Mediterranean Marine Science

Vol 24, No 3 (2023)

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doi: 10.12681/mms.33079

Supplementary Data

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
www.hcmr.gr
DOI: http://doi.org/10.12681/mms.33079

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Table S1. Main details of the survey carried out with questionnaires administered to fishers.

ID	Location	Country	Number of fishers in each area	Number of fishers participating in the survey (% on community)	Number of fishing operations monitored
1 (SCO)	*South Corsica*	France	38	13 (34)	136
2 (CPM)	*Cabo de Palos and adjacent Murcia coast*	Spain	19	17 (89)	90
3 (CRO)	*Cap Roux*	France	30	14 (46)	82
4 (CBL)	*Cote Bleue*	France	27	17 (63)	96
5 (EAT)	*Egadi archipelago and Trapani coast*	Italy	40	21 (52)	148
6 (SIF)	*Straits of Ibiza and Formentera*	Spain	18	12 (66)	169
7 (POR)	*Portofino promontory*	Italy	22	15 (68)	83
8 (STR)	*Strunjan*	Slovenia	10	9 (90)	156
9 (DOI)	*Dugi-Otok island*	Croatia	15	7 (46)	37
10 (NBC)	*North Brindisi coast*	Italy	5	5 (100)	147
11 (ZAI)	*Zakynthos island*	Greece	35	19 (54)	148

Table S2. Distribution of the fishing operations over the year.

	Spring	Summer	Autumn	Winter	%
January	0	0	0	64	*4.95*
February	0	0	0	25	*1.93*
March	13	0	0	23	*2.79*
April	71	0	0	0	*5.50*
May	127	0	0	0	*9.83*
June	125	62	0	0	*14.47*
July	0	168	0	0	*13.00*
August	0	167	0	0	*12.93*
September	0	94	15	0	*8.44*
October	0	0	172	0	*13.31*
November	0	0	132	0	*10.22*
December	0	0	23	11	*2.63*
TOTAL	***342***	***491***	***342***	***123***	**1292**
%	*26.01*	*38.00*	*26.47*	*9.52*	

Table S3. Species identified in the catches monitored. Major Taxa: Elasmobranchii (CF), Osteichthyes (F), Cephalopoda Mollusca (M) and Crustacea (C). Vulnerability: Least concern (LC), Near-threatened (NT), Vulnerable (VU), Endangered (EN), Critically Endangered (CR). For the reference numbers of the locations investigated, see Table S1.

Species	Group	Major taxa	Vulnerability	Areas of occurrence
Lophius piscatorius	Anglerfishes (AN)	F	LC	4, 10, 2, 6, 3, 7, 5, 1
Sphyraena sphyraena	Barracudas (BA)	F	LC	4, 5, 10, 2, 9, 7, 8, 3
Sphyraena viridensis	Barracudas (BA)	F	LC	4, 5, 10, 11, 2, 6, 3, 7, 9
Caranx rhonchus	Carangids (CA)	F	LC	2
Lichia amia	Carangids (CA)	F		10, 9, 1, 8
Pseudocaranx dentex	Carangids (CA)	F		11
Seriola dumerili	Carangids (CA)	F	LC	8, 5, 10, 11, 2, 6, 1, 7, 9, 3
Trachinotus ovatus	Carangids (CA)	F	LC	4, 2
Trachurus mediterraneus	Carangids (CA)	F	LC	8, 4, 5, 10, 11, 2, 6, 3, 7, 9
Trachurus trachurus	Carangids (CA)	F	LC	4, 5, 10, 2, 6, 3, 7, 9
Sardina pilchardus	Clupeids (CA)	F	LC	6
Sardinella aurita	Clupeids (CA)	F	LC	11, 2, 6, 7, 9, 3
Conger conger	Conger eels (CE)	F	LC	4, 5, 10, 2, 6, 7, 11
Arnoglossus thori	Flatfishes (FF)	F	LC	4, 7
Bothus podas	Flatfishes (FF)	F	LC	4, 5, 11, 2, 6, 7, 9
Citharus linguatula	Flatfishes (FF)	F	LC	4, 11, 7
Microchirus ocellatus	Flatfishes (FF)	F	LC	4, 10
Pegusa lascaris	Flatfishes (FF)	F		4, 6
Pegusa nasuta	Flatfishes (FF)	F		6
Psetta maxima	Flatfishes (FF)	F	NT	8, 4, 7
Scophthalmus rhombus	Flatfishes (FF)	F	LC	8
Solea solea	Flatfishes (FF)	F	LC	8, 4, 5, 10, 2, 7, 3
Synapturichthys kleinii	Flatfishes (FF)	F		5, 10, 11, 2
Mugilidae	Gray Mullets (GM)	F	LC	8, 4, 5, 10, 2, 6, 1, 7, 9, 11, 3

Continued

Species	Group	Major taxa	Vulnerability	Areas of occurrence
Epinephelus caninus	Groupers (GR)	F		2
Epinephelus costae	Groupers (GR)	F		5, 11, 2, 6
Epinephelus marginatus	Groupers (GR)	F	EN	4, 5, 2, 6, 3, 1, 7, 11
Mycteroperca rubra	Groupers (GR)	F	LC	11, 2
Chelidonichthys cuculus	Gurnards (GU)	F	LC	5
Chelidonichthys lucerna	Gurnards (GU)	F	LC	8, 4, 5, 10, 11, 6, 7, 3
Trigla lyra	Gurnards (GU)	F	LC	5, 3, 11, 9
Trigloporus lastoviza	Gurnards (GU)	F	LC	4, 5, 11, 2, 6, 9, 8
Merluccius merluccius	Hakes (HA)	F	VU	4, 10, 11, 2, 3, 7, 9, 6
Trisopterus capelanus	Hakes (HA)	F		4, 7
Trisopterus luscus	Hakes (HA)	F		4
Scomber colias	Mackerels (MA)	F	NT	4, 5, 11, 2, 3, 7, 9
Scomber japonicus	Mackerels (MA)	F		5, 10, 9, 4
Scomber scombrus	Mackerels (MA)	F	LC	4, 10, 7, 5, 1, 9, 3
Aulopus filamentosus	Others (OT)	F	LC	3
Balistes capriscus	Others (OT)	F		2, 6
Belone belone	Others (OT)	F	LC	5, 6
Boops boops	Others (OT)	F	LC	8, 4, 5, 10, 11, 2, 1, 7, 9
Capros aper	Others (OT)	F	LC	3
Coryphaena hippurus	Others (OT)	F	LC	9
Dactylopterus volitans	Others (OT)	F	LC	10, 11, 2, 6
Gaidropsarus mediterraneus	Others (OT)	F	LC	4
Gobius cruentatus	Others (OT)	F	LC	5
Lagocephalus sceleratus	Others (OT)	F		11
Muraena helena	Others (OT)	F	LC	4, 10, 11, 2, 6, 3, 7, 5, 1
Pomatomus saltatrix	Others (OT)	F	LC	4, 5, 10, 2
Sciaena umbra	Others (OT)	F	VU	8, 4, 5, 10, 11, 2, 6, 3, 1, 7, 9
Serranus cabrilla	Others (OT)	F	LC	4, 5, 10, 11, 2, 6, 7, 1, 9
Serranus scriba	Others (OT)	F	LC	4, 5, 10, 11, 2, 6, 3, 1, 7
Siganus luridus	Others (OT)	F		11
Siganus rivulatus	Others (OT)	F		11
Sparisoma cretense	Others (OT)	F	LC	11, 6
Syngnathidae	Others (OT)	F		2
Synodus saurus	Others (OT)	F	LC	4, 5, 11, 2, 6, 7, 10
Umbrina cirrosa	Others (OT)	F	VU	8, 2, 10
Zeus faber	Others (OT)	F	LC	4, 5, 11, 6, 3, 7, 9, 1, 2, 8
Phycis phycis	Others (OT)	F	LC	4, 5, 10, 11, 2, 6, 3, 1, 7, 9
Spicara flexuosa	Picarels (PI)	F		9
Spicara maena	Picarels (PI)	F	LC	4, 5, 10, 11, 2, 6, 3, 7, 1, 9
Spicara smaris	Picarels (PI)	F	LC	11, 2
Dentex dentex	Porgies (PO)	F	VU	8, 4, 5, 10, 11, 2, 6, 3, 1, 7, 9
Diplodus annularis	Porgies (PO)	F	LC	4, 5, 10, 11, 2, 6, 3, 1, 9, 7
Diplodus cervinus	Porgies (PO)	F		4, 2, 5
Diplodus puntazzo	Porgies (PO)	F	LC	8, 4, 5, 10, 11, 2, 6, 3, 7, 9, 1
Diplodus sargus	Porgies (PO)	F	LC	8, 4, 5, 10, 11, 2, 6, 1, 7, 9, 3
Diplodus vulgaris	Porgies (PO)	F	LC	4, 5, 10, 11, 2, 6, 3, 1, 7, 9, 8
Lithognathus mormyrus	Porgies (PO)	F	LC	8, 4, 5, 10, 11, 2, 7, 9, 1, 6, 3

Continued

Table S3 continued

Species	Group	Major taxa	Vulnerability	Areas of occurrence
Oblada melanura	Porgies (PO)	F	LC	4, 5, 10, 11, 2, 6, 3, 1, 7, 9
Pagellus acarne	Porgies (PO)	F	LC	4, 5, 10, 11, 2, 6, 7, 9
Pagellus bogaraveo	Porgies (PO)	F	LC	2, 6, 7
Pagellus erythrinus	Porgies (PO)	F	LC	8, 4, 5, 10, 11, 2, 6, 3, 1, 7, 9
Pagrus pagrus	Porgies (PO)	F	LC	4, 5, 10, 11, 2, 6, 3, 7, 1, 9
Sarpa salpa	Porgies (PO)	F	LC	8, 4, 5, 10, 2, 6, 3, 1, 7, 9, 11
Sparus aurata	Porgies (PO)	F	LC	8, 4, 5, 10, 2, 6, 3, 1, 7, 9
Spondyliosoma cantharus	Porgies (PO)	F	LC	5, 10, 11, 2, 6, 3, 1, 7, 9, 8
Mullus barbatus	Red Mullets (RM)	F	LC	4, 10, 11, 2, 7, 9, 8, 3
Mullus surmuletus	Red Mullets (RM)	F	LC	8, 4, 5, 10, 11, 2, 6, 3, 1, 7, 9
Scorpaena elongata	Scorpionfishes (SC)	F	LC	3, 6
Scorpaena maderensis	Scorpionfishes (SC)	F	LC	11
Scorpaena notata	Scorpionfishes (SC)	F	LC	4, 5, 10, 11, 2, 6, 1
Scorpaena porcus	Scorpionfishes (SC)	F	LC	8, 4, 5, 10, 11, 2, 6, 3, 7, 9, 1
Scorpaena scrofa	Scorpionfishes (SC)	F	LC	8, 4, 5, 10, 11, 2, 6, 3, 1, 7, 9
Dicentrarchus labrax	Seabasses (SB)	F	NT	8, 4, 10, 2, 9
Dicentrarchus punctatus	Seabasses (SB)	F	LC	7
Auxis rochei	Small tunas (ST)	F	LC	2, 6, 1, 7, 11, 3
Euthynnus alletteratus	Small tunas (ST)	F	LC	8, 4, 5, 2, 7, 11, 9, 3
Sarda sarda	Small tunas (ST)	F	LC	4, 5, 10, 2, 6, 7, 9, 11, 3
Trachinus araneus	Stargazers (SG)	F	LC	2, 11
Trachinus draco	Stargazers (SG)	F	LC	4, 5, 11, 2, 6, 1, 7, 9
Trachinus radiatus	Stargazers (SG)	F	LC	4, 5, 10, 11, 2, 6, 3
Uranoscopus scaber	Stargazers (SG)	F	LC	4, 5, 10, 11, 2, 6, 3, 7, 1, 9
Coris julis	Wrasses (WR)	F	LC	5, 10, 2
Labrus merula	Wrasses (WR)	F	LC	4, 5, 10, 11, 2, 6, 1, 7
Labrus viridis	Wrasses (WR)	F	VU	4, 5, 10, 11, 2, 6, 3, 7, 1
Symphodus bailloni	Wrasses (WR)	F		6
Symphodus mediterraneus	Wrasses (WR)	F	LC	4, 6, 11
Symphodus melops	Wrasses (WR)	F	LC	4, 6, 11
Symphodus ocellatus	Wrasses (WR)	F	LC	7
Symphodus roissali	Wrasses (WR)	F	LC	4
Symphodus tinca	Wrasses (WR)	F	LC	4, 5, 10, 11, 2, 6, 3, 1, 7, 9
Thalassoma pavo	Wrasses (WR)	F	LC	4
Xyrichtys novacula	Wrasses (WR)	F	LC	5, 11
Torpedo marmorata	Others (OT)	CF	LC	8, 5, 10, 2, 6
Torpedo torpedo	Others (OT)	CF	LC	1
Dasyatis pastinaca	Rays (RA)	CF	VU	10, 11, 6, 1
Dasyatis tortonesei	Rays (RA)	CF		10, 6, 9
Dipturus batis	Rays (RA)	CF	CR	1
Dipturus oxyrinchus	Rays (RA)	CF	NT	11
Leucoraja fullonica	Rays (RA)	CF	CR	6
Leucoraja naevus	Rays (RA)	CF	NT	6
Myliobatis aquila	Rays (RA)	CF	VU	2, 6, 1, 8
Pteroplatytrygon violacea	Rays (RA)	CF	LC	6, 1, 4
Raja asterias	Rays (RA)	CF	NT	8, 4, 10, 2, 6, 7

Continued

Table S3 continued

Species	Group	Major taxa	Vulnerability	Areas of occurrence
Raja brachyura	Rays (RA)	CF	NT	2, 6, 10
Raja clavata	Rays (RA)	CF	NT	6, 1
Raja miraletus	Rays (RA)	CF	LC	11, 6
Raja montagui	Rays (RA)	CF	LC	6, 11, 3
Raja polystigma	Rays (RA)	CF	LC	2, 6, 3, 4
Raja radula	Rays (RA)	CF	EN	5, 2, 6
Raja undulata	Rays (RA)	CF	NT	6
Rostroraja alba	Rays (RA)	CF	EN	6, 1
Mustelus mustelus	Sharks (SH)	CF	VU	5, 2, 6, 9, 8
Mustelus punctulatus	Sharks (SH)	CF	VU	8, 5
Rhinobatos rhinobatos	Sharks (SH)	CF	EN	2
Scyliorhinus canicula	Sharks (SH)	CF	LC	2, 6, 1, 9
Scyliorhinus stellaris	Sharks (SH)	CF	NT	6, 1, 3
Maja squinado	Crabs	C		5, 10, 11, 6, 1, 7, 9
Homarus gammarus	Lobsters (LO)	C	LC	4, 7, 5, 1
Palinurus elephas	Lobsters (LO)	C	VU	4, 5, 10, 11, 2, 6, 3, 1, 7, 9
Palinurus mauritanicus	Lobsters (LO)	C		3
Scyllarides latus	Lobsters (LO)	C		10, 11, 6
Scyllarus arctus	Lobsters (LO)	C	LC	4, 5
Squilla mantis	Lobsters (LO)	C		8, 4, 10, 11, 7
Penaeus kerathurus	Shrimps	C		8, 10
Eledone moschata	Cephalopods (CE)	M	LC	8, 11, 6
Loligo vulgaris	Cephalopods (CE)	M		8, 4, 10, 11, 2, 6, 3, 7, 9
Octopus vulgaris	Cephalopods (CE)	M	LC	8, 4, 5, 10, 11, 2, 6, 3, 7, 1
Sepia officinalis	Cephalopods (CE)	M	LC	4, 5, 10, 11, 2, 6, 3, 1, 7, 9, 8

Table S4. Relative frequency of occurrence (F %) of threatened species (i.e. belonging to the IUCN categories CR=red, EN=orange and VU=yellow) in the considered areas.

	SCO	CBM	CRO	CBL	EAT	SIF	POR	STR	DOI	NBC	ZAI
Dasyatis pastinaca (VU)	5.6	0	0	0	0	13.58	0	0	0	9.52	1.37
Dentex dentex (VU)	9.6	38.2	2.53	3.23	2.74	9.26	3.8	4.58	8.11	30.61	7.53
Dipturus batis (CR)	0.8	0	0	0	0	0	0	0	0	0	0
Epinephelus marginatus (EN)	1.6	4.49	5.06	2.15	3.42	6.17	3.8	0	0	0	1.37
Labrus viridis (VU)	2.4	6.74	2.53	3.23	11.64	23.46	2.53	0	0	2.04	3.42
Leucoraja fullonica (CR)	0	0	0	0	0	0.62	0	0	0	0	0
Merluccius merluccius (VU)	0	3.37	10.13	8.6	0	0.62	5.06	0	13.51	2.04	6.16
Mustelus mustelus (VU)	0	2.25	0	0	21.92	0.62	0	3.92	10.81	0	0
Mustelus punctulatus (VU)	0	0	0	0	0.68	0	0	3.92	0	0	0
Myliobatis aquila (VU)	4	1.12	0	0	0	6.17	0	0.65	0	0	0
Palinurus elephas (VU)	44	3.37	8.86	25.81	4.79	14.2	8.86	0	2.7	4.08	8.9
Raja radula (EN)	0	5.62	0	0	13.01	23.46	0	0	0	0	0
Rhinobatos rhinobatos (EN)	0	1.12	0	0	0	0	0	0	0	0	0
Rostroraja alba (EN)	0	0	0	0	0	7.41	0	0	0	0	0
Sciaena umbra (VU)	4.8	29.21	6.33	3.23	11.64	34.57	2.53	5.88	5.41	38.1	5.48
Umbrina cirrosa (VU)	0	5.62	0	0	0	0	0	2.61	0	0.68	0

Table S5. The 5 most frequently caught species in SSF catches for each area.

	1st	2nd	3rd	4th	5th
South Corsica	*Scorpaena scrofa*	*Palinurus elephas*	*Phycis phycis*	*Pagellus erythrinus*	*Diplodus sargus*
Cabo de Palos - adjacent Murcia coast	*Scorpaena porcus*	*Dentex dentex*	*Diplodus vulgaris*	*Seriola dumerili*	*Euthynnus alletteratus*
Cap Roux	*Scorpaena scrofa*	*Mullus surmuletus*	*Scorpaena porcus*	*Zeus faber*	*Merluccius merluccius*
Cote Bleue	*Sparus aurata*	*Scorpaena porcus*	*Sarpa salpa*	*Mullus surmuletus*	*Diplodus sargus*
Egadi archipelago and Trapani coast	*Scorpaena scrofa*	*Scorpaena porcus*	*Sepia officinalis*	*Diplodus vulgaris*	*Uranoscopus scaber*
Straits of Ibiza and Formentera	*Scorpaena scrofa*	*Sepia officinalis*	*Scorpaena porcus*	*Uranoscopus scaber*	*Zeus faber*
Portofino promontory	*Mullus surmuletus*	*Scorpaena porcus*	*Scorpaena scrofa*	*Pagellus erythrinus*	*Symphodus tinca*
Strunjan	*Sparus aurata*	*Solea solea*	*Dicentrarchus labrax*	*Mugilidae*	*Squilla mantis*
Dugi-Otok island	*Sparus aurata*	*Diplodus vulgaris*	*Zeus faber*	*Pagellus erythrinus*	*Trachurus trachurus*
North Brindisi coast	*Mullus surmuletus*	*Scorpaena scrofa*	*Pagellus erythrinus*	*Diplodus vulgaris*	*Symphodus tinca*
Zakynthos island	*Scorpaena scrofa*	*Mullus surmuletus*	*Sparisoma cretense*	*Pagellus erythrinus*	*Serranus scriba*

Table S6. Results from the glm on the ration undersized/total individuals for 5 species with a MCRS.

Response	Degrees of Freedom	Chisq	p
Mesh size	1	45.278	1.71E-11
Species	4	40.086	4.15E-08
*Mesh size * Species*	4	29.386	6.52E-06

Fig. S1: Example of a picture displaying the photo-sample of a set net catch.

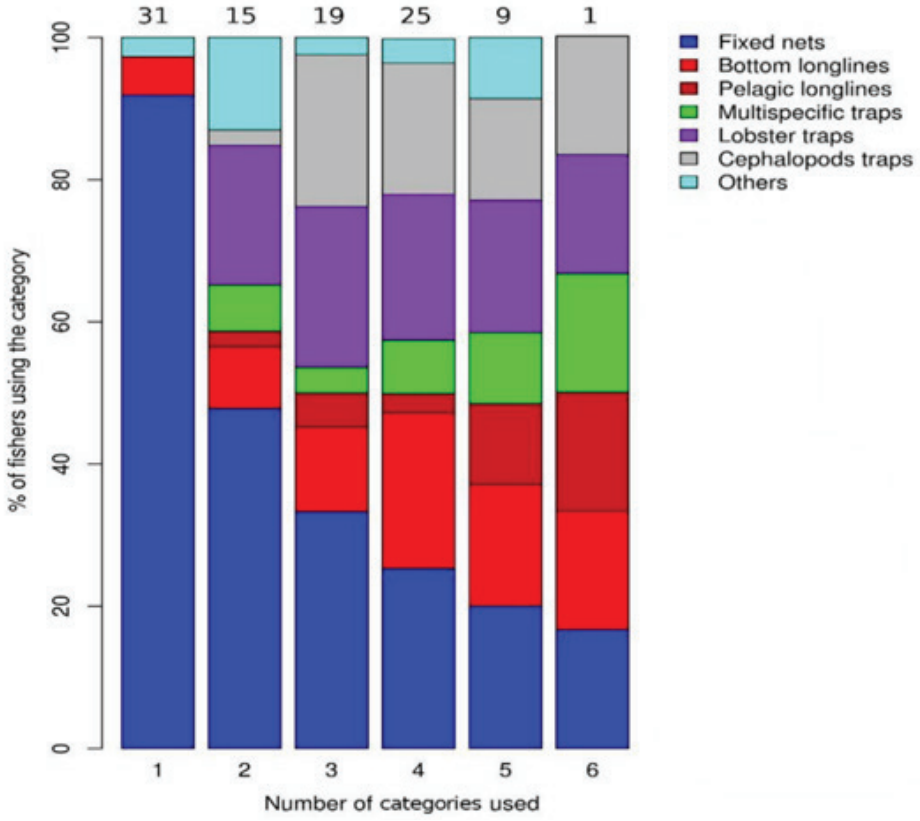

Fig. S2: Percentage of fishers using different categories of gear with increasing number categories. On top of each bar, the percentage of fishers using the relative number of gear categories is reported.

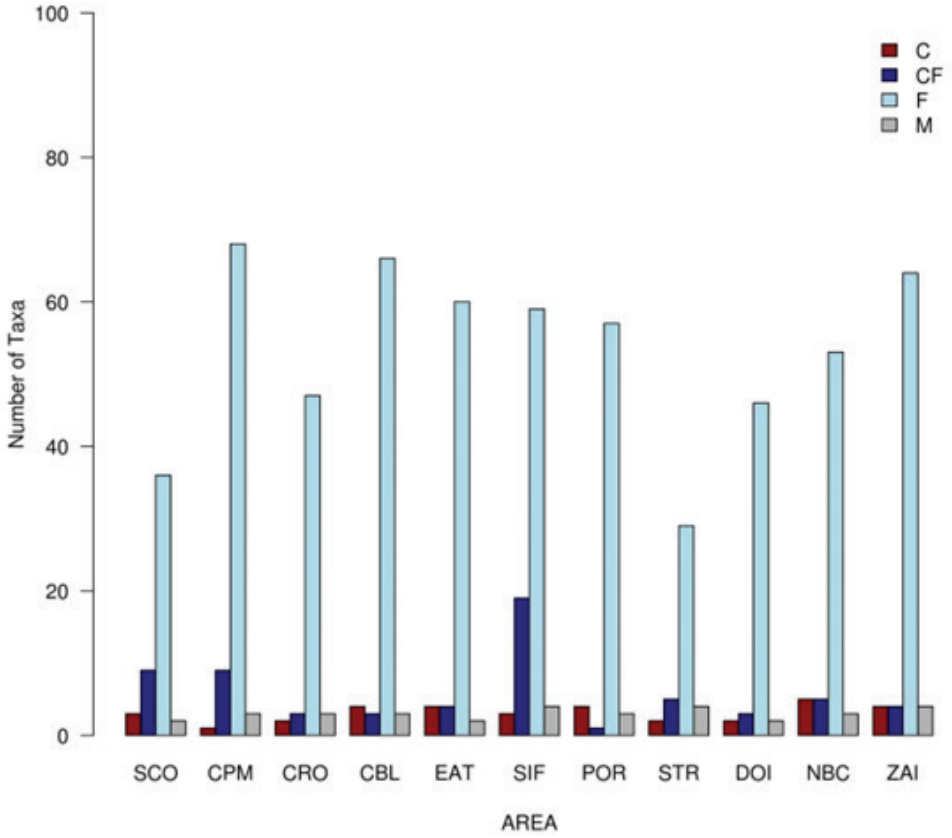

Fig. S3: Barplot of total number of species recorded in SSF catches in each area. Different colors represent different Taxa: C=Crustaceans, CF=Elasmobranchii, F=Osteichthyes, M=Cephalopos Mollusks. For the location codes, see Table S1.

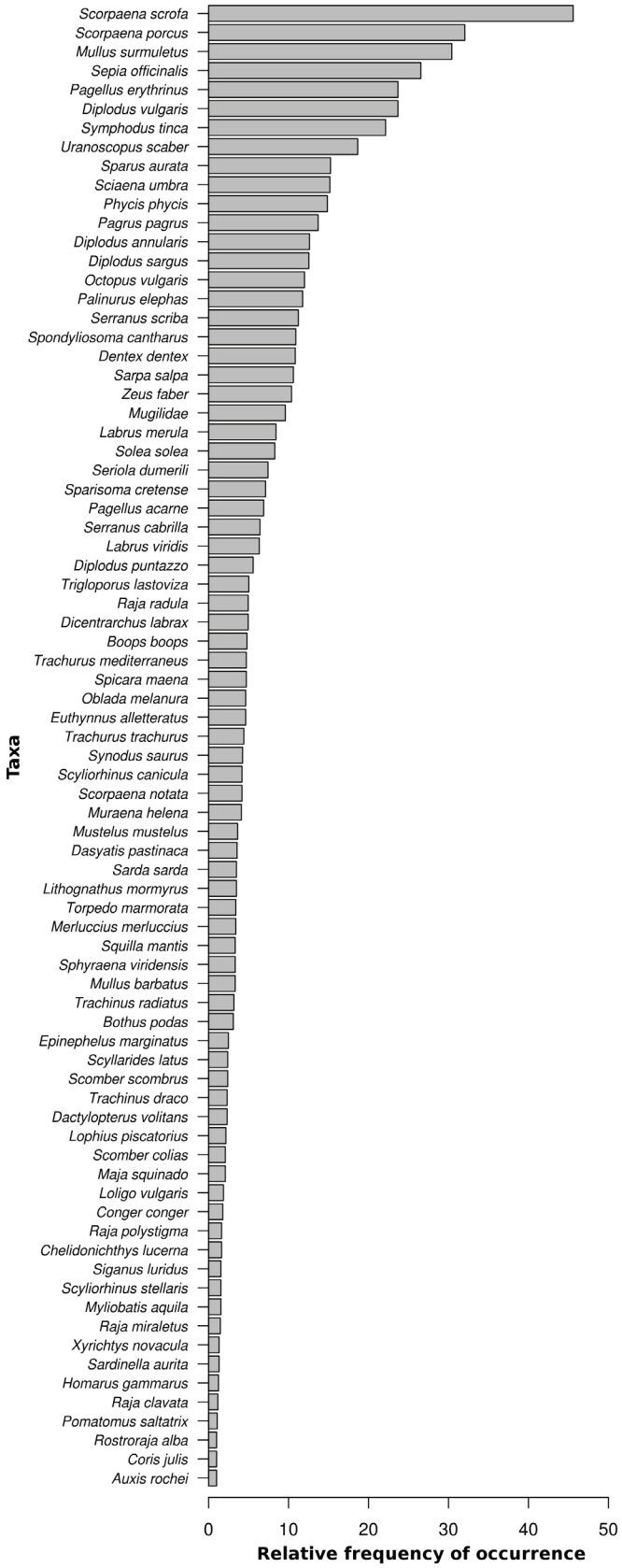

Fig. S4: Species relative frequency of occurrence for species present in at least 1% of catches.

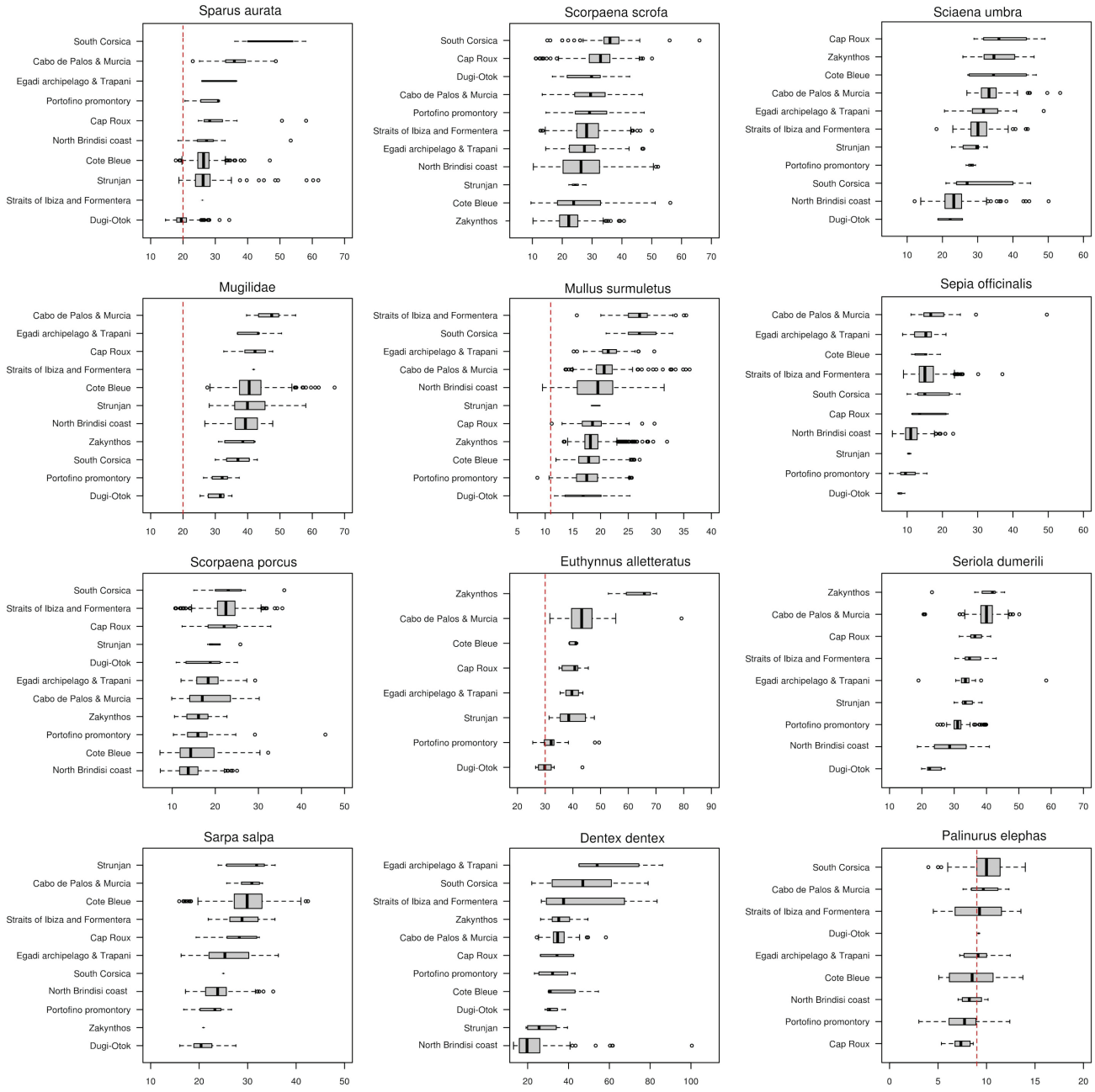

Fig. S5: Boxplots of size (cm) distribution for the 12 most abundant species in terms of biomass caught. Width of boxplots proportional to the number of specimens. For each species, boxplots are ordered from bottom to top on the basis of increasing median size in each area considered. Red dashed lines represent the species MCRSs, where present.

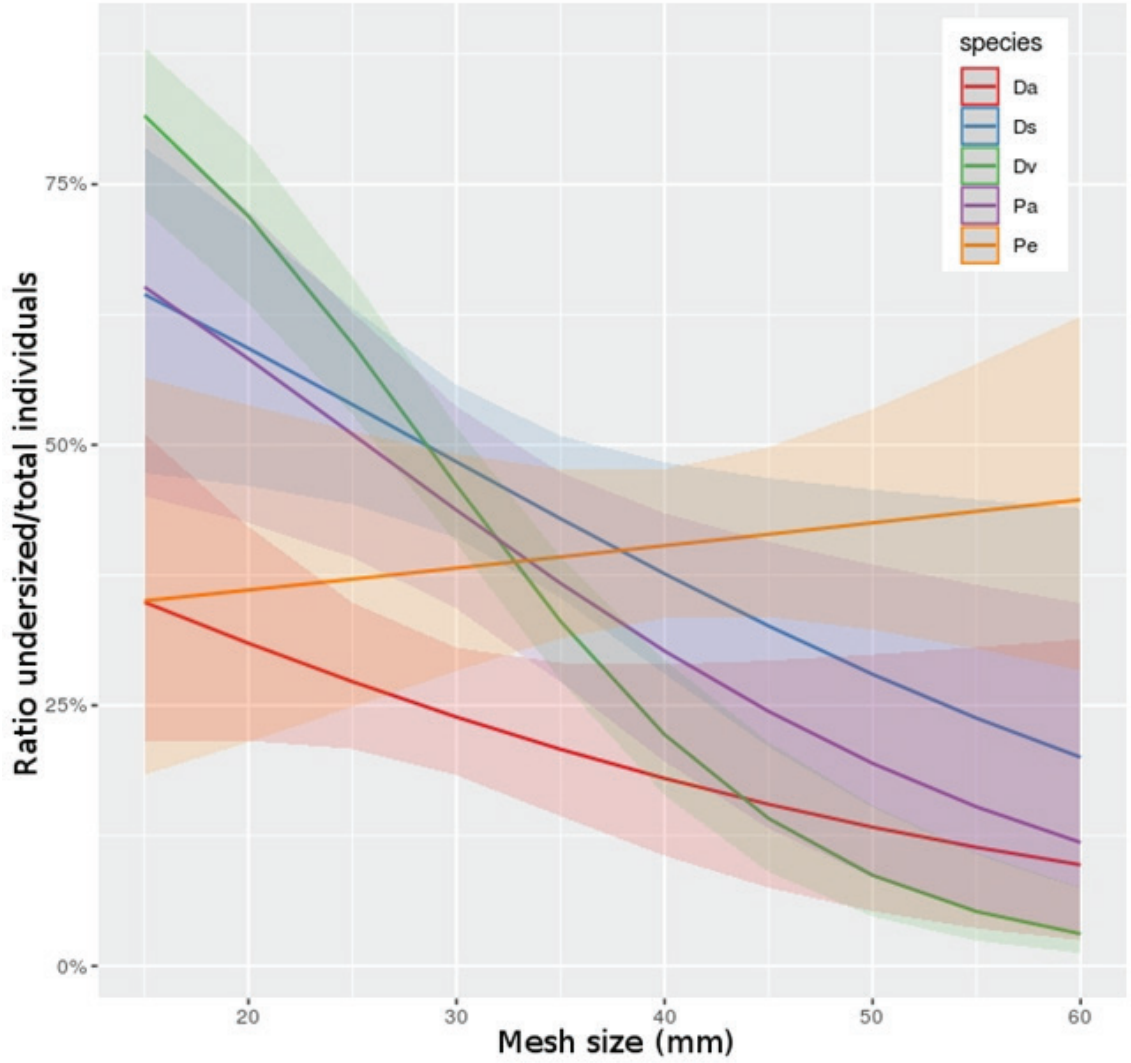

Fig. S6: Relationship between the relative frequency of occurrence of undersized (total length<MCRS) individuals (in relation to the total number of conspecific individuals present in the catch) and the mesh size, for 5 species with a MCRS (Dv= *Diplodus vulgaris*, Da= *Diplodus annularis*, Ds= *Diplodus sargus*, Pa-*Pagellus acarne*, Pe= *Palinurus elephas*).

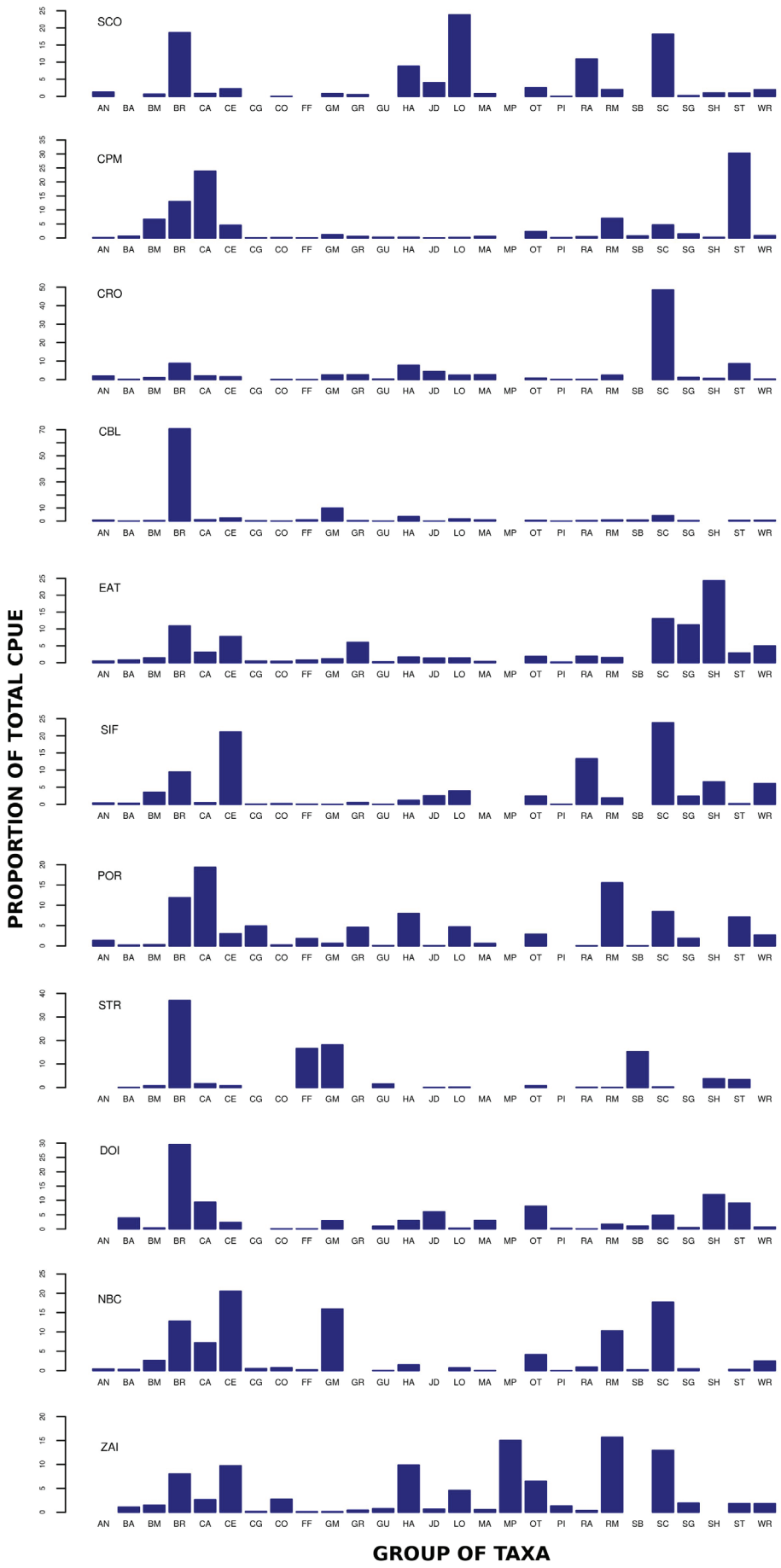

Fig. S7: Proportion of CPUE for each group of species in each area. Values for each area sum up to 100. The codes of the locations are shown in Table S1, those of the groups in Table S3.

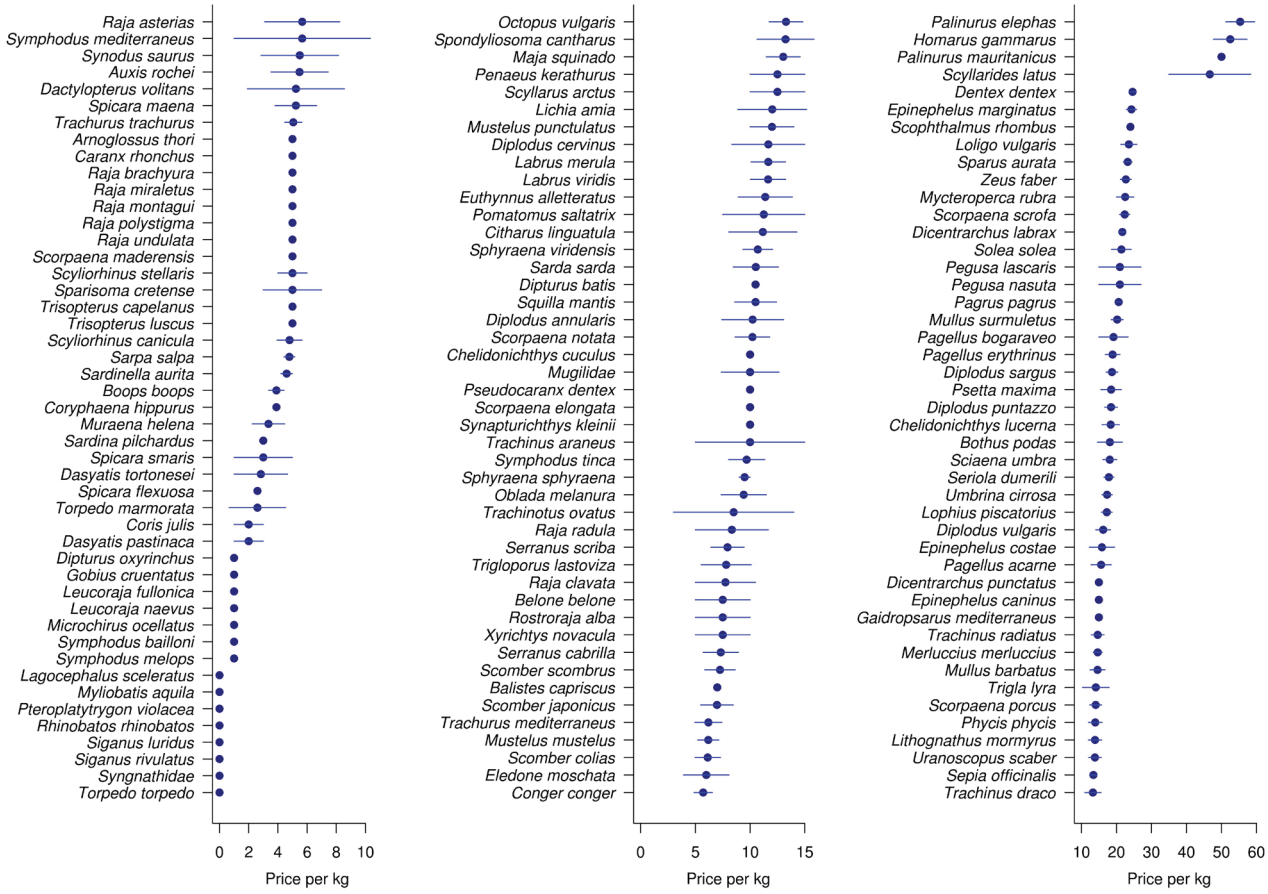

Fig. S8: Prices (euro per kg) at landing for the species assessed in SSF catches. Dots represent mean prices for all areas, segments represent standard errors.

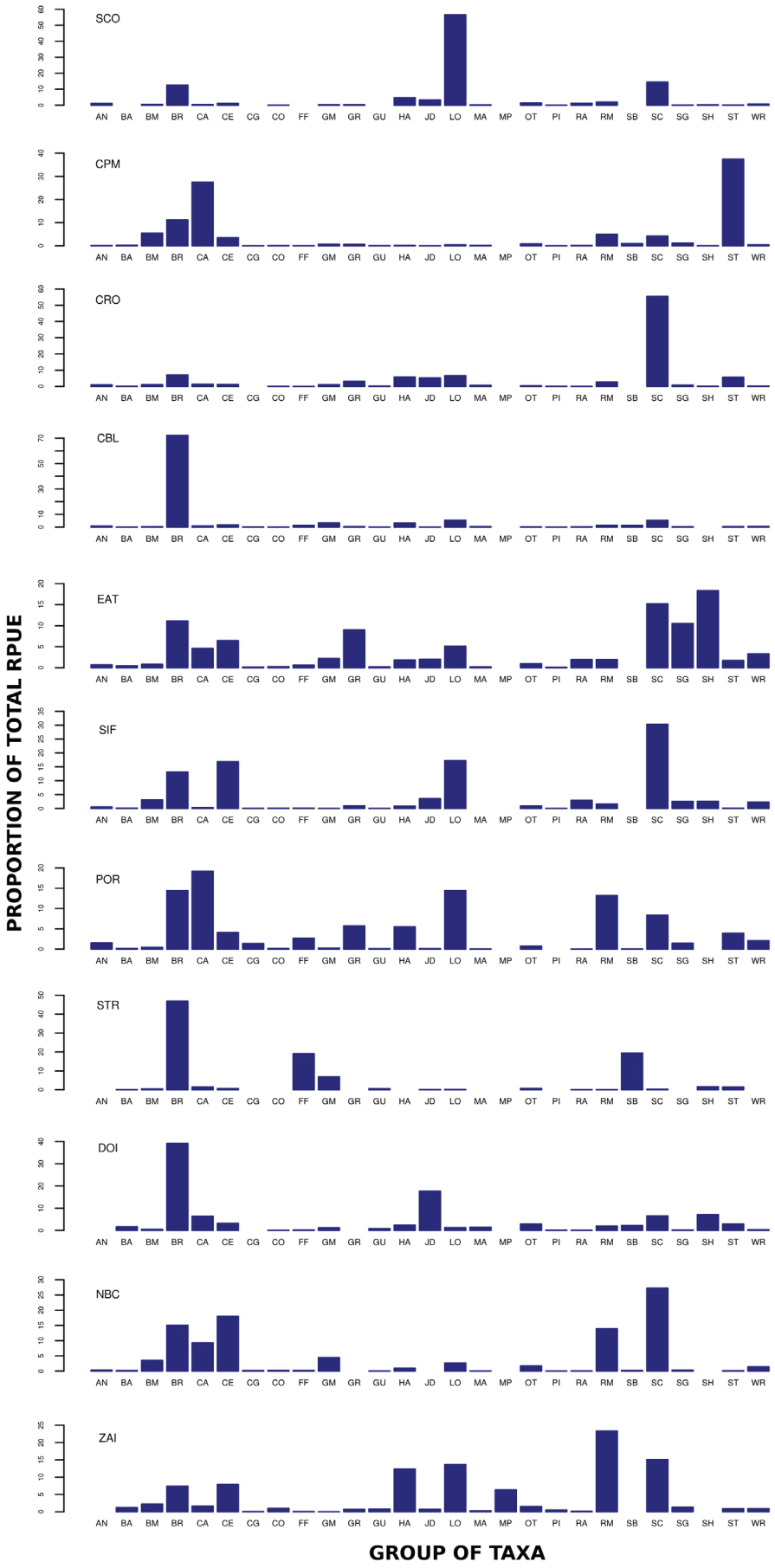

Fig. S9: Proportion of RPUE for each group of species in each area. The codes of the locations are shown in Table S1, those of the groups in Table S3.

TEST FOR ESTIMATING PHOTO-SAMPLING ACCURACY

In order to check the accuracy of the photo-sampling methodology coupled with the laboratory image analysis in providing reliable estimations of fish size (and consequently biomass), we compared the actual length measurements of the specimens in the field with that obtained using an image-analysis software (ImageJ). For this purpose, during the monitoring of one of the catches, we randomly measured the total length of a set of 27 specimens (belonging to 6 species) in the field and then, for the same individuals, we used the corresponding photo-samples to measure their length by means of ImageJ software. Differences in the body length between the actual and the software-estimated measurements ranged from 0 to 6% of total fish length (corresponding to differences ranging from 0 to 1.1 cm). The overall difference in percentage between the measured and the calculated lengths was -0.68% ± 0.72 (mean ± se). These findings suggest a rather small deviation of the calculated lengths, which can be acceptable given that this methodology falls within the rationale of a rapid and cost-effective sampling technique massively implemented over an extensive geographical context.

QUESTIONNAIRE ADMINISTERED FOR FISHING FLEET CHARACTERIZATION

Interviewee's gender? (To be filled out directly by interviewer)

☐ Male ☐ Female

What is your age group?

☐ 20-30 years old ☐ 30-40 years old ☐ 40-50 years old

☐ 50-60 years old ☐ 60+ years old

What is your highest level of education completed?

☐ None ☐ Elementary school ☐ Middle school

☐ High school ☐ University degree – Bachelors or higher

What types of gears do you use/types of fisheries do you engage in? Please check all categories that apply.

☐ Fixed nets (e.g. trammel, gillnet….) for multi-species fisheries

☐ Bottom Longlines ☐ Pelagic Longlines

☐ Traps for multi-species fisheries ☐ Lobster fisheries (by using e.g. nets, traps etc)

☐ Cephalopod fisheries (by using e.g. nets, traps etc.)

☐ Other: _____

How many boats do you own? List # _____

What is the size of your boat(s)? _____ length in meters (if more than one, list size for each one separately)

What is the power of your boat(s)? _____ length in meters (if more than one, list size for each one separately)