

Table S1: List of all species found during MEDITS, by area. Numbers are frequency of occurrence averaged from 1994-2012. Species marked in grey were excluded from the modeling. *Alloteuthis media*, *Alloteuthis subulata* and *Alloteuthis* sp. were joined for the analysis.

Species	Iberian-Lions	Tyrrhenian	Ionian	Adriatic	Aegean	Strait of Sicily
<b>Order SEPIIDA</b>						
<b>Family Sepiidae</b>						
<i>Sepia elegans</i> Blainville, 1827	28.84	23.13	29.76	31.93	38.94	26.42
<i>Sepia officinalis</i> Linneus, 1758	6.79	6.54	3.76	9.17	15.83	9.50
<i>Sepia orbignyana</i> Férussac, 1826	20.69	28.40	14.08	14.58	55.28	20.01
<i>Sepia</i> spp.	0.23	0.56	0.00	0.35	0.00	2.16
<b>Family Sepiolidae</b>						
<i>Sepiola affinis</i> Naef, 1912	0.15	0.05	0.14	0.41	0.00	0.29
<i>Sepiola intermedia</i> Naef, 1912	0.75	0.43	4.04	1.23	0.25	2.45
<i>Sepiola ligulata</i> Naef, 1912	0.08	0.38	1.39	0.71	0.00	0.00
<i>Sepiola robusta</i> Naef, 1912	0.40	0.14	0.91	2.79	0.00	0.00
<i>Sepiola rondeleti</i> Leach, 1817	0.03	0.74	0.77	0.24	0.00	0.36
<i>Sepiola</i> spp.	17.05	9.35	2.37	18.67	5.53	14.33
<i>Rondeletiola minor</i> Naef, 1912	8.02	11.89	19.09	8.50	2.26	5.04
<i>Sepietta obscura</i> Naef, 1916	0.05	0.58	0.00	0.54	0.00	0.00
<i>Sepietta neglecta</i> Naef, 1916	0.20	0.37	0.07	1.21	0.00	0.00
<i>Sepietta oweniana</i> (D'Orbigny in Férussac & d'Orbigny)	20.87	29.16	21.46	9.54	3.02	17.85
<i>Sepietta</i> spp.	0.05	4.03	0.14	7.59	0.00	0.29
<b>Unid. Sepiolinae</b>	0.00	0.00	0.00	0.00	18.34	4.39

<i>Rossia macrosoma</i> (Delle Chiaje, 1830)	10.56	14.29	11.08	5.32	17.59	11.52
<i>Neorossia caroli</i> (Joubin, 1902)	3.87	7.40	5.09	1.77	2.01	4.18
<i>Heteroteuthis dispar</i> (Ruppell, 1844)	2.34	2.70	5.51	0.28	1.51	0.50
<i>Stoloteuthis leucoptera</i> (Verrill, 1878)	0.63	0.24	0.00	0.00	0.00	0.00
<b>ORDER MYOPSIDA</b>						
<b>Family Loliginidae</b>						
<i>Alloteuthis media</i> (Linnaeus, 1758) <sup>1</sup>	52.25	21.99	30.10	66.32	14.07	37.15
<i>Alloteuthis subulata</i> Lamarck, 1798 <sup>1</sup>	27.58	3.87	2.44	7.83	0.25	11.45
<i>Alloteuthis spp.</i> <sup>1</sup>	3.60	10.61	0.00	0.02	27.64	2.16
<i>Loligo forbesii</i> Steenstrup, 1856	3.65	15.51	5.02	0.67	28.64	5.33
<i>Loligo vulgaris</i> Lamarck, 1798	13.08	16.58	15.05	36.97	24.62	17.64
<i>Loligo spp.</i>	1.63	0.66	0.00	0.00	1.51	0.00
<b>ORDER OEGOPSIDA</b>						
<b>Family Ommastrephidae</b>						
<i>Ommastrephes bartramii</i> (LeSueur, 1821)	0.00	0.00	0.00	0.00	0.00	0.07
<i>Illex coindetii</i> (Verany, 1839)	45.54	45.78	53.80	64.48	72.36	52.41
<i>Todarodes sagittatus</i> (Lamarck 1798)	21.75	14.16	12.20	4.82	16.58	28.01
<i>Todaropsis eblanae</i> (Ball, 1841)	12.70	35.12	27.87	20.35	5.28	43.12
<b>Family Histioteuthidae</b>						
<i>Histioteuthis bonnellii</i> (Férussac, 1835)	3.22	6.49	6.83	1.38	0.25	7.27
<i>Histioteuthis reversa</i> (Verrill, 1880)	4.40	6.36	14.36	2.25	1.01	2.66
<i>Histioteuthis spp.</i> <sup>3</sup>	0.10	0.00	0.07	0.02	0.00	0.94

<b>Family Onychoteuthidae</b>						
<i>Ancistroteuthis lichtensteinii</i> Orbigny, 1839	4.32	0.80	3.97	0.11	0.75	0.07
<i>Onychoteuthis banksii</i> (Leach, 1817)	0.50	0.11	0.63	0.09	0.50	0.29
<b>Family Enoploteuthidae</b>						
<i>Abralia veranyi</i> (Rüppell, 1844)	9.18	10.76	21.53	3.07	1.26	16.27
<i>Abraliopsis morisii</i> (Vérany, 1839)	0.00	0.00	0.07	0.00	0.00	0.00
Unid. Enoploteuthidae	0.00	0.00	0.00	0.00	0.75	0.00
<b>Family Ctenopterygidae</b>						
<i>Ctenopteryx sicula</i> (Veranyi, 1851)	0.00	0.03	0.07	0.00	0.00	0.00
<b>Family Octopoteuthidae</b>						
<i>Octopoteuthis sicula</i> Rüppell, 1844	0.00	0.00	0.42	0.00	0.25	0.00
<b>Family Chiroteuthidae</b>						
<i>Chiroteuthis veranii</i> (Férussac, 1835)	0.00	0.02	0.70	0.00	0.00	0.00
<b>Family Ancistrocheiridae</b>						
<i>Ancistrocheirus lesueurii</i> (Orbigny, 1842)	0.00	0.00	0.28	0.00	0.00	0.00
<b>Family Brachioteuthidae</b>						
<i>Brachioteuthis riisei</i> (Steenstrup, 1882)	0.78	0.00	0.35	0.00	0.75	0.00
<b>Family Pyroteuthidae</b>						
<i>Pyroteuthis margaritifera</i> (Rüppell, 1844)	0.00	0.00	0.21	0.00	0.00	0.00
<b>ORDER OCTOPODA</b>						
<b>Family Octopodidae</b>						
<i>Octopus vulgaris</i> Cuvier, 1798	34.60	21.63	16.52	9.39	29.40	16.70
<i>Callistoctopus macropus</i> Risso, 1826	0.25	0.42	0.28	0.48	0.00	0.36

<i>Octopus salutii</i> (Verany, 1839)	10.91	12.50	7.25	6.06	0.50	8.35
<i>Macrotritopus defilippi</i> (Vérany, 1851)	2.29	0.88	0.07	0.39	0.00	0.36
<i>Octopus spp.</i>	0.08	0.16	0.00	0.13	0.00	0.07
<i>Pteroctopus tetracirrhus</i> (Delle Chiaje, 1830)	6.21	16.08	4.74	1.08	2.76	10.37
<i>Scaevargus unircirrhus</i> (Orbigny, 1840)	7.87	23.61	21.39	3.40	28.39	25.99
<i>Bathypolypus sponsalis</i> (P. & H. Fischer, 1892)	9.38	3.87	0.14	0.00	0.00	0.65
<i>Eledone cirrhosa</i> (Lamarck, 1798)	62.91	63.41	27.32	36.97	18.34	30.09
<i>Eledone moschata</i> (Lamarck, 1798)	18.83	13.91	11.92	33.85	33.17	24.91
<b>Family Ocythoidea</b>						
<i>Ocythoe tuberculata</i> Rafinesque, 1814	0.03	0.00	0.00	0.00	0.00	0.00
<b>Family Argonautidae</b>						
<i>Argonauta argo</i> Linnaeus, 1758	0.00	0.00	0.14	0.00	0.00	0.29
<b>Family Opisthoteuthidae</b>						
<i>Opisthoteuthis calypso</i> Villanueva et al., 2002	0.08	0.00	0.00	0.00	0.00	0.00
<i>Opisthoteuthis spp.</i>	0.03	0.00	0.00	0.00	0.00	0.00

<sup>1</sup> all three groups joined to "Alloteuthis"