Mediterranean Marine Science

Vol 22, No 3 (2021)

VOL 22, No 3 (2021)

An overview of bottom trawl selectivity in the Mediterranean Sea

ALESSANDRO LUCCHETTI, MASSIMO VIRGILI, CLAUDIO VASAPOLLO, ANDREA PETETTA, GIADA BARGIONE, DANIEL LI VELI, JURE BRČIC, ANTONELLO SALA

doi: 10.12681/mms.26969

Mediterranean Marine Science
Indexed in WoS (Web of Science, ISI Thomson) and SCOPUS
The journal is available on line at http://www.medit-mar-sc.net
DOI: http://dx.doi.org/10.12681/mms.26969

An overview of bottom trawl selectivity in the Mediterranean Sea

Alessandro LUCCHETTI, Massimo VIRGILI, Claudio VASAPOLLO, Andrea PETETTA, Giada BARGIONE, Daniel Li VELI, Jure BRČIC and Antonello SALA

Mediterranean Marine Science, 2021, 22 (3)

Table S1. Length at first maturity of Mediterranean marine species.
Species: species on which the study was conducted; LFM: length at which 50% of a population become sexually mature for the first time; Gender: F (female), M (male), C (combined sex); N: number of individuals sampled in the study; GSA: GFCM Geographical Sub-Areas (GSA) where experiment was conducted.

Species	LFM	Gender	N	GSA	Reference
Alloteuthis media	3.3	F	1004	22	Salman (2014)
	2.8	M		22	Salman (2014)
Aristaeomorpha foliacea	4.06	F	2780	9	Belcari *et al.* (2003)
	4.41	F	5442	19	Carlucci *et al.* (2006)
	3.88	F	1202	20	Kapiris & Thessalou-Legaki (2009)
	3.9	F	NA	24	Deval (2019)
Aristeus antennatus	3.13	F	2951	19	Carlucci *et al.* (2006)
	2.95	F	1487	20	Kapiris & Thessalou-Legaki (2009)
	2.1	F	NA	5	Garcia-Rodriguez & Esteban (1999)
Arnoglossus laterna	11.88	F	2469	22	İlkyaz *et al.* (2017)
	11.41	M		22	İlkyaz *et al.* (2017)
Arnoglossus thori	8.81	F	422	22	Ilkyaz *et al.* (2018)
	8.64	M		22	Ilkyaz *et al.* (2018)
Aspitrigla cuculus	28.1	F	563	Atlantic	Marriott *et al.* (2010)
	26.3	M	192	Atlantic	Marriott *et al.* (2010)
	28.4	F	NA	Atlantic	Baron (1985)
	27	M	NA	Atlantic	Baron (1985)
	15.1	F	NA	10	Colloca *et al.* (2003)
	15.4	M	NA	10	Colloca *et al.* (2003)
	16.7	F	130	17	Vallisneri *et al.* (2010)
	15	M	165	17	Vallisneri *et al.* (2010)
Atherina boyeri	7.8	F	NA	17	Bartulovic *et al.* (2006)
Boops boops	17.1	C	110	3	Zoubi (2001)
	14.5	F	335	17	Alegria-Hernandez (1990)
	13.2	M	440	17	Alegria-Hernandez (1990)
	14.1	F	1774	4	Bensahla Talet *et al.* (1990)
	13.5	F	NA	4	Chali-Chabane (1988)
	13.8	F	778	23	Kallianiotis (1992)
	13.3	M	597	23	Kallianiotis (1992)
	12	F	695	23	Kallianiotis (1992)
	11.9	M	456	23	Kallianiotis (1992)
Buglossidium luteum	8.12	F	563	22	Ilkyaz *et al.* (2010b)
	7.89	M	395	22	Ilkyaz *et al.* (2010b)
Chelidonichthys lastoviza	15.3	F	104	26	Abdallah & Faltas (1998)
	14.5	M	103	26	Abdallah &Faltas (1998)
	18.7	C	870	14	Boudaya *et al.* (2004)
	15.7	F	478	12	Ben Jrad *et al.* (2010)
	16.4	M	210	12	Ben Jrad *et al.* (2010)

Continued

Table S1 continued

Species	LFM	Gender	N	GSA	Reference
Chlorophthalmus agassizii	11.5	F	NA	19	D'Onghia *et al.* (2006)
	12	F	1413	11	Cabiddu *et al.* (2010)
	9	M		11	Cabiddu *et al.* (2010)
Citharus linguatula	11.98	F	2345	22	Ilkyaz *et al.* (2018)
	12.89	M		22	Ilkyaz *et al.* (2018)
Coelorinchus caelorhincus	16.2	F	521	19	D'Onghia *et al.* (1996)
Dentex dentex	34.5	F	523	17	Cetinic *et al.* (2002)
	33.3	M	NA	17	Cetinic *et al.* (2002)
	34.6	F	210	5	Morales-Nin &Moranta (1997)
	52	M		5	Morales-Nin &Moranta (1997)
Dentex gibbosus	41.5	F	443	17	Grubisic *et al.* (2007)
	41.5	M	366	17	Grubisic *et al.* (2007)
Dentex macrophthalmus	10.83	F	716	22	Soykan *et al.* (2015b)
	11.77	M		22	Soykan *et al.* (2015b)
Dentex maroccanus	14.4	F	858	4	Mohdeb & Hicem Kara (2014)
	15.1	M	802	4	Mohdeb & Hicem Kara (2014)
Diplodus annularis	10.02	F	2393	22	Ilkyaz *et al.* (2018)
	10.53	M		22	Ilkyaz *et al.* (2018)
	12.6	C	719	4	Nouacer & Kara (2001)
	10	F	2615	12	Saied & Kartas (1988)
	9.5	M	1986	12	Saied & Kartas (1988)
	10.4	F	167	22	Metin & Akyol (2003)
	12.2	F	322	22	Koc *et al.* (2002)
	12.1	M	330	22	Koc *et al.* (2002)
	10	F	780	17	Matic-Skoko *et al.* (2007)
	9	M	745	17	Matic-Skoko *et al.* (2007)
	9.7	F	276	12	Mouine *et al.* (2012)
	10.2	M	123	12	Mouine *et al.* (2012)
Diplodus cervinus	25	C	230	4	Derbal & Kara (2010)
Diplodus puntazzo	22.6	F	1003	17	Cetinic *et al.* (2002)
	21.8	M		17	Cetinic *et al.* (2002)
	21.5	F	56	12	Mouine *et al.* (2012)
	21.5	M	136	12	Mouine *et al.* (2012)
Diplodus sargus	23.5	F	318	17	Cetinic *et al.* (2002)
	22.6	M	14.2	17	Cetinic *et al.*(2002)
	18	F	30	26	Zaki *et al.* (2001)
	20.5	F	108	12	Mouine *et al.* (2007)
	20.5	M	37	12	Mouine *et al.* (2007)
	20	F	98	4	Benchalel & Kara (2010)
	20.2	M	143	4	Benchalel & Kara (2010)
	21.2	F	166	12	Mouine *et al.* (2012)
	20.4	M	74	12	Mouine *et al.* (2012)
	19.5	F	2809	17	Cetinic *et al.* (2002)
	18.7	M		17	Cetinic *et al.* (2002)
	16.5	F	235	16	Beltrano *et al.* (2003)
	16.4	M	209	16	Beltrano *et al.* (2003)
	16	F	NA	26	Zaki *et al.* (2004)
	15.5	M	NA	26	Zaki *et al.* (2004)
	18	F	435	27	Hammoud & Saad (2007)
	18.5	M		27	Hammoud & Saad (2007)
	17.1	F	297	12	Mouine *et al.* (2012)

Continued

Table S1 continued

Species	LFM	Gender	N	GSA	Reference
	17.6	M	108	12	Mouine *et al.* (2012)
Diplodus vulgaris	12.87	F	709	22	Soykan *et al.* (2015b)
	13.37	M		22	Soykan *et al.* (2015b)
Eledone cirrhosa	9.1	F	473	10	Donnaloia *et al.* (2010)
	8.8	M	497	10	Donnaloia *et al.* (2010)
	9.7	F	1845	18	Donnaloia *et al.* (2010)
	7.8	M	1453	18	Donnaloia *et al.* (2010)
Engraulis encrasicolus	9.28	F	750	18	Mandic *et al.* (2015)
	9.02	M		18	Mandic *et al.* (2015)
	8.5	F	199	17	Sinovcic & Zorica (2006)
	7.9	M	255	17	Sinovcic & Zorica (2006)
Eutriglia gurnardus	24	F	NA	Atlantic	Muus & Nielsen (1999)
	18	M	NA	Atlantic	Muus & Nielsen (1999)
	15	F	195	17	Vallisneri *et al.* (2010)
	12.2	M	137	17	Vallisneri *et al.* (2010)
Galeus melastomus	44.3	M	1629	1	Rey *et al.* (2005)
	48.8	F		1	Rey *et al.* (2005)
Helicolenus dactylopterus	13	M	295	6	Munoz & Casadevall (2002)
	14.5	F		6	Munoz & Casadevall (2002)
Illex coindetii	13.7	M	527	18	Ceriola *et al.* (2006)
	14.6	F	559	18	Ceriola *et al.* (2006)
Lepidotrigla cavillone	10.55	F	824	22	Ilkyaz *et al.* (2010a)
	10.55	M	603	22	Ilkyaz *et al.* (2010a)
	10.1	F	1429	22	Papaconstantinou (1982)
	8.2	F	308	10	Colloca *et al.* (1997)
	9.3	F	2196	10	Colloca *et al.* (1997)
Lithognathus mormyrus	25.6	F	535	17	Cetinic *et al.* (2002)
	19.5	M		17	Cetinic *et al.* (2002)
	13.9	F	1612	24	Turkmen & Akyurt (2003)
	13.4	M	1626	24	Turkmen & Akyurt (2003)
	19	F	221	16	Vitale *et al.* (2003, 2011)
	18.1	M	230	16	Vitale *et al.* (2003, 2011)
	18.3	F	142	16	Vitale *et al.* (2003, 2011)
	17.1	M	188	16	Vitale *et al.* (2003, 2011)
	19	F	821	22	Kallianiotis *et al.* (2005)
	16.2	M	477	22	Kallianiotis *et al.* (2005)
	18.5	F	149	24	Emre *et al.* (2010)
	17.8	M	81	24	Emre *et al.* (2010)
Loligo vulgaris	16	F	666	17	Sifner & Vrgoc (2004)
	12.5	M	720	17	Sifner & Vrgoc (2004)
Lophius budegassa	66.2	C	8944	Entire med	Ungaro *et al.* (2002)
Merlangius merlangus	25	F	177	17+18	Vallisneri *et al.* (2006)
	24	M	182	17+18	Vallisneri *et al.* (2006)
Merluccius merluccius	33.03	F	2555	10	Carbonara *et al.* (2019)
	30.03	F	2628	11	Carbonara *et al.* (2019)
	31.95	F	8035	18	Carbonara *et al.* (2019)
	32.95	F	2586	19	Carbonara *et al.* (2019)
	30.81	F	976	17	Candelma *et al.* (2021)
	33.73	F	976	17	Candelma *et al.* (2021)
	33.6	C	423	3	Zoubi (2001)
	30.5	F	73	4	Bouaziz *et al.* (2001)

Continued

Table S1 continued

Species	LFM	Gender	N	GSA	Reference
	31	F	955	1+6	Garcia-Rodriguez & Esteban (1995)
	25	M	502	1+6	Garcia-Rodriguez & Esteban (1995)
	36	F	1382	5	Renones *et al.* (1995a)
	27	M	1210	5	Renones *et al.* (1995a)
	42.5	F	584	9+10	Biagi *et al.* (1995)
	35.8	F	635	6	Recasens *et al.* (2008)
	35.1	F	2729	9+10	Recasens *et al.* (2008)
	27	M	1062	9+10	Biagi *et al.* (1995)
	38	F	308	7	Recasens *et al.* (1998)
	28.8	M	619	7	Recasens *et al.* (1998)
	29.5	M	NA	17+18	Jukic & Piccinetti (1981)
	26.5	F	81	21	Mugahid & Hashem (1982)
	29	M	198	21	Mugahid & Hashem (1982)
	29.5	M	NA	17+18	Jukic & Piccinetti (1981)
	31	F	955	5	Garcia-Rodriguez & Esteban (1995)
	25	M	502	5	Garcia-Rodriguez & Esteban (1995)
	32.5	C	320	26	Al-Absawy (2010)
	30.6	F	NA	4	Bouaziz *et al.* (1998)
	21.49	F	792	22	Soykan *et al.* (2015a)
	25.65	M	707	22	Soykan *et al.* (2015a)
	21.5	M	NA	4	Bouaziz *et al.* (1998)
Micromesistius poutassou	17.7	F	532	6	Mir-Arguimbau *et al.* (2020)
	18.3	M	424	6	Mir-Arguimbau *et al.* (2020)
	21	C	182	17+18	Froglia & Gramitto (1981)
Mullus barbatus	14.5	M	500	21	Ramadan *et al.* (2017)
	15.5	F		21	Ramadan *et al.* (2017)
	11.8	F	1633	22	Vassilopoulou & Papaconstantinou (1991)
	10.6	M	1682	22	Vassilopoulou & Papaconstantinou (1991)
	14.3	C	104	3	Zoubi (2001)
	14	F	431	20	Vassilopoulou (1987)
	15.5	M	451	20	Vassilopoulou (1987)
	12.9	F	372	20	Vassilopoulou (1987)
	15.2	M	405	20	Vassilopoulou (1987)
	12.2	F	791	20	Vassilopoulou (1987)
	14.9	M	504	20	Vassilopoulou (1987)
	10.5	M	NA	17+18	Jukic & Piccinetti (1981)
	10.5	F	NA	17+18	Jukic & Piccinetti (1981)
	12.2	F	1083	1	Del Arbol *et al.* (2004)
	11.7	M	1083	1	Del Arbol *et al.* (2004)
	13.9	F	773	14	Cherif *et al.* (2007)
	13.9	M	263	14	Cherif *et al.* (2007)
	12.33	F	2691	22	Ilkyaz *et al*. (2018)
	11.56	M		22	Ilkyaz *et al.* (2018)
	11.8	F	1633	22	Wassef & El Emary (1989)
Mullus surmuletus	13.9	M	279	22	Kousteni *et al.* (2019)
	15.3	F	593	22	Kousteni *et al.* (2019)
	17.8	F	179	3	Lamrini (2010)
	16.7	M	113	3	Lamrini (2010)
	15.1	C	1385	26	Mehanna (2009)
	15.5	F	157	22	Vassilopoulou & Papaconstantinou (1995)
	11.9	M	245	22	Vassilopoulou & Papaconstantinou (1995)

Continued

Table S1 continued

Species	LFM	Gender	N	GSA	Reference
	16.8	F	NA	5	Renones *et al.* (1995b)
	15	M	NA	5	Renones *et al.,* (1995b)
Nemipterus randalli	11.02	C	587	24	Demirci & Simsek (2018)
Nephrops norvegicus	4.2	M	780	17	Angelini *et al.* (2020)
	2.5	M	662	17	Angelini *et al.* (2020)
	3.08	F	1447	17	Angelini *et al.* (2020)
	2.11	F	2300	17	Angelini *et al.,* (2020)
	3.27	F	4362	22	Lolas & Vafidis (2021)
	2.5	F?	NA	17	Marano *et al.* (1998a)
	3	F?	NA	17	Orsi Relini *et al.* (1998)
	2.75	F?	NA	17	Ungaro *et al.* (1999)
	2.81	F	NA	22	Mente *et al.* (2009)
Octopus vulgaris	12	F	302	11	Cuccu *et al.* (2013)
	7	M	361	11	Cuccu *et al.* (2013)
Pagellus acarne	16.95	M	795	4	Bentata-Keddar *et al.* (2020)
	18.63	F		4	Bentata-Keddar *et al.* (2020)
	14.45	F	842	22	Soykan *et al.* (2015b)
	13.91	M		22	Soykan *et al.* (2015b)
	16.4	C	101	3	Zoubi (2001)
	21.7	F	84	1	Velasco *et al.* (2011)
	18	M	187	1	Velasco *et al.* (2011)
Pagellus erythrinus	12.5	F	202	4	Mahdi *et al.* (2018)
	16.38	C	2152	27	Lteif *et al.* (2020)
	11.45	F	1428	22	Metin *et al.* (2011b)
	16.49	M		22	Metin *et al.* (2011b)
	13.4	F	1190	22	Somarakis & Machias (2002)
	14.2	M		22	Somarakis & Machias (2002)
	25.2	M	216	22	Vassilopoulou & Papaconstantinou 1990
	18.3	F	526	22	Mytilineou (1987)
	23	M	83	22	Mytilineou (1987)
	20.3	F	291	22	Mytilineou (1987)
	26.6	M	28	22	Mytilineou (1987)
	16.5	F	1099	22	Mytilineou (1987)
	21.8	M	146	22	Mytilineou (1987)
	13.6	F	NA	17+18	Jukic & Piccinetti (1981)
	12.8	F	226	12	Ghorbel & Ktari (1982)
	13.3	M	139	12	Ghorbel & Ktari (1982)
	16.4	F	NA	4	Cherabi (1987)
	13	F	420	22	Hossucu & Turker (2003)
	11.3	F	1717	22	Metin *et al.* (2011b)
	15.1	M	136	22	Metin *et al.* (2011b)
Pagrus pagrus	31.3	F	151	22	Vassilopoulou & Papaconstantinou (1992)
Parapenaeus longirostris	1.63	M	20384	28	İhsanoglu & İşmen (2020)
	1.81	F	15904	28	İhsanoglu & İşmen (2020)
	1.82	F	NA	24	Manaşirli & Avşar (2008)
Phycis blennoides	24.7	F	225	4	Benghali *et al.* (2014)
Plesionika martia	1.55	F	NA	19	Maiorano *et al.* (2002)
Pomatomus saltatrix	17.1	F	288	14	Dhieb *et al.* (2006)
	18.1	M	NA	14	Dhieb *et al.* (2006)
Sardina pilchardus	11.6	F	7221	16	Basilone *et al.* (2021)
	11.2	M	7195	16	Basilone *et al.* (2021)

Continued

Table S1 continued

Species	LFM	Gender	N	GSA	Reference
Saurida undosquamis	16.5	F	602	24	Ismen (2003)
	16	M		24	Ismen (2003)
Sciaena umbra	29.9	F	55	5	Grau *et al.* (2009)
	25.4	M	64	5	Grau *et al.* (2009)
	22	F	NA	29	Engin & Seyhan (2009)
	19.5	M	9	29	Engin & Seyhan (2009)
	26.5	F	79	4	Derbal & Kara (2007)
	26.5	M	82	4	Derbal & Kara (2007)
	30.2	F	127	12	Chakroun-Marzouk & Ktari (2003)
	28.8	M	110	12	Chakroun-Marzouk & Ktari (2003)
	25.1	F	339	12	Chakroun-Marzouk & Ktari (2003)
	23.9	M	238	12	Chakroun-Marzouk & Ktari (1998)
Scomber scombrus	22.8	F	1611	17	Cikes Kec & Zorica (2012)
	18.8	M	1085	17	Cikes Kec & Zorica (2012)
Scorpaena notata	8.8	F	471	5	Ordines *et al.* (2006)
	9.2	M	476	5	Ordines *et al.* (2006)
Scorpaena scrofa	19	F	11	7	Kaim-Malka & Jacob (1985)
	21	M	8	7	Kaim-Malka & Jacob (1985)
Scyliorhinus canicula	39.9	F	165	22	Kousteni *et al.* (2010)
	39.6	M	160	22	Kousteni *et al.* (2010)
Sepia elegans	4.1	F	492	22	Salman (2015)
	4.2	M	432	22	Salman (2015)
Sepia officinalis	8	F	NA	17	Santojanni *et al.* (2012)
	8	F	374	17	Bettoso *et al.* (2006)
	7	M	319	17	Bettoso *et al.* (2006)
	12	F	992	24	Duisak *et al.* (2012)
	10.3	M	1014	24	Duisak *et al.* (2012)
	8	F	81	22	Akyol *et al.* (2011)
	9	M	248	22	Akyol *et al.* (2011)
	12	F	NA	Entire med	Roper *et al.* (1984)
	10	M	NA	Entire med	Roper *et al.* (1984)
	13	F	152	22	Onsoy & Salman *et al.* (2005)
	9	M	NA	22	Onsoy & Salman *et al.* (2005)
Sepia orbignyana	6.6	F	106	17	Krstulović Šifner *et al.* (2018)
	5.8	M	135	17	Krstulović Šifner *et al.* (2018)
Serranus cabrilla	11.7	C	476	12	Bouain (1981)
Serranus hepatus	8.5	C	1290	22	Wague (1997)
Spicara flexuosa	9.5	F	1870	20	Mytilineou (1988)
	10.7	M	885	20	Mytilineou (1988)
Spicara maena	11.51	F	1766	22	Soykan *et al.* (2010)
	13.12	M	298	22	Soykan *et al.* (2010)
	10.5	F	373	12	Sellami & Brusle (1979)
Squilla mantis	1.96	F	NA	10	Carbonara *et al.* (2013)
	2.11	F	NA	18	Carbonara *et al.* (2013)
	2.03	F	NA	19	Carbonara *et al.* (2013)
Trachinus draco	12.01	F	306	29	Ak & Genc (2013)
Trachurus spp	19.1	F	369	22	Karlou-Riga (1995)
	22	F	595	22	Karlou-Riga (1995)
	20.2	F	154	17+18	Alegria (1990)
	20.8	M	150	17+18	Alegria (1990)
	21.6	F	134	17+18	Alegria (1990)

Continued

Table S1 continued

Species	LFM	Gender	N	GSA	Reference
	21.7	M	155	17+18	Alegria (1990)
	22.4	F	201	17+18	Alegria (1990)
	23.2	M	180	17+18	Alegria (1990)
	14.2	F	NA	NA	Korichi (1988)
	13.5	M	NA	NA	Korichi (1988)
	15.5	F	33	5	Abaunza *et al.* (2003)
	17.3	M	67	5	Abaunza *et al.* (2003)
	19	F	43	20	Abaunza *et al.* (2003)
	19	M	41	20	Abaunza *et al.* (2003)
	17	F	85	22	Abaunza *et al.* (2003)
	17	M	67	22	Abaunza *et al.* (2003)
	17.5	F	29	1	Abaunza *et al.* (2003)
	17.5	M	60	1	Abaunza *et al.* (2003)
Trisopterus minutus	13.28	F	1480	22	Ilkyaz *et al.* (2018)
	12.6	M		22	Ilkyaz *et al.* (2018)
	11.5	F	1502	22	Politou & Papaconstantinou (1991)
	10.5	M	1011	22	Politou & Papaconstantinou (1991)
	13	C	887	17+18	Froglia (1981)
	14.5	F	11827	17+18	Vallisneri *et al.* (2003)
	13.3	F	626	22	Metin *et al.* (2008)
	12.5	M	809	22	Metin *et al.* (2008)

References for Table S1

Abaunza, P., Gordo, L., Karlou-Riga, C., Murta, A., Eltink, ATGW., García Santamaría, MT., Gallo, E., 2003. Growth and reproduction of horse mackerel, *Trachurus trachurus* (Carangidae). *Reviews in Fish Biology and Fisheries*, 13 (1), 27–61. DOI: https://doi.org/10.1023/A:1026334532390

Ak, O., Genç, Y., 2013. Growth and reproduction of the greater weever (*Trachinus draco* L., 1758) along the eastern coast of the Black Sea. *Journal of the Black Sea/Mediterranean Environment*, 19 (1), 95–110.

Alegria, V., 1990. Size and age at first maturity in Horse mackerel (*Trachurus trachurus* L.) from the Adriatic Sea. *Rapport du Congrès de la Commission Internationale pour l'Exploration Scientifique de la Mer Méditerranée*, 32, 261.

Akyol, O., 2011. Preliminary results on the cuttlefish *Sepia officinalis*, reproduction in Izmir Bay (Aegean Sea). *Journal of Fisheries Sciences.com*, 5 (2), 122–130. DOI: https://doi.org/10.3153/jfscom.2011015

Al-Absawy, MA., 2010. The reproductive biology and the histological and ultrastructural characteristics in ovaries of the female gadidae fish *Merluccius merluccius* from the Egyptian Mediterranean water. *African Journal of Biotechnology*, 9 (17), 2544–2559.

Ali, M., Smida, BEN., Hadhri, N., 2014. Reproductive cycle and size at first sexual maturity of common pandora *Pagellus erythrinus* (Sparidae) from the bay of Monastir (Tunisia, Central Mediterranean). *Annales, Series Historia Naturalis*, 16 (January), 31–40.

Arrobas, I., Ribeiro-Cascalho, A., 1987. On the biology and fishery of *Aristeus antennatus* (Risso, 1816) in the south Portuguese coast. *Investigacion Pesquera*, 51 (1), 233–243. DOI: https://doi.org/10.3989/scimar.1999.63n127

Bartulović, VB., Glamuzina, B., Conides, A., Gavrilović, Dulčić, J., 2006. Maturation , reproduction and recruitment of the sand smelt , *Atherina boyeri* (Risso , 1810) (Pisces : Atherinidae) in the estuary of Mala Neretva River (southeastern Adriatic, Croatia). *Acta Adriatica*, 47 (1), 5–11. DOI: https://doi.org/10.1111/j.1439-0426.2004.00560.x

Basilone, G., Ferreri, R., Aronica, S., Mazzola, S., Bonanno, A., Gargano, A., Pulizzi, M., Fontana, I., Giacalone, G., Calandrino, P., 2021. Reproduction and Sexual Maturity of European Sardine (*Sardina pilchardus*) in the Central Mediterranean Sea. *Frontiers in Marine Science*, 8, 999. DOI: https://doi.org/ 10.3389/fmars.2021.715846

Belcari, P., Viva, C., Mori, M., Ranieri, SD., 2003. Fisheries and biology of *Aristeomorpha folicea* (Risso, 1827) (Crustacea : Decapoda) in the Northern Tyrrhenian Sea (Western Mediterranean). *Journal of Northwest Atlantic Fishery Science,* 31, 195. DOI: https://doi.org/10.2960/J.v31.a14

Benghali, S el A., Mouffok, S., Kherraz, A., Boutiba, Z., 2014. Reproductive Biology of Greater Forkbeard *Phycis Blennoides* (Brünnich, 1768) in Western Algerian Coasts. *Journal of Biodiversity and Environmental Sciences*, 19 (June), 389–398.

Beltrano, AM., Cannizzaro, L., Vitale, S., Milazzo, A., 2003. Aspetti della biologia riproduttiva di *Diplodus vulgaris* (Linnaeus 1758, Pisces: Sparidae) nello Stretto di Sicilia*, Biologia Marina Mediterranea*, 10, 287–290.

Ben Jrad, L., Fehri-Bedoui, R., Ben Slama, S., Ben Hassine, OK., 2010. Reproduction et régime alimentaire de *Trigloporus lastoviza* (Triglidae) dans le golfe de Tunis (Méditerranée occidentale). *Cybium*, 34 (4), 353–365.

Benchalel, W., Kara, MH., 2013. Age, growth and reproduction of the white seabream *Diplodus sargus sargus* (Linneaus, 1758) off the eastern coast of Algeria. *Journal of*

Applied Ichthyology, 29 (1), 64–70. DOI: https://doi.org/10.1111/j.1439-0426.2012.02057.x

Bensahla Talet, A., Belaouda, D., Matoub, L., 1990. Période de ponte et taille a la première maturité sexuelle de *Boops boops* (Linné, 1758) des cotes Oranaises (Algérie). *Rapport de la Commission Internationale de la Mer Méditerranée,* 32, 260.

Bentata-Keddar, I., Abid-kachour, S., Bouderbala, M., Mouffok, S., 2020. Reproduction and growth of Axillary seabream *Pagellus acarne* (Risso , 1827) (Perciformes Sparidae) from the western Algerian coasts. *Biodiversity Journal*, 11 (2), 351–358. DOI: 10.31396/Biodiv.Jour.2020.11.2.351.358

Bettoso, N., Borme, D., Faresi, L., Aleffi, I., Orlando-Bonaca, M., Lipej, L. 2016. New insights on the biological parameters of the exploited cuttlefish *Sepia officinalis* L. (Mollusca: Cephalopoda) in the northern Adriatic Sea in relation to the main fishing gears employed. *Mediterranean Marine Science*, *17*(1), 152–162. DOI: https://doi.org/10.12681/mms.1311

Bettoso, N., Faresi, L., & Aleffi, F., 2006. Prime osservazioni sulle catture di *Sepia officinalis* (Mollusca, Cephalopoda) nel Golfo di Trieste. *Biologia Marina Mediterranea*, 13 (1), 806–808.

Biagi, F., Cesarini, A., Sbrana, M., Viva, C., 1995. Reproductive biology and fecundity of *Merluccius merluccius* (Linnaeus, 1758) in the North Tyrrhenian Sea. *Rapport de la Commission Internationale de la Mer Méditerranée,* 34, 237.

Bouaziz, A., Bennoui, A., Djabali, F., Maurin, C., 1998. Reproduction du merlu *Merluccius merluccius* (Linnaeus, 1758) dans la région de Bou-lsmaïl. *Cahiers Options Méditerranéennes*, 35, 109-117.

Boudaya, L., Neifar, L., Rizzo, P., Badalucco, C., Bouain, A., Fiorentino, F., 2010. Age and growth of *Chelidonichthys lastoviza* (Bonnaterre, 1788) in Tunisia. *Rapport de la Commission Internationale de la Mer Méditerranée*, 39, 458.

Cabiddu, S., Follesa, MC., Porcu, C., Cau, A., 2010. Gonad development and reproduction in the monoecious species *Chlorophthalmus Agassizi* (Actinopterygii: Aulopiformes: (Central-Western Mediterranean). *Acta Ichthyologica et Piscatoria*, 40 (2), 167–177. DOI: 10.3750/AIP2010.40.2.10.

Candelma, M., Marisaldi, L., Bertotto, D., Radaelli, G., Gioacchini, G., Santojanni, A., Colella, S., Carnevali, O., 2021. Aspects of reproductive biology of the European hake (*Merluccius merluccius*) in the Northern and Central Adriatic Sea (GSA 17-Central Mediterranean Sea). *Journal of Marine Science and Engineering,* 9, 389.

Carbonara, P., Casciaro, L., Gaudio, P., Palmisano, M., Zupa, W., Spedicato, MT., 2013. Reproductive Cycle and Length At First Maturity of *Squilla mantis* in the Central-Western Mediterranean. p. 131–132 *In: 44o Congresso della Societa Italiana di Bologia Marina.*

Carbonara, P., Porcu, C., Donnaloia, M., Pesci, P., Sion, L., Teresa, M., Zupa, W., Vitale, F., Cristina, M., 2019. The spawning strategy of European hake (*Merluccius merluccius* , L . 1758) across the Western and Central Mediterranean Sea. *Fisheries Research*, 219 (July), 105333. DOI: 10.1016/j.fishres.2019.105333.

Carlucci, R., D'Onghia, G., Sion, L., Maiorano, P., Tursi, A., 2006. Selectivity parameters and size at first maturity in deep-water shrimps, *Aristaeomorpha foliacea* (Risso, 1827) and *Aristeus antennatus* (Risso, 1816), from the North-Western Ionian Sea (Mediterranean Sea). *Hydrobiologia*, 557 (1), 145–154. DOI: https://doi.org/10.1007/s10750-005-1317-8

Ceriola, L., Ungaro, N., Toteda, F., 2006. Some information on the biology of *Illex coindetii* Verany, 1839 (Cephalopoda, Ommastrephidae) in the South-Western Adriatic Sea (Central Mediterranean). *Fisheries Research*, 82 (1–3), 41–49. DOI: https://doi.org/10.1016/j.fishres.2006.08.024.

Chali-Chabane, F., 1988. Contribution a l'étude biologique et dynamique de la population de *Boops boops* de la baie de Bou-Ismail (Alger). ISMAL, Thèse de Magistèr.

Cherabi, O., 1987. Contribution à l'étude de la biologie du pageot commun *Pagellus erythrinus* (Linné, 1758) et à l'écologie de la famille des Sparidés de la baie d'Alger. Universite des Sciences et de la Technologie Houari Boumedinne, Algeria, Thèse de Magister, 203 pp.

Cherif, M., Zarrad, R., Gharbi, H., Missaoui, H., Jarboui, O., 2007. Some biological parameters of the red mullet, *Mullus barbatus* L., 1758, from the Gulf of Tunis. *Acta Adriatica*, 48 (2), 131–144.

Cikeš Keč, V., Zorica, B., 2012. The reproductive traits of *Scomber japonicus* (Houttuyn, 1782) in the Eastern Adriatic Sea. *Journal of Applied Ichthyology*, 28 (1), 15–21.

Colloca, F., Cardinale, M., Ardizzone, GD., 1997. Biology, spatial distribution and population dynamics of *Lepidotrigla cavillone* (Pisces: Triglidae) in the Central Tyrrhenian Sea. *Fisheries Research*, 32, 21–32.

Colloca, F., Cardinale, M., Marcello, A., Ardizzone, GD., 2003. Tracing the life history of red gurnard (*Aspitrigla cuculus*) using validated otolith annual rings. *Journal of Applied Ichthyology*, 19 (1), 1–9. DOI: https://doi.org/10.1046/j.1439-0426.2003.00342.x

Cuccu, D., Mereu, M., Cau, A., Pesci, P., Cau, A., 2013. Reproductive development versus estimated age and size in a wild Mediterranean population of *Octopus vulgaris* (Cephalopoda : Octopodidae). *Journal of the Marine Biological Association of the United Kingdom*, 93 (3), 843–849. DOI: 10.1017/S0025315412000203.

D'Onghia, G., Sion, L., Maiorano, P., Mytilineou, C., Dalessandro, S., Carlucci, R., Desantis, S., 2006. Population biology and life strategies of *Chlorophthalmus agassizii* Bonaparte , 1840 (Pisces : Osteichthyes) in the Mediterranean Sea. *Marine Biology*, 149, 435–446. DOI: 10.1007/s00227-005-0231-y.

Del Árbol, J., Rey, J., Gil de Sola, L., 2004. Reproductive aspects of red mullet (*Mullus barbatus*) in the Alboran Sea (western Mediterranean). *Rapport de la Commission Internationale de la Mer Méditerranée*, 37, 342. Retrieved from http://www.ciesm.org/online/archives/abstracts/pdf/37/comites/pg_0342.htm

Demirci, S., Demirci, A., Simsek, E., 2018. Spawning season and size at maturity of a migrated fish , Randall's threadfin bream (*Nemipterus randalli*) in Iskenderun Bay, northeastern Mediterranean, Turkey. *Fresenius Environmental Bulletin*, 27 (1), 503–507.

Deval, MC., 2019. Population Dynamics and Biological Patterns of Commercial Crustacean Species in the Antalya Bay , Eastern Mediterranean Sea : III . The Giant Red Shrimp *Aristaeomorpha foliacea* Risso , 1827. *Turkish Journal of*

Fisheries and Aquatic Sciences, 20 (4), 311–323.

Derbal, F., Kara, MH., 2007. Cycle sexuel du corb *Sciaena umbra* (Sciaenidae) du littoral d'Annaba (Algerie est). *Rapport de la Commission Internationale de la Mer Méditerranée*, 38, 459.

Dhieb K., Ghorbel M., Bouain A., 2005. Age et croissance du serre *Pomatomus saltatrix* (Pomatomidae) du golfe de Gabès (Tunisie). *Mésogée*, 61, 43-50.

Donnaloia, M., Gaudio, P., Bitetto, I., Casciaro, L., Zupa, W., Intini, S., Spedicato, MT., 2010. Sexual maturity of the horned octopus *Eledone cirrhosa* (Lamarck , 1798). *Biologia Marina Mediterranea*, 17 (1), 336–337.

Duysak, Ö., Özcan, G., Çek, Ş., Türelİ, C., 2014. Reproductive biology of the common cuttlefish (*Sepia officinalis* Linnaeus , 1758) in Iskenderun Bay (Northeastern Mediterranean Sea), *NISCAIR-CSIR*, 43 (September), 1689–1694.

Emre, Y., Balik, I., Sumer, C., Oskay, DA., Yesilcimen, HO., 2010. Age, growth, length-weight relationship and reproduction of the striped seabream (*Lithognathus mormyrus* L., 1758) (Sparidae) in the Beymelek Lagoon (Antalya, Turkey). *Turkish Journal of Zoology*, 34 (1), 93–100. DOI: https://doi.org/10.3906/zoo-0808-13

Engin, S., Seyhan, K., 2009. Age, growth, sexual maturity and food composition of *Sciaena umbra* in the south-eastern Black Sea, Turkey. *Journal of Applied Ichthyology*, 25 (1), 96–99. DOI: https://doi.org/10.1111/j.1439-0426.2008.01173.x

Froglia, C., Zoppini, AM., 1981. Observations on growth of *Trisopterus minutus capelanus* **(Risso) (Pisces, Ga**didae) in the central Adriatic Sea. *Rapport de la Commission Internationale de la Mer Méditerranée*, 27, 57-60.

Froglia, C., 1981. Summary of biological parameters on *Trisopterus minutus capelanus* (Risso) in the Adriatic. *FAO Fisheries Reports*, 253, 97-100.

Garcia-Rodriguez, M., Esteban, A., 1995. Algunos aspectos sobre la biologia y pesca de la merluza mediterranea *Merluccius merluccius* (Linnaeus, 1758) en la Bahia de Santa Pola (sureste de la peninsula Iberica). *Boletín - Instituto Español de Oceanografía* 11, 3–25.

Ghorbel, M., Ktari, MH., 1982. Etude préliminaire de la reproduction de Pagellus erythrinus des eaux tunisiennes. *Bulletin de l'Institut National des Sciences et Technologie de la Mer*, 9, 23-38.

Gorelli, G., Company, JB., Bahamón, N., Sardà, F., 2017. Improving codend selectivity in the fishery of the deep-sea red shrimp *Aristeus antennatus* in the northwestern Mediterranean Sea. *Scientia Marina*, 81 (3), 381–386.

Grau, A., Linde, M., Grau, AM., 2009. Biología reproductiva de la especie vulnerable *Sciaena umbra*; Linnaeus, 1758 (Pisces: Sciaenidae). *Scientia Marina*, 73 (1), 67–81. DOI: https://doi.org/10.3989/scimar.2009.73n1067

Grubisic, L., Mrcelic, GJ., Skakelja, N., Katavic, I., Ticina, V., Sliskovic, M., 2007. Reproductive biology of pink dentex *Dentex gibbosus* (Rafinesque) from the Adriatic Sea, Croatia. *Aquaculture Research*, 38 (9), 991–1001. DOI: https://doi.org/10.1111/j.1365-2109.2007.01774.x

Hammoud, V., Saad, A., 2007. Reproductive biology of *Diplodus vulgaris* (family Sparidae) in the Syrian Coast. In *Rapport du Congrès de la Commission Internationale pour l'Exploration Scientifique de la Mer Méditerranée,* Vol. 38, 495.

Hernandez, VA. 1989. Study on the age and growth of bogue (*Boops boops* L.) from the central Adriatic Sea. *Cybium*, 13, 281–289.

Hoşsucu, B., Çakır, DT., 2003. Some parameters about population biology of the common pandora (*Pagellus erythrinus* L., 1758) (Sparidae) in the Edremit Bay (Turkey). *Su Ürünleri Dergisi,* 20, 3–4. Retrieved from http://jfas.ege.edu.tr/

İhsanoglu, MA., İşmen, A., 2020. Biological traits and population dynamic of *Parapenaeus longirostris* (Lucas , 1846) in the Marmara Sea , Turkey. *Ege Journal of Fisheries and Aquatic Sciences*, 37 (3), 275–283. DOI: 10.12714/egejfas.37.3.10.

Ilkyaz, AT., Metin, G., Soykan, O., Kinacigil, HT., 2010. Age , growth and sexual development of solenette , *Buglossidium luteum* (Risso , 1810), in the central Aegean Sea. *Journal of Applied Ichthyology*, 26, 436–440. DOI: 10.1111/j.1439-0426.2009.01382.x.

Ilkyaz, AT., Metin, G., Soykan, O., Kinacigil, HT., 2018. Spawning season, first maturity length and age of 21 fish species from the Central Aegean Sea, Turkey. *Turkish Journal of Fisheries and Aquatic Sciences*, 126, 119–126. DOI: https://doi.org/10.4194/1303-2712-v18

İlkyaz, AT., Metİn, G., Soykan, O., Kinacigİl, HT., 2010. Growth and reproduction of large-scaled gurnard (*Lepidotrigla cavillone* Lacepède, 1801) (Triglidae) in the central Aegean Sea, eastern Mediterranean. *Turkish Journal of Zoology,* 34, 471–478. DOI: https://doi.org/10.3906/zoo-0906-47

Ismen, A., 2003. Maturity and fecundity of lizardfish (*Saurida undosquamis* Richardson , 1848) in Iskenderun Bay (Eastern Mediterranean). *Turkish Journal of Zoology*, 27, 231–238.

Jukiü, S., Piccinetti, C., 1981. Quantitative and qualitative characteristics of demersal resources in the Adriatic Sea with some population dynamic estimates. *FAO Fisheries Reports*, 253, 73-91.

Kaim-Malka, RA., Jacob, SS., 1985. Donnees preliminaires sur la biologie de trois especes de Scorpaenidae de la region de Marseille. *Rapport de la Commission Internationale de la Mer Méditerranée*, 29, 45–47.

Kallianiotis, A., 1992. Biology and population structure of bogue [*Boops boops* (L.)] populations in the marine area of Crete. Doctorate dissertation, University of Crete, Greece.

Kallianiotis, A., Torre, M., Argyri, A., 2005. Age, growth, mortality, reproduction, and feeding habits of the striped seabream, *Lithognathus mormyrus* (Pisces : Sparidae), in the coastal waters of the Thracian Sea , Greece. *Scientia Marina*, 69 (3), 391-404. DOI: https://doi.org/10.3989/scimar.2005.69n3391

Kapiris, K., Thessalou-Legaki, M., 2009. Comparative reproduction aspects of the deep-water shrimps *Aristaeomorpha foliacea* and *Aristeus antennatus* (Decapoda, Aristeidae) in the Greek Ionian Sea (Eastern Mediterranean). *International Journal of Zoology*, 9 pp. DOI: https://doi.org/10.1155/2009/979512

Karlou-Riga, C., 1995. Biology and dynamics of the *Trachurus* species (Pisces, Carangidae) in the Saronikos Gulf. PhD Thesis, Aristotle University of Thessaloniki, Greece, 296

pp.
Koc, HT., Cakir, D., Aka, Z., 2002. Age, growth, sex-ratio, spawning season and mortality of annular bream, Diplodus annularis Linnaeus (1758) (Pisces: Sparidae) in edremit gulf (Aegean sea). *Pakistan Journal of Biological Sciences.*
Korichi, HS., 1988. Contribution a l'étude biologiques des deux espèces de saurels: *Trachurus trachurus* et *T. mediterraneus* et de la dynamique de *T. trachurus* en baie de Bou-Ismail. MSc Thesis, ISMAL, 203 pp.
Kousteni, V., Anastasopoulou, A., Mytilineou, C., 2019. Life-history traits of the striped red mullet *Mullus surmuletus* (Linnaeus , 1758) in the south Aegean Sea (eastern Mediterranean). *Journal of the Marine Biological Association of the United Kingdom*,, 1–11.
Kousteni, V., Kontopoulou, M., Megalofonou, P., 2010. Sexual maturity and fecundity of *Scyliorhinus canicula* (Linnaeus, 1758) in the Aegean Sea. *Marine Biology Research*, 6 (4), 390–398.
Krstulović Šifner, S., Damjanović, T., Isajlović, I., 2018. Distribution, length-weight relationships and reproductive characteristics of *Sepia orbignyana* (Férussac, 1826) in the Northern and Central Adriatic Sea. *Cahiers de biologie marine*, 59, 43–51. DOI: 10.21411/CBM.A.B9291A6E.
Ktari, MH., Bouain, A., Quignard, JP., 1978. Régime alimentaire des loups *Dicentrarchus labrax* (Linné, 1778) et *Dicentrarchus punctatus* (Bloch , 1892) des côtes tunisiennes. *Bulletin de l'Institut National Scientififique et Technique d'Océanographie et E Pêche de Salambo*, 5, 5–15.
Lamrini, A., 2010. Croissance et reproduction du rouget barbet de roche (*Mullus surmuletus* l. 1758) dans la baie de M'Diq (Maroc). In *Rapport du Congrès de la Commission Internationale pour l'Exploration Scientifique de la Mer Méditerranée*, Vol. 39, 565.
Lolas, A., Vafidis, D., 2021. Population Dynamics, Fishery, and Exploitation Status of Norway Lobster (*Nephrops norvegicus*) in Eastern Mediterranean. *Water*, 13 (289).
Lteif, M., Jemaa, S., Mouawad, R., Khalaf, G., Lelli, S., Fakhri, M., 2020. Population biology of the common pandora , *Pagellus erythrinus* (Linnaeus , 1758) along the Lebanese coast, Eastern Mediterranean. *The Egyptian Journal of Aquatic Research*, 46 (1), 57–62. DOI: 10.1016/j.ejar.2020.01.002.
Mahdi, H., Talet, LB., Boutiba, Z., 2018. Reproductive Biology of the Common Pandora *Pagellus erythrinus* (Linnaeus , 1758) of Oran Bay (Algerian west coasts). *Turkish Journal of Fisheries and Aquatic Sciences*, 18, 1–7. DOI: 10.4194/1303-2712-v18.
Maiorano, P., D'Onghia, G., Capezzuto, F., Sion, L., 2002. Life-history traits of *Plesionika martia* (Decapoda : Caridea) from the eastern-central Mediterranean Sea. *Marine Biology*, 141, 527–539. DOI: 10.1007/s00227-002-0851-4.
Manasirli, M., Avsar, D., 2008. Reproductive biology of female *Parapaeneus longirostris* (Lucas, 1846) (Decapoda, Caridea) In Babad' Illiman' I Bight in the Northeastern Mediterranean. *Crustaceana*, 81 (3), 289–298.
Mandić, M., Regner, S., Đurović, M., Joksimović, A., Pešić, A., Krpo-Ćetković, J., 2015. Distribution and abundance of eggs and estimation of spawning stock biomass of anchovy, *Engraulis encrasicolus* (Linnaeus, 1758), in the south-eastern Adriatic Sea. *Journal of the Marine Biological Association of the United Kingdom*, 95 (5), 1051–1059.
Marriott, AL., Latchford, JW., McCarthy, ID., 2010. Population biology of the red gurnard (*Aspitrigla cuculus* L.; Triglidae) in the inshore waters of Eastern Anglesey and Northwest Wales. *Journal of Applied Ichthyology*, 26 (4), 504–512. DOI: https://doi.org/10.1111/j.1439-0426.2010.01455.x
Matić-Skoko, S., Kraljević, M., Dulčić, J., Jardas, I., 2007. Age, growth, maturity, mortality, and yield-per-recruit for annular sea bream (*Diplodus annularis* L.) from the eastern middle Adriatic Sea. *Journal of Applied Ichthyology*, 23 (2), 152–157. DOI: https://doi.org/10.1111/j.1439-0426.2006.00816.x
Mehanna, SF., 2009. Growth, mortality and spawning stock biomass of the striped red mullet *Mullus surmuletus*, in the Egyptian mediterranean waters. *Mediterranean Marine Science*, 10 (2), 5–17. DOI: https://doi.org/10.12681/mms.105
Mente, E., Karapanagiotidis, IT., Logothetis, P., Vafidis, D., Malandrakis, E., Neofitou, N., Stratakos, A., 2009. The reproductive cycle of Norway lobster. *Journal of Zoology*, 278 (4), 324–332. DOI: https://doi.org/10.1111/j.1469-7998.2009.00579.x
Metin, G., Akyol, O., 2003. A preliminary study on the determination of batch fecundity of annular sea
bream (*Diplodus annularis* L., 1758) in Izmir Bay (Aegean Sea). *Journal of Fisheries and Aquatic Sciences*, 20, 205–209.
Metin, G., Ilkyaz, AT., Kinacigil, HT., 2008. Growth, mortality, and reproduction of poor cod (*Trisopterus minutus* Linn., 1758) in the central Aegean sea. *Turkish Journal of Zoology*, 32 (1), 43–51. DOI: https://doi.org/10.1111/j.1439-0426.2006.00807.x
Metin, G., İlkyaz, AT., Soykan, O., Kinacigil, HT., 2011. Biological characteristics of the common pandora, *Pagellus erythrinus* (Linnaeus, 1758), in the central Aegean Sea. *Turkish Journal of Zoology,* 35 (3), 307-315. DOI: https://doi.org/10.3906/zoo-0904-4
Mir-Arguimbau, J., Balcells, M., Raventós, N., Martín, P., Sabatés, A., 2020. Growth , reproduction and their interplay in blue whiting (*Micromesistius poutassou* , Risso , 1827) from the NW Mediterranean. *Fisheries Research*, 227 (September 2019), 105540. DOI: 10.1016/j.fishres.2020.105540.
Mohdeb, R., Kara, H., 2014. Age , growth and reproduction of the Morocco dentex *Dentex maroccanus* of the eastern coast of Algeria. *Journal of the Marine Biological Association of the United Kingdom*, (1), 1–10. DOI: 10.1017/S0025315414001945.
Morales-Nin, B., Moranta, J., 1997. Life history and fishery of the common dentex (*Dentex dentex*) in Mallorca (Balearic Islands, western Mediterranean). *Fisheries Research*, 30, 67–76. DOI: https://doi.org/10.1016/S0165-7836(96)00560-7
Mouine, N., Francour, P., Ktari, MH., Chakroun-Marzouk, N., 2007. The reproductive biology of *Diplodus sargus sargus* in the Gulf of Tunis (central Mediterranean). *Scientia Marina*, 71 (3), 461–469. DOI: https://doi.org/10.3989/scimar.2007.71n3461
Mouine, N., Francour, P., Ktari, MH., Chakroun-Marzouk, N., 2012. Reproductive biology of four *Diplodus* species *Diplodus vulgaris, D. annularis, D. sargus sargus* and *D.*

puntazzo (Sparidae) in the Gulf of Tunis (central Mediterranean). *Journal of the Marine Biological Association of the United Kingdom*, 92 (3),623–631. DOI: https://doi.org/10.1017/S0025315411000798

Mugahid, AR., Hashem, MT., 1982. Some aspects of the fishery biology of hake (*Merluccius merluccius*) in the Libyan waters. *Bulletin of the Institute of Oceanography and Fish*, 8, 145–162.

Muñoz, M., Casadevall, M., 2002. Reproductive indices and fecundity of *Helicolenus dactylopterus* dactylopterus (Teleostei: Scorpaenidae) in the Catalan Sea (western Mediterranean). *Journal of the Marine Biological Association of the United Kingdom*, 82 (6), 995–1000. DOI: https://doi.org/10.1017/S0025315402006513.

Nouacer, S., Kara, MH., 2001. Taille a la premiere maturite sexuelle, periode de ponte et relation taille-poids chez le sparaillon *Diplodus annularis* (L. 1758) des cottes d'Annaba. *Rapport de la Commission Internationale de la Mer Méditerranée,* 36, 408.

Önsoy, B., Salman, A., 2009. Reproductive biology of the common cuttlefish *Sepia officinalis* L.(Sepiida: Cephalopoda) in the Aegean Sea. *Turkish Journal of Veterinary and Animal Science*, 29, 613–619. Retrieved from http://mistug.tubitak.gov.tr/bdyim/abs.php?dergi=vet&rak=0303-14

Ordines, F., Massutí, E., Guijarro, B., Mas, R., 2006. Diamond vs. square mesh codend in a multi-species trawl fishery of the western Mediterranean: Effects on catch composition, yield, size selectivity and discards. *Aquatic Living Resources*, 19 (4), 329–338. DOI: https://doi.org /10.1051/alr:2007003.

Papaconstantinou, C., 1982. On the biology of the *Lepidotrigla cavillone* (Family Triglidae) of the Greek Seas. *Thalassographica,* 5, 33-59.

Papaconstantinou, C., Mytilineou, C., Panos, T., 1988. Aspects of the life history and fishery of Red Pandora, *Pagellus erythrinus* (Sparidae) off western Greece. *Cybium*, 12 (4), 267–280.

Politou, CY., Papaconstantinou, C., 1991. Population biology of *Trisopterus minutus capelanus* (Gadidae) from the eastern coast of Grece. *Cybium*, 15, 69-81.

Ramadan, FA., Ali, RA., Ali, S., Gaballah, MSM., 2017. Length weight relationship , condition factor and reproductive biology of the Red Mullet *Mullus baebatus* (Linnaeus , 1758) in Darna coastal water, eastern Libya. *Bulletin de l'Institut National des Sciences de la Mer (INSTM Salammbô)*, 20 (December).

Recasens, L., Lombarte, A., Morales-Nin, B., Torres, GJ., 1998. Spatiotemporal variation in the population structure of the European hake in the NW Mediterranean. *Journal of fish biology*, 53 (2), 387-401.

Recasens, L., Chiericoni, V., Belcari, P., 2008. Patrón reproductivo y fecundidad de la merluza (*Merluccius merluccius* (Linnaeus, 1758) en el Mediterráneo occidental. *Scientia Marina*, 72 (4), 721–732. DOI: https://doi.org/10.3989/scimar.2008.72n4721

Relini, L. O., Zamboni, A., Fiorentino, F., Massi, D., 1998. Reproductive patterns in Norway lobster *Nephrops norvegicus* (L .), (Crustacea Decapoda Nephropidae) of different Mediterranean areas. *Scientia Marina*, 62 (1), 25–41. DOI: https://doi.org/10.3989/scimar.1998.62s125

Reñones, O., Massuti, E., Oliver, P., 1995a. Some aspects of the reproduction pattern of hake (*Merluccius merluccius*) in the Balearic Islands. *Rapport de la Commission Internationale de la Mer Méditerranée,* 34, 255.

Reñones, O., Massuti, E., Morales-Nin, B., 1995b. Life history of the red mullet *Mullus surmuletus* from the bottom-trawl fishery off the Island of Majorca (north-west Mediterranean). *Marine Biology*, 123 (3), 411-419.

Rey, J., de Sola, LG., Massutí, E., 2005. Distribution and biology of the blackmouth catshark *Galeus melastomus* in the Alboran Sea (Southwestern Mediterranean). *Journal of Northwest Atlantic Fishery Science*, 35 (November 2004), 215–223. DOI: https://doi.org/10.2960/j.v35.m484.

Saied, A., Kartas, F., 1988. Sexualité et reproduction du sparillon Diplodus annularis des îles Kerkennah (Sud-Est Tunisien). *Rapport de la Commission Internationale de la Mer Méditerranée*, 31, 270.

Salman, A., 2014. Fecundity, spawning strategy and oocyte development of shortfin squid *Alloteuthis media* (Myopsida: Loliginidae) in the Eastern Mediterranean. *Cahiers de biologie marine*, 55 (2).

Salman, A., 2015. Reproductive biology of the Elegant Cuttlefish (*Sepia elegans*) in the Eastern Mediterranean. *Turkish Journal of Fisheries and Aquatic Sciences*, 15, 265–272. DOI: https://doi.org/10.4194/1303-2712-v15.

Sellami, A., Brusle, J., 1979. Contribution a l'etude de la peche, de la sexualite et de la reproduction de la mendole *Maena maena* (Linnaeus 1758), teleosteen maenide des tunisiennes. *Memorie di Biologia Marina e di Oceanografia*, 94, 91-109.

Sinovcic, G., Zorica, B., 2006. Reproductive cycle and minimal length at sexual maturity of *Engraulis encrasicolus* (L.) in the Zrmanja River estuary (Adriatic Sea , Croatia). *Estuarine, Coastal and Shelf Science*, 69, 439–448. DOI: 10.1016/j.ecss.2006.04.003.

Somarakis, S., Machias, A., 2002. Age, growth and bathymetric distribution of red pandora (*Pagellus erythrinus*) on the Cretan shelf (eastern Mediterranean). *Journal of the Marine Biological Association of the United Kingdom*, 82 (1), 149–160. DOI: https://doi.org/10.1017/S002531540200526X

Soykan, O., Ilkyaz, AT., Metin, G., KinacigIl, HT., 2010. Growth and reproduction of blotched picarel (*Spicara maena* Linnaeus, 1758) in the central Aegean Sea, Turkey. *Turkish Journal of Zoology*, 34 (4), 453–459. DOI: https://doi.org/10.3906/zoo-0903-29

Soykan, O., İlkyaz, AT., Metin, G., Kinacigil, HT., 2015. Growth and reproduction of *Boops boops, Dentex macrophthalmus, Diplodus vulgaris,* and *Pagellus acarne* (Actinopterygii: Perciformes: Sparidae) from east-central Aegean Sea, Turkey. *Acta Ichthyologica et Piscatoria*, 45 (1), 39–55. DOI: https://doi.org/10.3750/AIP2015.45.1.05

Soykan, O., İlkyaz, AT., Metin, G., Kinacigıl, HT., 2015. Age, growth and reproduction of European hake (*Merluccius merluccius* (Linn., 1758)) in the Central Aegean Sea, Turkey. *Journal of the Marine Biological Association of the United Kingdom*, 95 (4), 829–837. DOI: https://doi.org/10.1017/S002531541400201X

Türkmen, M., Akyurt, İ., 2003. Growth characteristics, sex inversion and mortality rates of Striped Sea Bream, *Lithognathus mormyrus* L., in İskenderun Bay. *Turkish Journal*

Zoology, 27, 323–329.

Ungaro, N., Marano, G., Auteri, R., Voliani, A., Massutí, E., García-Rodríguez, M., Osmani, K., 2002. Distribution, abundance and biological features of anglerfish (*Lophius piscatorius* and *Lophius budegassa*) (Osteichthyes : Lophiiformes) in the Mediterranean Sea. *Scientia Marina*, 66 (2), 55–63. DOI: https://doi.org/10.3989/scimar.2002.66s255

Vallisneri, M., Piccinetti, GM., Piccinetti, C., 2003. Biologia riproduttiva di *Trisopterus minutus capelanus* (Lacepede 1800) nel mar Adriatico. *Biologia Marina Mediterranea*, 10 (2), 296-299.

Vallisneri, M., Scapolatempo, M., Tommasini, S., 2006. Reproductive biology of *Merlangius merlangus* L. (Osteichthyes, Gadidae) in the northern Adriatic Sea. *Acta Adriatica*, 47 (2), 159–165. DOI: https://doi.org/10.1080/11250000109356393.

Vassilopoulou, V., Papaconstantinou, C., 1992. Age, growth and mortality of the red porgy, *Pagrus pagrus*, in the eastern Mediterranean Sea (Dodecanese, Greece). *Vie et Milieu / Life & Environment, Observatoire Océanologique - Laboratoire Arago*, 42 (1), 51–55.

Vassilopoulou, V., Papaconstantinou, C., 1995. Sexual maturity of the striped mullet (*Mullus surmuletus*) in the Aegean Sea . In *Rapport du Congrès de la Commission Internationale pour l'Exploration Scientifique de la Mer Méditerranée*, Vol. 34, 261 pp.

Vassilopoulou, V., Mytilineou, C., Papaconstantinou, C., 1986. Preliminary biological data on the red pandora (*Pagellus erythrinus* L., 1758) in the Greek seas. *FAO Fisheries Reports*, 361 (January), 107–112.

Vassilopoulou, V., Papaconstantinou, C., 1992. Aspects of the biology and dynamics of red mullet (*Mullus barbatus*) in the Aegean Sea. *FAO Fisheries Reports*, 477 (January), 115–126.

Velasco, EM., Jiménez-Tenorio, N., Del Arbol, J., Bruzón, M. A., Baro, J., Sobrino, I., 2010. Age, growth and reproduction of the axillary seabream, *Pagellus acarne*, in the Atlantic and Mediterranean waters off southern Spain. *Journal of the Marine Biological Association of the United Kingdom*, 91 (6), 1–11. DOI: https://doi.org/10.1017/S0025315410000305.

Vitale, S., Arkhipkin, A., Cannizzaro, L., Scalisi, M., 2011. Life history traits of the striped seabream *Lithognathus mormyrus* (Pisces, Sparidae) from two coastal fishing grounds in the Strait of Sicily. *Journal of Applied Ichthyology*, 27 (4), 1086–1094. DOI: https://doi.org/10.1111/j.1439-0426.2011.01775.x

Vitale, S., Cannizzaro, L., Bono, G., Beltrano, A. M., Milazzo, A., Cusumano, S., 2003. Maturità sessuale, età e accrescimento della Mormora, *Lithognathus mormyrus* (L., 1758) (pisces; Sparidae) costa sud occidentale della Sicilia. *Biologia Maina Mediterranea*, 10 (2), 233–241.

Zaki, MI., Abdallah, M., Abou-Zaid, F., Salem, S., 2004. Reproductive biology of *Diplodus vulgaris* in Egyptian waters. *Rapport de la Commission Internationale de la Mer Méditerranée,* 37, 461.

Zaki, MI., Baghdadi, HH., El-Gharabawy, MM., El-Greisy, ZA., 2001. Reproductive biology of *Diplodus sargus* (Family: Sparidae) in the Mediterranean environment. *Rapport de la Commission Internationale de la Mer Méditerranée,* 36, 336.

Zoubi, A., 2001. Biologie de reproduction des principales espèces démersales de la méditerranée marocaine. *Rapport de la Commission Internationale de la Mer Méditerranée*, 36, 340.

Table S2. Bottom trawl selectivity review. Selectivity parameters obtained from literature for diamond, T90 and square mesh codends. Year: time when the experiment was conducted; Area: geographical area where the experiment was conducted; GSA: GFCM Geographical Sub-Areas (GSA) where experiment was conducted; Species: Species on which the selectivity experiment was conducted; FAO code: species code as reported by FAO; MC: mesh configuration (DM, diamond; SM, square-mesh; HEX: hexagonal-mesh; T90: mesh turned 90 degree); NMS: nominal mesh size in the codend; MMS: measured mesh size in the codend; L50: length of fish that has a 50% probability of being retained or escaping after entering the codend; SR: difference in length between the fish that has a 75% probability of retention and that with a 25% probability of retention. SF: selection factor; MS-calc: mesh size used for calculation.

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
Baino, 1998	1997	Central Tyrrenian Sea	9	*Alloteuthis media*	OUM	DM	40	NA	4.52	1.74	1.13	40
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Alloteuthis media*	OUM	DM	40	NA	4.39	1.28	1.1	40
Sala & Luchetti 2011	2005	Central Adriatic Sea	17	*Alloteuthis media*	OUM	DM	48	46.5	4.47	1.18	0.96	46.5
Sala & Luchetti 2011	2005	Central Adriatic Sea	17	*Alloteuthis media*	OUM	DM	48	46.5	3.68	1.37	0.79	46.5
Sala & Luchetti 2011	2005	Central Adriatic Sea	17	*Alloteuthis media*	OUM	DM	56	56.75	5.17	2.49	0.91	56.75
Sala & Luchetti 2011	2005	Central Adriatic Sea	17	*Alloteuthis media*	OUM	DM	56	56.1	4.5	1.84	0.8	56.1
Belcari *et al.,*2007	2004	North Tyrrenian Sea	9	*Argentina sphyraena*	ARY	DM	40	NA	11.3	4.23	2.83	40
Belcari *et al.,*2007	2004	North Tyrrenian Sea	9	*Argentina sphyraena*	ARY	DM	60	NA	23.12	9.95	3.85	60
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Argentina sphyraena*	ARY	DM	40	NA	11.95	2.12	2.99	40
Carlucci *et al.,* 2006	2002	Ionian Sea	19	*Aristaeomorpha foliacea*	ARS	DM	50	NA	1.62	0.63	0.32	50
Carlucci *et al.,* 2006	2002	Ionian Sea	19	*Aristaeomorpha foliacea*	ARS	DM	60	NA	2.12	1.07	0.35	60
Deval *et al.,* 2009	2007	North Levant	24	*Aristaeomorpha foliacea*	ARS	DM	44	43.46	1.85	0.58	0.43	43.46
Deval *et al.,* 2009	2007	North Levant	24	*Aristaeomorpha foliacea*	ARS	SM	40	37.55	1.86	0.4	0.5	37.55
Deval *et al.,*, 2016	2016	Eastern Mediterranean	24	*Aristaeomorpha foliacea*	ARS	DM	50	NA	2.17	0.71	0.43	50
Deval *et al.,*, 2016	2016	Eastern Mediterranean	24	*Aristaeomorpha foliacea*	ARS	T90	50	NA	2.33	0.84	0.47	50
D'Onghia *et al.,* 1998	1996	Ionian Sea	19	*Aristaeomorpha foliacea*	ARS	DM	60	NA	1.95	1.12	0.33	60
Ragonese *et al.,* 1994	1994	NA	NA	*Aristaeomorpha foliacea*	ARS	DM	40	NA	1.77		0.44	40
Ragonese *et al.,* 1994	1994	NA	NA	*Aristaeomorpha foliacea*	ARS	DM	48	NA	2.01		0.42	48
Ragonese *et al.,* 1994	1994	NA	NA	*Aristaeomorpha foliacea*	ARS	DM	56	NA	2.28		0.41	56
Ragonese *et al.,* 2002	1993	Strait of Sicily	16	*Aristaeomorpha foliacea*	ARS	DM	20	NA	1.82	0.56	0.46	40
Ragonese *et al.,* 2002	1993	Strait of Sicily	16	*Aristaeomorpha foliacea*	ARS	DM	24	NA	2.07	0.58	0.43	48
Ragonese *et al.,* 2002	1993	Strait of Sicily	16	*Aristaeomorpha foliacea*	ARS	DM	28	NA	2.33	1.29	0.42	56
Sala *et al.,* 2015	2006	South Tyrrenian Sea	10	*Aristaeomorpha foliacea*	ARS	DM	44	45.15	2	1.41	0.44	45.15
Sala *et al.,* 2015	2006	South Tyrrenian Sea	10	*Aristaeomorpha foliacea*	ARS	SM	44	45.95	2.07	0.26	0.45	45.95
Sala *et al.,* 2015	2006	South Tyrrenian Sea	10	*Aristaeomorpha foliacea*	ARS	DM	54	54.7	2.15	0.87	0.39	54.7

Continued

Table S2 continued

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
Sala *et al.,* 2015	2006	South Tyrrenian Sea	10	*Aristaeomorpha foliacea*	ARS	SM	54	56.9	2.75	0.56	0.48	56.9
Carlucci *et al.,* 2006	2002	Ionian Sea	19	*Aristeus antennatus*	ARA	DM	50	NA	1.94	0.36	0.39	50
Carlucci *et al.,* 2006	2002	Ionian Sea	19	*Aristeus antennatus*	ARA	DM	60	NA	2.36	0.97	0.39	60
Deval *et al.,* 2009	2007	North Levant	24	*Aristeus antennatus*	ARA	DM	44	43.46	1.7	0.72	0.39	43.46
Deval *et al.,* 2009	2007	North Levant	24	*Aristeus antennatus*	ARA	SM	40	37.55	1.98	0.48	0.53	37.55
Deval *et al.,* 2016	2016	Eastern Mediterranean	24	*Aristeus antennatus*	ARA	DM	50	NA	2.08	0.9	0.42	50
Deval *et al.,* 2016	2016	Eastern Mediterranean	24	*Aristeus antennatus*	ARA	T90	50	NA	2.33	0.97	0.47	50
D'Onghia *et al.,* 1998	1996	Ionian Sea	19	*Aristeus antennatus*	ARA	DM	60	NA	2.37	1.3	0.4	60
D'Onghia *et al.,* 2003	1998	Ionian Sea	19	*Aristeus antennatus*	ARA	DM	50	NA	1.9	0.62	0.38	50
D'Onghia *et al.,* 2003	1998	Ionian Sea	19	*Aristeus antennatus*	ARA	DM	60	NA	2.54	1.11	0.42	60
Gorelli *et al.,* 2014	2013	West Mediterranean	6	*Aristeus antennatus*	ARA	DM	50	NA	2.06	0.93	0.41	50
Gorelli *et al.,* 2014	2013	West Mediterranean	6	*Aristeus antennatus*	ARA	SM	40	NA	2.16	0.68	0.54	40
Gorelli *et al.,* 2017	2017	West Mediterranean	6	*Aristeus antennatus*	ARA	DM	50	NA	2.26	0.77	0.45	50
Gorelli *et al.,* 2017	2017	West Mediterranean	6	*Aristeus antennatus*	ARA	SM	40	NA	2.11	0.57	0.53	40
Gorelli *et al.,* 2017	2017	West Mediterranean	6	*Aristeus antennatus*	ARA	SM	50	NA	2.62	0.72	0.52	50
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Aristeus antennatus*	ARA	SM	40	NA	2.21	0.4	0.55	40
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Aristeus antennatus*	ARA	DM	40	NA	1.72	0.22	0.43	40
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Aristeus antennatus*	ARA	SM	40	NA	2.21	0.26	0.55	40
Ragonese *et al.,* 1994	1994	NA	NA	*Aristeus antennatus*	ARA	DM	48	NA	1.99	NA	0.41	48
Ragonese *et al.,* 1994	1994	NA	NA	*Aristeus antennatus*	ARA	DM	56	NA	2.5	NA	0.45	56
Belcari *et al.,* 2007	2004	North Tyrrenian Sea	9	*Arnoglossus laterna*	MSF	DM	40	NA	12.63	4.21	3.16	40
Belcari *et al.,* 2007	2004	North Tyrrenian Sea	9	*Arnoglossus laterna*	MSF	DM	60	NA	10.58	2.49	1.76	60
Ferretti & Froglia, 1975	1971	Adriatic Sea	17	*Arnoglossus laterna*	MSF	DM	NA	33.7	6.9	2.8	2.05	33.7
Ferretti & Froglia, 1975	1971	Adriatic Sea	17	*Arnoglossus laterna*	MSF	DM	NA	34	8.2	3.3	2.41	34
Sala *et al.,* 2008	2004	Adriatic Sea	17	*Arnoglossus laterna*	MSF	DM	40	38.7	8.3	1.18	2.14	38.7
Sala *et al.,* 2008	2004	Adriatic Sea	17	*Arnoglossus laterna*	MSF	SM	40	38.65	7.61	0.77	1.97	38.65
Sala *et al.,* 2016	2012	Adriatic sea	17	*Arnoglossus laterna*	MSF	SM	41	41.05	8.34	1.67	2.03	41.05
Sala *et al.,* 2016	2012	Adriatic sea	17	*Arnoglossus laterna*	MSF	SM	41	41.05	8.29	1.74	2.02	41.05

Continued

Table S2 continued

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
Sala *et al.,* 2016	2012	Adriatic sea	17	*Arnoglossus laterna*	MSF	SM	41	41.5	8.37	1.5	2.02	41.5
Ordines *et al.,* 2006	2003	Balearic Islands	5	*Aspitrigla cuculus*	GUR	SM	40	NA	12.1	2	3.03	40
Ates *et al.,* 2010	2007	North Levant	24	*Boops boops*	BOG	DM	44	43.46	14.2	3	3.27	43.46
Ates *et al.,* 2010	2007	North Levant	24	*Boops boops*	BOG	SM	40	37.55	17.5	2.1	4.66	37.55
lkyaz *et al.*,, 2017	2017	Eastern Mediterranean	22	*Boops boops*	BOG	DM	44	45.4	13.2	3	2.91	45.4
M'Rabet, 1994	1994	Tunisia	12	*Boops boops*	BOG	DM	40	33.5	12.31		3.67	33.5
M'Rabet, 1994	1994	Tunisia	12	*Boops boops*	BOG	DM	40	34.9	12.11		3.47	34.9
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Boops boops*	BOG	DM	40	NA	14.79	1.55	3.7	40
Sala *et al.,* 2016	2012	Adriatic sea	17	*Buglossidium luteum*	GSM	SM	41	41.05	10.54	1.07	2.57	41.05
Sala *et al.,* 2016	2012	Adriatic sea	17	*Buglossidium luteum*	GSM	SM	41	41.05	10.68	1.1	2.6	41.05
Sala *et al.,* 2016	2012	Adriatic sea	17	*Buglossidium luteum*	GSM	SM	41	41.5	10.69	0.94	2.58	41.5
Ordines *et al.,* 2006	2003	Balearic Islands	5	*Chelidonichthys lastoviza*	CTZ	DM	40	NA	4.7	3.6	1.18	40
Ordines *et al.,* 2006	2003	Balearic Islands	5	*Chelidonichthys lastoviza*	CTZ	SM	40	NA	7.3	3.6	1.83	40
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Chlorophthalmus agassizi*	CASG	DM	40	NA	12.24	2.1	3.06	40
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Chlorophthalmus agassizi*	CASG	DM	40	NA	10.81	2.1	2.7	40
Demirci & Akyurt, 2017	2017	Eastern Mediterranean	24	*Citharus linguatula*	CIL	SM	40	NA	14.06	3.53	3.52	40
Demirci & Akyurt, 2017	2017	Eastern Mediterranean	24	*Citharus linguatula*	CIL	DM	44	NA	13.19	2.51	3	44
Demirci & Akyurt, 2017	2017	Eastern Mediterranean	24	*Citharus linguatula*	CIL	DM	50	NA	16.57	6.97	3.31	50
Ordines *et al.,* 2006	2002	Balearic Islands	5	*Citharus linguatula*	CIL	SM	40	NA	11.5	1.5	2.88	40
Sarda *et al.,* 2006	2003	NW Mediterranean	6	*Citharus linguatula*	CIL	SM	36	NA	9.27	3.08	2.58	36
D'Onghia *et al.,* 2003	1998	Ionian Sea	19	*Coelorinchus caelorhincus*	CQL	DM	40	NA	2.49	0.5	0.62	40
D'Onghia *et al.,* 2003	1998	Ionian Sea	19	*Coelorinchus caelorhincus*	CQL	DM	50	NA	3.39	0.57	0.68	50
D'Onghia *et al.,* 2003	1998	Ionian Sea	19	*Coelorinchus caelorhincus*	CQL	DM	60	NA	4.74	1.57	0.79	60
Ates *et al.,* 2010	2007	North Levant	24	*Dentex macrophthalmus*	DEL	DM	44	43.46	9.6	2.4	2.21	43.46
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Dentex macrophthalmus*	DEL	DM	40	NA	10.78	0.66	2.7	40
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Dentex macrophthalmus*	DEL	DM	40	NA	9.09	2.03	2.27	40
Dereli & Aydin, 2016	2016	Aegean Sea	22	*Dentex maroccanus*	DXM	DM	44	44.27	10	2.3	2.26	44.27
Dereli & Aydin, 2016	2016	Aegean Sea	22	*Dentex maroccanus*	DXM	DM	50	50.82	10.7	2.2	2.11	50.82

Continued

Table S2 continued

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
Dereli & Aydin, 2016	2016	Aegean Sea	22	*Dentex maroccanus*	DXM	SM	40	41.18	10.3	1.8	2.5	41.18
Dereli & Aydin, 2016	2016	Aegean Sea	22	*Dentex maroccanus*	DXM	T90	40	42.42	8.4	3.2	1.98	42.42
Aydin *et al.,* 2011	2008	Eastern Aegean	22	*Diplodus annularis*	ANN	SM	40	40.8	9.5	0.8	2.33	40.8
Aydin *et al.,* 2011	2008	Eastern Aegean	22	*Diplodus annularis*	ANN	SM	40	40.8	9.4	0.8	2.3	40.8
Aydin *et al.,* 2011	2008	Eastern Aegean	22	*Diplodus annularis*	ANN	DM	50	50.1	11.2	1.5	2.24	50.1
Aydin *et al.,* 2011	2008	Eastern Aegean	22	*Diplodus annularis*	ANN	DM	50	50.1	11.2	1.5	2.24	50.1
Lök *et al.,*1997	1997	Aegean Sea	22	*Diplodus annularis*	ANN	DM	44	NA	9.88	1.04	2.25	44
Lök *et al.,*1997	1997	Aegean Sea	22	*Diplodus annularis*	ANN	DM	44	NA	9.84	1.53	2.24	44
Lök *et al.,*1997	1997	Aegean Sea	22	*Diplodus annularis*	ANN	DM	44	NA	10.07	1.79	2.29	44
Ozbilgin *et al.,* 2005	2003	Eastern Aegean	22	*Diplodus annularis*	ANN	DM	40	42.4	8.7	1.1	2.05	42.4
Ozbilgin *et al.,* 2005	2003	Eastern Aegean	22	*Diplodus annularis*	ANN	DM	40	42.4	9.3	0.9	2.19	42.4
Ozbilgin *et al.,* 2005	2003	Eastern Aegean	22	*Diplodus annularis*	ANN	DM	40	42.4	9.2	0.9	2.17	42.4
Ozbilgin *et al.,* 2005	2003	Eastern Aegean	22	*Diplodus annularis*	ANN	DM	40	42.4	8.9	1.1	2.1	42.4
Tokaç *et al.,* 1998	1996	Eastern Aegean	22	*Diplodus annularis*	ANN	DM	36	NA	7.61	1.35	2.11	36
Tokaç *et al.,* 1998	1996	Eastern Aegean	22	*Diplodus annularis*	ANN	DM	40	NA	8.58	1.22	2.15	40
Tokaç *et al.,* 1998	1996	Eastern Aegean	22	*Diplodus annularis*	ANN	DM	44	NA	9.87	1.13	2.24	44
Tokaç *et al.,* 1998	1996	Eastern Aegean	22	*Diplodus annularis*	ANN	DM	48	NA	12.68	1.26	2.64	48
Tokaç *et al.,* 1998	1996	Eastern Aegean	22	*Diplodus annularis*	ANN	SM	36	NA	7.47	2.06	2.08	36
Tokaç *et al.,* 1998	1996	Eastern Aegean	22	*Diplodus annularis*	ANN	SM	40	NA	8.79	1.51	2.2	40
Tokaç *et al.,* 1998	1996	Eastern Aegean	22	*Diplodus annularis*	ANN	SM	44	NA	8.82	1.1	2	44
Tokaç *et al.,* 1998	1996	Eastern Aegean	22	*Diplodus annularis*	ANN	SM	48	NA	12.03	2.22	2.51	48
Tokaç *et al.,* 2004	2002	Eastern Aegean	22	*Diplodus annularis*	ANN	DM	36	37	8.5	0.9	2.3	37
Tokaç *et al.,* 2004	2002	Eastern Aegean	22	*Diplodus annularis*	ANN	DM	36	37	8.4	0.9	2.27	37
Tokaç *et al.,* 2004	2002	Eastern Aegean	22	*Diplodus annularis*	ANN	DM	40	41.9	8.8	0.9	2.1	41.9
Tokaç *et al.,* 2004	2002	Eastern Aegean	22	*Diplodus annularis*	ANN	DM	40	41.9	8.8	0.9	2.1	41.9
Tokaç *et al.,* 2004	2002	Eastern Aegean	22	*Diplodus annularis*	ANN	DM	44	44.7	10.3	1.3	2.3	44.7
Tokaç *et al.,* 2004	2002	Eastern Aegean	22	*Diplodus annularis*	ANN	DM	44	44.7	10.3	1.2	2.3	44.7
Tokaç *et al.,* 2014	2014	Aegean Sea	22	*Diplodus annularis*	ANN	DM	40	40.44	8.77	0.6	2.17	40.44

Continued

Table S2 continued

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
Tokaç *et al.,* 2014	2014	Aegean Sea	22	*Diplodus annularis*	ANN	DM	44	44.33	9.92	0.96	2.24	44.33
Tokaç *et al.,* 2014	2014	Aegean Sea	22	*Diplodus annularis*	ANN	DM	50	51.34	11.98	1.62	2.33	51.34
Tokaç *et al.,* 2014	2014	Aegean Sea	22	*Diplodus annularis*	ANN	T90	40	40.44	8.77	0.6	2.17	40.44
Tokaç *et al.,* 2014	2014	Aegean Sea	22	*Diplodus annularis*	ANN	T90	44	44.33	9.92	0.96	2.24	44.33
Tosunoglu *et al.,*2003b	2002	Eastern Aegean	22	*Diplodus annularis*	ANN	DM	40	41.9	9.4	0.79	2.24	41.9
Baino, 1998	1997	Central Tyrrenian Sea	9	*Eledone cirrosa*	EOI	DM	40	NA	2.69	2.16	0.67	40
Belcari *et al.,*2007	2004	North Tyrrenian Sea	9	*Eledone cirrosa*	EOI	DM	40	NA	4.6	3.62	1.15	40
Belcari *et al.,*2007	2004	North Tyrrenian Sea	9	*Eledone cirrosa*	EOI	DM	60	NA	5.45	3.01	0.91	60
Ordines *et al.,* 2006	2002	Balearic Islands	5	*Eledone cirrosa*	EOI	DM	40	NA	1.6	3.9	0.4	40
Ordines *et al.,* 2006	2002	Balearic Islands	5	*Eledone cirrosa*	EOI	SM	40	NA	6	2.9	1.5	40
Burgaud & Dremiere, 1992	1982	Gulf of Lyon	7	*Engraulis encrasicolus*	ANE	DM	32	NA	13.4	3.2	4.19	32
Burgaud & Dremiere, 1992	1982	Gulf of Lyon	7	*Engraulis encrasicolus*	ANE	DM	40	NA	14.1	2.6	3.53	40
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Galeus melastomus*	SHO	DM	40	NA	13.2	7.2	3.3	40
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Galeus melastomus*	SHO	SM	40	NA	22.4	5.5	5.6	40
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Galeus melastomus*	SHO	DM	40	NA	11.5	8.8	2.88	40
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Galeus melastomus*	SHO	SM	40	NA	22.2	6.7	5.55	40
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Geryon longipes*	GRQ	SM	40	NA	2.51	0.21	0.63	40
Belcari *et al.,* 2007	2004	North Tyrrenian Sea	9	*Helicolenus dactylopterus*	BRF	DM	40	NA	6.73	1.96	1.68	40
Belcari *et al.,* 2007	2004	North Tyrrenian Sea	9	*Helicolenus dactylopterus*	BRF	DM	60	NA	10.31	3.17	1.72	60
D'Onghia *et al.,* 2003	1998	Ionian Sea	19	*Helicolenus dactylopterus*	BRF	DM	40	NA	5.52	1.1	1.38	40
D'Onghia *et al.,* 2003	1998	Ionian Sea	19	*Helicolenus dactylopterus*	BRF	DM	50	NA	7.46	1.37	1.49	50
D'Onghia *et al.,* 2003	1998	Ionian Sea	19	*Helicolenus dactylopterus*	BRF	DM	60	NA	11.85	4.01	1.98	60
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Helicolenus dactylopterus*	BRF	DM	40	NA	8.9	1.4	2.23	40
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Helicolenus dactylopterus*	BRF	SM	40	NA	10.9	1.9	2.73	40
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Helicolenus dactylopterus*	BRF	DM	40	NA	8.7	1.1	2.18	40
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Helicolenus dactylopterus*	BRF	SM	40	NA	11.1	3.6	2.78	40
Ordines *et al.,* 2006	2002	Balearic Islands	5	*Helicolenus dactylopterus*	BRF	SM	40	NA	10.9	1.6	2.73	40
Tokaç *et al.,* 2010	2004	Eastern Aegean	22	*Helicolenus dactylopterus*	BRF	DM	40	42.42	7.7	1.43	1.82	42.42

Continued

Table S2 continued

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
Belcari *et al.,* 2007	2004	North Tyrrenian Sea	9	*Illex coindetii*	SQM	DM	40	NA	4.1	2	1.03	40
Belcari *et al.,* 2007	2004	North Tyrrenian Sea	9	*Illex coindetii*	SQM	DM	60	NA	7.92	3.93	1.32	60
Brcic *et al.,* 2018b	2018	Central Tyrrenian Sea	9	*Illex coindetii*	SQM	DM	50	51.9	6.29	2.52	1.21	51.9
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Illex coindetii*	SQM	DM	40	NA	7.43	1.56	1.86	40
Sala *et al.,* 2008	2004	Adriatic Sea	17	*Illex coindetii*	SQM	DM	40	38.7	4.9	0.97	1.27	38.7
Sala *et al.,* 2008	2004	Adriatic Sea	17	*Illex coindetii*	SQM	SM	40	38.65	8.38	1.9	2.17	38.65
Tosunoglu *et al.,* 2009	2007	Eastern Aegean	22	*Illex coindetii*	SQM	DM	44	44.7	4.2	2.6	0.94	44.7
Tosunoglu *et al.,* 2009	2007	Eastern Aegean	22	*Illex coindetii*	SQM	HEX	40	42.6	5.2	2.9	1.22	42.6
Tosunoglu *et al.,* 2009	2007	Eastern Aegean	22	*Illex coindetii*	SQM	HEX	40	42.6	5.2	2.8	1.22	42.6
Tosunoglu *et al.,* 2009	2007	Eastern Aegean	22	*Illex coindetii*	SQM	SM	40	42.4	7.7	3	1.82	42.4
Tosunoglu *et al.,* 2009	2007	Eastern Aegean	22	*Illex coindetii*	SQM	SM	40	42.4	7.8	3.2	1.84	42.4
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Lepidorhombus boscii*	LDB	DM	40	NA	9.9	2.4	2.48	40
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Lepidorhombus boscii*	LDB	SM	40	NA	10.2	1.5	2.55	40
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Lepidorhombus boscii*	LDB	DM	40	NA	9.8	2	2.45	40
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Lepidorhombus boscii*	LDB	SM	40	NA	9.5	0.7	2.38	40
Petrakis & Stergiou, 1997	1994	West Aegean Sea	22	*Lepidorhombus boscii*	LDB	DM	40	NA	10.32	3.25	2.58	40
Petrakis & Stergiou, 1997	1994	West Aegean Sea	22	*Lepidorhombus boscii*	LDB	SM	40	NA	8.5	3.49	2.13	40
Ordines *et al.,* 2006	2002	Balearic Islands	5	*Lepidotrigla cavillone*	LDV	DM	40	NA	7	1.3	1.75	40
Ordines *et al.,* 2006	2002	Balearic Islands	5	*Lepidotrigla cavillone*	LDV	SM	40	NA	9.6	1.5	2.4	40
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Lepidotrigla cavillone*	LDV	DM	40	NA	7.65	1.57	1.91	40
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Lepidotrigla cavillone*	LDV	DM	40	NA	7.65	0.83	1.91	40
Baino, 1998	1997	Central Tyrrenian Sea	9	*Loligo vulgaris*	SQR	DM	40	NA	4.5	1.08	1.13	40
Ordines *et al.,* 2006	2003	Balearic Islands	5	*Loligo vulgaris*	SQR	DM	40	NA	3.4	2	0.85	40
Ordines *et al.,* 2006	2003	Balearic Islands	5	*Loligo vulgaris*	SQR	SM	40	NA	5.8	2.1	1.45	40
Petetta *et al.,* 2020	2019	North Adriatic Sea	17	*Loligo vulgaris*	SQR	DM	54	55.2	7.88	5.67	1.43	55.2
Petetta *et al.,* 2020	2019	North Adriatic Sea	17	*Loligo vulgaris*	SQR	T90	54	55.3	12.06	4.94	2.18	55.3
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Loligo vulgaris*	SQR	DM	40	NA	5	2.19	1.25	40
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Loligo vulgaris*	SQR	DM	40	NA	5	0.9	1.25	40

Continued

Table S2 continued

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
Tosunoglu *et al.,*2009	2007	Eastern Aegean	22	*Loligo vulgaris*	SQR	DM	44	44.7	4.6	1	1.03	44.7
Tosunoglu *et al.,* 2009	2007	Eastern Aegean	22	*Loligo vulgaris*	SQR	HEX	40	42.6	4.2	1.8	0.99	42.6
Tosunoglu *et al.,*2009	2007	Eastern Aegean	22	*Loligo vulgaris*	SQR	SM	40	42.4	6	1.5	1.42	42.4
Mytilineou *et al.,* 2021	2014	South Aegean Sea	22	*Lophius budegassa*	ANK	DM	40	43.2	4.71	3.53	1.09	43.2
Mytilineou *et al.,* 2021	2014	South Aegean Sea	22	*Lophius budegassa*	ANK	SM	40	43.2	4.43	5.88	1.03	43.2
Mytilineou *et al.,* 2021	2014	South Aegean Sea	22	*Lophius budegassa*	ANK	DM	50	51.1	5.27	3.06	1.03	51.1
Ferretti & Froglia, 1975	1971	Adriatic Sea	17	*Merlangius merlangus*	WHG	DM	NA	34	8.7	3.4	2.56	34
Ferretti & Froglia, 1975	1971	Adriatic Sea	17	*Merlangius merlangus*	WHG	DM	NA	33.7	10.6	6.8	3.15	33.7
Petetta *et al.,* 2020	2019	North Adriatic Sea	17	*Merlangius merlangus*	WHG	DM	54	55.2	23.02	12.86	4.17	55.2
Petetta *et al.,* 2020	2019	North Adriatic Sea	17	*Merlangius merlangus*	WHG	T90	54	55.3	22.88	3.92	4.14	55.3
Sala *et al.,* 2007	2004	Adriatic Sea	17	*Merlangius merlangus*	WHG	DM	44	44.73	10.77	2.63	2.41	44.73
Sala *et al.,*2007	2004	Adriatic Sea	17	*Merlangius merlangus*	WHG	DM	44	44.33	8.25	1.76	1.86	44.33
Abella & Serena, 1998	1988	North Tyrrenian Sea	9	*Merluccius merluccius*	HKE	DM	38	NA	10.2	1.8	2.68	38
Aldebert e Carriers, 1990	1990	Gulf of Lyon	7	*Merluccius merluccius*	HKE	DM	NA	34	11.4	NA	3.35	34
Aldebert e Carriers, 1990	1990	Gulf of Lyon	7	*Merluccius merluccius*	HKE	DM	NA	40	13	NA	3.25	40
Aldebert e Carriers, 1990	1990	Gulf of Lyon	7	*Merluccius merluccius*	HKE	DM	NA	50	16.3	NA	3.26	50
Aldebert e Carriers, 1990	1990	Gulf of Lyon	7	*Merluccius merluccius*	HKE	DM	NA	60	19.5	NA	3.25	60
Aldebert e Carriers, 1990	1990	Gulf of Lyon	7	*Merluccius merluccius*	HKE	DM	NA	40	12.4	NA	3.1	40
Aydin & Tosunoglu, 2010	2007	Aegean Sea	22	*Merluccius merluccius*	HKE	DM	44	44.7	10.4	3.1	2.33	44.7
Aydin & Tosunoglu, 2010	2007	Aegean Sea	22	*Merluccius merluccius*	HKE	SM	40	42.4	14.4	4.8	3.4	42.4
Aydin & Tosunoglu, 2010	2007	Aegean Sea	22	*Merluccius merluccius*	HKE	HEX	40	42.6	11	4.3	2.58	42.6
Aydin & Tosunoglu, 2010	2007	Aegean Sea	22	*Merluccius merluccius*	HKE	DM	44	44.7	10.3	3.4	2.3	44.7
Aydin & Tosunoglu, 2010	2007	Aegean Sea	22	*Merluccius merluccius*	HKE	SM	40	42.4	14.9	5.9	3.51	42.4
Aydin & Tosunoglu, 2010	2007	Aegean Sea	22	*Merluccius merluccius*	HKE	HEX	40	42.6	10.6	4.6	2.49	42.6
Bahamon *et al.,*2006	2005	Catalan Sea	6	*Merluccius merluccius*	HKE	DM	42	40.3	10.1	3.1	2.51	40.3
Bahamon *et al.,* 2006	2005	Catalan Sea	6	*Merluccius merluccius*	HKE	SM	42	40.3	16	4.8	3.97	40.3
Baino, 1998	1997	Central Tyrrenian Sea	9	*Merluccius merluccius*	HKE	DM	40	NA	8.31	3.2	2.08	40
Baro *et al.,* 2007	2004	Northern Alboran Sea	1	*Merluccius merluccius*	HKE	DM	40	NA	8.67	3.9	2.17	40

Continued

Table S2 continued

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
Baro *et al.,* 2007	2004	Northern Alboran Sea	1	*Merluccius merluccius*	HKE	SM	40	NA	15.21	3.12	3.8	40
Baro *et al.,* 2007	2004	Northern Alboran Sea	1	*Merluccius merluccius*	HKE	SM	40	NA	17.16	2.38	4.29	40
Belcari *et al.,*2007	2004	North Tyrrenian Sea	9	*Merluccius merluccius*	HKE	DM	40	NA	9.17	2.56	2.29	40
Belcari *et al.,* 2007	2004	North Tyrrenian Sea	9	*Merluccius merluccius*	HKE	DM	60	NA	18.1	10.62	3.02	60
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Merluccius merluccius*	HKE	DM	50	51.9	13.59	2.18	2.62	51.9
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Merluccius merluccius*	HKE	DM	50	51.9	13.1	2.1	2.52	51.9
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Merluccius merluccius*	HKE	DM	50	51.9	17.82	6.2	3.43	51.9
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Merluccius merluccius*	HKE	DM	50	51.9	17.33	6.12	3.34	51.9
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Merluccius merluccius*	HKE	SM	40	40.2	13.88	0.27	3.45	40.2
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Merluccius merluccius*	HKE	SM	40	40.2	13.39	2.32	3.33	40.2
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Merluccius merluccius*	HKE	SM	40	40.2	18.11	4.29	4.50	40.2
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Merluccius merluccius*	HKE	SM	40	40.2	17.62	6.35	4.38	40.2
Brcic *et al.,* 2018b	2018	Central Tyrrenian Sea	9	*Merluccius merluccius*	HKE	DM	50	51.9	13.71	3.37	2.64	51.9
Burgaud & Dremiere, 1992	1982	Gulf of Lyon	7	*Merluccius merluccius*	HKE	DM	44	NA	11.7	4	2.66	44
Dereli & Aydin, 2016	2016	Aegean Sea	22	*Merluccius merluccius*	HKE	DM	44	44.27	12.3	1.6	2.78	44.27
Dereli & Aydin, 2016	2016	Aegean Sea	22	*Merluccius merluccius*	HKE	DM	50	50.82	14.4	6.3	2.83	50.82
Dereli & Aydin, 2016	2016	Aegean Sea	22	*Merluccius merluccius*	HKE	SM	40	41.18	14.3	3.4	3.47	41.18
Dremiere, 1979	1979	Gulf of Lyon	7	*Merluccius merluccius*	HKE	DM	NA	35.5	12.8	NA	3.61	35.5
Dremiere, 1979	1979	Gulf of Lyon	7	*Merluccius merluccius*	HKE	DM	NA	34	10.2	NA	3	34
Dremiere, 1979	1979	Gulf of Lyon	7	*Merluccius merluccius*	HKE	DM	NA	34.9	11.4	NA	3.27	34.9
Ferretti & Froglia, 1975	1970	Adriatic Sea	17	*Merluccius merluccius*	HKE	DM	NA	35.5	9	3.4	2.54	35.5
Ferretti & Froglia, 1975	1973	Adriatic Sea	17	*Merluccius merluccius*	HKE	DM	NA	42	11	3	2.62	42
Genç *et al.,* 2018	2015	Eastern Aegean Sea	22	*Merluccius merluccius*	HKE	T90	44	45.4	12.8	4.6	2.82	45.4
Genç *et al.,* 2018	2015	Eastern Aegean Sea	22	*Merluccius merluccius*	HKE	T90	44	45.4	13.2	4	2.91	45.4
Genç *et al.,* 2018	2015	Eastern Aegean Sea	22	*Merluccius merluccius*	HKE	T90	40	40.4	12.1	1.7	3.00	40.4
Gil De Sola Simarro, 1991	1991	Spain	6	*Merluccius merluccius*	HKE	DM	NA	39.3	9.26	NA	2.36	39.3
Gil De Sola Simarro, 1991	1991	Spain	6	*Merluccius merluccius*	HKE	DM	NA	36.2	9.1	NA	2.51	36.2
Gil De Sola Simarro, 1994	1994	Spain	6	*Merluccius merluccius*	HKE	DM	NA	35	8.21	NA	2.35	35

Continued

Table S2 continued

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
Gil De Sola Simarro, 1994	1994	Spain	6	*Merluccius merluccius*	HKE	DM	NA	40	9.11	NA	2.28	40
Gil De Sola Simarro, 1994	1994	Spain	6	*Merluccius merluccius*	HKE	DM	NA	50	12.85	NA	2.57	50
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Merluccius merluccius*	HKE	DM	40	NA	11.6	0.8	2.9	40
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Merluccius merluccius*	HKE	SM	40	NA	15.3	2.2	3.83	40
Larraneta *et al.,*1969	1969	Golfo di Valencia	6	*Merluccius merluccius*	HKE	DM	NA	35.5	9.5	NA	2.68	35.5
Larraneta *et al.,*1969	1969	Golfo di Valencia	6	*Merluccius merluccius*	HKE	DM	34	NA	11.9	NA	3.5	34
Larraneta *et al.,*1969	1969	Golfo di Valencia	6	*Merluccius merluccius*	HKE	DM	36	NA	11.5	NA	3.19	36
Larraneta *et al.,*1969	1969	Golfo di Valencia	6	*Merluccius merluccius*	HKE	DM	40	NA	14.1	NA	3.53	40
Larraneta *et al.,*1969	1969	Golfo di Valencia	6	*Merluccius merluccius*	HKE	DM	42	NA	11.8	NA	2.81	42
Larraneta *et al.,*1969	1969	Golfo di Valencia	6	*Merluccius merluccius*	HKE	DM	44	NA	11.2	NA	2.55	44
Larraneta *et al.,*1969	1969	Golfo di Valencia	6	*Merluccius merluccius*	HKE	DM	48	NA	13.1	NA	2.73	48
Larraneta *et al.,*1969	1969	Golfo di Valencia	6	*Merluccius merluccius*	HKE	DM	50	NA	14.5	NA	2.9	50
Larraneta *et al.,*1969	1969	Golfo di Valencia	6	*Merluccius merluccius*	HKE	DM	52	NA	15.2	NA	2.92	52
Lembo *et al.,* 2002	2001	Central Tyrrenian Sea	9	*Merluccius merluccius*	HKE	DM	40	NA	7.9	4.1	1.98	40
Lembo *et al.,* 2002	2001	Central Tyrrenian Sea	9	*Merluccius merluccius*	HKE	DM	60	NA	15.5	4.8	2.58	60
Levi *et al.,*1971	1971	Adriatic Sea	17	*Merluccius merluccius*	HKE	DM	NA	35.5	9.5	NA	2.68	35.5
Luccheti, 2008	2006	Northern Adriatic	17	*Merluccius merluccius*	HKE	DM	40	42.8	7.6	4.01	1.78	42.8
Luccheti, 2008	2006	Northern Adriatic	17	*Merluccius merluccius*	HKE	SM	40	42.8	12.98	3.65	3.03	42.8
M'Rabet, 1994	1994	Tunisia	12	*Merluccius merluccius*	HKE	DM	40	33.5	11.11		3.32	33.5
M'Rabet, 1994	1994	Tunisia	12	*Merluccius merluccius*	HKE	DM	40	34.9	11.48		3.29	34.9
M'Rabet, 1998	1998	Tunisia	12	*Merluccius merluccius*	HKE	DM	40	38.4	13	1	3.39	38.4
M'Rabet, 1998	1998	Tunisia	12	*Merluccius merluccius*	HKE	DM	48	44.2	14.3	0.6	3.24	44.2
Ordines *et al.,* 2006	2003	Balearic Islands	5	*Merluccius merluccius*	HKE	DM	40	NA	10.6	3.3	2.65	40
Ordines *et al.,* 2006	2003	Balearic Islands	5	*Merluccius merluccius*	HKE	SM	40	NA	15.2	3.3	3.8	40
Ozbilgin *et al.,* 2005	2003	Eastern Aegean	22	*Merluccius merluccius*	HKE	DM	40	NA	14.28	3.42	3.57	40
Petetta *et al.,* 2020	2019	North Adriatic Sea	17	*Merluccius merluccius*	HKE	DM	54	55.2	11.26	21.33	2.04	55.2
Petetta *et al.,* 2020	2019	North Adriatic Sea	17	*Merluccius merluccius*	HKE	T90	54	55.3	21.26	7.02	3.84	55.3
Petrakis & Stergiou, 1997	1994	West Aegean Sea	22	*Merluccius merluccius*	HKE	DM	28	NA	4.16	6.75	1.49	28

Continued

Table S2 continued

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
Petrakis & Stergiou, 1997	1994	West Aegean Sea	22	*Merluccius merluccius*	HKE	DM	40	NA	13.79	7.06	3.45	40
Petrakis & Stergiou, 1997	1994	West Aegean Sea	22	*Merluccius merluccius*	HKE	SM	40	NA	15.1	5.68	3.78	40
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Merluccius merluccius*	HKE	DM	40	NA	12.6	5.16	3.15	40
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Merluccius merluccius*	HKE	DM	40	NA	12.32	4.87	3.08	40
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Merluccius merluccius*	HKE	DM	40	NA	10.44	4.87	2.61	40
Sala & Luchetti, 2010	2005	Central Adriatic Sea	17	*Merluccius merluccius*	HKE	DM	40	45.2	8.03	3.8	1.78	45.2
Sala & Luchetti, 2010	2005	Central Adriatic Sea	17	*Merluccius merluccius*	HKE	DM	40	45.2	9.12	4.72	2.02	45.2
Sala & Luchetti, 2010	2005	Central Adriatic Sea	17	*Merluccius merluccius*	HKE	SM	40	43.25	11.97	6.11	2.77	43.25
Sala & Luchetti, 2010	2005	Central Adriatic Sea	17	*Merluccius merluccius*	HKE	SM	40	43.25	15.7	8.68	3.63	43.25
Sala & Luchetti, 2010	2005	Central Adriatic Sea	17	*Merluccius merluccius*	HKE	DM	40	46.35	10.84	7.15	2.34	46.35
Sala & Luchetti, 2010	2005	Central Adriatic Sea	17	*Merluccius merluccius*	HKE	DM	40	46.35	9.37	5.33	2.02	46.35
Sala & Luchetti, 2011	2005	Central Adriatic Sea	17	*Merluccius merluccius*	HKE	DM	48	46.5	11.45	5.62	2.46	46.5
Sala & Luchetti, 2011	2005	Central Adriatic Sea	17	*Merluccius merluccius*	HKE	DM	48	46.5	10.43	5.87	2.24	46.5
Sala & Luchetti, 2011	2005	Central Adriatic Sea	17	*Merluccius merluccius*	HKE	DM	56	56.75	16.25	7.56	2.86	56.75
Sala & Luchetti, 2011	2005	Central Adriatic Sea	17	*Merluccius merluccius*	HKE	DM	56	56.1	11.99	7.94	2.14	56.1
Sala *et al.,*2007	2004	Adriatic Sea	17	*Merluccius merluccius*	HKE	DM	44	44.73	9.85	2.75	2.2	44.73
Sala *et al.,*2007	2004	Adriatic Sea	17	*Merluccius merluccius*	HKE	DM	44	44.33	7.7	1.3	1.74	44.33
Sala *et al.,*2008	2004	Adriatic Sea	17	*Merluccius merluccius*	HKE	DM	40	38.7	8.26	1.74	2.13	38.7
Sala *et al.,*2008	2004	Adriatic Sea	17	*Merluccius merluccius*	HKE	SM	40	38.65	14.17	3.64	3.67	38.65
Sarda *et al.,*2006	2003	NW Mediterranean	6	*Merluccius merluccius*	HKE	SM	36	NA	18.47	5.07	5.13	36
Sbrana & Reale, 1994	1992	North Tyrrenian Sea	9	*Merluccius merluccius*	HKE	DM	34	NA	7.74	2.29	2.28	34
Sbrana *et al.,* 1998	1992	North Tyrrenian Sea	9	*Merluccius merluccius*	HKE	DM	NA	34	7.47	2.29	2.2	34
Soldo, 2004	2003	Adriatic Sea	17	*Merluccius merluccius*	HKE	DM	48	NA	14.28	4.15	2.98	48
Soldo, 2004	2003	Adriatic Sea	17	*Merluccius merluccius*	HKE	DM	48	NA	13.94	5.31	2.9	48
Soldo, 2004	2003	Adriatic Sea	17	*Merluccius merluccius*	HKE	DM	48	NA	13.7	5.55	2.85	48
Soldo, 2004	2003	Adriatic Sea	17	*Merluccius merluccius*	HKE	DM	48	NA	11.99	7.38	2.5	48
Soldo, 2004	2003	Adriatic Sea	17	*Merluccius merluccius*	HKE	DM	60	NA	16.64	2.96	2.77	60
Soldo, 2004	2003	Adriatic Sea	17	*Merluccius merluccius*	HKE	DM	60	NA	16.62	4.59	2.77	60

Continued

Table S2 continued

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
Tokaç *et al.,*2010	2004	Eastern Aegean	22	*Merluccius merluccius*	HKE	DM	40	42.42	11.59	4.07	2.73	42.42
Tosunoglou *et al.,* 2008	2006	Aegean Sea	22	*Merluccius merluccius*	HKE	DM	50	49.44	11.4	4.1	2.31	49.44
Tosunoglu *et al.,*2003b	2002	Eastern Aegean	22	*Merluccius merluccius*	HKE	DM	40	41.9	10.6	2.84	2.53	41.9
Vives *et al.,*1966	1966	NA	NA	*Merluccius merluccius*	HKE	DM	34	NA	10	NA	2.94	34
Vives *et al.,*1966	1966	NA	NA	*Merluccius merluccius*	HKE	DM	40	NA	16.5	NA	4.13	40
Vives *et al.,*1966	1966	NA	NA	*Merluccius merluccius*	HKE	DM	60	NA	22.5	NA	3.75	60
Ozbilgin *et al.,* 2015	2015	Eastern Mediterranean	24	*Metapenaeus monoceros*	MPN	DM	44	44.5	1.6	0.41	0.36	44.5
Ozbilgin *et al.,* 2015	2015	Eastern Mediterranean	24	*Metapenaeus monoceros*	MPN	SM	40	41.36	2.19	0.62	0.53	41.36
Ozbilgin *et al.,* 2015	2015	Eastern Mediterranean	24	*Metapenaeus monoceros*	MPN	DM	44	42.03	1.84	0.41	0.44	42.03
Ozbilgin *et al.,* 2015	2015	Eastern Mediterranean	24	*Metapenaeus monoceros*	MPN	DM	50	51.14	2.17	1.11	0.42	51.14
Baro & Muñoz, 2007	2004	Northern Alboran Sea	1	*Micromesistius poutassou*	WHB	DM	40	NA	12.01	3.4	3	40
Baro & Muñoz, 2007	2004	Northern Alboran Sea	1	*Micromesistius poutassou*	WHB	SM	40	NA	17.4	2.4	4.35	40
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Micromesistius poutassou*	WHB	SM	40	NA	20.1	2.5	5.03	40
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Micromesistius poutassou*	WHB	SM	40	NA	20.2	4.6	5.05	40
Kaykac, 2010	2005	Eastern Aegean	22	*Micromesistius poutassou*	WHB	DM	40	42.15	16.98	3.47	4.03	42.15
Petrakis & Stergiou, 1997	1994	West Aegean Sea	22	*Micromesistius poutassou*	WHB	DM	40	NA	21.17	4.11	5.29	40
Petrakis & Stergiou, 1997	1994	West Aegean Sea	22	*Micromesistius poutassou*	WHB	SM	40	NA	16.96	4.4	4.24	40
Politou *et al.,*1997	1997	Greece	22	*Micromesistius poutassou*	WHB	DM	NA	32	4.1	6.9	1.28	32
Politou *et al.,*1997	1997	Greece	22	*Micromesistius poutassou*	WHB	DM	NA	40	13.2	4.8	3.3	40
Politou *et al.,*1997	1997	Greece	22	*Micromesistius poutassou*	WHB	DM	NA	48	14.2	4.9	2.96	48
Politou *et al.,*1997	1997	Greece	22	*Micromesistius poutassou*	WHB	DM	NA	52	16.1	6.5	3.1	52
Sala & Luchetti, 2010	2005	Central Adriatic Sea	17	*Micromesistius poutassou*	WHB	DM	40	45.2	10.92	5.17	2.42	45.2
Sala & Luchetti, 2010	2005	Central Adriatic Sea	17	*Micromesistius poutassou*	WHB	DM	40	45.2	15.12	4	3.35	45.2
Sala & Luchetti, 2010	2005	Central Adriatic Sea	17	*Micromesistius poutassou*	WHB	SM	40	43.25	13.58	4.34	3.14	43.25
Sala & Luchetti, 2010	2005	Central Adriatic Sea	17	*Micromesistius poutassou*	WHB	SM	40	43.25	18.47	2.64	4.27	43.25
Sala & Luchetti, 2010	2005	Central Adriatic Sea	17	*Micromesistius poutassou*	WHB	DM	40	46.35	10.62	4.26	2.29	46.35
Sala & Luchetti, 2010	2005	Central Adriatic Sea	17	*Micromesistius poutassou*	WHB	DM	40	46.35	15.38	4.69	3.32	46.35
Soldo, 2004	2003	Adriatic Sea	17	*Micromesistius poutassou*	WHB	DM	48	NA	15.71	6.48	3.27	48

Continued

Table S2 continued

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
Soldo, 2004	2003	Adriatic Sea	17	*Micromesistius poutassou*	WHB	DM	48	NA	12.17	7.99	2.54	48
Soldo, 2004	2003	Adriatic Sea	17	*Micromesistius poutassou*	WHB	DM	60	NA	22.31	5.23	3.72	60
Soldo, 2004	2003	Adriatic Sea	17	*Micromesistius poutassou*	WHB	DM	60	NA	22.2	6.14	3.7	60
Tokaç *et al.,* 2010	2004	Eastern Aegean	22	*Micromesistius poutassou*	WHB	DM	40	42.42	18.75	4.43	4.42	42.42
Ates *et al.,* 2010	2007	North Levant	24	*Mullus barbatus*	MUT	DM	44	43.46	10.7	2.9	2.46	43.46
Ates *et al.,* 2010	2007	North Levant	24	*Mullus barbatus*	MUT	SM	40	37.55	14.2	3.1	3.78	37.55
Aydin *et al.,* 2011	2008	Eastern Aegean	22	*Mullus barbatus*	MUT	SM	40	40.8	14.4	2.5	3.53	40.8
Aydin *et al.,* 2011	2008	Eastern Aegean	22	*Mullus barbatus*	MUT	SM	40	40.8	14.3	2.3	3.5	40.8
Aydin *et al.,* 2011	2008	Eastern Aegean	22	*Mullus barbatus*	MUT	DM	50	50.1	15.2	4.4	3.03	50.1
Aydin *et al.,* 2011	2008	Eastern Aegean	22	*Mullus barbatus*	MUT	DM	50	50.1	15.3	4.4	3.05	50.1
Baino, 1998	1997	Central Tyrrenian Sea	9	*Mullus barbatus*	MUT	DM	40	NA	9.02	1.98	2.26	40
Baro *et al.,* 2007	2004	Northern Alboran Sea	1	*Mullus barbatus*	MUT	DM	40	NA	8.07	2.21	2.02	40
Baro *et al.,* 2007	2004	Northern Alboran Sea	1	*Mullus barbatus*	MUT	SM	40	NA	11.5	1.79	2.88	40
Brcic *et al.,* 2018b	2018	Central Tyrrenian Sea	9	*Mullus barbatus*	MUT	DM	50	51.9	10.35	9.11	1.99	51.9
Burgaud & Dremiere, 1992	1982	Gulf of Lyon	7	*Mullus barbatus*	MUT	DM	32	NA	8.4	1.5	2.63	32
Burgaud & Dremiere, 1992	1982	Gulf of Lyon	7	*Mullus barbatus*	MUT	DM	40	NA	9.3	4.1	2.33	40
Burgaud & Dremiere, 1992	1982	Gulf of Lyon	7	*Mullus barbatus*	MUT	DM	44	NA	10.4	2	2.36	44
Cicek, 2015	2015	Eastern Mediterranean	24	*Mullus barbatus*	MUT	DM	44	NA	9.27	4.61	2.11	44
Demirci & Akyurt, 2017	2017	Eastern Mediterranean	24	*Mullus barbatus*	MUT	DM	44	NA	13.19	2.51	3	44
Demirci & Akyurt, 2017	2017	Eastern Mediterranean	24	*Mullus barbatus*	MUT	DM	50	NA	17.52	6.94	3.5	50
Demirci & Akyurt, 2017	2017	Eastern Mediterranean	24	*Mullus barbatus*	MUT	SM	40	NA	14.14	3.43	3.54	40
Dereli & Aydin, 2016	2016	Aegean Sea	22	*Mullus barbatus*	MUT	DM	44	44.27	11.1	2	2.51	44.27
Dereli & Aydin, 2016	2016	Aegean Sea	22	*Mullus barbatus*	MUT	DM	50	50.82	12.9	2.2	2.54	50.82
Dereli & Aydin, 2016	2016	Aegean Sea	22	*Mullus barbatus*	MUT	SM	40	41.18	12.9	2	3.13	41.18
Dereli & Aydin, 2016	2016	Aegean Sea	22	*Mullus barbatus*	MUT	T90	40	42.42	13.6	3.1	3.21	42.42
Ferretti & Froglia, 1975	1969	Adriatic Sea	17	*Mullus barbatus*	MUT	DM	NA	38	7.7	1.4	2.03	38
Ferretti & Froglia, 1975	1970	Adriatic Sea	17	*Mullus barbatus*	MUT	DM	NA	35.5	8.5	1.6	2.39	35.5
Ferretti & Froglia, 1975	1970	Adriatic Sea	17	*Mullus barbatus*	MUT	DM	NA	42	8.3	1.9	1.98	42

Continued

Table S2 continued

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
Ferretti & Froglia, 1975	1972	Adriatic Sea	17	*Mullus barbatus*	MUT	DM	NA	42.7	7.8	2.6	1.83	42.7
Ferretti & Froglia, 1975	1972	Adriatic Sea	17	*Mullus barbatus*	MUT	DM	NA	42.7	8.5	2	1.99	42.7
Ferretti & Froglia, 1975	1972	Adriatic Sea	17	*Mullus barbatus*	MUT	DM	NA	42.7	7	2.2	1.64	42.7
Ferretti & Froglia, 1975	1974	Adriatic Sea	17	*Mullus barbatus*	MUT	DM	NA	41.8	8.8	2.9	2.11	41.8
Larraneta *et al.,*1969	1969	Golfo di Valencia	6	*Mullus barbatus*	MUT	DM	34	NA	9.9	NA	2.91	34
Larraneta *et al.,*1969	1969	Golfo di Valencia	6	*Mullus barbatus*	MUT	DM	36	NA	10.6	NA	2.94	36
Larraneta *et al.,*1969	1969	Golfo di Valencia	6	*Mullus barbatus*	MUT	DM	40	NA	12.5	NA	3.13	40
Larraneta *et al.,*1969	1969	Golfo di Valencia	6	*Mullus barbatus*	MUT	DM	34	NA	10.5	NA	3.09	34
Larraneta *et al.,*1969	1969	Golfo di Valencia	6	*Mullus barbatus*	MUT	DM	46	NA	10	NA	2.17	46
Larraneta *et al.,*1969	1969	Golfo di Valencia	6	*Mullus barbatus*	MUT	DM	50	NA	14.6	NA	2.92	50
Larraneta *et al.,*1969	1969	Golfo di Valencia	6	*Mullus barbatus*	MUT	DM	52	NA	12.4	NA	2.38	52
Lembo *et al.,* 2002	2001	Central Tyrrenian Sea	10	*Mullus barbatus*	MUT	DM	40	NA	8.9	1.8	2.23	40
Lembo *et al.,* 2002	2001	Central Tyrrenian Sea	10	*Mullus barbatus*	MUT	DM	60	NA	13.2	4.1	2.2	60
Levi *et al.,*1971	1971	Adriatic Sea	17	*Mullus barbatus*	MUT	DM	NA	35.5	8.3	NA	2.34	35.5
Livadas, 1988	1970	Cyprus	23	*Mullus barbatus*	MUT	DM	34	39.19	9.2	1.6	2.35	39.19
Livadas, 1988	1970	Cyprus	23	*Mullus barbatus*	MUT	DM	34	39.19	9.9	2.2	2.53	39.19
Livadas, 1988	1970	Cyprus	23	*Mullus barbatus*	MUT	DM	34	39.19	9.8	2	2.5	39.19
Livadas, 1988	1970	Cyprus	23	*Mullus barbatus*	MUT	DM	40	46.38	14.7	2.9	3.17	46.38
Livadas, 1988	1970	Cyprus	23	*Mullus barbatus*	MUT	DM	40	46.38	13.9	2.8	3	46.38
Livadas, 1988	1970	Cyprus	23	*Mullus barbatus*	MUT	DM	40	46.38	17.9	2.4	3.86	46.38
Lök *et al.,*1997	1997	Aegean Sea	22	*Mullus barbatus*	MUT	DM	44	NA	13.68	2.92	3.11	44
Lök *et al.,*1997	1997	Aegean Sea	22	*Mullus barbatus*	MUT	DM	44	NA	15.06	3.24	3.42	44
Lök *et al.,*1997	1997	Aegean Sea	22	*Mullus barbatus*	MUT	DM	44	NA	14.32	2.14	3.25	44
M'Rabet, 1994	1994	Tunisia	12	*Mullus barbatus*	MUT	DM	40	33.5	10.98		3.28	33.5
M'Rabet, 1994	1994	Tunisia	12	*Mullus barbatus*	MUT	DM	40	34.9	9.14		2.62	34.9
M'Rabet, 1998	1998	Tunisia	12	*Mullus barbatus*	MUT	DM	40	38.4	9.9	0.9	2.58	38.4
M'Rabet, 1998	1998	Tunisia	12	*Mullus barbatus*	MUT	DM	48	44.2	13	1.1	2.94	44.2
Mytilineou *et al.,* 2021	2014	South Aegean Sea	22	*Mullus barbatus*	MUT	DM	40	43.2	9.34	2	2.16	43.2

Continued

Table S2 continued

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
Mytilineou *et al.,* 2021	2014	South Aegean Sea	22	*Mullus barbatus*	MUT	SM	40	43.2	13.31	2.23	3.08	43.2
Mytilineou *et al.,* 2021	2014	South Aegean Sea	22	*Mullus barbatus*	MUT	DM	50	51.1	10.83	4.73	2.12	51.1
Özbilgin *et al.,*2011	2003	Aegean Sea	22	*Mullus barbatus*	MUT	DM	40	42.4	10.06	2.05	2.37	42.4
Özbilgin *et al.,*2011	2003	Aegean Sea	22	*Mullus barbatus*	MUT	DM	40	42.4	11.14	2.14	2.63	42.4
Özbilgin *et al.,*2011	2003	Aegean Sea	22	*Mullus barbatus*	MUT	DM	40	42.4	10.76	2.27	2.54	42.4
Özbilgin *et al.,*2011	2003	Aegean Sea	22	*Mullus barbatus*	MUT	DM	40	42.4	10.95	1.91	2.58	42.4
Ozbilgin *et al.,* 2015	2015	Eastern Mediterranean	24	*Mullus barbatus*	MUT	DM	44	44.5	7.1	6.7	1.6	44.5
Ozbilgin *et al.,* 2015	2015	Eastern Mediterranean	24	*Mullus barbatus*	MUT	SM	40	41.36	14.1	2.6	3.41	41.36
Ozbilgin *et al.,* 2015	2015	Eastern Mediterranean	24	*Mullus barbatus*	MUT	DM	44	42.03	8.4	5.2	2	42.03
Ozbilgin *et al.,* 2015	2015	Eastern Mediterranean	24	*Mullus barbatus*	MUT	DM	50	51.14	12.1	4.7	2.37	51.14
Petetta *et al.,* 2020	2019	North Adriatic Sea	17	*Mullus barbatus*	MUT	DM	54	55.2	16.7	2.78	3.03	55.2
Petetta *et al.,* 2020	2019	North Adriatic Sea	17	*Mullus barbatus*	MUT	T90	54	55.3	23.1	11.48	4.18	55.3
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Mullus barbatus*	MUT	DM	40	NA	12.37	2.52	3.09	40
Sala & Luchetti, 2011	2005	Central Adriatic Sea	17	*Mullus barbatus*	MUT	DM	48	46.5	10.74	4.59	2.31	46.5
Sala & Luchetti, 2011	2005	Central Adriatic Sea	17	*Mullus barbatus*	MUT	DM	48	46.5	7.5	6.61	1.61	46.5
Sala & Luchetti, 2011	2005	Central Adriatic Sea	17	*Mullus barbatus*	MUT	DM	56	56.75	12.78	4.63	2.25	56.75
Sala & Luchetti, 2011	2005	Central Adriatic Sea	17	*Mullus barbatus*	MUT	DM	56	56.1	9.95	7.72	1.77	56.1
Sala *et al.,* 2007	2004	Adriatic Sea	17	*Mullus barbatus*	MUT	DM	44	44.73	8.9	2.68	1.99	44.73
Sala *et al.* ,2007	2004	Adriatic Sea	17	*Mullus barbatus*	MUT	DM	44	44.33	7.12	1.61	1.61	44.33
Sala *et al.,* 2008	2004	Adriatic Sea	17	*Mullus barbatus*	MUT	DM	40	38.7	7.76	1.86	2.01	38.7
Sala *et al.,* 2008	2004	Adriatic Sea	17	*Mullus barbatus*	MUT	SM	40	38.65	10.91	1.43	2.82	38.65
Sala *et al.,* 2015	2006	South Tyrrenian Sea	10	*Mullus barbatus*	MUT	DM	44	45.15	8.58	1.51	1.9	45.15
Sala *et al.,* 2015	2006	South Tyrrenian Sea	10	*Mullus barbatus*	MUT	SM	44	45.95	13.2	1.73	2.87	45.95
Sala *et al.,* 2015	2006	South Tyrrenian Sea	10	*Mullus barbatus*	MUT	DM	54	54.7	11.63	3.41	2.13	54.7
Sala *et al.,* 2015	2006	South Tyrrenian Sea	10	*Mullus barbatus*	MUT	SM	54	56.9	17.28	4.3	3.04	56.9
Sala *et al.,* 2016	2012	Adriatic sea	17	*Mullus barbatus*	MUT	SM	41	41.05	13.07	2.34	3.18	41.05
Sala *et al.,* 2016	2012	Adriatic sea	17	*Mullus barbatus*	MUT	SM	41	41.05	12.48	2.4	3.04	41.05
Sala *et al.,* 2016	2012	Adriatic sea	17	*Mullus barbatus*	MUT	SM	41	41.5	10.29	1.43	2.48	41.5

Continued

Table S2 continued

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
Sala *et al.,* 2006	2004	Adriatic Sea	17	*Mullus barbatus*	MUT	DM	44	45	8.9	2.68	1.98	45
Soldo, 2004	2003	Adriatic Sea	17	*Mullus barbatus*	MUT	DM	48	NA	13.49	1.74	2.81	48
Tokaç *et al.,* 1998	1996	Eastern Aegean	22	*Mullus barbatus*	MUT	DM	36	NA	11.02	1.76	3.06	36
Tokaç *et al.,* 1998	1996	Eastern Aegean	22	*Mullus barbatus*	MUT	DM	40	NA	12.19	2.15	3.05	40
Tokaç *et al.,* 1998	1996	Eastern Aegean	22	*Mullus barbatus*	MUT	DM	44	NA	13.5	2.65	3.07	44
Tokaç *et al.,* 1998	1996	Eastern Aegean	22	*Mullus barbatus*	MUT	SM	36	NA	11.82	1.58	3.28	36
Tokaç *et al.,* 1998	1996	Eastern Aegean	22	*Mullus barbatus*	MUT	SM	40	NA	13.2	1.85	3.3	40
Tokaç *et al.,* 1998	1996	Eastern Aegean	22	*Mullus barbatus*	MUT	SM	44	NA	14.67	2.89	3.33	44
Tokaç *et al.,* 2004	2002	Eastern Aegean	22	*Mullus barbatus*	MUT	DM	36	37	12.7	1.8	3.43	37
Tokaç *et al.,* 2004	2002	Eastern Aegean	22	*Mullus barbatus*	MUT	DM	36	37	12.8	1.8	3.46	37
Tokaç *et al.,* 2004	2002	Eastern Aegean	22	*Mullus barbatus*	MUT	DM	40	41.9	10.7	1.9	2.55	41.9
Tokaç *et al.,* 2004	2002	Eastern Aegean	22	*Mullus barbatus*	MUT	DM	40	41.9	10.7	1.9	2.55	41.9
Tokaç *et al.,* 2014	2014	Aegean Sea	22	*Mullus barbatus*	MUT	DM	40	40.44	9.38	2.48	2.32	40.44
Tokaç *et al.,* 2014	2014	Aegean Sea	22	*Mullus barbatus*	MUT	DM	44	44.33	11.53	2.72	2.6	44.33
Tokaç *et al.,* 2014	2014	Aegean Sea	22	*Mullus barbatus*	MUT	DM	50	51.34	15.4	3.15	3	51.34
Tokaç *et al.,* 2014	2014	Aegean Sea	22	*Mullus barbatus*	MUT	T90	40	40.44	12.65	1.48	3.13	40.44
Tokaç *et al.,* 2014	2014	Aegean Sea	22	*Mullus barbatus*	MUT	T90	44	44.33	14.8	1.62	3.34	44.33
Tosunoglu *et al.,*2003b	2002	Eastern Aegean	22	*Mullus barbatus*	MUT	DM	40	41.9	10.6	1.71	2.53	41.9
Voliani & Abella, 1998	1991	Tyrrhenian sea	9	*Mullus barbatus*	MUT	DM	38	NA	9.3	1.5	2.45	38
Livadas, 1988	1970	Cyprus	23	*Mullus surmuletus*	MUR	DM	34	39.19	12.5	2.9	3.19	39.19
Mytilineou *et al.,* 2021	2014	South Aegean Sea	22	*Mullus surmuletus*	MUR	DM	40	43.2	8.4	2.2	1.94	43.2
Mytilineou *et al.,* 2021	2014	South Aegean Sea	22	*Mullus surmuletus*	MUR	SM	40	43.2	12.04	1.65	2.79	43.2
Mytilineou *et al.,* 2021	2014	South Aegean Sea	22	*Mullus surmuletus*	MUR	DM	50	51.1	10.84	5.81	2.12	51.1
Ordines *et al.,* 2006	2003	Balearic Islands	5	*Mullus surmuletus*	MUR	DM	40	NA	4.5	5.8	1.13	40
Ordines *et al.,* 2006	2003	Balearic Islands	5	*Mullus surmuletus*	MUR	SM	40	NA	12.2	2.1	3.05	40
Demirci *et al.,* 2019	2012	Eastern Aegean Sea	24	*Nemipterus randalli*	NNZ	DM	44	44.7	9.34	3.45	2.09	44.7
Demirci *et al.,* 2019	2012	Eastern Aegean Sea	24	*Nemipterus randalli*	NNZ	DM	44	44.7	10.02	1.8	2.24	44.7
Ozbilgin *et al.,* 2015	2015	Eastern Mediterranean	24	*Nemipterus randalli*	NNZ	DM	44	44.5	5.8	13.5	1.3	44.5

Continued

Table S2 continued

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
Ozbilgin *et al.*,, 2015	2015	Eastern Mediterranean	24	*Nemipterus randalli*	NNZ	SM	40	41.36	14.3	2.4	3.46	41.36
Ozbilgin *et al.*,, 2015	2015	Eastern Mediterranean	24	*Nemipterus randalli*	NNZ	DM	44	42.03	9.9	7.2	2.36	42.03
Ozbilgin *et al.*,, 2015	2015	Eastern Mediterranean	24	*Nemipterus randalli*	NNZ	DM	50	51.14	11.6	11	2.27	51.14
Bahamon *et al.,* 2006	2005	Catalan Sea	6	*Nephrops norvegicus*	NEP	SM	42	40.3	2.2	0.65	0.55	40.3
Baro *et al.,* 2007	2004	Northern Alboran Sea	1	*Nephrops norvegicus*	NEP	SM	40	NA	2.13	0.62	0.53	40
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Nephrops norvegicus*	NEP	DM	50	51.9	1.787	0.312	0.34	51.9
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Nephrops norvegicus*	NEP	DM	50	51.9	2.174	0.312	0.42	51.9
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Nephrops norvegicus*	NEP	SM	40	40.2	2.027	0.312	0.50	40.2
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Nephrops norvegicus*	NEP	SM	40	40.2	2.414	0.312	0.60	40.2
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Nephrops norvegicus*	NEP	SM	40	NA	2.66	0.34	0.67	40
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Nephrops norvegicus*	NEP	SM	40	NA	2.46	0.15	0.62	40
Kaykac *et al.,* 2009a	2005	Eastern Aegean	22	*Nephrops norvegicus*	NEP	DM	40	42.58	1.6	0.45	0.38	42.58
Kaykac *et al.,* 2009a	2005	Eastern Aegean	22	*Nephrops norvegicus*	NEP	DM	40	43.68	1.94	0.59	0.44	43.68
Mytilineou *et al.,* 1998	1995	West Aegean Sea	22	*Nephrops norvegicus*	NEP	DM	40	40.8	1.78	0.5	0.44	40.8
Mytilineou *et al.,* 1998	1995	West Aegean Sea	22	*Nephrops norvegicus*	NEP	DM	48	47	2.01	0.66	0.43	47
Mytilineou *et al.,* 1998	1995	West Aegean Sea	22	*Nephrops norvegicus*	NEP	DM	52	51.8	2.05	0.76	0.4	51.8
Sala & Luchetti, 2010	2005	Central Adriatic Sea	17	*Nephrops norvegicus*	NEP	DM	40	45.2	1.46	0.51	0.32	45.2
Sala & Luchetti, 2010	2005	Central Adriatic Sea	17	*Nephrops norvegicus*	NEP	DM	40	45.2	1.56	0.45	0.35	45.2
Sala & Luchetti, 2010	2005	Central Adriatic Sea	17	*Nephrops norvegicus*	NEP	SM	40	43.25	1.93	0.75	0.45	43.25
Sala & Luchetti, 2010	2005	Central Adriatic Sea	17	*Nephrops norvegicus*	NEP	SM	40	43.25	2.07	0.62	0.48	43.25
Sala & Luchetti, 2010	2005	Central Adriatic Sea	17	*Nephrops norvegicus*	NEP	DM	40	46.35	1.76	0.96	0.38	46.35
Sala & Luchetti, 2010	2005	Central Adriatic Sea	17	*Nephrops norvegicus*	NEP	DM	40	46.35	1.49	0.5	0.32	46.35
Sala *et al.,* 2008	2004	Adriatic Sea	17	*Nephrops norvegicus*	NEP	DM	40	38.7	1.46	0.28	0.38	38.7
Sala *et al.,* 2008	2004	Adriatic Sea	17	*Nephrops norvegicus*	NEP	SM	40	38.65	1.91	0.37	0.49	38.65
Sarda *et al.,* 1993	1991	West Mediterranean	6	*Nephrops norvegicus*	NEP	DM	38	NA	1.49	0.36	0.39	38
Sarda *et al.,* 1993	1991	West Mediterranean	6	*Nephrops norvegicus*	NEP	DM	42	NA	1.94	0.38	0.46	42
Sarda *et al.,* 1993	1991	West Mediterranean	6	*Nephrops norvegicus*	NEP	DM	45	NA	1.89	0.34	0.42	45
Sarda *et al.,* 1993	1991	West Mediterranean	6	*Nephrops norvegicus*	NEP	DM	52	NA	2.31	0.79	0.44	52

Continued

Table S2 continued

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
Sarda *et al.,* 1993	1991	West Mediterranean	6	*Nephrops norvegicus*	NEP	DM	60	NA	3.08	1.51	0.51	60
Soldo, 2004	2003	Adriatic Sea	17	*Nephrops norvegicus*	NEP	DM	48	NA		3.01	0	48
Stergiou *et al.,* 1997	1994	West Aegean Sea	22	*Nephrops norvegicus*	NEP	DM	40	NA	2.28	0.95	0.57	40
Stergiou *et al.,* 1997	1994	West Aegean Sea	22	*Nephrops norvegicus*	NEP	SM	40	NA	2.41	0.59	0.6	40
Tokaç *et al.,* 2009	2004	Aegean Sea	22	*Nephrops norvegicus*	NEP	DM	40	42.42	1.59	0.52	0.37	42.42
Tokaç *et al.,* 2009	2004	Aegean Sea	22	*Nephrops norvegicus*	NEP	DM	40	42.83	1.6	0.62	0.37	42.83
Baino, 1998	1997	Central Tyrrenian Sea	9	*Octopus salutii*	OQT	DM	40	NA	4.54	3.64	1.14	40
Baro *et al.,* 2007	2004	Northern Alboran Sea	1	*Octopus vulgaris*	OCC	DM	40	NA	3.03	3.99	0.76	40
Baro *et al.,* 2007	2004	Northern Alboran Sea	1	*Octopus vulgaris*	OCC	SM	40	NA	3.83	4.8	0.96	40
Lembo *et al.,* 2002	2001	Central Tyrrenian Sea	9	*Octopus vulgaris*	OCC	DM	40	NA	6.5	1.6	1.63	40
Lembo *et al.,* 2002	2001	Central Tyrrenian Sea	9	*Octopus vulgaris*	OCC	DM	60	NA	9.78	1.6	1.63	60
Ordines *et al.,* 2006	2003	Balearic Islands	5	*Octopus vulgaris*	OCC	DM	40	NA	3.5	2.1	0.88	40
Ordines *et al.,* 2006	2003	Balearic Islands	5	*Octopus vulgaris*	OCC	SM	40	NA	6	2.2	1.5	40
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Octopus vulgaris*	OCC	DM	40	NA	5.22	1.58	1.3	40
Ates *et al.,* 2010	2007	North Levant	24	*Pagellus acarne*	SBA	DM	44	43.46	11.8	2.4	2.72	43.46
Aydin *et al.,* 2011	2008	Eastern Aegean	22	*Pagellus acarne*	SBA	SM	40	40.8	14.4	4	3.53	40.8
Aydin *et al.,* 2011	2008	Eastern Aegean	22	*Pagellus acarne*	SBA	DM	50	50.1	15.3	2.4	3.05	50.1
Ordines *et al.,* 2006	2003	Balearic Islands	5	*Pagellus acarne*	SBA	SM	40	NA	9.4	4.2	2.35	40
Tokaç *et al.,* 1998	1996	Eastern Aegean	22	*Pagellus acarne*	SBA	DM	36	NA	10.61	2.21	2.95	36
Tokaç *et al.,* 1998	1996	Eastern Aegean	22	*Pagellus acarne*	SBA	DM	40	NA	11.8	1.61	2.95	40
Tokaç *et al.,* 1998	1996	Eastern Aegean	22	*Pagellus acarne*	SBA	DM	44	NA	14.16	1.38	3.22	44
Tokaç *et al.,* 1998	1996	Eastern Aegean	22	*Pagellus acarne*	SBA	SM	36	NA	10.38	2.27	2.88	36
Tokaç *et al.,* 1998	1996	Eastern Aegean	22	*Pagellus acarne*	SBA	SM	40	NA	12.36	1.77	3.09	40
Tokaç *et al.,* 1998	1996	Eastern Aegean	22	*Pagellus acarne*	SBA	SM	44	NA	13.03	1.99	2.96	44
Tosunoglu, 2007	1997	Eastern Aegean	22	*Pagellus acarne*	SBA	DM	44	45.7	13.6	1.9	2.98	45.7
Tosunoglu *et al.,*2003b	2002	Eastern Aegean	22	*Pagellus acarne*	SBA	DM	40	41.9	11.6	2.08	2.77	41.9
Ates *et al.,* 2010	2007	North Levant	24	*Pagellus erythrinus*	PAC	DM	44	43.46	11.8	1.6	2.72	43.46
Ates *et al.,* 2010	2007	North Levant	24	*Pagellus erythrinus*	PAC	SM	40	37.55	11	2.6	2.93	37.55

Continued

Table S2 continued

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
Aydin *et al.,* 2011	2008	Eastern Aegean	22	*Pagellus erythrinus*	PAC	SM	40	40.8	13.1	0.7	3.21	40.8
Aydin *et al.,* 2011	2008	Eastern Aegean	22	*Pagellus erythrinus*	PAC	DM	50	50.1	15	2	2.99	50.1
Baino, 1998	1997	Central Tyrrenian Sea	9	*Pagellus erythrinus*	PAC	DM	40	NA	8.11	1.9	2.03	40
Cicek, 2015	2015	Eastern Mediterranean	24	*Pagellus erythrinus*	PAC	DM	44	NA	7	2.94	1.59	44
Demirci & Akyurt, 2017	2017	Eastern Mediterranean	24	*Pagellus erythrinus*	PAC	SM	40	NA	14.05	2.03	3.51	40
Demirci & Akyurt, 2017	2017	Eastern Mediterranean	24	*Pagellus erythrinus*	PAC	DM	44	NA	16.19	4.09	3.68	44
Demirci & Akyurt, 2017	2017	Eastern Mediterranean	24	*Pagellus erythrinus*	PAC	DM	50	NA	17.06	2.87	3.41	50
Joksimovic *et al.,* 2009	2004	Adriatic Sea	18	*Pagellus erythrinus*	PAC	DM	NA	27	7.6	0.87	2.81	27
Joksimovic *et al.,* 2009	2004	Adriatic Sea	18	*Pagellus erythrinus*	PAC	DM	NA	32.2	8.68	1.16	2.7	32.2
Joksimovic *et al.,* 2009	2004	Adriatic Sea	18	*Pagellus erythrinus*	PAC	DM	NA	35	10.82	2.83	3.09	35
Joksimovic *et al.,* 2009	2004	Adriatic Sea	18	*Pagellus erythrinus*	PAC	DM	NA	44	15	3.34	3.41	44
Joksimovic *et al.,* 2009	2004	Adriatic Sea	18	*Pagellus erythrinus*	PAC	DM	NA	70	15.26	2.1	2.18	70
Livadas, 1988	1970	Cyprus	23	*Pagellus erythrinus*	PAC	DM	34	39.19	11.2	2.6	2.86	39.19
M'Rabet, 1994	1994	Tunisia	12	*Pagellus erythrinus*	PAC	DM	40	33.5	10.4		3.1	33.5
M'Rabet, 1994	1994	Tunisia	12	*Pagellus erythrinus*	PAC	DM	40	34.9	13.34		3.82	34.9
Mytilineou *et al.,* 2021	2014	South Aegean Sea	22	*Pagellus erythrinus*	PAC	DM	40	43.2	9.72	2.69	2.25	43.2
Mytilineou *et al.,* 2021	2014	South Aegean Sea	22	*Pagellus erythrinus*	PAC	SM	40	43.2	11.02	2.39	2.55	43.2
Mytilineou *et al.,* 2021	2014	South Aegean Sea	22	*Pagellus erythrinus*	PAC	DM	50	51.1	13.4	3.43	2.62	51.1
Ordines *et al.,* 2006	2003	Balearic Islands	5	*Pagellus erythrinus*	PAC	SM	40	NA	10.4	2	2.6	40
Özbilgin *et al.,*2003	2002	Eastern Aegean	22	*Pagellus erythrinus*	PAC	DM	40	NA	10.5	2.8	2.63	40
Ozbilgin *et al.,* 2015	2015	Eastern Mediterranean	24	*Pagellus erythrinus*	PAC	DM	44	44.5	8.3	2.5	1.87	44.5
Ozbilgin *et al.,* 2015	2015	Eastern Mediterranean	24	*Pagellus erythrinus*	PAC	SM	40	41.36	13	1.9	3.14	41.36
Ozbilgin *et al.,* 2015	2015	Eastern Mediterranean	24	*Pagellus erythrinus*	PAC	DM	44	42.03	11.7	5.2	2.78	42.03
Ozbilgin *et al.,* 2015	2015	Eastern Mediterranean	24	*Pagellus erythrinus*	PAC	DM	50	51.14	15.1	4.9	2.95	51.14
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Pagellus erythrinus*	PAC	DM	40	NA	11.88	1.35	2.97	40
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Pagellus erythrinus*	PAC	DM	40	NA	10.41	2.39	2.6	40
Sala *et al.,* 2007	2004	Adriatic Sea	17	*Pagellus erythrinus*	PAC	DM	44	44.73	8.71	2.52	1.95	44.73
Sala *et al.,* 2007	2004	Adriatic Sea	17	*Pagellus erythrinus*	PAC	DM	44	44.33	6.92	2.23	1.56	44.33

Continued

Table S2 continued

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
Sala *et al.,* 2008	2004	Adriatic Sea	17	*Pagellus erythrinus*	PAC	DM	40	38.7	7.56	2.43	1.95	38.7
Sala *et al.,* 2008	2004	Adriatic Sea	17	*Pagellus erythrinus*	PAC	SM	40	38.65	9.67	1.36	2.5	38.65
Tokaç *et al.,* 2004	2002	Eastern Aegean	22	*Pagellus erythrinus*	PAC	DM	36	37	12.4	2.7	3.35	37
Tokaç *et al.,* 2004	2002	Eastern Aegean	22	*Pagellus erythrinus*	PAC	DM	40	41.9	10.9	2.8	2.6	41.9
Tokaç *et al.,* 2004	2002	Eastern Aegean	22	*Pagellus erythrinus*	PAC	DM	40	41.9	10.8	2.3	2.58	41.9
Tokaç *et al.,* 2004	2002	Eastern Aegean	22	*Pagellus erythrinus*	PAC	DM	44	44.7	13.6	2	3.04	44.7
Tokaç *et al.,* 2004	2002	Eastern Aegean	22	*Pagellus erythrinus*	PAC	DM	44	44.7	13.8	2.3	3.09	44.7
Tokaç *et al.,* 2014	2014	Aegean Sea	22	*Pagellus erythrinus*	PAC	DM	40	40.44	8.99	2.45	2.22	40.44
Tokaç *et al.,* 2014	2014	Aegean Sea	22	*Pagellus erythrinus*	PAC	DM	44	44.33	11.3	2.45	2.55	44.33
Tokaç *et al.,* 2014	2014	Aegean Sea	22	*Pagellus erythrinus*	PAC	DM	50	51.34	15.45	2.45	3.01	51.34
Tokaç *et al.,* 2014	2014	Aegean Sea	22	*Pagellus erythrinus*	PAC	T90	40	40.44	10.52	1.38	2.6	40.44
Tokaç *et al.,* 2014	2014	Aegean Sea	22	*Pagellus erythrinus*	PAC	T90	44	44.33	12.97	1.28	2.93	44.33
Tosunoglu 2007	1997	Eastern Aegean	22	*Pagellus erythrinus*	PAC	DM	44	45.7	12.4	2.6	2.71	45.7
Tosunoglu *et al.,*2003b	2002	Eastern Aegean	22	*Pagellus erythrinus*	PAC	DM	40	41.9	10.8	2.02	2.58	41.9
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Pagrus pagrus*	RPG	DM	40	NA	10.28	0.71	2.57	40
Aydin & Tosunoglu, 2009	2007	Aegean Sea	22	*Parapenaeus longirostris*	DPS	SM	40	42.4	1.67	0.65	0.39	42.4
Aydin & Tosunoglu, 2009	2007	Aegean Sea	22	*Parapenaeus longirostris*	DPS	HEX	40	42.6	1.74	0.62	0.41	42.6
Aydin *et al.,* 2009	2007	Eastern Aegean	22	*Parapenaeus longirostris*	DPS	DM	44	44.7	1.69	0.59	0.38	44.7
Aydin *et al.,* 2009	2007	Eastern Aegean	22	*Parapenaeus longirostris*	DPS	DM	44	44.7	1.69	0.65	0.38	44.7
Baino, 1998	1997	Central Tyrrenian Sea	9	*Parapenaeus longirostris*	DPS	DM	40	NA	1.28	0.16	0.32	40
Baro *et al.,* 2007	2004	Northern Alboran Sea	1	*Parapenaeus longirostris*	DPS	DM	40	NA	1.62	0.27	0.41	40
Baro *et al.,* 2007	2004	Northern Alboran Sea	1	*Parapenaeus longirostris*	DPS	SM	40	NA	1.72	0.6	0.43	40
Belcari *et al.,* 2007	2004	North Tyrrenian Sea	9	*Parapenaeus longirostris*	DPS	DM	40	NA	1.3	0.53	0.32	40
Belcari *et al.,* 2007	2004	North Tyrrenian Sea	9	*Parapenaeus longirostris*	DPS	DM	60	NA	2.23	1.2	0.37	60
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Parapenaeus longirostris*	DPS	DM	50	51.9	1.579	0.526	0.30	51.9
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Parapenaeus longirostris*	DPS	DM	50	51.9	1.782	0.425	0.34	51.9
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Parapenaeus longirostris*	DPS	DM	50	51.9	1.602	0.515	0.31	51.9
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Parapenaeus longirostris*	DPS	DM	50	51.9	1.806	0.414	0.35	51.9

Continued

Table S2 continued

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Parapenaeus longirostris*	DPS	SM	40	40.2	1.561	0.376	0.39	40.2
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Parapenaeus longirostris*	DPS	SM	40	40.2	1.764	0.275	0.44	40.2
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Parapenaeus longirostris*	DPS	SM	40	40.2	1.877	0.365	0.47	40.2
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Parapenaeus longirostris*	DPS	SM	40	40.2	2.08	0.264	0.52	40.2
Brcic *et al.,* 2018b	2018	Central Tyrrenian Sea	9	*Parapenaeus longirostris*	DPS	DM	50	51.9	1.67	0.488	0.32	51.9
Dereli *et al.,* 2016	2016	Aegean Sea	22	*Parapenaeus longirostris*	DPS	DM	44	44.27	2.12	0.49	0.48	44.27
Dereli *et al.,* 2016	2016	Aegean Sea	22	*Parapenaeus longirostris*	DPS	DM	50	50.82	2.32	0.87	0.46	50.82
Dereli *et al.,* 2016	2016	Aegean Sea	22	*Parapenaeus longirostris*	DPS	SM	40	41.18	2.08	0.4	0.51	41.18
Dereli *et al.,* 2016	2016	Aegean Sea	22	*Parapenaeus longirostris*	DPS	T90	40	42.42	2.05	1.01	0.48	42.42
Deval *et al.,* 2009	2007	North Levant	24	*Parapenaeus longirostris*	DPS	DM	44	43.46	1.63	0.61	0.38	43.46
Deval *et al.,* 2009	2007	North Levant	24	*Parapenaeus longirostris*	DPS	SM	40	37.55	1.82	0.55	0.48	37.55
Deval *et al.,* 2016	2016	Eastern Mediterranean	24	*Parapenaeus longirostris*	DPS	DM	50	NA	2.14	0.93	0.43	50
Deval *et al.,* 2016	2016	Eastern Mediterranean	24	*Parapenaeus longirostris*	DPS	T90	50	NA	2.26	0.83	0.45	50
Genç *et al.,* 2018	2015	Eastern Aegean Sea	22	*Parapenaeus longirostris*	DPS	T90	44	45.4	1.75	0.57	0.39	45.4
Genç *et al.,* 2018	2015	Eastern Aegean Sea	22	*Parapenaeus longirostris*	DPS	T90	44	45.4	1.86	0.51	0.41	45.4
Genç *et al.,* 2018	2015	Eastern Aegean Sea	22	*Parapenaeus longirostris*	DPS	T90	40	40.4	1.71	0.6	0.42	40.4
Goni, R, 1985	1985	Morocco	3	*Parapenaeus longirostris*	DPS	DM	39	NA	2	NA	0.51	39
Goni, R, 1985	1985	Morocco	3	*Parapenaeus longirostris*	DPS	DM	60	NA	2.51	NA	0.42	60
GRUND, 1999	1999	South Ligurian Sea	9	*Parapenaeus longirostris*	DPS	DM	34	NA	1.29	NA	0.38	34
GRUND, 1999	1999	North Tyrrenian Sea	9	*Parapenaeus longirostris*	DPS	DM	38	NA	1.06	NA	0.28	38
GRUND, 1999	1999	Central Tyrrenian Sea	9	*Parapenaeus longirostris*	DPS	DM	30	NA	1.14	NA	0.38	30
GRUND, 1999	1999	South Tyrrenian Sea	10	*Parapenaeus longirostris*	DPS	DM	36	NA	1.09	NA	0.3	36
GRUND, 1999	1999	Ionian Sea	19	*Parapenaeus longirostris*	DPS	DM	36	NA	1.34	NA	0.37	36
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Parapenaeus longirostris*	DPS	DM	40	NA	1.72	1.7	0.43	40
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Parapenaeus longirostris*	DPS	SM	40	NA	2.06	2.1	0.52	40
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Parapenaeus longirostris*	DPS	DM	40	NA	1.66	0.3	0.42	40
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Parapenaeus longirostris*	DPS	SM	40	NA	2.02	0.23	0.51	40
Kaykac *et al.,* 2009b	2005	Aegean Sea	22	*Parapenaeus longirostris*	DPS	DM	40	42	1.45	0.56	0.35	42

Continued

Table S2 continued

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
Kaykac *et al.,* 2009b	2005	Aegean Sea	22	*Parapenaeus longirostris*	DPS	DM	48	48.6	1.66	0.65	0.34	48.6
Kaykac *et al.,* 2009b	2005	Aegean Sea	22	*Parapenaeus longirostris*	DPS	SM	40	40.2	1.63	0.43	0.41	40.2
Lembo *et al.,* 2002	2001	Central Tyrrenian Sea	9	*Parapenaeus longirostris*	DPS	DM	40	NA	1.42	0.29	0.36	40
Lembo *et al.,* 2002	2001	Central Tyrrenian Sea	9	*Parapenaeus longirostris*	DPS	DM	60	NA	2	0.66	0.33	60
Nouar, 1985	1985	Algeria	4	*Parapenaeus longirostris*	DPS	DM	40	NA	1.68	NA	0.42	40
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Parapenaeus longirostris*	DPS	DM	40	NA	1.96	0.53	0.49	40
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Parapenaeus longirostris*	DPS	DM	40	NA	1.96	0.53	0.49	40
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Parapenaeus longirostris*	DPS	DM	40	NA	1.65	0.53	0.41	40
Ragonese & Bianchini, 2006	1998	North Tyrrenian Sea	10	*Parapenaeus longirostris*	DPS	DM	31	NA	1.28	0.23	0.41	31
Ragonese & Bianchini, 2006	1997	Strait of Sicily	16	*Parapenaeus longirostris*	DPS	DM	31	NA	1.3	0.52	0.42	31
Rinelli *et al.,* 2005	1997	South Tyrrenian Sea	10	*Parapenaeus longirostris*	DPS	DM	36	NA	1.41	0.4	0.39	36
Sala *et al.,* 2008	2004	Adriatic Sea	17	*Parapenaeus longirostris*	DPS	DM	40	38.7	1.2	0.24	0.31	38.7
Sala *et al.,* 2008	2004	Adriatic Sea	17	*Parapenaeus longirostris*	DPS	SM	40	38.65	1.49	0.26	0.39	38.65
Sbrana *et al.,* 2006	1999	North Tyrrenian Sea	9	*Parapenaeus longirostris*	DPS	DM	40	35.93	1.24	0.31	0.34	35.93
Tokaç *et al.,* 2009	2004	Aegean Sea	22	*Parapenaeus longirostris*	DPS	DM	40	42.42	1.27	0.62	0.3	42.42
Tokaç *et al.,* 2009	2004	Aegean Sea	22	*Parapenaeus longirostris*	DPS	DM	40	42.83	1.43	0.64	0.33	42.83
Tokaç *et al.,* 2009	2004	Aegean Sea	22	*Parapenaeus longirostris*	DPS	DM	40	42.42	1.25	0.61	0.29	42.42
Tokaç *et al.,* 2009	2004	Aegean Sea	22	*Parapenaeus longirostris*	DPS	DM	40	42.83	1.39	0.7	0.33	42.83
Tosunoglou *et al.,* 2007	2006	Aegean Sea	22	*Parapenaeus longirostris*	DPS	DM	46	49.44	1.97	0.61	0.4	49.44
Aydin & Tosunoglu, 2010	2007	Aegean Sea	22	*Phycis blennoides*	GFB	DM	44	44.7	12.2	3.8	2.73	44.7
Aydin & Tosunoglu, 2010	2007	Aegean Sea	22	*Phycis blennoides*	GFB	SM	40	42.4	15.8	6.3	3.73	42.4
Aydin & Tosunoglu, 2010	2007	Aegean Sea	22	*Phycis blennoides*	GFB	HEX	40	42.6	12.7	8.5	2.98	42.6
Bahamon *et al.,* 2006	2005	Catalan Sea	6	*Phycis blennoides*	GFB	DM	42	40.3	9.8	2.6	2.43	40.3
Bahamon *et al.,* 2006	2005	Catalan Sea	6	*Phycis blennoides*	GFB	SM	42	40.3	14.8	1.7	3.67	40.3
Belcari *et al.,* 2007	2004	North Tyrrenian Sea	9	*Phycis blennoides*	GFB	DM	40	NA	11.95	3.17	2.99	40
Belcari *et al.,* 2007	2004	North Tyrrenian Sea	9	*Phycis blennoides*	GFB	DM	60	NA	17.23	5.38	2.87	60
D'Onghia *et al.,* 2003	1998	Ionian Sea	19	*Phycis blennoides*	GFB	DM	40	NA	9.09	2.43	2.27	40
D'Onghia *et al.,* 2003	1998	Ionian Sea	19	*Phycis blennoides*	GFB	DM	50	NA	11.24	2.72	2.25	50

Continued

Table S2 continued

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
D'Onghia *et al.,* 2003	1998	Ionian Sea	19	*Phycis blennoides*	GFB	DM	60	NA	17.39	5.57	2.9	60
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Phycis blennoides*	GFB	DM	40	NA	12.2	3	3.05	40
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Phycis blennoides*	GFB	SM	40	NA	14.4	4	3.6	40
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Phycis blennoides*	GFB	DM	40	NA	12	4.1	3	40
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Phycis blennoides*	GFB	SM	40	NA	16.3	4.1	4.08	40
Tokaç *et al.,* 2010	2004	Eastern Aegean	22	*Phycis blennoides*	GFB	DM	40	42.42	12.53	3.77	2.95	42.42
Deval *et al.,* 2009	2007	North Levant	24	*Plesionika martia*	LKT	DM	44	43.46	1.41	0.5	0.32	43.46
Deval *et al.,* 2009	2007	North Levant	24	*Plesionika martia*	LKT	SM	40	37.55	1.58	0.37	0.42	37.55
Deval *et al.,*2016	2016	Eastern Mediterranean	24	*Plesionika martia*	LKT	DM	50	NA	1.77	0.59	0.35	50
Deval *et al.,* 2016	2016	Eastern Mediterranean	24	*Plesionika martia*	LKT	T90	50	NA	1.96	0.5	0.39	50
D'Onghia *et al.,*1998	1996	Ionian Sea	19	*Plesionika martia*	LKT	DM	60	NA	1.77	0.62	0.3	60
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Plesionika martia*	LKT	DM	40	NA	1.61	0.23	0.4	40
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Plesionika martia*	LKT	SM	40	NA	1.85	0.22	0.46	40
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Plesionika martia*	LKT	DM	40	NA	1.65	0.07	0.41	40
Guijaro & Massuti, 2006	2003	Balearic Islands	5	*Plesionika martia*	LKT	SM	40	NA	1.82	0.2	0.46	40
Burgaud & Dremiere, 1992	1982	Gulf of Lyon	7	*Sardina pilchardus*	PIL	DM	32	NA	13.2	3.9	4.13	32
Burgaud & Dremiere, 1992	1982	Gulf of Lyon	7	*Sardina pilchardus*	PIL	DM	40	NA	15.5	2.4	3.88	40
Burgaud & Dremiere, 1992	1982	Gulf of Lyon	7	*Sardina pilchardus*	PIL	DM	44	NA	16.6	3.6	3.77	44
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Sardina pilchardus*	PIL	DM	40	NA	14.37	1.89	3.59	40
Cicek, 2015	2015	Eastern Mediterranean	24	*Saurida undosquamis*	LIB	DM	44	NA	12.57	7.96	2.86	44
Demirci & Akyurt, 2017	2017	Eastern Mediterranean	24	*Saurida undosquamis*	LIB	SM	40	NA	22.94	3.94	5.74	40
Demirci & Akyurt, 2017	2017	Eastern Mediterranean	24	*Saurida undosquamis*	LIB	DM	44	NA	26.75	4.87	6.08	44
Demirci & Akyurt, 2017	2017	Eastern Mediterranean	24	*Saurida undosquamis*	LIB	DM	50	NA	27.21	4.21	5.44	50
Demirci & Simsek, 2017	2017	Eastern Mediterranean	22	*Saurida undosquamis*	LIB	SM	44	NA	18.41	4.62	4.18	44
Demirci & Simsek, 2017	2017	Eastern Mediterranean	22	*Saurida undosquamis*	LIB	SM	44	NA	18.5	3.76	4.2	44
Demirci *et al.,* 2019	2012	Eastern Aegean Sea	24	*Saurida undosquamis*	LIB	DM	44	44.7	16.44	6.17	3.68	44.7
Demirci *et al.,* 2019	2012	Eastern Aegean Sea	24	*Saurida undosquamis*	LIB	DM	44	44.7	14.75	12.28	3.30	44.7
Ozbilgin *et al.,* 2015	2015	Eastern Mediterranean	24	*Saurida undosquamis*	LIB	DM	44	44.5	8.3	11.6	1.87	44.5

Continued

Table S2 continued

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
Ozbilgin *et al.,* 2015	2015	Eastern Mediterranean	24	*Saurida undosquamis*	LIB	SM	40	41.36	24.1	3.6	5.83	41.36
Ozbilgin *et al.,* 2015	2015	Eastern Mediterranean	24	*Saurida undosquamis*	LIB	DM	44	42.03	23.4	8.9	5.57	42.03
Ozbilgin *et al.,* 2015	2015	Eastern Mediterranean	24	*Saurida undosquamis*	LIB	DM	50	51.14	27.7	6.6	5.42	51.14
Petetta *et al.,* 2020	2019	North Adriatic Sea	17	*Scomber scombrus*	MAC	DM	54	55.2	21.37	3.57	3.87	55.2
Petetta *et al.,* 2020	2019	North Adriatic Sea	17	*Scomber scombrus*	MAC	T90	54	55.3	22.08	2.72	3.99	55.3
Ordines *et al.,* 2006	2003	Balearic Islands	5	*Scorpaena notata*	SNQ	SM	40	NA	9.7	1.2	2.43	40
Ordines *et al.,* 2006	2003	Balearic Islands	5	*Scorpaena scrofa*	RSE	SM	40	NA	8.3	3.2	2.08	40
Ordines *et al.,* 2006	2002	Balearic Islands	5	*Scyliorhinus canicula*	SYC	DM	40	NA	18.8	7.1	4.7	40
Ordines *et al.,* 2006	2002	Balearic Islands	5	*Scyliorhinus canicula*	SYC	SM	40	NA	28.7	7	7.18	40
Baro *et al.,* 2007	2004	Northern Alboran Sea	1	*Sepia elegans*	EJE	DM	40	NA	1.61	2.46	0.4	40
Baro *et al.,* 2007	2004	Northern Alboran Sea	1	*Sepia elegans*	EJE	SM	40	NA	4.3	1.24	1.08	40
Baro *et al.,* 2007	2004	Northern Alboran Sea	1	*Sepia elegans*	EJE	DM	40	NA	2.79	1.34	0.7	40
Baro *et al.,* 2007	2004	Northern Alboran Sea	1	*Sepia elegans*	EJE	SM	40	NA	4.47	1.52	1.12	40
Tosunoglu *et al.,*2009	2007	Eastern Aegean	22	*Sepia orbignyana*	IAR	DM	44	44.7	3	1.2	0.67	44.7
Tosunoglu *et al.,*2009	2007	Eastern Aegean	22	*Sepia orbignyana*	IAR	HEX	40	42.6	3	1.5	0.7	42.6
Tosunoglu *et al.,*2009	2007	Eastern Aegean	22	*Sepia orbignyana*	IAR	HEX	40	42.6	3.1	1.4	0.73	42.6
Tosunoglu *et al.,*2009	2007	Eastern Aegean	22	*Sepia orbignyana*	IAR	SM	40	42.4	3.6	1.3	0.85	42.4
Tosunoglu *et al.,*2009	2007	Eastern Aegean	22	*Sepia orbignyana*	IAR	SM	40	42.4	3.8	1.3	0.9	42.4
Baino, 1998	1997	Central Tyrrenian Sea	9	*Sepietta oweniana*	ITW	DM	40	NA	2.2	0.9	0.55	40
Ordines *et al.,* 2006	2003	Balearic Islands	5	*Serranus cabrilla*	CBR	DM	40	NA	9.3	2.5	2.33	40
Ordines *et al.,* 2006	2003	Balearic Islands	5	*Serranus cabrilla*	CBR	SM	40	NA	14.1	2.7	3.53	40
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Serranus hepatus*	SRJ	DM	40	NA	9	0.65	2.25	40
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Serranus hepatus*	SRJ	DM	40	NA	8.51	0.65	2.13	40
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Spicara flexuosa*	SPCF	DM	40	NA	13.44	1.39	3.36	40
Ates *et al.,*2010	2007	North Levant	24	*Spicara maena*	BPI	DM	44	43.46	14	2.7	3.22	43.46
Ates *et al.,*2010	2007	North Levant	24	*Spicara maena*	BPI	SM	40	37.55	15.7	2	4.18	37.55
Aydin *et al.,*2011	2008	Eastern Aegean	22	*Spicara maena*	BPI	SM	40	40.8	14.4	2.6	3.53	40.8
Aydin *et al.,*2011	2008	Eastern Aegean	22	*Spicara maena*	BPI	DM	50	50.1	17.2	7.1	3.43	50.1

Continued

Table S2 continued

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
Tosunoglou *et al.,* 2003a	2003	Eastern Mediterranean	NA	*Spicara maena*	BPI	DM	40	NA	12.3	2.8	3.08	40
Livadas, 1988	1970	Cyprus	23	*Spicara smaris*	SPC	DM	34	39.19	12	2.7	3.06	39.19
Livadas, 1988	1970	Cyprus	23	*Spicara smaris*	SPC	DM	34	39.19	13.8	1.6	3.52	39.19
Livadas, 1988	1970	Cyprus	23	*Spicara smaris*	SPC	DM	40	46.38	13.7	2.7	2.95	46.38
Ordines *et al.,* 2006	2003	Balearic Islands	5	*Spicara smaris*	SPC	DM	40	NA	9	5.1	2.25	40
Ordines *et al.,* 2006	2003	Balearic Islands	5	*Spicara smaris*	SPC	SM	40	NA	17.1	6.9	4.28	40
Özbilgin *et al.,* 2007	2003	Eastern Aegean	22	*Spicara smaris*	SPC	DM	40	42.4	11.09	2.6	2.62	42.4
Özbilgin *et al.,* 2007	2003	Eastern Aegean	22	*Spicara smaris*	SPC	DM	40	42.4	12.92	2.85	3.05	42.4
Özbilgin *et al.,* 2007	2003	Eastern Aegean	22	*Spicara smaris*	SPC	DM	40	42.4	13.82	3.08	3.26	42.4
Özbilgin *et al.,* 2007	2003	Eastern Aegean	22	*Spicara smaris*	SPC	DM	40	42.4	12.21	2.48	2.88	42.4
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Spicara smaris*	SPC	DM	40	NA	14.52	2.59	3.63	40
Tokaç *et al.,* 2004	2002	Eastern Aegean	22	*Spicara smaris*	SPC	DM	36	37	13.2	1.6	3.57	37
Tokaç *et al.,* 2004	2002	Eastern Aegean	22	*Spicara smaris*	SPC	DM	36	37	13.3	1.3	3.59	37
Tokaç *et al.,* 2004	2002	Eastern Aegean	22	*Spicara smaris*	SPC	DM	40	41.9	12.4	2.8	2.96	41.9
Tokaç *et al.,* 2004	2002	Eastern Aegean	22	*Spicara smaris*	SPC	DM	40	41.9	12.4	2.4	2.96	41.9
Tosunoglu *et al.,* 2003b	2002	Eastern Aegean	22	*Spicara smaris*	SPC	DM	40	41.9	13.5	1.89	3.22	41.9
Burgaud & Dremiere, 1992	1982	Gulf of Lyon	7	*Sprattus sprattus*	SPR	DM	32	NA	11.6	1.8	3.63	32
Burgaud & Dremiere, 1992	1982	Gulf of Lyon	7	*Sprattus sprattus*	SPR	DM	44	NA	12	2.1	2.73	44
Baino, 1998	1997	Central Tyrrenian Sea	9	*Squilla mantis*	MTS	DM	40	NA	7.37	1.94	1.84	40
Petetta *et al.,* 2020	2019	North Adriatic Sea	17	*Squilla mantis*	MTS	DM	54	55.2	13.35	8.86	2.42	55.2
Petetta *et al.,* 2020	2019	North Adriatic Sea	17	*Squilla mantis*	MTS	T90	54	55.3	20.78	4.36	3.76	55.3
Ordines *et al.,* 2006	2002	Balearic Islands	5	*Trachinus draco*	WEG	DM	40	NA	13.3	1.5	3.33	40
Ordines *et al.,* 2006	2002	Balearic Islands	5	*Trachinus draco*	WEG	SM	40	NA	18.1	2.7	4.53	40
Petetta *et al.,* 2020	2019	North Adriatic Sea	17	*Trachurus mediterraneus*	HMM	DM	54	55.2	24.99	8.03	4.53	55.2
Petetta *et al.,* 2020	2019	North Adriatic Sea	17	*Trachurus mediterraneus*	HMM	T90	54	55.3	22.32	1.66	4.04	55.3
Aydin & Tosunoglu, 2010	2007	Aegean Sea	22	*Trachurus* spp	HOM	DM	44	44.7	14.7	4.6	3.29	44.7
Aydin & Tosunoglu, 2010	2007	Aegean Sea	22	*Trachurus* spp	HOM	SM	40	42.4	15.9	5.6	3.75	42.4
Aydin & Tosunoglu, 2010	2007	Aegean Sea	22	*Trachurus* spp	HOM	HEX	40	42.6	17.1	5	4.01	42.6

Continued

Table S2 continued

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
Aydin & Tosunoglu, 2010	2007	Aegean Sea	22	*Trachurus* spp	HOM	DM	44	44.7	14.4	5.2	3.22	44.7
Aydin & Tosunoglu, 2010	2007	Aegean Sea	22	*Trachurus* spp	HOM	SM	40	42.4	16.8	4.8	3.96	42.4
Aydin & Tosunoglu, 2010	2007	Aegean Sea	22	*Trachurus* spp	HOM	HEX	40	42.6	17.2	5.9	4.04	42.6
Baro *et al.,* 2007	2004	Northern Alboran Sea	1	*Trachurus* spp	HOM	DM	40	NA	11.9	2.8	2.98	40
Baro *et al.,* 2007	2004	Northern Alboran Sea	1	*Trachurus* spp	HOM	SM	40	NA	14.8	1.1	3.7	40
Belcari *et al.,* 2007	2004	North Tyrrenian Sea	9	*Trachurus* spp	HOM	DM	40	NA	10.28	3.04	2.57	40
Belcari *et al.,* 2007	2004	North Tyrrenian Sea	9	*Trachurus spp*	HOM	DM	60	NA	19.83	10.52	3.31	60
Burgaud & Dremiere, 1992	1982	Gulf of Lyon	7	*Trachurus* spp	HOM	DM	32	NA	11.2	2.7	3.5	32
Burgaud & Dremiere, 1992	1982	Gulf of Lyon	7	*Trachurus* spp	HOM	DM	40	NA	12.7	3.5	3.18	40
Dereli & Aydin, 2016	2016	Aegean Sea	22	*Trachurus* spp	HOM	DM	44	44.27	16.2	3.1	3.66	44.27
Dereli & Aydin, 2016	2016	Aegean Sea	22	*Trachurus* spp	HOM	DM	50	50.82	14.2	4.2	2.79	50.82
Dereli & Aydin, 2016	2016	Aegean Sea	22	*Trachurus* spp	HOM	SM	40	41.18	15.3	3.2	3.72	41.18
Dereli & Aydin, 2016	2016	Aegean Sea	22	*Trachurus* spp	HOM	T90	40	42.42	17.1	2.1	4.03	42.42
Ferretti & Froglia, 1975	1970	Adriatic Sea	17	*Trachurus* spp	HOM	DM	NA	34	8.2	2.6	2.41	34
Ferretti & Froglia, 1975	1972	Adriatic Sea	17	*Trachurus* spp	HOM	DM	NA	34	9.2	2.8	2.71	34
Ferretti & Froglia, 1975	1972	Adriatic Sea	17	*Trachurus* spp	HOM	DM	NA	33.7	11	5.1	3.26	33.7
Ordines *et al.,* 2006	2003	Balearic Islands	5	*Trachurus* spp	HOM	DM	40	NA	13.7	2.1	3.43	40
Ordines *et al.,* 2006	2003	Balearic Islands	5	*Trachurus* spp	HOM	SM	40	NA	15.2	3	3.8	40
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Trachurus* spp	HOM	DM	40	NA	14.11	3.1	3.53	40
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Trachurus* spp	HOM	DM	40	NA	14.66	3.11	3.67	40
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Trachurus* spp	HOM	DM	40	NA	14.66	3.11	3.67	40
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Trachurus* spp	HOM	DM	40	NA	14.11	3.1	3.53	40
Sala *et al.,* 2008	2004	Adriatic Sea	17	*Trachurus* spp	HOM	DM	40	38.7	9.71	2.75	2.51	38.7
Sala *et al.,* 2008	2004	Adriatic Sea	17	*Trachurus* spp	HOM	SM	40	38.65	13.12	2.43	3.39	38.65
Sarda *et al.,*2006	2003	NW Mediterranean	6	*Trachurus* spp	HOM	SM	36	NA	14.03	2.48	3.9	36
Tosunoglou *et al.,* 2008	2006	Aegean Sea	22	*Trachurus* spp	HOM	DM	50	49.44	15.6	5.5	3.16	49.44
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Trachurus trachurus*	HOM	DM	50	51.9	15.25	3.17	2.94	51.9
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Trachurus trachurus*	HOM	DM	50	51.9	13.03	3.17	2.51	51.9

Continued

Table S2 continued

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Trachurus trachurus*	HOM	DM	50	51.9	7.31	3.17	1.41	51.9
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Trachurus trachurus*	HOM	DM	50	51.9	5.09	3.17	0.98	51.9
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Trachurus trachurus*	HOM	SM	40	40.2	14.47	2.25	3.60	40.2
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Trachurus trachurus*	HOM	SM	40	40.2	12.26	2.25	3.05	40.2
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Trachurus trachurus*	HOM	SM	40	40.2	6.53	2.25	1.62	40.2
Brcic *et al.,* 2018a	2012	Central Tyrrenian Sea	9	*Trachurus trachurus*	HOM	SM	40	40.2	4.31	2.25	1.07	40.2
Brcic *et al.,* 2018b	2018	Central Tyrrenian Sea	9	*Trachurus trachurus*	HOM	DM	50	51.9	15.17	4.72	2.92	51.9
Genç *et al.,* 2018	2015	Eastern Aegean Sea	22	*Trachurus trachurus*	HOM	T90	44	45.4	16.4	2.7	3.61	45.4
Genç *et al.,* 2018	2015	Eastern Aegean Sea	22	*Trachurus trachurus*	HOM	T90	44	45.4	17.1	3.4	3.77	45.4
Genç *et al.,* 2018	2015	Eastern Aegean Sea	22	*Trachurus trachurus*	HOM	T90	40	40.4	14.8	2.5	3.66	40.4
Sarda *et al.,* 2006	2003	NW Mediterranean	6	*Triglidae*	GUX	SM	36	NA	12.63	2.31	3.51	36
Bahamon *et al.,* 2006	2005	Catalan Sea	6	*Trisopterus minutus*	POD	DM	42	40.3	9.2	3	2.28	40.3
Bahamon *et al.,* 2006	2005	Catalan Sea	6	*Trisopterus minutus*	POD	SM	42	40.3	13	3	3.23	40.3
Belcari *et al.,* 2007	2004	North Tyrrenian Sea	9	*Trisopterus minutus*	POD	DM	40	NA	10.94	4.54	2.74	40
Belcari *et al.,* 2007	2004	North Tyrrenian Sea	9	*Trisopterus minutus*	POD	DM	60	NA	16.13	5.14	2.69	60
Brcic *et al.,* 2018b	2018	Central Tyrrenian Sea	9	*Trisopterus minutus*	POD	DM	50	51.9	11.08	3.04	2.13	51.9
Burgaud & Dremiere, 1992	1982	Gulf of Lyon	7	*Trisopterus minutus*	POD	DM	40	NA	10.9	2.2	2.73	40
Burgaud & Dremiere, 1992	1982	Gulf of Lyon	7	*Trisopterus minutus*	POD	DM	44	NA	14.5	3.2	3.3	44
Ferretti & Froglia, 1975	1970	Adriatic Sea	17	*Trisopterus minutus*	POD	DM	NA	35.5	10.4	2.9	2.93	35.5
Ozbilgin *et al.,*2005	2003	Eastern Aegean	22	*Trisopterus minutus*	POD	DM	40	NA	14.11	1.69	3.53	40
Petrakis & Stergiou, 1997	1994	West Aegean Sea	22	*Trisopterus minutus*	POD	DM	40	NA	13.73	5.5	3.43	40
Petrakis & Stergiou, 1997	1994	West Aegean Sea	22	*Trisopterus minutus*	POD	SM	40	NA	11.85	5.95	2.96	40
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Trisopterus minutus*	POD	DM	40	NA	12	2.35	3	40
Petrakis *et al.,* 2004	2004	Aegean Sea	22	*Trisopterus minutus*	POD	DM	40	NA	9.79	2.35	2.45	40
Sala & Luchetti, 2010	2005	Central Adriatic Sea	17	*Trisopterus minutus*	POD	DM	40	45.2	6.2	1.29	1.37	45.2
Sala & Luchetti, 2010	2005	Central Adriatic Sea	17	*Trisopterus minutus*	POD	DM	40	45.2	10.42	2.5	2.31	45.2
Sala & Luchetti, 2010	2005	Central Adriatic Sea	17	*Trisopterus minutus*	POD	SM	40	43.25	10.19	3.59	2.36	43.25
Sala & Luchetti, 2010	2005	Central Adriatic Sea	17	*Trisopterus minutus*	POD	SM	40	43.25	13.03	4	3.01	43.25

Continued

Table S2 continued

References	Years	Area	GSA	Species	FAO Code	MC	NMS	MMS	L50	SR	SF	MS-calc
Sala & Luchetti, 2010	2005	Central Adriatic Sea	17	*Trisopterus minutus*	POD	DM	40	46.35	8.64	3.23	1.86	46.35
Sala & Luchetti, 2010	2005	Central Adriatic Sea	17	*Trisopterus minutus*	POD	DM	40	46.35	9.79	3	2.11	46.35
Sala *et al.,* 2007	2004	Adriatic Sea	17	*Trisopterus minutus*	POD	DM	44	44.73	10.39	2.73	2.32	44.73
Sala *et al.,* 2007	2004	Adriatic Sea	17	*Trisopterus minutus*	POD	DM	44	44.33	7.17	2.01	1.62	44.33
Sala *et al.,* 2008	2004	Adriatic Sea	17	*Trisopterus minutus*	POD	DM	40	38.7	8.11	2.07	2.1	38.7
Sala *et al.,* 2008	2004	Adriatic Sea	17	*Trisopterus minutus*	POD	SM	40	38.65	11.26	1.65	2.91	38.65
Sarda *et al.,* 2006	2003	NW Mediterranean	6	*Trisopterus minutus*	POD	SM	36	NA	17.53	4.27	4.87	36
Sbrana *et al.,* 1998	1992	North Tyrrenian Sea	9	*Trisopterus minutus*	POD	DM	NA	34	7.3	1.64	2.15	34
Ates *et al.,* 2010	2007	North Levant	24	*Upeneus moluccensis*	UPM	SM	40	37.55	15	2.7	3.99	37.55
Demirci & Akyurt, 2017	2017	Eastern Mediterranean	24	*Upeneus moluccensis*	UPM	SM	40	NA	17.42	1.94	4.36	40
Demirci & Akyurt, 2017	2017	Eastern Mediterranean	24	*Upeneus moluccensis*	UPM	DM	44	NA	12.21	2.71	2.78	44
Demirci & Akyurt, 2017	2017	Eastern Mediterranean	24	*Upeneus moluccensis*	UPM	DM	50	NA	16.62	5.16	3.32	50
Cicek, 2015	2015	Eastern Mediterranean	24	*Upeneus* spp	UPM	DM	44	NA	10.2	4.02	2.32	44
Ozbilgin *et al.,* 2015	2015	Eastern Mediterranean	24	*Upeneus* spp	UPM	DM	44	44.5	5.1	7.2	1.15	44.5
Ozbilgin *et al.,* 2015	2015	Eastern Mediterranean	24	*Upeneus* spp	UPM	SM	40	41.36	15.2	3.1	3.68	41.36
Ozbilgin *et al.,* 2015	2015	Eastern Mediterranean	24	*Upeneus* spp	UPM	DM	44	42.03	12	5.3	2.86	42.03
Ozbilgin *et al.,* 2015	2015	Eastern Mediterranean	24	*Upeneus* spp	UPM	DM	50	51.14	21	11.7	4.11	51.14

References for Table S2

Abella, A., Serena, F., 1998. Selettività e vulnerabilità del nasello nella pesca a strascico. *Biologia Marina Mediterranea*, 5 (2), 496–504.

Aldebert, Y., Carries, C., 1990. Application des populations virtuelles au stock de merlu du Golf du Lion. Impacte de modifications de regime d'exploitation. *FAO Rapport de Pêches*, 447, 143–150.

Ateş, C., Deval, MC., Bök, T., Tosunoğlu, Z., 2010. Selectivity of diamond (PA) and square (PE) mesh codends for commercially important fish species in the Antalya Bay, Eastern Mediterranean. *Journal of Applied Ichthyology*, 26 (3), 465–471.

Aydin, C., Tokaç, A., Ulaş, A., Maktay, B., Şensurat, T., 2011. Selectivity of 40 mm square and 50 mm diamond mesh codends for five species in the Eastern Mediterranean demersal trawl fishery. *African Journal of Biotechnology*, 10 (25), 5037–5047.

Aydin, C., Tosunoğlu, Z., 2010. Selectivity of diamond, square and hexagonal mesh codends for Atlantic horse mackerel *Trachurus trachurus*, European hake *Merluccius merluccius*, and greater forkbeard *Phycis blennoides* in the eastern Mediterranean. *Journal of Applied Ichthyology*, 26 (1), 71–77. DOI: 10.1111/j.1439-0426.2009.01376.x.

Aydin, C., Tosunoğlu, Z., 2009. Selectivity of square and hexagonal mesh codends for the deep water rose shrimp, *Parapenaeus longirostris* (Lucas, 1846) (Decapoda, Penaeidae) in the Aegean Sea. *Crustaceana*, 82 (1), 89–98. DOI: 10.1163/156854008X363704.

Aydin, C., Tosunoğlu, Z., Özbilgin, H., 2009. Selectivity of double and single codends for the deep-water rose shrimp, *Parapenaeus longirostris* (Lucas, 1846) (Decapoda, Penaeidae) in the Aegean Sea trawl fishery. *Crustaceana*, 233–240.

Bahamon, N., Sardà, F., Suuronen, P., 2006. Improvement of trawl selectivity in the NW Mediterranean demersal fishery by using a 40 mm square mesh codend. *Fisheries Research*, 81 (1), 15–25. DOI: 10.1016/j.fishres.2006.05.020.

Baino, R., 1998. Data exploration sull'uso del cover nella campagna GRUND '97. Final Report. Bari (Italia).

Baro, J., Muñoz de los Rejes, I., 2007. Comparación de los rendimientos pesqueros y la selectividad del arte de arrastre empleando mallas cuadradas y rómbicas en el copo. *Informes Técnicos Instituto Español De Oceanografía*,, 23 pp.

Belcari, P., Ranieri, S De., Ligas, A., Reale, B., Sartor, P., Viva, C., 2007. Selectivity of two diamond mesh size cod-ends in the trawl fishery of the Northern Tyrrhenian Sea (Western Mediterranean). *Rapport de la Commission Internationale de la Mer Méditerranée*, (38), 428.

Brčić, J., Herrmann, B., Sala, A., 2018a. Can a square-mesh panel inserted in front of the cod end improve size and species selectivity in Mediterranean trawl fisheries? Canadian Journal of Fisheries and Aquatic Sciences, 75 (5), 704–713.

Brčić, J., Herrmann, B., Sala, A., 2018b. Predictive models for codend size selectivity for four commercially important species in the Mediterranean bottom trawl fishery in spring and summer: Effects of codend type and catch size. PLoS ONE, 13 (10), 1–26. DOI: 10.1371/journal.pone.0206044.

Burgaud, L., Drémière, PY., 1992. Sélectivité des chaluts à 4 faces en Méditerranée Test de sept méthodes d'analyse appliquées à sept espèces et trois maillages.

Carlucci, R., Onghia, GD., Sion, L., Maiorano, P., Tursi, A., 2006. Selectivity parameters and size at first maturity in deep-water shrimps , *Aristaeomorpha foliacea* (Risso , 1827) and *Aristeus antennatus* (Risso, 1816), from the North-Western Ionian Sea (Mediterranean Sea). *Hydrobiologia*, 557, 145–154. DOI: 10.1007/s10750-005-1317-8.

Çiçek, E., 2015. Bottom trawl selectivity parameters of four fish species from Karataş coasts of Turkey in Northeastern Mediterranean Waters. *Iranian Journal of Ichthyology*, 2 (2), 79–86. DOI: 10.22034/iji.v2i2.54.

D'Onghia, G., Carlucci, R., Maiorano, P., Panza, M., 2003. Discards from deep-water bottom trawling in the Eastern-Central Mediterranean Sea and effects of mesh size changes. *Journal of Northwest Atlantic Fishery Science*, 31, 245–261. DOI: 10.2960/J.v31.a19.

D'Onghia, G., Mastrototaro, F., Maiorano, P., Basanisi, M., 1998. Selectivity of the trawl net on the slope (250-750 m) of the Ionian Sea (central Mediterranean Sea). *Biologia Marina Mediterranea*, 5 (2), 437–448.

Demirci, S., Akyurt, İ., 2017. Size selectivity of square and diamond mesh trawl codend for fish with different body shapes. *Indian Journal of Geo-Marine Sciences*, 46 (4), 774–779.

Demirci, S., Dogru, Z., Simsek, E., 2017. Effect of shortening the length of codend on brushtooth lizardfish caught in square mesh codend of otter trawl in eastern Mediterranean. *Indian Journal of Fisheries*, 64 (3), 29–34. DOI: 10.21077/ijf.2017.64.3.71048-05.

Demirci, S., Demirci, A., Simsek, E., 2019. Negative effect of protective bag on trawl codend selectivity. Indian Journal of Geo-Marine Sciences, 48 (4), 499–503.

Dereli, H., Aydin, C., 2016. Selectivity of commercial and alternative codends for four species in the Eastern Mediterranean demersal trawl fishery. *Turkish Journal of Fisheries and Aquatic Sciences*, 16, 971–992. DOI: 10.4194/1303-2712-v16_4_25.

Dereli, H., Aydin, C., Belli, M., Lu, TK., Akpinar, IÖ., Şen, Y., 2016. Selectivity of commercial and experimental codends for the demersal trawl fishery of the deep-water rose shrimp, *Parapenaeus longirostris* (Lucas, 1846), in the Aegean Sea. *Crustaceana*, 89 (4), 477–493. DOI: 10.1163/15685403-00003532.

Deval, MC., Bök, T., Ateş, C., Ulutürk, T., Tosunoğlu, Z., 2009. Comparison of the size selectivity of diamond (PA) and square (PE) mesh codends for deepwater crustacean species in the Antalya Bay, eastern Mediterranean. *Journal of Applied Ichthyology*, 25 (4), 372–380. DOI: 10.1111/j.1439-0426.2009.01239.x.

Deval, MC., Özgen, G., Özbilgin, H., 2016. Selectivity of 50 mm T0 and T90 codends for commercial shrimp species in the Turkish deepwater trawl fishery, Eastern Mediterranean. *Journal of Applied Ichthyology*, 32 (6), 1041–1057. DOI: 10.1111/jai.13128.

Drémière, PY., 1979. Parametres biologiques et dynamiques disponibles sur les principaux stocks haleutiques du Golfe de Lion; sous zone 37-2 du CGPM. *FAO Rapport de Pêches*, 227 (115), 122.

Ferretti, M., Froglia, C., 1975. Results of selectivity experiments, made with different trawls, on more important Adriatic demersal fish. *Quaderni del Laboratorio di tecnologia della pesca*, 2 (1), 3–16.

Genç, TŞ., Atamanalp, M., Aydın, C., 2018. Selectivity of turned meshes codends for Deepwater Rose Shrimp (Parapenaeus longirostris), Horse Mackerel, (Trachurus trachurus) and European Hake (Merluccius merluccius) in the Aegean Sea. Ege Journal of Fisheries and Aquatic Sciences, 35 (2), 157–168. DOI: 10.12714/egejfas.2018.35.2.08.

Gil de Sola Simarro, L., 1991. Trawl fisheries in the southern Mediterranean region, sector 37.1. 5. *FAO, Rapport sur les Peches (FAO)*.

Gil de Sola Simarro, L., 1994. Demersal fishes of Alboran Sea continental shelf (SW Iberian Mediterranean). *Boletin del Instituto Espanol de Oceanografia (Espana)*.

Goni, R., 1985. Selectividad de la merluza europea (Merluccius merluccius Linnaeus, 1758) y gamba blanca (*Parapenaeus longirostris* Lucas, 1846) con artes de arrastre de poliamida en las pesquerıas de Africa Occidental, al norte de Cabo Blanco. p. 873–888 In: *Simposio Internacional Afl. Oeste Africa. Instituto Investigacion Pesquera Barcelona*.

Gorelli, G., Company, JB., Bahamón, N., Sardà, F., 2017. Improving codend selectivity in the fishery of the deep-sea red shrimp *Aristeus antennatus* in the northwestern Mediterranean Sea. *Scientia Marina*, 81 (3), 381. DOI: 10.3989/scimar.04575.25a.

Gorelli, G., Company, JB., Sardà, F., 2014. Management strategies of the red shrimp *Aristeus antennatus* in Catalonia (NE Spain). *Marine Stewardship Council Science Series*, 2 (February), 116–127.

GRUND., 1999. Valutazione delle Risorse Demersali nei Mari Italiani: Selettività. *Relazione finale*.

Guijarro, B., Massutí, E., 2006. Selectivity of diamond- and square-mesh codends in the deepwater crustacean trawl fishery off the Balearic Islands (western Mediterranean). *ICES Journal of Marine Science*, 63 (1), 52–67. DOI: 10.1016/j.icesjms.2005.08.011.

Ilkyaz, AT., Sensurat, T., Dereli, H., Celalettin, A., 2017. Codends Selectivity for Bogue (*Boops boops* L., 1758) in the Eastern Mediterranean Demersal Trawl Fishery. *Turkish Journal of Fisheries and Aquatic Sciences*, 17, 673–680. DOI: 10.4194/1303-2712-v17_4_03.

Joksimović, A., Regner, S., Sacchi, J., 2009. The effects of trawl codend mesh size selectivity on the length composition of catches of pandora, *Pagellus erythrinus* L. 1758 in the shelf area of the Montenegrin coast (South Adriatic). *Acta Adriatica: International journal of Marine Sciences*, 50 (2), 151–157.

Kaykaç, H., 2010. Size selectivity of commercial (300 MC) and larger square mesh top panel (LSMTPC) trawl codends for blue whiting (*Micromesistius poutassou* Risso, 1826) in the Aegean Sea. *African Journal of Biotechnology*, 9 (53), 9037–9041. DOI: 10.4314/ajb.v9i53.

Kaykaç, H., Özbilgin, H., Tokaç, A., 2009a. Effects of mesh configuration on the selectivity of demersal trawl codends for *Nephrops norvegicus* (Linnaeus, 1758)(Decapoda, Nephrophidae). *Crustaceana*, 82 (12), 1569–1578.

Kaykaç, H., Tokaç, A., Özbilgin, H., 2009b. Selectivity of commercial, larger mesh and square mesh trawl codends for deep water rose shrimp *Parapenaeus longirostris* (Lucas, 1846) in the Aegean Sea. *Scientia Marina*, 73 (3), 597–604.

Larrañeta, MG., Suau, P., San Feliu, JM., 1969. Experiencias de selectividad en la pesquería de arrastre en el levante español. *Inventario Pesqueria*,, 15–53.

Lembo, P., Carbonara, P., Silecchia, T., Spedicato, MT., 2002. Prove di pesca a strascico con rete a doppio sacco per la valutazione della selettività dell'attrezzo e della qualità del prodotto. *Quaderni Scientifici Lega Pesca*, 2, 1–47.

Levi, D., Froglia, C., Scorcelletti, R., 1971. Selettività di una rete di tipo relingato (chalut a grande ouverture verticale). *Quaderni del Laboratorio di tecnologia della pesca*, 1 (2), 23–35.

Livadas, RJ., 1988. The selectivity of certain trawl cod-end in Cyprus. *FAO Rapport de Pêches*, 412, 180–189.

Lök, A., Tokaç, A., Tosunoğlu, Z., Metin, C., Ferro, RST., 1997. The effects of different cod-end design on bottom trawl selectivity in Turkish fisheries of the Aegean Sea. *Fisheries Research*, 32 (2), 149–156.

Lucchetti, A., 2008. Comparison of diamond- and square-mesh codends in the hake (*Merluccius merluccius* L. 1758) trawl fishery of the Adriatic Sea (central Mediterranean). *Scientia Marina*, 72 (3), 451–460. DOI: 10.3989/scimar.2008.72n3451.

M'Rabet, R., 1994. Resultats preliminaires ues experiences de selectivite effectuees dans le Golfe de Tunis avec le chalut mediterraneen type tunisien et le chalut crevettier. *Bulletin de l'Institut National des Sciences de la Mer (INSTM Salammbô)*,, 24–29.

M'Rabet, R., 1998. Effet d 'une augmentation de maillage sur la selective du chalut crevettier utilise. *Bulletin de l'Institut National des Sciences de la Mer (INSTM Salammbô)*, 25.

Mytilineou, C., Fourtouni, A., Politou, CY., 1998. Trawl selectivity studies on *Nephrops norvegicus* (L.) in the eastern Mediterranean Sea. *Scientia Marina*, 62 (S1), 107–116.

Mytilineou, C., Herrmann, B., Sala, A., Mantopoulou-Palouka, D., Megalofonou, P., 2021. Estimating overall size-selection pattern in the bottom trawl fishery for four economically important fish species in the Mediterranean Sea. Ocean and Coastal Management, 209 (January), 105653. DOI: 10.1016/j.ocecoaman.2021.105653.

Nouar, A., 1985. Contribution a l'etude de la crevette peneide *Parapenaeus longirostris* (Lucas, 1846) dans la region d'Alger: Ecologie-Biologie-Exploitation. *These Universite de Sciences et Technologie H. Boumediene (USTHB)*,.

Ordines, F., Massutí, E., Guijarro, B., Mas, R., 2006. Diamond vs. square mesh codend in a multi-species trawl fishery of the western Mediterranean: Effects on catch composition, yield, size selectivity and discards. *Aquatic Living Resources*, 19 (4), 329–338. DOI: 10.1051/alr:2007003.

Özbilgin, H., Eryaşar, AR., Gökçe, G., Özbilgin, YD., Bozaoğlu, AS., Kalecik, E., Herrmann, B., 2015. Size selectivity of hand and machine woven codends and short term commercial loss in the Northeastern Mediterranean. *Fisheries Research*, 164, 73–85. DOI: https://doi.org/10.1016/j.fishres.2014.10.022.

Özbilgin, H., Tosunoğlu, Z., 2003. Comparison of the selectivities of double and single codends. *Fisheries Research*, 63 (1), 143–147.

Özbilgin, H., Tosunoğlu, Z., Aydin, C., Kaykaç, H., Tokaç, A., 2005. Selectivity of standard, narrow and square mesh panel trawl codends for hake (*Merluccius merluccius*) and poor cod (*Trisopterus minutus capelanus*). *Turkish Journal of Veterinary and Animal Sciences*, 29 (4), 967–973.

Özbilgin, H., Tosunoğlu, Z., Tokaç, A., Metin, G., 2007. Seasonal variation in the trawl codend selectivity of picarel (*Spicara smaris*). *ICES Journal of Marine Science*, 64 (8), 1569–1572.

Özbilgin, H., Tosunoğlu, Z., Tokaç, A., Metin, G., 2011. Seasonal variation in the trawl codend selectivity of red mullet (*Mullus barbatus*). *Turkish Journal of Fisheries and Aquatic Sciences*, 11 (2), 191–198.

Petetta, A., Herrmann, B., Virgili, M., De Marco, R., Canduci, G., Li Veli, D., Bargione, G., Vasapollo, C., Lucchetti, A., 2020. Estimating selectivity of experimental diamond (T0) and turned mesh (T90) codends in multi-species Mediterranean bottom trawl. Mediterranean Marine Science, 21 (3), 545–557. DOI: 10.12681/mms.22789.

Petrakis, G., Holst, R., Chilari, A., Alidromiti, K., 2004. WP5.3 Assessment of the selectivity of trammel nets and of trawl codend. In: *Development of an integrated management system to support the sustainability of Greek fisheries resources.* Kavadas, S. (Ed.) HCMR, Athens.

Petrakis, G., Stergiou, KI., 1997. Size selectivity of diamond and square mesh codends for four commercial Mediterranean fish species. *ICES Journal of marine Science*, 54 (1), 13–23.

Politou, C., Mytilineou, C., Fourtouni, A., 1997. Trawl selectivity studies on the commercially important by-catch species in *Nephrops* fisheries. In: *Proceedings of the 8th Panhellenic Congress of Ichthyologists*. Thessaloniki,.

Ragonese, S., Bianchini, ML., 2006. Trawl selectivity trials on the deep-water rose shrimp (*Parapenaeus longirostris*) in Sicilian waters. p. 113–119 In: *Issues of Decapod Crustacean Biology*. Springer,.

Ragonese, S., Bianchini, ML., Di Stefano, L., 2002. Trawl codend selectivity for deepwater red shrimp (*Aristaeomorpha foliacea* , Risso 1827) in the Strait of Sicily (Mediterranean Sea). *Fisheries Research*, 57, 131–144.

Ragonese, S., Bianchini, ML., Di Stefano, L., Campagnuolo, S., Bertolino, F., 1994. *Aristeus antennatus* and *Aristaeomorpha foliacea* in the Sicilian Channel. In: *Proceedings of the International Workshop on "Life cycles and fisheries of the deep-water red shrimps Aristaeomorpha foliacea and Aristeus antennatus."* Bianchini, ML., Ragonese, S. (Eds.) Mazara del Vallo,.

Rinelli, P., Giordano, D., Perdichizzi, F., Greco, S., Ragonese, S., 2005. Trawl gear selectivity on the deep-water rose shrimp (*Parapenaeus longirostris*, Lucas, 1846) in the Southern Tyrrhenian Sea (central Mediterranean). *Cahiers de biologie marine*, 46 (1), 1–7.

Sala, A., Herrmann, B., De Carlo, F., Lucchetti, A., Brčić, J., 2016. Effect of codend circumference on the size selection of square-mesh codends in trawl fisheries. *PLoS One*, 11 (7), e0160354.

Sala, A., Lucchetti, A., 2010. The effect of mesh configuration and codend circumference on selectivity in the Mediterranean trawl *Nephrops* fishery. *Fisheries Research*, 103 (1–3), 63–72. DOI: 10.1016/j.fishres.2010.02.003.

Sala, A., Lucchetti, A., 2011. Effect of mesh size and codend circumference on selectivity in the Mediterranean demersal trawl fisheries. *Fisheries Research*, 110 (2), 252–258. DOI: 10.1016/j.fishres.2011.04.012.

Sala, A., Lucchetti, A., Buglioni, G., 2007. The influence of twine thickness on the size selectivity of polyamide codends in a Mediterranean bottom trawl. *Fisheries Research*, 83 (2–3), 192–203. DOI: 10.1016/j.fishres.2006.09.013.

Sala, A., Lucchetti, A., Perdichizzi, A., Herrmann, B., Rinelli, P., 2015. Is square-mesh better selective than larger mesh? A perspective on the management for Mediterranean trawl fisheries. *Fisheries Research*, 161, 182–190. DOI: 10.1016/j.fishres.2014.07.011.

Sala, A., Lucchetti, A., Piccinetti, C., Ferretti, M., 2008. Size selection by diamond- and square-mesh codends in multi-species Mediterranean demersal trawl fisheries. *Fisheries Research*, 93 (1–2), 8–21. DOI: 10.1016/j.fishres.2008.02.003.

Sala, A., Priour, D., Herrmann, B., 2006. Experimental and theoretical study of red mullet (*Mullus barbatus*) selectivity in codends of Mediterranean bottom trawls. *Aquatic Living Resources*, 19 (4), 317–327.

Sardà, F., Bahamon, N., Molí, B., Sardà-Palomera, F., 2006. The use of a square mesh codend and sorting grids to reduce catches of young fish and improve sustainability in a multispecies bottom trawl fishery in the Mediterranean. *Scientia Marina*, 70 (3), 347–353. DOI: 10.3989/scimar.2006.70n3347.

Sardà, F., Conan, GY., Fusté, X., 1993. Selectivity of Norway lobster *Nephrops norvegicus* (L.) in the northwestern Mediterranean. *Scientia Marina*, 57, 167–174.

Sbrana, M., Biagi, F., Sartor, P., De Ranieri, S., 1998. Selectivity of a commercial bottom trawl net in the Tuscan Archipelago (Northern Tyrrenhian Sea). *Biologia Marina Mediterranea*, 5 (2), 449–456.

Sbrana, M., Reale, B., 1994. Selettivita di una rete a strascico di tipo "italiano" sulla cattura di nasello (Merluccius merluccius L.) nell'Arcipelago Toscano. *Biologia Marina Mediterranea*, 1 (1), 313–314.

Sbrana, M., Viva, C., Belcar, P., 2006. Fishery of the deep-water rose shrimp *Parapenaeus longirostris* (Lucas, 1846) (Crustacea: Decapoda) in the northern Tyrrhenian Sea (western Mediterranean). p. 135–*144 In: Issues of Decapod Crustacean Biology, Springer*.

Soldo, A., 2004. Construction, technical characteristics and selectivity of bottom trawls in the Adriatic. PhD Thesis.

Stergiou, KI., Petrakis, G., Politou, C-Y., 1997. Size selectivity of diamond and square mesh cod-ends for *Nephrops norvegicus* in the Aegean Sea. *Fisheries research*, 29 (3), 203–209.

Tokaç, A., Herrmann, B., Aydin, C., Kaykaç, H., Ünlüler, A., Gökçe, G., 2014. Predictive models and comparison of the selectivity of standard (T0) and turned mesh (T90) codends for three species in the Eastern Mediterranean. *Fisheries Research*, 150, 76–88. DOI: 10.1016/j.fishres.2013.10.015.

Tokaç, A., Lök, A., Tosunoğlu, Z., Metin, C., Ferro, RST., 1998. Cod-end selectivities of a modified bottom trawl for three fish species in the Aegean Sea. *Fisheries Research*, 39 (1), 17–31.

Tokaç, A., Özbilgin, H., Kaykac, H., 2009. Alternative codend designs to improve size selectivity for Norway lobster (*Nephrops norvegicus*) and rose shrimp (*Parapenaeus longirostris*) in the Aegean Sea. *Crustaceana*, 689–702.

Tokaç, A., Özbilgin, HÖ., Kaykaç, H., 2010. Selectivity of conventional and alternative codend design for five fish species in the Aegean Sea. Journal of Applied Ichthyology, 26 (3), 403–409. DOI: 10.1111/j.1439-0426.2009.01379.x.

Tokaç, A., Özbilgin, H., Tosunoğlu, Z., 2004. Effect of PA and PE material on codend selectivity in Turkish bottom trawl. *Fisheries Research*, 67 (3), 317–327. DOI: 10.1016/j.fishres.2003.10.001.

Tosunoğlu, Z., 2007. Trawl codend design (44 mm diamond PE mesh) and the effect on selectivity for *Pagellus erythrinus* and *Pagellus acarne*, two species with different morphometrics. *Journal of Applied Ichthyology*, 23 (5), 578–582.

Tosunoğlu, Z., Aydin, C., Ozaydin, O., Leblebici, S., 2007. Trawl cod end mesh selectivity of braided PE material for *Parapenaeus longirostris* (Lucas, 1846) (Decapoda, Penaeidae). *Crustaceana*, 1087–1094.

Tosunoğlu, Z., Aydin, C., Özaydin, O., 2008. Selectivity of a 50-mm diamond mesh knotless polyethylene codend for commercially important fish species in the Aegean Sea. *Journal of Applied Ichthyology*, 24 (3), 311–315. DOI: 10.1111/j.1439-0426.2008.01067.x.

Tosunoğlu, Z., Aydin, C., Salman, A., Fonseca, P., 2009. Selectivity of diamond, hexagonal and square mesh codends for three commercial cephalopods in the Mediterranean. *Fisheries Research*, 97 (1–2), 95–102. DOI: 10.1016/j.fishres.2009.01.006.

Tosunoğlu, Z., Ozbilgin, H., Tokaç, A., 2003a. Effects of the protective bags on the codend selectivity in Turkish bottom trawl fishery. *Archive of Fishery and Marine Research*, 50 (3), 239–252.

Tosunoğlu, Z., Özbilgin, YD., Özbilgin, H., 2003b. Body shape and trawl cod end selectivity for nine commercial fish species. *Journal of the Marine Biological Association of the United Kingdom*, 83 (6), 1309–1313.

Vives, F., Bas Peired, C., López Gómez, JJ., Morales, E., 1966. La pesca de arrastre en la provincia de Tarragona. *Publicaciones Tèchnicas Junta Est Pesca*, 5, 263–303.

Voliani, A., Abella, A., Serena, F., 1998. Problematiche inerenti la valutazione dello stato di sfruttamento di Mullus barbatus. *Biologia Marina Mediterranea*, 5 (2), 169–173.