**Drivers of retention and discards of elasmobranch non-target catch**

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**SUPPLEMENTARY MATERIALS**

**Table S1** List of references used for conversion from mass to individuals. Conversion was reference-specific wherever possible. W, RW, and EW represent weight, round weight, and eviscerated weight respectively. TL and FL represent total length and fork length respectively.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Taxonomic**  **Groups** | **Species** | **Method** | **Average**  **weight (kg)** | **Reference** |
| Catsharks | *Galeus melastomus* | W=0.0015TL^3.190 | 0.0432 | Carbonell *et al*.2003 |
|  |  |  |  | Connolley 1996 |
|  |  |  |  | Mendes *et al.* 2004 |
|  | *Holohalaelurus regani* | 1.760 inds per kg | 0.568 | Walmsley 2007 |
|  | *Scyliorhinus capensis* | 0.807 inds per kg | 1.239 | Walmsley 2007 |
|  | *Scyliorhinus canicula* | W=0.0008TL^3.375 | 0.2042 | Carbonell *et al.* 2003 |
| Deep-sea | *Centrophorus squamosus* | W=0.05TL^2.52 | 10.6 | Connolley 1996 |
| Squaloids | *Centroscyllium fabricii* | avg length at weight | 1.1625 | Ulleweit 2010 |
|  |  |  |  | Jakobsdottir 2001 |
|  | *Etmopterus princeps* | avg length at weight | 1.348 | Ulleweit 2010 |
|  |  |  |  | Jakobsdottir 2001 |
| *Isurus* | *Isurus oxyrinchus* | avg length at weight | 82 | Campana *et al*. 2004 |
|  | *Isurus oxyrinchus* | RW=0.00008FL^2.636 | 48.32 | Fowler 2009a |
|  |  |  |  | Campana *et al*. 2004 |
| *Prionace* | *Prionace glauca* | avg length at weight | 75 | Campana *et al*. 2005 |
|  | *Prionace glauca* | RW=0.0000032FL^3.128 | 27.11 | Fowler 2009 |
|  |  |  |  | Campana *et al*. 2005 |
| Skates | *Amblyraja radiata* | 1.64 inds per kg | 0.609 | Ulleweit 2010 |
|  | *Bathyraja trachura* | avg length at weight | 1 | Bonfil 1999 |
|  |  |  |  | unpublished data |
|  | *Beringraja binoculata* | avg length at weight | 8 | Bonfil 1999 |
|  |  |  |  | unpublished data |
|  | *Dipturus pullopunctatus* | avg length at weight | 1.549 | Walmsley 2007 |
|  |  |  |  | Walmsley-Hart 1999 |
|  | *Leucoraja wallacei* | avg length at weight | 1.132 | Walmsley 2007 |
|  |  |  |  | Walmsley-Hart 1999 |
|  | *Raja rhina* | avg length at weight | 5.6 | Bonfil 1999 |
|  |  |  |  | unpublished data |
|  | *Raja straeleni* | avg length at weight | 1.132 | Walmsley 2007 |
|  |  |  |  | Walmsley-Hart 1999 |
|  | Rajiformes | avg length at weight | 8 | Benson et al. 2001 |
|  |  |  |  | Bonfil 1999 |
|  |  |  |  | unpublished data |
| Smoothhounds | *Mustelus* spp. | ln(EW)=3.1\* ln(TL)-6.33 | 3 | Chiaramonte 1998 |
| *Squalus* | *Squalus megalops* | 1.970 inds per kg | 0.507 | Walmsley 2007 |
|  | *Squalus* spp. | 1.970 inds per kg | 0.507 | Walmsley 2007 |

**Table S2** Description of taxonomic groups.

|  |  |  |  |
| --- | --- | --- | --- |
| **Taxonomic** | **Genus** | **Common name** | **Number of species** |
| **Group** |  |  | **in dataset** |
| *Alopias* | *Alopias* | thresher sharks | 3 |
| *Carcharhinus* | *Carcharhinus* | requiem sharks | 8 |
| Catsharks | *Cephaloscyllium* | Australian Swellshark | 1 |
|  | *Galeus* | Blackmouth Catshark | 1 |
|  | *Holohalaelurus* | Izak Catshark | 1 |
|  | *Scyliorhinus* | catsharks | 2 |
| Deep-sea | *Centrophorus* | gulper sharks | 2 |
| Squaloids | *Centroscyllium* | Black Dogfish | 1 |
|  | *Centroscymnus* | velvet dogfish | 1 |
|  | *Deania* | gulper sharks | 2 |
|  | *Etmopterus* | lanternsharks | 3 |
|  | *Somniosus* | Pacific Sleeper Shark | 1 |
|  | *Zameus* | Velvet Dogfish | 1 |
| *Isurus* | *Isurus* | mako sharks | 2 |
| *Prionace* | *Prionace* | Blue Shark | 1 |
| Rays | *Myliobatis* | eagle rays | 2 |
|  | *Pteroplatytrygon* | Pelagic Stingray | 1 |
|  | *Trygonoptera* | stingarees | 2 |
|  | *Urolophus* | stingarees | 2 |
| Skates | *Amblyraja* | skates | 2 |
|  | *Atlantoraja* | skates | 3 |
|  | *Bathyraja* | skates | 2 |
|  | *Beringraja* | Big Skate | 1 |
|  | *Dipturus* | skates | 3 |
|  | *Leucoraja* | skates | 4 |
|  | *Psammobatis* | skates | 3 |
|  | *Raja* | skates | 9 |
|  | *Rajella* | Round Skate | 1 |
|  | *Sympterygia* | Smallnose Fanskate | 1 |
|  | *Zearaja* | skates | 2 |
| Smoothhounds | *Furgaleus* | Whiskery Shark | 1 |
|  | *Galeorhinus* | Tope Shark | 1 |
|  | *Mustelus* | smoothhound sharks | 2 |
| *Sphyrna* | *Sphyrna* | hammerhead sharks | 3 |
| *Squalus* | *Squalus* | spurdogs | 3 |
| **11** | **35** |  | **78** |

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