Tertiary anuran assemblages of Europe

Localities are listed according to their geological age; those of the same age are ordered according to their geographic position (from the west to the east).

Abbreviations of taxa:

Alb – *Albionbatrachus* sp., *Albionbatrachus wightensis, Albionbatrachus* cf. *wightensis*
Alyt sp. – *Alytes* sp., cf. *Alytes*
Bo sp. – *Bombina* sp.
Bo bo – *Bombina bombina, Bombina (bombina)* sp.
Bo va – *Bombina variegata*
B ? – Bufonidae indet.
Buf sp. – *Bufo* sp.
Buf buf – *Bufo bufo, Bufo* cf. *B. bufo*
Buf cal – *Bufo calamita, Bufo* aff. *B. calamita*
Buf ges – *Bufo (= Palaeophrynus) gessneri*
Buf pri – *Bufo priscus, Bufo* cf. *B. priscus*
Buf rad – *Bufo raddei*
Buf viri – *Bufo viridis, Bufo* cf. *B. viridis, Bufo* aff. *B. viridis, Bufo (viridis)* sp.
D? – Discoglossidae indet., Discoglossinae indet.
Dis sp. – *Discoglossus* sp., cf. *Discoglossus*
Dis tro – *Discoglossus troscheli*
Eo sp. – *Eopelobates* sp., cf. *Eopelobates*
Eo ant – *Eopelobates anthracinus*
Eo bay – *Eopelobates bayeri, Eopelobates* aff. *E. bayeri*
Eo hin – *Eopelobates hinschei, Eopelobates* aff. *E. hinschei*
Eo wa – *Eopelobates wagneri*
Hyl arb – *Hyla arborea, Hyla (arborea)* sp.
Hyl sp. – *Hyla* sp.**,** cf. *Hyla*
Lat sp. – *Latonia* sp., cf. *Latonia*
Lat gig – *Latonia gigantea, Latonia* cf. *gigantea*
Lat rag – *Latonia ragei, Latonia* cf. *ragei*
Lat sey – *Latonia seyfriedi*
Lat ver – *Latonia vertaizoni, Latonia* aff. *L. vertaizoni*
Lut – *Lutetiobatrachus gracilis* (Anura inc. sedis)
M? – Microhylidae indet.
Me tob – *Messelobatrachus tobieni*
Opi hes – *Opisthocoellelus hessi*
Opi wei – *Opisthocoellelus weigelti*
P? – Pelobatidae indet.
Pal ? – Palaeobatrachidae indet.
Pal sp. – *Palaeobatrachus* sp., cf. *Palaeobatrachus*
Pal dil – *Palaeobatrachus diluvianus, Palaeobatrachus* cf. *diluvianus*
Pal gra – *Palaeobatrachus grandipes*, *Paleobatrachus* cf. *grandipes*
Pal lue – *Palaeobatrachus luedeckei*
Pld sp. – *Pelodytes* sp., cf. *Pelodytes*
Pel sp. – *Pelobates* sp.
Pel cul – *Pelobates cultripes, Pelobates* cf. *cultripes*
Pel de – *Pelobates decheni*
Pel fus – *Pelobates fuscus, Pelobates* cf. *fuscus*
Pel syr – *Pelobates* cf. *syriacus*
Pld are –*Pelodytes* cf. *arevacus*
Pld pu – *Pelodytes punctatus*, *Pelodytes* cf. *punctatus*
Pld sp. – *Pelodytes* sp., cf. *Pelodytes*
Pli sp. – *Pliobatrachus* sp., *Pliobatrachus langhae*, *Pliobatrachus* cf. *langhae*
R? – Ranidae indet.,
Ra arv – *Rana arvalis, Rana* cf. *arvalis*
Ra sp. – *Rana* sp., *Ranomorphus similis**
Ra da – *Rana dalmatina*
Ra esc – *Rana esculenta*
Ra lat – *Rana latastei, Rana* cf. *latastei*
Ra les – *Rana lessonae*
Ra ma – *Rana macrocnemis*
Ra pe – *Rana* cf. *perezi*
Ra rid – *Rana ridibunda*, *Rana (ridibunda)* sp.,
Ra str – *Rana strausi*
Ra te – *Rana temporaria, Rana (temporaria)* sp.
Rh ? – Rhacophoridae indet.
Th – cf. *Thaumastosaurus, Thaumastosaurus bottii*, Leptodactylidae indet.

Note that **Pal ?** marked by □ in Laugnac means *Palaeobatrachus robustus* described by Hossini and Rage (2000) and that *Thaumastosaurus* from Grisolles and Prémontré, also marked by □**,** actually means Leptodactylidae indet.

* Sanchíz (1998a) regarded *Ranomorphus* as a possible representative of the Rhacophoridae but we consider it a synonym of *Rana*.

	Discoglossidae														Pelobatidae											Pelodytes			Palaeobatrachidae								Bufonidae								Hyla		Ranidae														
Locality	D ?	Opi wei	Opi hes	Lat sp.	Lat gig	Lat ver	Lat rag	Lat sey	Dis sp.	Dis tro	Aly sp.	Bo sp.	Bo bo	Bo var	P ?	Eo sp.	Eo ant	Eo bay	Eo hin	Eo wa	Pel sp.	Pel cul	Pel de	Pel fus	Pel syr	Pld sp.	Pld are	Pld pu	Pal ?	Alb	Pal sp.	Pal dil	Pal gra	Pal lue	Me tob	Pli sp.	B ?	Buf sp.	Buf buf	Buf cal	Buf ges	Buf pri	Buf rad	Buf viri	Hyl sp.	Hyl arb	R ?	Ra sp.	Ra arv	Ra dal	Ra esc	Ra lata	Ra les	Ra ma	Ra per	Ra ridi	Ra str	Ra te	M ?	Rh ?	Th	Lut
Sluch, Ukraine (Upper Pliocene or Pleistocene)													+		+																								+	+				+		+									+		+				
Styr, Ukraine (Upper Pliocene or Pleistocene)													+		+																								+	+				+		+									+		+				
Goryn, Ukraine (Upper Pliocene or Pleistocene)													+		+																								+	+				+		+									+		+				
Pedrera de S'Onix, Majorca, Spain (Pliocene-Pleistocene boundary)									+		+																																																			
Kryzhanovka, Ukraine (Pliocene-Pleistocene boundary)																																											+																				
Korotoyak, Russia (Upper Pliocene)																																															+															
Volnaya Vershina, Russia (Upper Pliocene)																					+			+																			+				+	+														
Bezimennoye, Ukraine (Pliocene)															+																																															
Kuznetsovka, Russia (Pliocene)												+	+								+			+															+				+	+					+									+				
Kisatibi, Georgia (Pliocene)																																																					+									
Kislang, Hungary (Pliocene, Villanyian)																																				+		+									+															
Montoussé 5, France (Pliocene, Villanyian MN17)																					+							+											+	+								+										+				
Nagyhársányhegy 2, Hungary (Pliocene, Villanyian MN17)																																						+									+															
Villany 3, Hungary (Pliocene, Villanyian MN17)																																											+																				
Villany 6, Hungary (Pliocene, Villanyian MN17)	+											+												+												+							+				+										+				
Kadzielnia, Poland (Pliocene, Villanyian MN17)																																						+									+															
Liventsovka, Ukraine (Pliocene, Villanyian MN17)																																				+			+				+																				
Včeláre, Slovakia (Pliocene and Pleistocene, Villanyian and Lower Pleistocene MN16-17)													+												+														+										+	+												
Arondelli, Italy (Pliocene, Villanyian MN16)				+								+									+																		+				+		+		+				+									
Balaruc 2, France (Pliocene, Villanyian MN16)																																															+															
Balaruc 6 & 7, France (Pliocene, Villanyian MN16)																						+																																									
Escorihuella, Spain (Pliocene, Villanyian MN16)																																																					+									
Galera 2, Spain (Pliocene, Villanyian MN16)									+																																																						
Rincón 1, Spain (Pliocene, Villanyian MN16)																										+																	+					+															

	Discoglossidae														Pelobatidae											Pelodytes			Palaeobatrachidae								Bufonidae								Hyla		Ranidae														
Locality	D ?	Opi wei	Opi hes	Lat sp.	Lat gig	Lat ver	Lat rag	Lat sey	Dis sp.	Dis tro	Aly sp.	Bo sp.	Bo bo	Bo var	P ?	Eo sp.	Eo ant	Eo bay	Eo hin	Eo wa	Pel sp.	Pel cul	Pel de	Pel fus	Pel syr	Pld sp.	Pld are	Pld pu	Pal ?	Alb	Pal sp.	Pal dil	Pal gra	Pal lue	Me tob	Pli sp.	B ?	Buf sp.	Buf buf	Buf cal	Buf ges	Buf pri	Buf rad	Buf viri	Hyl sp.	Hyl arb	R ?	Ra sp.	Ra arv	Ra dal	Ra esc	Ra lata	Ra les	Ra ma	Ra per	Ra ridi	Ra str	Ra te	M ?	Rh ?	Th	Lut
Medas, Spain (Pliocene, Villanyian MN16)									+													+																	+	+								+													
Tourkobonia 1, Greece (Pliocene, Villanyian MN16)																									+																			+				+													
Tourkobonia 3 & 4, Greece (Pliocene, Villanyian MN16)																																												+																	
Gundersheim, Germany (Pliocene, Villanyian MN16)																								+															+									+													
Hajnáčka, Slovakia (Pliocene, Villanyian MN16)																																				+			+										+						+		+				
Rębielice Królewskie, Poland (Pliocene, Villanyian MN16)													+			+								+	+											+			+					+		+		+	+								+				
Zalesaki 1B, Poland (Pliocene, Villanyian MN16)																																							+									+													
Węże 2, Poland (Pliocene, Ruscinian MN16)																					+			+							+					+			+									+								+					
Beremend 1, Hungary (Pliocene, Villanyian MN16)																					+																							+												+					
Beremend 5, Hungary (Pliocene, Villanyian MN16)																																						+										+													
Chishmikioy, Moldova (Pliocene, Villanyian MN16)																																																+													
Gorishnaya Vygnanka, Moldova (Pliocene, Villanyian MN16?)				+																				+																					+			+													
Nogaisk, Ukraine (Pliocene, Villanyian MN16)													+											+																																			+		
Mas Genegals, France (MN15 or MN16)																																												+																	
Arquillo 3, Spain (Pliocene, Ruscinian MN15)																																																+													
Córdoba 2, Spain (Pliocene, Ruscinian MN15)																																						+																							
Layna, Spain (Pliocene, Ruscinian MN15)																																						+																							
Sarrión, Spain (Pliocene, Ruscinian MN15)																										+												+										+													
Serrat d'en Vacquer, France (Pliocene, Ruscinian MN15)				+																																																			+					
Séte, France (Pliocene, Ruscinian MN15)					+																			+				+											+	+								+													
Kaltensundheim, Germany (Pliocene, Ruscinian MN15?)				+																																		+	+																			+			
Spilia, Greece (Pliocene, Ruscinian MN15)				+																					+																			+		+									+					
Ptolemais 3, Greece (Pliocene, Ruscinian MN15)				+																																																			+					

	Discoglossidae														Pelobatidae											Pelodytes			Palaeobatrachidae								Bufonidae								Hyla		Ranidae														
Locality	D ?	Opi wei	Opi hes	Lat sp.	Lat gig	Lat ver	Lat rag	Lat sey	Dis sp.	Dis tro	Aly sp.	Bo sp.	Bo bo	Bo var	P ?	Eo sp.	Eo ant	Eo bay	Eo hin	Eo wa	Pel sp.	Pel cul	Pel de	Pel fus	Pel syr	Pld sp.	Pld are	Pld pu	Pal ?	Alb	Pal sp.	Pal dil	Pal gra	Pal lue	Me tob	Pli sp.	B ?	Buf sp.	Buf buf	Buf cal	Buf ges	Buf pri	Buf rad	Buf viri	Hyl sp.	Hyl arb	R ?	Ra sp.	Ra arv	Ra dal	Ra esc	Ra lata	Ra les	Ra ma	Ra per	Ra ridi	Ra str	Ra te	M ?	Rh ?	Th	Lut
Csarnóta 2, Hungary (Pliocene, Ruscinian MN15)																																												+											+							
Ivanovce, Slovakia (Pliocene, Ruscinian MN15)					+							+				+								+												+			+								+								+						
Węże 1, Poland (Pliocene, Ruscinian MN15)													+			+					+			+												+			+									+	+													
Etulyia, Moldova (Pliocene, Ruscinian MN15)																								+																																						
Odessa Catacombs, **Zapadnaya Peshchera**, Ukraine (Pliocene, Ruscinian MN15)																								+													+					+	+																			
Gorafe 1, Spain (Pliocene, Ruscinian MN15)																																															+														
Kotlovina, Ukraine (Pliocene, Ruscinian MN15)																																						+			+						+														
Willershausen, Germany (Pliocene, Ruscinian or Villanyian MN14-16)											+																																													+				
Vilafant, Spain (Pliocene, Ruscinian MN14-15)	+																																					+																								
Capo Mannu, Sardinia, Italy (Pliocene, Ruscinian MN14-15)									+																													+																	+						
Ptolemais 1, Greece (Pliocene, Ruscinian MN14)																																																							+						
Kardia, Greece (Pliocene, Ruscinian MN14)				+																																																				+						
Mała, Poland (Pliocene, Ruscinian MN14 and Pleistocene)																																						+										+														
Osztramos 1, Hungary (Pliocene, Ruscinian MN14)					+							+				+																				+	+		+				+			+	+														
Kuchurgan, Ukraine (Pliocene, Ruscinian MN14)					+																																	+																								
Trilofon, Greece (Miocene or Pliocene)																																															+														
Rema Aslan 1, Greece (Miocene or Pliocene)				+																	+																																									
Rema Marmara 2, Greece (Miocene or Pliocene)				+																																																										
Cherevichnoye, Ukraine (Miocene, Turolian & Pliocene)															+																							+										+														
Agramon, Spain (Miocene)																					+																																									
Casas Altas, Spain (Miocene)				+																	+																																			+						
Tour-de-Boulade, France (Miocene)				+																																												+														
Boettingen, Germany (Miocene)																																												+				+														

	Discoglossidae														Pelobatidae											Pelodytes			Palaeobatrachidae								Bufonidae								Hyla		Ranidae														
Locality	D ?	Opi wei	Opi hes	Lat sp.	Lat gig	Lat ver	Lat rag	Lat sey	Dis sp.	Dis tro	Aly sp.	Bo sp.	Bo bo	Bo var	P ?	Eo sp.	Eo ant	Eo bay	Eo hin	Eo wa	Pel sp.	Pel cul	Pel de	Pel fus	Pel syr	Pld sp.	Pld are	Pld pu	Pal ?	Alb	Pal sp.	Pal dil	Pal gra	Pal lue	Me tob	Pli sp.	B ?	Buf sp.	Buf buf	Buf cal	Buf ges	Buf pri	Buf rad	Buf viri	Hyl sp.	Hyl arb	R ?	Ra sp.	Ra arv	Ra dal	Ra esc	Ra lata	Ra les	Ra ma	Ra per	Ra ridi	Ra str	Ra te	M ?	Rh ?	Th	Lut
Peralejos 5, Spain (Pliocene, Ruscinian MN14)																																																															
Podlesice, Poland (Pliocene, Ruscinian MN14)																																							+																								
Arquillo 1, Spain (Miocene, Turolian MN14)																																																															
Crevillente 6, Spain (Miocene, Turolian MN13)																																															+															
Elche de la Sierra, Spain (Miocene, Turolian MN13)																																															+															
Venta del Moro, Spain (Miocene, Turolian MN13)																																															+															
Valdecebro 0 & 3, Spain (Miocene, Turolian MN13)																																																															
Salobreña, Spain (Miocene, Turolian MN13)											+																																																				
Masada del Valle 7, Spain (Miocene, Turolian MN13)																																															+															
Brissighella, Italy (Miocene, Turolian MN13)																																															+															
Monasteri, Greece (Miocene, Turolian MN13)				+																					+																																						
Ano Metochi, Greece (Miocene, Turolian MN13)				+																	+																							+		+										+						
Maramena, Greece (Miocene, Turolian MN13)				+																																									+																		
Polgardi, Hungary (Miocene, Turolian MN13)					+																			+															+					+	+						+				+							
Frunzovka 2, Ukraine (Miocene, Turolian MN13)															+																																																
Cherasco, Italy (Miocene, Turolian MN12-13)																																															+															
Sinigaglia, Italy (Miocene, Turolian MN12-13)																																						+									+															
Aljezares, Spain (Miocene, Turolian MN12)																										+												+																	+								
Concud, Spain (Miocene, Turolian MN12)																																							+	+							+															
Crevillente 4 & 5, Spain (Miocene, Turolian MN12)																																																							+							
Concud B & 3, Spain (Miocene, Turolian MN12)																																																							+							
Tres Puertas, Spain (Miocene, Turolian MN12)																																															+															

	Discoglossidae														Pelobatidae											Pelodytes			Palaeobatrachidae								Bufonidae								Hyla		Ranidae														
Locality	D ?	Opi wei	Opi hes	Lat sp.	Lat gig	Lat ver	Lat rag	Lat sey	Dis sp.	Dis tro	Aly sp.	Bo sp.	Bo bo	Bo var	P ?	Eo sp.	Eo ant	Eo bay	Eo hin	Eo wa	Pel sp.	Pel cul	Pel de	Pel fus	Pel syr	Pld sp.	Pld are	Pld pu	Pal ?	Alb	Pal sp.	Pal dil	Pal gra	Pal lue	Me tob	Pli sp.	B ?	Buf sp.	Buf buf	Buf cal	Buf ges	Buf pri	Buf rad	Buf viri	Hyl sp.	Hyl arb	R ?	Ra sp.	Ra arv	Ra dal	Ra esc	Ra lata	Ra les	Ra ma	Ra per	Ra ridi	Ra str	Ra te	M ?	Rh ?	Th	Lut
Santa Bárbara, Spain (Miocene, Turlian MN12)																																							+																	+						
Masada del Valle 2 & 5, Spain (Miocene, Turolian MN12)																										+												+																	+						
Mansuetos, Spain (Miocene, Turolian MN12)																										+													+	+																+						
Cucuron, France (Miocene, Turolian MN12)				+																																																									
Pikermi 4, Greece (Miocene, Turolian MN12)				+																																									+																	
Tardosbánya, Hungary (Miocene, Turolian MN12)				+																																																									
Novaya Emetovka, Ukraine (Miocene, Turolian MN12)															+																																+														
Cubla, Spain (Miocene, Turolian MN11-13)																																						+																	+						
Fontana 3, Spain (Miocene, Turolian MN11-13)									+						+																							+																	+						
Montagne d'Andance, France (Miocene, Turolian MN11-13)																																						+										+													
Toremormojón 1, Spain (Miocene, Upper Vallesian or Middle Turolian MN10-12)				+																																																				+						
Aspe, Spain (Miocene, Turolian MN11)																																															+													
Aguanaces, Spain (Miocene, Turolian MN11)																																						+																		+						
Vivero de Pinos, Spain (Miocene, Turolian MN11)																																						+																	+						
Valdecebro 6, Spain (Miocene, Turolian MN11)																																						+																	+						
Peralejos D, Spain (Miocene, Turolian MN11)																																																							+						
Dionnay, France (Miocene, Turolian MN11)				+																																											+													
Ciabot Cagna, Italy (Miocene, Turolian)																													+																																	
Csakvar, Hungary (Miocene, Turolian MN11)																																						+										+													
Krivoy Rog, Ukraine (Miocene, Turolian MN11)																																																+												
Novoelizavetovka, Ukraine (Miocene, Turolian MN11)																																						+										+													
Libros, Spain (Upper Miocene, Vallesian?)																																																							+						
Ampudia 5 & 6A, Spain (Miocene, Vallesian MN10)				+																																																										

	Discoglossidae														Pelobatidae											Pelodytes			Palaeobatrachidae								Bufonidae								Hyla		Ranidae														
Locality	D ?	Opi wei	Opi hes	Lat sp.	Lat gig	Lat ver	Lat rag	Lat sey	Dis sp.	Dis tro	Aly sp.	Bo sp.	Bo bo	Bo var	P ?	Eo sp.	Eo ant	Eo bay	Eo hin	Eo wa	Pel sp.	Pel cul	Pel de	Pel fus	Pel syr	Pld sp.	Pld are	Pld pu	Pal ?	Alb	Pal sp.	Pal dil	Pal gra	Pal lue	Me tob	Pli sp.	B ?	Buf sp.	Buf buf	Buf cal	Buf ges	Buf pri	Buf rad	Buf viri	Hyl sp.	Hyl arb	R ?	Ra sp.	Ra arv	Ra dal	Ra esc	Ra lata	Ra les	Ra ma	Ra per	Ra ridi	Ra str	Ra te	M ?	Rh ?	Th	Lut
Masia del Barbo, Spain (Miocene, Vallesian MN10)				+																																																				+						
Biodrak C, Greece (Miocene, Vallesian MN10)				+																																												+													
Lefkon, Greece (Miocene, Vallesian MN10)				+																																																				+						
Buzhor, Moldova (Miocene, Vallesian MN9-10)																																						+										+													
Ampudia 6B & 8 & 9, Spain (Miocene, Vallesian MN9)				+																																									+															
Autilla 1, Spain (Miocene, Vallesian MN9)																											+																																		
Can Llobateres, Spain (Miocene, Vallesian MN9)				+																	+																																								
Valles de Fuentidueña, Spain (Miocene, Vallesian MN9)				+																																												+													
Toremormojón 3 & 4, Spain (Miocene, Vallesian MN9)				+																																																									
Suchomasty, Czech Republic (Miocene, Vallesian MN9)				+								+				+																							+																						
Rudabánya, Hungary (Miocene, Turolian MN9)	+				+				+			+			+											+					+														+			+													
Gritsev, Ukraine (Miocene, Vallesian MN9)					+																+										+							+																								
Collet-Redon, France (Miocene, Astaracian MN8)																																																+													
La Grive St. Alban L3 & L5, France (Miocene, Astaracian MN8)					+											+					+																					?+		+														+				
La Grive St. Alban M & L7, France (Miocene, Astaracian MN8)					+											+										+																?+		+														+				
Klein Eisenbach, Germany (Miocene, Astaracian MN8)				+																																																									
Przeworno 2, Poland (Miocene, Astaracian MN7-8)					+																																																									
Sokolovskyi, Ukraine (Miocene, Upper Astaracian)																																						+																									
Cerro del Otero, Spain (Miocene, Astaracian MN7-8)				+																							+																																			
Sant Quirze, Spain (Miocene, Astaracian MN7-8)				+																																																										
Escobosa de Calatañazor, Spain (Miocene, Astaracian MN7-8)	+																										+																	+																		

	Discoglossidae														Pelobatidae											Pelodytes			Palaeobatrachidae								Bufonidae								Hyla		Ranidae														
Locality	D ?	Opi wei	Opi hes	Lat sp.	Lat gig	Lat ver	Lat rag	Lat sey	Dis sp.	Dis tro	Aly sp.	Bo sp.	Bo bo	Bo var	P ?	Eo sp.	Eo ant	Eo bay	Eo hin	Eo wa	Pel sp.	Pel cul	Pel de	Pel fus	Pel syr	Pld sp.	Pld are	Pld pu	Pal ?	Alb	Pal sp.	Pal dil	Pal gra	Pal lue	Me tob	Pli sp.	B ?	Buf sp.	Buf buf	Buf cal	Buf ges	Buf pri	Buf rad	Buf viri	Hyl sp.	Hyl arb	R ?	Ra sp.	Ra arv	Ra dal	Ra esc	Ra lata	Ra les	Ra ma	Ra per	Ra ridi	Ra str	Ra te	M ?	Rh ?	Th	Lut
Villafeliche 4 & 6, Spain (Miocene, Astaracian MN7-8?)																						+																																		+						
Oehningen, Germany (Miocene, Astaracian MN7-8)								+				+																												+														+						
Steinheim, Germany (Miocene, Astaracian MN7-8)																																																							+						
Opole, Poland (Miocene, Astaracian MN7-8)					+							+																	+																																
Maikop, Russia (Miocene, Astaracian MN7-8)	+																																														+														
Adelschlag, Germany (Miocene, Astaracian, MN6-8)																															+																															
Dueñas V. F., Spain (Miocene, Astaracian MN6)				+																																																										
Toremormojón 6B, Spain (Miocene, Astaracian MN6)				+																																																										
Manchones, Spain (Miocene, Astaracian MN6)																																											+														+						
Sansan, France (Miocene, Astaracian MN6)					+											+					+					+					+																								+						
Sandelzhausen, Germany (Miocene, Astaracian MN6)																+																																													
Attenfeld, Germany (Miocene, Astaracian MN6)				+																																																										
Děvínska Nová Ves, Slovakia (Miocene, Astaracian MN6)					+													+																								+				+																
Frausilla 2, Spain (Miocene, Astaracian MN6)				+																																																										
Muenchen, Germany (Miocene, Upper Orleanian-Astaracian MN5-6)																																															+														
Mainz-Sonnenbrauerei, Germany (Lower Miocene, Burdigalian?)	+																																																													
Planas 4A & 4C, Spain (Miocene: Orleanian MN5)															+																																															
Randecker Maar, Germany (Miocene, Orleanian MN5)																															+																																
Guenzburg, Germany (Miocene, Orleanian MN5?)				+																																																				+						
Františkovy Lázně, Czech Republic (Miocene, Orleanian MN5)				+																																																										
Srybulaksk, Russia (Miocene, Orleanian MN5)																																					+																									

	Discoglossidae														Pelobatidae											Pelodytes			Palaeobatrachidae								Bufonidae								Hyla		Ranidae														
Locality	D ?	Opi wei	Opi hes	Lat sp.	Lat gig	Lat ver	Lat rag	Lat sey	Dis sp.	Dis tro	Aly sp.	Bo sp.	Bo bo	Bo var	P ?	Eo sp.	Eo ant	Eo bay	Eo hin	Eo wa	Pel sp.	Pel cul	Pel de	Pel fus	Pel syr	Pld sp.	Pld are	Pld pu	Pal ?	Alb	Pal sp.	Pal dil	Pal gra	Pal lue	Me tob	Pli sp.	B ?	Buf sp.	Buf buf	Buf cal	Buf ges	Buf pri	Buf rad	Buf viri	Hyl sp.	Hyl arb	R ?	Ra sp.	Ra arv	Ra dal	Ra esc	Ra lata	Ra les	Ra ma	Ra per	Ra ridi	Ra str	Ra te	M ?	Rh ?	Th	Lut
Belomechetskaya, Russia (Miocene, Orleanian MN6)					+																																																										
Vieux Collonges, France (Miocene, Orleanian MN4-5)				+												+																												+				+													
Beuern, Germany (Miocene, Astaracian MN4-5)																															+																								+						
Córcoles, Spain (Miocene, Orleanian MN4b)	+																																					+						+				+													
Seuvres, France (Miocene, Orleanian MN4b)																																																							+						
Artenay, France (Miocene, Orleanian MN4a)				+																																											+													
Buñol, Spain (Miocene, Orleanian MN4a)																																						+																	+						
Valdemoros 3B, Spain (Miocene, Orleanian MN4)	+																																					+																							
Rubielos de Mora 2, Spain (Miocene, Orleanian MN4)																																																							+						
Romieu, France (Miocene, Orleanian MN4)																																																							+						
Rauscheroed 2, Germany (Miocene, Orleanian MN4)																+																																													
Dolnice, Czech Republic (Miocene, Orleanian MN4)					+											+																															+													
Oberdorf, Austria Miocene MN4)							+																			+					+														+										+						
Aliveri, Greece (Miocene: Orleanian MN4)				+																																																										
Torralba de Ribota, Spain (Miocene, Orleanian MN3)																																															+													
Oschiri, Sardinia (Miocene, Agenian or Orleanian MN1-5)									+																																																				
Stubersheim 3, Germany (Miocene, Orleanian MN3)																										+																																					
Dietrichsberg, Germany (Miocene, Burdigalian MN3)	+																																																												+		
Hrabák Mine, Czech Republic (Miocene, Orleanian MN3)																	+	+																																												
Nástup Mine, Czech Republic (Miocene, Orleanian MN3)																	+	+																																												
Merkur Mine, Czech Republic (Miocene, Orleanian MN3)																+		+																																												
Skyřice, Czech Republic (Miocene, Orleanian MN3)																																+																															
Kaltennordheim, Germany (Miocene, Agenian or Orleanian)																																+																															

	Discoglossidae														Pelobatidae											Pelodytes			Palaeobatrachidae								Bufonidae								Hyla		Ranidae														
Locality	D ?	Opi wei	Opi hes	Lat sp.	Lat gig	Lat ver	Lat rag	Lat sey	Dis sp.	Dis tro	Aly sp.	Bo sp.	Bo bo	Bo var	P ?	Eo sp.	Eo ant	Eo bay	Eo hin	Eo wa	Pel sp.	Pel cul	Pel de	Pel fus	Pel syr	Pld sp.	Pld are	Pld pu	Pal ?	Alb	Pal sp.	Pal dil	Pal gra	Pal lue	Me tob	Pli sp.	B ?	Buf sp.	Buf buf	Buf cal	Buf ges	Buf pri	Buf rad	Buf viri	Hyl sp.	Hyl arb	R ?	Ra sp.	Ra arv	Ra dal	Ra esc	Ra lata	Ra les	Ra ma	Ra per	Ra ridi	Ra str	Ra te	M ?	Rh ?	Th	Lut
Hájek, Czech Republic (Miocene, Agenian or Orleanian)																																	+																														
Issoire, France (Miocene, Agenian or Orleanian MN1-5)																															+																														
Navarette del Rio, Spain (Miocene, Agenian MN2b)							+																				+																												+						
Saint-Gérard-le-Puy, France (Miocene, Agenian MN2a)						+																				+					+																+														
Poncenat, France (Miocene, Agenian MN2)																															+																														
Laugnac, France (Miocene, Agenian MN2)							+																						□																											+						
Haslach bei Ulm, Germany (Miocene, Agenian MN2)																+															+																+														
Ulm-Westtangente, Germany (Miocene, Agenian MN2)							+																																								+														
Ribesalbes, Spain (Miocene, Agenian MN1-2)																																															+														
Olocau, Spain (Miocene, Agenian MN1-2)																																															+														
Am Hambusch, Germany (Miocene, Agenian MN1-2)																															+																														
Grafenmühle 2, Germany (Miocene, Agenian MN1-2)															+																																														
Tomerdingen, Germany (Miocene, Agenian MN1-2)																															+																														
Paulhiac, France (Miocene, Agenian MN1)				+																																																										
Weisenau, Germany (Miocene, Agenian MN1)	+																														+																	+														
Weissenburg 6, Germany (Miocene, Agenian MN1)												+																																																
Budenheim, Germany (Lower Miocene)															+																																														
Jenišův Újezd, Czech Republic (Lower Miocene)																													+																																		
Burgbrohl, Germany (Oligocene-Miocene boundary)																																+																														
Hochheim-Floersheim, Germany (Oligocene-Miocene boundary)																															+																														
Zittau, Germany (Oligocene-Miocene boundary MN0)																																		+																												
Kamenice, Czech Republic (Oligocene-Miocene boundary?)																															+																														
Lužice, Czech Republic (Oligocene-Miocene boundary)																																															+														

	Discoglossidae														Pelobatidae											Pelodytes			Palaeobatrachidae								Bufonidae								Hyla		Ranidae														
Locality	D ?	Opi wei	Opi hes	Lat sp.	Lat gig	Lat ver	Lat rag	Lat sey	Dis sp.	Dis tro	Aly sp.	Bo sp.	Bo bo	Bo var	P ?	Eo sp.	Eo ant	Eo bay	Eo hin	Eo wa	Pel sp.	Pel cul	Pel de	Pel fus	Pel syr	Pld sp.	Pld are	Pld pu	Pal ?	Alb	Pal sp.	Pal dil	Pal gra	Pal lue	Me tob	Pli sp.	B ?	Buf sp.	Buf buf	Buf cal	Buf ges	Buf pri	Buf rad	Buf viri	Hyl sp.	Hyl arb	R ?	Ra sp.	Ra arv	Ra dal	Ra esc	Ra lata	Ra les	Ra ma	Ra per	Ra ridi	Ra str	Ra te	M ?	Rh ?	Th	Lut
Verneřice, Czech Republic (Oligocene-Miocene boundary MN0)																													+																																		
Košťálov, Czech Republic (Chattian or Agenian MN0)																																		+																												
Odeř, Czech Republic (Oligocene-Miocene boundary)																																+	+																												
Gusternhein, Germany (Late Oligocene or Early Miocene)																																															+														
Herborn, Germany (Late Oligocene or Early Miocene)																															+																															
Westerburg, Germany (Upper Oligocene or Lower Miocene)																																															+														
Malečov, Czech Republic (Oligocene or Miocene)																													+																																		
Olešnice, Czech Republic (Oligocene or Miocene)																													+																																		
Coderet, France (Oligocene, Chattian MP30)						+										+																																								+						
Rott, Germany (Uppermost Oligocene MP30)										+							+						+								+	+															+														
Orsberg, Germany (Uppermost Oligocene MP30)																+																+	+																												
Stösschen, Germany (Uppermost Oligocene MP30)																																+																														
Paguera, Majorca, Spain (Oligocene, Chattian)																+																																													
Aix-en-Province, France (Oligocene, Chattian MP25-30)																																																								+						
La Milloque, France (MP29)				+																																																											
Moissac 2, France (Oligocene, Chattian MP29)																																															+														
Pech du Fraysse, France (Oligocene, Chattian MP28)				+												+																															+														
Enspel, Germany (Oligocene, Chattian MP28)																							+																									+														
Gaimersheim, Germany (Oligocene, Chattian MP28)				+												+																															+														
Boujac 3 & 4, France (Oligocene, Chattian MP27)				+												+																															+														
Belgarric 4A, France (Oligocene, Chattian MP25)				+																																											+														
Gunzenheim, Germany (Oligocene, Chattian)																																															+														
Gussenstadt, Germany (Oligocene, Chattian)				+																																																										

	Discoglossidae														Pelobatidae											Pelodytes			Palaeobatrachidae								Bufonidae								Hyla		Ranidae															
Locality	D ?	Opi wei	Opi hes	Lat sp.	Lat gig	Lat ver	Lat rag	Lat sey	Dis sp.	Dis tro	Aly sp.	Bo sp.	Bo bo	Bo var	P ?	Eo sp.	Eo ant	Eo bay	Eo hin	Eo wa	Pel sp.	Pel cul	Pel de	Pel fus	Pel syr	Pld sp.	Pld are	Pld pu	Pal ?	Alb	Pal sp.	Pal dil	Pal gra	Pal lue	Me tob	Pli sp.	B ?	Buf sp.	Buf buf	Buf cal	Buf ges	Buf pri	Buf rad	Buf viri	Hyl sp.	Hyl arb	R ?	Ra sp.	Ra arv	Ra dal	Ra esc	Ra lata	Ra les	Ra ma	Ra per	Ra ridi	Ra str	Ra te	M ?	Rh ?	Th	Lut
Zálezly, Czech Republic (Oligocene, Chattian)																															+																																	
Vertaizon, France (Oligocene, Rupelian)						+																																																									
Monteviale, Italy (Oligocene, Rupelian)																													+																																			
Chapelins, France (Oligocene, Rupelian MP23)				+												+																																															
Pech-Crabit, France (Oligocene, Rupelian MP23)						+										+																																															
Itardies, France (Oligocene, Rupelian MP23)						+															+																																										
Roqueprune 2 France (Lower Oligocene, MP23)						+															+																											+															
La Plante 2, France (Lower Oligocene, MP22)						+																																										+															
Mas de Got A & B, France (Oligocene, Rupelian MP22)						+															+																									+	+															
Montjustin, France (Lower Oligocene)																																																															
St.-Martin-de-Castillon France (Lower Oligocene, MP23)																																																+															
Baraval, France (Lower Oligocene MP22)															+																																															
Moehren 13, Germany (Oligocene, Rupelian MP22)																															+																								+								
Bechlejovice, Czech Republic (Lower Oligocene MP22)			+															+														+	+																														
Varnsdorf-Seifhennersdorf, Czech Republic and Germany (Lower Oligocene)																																	+																														
Lower Hamstead Beds, Great Britain (Lower Oligocene, MP21)	+															+																																														
Aubrelong 1, France (Oligocene, MP21)				+														+																																													
Ronzon, France (Oligocene, Rupelian MP21)																																															?+															
Ravet Lupo, France (Oligocene, Rupelian MP21)																		+																																													
Boutersem, Belgium (Lower Oligocene, MP21)																		+													+		+																															
Hoeleden, Belgium (Oligocene, Rupelian MP21)									+							+													+																																		
Hoogbutsel, Belgium (Oligocene, Rupelian MP21)																		+															+																														

	Discoglossidae														Pelobatidae											Pelodytes			Palaeobatrachidae								Bufonidae								Hyla		Ranidae														
Locality	D ?	Opi wei	Opi hes	Lat sp.	Lat gig	Lat ver	Lat rag	Lat sey	Dis sp.	Dis tro	Aly sp.	Bo sp.	Bo bo	Bo var	P ?	Eo sp.	Eo ant	Eo bay	Eo hin	Eo wa	Pel sp.	Pel cul	Pel de	Pel fus	Pel syr	Pld sp.	Pld are	Pld pu	Pal ?	Alb	Pal sp.	Pal dil	Pal gra	Pal lue	Me tob	Pli sp.	B ?	Buf sp.	Buf buf	Buf cal	Buf ges	Buf pri	Buf rad	Buf viri	Hyl sp.	Hyl arb	R ?	Ra sp.	Ra arv	Ra dal	Ra esc	Ra lata	Ra les	Ra ma	Ra per	Ra ridi	Ra str	Ra te	M ?	Rh ?	Th	Lut
Soulce, Switzerland (Oligocene, Rupelian MP21)																																+																															
Sieblos, Germany (Oligocene, Rupelian?)																																	+																														
Suletice, Czech Republic (Lower Oligocene MP21)																																	+																														
Markvartice, Czech Republic (Lower Oligocene MP21)																																+		+																														
Kundratice, Czech Republic (Lower Oligocene MP21)																													+																																		
Kustovsk, Russia (Lower Oligocene)																+																																														
Bach, France (Oligocene, Rupelian or Chattian)				+																																												+														
Barros, Spain (Oligocene, Rupelian)																+																																														
Fonbonne 1, France (Oligocene)				+												+																																															
Ponte, Italy (Oligocene)																															+																																
Oranowo-Simitili, Bulgaria (Upper Eocene or Lower Oligocene)																																															+														
Pendare 3B, France (Eocene or Oligocene)				+																																																											
Montalets, France (Eocene)															+																																															
Wooton Creek, Great Britain (Upper Eocene)	+																																																														
Whitecliff Bay, Isle of Wight, Great Britain (Eocene, Priabonian MP20)																+														+																															+	
Sindou D, France (Eocene, Priabonian MP19)																+																														+														+	
Coânac 1, France (Eocene, Priabonian MP19)																																														+														+	
Escamps, France (Eocene, Priabonian MP19)																		+								+																				+													+	+	+	
Lébratières, France (Eocene, Priabonian MP19)																																																															
Perrière, France (Eocene, Priabonian MP19)															+																																																
Rosières 1 & 2, France (Eocene, Priabonian MP19)	+															+																															+														+	
Rosières 5, France (Eocene, Priabonian MP19)																																																															
Totland Bay, Great Britain (Eocene, Priabonian MP19)																															+																																	
Totland Bay, Great Britain (Eocene, Priabonian MP17?)																+														+																																	

	Discoglossidae														Pelobatidae											Pelodytes			Palaeobatrachidae								Bufonidae								Hyla		Ranidae														
Locality	D ?	Opi wei	Opi hes	Lat sp.	Lat gig	Lat ver	Lat rag	Lat sey	Dis sp.	Dis tro	Aly sp.	Bo sp.	Bo bo	Bo var	P ?	Eo sp.	Eo ant	Eo bay	Eo hin	Eo wa	Pel sp.	Pel cul	Pel de	Pel fus	Pel syr	Pld sp.	Pld are	Pld pu	Pal ?	Alb	Pal sp.	Pal dil	Pal gra	Pal lue	Me tob	Pli sp.	B ?	Buf sp.	Buf buf	Buf cal	Buf ges	Buf pri	Buf rad	Buf viri	Hyl sp.	Hyl arb	R ?	Ra sp.	Ra arv	Ra dal	Ra esc	Ra lata	Ra les	Ra ma	Ra per	Ra ridi	Ra str	Ra te	M ?	Rh ?	Th	Lut
Bembridge Limestone, Great Britain (Upper Eocene MP19)	+																																																											
Headon Hill –6, Isle of Weight, Great Britain (Eocene, Priabonian MP19)																																																										+	
Célarié, France (Upper Eocene MP18 or MP19)															+																																												
Sainte-Néboule, France (Eocene, Priabonian MP18)	+														+											+																					+													+	
Gousnat, France (Eocene, Priabonian MP18)																+										+																																		
Aubrelong 2, France (Eocene, Priabonian MP17)																										+																					+													+	
Lébratières 1, France (Eocene, Priabonian MP17)																																															+													
La Bouffie, France (Eocene, Priabonian MP17)																+										+																					+													+	
Rosières 5, France (Eocene, Priabonian MP17)																+																																												
Pradigues, France (Eocene, Priabonian MP17)																+																																												
Perrière, France (Eocene, Priabonian MP17)															+																																+													+	
Malpérié, France (Eocene, Priabonian MP17)																+										+																					+													+	
Headon Hill 2, Isle of Weight, Great Britain (Eocene, Priabonian MP17)	+															+														+																															
Hordle Cliff, Great Britain (Eocene, Priabonian MP17)	+															+														+																															
Headon Hill 0 & 5, Isle of Weight, Great Britain (Eocene, Priabonian MP17?)																																																												
Headon Hill +1, Isle of Weight, Great Britain (Eocene, Priabonian MP17?)																																																												
Headon Hill -1, Isle of Weight, Great Britain (Eocene, Priabonian MP17?)																+														+																															+	
Barton Clay A1-3, Great Britain (Upper Eocene MP16)	+																																																											
Le Bretou, France (Eocene, Bartonian MP16)															+											+																																			
Grisolles, France (Eocene, Bartonian MP16)	+														+											+					+																+													□	
Lavergne, France (Eocene, Bartonian MP16)																+										+																					+													+	

	Discoglossidae														Pelobatidae											Pelodytes			Palaeobatrachidae								Bufonidae								Hyla		Ranidae														
Locality	D ?	Opi wei	Opi hes	Lat sp.	Lat gig	Lat ver	Lat rag	Lat sey	Dis sp.	Dis tro	Aly sp.	Bo sp.	Bo bo	Bo var	P ?	Eo sp.	Eo ant	Eo bay	Eo hin	Eo wa	Pel sp.	Pel cul	Pel de	Pel fus	Pel syr	Pld sp.	Pld are	Pld pu	Pal ?	Alb	Pal sp.	Pal dil	Pal gra	Pal lue	Me tob	Pli sp.	B ?	Buf sp.	Buf buf	Buf cal	Buf ges	Buf pri	Buf rad	Buf viri	Hyl sp.	Hyl arb	R ?	Ra sp.	Ra arv	Ra dal	Ra esc	Ra lata	Ra les	Ra ma	Ra per	Ra ridi	Ra str	Ra te	M ?	Rh ?	Th	Lut
Robiac, France (Eocene, Bartonian MP16)																																															+																	
Aumelas 1, France (Eocene, Lutetian MP13)	+														+																																															
Saint-Maximin, France (Eocene, Lutetian, MP13)																										+																																					
Geiseltal, Germany (Middle Eocene, Lutetian MP13-14)	+	+																	+														+																														
Messel, Germany (Eocene, Lutetian MP11)																				+															+																												+
Prémontré, France (Lower Eocene, Ypresian MP10)	+																		+												+																													□	
Condé-en-Brie, France (Lower Eocene, Ypresian MP8+9)	+														+																+																														
Le Quesnoy, France (Lower Eocene, Ypresian MP7)															+																																														
Rians, France (Lower Eocene, Ypresian MP7)															+																																														
Meudon, France (Lower Eocene, MP7)															+																																														
Dormaal, Belgium (Lower Eocene, Ypresian MP7)	+														+																+																														
Silveirinha, Portugal (Lower Eocene, Ypresian, MP7)																+																																													
Garrigues, France (?Eocene)																+																																+												+	
Cernay, France (Paleocene, Thanetian MP6)																															+						+																									
Hainin, Belgium (Middle Paleocene MP1-5)	+																												+																																	