21	2.58	2.78											
(14) <i>T. cottrelli</i> ACJ1	8.49	8.26	8.26	7.78	11.02	10.17	12.71	3.60	4.03	4.24	3.62	3.81	2.14										
(15) <i>A. australis</i> ABU5	7.64	6.99	6.99	6.67	10.17	9.32	12.50	4.24	4.66	4.87	4.04	4.45	4.70	5.51									
(16) <i>A. rupicola</i> ADW5	9.40	9.38	8.93	8.45	11.61	11.38	12.28	6.25	6.70	6.92	6.50	6.70	6.31	7.37	8.26								
(17) <i>P. undata</i> ABE423	10.40	10.17	9.32	8.44	12.29	11.44	13.56	7.84	8.26	8.47	7.87	8.05	7.69	8.47	7.63	10.94							
(18) <i>P. lineocellata</i> ABA18	9.87	9.85	8.99	8.31	11.56	10.71	13.92	7.49	7.92	8.14	7.31	7.71	7.34	8.57	6.85	10.38	4.28						
(19) <i>N. lalandii</i> NUL1	10.62	10.17	10.59	9.78	13.56	12.71	15.89	8.90	9.32	9.11	8.30	8.69	8.55	9.32	8.90	10.71	11.02	10.28					
(20) <i>H. lugubris</i> ABB20	13.49	13.25	13.03	12.56	15.81	15.60	16.88	12.39	12.82	13.03	12.45	12.61	12.28	12.61	12.82	13.29	12.82	14.04	11.11				
(21) <i>L. longicaudata</i> ATA13	12.53	11.44	12.08	11.33	14.41	13.56	15.04	10.38	10.81	10.81	10.00	10.38	10.04	10.81	10.17	11.61	11.44	11.35	8.26	11.32			
(22) <i>O. elegans</i> OJ1	10.83	11.02	9.75	9.33	12.71	11.86	14.62	8.90	9.32	9.53	8.94	8.69	8.33	9.53	8.90	10.94	9.96	9.85	9.53	14.32	12.08		
(23) <i>A. andreanskyi</i> LN4	9.13	8.47	8.47	8.22	11.65	10.81	12.92	5.93	6.36	6.57	5.74	5.72	5.77	6.57	5.51	7.81	8.05	8.35	7.20	10.68	9.32	6.78	
(24) <i>L. agilis</i> WT1	8.94	8.28	8.70	8.24	12.10	11.25	13.16	6.37	6.79	6.58	5.76	6.16	6.21	7.01	5.94	9.17	9.55	9.44	7.22	11.56	8.92	7.86	4.46

**PRLR p-distance**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
(1) <i>M. suborbitalis</i> ABJ25																							
(2) <i>M. suborbitalis</i> ABJ39	1.83																						
(3) <i>M. knoxii</i> ABM15	3.67	2.98																					
(4) <i>M. cuneirostris</i> ABL18	5.74	5.19	4.39																				
(5) <i>I. squamulosa</i> ABH3	6.31	6.55	5.36	6.79																			
(6) <i>I. squamulosa</i> ABH9	6.53	7.16	5.96	7.20	1.39																		
(7) <i>I. capensis</i> ABC2	12.00	11.62	10.41	12.68	10.41	11.17																	
(8) <i>T. gularis1</i> ABT1	7.94	7.14	6.35	7.58	7.94	8.55	9.20																
(9) <i>T. gularis3</i> ABT3	7.94	7.14	6.35	7.58	7.94	8.15	9.44	1.59															
(10) <i>T. montana2</i> ABY2	8.02	7.21	6.61	6.65	8.22	8.84	9.56	2.40	2.61														
(11) <i>T. montana3</i> ABY3	8.96	8.13	7.54	7.39	9.13	9.74	10.41	3.37	3.57	0.60													
(12) <i>T. montana4</i> ABY4	9.16	7.94	7.54	8.18	9.33	9.94	10.65	3.97	4.17	1.80	2.58												
(13) <i>T. essexi</i> ACK1	9.00	8.17	7.37	8.62	8.57	8.98	10.71	3.39	3.59	3.82	4.78	4.98											
(14) <i>T. cottrelli</i> ACJ1	8.20	7.39	6.59	7.63	7.78	8.40	10.24	2.59	2.79	3.02	3.99	4.19	2.00										
(15) <i>A. australis</i> ABU5	7.13	6.35	5.56	6.79	7.14	7.75	9.20	2.18	2.18	2.61	3.57	3.77	2.99	2.20									
(16) <i>A. rupicola</i> ADW5	9.82	8.76	8.37	9.02	9.96	10.58	10.71	4.18	4.58	5.03	5.98	6.57	5.80	5.01	4.38								
(17) <i>P. undata</i> ABE423	11.81	11.71	10.91	11.38	11.11	11.93	14.29	8.33	8.33	8.82	9.52	9.92	9.36	8.18	7.74	10.76							
(18) <i>P. lineocellata</i> ABA18	9.67	9.82	8.42	9.88	9.62	10.44	12.75	7.21	7.21	7.89	8.82	9.02	7.65	6.45	6.21	9.05	5.41						
(19) <i>N. lalandii</i> NUL1	11.00	10.32	9.52	9.98	10.52	11.13	12.11	6.55	6.55	6.81	7.74	8.33	7.17	6.59	5.56	8.37	11.11	10.02					
(20) <i>H. lugubris</i> ABB20	12.07	12.15	10.96	12.22	11.95	12.57	13.14	8.57	8.96	9.05	9.76	10.76	9.60	9.02	8.17	10.40	11.35	11.47	8.17				
(21) <i>L. longicaudata</i> ATA13	10.79	10.12	9.33	10.18	9.92	10.54	11.62	6.55	6.55	6.61	7.54	8.13	7.37	6.99	5.56	9.16	10.52	10.02	5.95	6.77			
(22) <i>O. elegans</i> OJ1	13.90	13.33	12.32	13.21	13.13	13.77	14.85	9.90	9.90	9.80	10.10	11.11	10.55	9.35	9.09	11.76	13.94	13.06	10.71	11.56	11.52		
(23) <i>A. andreanskyi</i> LN4	11.68	11.58	10.78	11.85	11.38	11.80	12.20	7.78	7.98	8.47	9.38	9.38	8.02	7.43	6.99	9.62	12.57	11.49	8.98	12.42	9.78	12.40	
(24) <i>L. agilis</i> WT1	12.42	12.10	10.91	12.77	11.11	11.73	13.80	8.53	8.53	9.22	10.12	10.32	9.16	8.18	7.54	10.16	13.29	11.62	9.92	11.35	10.12	12.53	8.58

**12S p-distance**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
(1) <i>M. suborbitalis</i> ABJ25																							
(2) <i>M. suborbitalis</i> ABJ39	4.07																						
(3) <i>M. knoxii</i> ABM15	6.46	7.18																					
(4) <i>M. cuneirostris</i> ABL18	9.57	8.85	7.42																				
(5) <i>I. squamulosa</i> ABH3	5.76	5.52	6.95	9.59																			
(6) <i>I. squamulosa</i> ABH9	6.47	6.71	8.39	10.55	2.64																		
(7) <i>I. capensis</i> ABC2	12.50	10.58	11.06	11.78	11.08	11.57																	
(8) <i>T. gularis1</i> ABT1	8.85	10.05	10.29	11.00	9.59	10.55	13.70																
(9) <i>T. gularis3</i> ABT3	9.81	11.00	11.00	11.72	10.55	11.03	13.22	2.87															
(10) <i>T. montana2</i> ABY2	10.05	10.53	11.00	11.48	9.83	9.83	13.22	6.70	6.94														
(11) <i>T. montana3</i> ABY3	11.24	10.53	12.20	11.96	10.55	11.75	14.66	6.94	6.94	4.55													
(12) <i>T. montana4</i> ABY4	8.85	10.29	10.29	10.29	10.07	11.03	14.66	7.42	7.66	4.78	4.07												
(13) <i>T. essexi</i> ACK1	11.96	10.77	13.16	12.92	12.47	12.95	13.22	9.33	9.33	9.57	9.81	10.05											
(14) <i>T. cottrelli</i> ACJ1	11.48	10.29	11.72	11.72	11.27	11.75	13.70	9.09	9.09	10.53	9.57	9.81	6.94										
(15) <i>A. australis</i> ABU5	11.24	9.81	10.53	12.44	10.55	11.75	14.18	12.44	12.92	11.00	10.53	10.05	11.24	11.72									
(16) <i>A. rupicola</i> ADW5	13.64	11.96	12.92	12.92	11.75	13.19	15.38	12.20	12.20	12.92	12.68	12.68	12.20	12.20	12.68								
(17) <i>P. undata</i> ABE423	11.96	11.96	11.96	13.16	10.79	12.47	13.22	13.16	12.68	14.11	13.16	13.16	13.64	11.96	12.44	14.11							
(18) <i>P. lineocellata</i> ABA18	11.96	10.53	12.20	13.88	11.03	12.23	13.70	11.72	11.96	12.44	11.24	12.68	11.48	12.44	11.24	13.64	10.05						
(19) <i>N. lalandii</i> NUL1	13.64	13.40	12.92	13.16	13.43	13.43	14.66	15.79	15.55	15.07	15.07	13.88	15.55	15.31	15.55	14.35	13.16	14.35					
(20) <i>H. lugubris</i> ABB20	13.16	12.68	14.83	14.83	13.43	13.91	14.18	14.11	14.35	14.35	13.64	14.59	14.59	14.35	13.64	16.27	14.59	12.68	15.31				
(21) <i>L. longicaudata</i> ATA13	12.68	12.92	14.35	15.07	13.43	13.67	14.18	14.35	15.07	15.55	15.79	16.27	16.75	14.35	15.31	15.55	14.11	15.31	15.55	10.53			
(22) <i>O. elegans</i> OJ1	14.63	13.67	15.59	18.71	15.38	15.87	17.59	15.35	15.11	16.79	15.59	16.31	17.75	17.27	15.35	17.03	17.27	13.91	17.51	16.55	17.99		
(23) <i>A. andreanskyi</i> LN4	11.96	9.81	11.00	12.68	10.79	11.99	11.06	12.20	12.20	13.16	13.16	12.92	12.20	12.68	10.29	14.35	12.20	9.57	14.11	13.16	13.64	13.43	
(24) <i>L. agilis</i> WT1	12.74	11.78	12.50	12.98	12.77	12.77	13.77	12.26	12.02	10.58	10.82	11.30	11.30	11.78	12.50	15.14	12.02	12.02	12.98	13.70	15.38	15.18	9.62

**16S p distance**

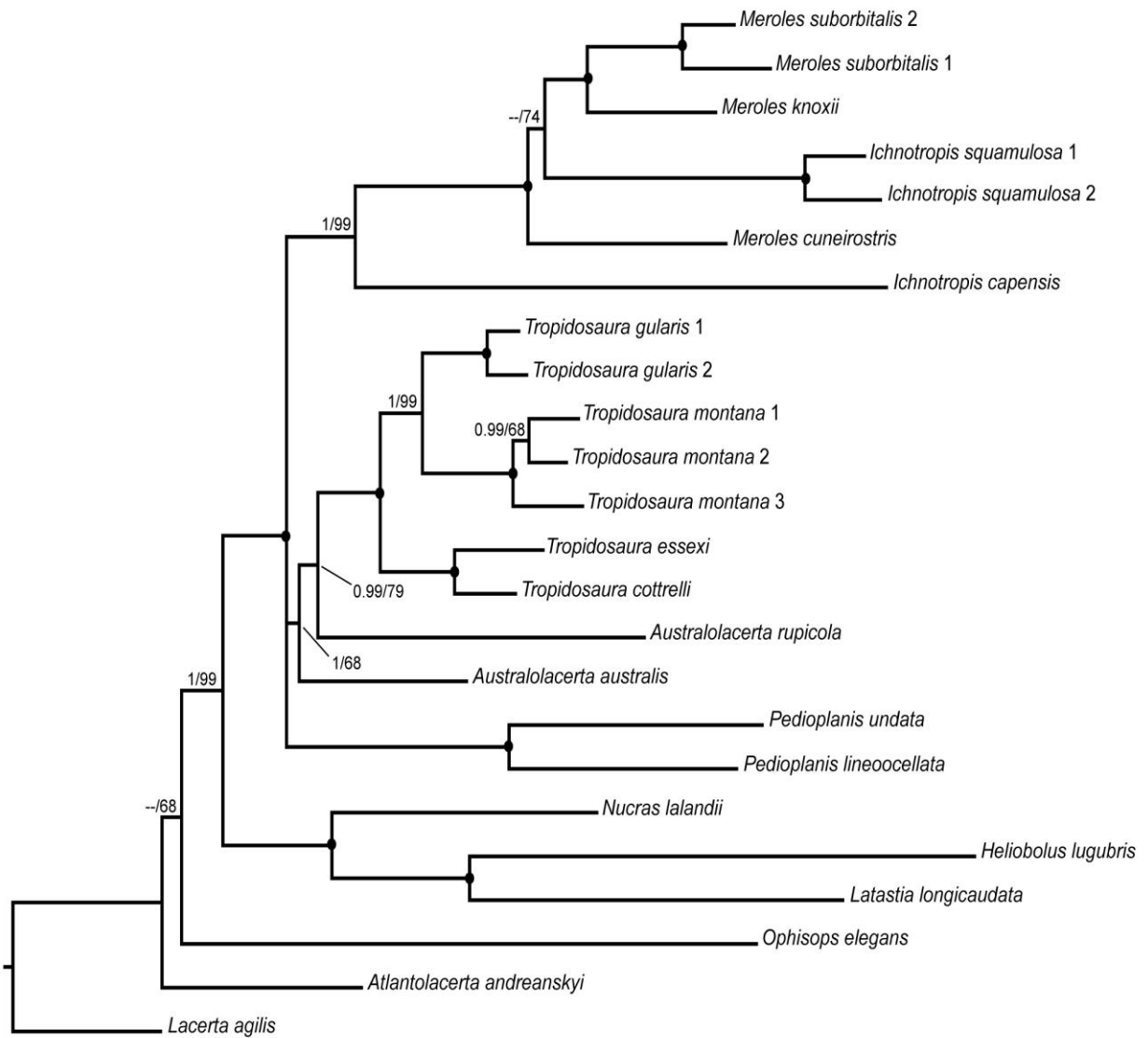
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
(1) <i>M. suborbitalis</i> ABJ25																							
(2) <i>M. suborbitalis</i> ABJ39	3.33																						
(3) <i>M. knoxii</i> ABM15	5.32	5.99																					
(4) <i>M. cuneirostris</i> ABL18	5.76	6.65	5.76																				
(5) <i>I. squamulosa</i> ABH3	8.89	9.56	9.56	9.33																			
(6) <i>I. squamulosa</i> ABH9	9.53	10.86	9.76	9.76	2.67																		
(7) <i>I. capensis</i> ABC2	13.56	13.56	13.33	12.22	16.48	16.22																	
(8) <i>T. gularis1</i> ABT1	12.42	11.97	12.42	11.75	13.11	14.19	12.67																
(9) <i>T. gularis3</i> ABT3	11.75	11.97	11.97	11.09	12.67	13.75	12.00	3.55															
(10) <i>T. montana2</i> ABY2	11.31	11.31	10.20	9.98	11.78	12.42	12.22	5.54	4.21														
(11) <i>T. montana3</i> ABY3	11.53	11.31	10.64	10.20	12.00	12.64	12.00	4.66	3.55	0.89													
(12) <i>T. montana4</i> ABY4	12.20	11.75	11.53	11.31	12.89	13.53	13.33	5.99	4.88	2.88	2.00												
(13) <i>T. essexi</i> ACK1	11.53	12.20	12.20	11.31	13.78	13.30	11.11	7.32	7.32	6.87	6.43	8.43											
(14) <i>T. cottrelli</i> ACJ1	11.97	12.20	10.86	11.31	12.89	13.75	11.78	6.21	5.76	4.88	4.66	6.21	4.88										
(15) <i>A. australis</i> ABU5	11.75	11.31	10.86	10.42	12.67	13.08	12.89	9.76	9.31	8.43	7.98	9.09	10.86	8.65									
(16) <i>A. rupicola</i> ADW5	11.75	11.97	12.64	11.53	13.33	13.97	14.67	12.20	11.09	9.31	9.76	10.42	12.42	11.09	11.97								
(17) <i>P. undata</i> ABE423	12.72	12.95	11.38	11.61	12.75	13.84	14.09	10.49	9.82	8.26	8.71	10.49	11.61	9.15	10.04	12.50							
(18) <i>P. lineocellata</i> ABA18	11.09	11.09	10.86	10.64	13.11	13.08	12.67	10.20	9.76	8.87	8.65	9.53	10.20	8.87	9.76	11.75	6.47						
(19) <i>N. lalandii</i> NUL1	11.41	11.41	10.74	10.07	13.23	13.42	13.90	12.53	11.86	11.63	11.41	12.30	12.98	12.08	11.86	12.98	13.29	12.75					
(20) <i>H. lugubris</i> ABB20	14.48	15.14	14.25	14.70	15.40	16.70	16.74	14.92	15.37	14.03	14.48	15.59	15.37	14.03	14.70	15.37	13.45	14.03	14.83				
(21) <i>L. longicaudata</i> ATA13	11.97	12.64	12.20	12.20	13.11	13.75	14.00	12.20	10.86	11.09	11.09	12.42	12.86	10.64	9.53	12.42	12.28	9.98	10.51	12.47			
(22) <i>O. elegans</i> OJ1	12.64	12.64	12.86	13.30	14.44	14.41	16.89	13.97	13.53	13.30	13.53	13.75	15.08	14.19	12.42	14.41	12.95	13.08	10.51	16.04	12.64		
(23) <i>A. andreanskyi</i> LN4	11.75	12.42	11.53	11.75	13.33	13.53	12.44	12.64	11.75	10.86	11.09	12.86	11.75	11.53	10.64	12.64	11.61	10.86	10.74	14.25	9.98	11.97	
(24) <i>L. agilis</i> WT1	14.06	14.29	13.39	14.29	14.99	16.29	15.44	13.17	12.28	11.16	11.16	11.61	12.28	11.16	12.28	13.62	11.69	12.05	14.64	13.90	14.06	13.17	10.49



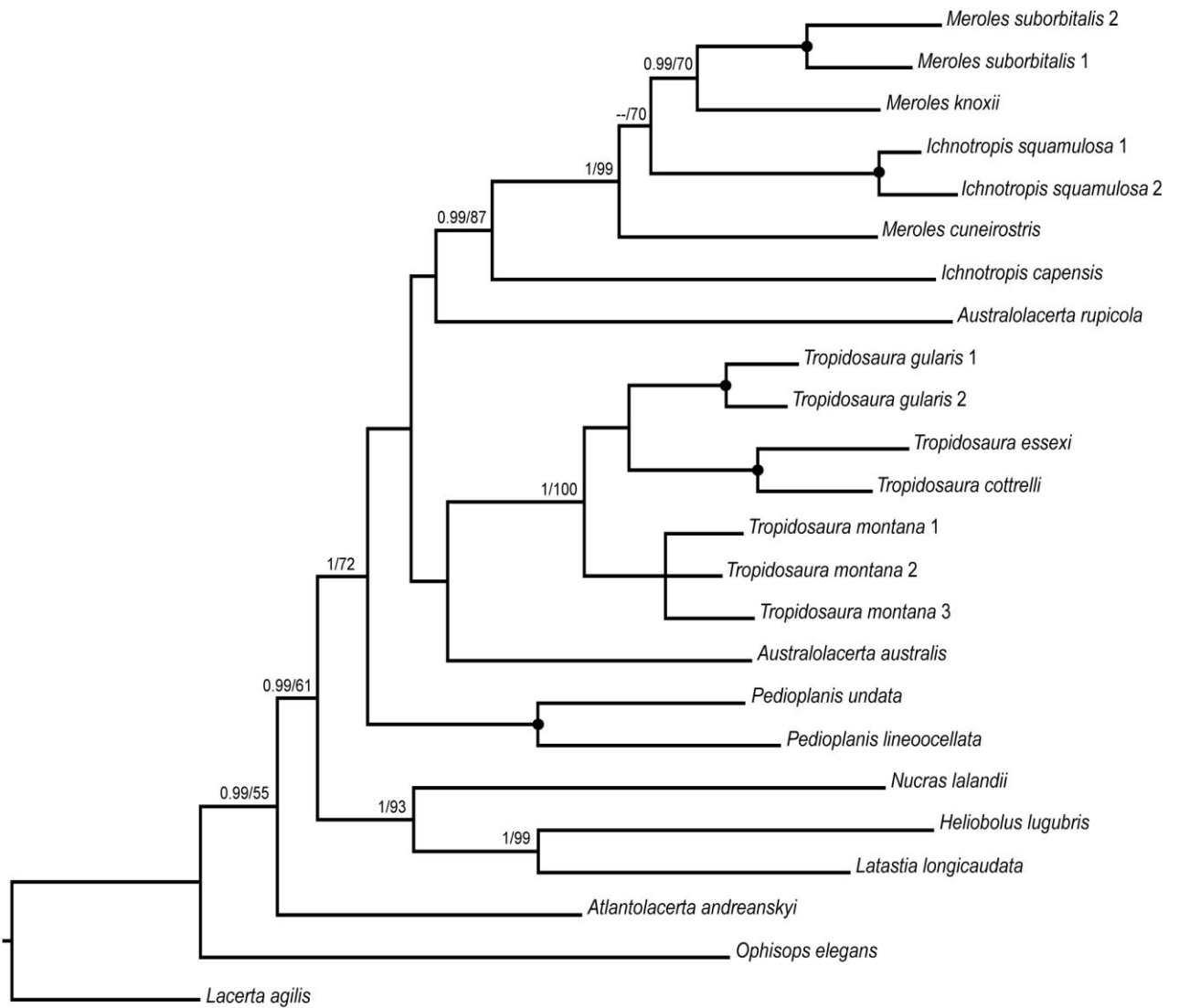


**Table S2.** Characters relevant for differentiation of *Ichnotropis s.str.* (*I. capensis*, *I. bivittata*, *I. chapini*, *I. grandiceps*, *I. microlepidota*, *I. tanganicana*), *I. squamulosa* and *Meroles*. Data collected from Boulenger (1917, 1921), Schmidt (1919), Marx (1956), Broadley (1967), Branch (1998).

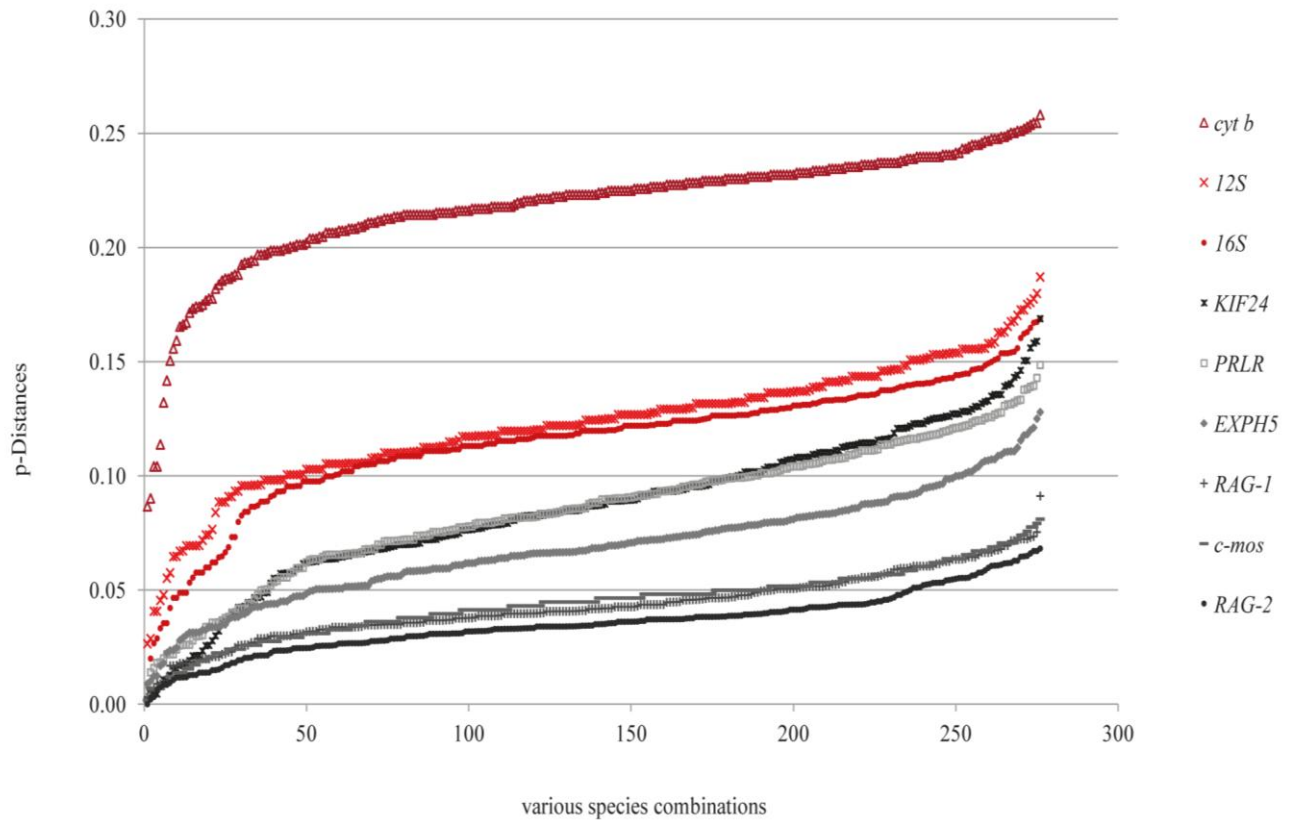
Character	<i>Ichnotropis s.str.</i>	<i>Ichnotropis squamulosa</i>	<i>Meroles</i>
chin shield	5 pairs	5 pairs	4-6 pairs
collar	absent	absent	present or absent
pterygoid teeth	present	present	present or absent
dorsal scale rows around midbody	28-50 rows	42-58 rows	42-138 rows
rows of ventral plates	8-10 rows	10-12 rows	10-30 rows
occipital scale	present	usually absent	usually absent, if present then very small
frontonasal	single	bisected longitudinally	sometimes bisected longitudinally in <i>M. knoxii</i>
subocular scale	bordering the lip	separated from lip by a labial shield	separated from lip by a labial shield



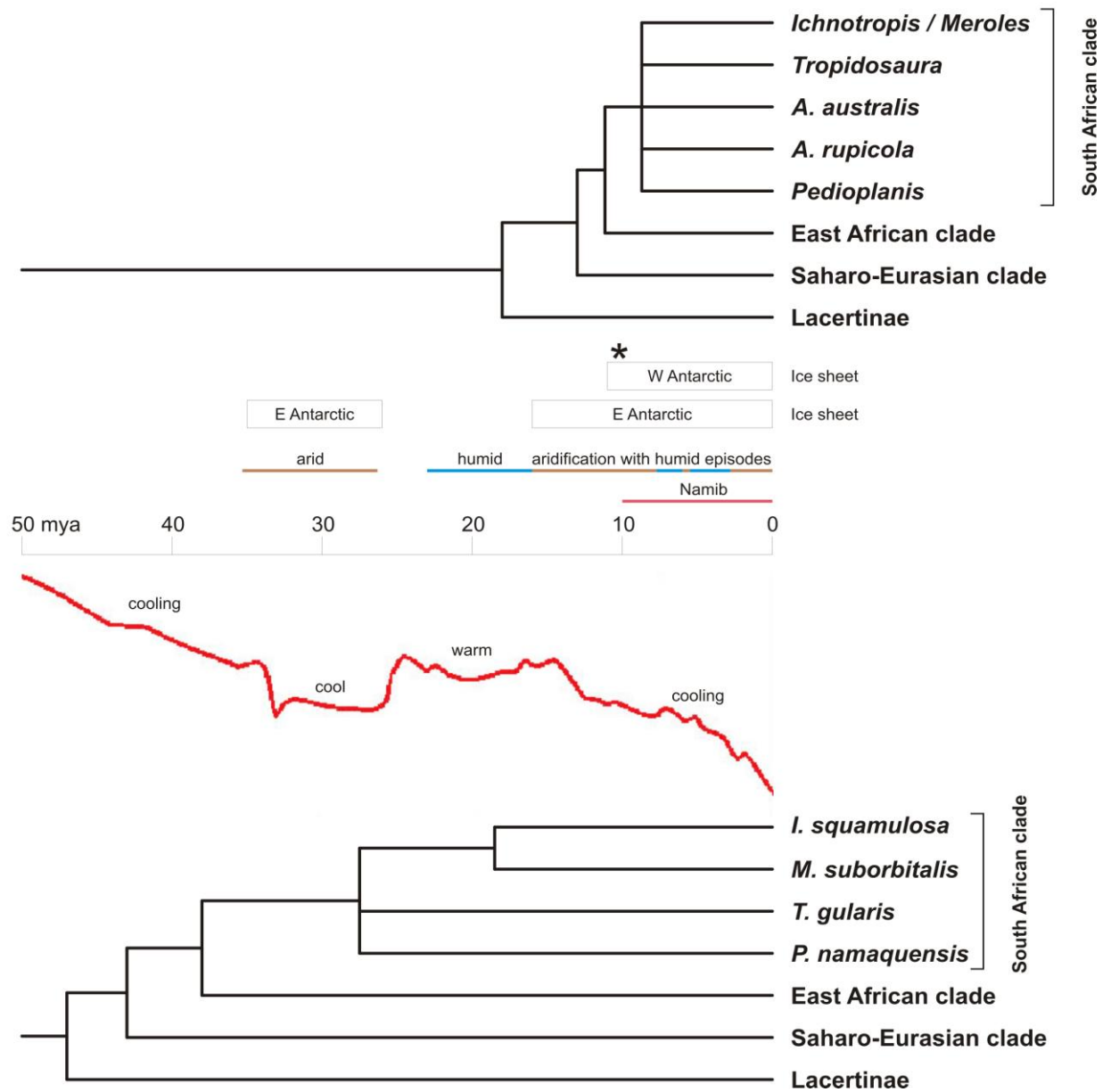
**Fig. S1.** Phylogenetic BI tree based on nuclear gene sequences. Nodes with maximal support values (in the BI and ML analysis) are marked with a black spot. Support values <0.95 (BI) and <50% (ML) are not shown.



**Fig. S2.** Phylogenetic BI tree based on the mitochondrial gene sequences. Nodes with maximal support values (in the BI and ML analysis) are marked with a black spot. Support values <0.95 (BI) and <50% (ML) are not shown.



**Fig. S3.** A summarizing plot (all nine resulting curves) of pairwise distances of each gene plotted in an ascending order.



**Fig. S4.** Two hypotheses of the radiation of the “South African clade” based on the dating of Mayer and Pavlicev (2007) (above) and Hipsley et al. (2007) (below). The red line represents the  $\delta^{18}O$  curve (Zachos et al. 2010) which reflects the general temperature trend. The asterisk indicates the starting of the Benguela current. References: Zachos et al. (2010): Cooling trend (50-33 mya); Feakins and deMenocal (2010): development of permanent Antarctic glaciations (35-26 mya); Miller et al. (1987): period of wettest and warmest conditions (23-16 mya); Lockwood (1979), Deacon (1983): reestablishment of permanent ice-caps in Eastern Antarctica (16-11 mya); Diekmann et al. (2003): formation of the West Antarctic ice sheet (11 mya); Diester-Haass et al. (2002): Benguela current (10 mya); Partridge (1993): Hyperarid Namib Desert (10 mya).