The following supplement accompanies the article

Temporal variations in the feeding habits and trophic levels of three deep-sea demersal fishes from the western Mediterranean Sea, based on stomach contents and stable isotope analyses

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Supplement 1. Dietary composition in terms of %W (percentage contribution by weight) and %IRI (index of relative importance) of *Hoplostethus mediterraneus*, *Hymenocephalus italicus* and *Nezumia aequalis* from August 2003 to June 2004

Table S1. Dietary composition of *H. mediterraneus* from August 2003 to June 2004. %W: percentage contribution by weight; %IRI by index of relative importance. Unid. = unidentified

	August03		September03		November03		February04		April04		June04	
Taxon	**%W**	**%IRI**	**%W**	**%IRI**	**%W**	**%IRI**	**%W**	**%IRI**	**%W**	**%IRI**	**%W**	**%IRI**
POLYCHAETA	-	-	0.16	0.02	-	-	-	-	-	-	-	-
CRUSTACEA												
Isopoda												
Natatolana borealis	83.17	97.50	95.97	98.80	92.35	98.66	17.15	16.45	-	-	48.82	85.48
Amphipoda												
Acidostoma sarsi	-	-	0.04	0.01	-	-	-	-	-	-	-	-
Epimeria parasitica	-	-	-	-	-	-	-	-	-	-	1.40	0.60
Monoculodes sp.	-	-	-	-	-	-	-	-	-	-	0.05	0.40
Nicippe tumida	-	-	0.04	0.01	-	-	2.34	0.90	-	-	-	-
Podoprion mediterraneus	0.04	0.01	0.40	0.07	0.51	0.05	-	-	-	-	-	-
Rhacotropis rostrata	0.12	0.04	0.04	0.01	-	-	-	-	3.38	1.73	-	-
Tmetonix similis	0.07	0.01	-	-	-	-	-	-	-	-	-	-
Tryphosites alleni	0.13	0.01	0.14	0.02	0.65	0.19	-	-	-	-	-	-
Tryphosites longipes	1.38	0.66	0.79	0.37	1.09	0.36	17.18	37.42	-	-	1.47	2.81
Tryphosites sp.	0.41	0.48	0.05	0.01	0.93	0.10	6.82	13.81	65.82	61.58	0.22	0.43
Trischizostoma nicaense	0.33	0.05	-	-	-	-	-	-	-	-	-	-
Lyssianassidae	0.17	0.09	0.09	0.11	0.01	0.04	0.88	0.64	-	-	-	-
Unid. Gammaridea	0.16	0.01	0.29	0.13	2.62	0.32	-	-	-	-	-	-
Mysidacea												
Boreomysis arctica	1.33	0.53	0.92	0.39	1.01	0.21	20.38	23.98	12.40	14.27	0.26	1.66
Mysideis parva	0.06	0.04	-	-	-	-	-	-	-	-	0.01	0.40
Parapseudomma calloplura	0.04	0.01	-	-	-	-	-	-	-	-	-	-
Unid. Mysidacea	0.10	0.11	-	-	-	-	-	-	-	-	-	-
Decapoda												
Pasiphaea sp.	-	-	1.07	0.04	-	-	-	-	-	-	-	-
Plesionika martia	-	-	-	-	-	-	-	-	-	-	47.56	7.38
Sergestes arcticus	0.01	0.03	-	-	-	-	-	-	-	-	-	-
Sergestidae	-	-	-	-	-	-	-	-	-	-	0.04	0.40
Unid. Natantia	-	-	-	-	-	-	-	-	-	-	0.18	0.42
Cumacea				-								
Campylaspis verrucosa	0.01	0.01	-	-	-	-	-	-	-	-	-	-
Copepoda	0.01	0.01	-	-	-	-	-	-	-	-	-	-
Unid. Crustacea	0.08	0.01	-	-	-	-	-	-	10.24	11.43	-	-

PISCES												
Lampanyctus crocodilus	11.84	0.27	-	-	-	-	-	-	-	-	-	-
Myctophidae	0.43	0.02	-	-	-	-	35.24	6.79	-	-	-	-
Unid. Fish	0.01	0.08	-	-	0.82	0.06	-	-	8.21	10.99	-	-
OTHERS												
Digested material	0.10	0.01	-	-	-	-	-	-	-	-	-	-
gelatinous	0.08	0.01	-	-	-	-	-	-	-	-	-	-

	Aug	**Sep**	**Nov**	**Feb**	**Apr**	**Jun**
Vacuity index (%V)	18.92	33.33	35.71	45.45	0.00	36.36
Mean fullness	0.007	0.006	0.010	0.001	0.026	0.004
Mean No. of prey	7.49	7.16	3.25	3.36	1.50	2.18
Mean prey weight (g)	0.30	0.28	0.11	0.07	0.08	0.11
Diversity (*H'*)	1.09	0.63	0.77	1.59	1.10	1.31

Table S2. Dietary composition of *H .italicus* from August 2003 to June 2004. %W: percentage contribution by weight; %IRI: percentage contribution by index of relative importance. Unid. = unidentified

	August 03		September 03		November 03		February 04		April 04		June 04	
Taxon	**%W**	**%IRI**	**%W**	**%IRI**	**%W**	**%IRI**	**%W**	**%IRI**	**%W**	**%IRI**	**%W**	**%IRI**
POLYCHAETA												
Nephtydae	0.86	0.25	3.33	0.59	0.80	0.50	-	-	0.76	0.13	1.65	0.85
Unid. Polychaeta	0.03	0.05	-	-	-	-	0.33	0.44	-	-	-	-
CRUSTACEA												
Isopoda												
Gnathia larvae	-	-	1.94	0.43	-	-	0.46	0.13	-	-	-	-
Eurydice grimaldi	-	-	-	-	-	-	0.46	0.13	-	-	-	-
Ilyarachna longicornis	0.64	0.23	1.94	0.43	-	-	-	-	-	-	-	-
Munnupsurus atlanticus	-	-	0.81	0.30	2.45	1.19	-	-	8.18	3.48	5.14	5.84
Natatolana borealis	-	-	5.61	2.53	8.03	2.90	21.69	15.77	36.05	33.34	-	-
Amphipoda Gammaridea												
Acidostoma sarsi	-	-	-	-	0.21	0.05	-	-	-	-	-	-
Andaniexis mimonectes	1.55	2.34	0.38	0.25	1.06	1.72	1.88	3.13	1.86	1.09	2.63	3.57
Bruzelia tipica	-	-	-	-	-	-	0.27	0.12	-	-	-	-
Maera schmidti	3.73	0.21	-	-	-	-	-	-	-	-	-	-
Monoculodes acutipes	-	-	0.47	0.26	-	-	-	-	-	-	-	-
Orchomenella nana	0.06	0.05	0.38	0.25	-	-	1.97	0.24	-	-	-	-
Pardalisca sp.	-	-	-	-	-	-	-	-	0.09	0.08	-	-
Rhacotropis caeca	-	-	-	-	-	-	-	-	2.27	0.23	-	-
Rhacotropis grimaldi	0.47	0.06	-	-	1.07	0.10	-	-	-	-	-	-
Rhacotropis rostrata	-	-	-	-	1.63	0.26	-	-	-	-	-	-
Rhacotropis sp.	-	-	-	-	-	-	0.82	0.16	-	-	2.40	0.37
Syrrhoe affinis	-	-	-	-	-	-	-	-	0.75	0.13	-	
Triphosites longipes	6.51	1.84	-	-	-	-	-	-	-	-	4.16	0.54
Triphosites alleni	0.62	0.07	-	-	-	-	-	-	-	-	-	-
Triphosites sp.	-	-	-	-	3.14	0.88	1.39	0.20	3.17	0.29	-	-
Lyssianassidae	0.26	0.06	-	-	-	-	-	-	-	-	-	-
Stegocephalidae	-	-	0.38	0.25	-	-	-	-	-	-	-	-
Unid. Gammaridea	0.41	0.45	5.89	3.90	3.98	3.02	6.11	1.29	2.64	1.98	2.68	0.39
Amphipoda Hyperidea												
Anchilomera blossevillei	-	-	0.09	0.22	-	-	-	-	-	-	-	-
Copepoda	1.49	4.79	12.47	20.17	3.29	6.40	1.36	6.46	8.28	28.71	3.77	18.44
Mysidacea												
Boreomysis arctica	67.81	80.98	32.20	29.84	45.06	47.34	48.78	66.39	23.90	18.00	49.08	38.26
Calyptoma puritani	3.69	1.70	-	-	1.59	0.42	-	-	-	-	-	-
Dactylamblyops sp.	-	-	-	-	-	-	-	-	-	-	0.83	0.21
Mysideis parva	-	-	12.17	7.31	-	-	0.65	0.15	-	-	-	-
Parapseudomma calloplura	4.57	1.13	-	-	1.37	0.39	-	-	1.84	0.20	5.72	1.91
Unid. Mysidacea	3.53	0.86	7.90	15.32	5.63	5.07	2.32	3.29	5.75	10.60	9.19	18.85

Decapoda												
Calocaris macandrae	-	-	-	-	2.56	0.18	-	-	-	-	-	-
Pasiphaea sp.	-	-	-	-	0.60	0.07	-	-	-	-	-	-
Euphausiacea (larvae)	-	-	-	-	0.55	0.07	4.05	0.40	-	-	3.75	1.26
Tanaidacea												
Leptognathia sp.	-	-	0.81	0.30	-	-	-	-	0.21	0.09	-	-
Cumacea												
Platysympus typicus	-	-	-	-	0.27	0.06	-	-	-	-	-	-
Ostracoda												
Unid. Cyprinidae	2.39	2.98	12.85	17.42	14.00	28.45	1.99	0.71	2.07	0.78	5.84	9.36
Unid. Crustacea	-	-	0.38	0.25	1.77	0.14	-	-	-	-	-	-
	August03		September03		November03		February04		April04		June04	
Taxon	**%W**	**%IRI**	**%W**	**%IRI**	**%W**	**%IRI**	**%W**	**%IRI**	**%W**	**%IRI**	**%W**	**%IRI**
CHAETHOGNATA	-	-	-	-	0.45	0.21	-	-	-	-	-	-
MOLLUSCA												
Unid. Cephalopoda	-	-	-	-	-	-	-	-	-	-	0.10	0.14
PISCES												
Scales	1.19	1.91	-	-	0.17	0.26	0.17	0.42	0.16	0.34	-	-
Unid. Fishes	-	-	-	-	-	-	-	-	-	-	-	-
OTHERS												
Digested material	0.17	0.05	-	-	0.81	0.33	1.26	0.58	1.52	0.52	-	-

	Aug	**Sep**	**Nov**	**Feb**	**Apr**	**Jun**
Vacuity index (%V)	26.83	45.16	33.33	32.35	18.52	25.00
Mean fullness	0.160	0.089	0.098	0.167	0.173	0.183
Mean No. of prey	3.23	3.35	3.35	3.26	3.91	2.81
Mean prey weight (g)	0.01	0.01	0.01	0.01	0.01	0.01
Diversity (*H'*)	2.46	2.59	2.65	2.25	2.20	2.38

Table S3. Dietary composition of *N. aequalis* from August 2003 to June 2004. %W: percentage contribution by weight; %IRI: percentage contribution by index of relative importance. Unid. = unidentified, juv. = juvenile

	August03		September03		November03		February04		April04		June04	
Taxon	**%W**	**%IRI**	**%W**	**%IRI**	**%W**	**%IRI**	**%W**	**%IRI**	**%W**	**%IRI**	**%W**	**%IRI**
CTENOPHORA												
Chelophyes appendiculata	-	-	-	-	-	-	0.94	0.09	-	-	-	-
NEMATODA												
Unid. Nematoda	-	-	-	-	0.26	0.05	-	-	-	-	-	-
POLYCHAETA												
Aphroditidae	14.40	14.03	25.30	31.25	23.82	25.53	12.81	6.19	13.98	3.12	5.33	2.35
Eunicidae	2.83	1.90	-	-	5.97	2.07	21.28	24.14	-	-	0.52	0.19
Lumbrinereidae	-	-	-	-	-	-	3.85	0.64	9.75	1.05	1.21	0.18
Onuphidae	-	-	-	-	-	-	3.13	0.61	-	-	-	-
Phyllodocidae	1.52	0.50	-	-	-	-	-	-	-	-	-	-
Unid. Polychaeta	2.13	3.07	1.57	1.20	3.16	3.10	4.82	4.62	6.61	3.91	11.85	11.21
CRUSTACEA												
Isopoda												
Natatolana borealis	16.67	9.44	-	-	2.94	1.30	1.81	1.39	2.34	1.42	1.26	0.19
Iliarachna longicornis	1.84	1.52	0.49	0.44	0.37	0.06	0.22	0.16	0.81	0.16	0.50	0.12
Gnathia sp.	1.21	0.44	0.32	0.42	0.93	0.49	0.29	0.17	0.98	0.51	-	-
Munnupsurus atlanticus	3.21	5.02	12.28	11.67	5.16	24.57	4.41	14.52	13.08	38.56	4.53	21.62
Amphipoda Gammaridea												
Acidostoma sarsi	0.07	0.06	1.69	0.62	-	-	-	-	-	-	-	-
Andaniexis mimonectes	0.85	1.02	1.46	0.22	0.18	0.16	0.40	1.33	1.75	3.91	-	-
Bathymedon longirostris	-	-	-	-	-	-	-	-	0.81	0.16	-	-
Bruzelia typica	0.15	0.07	-	-	1.01	0.27	0.14	0.04	-	-	-	-
Epimeria parasitica	0.53	0.10	-	-	2.91	0.51	0.70	0.08	2.78	1.55	-	-
Eusirus longipes	-	-	-	-	-	-	0.64	0.21	-	-	4.47	1.89
Harpinia sp.	0.03	0.05	0.38	0.42	0.29	0.05	-	-	-	-	-	-

Hippomedon bidenattus	0.07	0.06	-	-	-	-	0.56	0.07	-	-	-	-
Lepechinella manco	0.65	0.33	0.32	0.42	-	-	0.16	0.04	0.16	0.10	-	-
Maera schmidti	12.90	19.96	15.80	11.42	5.76	1.51	3.88	1.16	4.59	0.54	1.17	0.18
Monoculodes sp.	-	-	-	-	-	-	0.12	0.04	-	-	-	-
Nicippe tumida	0.25	0.08	-	-	-	-	-	-	-	-	-	-
Orchomenella nana	-	-	-	-	-	-	0.20	0.05	0.55	0.43	0.09	0.08
Pseudotiron bouvieri	-	-	-	-	-	-	-	-	0.16	0.18	-	-
Rhacotropis caeca	0.08	0.06	-	-	0.80	0.24	0.50	0.07	-	-	-	-
Rhacotropis grimaldi	0.45	0.29	-	-	2.64	1.22	0.70	0.22	1.72	1.47	3.41	1.82
Rhacotropis rostrata	2.34	0.33	6.04	7.99	2.91	0.87	0.50	0.07	-	-	-	-
Rhacotropis sp	3.24	2.05	-	-	3.46	3.48	1.78	1.56	3.01	3.49	1.90	1.18
Stegocephaloides christianensis	0.66	0.33	0.25	0.41	2.02	1.20	0.26	0.16	0.32	0.19	0.80	0.44
Syrroe affinis	2.54	2.50	1.19	1.09	2.35	0.18	-	-	1.17	0.20	-	-
Tmetonix similis	-	-	-	-	-	-	0.79	0.08	-	-	-	-
Triphosites longipes	2.17	0.62	3.37	0.87	1.18	0.11	1.13	0.28	2.10	0.29	1.26	0.26
Triphosites alleni	4.08	3.74	-	-	-	-	-	-	-	-	-	-
Triphosites sp.	-	-	3.80	0.93	1.31	0.12	0.69	0.08	-	-	-	-
Unid. Lyssianassidae	0.47	0.61	-	-	-	-	-	-	-	-	-	-
Unid. Oedicerotidae	0.07	0.06	-	-	-	-	-	-	-	-	-	-
Unid. Gammaridea	3.61	12.21	6.47	12.15	5.98	9.51	7.29	18.08	5.04	4.90	2.73	5.03
Amphipoda Hyperidea												
Euprimno macropus	-	-	-	-	0.64	0.11	-	-	-	-	-	-
Phronima sedentaria	-	-	-	-	-	-	0.42	0.06	-	-	-	-
Phrosina semilunata	-	-	1.71	0.25	-	-	-	-	-	-	-	-
Copepoda	1.00	3.56	0.45	0.87	1.53	4.37	0.70	2.71	1.94	2.05	0.59	0.82

	August03		September03		November03		February04		April04		June04	
Taxon	**%W**	**%IRI**	**%W**	**%IRI**	**%W**	**%IRI**	**%W**	**%IRI**	**%W**	**%IRI**	**%W**	**%IRI**
Mysidacea												
Boreomysis arctica	2.69	4.32	6.09	10.97	5.31	9.04	4.13	5.66	4.06	2.41	3.68	2.33
Calliptoma puritani	0.01	0.05	-	-	-	-	-	-	1.16	0.20	-	-
Dactylamblyops sp.	0.55	0.93	-	-	0.15	0.04	-	-	0.62	0.14	0.67	0.42
Mysideis parva	0.23	0.53	1.73	3.46	2.41	2.37	2.46	3.18	2.57	3.27	1.01	0.63
Mysidopsis gibbosa	-	-	-	-	0.88	0.16	-	-	0.81	0.16	-	-
Parapseudomma calloplura	1.30	3.22	-	-	3.12	3.06	0.81	2.64	3.18	7.79	5.67	21.19
Unid. Mysidacea	0.79	0.46	-	-	1.82	2.35	1.08	1.79	7.97	16.54	5.94	15.72
Decapoda												
Calocaris macandrae	4.47	0.47	-	-	2.70	0.21	9.97	3.15	-	-	16.00	7.04
Pontocaris lacazei	-	-	-	-	-	-	-	-	-	-	16.12	1.55
Processa sp.	-	-	-	-	1.96	0.16	-	-	-	-	-	-
Pandalidae post larvae	0.25	0.25	-	-	-	-	-	-	-	-	-	-
Unid. Decapoda Natantia	0.44	0.09	-	-	2.75	0.49	0.94	0.09	-	-	-	-
Unid. Axiidae	0.27	0.08	-	-	-	-	-	-	-	-	-	-
Unid. Geryonidae juv	1.96	0.24	-	-	-	-	-	-	-	-	-	-
Unid. Inachinae	-	-	-	-	-	-	-	-	0.55	0.13	-	-
Euphausiacea												
Meganycthiphanes norvegica	-	-	-	-	-	-	-	-	-	-	7.29	0.74
Stylocheiron abbreviatum	0.22	0.25	-	-	-	-	-	-	-	-	-	-
Tanaidacea												
Apseudes spinosus	0.45	0.29	2.53	0.74	0.21	0.05	-	-	1.64	0.24	-	-
Leptognathia sp.	0.14	0.07	-	-	-	-	-	-	-	-	-	-
Unid. Tanadaicea	0.09	0.06	-	-	-	-	-	-	-	-	-	-
Cumacea												
Cyclaspis longicaudata	0.14	0.07	-	-	-	-	-	-	1.53	0.23	-	-
Leucon macrorhinus	-	-	-	-	-	-	0.14	0.04	-	-	-	-
Dyastiloides serrata	-	-	-	-	-	-	-	-	0.77	0.16	-	-
Unid. Cumacea	0.29	0.26	-	-	0.09	0.04	0.09	0.04	-	-	-	-
Ostracoda												
Unid. Cyprinidae	0.86	0.35	3.01	1.13	0.73	0.78	1.27	1.37	-	-	0.83	1.11

Unid. Ostracoda	0.82	0.85	-	-	0.29	0.17	0.52	0.66	-	-	-	-
Unid. Crustacea	-	-	0.22	0.03	-	-	-	-	0.14	0.09	-	-
PISCES												
Cyclotone braueri	-	-	-	-	-	-	0.80	0.08	-	-	-	-
fish remains (bones and scales)	-	-	-	-	-	-	0.54	1.97	-	-	0.61	1.69
OTHER												
Unid. digested material	4.00	3.19	3.54	1.04	-	-	2.15	0.41	0.83	0.48	-	-

	Aug	**Sep**	**Nov**	**Feb**	**Apr**	**Jun**
Vacuity index (%V)	22.22	47.62	37.50	28.99	21.43	15.38
Mean fullness	0.09	0.06	0.08	0.117	0.09	0.10
Mean No. of prey	6.78	5.00	7.67	5.97	5.95	6.25
Mean prey weight (g)	0.04	0.03	0.05	0.05	0.02	0.04
Diversity (*H'*)	3.56	2.77	3.15	3.29	2.99	2.78