

## Feeding ecology of two squid species from the western Mediterranean

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### Supplement.

Table S1: Relative abundance (%N) and frequency of occurrence (%O) of the prey items identified in stomach contents of *Loligo vulgaris* and *L. forbesii* from the western Mediterranean.

Prey	<i>Loligo vulgaris</i>		<i>Loligo forbesii</i>	
	%N	%O	%N	%O
PISCES	57.77	79.68	56.54	73.43
Argentinidae	0.04	0.12	1.47	5.27
<i>Argentina sphyraena</i>			0.09	0.41
<i>Glossanodon leioglossus</i>	0.04	0.12	1.38	4.87
Blenniidae	0.43	0.86		
<i>Blennius ocellaris</i>	0.11	0.25		
<i>Parablennius tentacularis</i>	0.22	0.25		
Blenniidae unid.	0.11	0.37		
Callionymidae			0.30	1.42
<i>Callionymus maculatus</i>			0.13	0.61
<i>Callionymus</i> sp.			0.04	0.20
<i>Synchiropus phaeton</i>			0.17	0.81
Carangidae	1.12	2.46	0.04	0.20
<i>Trachurus mediterraneus</i>	0.14	0.49		
<i>Trachurus trachurus</i>	0.04	0.12		
<i>Trachurus</i> sp.	0.94	1.85	0.04	0.20
Centriscidae			0.04	0.20
<i>Macroramphosus scolopax</i>			0.04	0.20
Cepolidae	0.04	0.12	0.09	0.41
<i>Cepola macrophthalma</i>	0.04	0.12	0.09	0.41
Clupeidae	0.61	2.09		
<i>Sardina pilchardus</i>	0.43	1.48		
<i>Sardinella aurita</i>	0.14	0.49		
<i>Sprattus sprattus</i>	0.04	0.12		
Epigonidae			0.04	0.20
<i>Epigonus denticulatus</i>			0.04	0.20
Gadiformes	0.25	0.86	1.51	6.69

Prey	<i>Loligo vulgaris</i>		<i>Loligo forbesii</i>	
	%N	%O	%N	%O
<i>Micromessistius poutassou</i>			0.43	2.03
<i>Molva dypterygia</i>			0.04	0.20
<i>Phycis blennoides</i>			0.22	1.01
<i>Gadiculus argenteus</i>	0.04	0.12	0.56	2.64
<i>Gaidropsarus biscayensis</i>	0.22	0.74	0.26	1.22
Gobiidae	26.81	18.60	32.10	16.02
<i>Aphia minuta</i>	0.58	0.74	26.52	9.74
<i>Pseudoaphya ferreri</i>	0.18	0.25		
<i>Crystallogobius linearis</i>	1.84	1.35	3.89	2.23
<i>Deltentosteus quadrimaculatus</i>			0.04	0.20
<i>Gobius niger</i>	0.14	0.37		
<i>Lesueurigobius friesii</i>	1.30	1.85		
<i>Lesueurigobius sanzi</i>	0.18	0.49		
<i>Lesueurigobius suerii</i>	0.04	0.12		
<i>Lesueurigobius</i> sp.	1.84	1.48	0.13	0.61
Gobiidae unid.	20.7	14.53	1.51	4.46
Merlucciidae			0.13	0.61
<i>Merluccius merluccius</i>			0.13	0.61
Mullidae	0.04	0.12		
<i>Mullus barbatus</i>	0.04	0.12		
Myctophidae	0.04	0.12	2.68	8.52
<i>Myctophum punctatum</i>	0.04	0.12	0.04	0.20
<i>Ceratoscopelus maderensis</i>			0.95	3.85
<i>Hygophum benoiti</i>			0.04	0.20
<i>Hygophum hygomii</i>			0.09	0.41
<i>Lampanyctus crocodilus</i>			0.17	0.81
<i>Lampanyctus pusillus</i>			0.52	1.62
<i>Lampanyctus</i> sp.			0.09	0.41
<i>Lobianchia dofleini</i>			0.04	0.20
<i>Notoscopelus bolini</i>			0.04	0.20
<i>Notoscopelus elongatus</i>			0.48	1.01
<i>Notoscopelus</i> sp.			0.09	0.41
<i>Symbolophorus veranyi</i>			0.13	0.61
Paralepididae			0.04	0.20
<i>Lestidiops jayakari</i>			0.04	0.20
Pleuronectiformes	0.11	0.25	0.21	1.01
<i>Lepidorhombus boscii</i>			0.13	0.61
<i>Arnoglossus imperialis</i>			0.04	0.20
<i>Arnoglossus ruepellii</i>			0.04	0.20
<i>Citharus linguatula</i>	0.11	0.25		
Sternoptychidae	0.33	0.12	3.67	7.10
<i>Maurolicus muelleri</i>	0.33	0.12	3.11	6.49
<i>Argyropelecus hemigymnus</i>			0.56	1.01
Sparidae	3.03	7.39		

Prey	<i>Loligo vulgaris</i>		<i>Loligo forbesii</i>	
	%N	%O	%N	%O
<i>Boops boops</i>	0.11	0.37		
<i>Centracanthus cirrus</i>	0.47	1.35		
<i>Spicara smaris</i>	2.02	4.43		
<i>Spicara</i> sp.	0.43	1.35		
Stichaeidae	0.11	0.37		
<i>Ophidium barbatum</i>	0.11	0.37		
Pisces unid.	24.82	51.60	14.17	36.31
Elasmobranchii unid.			0.04	0.20
MOLLUSCA	6.79	19.46	1.56	6.69
<i>Natica</i> sp.			0.04	0.20
<i>Nassarius</i> sp.			0.04	0.20
Bivalvia unid.			0.22	0.60
Gastropoda unid.			0.08	0.80
Cephalopoda	6.79	19.46	1.26	5.89
<i>Alloteuthis media</i>	0.61	1.48		
<i>Loligo vulgaris</i>	0.18	0.49		
<i>Loligo</i> sp.	0.29	0.74		
Sepiida unid.	0.11	0.37		
<i>Sepietta oweniana</i>	0.36	0.49		
Theuthoidea unid.	1.81	5.17	0.09	0.41
Cephalopoda unid.	3.47	11.58	1.17	5.48
CRUSTACEA	19.80	21.55	41.47	38.95
Mysidacea	2.96	4.56	10.24	4.67
<i>Gastrosaccus sanctus</i>	0.33	0.62		
<i>Gastrosaccus</i> sp.	0.29	0.49	6.39	1.00
Mysidacea unid.	2.35	3.57	3.84	3.70
Amphipoda	0.22	0.62		
<i>Phrosina semilunata</i>	0.07	0.25		
Hiperiidea unid.	0.04	0.12		
Gammaridea unid.	0.07	0.12		
Amphipoda unid.	0.04	0.12		
Isopoda	7.44	8.87	0.22	0.81
<i>Eurydice</i> sp.	4.37	2.22	0.09	0.20
<i>Idotea</i> sp.	0.04	0.12		
<i>Cymodoce</i> sp.	0.07	0.12		
<i>Paragnathia formica</i>	0.18	0.25		
<i>Natatolana</i> sp.	1.08	1.60		
<i>Gnathia</i> sp. (Praniza)	0.07	0.12		
Cirolanidae unid.	0.25	0.74		
Isopoda unid.	1.37	3.94	0.13	0.61
Euphausiacea	4.33	1.11	26.78	24.95
<i>Meganyctiphanes norvegica</i>	2.85	0.74	25.36	23.30
Eufausiacea unid.	1.48	0.37	1.43	1.80
Decapoda	3.32	6.16	3.41	8.52

Prey	<i>Loligo vulgaris</i>		<i>Loligo forbesii</i>	
	%N	%O	%N	%O
Brachyura (Megalopa)	1.30	1.35		
Brachyura unid.	0.83	1.23		
Galatheidae	0.04	0.12		
Natantia				
<i>Alpheus glaber</i>	0.04	0.12		
<i>Alpheus</i> sp.	0.07	0.25		
Crangonidae	0.04	0.12		
<i>Philocheras sculptus</i>	0.04	0.12		
<i>Plesionika heterocarpus</i>			0.43	0.41
<i>Plesionika</i> sp.	0.14	0.37	0.91	0.41
<i>Processa canaliculata</i>			0.13	3.65
<i>Processa</i> sp.	0.18	0.62		
<i>Parapenaeus longirostris</i>			0.09	0.41
<i>Pasiphaea sivado</i>			0.09	1.01
<i>Sergestes arachnipodus</i>			0.95	1.22
<i>Eusergestes arcticus</i>			0.04	0.20
<i>Solenocera membranacea</i>			0.04	0.20
Decapoda unid.	0.65	20.9	0.73	1.62
Stomatopoda	0.51	1.23		
<i>Rissoides desmaresti</i>	0.07	0.25		
Squillidae unid.	0.07	0.25		
Stomatopoda unid.	0.36	0.74		
Cumacea unid.	0.43	0.49		
Crustacea unid.	1.01	3.20	0.82	3.04
POLYCHAETA	12.79	8.74		
Nereididae unid.	12.57	8.13		
Polychaeta unid.	0.22	0.74		
SALPIDAE	0.07	0.25		
ALGAE	1.81	6.16		
Unidentified	0.43	1.48	0.35	1.60

Table S2. Literature review of studies analysing the diet of the squid *Loligo vulgaris* and *L. forbesii* from the Atlantic Ocean and other squid species from the Mediterranean Sea. The main prey (frequency of occurrence, %), sampling period (SP) and number of stomachs examined (N) are shown. Fish: fishes, Crus: crustaceans, Ceph: cephalopods, Poly: polychaetes. Only studies analysing N>75 are reported.

Ocean	Species	Area	SP	N	Main prey				Reference
					Fish	Crus	Ceph	Poly	
Atlantic Ocean	<i>Loligo vulgaris</i>	Lisbon	1990-1993	268	74	26	31	1	Pierce et al. 1994
		Algarve	1990-1993	137	67	16	18	17	Pierce et al. 1994
		Galicia	1991-1992	723	79	7	6	9	Rocha et al. 1994
		Galicia	1991-1992	662	87	3	6	2	Guerra & Rocha 1994
		Gulf of Cadiz	2008	77	70	9	20		Vila et al. 2010
	<i>Loligo forbesii</i>	Azores	1980-1981	622	82	12	13		Martins 1982
		Scotland	1990-1993	2122	85	20	8		Pierce et al. 1994
		Scotland	2006-2007	360	96	29	11		Wangvoralak et al. 2011
		Lisbon	1990-1993	267	54	55	7		Pierce et al. 1994
		Azores	1990-1993	224	94	22	19		Pierce et al. 1994
		Ireland	1991-1993	1293	73	26	8	<1	Collins et al. 1994
		Galicia	1991-1992	440	73	18	9		Rocha et al. 1994
		Galicia	1991-1992	371	76	17	4		Guerra & Rocha 1994
		Algarve	1991-1994	964	73	7	19	2	Coelho et al. 1997
		Saharan Bank	1993-1994	848	51	20	26		Coelho et al. 1997
		Mediterranean Sea	<i>Loligo vulgaris</i>	Balearic Islands	2007-2010	1452	80	22	19
<i>Loligo forbesii</i>	Balearic Islands		2007-2010	900	73	39	6		present study
<i>Todarodes sagittatus</i>	Balearic Islands		1995-1996	348	85	49	30		Quetglas et al. 1999
	Catalonia		2010-2012	94	54	53	18		Rosas-Luis et al. 2014
<i>Histioteuthis reversa</i>	Balearic Islands		1996-2008	220	67	30	4		Quetglas et al. 2010
<i>Illex coindetii</i>	Catalonia		1976-1979	802	65	30	5		Sánchez 1982
	Catalonia		2010-2012	121	60	72	11		Rosas-Luis et al. 2014

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