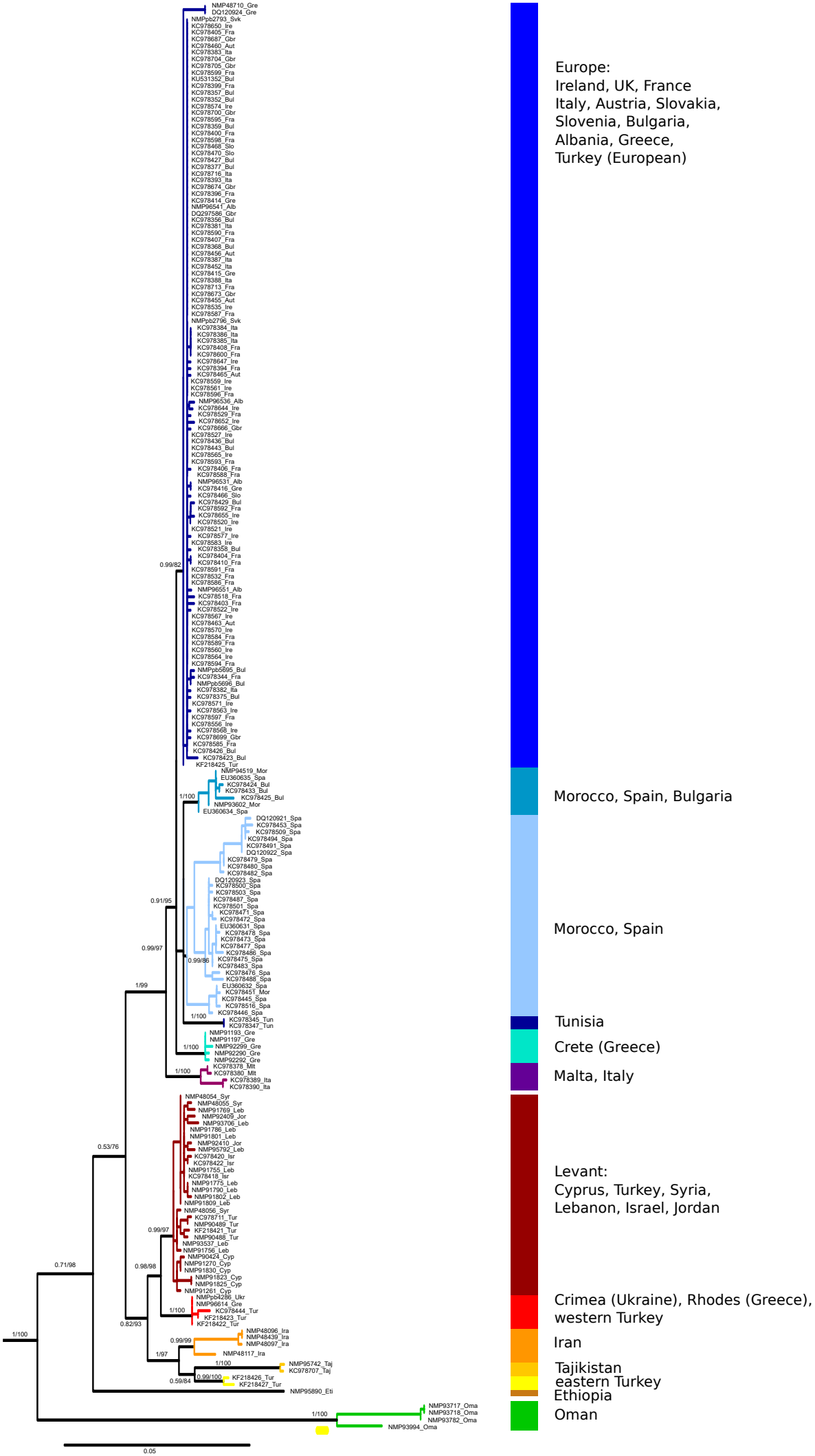
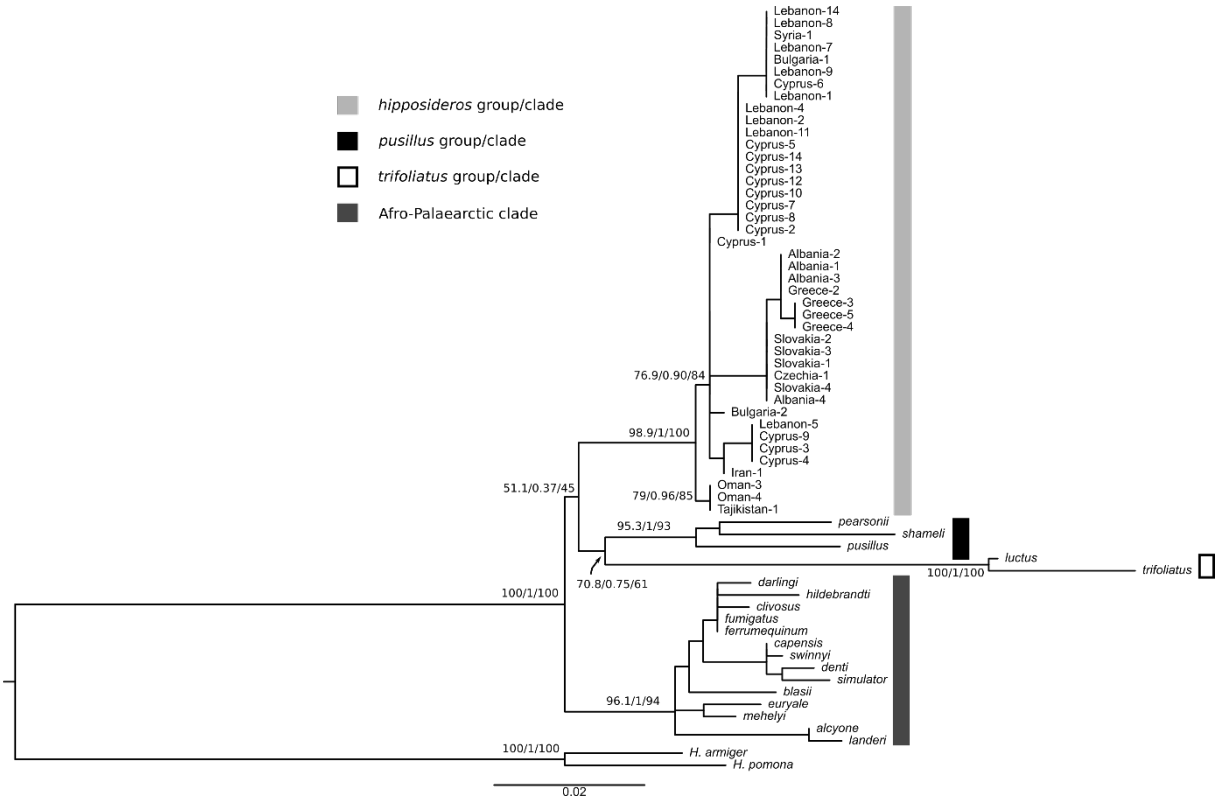
BENDA, P., M. UVIZL, P. VALLO, A. REITER, and M. UHRIN. 2022. A revision of the *Rhinolophus hipposideros* group (Chiroptera: Rhinolophidae) with definition of an additional species from the Middle East. Acta Chiropterologica, 24(2): 269–298.

SUPPLEMENTARY INFORMATION

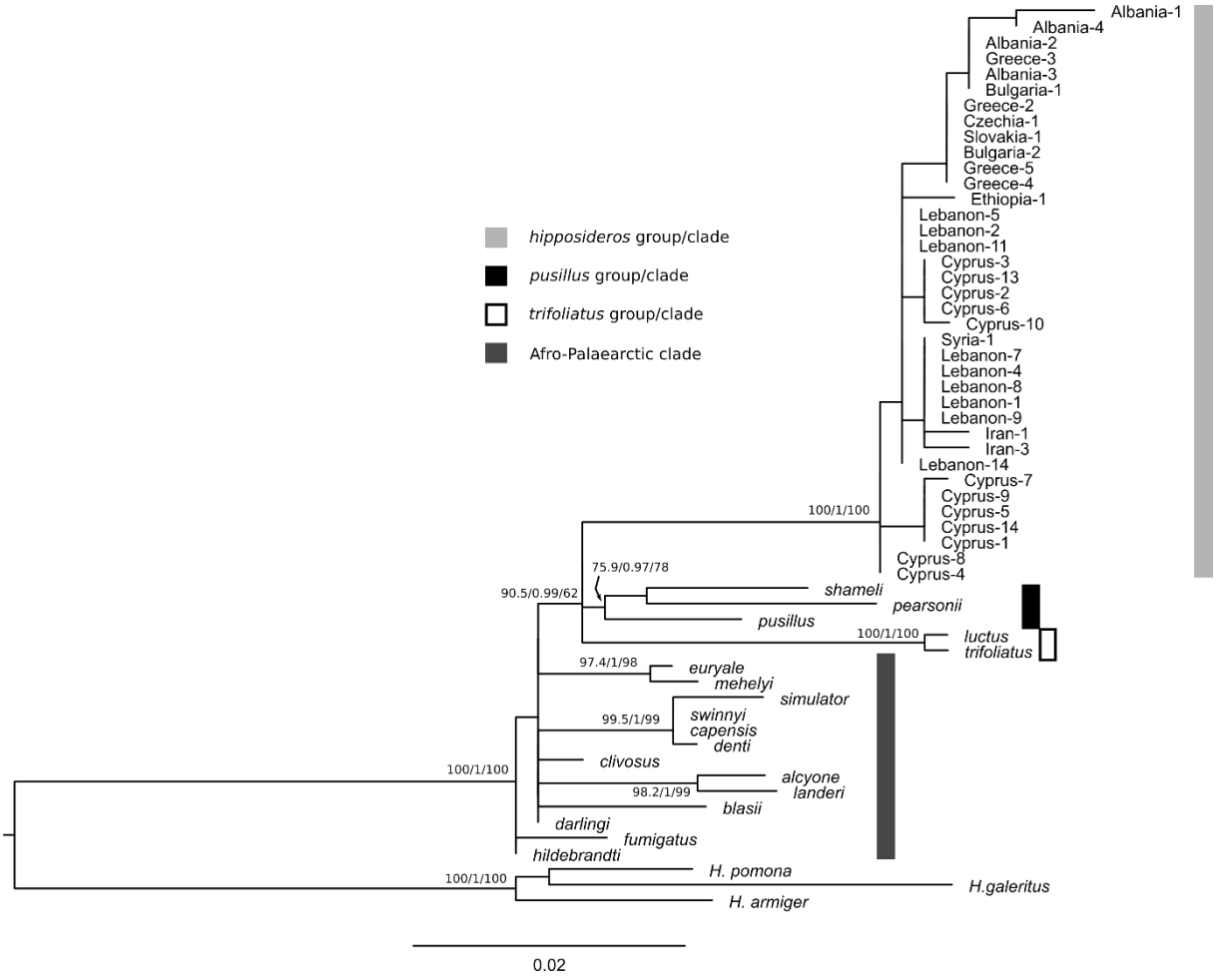
Contents: Supplementary Figures: Fig. S1. Maximum likelihood tree of reconstructed phylogenetic relationships of the *R. hipposideros* group based on as complete as possible cytochrome-*b* dataset (1,103 bp). Branch support values are shown at the nodes; Fig. S2. Maximum likelihood tree of the reconstructed phylogenetic relationships of the *R. hipposideros* group and selected species of the genus *Rhinolophus* based on *ACOX*. Branch support values are shown above/below the branches in order SH-aLRT/UFBoot; Fig. S3. Maximum likelihood tree of the reconstructed phylogenetic relationships of the *R. hipposideros* group and selected species of the genus *Rhinolophus* based on *BGN*. Branch support values are shown above/below the branches in order SH-aLRT/UFBoot; Fig. S4. Maximum likelihood tree of the reconstructed phylogenetic relationships of the *R. hipposideros* group and selected species of the genus *Rhinolophus* based on *COPS*. Branch support values are shown above/below the branches in order SH-aLRT/UFBoot; Fig. S5. Maximum likelihood tree of the reconstructed phylogenetic relationships of the *R. hipposideros* group and selected species of the genus *Rhinolophus* based on *ROGDI*. Branch support values are shown above/below the branches in order SHaLRT/UFBoot; Fig. S6. Maximum likelihood tree of the reconstructed phylogenetic relationships of the *R. hipposideros* group and selected species of the genus *Rhinolophus* based on *STAT*. Branch support values are shown above/below the branches in order SH-aLRT/ UFBoot; Fig. S7. Chronogram of the family Rhinolophidae based on a Bayesian inference of the nuclear dataset (according to the model by Dool *et al*., 2016). The numbers at nodes show mean divergence time estimates (Ma) and horizontal boxes 95% highest posterior density intervals of these estimates. The asterisk (*) indicates nodes with low branch support, the rest of the nodes were supported ($PP \geq 0.95$); Fig. S8. Bivariate plot of skull dimensions of the examined samples of the *R. hipposideros* group: results of the canonical discriminant analysis of selected nine plain and seven relative dimensions (see Results for details). Supplementary Tables: Table S1. A) Original sequences and sequences from GenBank used in the molecular genetic analysis; B) Sequences with the total length of 1,103 bp from GenBank used for the *R. hipposideros* tree, see Supplementary Fig. S1; Table S2. Names, sequences, and annealing temperatures of primers used in this study; Table S3. Substitution models as identified by ModelFinder for the different partitions used in MrBayes and IQTREE, respectively; Table S4. Summary of BPP for the nuclear dataset. Values for BPP species are posterior probabilities (*PP*) of delimitation from BPP runs under each of four different schemes under two different algorithms (see Table 1 in Demos *et al*., 2019); Table S5. Relative cranial dimensions of the examined sample sets of the *R. hipposideros* group; *midas*, *escalerae* = dimensions of the respective type specimens; for the sample set delimitations and dimension abbreviations see Materials and Methods; Table S6. Relative dental imensions of the examined sample sets of the *R. hipposideros* group; *midas* = dimensions of the respective type specimen; for the sample set delimitations and dimension abbreviations see Materials and Methods; Table S7. Results of the one-way ANOVA test of skull dimensions between particular sample sets; for the sample set delimitations and abbreviations and for dimension abbreviations see Materials and Methods.



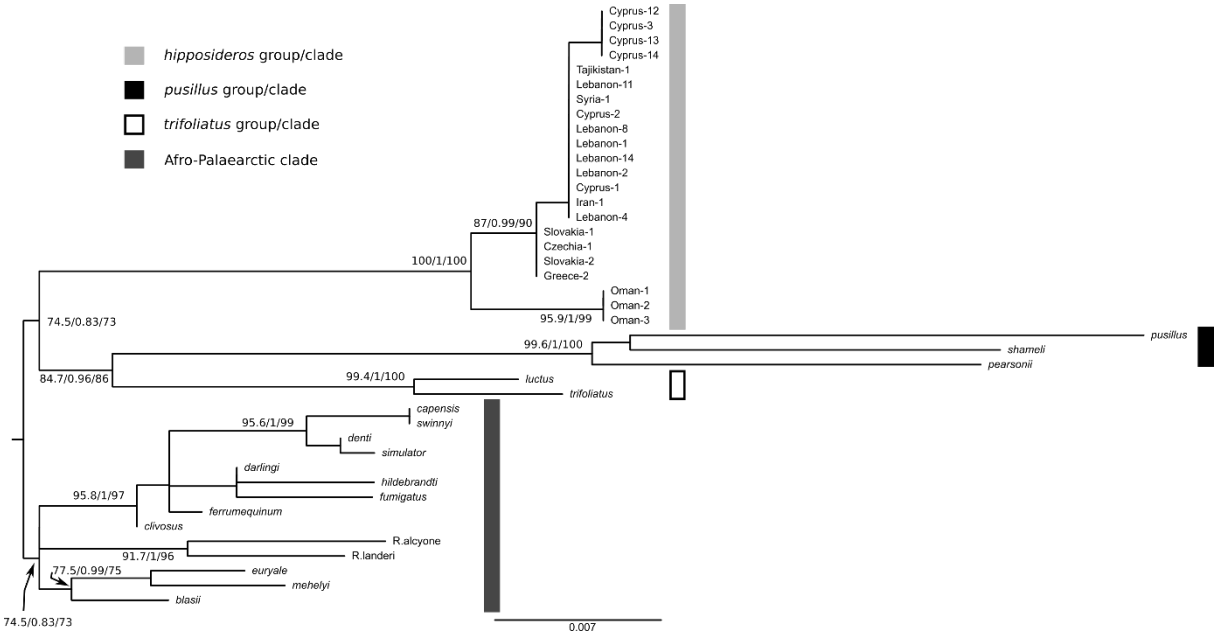
Supplementary Fig. S1. Maximum likelihood tree of reconstructed phylogenetic relationships of the *R. hipposideros* group based on as complete as possible cytochrome-*b* dataset (1,103 bp). Branch support values are shown at the nodes



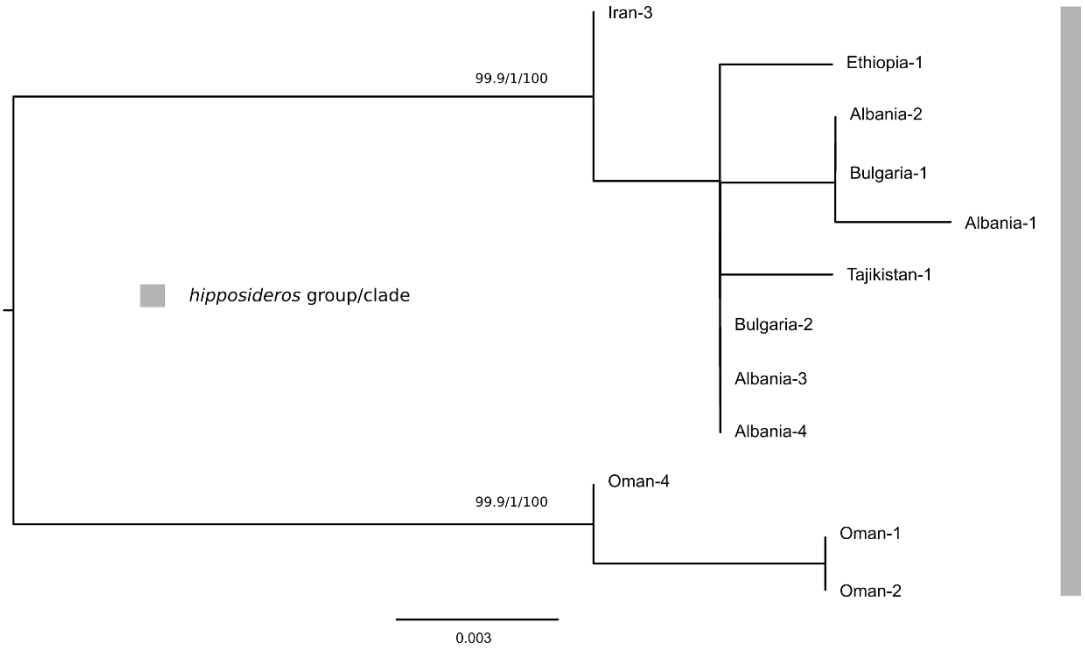
Supplementary Fig. S2. Maximum likelihood tree of the reconstructed phylogenetic relationships of the *R. hipposideros* group and selected species of the genus *Rhinolophus* based on *ACOX*. Branch support values are shown above/below the branches in order SH-aLRT/UFBoot



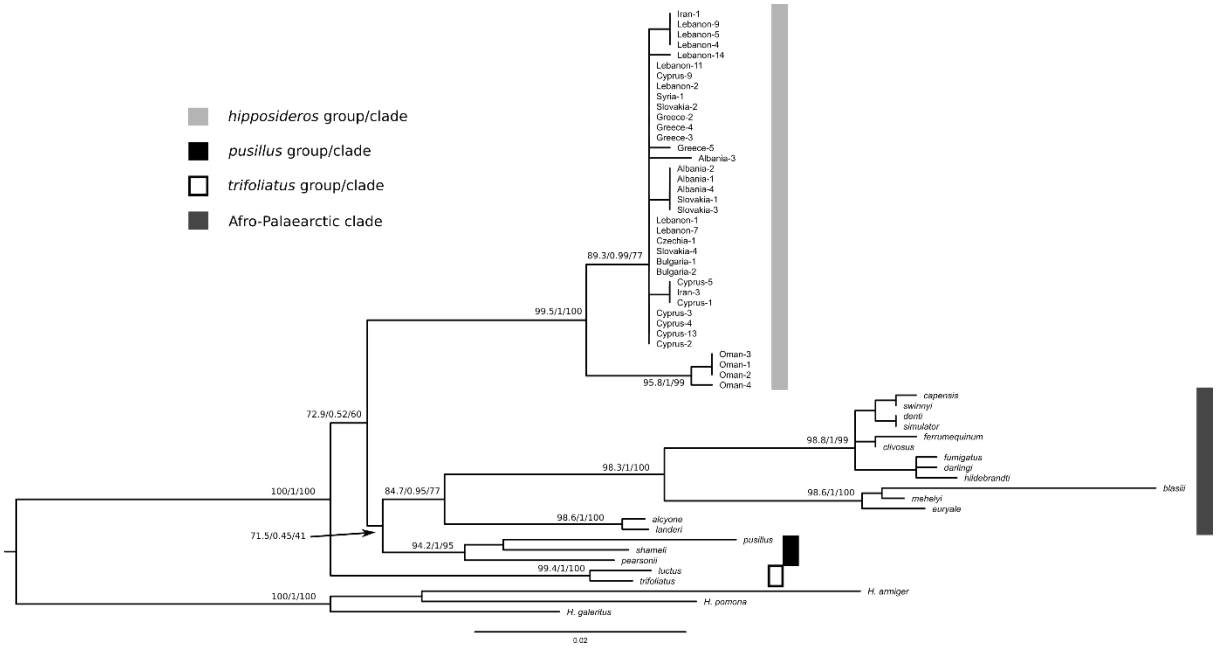
Supplementary Fig. S3. Maximum likelihood tree of the reconstructed phylogenetic relationships of the *R. hipposideros* group and selected species of the genus *Rhinolophus* based on *BGN*. Branch support values are shown above/below the branches in order SHaLRT/UFBoot



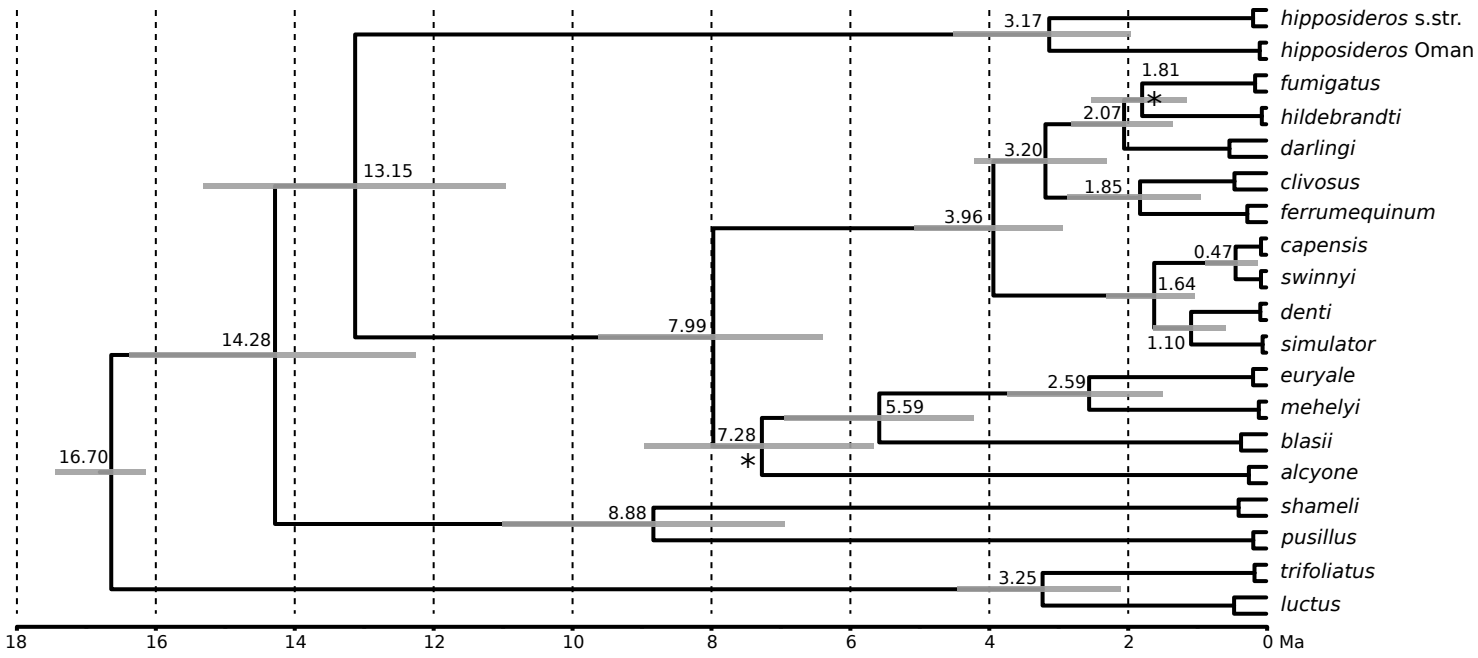
Supplementary Fig. S4. Maximum likelihood tree of the reconstructed phylogenetic relationships of the *R. hipposideros* group and selected species of the genus *Rhinolophus* based on *COPS*. Branch support values are shown above/below the branches in order SH-aLRT/UFBoot



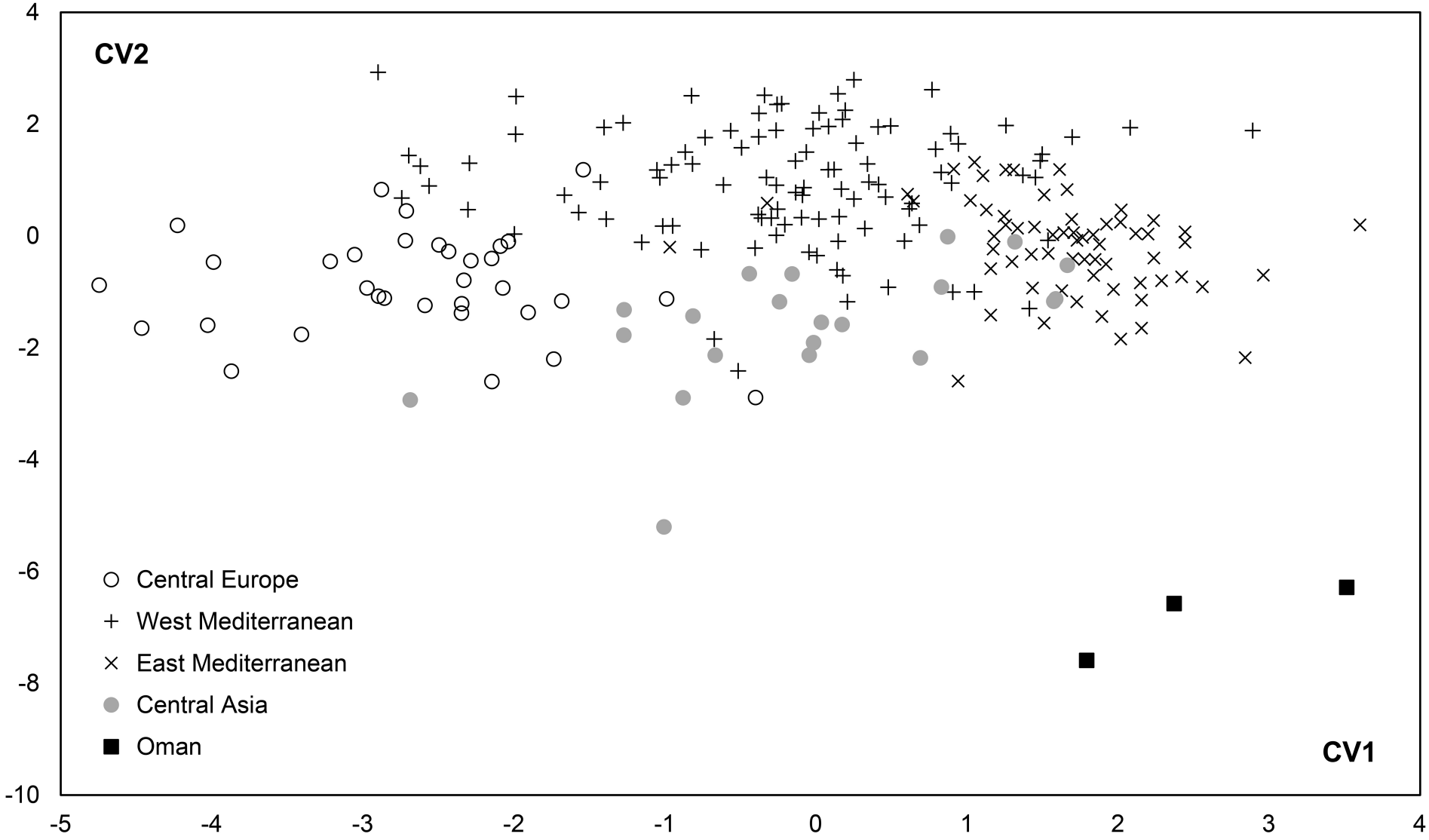
Supplementary Fig. S5. Maximum likelihood tree of the reconstructed phylogenetic relationships of the *R. hipposideros* group and selected species of the genus *Rhinolophus* based on *ROGDI*. Branch support values are shown above/below the branches in order SHaLRT/UFBoot



Supplementary Fig. S6. Maximum likelihood tree of the reconstructed phylogenetic relationships of the *R. hipposideros* group and selected species of the genus *Rhinolophus* based on *STAT*. Branch support values are shown above/below the branches in order SH-aLRT/ UFBoot



Supplementary Fig. S7. Chronogram of the family Rhinolophidae based on a Bayesian inference of the nuclear dataset (according to the model by Dool *et al.*, 2016). The numbers at nodes show mean divergence time estimates (Ma) and horizontal boxes 95% highest posterior density intervals of these estimates. The asterisk (*) indicates nodes with low branch support, the rest of the nodes were supported ($PP \geq 0.95$)



Supplementary Fig. S8. Bivariate plot of skull dimensions of the examined samples of the *R. hipposideros* group: results of the canonical discriminant analysis of selected nine plain and seven relative dimensions (see Results for details)

Supplementary Table S1A. Original sequences and sequences from GenBank used in the molecular genetic analysis

Species	STATE	Locality	Voucher	Haplotype	*CytB*	*ACOX*	*BGN*	*COPS*	*ROGDI*	*STAT*	*Reference*
Rhinolophus hipposideros	Albania	Tren, Treni cave	NMP 96531	Albania-1	OP895177	OP895234	OP895279		OP895343	OP895355	
Rhinolophus hipposideros	Albania	Gollomboç, Hermit cave	NMP 96536	Albania-2	OP895178	OP895235	OP895280		OP895344	OP895356	
Rhinolophus hipposideros	Albania	Gjirokaster	NMP 96541	Albania-3	OP895179	OP895236	OP895281		OP895345	OP895357	
Rhinolophus hipposideros	Albania	Vithkuq	NMP 96551	Albania-4	OP895180	OP895237	OP895282		OP895346	OP895358	
Rhinolophus hipposideros	Bulgaria		biopsy	Bulgaria-1	OP895181	OP895238	OP895283		OP895347	OP895359	
Rhinolophus hipposideros	Bulgaria		biopsy	Bulgaria-2	OP895182	OP895239	OP895284		OP895348	OP895360	
Rhinolophus hipposideros	Cyprus	Cinarli, Incirli Cave	NMP 90424	Cyprus-1	OP895183	OP895240	OP895285	OP895318		OP895361	
Rhinolophus hipposideros	Cyprus	Troodos Forest, mine	NMP 90923	Cyprus-2		OP895241	OP895286	OP895319		OP895362	
Rhinolophus hipposideros	Cyprus	Troodos Forest, mine	NMP 90924	Cyprus-10	OP895184						
Rhinolophus hipposideros	Cyprus	Troodos Forest, mine	NMP 90926	Cyprus-3		OP895242	OP895287	OP895320		OP895363	
Rhinolophus hipposideros	Cyprus	Troodos Forest, mine	NMP 90928	Cyprus-4		OP895243	OP895288			OP895364	
Rhinolophus hipposideros	Cyprus	Troodos Forest, mine	NMP 91229	Cyprus-13		OP895244	OP895289	OP895321		OP895365	
Rhinolophus hipposideros	Cyprus	Troodos Forest, mine	NMP 91261	Cyprus-10	OP895184	OP895245	OP895290				
Rhinolophus hipposideros	Cyprus	Troodos Forest, mine	NMP 91262	Cyprus-10	OP895184						
Rhinolophus hipposideros	Cyprus	Cinarli, Incirli Cave	NMP 91270	Cyprus-12	OP895185	OP895246		OP895322			
Rhinolophus hipposideros	Cyprus	Akamas, Smigies Trail	NMP 91821	Cyprus-5		OP895247	OP895291			OP895366	
Rhinolophus hipposideros	Cyprus	Akamas, Smigies Trail	NMP 91822	Cyprus-6		OP895248	OP895292				
Rhinolophus hipposideros	Cyprus	Akamas, Smigies Trail	NMP 91823	Cyprus-7	OP895186	OP895249	OP895293				
Rhinolophus hipposideros	Cyprus	Akamas, Smigies Trail	NMP 91824	Cyprus-8		OP895250	OP895294				
Rhinolophus hipposideros	Cyprus	Akamas, Smigies Trail	NMP 91825	Cyprus-9	OP895187	OP895251	OP895295			OP895367	
Rhinolophus hipposideros	Cyprus	Cinarli, Incirli Cave	NMP 91830	Cyprus-14	OP895188	OP895252	OP895296	OP895323			
Rhinolophus hipposideros	Cyprus	Troodos Forest, mine		Cyprus-10	OP895184						
Rhinolophus hipposideros	Cyprus	Troodos Forest, mine		Cyprus-10	OP895184						
Rhinolophus hipposideros	Czechia	Mořina, mine	NMP pb2797	Czechia-1		OP895253	OP895297	OP895324		OP895368	
Rhinolophus hipposideros	Ethiopia	Degum, church	NMP 95890	Ethiopia-1	OP895189		OP895298		OP895349		
Rhinolophus hipposideros	Greece	Kombotades, bunker	NMP 48710	Greece-1	OP895190						
Rhinolophus hipposideros	Greece	Kombotades, bunker	NMP 48711	Greece-1	OP895190						
Rhinolophus hipposideros	Greece	Kombotades, bunker	NMP 48715	Greece-1	OP895190						
Rhinolophus hipposideros	Greece	Crete, Milatou Cave	NMP 91198	Greece-3	OP895191						
Rhinolophus hipposideros	Greece	Crete, Mikri Lavyrinthos Cave	NMP 92290	Greece-6	OP895192						
Rhinolophus hipposideros	Greece	Crete, Gerani Cave	NMP 92292	Greece-7	OP895193						
Rhinolophus hipposideros	Greece	Crete, Sarakinas Cave	NMP 92299	Greece-8	OP895194						
Rhinolophus hipposideros	Greece	Crete, Exo Latsidi Cave	NMP 92317	Greece-3	OP895191						
Rhinolophus hipposideros	Greece	Crete, Gaidourotrypa Cave	NMP 92320	Greece-3	OP895191						
Rhinolophus hipposideros	Greece	Rodos, Agios Pavlos	NMP 96614	Greece-9	OP895195						
Rhinolophus hipposideros	Greece	Rodos, Gadoura Dam	NMP 96616	Greece-9	OP895195						
Rhinolophus hipposideros	Greece	Rodos, Gadoura dam	NMP 96617	Greece-9	OP895195						
Rhinolophus hipposideros	Greece	Kombotades, bunker	NMP 49028	Greece-2		OP895254	OP895299	OP895325		OP895369	
Rhinolophus hipposideros	Greece	Crete, Gerani Cave	NMP 91193	Greece-3	OP895191	OP895255	OP895300			OP895370	
Rhinolophus hipposideros	Greece	Crete, Gerani Cave	NMP 91194	Greece-4		OP895256	OP895301			OP895371	
Rhinolophus hipposideros	Greece	Crete, Milatou Cave	NMP 91197	Greece-5	OP895196	OP895257	OP895302			OP895372	

Rhinolophus hipposideros	Iran	Emama Sadeh	NMP 48096	Iran-1	OP895197					
Rhinolophus hipposideros	Iran	20 km NW Nosrat Abad	NMP 48117	Iran-3	OP895198		OP895303		OP895350	OP895373
Rhinolophus hipposideros	Iran	Emam Sadeh	NMP 48439	Iran-4	OP895199					
Rhinolophus hipposideros	Iran	Emam Sadeh	NMP 48097	Iran-2	OP895200	OP895258	OP895304	OP895326		OP895374
Rhinolophus hipposideros	Jordan	Dibbin Forest	NMP 92409	Jordan-1	OP895201					
Rhinolophus hipposideros	Jordan	Dibbin Forest	NMP 92410	Jordan-2	OP895202					
Rhinolophus hipposideros	Jordan	Zubiya Cave	NMP 92509	Lebanon-9	OP895212					
Rhinolophus hipposideros	Jordan	Zubiya Cave	NMP 92510	Lebanon-9	OP895212					
Rhinolophus hipposideros	Lebanon	Marjaba, mine	NMP 91756	Lebanon-3	OP895203					
Rhinolophus hipposideros	Lebanon	Mebaaj Cave	NMP 91786	Lebanon-6	OP895204					
Rhinolophus hipposideros	Lebanon	Seraaya Cave	NMP 91802	Lebanon-10	OP895205					
Rhinolophus hipposideros	Lebanon	Aamchit, Saleh Cave	NMP 91807	Lebanon-9	OP895212					
Rhinolophus hipposideros	Lebanon	Seraaya Cave	NMP 91906	Lebanon-9	OP895212					
Rhinolophus hipposideros	Lebanon	Faraya, Raymond Cave	NMP 93537	Lebanon-13	OP895206					
Rhinolophus hipposideros	Lebanon	Faraya, Raymond Cave	NMP 93538	Lebanon-9	OP895212					
Rhinolophus hipposideros	Lebanon	Aanjar, Aanjar Cave	NMP 93552	Lebanon-9	OP895212					
Rhinolophus hipposideros	Lebanon	Aanjar, Aanjar Cave	NMP 93553	Lebanon-9	OP895212					
Rhinolophus hipposideros	Lebanon	Seraal	NMP 93577	Lebanon-9	OP895212					
Rhinolophus hipposideros	Lebanon	Wadi Jilo	NMP 93706	Lebanon-12	OP895207					
Rhinolophus hipposideros	Lebanon	Aamchit, Saleh Cave	NMP 93709	Lebanon-9	OP895212					
Rhinolophus hipposideros	Lebanon	Dahr El Mghara, Aonamie Cave	NMP 93711	Lebanon-9	OP895212					
Rhinolophus hipposideros	Lebanon	Marjaba, mine	NMP 91753	Lebanon-1		OP895259	OP895305	OP895327		OP895375
Rhinolophus hipposideros	Lebanon	Marjaba, mine	NMP 91755	Lebanon-2	OP895208	OP895260	OP895306	OP895328		OP895376
Rhinolophus hipposideros	Lebanon	Haqel El Azime, Achou Cave	NMP 91769	Lebanon-4	OP895209	OP895261	OP895307	OP895329		OP895377
Rhinolophus hipposideros	Lebanon	Er Roueiss Cave	NMP 91775	Lebanon-5	OP895210	OP895262	OP895308			OP895378
Rhinolophus hipposideros	Lebanon	Qadisha Cave	NMP 91790	Lebanon-7	OP895211	OP895263	OP895309			OP895379
Rhinolophus hipposideros	Lebanon	Antelias, Kenaan Cave	NMP 91798	Lebanon-8		OP895264	OP895310	OP895330		
Rhinolophus hipposideros	Lebanon	Faraya, El Qana Cave	NMP 91801	Lebanon-9	OP895212	OP895265	OP895311			OP895380
Rhinolophus hipposideros	Lebanon	Nabaa Es Safa, mine	NMP 91809	Lebanon-11	OP895213	OP895266	OP895312	OP895331		OP895381
Rhinolophus hipposideros	Lebanon	Jezzine, Pont El Khalass	NMP 95792	Lebanon-14	OP895214	OP895267	OP895313	OP895332		OP895382
Rhinolophus hipposideros	Morocco	Gorges du Dades	NMP 93602	Morocco-2	OP895215					
Rhinolophus hipposideros	Morocco	Takoumit Cave	NMP 94519	Morocco-1	OP895216					
Rhinolophus hipposideros	Morocco	Takoumit Cave	NMP 94520	Morocco-1	OP895216					
Rhinolophus hipposideros	Oman	Wadi Bani Habib	NMP 93717	Oman-1	OP895217			OP895333	OP895351	OP895383
Rhinolophus hipposideros	Oman	Wadi Bani Habib	NMP 93718	Oman-2	OP895218			OP895334	OP895352	OP895384
Rhinolophus hipposideros	Oman	Misfat	NMP 93782	Oman-3	OP895219	OP895268		OP895335		OP895385
Rhinolophus hipposideros	Oman	Sal Aalah	NMP 93994	Oman-4	OP895220	OP895269			OP895353	OP895386
Rhinolophus hipposideros	Slovakia	Licince	NMP pb2791	Slovakia-1		OP895270	OP895314	OP895336		OP895387
Rhinolophus hipposideros	Slovakia	Zlatno	NMP pb2792	Slovakia-2		OP895271		OP895337		OP895388
Rhinolophus hipposideros	Slovakia	Silická Cave	NMP pb2793	Slovakia-3	OP895221	OP895272				OP895389
Rhinolophus hipposideros	Slovakia	Hodruša-Hámre	NMP pb2796	Slovakia-4	OP895222	OP895273				OP895390
Rhinolophus hipposideros	Syria	Qala'at Salah Ad Din	NMP 48055	Syria-2	OP895223					
Rhinolophus hipposideros	Syria	Qala'at Salah Ad Din	NMP 48056	Syria-3	OP895224					
Rhinolophus hipposideros	Syria	Qala'at Salah Ad Din	NMP 48054	Syria-1	OP895225	OP895274	OP895315	OP895338		OP895391

Rhinolophus hipposideros	Tajikistan	Zingrogh	NMP 95742	Tajikistan-1	OP895226	OP895275		OP895339	OP895354		
Rhinolophus hipposideros	Turkey	Posyagbasan nr. Adana	NMP 90488	Turkey-1	OP895227						
Rhinolophus hipposideros	Turkey	Posyagbasan nr. Adana	NMP 90489	Turkey-2	OP895228						
Rhinolophus hipposideros	Ukraine	Crimea, Kujbyševo	NMP pb4286	Ukraine-1	OP895229						
Rhinolophus hipposideros	Ukraine	Crimea, Kujbyševo	NMP pb4288	Ukraine-1	OP895229						
Rhinolophus hipposideros	Ukraine	Crimea, Partizanskoe	NMP pb4342	Ukraine-1	OP895229						
Rhinolophus hipposideros	Ukraine	Crimea, General'skoe	NMP pb4360	Ukraine-1	OP895229						
Rhinolophus alcyone	CAR	Sangha-Mbare	RC-85		KU531262	KU530692	KU530805	KU530917		KU531150	Dool et al., 2016
Rhinolophus blasii	Libanon	Kfar Zabad	NMP 91794		OP895230	OP895276	OP895316	OP895340		OP895392	
Rhinolophus capensis	South Africa	Wondergat Caves Lekkersing	25072011Rca07LS		KU531270	KU530700	KU530813	KU530925		KU531158	Dool et al., 2016
Rhinolophus clivosus	Botswana	Lobatse	18102011Rcl01LOB		KU531275	KU530705	KU530818	KU530930		KU531163	Dool et al., 2016
Rhinolophus damarensis	DRC		FMNH:219475		MN025634						Demos et al., 2019
Rhinolophus darlingi	Namibia	Dantes Cave	13042010Rda01DAN		KU531289		KU530832	KU530944		KU531177	Dool et al., 2016
Rhinolophus darlingi	South Africa	Elandshoek Mine	15042012Rda01EC			KU530724					Dool et al., 2016
Rhinolophus deckenii	Tanzania		FMNH:153927		MN025652						Demos et al., 2019
Rhinolophus denti	Namibia	Ghaub Cave	14042010Rde02GHB		KU531300	KU530730	KU530843	KU530955		KU531188	Dool et al., 2016
Rhinolophus euryale	Libanon	Haqel el Azime	NMP 91770		OP895231	OP895277	OP895317	OP895341		OP895393	
Rhinolophus ferrumequinum	Libanon	Mrouj	NMP 91751			OP895278		OP895342		OP895394	
Rhinolophus ferrumequinum	Libanon	Bcharré	NMP 91787		OP895232						
Rhinolophus fumigatus	CAR	Bangaran	MNHN-ZM-MO-2000-1000		KU531309	KU530739	KU530852	KU530965		KU531197	Dool et al., 2016
Rhinolophus gorongosae	Mozambique		DM 14815		MN025549						Demos et al., 2019
Rhinolophus hildebrandti	South Africa	Big Baobab Tree	09062013Rhi01BT		KU531337	KU530767	KU530879	KU530993		KU531225	Dool et al., 2016
Rhinolophus kahuzi	DRC		FMNH:219793		MN025729						Demos et al., 2019
Rhinolophus landeri	Mali	Santiguela, Foret de la Faya	ML37-310111-RHILAN		KU531353						Dool et al., 2016
Rhinolophus landeri	Mali	Santiguela, Foret de la Faya	Rlan_ML36_310111			KU530783		KU531010		KU531240	Dool et al., 2016
Rhinolophus lobatus	Mozambique		FMNH:228936		MN025730						Demos et al., 2019
Rhinolophus luctus	Thailand	Klong Sai On Waterfall	PS110818.1		KU531356	KP176245	KP175880	KU531014		KP176050	Dool et al., 2016
Rhinolophus mehelyi	Turkey	Velika Koepruesue (Kirkl)	NMP 47960		OP895233						
Rhinolophus mehelyi	Tunisia	Nabeul, Grotte d'El Hawariya	REM0286			KU530787	KU530899	KU531015		KU531244	Dool et al., 2016
Rhinolophus pearsonii	Thailand	Mae Ja Cave	SB061023.6		KU531359	KU557695	KP175877	KU531017		KP176047	Dool et al., 2016
Rhinolophus pusillus	Viet Nam	Cat Tien National Park	T-200809-2		KU531360	KP176242	KP175875	KU531018		KP176045	Dool et al., 2016
Rhinolophus rhodesiae	Mozambique		FMNH:228942		MN025733						Demos et al., 2019
Rhinolophus ruwenzorii	Uganda		FMNH:144309		MN025736						Demos et al., 2019
Rhinolophus shameli	Cambodia	Preah Vihear Province	HMNH:2005.81.7		JN106269						Patrick et al., 2013
Rhinolophus shameli	Viet Nam		T-170809-2			KP176240	KP175873	KU531019		KP176043	Dool et al., 2016
Rhinolophus simulator	Botswana	Lobatse	15112011Rsi02LOB		KU531361	KU530789	KU530901	KU531020		KU531246	Dool et al., 2016
Rhinolophus swinnyi	South Africa	Kokstad	23072004Rsw12KSM		KU531370	KU530798	KU530910	KU531030		KU531255	Dool et al., 2016
Rhinolophus trifoliatus	Malaysia	Pahang, Krau Game Reserve	TK152008		EU521614						Khan & Baker, 2008
Rhinolophus trifoliatus	Thailand		PS110823.26			KP176244	KP175879	KU531037		KP176049	Dool et al., 2016
Rhinolophus willardi	DRC		FMNH:195082		MN025757						Demos et al., 2019
Hipposideros armiger	Viet Nam		T-171109-1			KP176246	KP175881			KP176051	Foley et al., 2015
Hipposideros galeritus			152844C		JF320709						unpubl.
Hipposideros galeritus	Viet Nam		T-090708-6				KP175882			KP176052	Foley et al., 2015
Hipposideros pomona	Viet Nam	Xuan Son National Park	VN4152B38		MK091949						Arai et al., 2019

Hipposideros pomona	Viet Nam	T-180809-3	KP176247	KP175883		KP176053	Foley et al., 2015

Supplementary Table S1B. Sequences with the total length of 1,103 bp from GenBank used for the *R. hipposideros* tree, see Supplementary Fig. S1

GenBank No.	Country code	Country	Locality	Reference
KC978455	Aut	Austria	Taxenbach	Dool et al. 2013
KC978456	Aut	Austria	Taxenbach	Dool et al. 2013
KC978460	Aut	Austria	Wald im Pinzgau	Dool et al. 2013
KC978463	Aut	Austria	Wald im Pinzgau	Dool et al. 2013
KC978465	Aut	Austria	Bad Gastein	Dool et al. 2013
KC978352	Bul	Bulgaria	Vetovo	Dool et al. 2013
KC978356	Bul	Bulgaria	Vetovo	Dool et al. 2013
KC978357	Bul	Bulgaria	Central Balkans Mts.	Dool et al. 2013
KC978358	Bul	Bulgaria	Central Balkans Mts.	Dool et al. 2013
KC978359	Bul	Bulgaria	Central Balkans Mts.	Dool et al. 2013
KC978368	Bul	Bulgaria	Central Balkans Mts.	Dool et al. 2013
KC978375	Bul	Bulgaria	Central Balkans Mts.	Dool et al. 2013
KC978377	Bul	Bulgaria	Central Balkans Mts.	Dool et al. 2013
KC978423	Bul	Bulgaria	Muselievo	Dool et al. 2013
KC978424	Bul	Bulgaria	Muselievo	Dool et al. 2013
KC978425	Bul	Bulgaria	Muselievo	Dool et al. 2013
KC978426	Bul	Bulgaria	Muselievo	Dool et al. 2013
KC978427	Bul	Bulgaria	Muselievo	Dool et al. 2013
KC978429	Bul	Bulgaria	Muselievo	Dool et al. 2013
KC978433	Bul	Bulgaria	Muselievo	Dool et al. 2013
KC978436	Bul	Bulgaria	Žernov	Dool et al. 2013
KC978443	Bul	Bulgaria	Devetaki	Dool et al. 2013
KU531352	Bul	Bulgaria	Mečata Cave	Dool et al. 2016
KC978344	Fra	France	Lantosque	Dool et al. 2013
KC978394	Fra	France	Motclus	Dool et al. 2013
KC978396	Fra	France	Lagarde	Dool et al. 2013
KC978399	Fra	France	Lagarde	Dool et al. 2013
KC978400	Fra	France	Lagarde	Dool et al. 2013
KC978403	Fra	France	Lagarde	Dool et al. 2013
KC978404	Fra	France	Lagarde	Dool et al. 2013
KC978405	Fra	France	Lagarde	Dool et al. 2013
KC978406	Fra	France	Lagarde	Dool et al. 2013
KC978407	Fra	France	Lagarde	Dool et al. 2013
KC978408	Fra	France	Lagarde	Dool et al. 2013
KC978410	Fra	France	Motclus	Dool et al. 2013
KC978518	Fra	France	Verneuil	Dool et al. 2013
KC978532	Fra	France	St. Brisson	Dool et al. 2013
KC978584	Fra	France	Saint-Thurial	Dool et al. 2013
KC978585	Fra	France	Saint-Thurial	Dool et al. 2013
KC978586	Fra	France	Saint-Thurial	Dool et al. 2013
KC978587	Fra	France	Saint-Thurial	Dool et al. 2013
KC978588	Fra	France	Saint-Thurial	Dool et al. 2013
KC978589	Fra	France	Pluherlin	Dool et al. 2013
KC978590	Fra	France	Pluherlin	Dool et al. 2013
KC978591	Fra	France	Pluherlin	Dool et al. 2013

KC978592	Fra	France	Pluherlin	Dool et al. 2013
KC978593	Fra	France	Pluherlin	Dool et al. 2013
KC978594	Fra	France	Pluherlin	Dool et al. 2013
KC978595	Fra	France	Epiniac	Dool et al. 2013
KC978596	Fra	France	Epiniac	Dool et al. 2013
KC978597	Fra	France	Epiniac	Dool et al. 2013
KC978598	Fra	France	Epiniac	Dool et al. 2013
KC978599	Fra	France	Epiniac	Dool et al. 2013
KC978600	Fra	France	Epiniac	Dool et al. 2013
KC978713	Fra	France	Graissac	Dool et al. 2013
DQ297586	Gbr	Great Britain	Upper Langford	Li et al. 2006
KC978666	Gbr	Great Britain	Brecon	Dool et al. 2013
KC978673	Gbr	Great Britain	Brecon	Dool et al. 2013
KC978674	Gbr	Great Britain	Brecon	Dool et al. 2013
KC978687	Gbr	Great Britain	Brecon	Dool et al. 2013
KC978699	Gbr	Great Britain	Somerset	Dool et al. 2013
KC978700	Gbr	Great Britain	Somerset	Dool et al. 2013
KC978704	Gbr	Great Britain	Somerset	Dool et al. 2013
KC978705	Gbr	Great Britain	Somerset	Dool et al. 2013
DQ120924	Gre	Greece		Ibañez et al. 2006
KC978414	Gre	Greece	Mikrolimni	Dool et al. 2013
KC978415	Gre	Greece	Mikrolimni	Dool et al. 2013
KC978416	Gre	Greece	Mikrolimni	Dool et al. 2013
KC978520	Ire	Ireland	Kerry	Dool et al. 2013
KC978521	Ire	Ireland	Kerry	Dool et al. 2013
KC978522	Ire	Ireland	Kerry	Dool et al. 2013
KC978527	Ire	Ireland	Cork	Dool et al. 2013
KC978535	Ire	Ireland	Kerry	Dool et al. 2013
KC978556	Ire	Ireland	Kerry	Dool et al. 2013
KC978559	Ire	Ireland	Kerry	Dool et al. 2013
KC978560	Ire	Ireland	Kerry	Dool et al. 2013
KC978561	Ire	Ireland	Kerry	Dool et al. 2013
KC978563	Ire	Ireland	Kerry	Dool et al. 2013
KC978564	Ire	Ireland	Kerry	Dool et al. 2013
KC978565	Ire	Ireland	Kerry	Dool et al. 2013
KC978567	Ire	Ireland	Kerry	Dool et al. 2013
KC978568	Ire	Ireland	Kerry	Dool et al. 2013
KC978570	Ire	Ireland	Kerry	Dool et al. 2013
KC978571	Ire	Ireland	Kerry	Dool et al. 2013
KC978574	Ire	Ireland	Mayo	Dool et al. 2013
KC978577	Ire	Ireland	Cork	Dool et al. 2013
KC978583	Ire	Ireland	Kerry	Dool et al. 2013
KC978644	Ire	Ireland	Clare	Dool et al. 2013
KC978647	Ire	Ireland	Limerick	Dool et al. 2013
KC978650	Ire	Ireland	Galway	Dool et al. 2013
KC978652	Ire	Ireland	Galway	Dool et al. 2013
KC978655	Ire	Ireland	Clare	Dool et al. 2013
KC978420	Isr	Israel	Khamat Gada, Galilea	Dool et al. 2013

KC978422	Isr	Israel	Khamat Gada, Galilea	Dool et al. 2013
KC978381	Ita	Italy	Siena	Dool et al. 2013
KC978382	Ita	Italy	Prato	Dool et al. 2013
KC978383	Ita	Italy	Lasa, Bremsberg	Dool et al. 2013
KC978384	Ita	Italy	Lasa, Bremsberg	Dool et al. 2013
KC978385	Ita	Italy	Lasa, Bremsberg	Dool et al. 2013
KC978386	Ita	Italy	Lasa, Bremsberg	Dool et al. 2013
KC978387	Ita	Italy	Cuneo	Dool et al. 2013
KC978388	Ita	Italy	Andrate	Dool et al. 2013
KC978389	Ita	Italy	Castellammare di Stabia	Dool et al. 2013
KC978390	Ita	Italy	Sorrento	Dool et al. 2013
KC978393	Ita	Italy	Villetta Barrea	Dool et al. 2013
KC978452	Ita	Italy	Sardinia, G. di M. Majore	Dool et al. 2013
KC978716	Ita	Italy	Liguria	Dool et al. 2013
KC978378	Mlt	Malta	Gozo, Calypso Cave	Dool et al. 2013
KC978380	Mlt	Malta	Gozo, Ghajn Abdul	Dool et al. 2013
KC978451	Mor	Morocco	Azrou	Dool et al. 2013
KC978466	Slo	Slovenia	Crua	Dool et al. 2013
KC978468	Slo	Slovenia	Crua	Dool et al. 2013
KC978470	Slo	Slovenia	Svetih Trije Kralji	Dool et al. 2013
DQ120921	Spa	Spain		Ibañez et al. 2006
DQ120922	Spa	Spain		Ibañez et al. 2006
DQ120923	Spa	Spain		Ibañez et al. 2006
EU360631	Spa	Spain		García-Mudarra et al. 2009
EU360632	Spa	Spain		García-Mudarra et al. 2009
EU360634	Spa	Spain		García-Mudarra et al. 2009
EU360635	Spa	Spain		García-Mudarra et al. 2009
KC978445	Spa	Spain	Ceuta, Fuerte Isabel II	Dool et al. 2013
KC978446	Spa	Spain	Ceuta, Fuerte Isabel II	Dool et al. 2013
KC978453	Spa	Spain	Galicia	Dool et al. 2013
KC978471	Spa	Spain	Malaga	Dool et al. 2013
KC978472	Spa	Spain	Malaga	Dool et al. 2013
KC978473	Spa	Spain	Malaga	Dool et al. 2013
KC978475	Spa	Spain	Malaga	Dool et al. 2013
KC978476	Spa	Spain	Malaga	Dool et al. 2013
KC978477	Spa	Spain	Malaga	Dool et al. 2013
KC978478	Spa	Spain	Malaga	Dool et al. 2013
KC978479	Spa	Spain	Malaga	Dool et al. 2013
KC978480	Spa	Spain	Malaga	Dool et al. 2013
KC978482	Spa	Spain	Malaga	Dool et al. 2013
KC978483	Spa	Spain	Malaga	Dool et al. 2013
KC978486	Spa	Spain	Malaga	Dool et al. 2013
KC978487	Spa	Spain	Malaga	Dool et al. 2013
KC978488	Spa	Spain	Malaga	Dool et al. 2013
KC978491	Spa	Spain	La Rioja	Dool et al. 2013
KC978494	Spa	Spain	La Rioja	Dool et al. 2013
KC978500	Spa	Spain	Granada	Dool et al. 2013
KC978501	Spa	Spain	Granada	Dool et al. 2013

KC978503	Spa	Spain	Granada	Dool et al. 2013
KC978509	Spa	Spain	Girona	Dool et al. 2013
KC978516	Spa	Spain	Ceuta	Dool et al. 2013
KC978707	Taj	Tajikistan	Sogdi Province	Dool et al. 2013
KC978345	Tun	Tunisia	Hotel des chênes	Dool et al. 2013
KC978347	Tun	Tunisia	Hotel des chênes	Dool et al. 2013
KC978444	Tur	Turkey	Gundogan	Dool et al. 2013
KC978711	Tur	Turkey		Dool et al. 2013
KF218421	Tur	Turkey	Niğde	Çoraman et al. 2013
KF218422	Tur	Turkey	Trabzon	Çoraman et al. 2013
KF218423	Tur	Turkey	Kocaeli	Çoraman et al. 2013
KF218425	Tur	Turkey	Eskişehir	Çoraman et al. 2013
KF218426	Tur	Turkey	Erzincan	Çoraman et al. 2013
KF218427	Tur	Turkey	Şanlıurfa	Çoraman et al. 2013

Supplementary Table S2. Names, sequences, and annealing temperatures of primers used in this study

Marker	**Primer name**	**Primer sequence 5'–3'**	**Annealing temperature**	**Reference**
Cyt-b	mtDNA-R3-F	TGGCATGAAAAATCACCGTTGT	50–60 °C	Puechmaille *et al*., 2011
	CytB-H	CTTTTCTGGTTTACAAGACCAG	touchdown	Weyeneth *et al*., 2008
ACOX	ACOX2-F1	CCTSGGCTCDGAGGAGCAGAT	48–65 °C	Salicini *et al*., 2011
	ACOX2-R1	GGGCTGTGHAYCACAAACTCCT	touchdown	
BGN	BGN-F	CTCCAAGAACCACCTGGTG	48–65 °C	Lyons *et al*., 1997
	BGN-R	TTCAAAGCCACTGTTCTCCAG	touchdown	
COPS	COPS-F1	TACAGCATYGGRCGRGACATCCA	48–65 °C	Igea *et al*., 2010
	COPS-R1	TCACYTGCTCCTCRATGCCKGACA	touchdown	
ROGDI	ROGDI-F1	CTGATGGAYGCYGTGATGCTGCA	48–65 °C	Salicini *et al*., 2011
	ROGDI-R1	CACGGTGAGGCASAGCTTGTTGA	touchdown	
STAT	STAT5AF	CTGCTCATCAACAAGCCCGA	48–65 °C	Eick *et al*., 2005
	STAT5AR	**GGCTTCAGGTTCCACAGGTTGC**	touchdown	

Supplementary Table S3. Substitution models as identified by ModelFinder for the different partitions used in MrBayes and IQTREE, respectively

Dataset	Number of partitions	Subtitution model	Partitions
mt		TPM2u+F+I+G4	*Cyt-b*
nuc	5	K3Pu+F+G4	*ACOX*
		K3Pu+F+G4	*BGN*
		K3Pu+F+G4	*COPS*
		K3Pu+F+G4	*ROGDI*
		K3Pu+F+G4	*STAT*
ACOX		K2P+G4	
BGN		K2P+G4	
COPS		HKY+F	
ROGDI		F81+F	
STAT		K2P+G4	

Supplementary Table S4. Summary of BPP for the nuclear dataset. Values for BPP species are posterior probabilities (*PP*) of delimitation from BPP runs under each of four different schemes under two different algorithms (see Table 1 in Demos *et al.*, 2019)

Species	large deep (e=2)	large deep (a2=2, m=1)	large shallow (e=2)	large shallow (a2=2, m=1)	small shallow (e=2)	small shallow (a2=2, m=1)	small deep (e=2)	small deep (a2=2, m=1)
ferrumequinum	0.73	0.72	0.76	0.79	0.99	0.99	0.99	0.99
clivosus	0.73	0.72	0.76	0.79	0.99	0.99	0.99	0.99
fumigatus	0.99	0.99	0.99	0.99	1	1	1	1
hildebrandti	0.99	0.99	0.99	0.99	1	1	1	1
darlingi	1	1	1	1	1	1	1	1
capensis	0.04	0.02	0.02	0.05	0.72	0.7	0.61	0.61
swinnyi	0.04	0.02	0.02	0.05	0.72	0.7	0.61	0.61
denti	0.33	0.37	0.40	0.43	0.99	0.99	0.99	0.99
simulator	0.33	0.37	0.40	0.43	0.99	0.99	0.99	0.99
euryale	0.99	0.99	0.99	0.99	1	1	1	1
mehelyi	0.99	0.99	0.99	0.99	1	1	1	1
blasii	1	1	1	1	1	1	1	1
alcyone	1	1	1	1	1	1	1	1
shamelli	0.99	0.99	0.99	0.99	1	1	1	1
pusillus	0.99	0.99	0.99	0.99	1	1	1	1
luctus	0.99	0.99	0.99	0.99	1	1	1	1
trifoliatus	0.99	0.99	0.99	0.99	1	1	1	1
hipposideros Oman	0.98	0.99	0.98	0.99	1	1	1	1
hipposideros s.str.	0.98	0.99	0.98	0.99	1	1	1	1

Supplementary Table S5. Relative cranial dimensions of the examined sample sets of the *R. hipposideros* group; *midas*, *escalerae* = dimensions of the respective type specimens; for the sample set delimitations and dimension abbreviations see Materials and Methods

	Central Europe					West Mediterranean					East Mediterranean				
	n	**x̄**	min	max	SD	n	**x̄**	min	max	SD	n	**x̄**	min	max	SD
LaZ/LCc	50	**0.547**	0.522	0.570	0.011	85	**0.550**	0.506	0.581	0.014	62	**0.546**	0.519	0.591	0.014
LaInf/LCc	50	**0.260**	0.247	0.275	0.006	69	**0.260**	0.244	0.270	0.006	65	**0.261**	0.247	0.275	0.006
LaNc/LCc	51	**0.472**	0.453	0.496	0.010	93	**0.482**	0.452	0.518	0.011	65	**0.480**	0.461	0.526	0.011
ANc/LCc	49	**0.339**	0.323	0.367	0.008	91	**0.341**	0.312	0.365	0.009	65	**0.341**	0.314	0.362	0.011
LaM/LCc	50	**0.538**	0.510	0.560	0.009	69	**0.545**	0.529	0.560	0.008	65	**0.542**	0.518	0.563	0.009
LBT/LCc	46	**0.172**	0.149	0.193	0.010	67	**0.174**	0.158	0.197	0.010	49	**0.171**	0.154	0.193	0.009
CM^3/LCc	51	**0.384**	0.371	0.399	0.007	92	**0.389**	0.372	0.406	0.007	64	**0.393**	0.371	0.408	0.007
CC/LCc	46	**0.254**	0.238	0.273	0.008	89	**0.250**	0.227	0.285	0.008	61	**0.256**	0.238	0.274	0.009
M^3M^3/LCc	51	**0.387**	0.367	0.401	0.008	93	**0.392**	0.370	0.416	0.009	63	**0.391**	0.368	0.413	0.009

	Central Asia					Oman					Ethiopia	*midas*	*escalerae*
LaZ/LCc	21	**0.546**	0.531	0.567	0.008	3	**0.541**	0.534	0.545	0.006	0.548	0.527	0.547
LaInf/LCc	19	**0.263**	0.248	0.275	0.006	3	**0.265**	0.260	0.268	0.004	0.263	0.269	0.268
LaNc/LCc	21	**0.473**	0.433	0.506	0.014	3	**0.474**	0.459	0.490	0.016	0.495	0.443	0.500
ANc/LCc	21	**0.338**	0.320	0.352	0.009	3	**0.329**	0.320	0.337	0.008	0.332	0.311	0.339
LaM/LCc	20	**0.539**	0.524	0.561	0.009	3	**0.547**	0.540	0.555	0.008	0.555	0.520	0.551
LBT/LCc	18	**0.174**	0.158	0.195	0.010	3	**0.225**	0.218	0.232	0.007	0.163	0.209	–
CM^3/LCc	21	**0.399**	0.390	0.408	0.005	3	**0.405**	0.399	0.408	0.005	0.390	0.400	0.393
CC/LCc	18	**0.261**	0.242	0.284	0.010	3	**0.257**	0.254	0.261	0.004	0.243	0.250	0.254
M^3M^3/LCc	19	**0.402**	0.390	0.415	0.007	3	**0.395**	0.379	0.406	0.014	0.388	0.400	0.373

Supplementary Table S6. Relative dental dimensions of the examined sample sets of the *Rhinolophus hipposideros* group; *midas* = dimensions of the respective type specimen; for the sample set delimitations and dimension abbreviations see Material and Methods. Explanation of the combined dimension abbreviations: Cs_sq = LCs×LaCs; M^1_sq = LM^1×LaM^1; M^3_sq = LM^3×LaM^3; LM_rat = LaM^3/LaM^1; Msq_rat = M^3_sq/M^3_sq; P_2_sq = LP_2×LaP_2; P_4_sq = LP_4×LaP_4; Psq_rat = P_2_sq/P_4_sq; Ci_Mi_rat = LCi/LM_1; P^2_sq = LP^2×LaP^2

	Central Europe					West Mediterranean					East Mediterranean				
	n	**x̄**	min	max	SD	n	**x̄**	min	max	SD	n	**x̄**	min	max	SD
Cs_sq	51	**0.834**	0.736	0.955	0.050	73	**0.775**	0.673	0.883	0.049	41	**0.775**	0.656	0.928	0.056
M^1_sq	51	**2.746**	2.461	3.042	0.139	73	**2.643**	2.428	2.899	0.122	41	**2.578**	2.238	2.953	0.131
M^3_sq	51	**1.368**	1.156	1.555	0.083	73	**1.464**	1.207	1.628	0.086	41	**1.400**	1.177	1.837	0.131
LM_rat	51	**0.704**	0.661	0.759	0.020	73	**0.709**	0.649	0.755	0.022	41	**0.729**	0.677	0.945	0.045
Msq_rat	51	**0.497**	0.372	0.579	0.035	73	**0.554**	0.462	0.642	0.030	41	**0.544**	0.445	0.741	0.056
P_2_sq	51	**0.324**	0.265	0.391	0.026	72	**0.309**	0.227	0.458	0.039	41	**0.301**	0.236	0.375	0.031
P_4_sq	51	**0.502**	0.431	0.580	0.034	72	**0.474**	0.384	0.536	0.036	41	**0.449**	0.379	0.608	0.048
Psq_rat	51	**0.648**	0.507	0.761	0.055	72	**0.654**	0.484	0.962	0.079	41	**0.674**	0.496	0.844	0.075
Ci_Mi_rat	51	**0.513**	0.463	0.570	0.022	72	**0.504**	0.408	0.574	0.037	40	**0.489**	0.431	0.548	0.030
LaM^1/LM^1	51	**1.408**	1.112	1.508	0.059	73	**1.395**	1.279	1.489	0.050	41	**1.393**	1.286	1.504	0.061
LaM^3/LM^3	51	**1.405**	1.225	1.533	0.059	73	**1.265**	1.103	1.392	0.054	41	**1.363**	1.185	1.745	0.105
LaP^4/$LP^4$1	51	**1.561**	1.404	1.826	0.075	73	**1.524**	1.302	1.674	0.074	41	**1.615**	1.415	1.833	0.089
$LP^4$2/$LP^4$1	51	**0.536**	0.444	0.622	0.038	73	**0.513**	0.413	0.674	0.050	41	**0.541**	0.411	0.634	0.047
$LP^4$3/$LP^4$1	51	**0.741**	0.633	0.845	0.041	73	**0.738**	0.591	0.872	0.061	41	**0.775**	0.629	0.902	0.061
$LP^4$2/LaP^4	51	**0.344**	0.291	0.401	0.025	73	**0.340**	0.268	0.568	0.040	41	**0.335**	0.257	0.409	0.028
LaP^2/LP^2	51	**0.958**	0.820	1.156	0.074	73	**0.963**	0.769	1.205	0.083	40	**1.018**	0.829	1.308	0.102
P^2_sq	51	**0.284**	0.225	0.821	0.080	73	**0.235**	0.158	0.343	0.039	41	**0.248**	0.146	0.676	0.084

	Central Asia					Oman					Ethiopia	Sudan	*midas*
Cs_sq	6	**0.832**	0.704	0.907	0.086	3	**0.896**	0.857	0.936	0.040	0.789	0.617	0.809
M^1_sq	6	**2.852**	2.629	3.057	0.156	3	**2.580**	2.212	2.774	0.319	2.568	2.258	2.794
M^3_sq	6	**1.601**	1.479	1.682	0.086	3	**1.624**	1.382	1.747	0.210	1.455	1.408	1.825
LM_rat	6	**0.706**	0.668	0.733	0.028	3	**0.763**	0.758	0.768	0.005	0.732	0.744	0.802
Msq_rat	6	**0.562**	0.510	0.609	0.039	3	**0.629**	0.625	0.635	0.005	0.566	0.623	0.653
P_2_sq	6	**0.289**	0.213	0.337	0.045	3	**0.257**	0.212	0.289	0.040	0.336	0.232	0.207
P_4_sq	6	**0.490**	0.458	0.546	0.030	3	**0.496**	0.430	0.551	0.061	0.455	0.405	0.448
Psq_rat	6	**0.593**	0.390	0.711	0.111	3	**0.518**	0.487	0.571	0.047	0.740	0.573	0.463
Ci_Mi_rat	6	**0.502**	0.464	0.533	0.029	3	**0.468**	0.430	0.496	0.034	0.508	0.500	0.478
LaM^1/LM^1	6	**1.413**	1.364	1.452	0.040	3	**1.360**	1.333	1.378	0.023	1.430	1.504	1.300
LaM^3/LM^3	6	**1.252**	1.180	1.336	0.052	3	**1.259**	1.248	1.268	0.010	1.354	1.337	1.281
LaP^4/$LP^4$1	6	**1.628**	1.570	1.702	0.053	3	**1.567**	1.511	1.606	0.050	1.605	1.570	1.638
$LP^4$2/$LP^4$1	6	**0.526**	0.488	0.564	0.032	3	**0.542**	0.521	0.574	0.028	0.558	0.605	0.564
$LP^4$3/$LP^4$1	6	**0.784**	0.716	0.851	0.055	3	**0.757**	0.723	0.792	0.034	0.767	0.767	0.798
$LP^4$2/LaP^4	6	**0.324**	0.287	0.353	0.026	3	**0.347**	0.329	0.380	0.029	0.348	0.385	0.344
LaP^2/LP^2	6	**1.024**	0.922	1.083	0.070	3	**0.877**	0.778	1.000	0.113	0.898	0.929	0.921
P^2_sq	6	**0.228**	0.154	0.302	0.059	3	**0.151**	0.111	0.184	0.037	0.236	0.180	0.146

Supplementary Table S7. Results of the one-way ANOVA test of skull dimensions between particular sample sets; for the sample set delimitations and abbreviations and for dimension abbreviations see Material and Methods; * = $P < 0.05$, ** = $P < 0.005$, *** = $P < 0.0005$

	CEU : WMT		CEU : EMT		CEU : NEA		CEU : CAS		CEU : OMA		WMT : EMT		WMT : NEA		WMT : CAS	
	F	p	F	p	F	p	F	p	F	p	F	p	F	p	F	p
LCr	55.418	***	192.598	***	37.522	***	128.751	***	52.239	***	1.254		0.007		2.279	
LOc	111.063	***	168.390	***	7.620	**	50.546	***	29.678	***	4.408	*	0.290		0.005	
LCc	123.474	***	227.040	***	13.658	***	59.068	***	32.027	***	2.056		0.869		1.343	
LaZ	48.740	***	150.301	***	7.062	**	32.494	***	27.030	***	3.302		0.719		0.207	
LaI	34.155	***	0.727		5.671	*	21.323	***	13.700	***	0.755		0.565		0.061	
LaInf	87.627	***	112.685	***	4.397	*	7.319	***	6.135	*	0.978		0.147		1.164	
LaNc	23.453	***	69.601	***	0.331		26.475	***	12.967	***	2.489		0.153		5.816	*
LaM	46.923	***	158.834	***	2.185		50.581	***	11.845	***	4.420	*	0.000		2.356	
ANc	33.218	***	50.491	***	9.890	***	18.233	***	26.906	***	1.573		3.966		0.649	
LBT	27.507	***	43.412	***	5.865	*	9.758	***	47.090	***	0.000		3.186		0.111	
CC	78.759	***	40.358	***	13.432	***	0.242		6.383	**	6.729	*	1.598		36.077	***
M^3M^3	32.327	***	68.591	***	8.183	**	1.788		6.212	**	1.065		1.183		32.783	***
CM^3	50.763	***	54.154	***	5.180	*	0.072		0.116		1.075		0.559		28.122	***
LMd	84.116	***	200.270	***	13.828	***	14.965	***	5.532	**	2.286		1.963		8.639	***
ACo	10.575	***	5.596	*	0.009		7.186	*	0.275		0.796		0.281		0.022	
CM_3	68.268	***	54.295	***	5.369	*	1.295		3.221		0.012		0.165		58.563	***

	WMT : OMA		EMT : NEA		EMT : CAS		EMT : OMA		NEA : CAS		NEA : OMA		CAS : OMA	
	F	p	F	p	F	p	F	p	F	p	F	p	F	p
LCr	0.258		0.636		24.750	***	0.223		0.340		0.064		3.331	
LOc	4.218	*	0.244		13.273	***	0.004		0.175		0.106		2.319	
LCc	1.297		0.069		17.887	***	0.004		1.620		0.079		2.728	
LaZ	3.925	*	0.000		11.021	***	0.320		0.480		0.347		2.811	
LaI	1.072		0.062		0.119		0.141		0.819		0.036		1.543	
LaInf	0.188		0.014		21.902	***	1.461		0.636		0.151		0.456	
LaNc	4.448	*	1.384		0.475		0.585		0.577		0.611		0.622	
LaM	0.905		1.336		9.285	***	0.734		0.192		0.144		0.152	
ANc	12.354	***	0.893		2.343		2.937		1.716		0.002		4.973	*
LBT	101.999	***	1.593		0.237		415.985	***	2.633		26.741	*	68.978	***
CC	0.695		2.782		16.489	***	0.015		4.120		6.994		1.708	
M^3M^3	0.121		0.355		57.826	***	0.262		5.043	*	0.171		4.885	*
CM^3	4.068	*	0.319		30.404	***	4.903	*	2.956		1.651		0.026	
LMd	0.953		0.739		40.244	***	7.218	**	3.399		5.418		0.049	
ACo	1.958		0.147		0.476		1.278		0.258		0.032		1.536	
CM_3	18.298	***	0.125		46.009	***	1.511		3.717		4.093		0.773	