SUPPLEMENTARY MATERIAL

Morphospecies and their distribution inside 25 caves from Guatemala. Troglobitic morphospecies (*).

	C1								**C2**	**C3**	**C4**			**C5**	**C6**	**C7**		**C8**		**C9**			**C10**		
	T1	**T2**	**T3**	**T4**	**T5**	**T6**	**T7**	**T8**	**T9**	**T10**	**T11**	**T12**	**T13**	**T14**	**T15**	**T16**	**T17**	**T18**	**T19**	**T20**	**T21**	**T22**	**T23**	**T24**	**T25**
Arachnida																									
Amblypygi																									
Phrynidae																									
Paraphrynus emaciatus									3																
Paraphrynus williamsii	1	1		3		1	2	1		6		1		1	6		2			1			1		
Aranae																									
Actinopodidae																									

Actinopodidae sp1											0											2			
Corinnidae																									
Corinnidae sp1*																	1								
Ctenidae																									
Isoctenus sp1									3																
Ctenizidae																									
Ctenizidae sp1														3							2				
Ochyroceratidae																									
Ochyroceratidae sp1													2		11				10		5				
Ochyroceratidae sp2																2	14								
Oonopidae																									
Oonopidae sp1																		2							
Oonopidae sp2	2							4	1																
Oonopidae sp3									1	7	1	1	2						2				1		

Pholcidae																									
Pholcidae sp1	15								1			2	1			5	6	1	3	2	1				
Pholcidae sp2									3																
Pholcidae sp3																							2		
Pholcidae sp4	2																								
Scicariidae																									
Loxosceles sp1	2								3																
Scytodidae																									
Scytodidae sp1	1																								
Symphytognatidae																									
Symphytognatidae sp1				6				1																	
Tetragnathidae																									
Tetragnathidae sp1																		8							

Theridiidae																									
Theridiidae sp1		1	3	32	2	8	5			5													5		
Theridiidae sp2																		4							
Ixodida																									
Argasidae																									
Argas (*Ornithodoros*) sp1																						2			
Mesostigmata																									
Mesostigmata sp1	6																								
Oplitidae																									
Oplitidae sp1	2		1	2																					
Opiliones																									
Opiliones sp1									1		2														
Gonyleptidae																									

Tricomatinae																									
Tricomatinae sp1					1																				
Samoidae																									
Samoidae sp1*											3									8		7			
Stygnopsidae																									
Stygnopsidae sp1*																			10						
Oribatida																									
Oribatida sp1	1									1															
Palpigradi																									
Eukoenenidae																									
Eukoenenia sp1														1											
Parasitengona																									
Parasitengona sp1				2							2														
Pseudoscorpiones																									

Pseudoscorpiones sp1									2																
Pseudoscorpiones sp2											16														
Bochicidae																									
*Mexobisium guatemalense**	2				1	2		4	1																
Chernetidae																									
Chernetidae sp1							281																		
Cthoniidae																									
Cthoniidae sp1																			2						
Cthoniidae sp2*																				1	8	1			
Cthoniidae sp3*																								2	
Cthoniidae sp4*								1																	
Cthoniidae sp5											4		2	2											
Cthoniidae sp6														2											

Garipidae																									
Garipidae sp1									1																
Ricinulei																									
Ricinoididae																									
Pseudocellus cookei																							14		1
Sarcoptiformes																									
Acaridae																									
Acaridae sp1																							3		
Acaridae sp2																							1		
Acaridae sp3	1																								
Histiostomatidae																									
Histiostomatidae sp1																							2		
Lohmanidae																									
Lohmanidae sp1																							1		

Schizomida																									
Hubbardidae																									
Stenochrus portoricensis	1		2	3		1	10	10		7	4			2	8	3	3		10		1	2	65		
Trombidiformes																									
Erithracaridae																									
Erithracarus sp1																		2	1						
Rhagidiidae																									
Rhagidiidae sp1														3									1		
Trombiculidae																									
Trombiculidae sp1														2											
Uropodina																									
Uropodina sp1																							146		
Chilopoda																									

Geophilomorpha																									
Geophilomorpha sp1*	2																								
Geophilomorpha sp2											5			2	1	3			11	1		7			
Scutigenomorpha																									
Scutigenomorpha sp1					1			3		5															
Crustacea																									
Decapoda																									
Pseudothelphusidae																									
Pseudothelphusa sp1										4															
Isopoda																									
Armadillidae																									
Armadillidae sp1	86																								
Philosciidae																									
Philosciidae sp1*					1		1																		

Littorophiloscea denticulata																						5			
Platyarthridae																									
Trichorhina sp1	96		5	16	1	8	6	62	1		25			12					9			61			
Trichorhina sp2																							1010		
Styloniscidae																									
Styloniscidae sp1*											4														
Diplopoda																									
Polydesmida																									
Polydesmida sp1																				1					
Polydesmida sp2*																									2
Polydesmida sp3*																								4	3
Polydesmida sp4*											3	3										2			
Cryptodesmidae																									

Cryptodesmidae sp1																							15		
Paradoxosomatidae																									
Paradoxosomatidae sp1																							14		
Pyrgodesmidae																									
Pyrgodesmidae sp1*					2		1	3																	
Pyrgodesmidae sp2																							4		11
Pyrgodesmidae sp3													6												
Pyrgodesmidae sp4																				27		52			
Sphaeriodesmidae																									
Sphaeriodesmidae sp1											3	1													
Polyxenida																									
Hypogexenidae																									
Hypogexenidae sp1	3																								

Siphonophorida																									
Siphonophorida sp1																		1							
Spirobolida																									
Spirobolida sp1																							11		
Spirostreptida																									
Spirostreptida sp1	2				6		74																		
Spirostreptida sp2																							33		
Entognatha																									
Entomobryomorpha																									
Cyphoderidae																									
Cyphoderidae sp1																					5				
Entomobryidae																									
Entomobryidae sp1																			42	59	58	10			
Entomobryidae sp2*	1	1		1		46		317		36															

Entomobryidae sp3															7	4	8								
Entomobryidae sp4*																							336	16	7
Entomobryidae sp5*	81	91	152	1652	8	2	1642	467	3	17															
Entomobryidae sp6	22								56	2															
Entomobryidae sp7											18	5	6	21											
Entomobryidae sp8*															34		11								
Poduromorpha																									
Poduromorpha sp1	24		1																						
Poduromorpha sp2										1															
Poduromorpha sp3													1	1											
Symphipleona																									
Symphipleona sp1*																							800	2	1
Gastropoda																									

Pulmonata																									
Pulmonata sp1	2	13	4		1	1																			
Pulmonata sp2	1	5	6	2	3	2	12	3		1							5			6					
Pulmonata sp3																	7								
Pulmonata sp4																				11					
Insecta																									
Blattodea																									
Blattaria																									
Blattaria sp1										8															
Blaberidae																									
Blaberidae sp1							219																		
Coleoptera																									
Larvae sp1							1																		
Larvae sp2			1																						

Larvae sp3													1												
Larvae sp4															3						1				
Larvae sp5	1			2			1	3	2																
Adephaga																									
Carabidae																									
Carabidae sp1												2		2											
Carabidae sp2		2					2	1																	
Carabidae sp3																				1			3		
Carabidae sp4																							3		
Carabidae sp5																							13		
Polyphaga																									
Histeridae																									
Histeridae sp1	2																								
Histeridae sp2							2	2																	

Leiodidae																									
Leiodidae sp1																			6				7		
Leiodidae sp2		5	12	10		1	5	26																	
Limnichidae																									
Limnichidae sp1										1															
Ptilidae																									
Ptilidae sp1										1															
Scarabeidae																									
Scarabeidae sp1										2															
Staphylinidae																									
Staphylinidae sp1	2	48	27	62			2	7	5	1					19					2					
Staphylinidae sp2			1							1											1				
Staphylinidae sp3															2										
Pselaphinae																									

Pselaphinae sp1										4															
Pselaphinae sp2														19					3		1				
Scydmaeninae																									
Scydmaeninae sp1							8		2	1															
Tenebrionidae																									
Tenebrionidae sp1*																							9		
Diplura																									
Campodeidae																									
Juxtlacampa sp1*						16		19	4	5															
Juxtlacampa sp2*													3		3	6	6	2							
Juxtlacampa sp3																							3		3
Diptera																									
Brachycera																									
Anthomyiidae																									

Anthomyiidae sp1			2	1	1	1		1																	
Calliphoridae																									
Calliphoridae sp1																						2			
Drosophillidae																									
Drosophillidae sp1															1										
Drosophillidae sp2	2																								
Drosophillidae sp3					22	9	8	2		2															
Milichiidae																									
Milichiidae sp1																						1			
Phoridae																									
Phoridae sp1				1				2																	
Phoridae sp2			1	1		1	3								1										
Nematocera																									
Cecidomyiidae																									

Cecidomyiidae sp1					1																				
Culicidae																									
Culicidae sp1													2												
Keroplatidae																									
Keroplatidae sp1											2				9										
Psychodidae																									
Phlebotominae																									
Phlebotominae sp1					1		1																		
Phlebotominae sp2				2				1																	
Sciaridae																									
Sciaridae sp1		6	6	4					1																
Sciaridae sp2		1	1										1												
Sciaridae sp3																2									
Tipulidae																									

Tipulidae sp1											1														
Hemiptera																									
Auchenorrhyncha																									
Auchenorrhyncha sp1											3														
Heteroptera																									
Cydnidae																									
Cydnidae sp1	2	4	2					1	3	1													201		
Cydnidae sp2	1								1	1													21		
Hebridae																									
Hebridae sp1											3														
Mesovellidae																									
Mesovellidae sp1										24															
Vellidae																									
Vellidae sp1										1															

Hymenoptera																									
Apocrita																									
Braconidae																									
Microgastrinae																									
Microgastrinae sp1	2		3		2	1	16	12																	
Drynidae																									
Aphelopinae																									
Drynidae sp1																					5				
Eucoilidae																									
Eucoilidae sp1	1																								
Formicidae																									
Ectatomminae																									
Gnamptogenis sp1										11															
Formicinae																									

Brachymyrmex sp1																	50	18							
Myrmicinae																									
Crematogaster sp1														1											
Megaloyrmex sp1																				9					
Monomorium sp1				3																					
Octostruma sp1															2										
Ponerinae																									
Hypoponera sp1	11	3								1													62		
Pachycondyla sp1				5																					
Scelionidae																									
Scelionidae sp1								1																	
Lepidoptera																									
Noctuidae																									
Noctuidae sp1																							3		

Tineidae																									
Tineidae sp1	13		7	5	1	7	4	3																	
Tineidae sp2																			2						
Odonata																									
Coenagrionidae																									
Coenagrionidae sp1										4															
Orthoptera																									
Orthoptera sp1										1															
Phalangopsidae																									
Arachnopsita cavicola								4		17															
Arachnopsita sp. nov.											1	1	2		22	1	2				3				
Mayagryllus sp1		4	2	1	1		6		3																
Noctivox sp1																				1					

Psocoptera																									
Psocoptera sp1																					1				
Thysanoptera																									
Thysanoptera sp1														1											
Zygentoma																									
Nicoletiidae																									
Nicoletiidae sp1*					4		16																		
Nicoletiidae sp2*															1		2								
Nicoletiidae sp3																							1	2	
Oligochaeta																									
Clitelatta																									
Clitelatta sp1		3	1	4		1	6	1		1															
Clitelatta sp2			2					3																	
Clitelatta sp3														1											

Richness	33	15	22	23	19	17	26	29	22	32	18	8	12	17	16	8	13	8	13	14	13	13	31	5	7
Abundance	393	188	242	1820	60	108	2334	965	128	180	100	16	29	85	130	26	117	38	111	130	92	154	2791	26	91

The letter C stands for caves and the letter T for transects (**C1=**Gruta de Lanquín; **C2=**Cueva Coral; **C3=**Cueva Chipix; C**4=**Cueva del Venado; **C5=**Cueva de Arcilla; **C6=**Cueva el Rostro; **C7=**Cueva Blanca; **C8=**Cueva Ventanas de Seguridad; **C9=**Cueva Cúpula de los Murciélagos; **C10=**Cueva Aktun Kan).

Summary of the substrate variables measured in this study (all values, except Substrate Heterogeneity, correspond to the respective category on the Braun-Blanquet scale).

		GU	RT	LV	TW	W. Body	W. Puddle	Actin.	Fine Sed.	CB	BD	Matrix	H. Int.	Subs. Heter.
C1	T1	2	0	0	0	0	0	0	1	2	3	2	2	1.748
	T2	2	0	0	0	0	0	0	3	0	1	4	0	1.28
	T3	2	0	0	0	0	2	0	3	0	0	3	0	1.366
	T4	2	0	0	0	0	0	0	2	1	2	3	2	1.748
	T5	2	0	0	0	0	0	0	0	0	4	3	0	1.061
	T6	2	0	0	0	0	1	0	2	0	0	4	0	1.273
	T7	3	0	0	0	0	1	0	4	1	1	0	0	1.418
	T8	2	0	0	0	0	0	0	5	0	2	0	0	0.995
C2	T9	1	0	1	1	0	0	0	3	2	2	2	0	1.864
C3	T10	1	0	1	1	2	0	0	3	2	2	2	0	2.008
C4	T11	1	0	0	0	0	1	0	3	2	1	3	0	1.673
	T12	0	0	0	0	0	1	0	5	0	0	2	0	0.9003
	T13	0	0	0	0	0	1	0	5	0	0	1	0	0.7963
C5	T14	0	0	0	0	0	1	2	4	0	0	2	0	1.273

C6	**T15**	2	0	0	0	0	0	0	3	1	0	3	0	1.311
C7	**T16**	2	0	0	0	0	0	0	3	1	0	3	0	1.311
	T17	1	0	0	0	0	0	0	3	1	0	4	0	1.215
C8	**T18**	0	0	0	0	0	0	0	4	3	2	0	0	1.061
	T19	0	0	0	0	0	0	0	5	0	0	1	0	0.4506
C9	**T20**	0	0	0	0	0	0	0	5	0	0	1	0	0.4506
	T21	0	0	0	0	0	0	2	5	1	0	0	0	0.9003
	T22	2	0	0	0	0	2	0	5	0	0	0	0	0.995
C10	**T23**	2	0	0	0	0	0	0	4	3	0	2	0	1.342
	T24	0	0	0	0	0	1	0	5	2	0	2	0	1.221
	T25	0	0	0	0	0	0	0	4	3	1	1	0	1.215

The letter C stands for caves and the letter T for transects (C1=Gruta de Lanquín; C2=Cueva Coral; C3=Cueva Chipix; C4=Cueva del Venado; C5=Cueva de Arcilla; C6=Cueva el Rostro; C7=Cueva Blanca; C8=Cueva Ventanas de Seguridad; C9=Cueva Cúpula de los Murciélagos; C10=Cueva Aktun Kan). **GU=** Guano; **RT=** Roots; **LV=** Leaves; **TW=** twigs; **W. Body=** Water Body; **W. Puddle=** Water Puddle; **Actin.=** Actinomycetes; **Fine Sed.=** Fine sediment; **CB=** Cobbles; **BD=** Boulders; **Matrix=** Matrix Rock; **H. Inter.=** Human Interventions and **Subs Heter.=** Substrate Heterogeneity.