

Phylogenetic character matrix.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	
<i>Tapocyon</i>	1	0	1	0	0	1	?	0	0	0	0	0	1	0	0	1	0	1	1	2	1	0	1	0	0	1	0	1	0	1	0	0	0	0	0	0	1	0	0	1	?	2	0	1	1	1	0	0	1	1
<i>Vulpavus ovatus</i>	1	1	1	1	1	1	0	0	0	0	0	0	1	0	0	0	1	1	0	1	1	0	0	1	0	1	0	1	0	1	0	0	?	0	0	0	0	0	1	1	1	1	1	0	0	0	1	0	1	
<i>Vulpavus profectus</i>	1	1	1	0	1	?	?	1	0	0	0	0	1	0	0	1	0	1	1	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1	0	1	0	1	0	0	0	1	1	1
<i>Miacis parvivorus</i>	?	0	1	1	?	?	?	?	?	?	0	0	1	3	?	?	0	1	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	?	0	0	1	0	1	0	1	0	0	1	1	0		
<i>Prohesperocyon wilsoni</i>	1	?	1	0	?	?	0	0	0	0	0	0	1	1	1	1	0	1	1	?	1	?	1	1	0	0	0	1	0	1	0	1	0	1	0	0	1	0	0	1	0	1	0	1	1	0	1	1		
<i>Miacis cf. M. sylvestris</i>	?	?	0	0	1	?	?	0	0	?	0	0	1	1	0	1	0	1	1	2	1	0	1	1	0	0	0	1	0	1	0	1	0	1	0	0	0	0	1	0	1	0	1	1	1	0	0	1	1	
<i>Miacis cognitus</i>	1	0	1	0	0	?	?	1	?	?	0	0	1	3	1	1	1	0	0	2	1	0	1	0	2	1	0	1	0	1	0	0	1	1	0	0	1	0	1	0	2	0	1	1	0	0	1	1	1	
<i>Oodectes herpestoides</i>	1	0	1	1	1	0	0	0	0	0	0	0	1	0	0	0	1	1	0	2	1	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0
<i>Hesperocyon gregarius</i>	1	0	1	1	1	1	?	1	1	0	0	0	1	2	1	1	1	0	0	2	1	0	1	1	2	1	0	3	0	1	0	1	1	2	0	0	0	1	1	1	2	0	1	1	1	0	1	1	1	
<i>Otarocyon</i>	1	0	1	1	1	1	1	0	0	0	0	0	1	0	1	1	1	0	0	2	1	?	2	1	2	2	0	3	0	1	0	1	1	2	0	1	0	1	1	1	2	0	1	1	1	0	0	1	1	1
<i>Canis latrans</i>	1	0	0	1	1	1	1	1	0	0	0	0	1	0	1	1	1	0	1	2	1	?	2	0	2	1	0	3	0	1	0	1	1	2	0	1	0	1	1	1	2	0	1	1	1	0	1	1	1	
Daphoenus/Amphicyonid	1	0	0	1	0	?	0	1	0	0	0	0	1	3	1	1	0	0	1	2	1	0	1	?	?	1	0	1	0	1	2	1	1	1	0	1	1	?	1	0	1	0	1	1	0	0	1	1	1	
<i>Protictis schaffi</i>	?	1	0	1	0	1	?	1	1	0	1	0	0	0	0	?	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	1	1	0	0	0	?	0	
<i>Viverravus minutus</i>	?	?	0	1	0	1	?	1	?	?	1	0	?	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	1	0	0	1	0	1	1	1	0	0	1	0	2
<i>Viverravus cf. V. gracilis</i>	?	?	?	?	0	?	?	1	0	0	1	0	0	0	0	1	0	0	?	?	1	?	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	1	1	0	0	1	0	2
<i>Viverravus acutus</i>	?	?	0	0	0	1	?	1	1	0	1	0	0	0	0	0	0	0	?	2	1	0	1	0	0	0	0	0	0	0	0	0	?	1	0	0	1	0	0	1	0	0	1	1	1	0	0	0	0	0
<i>Didymictis vanclieveae</i>	?	?	?	?	0	?	?	1	1	0	0	0	0	2	0	0	?	0	?	1	0	0	0	0	0	?	0	0	1	0	0	1	1	0	0	1	1	0	0	0	1	1	1	0	0	0	1	1	1	
<i>Zodiolestes diamonelixensis</i>	1	0	?	1	0	1	0	1	0	0	0	0	1	1	0	1	1	0	2	2	1	0	1	2	2	1	0	3	0	1	1	1	1	2	0	0	1	1	1	2	0	1	1	1	1	0	1	1	2	
Dinictis/Nimravidae	1	0	1	0	1	2	1	0	1	1	0	1	0	1	0	1	0	0	?	1	?	0	0	?	1	0	2	1	1	?	1	0	2	1	0	?	0	1	0	0	1	1	1	1	1	1	0	1	2	
<i>Hoplophoneus</i>	1	?	1	1	1	2	1	0	1	0	0	1	0	1	0	1	0	0	0	1	1	?	1	0	?	1	0	2	1	1	1	1	0	2	1	0	?	0	1	?	0	0	1	1	1	1	0	1	2	
Palaeoprionodon lam.	2	0	1	0	1	2	1	1	?	1	0	1	2	3	1	1	0	0	0	1	1	1	0	0	1	2	1	2	1	1	0	1	2	1	0	0	0	0	1	2	?	?	?	?	?	?	?	?	?	
<i>Stenogale julieni</i>	2	?	1	0	0	2	0	1	0	1	?	?	1	3	1	1	0	0	2	1	1	0	0	1	2	2	2	1	1	0	1	2	2	1	0	0	1	3	0	1	1	1	1	1	1	0	1	2		
<i>Proailurus lem.</i>	?	0	1	0	0	2	?	?	0	1	0	1	1	3	1	1	0	0	2	1	1	0	0	1	2	2	1	1	0	0	1	2	2	1	1	0	0	1	3	0	1	1	1	1	1	0	1	2		
Herpestid	1	0	0	0	0	2	1	0	1	2	0	1	2	3	2	1	0	0	0	2	1	?	0	0	2	2	2	2	0	1	0	1	2	2	0	1	?	2	1	3	0	1	1	1	0	0	0	0	2	
<i>Herpestides antiquus</i>	2	0	1	0	0	2	0	0	0	2	0	1	1	3	1	1	0	0	0	2	1	0	0	1	1	2	1	2	1	1	0	1	2	2	1	1	0	0	1	2	2	1	1	1	1	0	0	1	2	
Viverrid	2	0	1	?	0	2	1	1	0	2	0	1	2	3	2	1	0	0	0	2	1	?	0	0	1	2	2	2	1	1	0	1	2	2	0	1	0	0	1	2	0	1	1	1	1	0	0	1	1	
Felis	2	0	0	0	0	1	0	0	0	2	0	1	0	1	2	1	0	1	2	2	1	?	0	0	1	2	0	2	0	1	0	1	2	1	1	1	0	0	1	3	0	1	1	1	1	1	0	?	2	
Hyaeid	2	0	0	0	0	2	1	0	0	2	?	1	2	3	2	1	1	0	0	2	1	?	0	0	1	2	2	2	0	1	0	1	2	2	1	1	?	0	1	3	0	1	1	1	1	0	0	0	2	
<i>Nandinia binotata</i>	2	0	1	0	0	2	1	0	0	1	0	1	1	3	0	1	0	0	0	2	1	0	0	0	1	1	1	2	0	1	0	1	1	2	0	0	0	0	1	2	0	1	1	1	1	0	0	0	2	
<i>Pteronarctos</i>	2	0	1	?	0	2	2	1	1	0	0	1	1	2	0	1	1	?	0	2	1	?	?	0	2	?	0	?	0	?	1	1	1	1	0	1	?	1	0	1	?	?	1	1	1	0	?	1	2	
<i>Gulo</i>	2	0	1	1	0	1	1	1	1	0	0	0	0	0	0	1	1	0	2	2	1	?	0	2	2	1	0	3	0	1	0	1	1	2	0	1	0	1	1	1	1	1	1	1	1	1	1	0	2	
<i>Ailurus</i>	3	0	1	2	0	1	?	1	0	0	0	0	1	2	0	0	1	0	1	2	1	?	0	1	2	1	0	3	0	1	0	1	1	2	0	0	0	1	1	1	2	1	1	0	2	0	1	0	3	
Ursid	3	0	0	2	0	1	1	1	0	0	0	0	1	2	1	0	0	0	1	2	1	?	1	0	2	1	0	3	0	1	2	1	1	2	0	0	?	1	1	1	1	0	1	0	2	0	1	0	2	
<i>Mephitis</i>	1	0	1	2	1	2	1	1	1	0	1	0	2	0	0	1	?	2	2	1	?	0	2	2	1	0	3	0	1	0	1	1	1	0	1	?	1	1	1	2	1	1	1	1	0	1	0	2		
<i>Procyon lotor</i>	2	0	1	2	0	1	1	1	1	0	0	0	0	0	0	1	1	0	2	2	1	?	0	2	2	1	0	3	0	1	0	1	1	2	0	0	0	1	1	1	2	1	1	0	2	0	1	0	3	
Otariidae	2	0	1	2	0	2	2	1	1	3	?	1	1	3	0	1	0	?	0	2	1	?	0	0	2	?	0	?	?	1	1	1	1	2	0	0	?	?	2	1	1	?	?	?	?	?	?	?	?	
Leptictis	1	1	?	?	1	0	0	1	1	0	0	0	1	0	1	0	0	0	?	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	?	0		
Erinaceus	0	1	0	1	0	0	1	1	0	0	0	0	1	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	1	0	2	
<i>Hyaeonodon</i>	0	0	?	0	0	0	0	0	?	?	0	0	0	1	0	0	?	?	0	?	?	0	?	?	0	?	0	?																						

