Supplementary Material

The impact of the pull of the recent on the fossil record of tetrapods

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Table S1. Tetrapod families affected by the POR.

These modern tetrapod families are the only 19 that have a fossil occurrence, but with a gap through the Plio-Pleistocene. In March 2011, 24 families had no Plio-Pleistocene fossil record. In May 2015, this number had fallen to 19, thanks to new discoveries – these are listed as 'Removed'.

Class	**Family**	**Last fossil occurrence known as of**	
		March 2011	**May 2015 (if different)**
Amphibia	Rhinophrynidae	Rupelian	Upper Pleistocene (Removed)
Reptilia	Carettochelyidae	Mid Miocene	Langhian
Reptilia	Dermatemydidae	Langhian	
Reptilia	Cordylidae	Aquitanian	Langhian
Reptilia	Xenosauridae	Miocene	Langhian
Mammalia	Microbiotheriidae	Lutetian	Langhian
Mammalia	Aplodontidae	Late Miocene	Upper Pleistocene (Removed)
Mammalia	Tarsiidae	Lutetian	Serravallian
Mammalia	Cebidae	Chattian	Holocene (Removed)
Mammalia	Moschidae	Tortonian	Upper Pleistocene (Removed
Aves	Phaethontidae	Tortonian	Holocene (Removed)
Aves	Balaenicipitidae	Late Miocene	
Aves	Sagittariidae	Mid Miocene	
Aves	Eurypygidae	Ypresian	
Aves	Musophagidae	Mid Miocene	
Aves	Opisthocomidae	Burdigalian	
Aves	Steatornithidae	Ypresian	
Aves	Podargidae	Priabonian	
Aves	Hemiprocnidae	Ypresian	
Aves	Todidae	Rupelian	
Aves	Phoeniculidae	Lutetian	
Aves	Capitonidae	Langhian	
Aves	Eurylaimidae	Early Miocene	
Aves	Menuridae	Langhian	
Total:		**24**	**19**

Table S2. All tetrapod families.

Class	Family
Amphibia	Caeciliidae
Amphibia	Leiopelmatidae
Amphibia	Discoglossidae
Amphibia	Pipidae
Amphibia	Rhinophrynidae
Amphibia	Pelobatidae
Amphibia	Pelodytidae
Amphibia	Myobatrachidae
Amphibia	Leptodactylidae
Amphibia	Bufonidae
Amphibia	Hylidae
Amphibia	Ranidae
Amphibia	Rhachophoridae
Amphibia	Microhylidae
Amphibia	Sirenidae
Amphibia	Cryptobranchidae
Amphibia	Proteidae
Amphibia	Amphiumidae
Amphibia	Plethodontidae
Amphibia	Ambystomatidae
Amphibia	Salamandridae
Reptilia	Pelomedusidae
Reptilia	Chelidae
Reptilia	Chelydridae
Reptilia	Cheloniidae
Reptilia	Dermochelyidae
Reptilia	Trionychidae
Reptilia	Carettochelyidae
Reptilia	Dermatemydidae
Reptilia	Kinosternidae
Reptilia	Emydidae
Reptilia	Geoemydidae
Reptilia	Testudinidae
Reptilia	Sphenodontidae
Reptilia	Iguanidae
Reptilia	Agamidae
Reptilia	Chamaeleonidae
Reptilia	Amphisbaenidae
Reptilia	Rhineuridae
Reptilia	Gekkonidae
Reptilia	Xantusiidae
Reptilia	Lacertidae
Reptilia	Teiidae
Reptilia	Cordylidae
Reptilia	Anguidae
Reptilia	Xenosauridae
Reptilia	Helodermatidae
Reptilia	Varanidae
Reptilia	Typhlopidae
Reptilia	Aniliidae
Reptilia	Boidae
Reptilia	Bolyeriidae
Reptilia	Tropidophiidae
Reptilia	Acrochordidae
Reptilia	Colubridae
Reptilia	Elapidae
Reptilia	Viperidae
Reptilia	Gavialidae
Reptilia	Crocodylidae
Reptilia	Alligatoridae
Reptilia	Scincidae
Reptilia	Phrynosomatidae
Mammalia	Tachyglossidae
Mammalia	Ornithorhynchidae
Mammalia	Microbiotheriidae
Mammalia	Dasyuridae
Mammalia	Thylacinidae
Mammalia	Peramelidae
Mammalia	Vombatidae
Mammalia	Phalangeridae
Mammalia	Burramyidae
Mammalia	Macropodidae

Mammalia	Petauridae
Mammalia	Phascolarctidae
Mammalia	Acrobatidae
Mammalia	Tarsipedidae
Mammalia	Didelphidae
Mammalia	Caenolestidae
Mammalia	Dasypodidae
Mammalia	Myrmecophagidae
Mammalia	Cyclopedidae
Mammalia	Megatheriidae
Mammalia	Megalonychidae
Mammalia	Manidae
Mammalia	Macroscelididae
Mammalia	Leporidae
Mammalia	Ochtotonidae
Mammalia	Aplodontidae
Mammalia	Sciuridae
Mammalia	Castoridae
Mammalia	Myoxidae
Mammalia	Seleviniidae
Mammalia	Bathyergidae
Mammalia	Pedetidae
Mammalia	Anomaluridae
Mammalia	Thryonomyidae
Mammalia	Petromuridae
Mammalia	Hystricidae
Mammalia	Erethizodontidae
Mammalia	Agoutidae
Mammalia	Dinomyidae
Mammalia	Caviidae
Mammalia	Hydrochoeridae
Mammalia	Chinchillidae
Mammalia	Abrocomidae
Mammalia	Octodontidae
Mammalia	Echimyidae
Mammalia	Capromyidae
Mammalia	Ctenodactylidae
Mammalia	Geomyidae

Mammalia	Dipodidae
Mammalia	Muridae
Mammalia	Canidae
Mammalia	Ursidae
Mammalia	Mustelidae
Mammalia	Odobenidae
Mammalia	Phocidae
Mammalia	Otariidae
Mammalia	Procyonidae
Mammalia	Viverridae
Mammalia	Felidae
Mammalia	Herpestidae
Mammalia	Hyaenidae
Mammalia	Erinaceidae
Mammalia	Talpidae
Mammalia	Soricidae
Mammalia	Tenrecidae
Mammalia	Chrysochloridae
Mammalia	Solenodontidae
Mammalia	Tupaiidae
Mammalia	Pteropodidae
Mammalia	Emballonuridae
Mammalia	Rhinolophidae
Mammalia	Megadermatidae
Mammalia	Nycteridae
Mammalia	Phyllostomidae
Mammalia	Mormoopidae
Mammalia	Noctilionidae
Mammalia	Vespertilionidae
Mammalia	Molossidae
Mammalia	Natalidae
Mammalia	Myzopodidae
Mammalia	Lemuridae
Mammalia	Indriidae
Mammalia	Daubentoniidae
Mammalia	Lorisidae
Mammalia	Cheirogaleidae
Mammalia	Tarsiidae

Mammalia	Cebidae
Mammalia	Callitrichidae
Mammalia	Cercopithecidae
Mammalia	Hominidae
Mammalia	Antilocapridae
Mammalia	Bovidae
Mammalia	Camelidae
Mammalia	Cervidae
Mammalia	Giraffidae
Mammalia	Hippopotamidae
Mammalia	Moschidae
Mammalia	Suidae
Mammalia	Tayassuidae
Mammalia	Tragulidae
Mammalia	Ziphiidae
Mammalia	Physeteridae
Mammalia	Iniidae
Mammalia	Lipotidae
Mammalia	Platanistidae
Mammalia	Pontoporiidae
Mammalia	Delphinidae
Mammalia	Phocoenidae
Mammalia	Monodontidae
Mammalia	Balaeonopteridae
Mammalia	Balaenidae
Mammalia	Eschrichtiidae
Mammalia	Elephantidae
Mammalia	Equidae
Mammalia	Tapiridae
Mammalia	Rhinocerotidae
Mammalia	Orycteropidae
Mammalia	Procaviidae
Mammalia	Dugongidae
Mammalia	Trichechidae
Aves	Struthionidae
Aves	Casuardiidae
Aves	Dromaiidae
Aves	Emeidae

Aves	Apterygidae
Aves	Rheidae
Aves	Tinamidae
Aves	Spheniscidae
Aves	Gaviidae
Aves	Podicipedidae
Aves	Diomedeidae
Aves	Procellariidae
Aves	Oceanitidae
Aves	Pelecanoididae
Aves	Phaethontidae
Aves	Pelecanidae
Aves	Sulidae
Aves	Phalacrocoracidae
Aves	Anhingidae
Aves	Fregatidaex
Aves	Ardeidae
Aves	Scopidae
Aves	Ciconiidae
Aves	Balaenicipitidae
Aves	Plataleidae
Aves	Vulturidae
Aves	Sagittariidae
Aves	Accipitridae
Aves	Pandionidae
Aves	Falconidae
Aves	Anhimidae
Aves	Anatidae
Aves	Cracidae
Aves	Megapodiidae
Aves	Phasianidae
Aves	Numididae
Aves	Turnicidae
Aves	Gruidae
Aves	Aramidae
Aves	Psophiidae
Aves	Rallidae
Aves	Eurypygidae

Aves	Rhynochetidae
Aves	Cariamidae
Aves	Otididae
Aves	Jacanidae
Aves	Rostratulidae
Aves	Haematopodidae
Aves	Charadriidae
Aves	Scolopacidae
Aves	Recurvirostridae
Aves	Burhinidae
Aves	Glareolidae
Aves	Thinocoridae
Aves	Stercorariidae
Aves	Laridae
Aves	Alcidae
Aves	Pteroclidae
Aves	Columbidae
Aves	Psittacidae
Aves	Musophagidae
Aves	Cuculidae
Aves	Opisthocomidae
Aves	Tytonidae
Aves	Strigidae
Aves	Steatornithidae
Aves	Aegothelidae
Aves	Podargidae
Aves	Caprimulgidae
Aves	Nyctibiidae
Aves	Apodidae
Aves	Hemiprocnidae
Aves	Trochilidae
Aves	Coliidae
Aves	Trogonidae
Aves	Halcyonidae
Aves	Todidae
Aves	Momotidae
Aves	Meropidae
Aves	Coraciidae

Aves	Atelornithidae
Aves	Upupidae
Aves	Phoeniculidae
Aves	Bucerotidae
Aves	Bucconidae
Aves	Capitonidae
Aves	Indicatoridae
Aves	Ramphastidae
Aves	Picidae
Aves	Eurylaimidae
Aves	Furnariidae
Aves	Thamnophilidae
Aves	Scytalopodidae
Aves	Tyrannidae
Aves	Alaudidae
Aves	Hirundinidae
Aves	Dicruridae
Aves	Menuridae
Aves	Acanthisittidae
Aves	Atrichornithidae
Aves	Motacillidae
Aves	Pycnonotidae
Aves	Laniidae
Aves	Bombycillidae
Aves	Dulidae
Aves	Cinclidae
Aves	Troglodytidae
Aves	Prunellidae
Aves	Musicapidae
Aves	Timaliidae
Aves	Sylviidae
Aves	Paridae
Aves	Sittidae
Aves	Nectariniidae
Aves	Meliphagidae
Aves	Emberizidae
Aves	Tanagridae
Aves	Coerebidae

Aves	Vireonidae
Aves	Icteridae
Aves	Passeridae
Aves	Sturnidae
Aves	Oriolidae

Aves	Callaeatidae
Aves	Ptilonorhynchidae
Aves	Corvidae
Aves	Phrynosomatidae

Table S3. Tetrapod genera affected by the POR.
These modern tetrapod genera are the only nine that have a fossil occurrence, but with a gap through the Plio-Pleistocene. The last fossil occurrence data come from the Paleobiology Database, except for taxa labelled with an asterisk (*), where the data come from published papers not yet included in the PBDB.

Class	**Family**	**Genus**	**Last fossil occurrence known May 2015**
Reptilia	Trionychidae	*Aspideretes*	Upper Eocene
Reptilia	Dermatemydidae	*Dermatemys*	Lower Miocene
Reptilia	Polychrotidae	*Polychrus*	Middle Eocene*
Reptilia	Boidae	*Eunectes*	Upper Miocene
Mammalia	Anomaluridae	*Anomalurus*	Langhian
Mammalia	Anomaluridae	*Zenkerella*	Serravallian
Mammalia	Platacanthomyidae	*Platacanthomys*	Turolian
Mammalia	Tarsiidae	*Tarsius*	Serravallian
Aves	Gruidae	*Balearica*	Clarendonian

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