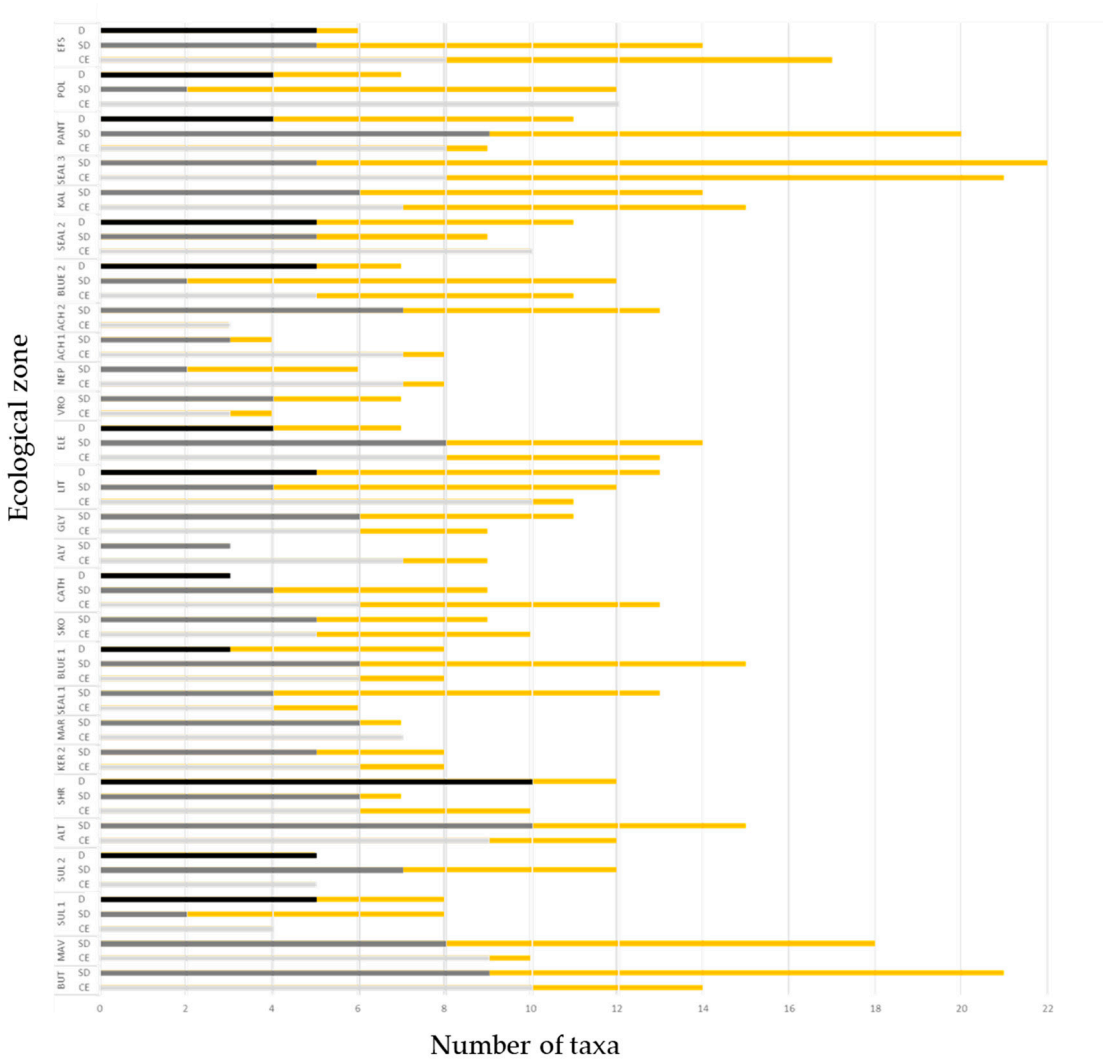


Figure S1. Number of motile taxa recorded within time transects in the cave entrance (CE) (light gray), the semidark (SD) (gray) and the dark zone (D) (black) compared with all taxa recorded in situ (light orange) during a single dive survey in each studied cave. (NEP: Neptune's, SHR: Shrimp, BUT: Butterfly, KER 2: Keri 2, ACH 2: Achata 2, LIT: Lithistid, SEAL 2: Seal's 2, BLUE 2: Blue 2, BLUE 1: Blue 1, GLI: Glika Nera, ELE: Elephant, PANT: Pantieronisi, ALT: Altar, SEAL 3, Seal's 3, KAL: Kalymnos, ACH 1: Achata 1, CATH: Cathedral, SUL 1: Sulfur 1, MAV: Mavros Kavos, ALI: Alikes, SUL 2: Sulfur 2, SEAL 1: Seal's 1, VRO: Vronti, EFS: Efstathios, MAR: Marathia, POL: Polyaigos, SKO: Skotino).

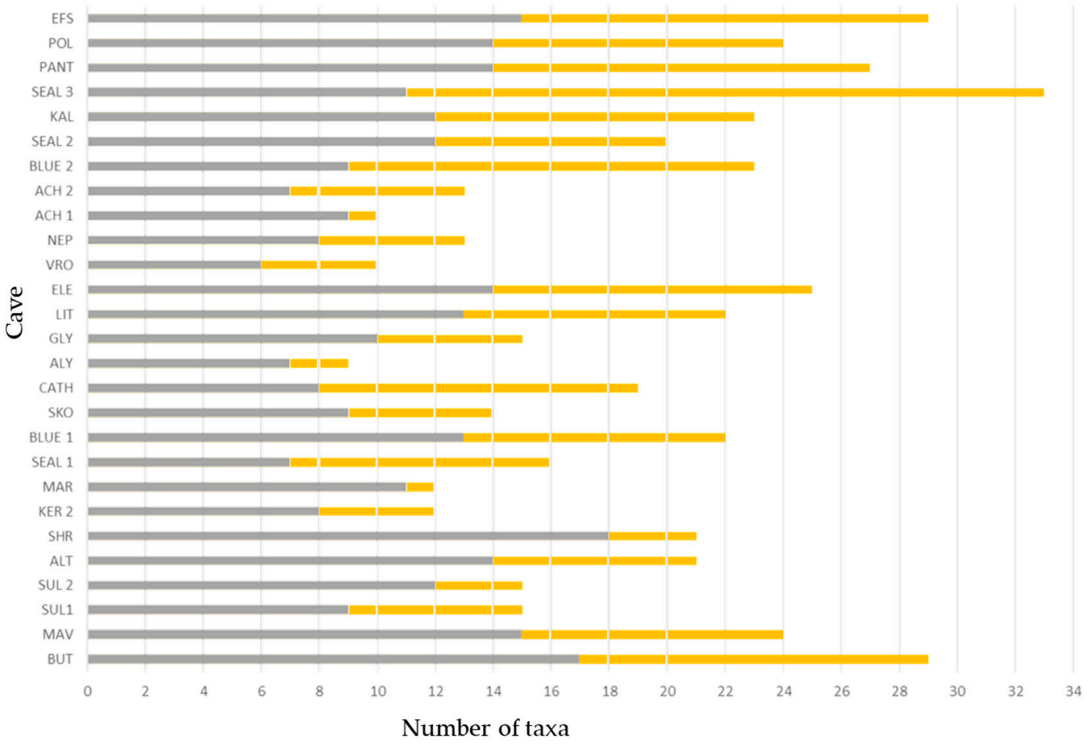


Figure S2. Number of motile taxa recorded within time transects (gray) compared with all taxa recorded in situ (light orange) during a single dive survey in each studied cave. (NEP: Neptune's, SHR: Shrimp, BUT: Butterfly, KER 2: Keri 2, ACH 2: Achata 2, LIT: Lithistid, SEAL 2: Seal's 2, BLUE 2: Blue 2, BLUE 1: Blue 1, GLI: Glika Nera, ELE: Elephant, PANT: Pantieronisi, ALT: Altar, SEAL 3, Seal's 3, KAL: Kalymnos, ACH 1: Achata 1, CATH: Cathedral, SUL 1: Sulfur 1, MAV: Mavros Kavos, ALI: Alikes, SUL 2: Sulfur 2, SEAL 1: Seal's 1, VRO: Vronti, EFS: Efstathios, MAR: Marathia, POL: Polyaigos, SKO: Skotino).

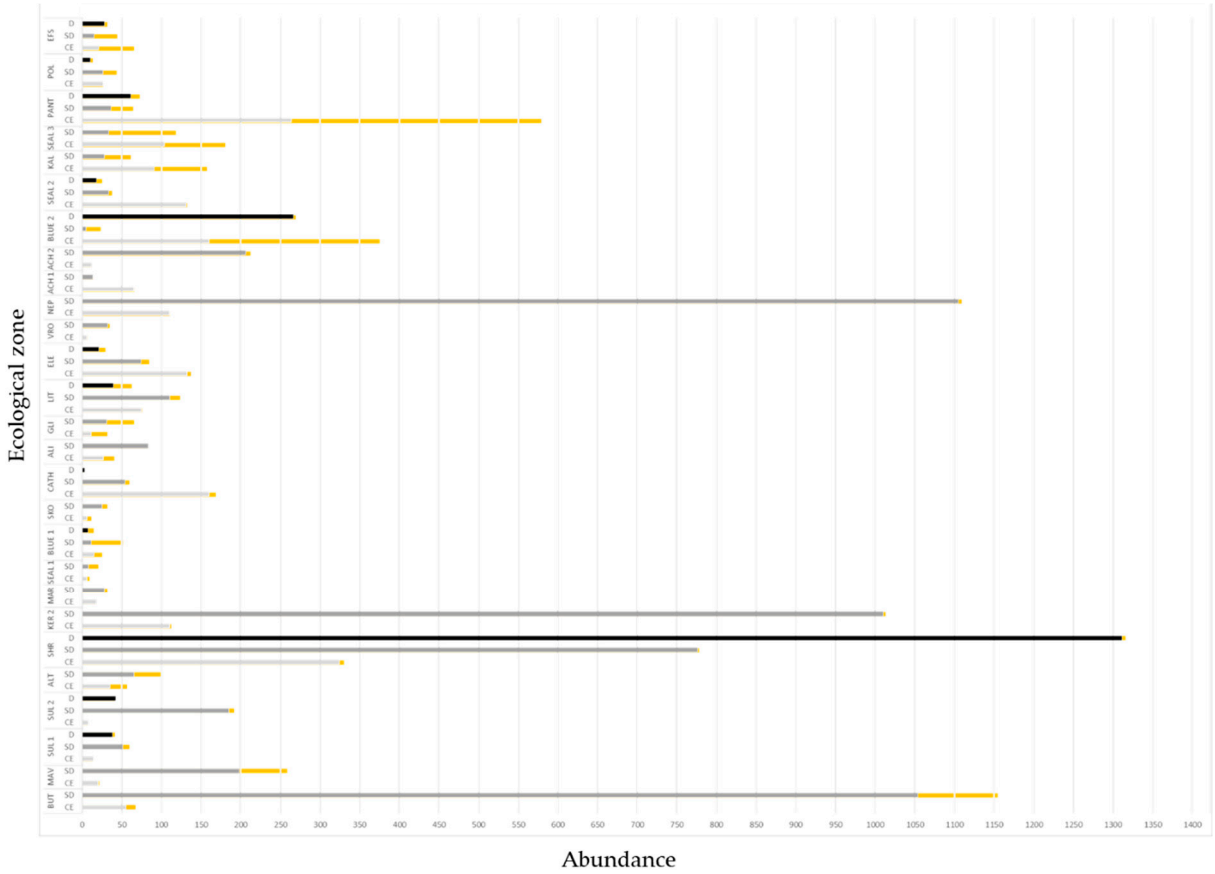


Figure S3. Abundance recorded within time transects in the cave entrance (CE) (light gray), the semidark (SD) (gray) and the dark zone (D) (black) compared with the total abundance recorded in situ (light orange) during a single dive survey in each studied cave. (NEP: Neptune's, SHR: Shrimp, BUT: Butterfly, KER 2: Keri 2, ACH 2: Achata 2, LIT: Lithistid, SEAL 2: Seal's 2, BLUE 2: Blue 2, BLUE 1: Blue 1, GLI: Glika Nera, ELE: Elephant, PANT: Pantieronisi, ALT: Altar, SEAL 3, Seal's 3, KAL: Kalymnos, ACH 1: Achata 1, CATH: Cathedral, SUL 1: Sulfur 1, MAV: Mavros Kavos, ALI: Alikes, SUL 2: Sulfur 2, SEAL 1: Seal's 1, VRO: Vronti, EFS: Efstathios, MAR: Marathia, POL: Polyaigos, SKO: Skotino).

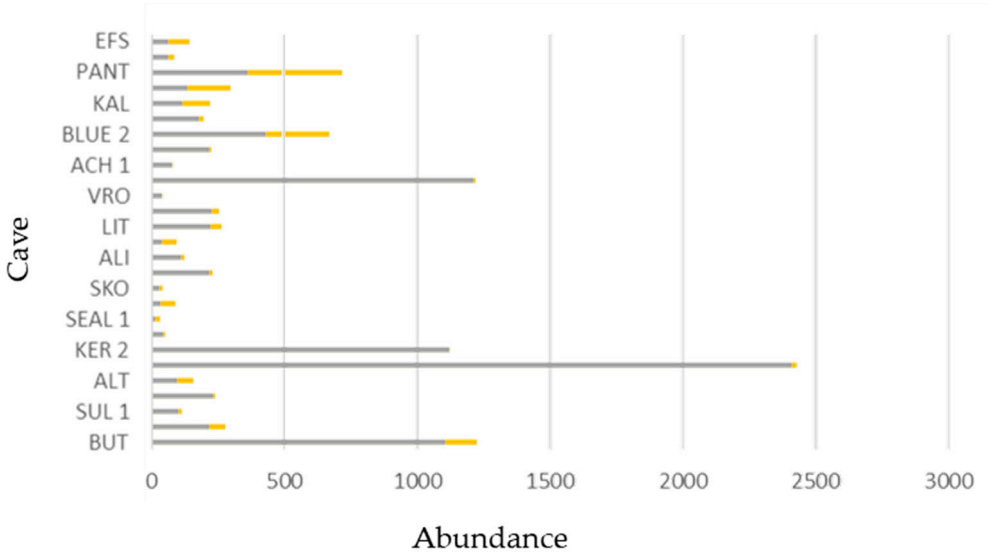


Figure S4. Abundance recorded within time transects (gray) compared with all taxa recorded in situ (light orange) during a single dive survey in each studied cave. (NEP: Neptune's, SHR: Shrimp, BUT: Butterfly, KER 2: Keri 2, ACH 2: Achata 2, LIT: Lithistid, SEAL 2: Seal's 2, BLUE 2: Blue 2, BLUE 1: Blue 1, GLI: Glika Nera, ELE: Elephant, PANT: Pantieronisi, ALT: Altar, SEAL 3, Seal's 3, KAL: Kalymnos, ACH 1: Achata 1, CATH: Cathedral, SUL 1: Sulfur 1, MAV: Mavros Kavos, ALI: Alikes, SUL 2: Sulfur 2, SEAL 1: Seal's 1, VRO: Vronti, EFS: Efstathios, MAR: Marathia, POL: Polyaigos, SKO: Skotino).

Table S1. Dissimilarity percentage analysis (SIMPER) showing the contribution of motile taxa to the average dissimilarity (%) between the subareas east Aegean and Crete.

Major taxonomic group	Area	East Aegean	Crete	Cumulative contribution (%)
	Average Similarity within area (%)	20.30	22.59	
	Motile taxa			
Osteichthyes	*Apogon imberbis*	2.29	2.66	12.47
Osteichthyes	*Atherina* spp.	2.47	0.85	24.77
Osteichthyes	*Chromis chromis*	1.74	1.23	35.07
Decapoda	*Plesionika narval*	2.24	0.00	41.25
Polychaeta	*Hermodice carunculata*	0.83	0.79	47.18
Echinodermata	*Arbacia lixula*	0.93	0.42	52.23

Table S2. Pair-wise tests for the two-way PERMANOVA analysis conducted with the factor 'Cave' nested as random within the fixed factor 'Subarea' for the total of motile taxa recorded in transect. t: t value, P(perm): Permutation p-value, Unique perms: number of unique permutations.

Groups	t	P(perm)	Unique perms
east Aegean, Central Aegean	1.2999	0.0833	9945
east Aegean, Crete	1.4282	0.0325	9929
east Aegean, Ionian	1.2389	0.1312	9934
Central Aegean, Crete	1.1514	0.2152	9933
Central Aegean, Ionian	1.0808	0.2912	9935
Crete, Ionian	1.3612	0.0534	9923

Table S3. Construction of Pseudo-F ratio from mean squares from the two-way PERMANOVA analysis conducted with the factor 'Cave' nested as random within the fixed factor 'Subarea' for the total of motile taxa recorded in transect.

Source	Numerator	Denomerator	Num. of df	Den. of df
Subarea	3.09E-2*Res+1*Subarea	1.0309*Cave (Subarea)	3.1	23
Cave (Subarea)	1*Cave (Subarea)	1*Res	23	39

Table S4. Construction of Pseudo-F ratios from mean squares from the one-way PERMANOVA analysis conducted with the factor 'Zone' within each subarea for the total of motile taxa recorded in transect.

Subarea	Source	Numerator	Denominator	Num. of df	Den. of df
East-Aegean	Zone	1*Zone	1*Res	2	15
Central Aegean	Zone	1*Zone	1*Res	2	6
Ionian	Zone	1*Zone	1*Res	2	16
Crete	Zone	1*Zone	1*Res	2	17

Table S5. Dissimilarity percentage analysis (SIMPER) showing the contribution of motile taxa to the average dissimilarity (%) between the cave entrance (CE) and the semidark zone (SD).

Major taxonomic group	Zone	CE	SD	Cumulative contribution (%)
	Average Similarity within zone (%)	**24.65**	**28.49**	
	Motile taxa			
Osteichthyes	*Apogon imberbis*	1.40	4.94	15.76
Osteichthyes	*Atherina* spp.	1.46	3.51	29.22
Osteichthyes	*Chromis chromis*	2.68	0.29	39.02
Decapoda	*Plesionika narval*	0.00	2.82	46.08
Osteichthyes	*Coris julis*	1.19	0.15	51.28

Table S6. Dissimilarity percentage analysis (SIMPER) showing the contribution of motile taxa to the average dissimilarity (%) between the cave entrance (CE) and the dark zone (D).

Major taxonomic group	Zone	CE	D	Cumulative contribution (%)
	Average Similarity within zone (%)	**24.65**	**19.91**	
	Motile taxa			
Osteichthyes	*Apogon imberbis*	1.40	4.24	12.08
Osteichthyes	*Chromis chromis*	2.68	0.00	22.23
Osteichthyes	*Atherina* spp.	1.46	0.32	28.38
Osteichthyes	*Coris julis*	1.19	0.00	34.08
Decapoda	*Plesionika narval*	0.00	2.90	39.59
Polychaeta	*Hermodice carunculata*	0.91	0.40	44.24
Osteichthyes	*Pempheris rhomboidea*	0.05	1.35	48.42
Osteichthyes	*Thalassoma pavo*	0.89	0.00	52.40

Table S7. Dissimilarity percentage analysis (SIMPER) showing the contribution of motile taxa to the average dissimilarity (%) between the semidark zone (SD) and the dark zone (D).

Major taxonomic group	Zone	SD	D	Cumulative contribution (%)
	Average Similarity within zone (%)	**28.49**	**19.91**	
	Motile taxa			
Osteichthyes	*Apogon imberbis*	4.94	4.24	18.43
Decapoda	*Plesionika narval*	2.82	2.90	31.70
Osteichthyes	*Atherina* spp.	3.51	0.32	43.37
Osteichthyes	*Pempheris rhomboidea*	0.10	1.35	48.31
Polychaeta	*Hermodice carunculata*	0.52	0.40	52.32

Table S8. Pair-wise tests for the two-way PERMANOVA analysis conducted with the factor 'Cave' nested as random within the fixed factor 'Subarea' for fishes recorded in transect. t: t value, P(perm): Permutation p-value, Unique perms: number of unique permutations.

Groups	t	P(perm)	Unique perms
east Aegean, Central Aegean	1.2186	0.1869	9943
east Aegean, Crete	1.4487	0.0731	9949
east Aegean, Ionian	1.2917	0.1202	9939
Central Aegean, Crete	1.1816	0.2189	9932
Central Aegean, Ionian	1.0231	0.3677	9945
Crete, Ionian	1.4124	0.0645	9939

Table S9. Construction of Pseudo-F ratio from mean squares from the two-way PERMANOVA analysis conducted with the factor 'Cave' nested as random within the fixed factor 'Subarea' for fishes recorded in transect.

Source	Numerator	Denomerator	Num. of df	Den. of df
Subarea	3.6648E-2*Res + 1*Subarea	1.0366*Cave (Subarea)	3.11	23
Cave (Subarea)	1*Cave (Subarea)	1*Res	23	38

Table S10. Construction of Pseudo-F ratios from mean squares from the one-way PERMANOVA analysis conducted with the factor 'Zone' within each subarea for fishes recorded in transect.

Subarea	Source	Numerator	Denominator	Num. of df	Den. of df
East-Aegean	Zone	1*Zone	1*Res	2	15
Central Aegean	Zone	1*Zone	1*Res	2	6
Ionian	Zone	1*Zone	1*Res	2	16
Crete	Zone	1*Zone	1*Res	2	17

Table S11. Dissimilarity percentage analysis (SIMPER) showing the contribution of fish species to the average dissimilarity (%) between the cave entrance (CE) and the semidark zone (SD).

Major taxonomic group	Zone	CE	SD	Cumulative contribution (%)
	Average Similarity within zone (%)	**25.58**	**37.01**	
	Motile taxa			
Osteichthyes	*Apogon imberbis*	1.40	4.94	20.78
Osteichthyes	*Atherina* spp.	1.46	3.51	37.44
Osteichthyes	*Chromis chromis*	2.68	0.29	50.41

Table S12. Dissimilarity percentage analysis (SIMPER) showing the contribution of fish species to the average dissimilarity (%) between the cave entrance (CE) and the dark zone (D).

Major taxonomic group	Zone	CE	D	Cumulative contribution (%)
	Average Similarity within zone (%)	**25.58**	**34.13**	
	Motile taxa			
Osteichthyes	*Apogon imberbis*	1.40	4.24	19.65
Osteichthyes	*Chromis chromis*	2.68	0.00	34.04
Osteichthyes	*Coris julis*	1.19	0.00	42.78
Osteichthyes	*Atherina* spp.	1.46	0.32	34.08

Table S13. Dissimilarity percentage analysis (SIMPER) showing the contribution of fish species to the average dissimilarity (%) between the cave entrance (CE) and the dark zone (D).

Major taxonomic group	Zone	SD	D	Cumulative contribution (%)
	Average Similarity within zone (%)	**37.01**	**34.13**	
	Motile taxa			
Osteichthyes	*Apogon imberbis*	4.94	4.24	36.01
Osteichthyes	*Atherina* spp.	3.51	0.32	53.74