

Power of stable isotope techniques to detect size-based feeding in marine fishes

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Supplement 1. Collated dataset on $\delta^{15}\text{N}$ size-based feeding patterns in marine fishes. The statistical method (stats) used to test size effects are designated by the code LR: linear regression; SR: Spearman's rank correlation; P: Pearson's correlation; AN: ANOVA; MAN: MANOVA; Mix: Mixed ANOVA; *t*-test: *t*-test. Trends are coded as either negative (-1), non-significant (0), or positive (1). ng: not given; na: not analysed; -: undetermined power. ΔL_{max} : proportional length range

Source	Species	Stats	Trend	R ²	ΔL_{max}	n	Power
Banaru & Harmelin-Vivien 2009	<i>Engraulis encrasicolus</i>	LR	-1	0.23	ng	18	0.65
Banaru & Harmelin-Vivien 2009	<i>Engraulis encrasicolus</i>	LR	0	0	ng	7	0.06
Banaru & Harmelin-Vivien 2009	<i>Engraulis encrasicolus</i>	LR	0	0.25	ng	6	0.24
Banaru & Harmelin-Vivien 2009	<i>Engraulis encrasicolus</i>	LR	0	0.1	ng	20	0.39
Banaru & Harmelin-Vivien 2009	<i>Sprattus sprattus</i>	LR	1	0.61	ng	18	0.99
Banaru & Harmelin-Vivien 2009	<i>Sprattus sprattus</i>	LR	1	0.48	ng	51	1.00
Banaru & Harmelin-Vivien 2009	<i>Sprattus sprattus</i>	LR	1	0.3	ng	43	0.99
Banaru & Harmelin-Vivien 2009	<i>Trachurus mediterraneus</i>	LR	0	0.04	ng	27	0.26
Banaru & Harmelin-Vivien 2009	<i>Trachurus mediterraneus</i>	LR	0	0.24	ng	15	0.58
Banaru & Harmelin-Vivien 2009	<i>Trachurus mediterraneus</i>	LR	0	0.16	ng	20	0.54
Bank et al. 2007	<i>Lutjanus campechanus</i>	LR	1	0.63	40	20	1.00
Bank et al. 2007	<i>Lutjanus griseus</i>	LR	0	0.03	51	20	0.16
Barnes et al. 2008	<i>Dicentrarchus labrax</i>	LR	0	ng	6	30	-
Barnes et al. 2008	<i>Dicentrarchus labrax</i>	LR	1	0.73	9	116	1.00
Barnes et al. 2008	<i>Dicentrarchus labrax</i>	LR	1	0.22	5	28	0.82
Carassou et al. 2008	<i>Abudefduf sexfasciatus</i>	LR	-1	0.61	19	9	0.82
Carassou et al. 2008	<i>Cheilodipterus quinquelineatus</i>	LR	0	0	38	9	0.06
Carassou et al. 2008	<i>Stegastes nigricans</i>	LR	1	0.22	29	9	0.35
Carassou et al. 2008	<i>Synodus variegatus</i>	LR	-1	0.35	23	9	0.51
Carseldine & Tibbetts 2005	<i>Hyporhamphus regularis ardelio</i>	LR	0	na	30	30	-
Cocheret de la Morinière et al. 2003	<i>Acanthurus bahianus</i>	LR	0	na	40	16	-
Cocheret de la Morinière et al. 2003	<i>Acanthurus chirurgus</i>	LR	0	na	50	13	-
Cocheret de la Morinière et al. 2003	<i>Haemulon flavolineatum</i>	LR	1	0.72	53	68	1.00
Cocheret de la Morinière et al. 2003	<i>Haemulon sciurus</i>	LR	1	0.62	53	73	1.00
Cocheret de la Morinière et al. 2003	<i>Lutjanus apodus</i>	LR	1	0.86	29	41	1.00
Cocheret de la Morinière et al. 2003	<i>Lutjanus griseus</i>	LR	1	0.84	31	22	1.00
Cocheret de la Morinière et al. 2003	<i>Ocyurus chrysurus</i>	LR	1	0.74	28	67	1.00
Cocheret de la Morinière et al. 2003	<i>Scarus iserti</i>	LR	0	na	67	39	-
Cocheret de la Morinière et al. 2003	<i>Scarus taeniopterus</i>	LR	0	na	15	6	-
Currin et al. 2003	<i>Fundulus heteroclitus</i>	LR	1	0.27	51	51	0.99
Currin et al. 2003	<i>Fundulus heteroclitus</i>	LR	1	0.32	51	79	1.00
Currin et al. 2003	<i>Fundulus heteroclitus</i>	LR	1	0.5	36	30	1.00
Deudero et al. 2004	<i>Diplodus annularis</i>	SR	0	na	23	10	-
Deudero et al. 2004	<i>Diplodus sargus</i>	SR	0	na	41	9	-
Deudero et al. 2004	<i>Diplodus vulgaris</i>	SR	0	na	43	5	-
Deudero et al. 2004	<i>Diplodus vulgaris</i>	SR	0	na	43	5	-
Deudero et al. 2004	<i>Labrus merula</i>	SR	0	na	32	5	-
Deudero et al. 2004	<i>Labrus merula</i>	SR	1	na	32	3	-
Deudero et al. 2004	<i>Labrus viridis</i>	SR	0	na	17	5	-
Deudero et al. 2004	<i>Sciaena umbra</i>	SR	0	na	23	3	-
Deudero et al. 2004	<i>Sciaena umbra</i>	SR	0	na	23	4	-

Supplement 1 (continued)

Source	Species	Stats	Trend	R ²	ΔL_{\max}	n	Power
Deudero et al. 2004	<i>Sciaena umbra</i>	SR	1	na	23	6	–
Deudero et al. 2004	<i>Scorpaena porcus</i>	SR	1	na	57	13	–
Deudero et al. 2004	<i>Scorpaena porcus</i>	SR	1	na	57	7	–
Deudero et al. 2004	<i>Scorpaena porcus</i>	SR	1	na	57	13	–
Deudero et al. 2004	<i>Scorpaena scrofa</i>	SR	–1	na	36	4	–
Deudero et al. 2004	<i>Scorpaena scrofa</i>	SR	0	na	36	8	–
Deudero et al. 2004	<i>Scorpaena scrofa</i>	SR	1	na	36	16	–
Deudero et al. 2004	<i>Serranus scriba</i>	SR	1	na	49	10	–
Frederich et al. 2009	<i>Abudefduf vaigensis</i>	LR	0	0.07	17	9	0.16
Frederich et al. 2009	<i>Amphiprion akallopisos</i>	LR	0	0.01	42	10	0.08
Frederich et al. 2009	<i>Dascyllus trimaculatus</i>	LR	0	0.02	55	13	0.12
Frederich et al. 2009	<i>Plectroglyphidodon lacrymatus</i>	LR	0	0.19	32	13	0.43
Galván et al. 2009	<i>Acanthistius patachonicus</i>	LR	1	0.59	35	8	0.73
Galván et al. 2009	<i>Pinguipes brasilianus</i>	LR	0	0.39	47	6	0.35
Galván et al. 2009	<i>Pseudoperis semifasciata</i>	LR	0	0.02	43	12	0.11
Galván et al. 2009	<i>Sebastes oculatus</i>	LR	1	0.93	38	6	0.96
Gaston et al. 2004	<i>Trachinops taeniatus</i>	LR	0	na	ng	162	–
Gaston et al. 2004	<i>Trachinops taeniatus</i>	LR	0	na	ng	162	–
Griffin & Valiela 2001	<i>Fundulus heteroclitus</i>	LR	1	0.29	22	13	0.60
Griffin & Valiela 2001	<i>Fundulus heteroclitus</i>	LR	1	0.7	36	14	0.99
Griffin & Valiela 2001	<i>Fundulus heteroclitus</i>	LR	0	0.21	29	12	0.44
Griffin & Valiela 2001	<i>Menidia menidia</i>	LR	0	0.02	46	13	0.12
Griffin & Valiela 2001	<i>Menidia menidia</i>	LR	0	0.09	42	14	0.27
Griffin & Valiela 2001	<i>Menidia menidia</i>	LR	0	0.32	42	10	0.52
Harrod et al. 2005	<i>Anguilla anguilla</i>	P	1	0.49	43	27	1.00
Harrod et al. 2005	<i>Anguilla anguilla</i>	P	1	0.32	43	34	0.98
Ho et al. 2007	<i>Ecsenius lineatus</i>	LR	1	0.73	47	20	1.00
Ho et al. 2007	<i>Ecsenius namiyei</i>	LR	1	0.45	55	23	0.98
Ho et al. 2007	<i>Stegastes fasciolatus</i>	LR	1	0.2	55	37	0.88
Jennings et al. 1997	<i>Chromis chromis</i>	AN	1	na	41	6	–
Jennings et al. 1997	<i>Chromis chromis</i>	AN	1	na	35	6	–
Jennings et al. 1997	<i>Chromis chromis</i>	AN	1	na	43	6	–
Jephson et al. 2008	<i>Gobius niger</i>	<i>t</i> -test	0	na	27	6	–
Lin et al. 2007	<i>Liza macrolepis</i>	SR	0	0.38	6	11	–
Lin et al. 2007	<i>Liza macrolepis</i>	SR	0	0.03	26	11	–
Melville & Connolly 2003	<i>Acanthopagrus australis</i>	LR	1	na	34	ng	–
Melville & Connolly 2003	<i>Sillago ciliata</i>	LR	0	na	63	ng	–
Melville & Connolly 2003	<i>Sillago maculata</i>	LR	0	na	28	ng	–
Mill 2007	<i>Abudefduf vaigensis</i>	LR	0	ng	ng	37	–
Mill 2007	<i>Acanthurus sohal</i>	LR	1	0.11	ng	11	0.25
Mill 2007	<i>Cephalopholis hemistiktos</i>	LR	1	0.14	ng	41	0.78
Mill 2007	<i>Cheilodipterus novemstriatus</i>	LR	0	ng	ng	22	–
Mill 2007	<i>Chromis xanthopterygia</i>	LR	0	ng	ng	18	–
Mill 2007	<i>Parupeneus margaritatus</i>	LR	0	ng	ng	24	–
Mill 2007	<i>Scolopsis ghanam</i>	LR	1	0.33	ng	40	0.99
Nagelkerken et al. 2008	<i>Haemulon flavolineatum</i>	<i>t</i> -test	0	na	28	58	–
Nagelkerken et al. 2008	<i>Haemulon flavolineatum</i>	<i>t</i> -test	0	na	28	87	–
Nilsen et al. 2008	<i>Gadus morhua</i>	AN	0	na	ng	6	–
Pasquaud et al. 2008	<i>Anguilla anguilla</i>	LR	0	ng	37	21	–
Pasquaud et al. 2008	<i>Argyrosomus regius</i>	LR	1	0.6	11	20	1.00
Pasquaud et al. 2008	<i>Dicentrarchus labrax</i>	LR	1	0.72	11	6	0.70
Pasquaud et al. 2008	<i>Dicentrarchus punctatus</i>	LR	0	ng	16	5	–
Pasquaud et al. 2008	<i>Engraulis encrasicolus</i>	LR	0	ng	5	7	–
Pasquaud et al. 2008	<i>Platichthys flesus</i>	LR	0	ng	35	11	–
Pasquaud et al. 2008	<i>Potamotischistius minutus</i>	LR	0	ng	33	7	–
Pasquaud et al. 2008	<i>Solea solea</i>	LR	0	ng	15	12	–
Pasquaud et al. 2008	<i>Sprattus sprattus</i>	LR	0	ng	29	6	–
Persic et al. 2004	<i>Anguilla anguilla</i>	P	1	0.24	28	35	0.91
Persic et al. 2004	<i>Atherina boyeri</i>	P	0	ng	30	41	–
Persic et al. 2004	<i>Gasterosteus aculeatus</i>	P	0	ng	30	20	–
Persic et al. 2004	<i>Gobius niger</i>	P	0	ng	2	4	–
Persic et al. 2004	<i>Mugilidae</i> spp.	P	0	ng	ng	6	–

Supplement 1 (continued)

Source	Species	Stats	Trend	R ²	ΔL_{\max}	n	Power
Persic et al. 2004	<i>Pomatoschistus</i> spp.	P	0	ng	ng	16	–
Persic et al. 2004	<i>Syngnathus acus</i>	P	0	ng	12	10	–
Pinnegar & Polunin 2000	<i>Chromis chromis</i>	AN	1	na	44	6	–
Renones et al. 2002	<i>Epinephelus marginatus</i>	LR	1	0.74	42	12	0.99
Renones et al. 2002	<i>Epinephelus marginatus</i>	LR	1	0.79	59	16	1.00
Renones et al. 2002	<i>Epinephelus marginatus</i>	LR	1	0.91	37	25	1.00
Rodgers & Wing 2008	<i>Parapercis colias</i>	LR	0	0	ng	69	0.11
Rodgers & Wing 2008	<i>Parapercis colias</i>	LR	0	0	ng	69	0.09
Thomas & Cahoon 1993	<i>Decapterus punctatus</i>	MAN	0	na	26	ng	–
Thomas & Cahoon 1993	<i>Diplodus holbrooki</i>	MAN	0	na	29	ng	–
Thomas & Cahoon 1993	<i>Haemulon aurolineatum</i>	MAN	0	na	55	ng	–
Thomas & Cahoon 1993	<i>Pagrus pagrus</i>	MAN	0	na	15	ng	–
Thomas & Cahoon 1993	<i>Rhomboplites aurorubens</i>	MAN	0	na	25	ng	–
Vinagre 2008	<i>Solea senegalensis</i>	LR	0	ng	8	20	–
Vinagre 2008	<i>Solea senegalensis</i>	LR	0	ng	11	20	–
Vinagre 2008	<i>Solea solea</i>	LR	0	ng	ng	12	–
Vizzini & Mazzola 2002	<i>Antherina boyeri</i>	AN	1	na	18	71	–
Vizzini & Mazzola 2004	<i>Syngnathus abaster</i>	Mix	0	na	ng	32	–
Vizzini & Mazzola 2004	<i>Syngnathus abaster</i>	Mix	–1	na	ng	32	–
Vizzini & Mazzola 2004	<i>Syngnathus typhle</i>	Mix	0	na	ng	32	–
Vizzini & Mazzola 2004	<i>Syngnathus typhle</i>	Mix	–1	na	ng	32	–
Wilson et al. 2009	<i>Anchoa mitchilli</i>	LR	0	0.09	53	26	0.44
Wilson et al. 2009	<i>Arius felis</i>	LR	0	0.04	33	12	0.15
Wilson et al. 2009	<i>Bairdiella chrysoura</i>	LR	0	0.05	33	17	0.21
Wilson et al. 2009	<i>Cynoscion arenarius</i>	LR	0	0.04	20	9	0.13
Wilson et al. 2009	<i>Leiostomus xanthurus</i>	LR	0	0.01	67	22	0.11
Wilson et al. 2009	<i>Micropogonias undulatus</i>	LR	0	0.01	30	30	0.13
Wilson et al. 2009	<i>Paralichthys</i> spp.	LR	0	0.04	ng	7	0.11

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