# FALKLAND ISLANDS GOVERNMENT



# FISHERY STATISTICS

# 2023

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# FOREWORD

## 1. The Falkland Islands Fishery – 2023

The total annual catch in 2023 (~187,305 t) was the lowest since 2020, and below the median of the previous nine years (2014 to 2022). The catch trend was as usual driven primarily by squid, which constituted 61.5% of the total. *Doryteuthis gahi* catch in 2023 was the lowest since 2020, and *Illex argentinus* catch was the lowest since 2019. Hake, the dominant finfish catch, was lower than the year before but second-highest of the past decade.

Licencing advice for the 2023 calendar year was based for *I. argentinus* on licence allocations, for *D. gahi* on the 10,000-tonne conservation threshold, and for finfish on the Total Allowable Effort (TAE) / Total Allowable Catch (TAC) hybrid system published by the FIG Fisheries Department.

#### 1.1 Illex argentinus – Shortfin squid

Total catch for *I. argentinus* in 2023 was 45,453 tonnes, with 94.6% of the catch being taken by the jigging fleet (43,017 tonnes). This was the third lowest annual catch over the last 10 years, with 2019 being relatively similar at 43,444 tonnes, and 2016 being significantly lower (2,355 tonnes). The commercial fishing season for the jigging fleet started on the 1<sup>st</sup> of February; however, vessels did not start fishing within the FICZ/FOCZ until mid-February when 60 vessels reported catches. The average catch per vessel per night was around 10 tonnes during this time and reached a peak for the season of 18.05 tonnes on the 21st February. Total catch for the jigging fleet in February was 17,964 tonnes. Average catches per night dropped off after that to 9 - 11 tonnes and slowly declined throughout March. Nonetheless, the maximum catch per night was recorded on 9<sup>th</sup> March at 80.19 tonnes. The total catch for jigging vessels in March was 22,316 tonnes. Average night catches for April did not increase above 3.16 tonnes per vessel and the majority of the jigging fleet left the FICZ/FOCZ by the end of the month. Total catch for this fishery for the month of April was 2,698 tonnes. Spatially, the majority of effort and catches were concentrated around the 200 m isobath in the north-eastern part of the FICZ/FOCZ. The highest catch of I. argentinus was taken in grid square XJAL: 5,614 tonnes, making up 13.05% of the jigger catch for the year. Additionally, grid squares XEAG and XFAG in the northern part of the FICZ/FOCZ also had high catches, with a combined 6,914 tonnes comprising 16.07% of the jigger catch.

The G-licenced trawler fleet had a total catch of 2,079 tonnes in 2023, comprising 4.6% of the total *I. argentinus* catch; the fourth-lowest catch recorded for this fishery in the last 10 years. Average daily catches per vessel varied greatly throughout the year, but two distinct peaks could be identified. The first peak occurred on the 19<sup>th</sup> February when the average daily catch per vessel was 28.09 tonnes. Subsequently, the average daily catch per vessel peaked again on the 25<sup>th</sup> March at 37.99 tonnes, and the maximum catch by a vessel was reported on the same day at 45.55 tonnes. March was also the month with the highest total catch for G-licensed vessels at 1,690 tonnes. Like jigging, the highest *I. argentinus* trawl catch was reported in grid square XJAL: 465 tonnes (22.32%). Catches in the western part of the FICZ/FOCZ remained low, with no grid square totalling more than 2 tonnes catch over the entire year.

The majority of catch from both jig and trawl fisheries was likely made up of the early-maturing group of the South Patagonian Stock, as these catches were primarily concentrated in the north and north-eastern parts of the FICZ/FOCZ. Catches in the west part of the FICZ/FOCZ were very low to non-existent, which would imply that the late-maturing group of the SPS did not enter Falkland Island waters in 2023.

#### 1.2 Doryteuthis (formerly Loligo) gahi – longfin squid – Falkland calamari

The total catch of D. gahi for the calamari fishery (C and X licences) was 68,217 tonnes. The

overall catch of *D. gahi* in other fisheries was 1,534 tonnes. Therefore, the total *D. gahi* catch across all fisheries and surveys for 2023 was 69,751 tonnes, which was the fifth highest total for the last 10 years.

The pre-season survey for 1<sup>st</sup> season biomass estimation took place onboard F/V Igueldo from the 6<sup>th</sup> until 21<sup>st</sup> February 2023. This survey was the first to include the area north of the Loligo Box, specifically grid squares XKAM and XKAN. A total of 61 scientific trawls were carried out during the survey with catch of 549.12 tonnes. The biomass calculated for the entire Loligo Box was 44,015 tonnes, of which 17,340 tonnes were estimated north of 52°S and 26,675 tonnes were estimated south of 52°S.

Commercial fishing for  $1^{st}$  season started on 26 February and concluded on  $30^{th}$  April. All vessels were required to operate with Seal Exclusion Devices (SEDs) for the duration of the season as per licencing conditions. The average daily catch per vessel steadily increased from 51.36 tonnes at the start of the season and reached a peak of 106.14 tonnes per vessel per day in the first week of March. The lowest average catch per day per vessel was recorded on the  $20^{th}$  March at 24.86 tonnes. The total catch of *D. gahi* for March was 25,628 tonnes. Subsequently the average daily catches slowly increased, peaking at 82.22 tonnes per vessel in the first week of April. This coincided with the highest maximum catch of 150.26 tonnes caught by a single vessel over the entire season. However, the total catch for April was 24,291 tonnes.

Total catch for *D. gahi* during  $1^{st}$  season was 52,628 tonnes, which is the fourth-highest total catch for a first season since 2013. 57.8% of the catch was taken north of 52°S, in particular 13,210 tonnes (25%) were taken in grid square XNAQ. This is the second year in a row that the majority of  $1^{st}$ -season catch and effort occurred north of 52°S. The escapement biomass estimated at the end of the season was 57,647 tonnes, thus the risk of the biomass falling below the 10,000 tonnes escapement threshold was very low.

The pre-season survey for the estimation of  $2^{nd}$  season biomass took place onboard F/V Montelourido from  $13^{th}$  until  $27^{th}$  July 2023. A total of 56 scientific trawls were carried out during the survey with catch of 294.65 tonnes. The biomass calculated for the entire Loligo Box was 19,859 tonnes, of which 4,956 tonnes were estimated north of 52°S and 14,944 tonnes were estimated south of 52°S. This was the lowest biomass estimate for a  $2^{nd}$  season since 2008.

Commercial fishing for  $2^{nd}$  season started on 30 July. All vessels were required to operate SEDs for the duration of the season as per licencing conditions. The average daily catch per vessel ranged between 65 to 50 tonnes for the first week of the fishery, with a peak for the season of 82.86 tonnes on the 5<sup>th</sup> of August. The maximum catch per day for the season, at 130.06 tonnes, was also reported that day. The total commercial catch of *D. gahi* for all of August was 13,862 tonnes, compared with 1,650 tonnes for the two days in July. The fishery was closed by order on 29 August due to projection that the biomass would fall below the conservation threshold of 10,000 tonnes.

The total *D. gahi* catch during season 2 was 15,513 tonnes; the second-lowest total catch for a  $2^{nd}$  season since 2013, with 2015 being the lowest. Notably 12,071 tonnes (77.8%) of the total catch was taken south of 52°S, of which 36% in one grid square: XVAK. Interestingly, in 2015, the previous year of  $2^{nd}$ -season low catches, the reverse pattern was observed with 50% of the total catch taken north of 52°S, of which 25% in grid square XLAP.

#### 1.3 Martialia hyadesi – Black squid

99 kg of *Martialia* squid were reported caught and discarded in 2023, in finfish and calamari trawls, with a maximum of 20 kg on any single catch report.

## 1.4 *Micromesistius* australis – Southern blue whiting

Southern blue whiting is a pelagic species that migrates between Chilean, Argentine and Falkland

Islands waters. Spawning takes place during September and October to the south of West Falkland and at the southern coast of Chile.

Most southern blue whiting catches occur in the Southwest Atlantic compared with the Southeast Pacific, and these are mainly contributed by Argentina. In the Southwest Atlantic, southern blue whiting exploitation started in 1977 by Polish factory trawlers. The Falkland Islands Government licensed Polish and Bulgarian trawlers from 1987, and surimi factory trawlers from 1999, which targeted southern blue whiting in Falkland Islands waters. In the southern part of the Patagonian Argentine EEZ, large factory trawlers fished southern blue whiting in large numbers. Heavy exploitation of the stock caused the decline in catches in the Southwest Atlantic since the early 1990's. In 1999 the South Atlantic Fisheries Commission recommended a reduction of fishing mortality on this stock to meet conservation targets. Conservation measures were implemented by the Falkland Islands Government since 2010, including the ban of any fishing activity on the Falkland Islands waters, where it is only taken as bycatch and is being monitored via occasional scientific surveys.

In the Southwest Atlantic, the average annual catch contribution by nation from 1987 to 2016 was 38% for the Falkland Islands and 62% for Argentina. This proportion changed to 4% for the Falkland Islands and 96% for Argentina since 2017, when southern blue whiting was not targeted in Falkland Islands waters anymore. In Falkland Islands waters, catches of southern blue whiting averaged 23,057 tonnes per year from 1987 to 2016, and 564 tonnes per year from 2017 to 2023. The maximum catch in Falkland Islands waters was observed in 1990 (71,876 t), followed by a constant decrease to reach the lowest catch in 2023 (15 t).

Fishing effort by bottom trawl vessels occurred in Falkland Islands waters from January to October, and in December 2023. Most southern blue whiting was caught in the finfish fishery by W–licensed vessels during December (8.4 t; 16 kg/h; 55.4% of the total southern blue whiting catch in 2023), and by A–licensed vessels from April through December (5.9 t; < 4 kg/h; 39.4%); G–licensed vessels caught only 0.002 tonnes (0.2 kg/h; 0.01%). Most southern blue whiting catches occurred to the south-west by W– and A–licensed vessels during 2023. Calamari licensed vessels had negligible southern blue whiting catches during the year, i.e., C–licensed vessels reported a total of 0.6 tonnes (< 4.5 kg/h; 4.2%), and X–licensed vessels reported 0.157 tonnes (< 1.5 kg/h; 1%). Overall, finfish licences had higher southern blue whiting catches in 2023 compared with 2022. In contrast, calamari licences had lower southern blue whiting catches in 2023 compared with 2022. Scientific surveys (E–licence; groundfish and calamari surveys) conducted in February, July and September contributed an additional 33.5 tonnes of southern blue whiting in 2023. Analyses of southern blue whiting in the spawning grounds to the south and south-west of the closed fishing area, suggesting that the stock of southern blue whiting is recovering slowly.

#### 1.5 Macruronus magellanicus - Hoki

Hoki has been one of the most abundant pelagic-demersal fish on the Patagonian shelf. Genetic studies and otolith microchemistry analysis suggest connectivity within the Southwest Atlantic, and between the Southwest Atlantic and Southeast Pacific. Hence, it is likely that the same stock is targeted in Chilean, Argentine, and Falkland Islands waters. Most hoki migrate out of Falkland Islands waters to spawn during austral winter (July to September), mainly in Chilean waters between 43°S and 48°S, although small spawning areas have been detected at the San Matias Gulf in the Argentine EEZ and at the shelf edge east of the Falkland Islands. This species is not highly abundant in Falkland Islands waters as the FICZ is at the edge of the species distribution.

In Chile, landings of hoki increased from 1987 to 1998, followed by a steep decline. In Argentina, catches of hoki averaged 57,210 tonnes per year from 1987 to 2023; catches had an increasing

trend from 1987 to 2000, were relatively stable from 2000 to 2009, and declined since 2010. In the Falkland Islands, hoki catches averaged 13,819 tonnes per year from 1987 to 2023; hoki catches had an increasing trend from 1987 to reach a maximum of 26,975 tonnes in 2002, followed by a gradual decline to 3,415 tonnes in 2023. In Falkland Islands waters, hoki were caught in important amounts by the surimi fleet (S–licence) from 1999 to 2016, and have been caught by finfish trawlers (A–, G–, and W–licences) mainly during austral spring (October to December), summer (January to March) and autumn (April to June) in deep waters to the south-west of West Falkland, when it is relatively abundant in the area.

The average annual contributions by nation to the total hoki catch were 58% for Chile, 33% for Argentina, and 9% for the Falkland Islands from 1987 to 2016; these proportions changed to 31% for Chile and 60% for Argentina, but remained relatively similar at 9% for the Falkland Islands from 2017 to 2022. For 2023, there was no total catch data available from Chile at the time of producing this report; however, Argentina contributed 79% and the Falkland Islands contributed 21% of the total catch in the Southwest Atlantic.

In the Falkland Islands, the third lowest annual catch observed since 1987 was reported in 2023 (3,415 t). Most hoki caught in Falkland Islands waters during 2023 were reported by the finfish fishery, i.e., A–licensed vessels reported 567.5 tonnes (16.6% of the total hoki catch during 2023), G–licensed vessels reported 198.5 tonnes (5.8%), and W–licensed vessels reported 2,648.6 tonnes (77.6%). Hoki catch by finfish licensed vessels was relatively low during 2023 as these were mainly targeting hake to the north-west of West Falkland. However, total annual hoki catch was higher in 2023 compared with 2022 (2,315 t). Additionally, 15 t of hoki were caught under E licence during 2023.

The mean CPUE per month across years since 2017 was consistent with monthly abundance patterns observed since 1987. An increase in CPUE of hoki was observed during austral spring, summer, and autumn; lower CPUE was detected during winter. In 2023, higher CPUE were recorded in January (3,956 kg/h), February (1,919 kg/h), and December (2,191 kg/h), mainly because of fishing activity by the finfish fishery, i.e., A– and W–licensed vessels. CPUE was < 327 kg/h during March and April, and < 19 kg/h from May through October. CPUE of hoki in the calamari fishery was < 0.3 kg/h through the year. From a regional perspective, most hoki catches took place to the south-west of West Falkland under W– and A–licensed vessels.

#### 1.6 Merluccius hubbsi, Merluccius australis – Hakes

Two commercial species of hake occur in Falkland Islands' waters, common hake *Merluccius hubbsi* and Patagonian hake *Merluccius australis*. *M. hubbsi* is a demersal-pelagic species distributed in the Southwest Atlantic from 21°S to 55°S, occurring at depths between 50 and 500 m. *M. hubbsi* spawns in Argentine waters during austral spring (October to December) and summer (January to March), with a main peak in January. Following the spawning period, adult fish undertake a southerly feeding migration from April through September onto the Falkland Shelf. *M. hubbsi* is a high value finfish targeted primarily by A–licensed (unrestricted finfish) vessels. Under other licenses, fishers are not permitted to catch more than 10% without triggering relevant management control rules.

*M. hubbsi* catches were as high as 51,489 tonnes annually during the early years of the fishery (1988), precipitously declining to 1,413 tonnes by 1994. Catches in the Falkland Islands remained below 4,211 tonnes per year over the next 11 years, during which the commercial fisheries predominantly targeted blue whiting. Following the declines of blue whiting from 2004, *M. hubbsi* catches and CPUE began to increase steadily, surpassing rock cod as the primary target of finfish fisheries since 2015 (21,043 t). *M. hubbsi* catches have continued to increase annually, reaching 62,624 tonnes in 2022, the highest since the inception of the fishery.

In 2023, the second highest catch of *M. hubbsi* was reported since 1987 (60,509 t). These catches

accounted for 32.6% of the total Falkland Islands catch, and 84% of the Falkland Islands finfish fishery during 2023. The vast majority of this catch was undertaken on A–licensed vessels (55,845 t; 92.3% of the total *M. hubbsi* catch during 2023), with smaller quantities also taken on G– (4,102 t; 6.8%), and W– (193 t; 0.3%) licensed vessels. The remaining 0.6% (370 t) of *M. hubbsi* catch was taken on calamari licensed vessels (C– and X–licences). Additionally 164 tonnes were caught by E–licensed vessels during groundfish and Falkland calamari surveys in February, July and September.

Monthly catch and CPUE by A–licensed vessels were initially low (February: 97 t, 831 kg/h). CPUE was higher between April and September, with a peak in August (9,559 t; 4,439 kg/h). During this period, catch and effort was focused to the north and west of the Falkland Islands adjacent to the 200 m depth contour.

Substantial catches of *M. hubbsi* were taken on G–licensed vessels targeting *Illex argentinus* from February to May. Catches and CPUE were highest during April (2,102 t; 1,865 kg/h) and May (1,206 t; 1,417 kg/h). The majority of *M. hubbsi* catch and effort from G–licensed vessels also occurred to the north and west of the Falkland Islands, adjacent to the 200 m depth contour; and in an inshore region to the north of West Falkland.

Vessels fishing on restricted finfish licences (W– licence) were absent from the FICZ/FOCZ during the peak period of hake abundance (April to September inclusive), with only minor quantities being taken to the north and west of the Falkland Islands.

Southern hake *M. australis* is less abundant in Falklands Islands waters, which are at the edge of their species range. Relatively highest abundance of this species is encountered in deeper waters to the south-west of West Falkland. This species is taken as a bycatch in the finfish trawl fleet as low abundance prevents it from being targeted. Catches of Southern hake during 2023 remained low (36 t), increasing slightly compared to 2022 (8 t). *M. australis* catches have been declining steadily since peaking in 2016 (531 t).

## 1.7 Genypterus blacodes – Kingclip

Kingclip *Genypterus blacodes* (Foster, 1801) is an important demersal fisheries resource distributed throughout the Southern Hemisphere's oceans. Kingclip populations are found off the coasts of the Falkland Islands, Argentina, Uruguay, Chile, Australia, and New Zealand. In Falkland Islands waters, kingclip occurs on the shelf and continental slope at depths ranging from 100 to 1000 m, with the highest abundance typically observed between 150 and 300 meters. In the Falkland Islands Conservation zones, kingclip fisheries exploitation is permitted under A-licence (unrestricted finfish), G-licence (restricted finfish and *Illex argentinus*), and W-licence (restricted finfish). Moreover, kingclip is a bycatch species in other licenced fisheries, contributing to the aggregated bycatch limit (10%).

In 2023, a total of 1,453.88 tonnes of kingclip was taken in the Falkland Islands Conservation zones. Spanish-flagged vessels accounted for 71.50% of kingclip catches, while Falkland-flagged vessels contributed 28.50%. Kingclip catches under A-licence accounted for 73.69% (1,071.32 t) of the total kingclip catch reported, with substantial quantities also taken under G-licences (290.34 t; 19.97%). Smaller quantities of kingclip were taken under W- (75.72 t; 5.21%), C- (1.25 t; 0.09%) and X- (0.028 t; 0.002%) licences. An additional 15.23 tonnes (1.05%) of kingclip were caught under E-licence during research surveys.

Under A-licence, the total fishing effort (19,209 hr) and kingclip catches (1,071.32 t) in 2023 were the highest and the third-highest reported since 1989, respectively. Kingclip accounted for 1.75% of the total reported catch of A-licenced vessels in 2023. The annual CPUE average for kingclip on A-licenced vessels during 2023 was 55.77 kg/hr, with no trawling activity reported in November. Monthly CPUE averages for kingclip were highest in February (198.46 kg/hr) and March (107.48 kg/hr) when fishing effort under A-licence predominate to the north of the Falkland Is-

lands. From March to December, monthly CPUE averages ranged from 37.67 kg/hr to 62.68 kg/hr. During this period, fishing efforts and kingclip catches were mainly reported to the west and north of the Falkland Islands adjacent to the 200-meter depth contour.

Under G-licence, Kingclip accounted for 3.94% of the total reported catch in 2023. Fishing effort (4,051 trawl hrs) and the kingclip catches (290.34 t) during 2023 were 48% and 42% below the averages of the past 26 years, respectively. The trawling activity of G-licenced vessels was reported between February and May 2023. In this period, the mean CPUE for kingclip (71.66 kg/hr) was 12.67% above the average of the past 26 years. The monthly CPUE average for kingclip was highest in February (101.10 kg/hr) when fishing effort under G-licence predominated between 49°S and 50°S, north of the Falkland Islands.

Kingclip accounted for 2.12% of the total reported catch on W-licenced vessels in 2023. Fishing effort (1,313 trawl hrs) and kingclip catches (75.72 t) under W-licence were the second- and the fourth-lowest since 1991, respectively. In contrast, mean CPUE in 2023 (57.65 kg/hr) was close to the annual average of the last 32 years (54.51 kg/hr). The trawling activity of W-licenced vessels was reported in January, February, March, October, and December 2023. In these months, fishing effort and kingclip catches under W-licence predominated in deeper waters (>200 m) southwest of the Falkland Islands.

## 1.8 Salilota australis – Red cod

Red cod *Salilota australis* (Günther, 1887) is a demersal species distributed in Atlantic and Pacific waters around southern South America (40°S to 57°S). Red cod is mainly abundant on the shelf break (200 and 300 m) and represents a valuable bycatch in bottom trawl fisheries. In the Falkland Islands Conservation zones, red cod fisheries exploitation is permitted under A-licence (unrestricted finfish), G-licence (restricted finfish and *Illex argentinus*), and W-licence (restricted finfish). Moreover, red cod is a bycatch species in other licenced fisheries, contributing to the agregated bycatch limit (10%).

In 2023, a total of 1,126.88 tonnes of red cod was taken in the Falkland Islands Conservation zones, marking the second-lowest annual catch of red cod since 1989 (2022 = 749.80 t). Spanish-flagged vessels accounted for 65.6% of red cod catches, while Falkland-flagged vessels contributed 34.4%. Red cod catches under A-licence accounted for 71.31% (803.62 t) of the total red cod catch reported, with substantial quantities also taken under W- (165.68 t; 14.7%) and G- (97.57 t; 8.66%) licences. Smaller quantities of red cod were taken under C- (5.49 t; 0.49%) and X- (0.189 t; 0.02%) licences. An additional 54.32 tonnes (4.82%) of red cod were caught under E-licence during research surveys, and 20 kg caught by one longline fishing day under L-licence.

Red cod CPUE varied across space and time in 2023, likely associated with fishing effort dynamics and red cod ecology. Monthly CPUE averages for red cod ranged from 17.49 kg/hr to 122.84 kg/hr under A-licence, from 85.08 kg/hr to 148.23 kg/hr under W-licence, from 12.60 kg/hr to 42.31 kg/hr<sup>-1</sup> under G-licence, from 42.64 kg/hr to 603.26 kg/hr under E-licence, from 0.03 kg/hr to 1.5 kg/hr under C-licence, and from 0.02 kg/hr to 0.05 kg/hr under X-licence. The highest CPUE values were observed in deeper waters (> 200 m) to the west of the Falkland Islands, mainly from 51°S to 53°S and between 62°W and 63°W. In this region, red cod catches by vessel day reached maxima of 7.90 t, 4.60 t, and 4.12 for A-, W-, and G-licenced vessels, respectively. Nevertheless, the highest monthly CPUE average for red cod (603.26 kg/hr) was recorded under E-licence during September and occurred southeast of the Falkland Islands, where red cod may aggregate to spawn.

Red cod accounted for 1.32% of the total reported catch of A-licenced vessels in 2023. A-license fishing effort during 2023 (19,209 trawl hrs) was the highest reported since 1989. A-licence fishing effort predominantly targeted hake in 2023, and red cod can generally be assumed to be a by-catch species. Under A-licence, red cod average CPUE in 2023 (41.84 kg/hr) was 46% below the

average of the last 34 years (78.78 kg/hr) and almost six-fold below the highest annual CPUE average observed in 2000 (246.31 kg/hr). Nevertheless, the red cod CPUE average under A-licenced vessels in 2023 was higher than the four preceding years: 2022 (28.43 kg/hr), 2021 (28.55 kg/hr), 2020 (26.40 kg/hr), and 2019 (26.78 kg/hr).

Under W-licence, the total fishing effort (1,313 trawl hrs) in 2023 was the second-lowest reported since 1991. Red cod accounted for 4.63% of the reported W-licenced vessel catches. Red cod average CPUE for W-licenced vessels in 2023 (126.15 kg/hr) was 33% above the average of the past 32 years (94.26 kg/hr) and the seventh-highest recorded in the same period. Under G-licence, red cod accounted for 1.32% of the total reported catch in 2023, with fishing effort a total of 4,051 hrs. The annual red cod CPUE average for G-licenced vessels in 2023 (24.08 kg/hr) was the lowest ever observed, being four-fold below the average of the last 26 years (121.41 kg/hr).

Annual red cod catches have exhibited a substantial decline since their peak recorded in 1999 (9,312 t). However, fisheries-independent surveys showed no significant change in red cod biomass from 2010 to 2023.

#### 1.9 Dissostichus eleginoides – Patagonian toothfish

Patagonian toothfish (*Dissostichus eleginoides*; hereafter toothfish) is a large notothenioid fish found on the shelves and slopes of South America and around the sub-Antarctic islands of the Southern Ocean. In Falkland Islands waters, toothfish spawn on the slopes of Burdwood Bank at ca. 1000 m depth, and the eggs, larvae, and small juveniles develop and grow in epipelagic layers of the Falkland Current, with early juveniles occurring on the Patagonian shelf at depths ~100 m. Immature toothfish remain on the shelf for 3-4 years and then undertake a characteristic ontogenetic migration into deeper waters where adults reside and spawn.

In the Falkland Islands, a Marine Stewardship Council (MSC) certified longline fishery targets the adult component of the population in deep waters between 800 and 2000 m. However, notable quantities of juvenile toothfish are caught in the shelf-based (<400 m depth) finfish and calamari trawl fisheries. In the finfish fishery, toothfish is a commercially valuable bycatch, while in the calamari fishery, it is usually discarded due to the small sizes of the specimens.

In 2023, a total of 1,165.8 tonnes of toothfish was caught in the Falkland Islands Conservation zones, with 1,064.8 tonnes (91.3%) taken by targeted longline fishery, 55.8 tonnes (4.8%) under A -licence, 29.2 tonnes (2.5%) under W-licence, 3.5 tonnes (0.3%) under G-licence and 4.7 tonnes (0.4%) under C- and X-licences combined. A further 7.8 tonnes (0.7%) was caught on E-licence during research surveys. Toothfish was caught predominantly by Falkland-flagged vessels (1,090.9 t, 93.6%), primarily in the longline fishery, followed by Spanish-flagged vessels (74.9 t, 6.4%), primarily in the A-licenced finfish trawl fishery.

A single longliner (*CFL Hunter*) operated in Falkland Islands waters January through April and August through December, for 205 fishing days on L-licence. Toothfish catches in the longline fishery averaged 5.2 tonnes per day, or 4.5 kg/umbrella (the 3<sup>rd</sup>-highest of the last decade). Month-ly CPUE ranged from 3.3 to 6.3 kg/umbrella, with higher values generally recorded in the first half of the year. For 2023, a TAC of 1,040 tonnes was recommended for the longline fishery based on the Harvest Control Rules informed by an integrated stock assessment model. With allowed carryover from 2022, the actual TAC for 2023 was 1,067.1 t. From this, 1,064.2 tonnes were caught, and the remaining 2.3 tonnes carried forward to 2024.

Toothfish catches in the finfish trawl fishery (A-, G- and W-licenced) increased from the previous year, reaching 88.5 tonnes in 2023. For the last six years, toothfish catch by the finfish trawl fisheries has remained below the 300 tonnes assumed for stock assessment model projections. The situation was similar in the calamari trawl fishery (C- and X-licenced). Toothfish catch increased compared to the previous year, reaching 4.7 tonnes in 2023; but for the last six years, calamari fishery toothfish catch has remained below the 30 tonnes assumed for stock assessment model projections.

jections. The overall decrease of toothfish bycatch in trawl fisheries was likely driven by the prolonged period of weak toothfish recruitments.

Toothfish recruitment was highly variable over the last decade, with high recruitment pulses from 2015 and 2017 largely supporting the shelf population thereafter. Low recruitment levels (i.e., few age-0 fish and weak progressive cohorts of age-1, age-2 and age-3 fish) have characterised the shelf-based toothfish population between 2018 and 2023. The drivers of this variability are thought to be largely influenced by oceanographic and environmental factors. Due to high recruitment variability, strong toothfish cohorts have to support the longline fishery over a range of years, rather than regular recruitment from every cohort; this emphasizes the need for protection of high recruitment cohorts through an appropriate spatial management approach.

# 1.10 Rajiformes – Skates

In 2023, 1,775.3 tonnes of skate were caught in the Falklands Islands Conservation Zones on 10,233 fishing days. The total annual catch was the highest since 2018 and the biggest year-to-year increase since 2014 to 2015. Zero skate target effort (F or R licence) was taken in 2023, the third consecutive year with zero effort since skate target licences were created in 1994. No further F-licence days were allocated in 2023.

In the absence of F licence most skate catch was taken by A licence (unrestricted finfish): 1443.6 tonnes, of which about 5.4% was reported as discard. A licence also had the highest skate CPUE, with an average of 0.93 tonnes per vessel day. The restricted finfish licences G and W took respectively 189.5 tonnes, of which about 2.3% was reported as discard, and 77.7 tonnes, of which about 1.1% was reported as discard. Additionally 14.9 tonnes of skate were caught in the *D. gahi* fishery, with higher CPUE and much lower discard percentage in second season than first season; likely a reflection of the poor second-season target catch making bycatch more attractive. 2.8 tonnes were caught under experimental licence (which included the *D. gahi* pre-season surveys and finfish surveys), and 46.9 tonnes of skate were caught in the toothfish longline fishery were reported entirely discarded. No skate at all was caught in the *Illex* fishery (B licence), as only jigging was used in this fishery in 2023. 10.7 tonnes skate were also reported caught by 18 trawlers and the longliner fishing out-of-zone; the lowest yearly out-of-zone catch since 2006.

In all commercial fisheries, a total of 4,626 skates were identified to 15 species by observers on 18 vessels. In finfish-target trawls, just two species represented at least 10% each of the sampled species composition by numbers: broadnose skate *Bathyraja brachyurops* (39%), and warrah skate *Dipturus lamillai* (32%). By weight, the same two species represented a different combination of at least 10%: *D. lamillai* (41%) and *B. brachyurops* (32%). In *D. gahi* trawls, *B. brachyurops* represented 44% of the sampled species composition by numbers, and 38% by weight, white-spotted skate *Bathyraja albomaculata* represented 16% of skate bycatch by numbers and 30% by weight, sand ray *Psammobatis* sp. represented 15% by numbers and 4% by weight. In the longline fishery Antarctic starry skate *Amblyraja georgiana* represented 45% of skate bycatch by numbers and 59% by weight, butterfly skate *Bathyraja papilionifera* represented 23% of skate bycatch by numbers and 32% by weight.

## 1.11 Patagonotothen ramsayi – Rock cod

Total annual catch increased in 2023 with 1,417 tonnes of rock cod caught compared to 1,245 tonnes in 2022 and 1,279 in 2021. The largest part of the rock cod catch was in the finfish (A-, G- and W-license) fisheries at 887 t. The highest catch in the finfish fleet was by A-licences with 613 t, of which 15 tonnes were reported discarded. Vessels fishing on G licences caught 229 tonnes

with 14 tonnes discarded, whilst W-licensed vessels caught 45 tonnes with 3 tonnes discarded. *D. gahi* (C- and X-licences) fisheries caught 481 t; the third lowest in the last 10 years, with over 90% discarded.

The highest rock cod catch was in the second quarter of the year when 735 tonnes were caught, followed by 515 tonnes in the first quarter, 132 tonnes in the third quarter and 36 tonnes in the fourth quarter.

# 1.12 Macrouridae – Grenadier

Grenadier may be opportunistically retained as commercial product, but are generally not targeted. Total annual catch of grenadiers in 2023 was 295 t, the highest since 2020, taken as by-catch during longline (57 t) and finfish (232 t) fisheries. In longline fishing, grenadier bycatch has been consistently proportional to the effort, and the species taken is almost exclusively *Macrourus holotrachys*. Approximately 27% of longline grenadier catch in 2023 was commercially retained. In trawl fisheries, grenadier bycatch was primarily *Macrourus carinatus* (93%) and *Coelorinchus fasciatus* (7%). Commercial retention was variable, but 95% of trawl catches with grenadier reported either >80% discard or <20% discard. Trawl catches of grenadier were highly correlated with catches of hoki, in deeper water.

# 1.13 Zygochlamys patagonica – Patagonian scallop

Scallops are taken as bycatch only and generally discarded. In 2023, 113.7 tonnes scallops were reported caught, less than the year before but second-highest since 2006.

## 1.14 Eleginops maclovinus – Falkland mullet

In 2023, 257 kg of Falkland mullet were reported caught on commercial vessels, all of it discarded; the highest since 2015. Historically, a minor commercial beach seine fishery for Falkland mullet has supplied the local market, with fishing occurring over the summer months (December to February).

# 1.15 - Others

Butterfish (*Stromateus brasiliensis*), redfish (*Sebastes oculatus*), lobster krill (*Grimothea* spp.), driftfish (*Seriolella porosa*), other squid, fish and invertebrates are included into this category. The total 2023 catches of each are summarized in Table N.7.

# 2 Fisheries Department surveys and research cruises

In 2023 the following surveys and research surveys were conducted:

	-
1 <sup>st</sup> pre-season Falkland calamari survey	(ZDLE1-S1-2023)
2 <sup>nd</sup> pre-season Falkland calamari survey	(ZDLC4-S2-2023)
2 <sup>nd</sup> post-season Falkland calamari survey	(ZDL01-S2-2023)
Groundfish survey	(ZDLT1-2023-02)
Groundfish survey	(ZDLT1-2023-07)
Toothfish tagging and gonad sampling	(ZDLK3-10-2023)
Toothfish longline high seas research	(FIFD Observer report 1385)

# **3** Seabird and marine mammal bycatch mitigation in the Falkland Islands

The following compendium includes the 18-month period of July 2022 to December 2023. Previ-

ous Bulletin summaries of seabird and marine mammal bycatch covered periods July to June, but the summaries are now aligned with the calendar year.

# **3.1 Longlining**

Since 2005 no seabird hooking has been observed in the toothfish longline fishery. Bycatch mitigation measures applied to both commercial and experimental longline fishing include the use of netted umbrellas that reduce seabird access to baited hooks during setting; halting discharge of fish -processing discards during setting; the use of a bird scaring line (BSL) during setting, and the use of a Brickle curtain in front of the hauling bay to avoid hooking birds while hauling the catch. For the period July 2022-December 2023 toothfish fishing occurred on 357 days, comprising the setting of 2,570,220 hooks. Of these, 184 days (51.54%) had observer coverage, with dedicated seabird and marine mammal monitoring effort being carried out on 29 days (8.12%), covering 7.91% of hooks set and 2.78% of hooks retrieved for the period (Table 3.1). Although neither heavy contacts nor seabird incidental mortalities were reported, observers did note some deficiencies of the mitigation measures to keep seabirds away from the fishing gear (i.e., BSL, Brickle curtain).

#### **3.2 Trawl Fishery**

Two BSL are mandatory for both commercial and experimental bottom trawl fishing; BSL can be either mobile (Tori Lines-TL) or fixed (Fixed Aerial Array-FAA). The use of a seal exclusion device (SED) is mandatory for the calamari fishery, while in the finfish fishery SEDs are only mandatory if ordered by the Director of Natural Resources.

#### 3.2.1 Finfish

For the period July-December 2022, observations of seabird interactions with the demersal finfish fleet were conducted on 29 days, comprising an effective sampling effort of 79 h in 52 seabird stations, representing 2.58 % of the fleet's trawl effort for the period. A total of 14 black-browed albatross mortalities were recorded on one of the vessels, of which 13 were caused by net entanglements and one was warp related. Extrapolated to the period's finfish fishing effort, this equates to 542 mortalities. Regarding pinniped interactions during observer trips, in four deployments South American fur seals (ARA) were seen eating from the net during hauling and following the vessel during trawling, however no seal bycatch was recorded. Among 63 trawl stations carried out during the July hake research cruise, eight ARA were bycaught in two stations, of which four were mortalities (Table 3.1).

During the period January-December 2023, observations of seabird and marine mammal interactions with the demersal finfish fleet were conducted on 115 dedicated days, comprising an effective sampling effort of 265 seabird/marine mammal stations (110 dedicated to seabirds, 155 dedicated to marine mammals and seabirds), representing 6.40% of the finfish effort for the year. A total of 12 seabird interactions were reported by observers, of which nine were mortalities and three live releases. Incidental mortalities included one giant petrel (MAX) tori line entanglement, five black-browed albatross (DIM) net entanglements and three warp cable hits [1 DIM, 1MAX, 1 cape petrel (DAC)]. Live releases included two net entanglements (1 DIM, 1 MAX) and a deck landing (1 DIM). In addition, one vessel without an observer aboard reported one DIM caught and released alive. Extrapolated to the year's finfish fishing effort, this equates to 203 bycaught seabirds and 140 incidental mortalities (Table 3.1).

The total pinniped bycatch reported (i.e., including the July 2023 groundfish survey, observer trips, vessel reports) comprised 28 individuals [25 ARA, 3 South American sea lions (OTB)], of which 10 ARA were incidentally killed and 15 ARA and 3 OTB were released alive. Sixteen of the bycatches took place around the 200 m isobath north-west of the FOCZ (29% in grid square XDAG, 11% in XGAH), while the remaining twelve bycatches occurred around the 200 m isobath

west of the FICZ (14% in grid square XQAC, 7% XQAD, 7% XRAD).

Among 70 trawl stations carried out in the groundfish survey, one ARA was incidentally killed. During commercial fishery observer trips, 67% of deployments saw both ARA and OTB eating from the net during manoeuvres (shooting and hauling) and following the vessels during trawling. Twenty-one seals were bycaught (18 ARA, 3 OTB), of which eight comprised mortalities (ARA). Of the live individuals, 10 were located inside the net wings, while three (1 ARA, 2 OTB) were inside the cod-end. Of the latter, the OTB were freed after cutting the cod-end before catch release, while the ARA fell inside the fish bin. After the whole catch was discharged, the ARA succeeded in returning to deck level after several attempts. The rest of the bycaught seals were apparently safely released after cutting the net on deck, most of the cases being a challenging process for the crew. Two further ARA live releases were reported by two observed vessels. A single unobserved vessel reported ARA bycatch on four occasions, of which three individuals were released alive and one was incidentally killed (Table 3.1).

Extrapolated to the year's finfish fishing effort, this equates to 130 bycaught seals and 49 incidental mortalities. Although the pinniped bycatch reported surpassed the levels of June 2021, when after four incidental mortalities around the 200 m isobath west of the FICZ the use of a seal exclusion device (SED) became mandatory for a two-month period within six grid squares. However, mandatory SED use was not triggered in 2023, the reported pinniped bycatch occurring over 2.5 months, between 27 July and 11 October.

#### 3.2.2 Falkland calamari

Within 59 trawl stations carried out during the 2022 2<sup>nd</sup> pre-season survey, three ARA were caught and seen to safely escape through the SED. During the second season 2022, 25 seabird stations were monitored by FIFD observers in four observer deployments, comprising 30.26 h of effort, equalling 0.89% of the fleet's total fishing days. Both ARA and OTB were usually seen attending vessels to forage astern on catch washing out of the net, and four SED escapes were recorded (3 ARA, 1 OTB). In the contract marine mammal observer (MMO) program, a total of 2,780 stations were observed, covering 99.7% of the fleet's total fishing effort. Bird scaring line monitoring comprised 897 h of gantry/stern deck observations during trawling. Observed interactions with ACAP -listed species included 37 individuals (36 DIM, 1 MAX), of which six escaped alive, 23 were safely released, and seven were mortalities (6 DIM, 1 MAX). Regarding the latter, five were netrelated, one involved a warp cable and one occurred due to an entanglement in a BSL. Seal sightings included 10,136 individuals (91.5% ARA, 4.43% OTB, 4% unknown species), with 53 SED escapes observed during hauling and six live deck releases. The number of SED escapes during shooting remains unknown, as the SED submerges immediately. Twenty-two seal mortalities were recorded (20 ARA, 2 OTB; Table 3.1). Fifty-five percent of the mortalities comprised drownings and 36% were caused by propeller strikes, while in 9% the cause of mortality remained unknown. Drownings of seals in trawls fitted with a SED is usually correlated to the loss of tension in the net during manoeuvres; this can be exacerbated by turns carried out south of 52°S, where rough weather usually prevails.

Among 117 trawl stations carried out during the two 2023 pre-season surveys, five DIM were bycaught and released alive, while four ARA were caught and seen actively escaping through the SED. In addition, among 28 trawl stations carried out during the post-2<sup>nd</sup> season survey 10 ARA were caught and seen actively escaping through the SED (Table 1). During both 2023 fishing seasons, 57 seabird stations were monitored by FIFD observers on six observer trips, comprising 73.58 h of effort, equal to 1.61% of the fleet's total fishing day effort. Both ARA and OTB were seen attending vessels to forage behind the nets, and 35 SED escapes were recorded (32 ARA, 3 OTB).

In the contract marine mammal observer (MMO) program, a total of 3,521 stations were observed,

covering 99.7% of the fleet's fishing effort. BSLmonitoring comprised 1256 h of gantry/stern deck observations during trawling. Interactions with ACAP-listed species included 143 individuals [126 DIM, 13 white-chinned petrel (PRO), 4 MAX], of which 53 escaped alive, 45 were safely released, and 45 were mortalities (39 DIM, 6 PRO) (Table 3.1). Concerning the latter, 41 were net-related, two comprised entanglements in bird scaring lines, one involved warp cables, and one occurred due to collisions with the vessel (Table 3.1). Seal sightings included 7,198 individuals [88.8% ARA, 10.1% OTB, 0.95% unknown species (UN)], with 35 SED escapes observed during hauling and seven live deck releases. The number of SED escapes during shooting is unknown. Ten seal mortalities were recorded (9 ARA, 1 OTB). Half of the mortalities were drownings, one was caused by propeller strikes, while in the remaining four the cause of mortality was not recorded.

#### **3.3 Implementation of seabird and marine mammal mitigation**

#### 3.3.1 Fixed aerial array (FAA)

Two finfish vessels and all calamari vessels are fitted with FAAs. Seven of the calamari vessels have a FAA based on the original 2012 model: parallel booms mounted above the warp cables, while eight have the 2016 model: wide open booms. FAA configurations among the calamari fleet vary among non-weighed, partially weighed, or fully weighed streamers, their intercalation, and number of lateral and distal streamer curtains. Following MMO reports on seabird entanglements in FAA distal curtains with double-fully weighed streamers, in 2023 FAA configuration allowed the use of single weighed streamers on the distal curtain.

#### 3.3.2. Discard management

Discard management was found to have overall positive functioning in the calamari fleet, but failed to meet regulation standards on most finfish vessels, according to data collected by FIFD Scientific Observers. Failures in the functioning of the discard management system aboard vessels jeopardize the process of discard management implementation.

#### 3.4. Compliance to seabird and marine mammal mitigation

#### 3.4.1 Bycatch reporting

Although seabird and marine mammal bycatch reporting is mandatory, only two non-monitored vessels (i.e., without an observer aboard) from the same fishing company did report any bycatch of seabirds and seals. The implementation of an incentive-based approach for bycatch reporting should be evaluated by FIFD and implemented in collaboration with the fishing industry.

#### 3.4.2 Reported and observed bycatch

Discrepancies on seabird and marine mammal bycatch reported by vessels and by observers were noted. Immediate comparison of vessel reports to observer data not only ensures the quality of the stored data, but it will improve observer performance and allow rapid enforcement action, while the vessels are operating in the FICZ/FOCZ.

#### 3.4.3 Discarding regulations

The development of a reporting scheme for recurring failures on the discard management systems installed across the fleets should be implemented and enforced, in order to work together with industry to solve the problems and ensure the implementation of the Discard Management Policy.

**Table 3.1.** Observed dedicated effort, observed and reported megafauna bycatch, on commercial fishery and survey stations. Mortality estimates of seal and ACAP-listed seabird species are minimum estimates; (0) = negligible. Observer effort < 4% is considered insufficient for seabird cryptic mortality detection (Parker et al. 2013); mortality extrapolations are therefore not accurate.

Fishery	Fishery Fishing effort Observer effort				Seabirds		Seals			
	Hooks/traw	vls	BSL (h)	Bycatch	Mortality		Bycatch	Mort	ality	
					Observed	Estimated		Observed	Estimated	
July-December 2022	July-December 2022									
Toothfish	1037820	4.47	-	0	0	(0)	0	0	0	
Finfish	2012	2.58	79	15	14	542	0	0	0	
Calamari	2789	99.70	897	37	7	21*	59	22	22	
E-finfish	63	0	0	0	0	-	8	4	4	
E-calamari	59	0	0	0	0	-	3	0	0	
January-December 20	23									
Toothfish	1425600	1.77	-	0	0	(0)	0	0	0	
Finfish	4118	6.40	82.5	13	8	140	28	10	49	
Calamari	3529	99.70	1256	143	45	135*	42	10	10	
E-toothfish	106800	0	0	0	0	(0)	0	0	0	
E-finfish	70	0	0	0	0	0	1	1	1	
E-calamari	145	0	0	5	0	-	14	0	0	

\* Includes 3x multiplication factor according to Parker, G., Crofts, S., Pompert, J., Wolfaardt, A., Brickle, P. (2013). In the wake of a factory trawler: research into undetected seabird mortality. *Tech. Rep. FIG Fisheries Dept.*, Stanley, Falkland Islands. 25p.

# 4 Falkland Islands Fisheries Observer Programme

Fisheries Observers collect position data, catch/effort and biological data, conversion factor data and seabird/mammal interaction and mortality data from all fleets and all fisheries occurring in the FICZ/FOCZ, as well as opportunistically on the high seas surrounding Falkland Islands waters. Observers also take part in the research cruises conducted regularly by the FIFD and participate in various scientific projects on land according to the needs of FIFD scientists. Deployments at sea typically vary between two and six weeks in duration. All data collected are entered by observers into a database at sea, and a detailed trip report completed after each period at sea. These reports are also shared with respective ITQ holders and vessel operators.

Monitoring effort over the last 4 years (2020-2023) is summarized in Table 4.1. FIFD observer coverage in 2023 was on the same proportional level overall compared to 2022. Coverage on A–, G– and W–licences increased as the fishing effort of these licences increased by 14.6%. Coverage on B–, C– and X–, and L– licences proportionally decreased slightly, whereby B–licence fishing effort slightly increased and L–licence fishing effort decreased by 7.7% compared to 2022. In addition to coverage by FIFD observers, external contract observers were mandated to cover the fleet fishing for Falkland calamari under C– and X–licences, as in previous years. External contract observers also covered 67 days of vessels fishing on A licence.

		2020		2021			2022			2023***		
Li- cence	Days	Obs day s	%	Days	Obs day s	%	Days	Obs day s	%	Days	Obs day s	%
A/G/W	1989	203	10.2	1859	228	12.3	1756	243	13.8	2013	351 *	17.4
В	7298	77	1.1	7510	79	1.1	6479	85	1.3	6516	69	1.1
C/X	2005	185	9.2	1870	135	7.2	1945	147	7.6	1424	102	7.2
F	59	0	0	0	0	_	0	0	-	0	0	_
L	196	96	49.0	202	98	48.5	222	117	52.7	205	102	49.8
S	0	0	_	0	0	_	0	0	_	0	0	_
Е	69	66	95.7	63	63	100. 0	69	69	100.0	89	89* *	100. 0
Total	11616	627	5.4	11504	603	5.2	10471	661	6.3	10247	646	6.3

Table 4.1. Observer coverage for 2020 - 2023 in the FICZ / FOCZ

\* FIFD observers covered 284 days while external contract observers covered 67 days on A-G -W- licences.

\*\* Represents the number of days of observer cover. As several observers were embarked simultaneously on the same research cruises, the total number of days worked by observers for E-licence was 231 d in 2023.

\*\*\* External observers spent an additional 10 days on trawlers on high seas, outside FICZ/FOCZ In 2023, 31 observer trips were taken on commercial vessels, two Falkland calamari pre-season surveys and one post-season survey, two groundfish research cruises, one longline research cruise outside of FICZ/FOCZ and one toothfish tagging trip. Table 4.2 provides an updated four-year summary of individual specimens sampled for size/sex/maturity and some proportion weight/ otoliths/statoliths. The amount of data collected in 2023 increased slightly in comparison with the previous year. Four-year totals of less than 200 specimens per species were grouped into "Others".

**Table 4.2**. Summary of fish, squid, skate and invertebrate specimens sampled by FIFD observers and scientists.

	2020		202	1	202	2	2023	
	N	%	N	%	N	%	N	%
Doryteuthis gahi	91672	34.82	73651	30.25	77684	35.58	73911	31.63
Merluccius hubbsi	39264	14.91	35004	14.38	39058	17.89	49582	21.22
Patagonotothen ramsayi	40235	15.28	38123	15.66	27247	12.48	32791	14.03
Illex argentinus	24508	9.31	38510	15.82	24737	11.33	19017	8.14
Genypterus blacodes	15136	5.75	8919	3.66	6495	2.97	7906	3.38
Salilota australis	9762	3.71	8698	3.57	7423	3.40	8359	3.58
Dissostichus eleginoides	7553	2.87	6958	2.86	6295	2.88	8734	3.74
Macrourus holotrachys	3716	1.41	4094	1.68	5179	2.37	3202	1.37
Macruronus magellanicus	5290	2.01	2785	1.14	2702	1.24	4439	1.90
Stromateus brasiliensis	5234	1.99	3299	1.36	654	0.30	2962	1.27
Coelorinchus fasciatus	2719	1.03	2529	1.04	2619	1.20	3866	1.65
Bathyraja brachyurops	3187	1.21	4149	1.70	1919	0.88	1807	0.77
Micromesistius australis	1134	0.43	1558	0.64	3820	1.75	3692	1.58

	202	20	202	1	2022	2	202	23
	N	%	N	%	Ν	%	Ν	%
Antimora rostrata	2040	0.77	2649	1.09	2875	1.32	1942	0.83
Schroederichthys bivius	2070	0.79	861	0.35	2218	1.02	1777	0.76
Dipturus lamillai	1207	0.46	2507	1.03	1,010	0.46	1346	0.58
Cottoperca gobio	459	0.17	786	0.32	2148	0.98	1180	0.50
Macrourus carinatus	1550	0.59	694	0.29	157	0.07	675	0.29
Patagonotothen tessellata	1374	0.52	390	0.16	392	0.18	427	0.18
Squalus acanthias	577	0.22	369	0.15	345	0.16	1030	0.44
Bathyraja albomaculata	502	0.19	1135	0.47	267	0.12	374	0.16
Champsocephalus esox	601	0.23	622	0.26	32	0.01	678	0.29
Bathyraja macloviana	570	0.22	635	0.26	252	0.12	385	0.16
Bathyraja griseocauda	404	0.15	1026	0.42	137	0.06	237	0.10
Seriolella porosa	129	0.05	493	0.20	197	0.09	761	0.33
Psammobatis spp.	320	0.12	635	0.26	186	0.09	228	0.10
Sprattus fuegensis	38	0.01	16	0.01	609	0.28	295	0.13
Bathyraja scaphiops	155	0.06	498	0.20	19	0.01	48	0.02
Amblyraja doellojuradoi	222	0.08	256	0.11	48	0.02	134	0.06
Sebastes oculatus	106	0.04	102	0.04	128	0.06	229	0.10
Congiopodus peruvianus	2	< 0.01	51	0.02	212	0.10	281	0.12
Bathyraja cousseauae	208	0.08	207	0.09	84	0.04	20	0.01
Notophycis marginata	2	< 0.01	123	0.05	125	0.06	237	0.10
Patagolycus melastomus	0	0.00	13	0.01	147	0.07	276	0.12
Moroteuthopsis ingens	75	0.03	99	0.04	79	0.04	153	0.07
Merluccius australis	61	0.02	104	0.04	56	0.03	166	0.07
Munida gregaria	383	0.15	0	0.00	0	0.00	0	0.00
Bathyraja multispinis	70	0.03	151	0.06	40	0.02	19	0.01
Rajiformes	195	0.07	14	0.01	0	0.00	54	0.02
Amblyraja cf. georgiana	59	0.02	67	0.03	79	0.04	13	0.01
Bathyraja magellanica	45	0.02	126	0.05	38	0.02	7	0.00
Lithodes santolla	99	0.04	0	0.00	117	0.05	0	0.00
Allothunnus fallai	32	0.01	42	0.02	63	0.03	66	0.03
Others	297	0.11	490	0.20	466	0.21	359	0.15
Total	263262		243438		218358		233665	

# 5 Community outreach in 2023

# **Falkland Islands Infant and Junior School**

Rebecca Nicholls presented a talk titled "Life cycles of fish and squid in Falkland waters" to Year

5 in the Falkland Islands Infant and Junior School in March 2023.

# **Careers Day**

The Falkland Islands Community School held a career day on 18<sup>th</sup> March. Rebecca Nicholls presented a talk titled "Being a Fisheries Observer" to all-year groups.

# Girlguiding

Andrea Clausen, Verónica Iriarte, Zhanna Shcherbich, and Rebecca Nicholls gave talks and lab demonstrations on Women in STEM to the local Girlguiding group on 8<sup>th</sup> of March 2023, to mark International Women's Day.

# **Biology Week**

Biology Week was organised by the Falkland Islands Community School from 16<sup>th</sup> until 20<sup>th</sup> of October 2023. Rebecca Nicholls, Frederick Ongoro, Mariano Peruzzo, Rebecca Piontek, Irina Chemshirova, Hayden Eldridge, Emilie Le Luherne, and Verónica Iriarte participated by providing a full day of activities for Years 7, 8, 9, 10 and 11.

# **Careers Day**

The Falkland Islands Community School held a career day on 5<sup>th</sup> October. Lise Fournier-Carnoy, Trev Law, and Hayden Eldridge gave talks to all-year groups titled "Being a Fisheries Observer", "The Role of a Fisheries Protection Officer", and "Importance of Data Managers for Fisheries", respectively.

# 6 Participation in Scientific Workshops, Conferences and Symposia in 2023

# Agreement on the Conservation of Albatrosses and Petrels (ACAP): 11<sup>th</sup> Meeting of the Seabird Bycatch Working Group (SBWG11).

SBWG11 was held in Edinburgh, Scotland, from 16 to 18 May 2023. V. Iriarte participated as a member of the UK delegation and presented the information paper "*Net binding trials to mitigate seabird entanglement during bottom trawl shooting*". V. Iriarte also attended a Bycatch Workshop (15 May), and meetings with the Population and Conservation Working Group (PaCS7; 18 and 19 May), and together with two international colleagues was designated as a new SBWG lead for by-catch mitigation in trawl fisheries. Representing the FIFD at these meetings ensured stakeholder diversity and allowed fruitful discussions regarding the challenges to reduce seabird incidental mortality in Southwestern Atlantic fishing operations.

# International Sclerochronological Conference

The 6<sup>th</sup> International Sclerochronological Conference was held in Tokyo, Japan from 22 to the 26 May 2023. I. Chemshirova presented a paper titled "Identification of population connectivity of the Argentine shortfin squid *Illex argentinus* using trace elemental signatures of early ontogeny within statolith microstructure" by I. Chemshirova, W. Brownscombe and A. Arkhipkin. Travel and accommodation were funded in part by the Consolidated Fisheries Limited Charitable Trust.

# International Scientific Workshop for Illex argentinus

The 2<sup>nd</sup> International Scientific Workshop for *Illex argentinus* was held in Panama City, Panama on the 10 September 2023. I. Chemshirova was invited by the Sustainable Fisheries Partnership, and presented a paper titled "Integrated statolith and genomic analysis reveals high connectivity in

the nektonic squid *Illex argentinus*: implications for management of an international cephalopod fishery" by I. Chemshirova, A. Arkhipkin, P. W. Shaw and N.J. McKeown.

#### South Pacific Regional Management Organisation (SPRFMO) Scientific Committee Meeting

The 11<sup>th</sup> meeting of the SPRFMO Scientific Committee took place in Panama City, Panama between 11 and 16 of September. I. Chemshirova attended as an invited expert on squid.

# ICES training course 'Introduction to Integrated Stock Assessment using Stock Synthesis'

The ICES 'Introduction to Integrated Stock Assessment using Stock Synthesis' training course was held in Copenhagen, Denmark, from 18 to 22 September 2023. The course covered the concept of Integrated Analysis as implemented in the Stock Synthesis modelling framework (SS3), the features of SS3, and the hands-on approach to running SS3. F. Skeljo attended the course, and, in the time allocated for participants to apply SS3 to their own data set, applied the model to the Falkland Islands Patagonian toothfish stock.

# 7 Scientific publications by FIFD personnel in 2023

#### 7.1 Peer-reviewed papers

- Arkhipkin, A., Skeljo, F., Wallace, J., Derbyshire, C., Goyot, L., Trevizan, T., Winter, A. 2023. Industry-collaborative mesh trials to reduce bycatch in the Falkland Islands skate trawl fishery (Southwest Atlantic). *ICES Journal of Marine Science*, **80** (3): 578-590.
- Arkhipkin, A.I., Nigmatullin, C.M., Parkyn, D.C., Winter, A., Csirke, J., 2023. High seas fisheries: the Achilles' heel of major straddling squid resources. *Reviews in Fish Biology and Fisheries*, **33** (2): 453-474.
- Büring, T., Jones, J.B., Pierce, G., Rocha, F., Bustamante, P., Brault-Favrou, M., Arkhipkin, A.I., 2023. Trophic ecology of the squid *Doryteuthis gahi* in the Southwest Atlantic inferred from stable isotope analysis. *Estuarine, Coastal and Shelf Science*, **284**: 108300.
- Chemshirova, I., Arkhipkin, A., Shaw, P.W., McKeown, N.J. 2023. Integrated statolith and genomic analysis reveals high connectivity in the nektonic squid *Illex argentinus*: implications for management of an international cephalopod fishery. *ICES Journal of Marine Science*, **80** (7): 1976-1990.
- Franco, A.C.S., Azevedo-Santos, V.M., Nogueira, M.A.M. de P., Giarrizzo, T., Hauser-Davis, R.A., Guimarães, E.C., Dalcin, R.H., Soeth, M., Freitas, M.O., Bertoncini, Á.A., Abilhoa, V., Cunico, A.M., Adelir-Alves, J., Bentes, B., Novaes, J.L.C., Hostim-Silva, M., Leite, J.R., dos Santos, V.L.M., Vitule, J.R.S. 2023. Tilapia venturing into high-salinity environments: A cause for concern? *Aquatic Ecology*, **58** (1), 47-55.
- Jones, J.B., Bustamante, P., Guillou, G., Arkhipkin, A.I., 2023. Using stable isotope chronologies within squid gladii (*Doryteuthis gahi*) to evaluate dietary differences by fishing region and season. *Marine Ecology Progress Series*, 703: 95-108.
- Kuepfer, A., Votier, S.C., Sherley, R.B., Ventura, F., Matias, R., Anderson, O., Brickle, P., Arkhipkin, A., Catry, P., 2023. Prey-switching to fishery discards does not compensate for

poor natural foraging conditions in breeding albatross. *ICES Journal of Marine Science*, **80** (9): 2414-2426.

- Kuepfer, A., Catry, P., Bearhop, S., Sherley, R.B., Bell, O., Newton, J., Brickle, P., Arkhipkin, A., Votier, S.C., 2023. Inter-colony and inter-annual variation in discard use by albatross chicks revealed using isotopes and regurgitates. *Marine Biology*, **170** (4): 46.
- Lee, B., Skeljo, F., Randhawa, H., Brownscombe, W., Arkhipkin, A. 2023. Early life-history patterns in Patagonian toothfish *Dissostichus eleginoides* from the Patagonian Shelf. *Marine Ecology Progress Series*, 726: 131-148.
- Piontek, R., Jaspers, C., Boersma, M., Arkhipkin, A., 2023. Temporal and spatial variability in the mesozooplankton community off the Falkland Islands (Southwest Atlantic). *Regional Studies in Marine Science*, **66**: 103147.
- Ramos, J.E., Roura, A., Strugnell, J.M., Moltschaniwskyj, N.A., Bargiela, R., Pecl, G.T. 2023. Stomach content characterisation of the marine range-shifting *Octopus tetricus* using DNA metabarcoding. *Marine Ecology Progress Series*, **717**: 67-83.
- Riaz, J., Orben, R.A., Jones, K.A., Shapiro, M., Winter, A., Brickle, P., Baylis, A.M.M. 2023. Spatial overlap between South American fur seal foraging effort and commercial trawl fisheries in the Falkland Islands. *Global Ecology and Conservation*, **46**: e02615.
- van der Grient, J., Morley, S., Arkhipkin, A., Bates, J., Baylis, A., Brewin, P., Harte, M., White, J.W., Brickle, P., 2023. The Falkland Islands marine ecosystem: a review of the seasonal dynamics and trophic interactions across the food web. *Advances in Marine Biology*, 94: 1 -68.
- Winter, A., Arkhipkin, A., 2023. Opportunistic survey analyses reveal a recent decline of skate (Rajiformes) biomass in Falkland Islands waters. *Fishes*, **8** (1): 24.

#### 7.2 Technical reports

- Chemshirova, I., Hoyer, P., Nicholls, R., Winter, A. 2023. Falkland calamari (*Doryteuthis gahi*) 2023 2<sup>nd</sup> pre-season assessment survey. ZDLC4-S2-2023. Fisheries Department, Directorate of Natural Resources, Falkland Islands Government. Stanley, Falkland Islands. 20 p.
- Iriarte, V. 2023. LOL 2023-X MMO Monitoring Report. Fisheries Department, Directorate of Natural Resources, Falkland Islands Government. Stanley, Falkland Islands. 7 p.
- Iriarte, V. 2023. LOL 2023-C MMO Monitoring Report. Fisheries Department, Directorate of Natural Resources, Falkland Islands Government. Stanley, Falkland Islands. 13 p.
- Lee, B., Le Luherne, E. 2023. Age structure for Patagonian Toothfish *Dissostichus eleginoides* around the Falkland Islands: January-December 2021. Fisheries Department, Directorate of Natural Resources, Falkland Islands Government. Stanley, Falkland Islands. 15 p.
- Le Luherne, E., Peruzzo, M. 2023. Cruise Report ZDLK3-10-2023: Patagonian toothfish (*Dissostichus eleginoides*) tagging trip. Fisheries Department, Directorate of Natural Resources, Falkland Islands Government. Stanley, Falkland Islands. 14 p.

- Ramos, J.E., Winter, A. 2023. Stock assessment of southern blue whiting (*Micromesistius australis*) in the Falkland Islands. SA–2022–BLU. Fisheries Department, Directorate of Natural Resources, Falkland Islands Government, Stanley, Falkland Islands. 36 p.
- Ramos, J.E., Winter, A. 2023. Stock assessment of rock cod (*Patagonotothen ramsayi*) in the Falkland Islands. SA–2023–PAR. Fisheries Department, Directorate of Natural Resources, Falkland Islands Government. Stanley, Falkland Islands. 49 p.
- Ramos, J.E., Le Luherne, E., Shcherbich, Z., Amukwaya, A., Ongoro, F., Peruzzo, M., Piontek, R. 2023. Cruise Report ZDLT1-2023-07. Groundfish survey. Fisheries Department, Directorate of Natural Resources, Falkland Islands Government. Stanley, Falkland Islands. 40 p.
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#### Figure A.1 Falkland Islands Interim Conservation and Management Zone (FICZ) and Falkland Islands Outer Conservation Zone (FOCZ)

This chart is illustrative NOT definitive

#### Introduction

Table A.1	Abbreviations for vessel types used in the tables
FIFD Code	Vessel type
СО	Combination (trawler - jigger)
JI	Jigger
LO	Longliner
PO	Potter
TR	Trawler

Table A.2 A	bbreviations for sp	becies names used in the tables	
FIFD Code	FAO Code	Scientific name	Common name
BAC	SAO	Salilota australis	Red cod
BLU	POS	Micromesistius australis	Southern blue whiting
COX**	PAT	Patagonotothen spp	Rock cod
GRX**	RTX	Macrouridae	Grenadiers
HAK***	HKP	Merluccius hubbsi	Common hake
KIN	CUS	Genypterus blacodes	Kingclip
ILL	SQA	Illex argentinus	Illex squid
LOL	SQP	Doryteuthis gahi	Falkland Calamari
MAR	SQS	Martialia hyadesi	Martialia squid
OTH	MZZ/SKX	Osteichthyes/Chondrichthye	es Others
PAT	HKX / HKN	Merluccius spp /australis*	Austral Hake
RAY	SRX	Rajidae	Skates and rays
TOO	TOP	Dissostichus eleginoides	Patagonian toothfish
WHI	GRM	Macruronus magellanicus	Hoki
ZYP	ZYP	Zygochlamys patagonica	Scallop

\* - *Merluccius spp.* until 2005; *M.australis* since 2006 \*\* - since 2006, before - in OTH; \*\*\* - since 2006, before - in PAT

ISO Alfa-2 code	ISO Alfa-3 code	Fishing Fleet
AU	AUS	Australia
BG	BGR	Bulgaria
BZ	BLZ	Belize
CB*	KHM	Cambodia
CL	CHL	Chile
CN	CHN	China
DE	DEU	Germany
EE	EST	Estonia
ES	ESP	Spain
FK	FLK	Falkland Islands
FR	FRA	France
GH	GHC	Ghana
GR	GRC	Greece
IS	ISL	Iceland
IT	ITA	Italy
JP	JPN	Japan
KR	KOR	Korea
NA	NAM	Namibia
NL	NLD	Netherlands
NO	NOR	Norway
NZ	NZL	New Zealand
PA	PAN	Panama
PL	POL	Poland
PT	PRT	Portugal
RU	RUS	Russia
SH	SHN	Saint Helena
SL	SLE	Sierra Leone
TG	TGO	Togo
TW *	TWN	Taiwan

\* - Cambodia is coded as CB for these statistics and Taiwan as TW.

#### Introduction

Table A.3(b) Abbreviations for	fishing fleets used in the tables	
ISO Alfa-2 code	ISO Alfa-3 code	Fishing Fleet
UA	UKR	Ukraine
UK	GBR	United Kingdom
US	USA	United States of America
UY	URY	Uruguay
VC	VCT	Saint Vincent
VU	VUT	Vanuatu

Table A.4 Licence types, target species and periods of application 1989 - 2023

Licence	Target species Period of application	
First Season		
А	Unrestricted finfish	1989—2007
В	Illex squid	1989 - 1992
	Illex and Martialia squid	1993 -
С	Falkland Calamari ( <i>Loligo</i> )	1989 -
F	Skates and rays	1995 –2007
G	Illex squid and restricted finfish*	1997 -
W	Restricted finfish**	1994 –2007
Second Season		
R	Skate and rays	1994 - 2007
Х	All species	1989 - 1990
	Falkland Calamari (Loligo)	1991 -
Y	Unrestricted finfish	1989 –2007
Ζ	Restricted finfish**	1989 –2007
All year		
Ā	Unrestricted finfish	2008-
F	Skates and rays	2008-
Е	Experimental fishery***	1996-
L	Toothfish (Longliners)	mid 1999 -
S	Blue Whiting and Hoki	1999 -
W	Restricted finfish**	2008-

- \* The 'G' licence was introduced in 1997. It represents a combination of the 'B' Illex squid licence and 'W' restricted finfish licences. It is limited to trawlers using nets with a minimum mesh size of 90 mm.
- \*\* Restricted finfish Main target species: Patagonotothen ramsayi - Rock cod—PAR Micromesistius australis - Southern blue whiting - BLU Macruronus magellanicus - Hoki - WHI.
- \*\*\* Experimental fishing licences 'E' are issued on an occasional basis to denote exploratory or experimental fishing activities. The 'E' licence included long-liners fishing for toothfish up to mid 1999, when the 'L' licence was instituted for this activity. In 2006 the 'E' licence was used to cover access to the *Loligo* fishery during the monitoring activities undertaken by single vessels. The Scallop fishery, exploratory trawl fishery for grenadiers and longline fishery for kingclip have also been operating on an E licence.

ster of ITQ	holding in J	anuary 2020							
					FISHEF	۲۲			
		Squid	Squid		Squid &				Squid
Finfish	Scallops	Jig or Trawl Illex argentinus	Loligo gahi (Summer)	Skate	Restricted Finfish	Restricted Finfish Pelagic	Restricted Finfish	Toothfish Longline	Loligo gahi (Winter)
8.15%			18.75%		11.22%		2.00%		18.75%
3.10%			12.97%				1.88%		12.97%
					15.30%		22.21%		
2.28%					10.36%		19.97%	100.00%	
24.96%			27.53%	29.20% 36.80%	14.18%	70.00% 30.00%	4.28% 0.86%		27.53%
7.86%					2.52%				
38.33%			10.45%		15.63%		4.01%		10.45%
			4.40% 14.34%				15.94%		4.40% 14.34%
4.18%			11.56%		7.71%		10.42%		11.56%
11.14%				34.00%	23.09%		18.43%		
100.00%			100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Trawl have ye	t to enter quot	a system.							
	ster of ITQ Finfish 8.15% 3.10% 2.28% 2.28% 2.28% 2.4.96% 38.33% 4.18% 111.14% 1100.00%	ster of ITQ holding in JFinfishScallops8.15%3.10%2.28%2.4.96%7.86%38.33%11.14%11.14%100.00%Frawl have yet to enter quot	Ster of IIQ holding in January 2020   Squid   Squid   Scallops   Jig or Trawl   Illex argentinus   8.15%   3.10%   2.28%   2.28%   2.28%   3.10%   4.18%   11.14%   100.00%   Trawl have yet to enter quota system.	Squid       Squid       Squid         Finfish       Scallops       Jig or Trawl Illex argentinus       Loligo gali (Summer)         8.15%       Scallops       18.75%       18.75%         3.10%       -       12.97%       12.97%         2.28%       -       12.97%       12.97%         2.4.96%       -       -       27.53%         24.96%       -       10.45%       10.45%         11.14%       -       11.56%       11.56%         11.14%       -       -       100.00%       100.00%	Squid         Squid	Fin fishSquidSquidSquid & Squid & 	Figure V200Figure V200SquidSquidSquidSquid KSquid KSquid KSquidSquidLoligo galiiSkateRestricted FinifishRestricted FinifishRestricted FinifishRestricted FinifishRestricted Finifish8.15%Kate18.75%18.75%11.22%11.22%11.22%3.10%12.97%12.97%11.22%11.30%70.00%3.10%2.25%10.36%10.36%70.00%30.00%3.10%2.753%29.20%14.18%30.00%3.10%2.753%36.80%10.36%70.00%3.10%2.753%36.80%10.36%30.00%3.10%1.44%1.44%15.63%2.52%3.10%11.56%2.52%15.63%15.63%4.18%11.56%11.56%7.71%10.00%11.14%100.00%100.00%100.00%100.00%100.00%100.00%100.00%100.00%100.00%	Figure V02020Fister Squid KSquidSquidSquid KSquid KSquid KSquid KFinfishSguid $x$ argentinaLoligo guliSkateRestricted FinfishRestricted FinfishRestricted FinfishRestricted FinfishRestricted Finfish8.15%18.75%18.75%11.22%11.22%2.00%3.10%12.97%12.97%11.22%2.00%3.10%12.97%12.97%15.30%2.21%2.28%15.30%15.30%10.00%10.00%2.40%27.53%29.20%14.18%30.00%22.21%2.40%27.53%29.20%14.18%30.00%4.28%3.33%10.45%21.52%10.45%1.5.39%4.01%4.18%10.45%10.45%7.71%10.42%10.42%11.14%11.56%34.00%32.09%100.00%100.00%100.00%100.00%100.00%100.00%100.00%100.00%100.00%	Finite Squid         Squid

The catch entitlement generated by the ITQ held by the Crown (FIG) in the Restricted Finfish Pelagic fishery is leased to Fortuna Ltd.

LICENCE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Α	40	33	17	13	4	10	5	5	4	9	11	10
В	161	144	170	165	156	164	120	113	92	79	86	109
С	46	38	16	20	21	22	17	19	15	14	17	17
Е	8	5	-	2	1	6	6	5	6	9	8	5
F	-	-	-	-	-	-	4	5	-	-	-	4
G	-	-	-	-	-	-	-	-	19	27	30	16
L	-	-	-	-	-	-	-	-	-	-	-	3
R	-	-	-	-	-	9	10	11	10	2	8	7
S	-	-	-	-	-	-	-	-	-	-	2	3
W	-	-	11	16	14	30	29	28	9	16	21	11
X	23	20	19	23	30	27	23	24	21	20	18	15
Y	70	17	15	6	5	10	9	6	11	8	8	4
Z	24	35	40	46	43	47	60	43	36	27	34	27
	372	292	288	291	274	325	283	259	223	211	243	231
LICENCE	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Α	6	6	6	8	9	11	11	23	21	22	31	29
B	116	125	122	90	71	43	56	44	21	76	99	106
C	16	17	16	16	16	16	16	17	17	18	17	17
Ε	1	1	8	8	12	8	6	4	7	5	8	5
F	1	9	4	7	4	-	1	8	8	8	8	8
G	19	19	24	17	12	20	18	23	27	23	25	22
L	6	6	8	5	4	6	6	2	1	1	2	2
R	9	8	10	11	11	11	10	-	-	-	-	-
S	3	4	3	4	2	2	2	3	4	3	1	1
W	13	10	23	25	17	21	14	27	30	30	28	26
X	19	17	18	18	16	16	17	19	18	17	16	17
Y	8	8	12	9	12	16	18	-	-	-	-	-
Z	18	18	22	23	18	24	25	-	-	-	-	-
	235	248	276	241	204	194	200	170	154	203	235	233
	2012	2014	2015	2016	2017	2010	2010	2020	2021	2022	2022	
	2013	2014	2015	2010	2017	2018	2019	2020	2021	17	10	
A <sup></sup> D	31 00	29 106	20 106	104	20 106	27	20	29 106	23 106	1/	19	
D C	99 17	100	100	104	100	109	100	100	100	100	17	
C F	•	5	0	17	10	6	5	6	10	6	5	
E E**	o o	3 0	0 0	4	15	6	5	0	2	0	3	
r C	0 25	0 22	0 21	0 22	/ 10	10	5 17	/ 10	5 17	- 10	-	
G T	23	22	21	1	10	10	1/	10	1/	12	12	
L C	ے 1	ے 1	1	1	3	1	1	1	1	1	1	
5 W***	1	1	1	1	- 22	1	- 25	- 22	-	-	- 24	
vv V	2ð 16	∠0 17	∠ð 14	∠0 17	22 16	∠4 17	20 17	17	20 17	22 19	24 16	
Λ	10 225	1/	10 221	1/	10 <b>221</b>	1/	1/	1/	1/	10	200	
	200	233	231	444	231	220	414	444	212	198	200	

Table B.1 Licence allocations by licence type and year

\* - A + Y since 2008 \*\* - F + R since 2008 \*\* \*- W + Z since 2008

FISHING FLEET	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
AU	-	-	-	-	-	-	-	-	-	3	3	-	-	-	-	-	-	-
BG	9	14	8	6	2	-	-	-	-	-	-	-	-	-	-	-	-	-
BZ	-	-	-	-	-	-	1	-	-	-	2	5	2	1	3	1	1	-
СВ												2	1	1	1	1	-	-
CL	1	1	-	3	2	8	8	4	3	2	3	1	1	1	1	2	-	1
CN	-	-	-	-	-	-	-	-	-	2	4	9	20	25	21	7	3	2
EE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2
ES	99	72	66	74	74	108	100	69	52	64	76	41	45	48	46	48	36	59
FK	7	4	2	3	3	8	19	37	32	43	49	47	55	48	80	71	73	69
FR	-	-	-	-	-	5	3	4	2	2	2	1	-	-	-	-	-	-
GH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
GR	5	3	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-
HN	-	-	2	3	4	7	8	2	-		-	-	-	-	-	-	-	-
IS	-	-	-	-	-	-	-	1	3	-	-	-	-	-	-	-	-	-
IT	7	3	2	5	6	3	2	-	-	-	-	-	-	-	-	-	-	-
JP	95	82	77	63	30	36	13	11	19	40	20	21	16	22	14	7	2	1
KR	30	32	42	55	60	86	105	112	98	48	71	84	67	70	62	59	43	42
NA	-	-	-	-	-	-	-	-	3	1	2	-	-	-	-	2	-	-
NL	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NO	-	2	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
NZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
PA	-	-	5	4	3	3	2	3	1	1	2	-	-	2	2	2	2	1
PL	68	53	40	21	8	8	4	2	-	-	-	-	-	-	-	-	-	-
РТ	7	7	4	4	3	4	8	4	-	-	-	1	-	-	-	-	-	-
RU	-	-	-	-	-	1	-	-	-	-	-	-	1	-	6	-	-	-
SC	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-
SL	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-
TW	32	17	39	49	77	43	8	3	3	2	4	16	22	26	33	34	34	10
UK	11	1	1	-	1	3	2	5	3	3	5	3	3	3	4	4	6	4
UR	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
US	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
UY	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	2	2	2
VC	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	2	-
VU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	372	292	288	291	274	325	283	259	223	211	243	231	235	248	276	241	204	194

# Table B.2 Licence allocations by fishing fleet and year

FISHING	2007	2000	2000	2010	2011	2012	2012	2014	2015	2016	2017	2019	2010	2020	2021	2022	2022
FLEET	2007	2008	2009	2010	2011	2012	2013	2014	2015	2010	2017	2010	2019	2020	2021	2022	2023
BZ	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
СВ	-	-	-	1	1	2	1	-	-	-	-	-	-	-		-	-
CL	2	1	-	1	-	-	-	2	-	-	2	-	-	-		-	-
CN	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DE	-	-	-	-	-	1	-	-	-	-	-	-	-	-		-	-
ES	65	59	61	55	61	63	67	64	64	59	54	52	48	52	48	36	37
FK	62	54	55	58	58	57	60	52	52	49	61	60	53	60	56	56	57
JP	1	1	1	1	1	1	-	-	-	-	-	-	-	-		-	-
KR	41	38	21	34	35	35	36	36	35	32	32	32	30	29	28	31	28
PA	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RU	-	-	-	1	-	-	-	-	-	-	-	-	-	-		-	-
SH	-	-	2	-	-	-	-	-	-	-	-	-	-	-		-	-
SL	-	-	-	2	-	1	-	-	-	-	-	-	-	-		-	-
TW	19	13	8	45	61	67	65	71	71	73	73	75	73	75	74	71	74
UK	4	4	6	4	4	4	4	4	5	4	5	3	4	4	1	-	-
UY	-	-	-	-	-	-	_	-	-	-	_	-	-	-	-	-	-
VU	-	-	-	1	2	-	2	4	4	4	4	4	4	2	4	4	4
	200	170	154	203	223	231	235	233	231	221	231	226	212	222	211	233	231

Table B.2 Licence allocations by fishing fleet and year

Table B.3 Licence 'A' (Unrestricted finfish - first season, 1999-2007; both seasons since 2008)

FISHING FLEET	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
ES	17	15	14	17	16	12	18	14	10	10
FK	11	10	7	10	10	7	10	9	7	9
UK	1	1	1	1	1	1	1	-	-	-
	29	26	22	28	27	20	29	23	17	19

FISHING FLEET	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
KR	31	31	27	29	30	29	29	28	31	28
TW	71	71	73	73	75	73	75	74	71	74
VU	4	4	4	4	4	4	2	4	4	4
	106	106	104	106	109	106	106	106	106	106

Table B.4 Licence 'B' (Illex squid) allocations by fishing fleet and year

Table B.5 Licence 'C' (Patagonian squid) allocations by fishing fleet and year

FISHING FLEET	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
ES	2	1	2	3	2	1	-	1	-	1
FK	14	14	14	14	14	14	15	17	16	16
UK	1	1	1	1	1	1	1	-	-	-
	17	16	17	18	17	16	16	18	16	17

	Table B.6	Licence 'E'	(Experimental)	) allocations b	v fishing fleet and	vear
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FISHING FLEET	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
ES	-	1	-	-	-	-	-	-	-	-
FK	5	5	4	12	6	5	6	6	6	5
KR	-	1	-	-	-	-	-	-	-	-
UK	-	1	-	1	-	-	-	1	-	-
	5	8	4	13	6	5	6	7	6	5

Table B.7	Licence 'F' (	Skates and rays	) allocations b	y fishing	g fleet and year
		<u> </u>	/		, <u>,</u>

FISHING FLEET	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
ES	4	6	5	2	3	4	5	3	-	-
FK	-	-	-	3	2	1	2	-	-	-
KR	4	2	3	2	1	-	-	-	-	-
	8	8	8	7	6	5	7	3	-	-

Table B.8 Licence	'G' (Illex se	quid and	l restricted	finfish	) allocations	by fishing	g fleet and	year
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FISHING FLEET	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
ES	20	20	18	16	15	15	13	15	9	10
FK	2	1	4	2	3	2	5	2	3	2
	22	21	22	18	18	17	18	17	12	12

Table B.9 Licence 'L' (Toothfish Longliners) allocations by fishing fleet and year

FISHING FLEET	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
CL	1	-	-	2	-	-	-	-	-	-
FK	1	1	1	1	1	1	1	1	1	1
	2	1	1	3	1	1	1	1	1	1

Table	B.10	Licence 'S'	(Blue	Whiting	and	Hoki -	surimi	vessels)	allocations	by	fishing	fleet	and
year													

FISHING FLEET	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
CL	1	-	-	-	-	-	-	-	-	-
FK	-	1	1	-	1	-	-	-	-	-
	1	1	1	-	1	-	-	-	-	-

Table B.11 Licence 'W' (Restricted finfish) allocations by fishing fleet and year

FISHING FLEET	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
ES	19	20	19	15	15	15	15	14	16	16
FK	5	6	4	5	8	8	6	5	6	8
KR	1	1	2	1	1	1	-	-	-	-
UK	1	1	1	1	-	1	1	-	-	-
	26	28	26	22	24	25	22	19	22	24

Table B.12 Licence 'X' (Patagonian squid - second season) allocations by fishing fleet and year

FISHING FLEET	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
ES	2	1	2	1	1	1	1	1	1	-
FK	14	14	14	14	15	15	15	16	17	16
UK	1	1	1	1	1	1	1	-	-	-
	17	16	17	16	17	17	17	17	18	16

LICENCE	1989	1990	1991	1992	1993	1994	1995	1996
A	537,775	485,949	300,154	191,586	119,854	537,775	485,949	300,154
В	22,723,027	20,698,011	20,961,399	20,865,023	14,301,237	17,440,342	10,867,548	12,176,224
С	4,028,578	5,077,665	3,286,308	2,904,346	3,558,704	3,305,953	3,473,536	3,915,269
Ε	3,000	1,000	-	12,308	12,303	163,607	196,725	107,022
F	-	-	-	-	-	-	74,214	117,243
G	-	-	-	-	-	-	-	-
L	-	-	-	-	-	-	-	-
R	-	-	-	-	-	140,664	431,363	446,767
S	-	-	-	-	-	-	-	-
W	-	-	113,412	169,895	206,682	413,290	500,679	842,504
X	377,917	613,764	572,085	959,803	1,466,992	2,046,655	2,173,149	2,297,557
Y	939,594	291,531	285,700	187,767	199,798	180,825	164,690	174,748
Z	391,332	774,666	841,843	1,222,974	1,207,635	1,335,812	1,920,068	1,536,543
	29,001,223	27,942,586	26,360,901	26,513,702	21,073,205	25,690,547	20,348,929	21,977,242
LICENCE	1997	1998	1999	2000	2001	2002	2003	2004
A	191,586	186,858	247,467	264,667	153,200	229,589	312,757	239,533
В	12,189,748	9,578,864	9,349,734	14,609,416	16,408,604	15,504,408	12,122,222	2,926,562
С	3,489,634	3,694,139	3,840,651	4,063,638	4,515,400	4,495,703	1,446,088	1,509,446
Ε	180,956	460,752	471,163	190,113	0	0	34,500	56,925
F	-	-	0	83,714	41,311	218,114	85,855	156,778
G	654,702	900,493	1,321,513	755,274	1,001,852	1,176,222	1,085,814	558,859
L	-	-	0	237,250	581,856	581,856	493,873	581,855
R	429,579	73,733	452,362	252,959	405,492	221,071	240,511	263,006
S	-	-	326,903	980,410	914,033	792,191	895,352	1,237,335
W	590,818	868,281	872,436	418,455	303,832	268,804	515,383	905,319
X	1,745,260	2,157,595	1,802,191	1,596,130	2,014,142	1,759,362	1,804,098	2,090,748
Y	284,846	327,707	235,446	276,522	375,871	384,723	434,158	407,128
L	1,4/4,1/5	1,329,126	1,262,615	1,051,854	969,460	920,040	995,807	9/8,825
	21,290,309	19,577,540	20,182,480	24,/80,401	27,085,055	20,552,085	20,400,419	11,912,519
LICENCE	2005	2006	2007	2008	2009	2010	2011	2012
A*	160,585	296,901	428,227	1,129,012	1,129,011	1,129,012	1,129,012	1,129,012
B	2,441,087	4,509,716	6,151,234	4,430,958	0	798,205	8,996,154	9,522,332
С	1,534,994	1,763,009	1,734,547	1,939,301	1,939,301	1,939,301	2,133,230	2,133,230
Ε	84,150	95,600	-	-	-	-	-	-
F**	49,701	-	7,699	274,579	247,121	247,121	247,121	247,121
G	374,079	909,945	627,065	769,004	769,004	845,900	845,900	845,900
L	533,368	579,782	907,704	760,700	760,700	760,700	836,770	836,770
ĸ	405,720	285,453	278,912	-	-	-	-	-
S	449,067	525,669	554,748	543,770	543,770	181,257	181,257	181,257
W <sup>***</sup>	524,877	488,818	506,479	1,219,240	1,219,240	1,341,160	1,341,160	1,341,160
A V	2,510,109	5,265,140	<i>5</i> ,26 <i>5</i> ,140	4,242,081	4,242,082	4,242,082	4,242,082	4,242,082
1 7	030,183 834 424	030,010	439,342 171 206	-	-	-	-	-
	034,434	1,020,097	+/4,290 15 303 503	-	-	-	-	-
	10,332,337	14,401,541	13,373,373	13,300,043	10,030,229	11,404,/38	19,902,000	20,4/0,004

 Table B.13 Annual revenue (Pounds sterling) by licence type
### Licences

LICENCE	2013	2014	2015	2016	2017	2018	2019	2020
Α	1,129,012	1,129,012	1,129,012	1,129,012	1,129,012	1,129,012	1,129,012	1,129,012
В	10,597,284	10,616,032	11,208,479	3,346,467	11,093,286	11,247,526	12,325,740	14,000,000
С	2,133,230	2,133,230	2,133,230	2,133,230	2,133,230	2,240,100	2,352,105	3,528,158
Ε	-	-	-	-	-	-	-	-
F	247,121	247,121	247,121	247,121	247,121	247,121	222,409	177,927
G	845,900	845,900	845,900	845,900	845,900	761,300	761,300	761,300
L	836,770	836,770	836,770	836,770	836,770	920,500	966,525	1,449,787
S	181,257	60,419	60,419	60,419	60,419	60,419	60,419	60,419
W	1,341,160	1,341,160	1,341,160	1,341,160	1,341,160	1,207,000	1,146,650	1,089,318
X	4,242,082	4,242,082	4,242,082	4,242,082	4,242,082	4,454,000	4,676,700	7,015,050
	21,553,816	21,451,726	22,044,173	14,182,161	21,928,980	22,266,978	23,640,860	29,210,971

Table B.13 Annual revenue (Pounds sterling) by licence type (continue)

\* - A + Y since 2008; \*\* - F+R since 2008; \*\*\* - W + Z since 2008;

LICENCE	2021	2022	2023
Α	1,129,012	2,073,124	2,145,683
B	10,597,284	15,574,058	16,518,535
С	3,528,158	3,528,158	4,061,676
Ε	-	-	-
F	142,342	142,342	142,342
G	761,300	440,149	735,049
L	1,449,787	1,449,787	1,538,224
S	60,419	60,419	60,419
W	1,089,318	307,605	224,552
Χ	7,015,050	7,015,050	7,761,268
	29,175,386	30,590,692	33,187,748

In the following tables a "-" sign means there was no catch, "0" means the catch has been rounded to 0.

VESSEL TYPE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
СО	59,069	46,211	27,896	17,669	1,151	4,807	3,222	1,569	811	274	
Л	195,476	94,743	160,754	149,557	144,189	62,874	62,717	73,128	150,732	79,837	254,026
LO	-	-	-	131	10	2,855	1,901	992	1,241	1,787	2,077
TR	172,270	143,561	115,853	147,601	106,257	126,262	177,332	119,303	77,542	128,976	120,935
	426,814	284,516	304,503	314,957	251,605	196,798	245,172	194,991	230,326	210,874	377,038
VESSEL TYPE	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Л	182,925	146,066	13,001	101,754	1,661	7,775	81,766	157,637	100,348	3	11,645
LO	2,092	1,684	1,754	1,832	2,076	1,791	1,622	1,539	1,511	1,254	1,061
PO	-	-	-	-	-	-	295	85	-	-	2
TR	134,089	117,449	86,224	105,511	99,361	117,551	129,832	142,907	168,193	152,386	196,463
	319,107	265,198	100,979	209,097	103,098	127,118	213,516	302,169	270,051	153,643	209,171
VESSEL TYPE	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Л	73,577	84,619	139,137	291,784	332,863	2,297	63,807	51,590	41,584	59,286	166,559
LO	1,406	1,222	1,476	1,367	1,258	1,160	1,126	1,083	1,161	1,151	1,140
PO	-	-	6	7	5	-	-	0	-	-	-
TR	150,530	180,192	123,985	157,825	128,363	108,033	103,242	124,160	153,598	122,133	169,247
	225,513	266,033	264,604	450,983	462,489	111,490	168,175	176,833	196,343	182,570	336,945
VESSEL TVDE	2022	2023									
	2022	42.017									
10 JI	/1,/59	43,017									
	1,237	1,212									
rU	-	-									
IK	173,102	143,075									
	246,097	187,305									

Table C.1 Total catch (tonnes) by vessel type and year

Table C.2 Total catch (tonnes) of all species by year

SPECIES	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
BAC	2,814	2,778	2,880	7,055	6,224	4,043	9,084	6,925	4,649	8,121	9,313
BLU	43,468	72,326	50,491	34,078	24,900	38,697	39,154	23,539	26,296	31,483	28,564
ILL	224,022	102,417	174,745	160,016	145,185	66,996	64,122	79,724	149,763	84,993	266,201
KIN	977	850	949	1,952	1,643	899	1,985	1,682	1,392	2,217	2,602
LOL	118,720	82,990	53,817	83,384	52,279	65,757	98,417	61,374	26,122	51,559	34,866
MAR	-	4	141	1	33	-	5,803	111	2,099	-	29
НАК	16,480	11,900	6,759	4,070	3,029	1,414	1,988	1,649	1,554	-	-
РАТ	-	-	-	-	-	-	-	-	-	3,502	4,224
RAY	1,749	1,500	6,923	8,108	8,523	5,542	5,432	3,475	3,320	1,077	4,785
тоо	236	208	980	912	393	2,963	2,069	685	1,208	2,103	2,988
WHI	13,313	7,553	4,499	14,188	8,506	10,064	15,603	13,813	13,006	22,378	18,765
ОТН	5,036	1,989	2,317	1,192	890	423	1,514	2,015	916	3,443	4,701
	426,814	284,516	304,503	314,957	251,605	196,798	245,172	194,991	230,326	210,874	377,038

SPECIES	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
BAC	6,551	3,896	2,617	2,285	2,781	2,467	3,472	5,195	4,076	5,120	3,129
BLU	23,371	25,735	24,908	20,798	28,554	17,047	20,532	22,204	13,209	10,395	6,471
COX	-	-	-	-	-	8,641	21,012	30,386	60,601	58,236	76,451
ILL	189,709	150,631	13,411	103,375	1,720	7,937	85,622	161,506	106,189	44	12,111
KIN	1,875	1,625	1,224	1,275	1,841	1,936	2,822	3,592	2,227	3,390	3,639
LOL	64,493	53,560	23,712	47,422	26,835	58,813	43,064	42,003	52,260	31,474	66,543
MAR	-	147	1	31	24	-	-	4	-	0	-
HAK	-	-	-	-	-	-	8,410**	11,909*	8,806*	13,049	13,606
PAT	3,069	1,978	1,678	1,967	1,926	2,735*	23***	-	-	0	0
RAY	3,853	4,309	3,364	3,988	5,151	5,698	4,683	5,669	3,861	5,873	5,891
ТОО	2,318	1,754	1,793	1,707	2,002	1,677	1,568	1,520	1,429	1,418	1,404
WHI	19,831	19,471	26,970	23,815	25,905	16,723	19,769	16,669	15,908	23,404	19,227
GRX	-	-	-	-		778	800	629	943	965	455
ZYP	-	76	59	685	1,279	1,358	1,161	14	6	13	3
ОТН	4,037	2,018	1,242	1,748	5,080	1,309	578	869	536	263	241
	319,107	265,198	100,979	209,097	103,098	127,118	213,516	302,169	270,051	153,643	209,171
SPECIES	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
BAC	4,210	4,629	5,164	3,468	3,340	3,143	1,379	1,655	1,768	1,418	1,189
BLU	3,940	1,596	2,698	3,612	2,790	5,415	2,309	992	518	69	86
COX	55,705	63,509	32,436	56,709	29,086	7,039	2,521	2,216	950	737	1,279
ILL	79,264	87,002	142,619	306,122	357,724	2,355	67,445	54,603	43,444	62,699	172,537
KIN	3,867	3,510	3,977	2,881	2,983	1,612	1,632	1,443	1,710	1,625	1,708
LOL	34,675	70,897	40,168	48,700	30,317	46,447	64,677	79,996	81,908	60,732	95,627
MAR	-	-	-	10	0	0	0	-	0	1	0
HAK	9,936	10,486	12,317	14,865	21,054	23,363	15,589	27,023	53,378	43,327	59,177
PAT	0	0	0	-	14	531	170	71	96	48	4
RAY	6,972	6,652	5,933	5,554	6,393	5,906	3,189	1,995	1,504	1,397	1,574
тоо	1,560	1,311	1,421	1,298	1,227	1,499	1,519	1,259	1,316	1,246	1,095
WHI	22,979	15,867	16,849	7,392	6,845	11,562	4,053	4,439	7,407	7,643	1,914
GRX	2,062	225	517	216	367	2,336	3,273	484	414	609	225
ZYP	11	0	0	1	1	8	4	4	2	16	62
ОТН	331	347	506	155	348	274	415	654	1,930	1,002	469
	225,513	266,033	264,604	450,983	462,489	111,490	168,175	176,833	196,343	182,570	336,945

Table C.2 Total catch (tonnes) of all species by year (cont'd)

\* - Merluccius spp,

\*\* - M.hubbsi,

\*\*\* - M.australis

SPECIES	2022	2023
BAC	750	1,127
BLU	273	51
COX	1,245	1,417
ILL	73,034	45,453
KIN	1,340	1,454
LOL	101,166	69,751
MAR	0	0
HAK	62,803	60,673
PAT	8	36
RAY	1,202	1,778
тоо	1,140	1,166
WHI	2,326	3,430
GRX	168	295
ZYP	122	114
ОТН	520	561
	246,097	187,305

Table C.2 Total catch (tonnes) of all species by year (cont'd)

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MONTH	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
January	2,475		5,128	5,217	3,723	9,149	7,810	5,217	7,918	7,687	6,605
February	30,652	26,620	19,493	21,028	6,789	13,273	28,800	15,782	8,660	19,942	29,626
March	89,952	74,890	88,553	96,826	39,900	52,894	46,084	49,887	29,199	47,799	98,631
April	131,835	56,338	83,954	79,745	79,365	27,654	49,391	48,971	60,718	63,064	104,827
May	73,998	28,475	32,258	24,303	51,777	18,914	21,514	19,526	68,234	22,936	73,790
June	11,913	1,017	112	107	437	2,002	1,786	1,211	10,474	2,821	12,665
July	5,265	2,437	2,538	223	1,577	2,172	2,937	1,418	2,625	1,596	2,313
August	24,987	13,196	14,895	22,415	20,227	18,151	25,736	16,451	10,019	13,012	13,364
September	26,143	33,653	21,075	26,933	16,111	19,569	25,540	13,562	8,668	11,157	11,853
October	14,221	17,836	13,123	19,839	11,891	16,105	14,486	8,315	7,960	7,778	9,857
November	8,909	19,119	9,832	10,736	11,056	8,805	11,881	7,406	8,381	6,395	7,138
December	6,463	10,934	13,542	7,585	8,751	8,111	9,205	7,245	7,470	6,689	6,370
	426,814	284,516	304,503	314,957	251,605	196,798	245,172	194,991	230,326	210,874	377,038
MONTH	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
MONTH January	<b>2000</b> 5,213	<b>2001</b> 6,497	<b>2002</b> 3,536	<b>2003</b> 5,881	<b>2004</b> 2,901	<b>2005</b> 1,712	<b>2006</b> 2,181	<b>2007</b> 2,381	<b>2008</b> 4,072	<b>2009</b> 3,804	<b>2010</b> 2,742
MONTH January February	<b>2000</b> 5,213 47,924	<b>2001</b> 6,497 10,926	<b>2002</b> 3,536 12,306	<b>2003</b> 5,881 16,612	<b>2004</b> 2,901 9,405	<b>2005</b> 1,712 7,562	<b>2006</b> 2,181 10,867	<b>2007</b> 2,381 11,142	<b>2008</b> 4,072 14,326	<b>2009</b> 3,804 12,427	<b>2010</b> 2,742 12,883
MONTH January February March	<b>2000</b> 5,213 47,924 94,536	<b>2001</b> 6,497 10,926 81,574	<b>2002</b> 3,536 12,306 17,335	<b>2003</b> 5,881 16,612 91,036	<b>2004</b> 2,901 9,405 15,081	<b>2005</b> 1,712 7,562 27,436	<b>2006</b> 2,181 10,867 48,141	<b>2007</b> 2,381 11,142 40,210	<b>2008</b> 4,072 14,326 38,998	<b>2009</b> 3,804 12,427 20,338	<b>2010</b> 2,742 12,883 40,981
MONTH January February March April	<b>2000</b> 5,213 47,924 94,536 63,840	<b>2001</b> 6,497 10,926 81,574 71,936	<b>2002</b> 3,536 12,306 17,335 13,811	<b>2003</b> 5,881 16,612 91,036 37,830	<b>2004</b> 2,901 9,405 15,081 11,292	<b>2005</b> 1,712 7,562 27,436 10,581	<b>2006</b> 2,181 10,867 48,141 46,987	<b>2007</b> 2,381 11,142 40,210 86,244	<b>2008</b> 4,072 14,326 38,998 65,736	<b>2009</b> 3,804 12,427 20,338 18,753	<b>2010</b> 2,742 12,883 40,981 30,748
MONTH January February March April May	2000 5,213 47,924 94,536 63,840 48,684	<b>2001</b> 6,497 10,926 81,574 71,936 38,621	<b>2002</b> 3,536 12,306 17,335 13,811 15,504	<b>2003</b> 5,881 16,612 91,036 37,830 5,680	<b>2004</b> 2,901 9,405 15,081 11,292 4,930	<b>2005</b> 1,712 7,562 27,436 10,581 3,870	<b>2006</b> 2,181 10,867 48,141 46,987 28,058	<b>2007</b> 2,381 11,142 40,210 86,244 69,293	<b>2008</b> 4,072 14,326 38,998 65,736 46,779	<b>2009</b> 3,804 12,427 20,338 18,753 17,809	<b>2010</b> 2,742 12,883 40,981 30,748 16,803
MONTH January February March April May June	2000 5,213 47,924 94,536 63,840 48,684 2,854	<b>2001</b> 6,497 10,926 81,574 71,936 38,621 2,199	<b>2002</b> 3,536 12,306 17,335 13,811 15,504 1,473	<b>2003</b> 5,881 16,612 91,036 37,830 5,680 1,385	<b>2004</b> 2,901 9,405 15,081 11,292 4,930 727	2005 1,712 7,562 27,436 10,581 3,870 712	2006 2,181 10,867 48,141 46,987 28,058 1,840	2007 2,381 11,142 40,210 86,244 69,293 8,694	<b>2008</b> 4,072 14,326 38,998 65,736 46,779 16,356	2009 3,804 12,427 20,338 18,753 17,809 5,955	2010 2,742 12,883 40,981 30,748 16,803 6,948
MONTH January February March April May June July	<b>2000</b> 5,213 47,924 94,536 63,840 48,684 2,854 2,854 2,502	2001 6,497 10,926 81,574 71,936 38,621 2,199 1,299	<b>2002</b> 3,536 12,306 17,335 13,811 15,504 1,473 253	2003 5,881 16,612 91,036 37,830 5,680 1,385 877	2004 2,901 9,405 15,081 11,292 4,930 727 6,771	2005 1,712 7,562 27,436 10,581 3,870 712 11,786	2006 2,181 10,867 48,141 46,987 28,058 1,840 10,168	2007 2,381 11,142 40,210 86,244 69,293 8,694 12,356	2008 4,072 14,326 38,998 65,736 46,779 16,356 10,254	2009 3,804 12,427 20,338 18,753 17,809 5,955 14,481	2010 2,742 12,883 40,981 30,748 16,803 6,948 17,796
MONTH January February March April May June July August	2000 5,213 47,924 94,536 63,840 48,684 2,854 2,502 16,528	2001 6,497 10,926 81,574 71,936 38,621 2,199 1,299 17,380	2002 3,536 12,306 17,335 13,811 15,504 1,473 253 11,863	2003 5,881 16,612 91,036 37,830 5,680 1,385 877 21,491	2004 2,901 9,405 15,081 11,292 4,930 727 6,771 14,344	2005 1,712 7,562 27,436 10,581 3,870 712 11,786 22,575	2006 2,181 10,867 48,141 46,987 28,058 1,840 10,168 23,414	2007 2,381 11,142 40,210 86,244 69,293 8,694 12,356 26,175	2008 4,072 14,326 38,998 65,736 46,779 16,356 10,254 20,967	2009 3,804 12,427 20,338 18,753 17,809 5,955 14,481 16,506	2010 2,742 12,883 40,981 30,748 16,803 6,948 17,796 28,251
MONTH January February March April May June July August September	2000 5,213 47,924 94,536 63,840 48,684 2,854 2,502 16,528 16,528 16,874	<b>2001</b> 6,497 10,926 81,574 71,936 38,621 2,199 1,299 17,380 15,306	<b>2002</b> 3,536 12,306 17,335 13,811 15,504 1,473 253 11,863 5,751	2003 5,881 16,612 91,036 37,830 5,680 1,385 877 21,491 14,513	2004 2,901 9,405 15,081 11,292 4,930 727 6,771 14,344 10,571	2005 1,712 7,562 27,436 10,581 3,870 712 11,786 22,575 17,115	2006 2,181 10,867 48,141 46,987 28,058 1,840 10,168 23,414 15,654	2007 2,381 11,142 40,210 86,244 69,293 8,694 12,356 26,175 20,049	2008 4,072 14,326 38,998 65,736 46,779 16,356 10,254 20,967 23,084	2009 3,804 12,427 20,338 18,753 17,809 5,955 14,481 16,506 15,139	2010 2,742 12,883 40,981 30,748 16,803 6,948 17,796 28,251 22,304
MONTH January February March April May June July August September October	2000 5,213 47,924 94,536 63,840 48,684 2,854 2,854 2,502 16,528 16,874 8,333	2001 6,497 10,926 81,574 71,936 38,621 2,199 1,299 17,380 15,306 12,413	2002 3,536 12,306 17,335 13,811 15,504 1,473 253 11,863 5,751 5,668	2003 5,881 16,612 91,036 37,830 5,680 1,385 877 21,491 14,513 8,831	2004 2,901 9,405 15,081 11,292 4,930 727 6,771 14,344 10,571 13,552	2005 1,712 7,562 27,436 10,581 3,870 712 11,786 22,575 17,115 11,010	2006 2,181 10,867 48,141 46,987 28,058 1,840 10,168 23,414 15,654 13,520	2007 2,381 11,142 40,210 86,244 69,293 8,694 12,356 26,175 20,049 14,000	2008 4,072 14,326 38,998 65,736 46,779 16,356 10,254 20,967 23,084 15,444	2009 3,804 12,427 20,338 18,753 17,809 5,955 14,481 16,506 15,139 13,499	2010 2,742 12,883 40,981 30,748 16,803 6,948 17,796 28,251 22,304 12,286
MONTH January February March April May June July August September October November	2000 5,213 47,924 94,536 63,840 48,684 2,854 2,502 16,528 16,874 8,333 7,306	2001 6,497 10,926 81,574 71,936 38,621 2,199 1,299 17,380 15,306 12,413 4,933	2002 3,536 12,306 17,335 13,811 15,504 1,473 253 11,863 5,751 5,668 8,638	2003 5,881 16,612 91,036 37,830 5,680 1,385 877 21,491 14,513 8,831 3,981	2004 2,901 9,405 15,081 11,292 4,930 727 6,771 14,344 10,571 13,552 8,412	2005 1,712 7,562 27,436 10,581 3,870 712 11,786 22,575 17,115 11,010 9,646	2006 2,181 10,867 48,141 46,987 28,058 1,840 10,168 23,414 15,654 13,520 8,895	2007 2,381 11,142 40,210 86,244 69,293 8,694 12,356 26,175 20,049 14,000 9,768	2008 4,072 14,326 38,998 65,736 46,779 16,356 10,254 20,967 23,084 15,444 9,967	2009 3,804 12,427 20,338 18,753 17,809 5,955 14,481 16,506 15,139 13,499 9,328	2010 2,742 12,883 40,981 30,748 16,803 6,948 17,796 28,251 22,304 12,286 9,881
MONTH January February March April May June July August September October November December	2000 5,213 47,924 94,536 63,840 48,684 2,854 2,854 2,502 16,528 16,874 8,333 7,306 4,513	2001 6,497 10,926 81,574 71,936 38,621 2,199 1,299 17,380 15,306 12,413 4,933 2,112	2002 3,536 12,306 17,335 13,811 15,504 1,473 253 11,863 5,751 5,668 8,638 4,841	2003 5,881 16,612 91,036 37,830 5,680 1,385 877 21,491 14,513 8,831 3,981 980	2004 2,901 9,405 15,081 11,292 4,930 727 6,771 14,344 10,571 13,552 8,412 5,114	2005 1,712 7,562 27,436 10,581 3,870 712 11,786 22,575 17,115 11,010 9,646 3,113	2006 2,181 10,867 48,141 46,987 28,058 1,840 10,168 23,414 15,654 13,520 8,895 3,790	2007 2,381 11,142 40,210 86,244 69,293 8,694 12,356 26,175 20,049 14,000 9,768 1,856	2008 4,072 14,326 38,998 65,736 46,779 16,356 10,254 20,967 23,084 15,444 9,967 4,070	2009 3,804 12,427 20,338 18,753 17,809 5,955 14,481 16,506 15,139 13,499 9,328 5,605	2010 2,742 12,883 40,981 30,748 16,803 6,948 17,796 28,251 22,304 12,286 9,881 7,548

MONTH	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
January	4,973	625	3,758	142	217	3,458	497	127	5,091	2,310	146
February	11,110	17,747	8,684	4,130	18,850	10,225	2,901	6,371	21,498	21,997	4,261
March	75,786	75,158	39,918	84,270	132,218	15,693	51,813	59,664	60,521	57,738	126,459
April	37,109	54,366	72,662	155,782	164,810	19,478	53,615	34,646	33,877	23,818	96,062
May	18,711	26,086	68,741	102,396	89,798	9,302	9,674	11,335	12,894	9,507	26,876
June	8,222	7,749	7,817	23,929	11,276	4,871	2,359	4,525	10,860	8,098	8,531
July	15,423	13,012	8,022	16,834	6,453	6,614	6,794	9,824	15,167	11,462	12,538
August	18,736	30,540	18,447	22,033	14,286	19,333	16,881	28,271	26,964	22,272	25,755
September	13,130	19,045	20,019	18,973	9,711	13,089	14,890	14,534	7,850	16,506	27,150
October	10,381	12,185	8,966	10,817	5,224	6,789	5,145	4,869	1,107	7,529	6,763
November	6,693	5,829	4,275	8,682	3,761	1,281	2,800	964	130	1,176	1,163
December	5,237	3,689	3,294	2,997	5,885	1,357	806	1,702	385	157	1,242
	225,513	266.033	264.604	450,983	462,489	111.490	168,175	176.833	196.343	182,570	336,945

Table C.3Total catch (tonnes) by month and year (cont'd)

MONTH	2022	2023
January	21	1,006
February	5,415	22,190
March	80,460	52,250
April	51,762	35,509
May	12,068	10,343
June	8,123	10,013
July	14,264	13,984
August	36,035	24,274
September	27,559	12,974
October	7,972	2,243
November	468	43
December	1,949	2,478
	246,097	187,305

Licence Used	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Α	22,468	18,529	20,767	14,235	23,465	29,411	22,797	32,511	58,615	61,084
В	293,762	335,071	2,297	64,471	52,162	42,169	60,229	167,842	71,894	43,017
С	29,021	33,439	24,045	40,344	44,237	56,034	29,646	60,520	57,408	53,665
Ε	903	1,678	694	1,291	1,105	1,496	1,453	1,541	2,066	1,689
F	4,819	4,089	2,782	1,477	683	262	674	-	-	-
G	26,849	32,042	13,928	9,468	9,063	15,955	13,328	17,992	8,199	7,355
L	1,367	1,258	1,157	1,126	1,083	1,161	1,145	1,134	1,237	1,198
S	1,365	2	21	-	0	-	-	-	-	-
W	46,992	24,776	20,371	9,857	8,156	24,859	22,947	19,903	2,908	3,577
X	23,438	11,604	25,429	25,907	36,878	24,995	30,350	35,502	43,771	15,719
	450,983	462,489	111,490	168,175	176,833	196,343	182,570	336,945	246,097	187,305

Table C.4 Total catch (tonnes) by licence used and year

Table C.5 Total catch (tonnes) by gross tonnage (GT) and year

GT	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<400	7	5	-	-	0	-	-	-	-	-
400-599	2,579	-	-	-	-	-	-	-	-	-
600-799	69,018	55,821	5,025	11,143	9,313	10,513	8,408	16,025	9,817	8,089
800-999	213,020	264,132	21,482	58,510	48,463	44,220	46,266	106,172	49,555	36,255
1,000-1,499	102,123	90,293	31,278	34,371	43,982	56,944	61,976	124,615	87,933	65,575
1,500-1,999	35,706	28,176	29,271	32,893	35,631	44,599	36,319	45,427	53,594	45,865
2,000-2,999	26,849	24,062	24,364	31,258	39,445	40,067	29,601	44,706	45,199	31,521
>2,999	1,681	-	70	-	-	-	-	-	-	-
	450,983	462,489	111,490	168,175	176,833	196,343	182,570	336,945	246,097	187,305

 Table C.6
 Total catch (tonnes) by length overall (m) (LOA)

LOA	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<45	2,823	640	980	-	122	-	407	-	-	-
45-49	25,519	24,364	4,186	5,227	5,556	1,833	2,125	5,138	2,439	955
50-54	62,054	48,615	10,231	11,169	10,288	12,705	11,665	18,588	11,927	10,198
55-59	67,775	64,098	12,478	17,474	15,827	25,244	16,922	34,809	30,303	25,142
60-64	71,260	72,552	12,110	14,748	18,028	23,877	24,679	49,649	30,561	24,243
65-69	85,457	98,944	23,656	40,720	40,038	40,826	42,422	68,294	41,420	31,069
70-79	115,471	136,891	29,866	57,511	56,695	62,512	62,340	127,854	94,566	70,608
80-89	11,049	9,309	9,984	13,735	16,644	16,174	12,551	18,372	21,296	16,408
>89	9,576	7,074	7,999	7,590	13,634	13,173	9,458	14,241	13,585	8,682
	450,983	462,489	111,490	168,175	176,833	196,343	182,570	336,945	246,097	187,305

FLEET	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
AU	-	-	-	-	-	-	-	-	-	3593	3,711
BG	13,503	22,369	21,888	8,981	2,976	-	-	-	-	-	-
BZ	-	-	-	-	-	-	585	-	-	-	4,511
CL	1,150	1,884	-	3,145	1,514	5,223	9,997	6,638	8,199	8849	5,491
CN	-	-	-	-	-	-	-	-	-	1177	7,301
ES	82,345	65,908	57,605	87,763	58,143	67,191	89,284	40,842	20,510	40307	35,909
FK	781	5,853	1,470	1,846	1,978	5,906	27,184	31,520	17,117	43578	39,131
FR	-	-	-	-	-	1,945	7,369	4,600	1,545	4177	2,381
GR	4,960	3,121	-	-	-	-	-	-	-	-	-
HN	-	-	1,712	2,761	3,681	2,976	2,833	850	-	-	-
IS	-	-	-	-	-	-	-	214	268	-	-
IT	10,391	4,547	2,409	2,923	2,142	1,181	218	-	-	-	-
JP	125,567	60,028	93,652	68,325	39,510	39,916	25,583	24,870	46,060	56992	57,971
KR	51,133	32,996	61,614	72,489	65,228	42,987	63,236	73,861	129,546	45082	207,795
NA	-	-	-	-	-	-	-	-	303	676	746
NL	4,587	3,369	-	-	-	-	-	-	-	-	-
NO	-	1,384	-	-	-	-	-	319	210	-	-
PA	-	-	2,425	4,027	1,060	598	459	706	-	1098	61
PL	74,039	64,765	43,878	32,996	12,442	11,178	8,861	3,262	-	-	-
РТ	9,143	6,430	3,268	1,548	1,809	2,512	5,157	1,052	-	-	-
RU	-	-	-	-	-	39	-	-	-	-	-
SC									1,252	-	-
SL	-	-	-	1,150	822	373	-	-	-	-	-
TW	37,529	10,479	12,590	27,002	59,853	13,497	2,323	1,901	3,013	1734	8,771
UK	11,685	1,383	1,992	-	445	1,255	2,083	4,357	2,302	3575	3,259
UR	-	-	-	-	-	21	-	-	-	-	-
UY	-	-	-	-	-	-	-	-	-	36	-
	426,814	284,510	304,503	314,957	251,005	196,/98	245,172	194,991	230,326	210,8/4	3//,038
FLEET	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
BZ	6,729	2,581	136	2,788	42	61	-	2,285	-	-	-
СВ	2,768	1,204	33	857	17	-	-	-	-	-	94
CL	2,749	8,014	9,252	6,490	9,752	-	2,131	3,948	1,640	-	-
CN	11,641	18,838	1,203	12,652	99	99	3,555	8,575	-	-	-
EE	-	-	-	-	226	-	1,427	-	-	-	-
ES	30,732	29,170	23,972	20,169	22,488	24,559	42,057	56,187	72,152	80,267	88,060
FK	62,947	59,820	35,732	60,596	43,320	71,204	65,255	65,809	76,969	58,549	93,191
FR	2,053	-	-	-	-	-	-	-	-	-	-
GH	-	-	-	-	-	-	1,244	-	-	-	-
JP	41,737	27,913	14,485	18,923	15,062	11,230	12,049	9,042	8,820	7,443	6,018
KR	128,940	86,587	12,637	53,677	6,008	10,076	61,748	101,162	81,267	3,317	9,407
NA	-	-	-	-	1,181	-	-	-	-	-	-
NZ	-	-	-	69	-	-	-	-	-	-	-
PA	-	-	-	-	-	194	585	1,254	-	-	-
PT	66	-	-	-	-	-	-	-	-	-	-
RU	-	228	-	6,891	31	-	-	-	-	-	2
SL	-	-	-	-	-	-	-	-	-	-	178
TW	23,243	25,380	1,190	22,057	866	3,106	18,554	49,985	24,353	-	5,808
UK	5,501	3,564	2,279	3,238	2,703	5,100	3,742	3,923	4,850	4,067	6,271
UY	-	81	61	690	1,303	1,369	1,169	-	-	-	-
	-	1,820	-	-	-	-	-	-	-	-	-
۷U	- 319.107	- 265.198	- 100.979	- 209.097	- 103.098	120	- 213.516	- 302.169	- 270.051	- 153.643	209.171

Table C.7 Total catch (tonnes) by fishing fleet and year

FISHING FLEET	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
СВ	1,144	1,695	1,468	-	-	-	-	-	-	-	-
CL	-	-	-	1,729	-	-	276	-	-	-	-
ES	77,895	84,914	59,011	81,264	68,438	48,165	34,021	35,023	63,640	53,040	60,465
FK	62,196	85,829	60,474	67,686	52,458	55,263	63,892	84,051	85,444	65,624	108,639
JP	4,745	109	-	-	-	-	-	-	-	-	-
KR	26,310	32,786	52,216	107,343	101,309	2,743	17,902	13,476	9,972	14,322	43,875
SL	-	340	-	-	-	-	-	-	-	-	-
TW	48,540	55,327	86,147	178,389	223,339	2,058	45,209	36,681	30,695	44,817	118,027
UK	2,861	5,033	2,968	3,528	3,749	3,184	4,212	4,902	5,090	3,676	-
VU	1,821	-	2,322	11,044	13,195	77	2,664	2,700	1,502	1,090	5,940
	225,513	266,033	264,605	450,983	462,489	111,490	168,175	176,833	196,343	182,570	336,945
FISHING	2022	2023									

 Table C.7
 Total catch (tonnes) by fishing fleet and year, continued

ES       60,316       55,229         FK       113,887       89,059         KR       20,147       10,223         TW       49,369       31,348         VU       2,378       1,446         246.007	FISHING FLEET	2022	2023			
FK       113,887       89,059         KR       20,147       10,223         TW       49,369       31,348         VU       2,378       1,446         246.007       187.305	ES	60,316	55,229			
KR         20,147         10,223           TW         49,369         31,348           VU         2,378         1,446           246.007         187.305	FK	113,887	89,059			
TW         49,369         31,348           VU         2,378         1,446           246,007         187,305	KR	20,147	10,223			
VU 2,378 1,446	TW	49,369	31,348			
246 007 197 305	VU	2,378	1,446			
240,097 187,505		246,097	187,305			

VESSEL TYPE	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Л	291,774	332,863	2,297	63,807	51,590	41,584	59,286	166,558	71,759	43,017
TR	14,348	24,861	57	3,638	3,012	1,860	3,413	5,979	1,276	2,435
	306,122	357,724	2,355	67,445	54,603	43,444	62,699	172,537	73,034	45,453

Table D.1 Total catch (tonnes) by vessel type and year

MONTH	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
January	-	-	1	0	-	-	-	-	-	-
February	7	13,918	77	9	3,828	11,153	11,835	92	91	18,282
March	66,670	110,741	2,055	29,892	34,214	29,334	42,076	97,371	48,580	24,146
April	137,647	153,163	199	33,121	14,779	2,845	8,236	62,064	21,425	2,978
May	87,696	75,544	19	4,415	1,780	110	551	13,002	2,923	46
June	14,007	4,352	2	8	1	-	-	7	15	0
July	94	6	0	0	0	0	0	0	0	0
August	1	0	0	0	0	1	0	0	0	0
September	0	1	0	0	0	0	0	0	0	0
October	-	-	1	0	-	-	-	0	-	-
December	-	-	0	0	0	-	-	-	-	-
	306,122	357,724	2,355	67,445	54,603	43,444	62,699	172,537	73,034	45,453
	87,002	142,619	306,122	357,724	2,355	67,445	54,603	43,444	62,694	172,580

Table D.2Total catch (tonnes) by month and year

 Table D.3
 Total catch (tonnes) by fishing fleet and year

FISHING FLEET	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
ES	9,527	9,809	46	2,800	1,545	1,161	2,000	3,333	596	1,606
FK	2,870	11,889	12	278	946	163	514	1,455	562	830
KR	104,257	98,584	162	16,491	12,731	9,921	14,277	43,782	20,129	10,223
TW	178,389	223,339	2,058	45,209	36,681	30,695	44,817	118,027	49,369	31,348
UK	36	909	-	3	0	0	-	-	-	-
VU	11,044	13,195	77	2,664	2,700	1,502	1,090	5,940	2,378	1,446
	306,122	357,724	2,355	67,445	54,603	43,444	62,699	172,537	73,034	45,453

Licence Used	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Α	1,071	624	8	73	61	12	5	78	289	210
В	293,690	334,973	2,297	64,364	52,110	42,119	60,185	167,750	71,876	43,017
С	0	12,036	5	17	29	5	5	308	69	73
Ε	23	570	0	2	10	9	16	10	3	3
F	50	18	0	0	5	0	19	-	-	-
G	10,960	9,265	41	2,967	2,262	1,166	2,352	4,288	715	2,079
S	-	-	-	-	0	-	-	-	-	-
W	278	239	3	21	125	131	117	104	83	69
X	50	-	1	0	0	1	0	0	0	0
	306,122	357,724	2,355	67,445	54,603	43,444	62,699	172,537	73,034	45,453

Table D.4 Total catch (tonnes) by license used and year

Table D.5 Total catch (tonnes) by gross tonnage (GT) and year

GT	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<400	-	-	-	-	-	-	-	-	-	-
400-599	2,579	-	-	-	-	-	-	-	-	-
600-799	61,707	49,495	72	7,625	4,945	3,611	4,733	11,883	5,006	2,844
800-999	192,671	246,467	2,036	49,872	37,281	27,900	34,850	89,525	32,780	21,141
1,000-1,499	46,916	49,307	233	9,251	11,912	11,662	22,499	69,342	34,644	20,584
1,500-1,999	2,131	5,474	11	691	438	268	587	1,706	582	854
2,000-2,999	119	6,981	2	6	27	4	30	81	23	29
>2,999	0	-	-	-	-	-	-	-	-	-
	306,122	357,724	2,355	67,445	54,603	43,444	62,699	172,537	73,034	45,453

Table D.6 Total catch (tonnes) by length overall (m) (LOA) and year

LOA	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<45	2,579	-	-	-	-	-	-	-	-	-
45-49	19,372	18,956	16	2,938	3,018	1,833	2,125	5,138	2,439	955
50-54	51,038	37,730	23	5,442	3,465	2,686	4,678	9,857	3,230	2,039
55-59	53,970	53,751	359	10,289	5,530	3,668	3,042	8,730	3,727	2,222
60-64	49,074	56,735	232	9,354	6,950	7,508	9,394	30,973	11,404	6,408
65-69	53,125	76,181	738	17,345	16,093	12,879	17,789	43,775	18,513	12,146
70-79	76,938	109,677	986	22,074	19,520	14,867	25,665	73,972	33,681	21,650
80-89	15	2,558	1	1	0	0	4	65	28	15
>89	11	2,137	1	2	26	3	1	27	11	18
	306,122	357,724	2,355	67,445	54,603	43,444	62,699	172,537	73,034	45,453

GT	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<400	-	-	-	-	-	-	-	-	-	-
400-599	2,579	-	-	-	-	-	-	-	-	-
600-799	60,488	48,489	68	7,266	4,505	3,460	4,010	11,503	4,825	2,593
800-999	188,197	242,582	2,028	48,762	35,833	27,188	33,517	87,754	32,476	20,761
1,000-1,499	40,510	41,792	202	7,779	11,252	10,936	21,759	67,301	34,458	19,664
1,500-1,999	-	-	-	-	-	-	-	-	-	-
2,000-2,999	-	-	-	-	-	-	-	-	-	-
>2,999	-	-	-	-	-	-	-	-	-	-
	291,774	332,863	2,297	63,807	51,590	41,584	59,286	166,558	71,759	43,017

Table D.7 Total catch (tonnes) of jiggers by gross tonnage (GT) and year

 Table D.8
 Total catch (tonnes) of jiggers by length overall (m) (LOA) and year

LOA	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<45	2,579	-	-	-	-	-	-	-	-	-
45-49	18,786	18,136	15	2,938	2,518	1,833	2,125	5,138	2,439	955
50-54	48,080	34,429	20	4,359	2,388	1,999	2,957	8,247	2,923	1,773
55-59	51,404	52,549	348	9,505	5,117	3,214	2,518	7,096	3,493	1,541
60-64	45,361	53,966	210	9,015	6,783	7,406	9,327	30,843	11,336	6,201
65-69	50,906	71,209	725	16,231	15,581	12,688	17,437	42,892	18,357	11,703
70-79	74,658	102,574	980	21,759	19,203	14,445	24,922	72,343	33,210	20,844
80-89	-	-	-	-	-	-	-	-	-	-
>89	-	-	-	-	-	-	-	-	-	-
	291,774	332,863	2,297	63,807	51,590	41,584	59,286	166,558	71,759	43,017

Licence Used	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Α	1,071	624	8	73	61	12	5	78	289	210
В	1,916	2,232	-	557	519	535	899	1,191	118	-
С	0	12,036	5	17	29	5	5	308	69	73
Ε	23	448	0	2	10	9	16	10	3	3
F	50	18	0	0	5	0	19	-	-	-
G	10,960	9,265	41	2,967	2,262	1,166	2,352	4,288	715	2,079
S	-	-	-	-	0	-	-	-	-	-
W	278	239	3	21	125	131	117	104	83	69
X	50	-	1	0	0	1	0	0	0	0
	14,348	24,861	57	3,638	3,012	1,860	3,413	5,979	1,276	2,435

Table D.9 Total catch (tonnes) of trawlers by license used and year

Table D.10 Total catch (tonnes) of trawlers by gross tonnage (GT) and year

GT	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<400	-	-	-	-	-	-	-	-	-	-
400-599	-	-	-	-	-	-	-	-	-	-
600-799	1,219	1,006	4	359	440	150	723	380	181	251
800-999	4,474	3,885	9	1,109	1,448	712	1,333	1,772	303	381
1,000-1,499	6,406	7,515	32	1,473	659	726	741	2,040	186	920
1,500-1,999	2,131	5,474	11	691	438	268	587	1,706	582	854
2,000-2,999	119	6,981	2	6	27	4	30	81	23	29
>2,999	0	-	-	-	-	-	-	-	-	-
	14,348	24,861	57	3,638	3,012	1,860	3,413	5,979	1,276	2,435

Table D.11 Total catch (tonnes) of trawlers by length overall (m) (LOA) and year

LOA	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<45	-	-	-	-	-	-	-	-	-	-
45-49	586	820	1	0	500	-	-	-	-	-
50-54	2,958	3,300	4	1,083	1,077	687	1,721	1,611	307	266
55-59	2,566	1,202	11	784	413	454	525	1,633	234	681
60-64	3,713	2,768	22	339	167	102	68	130	68	207
65-69	2,219	4,972	13	1,114	513	192	353	884	156	443
70-79	2,280	7,103	6	315	317	423	743	1,629	471	806
80-89	15	2,558	1	1	0	0	4	65	28	15
>89	11	2,137	1	2	26	3	1	27	11	18
	14,348	24,861	57	3,638	3,012	1,860	3,413	5,979	1,276	2,435

*Illex argentinus* First Season 2023 (01 Jan to 30 Jun)





Length- frequency distribution and length-weight relationship in trawler fleet in 2023

# □ Male, N=2,696 ■Female, N=4,066

#### Illex argentinus—Illex squid



Length- frequency distribution and length-weight relationship in jigger fleet in 2023

VESSEL TYPE	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
JI	-	-	-	-	-	-	-	0	-	0
TR	48,700	30,317	46,447	64,677	79,996	81,908	60,732	95,626	101,166	69,751
	48,700	30,317	46,447	<b>64,6</b> 77	79,996	81,908	60,732	95,627	101,166	69,751

Table E.1Total catch (tonnes) by vessel type and year

MONTH	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
January	-	-	0	5	-	2	1	-	-	-
February	2,167	2,048	1,222	2,224	1,407	6,377	4,866	3,831	5,050	2,701
March	13,832	14,630	8,713	20,244	23,412	26,926	14,454	27,757	30,317	25,652
April	12,318	3,007	12,832	16,322	16,852	22,638	10,487	28,457	21,688	24,328
May	47	115	55	1,081	1,715	516	141	52	166	904
June	15	4	17	24	15	23	51	25	23	10
July	4,800	1,176	1,879	2,509	3,745	4,537	3,668	3,745	4,284	2,169
August	9,641	8,056	12,746	12,432	22,910	18,877	16,818	18,330	24,231	13,914
September	5,778	1,204	7,763	9,016	9,273	2,002	9,029	12,878	14,754	67
October	92	55	1,217	817	657	8	1,211	543	653	6
November	11	20	2	2	7	0	7	3	0	-
December	-	3	-	0	2	-	-	6	-	0
	48,700	30,317	46,447	64,677	79,996	81,908	60,732	95,627	101,166	69,751

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Table E.2 Total catch (tonnes) by month and year

Table E.3 Total catch (tonnes) by fishing fleet and year

FISHING FLEET	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
ES	2,442	1,676	2,851	6,677	4,615	4,026	859	645	621	691
FK	42,927	26,478	40,823	54,039	70,680	73,148	56,427	94,981	100,545	69,060
KR	39	2	7	12	1	2	7	0	0	-
TW	-	-	-	-	-	-	-	0	-	-
UK	3,292	2,161	2,767	3,948	4,699	4,732	3,439	-	-	-
VU	-	-	-	-	-	-	-	-	-	0
	48,700	30,317	46,447	64,677	79,996	81,908	60,732	95,627	101,166	69,751

Licence Used	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Α	169	49	142	143	63	60	164	33	94	119
В	-	-	-	6	0	2	7	0	0	0
С	28,117	19,424	22,619	39,425	43,086	55,586	29,116	59,499	56,080	52,704
Ε	513	523	421	856	878	1,254	1,287	1,241	1,673	1,309
F	42	15	10	9	1	2	17	-	-	-
G	48	20	50	62	91	141	254	111	97	103
S	-	-	-	-	0	-	-	-	-	-
W	156	96	115	89	49	116	128	77	6	2
X	19,656	10,190	23,090	24,085	35,828	24,748	29,759	34,665	43,216	15,513
	48,700	30,317	46,447	64,677	79,996	81,908	60,732	95,627	101,166	69,751

Table E.4 Total catch (tonnes) by license used and year

Table E.5 Total catch (tonnes) by gross tonnage (GT) and year

GT	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<400	-	-	-	-	-	-	-	-	-	-
400-599	-	-	-	-	-	-	-	-	-	-
600-799	30	13	48	62	22	29	66	6	2	3
800-999	2,371	1,598	2,509	2,666	65	57	82	194	36	34
1,000-1,499	7,906	5,056	7,935	10,897	16,263	16,448	13,410	25,067	28,037	19,770
1,500-1,999	14,603	9,377	13,775	21,467	25,104	26,130	18,810	26,630	29,074	19,116
2,000-2,999	23,784	14,272	22,180	29,584	38,542	39,244	28,364	43,729	44,017	30,827
>2,999	5	-	-	-	-	-	-	-	-	-
	48,700	30,317	46,447	64,677	79,996	81,908	60,732	95,627	101,166	69,751

Table E.6 Total catch (tonnes) by length overall (m) (LOA) and year

LOA	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<45	0	3	2	-	0	-	6	-	-	-
45-49	2,318	1,577	2,431	1,368	41	-	-	-	-	-
50-54	66	15	59	74	21	31	79	18	11	6
55-59	30	18	95	1,319	37	80	79	202	31	35
60-64	252	36	278	16	4,735	4,828	4,205	11,154	12,547	9,394
65-69	11,380	7,261	10,656	14,698	16,461	12,582	10,188	9,886	10,735	7,314
70-79	18,705	11,817	17,232	28,008	29,621	35,904	25,372	42,433	43,876	29,877
80-89	8,990	5,187	8,453	12,102	15,767	15,421	11,805	18,007	20,604	14,669
>89	6,959	4,403	7,241	7,092	13,312	13,061	8,998	13,925	13,362	8,455
	48,700	30,317	46,447	64,677	79,996	81,908	60,732	95,627	101,166	69,751





Length- frequency distribution and length-weight relationship during First Season 2023



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### Micromesistius australis - Southern Blue Whiting

VESSEL TYPE	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
TR	3,612	2,790	5,415	2,309	992	518	69	86	273	51
	3,612	2,790	5,415	2,309	992	518	69	86	273	51

Table F.1	Total catch (tonnes) by vessel type and year

MONTH	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
January	-	-	1,189	157	-	190	25	-	-	0
February	123	184	1,420	283	59	132	31	15	3	33
March	137	28	1,002	176	64	3	0	0	0	0
April	127	5	816	14	21	1	0	0	149	0
May	0	4	83	1	12	0	0	0	0	0
June	15	-	1	-	-	0	-	0	0	0
July	14	1	2	3	1	0	1	0	0	2
August	55	97	580	616	704	192	0	0	4	2
September	1,670	121	116	515	52	0	2	21	113	2
October	212	147	40	482	2	0	10	48	3	2
November	1,211	1,687	52	60	2	-	0	-	0	-
December	47	517	114	2	76	-	-	1	1	9
	3,612	2,790	5,415	2,309	992	518	69	86	273	51

Table F.2Total catch (tonnes) by month and year

Table F.3 Total catch (tonnes) by fishing fleet and year

FISHING FLEET	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
CL	1,155	-	-	-	-	-	-	-	-	-
ES	578	2,488	4,578	1,796	925	431	49	2	2	13
FK	1,795	273	800	509	67	87	20	84	271	38
KR	2	0	8	-	-	-	-	-	-	-
UK	82	29	29	4	0	-	0	-	-	-
	3,612	2,790	5,415	2,309	<b>992</b>	518	69	86	273	51
	1,596	2,698	3,612	2,790	5,415	2,309	992	518	69	86

### Micromesistius australis - Southern Blue Whiting

Licence Used	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Α	38	193	404	32	28	5	0	0	3	6
С	46	15	0	7	-	0	0	0	149	1
Ε	85	32	85	98	30	14	11	63	97	36
F	3	68	8	0	-	-	-	-	-	-
G	196	26	1,566	154	53	4	-	0	0	0
S	1,155	0	18	-	-	-	-	-	-	-
W	412	2,266	3,204	1,740	846	495	55	2	1	8
X	1,677	190	130	278	35	0	2	21	24	0
	3,612	2,790	5,415	2,309	992	518	69	86	273	51

Table F.4 Total catch (tonnes) by license used and year

Table F.5 Total catch (tonnes) by gross tonnage (GT) and year

GT	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<400	-	-	-	-	-	-	-	-	-	-
400-599	-	-	-	-	-	-	-	-	-	-
600-799	29	28	499	65	2	0	0	0	0	1
800-999	171	569	1,118	195	52	40	10	0	0	4
1,000-1,499	810	1,449	1,845	857	204	211	21	2	23	12
1,500-1,999	455	597	1,812	956	724	214	37	49	158	1
2,000-2,999	991	148	141	237	9	52	1	34	92	33
>2,999	1,155	-	-	-	-	-	-	-	-	-
	3,612	2,790	5,415	2,309	992	518	69	86	273	51

Table F.6 Total catch (tonnes) by length overall (m) (LOA) and year

LOA	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<45	-	132	26	-	-	-	-	-	-	-
45-49	96	57	23	1	1	-	-	-	-	-
50-54	41	34	527	105	1	0	0	0	0	1
55-59	64	375	1,128	155	52	43	10	0	1	5
60-64	101	590	1,317	432	144	106	11	2	10	6
65-69	680	701	1,333	1,028	759	288	20	1	11	5
70-79	470	782	1,014	406	24	35	27	68	163	1
80-89	558	42	22	110	7	45	1	0	78	33
>89	1,602	78	25	72	3	-	0	15	10	0
	3,612	2,790	5,415	2,309	992	518	69	86	273	51



#### Micromesistius australis - Southern Blue Whiting



Length- frequency distribution and length-weight relationship in 2023

### Macruronus magellanicus—Hoki

VESSEL TYPE	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
TR	7,392	6,845	11,562	4,053	4,439	7,407	7,643	1,914	2,326	3,430
	7,392	6,845	11,562	4,053	4,439	7,407	7,643	1,914	2,326	3,430

Table G.1 Total catch (tonnes) by vessel type and year

MONTH	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
January	-	-	211	22	-	3,988	1,682	-	-	761
February	754	484	4,655	146	639	2,078	3,378	31	10	467
March	1,521	3,836	2,277	530	901	1,046	267	219	67	118
April	2,811	1,610	2,596	770	503	77	766	105	641	196
May	774	256	1,082	733	1,162	8	821	95	4	3
June	350	36	99	19	4	3	465	8	1	0
July	56	5	25	273	29	2	136	0	0	1
August	82	64	90	316	2	5	30	0	0	10
September	800	181	6	47	28	9	34	0	0	47
October	9	35	45	878	127	9	62	240	0	1
November	229	239	290	311	217	0	3	334	107	-
December	6	101	185	9	827	182	-	882	1,495	1,825
	7,392	6,845	11,562	4,053	4,439	7,407	7,643	1,914	2,326	3,430

Table G.2 Total catch (tonnes) by month and year

Table G.3 Total catch (tonnes) by fishing fleet and year

FISHING FLEET	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
CL	207	-	-	-	-	-	-	-	-	-
ES	5,275	5,705	8,886	3,548	3,880	6,114	5,997	1,841	2,240	2,964
FK	1,889	959	2,378	467	555	1,291	1,531	73	85	466
KR	20	147	211	19	3	2	0	-	1	-
UK	1	35	87	18	0	0	115	-	-	-
	7,392	6,845	11,562	4,053	4,439	7,407	7,643	1,914	2,326	3,430
	15,867	16,849	7,392	6,845	11,562	4,053	4,439	7,407	7,643	1,914

### Macruronus magellanicus—Hoki

Licence Used	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
A	701	757	1,421	259	234	176	128	14	129	568
В	6	26	-	8	1	2	0	-	1	-
С	5	1	0	1	0	8	88	0	0	0
Ε	56	63	53	79	31	9	14	31	10	15
F	25	64	55	21	4	1	-	-	-	-
G	4,090	4,932	5,232	1,858	1,779	941	1,446	275	621	199
S	207	2	3	-	-	-	-	-	-	-
W	2,300	884	4,799	1,775	2,364	6,262	5,938	1,593	1,564	2,649
X	1	117	0	51	26	7	29	0	0	0
	7,392	6,845	11,562	4,053	4,439	7,407	7,643	1,914	2,326	3,430

Table G.4 Total catch (tonnes) by license used and year

Table G.5 Total catch (tonnes) by gross tonnage (GT) and year

GT	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<400	-	-	-	-	-	-	-	-	-	-
400-599	-	-	-	-	-	-	-	-	-	-
600-799	497	1,051	1,155	323	307	110	263	23	20	176
800-999	1,634	1,845	3,569	615	768	1,999	1,288	158	135	593
1,000-1,499	3,477	3,055	2,992	2,371	2,163	4,009	3,461	1,580	1,001	2,068
1,500-1,999	1,566	858	3,813	644	1,201	934	2,473	152	1,170	593
2,000-2,999	8	38	31	100	0	354	158	1	0	0
>2,999	210	-	1	-	-	-	-	-	-	-
	7,392	6,845	11,562	4,053	4,439	7,407	7,643	1,914	2,326	3,430

Table G.6 Total catch (tonnes) by length overall (m) (LOA) and year

LOA	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<45	-	10	167	-	-	-	-	-	-	-
45-49	77	156	234	0	56	-	-	-	-	-
50-54	775	1,655	1,619	355	305	112	601	59	21	177
55-59	1,592	1,647	2,985	812	894	2,508	1,052	302	148	595
60-64	1,479	1,209	1,694	1,487	1,420	1,693	1,485	1,190	958	1,144
65-69	2,181	734	2,011	1,031	989	2,138	2,759	322	804	1,086
70-79	997	1,385	2,805	263	719	775	1,654	41	395	401
80-89	81	41	45	83	56	173	80	0	0	28
>89	211	8	1	22	0	7	11	1	0	-
	7,392	6,845	11,562	4,053	4,439	7,407	7,643	1,914	2,326	3,430



### Macruronus magellanicus—Hoki





### Salilota australis - Red cod

VESSEL TYPE	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
LO	-	-	-	-	-	-	0	0	-	0
TR	3,468	3,340	3,143	1,379	1,655	1,768	1,418	1,189	750	1,127
	3,468	3,340	3,143	1,379	1,655	1,768	1,418	1,189	750	1,127

Table H.1 Total catch (tonnes) by vessel type and year

MONTH	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
January	-	0	143	33	-	310	101	-	-	30
February	114	63	479	24	47	367	306	6	13	60
March	221	557	181	101	64	220	42	40	36	43
April	477	685	270	245	154	169	110	123	157	89
May	768	310	527	138	451	168	175	264	68	105
June	398	131	198	38	102	116	144	223	83	100
July	135	174	138	134	200	131	103	186	40	146
August	376	161	369	223	134	167	65	50	52	63
September	195	329	135	248	108	72	168	158	109	309
October	532	631	562	144	163	26	166	33	105	78
November	189	200	74	40	129	3	37	29	8	-
December	63	99	66	12	103	19	0	77	79	104
	3,468	3,340	3,143	1,379	1,655	1,768	1,418	1,189	750	1,127

 Table H.2
 Total catch (tonnes) by month and year

Table H.3 Total catch (tonnes) by fishing fleet and year

FISHING FLEET	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
ES	2,530	2,776	2,237	1,027	1,073	1,400	1,122	1,024	596	739
FK	875	505	878	319	565	353	292	164	154	388
KR	57	47	18	14	17	1	0	1	0	-
UK	5	12	10	18	0	15	4	-	-	-
	3,468	3,340	3,143	1,379	1,655	1,768	1,418	1,189	750	1,127

### Salilota australis - Red cod

Licence Used	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Α	715	430	602	253	738	297	297	322	460	804
В	5	11	-	3	1	1	0	1	0	-
С	26	70	4	50	3	18	2	14	28	5
Ε	20	27	21	16	18	42	4	7	21	54
F	36	77	24	14	11	2	29	-	-	-
G	902	1,272	838	397	401	409	259	314	122	98
L	-	-	-	-	-	-	-	-	-	0
W	1,676	1,425	1,590	574	471	963	733	525	119	166
X	88	28	64	71	11	35	92	6	0	0
	3,468	3,340	3,143	1,379	1,655	1,768	1,418	1,189	750	1,127

Table H.4 Total catch (tonnes) by license used and year

Table H.5 Total catch (tonnes) by gross tonnage (GT) and year

GT	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<400	-	-	-	-	-	-	-	-	-	-
400-599	-	-	-	-	-	-	-	-	-	-
600-799	508	401	480	143	360	171	100	69	48	82
800-999	600	648	783	275	336	372	202	218	117	153
1,000-1,499	1,399	1,387	793	409	517	790	560	520	262	407
1,500-1,999	881	869	1,053	469	425	399	459	366	309	446
2,000-2,999	78	34	34	83	17	36	96	16	13	38
>2,999	2	-	0	-	-	-	-	-	-	-
	3,468	3,340	3,143	1,379	1,655	1,768	1,418	1,189	750	1,127

Table H.6 Total catch (tonnes) by length overall (m) (LOA) and year

LOA	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<45	3	8	56	-	2	-	8	-	-	-
45-49	98	111	99	12	114	-	-	-	-	-
50-54	662	509	584	230	390	239	182	166	77	99
55-59	480	537	574	218	260	472	173	292	159	225
60-64	720	493	351	122	250	250	235	207	110	173
65-69	834	967	658	380	276	461	425	328	181	219
70-79	628	689	772	360	305	328	318	191	205	300
80-89	18	18	48	37	54	12	31	2	14	110
>89	25	8	2	19	5	6	47	4	3	0
	3,468	3,340	3,143	1,379	1,655	1,768	1,418	1,189	750	1,127



#### Salilota australis - Red cod





### Merluccius spp - Hakes

VESSEL TYPE	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
LO	-	-	-	-	-	-	-	0	-	-
TR	14,865	21,068	23,894	15,759	27,094	53,474	43,375	59,181	62,811	60,709
	14,865	21,068	23,894	15,759	27,094	53,474	43,375	59,181	62,811	60,709

Table I.1Total catch (tonnes) by vessel type and year

MONTH	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
January	-	1	62	10	-	42	18	-	-	7
February	30	29	231	11	12	164	50	9	14	177
March	224	382	155	237	144	1,708	294	506	767	1,370
April	680	1,266	821	2,236	1,130	6,642	3,640	4,755	6,648	7,097
May	3,168	3,277	5,847	2,589	5,183	11,418	7,335	12,689	8,444	8,664
June	2,506	1,912	3,500	1,696	4,130	10,181	6,949	7,590	7,731	9,189
July	2,065	3,508	3,461	2,875	5,242	9,947	7,025	7,994	9,456	11,094
August	2,706	3,619	3,453	1,821	3,830	7,215	5,000	6,647	11,111	9,622
September	2,431	5,153	3,273	3,414	4,124	5,403	6,769	13,154	11,772	11,617
October	862	1,823	3,054	840	3,177	743	5,379	5,378	6,676	1,845
November	189	62	27	23	107	9	917	436	183	-
December	3	36	10	5	15	3	-	23	9	27
	14,865	21,068	23,894	15,759	27,094	53,474	43,375	59,181	62,811	60,709

 Table I.2
 Total catch (tonnes) by month and year

Table I.3 Total catch (tonnes) by fishing fleet and year

FISHING FLEET	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
CL	0	-	-	-	-	-	-	-	-	-
ES	10,454	15,429	18,858	11,019	19,434	45,145	38,963	50,281	53,678	45,742
FK	4,196	5,072	4,739	4,443	7,338	7,981	4,300	8,818	9,122	14,967
KR	159	351	191	199	210	25	26	82	11	-
UK	56	215	106	98	112	322	85	-	-	-
	14,865	21,068	23,894	15,759	27,094	53,474	43,375	59,181	62,811	60,709

### Merluccius spp - Hakes

Licence Used	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Α	8,475	12,231	15,620	11,181	20,405	27,260	20,863	30,505	55,448	55,855
В	22	29	-	76	46	25	26	82	11	-
С	2	-	8	11	69	125	117	45	315	304
Ε	4	11	3	33	39	92	81	62	179	164
F	313	716	406	191	116	214	494	-	-	-
G	1,977	2,962	3,285	3,034	3,285	11,207	8,255	12,103	6,000	4,102
S	0	0	-	-	-	-	-	-	-	-
W	4,070	5,088	4,530	1,174	3,047	14,461	13,284	16,131	814	219
X	2	31	42	60	88	90	255	253	45	66
	14,865	21,068	23,894	15,759	27,094	53,474	43,375	59,181	62,811	60,709

Table I.4 Total catch (tonnes) by license used and year

Table I.5Total catch (tonnes) by gross tonnage (GT) and year

GT	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<400	-	-	-	-	-	-	-	-	-	-
400-599	-	-	-	-	-	-	-	-	-	-
600-799	1,815	2,201	2,171	2,336	3,085	6,069	2,840	3,771	4,472	4,578
800-999	2,055	3,843	4,452	2,699	8,379	12,741	8,986	15,190	15,768	13,552
1,000-1,499	7,916	10,035	12,016	5,998	10,607	20,446	19,712	26,015	22,667	20,715
1,500-1,999	3,030	4,115	5,034	4,516	4,931	14,125	11,171	13,877	19,403	21,690
2,000-2,999	41	874	213	210	92	92	667	327	501	174
>2,999	7	-	9	-	-	-	-	-	-	-
	14,865	21,068	23,894	15,759	27,094	53,474	43,375	59,181	62,811	60,709

Table I.6 Total catch (tonnes) by length overall (m) (LOA) and year

LOA	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<45	15	42	51	-	109	-	377	-	-	-
45-49	564	1,358	990	767	1,961	-	-	-	-	-
50-54	2,009	2,640	3,269	3,067	4,963	8,922	5,422	7,895	8,108	7,313
55-59	2,601	3,374	4,541	2,811	7,036	15,510	10,604	22,993	24,150	19,805
60-64	4,415	4,671	6,149	1,640	3,835	8,285	8,422	5,454	5,066	6,268
65-69	2,127	4,269	4,548	3,084	4,152	11,020	9,917	12,722	10,420	9,115
70-79	3,093	4,162	4,057	3,484	4,794	9,304	7,879	9,977	14,745	16,870
80-89	34	548	272	724	197	396	422	101	261	1,278
>89	7	4	18	182	47	37	333	39	62	60
	14,865	21,068	23,894	15,759	27,094	53,474	43,375	59,181	62,811	60,709



#### Merluccius spp - Hakes



Length- frequency distribution and length-weight relationship in M.hubbsi in 2023
## Genypterus blacodes - Kingclip

VESSEL TYPE	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
TR	2,881	2,983	1,612	1,632	1,443	1,710	1,625	1,708	1,340	1,454
	2,881	2,983	1,612	1,632	1,443	1,710	1,625	1,708	1,340	1,454

Table J.1 Total catch (tonnes) by vessel type and year

MONTH	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
January	-	1	62	12	-	98	27	-	-	11
February	65	50	175	7	22	109	73	5	5	78
March	141	200	52	67	41	147	45	57	84	159
April	189	250	134	110	110	247	157	161	229	177
May	372	314	205	107	276	280	215	372	211	197
June	324	288	78	42	115	268	248	238	118	146
July	296	159	154	168	219	281	257	230	183	207
August	387	226	234	251	156	167	136	156	118	133
September	357	491	142	410	134	68	130	246	140	255
October	491	503	337	310	209	39	257	151	202	48
November	203	265	23	142	106	1	80	73	10	-
December	57	237	15	8	55	5	-	20	39	43
	2,881	2,983	1,612	1,632	1,443	1,710	1,625	1,708	1,340	1,454

 Table J.2
 Total catch (tonnes) by month and year

Table J.3 Total catch (tonnes) by fishing fleet and year

FISHING FLEET	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
ES	2,219	2,370	1,280	1,386	1,069	1,459	1,461	1,422	1,085	1,039
FK	548	502	312	225	353	240	158	282	252	414
KR	107	90	19	10	18	8	2	4	3	-
UK	7	22	1	11	4	2	4	-	-	-
	2,881	2,983	1,612	1,632	1,443	1,710	1,625	1,708	1,340	1,454

### Genypterus blacodes - Kingclip

Licence Used	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Α	612	669	518	691	767	629	635	695	939	1,071
В	11	13	-	3	2	8	2	4	3	-
С	3	0	0	6	1	3	2	5	32	1
Ε	8	15	6	8	5	10	5	5	6	15
F	66	85	13	15	12	5	77	-	-	-
G	469	663	338	238	288	443	328	434	252	290
W	1,712	1,537	692	669	368	606	572	563	107	76
Χ	2	1	46	2	1	7	4	3	0	0
	2,881	2,983	1,612	1,632	1,443	1,710	1,625	1,708	1,340	1,454

Table J.4 Total catch (tonnes) by license used and year

Table J.5 Total catch (tonnes) by gross tonnage (GT) and year

GT	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<400	-	-	-	-	-	-	-	-	-	-
400-599	-	-	-	-	-	-	-	-	-	-
600-799	291	338	141	146	186	163	110	119	65	115
800-999	710	612	434	204	347	386	349	360	282	264
1,000-1,499	1,182	1,350	543	710	541	711	676	733	489	545
1,500-1,999	683	648	465	552	367	441	455	470	488	527
2,000-2,999	13	36	30	20	2	9	34	26	17	3
>2,999	2	-	0	-	-	-	-	-	-	-
	2,881	2,983	1,612	1,632	1,443	1,710	1,625	1,708	1,340	1,454

Table J.6 Total catch (tonnes) by length overall (m) (LOA) and year

LOA	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<45	13	24	41	-	6	-	11	-	-	-
45-49	63	105	31	23	111	-	-	-	-	-
50-54	558	494	260	212	247	267	273	282	179	192
55-59	471	441	328	209	304	487	305	500	389	368
60-64	464	639	251	87	210	244	314	190	118	173
65-69	824	805	313	616	290	377	360	437	249	278
70-79	475	455	361	447	249	315	321	290	394	396
80-89	9	20	27	26	24	17	36	9	10	47
>89	4	-	0	12	1	4	5	1	0	0
	2,881	2,983	1,612	1,632	1,443	1,710	1,625	1,708	1,340	1,454



#### Genypterus blacodes - Kingclip



Length- frequency distribution and length-weight relationship in 2023

VESSEL TYPE	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
LO	1,252	1,123	1,023	1,030	982	1,048	1,044	1,010	1,097	1,071
TR	45	103	476	489	277	268	202	85	43	95
	1,298	1,227	1,499	1,519	1,259	1,316	1,246	1,095	1,140	1,166

Table K.1 Total catch (tonnes) by vessel type and year

MONTH	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
January	125	161	172	24	116	141	165	134	18	123
February	109	111	146	9	40	130	167	82	102	187
March	73	142	217	23	163	142	173	100	122	165
April	121	118	157	37	161	198	163	5	118	90
May	36	71	156	174	56	44	89	10	0	1
June	72	49	105	72	7	6	9	19	3	2
July	130	133	160	168	30	8	7	61	35	12
August	37	130	217	39	27	50	8	168	154	77
September	234	34	30	115	148	144	33	149	196	162
October	115	19	46	241	200	196	194	87	106	113
November	107	18	36	384	157	103	98	142	129	31
December	139	239	55	233	154	153	139	138	159	203
	1,298	1,227	1,499	1,519	1,259	1,316	1,246	1,095	1,140	1,166

Table K.2Total catch (tonnes) by month and year

Table K.3 Total catch (tonnes) by fishing fleet and year

FISHING FLEET	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
CL	353	-	-	249	-	-	-	-	-	-
ES	34	87	367	396	207	205	153	71	36	75
FK	911	1,134	1,122	833	1,045	1,111	1,091	1,023	1,104	1,091
KR	0	5	10	40	6	0	-	-	-	-
UK	-	0	-	1	1	0	2	-	-	-
	1,298	1,227	1,499	1,519	1,259	1,316	1,246	1,095	1,140	1,166

Licence Used	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Α	6	6	44	50	77	33	22	17	23	56
В	-	-	-	-	0	0	-	-	-	-
С	0	2	12	9	5	5	2	4	3	4
Ε	0	1	5	3	3	2	1	1	1	8
F	0	8	13	42	6	1	1	-	-	-
G	27	7	114	68	89	45	21	11	5	4
L	1,252	1,123	1,020	1,030	982	1,048	1,043	1,009	1,097	1,065
S	-	-	0	-	-	-	-	-	-	-
W	11	75	250	300	93	179	153	50	11	29
X	1	4	40	16	5	2	2	3	1	1
	1,298	1,227	1,499	1,519	1,259	1,316	1,246	1,095	1,140	1,166

Table K.4 Total catch (tonnes) by license used and year

Table K.5 Total catch (tonnes) by gross tonnage (GT) and year

GT	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<400	-	-	-	-	-	-	-	-	-	-
400-599	-	-	-	-	-	-	-	-	-	-
600-799	7	5	35	19	34	20	12	5	2	4
800-999	906	1,141	1,198	98	61	58	30	16	8	13
1,000-1,499	370	51	77	482	93	122	90	32	13	48
1,500-1,999	15	29	173	909	1,067	1,109	1,109	1,038	1,116	1,098
2,000-2,999	-	1	16	10	4	8	5	3	2	3
>2,999	-	-	-	-	-	-	-	-	-	-
	1,298	1,227	1,499	1,519	1,259	1,316	1,246	1,095	1,140	1,166

Table K.6 Total catch (tonnes) by length overall (m) (LOA) and year

LOA	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<45	-	5	21	-	-	-	-	-	-	-
45-49	1	0	4	1	13	-	-	-	-	-
50-54	908	1,135	1,083	66	43	25	17	14	4	4
55-59	4	9	129	840	1,026	1,109	1,074	1,023	1,106	1,085
60-64	362	25	9	362	54	43	45	14	7	23
65-69	16	25	136	138	66	83	67	31	14	31
70-79	8	28	102	104	46	50	35	10	8	19
80-89	-	1	11	5	9	4	7	2	1	4
>89	-	-	4	3	1	1	1	1	1	0
	1,298	1,227	1,499	1,519	1,259	1,316	1,246	1,095	1,140	1,166

GT	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
800-999	900	1,123	1,023	-	-	-	-	-	-	-
1,000-1,499	353	-	-	249	-	-	-	-	-	-
1,500-1,999	-	-	-	781	982	1,048	1,044	1,010	1,097	1,071
	1,252	1,123	1,023	1,030	982	1,048	1,044	1,010	1,097	1,071

Table K.7 Total catch (tonnes) of longliners by gross tonnage (GT) and year

Table K.8 Total catch (tonnes) of longliners by length overall (m) (LOA) and year

LOA	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
50-54	900	1,123	1,023	-	-	-	-	-	-	-
55-59	-	-	-	781	982	1,048	1,044	1,010	1,097	1,071
60-64	353	-	-	249	-	-	-	-	-	-
	1,252	1,123	1,023	1,030	982	1,048	1,044	1,010	1,097	1,071

Table K.9 Total catch (tonnes) of trawlers by license used and year

Licence Used	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
A	6	6	44	50	77	33	22	17	23	56
В	-	-	-	-	0	0	-	-	-	-
С	0	2	12	9	5	5	2	4	3	4
Ε	0	1	2	3	3	2	1	1	1	2
F	0	8	13	42	6	1	1	-	-	-
G	27	7	114	68	89	45	21	11	5	4
S	-	-	0	-	-	-	-	-	-	-
W	11	75	250	300	93	179	153	50	11	29
X	1	4	40	16	5	2	2	3	1	1
	45	103	476	489	277	268	202	85	43	95

Table K.10 Total catch (tonnes) of trawlers by gross tonnage (GT) and year

GT	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
600-799	7	5	35	19	34	20	12	5	2	4
800-999	6	18	175	98	61	58	30	16	8	13
1,000-1,499	17	51	77	233	93	122	90	32	13	48
1,500-1,999	15	29	173	128	85	61	65	29	18	27
2,000-2,999	-	1	16	10	4	8	5	3	2	3
	45	103	476	489	277	268	202	85	43	95

LOA	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<45	-	5	21	-	-	-	-	-	-	-
45-49	1	0	4	1	13	-	-	-	-	-
50-54	8	11	60	66	43	25	17	14	4	4
55-59	4	9	129	59	44	61	30	13	9	14
60-64	9	25	9	113	54	43	45	14	7	23
65-69	16	25	136	138	66	83	67	31	14	31
70-79	8	28	102	104	46	50	35	10	8	19
80-89	-	1	11	5	9	4	7	2	1	4
>89	-	-	4	3	1	1	1	1	1	0
	45	103	476	489	277	268	202	85	43	95

Table K.11 Total catch (tonnes) of trawlers by gross tonnage (GT) and year



Dissostichus eleginoides First Season 2023 (01 Jan to 30 Jun)





Length- frequency distribution and length-weight relationship in longliner fleet in 2023





Length- frequency distribution and length-weight relationship in trawler fleet in 2023

### **Rajidae - Skates and Rays**

VESSEL TYPE	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
LO	32	28	29	28	28	26	28	34	35	49
TR	5,522	6,365	5,877	3,161	1,967	1,477	1,368	1,539	1,167	1,728
	5,554	6,393	5,906	3,189	1,995	1,504	1,397	1,574	1,202	1,778

 Table L.1
 Total catch (tonnes) by vessel type and year

MONTH	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
January	5	8	592	27	1	107	42	3	1	13
February	125	154	440	8	27	111	111	4	8	22
March	144	119	129	67	80	124	78	32	38	78
April	208	184	225	205	130	138	86	92	122	157
May	394	348	663	285	398	232	124	241	142	209
June	267	693	669	390	133	220	189	313	104	216
July	289	878	522	466	268	223	225	242	206	242
August	1,372	1,110	627	436	130	172	134	139	137	283
September	1,479	1,359	585	420	130	110	184	219	192	409
October	560	829	1,201	626	211	57	197	151	177	84
November	523	330	120	96	121	3	18	82	17	4
December	188	380	132	163	366	7	8	54	59	61
	5,554	6,393	5,906	3,189	1,995	1,504	1,397	1,574	1,202	1,778

Table L.2Total catch (tonnes) by month and year

Table L.3 Total catch (tonnes) by fishing fleet and year

FISHING FLEET	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
CL	3	-	-	15	-	-	-	-	-	-
ES	2,244	3,637	3,208	1,487	1,059	1,147	1,125	1,263	950	1,230
FK	1,120	837	665	602	457	342	263	307	249	548
KR	2,174	1,894	1,995	1,077	478	12	6	3	2	-
UK	13	24	38	8	1	3	3	-	-	-
	5,554	6,393	5,906	3,189	1,995	1,504	1,397	1,574	1,202	1,778

#### **Rajidae - Skates and Rays**

Licence Used	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
A	941	1,256	1,440	1,029	814	543	582	641	912	1,443
В	0	0	-	7	3	12	6	3	2	-
С	4	6	10	8	2	7	10	8	11	8
Ε	8	10	6	8	6	24	7	16	3	5
F	2,942	2,388	2,128	1,142	515	36	32	-	-	-
G	440	481	738	354	314	323	207	264	140	190
L	32	28	29	28	28	26	24	29	35	47
S	-	-	0	-	-	-	-	-	-	-
W	1,085	2,124	1,384	514	299	514	514	602	81	78
X	102	100	172	98	15	18	14	11	17	7
	5,554	6,393	5,906	3,189	1,995	1,504	1,397	1,574	1,202	1,778

Table L.4 Total catch (tonnes) by license used and year

Table L.5Total catch (tonnes) by gross tonnage (GT) and year

GT	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<400	-	-	-	-	-	-	-	-	-	-
400-599	-	-	-	-	-	-	-	-	-	-
600-799	592	220	167	324	178	150	135	109	81	81
800-999	1,899	2,755	2,865	1,435	915	402	296	391	340	324
1,000-1,499	2,079	2,537	1,754	732	595	590	614	604	339	623
1,500-1,999	639	743	987	647	303	333	326	462	419	745
2,000-2,999	58	138	73	51	5	28	26	8	22	4
>2,999	287	-	59	-	-	-	-	-	-	-
	5,554	6,393	5,906	3,189	1,995	1,504	1,397	1,574	1,202	1,778

Table L.6 Total catch (tonnes) by length overall (m) (LOA) and year

LOA	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<45	1	46	46	-	4	-	5	-	-	-
45-49	40	103	64	63	123	-	-	-	-	-
50-54	2,159	2,154	2,197	1,438	654	232	225	237	169	152
55-59	462	997	940	390	457	484	341	447	341	381
60-64	1,056	1,044	814	188	153	254	307	238	176	323
65-69	720	928	866	484	326	268	263	417	247	429
70-79	794	1,054	869	527	270	246	232	230	260	451
80-89	32	64	48	80	7	20	21	4	8	42
>89	291	4	63	20	0	0	3	2	2	0
	5,554	6,393	5,906	3,189	1,995	1,504	1,397	1,574	1,202	1,778





#### Patagonotothen ramsayi—Rock Cod

VESSEL TYPE	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
TR	56,709	29,086	7,039	2,521	2,216	950	737	1,279	1,245	1,417
	56,709	29,086	7,039	2,521	2,216	950	737	1,279	1,245	1,417

Table M.1 Total catch (tonnes) by vessel type and year

MONTH	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
January	-	32	933	40	-	97	51	-	-	6
February	560	1,780	1,024	141	154	240	233	158	81	109
March	1,251	1,527	750	416	472	304	184	308	329	400
April	1,170	4,442	1,167	434	625	139	86	228	328	280
May	9,128	9,544	536	85	173	49	11	33	66	144
June	5,940	3,806	131	19	10	20	7	15	25	311
July	8,922	390	226	109	36	17	8	47	35	80
August	7,350	756	923	564	234	54	22	173	157	30
September	5,984	729	992	545	357	24	119	247	191	22
October	7,925	1,093	235	127	56	2	14	38	21	17
November	5,997	841	72	31	70	0	3	24	2	-
December	2,482	4,146	51	11	28	3	-	9	10	19
	56,709	29,086	7,039	2,521	2,216	950	737	1,279	1,245	1,417

Table M.2 Total catch (tonnes) by month and year

Table M.3 Total catch (tonnes) by fishing fleet and year

FISHING FLEET	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
CL	0	-	-	-	-	-	-	-	-	-
ES	45,848	23,986	3,582	669	704	444	203	141	159	626
FK	10,314	4,605	3,205	1,765	1,470	492	519	1,138	1,086	792
KR	511	170	119	5	6	0	1	0	0	-
UK	36	325	133	82	37	13	14	-	-	-
	56,709	29,086	7,039	2,521	2,216	950	737	1,279	1,245	1,417

#### Patagonotothen ramsayi—Rock Cod

Licence Used	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Α	9,724	2,291	485	182	198	108	19	58	165	613
В	15	19	-	2	0	0	1	0	0	-
С	803	1,865	1,298	688	817	258	262	582	555	455
Ε	175	408	88	115	57	19	11	83	55	49
F	1,341	633	120	5	5	0	3	-	-	-
G	7,691	12,328	1,320	248	361	207	42	56	95	229
S	0	-	0	-	-	-	-	-	-	-
W	35,141	10,643	1,933	150	173	279	254	60	30	45
X	1,818	899	1,795	1,132	605	78	145	439	344	26
	56,709	29,086	7,039	2,521	2,216	950	737	1,279	1,245	1,417

Table M.4 Total catch (tonnes) by license used and year

Table M.5 Total catch (tonnes) by gross tonnage (GT) and year

GT	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<400	-	-	-	-	-	-	-	-	-	-
400-599	-	-	-	-	-	-	-	-	-	-
600-799	3,504	2,052	176	66	158	99	32	28	94	115
800-999	9,916	4,384	1,142	158	158	50	20	20	13	62
1,000-1,499	29,935	15,803	2,369	621	671	403	222	415	246	414
1,500-1,999	11,617	5,342	1,770	835	667	173	297	398	502	524
2,000-2,999	1,727	1,505	1,582	841	562	225	167	418	390	301
>2,999	10	-	0	-	-	-	-	-	-	-
	56,709	29,086	7,039	2,521	2,216	950	737	1,279	1,245	1,417

Table M.6 Total catch (tonnes) by length overall (m) (LOA) and year

LOA	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<45	206	341	32	-	-	-	0	-	-	-
45-49	2,880	1,912	285	38	84	-	-	-	-	-
50-54	3,729	2,106	313	101	178	99	35	32	97	121
55-59	8,097	2,853	771	109	61	180	24	45	21	150
60-64	13,239	6,932	645	82	150	63	46	132	85	189
65-69	13,474	6,966	1,850	569	395	169	160	201	129	259
70-79	13,347	6,745	1,486	994	761	311	314	505	581	458
80-89	1,299	813	1,032	476	416	74	114	155	221	123
>89	437	418	624	152	170	53	44	209	111	117
	56,709	29,086	7,039	2,521	2,216	950	737	1,279	1,245	1,417



#### Patagonotothen ramsayi—Rock Cod



#### Length- frequency distribution and length-weight relationship in 2023



## Others

VESSEL TYPE	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
LO	83	107	109	68	73	86	78	96	105	92
PO	7	5	-	-	0	-	-	-	-	-
TR	281	603	2,501	3,620	1,065	2,257	1,533	597	584	764
	371	715	2,609	3,688	1,138	2,344	1,611	694	689	856

Table N.1 Total catch (tonnes) by vessel type and year

MONTH	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
January	12	13	93	166	10	117	197	9	2	54
February	76	30	356	40	134	635	946	26	31	73
March	45	57	158	60	108	566	127	62	89	100
April	34	79	260	119	180	784	85	71	256	106
May	11	17	127	64	128	69	46	118	45	70
June	35	5	70	49	9	23	36	93	20	39
July	33	23	46	90	55	21	29	31	21	25
August	26	67	92	186	144	63	53	50	44	62
September	45	109	47	161	181	19	33	67	42	84
October	20	89	51	680	66	26	36	94	29	49
November	22	100	583	1,710	49	9	13	40	13	8
December	13	127	727	363	74	12	10	33	98	187
	371	715	2,609	3,688	1,138	2,344	1,611	694	689	856

Table N.2Total catch (tonnes) by month and year

Table N.3 To	otal catch	(tonnes) by	y fishing t	fleet and year
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FISHING FLEET	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
CL	10	-	-	12	-	-	-	-	-	-
ES	114	475	2,274	3,215	510	2,107	1,108	441	354	503
FK	241	203	321	407	573	234	491	252	335	353
KR	6	19	3	34	7	0	2	0	0	-
UK	0	17	12	20	48	2	10	-	-	-
	371	715	2,609	3,688	1,138	2,344	1,611	694	689	856
	572	1,023	371	715	2,609	3,688	1,138	2,344	1,611	694

## Others

Licence Used	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Α	17	23	83	340	80	288	82	150	153	340
В	4	-	-	1	-	0	2	0	0	-
С	13	19	80	118	224	18	39	48	126	81
Ε	10	17	8	73	30	21	13	21	17	26
F	1	18	5	36	8	1	3	-	-	-
G	48	87	406	89	140	1,069	163	136	152	61
L	83	107	108	68	73	86	77	96	105	87
S	3	0	0	-	0	-	-	-	-	-
W	150	400	1,870	2,852	320	851	1,197	197	93	237
X	42	44	48	112	264	10	34	45	44	25
	371	715	2,609	3,688	1,138	2,344	1,611	694	689	856

Table N.4 Total catch (tonnes) by license used and year

Table N.5 Total catch (tonnes) by gross tonnage (GT) and year

GT	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<400	7	5	-	-	0	-	-	-	-	-
400-599	-	-	-	-	-	-	-	-	-	-
600-799	27	16	80	34	33	90	116	12	26	91
800-999	87	270	1,375	292	101	215	151	100	75	113
1,000-1,499	133	264	720	2,043	414	1,553	703	276	182	352
1,500-1,999	86	125	373	1,206	405	472	593	266	330	251
2,000-2,999	28	34	60	114	185	14	48	40	76	49
>2,999	3	-	-	-	-	-	-	-	-	-
	371	715	2,609	3,688	1,138	2,344	1,611	694	689	856

Table N.6 Total catch (tonnes) by length overall (m) (LOA) and year

LOA	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<45	7	30	539	-	0	-	-	-	-	-
45-49	1	28	7	15	34	-	-	-	-	-
50-54	108	144	297	79	20	92	153	28	30	94
55-59	5	97	627	322	170	702	219	275	229	273
60-64	98	179	371	979	127	602	213	89	66	119
65-69	97	109	543	1,345	229	560	471	162	109	178
70-79	16	96	182	843	383	376	515	109	200	145
80-89	11	17	23	91	107	12	27	17	35	42
>89	27	14	19	13	69	0	13	14	18	5
	371	715	2,609	3,688	1,138	2,344	1,611	694	689	856

## Others

Common name	Latin Name	Catch mt
Grenadier	Macrouridae	279.1
Dogfish/Catshark	Schroederichthys bivius	109.6
Dogfish, Spurdog	Squalus acanthias	79.1
Driftfish	Seriolella porosa	71.4
Frogmouth	Cottoperca gobio	63.2
Butterfish	Stromateus brasiliensis	54.4
Blue Antimora	Antimora rostrata	33.8
Falkland Herring	Sprattus fuegensis	24.1
Notothenid	Patagonotothen tessellata	22.2
Slender Tuna	Allothunnus fallai	17.9
Grenadier	Coelorinchus fasciatus	15.7
Horsefish	Congiopodus peruvianus	9.0
Octopus	Octopus/eledone spp.	4.9
Greater Hooked Squid	Moroteuthis ingens	4.0
Dwarf Codling	Notophycis marginata	2.4
Sardine	Sardinella aurita	2.4
King crab	Lithodes murrayi	2.0
Porbeagle	Lamna nasus	1.5
Greenland Shark	Somniosus microcephalus	1.3
Icefish	Champsocephalus esox	1.2
Lobster Krill	Munida gregaria	1.1
Stone King Crab	Neolithodes diomedea	1.1
King crab	Lithodes turkayi	0.8
Fathead	Psychrolutes marmoratus	0.8
Red Fish	Sebastes oculatus	0.7
Eelpout	Iluocoetes fimbriatus	0.6
Hagfish	Myxinidae	0.4
Mullet	Eleginops maclovinus	0.3
Moonfish	Lampris immaculatus	0.1
King crab (uid)	Lithodes sp.	0.1
Others	Others	50.9
	Grand Total	856.1

Table N.7 Total catch (tonnes) of others by species in 2023

# FALKLAND ISLANDS COMMERCIAL FISH & SHELLFISH

