**Supplementary material**

Table S1. Total number of individuals caught per species throughout the sampling period (2020-2023) defined by Class, Familiy, and Scientific name. The taxonomy is according to FishBase.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Class | Family | Scientific name | Common names | Total |
| Teleostei | **Anguillidae** | *Anguilla anguilla* | European eel | 1 |
|  | **Belonidae** | *Belone belone* | Garfish | 3 |
|  | **Blenniidae** | *Parablennius spp.* | - | 10 |
|  | **Bothidae** | *Bothus podas* | Wide-eyed flounder | 16 |
|  | **Bramidae** | *Brama brama* | Atlantic pomfret | 13 |
|  | **Carangidae** | *Caranx crysos* | Blue runner | 4 |
|  |  | *Lichia amia* | Leerfish | 2 |
|  |  | *Seriola dumerili* | Greater amberjack | 329 |
|  |  | *Trachinotus ovatus* | Pompano | 40 |
|  |  | *Trachurus mediterraneus* | Mediterranean horse mackerel | 230 |
|  |  | *Trachurus trachurus* | Atlantic horse mackerel | 340 |
|  | **Congridae** | *Conger conger* | European conger | 12 |
|  | **Coryphaenidae** | *Coryphaena hippurus* | Mahi-mahi | 154 |
|  | **Gadidae** | *Trisopterus capelanus* | Capelan | 3 |
|  | **Haemulidae** | *Pomadasys incisus* | Bastard grunt | 18 |
|  | **Istiophoridae** | *Tetrapturus belone* | Mediterranean spearfish | 1 |
|  | **Labridae** | *Coris julis* | Mediterranean rainbow wrasse | 180 |
|  |  | *Labrus merula* | Brown wrasse | 24 |
|  |  | *Labrus mixtus* | Cuckoo wrasse | 2 |
|  |  | *Labrus viridis* | Green wrasse | 7 |
|  |  | *Symphodus cinereus* | Grey wrasse | 4 |
|  |  | *Symphodus mediterraneus* | Axillary wrasse | 1 |
|  |  | *Symphodus ocellatus* | Ocellated wrasse | 11 |
|  |  | *Symphodus tinca* | [East Atlantic peacock wrasse](https://fishbase.mnhn.fr/Summary/SpeciesSummary.php?id=1708&lang=spanish) | 15 |
|  |  | *Xyrichtys novacula* | Pearl razor fish | 143 |
|  | **Merlucciidae** | *Merluccius merluccius* | European hake | 1 |
|  | **Moronidae** | *Dicentrarchus labrax* | European seabass | 172 |
|  | **Mugilidae** | *Chelon auratus* | Golden grey mullet | 34 |
|  |  | *Chelon labrosus* | Thicklip grey mullet | 23 |
|  |  | *Mugil cephalus* | Flathead grey mullet | 26 |
|  | **Mullidae** | *Mullus barbatus* | Red mullet | 42 |
|  |  | *Mullus surmuletus* | Striped red mullet | 182 |
|  | **Muraenidae** | *Muraena helena* | Mediterranean moray | 4 |
|  | **Phycidae** | *Phycis blennoides* | Greater forkbeard | 2 |
|  |  | *Phycis phycis* | Forkbeard | 42 |
|  | **Pomacentridae** | *Chromis chromis* | Damselfish / Mediterranean chromis | 27 |
|  | **Pomatomidae** | *Pomatomus saltatrix* | Bluefish | 71 |
|  | **Sciaenidae** | *Sciaena umbra* | Brown meagre | 30 |
|  |  | *Umbrina cirrosa* | Shi drum | 6 |
|  | **Scombridae** | *Auxis rochei* | Bullet tuna | 22 |
|  |  | *Euthynnus alletteratus* | Little tunny | 556 |
|  |  | *Sarda sarda* | Atlantic bonito | 144 |
|  |  | *Scomber colias* | Atlantic chub mackerel | 53 |
|  |  | *Scomber scombrus* | Atlantic mackerel | 437 |
|  |  | *Scomber spp.* | - | 2 |
|  |  | *Thunnus alalunga* | Albacore | 22 |
|  |  | *Thunnus thynnus* | Atlantic bluefin tuna | 61 |
|  | **Scorpaenidae** | *Scorpaena notata* | Small red scorpionfish | 1 |
|  |  | *Scorpaena porcus* | Black scorpionfish | 17 |
|  |  | *Scorpaena scrofa* | Red scorpionfish | 70 |
|  | **Sebastidae** | *Helicolenus dactylopterus* | Blackbelly rosefish | 117 |
|  | **Serranidae** | *Anthias anthias* | Swallowtail seaperch | 10 |
|  |  | *Epinephelus marginatus* | Dusky grouper | 42 |
|  |  | *Serranus cabrilla* | Comber | 1408 |
|  |  | *Serranus scriba* | Painted comber | 198 |
|  | **Soleidae** | *Solea solea* | Common sole | 2 |
|  | **Sparidae** | *Boops boops* | Bogue | 178 |
|  |  | *Dentex dentex* | Common dentex | 97 |
|  |  | *Diplodus annularis* | Annular sea bream | 165 |
|  |  | *Diplodus cervinus* | Zebra sea bream | 25 |
|  |  | *Diplodus puntazzo* | Sharpsnout seabream | 45 |
|  |  | *Diplodus sargus* | White seabream | 632 |
|  |  | *Diplodus spp.* | - | 2 |
|  |  | *Diplodus vulgaris* | Common two-banded seabream | 147 |
|  |  | *Lithognathus mormyrus* | Striped seabream | 142 |
|  |  | *Oblada melanurus* | Saddled seabream | 159 |
|  |  | *Pagellus acarne* | Axillary seabream | 138 |
|  |  | *Pagellus bogaraveo* | Blackspot seabream | 243 |
|  |  | *Pagellus erythrinus* | Common pandora | 594 |
|  |  | *Pagrus pagrus* | Red porgy | 83 |
|  |  | *Sarpa salpa* | Salema porgy/Salpa | 52 |
|  |  | *Sparus aurata* | Gilthead seabream | 573 |
|  |  | *Spicara maena* | Blotched picarel | 183 |
|  |  | *Spondyliosoma cantharus* | Black seabream | 80 |
|  | **Sphyraenidae** | *Sphyraena sphyraena* | European barracuda | 61 |
|  |  | *Sphyraena viridensis* | Yellowmouth barracuda | 33 |
|  | **Synodontidae** | *Synodus saurus* | Atlantic lizardfish | 3 |
|  | **Trachinidae** | *Echiichthys vipera* | Lesser weever | 6 |
|  |  | *Trachinus araneus* | Spider weever | 55 |
|  |  | *Trachinus draco* | Greater weever | 114 |
|  | **Triglidae** | *Chelidonichthys lucerna* | Tub gurnard | 2 |
|  | **Zeidae** | *Zeus faber* | John Dory | 1 |
| Echinoderma | **Echinometridae** | *Paracentrotus lividus* | Purple sea urchin | 130 |
| Cephalopoda | **Loliginidae** | *Loligo vulgaris* | Common squid | 660 |
|  | **Sepiidae** | *Sepia officinalis* | Common cuttlefish | 573 |
|  | **Octopodidae** | *Octopus vulgaris* | Common octopus | 124 |

Table S2. List of species contributing to the difference in the cath composition of the marine recreational fisheries among (a) different sampling zones and (b) different seasons. Some zones and seasons comparisons are lacking from the table because there were no significant dofferences between them. The difference that these species account for is represented in the % Difference. Ranosim and p-value are statistic values.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| a) | | | | | | |
| **Zones compared** | | **Species accounting for differences** | |  | | |
| Zone 1 | Zone 2 | Spp assemblage 1 | Spp assemblage 2 | % Difference | Ranosim value | p-value |
| North | Center | *Serranus cabrilla*  *Sparus aurata*  *Loligo vulgaris*  *Octopus vulgaris*  *Mullus surmuletus* | *Diplodus sargus*  *Sepia officinalis*  *Seriola dumerili*  *Euthynnus alletteratus*  *Dicentrarchus labrax* | 51% | 0.08 | <0.01 |
| South | North | *Sparus aurata*  *Sepia officinalis*  *Diplodus sargus*  *Dicentrarchus labrax*  *Octopus vulgaris* | *Serranus cabrilla*  *Loligo vulgaris* | 50% | 0.11 | <0.01 |
| b) | | | | | | |
| **Seasons compared** | | **Species accounting for differences** | |  | | |
| Season 1 | Season 2 | Spp assemblage 1 | Spp assemblage 2 | % Difference | Ranosim value | p-value |
| Winter | Spring | *Loligo vulgaris* | *Serranus cabrilla*  *Sepia officinalis*  *Diplodus sargus*  *Sparus aurata*  *Dicentrarchus labrax* | 52% | 0.02 | <0.01 |
| Winter | Summer | *Loligo vulgaris*  *Sepia officinalis* | *Serranus cabrilla*  *Diplodus sargus*  *Sparus aurata*  *Dicentrarchus labrax*  *Euthynnus alletteratus* | 44% | 0.13 | <0.01 |
| Winter | Fall | *Serranus cabrilla*  *Dicentrarchus labrax* | *Loligo vulgaris*  *Diplodus sargus*  *Sepia officinalis*  *Seriola dumerili*  *Sparus aurata* | 55% | 0.04 | <0.01 |
| Spring | Summer | *Sepia officinalis*  *Trachurus trachurus*  *Dicentrarchus labrax*  *Pagellus erythrinus*  *Octopus vulgaris* | *Serranus cabrilla*  *Sparus aurata*  *Diplodus sargus*  *Mullus surmuletus*  *Diplodus vulgaris* | 53% | 0.05 | <0.01 |
| Summer | Fall | *Diplodus sargus*  *Serranus cabrilla*  *Sparus aurata* | *Loligo vulgaris*  *Euthynnus alletteratus*  *Seriola dumerili*  *Sepia officinalis* | 44% | 0.06 | <0.01 |