**Supplementary Information Tables**

**SI Table 1**

SI Table 1 summarizes the total number of interviews (n=451) completed for each gear type (gillnets, purse seine nets, trawl nets, longlines and pots/traps) for each country (Belize, Iceland, Indonesia, Morocco, New Zealand, Peru and the United States of America). An “X” is used to denote countries where the gear type listed is not used on a major commercial basis, or where this fishing gear type is not allowed.

SI Table 1. Number of interviews completed per gear type, per country. An "X" is used to denote countries where the gear type listed is not used on a major commercial basis, or where this fishing gear type is not allowed.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Country | Gillnets | Purse seine nets | Trawl nets | Longlines | Pots/traps | All gear types |
| Belize | 15 | X | X | 17 | 18 | 50 |
| Iceland | 17 | 15 | 15 | 15 | 11 | 73 |
| Indonesia | 15 | 15 | X | 15 | 15 | 60 |
| Morocco | 15 | 15 | 15 | 15 | 15 | 75 |
| New Zealand | 5 | X[[1]](#footnote-1) | 12 | 15 | 15 | 47 |
| Peru | 15 | 15 | 13 | 15 | 15 | 73 |
| United States of America | 12 | 15 | 15 | 15 | 16 | 73 |
| All countries | 94 | 75 | 70 | 107 | 105 | 451 |

SI Table 2. Ports where fisher interviews occurred including associated fishing areas

|  |  |
| --- | --- |
| **Country** | **Ports where fishers were interviewed and associated fishing areas** |
| Belize | Belize City, Caye Caulker Island, Hopkins, Placencia |
| Iceland | Akureyri, Bolungarvík, Dalvík, East Iceland (broad fishing range), Grindavík, Hafnarfjörður, Höfn, Hornafjörður, Húsavík, Keflavík, Norðfjörður, North Iceland (broad fishing range), Reykjavik, Skagafjörður, Suðureyri, Suðurnes, South Iceland (broad fishing range), Stykkishólmur, Westfjords, West Iceland (broad fishing range) |
| Indonesia | Arafura Sea, Banda Sea, Celebes (Bitun), Java Sea (Demak area, Kepulauan Seribu Jakarta, Pelabuhan Perikanan Karangsong (Indramayu, West Java), North Port of Indramayu, Pelabuhan Perikanan Cilacap (Central Java), Pelabuhan Perikanan Tegalsari (Tegal, Central Java), Pelabuhan Perikanan Prigi (East Java), Sukabumi), Indian Ocean (South of Java, West part of Sumatera), Pelabuhan Perikanan Nizam Zachman (Muara Baru, Jakarta), Pelabuhan Perikanan Sibolga (North Sumatera), Pelabuhan Perikanan Tanjung Benoa (Bali) |
| Morocco | Al Hoceima, Jebha, Kaa Srass, Martil, M’Diq, Nador, Tangier |
| New Zealand | Cook Strait, North Island (Ahipara, Auckland, Bay of Islands, Cape Maria, Cape Rodney, Coromandel, East Coast, Gisborne, Hauwaki Gulf, Hen and Chicken Island, Manaia, North Cape, Ngawi Cape Palliser, Top of North Island, Taurua Point, Tokomaru Bay, West Coast, Whangaroa Harbour), South Island (Banks Peninsula, Cantebury Bight, East Coast, Kaikaura, Kenny’s Bay, North Coast, Nugget Point, Oamaru, Otago, Port Chalmers, Slope Point, Taiora Heads, Timaru, West Coast), Stewart Island  |
| Peru | Ancash, Ancon, Arequipa, Bayovar, Callao, Camana, Chancay, Chimbote, Hormiga, Huanape, Ica, La Libertad, Lambayeque, Lima, Mancora, Marcona, Morrope, Pachacamac, Paita, Piura, Pisco, Pucusana |
| United States of America | Alaska (Dutch Harbor, with fishery range including Bering Sea, Bristol Bay and Gulf of Alaska), California (Monterey, with fishery range including west coast of North America from California to British Columbia), Maine (Gulf of Maine, Freeport, with fishery range including the Gulf of Maine to through New Jersey), Louisiana (Abbeville, Vermillon Bay, with fishery range including Gulf of Mexico), Virginia (Chesapeake Bay, Reedville, with fishery range including North Carolina to New York) |

**SI Table 3. Model averaged best model for global drivers of fishing gear losses. The model uses treatment contrasts, and thus one level for each categorical variable is included in the intercept term as a reference level. Coefficients for categorical variables are differences with respect to the reference level. Reference levels are: Gear makes contact with the bottom (e.g. seafloor, rocks, reefs), Gillnets (for the gear types), Fishers do not belong to a fishing organization or management group and Iceland (for the country types). Drivers with *p*** $\leq $ **0.5 are presented in bold.**

|  |  |  |  |
| --- | --- | --- | --- |
| Gear Loss Driver | Coefficient Estimate | Standard Error | P-Value |
| Intercept | -4.34 | 0.202 | **<2e-16** |
| Gear does not make bottom contact | -0.271 | 0.193 | 0.160 |
| ALDFG Concern level by fishers (Linear) | 0.301 | 0.127 | **0.0176** |
| ALDFG Concern level by fishers (Quadratic) | 0.129 | 0.110 | 0.238 |
| ALDFG Concern level by fishers (Cubic) | -0.140 | 0.101 | 0.165 |
| Indonesia | 0.144 | 0.234 | 0.540 |
| Belize | 0.185 | 0.229 | 0.419 |
| New Zealand | -0.338 | 0.217 | 0.120 |
| Morocco | 0.652 | 0.194 | **0.000756** |
| Peru | -0.172 | 0.258 | 0.505 |
| United States of America | 0.169 | 0.210 | 0.421 |
| Trip length | 0.00420 | 0.00103 | **0.0000475** |
| Longlines | 0.486 | 0.138 | **0.000442** |
| Purse seine nets | 1.06 | 0.282 | **0.000183** |
| Pots/traps | 0.126 | 0.155 | 0.415 |
| Trawl | 0.564 | 0.172 | **0.00101** |
| (phi) | 31.73 | 3.01 | **<2e-16** |
| Fishing organization member | -0.0290 | 0.0774 | 0.708 |
| Vessel length | 0.000821 | 0.00279 | 0.769 |
| Gear lifetime | -0.00149 | 0.00642 | 0.812 |

**N = 328**

**SI Table 4. Model averaged best model for global drivers of gillnet losses. The model uses treatment contrasts, and thus one level for each categorical variable is included in the intercept term as a reference level. Coefficients for categorical variables are differences with respect to the reference level. Reference levels are: Captain is responsible to pay to repair and/or replace old and/or damaged gear, Fishers do not belong to a fishing organization or management group, Port disposal facilities are available for end of life gear, and Vessel fishes during the day only. Drivers with *p*** $\leq $ **0.5 are presented in bold.**

|  |  |  |  |
| --- | --- | --- | --- |
| Gear Loss Driver | Coefficient Estimate | Standard Error | P-Value |
| Intercept | -3.54 | 0.429 | **<2e-16** |
| Corporation pays to replace end of life gear | -0.784 | 0.473 | 0.0977 |
| Entire crew pays to replace end of life gear | -0.645 | 0.368 | 0.07957 |
| Vessel owner pays to replace end of life gear | -0.721 | 0.400 | 0.0693 |
| No port disposal facilities for end of life gear | -0.578 | 0.217 | **0.00772** |
| (phi) | 110 | 20.6 | **0.0000001** |
| Vessel fishes at night | 0.202 | 0.250 | 0.420 |
| Fishing organization member | 0.0529 | 0.132 | 0.689 |
| Number of sets per day | -0.00139 | 0.00654 | 0.832 |

**N = 70**

**SI Table 5. Model averaged best model for global drivers of purse seine net losses. The model uses treatment contrasts, and thus one level for each categorical variable is included in the intercept term as a reference level. Coefficients for categorical variables are differences with respect to the reference level. Reference levels are: Captain is responsible to pay to repair and/or replace old and/or damaged gear, Fishers do not belong to a fishing organization or management group and Port disposal facilities are available for end of life gear. Drivers with *p*** $\leq $ **0.5 are presented in bold.**

|  |  |  |  |
| --- | --- | --- | --- |
| Gear Loss Driver | Coefficient Estimate | Standard Error | P-Value |
| Intercept | -3.97 | 0.618 | **< 2e-16** |
| Trip length | 0.0146 | 0.00460 | **0.00152** |
| Vessel length | -0.00804 | 0.00765  | 0.293 |
| Fishing organization member | -0.190 | 0.182 | 0.297 |
| No port disposal facilities for end of life gear | -1.31 | 0.634  | **0.0403** |
| Gear lifetime | 0.106 | 0.0109  | **< 2e-16** |
| Number of sets per day | -0.137 | 0.0260 | **0.000000100** |
| Net size | 0.00000415 | 0.00000148 | **0.00489** |
| Time per set | 0.0248 | 0.00726 | **0.00063**  |
| (phi) | 122  | 24.8  | **0.000000900** |
| Entire crew pays to replace end of life gear | 0.406 | 0.465  | 0.383  |
| Vessel owner pays to replace end of life gear | 0.275 | 0.341 | 0.419  |

**N = 57**

**SI Table 6. Model averaged best model for global drivers of trawl net losses. The model uses treatment contrasts, and thus one level for each categorical variable is included in the intercept term as a reference level. Coefficients for categorical variables are differences with respect to the reference level. Variables Reference levels are: Fishers attempt to retrieve lost gear, Gear contacts the bottom and Fishers do not belong to a fishing organization or management group. Drivers with *p*** $\leq $ **0.5 are presented in bold.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Coefficient Estimate | Standard Error | P-Value |
| Intercept | -2.77    | 0.178   | **< 2e-16** |
| No attempts for gear retrieval   | 0.924 | 0.233  | **0.0000713** |
| Gear does not contact the bottom | -1.27 | 0.324  | **0.0000890** |
| Trip length | 0.0473  | 0.0127  | **0.000200** |
| Fishing organization member       | -1.20 | 0.198 | **0.00000000142** |
| Years of fishing experience, linear  | 0.260   | 0.265    | 0.328     |
| Years of fishing experience, quadratic | -0.503 | 0.234 | **0.0314** |
| Years of fishing experience, cubic | 1.18  | 0.284   | **0.0000301** |
| Years of fishing experience, quartic   | 0.947 | 0.281  | **0.000732** |
| Years of fishing experience, quintic | -0.762 | 0.236  | **0.00122** |
| (phi)                | 44.2  | 9.41    | **0.00000258** |

**N = 53**

**SI Table 7. Model averaged best model for global drivers of longline losses. The model uses treatment contrasts, and thus one level for each categorical variable is included in the intercept term as a reference level. Coefficients for categorical variables are differences with respect to the reference level. Reference levels are: Fishers are aware of ALDFG management measures, Fishers do not belong to a fishing organization or management group, Iceland (for the country types) and Vessels fish during the day only. Drivers with *p*** $\leq $ **0.5 are presented in bold.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Coefficient Estimate | Standard Error | P-Value |
| Intercept | -4.73 | 0.521 | **< 2e-16** |
| Indonesia | -0.269 | 0.701 | 0.701 |
| Belize | -1.25 | 0.531 | **0.0189** |
| New Zealand | 0.0430 | 0.419 | 0.918 |
| Morocco | 0.897 | 0.395 | **0.0231** |
| Peru | 0.0810 | 0.408 | 0.843 |
| United States of America | 0.610 | 0.474 | 0.198 |
| Vessel fishes at night | 0.853 | 0.273 | **0.00177** |
| Trip length | 0.00669 | 0.00164 | **0.0000447** |
| Fishing organization member | 0.447 | 0.171 | **0.00905** |
| Mainline length | -0.0150 | 0.00523 | **0.00411** |
| Number of sets per day | 0.157 | 0.032 | **0.000000700** |
| (phi) | 71 | 13 | **0.000000100** |
| Gear lifetime | -0.0385 | 0.0590 | 0.515 |
| Fishers unaware of ALDFG management measures | -0.179 | 0.280 | 0.523 |

**N = 89**

**SI Table 8. Model averaged (full average) best model for global drivers of pot/trap losses. The model uses treatment contrasts, and thus one level for each categorical variable is included in the intercept term as a reference level. Coefficients for categorical variables are differences with respect to the reference level. Reference levels are: Captain is responsible to pay to repair and/or replace old and/or damaged gear, Fishers do not belong to a fishing organization or management group, Onboard storage locations are available for end of life gear and Vessel marks fishing gear. Drivers with *p*** $\leq $ **0.5 are presented in bold.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Coefficient Estimate | Standard Error | P-Value |
| Intercept | -3.72 | 0.255 | **< 2e-16** |
| Vessel does not mark fishing gear | 0.158 | 0.172 | 0.359 |
| Cooperative/Association pays to replace end of life gear | -1.07 | 0.664 | 0.105 |
| Corporation pays to replace end of life gear | -0.979 | 0.327 | **0.00278** |
| Entire crew pays to replace end of life gear | -0.725 | 0.308 | **0.0186** |
| Vessel owner pays to replace end of life gear | -0.159 | 0.204 | 0.437 |
| Gear lifetime | -0.0444 | 0.0146 | **0.00233** |
| No onboard storage locations for end of life gear | -0.219 | 0.209 | 0.294 |
| (phi) | 262 | 42.0 | **< 2e-16** |
| Vessel length | 0.00569 | 0.00945 | 0.547 |
| Trip length | -0.00414 | 0.0133 | 0.755 |
| Fishing organization member | -0.0106 | 0.0550 | 0.847 |

**N = 89**

1. While small purse seine fisheries do exist in New Zealand, due to project limitations no purse seine interviews were conducted in New Zealand within the available research timeframe. [↑](#footnote-ref-1)