Supplementary file S6

PAML - Branch Analysis of Reptiles Only - AMEL

	Gene	Model	nP	Parameters	lnL	K(ts/tv)	ω_b	ω_f
A	AMEL	Free-ratio	89		-4417.19	2.00		
B		One-ratio	46		-4452.86	2.00	0.4919	
C		Two-ratio	47	Crocodilians [f] Squamates [b]	-4446.57	2.00	0.5454	0.1673
D		Two-ratio	47	Snakes [f] Crocodilians + Lizards[b]	-4452.11	1.99362	0.5205	0.4126
	Squamates - ONLY							
F		Free-ratio	69		-3757.9	1.99403		
G		One-ratio	36		-3780.68	2.00059	0.5284	
H		Two-ratio	37	Snakes [f] Lizards[b]	-3778.78	1.99630	0.5869	0.3988

Statistical analyses

	$2\Delta l$	DF	P-value
A *vs* B**	71.34	43	1.53 e-17
C *vs* B**	12.57	1	0.0002
D *vs* B	1.486882	**1**	0.1555606
F *vs* G*	45.555398	**33**	0.0135824
H *vs* G*	3.800676	**1**	0.03059661

[f] – foreground; [b] – background; NS, not significant

PAML - Branch Analysis of Reptiles Only - AMBN

	Gene	Model	nP	Parameters	lnL	K(ts/tv)	ω_b	ω_f
A	**AMBN**	Free-ratio	85		-9686.26	2.59		
B		One-ratio	44		-9720.07	2.58	0.3609	
C		Two-ratio	45	Crocodilians [f] Squamates [b]	-9714.44	2.59	0.3471	0.7953
D		Two-ratio	45	Snakes [f] Crocodilians + Lizards[b]	-9719.94735	2.58120	0.3672	0.3467
E		Two-ratio	45	Lizards[f] Crocodilians + Lizards[b]	-9719.48575	2.58156	0.3836	0.3411
	Squamates - ONLY							
F		Free-ratio	65		-8043.55067	2.55059		
G		One-ratio	34		-8065.42905	2.55107	0.3367	
H		Two-ratio	35	Snakes [f] Lizards[b]	-8065.42829	2.55099	0.3373	0.3357

Statistical analyses

	2Δl	DF	P-value
A *vs* B**	67.626628	41	0.00125415
C *vs* B**	11.266026	1	0.00042524
D *vs* B	0.24862	1	0.7065695
E *vs* B	1.171838	1	0.2051232
F *vs* G*	43.756756	31	0.01266762
H *vs* G	0.00152	1	10.22488

[f] – foreground; [b] – background; NS, not significant

PAML - Branch Analysis of Reptiles Only - ENAM

	Gene	Model	nP	Parameters	lnL	K(ts/tv)	ω_b	ω_f
A	ENAM	Free-ratio	85		-29265.21	3.18		
B		One-ratio	44		-29288.64	2.59	0.4784	
C		Two-ratio	45	Crocodilians [f] Squamates [b]	-29288.60	3.17	0.4801	0.4679
D		Two-ratio	45	Snakes [f] Crocodilians + Lizards[b]	-29287.4264	3.17034	0.4636	0.5153
E		Two-ratio	45	Lizards[f] Crocodilians + Lizards[b]	-29287.9818	3.16757	0.4978	0.4622
	Squamates - ONLY							
F		Free-ratio	65		-24696.5831	3.24115		
G		One-ratio	34		-18873.853	3.23395	0.4543	
H		Two-ratio	35	Snakes [f] Lizards[b]	-24715.4402	3.24021	0.4533	0.4960

Statistical analyses

	2Δl	DF	P-value
A *vs* B*	46.859716	**41**	0.0317048
C *vs* B	0.0785	**1**	1.369081
D *vs* B	2.434318	**1**	0.0757035
E *vs* B	1.323488	**1**	0.1789198
F *vs* G**	11645.46017	**30**	0
H *vs* G**	11683.17442	**1**	0

[f] – foreground; [b] – background; NS, not significant