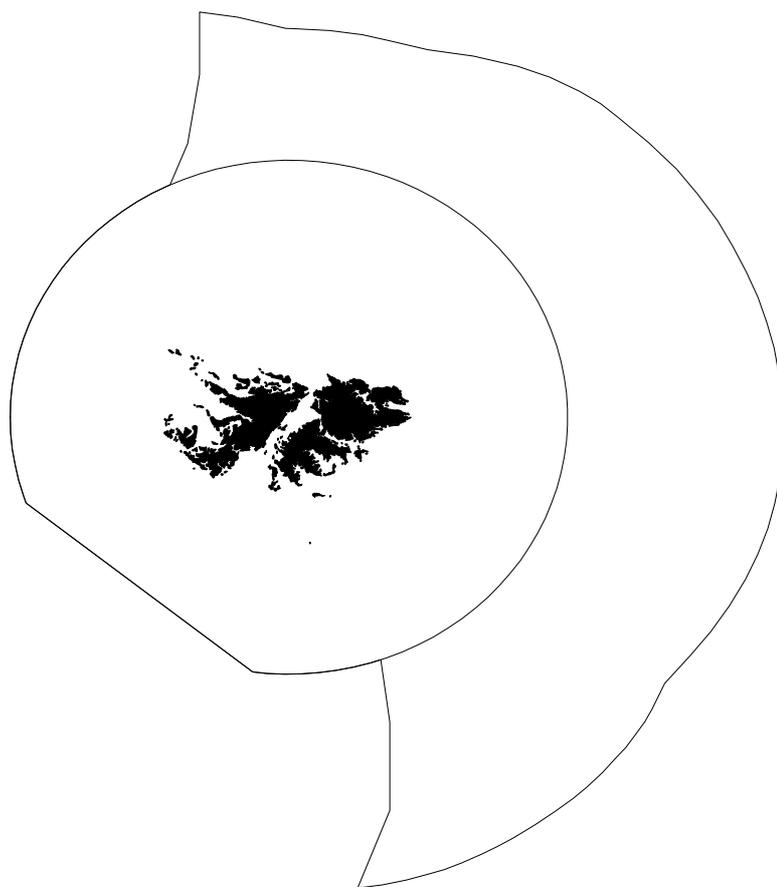


# **FALKLAND ISLANDS GOVERNMENT**



## **FISHERY STATISTICS**

**Volume 22**

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## FOREWORD

### 1 The Falkland Islands Fishery - 2017

The year 2017 was moderate in terms of total annual catch (~168 thousand t). As usual in most years, ~80% of this catch was composed of two squid species with almost equal shares of their contribution. Stocks of *Illex* squid started to re-build again (catch: 67.5 thousand t) after last years' downturn. The abundance of both cohorts of *Doryteuthis gahi* was high with the total annual catch of 64.6 thousand t. Only the seal mitigation issue during the second fishing season prevented one of the highest annual catches of this squid in the Falkland history. Catches of all finfish species and skates were at low level, including a decrease in abundant hakes (catch: 15,730 t). These low catches were partially due to lower than usual fishing effort, and also due to overfishing of migratory fish such as common hake and hoki on the South Patagonian Shelf in the Argentinean EEZ.

#### 1.1 *Illex argentinus* – *Illex* squid

The abundance of *I. argentinus* has fluctuated greatly since the start of the new millennium mainly due to increased exploitation rates and climate change. Commonly, this squid is one of the main contributors to the Falkland Islands economy with fishing licenses making up to 50% of the total fisheries income. In recent years, a period of low abundance was observed in 2009-2011, with gradual recovery of *Illex* stocks in 2012-2013. The full recovery and high abundance of this squid was observed in 2014-2015, with another fall in 2016. In 2017, the South Patagonian stock of *Illex* started to recover again.

In January, positive sea surface temperature (SST) anomalies were observed across the whole Southwest Atlantic with periodic outflows of warm shelf waters of 14-15°C from the Argentinean EEZ to the high seas area. Between 150 and 200 jigging vessels and trawlers worked outside the Argentinean EEZ between 45°S and 46°40'S. According to available information from several Spanish and Falkland flagged trawlers, the abundance of *Illex* there was quite low (2-5 t per day) almost until the end of the month. During the last four days of January, catches of trawlers increased to 17-20 t per day indicating a possibility of reasonable recruitment of the South Patagonian Stock.

Catches of *Illex* in February decreased for both jigging and trawling fleets on the high seas during the first week of the month. At least 50 fishing vessels fished at 42°S, and about 200 jiggers and trawlers (mainly Asian) fished at 45-47 °S. The fishing sharply improved during the second week

of the month, when dense concentrations of *Illex* migrated from the Argentine EEZ south of 46 °S. Squid were quite small (20-23 cm ML) and mainly immature, belonging to the South Patagonian Stock. Between 10<sup>th</sup> and 17<sup>th</sup> February, average daily CPUEs of Falkland registered trawlers varied from 20 to 40 t per vessel/day, some trawlers having as much as 80 t per day. Catches of jiggers were lower (10-20 t per vessel/night) as small squid was less attracted to jigging lures than larger squid. Towards the end of the month, CPUEs gradually decreased down to 10-15 t, with some sporadic catches of 20-25 t.

The official start of the *Illex* fishery in Falkland waters was on 15<sup>th</sup> February. From 105 licensed jiggers, only 7 vessels began to fish in the northern part of FICZ/FOCZ, but had very low catches (less than 1 t per night) and left for the high seas where the catches were much higher. Trawlers also worked only on the high seas with no effort for G and B license reported in February.

Positive SST anomalies (1-1.5°C higher than norm) carried on to March, with the warm water inflow spreading to more south-eastern position than last year. In the beginning of March, from 85 to 97 jigging vessels worked in the southern part of the high seas (south of 46°30'S), close to the boundary of FOCZ. Mean daily CPUEs varied between 8 and 15 t per night, some vessels having up to 64 t of *Illex* per night. After significant peak in catches on 11<sup>th</sup> March (mean CPUE of 19 t per night), catches gradually decreased to 6-7 t per night as squid aggregations moved further south to the Argentine EEZ and FOCZ. From 16<sup>th</sup> March, the jigging fleet started to relocate to FICZ/FOCZ. On 17<sup>th</sup> March, twenty four jigging vessels worked in the northern part of FICZ over the shelf break and had a mean CPUE of 20 t of *Illex* per night. In the next two days, the whole jigging fleet appeared in FICZ/FOCZ and started to fish reasonable amounts of squid, with mean daily CPUEs ranging between 15 and 26 t. Some vessels had up to 92 t per night. Trawlers fishing on G-license had good catches of *Illex* in the western and north-western parts of FICZ, being quite apart from the jigging fleet working in the north of FICZ. Overall, a wide spread distribution of *Illex* was characteristic to the northern parts of the Falkland Shelf in March.

After warmer than usual austral summer, the oceanographic situation in the southern part of the Patagonian Shelf was back to normal in April. In the beginning of the month, the well-resolved warm water inflow with sea surface temperatures >10°C was observed in the northern part of the FICZ/FOCZ. Throughout the month, it gradually cooled down to 8.5-9 °C. Colder waters of the Falkland current were shifted further east than normal and therefore did not create strong temperature gradients that usually concentrate squid in the north-eastern slope of the Falkland Shelf. The whole jigging fleet (105 licensed vessels) worked within the FICZ/FOCZ throughout the month. During the first two weeks, vessels fished for *Illex* along the 200 m isobaths in the northern and north-eastern parts of the Falkland Shelf. Catches were good during the first week (average CPUE of 15-20 t per night, with some vessels having maximum of 117 t per night). Catches gradually decreased to ~10 t per night by the end of the second week, and jiggers moved further west and northwest in an attempt to find migrating schools of the late maturing South Patagonian Stock that should migrate at that time from the Argentine EEZ. The abundance of this group was however quite low and catches declined further by the end of the month with average CPUE of only 5 t per night per vessel. Trawlers did not have much success either, having up to 15-20 t of *Illex* only in the middle of the month.

The relatively abundant early maturing South Patagonian Stock migrated out of the Falkland waters to their spawning grounds by the end of April. The abundance of late maturing SPS was low resulting in poor catches of squid in May. Taiwanese jiggers started to move from the fishing grounds after 10<sup>th</sup> May, having average daily CPUEs of 2-3 t per night. By 15<sup>th</sup> May, all Taiwanese vessels moved out of FICZ/FOCZ. The remaining 22-27 Korean vessels fished for *Illex* until the end of the month, having small catches (CPUEs of 0.3-3 t per night). The low fishing was further impacted by bad weather on 4-5 and 24-26 May, with the majority of jiggers sheltering near the Falkland Islands. By the end of the month, *Illex* squid practically disappeared from FICZ/FOCZ.

About 20 Korean jiggers carried on fishing into the first two days of June, but due to very poor catches (< 1 t per night) they decided to leave the fishery early. Their last vessel left the fishery on 9<sup>th</sup> June, having zero catches in the last few days. Altogether, 67,487 t of *Illex* was taken during the 2017 fishing season in Falkland waters, making it a low abundance season in the last decade. Additionally, ~28,000 t of *Illex* were caught by Falkland licensed jigging vessels on the high seas between 15 February and 15 June 2017. Due to the total catch of >91,000 t (taken both in Falkland waters and high seas) and relatively high market price for *Illex* in 2017, there was no reimbursement of licence fees for jigging vessels this year.

## **1.2 *Doryteuthis* (formerly *Loligo*) *gahi* – Falkland calamari**

Patagonian longfin squid or Falkland calamari (*Doryteuthis gahi*) is a domestic squid resource of the Falkland Islands. Contrary to *Illex*, the stocks of *D. gahi* are reasonably stable due to a number of conservation measures and regulations implemented by exclusive management of these stocks by the Fisheries Department.

Warm SST water anomalies observed on the Falkland Shelf in January and February, favoured earlier than usual migrations of *D. gahi* to their feeding grounds. A biomass survey for first season recruits was carried out onboard the fishing vessel *Argos Vigo* from the 9<sup>th</sup> to 23<sup>rd</sup> February. Fifty-nine scientific trawls were taken during the survey, catching 180 t of squid. An estimate of 48,785 t of *D. gahi* was calculated for the fishing zone, of which 3,255 t were estimated north of 52 °S, and 45,529 t were estimated south of 52 °S.

The first fishing season started on 27<sup>th</sup> February, with a 3-day postponement to give the vessels' crews the opportunity to participate in activities of the 30<sup>th</sup> Anniversary of the Falklands fishing industry. 15 C-licensed trawlers started in the southern part of the *Loligo* Box; one trawler delayed its entry by a day as it was replacing a damaged vessel. Dense concentrations of *D. gahi* were already present in the fishing grounds near Beauchene. Just two days of fishing in February produced an impressive total catch of 1,875 t, with average CPUEs of 57-63 t per vessel/day. Some vessels fished up to their freezing capacity. The total monthly catch (2,224 t) was the fourth highest catch for February in the last 10 years.

Catches were stable throughout March, with mean CPUE at 43 t per day. Both northern and southern parts of the *Loligo* Box had dense concentrations of squid. *Doryteuthis* occurred somewhat

deeper (>140 m) than in previous years. Average size of squid varied between 12 and 13.5 cm ML, indicating faster than usual growth of the autumn spawning cohort.

Excellent performance in the calamari fishery carried on into April with both parts of the *Loligo* Box yielding good catches. In the north, the second immigration peak that had started at the end of March was gradually and slowly depleted, with C-licensed trawlers having average catches of 30-40 t per day. Similar CPUEs were observed in the southern part of the Box during the first three weeks of the month. Another abundant influx of squid in the south took place on 20<sup>th</sup> April, with average CPUE attaining 45 t per day. Total monthly catch of *D. gahi* reached 16,320 t, and is the record-high catch of this squid in the last decade.

Total catch of *D. gahi* for the first season reached 39,433 t, the highest first season catch since 1995. The estimated escapement biomass of *D. gahi* squid remaining after the end of the first season was 45,655 t, with zero risk of overfishing and falling below the threshold limit of 10,000 t.

Before the second fishing season, another biomass survey of the *D. gahi* was carried out by the trawler *Igueldo*, between 13 and 28 July. Sixty-three scientific trawls were taken during the survey, including four dedicated trawls to cover a juvenile toothfish transect on one day. The scientific catch of the survey was 314 t *D. gahi*. The results of the survey obtained a geostatistical estimate of 56,807 t of squid present in the fishing zone, of which 11,375 t north of 52 °S, and 45,432 t south of 52 °S. This represented the highest second season survey biomass estimate since at least 2006.

An exceptional situation developed during this survey as unprecedented numbers of pinnipeds were sighted accompanying the vessel, and a total of 17 pinnipeds were caught in the *Igueldo*'s trawls of which 10 (3 Southern sea lions and 7 South American fur seals) were drowned dead. The usual mortality rate for pinnipeds in the *D. gahi* fishery has been 0-1 for the entire fleet for a whole season.

The second commercial *D. gahi* season started as scheduled on 29<sup>th</sup> July, with 12 vessels fishing and 4 vessels delaying their entry by 1 or 2 days for logistic requirements. The fleet fished in the southern part of the *Loligo* box. Daily CPUEs were very high ranging from 60 to 65 t per day, with the maximum catch of 114.6 t per day.

Sixteen X-licensed trawlers fished for *D. gahi* in August to the west of the Beauchene Exclusion Zone in the southern part of the *Loligo* Box. During the first week of the month, vessels fished squid up to their capacity, with some of the highest average CPUEs observed during the second season (65 t per day), with maximum catch as much as 121 t per day. However, increased amount of fur seal mortalities in the area especially to the end of the first week forced Fisheries Department to exclude the whole southern area from fishing. The fleet relocated to the northern and middle parts of the *Loligo* Box (north of 52°30'S) and had much lower catches (around 15 t per day). Since 20<sup>th</sup> August, all vessels fitted seal exclusion devices (SEDs) in their nets and were allowed to go to the southern area again. However, the Exclusion Zone around Beauchene Island (from 52.5° S to 53.75° S latitude, and 59.5° W to 58.5° W longitude) was still restricted to fishing to all vessels without observers onboard. By the end of the month, CPUEs improved to 20-24 t per day.

Sixteen trawlers fished for *Loligo* until 22<sup>nd</sup> September. Then the effort allocation for one vessel (*Venturer*) was expired and she left the fishery. The catches were quite stable throughout the month both in the northern and southern parts of the *Loligo* Box, ranging between 17 and 21 t per vessel/day in average. Two immigration peaks were identified, one in the northern area on 15<sup>th</sup> September (mean CPUE of 32 t per day), and another one in the southern area on 10<sup>th</sup> September (22 t per day). The second season had unusual weather – with several vessels having up to three days of no fishing because of storms. Therefore some vessels (with additional break down days) fished until the 5<sup>th</sup> October.

Total catch of *D. gahi* for the second season was 24,101 t, the highest second season catch since 2012. The estimated escapement biomass of *D. gahi* squid remaining after the end of the first season was 21,366 t, with 2.5% risk of overfishing and falling below the threshold limit of 10,000 t.

The total catch for the year attained 63,534 t, making it the highest annual catch since 2012 and the 3<sup>rd</sup> highest annual catch in the last decade.

### **1.3 *Martialia hyadesi* – *Martialia* squid**

As in many previous years, no catch of *Martialia* squid was reported within the FICZ/FOCZ.

### **1.4 *Micromesistius a. australis* – Southern blue whiting**

Southern blue whiting (SBW) is a pelagic fish species. It was one of the largest finfish stocks exploited in Falkland waters in 1990s. In 1999, the South Atlantic Fisheries Commission recommended a reduction of the fishing mortality on this stock to meet conservation targets. At various times of the year, this fish migrates between Chilean, Argentine and Falkland Islands waters making its management challenging. Inshore waters to the south of West Falkland and near Chiloe Island in Chile were identified as spawning grounds. Spawning occurs in September and October every year. Falkland Islands have banned any fishing activity on the Falkland spawning grounds for conservation reasons since 2010.

The total catch of SBW in 2017 attained 2,309 t, which constitute the second lowest annual catch since 1987. Notably, the highest annual catch in the history of regulated Falkland fishery was recorded in 1990 (72,351 t), whilst the lowest catch was observed in 2012 (1,596 t). In 2017, there was no fishing under S-licence and all catches were reported by bottom trawlers fishing under A, C, E, F, G, W, and X licence.

W-licensed vessels caught 1,740 t of SBW over two periods, in January–February and from July to December. The total catch for the first two months was 417 t when the vessels fished in the southwest of FICZ. Over these two months, CPUE increased from 343 to 1425 kg·h<sup>-1</sup>. Another increase in catches of SBW was reported in August (603 t) to the west of West Falkland. Monthly catches then decreased until the end of the year.

The second highest catch in 2017 was reported by *Loligo* trawlers during the second season. Catches increased from 123 to 176 t from August to September and decreased to 21 t in October.

Although these ships target Falkland calamari, SBW is a common bycatch as the spawning occurs just to the west of the southern part of the Loligo Box.

The G-licensed fleet that is allowed to fish from March to May caught 154 t of SBW primarily in March (140 t). The A-licensed fleet caught 32 t of SBW throughout 2017. Highest catches were reported in February (16.9 t) and October (10.7 t). Over the rest of the year, monthly catches did not exceed 3.3 t.

Although catches of SBW went up in 2016, low catches were again observed in 2017. High concentrations of SBW were observed in 2017, especially by E-licensed vessels that sampled juvenile toothfish to the south of East Falkland. However, size structure and abundance of this stock does not seem good enough for surimi vessels to fish profitably in Falkland waters.

## 1.5 *Macruronus magellanicus* - hoki

Hoki, *Macruronus magellanicus*, is one of the most abundant pelagic fish on the Patagonian shelf. The stock straddles between Argentine, Chilean and Falkland waters. Hoki is not highly abundant in Falkland waters as the FICZ is at the edge of the species distribution area. Hoki spawning grounds are outside the FICZ/FOCZ. Hoki is more abundant and targeted mainly by trawlers in Falkland waters primarily during spring, summer and autumn in deep waters to the southwest of West Falkland.

In 2017, the total catch of hoki was 4,053 t and was taken by bottom trawlers. It is the lowest catch observed since 1987 and the start of the regulated fishery. The highest annual catch since 1987 was observed in 2002 (26,977 t). The highest catch of this fish in 2017 (1,858 t) was reported by G-licensed trawlers that fished from March to May. They were subsequently 530, 754 and 574 t and followed an opposite trajectory to CPUE that were 420, 264 and 504 kg·h<sup>-1</sup> as fishing effort was spread throughout the western part of the FICZ in March and May and was concentrated in the northwest where hoki is not abundant in April.

The second highest catch was reported by W-licensed ships (1,775 t). Monthly catches ranged from 0 to 200 t throughout the first nine months of the year without showing any trend. In October, the highest monthly catch of the year was recorded (771 t) and then gradually decreased till December when 8 t were reported. CPUE were highly variable throughout the year. They reached their maximum in February and May (768 and 1,366 kg·h<sup>-1</sup> respectively) when several ships targeted hoki in the southwest of FICZ. In July and October, CPUE were 434 and 340 kg·h<sup>-1</sup> respectively when ships fished again in the southwest.

Catches in the Falkland Islands were historically low in 2017 and could be the result of many factors such as oceanographic conditions or overfishing. Some information have been published recently and showed that catches in Argentine waters were also on the low side in 2017 even if the fishery has been accredited the Marine Stewardship Council Certification.

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

Two commercial species of hake occur in Falkland waters, common hake *Merluccius hubbsi* and Patagonian hake *Merluccius australis*. Common hake is less valuable but significantly more abundant than Patagonian hake. Both species of hake migrate between Argentine, Chilean and Falkland Islands waters. Common hake is more abundant in Argentine waters from November to March during the spawning season and then migrate to Falkland waters where foraging grounds are. In Falkland waters common hake is found in the northwest of the FICZ. Patagonian hake is more abundant in Chilean waters than in Falkland Islands waters which are at the edge of their species range. Highest abundance of this fish is encountered in deep waters to the southwest of West Falkland. This species is taken as a bycatch in the finfish trawl fleet as low abundance prevent it from being targeted.

Total catch of common hake in 2017 attained 15,562 t. It is the third highest annual catch observed since 2008. Interestingly, the four highest annual catches of the last decade were observed during the last four years with annual catches ranging from 14,875 t to 23,363 t. In 2017, A-, G- and W-licensed vessels reported 11,153 t (72% of the annual catch), 2,988t, (19%) and 1,127 t (7%) of the total annual catch, respectively.

Throughout the first quarter of the year, catches of common hake increased from 0.2 to 28 t per day. At this time of the year, common hake is primarily in the Argentine waters for the spawning season. In April, migration from spawning to feeding grounds occurred and the abundance of common hake in Falkland waters increased. Catches increased to 2,168 t and followed an increasing trend until September when they reached their maximum for the year (3,403 t). During this period, hakes were primarily taken by A-licensed vessels. In recent years, CPUEs of the A-licensed fishery exhibited a sharp increase in April to  $c. 2 \text{ t}\cdot\text{h}^{-1}$  and then followed a decreasing trajectory. In 2017, a sharp increase of the CPUE to  $1 \text{ t}\cdot\text{h}^{-1}$  was observed in April and CPUE of the A-licensed trawlers remained stable until September. From October, catches and CPUE dropped as common hake migrated out of FICZ/FOCZ. In 2017, as in previous years, only A-licensed vessels were allowed to fish in the area to the north of  $51^{\circ}\text{S}$  and to the west of  $60^{\circ}\text{W}$  from 25 May to 10 October.

G-licensed ships also caught significant amounts of hake, especially in April and May (1,813 t and 968 t respectively). Vessels that fished under W licence reported less than 351 t per month throughout the year. Catches ranged from 124 to 351 t from July to October.

Common hake has become a major commercial species in recent years and the Fisheries Department is working to collect more information on this species to better monitor and manage it. A research cruise was conducted in July 2017 to estimate the biomass of hake in Falkland waters (see section 2.3 for details).

The total catch of Patagonian hake was 170 t which was a significant decrease compared to 2016 when 531 t were reported. In 2016, this high catch was most likely the result of high fishing effort in the southwest of the FICZ where ships targeted hoki, a situation that was not observed in 2017.

## 1.7 *Genypterus blacodes* – kingclip

Over the past few years, kingclip, a commercially valuable by-catch in the Falkland Islands finfish trawl fisheries, has been declining, now reaching *c.*50% of the long term average (over the previous 12 years) for a second consecutive year. Catches hit a low of 1,612 t in 2016 and fared little better in 2017 (1,632 t). As a comparison, the next lowest total over the same time period was in 2008, when 2,227 t were caught, whereas the high (2013) was 3,977 t. Since 1989, this year's catches represent the seventh lowest annual catch since 1989. The majority of catches were taken under A-licence (691 t; 42.3%), followed by W-licence (669 t; 41.0%), G-licence (238 t; 14.6%), F-licence (15 t; 0.9%), E-licence (8 t; 0.5%), C-licence (6 t; 0.4%), B-licence (3 t; 0.2%), and X-licence (2 t; 0.1%), respectively. Catches were primarily from Spanish-flagged vessels (1,386 t; 84.9%), followed by Falkland Islands-flagged vessels (225 t; 13.8%).

Biomass estimates of kingclip during the demersal survey (each February) reveal a decreasing trend in kingclip abundance in Falkland waters. Furthermore, the trend in declining catches is of concern given that the numerical abundance of fish estimated to be caught in the fisheries is declining at a rate lower than that of catches, an indication of overall smaller kingclip sizes over time. Compared to historical patterns, a large number of 40-60 cm kingclip are now caught in deeper waters. These were generally restricted to shallower waters. Furthermore, a decrease in large individuals (100 cm +) has become apparent; reinforcing concerns aforementioned.

Low catches during summer months were consistent with previous years and are attributable to larger individuals returning to their spawning grounds. However, catches and CPUEs remained subpar during summer months compared to previous years. Consistent with previous years, the seasonal distribution of kingclip indicated an increase in abundance in Falkland waters in austral autumn with peak catches (410 t in September and 310 t in October) and CPUEs (101 kg/hr in August and 99 kg/hr in September) associated with a peak in abundance during the spring. However, conversely to historical trends, no second peak in catches and CPUEs (generally associated with the annual return migration into the FICZ) was observed in 2017. This seasonal migration is undertaken by kingclip from the Argentine EEZ into their feeding grounds in the FICZ following the spawning season and is generally associated with a second peak in catches and CPUEs. Kingclip has feeding grounds primarily in the north-western area of the FICZ and consistent with historical patterns, kingclip abundance was greatest in these areas in 2017. However, in 2017, kingclip seems most abundant during the first quarter in the north-western parts of the FICZ (when hakes have not yet migrated to the FICZ) and in the northern and western parts of the FICZ during the second and third quarters (when hakes are abundant in the FICZ). Despite finfish effort being below average in 2017 compared to previous years, the decline in kingclip is consistent with vessels targeting hake in the north-western part of FICZ/FOCZ and hoki in the southwest. These patterns suggest an ecological interaction between these species where hakes take over during the second and third quarter of the year in the north-western part of the FICZ. The nature of this potential interaction and confounding factors needs to be investigated. Unfortunately, the lack of data sharing with our neighbours is an impediment to better understanding the underlying causes of these trends.

## 1.8 *Salilota australis* – red cod

Red cod is another commercial by-catch species with a trend of declining catches and abundance. Total catch in 2017 was a third of the average catch over the past 12 years and 45% of the next lowest (2016), and represents the lowest total catch of red cod since 1989. In fact, since over 5,000 t were caught in 2013, the past four years are among the five lowest catches of the past 12 years. The majority of the catches were caught under W-licence (574 t; 41.6%), followed by G-licence (397 t; 28.8%), A-licence (253 t; 18.3%), X-licence (71 t; 5.2%), C-licence (50 t; 3.6%), E-licence (16 t; 1.1%), F-licence (14 t; 1.0%), and B-licence (3 t; 0.2%), respectively. Catches were primarily from Spanish-flagged vessels (1,028 t; 74.5%), followed by Falkland Islands-flagged vessels (319 t; 23.1%). Overall, CPUEs throughout the year were significantly lower than the short term and long term averages, this despite a marginal decrease in trawling effort.

In the past decade, the trawl fleet has not specifically targeted red cod during their spawning season as this time overlaps with high abundances of hakes in the north-western part of the FICZ. In 2017, catches of red cod were at their peak from July to October. Typically, red cod will begin to form aggregations in July as they move to their spawning grounds (area closed to fishing from the end of August to the middle of October). Despite being restricted mostly to by-catch status, red cod CPUEs continue to decline in areas where hakes continue to be highly exploited. However, as catches decreased proportionally for all finfish licences, combined with significant increases in both catches and CPUEs during both Falkland calamari seasons, it seems plausible that red cod movements may have shifted in 2017 relative to previous years and monitoring of the catches in 2018 may help us predict whether 2017 was simply an anomaly. As per with kingclip, it is likely that an ecological interaction with hakes is leading to red cod being outcompeted from the north-western area of the FICZ.

## 1.9 *Dissostichus eleginoides* – Patagonian toothfish

Toothfish is one of the most valuable resources in the Southwest Atlantic. Adult toothfish caught by longliners could be sold as high as US\$ 30/kg. However, by-caught juvenile toothfish in the finfish trawl fisheries, on the continental shelf and shelf break, are far less valuable; being sold with other white-fleshed fish for less than US\$5/kg. The spawning grounds are believed to be along the edge of Burdwood Bank with spawning between June and August. Eggs hatch in austral spring and larvae undergo a pelagic phase during which they are passively carried by the currents until they settle on the shelf in shallow waters. As the juveniles grow, they migrate to deeper waters. By the time they are 7 to 12 years of age, they have reached the Patagonian slope and deep water plains where they settle. It is during this migration to deeper waters that they are most vulnerable to trawling. It has been estimated recently that the October and November by-catch of juvenile toothfish on W-licence would be equivalent to the value of over 450 t of adult toothfish to the longline fisheries in 5 years time. Furthermore, juvenile toothfish are by-caught by the *Doryteuthis* trawl fishery, where all are discarded, thus potentially affecting future recruitment of the species in the longline fishery. At this stage, it remains to be determined how much potential recruitment is taken by this fishery.

For 2017, a total of 1,519 t of toothfish was taken by all fisheries in the Falkland fishing zones (1,030 t [67.8%] taken by targeted longline fishery, 300 t [19.8%] under W-licence, 68 t [4.5 %] G-licence, 50 t [3.3%] A-licence, 42 t [2.8%] F-licence, 16 t [1.1%] X-licence, 9 t [0.6%] C-licence, and 3 t [0.2%] E-licence, respectively). The majority of the toothfish catches were taken by Falkland-flagged vessels (833 t; 54.8%); primarily in the longline fishery. This was followed by 396 t (26.1%) on Spanish-flagged vessels (all in the trawl fisheries) and 249 t (16.4%) on Chilean-flagged vessels. The latter were vessels chartered to fish for toothfish on longline.

As in previous years, TAC was set at 1,040 t for the longline fishery based on the results of stock assessment by age-structured production model. It was also estimated that a proportion equivalent to approximately 330 t would be taken as by-catch by the respective trawl fisheries. Recently, with a shift in fishing behaviour as some vessels exploit deeper waters, i.e. 500 to 800 m depths, in the southwest of the FICZ between October and January, we have witnessed a significant increase in toothfish by-catch during this period. For a second consecutive year, the proportion of MSY taken by trawlers has exceeded our estimations. This is a concern and some measures to control toothfish by-catch in the trawl fisheries have been discussed and will be trialled in 2018. Furthermore, this led to the closure of an area in the southwest of the FICZ from early December 2017 to the end of January 2018 as a conservation measure.

Three longliners operated in Falkland waters from May to the end of the year (except for August); a total of 178 fishing days on L-licence and three days on E-licence (pulsed-tagging trip). Despite a late start to the season, catches on L-licence were very good and TAC was taken except for 9 t. Average CPUEs by the Falkland longline ranged from 4.15 to 5.67 kg/umbrella; much higher than those of the Chilean longliners. Placed in a historical context, CPUEs for 2017 were among the highest since moving to the umbrella system in 2007. Combined with higher than expected level of bycatch in both the finfish trawl fisheries and the *Doryteuthis* fishery, the catches on L-licence and associated CPUE forecast solid recruitment into the longline fishery. However, some caution is necessary to protect this recruitment and bycatch levels will need to be monitored closely moving forward.

## **1.10 Rajidae – Skates**

In 2017, 3,177 t of skate were caught in the Falklands Islands Conservation Zones. This represents the lowest annual total skate catch since 1998. Both target catch and non-target bycatch decreased in 2017 from the year before, by respectively 992 t and 1,713 t. Approximately 35.8% of the 2017 total catch (1,136 t) was harvested as target catch (F licence). This represents the lowest percentage of target catch since 2009. F-licence effort and allocated F-licence fishing days decreased further from the year before: in 2017, 133 F-licence fishing days taken out of 223 days allocated; in 2016, 152 F-licence fishing days taken out of 259 days allocated. Thus, the licence utilization rate was about the same as the year before: 59.6% in 2017 vs. 58.6% in 2016. By comparison, in 2015 96.1% of allocated F-licence fishing days were used (249 out of 259 days), and in 2014 100% of allocated F-licence fishing days were used (259 days).

The 2017 target catch was taken by six vessels; two vessels each registered in the Falkland Islands (66.0 t in 24 vessel-days; mean CPUE of 191 kg/hr), Spain (11.1 t in 5 vessel-days; mean CPUE 200 kg/hr), and Korea (1058.7 t in 104 vessel-days; mean CPUE 587 kg/hr). 2017 was the first year on record that Falklands-registered vessels held F licenses, following the sale of some quota. However, F-license target fishing for skates by any vessels was only started in June; the 5-month break after December 2016 representing the longest hiatus since 2007. F-licensed Falklands vessels took 79.1% of their skate catch in July and August (vs. 41.6% of the effort), and 20.9% of skate catch in September through November (58.3% of the effort). F-licensed Spanish vessels took 66.1% of their skate catch in August (40.0% of the effort), and 33.9% of skate catch in October (60.0% of the effort). F-licensed Korean vessels took 43.9% of their skate catch in June through August (51.8% of the effort), 42.5% of skate catch in September-October (35.6% of the effort), and 13.5% of skate catch in December (12.5% of the effort).

Both F-licensed Falklands vessels held finfish licences, which accounted for 89.8% and 12.0% of their total fishing activity in 2017, and *D. gahi* licenses, which accounted for 0.9% and 85.3% of their total fishing activity in 2017. Both F-licensed Spanish vessels held finfish licences, which accounted for 99.3% and 96.7% of their total fishing activity in 2017. Skate-licence fishing was thus a minor activity for Falklands-registered and Spanish vessels in 2017. Of the two F-licensed Korean vessels, one also held a finfish licence, which accounted for 2.9% of that vessel's total fishing activity in 2017, and an *Illex* licence, which accounted for 30.7% of the vessel's fishing activity in 2017. These five vessels that held finfish licences as well as F licence (2 Falklands, 2 Spanish, 1 Korean) took 27.0% of the total skate bycatch under finfish licence, compared to the 27.5% of total finfish-licensed effort they accounted for. Finfish vessels that participated in the skate-licence fishery were therefore not predisposed to bycatch more skate. Within finfish trawls, 1,017 t of skate were taken under A licence, 358 t under G licence, and 515 t under W licence, representing skate bycatch decreases of 29.3%, 50.3%, and 62.7% from the year before. Additionally 107 t of skate were caught in the *D. gahi* fishery (where those two vessels that participated in the skate-licence fishery also did not show above average skate bycatch rates), 28 t in the toothfish longline fishery, and 8 t under experimental licence. Skates caught in the longline fishery were almost entirely discarded.

In all commercial fisheries, a total of 28,288 skates were identified to 15 species by observers on twenty-one vessels. In skate-target trawls, five species represented at least 10% each of the sampled species composition by numbers: *Bathyraja albomaculata* (35%), *Bathyraja brachyurops* (17%), *Bathyraja griseocauda* (13%), *Amblyraja doellojuradoi* (13%), and *Bathyraja macloviana* (10%). Four species represented at least 10% each by weight: *B. brachyurops* (26%), *B. albomaculata* (23%), *B. griseocauda* (18%), and *Zearaja chilensis* (10%). In finfish-target trawls, just two species represented at least 10% each of the sampled species composition by numbers: *B. brachyurops* (54%) and *Z. chilensis* (15%), as well as by weight: *B. brachyurops* (55%) and *Z. chilensis* (25%).

### **1.11 Patagonotothen ramsayi – Rock cod**

The annual catch of rock cod totalled 2,520 t, the lowest catch since the targeted fishery started in 2008. Of this catch 20.3% was retained as product. Unlike the years to 2015 where the catch has been mainly taken by restricted Finfish (W license) effort, in 2017 (similar to 2016), the largest catch was taken as a bycatch by *D. gahi* fishing vessels (1,821 t, 72.3% of the total catch). The *D. gahi* vessels discarded almost all rock cod due to its small size (98.8 %) that accounted for 89.6% of the total discard. W licensed vessels took 149 t, G licenced vessels took 247 t.

Finfish licensed trawlers (A, W and G licenses) caught a 576 t, the highest catch was in the second quarter when 226 t were caught, lowest catch was in the third quarter when 76 t were caught. Overall the CPUE from the finfish licences was 326 kg/day, ranging from 912 kg/day in the first quarter to 130 kg/day in the third quarter.

### **1.12 Grenadiers (Macrouridae)**

Total annual catch of grenadiers was 2,327 t taken during longline and finfish fisheries, a significant increase from the 367 t in 2015. The majority was taken in the fourth quarter in the finfish fishery (1,347 t), when several finfish trawlers targeted grenadier in the southwestern part of FICZ at depth >350 m. Due to conservation issues with significant bycatch of juvenile fish, several deepwater gridsquares to the southwest of the Falkland Islands were closed to fishing in the beginning of December 2017. Additionally, a total of 74 t of *Macrourus spp.* were caught in the longline fishery, whilst the trawl fishery was split between *Macrourus spp.* (generally *M. carinatus*, with few *M. holotrachys*) and *Coelorhynchus (C. fasciatus)*, the latter being generally discarded.

### **1.13 Zygochlamys patagonica - Patagonian scallop**

No directed scallop fishery in Falkland Island waters occurred in 2017, although 8 t were taken as bycatch.

### **1.14 Eleginops maclovinus - Falkland mullet**

Historically, there has been a minor commercial beach seine fishery for Falkland mullet that supplies the domestic market, with fishing occurring only over summer months (Dec- Feb). Operations have reduced with modest supply to domestic market outlets.

### **1.15 Paralomis granulosa - Snow crab**

There is an experimental licence available for snow crabs, but this was not used in 2017.

### **1.16 Others**

Butterfish (*Stromateus brasiliensis*), redfish (*Sebastes oculatus*), lobster krill (*Munida spp.*) and various other squid and fish are included into this category. The total annual catch of each species is shown in table O.7.

## 2 Fisheries Department research cruises in 2017

In 2017, four research cruises were conducted by the Fisheries Department.

### 2.1 Juvenile toothfish survey ZDLT1–01–2017

Knowledge of toothfish dispersal from their spawning grounds on the Burdwood Bank and areas of early recruitment is paramount for studies on the life cycle and demography of this fish in waters around the Falkland Islands. The first plankton toothfish research survey (November 2015) did not find any small juvenile toothfish over the southern shelf and slope. It was suggested that the main reason for this was the time of the survey being too early after winter spawning. The present survey was shifted to January, giving at least 4 months for larvae and early juveniles to grow after spawning. The survey objectives were to locate and study the distribution of small juvenile toothfish in the southern FICZ/FOCZ by Isaac-Kidd Plankton Trawl; to locate and investigate the distribution of young toothfish recruitment in shelf areas by semi-pelagic and bottom trawls and to carry out oceanographic survey of the area studied.

The vessel departed from Stanley on the 19<sup>th</sup> of January and proceeded overnight to the first station located at 200 m depth in the north-eastern part of the Patagonian Shelf. During the next four days, the vessel moved south west along the shelf and carried out four semi-pelagic trawls daily, two at the 50 to 100 m horizon over 150-200 m depths, and two near bottom tows. Each evening, three IKMT were performed, at horizons of 5 m, 25 m and 50 m over bottom depths of 100-150 m. As the catch of fish and squid was very small during semi-pelagic tows, it was decided to call in to Stanley and change the net to bottom trawl. Over the next nine days of the survey, the vessel proceeded further west around the Falkland Islands, doing four bottom trawls daily from shallow waters (~70 m) to 150 m depth, and IKMTs in the evenings. The cruise was successfully finished on the 3<sup>rd</sup> of February 2017. Despite two days of rough weather with strong winds (30-50 knots) and high seas, the vessel managed to fish with no days lost due to bad weather.

During the survey, a quasi-stationary cyclonic eddy causing upwelling of transient zone waters was found to the north of Beauchene Island. Same eddy forced the shelf waters further offshore to the east of Beauchene Island. Most importantly, a nursery ground of juvenile 0+ year class toothfish (10-12 cm total length) was found to the south of the Falkland Islands, at depths between 70 and 120 m. In most abundant spots, the density of juvenile toothfish reached >1000 specimens by 1 hr trawl. At their nursery grounds, juvenile toothfish fed predominantly on 0+ year class of rock cod (4-6 cm TL). Habitats of 0+ year class of toothfish did not coincide with larger cohorts occurring deeper. That provided necessary separation of small and larger juveniles to prevent cannibalism. At juvenile toothfish nursery grounds, juvenile icefish of almost the same length occurred (12-16 cm TL), feeding and possibly competing on the same prey (0+ rock cod). Larger icefish occurred deeper at this time period that prevented their preying upon small toothfish. And, finally, large king crabs *Lithodes santolla* were found in shallow waters around the Falkland Islands that may represent a new potentially commercial resource for the Falkland fishery.

## **2.2 Demersal biomass survey ZDLT1–02–2017**

The ground fish survey was conducted from 4 to 25 February 2017 on board the F/V Castelo. During 22 days of fishing, 189 stations were sampled (91 trawl stations, 89 CTD casts and 9 plankton tows) from the southwest of FICZ clockwise to the northern part of the *Loligo* box. The bottom trawl stations were conducted using a bottom trawl equipped with rockhopper gear. The catch was separated by species for finfish, squids, skates and sharks and by the lowest possible taxonomic level for invertebrates. A sample or the whole catch of finfish, squids, skates or sharks was taken for biological analysis, as well as to collect age samples from a subsample. The CTDO was deployed before or after each trawl and recorded sea temperature, oxygen, salinity, and density. Finally, the Isaacs–Kidd midwater plankton net was deployed to sample plankton.

The total catch of the research cruise was 58 t, a decrease compared to 2015 and 2016 when 137 t and 102 t were caught. In 2010 and 2011 catches were 207 and 212 t respectively. Regarding rock cod, the 2017 biomass was estimated to be 83,342 t, half of what it was in 2015–2016 (~200,000) and 10% of what it was in 2011 (803,763 t). Abundance also decreased significantly but not as much as the biomass highlighting a shift in the total length composition of the stock to smaller fish. Regarding the other commercial species, red cod, southern blue whiting and kingclip biomasses and abundances decreased over the years 2015–2017. Toothfish and hoki biomasses and abundances decreased compared to 2016. Two species exhibited an increasing biomass, Argentine squid and common hake. However the survey was conducted prior to the migration of these two species to Falkland waters. The oceanographic survey showed that sea water in the finfish zone was warmer than usual. As a conclusion, this time series has shown that an ecosystem shift occurred in the finfish zone between 2010 and 2017.

## **2.3 Tagging and hook trial toothfish survey ZDLK3–06–2017**

In June 2016, a pulsed tag-recapture programme was established in the MSC certified Falkland Islands' Patagonian toothfish (*Dissostichus eleginoides*) long-line fishery in response to an independent review conducted by the National Institute of Water and Atmosphere Research Ltd (NIWA, New Zealand). In June and July 2017, a second tagging trip was organised coinciding with a hook trial on board CFL's long-liner *Hunter*. This was the inaugural fishing trip for this vessel. There were a few issues with the vessel which could not be dealt with at sea, resulting in two return trips to Stanley, thus extending four week research cruise to six weeks (with a total of 13 days spent ashore during this period). A total of 183 toothfish were tagged in the eight days spent fishing in the southern area (Burdwood Bank and south of 53°S), 259 toothfish tagged in the ten days in the eastern area (between 50° and 52°S), and 154 toothfish tagged in the five days in the north-eastern parts of the fishing area (north of 50°S). A total of 596 fish were tagged and released. Overall, on the 14 lines fully sampled for tagging, 33.6% of toothfish caught per line were deemed suitable for tagging purposes.

Running concurrently with the pulsed-tagging trip was a hook trial aiming to assess the efficiency of different hook sizes and shapes on reducing bycatch of grenadiers without impacting toothfish catches. One of the conditions set out by the Marine Stewardship Council (MSC) as part of the

successful application of CFL for MSC certification for Patagonian toothfish is to research options that may lead to a decrease in bycatch. One of the commonest bycatch species in the toothfish longline fishery is grenadier (*Macrourus holotrachys*), a species making up over 6% of the total catch. A hook trial was undertaken to determine whether changing the size and shape of hooks could decrease grenadier bycatch without decreasing toothfish yields and negatively impacting on other bycaught species. The trial consisted on 52 lines deployed in 13 grid squares; each line consisting of three full replicates of four different types of hooks. Overall, analyses suggest that toothfish catch, average size of toothfish, and proportion of toothfish caught on a line was not affected statistically by hook type. Furthermore, analyses indicate that *Antimora* and grenadier bycatch and proportion of catch for the respective species were not statistically affected by hook type and size used during the survey. It seems that another survey on trials with different, perhaps larger, hooks and shapes would be necessary to reduce bycatch in the toothfish longline fishery.

## **2.4 Demersal biomass survey ZDLT1–07–2017**

Since 2014, high catches of common hake were taken by finfish fleet. As this species became dominant in the finfish fishery and is considered by fishers as one of the most valuable species in Falkland waters, there was a need to estimate its stocks. The sampling design of this survey was based on the February 2017 ground fish survey. The primary objective was to estimate the biomass and abundance of common hake and other demersal commercial and non-commercial species encountered during this winter cruise.

The July ground fish survey was conducted from 10 to 27 July 2017 on board the F/V Castelo. During the research cruise, 148 stations (74 trawl stations and 74 CTDO deployments) were performed. Although the original plan was to repeat the ground fish survey that was conducted in February 2017, due to a limited number of fishing days and limited daylight time, stations in the northern part of the *Loligo* box were not sampled as this area was covered by the second season *Loligo* pre-recruitment survey. The cruise started at the northeast end of the survey area and stations were sampled in anti-clockwise direction to the southwest of West Falkland.

For the first time, a ground fish survey was conducted in July and enabled to gather information on common hake and other commercial species in winter. The biomass of common hake was estimated to be 97,072 t. Its spatial distribution showed that hake was more abundant in the north of the FICZ. Hake total length was larger than in February. Biomass, abundance and size structure of red cod, rock cod, hoki, southern blue whiting and toothfish were found to be significantly different in July than in February. However unless this survey is repeated in July 2018, it would be difficult to conclude if these differences are the result of an inter-seasonal variation in the stocks.

## **3 Fisheries Department research contracts in 2017**

The Falkland Islands Government's financial year runs from 1 July to 30 June and most external research contracts in the Fisheries Department adhered to these start and end dates. Contracts completed by the end of June 2017 are presented below.

### **3.1 3.1. “Providing satellite sea surface water temperature (SST) data for the area of the Falkland-Patagonian shelf between January and May 2017”.**

This contract has been carried out by principal investigator Dr. A.M. Sirota of the research company MARSATEC, Kaliningrad, Russia.

SST maps were sent to the Fisheries Department three times a week (Monday, Wednesday, Friday) by e-mail. The SST maps were made in color using SURFER-7 Software. They were used for monitoring *Illex* distributions during the fishing season.

### **3.2 ‘Seasonal and interannual variations in oceanographic conditions on the eastern continental slope and shelf of the Falkland Islands (November 1999 – February 2017)’**

The oceanographic contract was carried out by principal investigator Dr. A.M. Sirota of MARSATEC, Kaliningrad, Russia.

Seasonal and inter-annual variability of water masses on the eastern shelf (transect P1) and southern shelf (transect P5) were described. Water structure and its variability around the Falkland Island shelf were analyzed using the data from research cruises.

## **4 Reductions in seabird mortality in the Falkland Islands**

### **4.1 Longlining**

The Fisheries Observers continue to conduct dedicated seabird observations every one in four days when on board, and no fishing gear-related mortalities having been recorded.

### **4.2 Finfish trawling**

For the period of July 2016 to June 2017, observations of seabird interactions with the demersal finfish fleet were conducted on 69 days, representing 4.0% of the finfish trawling effort over the reporting period. A total of 46 seabird mortalities of high-risk species (i.e. long-winged species at risk of injury or mortality from heavy contacts) were recorded. Extrapolated to the entire year’s finfish fishing effort, this equates to 1155 mortalities including 1080 black-browed albatrosses, 75 giant petrels. This represents the second highest estimate since the introduction of the tori-lines. Acknowledging the available undetected mortality index (UMI) (after Parker et al. 2013), the estimates lie at 1421-1594 mortalities for the year. Eighty-seven percent of these mortalities were warp cable related, the remaining were net and tori-line casualties.

### **4.3 Falkland calamari trawling**

For the period of July 2016 to June 2017, observations of seabird interactions with the Falkland calamari fleet were conducted on 64 days, representing 3.2% of the Falkland calamari trawling effort over the reporting period. Eight mortalities of high-risk species were recorded. Extrapolated

to the entire Falkland calamari fishing effort, this equates to 252 mortalities, of which 219 black-browed albatrosses and 33 grey-headed albatrosses (*Thalassarche chrysostoma*). Including the UMI, estimates lie at 310-348 mortalities for the year. Eighty-eight percent of the mortalities were the result of heavy warp strikes; the remaining were caused by net captures. The estimate represents the second highest annual rate ever recorded in the Falkland calamari fleet.

The Falkland calamari fleet is generally considered a cleaner fishery due to the absence of offal, and the issue of seabird interactions and mortalities in this fishery has in the past been found negligible. However, since the start of more dedicated seabird observations on the Falkland calamari vessels in 2013, it has been found that discharge of discards of primarily rock cod and unwanted squid still attracts birds to the vessel, leading to negative interactions and mortalities. In consequence, since February 2017, the seabird monitoring protocol was amended to be more comparable to that used on finfish vessels to ensure higher observer effort and improved data quality.

#### **4.4 Skate fishery**

During 6 days of observations during the reporting year, a single mortality was recorded of a black-browed albatross, from what was assumed to have been a high-speed collision with the vessel. Extrapolated to the entire skate fishing effort for the year, this equates to 19 mortalities of black-browed albatross. Including the UMI, estimates lie at 24 – 27 mortalities for the year (the same as last year).

#### **4.5 Experimental trawling (Loligo pre-recruitment survey)**

Seabird observations are not generally conducted during *Loligo* pre-recruitment surveys; however, researchers recorded a total of 4 net mortalities during the two research trips: Three black-browed albatrosses and one grey-headed albatross.

#### **4.6 Unknown fates**

‘Unknown fates’ follow those interactions where the observer cannot be sure of the outcome that ensued. Between 01 July 2016 and 30 June 2017, 173 unknown fates were recorded across the trawler fleet, of which 87.3% followed warp strikes by birds on the water, and the remaining followed warp strikes by diving birds or tori-line entanglements. Extrapolated to the fishing effort for the year, and stratified by fishing licence, a maximum additional 4,431 mortalities may have occurred from these unknown fates.

#### **4.7 Heavy Contacts**

Heavy contacts are those that have the potential to lead to injury or death. In the reporting year, 5177 heavy contacts were recorded between high-risk species and fishing gear in the trawl fleet. Both the finfish and the Falkland calamari fleet saw the highest heavy contact rates with the tori-lines, although only 2% of these resulted in possible damage. This compares with 10% of heavy contacts that resulted in possible damage following a heavy warp strike.

## **4.8 Improvements to incidental seabird mitigation**

FIFD recognises the limitations of conventional tori-lines in eliminating seabird mortalities and is committed to the research and development of alternative, safe, cost-effective and practical mitigation measures.

### **4.8.1 Tori-lines**

A small alteration to the standard tori-line has been trialled during the year 2016-2017, in an effort to reduce the risk and frequency of entanglement by birds at the float-end of the device. Observations have reported very positive results, although formal data analysis is still required before the amendment can be implemented fleet-wide.

### **4.8.2 Fixed Aerial Array**

Modifications to the *Robin M. Lee* FAA following suggested improvements increased cable protection significantly. It was established that the FAA can be more effective than the traditional tori-line, but that this highly depends on an adequate design. Companies have been encouraged to continue to seek an active dialogue with the Department prior to installations to ensure effective resource investment. By the end of 2017, a total of three trawl vessels used FAAs.

### **4.8.3 Discard Management**

FIFD recognises discard management as a long-term solution to seabird bycatch and continues to collaborate with the industry to investigate options for the fleet. During the reporting period, the *Kestrel* was fitted with a waste storage system, representing the second vessel in the fleet with a waste management system. A batch-discard study showed that seabird interaction and bycatch risk was reduced significantly by over 80%, although a design flaw still needs to be addressed for the system to maintain this effectiveness in a non-experimental set-up. Meanwhile, additional vessels are being retro-fitted with batching systems, and an industry-wide consultation is currently in progress with regards to policy recommendations put forward in December 2017. By the end of 2017, a total of four trawl vessels held a waste management system.

## **4.9 Compliance**

### **4.9.1 Tori-line deployment**

General acceptance and thereby compliance of the obligatory use of tori-lines has certainly increased over the years; Only one vessel was reported during the reporting year to have been fishing without tori-lines. Evidence of the breach in regulation led to the vessel being prosecuted. The tori-lines remain largely unpopular amongst crews.

### **4.9.2 Discarding regulations during manoeuvres**

Based on observer reports, the discarding regulation was followed on most, but not all vessels. On at least one vessel, discarding during hauling operations resulted in a mortality of a black-browed albatross and the injury of two more black-browed albatrosses. Evidence of the breach in regulation led to the vessel being prosecuted.

### 4.9.3 Net cleaning

Besides the management of waste discharge, adequate net cleaning is currently the single most effective mitigation measure for net-related mortalities, and as such, it is important that this mitigation is taken more seriously.

## 5 Falkland Islands Fisheries Observer Programme

Fisheries Observers collect position data, catch/effort and biological data, conversion factor data, and seabird/mammal interaction & mortality data from all fleets and all fisheries, whereas the Seabird Observer primarily works on seabird/mammal interaction/mortality data as well as being involved with trial and development of appropriate bird mitigation measures in the demersal mixed finfish and Falkland calamari trawl fleet. Observers also monitor activities of the Falkland-licensed fleet operating on the high seas to the North of the FCZ. Lastly, observers also take part in the research cruises conducted regularly by the department. Periods at sea typically vary between two and six weeks in duration. All data collected are entered into a database at sea, and a detailed trip report completed after each period at sea. These internal reports are also shared with respective ITQ holders and vessel operators.

Monitoring over the last 4 years (2014-2017) is summarized in Table 1. The year 2017 saw a slight percentage-decrease in observer coverage over all fisheries, although individually each fishery demonstrated percentage-increases in observer coverage. There was a significant increase in observed days in the *Illex* fishery (license B) reflecting a comparatively good season which attracted more jiggers into Falkland Islands waters. Observer coverage also increased in the combined C/X loligo season by approximately 4% (representing 80 more observer days than in 2016) an increase driven by the need for extended seal monitoring in the second season. Moreover, this figure does not include the additional coverage provided by external observers. In the A/G/W fisheries the aggregate number of fishing days spent was reduced by 24.7% although observer days remained stable. Both fishing days and observer days in the skate fishery (license F) were similar to the figures last year, respectively, as were figures for the longline fishery (license L). No surimi vessels (license S) fished in Falkland Islands waters in 2017.

**Table 1: Observer coverage for 2014-2017 FICZ/FOCZ**

	2014			2015			2016			2017		
Licence	Fishing Days	Obs Days		Fishing Days	Obs Days		Fishing Days	Obs Days		Fishing Days	Obs Days	
A/G/W	3164	244	7.7%	3031	270	8.9%	2350	243	10.3%	1770	241	13.6%
B	7041	79	1.1%	8278	116	1.4%	1714	6	0.4%	6055	86	1.4%
C/X	1972	164	8.3%	1616	133	8.2%	2024	207	10.2%	1997	282	14.1%
F	260	19	7.3%	251	34	13.5%	152	29	19.1%	133	26	19.5%
L	250	100	40.0%	216	93	43.1%	197	98	49.7%	191	106	55.5%
S	15	15	100.0%	6	0	0%	4	4	100.0%	0	0	0%
E (surveys)	61	61	100.0%	89	89	100%	53	53	100.0%	90	90	100%
Totals	12763	682	5.3%	13491	735	5.4%	6494	640	9.9%	10236	931	9.1%

In 2017, there were 38 observer trips on commercial vessels, two 14-day *Loligo* pre-recruitment trips, three research survey trips of 21 days with the RV *Castelo*, several experimental “E” license one-day trips, and one toothfish hook-trial and tagging trip on the CFL *Hunter*. Besides observer coverage inside the Falkland Conservation zones, observers also spend time on trawlers and occasionally jiggers on the high seas. Table 2 summarizes the number of observed days for the last four years.

**Table 2: Observer coverage 2013-2016 North of the FICZ/FOCZ**

	2014	2015	2016	2017
Observed Days	75	46	92	46

Table 3 provides a four year summary of individual specimens sampled for size/sex/maturity and optionally weight/otoliths/statoliths. Four-year totals of less than 100 specimens per species were grouped into ‘Others’.

**Table 3: Fish, squid and skate specimens sampled by observers & scientists**

Species Name	2014-17 total	%	2014	%	2015	%	2016	%	2017	%
<i>Doryteuthis gahi</i>	437,410	37.3	96,571	32.9	98,446	42.0	99,805	35.6	142,588	38.2
<i>Patagonotothen ramsayi</i>	207,813	17.7	50,078	17.1	38,598	16.5	48,212	17.2	70,925	19.0
<i>Illex argentinus</i>	127,024	10.8	22,256	7.6	31,309	13.4	45,924	16.4	27,535	7.4
<i>Merluccius hubbsi</i>	64,050	5.5	10,349	3.5	11,045	4.7	14,873	5.3	27,783	7.4
<i>Dissostichus eleginoides</i>	51,820	4.4	8,116	2.8	7,762	3.3	11,256	4.0	24,686	6.6
<i>Bathyraja brachyurops</i>	51,652	4.4	20,846	7.1	12,463	5.3	9,507	3.4	8,836	2.4
<i>Salilota australis</i>	33,033	2.8	7,772	2.7	6,843	2.9	8,526	3.0	9,892	2.7
<i>Bathyraja albomaculata</i>	31,610	2.7	14,779	5.0	2,139	0.9	7,357	2.6	7,335	2.0
<i>Genypterus blacodes</i>	18,595	1.6	6,649	2.3	2,923	1.2	4,457	1.6	4,566	1.2
<i>Micromesistius australis</i>	18,046	1.5	3,927	1.3	6,474	2.8	3,469	1.2	4,176	1.1
<i>Zearaja chilensis</i>	17,666	1.5	9,226	3.1	1,199	0.5	5,047	1.8	2,194	0.6
<i>Macruronus magellanicus</i>	16,983	1.4	9,716	3.3	3,086	1.3	4,174	1.5	7	1.9
<i>Bathyraja macloviana</i>	12,727	1.1	7,580	2.6	1,599	0.7	1,272	0.5	2,276	0.6
<i>Bathyraja griseocauda</i>	10,724	0.9	5,840	2.0	620	0.3	1,538	0.5	2,726	0.7
<i>Macrourus holotrachys</i>	10,079	0.9	3,753	1.3	2,110	0.9	2,940	1.0	1,276	0.3
<i>Champsocephalus esox</i>	7,859	0.7	196	0.1	322	0.1	940	0.3	6,401	1.7
<i>Amblyraja doellojuradoi</i>	6,501	0.6	2,283	0.8	567	0.2	884	0.3	2,767	0.7

**Table 3 (Continued): Fish, squid and skate specimens sampled by observers & scientists**

Species Name	2014-17 total	%	2014	%	2015	%	2016	%	2017	%
Macrourus carinatus	5,743	0.5	2,786	0.9	792	0.3	488	0.2	1,677	0.4
Coelorhynchus fasciatus	5,671	0.5	819	0.3	568	0.2	1,904	0.7	2,380	0.6
Bathyraja scaphiops	4,374	0.4	2,030	0.7	430	0.2	636	0.2	1,278	1.3
Antimora rostrata	4,279	0.4	1,539	0.5	691	0.3	1,306	0.5	743	0.2
Sprattus fuegensis	3,660	0.3	417	0.1	886	0.4	1,672	0.6	685	0.2
Cottoperca gobio	3,246	0.3	1,035	0.4	314	0.1	32	<0.1	1,865	0.5
Munida gregaria	2,890	0.2	-	<0.1	5	<0.1	297	0.1	2,588	0.7
Bathyraja cous- seauae	2,336	0.2	886	0.3	200	0.1	151	0.1	1,099	0.3
Psammobatis spp.	1,896	0.2	955	0.3	351	0.1	397	0.1	193	0.1
Patagonotothen tessellata	1,664	0.1	105	<0.1	244	0.1	7	<0.1	1,308	0.4
Merluccius australis	1,617	0.1	815	0.3	191	0.1	322	0.1	289	0.1
Gymnoscopelus nicholsi	1,497	0.1	-	<0.1	61	<0.1	679	0.2	757	0.2
Bathyraja multispinis	1,290	0.1	628	0.2	109	<0.1	251	0.1	302	0.1
Stromateus brasili- ensis	1,137	0.1	69	<0.1	75	<0.1	139	<0.1	854	0.2
Sebastes oculatus	1,017	0.1	201	0.1	294	0.1	333	0.1	189	0.1
Moroteuthis ingens	731	0.1	52	<0.1	385	0.2	185	0.1	109	<0.1
Physiculus margina- tus	636	0.1	24	<0.1	156	0.1	48	<0.1	408	0.1
Munida spp.	499	<0.1	-	-	-	-	-	-	499	0.1
Squalus acanthias	498	<0.1	158	0.1	20	<0.1	285	0.1	35	<0.1
Patagonotothen guntheri	465	<0.1	1	<0.1	12	<0.1	273	0.1	179	<0.1
Patagolycus melastomus	445	<0.1	-	-	-	-	-	-	445	0.1
Pseudocyttus maculatus	434	<0.1	-	-	-	-	-	-	434	0.1
Bathyraja magellan- ica	420	<0.1	135	<0.1	32	<0.1	45	<0.1	208	0.1
Ilucoetes fimbriatus	419	<0.1	58	<0.1	138	0.1	174	0.1	49	<0.1
Amblyraja cf. georgiana	376	<0.1	166	0.1	52	<0.1	82	<0.1	76	<0.1
Gymnoscopelus boli- ni	283	<0.1	-	<0.1	283	0.1	<0.1	<0.1	-	-
Schroederichthys bivius	277	<0.1	-	<0.1	68	<0.1	57	<0.1	152	<0.1
Dipturus argentinen- sis	242	<0.1	100	<0.1	11	<0.1	85	<0.1	46	<0.1

**Table 3 (Continued): Fish, squid and skate specimens sampled by observers & scientists**

Species Name	2014-17 total	%	2014	%	2015	%	2016	%	2017	%
Schroederichthys bivius	277	<0.1	-	<0.1	68	<0.1	57	<0.1	152	<0.1
Dipturus argentinensis	242	<0.1	100	<0.1	11	<0.1	85	<0.1	46	<0.1
Allothunnus fallai	211	<0.1	42	<0.1	3	<0.1	31	<0.1	135	<0.1
Ilucoetes/ Patagolycus mix	209	<0.1	-	-	-	-	-	-	209	<0.1
Paradiplospinus gracilis	202	<0.1	-	<0.1	202	0.1	-	<0.1	-	-
Mancopsetta maculata	175	<0.1	119	<0.1	18	<0.1	34	<0.1	4	<0.1
Paralomis formosa	164	<0.1	53	<0.1	30	<0.1	78	<0.1	3	<0.1
Pseudoxenomystax albescens	138	<0.1	5	<0.1	84	<0.1	41	<0.1	8	<0.8
Brama dussumieri	123	<0.1	-	-	-	-	-	-	123	<0.1
Cottunculus granulosus	119	<0.1	5	<0.1	1	<0.1	50	<0.1	63	<0.1
Cataetyx messieri	119	<0.1	2	<0.1	9	<0.1	107	<0.1	1	<0.1
Icichthys australis	111	<0.1	25	<0.1	62	<0.1	24	<0.1	-	-
Bathyraja papilionifera	106	<0.1	48	<0.1	11	<0.1	26	<0.1	21	<0.1
Bathyraja meridionalis	103	<0.1	55	<0.1	16	<0.1	16	<0.1	16	<0.1
Congiopodus peruvianus	103	<0.1	-	-	-	-	-	-	103	<0.1
Munida subrugosa	100	<0.1	-	-	-	-	-	-	100	<0.1
Others	1,255	0.1	223	0.1	241	0.1	357	0.1	434	0.1
	1,173,617		293,493		234,550		280,793		373,054	

## 6 Fishing Effort and Catch Limits

Total Allowable Effort (TAE) and Total Allowable Catch (TAC) were set by the Falkland Islands Fisheries Department for the 2018 calendar year fisheries and published (Item 1 on the technical reports list at 8.3).

## 7 Marine Stewardship Council (MSC) certification of the Patagonian toothfish (*Dissostichus eleginoides*) fishery

In 2012, the Fisheries Department and Consolidated Fisheries Ltd (CFL) initiated the process of obtaining Marine Steward Council (MSC) certification for the toothfish fishery in the FICZ/FOCZ. The MSC certification was awarded in March 2014, valid for 5 years. The certifica-

tion was awarded with 4 Conditions, which required additional work to be conducted before the recertification cycle could start again.

During 2017, the Fisheries Department worked to close out these conditions, conducting various research projects on the stock discrimination of toothfish across the South Atlantic, and refining the harvest control measures of the longline fishery. In addition, work has been ongoing to better understand the benthic habitat and the vulnerable marine ecosystem species of the area where the longline fishery takes place. An underwater camera system was purchased and deployed on the longline to inspect both the habitat and the interaction between the longline gear and the habitat.

Although the current MSC certification is valid until March 2019, FIFD and CFL decided to recertify early before the planned changes in MSC certification standards go into effect. To that end, the recertification process was initiated in September 2017, with the site visit of the assessors taking place in November 2017. All the available information of the toothfish fishery – including the stock assessment, sustainability measures, and details on the management, bycatch species, ecosystem components, and enforcement – was updated and collated for the assessors. A draft certification report will be available in early 2018, with the public draft comment expected in June 2018. The outcome of the process is expected by November 2018.

## **8 Participation in Scientific Workshops, Conferences and Symposia in 2017**

### **8.1 8<sup>th</sup> meeting of the ACAP Seabird Bycatch Working Group & Population and Conservation Status Working Group**

This meeting was organised by the Agreement on the Conservation of Albatrosses and Petrels (ACAP) to discuss progress, issues and future work priorities in relation to seabird bycatch and the conservation status of ACAP-listed species. The meeting was held in Wellington, New Zealand between 4 and 8 September 2017. Amanda Kuepfer participated the meeting as part of the UK delegation and submitted two papers for discussion: “The Warp Deflector (pinkie system): Practical implications of a physical seabird bycatch mitigation device trialled in the Falkland Islands trawl fishery” and “Discard management as a seabird bycatch mitigation tool: Results from further batch-discard trials in the Falkland Islands trawl fishery”.

### **8.2 8Giant Squid Workshop – September 2017**

This workshop was organised by IMARPE (Ministry of Agriculture and Fisheries of Peru) and held in Lima between 25 and 29 September 2017. The main subject of the workshop was a review of methods and techniques to estimate stocks of jumbo squid *Dosidicus gigas* both within and outside EEZ of South American countries and Mexico. A. Arkhipkin was invited to participate in the workshop and presented a keynote ‘Life histories of squids of the family Ommastrephidae and their implications for stock assessment’.

### **8.3 International workshop: Improving our knowledge on the effects of climate change and variability on short-lived species population dynamics to inform fisheries management decisions – November 2017**

This workshop was organised by FAO (Rome) and was held in FAO Headquarters between 21 and 23 November 2017. A. Arkhipkin was invited to participate in the workshop as an expert in cephalopod biology and ecology.

## **9 Publications from scientific work carried out in FIG Fisheries Department in 2017 (or in collaboration with FIG personnel)**

### **9.1 Peer-reviewed publications (appeared in 2017)**

- Arkhipkin, A.I., Boucher, E., Gras, M., Brickle, P., 2017. Variability in age and growth of common rock oyster *Saccostrea cucullata* (Bivalvia) in Ascension Island (central-east Atlantic). *Journal of the Marine Biological Association of the United Kingdom*, **97**: 735–742.
- McInnes, J.C., Jarman, S.N., Lea, M.-A., Raymond, B., Deagle, B.E., Phillips, R.A., Catry, P., Stanworth, A., Weimerskirch, H., Kusch, A., Gras, M., Cherel, Y., Maschette, D., Alderman, R., 2017. DNA metabarcoding as a marine conservation and management tool: A circumpolar examination of fishery discards in the diet of threatened albatrosses. *Frontiers in Marine Science*, **4**: 1–22.
- McInnes, J.C., Alderman, R., Lea, M.-A., Raymond, B., Deagle, B.E., Phillips, R.A., Stanworth, A., Thompson, D.R., Catry, P., Weimerskirch, H., Suazo, C.G., Gras, M., Jarman, S.N., 2017. High occurrence of jellyfish predation by black-browed and Campbell albatross identified by DNA metabarcoding. *Molecular Ecology*, **26**: 4831–4845.
- McKeown, N.J., Arkhipkin, A.I., Shaw, P.W. 2017. Regional genetic population structure and fine scale genetic cohesion in the Southern blue whiting *Micromesistius australis*. *Fisheries Research*, **185**: 176–184.
- Nolan E.T., Downes, K.J., Richardson, A., Arkhipkin, A., Brickle, P., Brown, J., Mrowicki, R.J., Shcherbich, Z., Weber, N. & Weber, S.B. 2017. Life history strategies of the rock hind grouper *Epinephelus adscensionis* at Ascension Island. *Journal of Fish Biology*, **91**: 1549–1568.
- Rivière, G., He, Y., Tecchio, S., Crowell, E., Gras, M., Sourdain, P., Guo, X., Favrel, P., 2017. Dynamics of DNA methylomes underlie oyster development. *PLoS Genetic*, **13**: 1–16.

## 9.2 Technical reports

- Arkhipkin, A., Herrera, D., Lee, B., Boag, T., Bradley, K., Cockcroft, K. 2017. Juvenile toothfish survey, Fisheries Cruise ZDLT1-01-2017. *Tech. Rep. FIG Fisheries Dept.*, Stanley, Falkland Islands.
- Brewin, P., Randhawa, H.S., Winter, A., Arkhipkin, A. 2017. Sustainability measures, 2016 – 2017. Patagonian toothfish (*Dissostichus eleginoides*). *Tech. Rep. FIG Fisheries Dept.*, Stanley, Falkland Islands.
- FIFD. 2017. Vessel Units, Allowable Effort, and Allowable Catch 2018. Summary and recommendations. *Tech. Rep. FIG Fisheries Dept.*, Stanley, Falkland Islands.
- Gras, M., Pompert, J., Blake, A., Busbridge, T., Derbyshire, C., Keningale, B., Thomas, O., 2017. Report of the 2017 ground fish survey ZDLT1–02–2017. *Tech. Rep. FIG Fisheries Dept.*, Stanley, Falkland Islands.
- Gras, M., Pompert, J., Blake, A., Boag, T., Busbridge, T., Huillier, J.T., Concha, F., 2017. Report of the 2017 ground fish survey ZDLT1–07–2017. *Tech. Rep. FIG Fisheries Dept.*, Stanley, Falkland Islands.
- Kuepfer, A., 2017. The warp deflector (pinkie system): Practical implications of a physical seabird bycatch mitigation device trialled in the Falkland Islands trawl fishery. ACAP SBWG 8 Inf 16. Wellington, New Zealand.
- Kuepfer, A., 2018. An Assessment of Seabird Bycatch in Falkland Islands Trawl Fisheries, July 2016 to June 2017. Falkland Islands Fisheries Department, Stanley, Falkland Islands.
- Kuepfer, A. and Pompert J., 2017. Discard management as a seabird bycatch mitigation tool: Results from further batch-discard trials in the Falkland Islands trawl fishery. ACAP SBWG 8 Inf 16. Wellington, New Zealand.
- Winter, A. 2017. Stock assessment - Falkland calamari (*Doryteuthis gahi*). *Tech. Rep. FIG Fisheries Dept.*, Stanley, Falkland Islands.
- Winter, A. 2017. Stock assessment, 2<sup>nd</sup> season 2017 - *Doryteuthis gahi*. *Tech. Rep. FIG Fisheries Dept.*, Stanley, Falkland Islands.
- Winter, A. 2017. Stock assessment - Skates (Rajidae). *Tech. Rep. FIG Fisheries Dept.*, Stanley, Falkland Islands.
- Winter, A. 2017. Stock assessment - Patagonian toothfish (*Dissostichus eleginoides*), 2016. *Tech. Rep. FIG Fisheries Dept.*, Stanley, Falkland Islands.
- Winter, A., Jones, J., Shcherbich, Z., Iriarte, V. 2017. Falkland calamari stock assessment survey, 1<sup>st</sup> season 2017. *Tech. Rep. FIG Fisheries Dept.*, Stanley, Falkland Islands.
- Winter, A., Shcherbich, Z., Iriarte, V., Derbyshire, C. 2017. *Doryteuthis gahi* stock assessment survey, 2<sup>nd</sup> season 2017. *Tech. Rep. FIG Fisheries Dept.*, Stanley, Falkland Islands.

Alexander Arkhipkin (Editor), sections 1.1-1.3; 2.1; 3; 6; 8;

Alex Blake, sections 1.11-1.16

Thomas Farrugia, section 7

Michaël Gras, sections 1.4-1.6; 2.2; 2.3

Benjamin Keningale, section 5

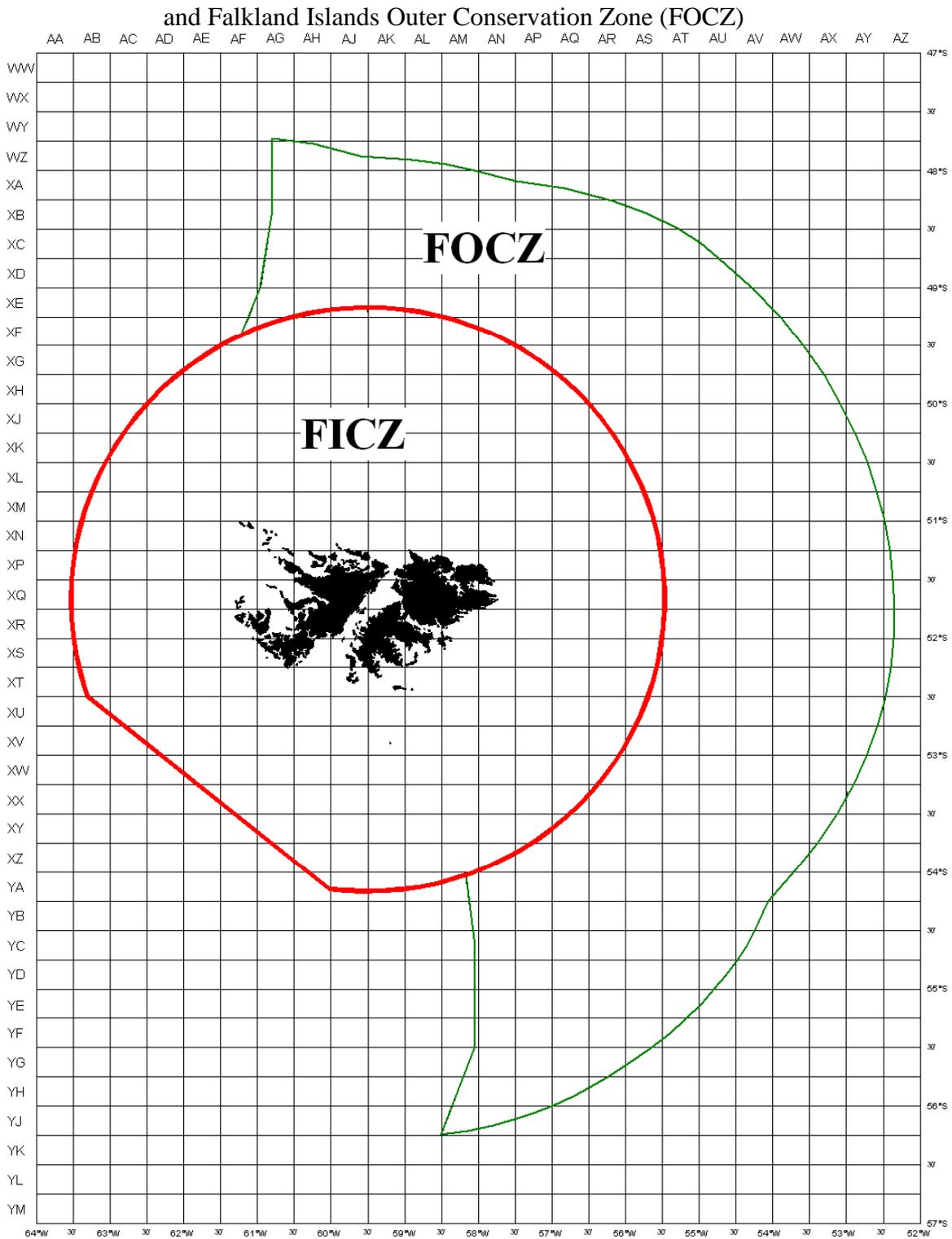
Amanda Kuepfer, section 4

Haseeb Randhawa: sections 1.7-1.9

Andreas Winter, sections 1.2; 1.10.

# Introduction

Figure A.1 Chart of the Falkland Islands Interim Conservation and Management Zone (FICZ)



This chart is illustrative NOT definitive

## Introduction

Table A.1 Abbreviations for vessel types used in the tables

<b>FIFD Code</b>	<b>Vessel type</b>
CO	Combination (trawler - jigger)
JI	Jigger
LO	Longliner
PO	Potter
TR	Trawler

Table A.2 Abbreviations for species names used in the tables

<b>FIFD Code</b>	<b>FAO Code</b>	<b>Scientific name</b>	<b>Common name</b>
BAC	SAO	<i>Salilota australis</i>	Red cod
BLU	POS	<i>Micromesistius australis</i>	Southern blue whiting
COX**	PAT	<i>Patagonotothen spp</i>	Rock cod
GRX**	RTX	Macrouridae	Grenadiers
HAK***	HKP	<i>Merluccius hubbsi</i>	Common hake
KIN	CUS	<i>Genypterus blacodes</i>	Kingclip
ILL	SQA	<i>Illex argentinus</i>	Illex squid
LOL	SQP	<i>Doryteuthis gahi</i>	Falkland Calamari
MAR	SQS	<i>Martialia hyadesi</i>	Martialia squid
OTH	MZZ/SKX	Osteichthyes/Chondrichthyes	Others
PAT	HKX / HKN	<i>Merluccius spp /australis*</i>	Austral Hake
RAY	SRX	Rajidae	Skates and rays
TOO	TOP	<i>Dissostichus elegendoides</i>	Patagonian toothfish
WHI	GRM	<i>Macruronus magellanicus</i>	Hoki
ZYP	ZYP	<i>Zygochlamys patagonica</i>	Scallop

\* - *Merluccius spp.* until 2005; *M.australis* since 2006

\*\* - since 2006, before - in OTH; \*\*\* - since 2006, before - in PAT

Table A.3 Abbreviations for fishing fleets used in the tables

<b>ISO Alfa-2 code</b>	<b>ISO Alfa-3 code</b>	<b>Fishing Fleet</b>
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 - 2017

Licence	Target species	Period of application
First Season		
A	Unrestricted finfish	1989—2007
B	<i>Illex</i> squid	1989 - 1992
	<i>Illex</i> and <i>Martialia</i> squid	1993 -
C	Falkland Calamari ( <i>Loligo</i> )	1989 -
F	Skates and rays	1995 –2007
G	<i>Illex</i> squid and restricted finfish*	1997 -
W	Restricted finfish**	1994 –2007
Second Season		
R	Skate and rays	1994 - 2007
X	All species	1989 - 1990
	Falkland Calamari ( <i>Loligo</i> )	1991 -
Y	Unrestricted finfish	1989 –2007
Z	Restricted finfish**	1989 –2007
All year		
A	Unrestricted finfish	2008-
F	Skates and rays	2008-
E	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 longliners 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.

Table A5 Register of ITQ holding in January 2017

Quota	Owner	Finfish	Scallops	Squid		Skate	Squid & Restricted Finfish			Toothfish Longline	Squid <i>Loligo gahi</i> (Winter)
				<i>Mex argentinus</i>	<i>Loligo gahi</i> (Summer)		Restricted Finfish	Restricted Finfish Pelagic	Restricted Finfish		
	Argos Group Ltd.	8.15%		18.75%			11.22%				18.75%
	Beauchene Fishing Co. Ltd.	3.10%		12.97%							12.97%
	Bold Ventures Ltd						15.30%				
	Byron Fishing Ltd	2.28%					10.36%				
	CFL									100.00%	
	FIG							70.00%			
	Fortuna Ltd	24.96%		27.53%		29.20%	14.18%	30.00%	4.28%		27.53%
	J K Marine Ltd.					36.80%			0.86%		
	Pioneer Seafoods Ltd	7.86%					2.52%				
	RBC Ltd.	38.33%		10.45%			15.63%		4.01%		10.45%
	Seafish (Falklands) Ltd.								15.94%		4.40%
	Seaview Ltd.										14.34%
	Southern Cross Ltd.	4.18%		11.56%			7.71%		10.42%		11.56%
	Sullivan Shipping Services Ltd	11.14%				34.00%	23.09%		18.43%		
<b>Total</b>		100.00%		100.00%		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

**Note:**

Scallops and Squid Jig/Trawl have yet to enter quota system.

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

## Licences

Table B.1 Licence allocations by licence type and year

LICENCE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
A	40	33	17	13	4	10	5	5	4	9
B	161	144	170	165	156	164	120	113	92	79
C	46	38	16	20	21	22	17	19	15	14
E	8	5	-	2	1	6	6	5	6	9
F	-	-	-	-	-	-	4	5	-	-
G	-	-	-	-	-	-	-	-	19	27
L	-	-	-	-	-	-	-	-	-	-
R	-	-	-	-	-	9	10	11	10	2
S	-	-	-	-	-	-	-	-	-	-
W	-	-	11	16	14	30	29	28	9	16
X	23	20	19	23	30	27	23	24	21	20
Y	70	17	15	6	5	10	9	6	11	8
Z	24	35	40	46	43	47	60	43	36	27
	<b>372</b>	<b>292</b>	<b>288</b>	<b>291</b>	<b>274</b>	<b>325</b>	<b>283</b>	<b>259</b>	<b>223</b>	<b>211</b>

LICENCE	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
A	11	10	6	6	6	8	9	11	11	23
B	86	109	116	125	122	90	71	43	56	44
C	17	17	16	17	16	16	16	16	16	17
E	8	5	1	1	8	8	12	8	6	4
F	-	4	1	9	4	7	4	-	1	8
G	30	16	19	19	24	17	12	20	18	23
L	-	3	6	6	8	5	4	6	6	2
R	8	7	9	8	10	11	11	11	10	-
S	2	3	3	4	3	4	2	2	2	3
W	21	11	13	10	23	25	17	21	14	27
X	18	15	19	17	18	18	16	16	17	19
Y	8	4	8	8	12	9	12	16	18	-
Z	34	27	18	18	22	23	18	24	25	-
	<b>243</b>	<b>231</b>	<b>235</b>	<b>248</b>	<b>276</b>	<b>241</b>	<b>204</b>	<b>194</b>	<b>200</b>	<b>170</b>

LICENCE	2009	2010	2011	2012	2013	2014	2015	2016	2017
A*	21	22	29	29	31	29	26	22	28
B	21	76	94	100	99	106	106	104	106
C	17	18	17	18	17	17	16	17	18
E	7	5	5	6	8	5	8	4	13
F**	8	8	7	8	8	8	8	8	7
G	27	23	25	25	25	22	21	22	18
L	1	1	1	1	2	2	1	1	3
R	-	-	-	-	-	-	-	-	-
S	4	3	1	3	1	1	1	1	-
W***	30	30	27	25	28	26	28	26	22
X	18	17	17	16	16	17	16	17	16
Y	-	-	-	-	-	-	-	-	-
Z	-	-	-	-	-	-	-	-	-
	<b>154</b>	<b>203</b>	<b>223</b>	<b>231</b>	<b>235</b>	<b>233</b>	<b>231</b>	<b>222</b>	<b>231</b>

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

## Licences

Table B.2 Licence allocations by fishing fleet and year

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

## Licences

Table B.2 Licence allocations by fishing fleet and year

<b>FISHING FLEET</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>BZ</b>	1	1	-	1	-	-	-	-	-	-	-	-	-	-
<b>CB</b>	1	-	-	-	-	-	1	1	2	1	-	-	-	-
<b>CL</b>	2	-	1	2	1	-	1	-	-	-	2	-	-	2
<b>CN</b>	7	3	2	4	-	-	-	-	-	-	-	-	-	-
<b>DE</b>	-	-	-	-	-	-	-	-	1	-	-	-	-	-
<b>EE</b>	1	-	2	-	-	-	-	-	-	-	-	-	-	-
<b>ES</b>	48	36	59	65	59	61	55	61	63	67	64	64	59	54
<b>FK</b>	71	73	69	62	54	55	58	58	57	60	52	52	49	61
<b>GH</b>	-	-	1	-	-	-	-	-	-	-	-	-	-	-
<b>JP</b>	7	2	1	1	1	1	1	1	1	-	-	-	-	-
<b>KR</b>	59	43	42	41	38	21	34	35	35	36	36	35	32	32
<b>NA</b>	2	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>NZ</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>PA</b>	2	2	1	1	-	-	-	-	-	-	-	-	-	-
<b>RU</b>	-	-	-	-	-	-	1	-	-	-	-	-	-	-
<b>SH</b>	-	-	-	-	-	2	-	-	-	-	-	-	-	-
<b>SL</b>	-	-	-	-	-	-	2	-	1	-	-	-	-	-
<b>TW</b>	34	34	10	19	13	8	45	61	67	65	71	71	73	73
<b>UK</b>	4	6	4	4	4	6	4	4	4	4	4	5	4	5
<b>UY</b>	2	2	2	-	-	-	-	-	-	-	-	-	-	-
<b>VU</b>	-	2	-	-	-	-	1	2	-	2	4	4	4	4
	<b>241</b>	<b>204</b>	<b>194</b>	<b>200</b>	<b>170</b>	<b>154</b>	<b>203</b>	<b>223</b>	<b>231</b>	<b>235</b>	<b>233</b>	<b>231</b>	<b>221</b>	<b>231</b>

Table B.3 Licence 'A' (Unrestricted finfish - first season, 1999-2007; both seasons since 2008) allocations by fishing fleet and year

<b>FISHING FLEET</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>ES</b>	12	11	11	15	17	19	17	15	14	17
<b>FK</b>	10	9	10	12	11	11	11	10	7	10
<b>KR</b>				1						-
<b>UK</b>	1	1	1	1	1	1	1	1	1	1
	<b>23</b>	<b>21</b>	<b>22</b>	<b>29</b>	<b>29</b>	<b>31</b>	<b>29</b>	<b>26</b>	<b>22</b>	<b>28</b>

## Licences

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

<b>FISHING FLEET</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>CB</b>	-	-	1	1	2	1	-	-	-	-
<b>FK</b>	-	-	-	1	-	-	-	-	-	-
<b>KR</b>	31	13	27	29	30	31	31	31	27	29
<b>SL</b>	-	-	2	-	1	-	-	-	-	-
<b>TW</b>	13	8	45	61	67	65	71	71	73	73
<b>VU</b>	-	-	1	2	-	2	4	4	4	4
	<b>44</b>	<b>21</b>	<b>76</b>	<b>94</b>	<b>100</b>	<b>99</b>	<b>106</b>	<b>106</b>	<b>104</b>	<b>106</b>

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

<b>FISHING FLEET</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>ES</b>	1	2	1	2	2	1	2	1	2	3
<b>FK</b>	15	14	16	14	15	15	14	14	14	14
<b>UK</b>	1	1	1	1	1	1	1	1	1	1
	<b>17</b>	<b>17</b>	<b>18</b>	<b>17</b>	<b>18</b>	<b>17</b>	<b>17</b>	<b>16</b>	<b>17</b>	<b>18</b>

Table B.6 Licence 'E' (Experimental) allocations by fishing fleet and year

<b>FISHING FLEET</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>CL</b>	-	-	1	-	-	-	-	-	-	-
<b>DE</b>	-	-	-	-	1	-	-	-	-	-
<b>ES</b>	2	1	-	1	-	-	-	1	-	-
<b>FK</b>	2	2	3	4	5	8	5	5	4	12
<b>KR</b>	-	-	-	-	-	-	-	1	-	-
<b>RU</b>	-	-	1	-	-	-	-	-	-	-
<b>SH</b>	-	2	-	-	-	-	-	-	-	-
<b>UK</b>	-	2	-	-	-	-	-	1	-	1
	<b>4</b>	<b>7</b>	<b>5</b>	<b>5</b>	<b>6</b>	<b>8</b>	<b>5</b>	<b>8</b>	<b>4</b>	<b>13</b>

## Licences

Table B.7 Licence 'F' (Skates and rays ) allocations by fishing fleet and year

<b>FISHING FLEET</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>ES</b>	2	2	4	3	4	4	4	6	5	2
<b>FK</b>	-	-	-	-	-	-	-	-	-	3
<b>KR</b>	6	6	4	4	4	4	4	2	3	2
	<b>8</b>	<b>8</b>	<b>8</b>	<b>7</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>7</b>

Table B.8 Licence 'G' (Illex squid and restricted finfish) allocations by fishing fleet and year

<b>FISHING FLEET</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>ES</b>	19	22	17	18	21	21	20	20	18	16
<b>FK</b>	4	5	6	7	4	4	2	1	4	2
	<b>23</b>	<b>27</b>	<b>23</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>22</b>	<b>21</b>	<b>22</b>	<b>18</b>

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

<b>FISHING FLEET</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>CL</b>	-	-	-	-	-	-	1	-	-	2
<b>FK</b>	2	1	1	1	1	2	1	1	1	1
	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>3</b>

## Licences

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

<b>FISHING FLEET</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>CL</b>	1	-	-	-	-	-	1	-	-	-
<b>FK</b>	1	3	2	-	2	1	-	1	1	-
<b>JP</b>	1	1	1	1	1	-	-	-	-	-
<b>Grand Total</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>

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

<b>FISHING FLEET</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>ES</b>	20	22	20	20	18	21	19	20	18	15
<b>FK</b>	5	5	6	5	5	5	5	6	4	5
<b>KR</b>	1	2	3	1	1	1	1	1	2	1
<b>UK</b>	1	1	1	1	1	1	1	1	1	1
	<b>27</b>	<b>30</b>	<b>30</b>	<b>27</b>	<b>25</b>	<b>28</b>	<b>26</b>	<b>28</b>	<b>25</b>	<b>22</b>

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

<b>FISHING FLEET</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>ES</b>	3	1	2	2	1	1	2	1	2	1
<b>FK</b>	15	16	14	14	14	14	14	14	14	14
<b>UK</b>	1	1	1	1	1	1	1	1	1	1
	<b>19</b>	<b>18</b>	<b>17</b>	<b>17</b>	<b>16</b>	<b>16</b>	<b>17</b>	<b>16</b>	<b>17</b>	<b>16</b>

## Licences

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

LICENCE	1989	1990	1991	1992	1993	1994	1995
A	537,775	485,949	300,154	191,586	119,854	537,775	485,949
B	22,723,027	20,698,011	20,961,399	20,865,023	14,301,237	17,440,342	10,867,548
C	4,028,578	5,077,665	3,286,308	2,904,346	3,558,704	3,305,953	3,473,536
E	3,000	1,000	.	12,308	12,303	163,607	196,725
F	.	.	.	.	.	.	74,214
G	.	.	.	.	.	.	.
L	.	.	.	.	.	.	.
R	.	.	.	.	.	140,664	431,363
S	.	.	.	.	.	.	.
W	.	.	113,412	169,895	206,682	413,290	500,679
X	377,917	613,764	572,085	959,803	1,466,992	2,046,655	2,173,149
Y	939,594	291,531	285,700	187,767	199,798	180,825	164,690
Z	391,332	774,666	841,843	1,222,974	1,207,635	1,335,812	1,920,068
	<b>29,001,223</b>	<b>27,942,586</b>	<b>26,360,901</b>	<b>26,513,702</b>	<b>21,073,205</b>	<b>25,690,547</b>	<b>20,348,929</b>

LICENCE	1996	1997	1998	1999	2000	2001	2002
A	300,154	191,586	186,858	247,467	264,667	153,200	229,589
B	12,176,224	12,189,748	9,578,864	9,349,734	14,609,416	16,408,604	15,504,408
C	3,915,269	3,489,634	3,694,139	3,840,651	4,063,638	4,515,400	4,495,703
E	107,022	180,956	460,752	471,163	190,113	0	0
F	117,243	.	.	0	83,714	41,311	218,114
G	.	654,702	900,493	1,321,513	755,274	1,001,852	1,176,222
L	.	.	.	0	237,250	581,856	581,856
R	446,767	429,579	73,733	452,362	252,959	405,492	221,071
S	.	.	.	326,903	980,410	914,033	792,191
W	842,504	590,818	868,281	872,436	418,455	303,832	268,804
X	2,297,557	1,745,260	2,157,595	1,802,191	1,596,130	2,014,142	1,759,362
Y	174,748	284,846	327,707	235,446	276,522	375,871	384,723
Z	1,536,543	1,474,175	1,329,126	1,262,615	1,051,854	969,460	920,040
	<b>21,977,242</b>	<b>21,296,309</b>	<b>19,577,548</b>	<b>20,182,480</b>	<b>24,780,401</b>	<b>27,685,053</b>	<b>26,552,083</b>

LICENCE	2003	2004	2005	2006	2007	2008	2009
A*	312,757	239,533	160,585	296,901	428,227	1,129,012	1,129,011
B	12,122,222	2,926,562	2,441,087	4,509,716	6,151,234	4,430,958	0
C	1,446,088	1,509,446	1,534,994	1,763,009	1,734,547	1,939,301	1,939,301
E	34,500	56,925	84,150	95,600	0	0	0
F**	85,855	156,778	49,701	0	7,699	274,579	247,121
G	1,085,814	558,859	374,079	909,945	627,065	769,004	769,004
L	493,873	581,855	533,368	579,782	907,704	760,700	760,700
R	240,511	263,006	405,720	285,453	278,912	.	.
S	895,352	1,237,335	449,067	525,669	554,748	543,770	543,770
W***	515,383	905,319	524,877	488,818	506,479	1,219,240	1,219,240
X	1,804,098	2,090,748	2,510,109	3,263,140	3,263,140	4,242,081	4,242,082
Y	434,158	407,128	650,185	656,810	459,542	.	.
Z	995,807	978,825	834,434	1,026,697	474,296	.	.
	<b>20,466,419</b>	<b>11,912,319</b>	<b>10,552,357</b>	<b>14,401,541</b>	<b>15,393,593</b>	<b>15,308,645</b>	<b>10,850,229</b>

## Licences

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

LICENCE	2010	2011	2012	2013	2014	2015	2016	2017
<b>A</b>	1,129,012	1,129,012	1,129,012	1,129,012	1,129,012	1,129,012	1,129,012	1,129,012
<b>B</b>	798,205	8,996,154	9,522,332	10,597,284	10,616,032	11,208,479	3,346,467	11,093,286
<b>C</b>	1,939,301	2,133,230	2,133,230	2,133,230	2,133,230	2,133,230	2,133,230	2,133,230
<b>E</b>	-	-	-	-	-	-	-	-
<b>F</b>	247,121	247,121	247,121	247,121	247,121	247,121	247,121	247,121
<b>G</b>	845,900	845,900	845,900	845,900	845,900	845,900	845,900	845,900
<b>L</b>	760,700	836,770	836,770	836,770	836,770	836,770	836,770	836,770
<b>S</b>	181,257	181,257	181,257	181,257	60,419	60,419	60,419	60,419
<b>W</b>	1,341,160	1,341,160	1,341,160	1,341,160	1,341,160	1,341,160	1,341,160	1,341,160
<b>X</b>	4,242,082	4,242,082	4,242,082	4,242,082	4,242,082	4,242,082	4,242,082	4,242,082
	<b>11,484,738</b>	<b>19,952,686</b>	<b>20,478,864</b>	<b>21,553,816</b>	<b>21,451,726</b>	<b>22,044,173</b>	<b>14,182,161</b>	<b>21,928,980</b>

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

## Catch summary tables

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

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

<b>VESSEL TYPE</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
<b>CO</b>	59,069	46,211	27,896	17,669	1,151	4,807	3,222	1,569	811	274
<b>JI</b>	195,476	94,743	160,754	149,557	144,189	62,874	62,717	73,128	150,732	79,837
<b>LO</b>	-	-	-	131	10	2,855	1,901	992	1,241	1,787
<b>TR</b>	172,270	143,561	115,853	147,601	106,257	126,262	177,332	119,303	77,542	128,976
	<b>426,814</b>	<b>284,516</b>	<b>304,503</b>	<b>314,957</b>	<b>251,605</b>	<b>196,798</b>	<b>245,172</b>	<b>194,991</b>	<b>230,326</b>	<b>210,874</b>

<b>VESSEL TYPE</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
<b>JI</b>	254,026	182,925	146,066	13,001	101,754	1,661	7,775	81,766	157,637	100,348
<b>LO</b>	2,077	2,092	1,684	1,754	1,832	2,076	1,791	1,622	1,539	1,511
<b>PO</b>	-	-	-	-	-	-	-	295	85	-
<b>TR</b>	120,935	134,089	117,449	86,224	105,511	99,361	117,551	129,832	142,907	168,193
	<b>377,038</b>	<b>319,107</b>	<b>265,198</b>	<b>100,979</b>	<b>209,097</b>	<b>103,098</b>	<b>127,118</b>	<b>213,516</b>	<b>302,169</b>	<b>270,051</b>

<b>VESSEL TYPE</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>JI</b>	3	11,645	73,577	84,619	139,137	291,770	332,862	2,303	63,849
<b>LO</b>	1,254	1,061	1,406	1,222	1,477	1,367	1,258	1,160	1,126
<b>PO</b>	-	2	-	-	6	7	5	-	-
<b>TR</b>	152,386	196,463	150,496	180,194	123,975	157,825	128,363	108,032	103,225
	<b>153,643</b>	<b>209,171</b>	<b>225,479</b>	<b>266,035</b>	<b>264,595</b>	<b>450,969</b>	<b>462,487</b>	<b>111,495</b>	<b>168,200</b>

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

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

## Catch summary tables

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

SPECIES	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
BAC	9,313	6,551	3,896	2,617	2,285	2,781	2,467	3,472	5,195	4,076
BLU	28,564	23,371	25,735	24,908	20,798	28,554	17,047	20,532	22,204	13,209
COX	-	-	-	-	-	-	8,641	21,012	30,386	60,601
ILL	266,201	189,709	150,631	13,411	103,375	1,720	7,937	85,622	161,506	106,189
KIN	2,602	1,875	1,625	1,224	1,275	1,841	1,936	2,822	3,592	2,227
LOL	34,866	64,493	53,560	23,712	47,422	26,835	58,813	43,064	42,003	52,260
MAR	29	-	147	1	31	24	-	-	4	-
HAK	-	-	-	-	-	-	-	8,410**	11,909*	8,806*
PAT	4,224	3,069	1,978	1,678	1,967	1,926	2,735*	23***	-	-
RAY	4,785	3,853	4,309	3,364	3,988	5,151	5,698	4,683	5,669	3,861
TOO	2,988	2,318	1,754	1,793	1,707	2,002	1,677	1,568	1,520	1,429
WHI	18,765	19,831	19,471	26,970	23,815	25,905	16,723	19,769	16,669	15,908
GRX	-	-	-	-	-	-	778	800	629	943
ZYP	-	-	76	59	685	1,279	1,358	1,161	14	6
OTH	4,701	4,037	2,018	1,242	1,748	5,080	1,309	578	869	536
	<b>377,038</b>	<b>319,107</b>	<b>265,198</b>	<b>100,979</b>	<b>209,097</b>	<b>103,098</b>	<b>127,118</b>	<b>213,516</b>	<b>302,169</b>	<b>270,051</b>

SPECIES	2009	2010	2011	2012	2013	2014	2015	2016	2017
BAC	5,120	3,129	4,210	4,629	5,164	3,467	3,340	3,143	1,378
BLU	10,395	6,471	3,940	1,596	2,698	3,612	2,790	5,415	2,309
COX	58,236	76,451	55,705	63,510	32,435	56,693	29,086	7,039	2,520
ILL	44	12,111	79,264	87,002	142,619	306,111	357,722	2,360	67,487
KIN	3,390	3,639	3,867	3,510	3,977	2,881	2,983	1,612	1,632
LOL	31,474	66,543	34,675	70,894	40,168	48,702	30,317	46,447	64,682
MAR	0	-	-	-	-	10	0	0	0
HAK	13,049	13,606	9,904	10,489	12,308	14,875	21,054	23,363	15,570
PAT ***	0	0	0	0	0	-	14	531	170
RAY	5,873	5,891	6,970	6,655	5,932	5,555	6,393	5,906	3,189
TOO	1,418	1,404	1,560	1,311	1,422	1,297	1,227	1,499	1,519
WHI	23,404	19,227	22,979	15,867	16,849	7,392	6,845	11,562	4,053
GRX	965	455	2,062	225	517	216	367	2,335	3,273
ZYP	13	3	11	0	0	1	1	8	4
OTH	263	241	331	347	506	155	347	274	414
	<b>153,643</b>	<b>209,171</b>	<b>225,479</b>	<b>266,035</b>	<b>264,595</b>	<b>450,969</b>	<b>462,487</b>	<b>111,495</b>	<b>168,200</b>

\* - *Merluccius spp.*,

\*\* - *M.hubbsi*,

\*\*\* - *M.australis*

## Catch summary tables

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

<b>MONTH</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
January	2,475	.	5,128	5,217	3,723	9,149	7,810	5,217	7,918	7,687
February	30,652	26,620	19,493	21,028	6,789	13,273	28,800	15,782	8,660	19,942
March	89,952	74,890	88,553	96,826	39,900	52,894	46,084	49,887	29,199	47,799
April	131,835	56,338	83,954	79,745	79,365	27,654	49,391	48,971	60,718	63,064
May	73,998	28,475	32,258	24,303	51,777	18,914	21,514	19,526	68,234	22,936
June	11,913	1,017	112	107	437	2,002	1,786	1,211	10,474	2,821
July	5,265	2,437	2,538	223	1,577	2,172	2,937	1,418	2,625	1,596
August	24,987	13,196	14,895	22,415	20,227	18,151	25,736	16,451	10,019	13,012
September	26,143	33,653	21,075	26,933	16,111	19,569	25,540	13,562	8,668	11,157
October	14,221	17,836	13,123	19,839	11,891	16,105	14,486	8,315	7,960	7,778
November	8,909	19,119	9,832	10,736	11,056	8,805	11,881	7,406	8,381	6,395
December	6,463	10,934	13,542	7,585	8,751	8,111	9,205	7,245	7,470	6,689
	<b>426,814</b>	<b>284,516</b>	<b>304,503</b>	<b>314,957</b>	<b>251,605</b>	<b>196,798</b>	<b>245,172</b>	<b>194,991</b>	<b>230,326</b>	<b>210,874</b>

<b>MONTH</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
January	6,605	5,213	6,497	3,536	5,881	2,901	1,712	2,181	2,381	4,072
February	29,626	47,924	10,926	12,306	16,612	9,405	7,562	10,867	11,142	14,326
March	98,631	94,536	81,574	17,335	91,036	15,081	27,436	48,141	40,210	38,998
April	104,827	63,840	71,936	13,811	37,830	11,292	10,581	46,987	86,244	65,736
May	73,790	48,684	38,621	15,504	5,680	4,930	3,870	28,058	69,293	46,779
June	12,665	2,854	2,199	1,473	1,385	727	712	1,840	8,694	16,356
July	2,313	2,502	1,299	253	877	6,771	11,786	10,168	12,356	10,254
August	13,364	16,528	17,380	11,863	21,491	14,344	22,575	23,414	26,175	20,967
September	11,853	16,874	15,306	5,751	14,513	10,571	17,115	15,654	20,049	23,084
October	9,857	8,333	12,413	5,668	8,831	13,552	11,010	13,520	14,000	15,444
November	7,138	7,306	4,933	8,638	3,981	8,412	9,646	8,895	9,768	9,967
December	6,370	4,513	2,112	4,841	980	5,114	3,113	3,790	1,856	4,070
	<b>377,038</b>	<b>319,107</b>	<b>265,198</b>	<b>100,979</b>	<b>209,097</b>	<b>103,098</b>	<b>127,118</b>	<b>213,516</b>	<b>302,169</b>	<b>270,051</b>

<b>MONTH</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
January	3,804	2,742	4,973	625	3,758	142	217	3,458	<b>497</b>
February	12,427	12,883	11,110	17,747	8,684	4,136	18,848	10,231	<b>2,899</b>
March	20,338	40,981	75,786	75,158	39,918	84,249	132,218	15,693	<b>51,815</b>
April	18,753	30,748	37,109	54,366	72,662	155,782	164,810	19,478	<b>53,664</b>
May	17,809	16,803	18,678	26,086	68,741	102,399	89,798	9,302	<b>9,643</b>
June	5,955	6,948	8,222	7,749	7,817	23,929	11,276	4,871	<b>2,359</b>
July	14,481	17,796	15,423	13,019	8,022	16,834	6,453	6,614	<b>6,794</b>
August	16,506	28,251	18,736	30,540	18,437	22,030	14,286	19,333	<b>16,881</b>
September	15,139	22,304	13,130	19,041	20,021	18,973	9,711	13,089	<b>14,898</b>
October	13,499	12,286	10,381	12,185	8,966	10,816	5,224	6,788	<b>5,145</b>
November	9,328	9,881	6,693	5,829	4,275	8,682	3,761	1,281	<b>2,800</b>
December	5,605	7,548	5,237	3,689	3,294	2,997	5,885	1,357	<b>806</b>
	<b>153,643</b>	<b>209,171</b>	<b>225,479</b>	<b>266,035</b>	<b>264,595</b>	<b>450,969</b>	<b>462,487</b>	<b>111,495</b>	<b>168,200</b>

## Catch summary tables

Table C.4 Total catch (tonnes) by gross registered tonnage (GRT) and year

GRT	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<400	-	-	-	-	-	6	7	5	-	-
400-599	3,334	-	98	761	936	1,245	2,579	-	-	-
600-799	61,837	11,607	16,299	30,329	35,335	42,597	69,012	55,821	5,025	11,105
800-999	59,559	19,439	23,756	61,453	71,471	102,421	213,012	264,130	21,487	58,570
1,000-1,499	67,928	65,152	78,975	68,620	76,220	69,023	102,124	90,293	31,278	34,375
1,500-1,999	36,509	31,081	46,090	38,032	44,253	27,628	35,706	28,176	29,271	32,892
2,000-2,999	32,065	18,921	37,934	21,060	37,005	21,246	26,848	24,061	24,364	31,258
>2,999	8,820	7,443	6,018	5,225	816	428	1,681	-	70	-
	<b>270,051</b>	<b>153,643</b>	<b>209,171</b>	<b>225,479</b>	<b>266,035</b>	<b>264,595</b>	<b>450,969</b>	<b>462,487</b>	<b>111,495</b>	<b>168,200</b>

Table C.5 Total catch (tonnes) by length overall (m) (LOA) and year

LOA	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<45	1,850	2,046	730	2,831	936	1,720	2,823	640	980	-
45-49	33,442	17,394	16,171	15,274	20,185	21,635	28,768	28,004	8,292	8,694
50-54	46,470	9,721	14,483	28,355	35,276	34,427	65,494	48,195	12,287	10,197
55-59	38,916	18,719	28,268	39,304	40,970	47,933	64,761	65,173	10,209	19,168
60-64	53,845	38,835	47,299	54,956	63,919	63,906	89,551	88,549	26,422	33,343
65-69	45,478	27,193	43,688	40,688	48,645	42,539	82,334	95,290	21,247	38,329
70-79	32,694	27,880	42,230	32,516	44,114	45,844	107,662	129,563	24,059	50,879
80-89	4,303	2,303	4,666	3,121	5,250	2,919	3,770	3,315	3,800	5,245
>89	13,052	9,552	11,635	8,435	6,743	3,672	5,805	3,758	4,199	2,345
	<b>270,051</b>	<b>153,643</b>	<b>209,171</b>	<b>225,479</b>	<b>266,035</b>	<b>264,595</b>	<b>450,969</b>	<b>462,487</b>	<b>111,495</b>	<b>168,200</b>

Table C.6 Total catch (tonnes) by brake horsepower (BHP) and year

BHP	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<1,000	-	-	2	-	-	830	7	5	-	-
1,000-1,199	-	-	730	1,797	936	1,714	2,816	635	980	-
1,200-1,399	18,662	2,172	3,748	6,975	9,397	12,328	17,228	14,155	23	2,425
1,400-1,599	44,902	21,362	18,832	35,046	37,646	39,422	69,104	55,480	15,246	13,260
1,600-1,799	37,163	15,174	20,935	19,209	22,881	25,948	43,895	40,720	9,202	9,543
1,800-1,999	56,969	37,936	55,212	62,542	69,147	64,523	93,089	88,249	22,722	29,998
2,000-2,499	55,382	40,877	49,759	56,919	63,413	66,348	131,972	147,083	25,961	46,871
2,500-2,999	11,072	5,067	9,755	13,727	19,821	25,479	52,965	78,890	9,012	25,673
3,000-3,999	28,380	18,577	33,923	18,069	31,568	18,479	22,797	20,737	19,688	27,880
>3,999	17,522	12,478	16,274	11,194	11,227	9,525	17,097	16,531	8,660	12,550
	<b>270,051</b>	<b>153,643</b>	<b>209,171</b>	<b>225,479</b>	<b>266,035</b>	<b>264,595</b>	<b>450,969</b>	<b>462,487</b>	<b>111,495</b>	<b>168,200</b>

## Catch summary tables

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

<b>FISHING FLEET</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
AU	-	-	-	-	-	-	-	-	-	3593
BG	13,503	22,369	21,888	8,981	2,976	-	-	-	-	-
BZ	-	-	-	-	-	-	585	-	-	-
CL	1,150	1,884	-	3,145	1,514	5,223	9,997	6,638	8,199	8849
CN	-	-	-	-	-	-	-	-	-	1177
ES	82,345	65,908	57,605	87,763	58,143	67,191	89,284	40,842	20,510	40307
FK	781	5,853	1,470	1,846	1,978	5,906	27,184	31,520	17,117	43578
FR	-	-	-	-	-	1,945	7,369	4,600	1,545	4177
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
KR	51,133	32,996	61,614	72,489	65,228	42,987	63,236	73,861	129,546	45082
NA	-	-	-	-	-	-	-	-	303	676
NL	4,587	3,369	-	-	-	-	-	-	-	-
NO	-	1,384	-	-	-	-	-	319	210	-
PA	-	-	2,425	4,027	1,060	598	459	706	-	1098
PL	74,039	64,765	43,878	32,996	12,442	11,178	8,861	3,262	-	-
PT	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
UK	11,685	1,383	1,992	-	445	1,255	2,083	4,357	2,302	3575
UR	-	-	-	-	-	21	-	-	-	-
UY	-	-	-	-	-	-	-	-	-	36
	<b>426,814</b>	<b>284,516</b>	<b>304,503</b>	<b>314,957</b>	<b>251,605</b>	<b>196,798</b>	<b>245,172</b>	<b>194,991</b>	<b>230,326</b>	<b>210,874</b>

<b>FISHING FLEET</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
AU	3,711	-	-	-	-	-	-	-	-	-
BZ	4,511	6,729	2,581	136	2,788	42	61	-	2,285	-
CB	-	2,768	1,204	33	857	17	-	-	-	-
CL	5,491	2,749	8,014	9,252	6,490	9,752	-	2,131	3,948	1,640
CN	7,301	11,641	18,838	1,203	12,652	99	99	3,555	8,575	-
EE	-	-	-	-	-	226	-	1,427	-	-
ES	35,909	30,732	29,170	23,972	20,169	22,488	24,559	42,057	56,187	72,152
FK	39,131	62,947	59,820	35,732	60,596	43,320	71,204	65,255	65,809	76,969
FR	2,381	2,053	-	-	-	-	-	-	-	-
GH	-	-	-	-	-	-	-	1,244	-	-
JP	57,971	41,737	27,913	14,485	18,923	15,062	11,230	12,049	9,042	8,820
KR	207,795	128,940	86,587	12,637	53,677	6,008	10,076	61,748	101,162	81,267
NA	746	-	-	-	-	1,181	-	-	-	-
NZ	-	-	-	-	69	-	-	-	-	-
PA	61	-	-	-	-	-	194	585	1,254	-
PT	-	66	-	-	-	-	-	-	-	-
RU	-	-	228	-	6,891	31	-	-	-	-
TW	8,771	23,243	25,380	1,190	22,057	866	3,106	18,554	49,985	24,353
UK	3,259	5,501	3,564	2,279	3,238	2,703	5,100	3,742	3,923	4,850
UY	-	-	81	61	690	1,303	1,369	1,169	-	-
VC	-	-	1,820	-	-	-	-	-	-	-
VU	-	-	-	-	-	-	120	-	-	-
	<b>377,038</b>	<b>319,107</b>	<b>265,198</b>	<b>100,979</b>	<b>209,097</b>	<b>103,098</b>	<b>127,118</b>	<b>213,516</b>	<b>302,169</b>	<b>270,051</b>

## Catch summary tables

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

<b>FISHING FLEET</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>CB</b>	-	94	1,144	1,695	1,468	-	-	-	-
<b>CL</b>	-	-	-	-	-	1,729	-	-	276
<b>ES</b>	80,267	88,060	77,862	84,914	59,001	81,262	68,438	48,164	34,036
<b>FK</b>	58,549	93,191	62,196	85,832	60,474	67,688	52,458	55,263	63,859
<b>JP</b>	7,443	6,018	4,745	109	-	-	-	-	-
<b>KR</b>	3,317	9,407	26,310	32,786	52,216	107,337	101,313	2,743	17,941
<b>RU</b>	-	2	-	-	-	-	-	-	-
<b>SL</b>	-	178	-	340	-	-	-	-	-
<b>TW</b>	-	5,808	48,540	55,327	86,147	178,375	223,334	2,064	45,212
<b>UK</b>	4,067	6,271	2,861	5,033	2,968	3,528	3,749	3,184	4,212
<b>VU</b>	-	142	1,821	-	2,322	11,051	13,195	77	2,664
	<b>153,643</b>	<b>209,171</b>	<b>225,479</b>	<b>266,035</b>	<b>264,595</b>	<b>450,969</b>	<b>462,487</b>	<b>111,495</b>	<b>168,200</b>

*Illex argentinus*—*Illex squid*

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

VESSEL TYPE	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<b>JI</b>	100,348	3	11,645	73,577	84,619	139,137	291,760	332,862	2,303	63,849
<b>TR</b>	5,841	41	466	5,688	2,383	3,481	14,351	24,861	57	3,638
	<b>106,189</b>	<b>44</b>	<b>12,111</b>	<b>79,264</b>	<b>87,002</b>	<b>142,619</b>	<b>306,111</b>	<b>357,722</b>	<b>2,360</b>	<b>67,487</b>

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

MONTH	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<b>January</b>	0	-	-	-	1	-	-	-	1	0
<b>February</b>	952	1	134	987	9,247	195	13	13,916	83	9
<b>March</b>	11,010	30	9,847	60,836	40,558	20,910	66,649	110,741	2,055	29,894
<b>April</b>	48,116	11	2,128	17,382	29,213	57,455	137,647	153,163	199	33,171
<b>May</b>	34,119	1	1	59	7,959	59,361	87,699	75,544	19	4,405
<b>June</b>	11,991	0	-	0	23	4,695	14,007	4,352	2	8
<b>July</b>	1	-	-	-	-	2	94	6	0	0
<b>August</b>	-	-	-	-	-	2	1	0	0	0
<b>September</b>	-	-	0	-	-	0	0	1	0	0
<b>October</b>	-	-	1	-	0	-	-	-	1	0
<b>November</b>	-	-	-	0	-	-	-	-	-	-
<b>December</b>	-	-	-	0	-	-	-	-	0	0
	<b>106,189</b>	<b>44</b>	<b>12,111</b>	<b>79,264</b>	<b>87,002</b>	<b>142,619</b>	<b>306,111</b>	<b>357,722</b>	<b>2,360</b>	<b>67,487</b>

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

FISHING FLEET	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<b>CB</b>	-	-	94	1,144	1,695	1,468	-	-	-	-
<b>ES</b>	2,747	33	187	2,035	509	2,798	9,527	9,809	46	2,800
<b>FK</b>	442	8	67	2,828	572	650	2,873	11,889	12	278
<b>KR</b>	78,642	3	5,635	22,892	28,554	49,236	104,251	98,588	162	16,530
<b>SL</b>	-	-	178	-	340	-	-	-	-	-
<b>TW</b>	24,353	-	5,808	48,540	55,327	86,147	178,375	223,334	2,064	45,212
<b>UK</b>	4	0	-	4	6	0	36	909	-	3
<b>VU</b>	-	-	142	1,821	-	2,322	11,051	13,195	77	2,664
	<b>106,189</b>	<b>44</b>	<b>12,111</b>	<b>79,264</b>	<b>87,002</b>	<b>142,619</b>	<b>306,111</b>	<b>357,722</b>	<b>2,360</b>	<b>67,487</b>

*Illex argentinus*—*Illex squid*

Table D.4 Total catch (tonnes) by gross registered tonnage (GRT) and year

GRT	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<400	-	-	-	-	-	-	-	-	-	-
400-599	3,334	-	98	761	936	1,245	2,579	-	-	-
600-799	52,635	3	4,173	21,395	24,365	35,080	61,701	49,495	72	7,616
800-999	43,654	6	6,679	46,325	54,022	85,758	192,663	246,465	2,042	49,922
1,000-1,499	6,058	34	1,064	8,428	7,576	19,714	46,919	49,307	233	9,252
1,500-1,999	438	1	96	1,184	102	821	2,131	5,474	11	691
2,000-2,999	69	0	-	1,173	1	0	119	6,981	2	6
>2,999	-	-	-	-	-	-	0	-	-	-
	<b>106,189</b>	<b>44</b>	<b>12,111</b>	<b>79,264</b>	<b>87,002</b>	<b>142,619</b>	<b>306,111</b>	<b>357,722</b>	<b>2,360</b>	<b>67,487</b>

Table D.5 Total catch (tonnes) by length overall (m) (LOA) and year

LOA	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<45	122	0	98	871	936	1,245	2,579	-	-	-
45-49	17,756	4	1,277	5,339	6,641	11,649	19,696	19,412	18	3,184
50-54	39,216	4	3,491	17,241	20,295	24,564	51,798	37,276	25	5,242
55-59	20,214	1	2,545	19,804	20,272	30,711	52,916	54,414	356	10,289
60-64	14,494	18	2,248	17,785	20,030	30,256	49,784	59,732	236	9,656
65-69	14,015	3	2,058	12,759	13,263	21,274	53,085	76,114	737	17,346
70-79	361	14	393	5,081	5,565	22,920	76,242	108,638	987	21,769
80-89	11	-	-	144	-	-	6	965	0	2
>89	1	0	-	240	-	0	4	1,172	0	-
	<b>106,189</b>	<b>44</b>	<b>12,111</b>	<b>79,264</b>	<b>87,002</b>	<b>142,619</b>	<b>306,111</b>	<b>357,722</b>	<b>2,360</b>	<b>67,487</b>

Table D.6 Total catch (tonnes) by brake horsepower (BHP) and year

BHP	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<1,000	-	-	-	-	-	-	-	-	-	-
1,000-1,199	-	-	98	761	936	1,245	2,579	-	-	-
1,200-1,399	16,162	-	947	5,208	6,132	9,847	14,863	12,681	23	2,425
1,400-1,599	30,225	5	3,404	20,671	21,118	27,651	52,921	42,309	93	5,514
1,600-1,799	21,606	17	1,710	6,848	9,705	15,714	33,633	32,999	114	5,428
1,800-1,999	18,927	7	2,981	21,969	23,298	33,067	60,353	62,981	268	12,205
2,000-2,499	14,772	14	2,025	15,219	18,238	34,337	90,078	117,934	947	19,917
2,500-2,999	4,423	0	946	7,488	7,565	17,615	43,778	71,528	788	20,269
3,000-3,999	62	0	-	793	7	0	144	5,753	1	7
>3,999	12	-	-	307	2	3,144	7,763	11,538	126	1,721
	<b>106,189</b>	<b>44</b>	<b>12,111</b>	<b>79,264</b>	<b>87,002</b>	<b>142,619</b>	<b>306,111</b>	<b>357,722</b>	<b>2,360</b>	<b>67,487</b>

*Illex argentinus*—*Illex squid*

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

GRT	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<400	-	-	-	-	-	-	-	-	-	-
400-599	3,334	-	98	761	936	1,245	2,579	-	-	-
600-799	52,171	-	4,152	21,000	24,327	34,767	60,482	48,489	68	7,258
800-999	40,714	3	6,457	45,065	52,609	85,278	188,189	242,580	2,033	48,813
1,000-1,499	4,129	1	937	6,751	6,748	17,848	40,510	41,792	202	7,779
1,500-1,999	-	-	-	-	-	-	-	-	-	-
2,000-2,999	-	-	-	-	-	-	-	-	-	-
>2,999	-	-	-	-	-	-	-	-	-	-
	<b>100,348</b>	<b>3</b>	<b>11,645</b>	<b>73,577</b>	<b>84,619</b>	<b>139,137</b>	<b>291,760</b>	<b>332,862</b>	<b>2,303</b>	<b>63,849</b>

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

LOA	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<45	-	-	98	761	936	1,245	2,579	-	-	-
45-49	17,342	-	1,256	4,973	6,610	11,326	18,780	18,136	15	2,930
50-54	36,428	2	3,273	16,346	18,870	24,287	48,080	34,429	20	4,406
55-59	20,091	-	2,527	19,081	19,894	30,141	51,404	52,549	348	9,509
60-64	13,045	0	2,154	16,409	19,619	28,849	45,361	53,970	210	9,016
65-69	13,443	-	1,967	12,164	13,163	20,896	50,906	71,204	726	16,231
70-79	-	1	370	3,843	5,529	22,393	74,650	102,574	984	21,758
80-89	-	-	-	-	-	-	-	-	-	-
>89	-	-	-	-	-	-	-	-	-	-
	<b>100,348</b>	<b>3</b>	<b>11,645</b>	<b>73,577</b>	<b>84,619</b>	<b>139,137</b>	<b>291,760</b>	<b>332,862</b>	<b>2,303</b>	<b>63,849</b>

Table D.9 Total catch (tonnes) of jiggers by brake horsepower (BHP) and year

BHP	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<1,000	-	-	-	-	-	-	-	-	-	-
1,000-1,199	-	-	98	761	936	1,245	2,579	-	-	-
1,200-1,399	16,102	-	946	5,208	6,127	9,621	14,306	12,350	23	2,425
1,400-1,599	29,644	-	3,386	20,053	21,034	27,247	50,110	40,864	82	4,770
1,600-1,799	20,533	3	1,643	6,419	9,424	15,402	31,772	31,527	94	5,173
1,800-1,999	18,255	1	2,879	20,887	22,837	32,067	57,113	59,143	253	10,612
2,000-2,499	14,039	-	1,959	13,821	18,068	32,901	86,651	111,649	938	19,609
2,500-2,999	1,774	-	734	6,428	6,194	17,510	41,478	67,731	788	19,545
3,000-3,999	-	-	-	-	-	-	-	-	-	-
>3,999	-	-	-	-	-	3,144	7,752	9,599	125	1,715
	<b>100,348</b>	<b>3</b>	<b>11,645</b>	<b>73,577</b>	<b>84,619</b>	<b>139,137</b>	<b>291,760</b>	<b>332,862</b>	<b>2,303</b>	<b>63,849</b>

*Illex argentinus*—*Illex squid*

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

GRT	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<400	-	-	-	-	-	-	-	-	-	-
400-599	-	-	-	-	-	-	-	-	-	-
600-799	464	3	21	394	38	314	1,219	1,006	4	359
800-999	2,941	4	222	1,259	1,413	480	4,474	3,885	9	1,110
1,000-1,499	1,929	34	127	1,678	828	1,866	6,409	7,515	32	1,473
1,500-1,999	438	1	96	1,184	102	821	2,131	5,474	11	691
2,000-2,999	69	0	-	1,173	1	0	119	6,981	2	6
>2,999	-	-	-	-	-	-	0	-	-	-
	<b>5,841</b>	<b>41</b>	<b>466</b>	<b>5,688</b>	<b>2,383</b>	<b>3,481</b>	<b>14,351</b>	<b>24,861</b>	<b>57</b>	<b>3,638</b>

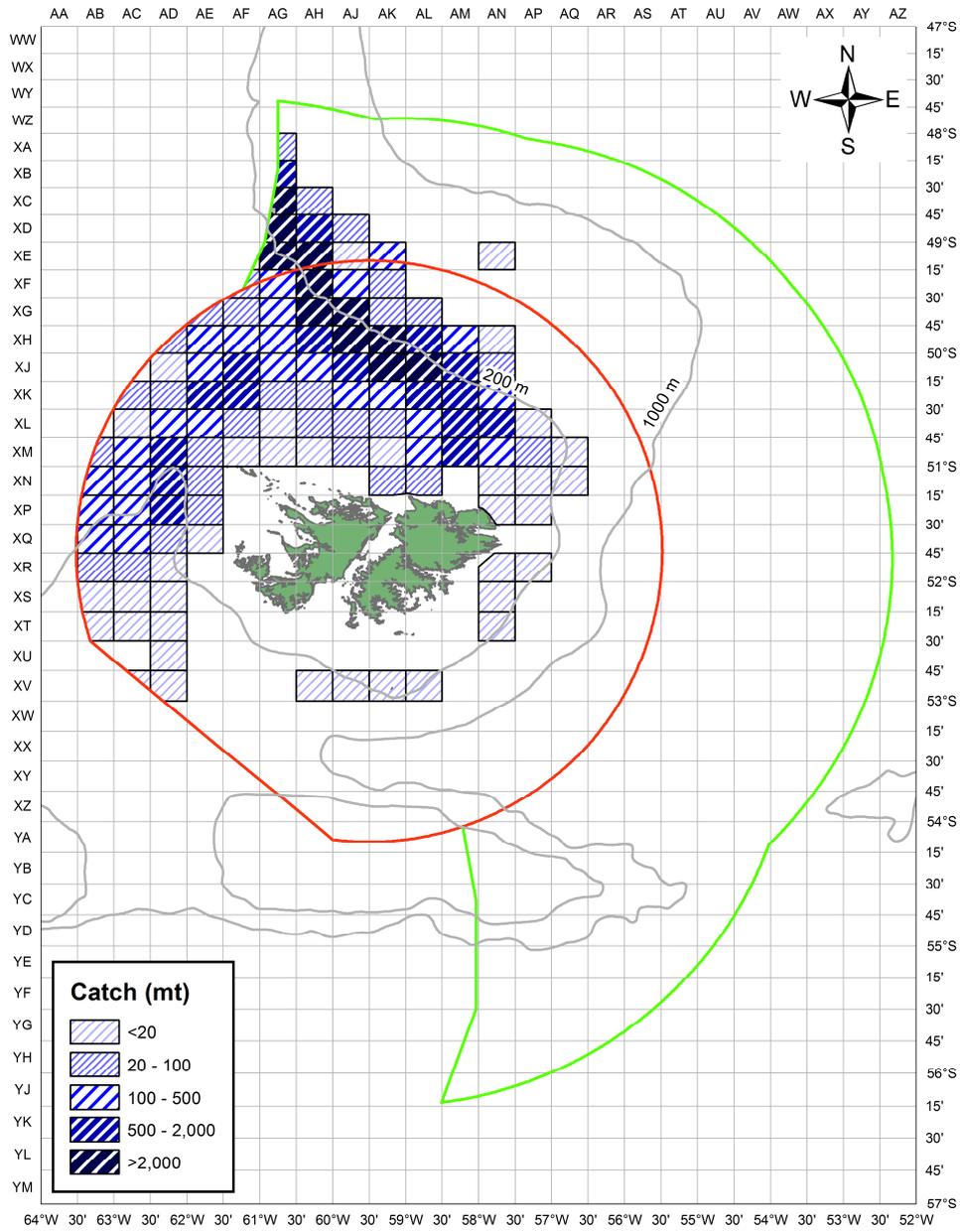
Table D.11 Total catch (tonnes) of trawlers by length overall (m) (LOA) and year

LOA	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<45	122	0	-	110	-	-	-	-	-	-
45-49	414	4	21	367	32	323	916	1,276	4	254
50-54	2,788	1	218	895	1,425	277	3,718	2,846	5	836
55-59	123	1	18	723	378	570	1,512	1,866	8	780
60-64	1,449	18	94	1,375	412	1,406	4,423	5,762	26	640
65-69	572	3	91	595	100	378	2,179	4,911	11	1,115
70-79	361	13	23	1,238	36	526	1,592	6,064	3	11
80-89	11	-	-	144	-	-	6	965	0	2
>89	1	0	-	240	-	0	4	1,172	0	-
	<b>5,841</b>	<b>41</b>	<b>466</b>	<b>5,688</b>	<b>2,383</b>	<b>3,481</b>	<b>14,351</b>	<b>24,861</b>	<b>57</b>	<b>3,638</b>

Table D.12 Total catch (tonnes) of trawlers by brake horsepower (BHP) and year

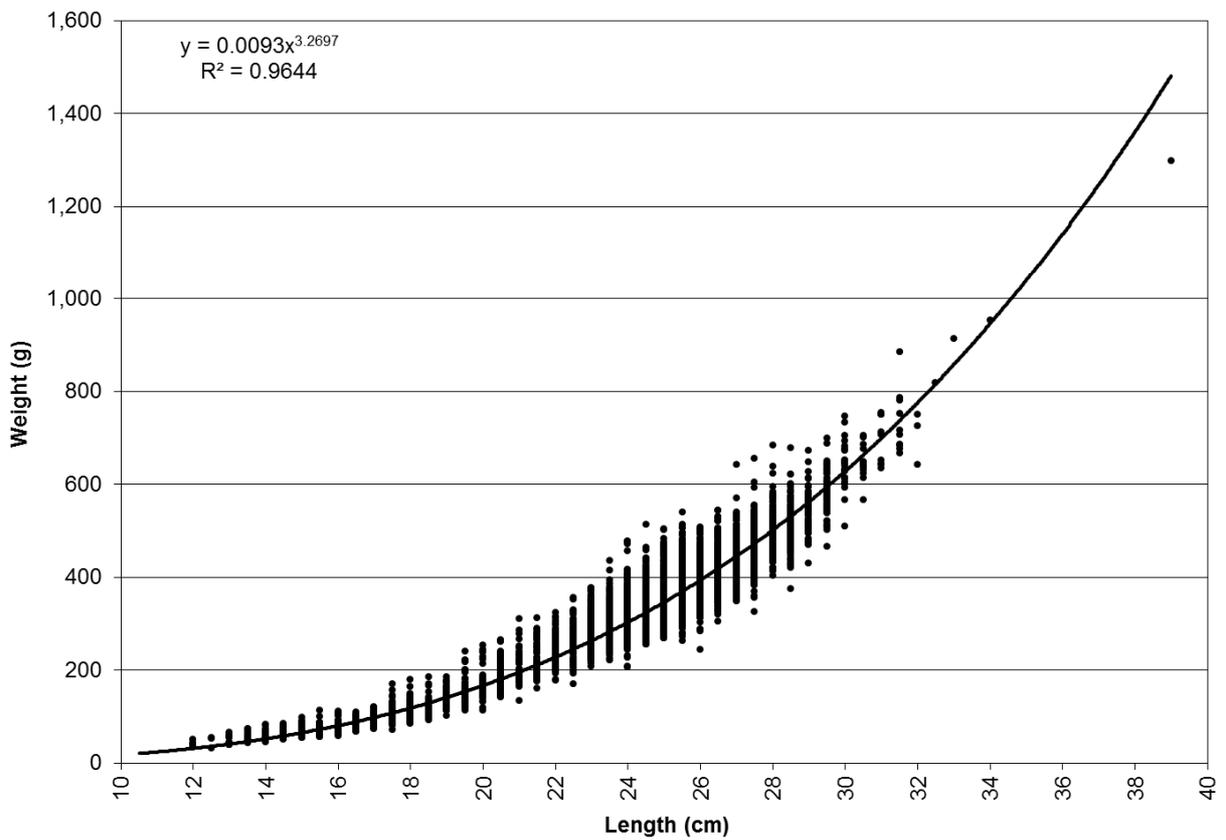
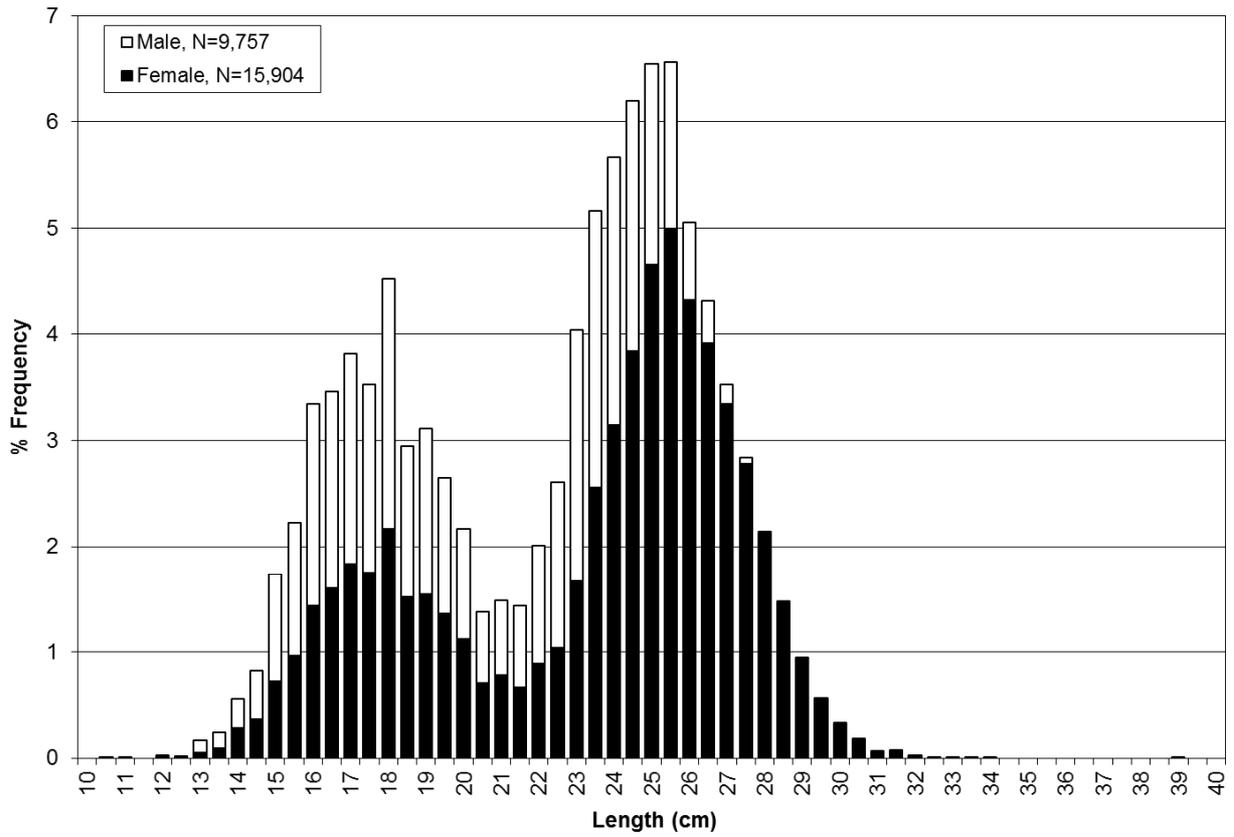
BHP	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<1,000	-	-	-	-	-	-	-	-	-	-
1,000-1,199	-	-	-	-	-	-	-	-	-	-
1,200-1,399	61	-	1	-	6	225	557	331	-	-
1,400-1,599	581	5	18	618	85	404	2,811	1,445	11	744
1,600-1,799	1,073	15	66	429	280	311	1,861	1,472	20	255
1,800-1,999	672	6	103	1,081	461	1,000	3,240	3,838	15	1,593
2,000-2,499	732	14	67	1,399	170	1,435	3,427	6,286	8	308
2,500-2,999	2,648	0	212	1,061	1,371	105	2,300	3,797	0	724
3,000-3,999	62	0	-	793	7	0	144	5,753	1	7
>3,999	12	-	-	307	2	-	10	1,939	1	7
	<b>5,841</b>	<b>41</b>	<b>466</b>	<b>5,688</b>	<b>2,383</b>	<b>3,481</b>	<b>14,351</b>	<b>24,861</b>	<b>57</b>	<b>3,638</b>

*Illex argentinus*  
First Season 2017 (01 Jan to 30 Jun)



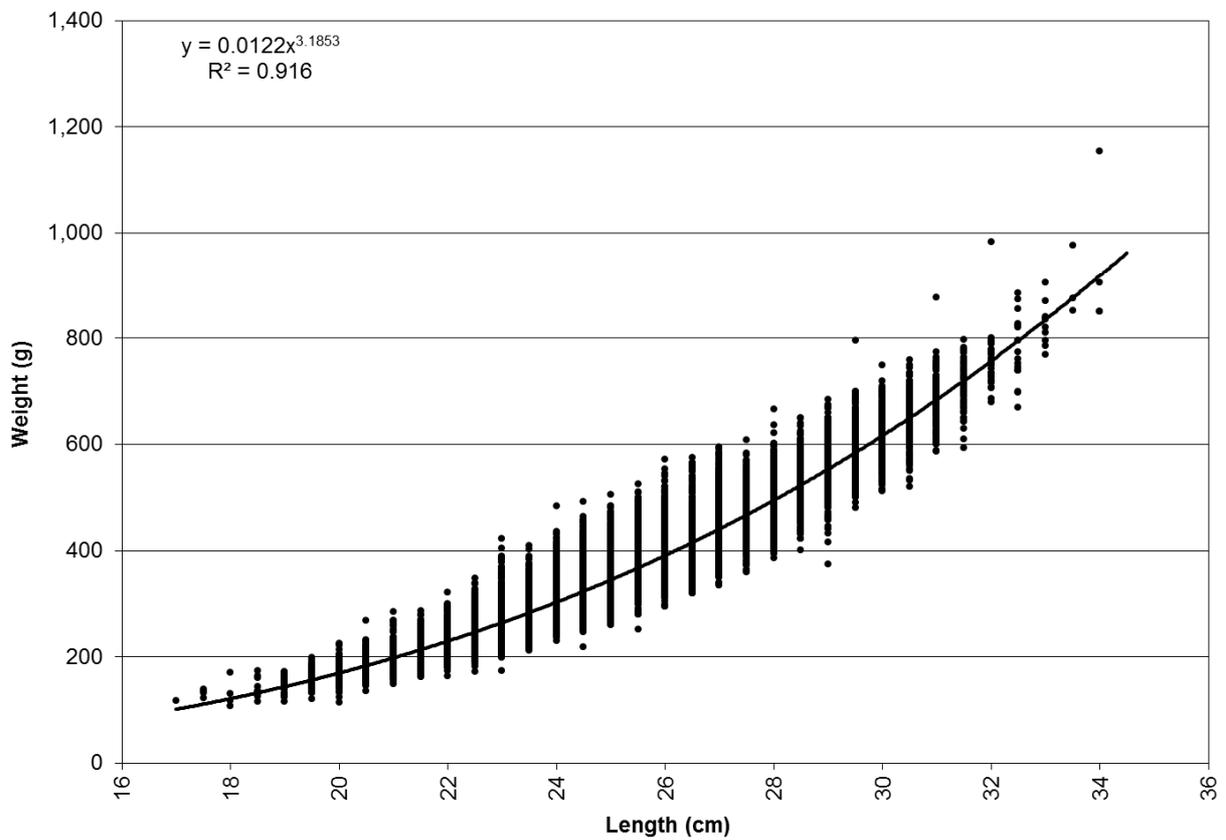
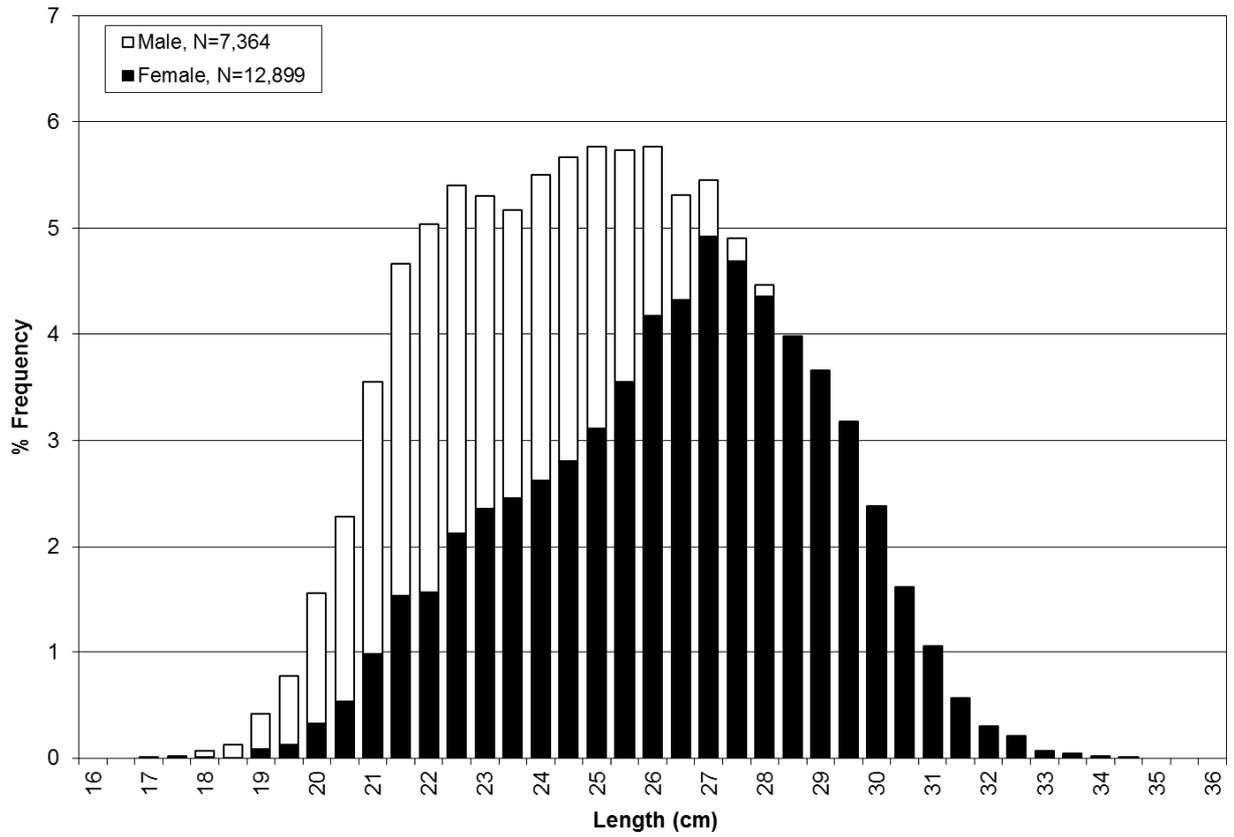
*Illex argentinus*—*Illex squid*

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



*Illex argentinus*—Illex squid

Length– frequency distribution and length-weight relationship in jigger fleet in 2017



*Doryteuthis gahi* - Falkland Calamari

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

VESSEL TYPE	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<b>TR</b>	52,260	31,474	66,543	34,675	70,894	40,168	48,702	30,317	46,447	64,682
	<b>52,260</b>	<b>31,474</b>	<b>66,543</b>	<b>34,675</b>	<b>70,894</b>	<b>40,168</b>	<b>48,702</b>	<b>30,317</b>	<b>46,447</b>	<b>64,682</b>

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

MONTH	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<b>January</b>	-	0	0	-	-	-	-	-	0	5
<b>February</b>	3,972	2,013	4,455	1,308	3,885	1,293	2,167	2,048	1,222	2,224
<b>March</b>	15,406	8,573	16,963	10,276	21,154	12,983	13,832	14,630	8,713	20,244
<b>April</b>	5,633	2,403	7,733	3,826	9,917	5,724	12,318	3,007	12,832	16,322
<b>May</b>	4	17	5	20	18	35	47	115	55	1,081
<b>June</b>	18	8	3	11	22	9	15	4	17	24
<b>July</b>	5,611	8,228	11,013	7,075	6,362	5,006	4,800	1,176	1,879	2,509
<b>August</b>	10,780	8,102	16,654	8,186	17,595	7,740	9,643	8,056	12,746	12,432
<b>September</b>	10,780	2,030	9,622	3,856	11,781	7,223	5,778	1,204	7,763	9,021
<b>October</b>	52	82	80	99	145	132	92	55	1,217	817
<b>November</b>	4	19	16	18	15	21	11	20	2	2
<b>December</b>	-	-	0	-	1	1	-	3	-	0
	<b>52,260</b>	<b>31,474</b>	<b>66,543</b>	<b>34,675</b>	<b>70,894</b>	<b>40,168</b>	<b>48,702</b>	<b>30,317</b>	<b>46,447</b>	<b>64,682</b>

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

FISHING FLEET	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<b>ES</b>	3,055	1,756	3,723	2,614	3,353	2,261	2,444	1,676	2,851	6,683
<b>FK</b>	45,684	27,180	58,016	30,580	62,668	35,243	42,927	26,478	40,823	54,039
<b>JP</b>	1	0	0	-	-	-	-	-	-	-
<b>KR</b>	6	2	34	54	87	34	39	2	7	12
<b>UK</b>	3,515	2,535	4,770	1,426	4,786	2,629	3,292	2,161	2,767	3,948
	<b>52,260</b>	<b>31,474</b>	<b>66,543</b>	<b>34,675</b>	<b>70,894</b>	<b>40,168</b>	<b>48,702</b>	<b>30,317</b>	<b>46,447</b>	<b>64,682</b>

***Doryteuthis gahi* - Falkland Calamari**

Table E.4 Total catch (tonnes) by gross registered tonnage (GRT) and year

GRT	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<400	-	-	-	-	-	-	-	-	-	-
400-599	-	-	-	-	-	-	-	-	-	-
600-799	14	179	76	45	97	58	30	13	48	62
800-999	2,872	1,747	3,030	1,892	3,405	2,157	2,371	1,598	2,509	2,667
1,000-1,499	8,439	5,299	10,769	5,967	11,164	6,988	7,908	5,056	7,935	10,902
1,500-1,999	15,577	9,974	20,173	9,554	21,284	11,990	14,603	9,377	13,775	21,467
2,000-2,999	25,358	14,275	32,494	17,212	34,932	18,969	23,784	14,272	22,180	29,584
>2,999	1	0	0	4	13	7	5	-	-	-
	<b>52,260</b>	<b>31,474</b>	<b>66,543</b>	<b>34,675</b>	<b>70,894</b>	<b>40,168</b>	<b>48,702</b>	<b>30,317</b>	<b>46,447</b>	<b>64,682</b>

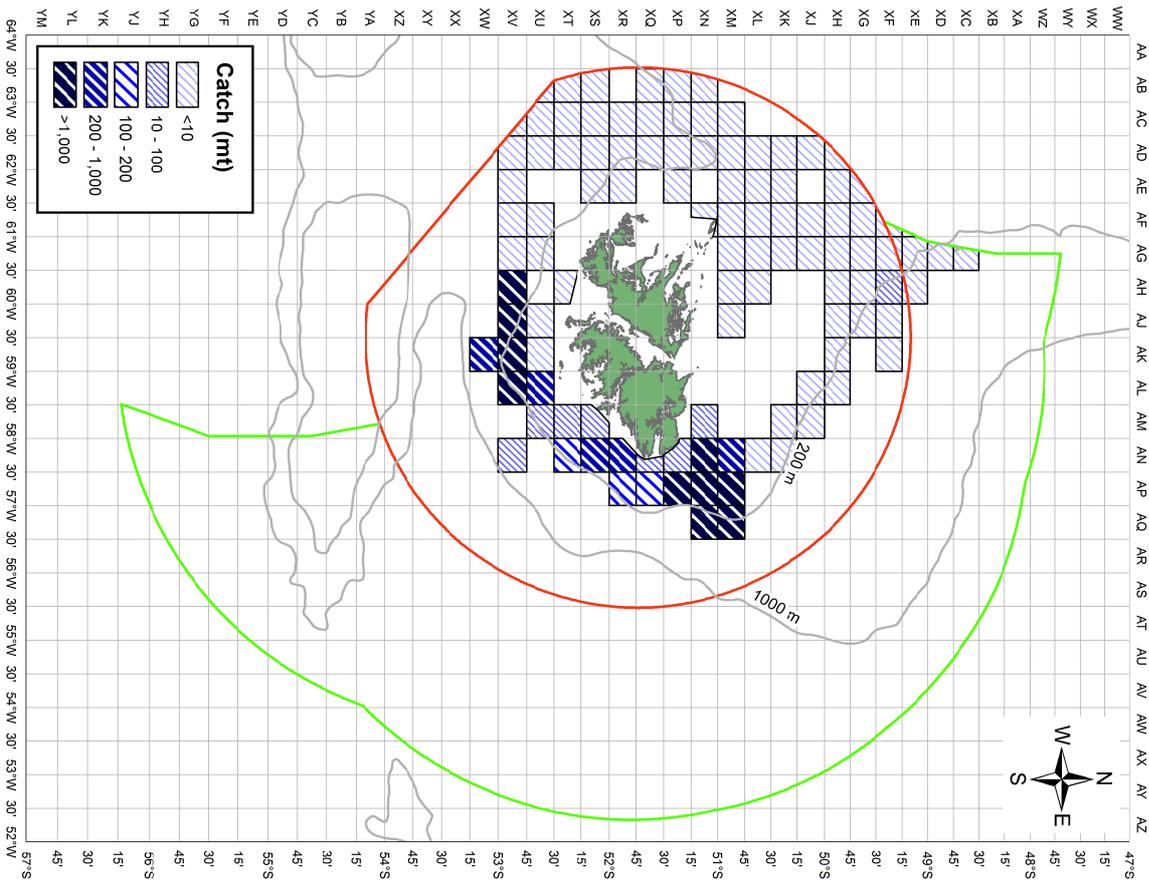
Table E.5 Total catch (tonnes) by length overall (m) (LOA) and year

LOA	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<45	6	3	0	12	-	1	0	3	2	-
45-49	2,876	1,909	2,793	1,726	3,406	2,163	2,344	1,590	2,478	1,426
50-54	15	95	47	59	96	45	49	17	34	1,288
55-59	2,799	1,928	3,848	1,939	3,926	2,435	2,867	2,062	3,255	3,912
60-64	12,138	7,110	15,224	7,938	15,714	9,018	10,380	6,800	9,652	14,398
65-69	10,227	6,563	13,790	6,014	13,992	8,109	9,834	6,271	9,085	12,653
70-79	17,067	9,972	21,171	12,007	23,356	13,036	16,268	9,171	14,702	23,912
80-89	3,778	2,048	4,504	2,385	4,835	2,620	3,355	2,169	3,565	5,088
>89	3,355	1,848	5,165	2,594	5,568	2,740	3,604	2,234	3,676	2,004
	<b>52,260</b>	<b>31,474</b>	<b>66,543</b>	<b>34,675</b>	<b>70,894</b>	<b>40,168</b>	<b>48,702</b>	<b>30,317</b>	<b>46,447</b>	<b>64,682</b>

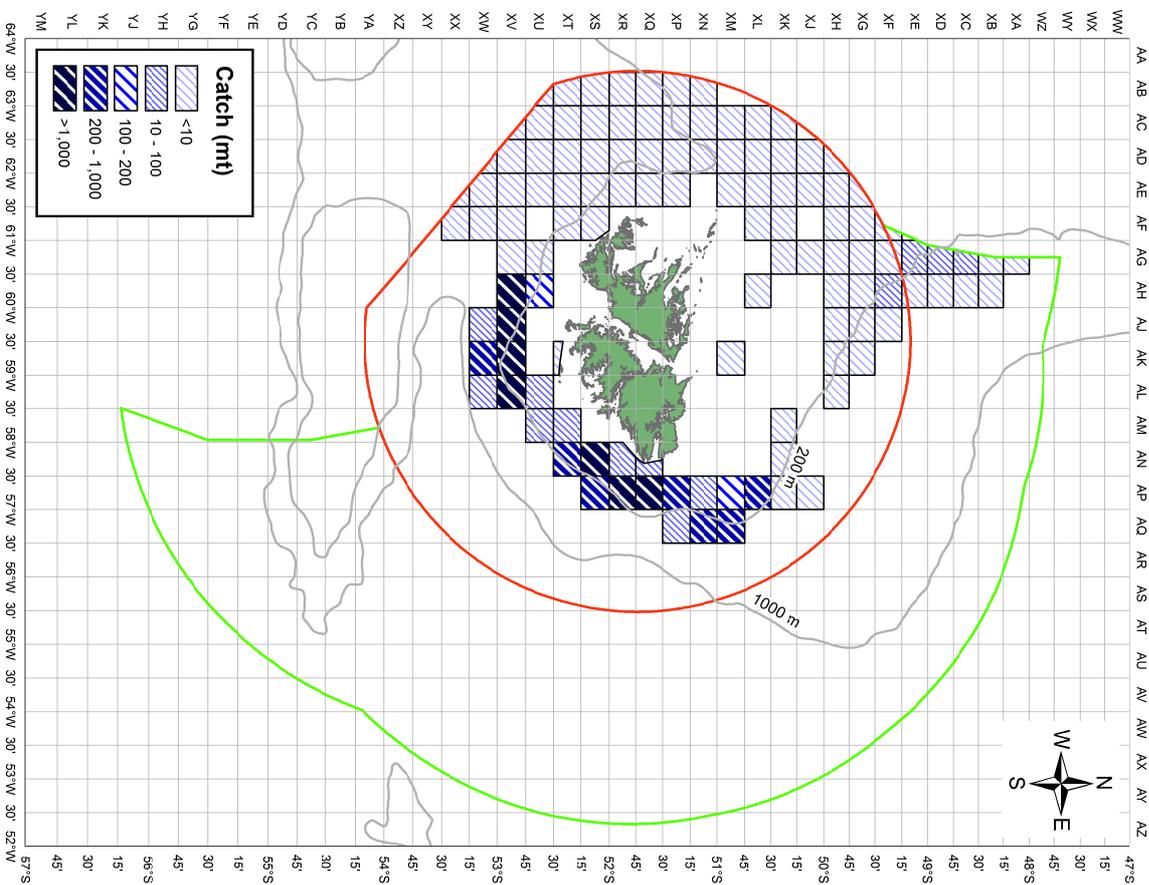
Table E.6 Total catch (tonnes) by brake horsepower (BHP) and year

BHP	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<1,000	-	-	-	-	-	1	-	-	-	-
1,000-1,199	-	-	0	6	-	1	0	3	2	-
1,200-1,399	-	-	-	-	0	1	-	-	-	-
1,400-1,599	155	380	349	180	101	71	46	28	114	1,349
1,600-1,799	103	29	35	29	770	324	56	10	274	12
1,800-1,999	5,389	3,222	6,141	3,520	6,324	4,283	4,538	3,192	4,903	4,964
2,000-2,499	13,702	8,620	17,504	9,415	18,202	10,654	12,969	8,183	12,560	19,521
2,500-2,999	3,360	1,850	5,196	2,637	5,635	2,764	3,635	2,236	3,687	2,017
3,000-3,999	21,741	12,915	27,595	13,668	29,341	16,250	20,127	12,031	17,705	26,440
>3,999	7,810	4,458	9,722	5,218	10,520	5,818	7,331	4,633	7,203	10,379
	<b>52,260</b>	<b>31,474</b>	<b>66,543</b>	<b>34,675</b>	<b>70,894</b>	<b>40,168</b>	<b>48,702</b>	<b>30,317</b>	<b>46,447</b>	<b>64,682</b>

*Doryteuthis gahi*  
First Season 2017 (01 Jan to 30 Jun)



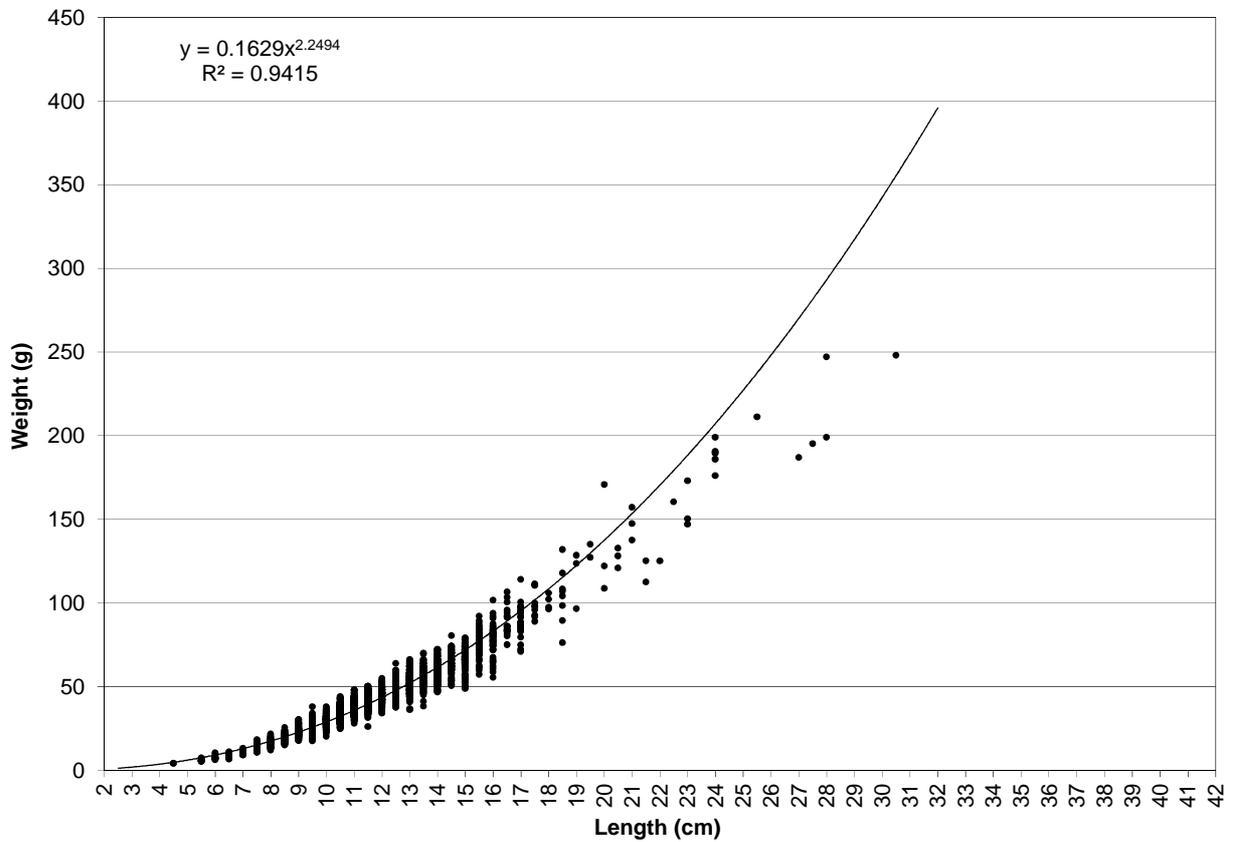
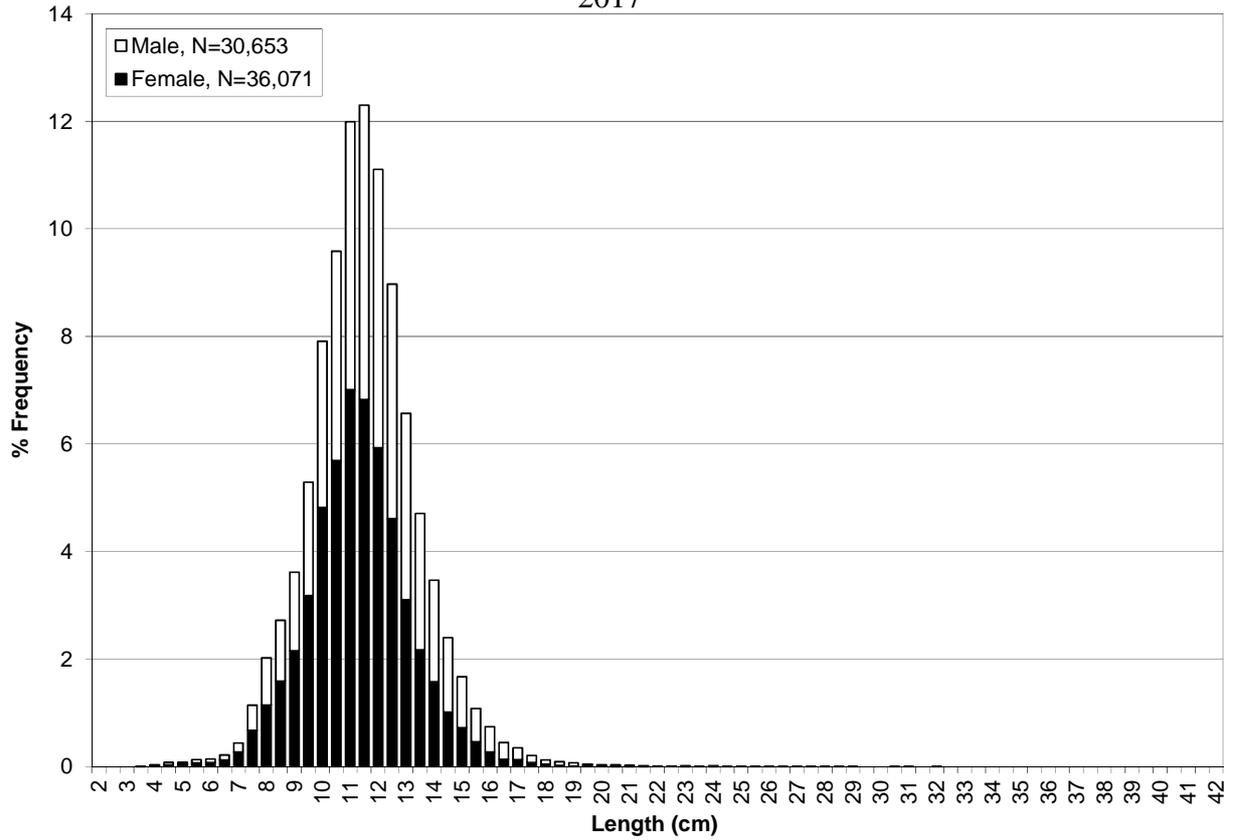
*Doryteuthis gahi*  
Second Season 2017 (01 Jul to 31 Dec)



*Doryteuthis gahi* - Falkland Calamari

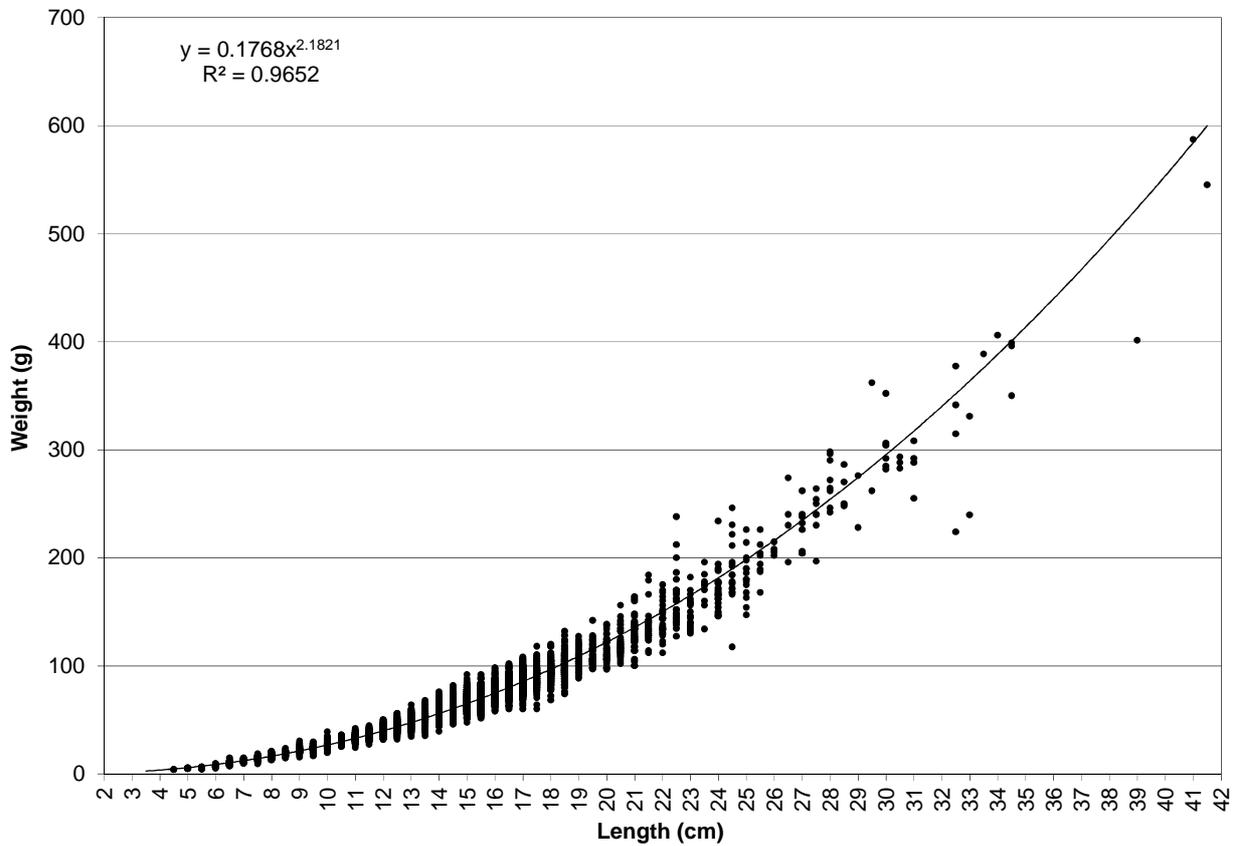
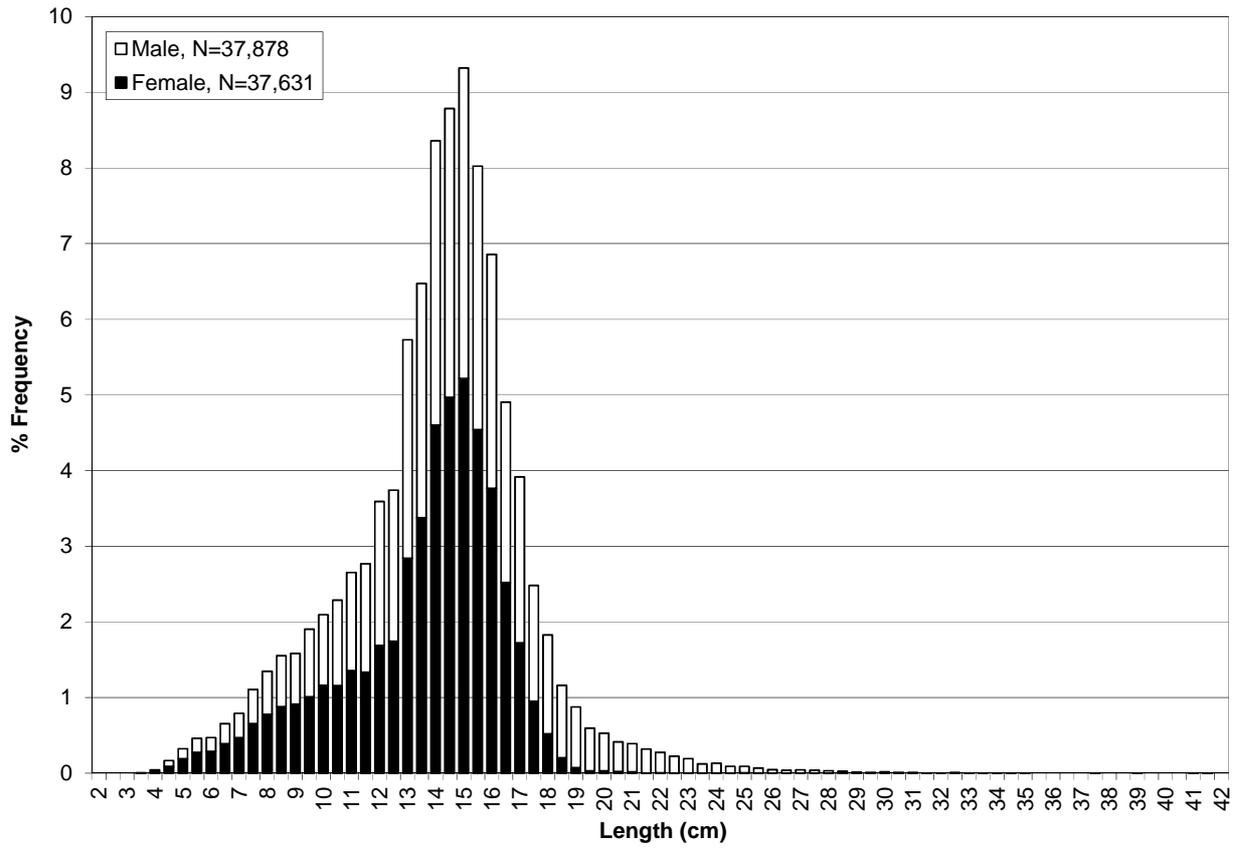
Length– frequency distribution and length-weight relationship during first season

2017



# *Doryteuthis gahi* - Falkland Calamari

Length– frequency distribution and length-weight relationship during second season



***Micromesistius australis* - Southern Blue Whiting**

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

<b>VESSEL TYPE</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>TR</b>	13,209	10,395	6,471	3,940	1,596	2,698	3,612	2,790	5,415	2,309
	<b>13,209</b>	<b>10,395</b>	<b>6,471</b>	<b>3,940</b>	<b>1,596</b>	<b>2,698</b>	<b>3,612</b>	<b>2,790</b>	<b>5,415</b>	<b>2,309</b>

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

<b>MONTH</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>January</b>	12	129	1,439	199	36	162	-	-	1,189	157
<b>February</b>	243	139	32	233	39	375	123	184	1,420	283
<b>March</b>	252	339	107	26	219	205	137	28	1,002	176
<b>April</b>	150	126	414	220	95	116	127	5	816	14
<b>May</b>	42	51	76	27	7	84	0	4	83	1
<b>June</b>	0	6	9	10	3	8	15	-	1	-
<b>July</b>	70	3	2	7	9	47	14	1	2	3
<b>August</b>	662	608	296	543	727	897	55	97	580	616
<b>September</b>	2,817	2,519	248	496	138	758	1,670	121	116	515
<b>October</b>	3,914	1,947	537	5	211	14	212	147	40	482
<b>November</b>	3,165	1,877	2,171	1,369	31	1	1,211	1,687	52	60
<b>December</b>	1,881	2,651	1,141	805	81	32	47	517	114	2
	<b>13,209</b>	<b>10,395</b>	<b>6,471</b>	<b>3,940</b>	<b>1,596</b>	<b>2,698</b>	<b>3,612</b>	<b>2,790</b>	<b>5,415</b>	<b>2,309</b>

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

<b>FISHING FLEET</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>CL</b>	1,527	-	-	-	-	-	1,155	-	-	-
<b>ES</b>	2,809	2,450	1,010	818	1,157	834	578	2,488	4,578	1,796
<b>FK</b>	1,753	1,670	375	764	412	1,669	1,795	273	800	509
<b>JP</b>	6,859	6,173	5,062	2,282	24	-	-	-	-	-
<b>KR</b>	237	1	24	31	3	32	2	0	8	-
<b>UK</b>	24	100	1	45	1	163	82	29	29	4
	<b>13,209</b>	<b>10,395</b>	<b>6,471</b>	<b>3,940</b>	<b>1,596</b>	<b>2,698</b>	<b>3,612</b>	<b>2,790</b>	<b>5,415</b>	<b>2,309</b>

***Micromesistius australis* - Southern Blue Whiting**

Table F.4 Total catch (tonnes) by gross registered tonnage (GRT) and year

<b>GRT</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<400	-	-	-	-	-	-	-	-	-	-
400-599	-	-	-	-	-	-	-	-	-	-
600-799	606	250	347	65	165	127	29	28	499	65
800-999	350	252	241	115	142	299	171	569	1,118	195
1,000-1,499	1,465	1,273	269	229	225	657	810	1,449	1,845	857
1,500-1,999	3,155	2,334	521	1,024	882	910	455	597	1,812	956
2,000-2,999	773	113	31	226	158	705	991	148	141	237
>2,999	6,859	6,173	5,062	2,282	24	-	1,155	-	-	-
	<b>13,209</b>	<b>10,395</b>	<b>6,471</b>	<b>3,940</b>	<b>1,596</b>	<b>2,698</b>	<b>3,612</b>	<b>2,790</b>	<b>5,415</b>	<b>2,309</b>

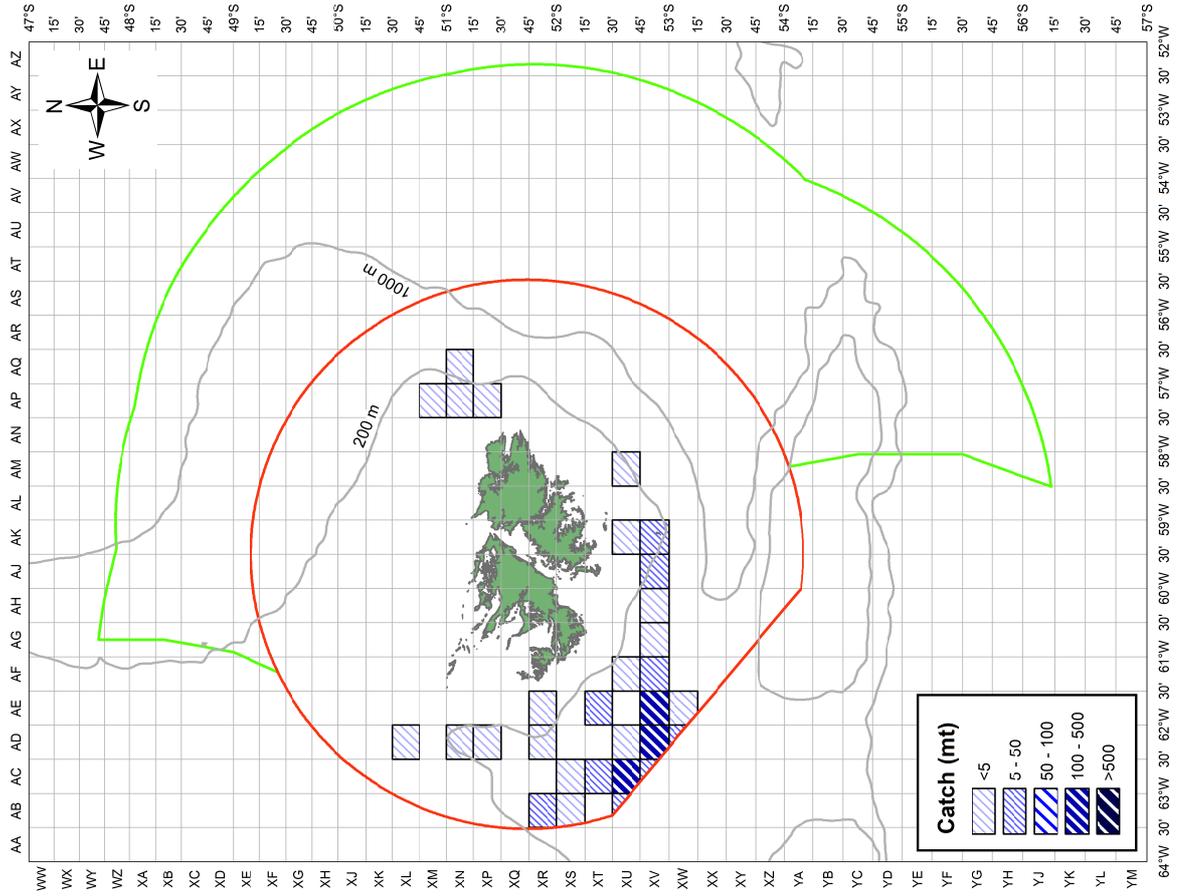
Table F.5 Total catch (tonnes) by length overall (m) (LOA) and year

<b>LOA</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<45	52	17	15	1	-	-	-	132	26	-
45-49	638	362	312	63	136	164	106	84	388	66
50-54	240	481	83	76	85	125	60	194	890	74
55-59	123	194	233	97	130	347	48	193	411	160
60-64	1,131	749	114	280	178	619	809	846	1,529	830
65-69	2,991	1,572	556	661	874	588	264	698	1,392	974
70-79	666	846	73	289	130	458	723	566	754	133
80-89	24	0	1	91	27	133	221	23	18	40
>89	7,345	6,173	5,084	2,384	35	265	1,381	56	7	32
	<b>13,209</b>	<b>10,395</b>	<b>6,471</b>	<b>3,940</b>	<b>1,596</b>	<b>2,698</b>	<b>3,612</b>	<b>2,790</b>	<b>5,415</b>	<b>2,309</b>

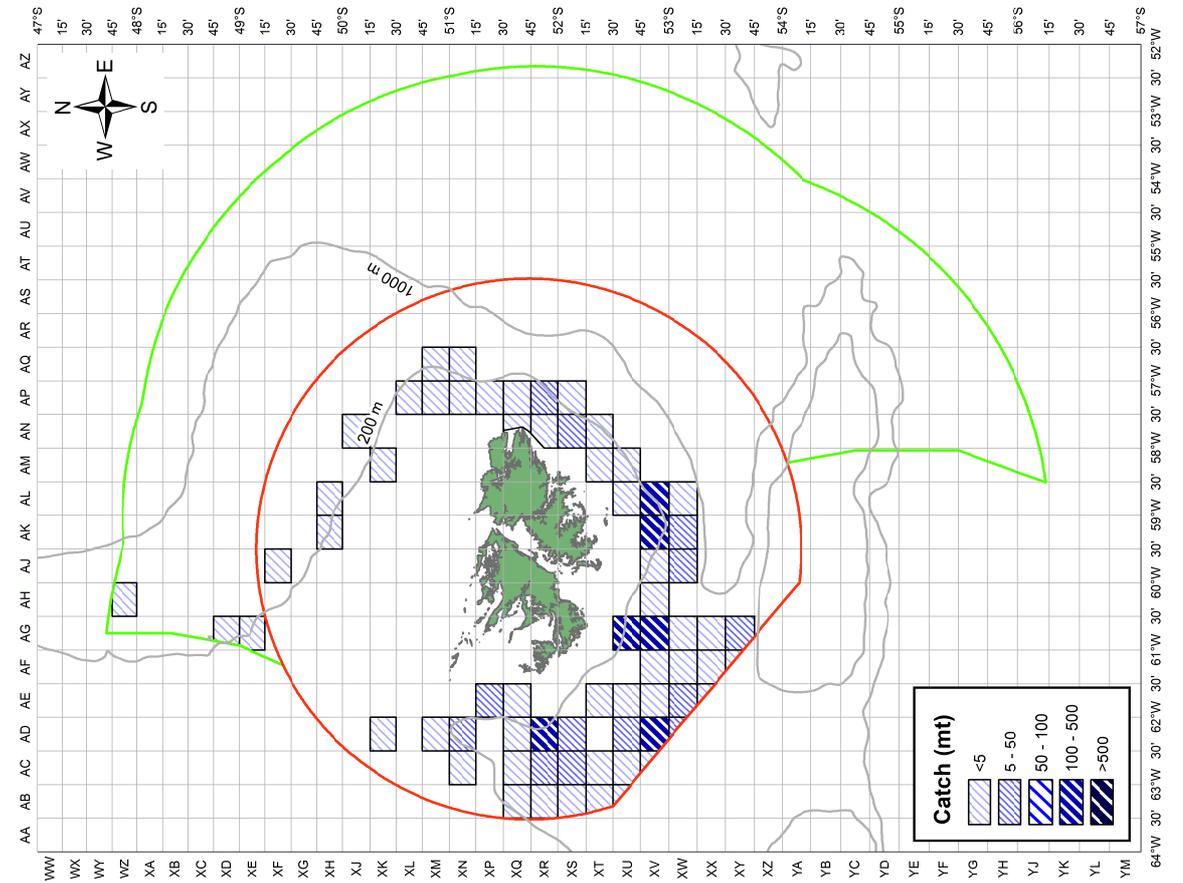
Table F.6 Total catch (tonnes) by brake horsepower (BHP) and year

<b>BHP</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<1,000	-	-	-	-	-	-	-	-	-	-
1,000-1,199	-	-	15	-	-	-	-	132	26	-
1,200-1,399	-	5	51	-	14	4	1	-	-	-
1,400-1,599	682	897	451	158	249	260	92	403	1,540	217
1,600-1,799	193	92	79	9	72	70	70	428	1,316	428
1,800-1,999	1,512	1,618	646	674	956	709	477	765	1,323	974
2,000-2,499	2,916	1,386	113	496	89	651	727	875	913	402
2,500-2,999	722	1	44	133	33	350	240	61	35	73
3,000-3,999	288	213	9	78	120	470	626	98	145	168
>3,999	6,895	6,183	5,064	2,392	64	183	1,377	29	117	47
	<b>13,209</b>	<b>10,395</b>	<b>6,471</b>	<b>3,940</b>	<b>1,596</b>	<b>2,698</b>	<b>3,612</b>	<b>2,790</b>	<b>5,415</b>	<b>2,309</b>

*Micromesistius australis*  
First Season 2017 (01 Jan to 30 Jun)

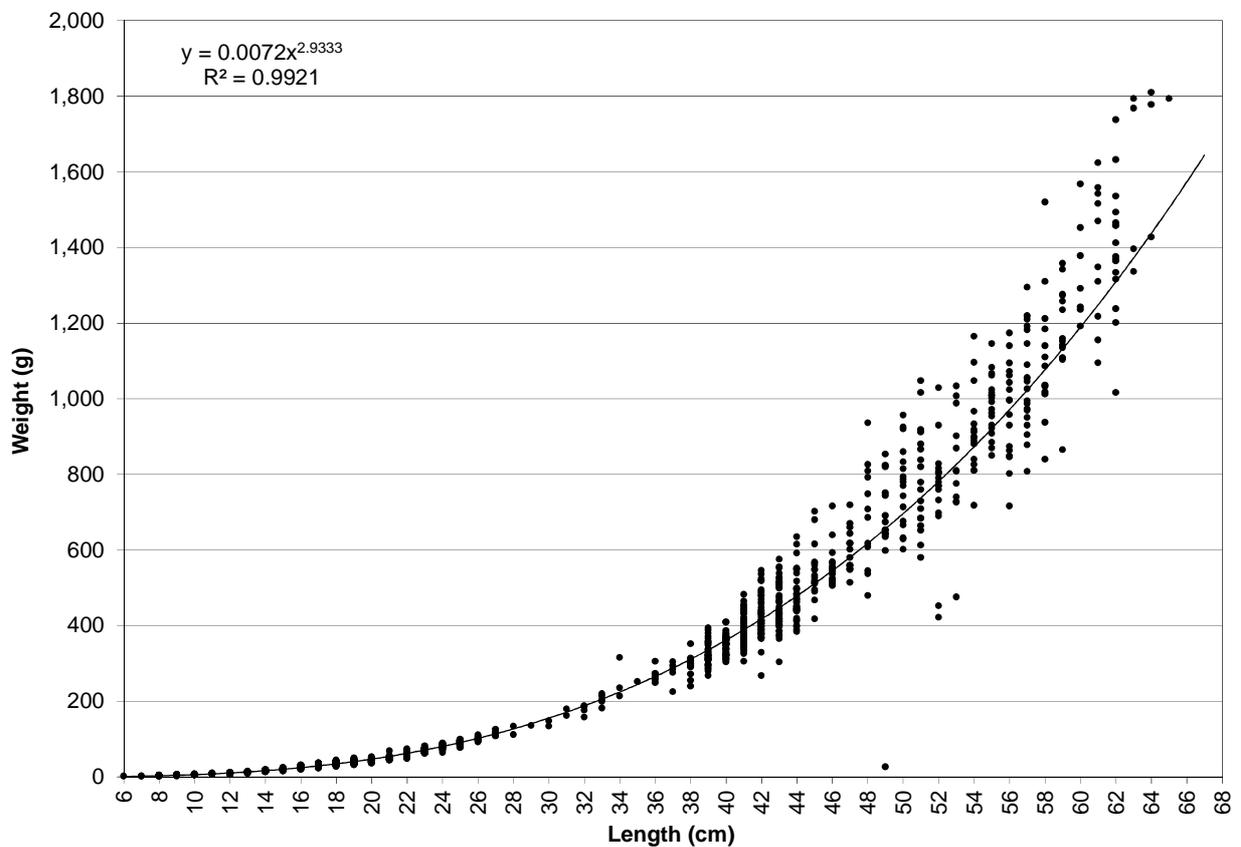
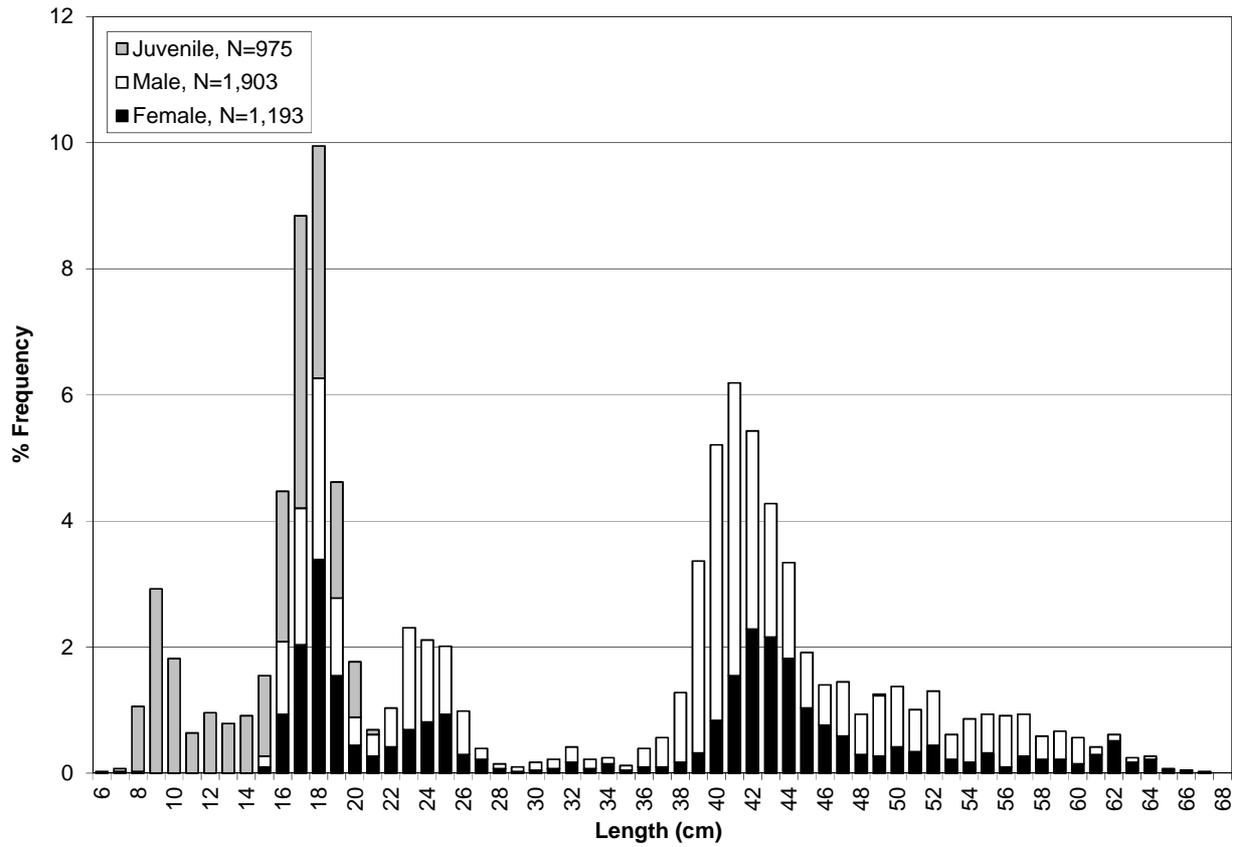


*Micromesistius australis*  
Second Season 2017 (01 Jul to 31 Dec)



# *Micromesistius australis* - Southern Blue Whiting

## Length– frequency distribution and length-weight relationship in 2017



*Macruronus magellanicus*—Hoki

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

VESSEL TYPE	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
TR	15,908	23,404	19,227	22,979	15,867	16,849	7,392	6,845	11,562	4,053
	<b>15,908</b>	<b>23,404</b>	<b>19,227</b>	<b>22,979</b>	<b>15,867</b>	<b>16,849</b>	<b>7,392</b>	<b>6,845</b>	<b>11,562</b>	<b>4,053</b>

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

MONTH	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
January	505	395	179	635	230	2,010	-	-	211	22
February	1,134	2,552	1,834	1,289	535	2,196	754	484	4,655	146
March	865	4,653	1,893	1,264	2,414	1,745	1,521	3,836	2,277	530
April	1,342	3,377	2,772	5,769	2,508	3,043	2,811	1,610	2,596	770
May	1,012	2,278	1,270	2,609	652	3,414	774	256	1,082	733
June	395	646	205	1,143	311	553	350	36	99	19
July	593	1,069	351	2,775	839	233	56	5	25	273
August	1,903	933	2,374	2,387	1,739	761	82	64	90	316
September	1,716	2,258	2,127	978	557	1,239	800	181	6	47
October	4,152	1,446	856	357	3,617	362	9	35	45	878
November	1,560	2,911	4,125	1,082	2,183	1,091	229	239	290	311
December	730	885	1,239	2,690	283	203	6	101	185	9
	<b>15,908</b>	<b>23,404</b>	<b>19,227</b>	<b>22,979</b>	<b>15,867</b>	<b>16,849</b>	<b>7,392</b>	<b>6,845</b>	<b>11,562</b>	<b>4,053</b>

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

FISHING FLEET	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
CL	114	-	-	-	-	-	207	-	-	-
ES	9,386	15,177	13,511	15,867	11,628	11,569	5,275	5,705	8,886	3,548
FK	4,135	5,994	4,033	3,808	3,433	4,755	1,889	959	2,378	467
JP	1,956	1,267	917	2,457	85	-	-	-	-	-
KR	249	792	667	594	712	481	20	147	211	19
UK	69	174	98	253	10	45	1	35	87	18
	<b>15,908</b>	<b>23,404</b>	<b>19,227</b>	<b>22,979</b>	<b>15,867</b>	<b>16,849</b>	<b>7,392</b>	<b>6,845</b>	<b>11,562</b>	<b>4,053</b>

*Macruronus magellanicus*—Hoki

Table G.4 Total catch (tonnes) by gross registered tonnage (GRT) and year

GRT	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<400	-	-	-	-	-	-	-	-	-	-
400-599	-	-	-	-	-	-	-	-	-	-
600-799	1,934	3,528	2,795	2,714	2,568	1,478	497	1,051	1,155	323
800-999	1,672	4,306	2,933	3,119	3,532	3,238	1,634	1,845	3,569	615
1,000-1,499	6,046	9,742	8,034	8,562	6,957	8,740	3,477	3,055	2,992	2,371
1,500-1,999	3,917	4,223	4,310	5,894	2,529	3,177	1,566	858	3,813	644
2,000-2,999	383	339	237	221	100	214	8	38	31	100
>2,999	1,956	1,267	917	2,469	181	2	210	-	1	-
	<b>15,908</b>	<b>23,404</b>	<b>19,227</b>	<b>22,979</b>	<b>15,867</b>	<b>16,849</b>	<b>7,392</b>	<b>6,845</b>	<b>11,562</b>	<b>4,053</b>

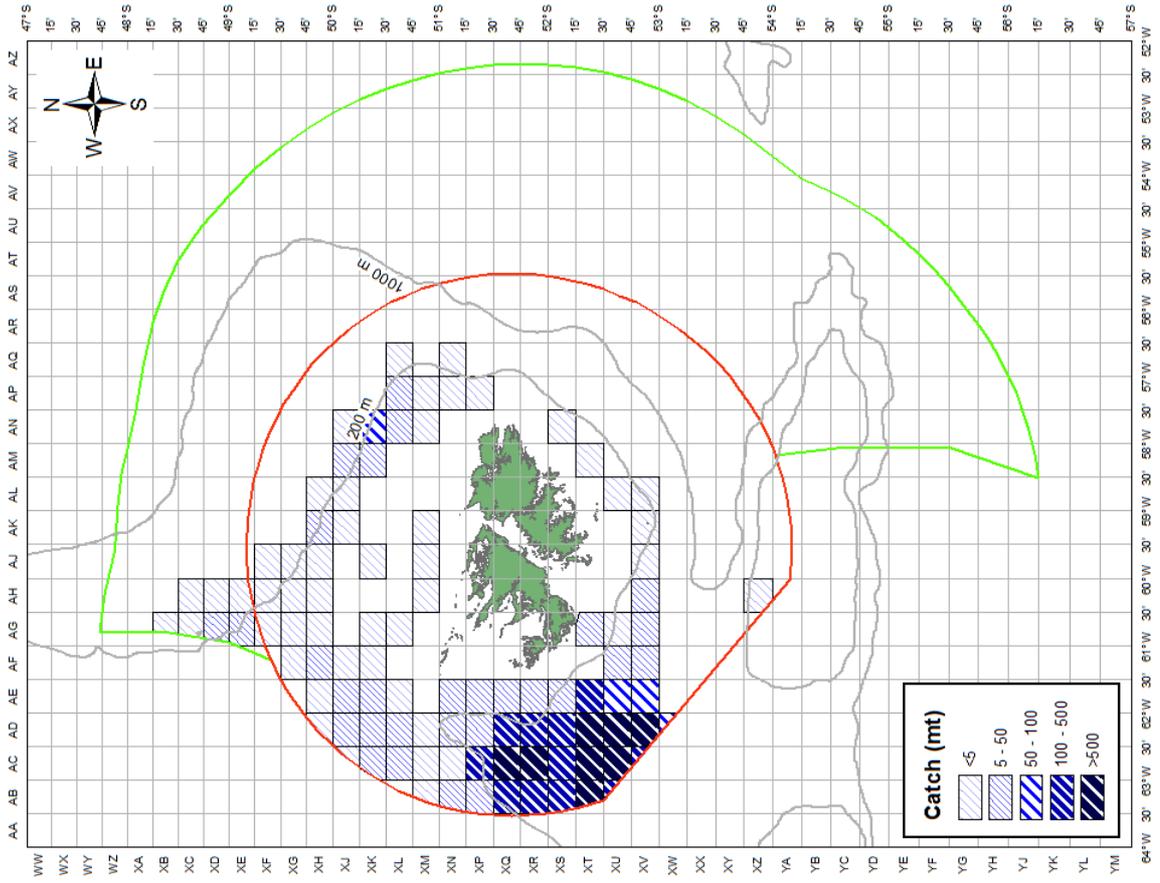
Table G.5 Total catch (tonnes) by length overall (m) (LOA) and year

LOA	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<45	544	737	155	217	-	-	-	10	167	-
45-49	2,419	3,768	2,309	1,732	2,036	1,358	335	839	1,061	302
50-54	649	2,016	1,923	2,215	2,894	2,014	1,309	978	2,574	165
55-59	1,317	3,251	2,879	3,404	3,017	3,433	800	1,652	1,225	710
60-64	3,854	6,024	4,191	5,704	4,001	5,196	1,856	1,456	2,512	1,633
65-69	2,583	2,896	3,276	4,082	1,782	2,592	2,081	622	2,340	1,025
70-79	2,466	3,326	3,462	3,066	1,933	2,198	800	1,280	1,681	195
80-89	67	85	27	27	21	31	1	1	0	1
>89	2,008	1,301	1,004	2,532	183	26	210	6	1	22
	<b>15,908</b>	<b>23,404</b>	<b>19,227</b>	<b>22,979</b>	<b>15,867</b>	<b>16,849</b>	<b>7,392</b>	<b>6,845</b>	<b>11,562</b>	<b>4,053</b>

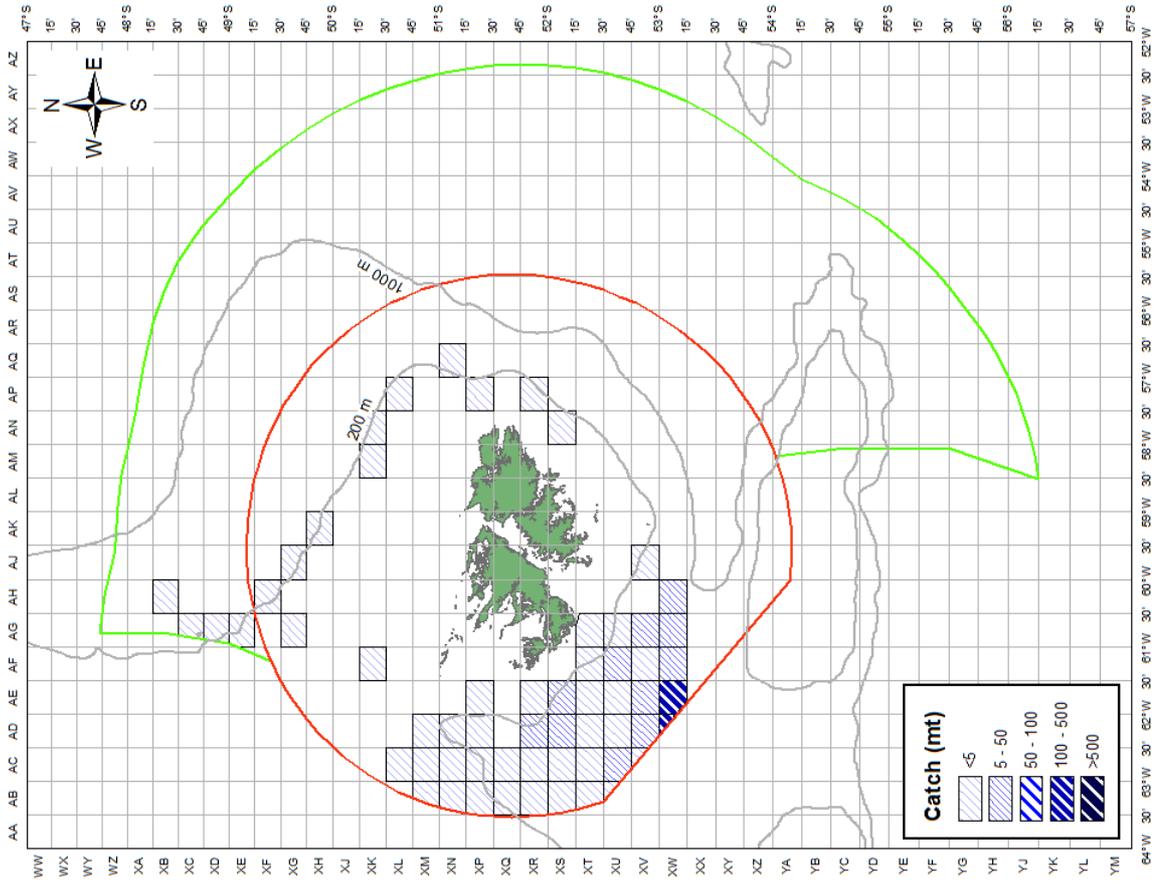
Table G.6 Total catch (tonnes) by brake horsepower (BHP) and year

BHP	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<1,000	-	-	-	-	-	-	-	-	-	-
1,000-1,199	-	-	155	54	-	-	-	10	167	-
1,200-1,399	191	453	442	310	327	276	67	119	-	-
1,400-1,599	2,826	6,722	3,441	3,264	4,216	3,263	1,704	2,006	3,859	907
1,600-1,799	1,310	1,882	2,997	2,253	1,089	1,611	688	912	1,490	1,448
1,800-1,999	3,791	4,854	5,385	6,899	4,248	5,661	2,114	1,205	2,389	1,314
2,000-2,499	5,134	6,955	4,982	6,352	4,101	4,837	2,257	1,797	2,476	231
2,500-2,999	291	790	637	937	1,594	964	345	729	464	53
3,000-3,999	332	393	221	397	182	205	10	65	120	95
>3,999	2,033	1,353	965	2,513	109	31	208	1	597	5
	<b>15,908</b>	<b>23,404</b>	<b>19,227</b>	<b>22,979</b>	<b>15,867</b>	<b>16,849</b>	<b>7,392</b>	<b>6,845</b>	<b>11,562</b>	<b>4,053</b>

*Macrurus magellanicus*  
First Season 2017 (01 Jan to 30 Jun)

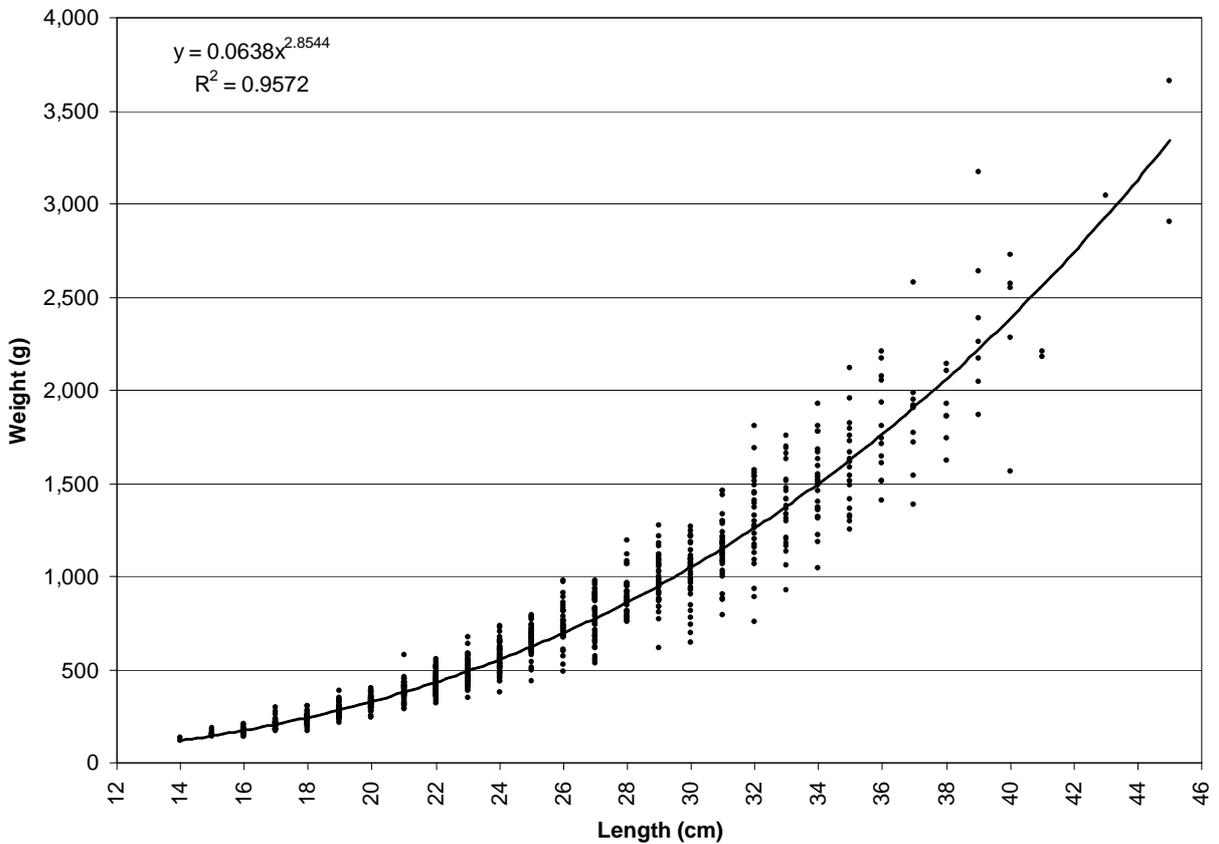
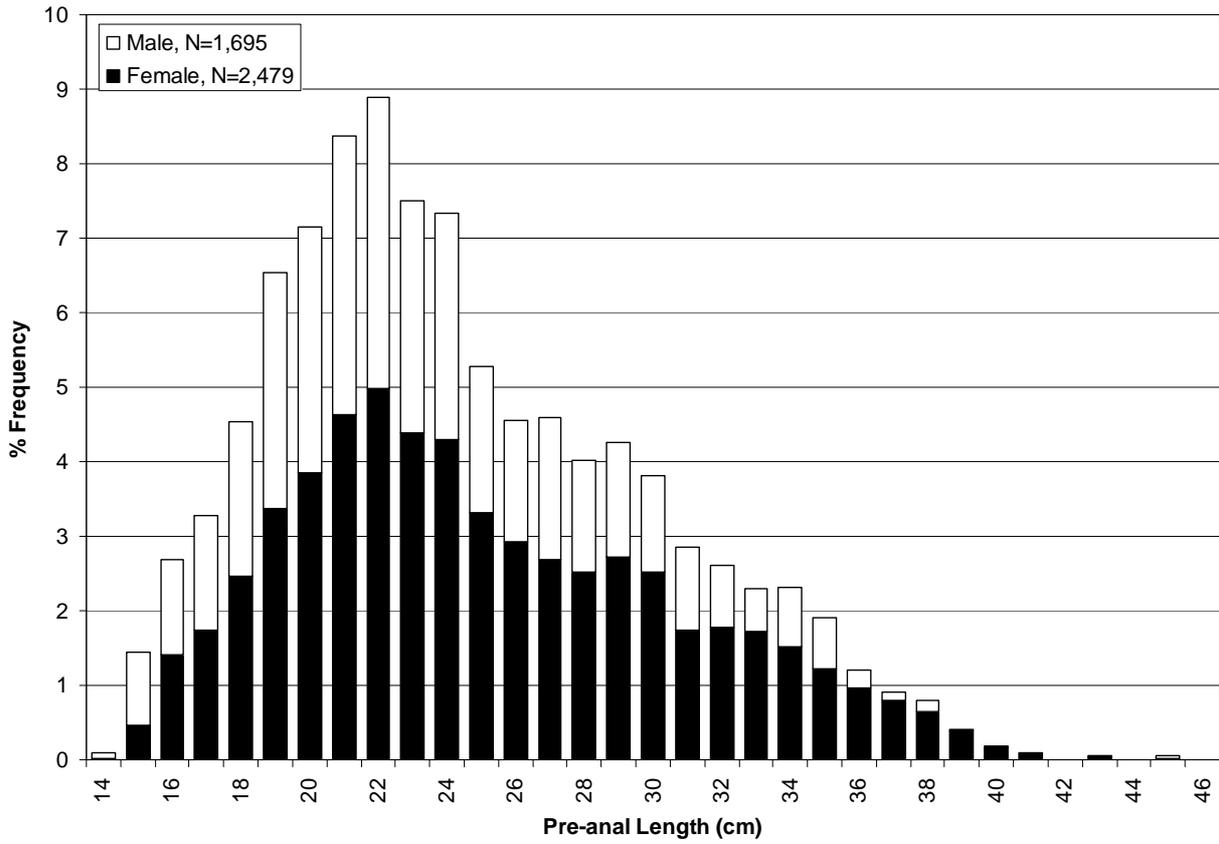


*Macrurus magellanicus*  
Second Season 2017 (01 Jul to 31 Dec)



*Macrurus magellanicus*—Hoki

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



***Salilota australis* - Red cod**

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

<b>VESSEL TYPE</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>LO</b>	-	-	-	0	-	0	-	-	-	-
<b>TR</b>	4,076	5,120	3,129	4,210	4,629	5,164	3,467	3,340	3,143	1,378
	<b>4,076</b>	<b>5,120</b>	<b>3,129</b>	<b>4,210</b>	<b>4,629</b>	<b>5,164</b>	<b>3,467</b>	<b>3,340</b>	<b>3,143</b>	<b>1,378</b>

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

<b>MONTH</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>January</b>	110	148	29	100	62	215	-	0	143	33
<b>February</b>	189	328	193	236	351	480	114	63	479	23
<b>March</b>	506	530	387	157	341	311	221	557	181	101
<b>April</b>	350	480	649	438	340	325	477	685	270	245
<b>May</b>	426	603	215	749	370	514	768	310	527	138
<b>June</b>	59	159	69	213	125	77	398	131	198	38
<b>July</b>	101	214	75	309	150	162	135	174	138	134
<b>August</b>	421	669	361	605	656	1,199	376	161	369	223
<b>September</b>	987	662	340	474	580	1,299	195	329	135	248
<b>October</b>	668	819	284	273	615	283	532	631	562	144
<b>November</b>	189	378	321	436	626	230	189	200	74	40
<b>December</b>	71	131	207	221	411	68	63	99	66	12
	<b>4,076</b>	<b>5,120</b>	<b>3,129</b>	<b>4,210</b>	<b>4,629</b>	<b>5,164</b>	<b>3,467</b>	<b>3,340</b>	<b>3,143</b>	<b>1,378</b>

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

<b>FISHING FLEET</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>ES</b>	3,140	3,778	2,267	2,851	3,441	3,592	2,530	2,776	2,237	1,028
<b>FK</b>	900	1,308	801	1,317	1,167	1,522	874	505	878	319
<b>JP</b>	-	0	0	0	-	-	-	-	-	-
<b>KR</b>	17	11	19	6	16	33	57	47	18	14
<b>UK</b>	20	23	41	36	5	17	5	12	10	18
	<b>4,076</b>	<b>5,120</b>	<b>3,129</b>	<b>4,210</b>	<b>4,629</b>	<b>5,164</b>	<b>3,467</b>	<b>3,340</b>	<b>3,143</b>	<b>1,378</b>

***Salilota australis* - Red cod**

Table H.4 Total catch (tonnes) by gross registered tonnage (GRT) and year

<b>GRT</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<400	-	-	-	-	-	-	-	-	-	-
400-599	-	-	-	-	-	-	-	-	-	-
600-799	467	598	327	484	633	467	508	401	480	143
800-999	610	610	403	444	618	610	600	648	783	275
1,000-1,499	1,303	2,034	1,323	1,889	2,004	2,584	1,399	1,387	793	408
1,500-1,999	1,535	1,747	1,012	1,268	1,285	1,256	881	869	1,053	469
2,000-2,999	161	131	64	124	89	248	77	34	34	83
>2,999	-	0	0	0	-	-	2	-	0	-
	<b>4,076</b>	<b>5,120</b>	<b>3,129</b>	<b>4,210</b>	<b>4,629</b>	<b>5,164</b>	<b>3,467</b>	<b>3,340</b>	<b>3,143</b>	<b>1,378</b>

Table H.5 Total catch (tonnes) by length overall (m) (LOA) and year

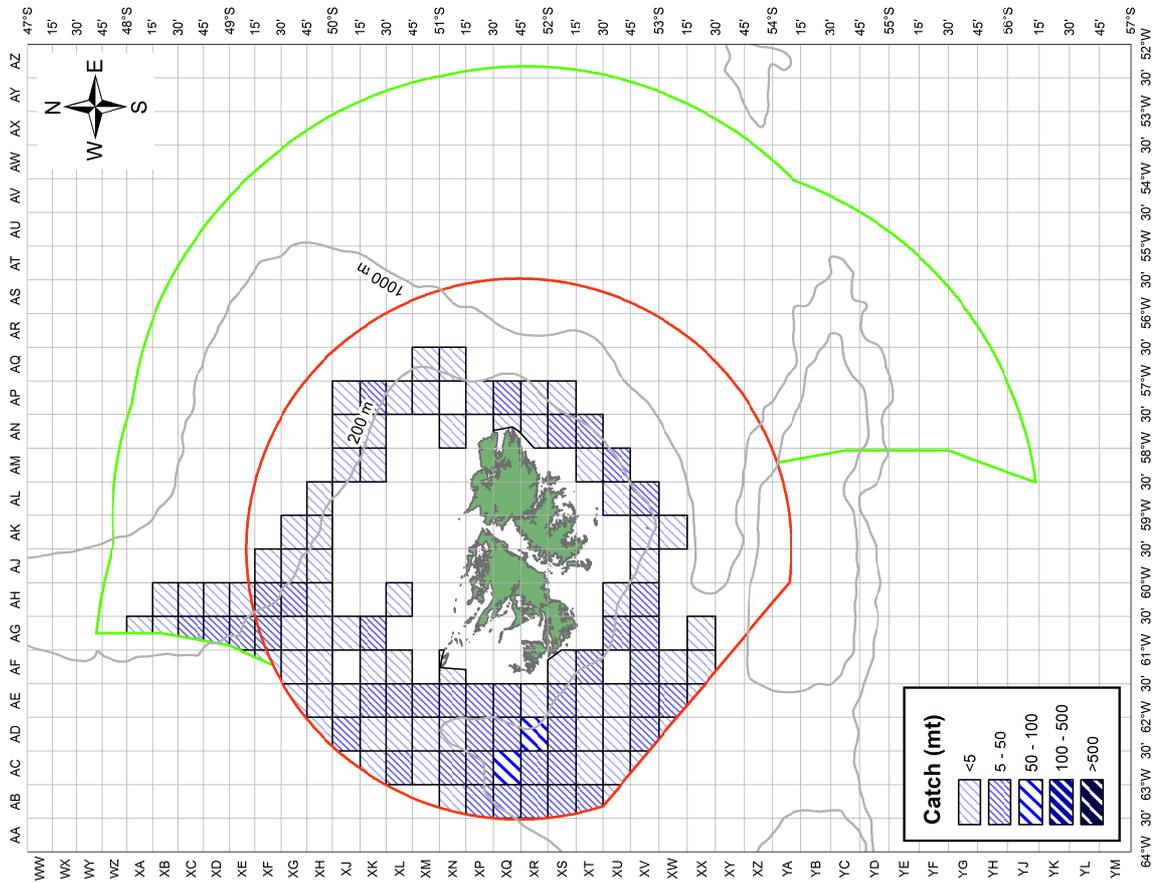
<b>LOA</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<45	235	145	17	78	-	9	3	8	56	-
45-49	656	555	291	339	578	403	453	340	495	129
50-54	182	246	220	353	488	475	478	400	470	155
55-59	326	751	630	886	837	706	334	501	340	219
60-64	666	1,275	586	966	1,058	1,772	929	786	587	243
65-69	1,318	1,434	1,057	1,178	1,268	1,048	769	818	637	349
70-79	616	648	304	350	329	628	476	480	558	265
80-89	42	12	4	4	2	20	16	3	0	4
>89	34	53	19	55	68	103	9	5	2	15
	<b>4,076</b>	<b>5,120</b>	<b>3,129</b>	<b>4,210</b>	<b>4,629</b>	<b>5,164</b>	<b>3,467</b>	<b>3,340</b>	<b>3,143</b>	<b>1,378</b>

Table H.6 Total catch (tonnes) by brake horsepower (BHP) and year

<b>BHP</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<1,000	-	-	-	-	-	5	-	-	-	-
1,000-1,199	-	-	17	22	-	9	3	8	56	-
1,200-1,399	40	83	58	89	100	77	54	43	-	-
1,400-1,599	933	851	448	749	934	744	800	779	1,003	319
1,600-1,799	367	529	451	419	358	359	279	313	281	103
1,800-1,999	1,603	1,827	1,346	1,710	2,082	1,800	1,017	1,142	745	420
2,000-2,499	932	1,657	676	1,011	825	1,696	1,021	853	826	333
2,500-2,999	51	63	33	102	303	303	215	156	106	102
3,000-3,999	105	88	82	101	23	142	61	38	42	82
>3,999	46	20	17	7	4	29	17	6	84	19
	<b>4,076</b>	<b>5,120</b>	<b>3,129</b>	<b>4,210</b>	<b>4,629</b>	<b>5,164</b>	<b>3,467</b>	<b>3,340</b>	<b>3,143</b>	<b>1,378</b>

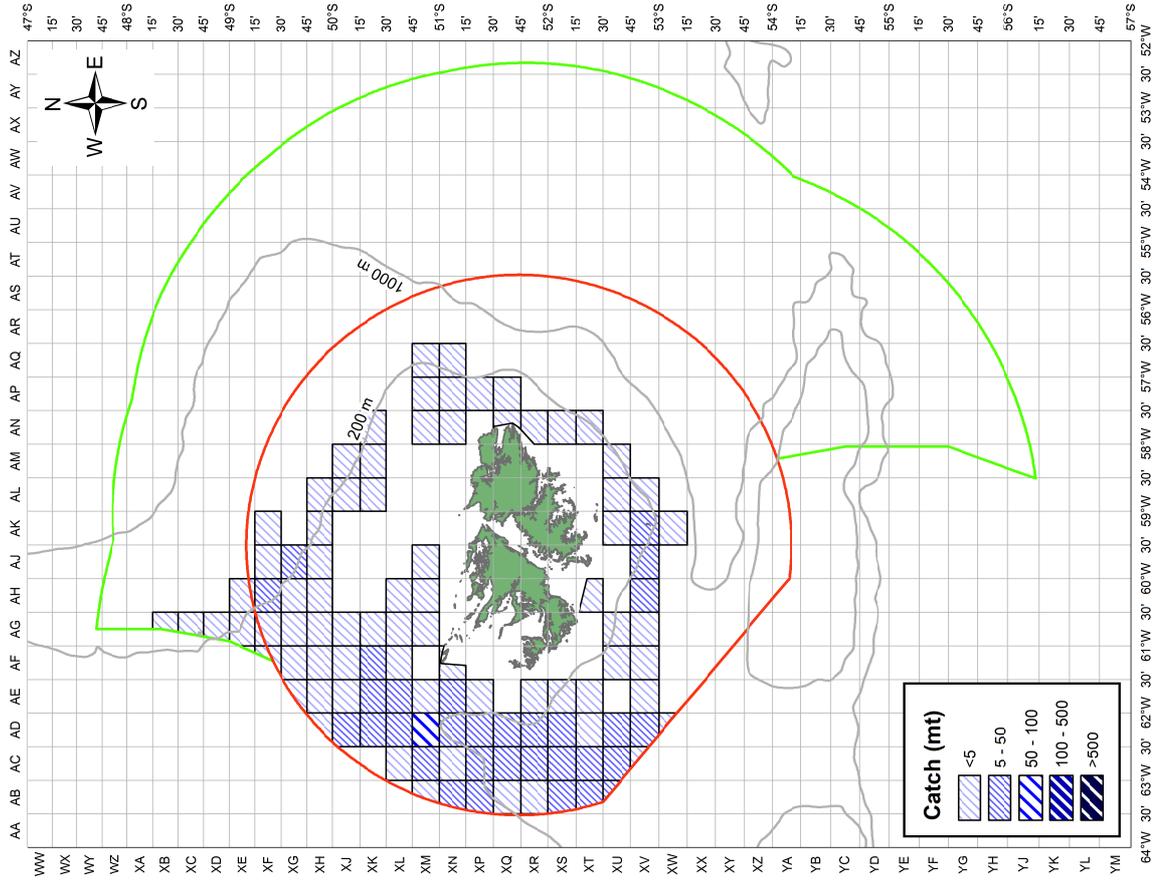
*Salilota australis*

Second Season 2017 (01 Jul to 31 Dec)



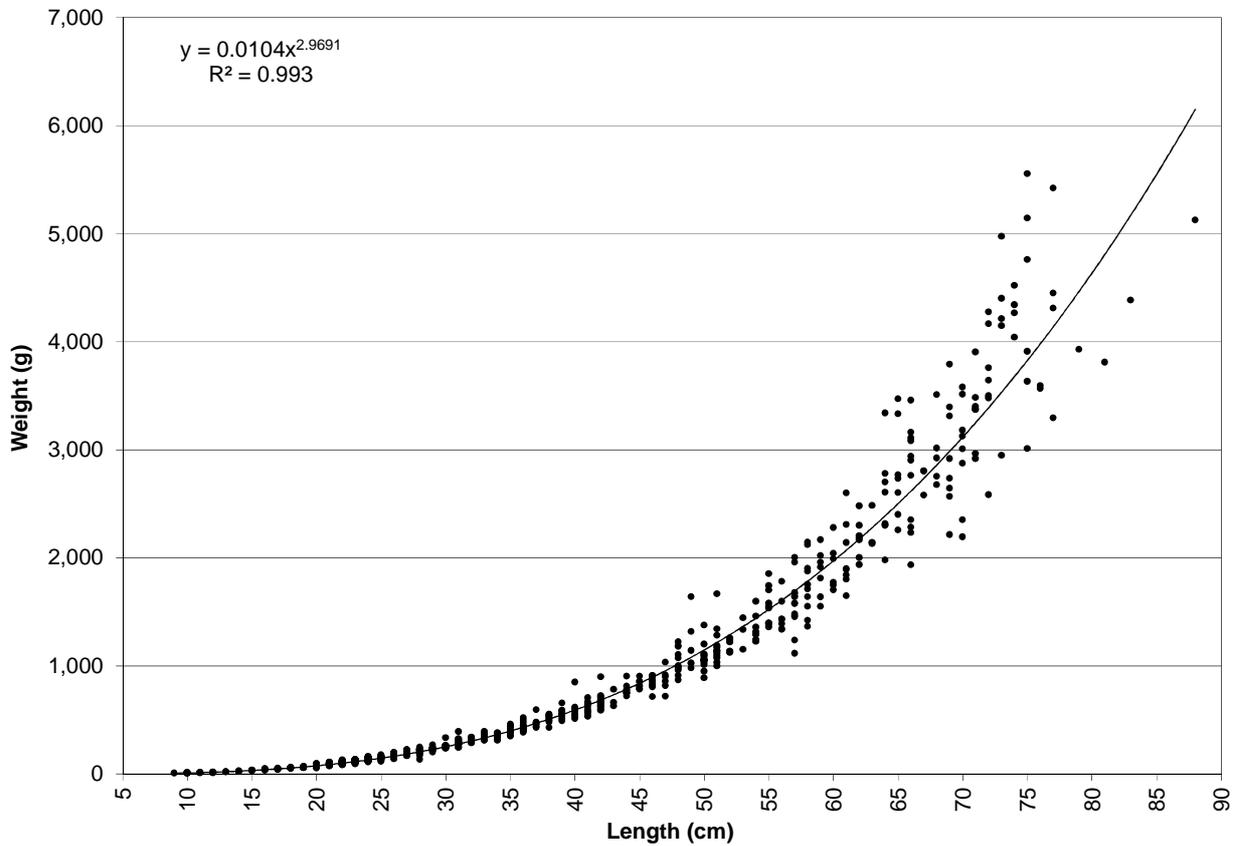
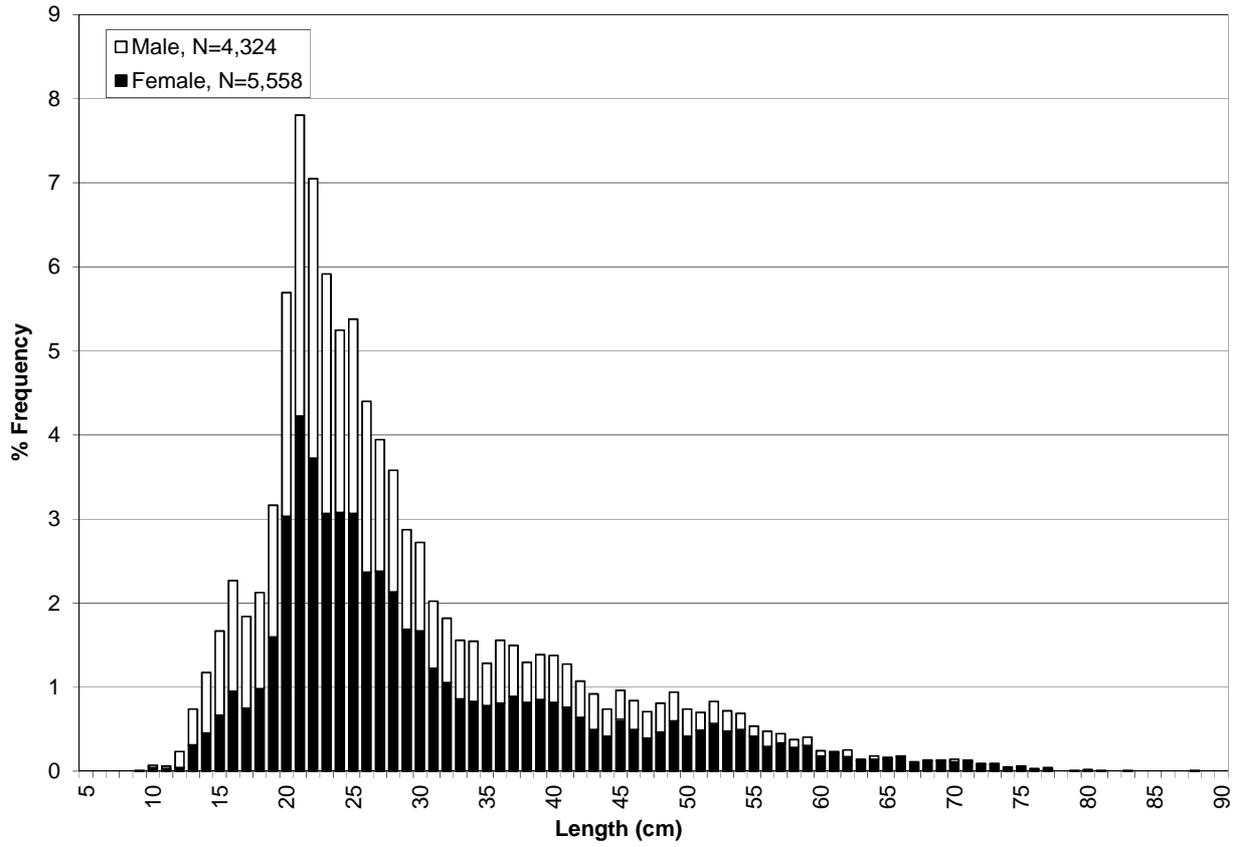
*Salilota australis*

First Season 2017 (01 Jan to 30 Jun)



*Salilota australis* - Red cod

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



***Merluccius spp - Hakes***

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

<b>VESSEL TYPE</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>LO</b>	-	-	-	-	-	0	-	-	-	-
<b>TR</b>	8,806	13,049	13,606	9,904	10,489	12,308	14,875	21,068	23,894	15,739
	<b>8,806</b>	<b>13,049</b>	<b>13,606</b>	<b>9,904</b>	<b>10,489</b>	<b>12,308</b>	<b>14,875</b>	<b>21,068</b>	<b>23,894</b>	<b>15,739</b>

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

<b>MONTH</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>January</b>	4	38	3	12	4	56	-	1	62	10
<b>February</b>	68	152	106	199	65	166	30	29	231	11
<b>March</b>	356	474	873	260	517	232	224	382	155	237
<b>April</b>	1,115	2,059	2,492	2,005	1,388	1,169	680	1,266	821	2,236
<b>May</b>	2,078	2,667	2,584	1,947	1,895	1,615	3,168	3,277	5,847	2,571
<b>June</b>	1,372	1,044	773	726	1,125	1,129	2,506	1,912	3,500	1,696
<b>July</b>	970	1,238	1,340	858	946	1,225	2,065	3,508	3,461	2,875
<b>August</b>	1,161	1,413	2,245	1,145	2,473	2,460	2,717	3,619	3,453	1,821
<b>September</b>	766	2,340	2,145	1,598	1,260	2,638	2,431	5,153	3,273	3,413
<b>October</b>	794	1,488	853	930	644	1,480	862	1,823	3,054	840
<b>November</b>	113	131	168	201	151	135	189	62	27	23
<b>December</b>	10	5	23	22	21	4	3	36	10	5
	<b>8,806</b>	<b>13,049</b>	<b>13,606</b>	<b>9,904</b>	<b>10,489</b>	<b>12,308</b>	<b>14,875</b>	<b>21,068</b>	<b>23,894</b>	<b>15,739</b>

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

<b>FISHING FLEET</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>CL</b>	-	-	-	-	-	-	0	-	-	-
<b>ES</b>	5,327	8,036	8,459	5,987	6,950	7,245	10,465	15,429	18,858	11,026
<b>FK</b>	3,021	4,696	4,565	3,506	3,185	4,884	4,196	5,072	4,739	4,416
<b>JP</b>	0	-	0	1	-	-	-	-	-	-
<b>KR</b>	118	90	181	221	283	130	159	351	191	199
<b>UK</b>	341	228	401	190	71	50	56	215	106	98
	<b>8,806</b>	<b>13,049</b>	<b>13,606</b>	<b>9,904</b>	<b>10,489</b>	<b>12,308</b>	<b>14,875</b>	<b>21,068</b>	<b>23,894</b>	<b>15,739</b>

***Merluccius* spp - Hakes**

Table I.4 Total catch (tonnes) by gross registered tonnage (GRT) and year

<b>GRT</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<400	-	-	-	-	-	-	-	-	-	-
400-599	-	-	-	-	-	-	-	-	-	-
600-799	872	1,211	1,439	1,138	1,178	1,251	1,815	2,201	2,171	2,310
800-999	929	1,762	1,167	872	762	1,715	2,055	3,843	4,452	2,706
1,000-1,499	4,935	6,728	7,908	5,875	6,943	7,140	7,927	10,035	12,016	5,998
1,500-1,999	1,742	2,842	2,839	1,904	1,483	2,125	3,030	4,115	5,034	4,515
2,000-2,999	328	505	253	90	42	70	41	874	213	210
>2,999	0	-	0	25	81	7	7	-	9	-
	<b>8,806</b>	<b>13,049</b>	<b>13,606</b>	<b>9,904</b>	<b>10,489</b>	<b>12,308</b>	<b>14,875</b>	<b>21,068</b>	<b>23,894</b>	<b>15,739</b>

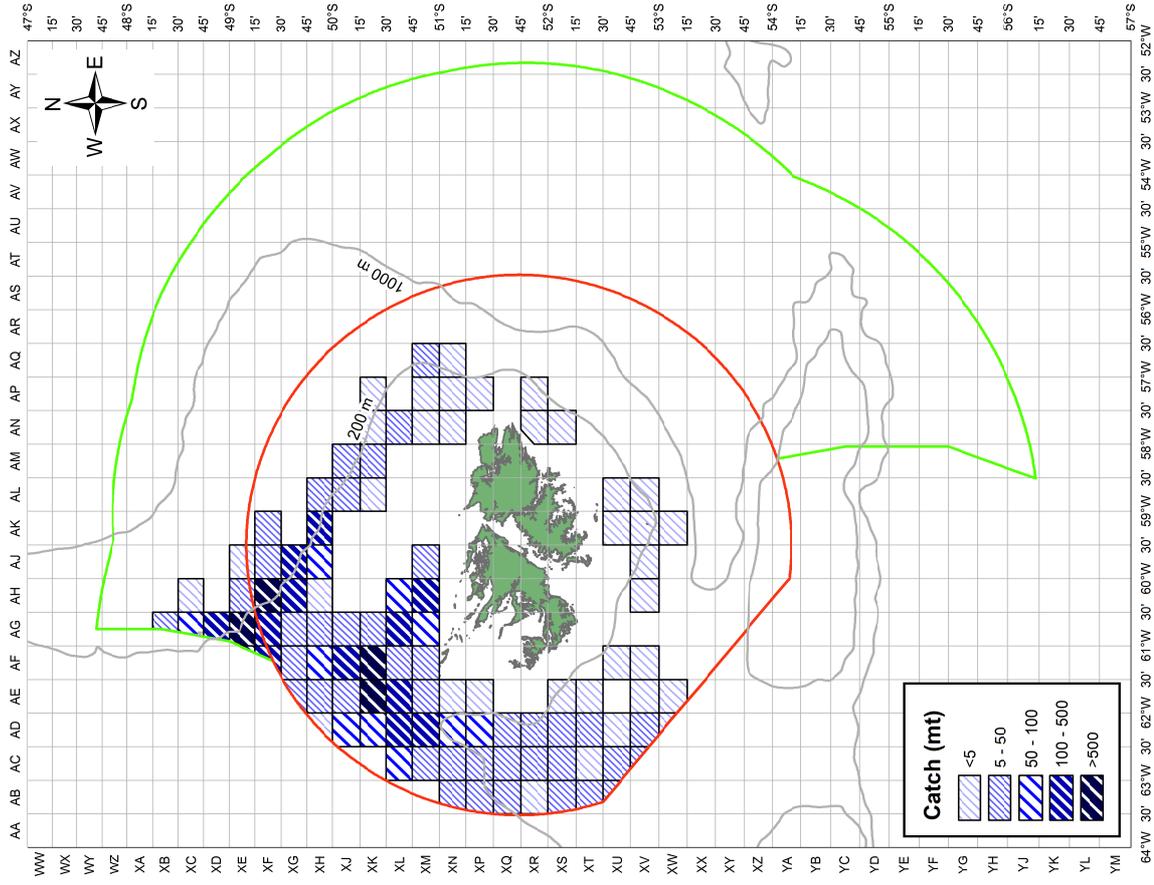
Table I.5 Total catch (tonnes) by length overall (m) (LOA) and year

<b>LOA</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<45	188	270	5	165	-	6	15	42	51	-
45-49	1,283	2,232	1,544	1,171	1,102	1,579	1,826	2,804	3,012	2,922
50-54	448	334	673	552	941	1,045	1,512	2,712	3,028	1,557
55-59	1,750	2,281	2,629	2,107	2,395	3,082	1,952	2,492	3,123	2,170
60-64	2,470	3,873	3,767	2,983	3,274	3,735	5,534	6,584	8,060	3,117
65-69	1,838	1,631	2,600	1,642	1,547	1,226	1,976	3,072	3,721	2,888
70-79	801	2,388	2,386	1,248	1,108	1,625	2,053	3,358	2,880	2,904
80-89	13	20	2	6	39	1	0	2	2	8
>89	15	20	0	31	83	9	7	2	16	174
	<b>8,806</b>	<b>13,049</b>	<b>13,606</b>	<b>9,904</b>	<b>10,489</b>	<b>12,308</b>	<b>14,875</b>	<b>21,068</b>	<b>23,894</b>	<b>15,739</b>

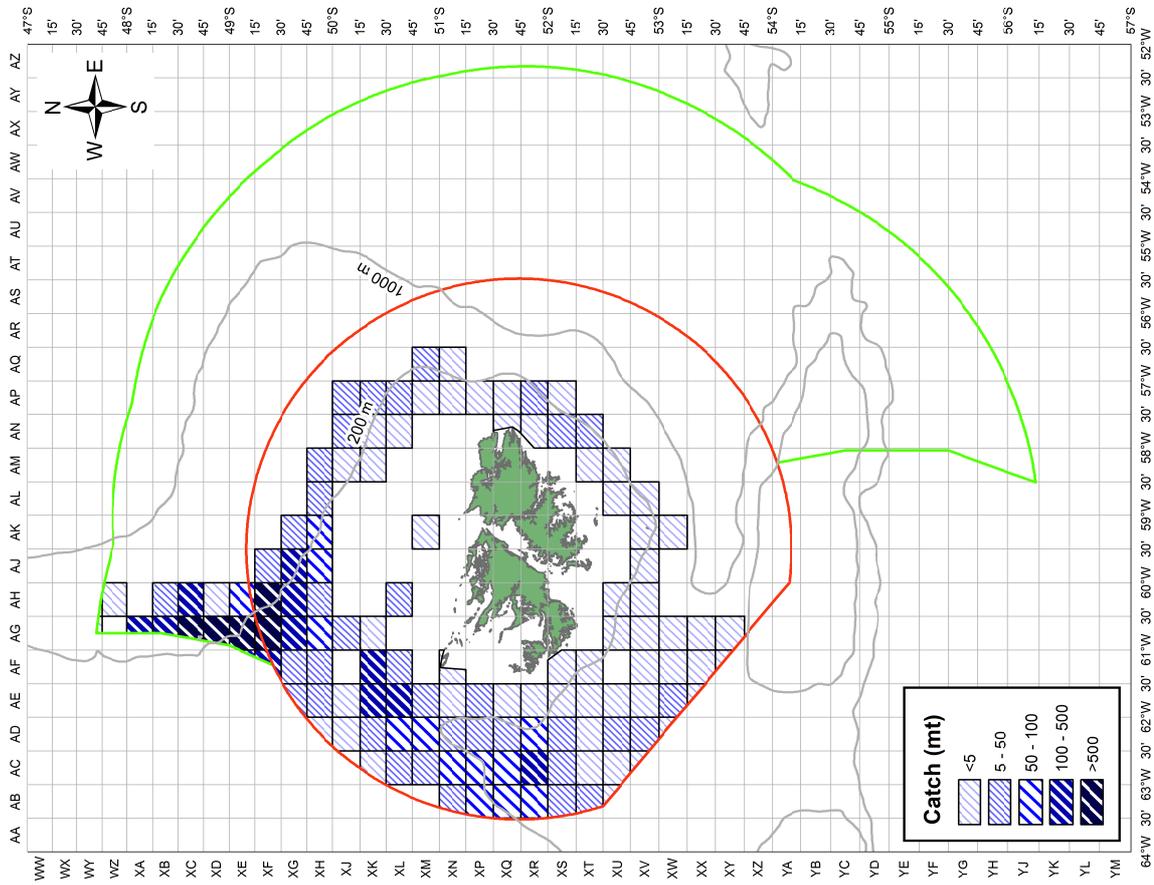
Table I.6 Total catch (tonnes) by brake horsepower (BHP) and year

<b>BHP</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<1,000	-	-	-	-	-	-	-	-	-	-
1,000-1,199	-	-	5	54	-	6	15	42	51	-
1,200-1,399	202	173	326	128	307	405	338	454	-	-
1,400-1,599	1,109	1,684	1,302	1,165	1,340	1,690	2,735	3,752	4,484	3,518
1,600-1,799	1,696	2,104	2,773	1,671	1,526	1,789	2,339	2,503	3,864	1,067
1,800-1,999	3,615	4,528	5,209	4,059	5,084	5,180	5,414	6,883	9,084	6,230
2,000-2,499	1,403	3,745	3,163	2,328	1,626	2,703	3,400	5,453	4,891	3,881
2,500-2,999	126	101	170	196	414	412	532	894	1,105	904
3,000-3,999	640	693	651	292	154	124	103	1,086	318	126
>3,999	16	21	5	11	39	1	0	2	96	13
	<b>8,806</b>	<b>13,049</b>	<b>13,606</b>	<b>9,904</b>	<b>10,489</b>	<b>12,308</b>	<b>14,875</b>	<b>21,068</b>	<b>23,894</b>	<b>15,739</b>

*Merluccius* spp.  
First Season 2017 (01 Jan to 30 Jun)

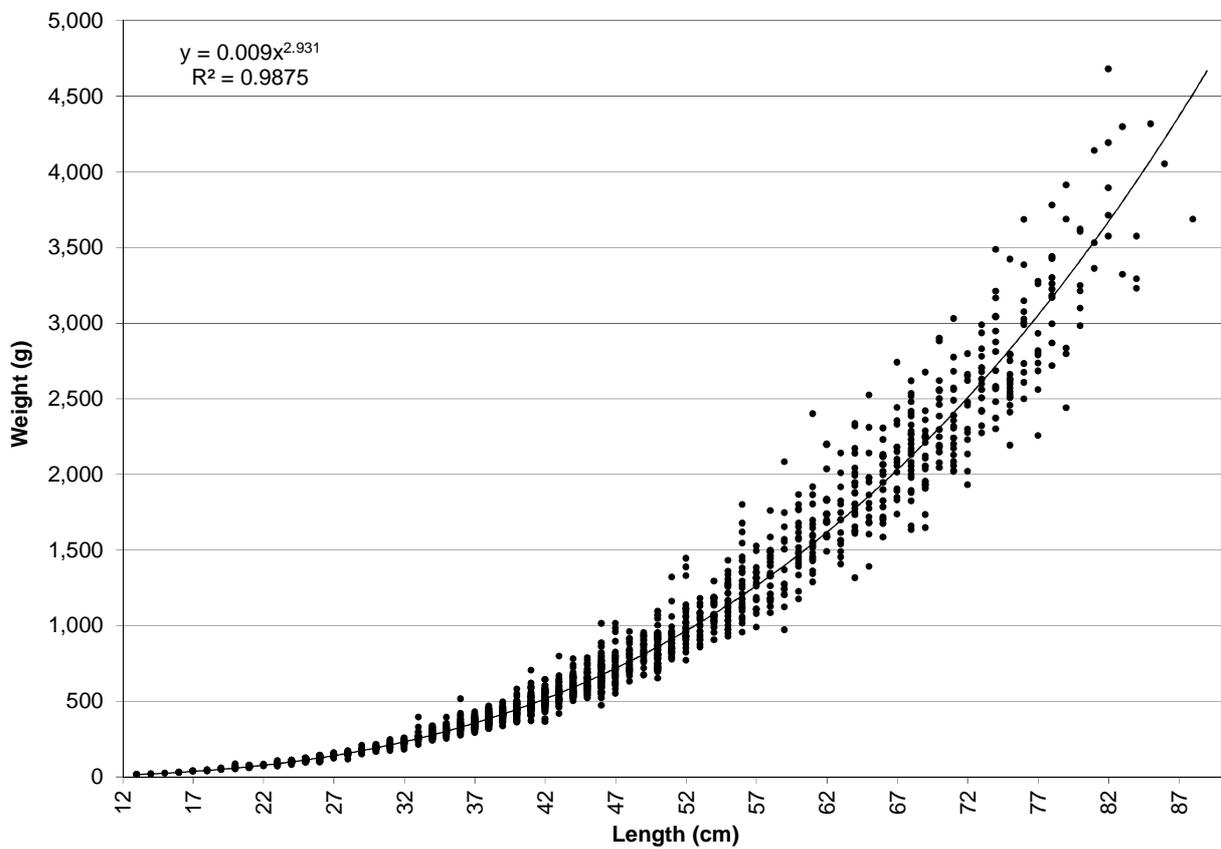
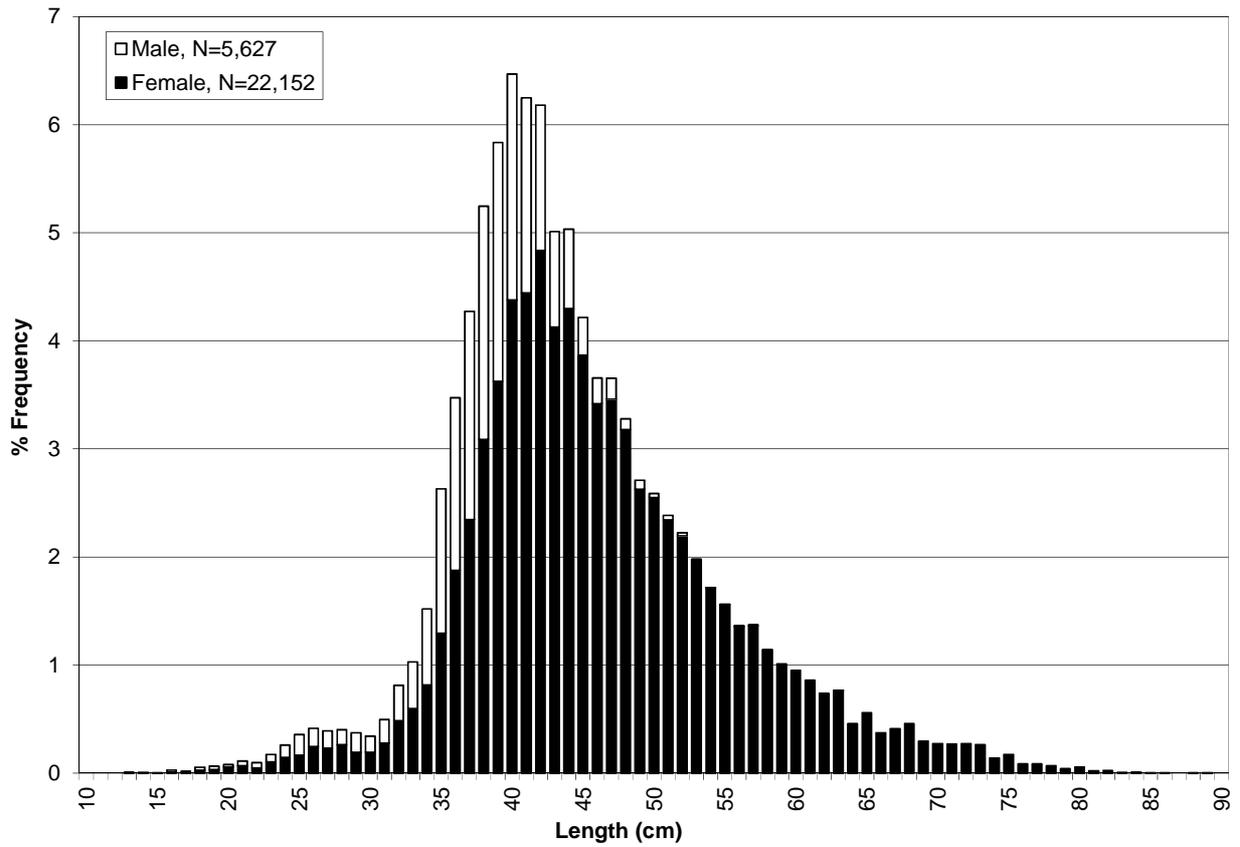


*Merluccius* spp.  
Second Season 2017 (01 Jul to 31 Dec)



# *Merluccius* spp - Hakes

Length– frequency distribution and length-weight relationship in *M.hubbsi* in trawl-



***Genypterus blacodes* - Kingclip**

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

<b>VESSEL TYPE</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>TR</b>	2,227	3,390	3,639	3,867	3,510	3,977	2,881	2,983	1,612	1,632
	<b>2,227</b>	<b>3,390</b>	<b>3,639</b>	<b>3,867</b>	<b>3,510</b>	<b>3,977</b>	<b>2,881</b>	<b>2,983</b>	<b>1,612</b>	<b>1,632</b>

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

<b>MONTH</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>January</b>	80	70	15	163	12	108	-	1	62	12
<b>February</b>	107	138	110	296	138	188	65	50	175	7
<b>March</b>	231	209	300	214	277	153	141	200	52	67
<b>April</b>	222	320	580	429	338	281	189	250	134	110
<b>May</b>	234	437	416	728	389	358	372	314	205	107
<b>June</b>	54	179	202	141	134	114	324	288	78	42
<b>July</b>	107	258	89	226	170	140	296	159	154	168
<b>August</b>	326	481	366	421	570	835	387	226	234	251
<b>September</b>	437	428	446	462	390	843	357	491	142	410
<b>October</b>	240	548	377	309	420	653	491	503	337	310
<b>November</b>	142	195	445	310	432	234	203	265	23	142
<b>December</b>	48	126	294	167	240	67	57	237	15	8
	<b>2,227</b>	<b>3,390</b>	<b>3,639</b>	<b>3,867</b>	<b>3,510</b>	<b>3,977</b>	<b>2,881</b>	<b>2,983</b>	<b>1,612</b>	<b>1,632</b>

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

<b>FISHING FLEET</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>ES</b>	1,691	2,619	2,835	2,933	2,583	3,053	2,219	2,370	1,280	1,386
<b>FK</b>	479	726	677	851	858	843	548	502	312	225
<b>JP</b>	0	1	0	0	-	-	-	-	-	-
<b>KR</b>	31	33	101	47	62	72	107	90	19	10
<b>UK</b>	26	11	26	35	7	9	7	22	1	11
	<b>2,227</b>	<b>3,390</b>	<b>3,639</b>	<b>3,867</b>	<b>3,510</b>	<b>3,977</b>	<b>2,881</b>	<b>2,983</b>	<b>1,612</b>	<b>1,632</b>

***Genypterus blacodes* - Kingclip**

Table J.4 Total catch (tonnes) by gross registered tonnage (GRT) and year

<b>GRT</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<400	-	-	-	-	-	-	-	-	-	-
400-599	-	-	-	-	-	-	-	-	-	-
600-799	393	675	460	481	518	410	291	338	141	146
800-999	297	431	467	404	456	904	710	612	434	204
1,000-1,499	986	1,451	1,664	2,000	1,905	1,888	1,181	1,350	543	710
1,500-1,999	533	814	1,034	972	625	760	683	648	465	552
2,000-2,999	18	18	15	11	5	14	13	36	30	20
>2,999	0	1	0	0	1	0	2	-	0	-
	<b>2,227</b>	<b>3,390</b>	<b>3,639</b>	<b>3,867</b>	<b>3,510</b>	<b>3,977</b>	<b>2,881</b>	<b>2,983</b>	<b>1,612</b>	<b>1,632</b>

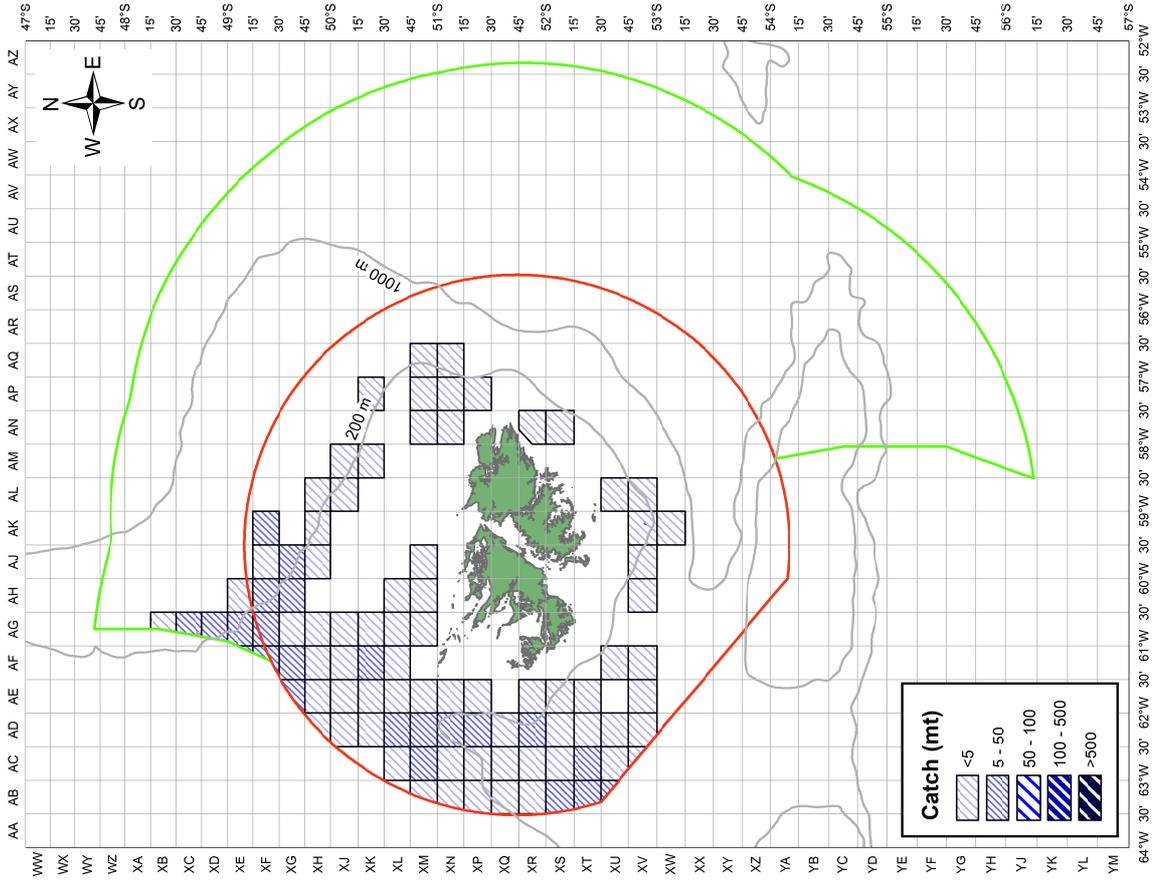
Table J.5 Total catch (tonnes) by length overall (m) (LOA) and year

<b>LOA</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<45	181	209	12	101	-	11	13	24	41	-
45-49	365	504	364	314	394	329	170	342	142	156
50-54	237	330	364	367	514	610	620	407	274	105
55-59	205	420	578	830	856	874	404	374	221	191
60-64	517	927	867	1,012	960	1,218	682	847	370	168
65-69	444	655	1,069	883	544	578	710	674	300	600
70-79	275	343	385	360	237	354	278	315	265	400
80-89	1	1	-	0	0	0	2	-	-	0
>89	2	1	1	1	4	3	2	-	0	12
	<b>2,227</b>	<b>3,390</b>	<b>3,639</b>	<b>3,867</b>	<b>3,510</b>	<b>3,977</b>	<b>2,881</b>	<b>2,983</b>	<b>1,612</b>	<b>1,632</b>

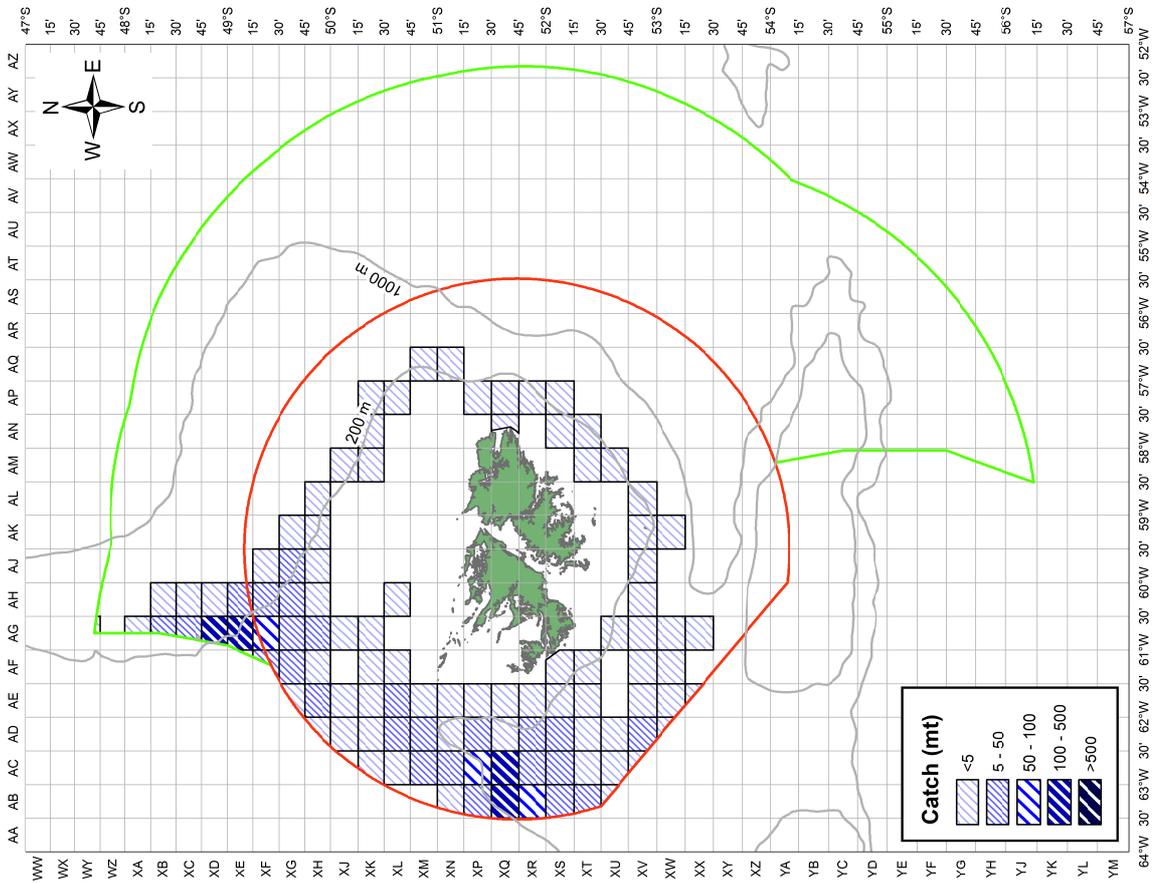
Table J.6 Total catch (tonnes) by brake horsepower (BHP) and year

<b>BHP</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<1,000	-	-	-	-	-	18	-	-	-	-
1,000-1,199	-	-	12	29	-	11	13	24	41	-
1,200-1,399	57	127	113	77	107	86	45	34	-	-
1,400-1,599	661	914	513	643	799	821	609	631	384	261
1,600-1,799	265	338	608	474	289	288	217	245	172	66
1,800-1,999	638	1,036	1,552	1,597	1,345	1,353	972	1,085	448	757
2,000-2,499	532	912	726	928	776	1,081	691	717	393	450
2,500-2,999	32	32	73	74	183	298	312	190	119	78
3,000-3,999	41	28	41	45	10	20	21	58	31	19
>3,999	1	2	0	0	1	0	2	-	25	2
	<b>2,227</b>	<b>3,390</b>	<b>3,639</b>	<b>3,867</b>	<b>3,510</b>	<b>3,977</b>	<b>2,881</b>	<b>2,983</b>	<b>1,612</b>	<b>1,632</b>

*Genypterus blacodes*  
First Season 2017 (01 Jan to 30 Jun)

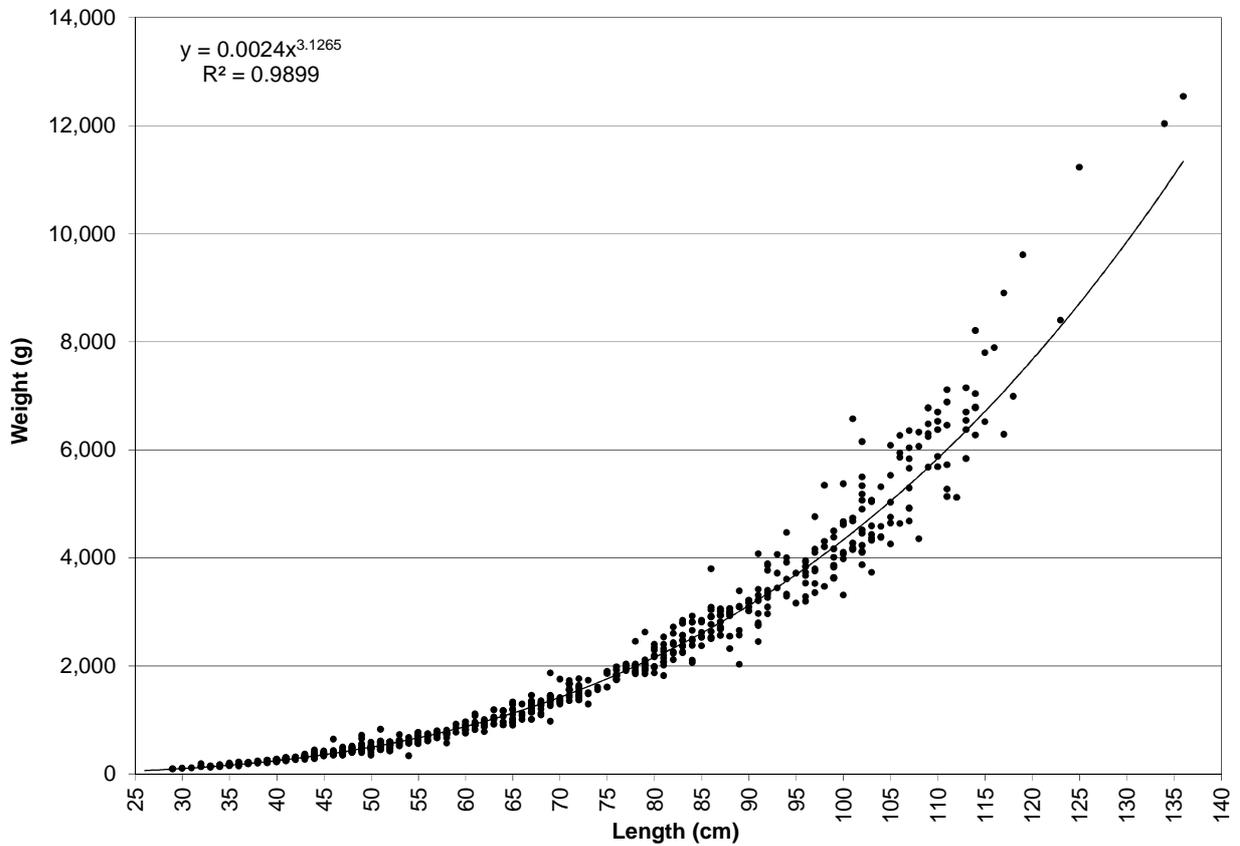
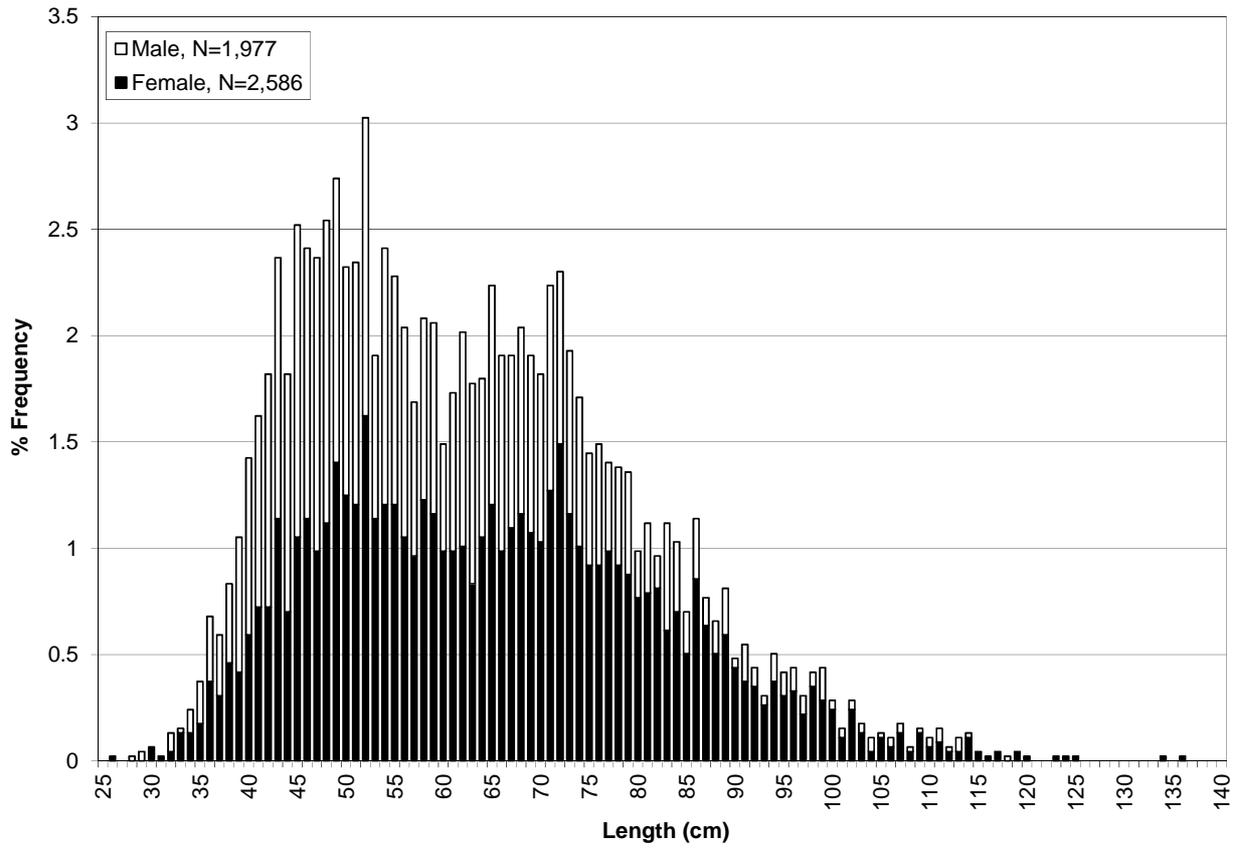


*Genypterus blacodes*  
Second Season 2017 (01 Jul to 31 Dec)



*Genypterus blacodes* - Kingclip

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



***Dissostichus eleginoides* - Toothfish**

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

<b>VESSEL TYPE</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>LO</b>	1,368	1,134	944	1,221	1,085	1,302	1,252	1,123	1,023	1,030
<b>PO</b>	-	-	0	-	-	-	-	-	-	-
<b>TR</b>	61	285	460	339	226	120	45	103	476	489
	<b>1,429</b>	<b>1,418</b>	<b>1,404</b>	<b>1,560</b>	<b>1,311</b>	<b>1,422</b>	<b>1,297</b>	<b>1,227</b>	<b>1,499</b>	<b>1,519</b>

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

<b>MONTH</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>January</b>	248	123	129	131	136	140	125	161	172	24
<b>February</b>	181	163	141	138	159	91	109	111	146	9
<b>March</b>	159	210	207	84	122	133	73	142	218	23
<b>April</b>	193	84	169	182	159	193	121	118	157	37
<b>May</b>	93	116	167	161	131	153	36	71	156	174
<b>June</b>	51	98	62	82	91	22	72	49	105	72
<b>July</b>	113	91	136	180	133	128	130	134	160	168
<b>August</b>	116	129	100	216	162	196	37	130	217	39
<b>September</b>	52	184	106	165	101	208	234	34	30	115
<b>October</b>	10	80	23	55	19	2	115	19	46	241
<b>November</b>	102	26	52	30	23	8	107	18	36	384
<b>December</b>	111	115	113	136	76	146	139	239	55	233
	<b>1,429</b>	<b>1,418</b>	<b>1,404</b>	<b>1,560</b>	<b>1,311</b>	<b>1,422</b>	<b>1,297</b>	<b>1,227</b>	<b>1,499</b>	<b>1,519</b>

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

<b>FISHING FLEET</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>CL</b>	-	-	-	-	-	-	353	-	-	249
<b>ES</b>	37	203	366	260	155	81	34	87	367	396
<b>FK</b>	1,391	1,210	1,030	1,287	1,150	1,340	911	1,134	1,122	833
<b>KR</b>	1	-	6	7	7	1	0	5	10	40
<b>RU</b>	-	-	0	-	-	-	-	-	-	-
<b>UK</b>	0	5	2	6	0	-	-	0	-	1
	<b>1,429</b>	<b>1,418</b>	<b>1,404</b>	<b>1,560</b>	<b>1,311</b>	<b>1,422</b>	<b>1,297</b>	<b>1,227</b>	<b>1,499</b>	<b>1,519</b>

***Dissostichus eleginoides* - Toothfish**

Table K.4 Total catch (tonnes) by gross registered tonnage (GRT) and year

<b>GRT</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<400	-	-	-	-	-	-	-	-	-	-
400-599	-	-	-	-	-	-	-	-	-	-
600-799	10	33	45	31	44	10	7	5	35	19
800-999	1,369	1,166	983	1,263	1,118	1,197	906	1,141	1,198	98
1,000-1,499	20	106	234	84	66	167	370	51	77	482
1,500-1,999	30	88	135	176	82	44	15	29	173	909
2,000-2,999	1	25	6	6	2	3	-	1	16	10
>2,999	-	-	-	-	-	-	-	-	-	-
	<b>1,429</b>	<b>1,418</b>	<b>1,404</b>	<b>1,560</b>	<b>1,311</b>	<b>1,422</b>	<b>1,297</b>	<b>1,227</b>	<b>1,499</b>	<b>1,519</b>

Table K.5 Total catch (tonnes) by length overall (m) (LOA) and year

<b>LOA</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<45	-	3	2	7	-	-	-	5	21	-
45-49	10	31	34	21	41	10	4	4	26	17
50-54	982	1,146	976	1,243	1,110	1,187	905	1,135	1,146	70
55-59	392	28	46	35	33	137	4	5	47	822
60-64	7	36	62	87	24	35	365	38	45	442
65-69	24	74	179	114	66	28	15	24	137	139
70-79	15	90	105	53	36	24	5	16	73	25
80-89	-	6	-	-	1	-	-	-	0	2
>89	-	5	0	-	1	0	-	-	4	2
	<b>1,429</b>	<b>1,418</b>	<b>1,404</b>	<b>1,560</b>	<b>1,311</b>	<b>1,422</b>	<b>1,297</b>	<b>1,227</b>	<b>1,499</b>	<b>1,519</b>

Table K.6 Total catch (tonnes) by brake horsepower (BHP) and year

<b>BHP</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<1,000	-	-	0	-	-	-	-	-	-	-
1,000-1,199	-	-	2	5	-	-	-	5	21	-
1,200-1,399	-	-	9	4	0	119	1	0	-	-
1,400-1,599	1,382	1,191	1,012	1,272	1,149	1,204	1,262	1,135	1,182	170
1,600-1,799	5	20	30	15	6	9	6	5	6	224
1,800-1,999	23	67	206	122	87	40	16	26	127	178
2,000-2,499	17	110	131	121	56	46	10	48	115	104
2,500-2,999	1	5	6	8	12	1	2	6	29	829
3,000-3,999	1	19	8	12	0	3	-	1	12	9
>3,999	-	6	-	-	1	-	-	0	7	6
	<b>1,429</b>	<b>1,418</b>	<b>1,404</b>	<b>1,560</b>	<b>1,311</b>	<b>1,422</b>	<b>1,297</b>	<b>1,227</b>	<b>1,499</b>	<b>1,519</b>

*Dissostichus eleginoides* - Toothfish

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

GRT	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
800-999	1,368	1,134	944	1,221	1,085	1,184	900	1,123	1,023	-
1,000-1,499	-	-	-	-	-	119	353	-	-	249
1,500-1,999	-	-	-	-	-	-	-	-	-	781
	<b>1,368</b>	<b>1,134</b>	<b>944</b>	<b>1,221</b>	<b>1,085</b>	<b>1,302</b>	<b>1,252</b>	<b>1,123</b>	<b>1,023</b>	<b>1,030</b>

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

LOA	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
50-54	976	1,134	944	1,221	1,085	1,184	900	1,123	1,023	-
55-59	392	-	-	-	-	119	-	-	-	781
60-64	-	-	-	-	-	-	353	-	-	249
	<b>1,368</b>	<b>1,134</b>	<b>944</b>	<b>1,221</b>	<b>1,085</b>	<b>1,302</b>	<b>1,252</b>	<b>1,123</b>	<b>1,023</b>	<b>1,030</b>

Table K.9 Total catch (tonnes) of longliners by brake horsepower (BHP) and year

BHP	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
1,200-1,399	-	-	-	-	-	119	-	-	-	-
1,400-1,599	1,368	1,134	944	1,221	1,085	1,184	1,252	1,123	1,023	99
1,600-1,799	-	-	-	-	-	-	-	-	-	150
2,500-2,999	-	-	-	-	-	-	-	-	-	781
	<b>1,368</b>	<b>1,134</b>	<b>944</b>	<b>1,221</b>	<b>1,085</b>	<b>1,302</b>	<b>1,252</b>	<b>1,123</b>	<b>1,023</b>	<b>1,030</b>

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

GRT	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
600-799	10	33	45	31	44	10	7	5	35	19
800-999	1	33	39	41	33	13	6	18	175	98
1,000-1,499	20	106	234	84	66	49	17	51	77	233
1,500-1,999	30	88	135	176	82	44	15	29	173	128
2,000-2,999	1	25	6	6	2	3	-	1	16	10
	<b>61</b>	<b>285</b>	<b>460</b>	<b>339</b>	<b>226</b>	<b>120</b>	<b>45</b>	<b>103</b>	<b>476</b>	<b>489</b>

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

LOA	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<45	-	3	2	7	-	-	-	5	21	-
45-49	10	31	34	21	41	10	4	4	26	17
50-54	6	12	32	22	24	4	5	12	123	70
55-59	-	28	46	35	33	19	4	5	47	41
60-64	7	36	62	87	24	35	12	38	45	193
65-69	24	74	179	114	66	28	15	24	137	139
70-79	15	90	105	53	36	24	5	16	73	25
80-89	-	6	-	-	1	-	-	-	0	2
>89	-	5	0	-	1	0	-	-	4	2
	<b>61</b>	<b>285</b>	<b>460</b>	<b>339</b>	<b>226</b>	<b>120</b>	<b>45</b>	<b>103</b>	<b>476</b>	<b>489</b>

*Dissostichus eleginoides* - Toothfish

Table K.12 Total catch (tonnes) of trawlers by brake horsepower (BHP) and year

BHP	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
1,000-1,199	-	-	2	5	-	-	-	5	21	-
1,200-1,399	-	-	9	4	0	-	1	0	-	-
1,400-1,599	14	58	68	51	64	20	10	11	159	70
1,600-1,799	5	20	30	15	6	9	6	5	6	74
1,800-1,999	23	67	206	122	87	40	16	26	127	178
2,000-2,499	17	110	131	121	56	46	10	48	115	104
2,500-2,999	1	5	6	8	12	1	2	6	29	48
3,000-3,999	1	19	8	12	0	3	-	1	12	9
>3,999	-	6	-	-	1	-	-	0	7	6
	<b>61</b>	<b>285</b>	<b>460</b>	<b>339</b>	<b>226</b>	<b>120</b>	<b>45</b>	<b>103</b>	<b>476</b>	<b>489</b>

Table K.13 Total catch (tonnes) of potting vessels by gross registered tonnage (GRT) and year

GRT	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
600-799	-	-	0	-	-	-	-	-	-	-
	-	-	<b>0</b>	-	-	-	-	-	-	-

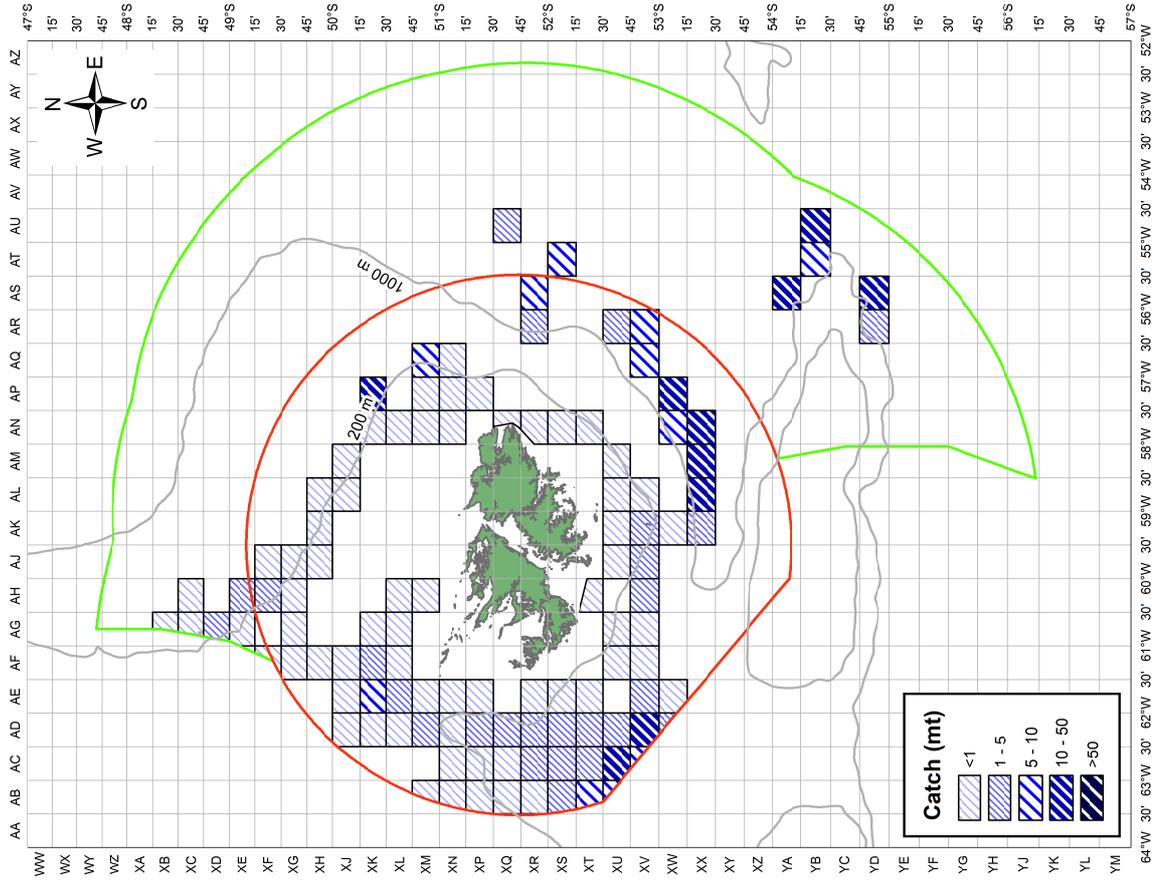
Table K.14 Total catch (tonnes) of potting vessels by length overall (m) (LOA) and year

LOA	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
50-54	-	-	0	-	-	-	-	-	-	-
	-	-	<b>0</b>	-	-	-	-	-	-	-

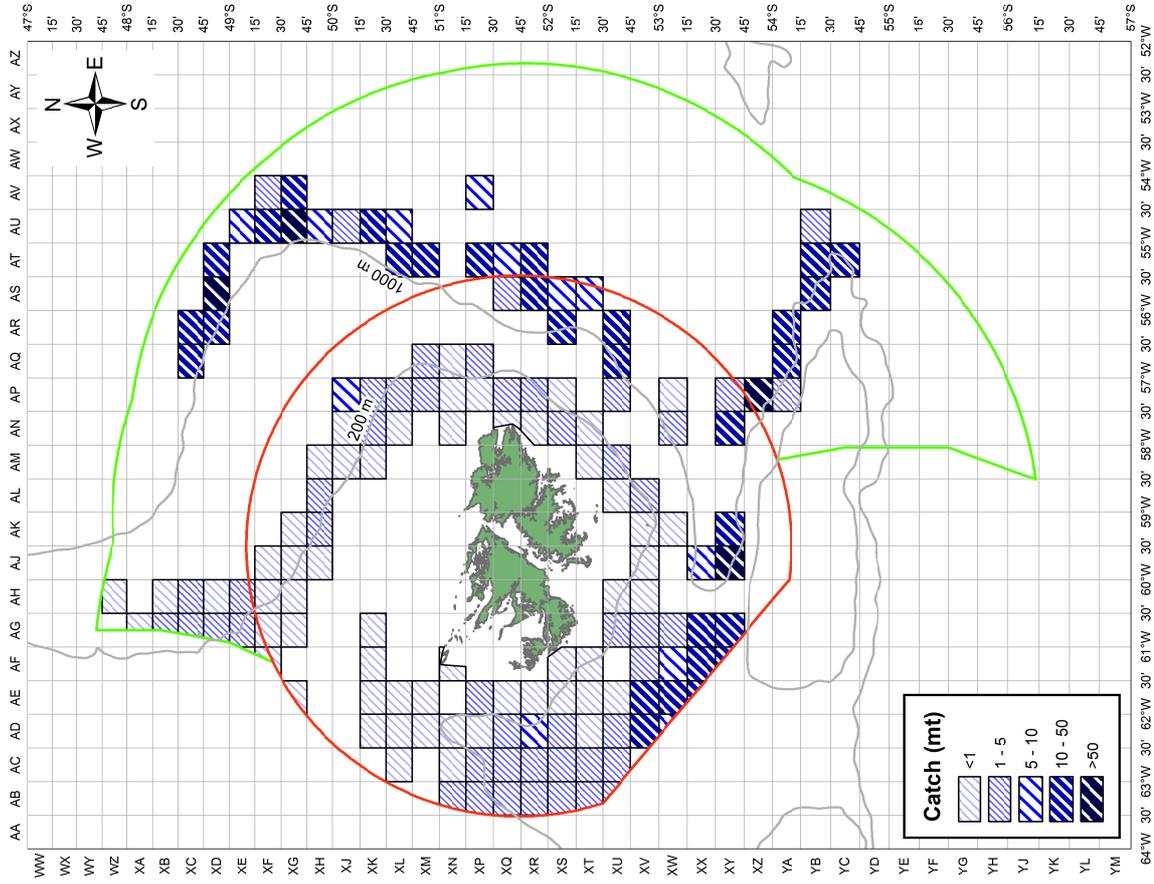
Table K.15 Total catch (tonnes) of potting vessels by brake horsepower (BHP) and year

BHP	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<1,000	-	-	0	-	-	-	-	-	-	-
	-	-	<b>0</b>	-	-	-	-	-	-	-

*Dissostichus eleginoides*  
First Season 2017 (01 Jan to 30 Jun)

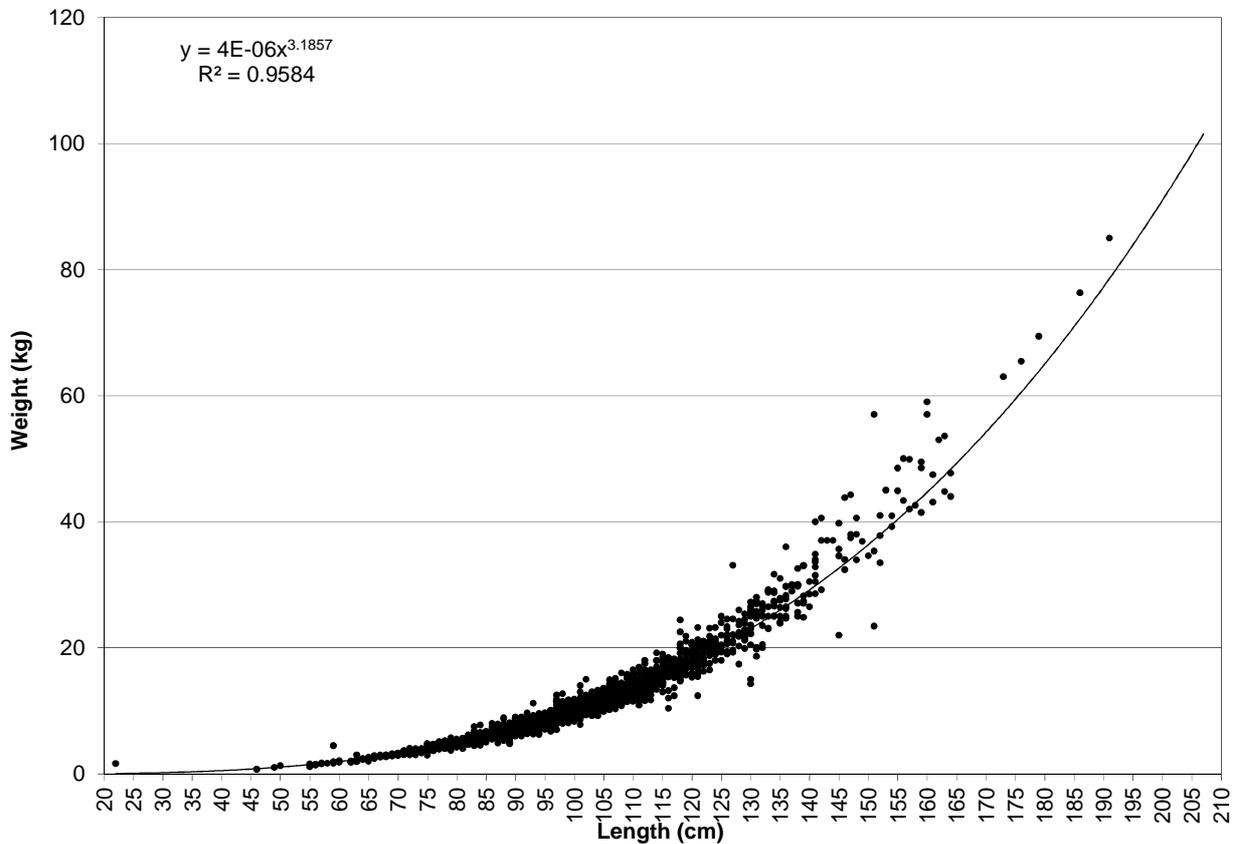
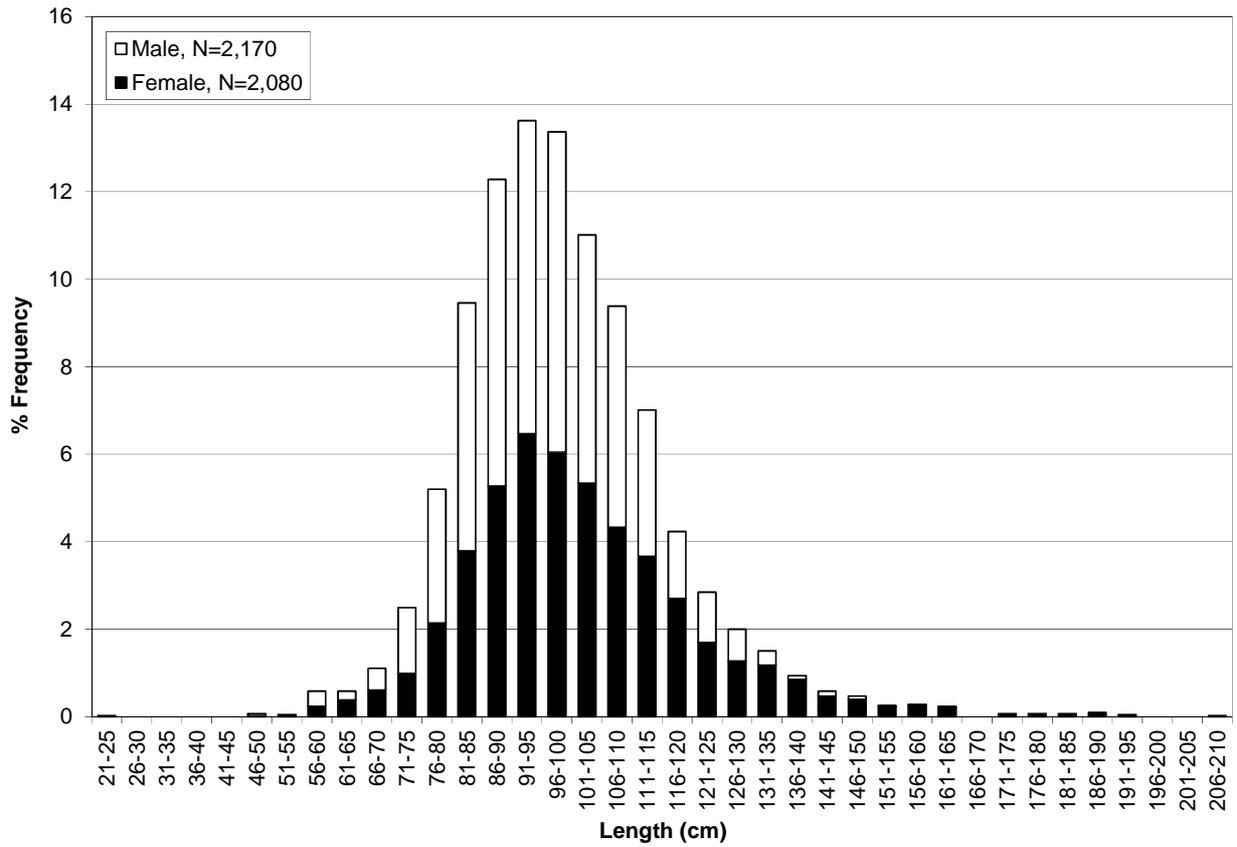


*Dissostichus eleginoides*  
Second Season 2017 (01 Jul to 31 Dec) 1.4



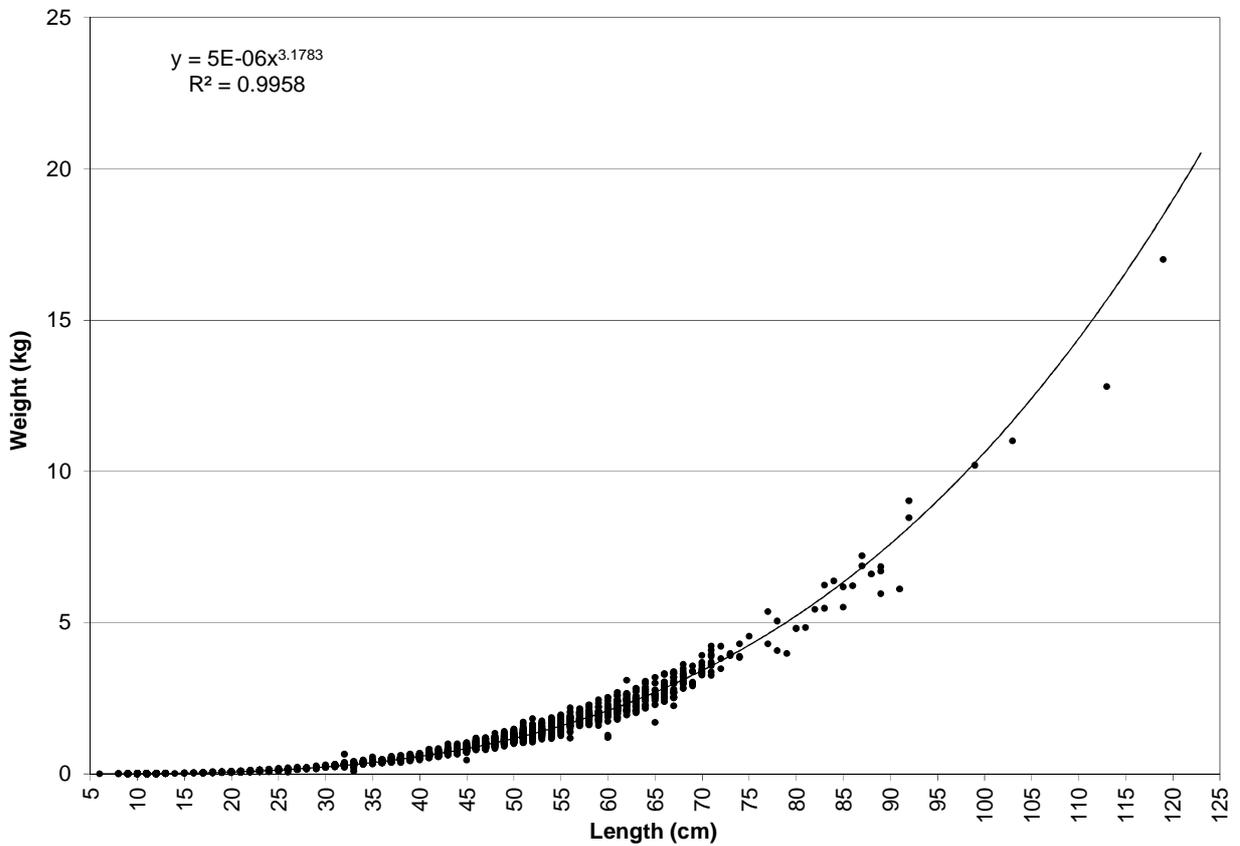
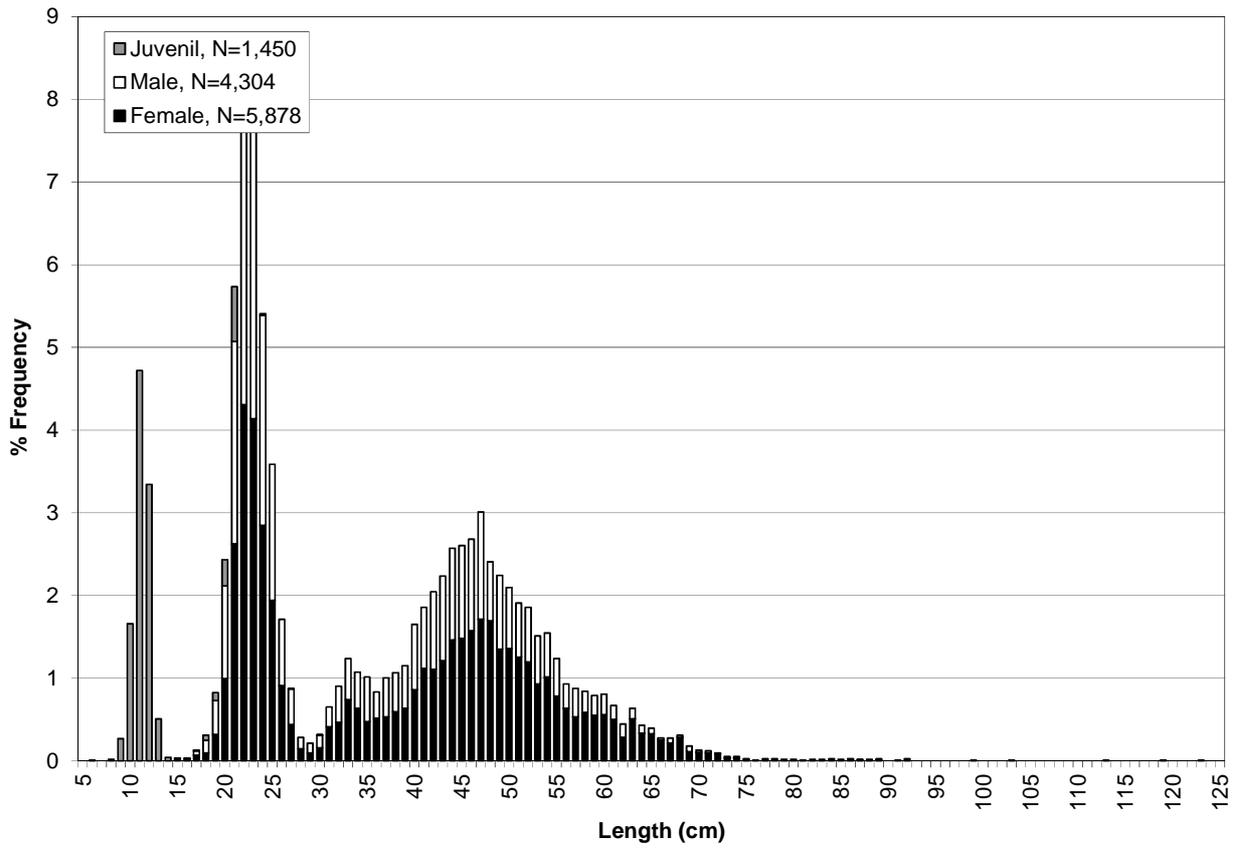
*Dissostichus eleginoides* - Toothfish

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



*Dissostichus eleginoides* - Toothfish

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



## Rajidae - Skates and Rays

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

<b>VESSEL TYPE</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>LO</b>	28	22	23	55	32	78	32	28	29	28
<b>PO</b>	-	-	0	-	-	-	-	-	-	-
<b>TR</b>	3,833	5,851	5,868	6,915	6,622	5,854	5,523	6,365	5,877	3,161
	<b>3,861</b>	<b>5,873</b>	<b>5,891</b>	<b>6,970</b>	<b>6,655</b>	<b>5,932</b>	<b>5,555</b>	<b>6,393</b>	<b>5,906</b>	<b>3,189</b>

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

<b>MONTH</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>January</b>	120	96	43	185	15	278	5	8	592	27
<b>February</b>	200	179	167	360	216	288	125	154	440	8
<b>March</b>	142	178	168	126	511	219	144	119	129	67
<b>April</b>	187	304	332	588	320	413	208	184	225	205
<b>May</b>	189	555	474	878	398	428	394	348	663	283
<b>June</b>	95	662	338	398	404	267	267	693	669	390
<b>July</b>	516	570	323	849	703	394	289	878	522	466
<b>August</b>	1,238	1,330	1,650	1,446	1,568	1,227	1,373	1,110	627	436
<b>September</b>	668	851	1,146	992	802	867	1,479	1,359	585	422
<b>October</b>	220	407	326	691	1,099	868	560	829	1,201	626
<b>November</b>	119	511	418	317	438	369	523	330	120	96
<b>December</b>	167	229	505	141	181	313	188	380	132	163
	<b>3,861</b>	<b>5,873</b>	<b>5,891</b>	<b>6,970</b>	<b>6,655</b>	<b>5,932</b>	<b>5,555</b>	<b>6,393</b>	<b>5,906</b>	<b>3,189</b>

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

<b>FISHING FLEET</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>CL</b>	-	-	-	-	-	-	3	-	-	15
<b>ES</b>	1,518	2,665	2,514	2,843	2,490	2,284	2,244	3,637	3,208	1,489
<b>FK</b>	420	902	912	1,837	1,332	1,742	1,120	837	665	600
<b>KR</b>	1,899	2,262	2,394	2,219	2,797	1,884	2,174	1,894	1,995	1,077
<b>RU</b>	-	-	0	-	-	-	-	-	-	-
<b>UK</b>	25	44	71	71	35	23	13	24	38	8
	<b>3,861</b>	<b>5,873</b>	<b>5,891</b>	<b>6,970</b>	<b>6,655</b>	<b>5,932</b>	<b>5,555</b>	<b>6,393</b>	<b>5,906</b>	<b>3,189</b>

## Rajidae - Skates and Rays

Table L.4 Total catch (tonnes) by gross registered tonnage (GRT) and year

GRT	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<400	-	-	-	-	-	-	-	-	-	-
400-599	-	-	-	-	-	-	-	-	-	-
600-799	957	1,214	1,133	616	731	449	592	220	167	322
800-999	1,306	1,747	1,723	1,871	2,237	1,749	1,899	2,755	2,865	1,437
1,000-1,499	1,299	2,211	2,220	2,908	2,326	2,588	2,080	2,537	1,754	732
1,500-1,999	249	610	775	1,033	823	682	639	743	987	647
2,000-2,999	52	91	40	119	47	67	58	138	73	51
>2,999	-	-	-	424	489	396	287	-	59	-
	<b>3,861</b>	<b>5,873</b>	<b>5,891</b>	<b>6,970</b>	<b>6,655</b>	<b>5,932</b>	<b>5,555</b>	<b>6,393</b>	<b>5,906</b>	<b>3,189</b>

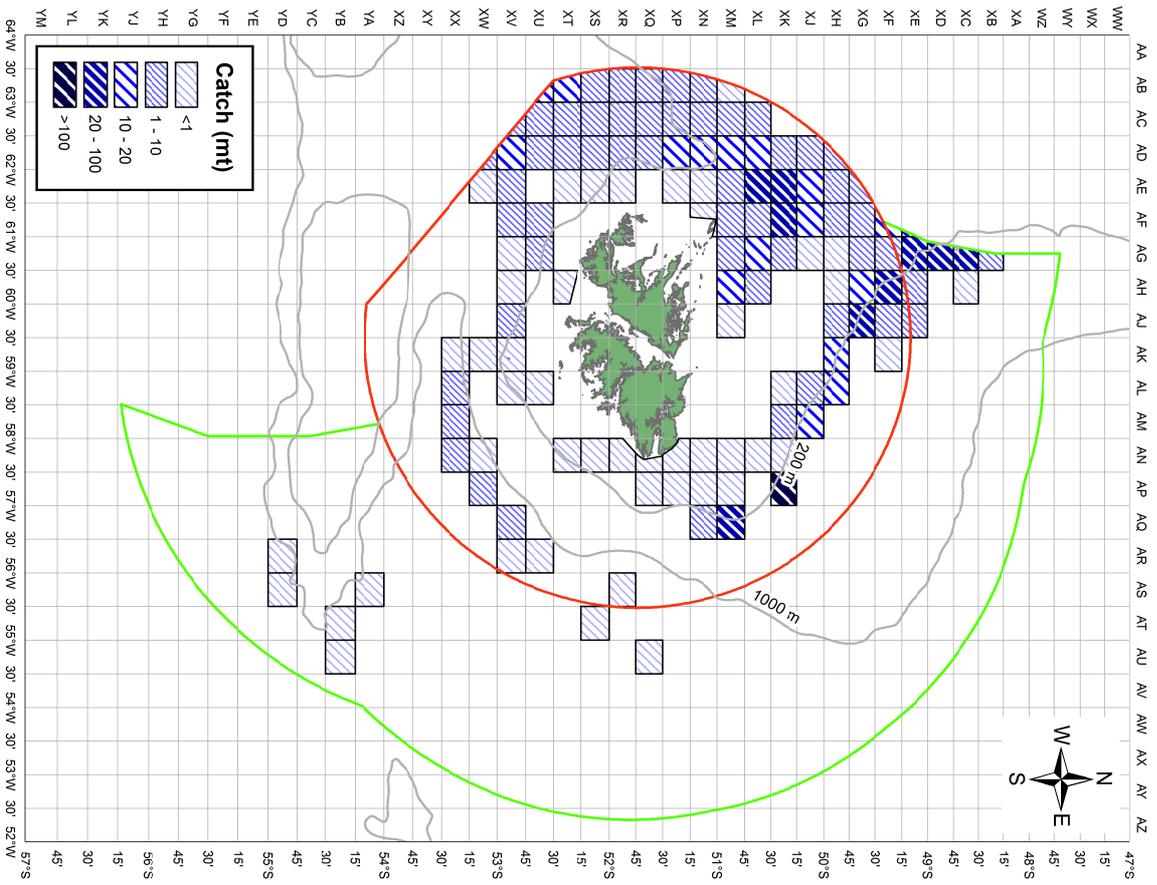
Table L.5 Total catch (tonnes) by length overall (m) (LOA) and year

LOA	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<45	48	76	18	54	-	19	1	46	46	-
45-49	856	990	782	419	371	370	232	253	209	358
50-54	1,159	1,574	2,009	2,064	2,636	1,746	2,203	2,543	2,610	1,274
55-59	496	805	542	984	822	934	337	684	471	271
60-64	665	1,116	953	1,209	1,025	1,208	1,288	1,517	1,256	450
65-69	310	468	824	802	619	632	589	570	741	456
70-79	317	842	762	1,014	687	627	614	776	510	361
80-89	6	-	-	-	0	-	-	-	1	2
>89	2	1	0	426	495	396	291	4	62	18
	<b>3,861</b>	<b>5,873</b>	<b>5,891</b>	<b>6,970</b>	<b>6,655</b>	<b>5,932</b>	<b>5,555</b>	<b>6,393</b>	<b>5,906</b>	<b>3,189</b>

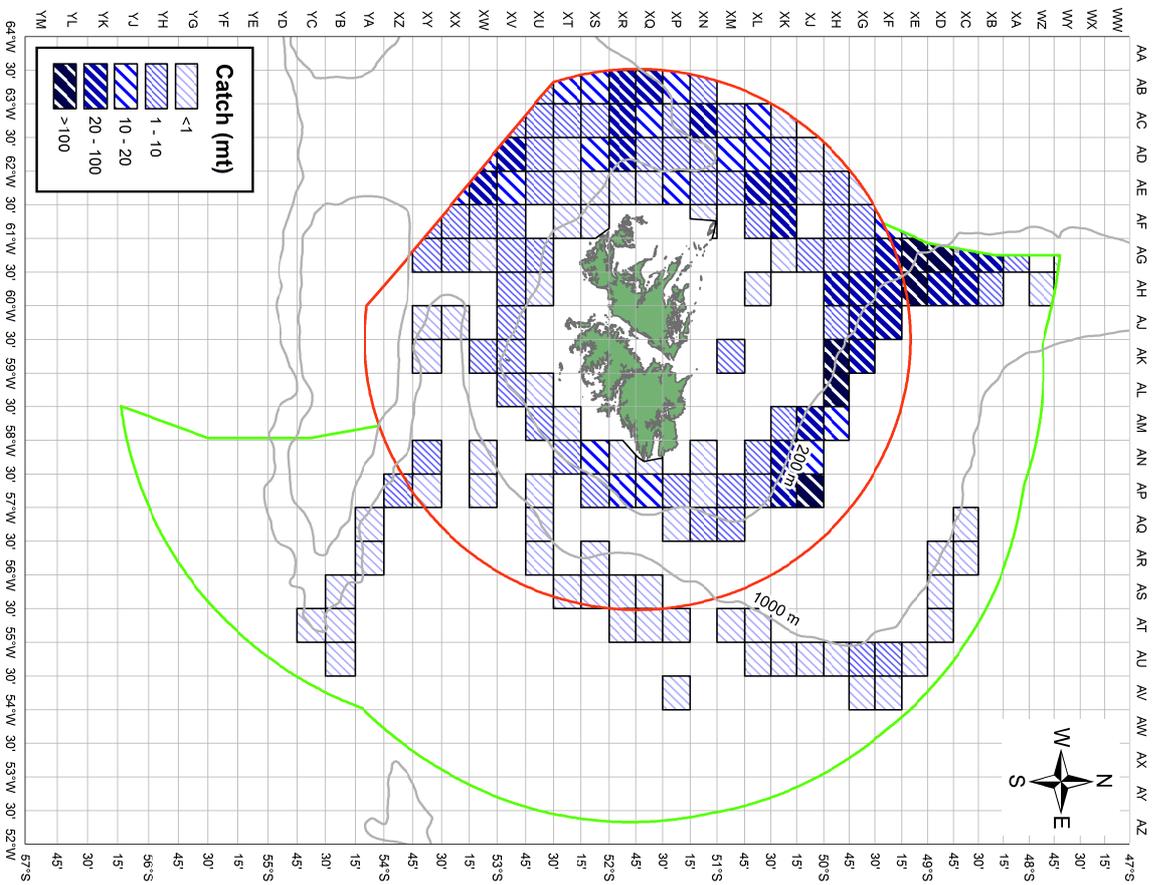
Table L.6 Total catch (tonnes) by brake horsepower (BHP) and year

BHP	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<1,000	-	-	0	-	-	24	-	-	-	-
1,000-1,199	-	-	18	35	-	19	1	46	46	-
1,200-1,399	50	52	40	42	49	62	20	19	-	-
1,400-1,599	313	556	304	490	568	491	545	900	923	587
1,600-1,799	264	437	689	562	648	611	451	712	712	154
1,800-1,999	533	894	1,215	1,528	1,414	1,360	774	1,142	1,040	752
2,000-2,499	913	1,837	1,451	2,137	1,362	1,464	1,848	1,477	958	498
2,500-2,999	1,714	1,962	2,062	1,558	2,044	1,412	1,563	1,930	2,003	1,144
3,000-3,999	67	134	111	612	566	486	354	158	166	40
>3,999	6	1	-	7	4	3	1	8	58	13
	<b>3,861</b>	<b>5,873</b>	<b>5,891</b>	<b>6,970</b>	<b>6,655</b>	<b>5,932</b>	<b>5,555</b>	<b>6,393</b>	<b>5,906</b>	<b>3,189</b>

*Rajidae*  
First Season 2017 (01 Jan to 30 Jun)



*Rajidae*  
Second Season 2017 (01 Jul to 31 Dec)



*Patagonotothen ramsayi*—Rock Cod

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

VESSEL TYPE	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
PO	-	-	0	-	-	-	-	-	-	-
TR	60,601	58,236	76,451	55,705	63,510	32,435	56,693	29,086	7,039	2,520
	<b>60,601</b>	<b>58,236</b>	<b>76,451</b>	<b>55,705</b>	<b>63,510</b>	<b>32,435</b>	<b>56,693</b>	<b>29,086</b>	<b>7,039</b>	<b>2,520</b>

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

MONTH	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
January	2,918	2,746	892	3,521	112	743	-	32	933	40
February	7,170	6,061	5,674	5,993	3,086	3,197	560	1,780	1,024	139
March	9,907	4,961	10,163	2,502	9,016	2,847	1,251	1,527	750	415
April	8,356	9,532	13,402	6,205	10,051	3,837	1,170	4,442	1,167	434
May	8,522	11,050	11,580	11,150	14,240	2,751	9,128	9,544	536	84
June	2,290	3,136	5,281	4,578	5,500	922	5,940	3,806	131	19
July	1,832	2,801	4,449	2,571	3,680	675	8,922	390	226	109
August	4,116	2,820	4,027	3,697	4,945	2,935	7,334	756	923	564
September	4,824	3,811	6,007	4,036	3,288	4,898	5,984	729	992	547
October	5,364	6,637	8,929	7,536	5,352	5,086	7,925	1,093	235	127
November	4,477	3,239	2,064	2,889	1,877	2,111	5,997	841	72	31
December	826	1,442	3,984	1,028	2,361	2,435	2,482	4,146	51	11
	<b>60,601</b>	<b>58,236</b>	<b>76,451</b>	<b>55,705</b>	<b>63,510</b>	<b>32,435</b>	<b>56,693</b>	<b>29,086</b>	<b>7,039</b>	<b>2,520</b>

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

FISHING FLEET	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
CL	-	-	-	-	-	-	0	-	-	-
ES	41,276	42,580	52,869	39,646	52,389	25,024	45,833	23,986	3,581	670
FK	18,440	14,610	22,388	15,051	10,754	7,079	10,314	4,605	3,205	1,762
JP	-	-	0	-	-	-	-	-	-	-
KR	62	110	337	215	255	305	511	170	119	5
RU	-	-	0	-	-	-	-	-	-	-
UK	824	937	857	794	111	28	36	325	133	82
	<b>60,601</b>	<b>58,236</b>	<b>76,451</b>	<b>55,705</b>	<b>63,510</b>	<b>32,435</b>	<b>56,693</b>	<b>29,086</b>	<b>7,039</b>	<b>2,520</b>

*Patagonotothen ramsayi*—Rock Cod

Table M.4 Total catch (tonnes) by gross registered tonnage (GRT) and year

GRT	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<400	-	-	-	-	-	-	-	-	-	-
400-599	-	-	-	-	-	-	-	-	-	-
600-799	3,862	3,907	5,439	3,263	5,020	3,247	3,504	2,052	176	64
800-999	6,190	7,226	5,987	4,965	5,017	4,520	9,916	4,384	1,141	159
1,000-1,499	37,205	36,103	45,252	32,535	36,898	17,962	29,919	15,803	2,369	621
1,500-1,999	8,473	7,620	14,991	13,063	14,962	5,769	11,617	5,342	1,770	835
2,000-2,999	4,871	3,380	4,782	1,864	1,586	921	1,727	1,504	1,582	841
>2,999	-	-	0	14	26	16	10	-	0	-
	<b>60,601</b>	<b>58,236</b>	<b>76,451</b>	<b>55,705</b>	<b>63,510</b>	<b>32,435</b>	<b>56,693</b>	<b>29,086</b>	<b>7,039</b>	<b>2,520</b>

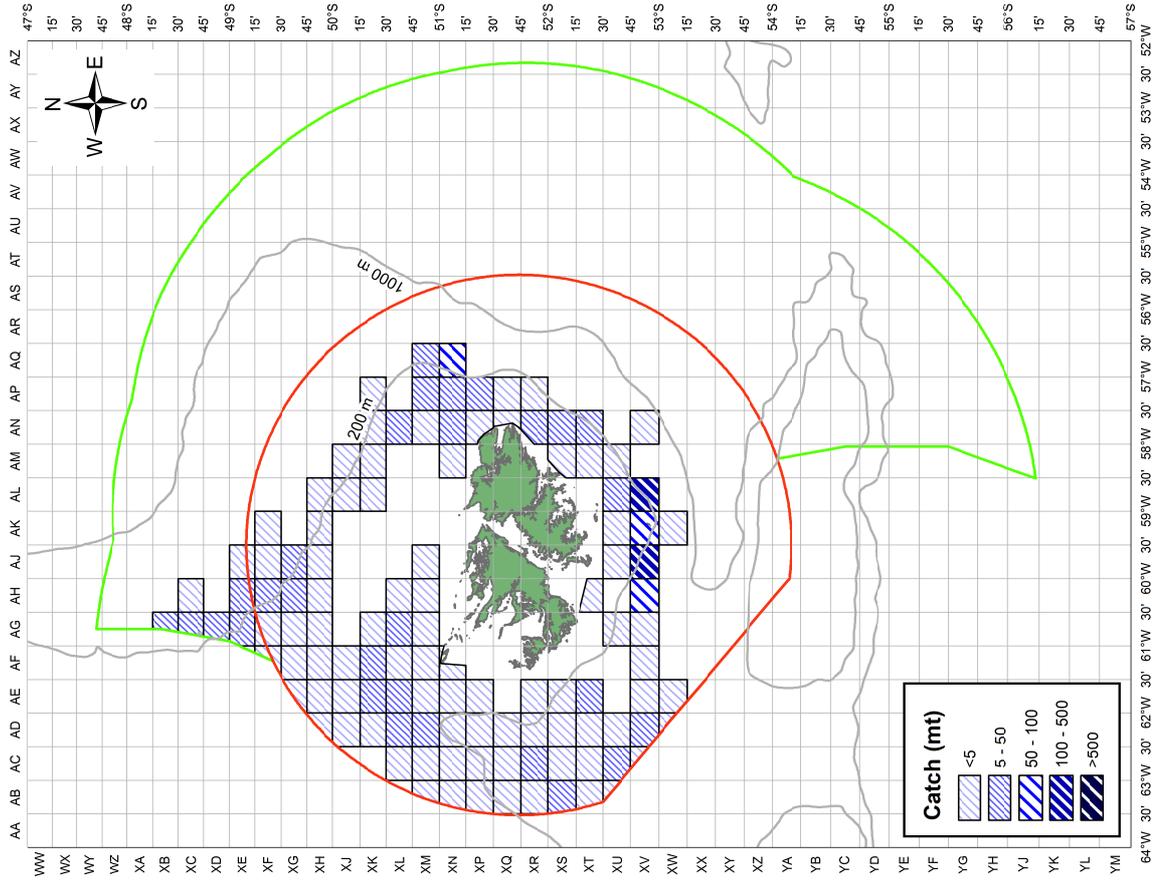
Table M.5 Total catch (tonnes) by length overall (m) (LOA) and year

LOA	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<45	447	581	406	1,320	-	423	206	341	32	-
45-49	6,334	6,985	6,398	4,042	5,446	3,589	3,586	2,304	392	88
50-54	3,238	3,382	4,559	4,022	6,086	2,357	6,457	2,313	615	90
55-59	11,264	8,982	14,261	9,111	8,607	5,175	5,094	2,776	511	184
60-64	17,866	17,626	19,211	15,229	17,588	10,483	17,822	9,724	1,722	687
65-69	10,892	11,095	18,160	12,406	14,543	6,245	12,916	6,317	1,618	565
70-79	9,922	9,318	13,009	8,946	10,628	3,926	10,176	4,893	1,525	754
80-89	359	129	127	463	308	111	161	150	209	87
>89	280	138	320	167	302	125	276	268	414	65
	<b>60,601</b>	<b>58,236</b>	<b>76,451</b>	<b>55,705</b>	<b>63,510</b>	<b>32,435</b>	<b>56,693</b>	<b>29,086</b>	<b>7,039</b>	<b>2,520</b>

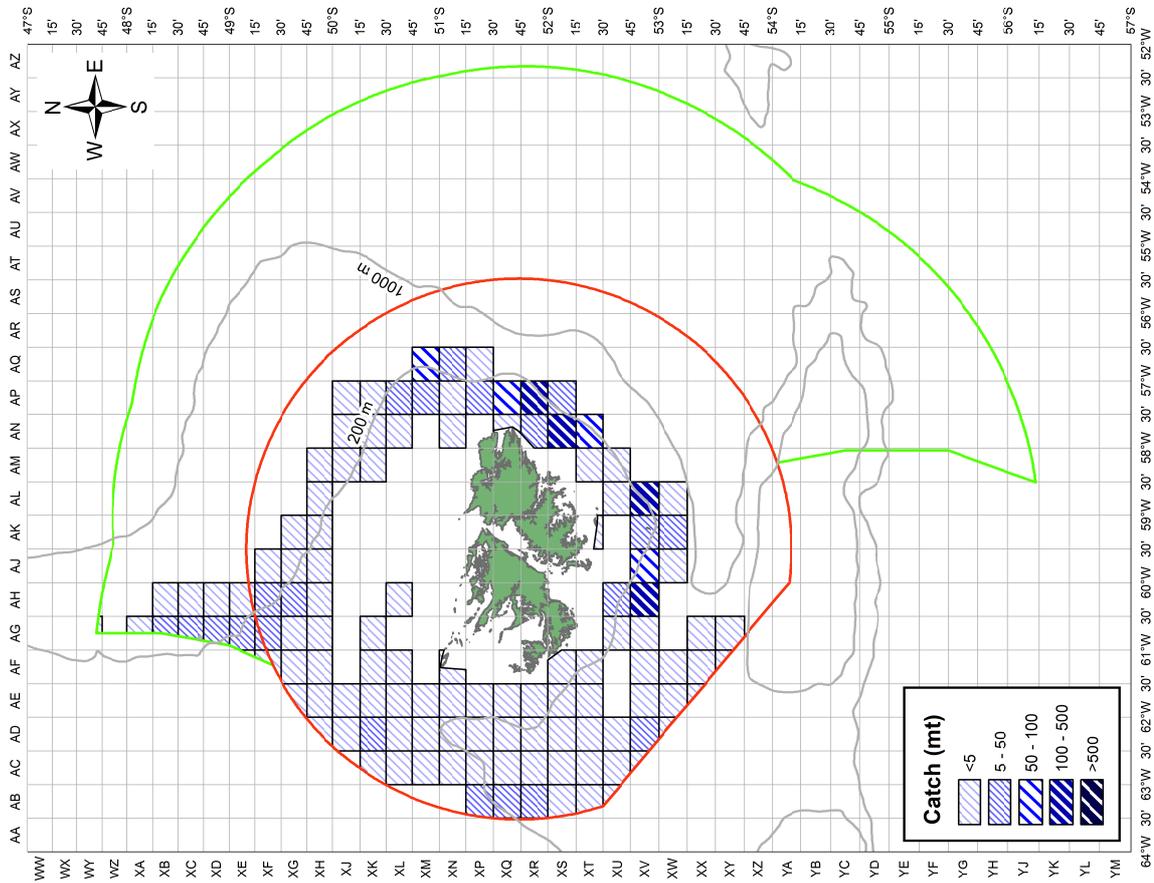
Table M.6 Total catch (tonnes) by brake horsepower (BHP) and year

BHP	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<1,000	-	-	0	-	-	777	-	-	-	-
1,000-1,199	-	-	406	829	-	423	206	341	32	-
1,200-1,399	1,922	1,278	1,759	1,116	2,358	1,442	1,829	804	-	-
1,400-1,599	6,287	7,987	7,410	6,276	7,034	2,940	8,277	3,326	863	149
1,600-1,799	11,351	9,680	11,480	6,858	8,410	4,838	6,066	2,516	607	58
1,800-1,999	20,096	19,088	30,393	20,282	24,136	10,812	17,336	9,710	1,890	431
2,000-2,499	14,870	15,482	18,777	16,983	17,959	8,803	18,926	9,548	1,669	716
2,500-2,999	341	241	573	571	2,011	1,345	2,321	1,125	551	101
3,000-3,999	5,056	4,050	5,192	2,056	1,140	746	1,345	1,412	1,092	771
>3,999	679	430	462	733	463	309	387	303	333	294
	<b>60,601</b>	<b>58,236</b>	<b>76,451</b>	<b>55,705</b>	<b>63,510</b>	<b>32,435</b>	<b>56,693</b>	<b>29,086</b>	<b>7,039</b>	<b>2,520</b>

*Patagonotothen ramsayi*  
First Season 2017 (01 Jan to 30 Jun)

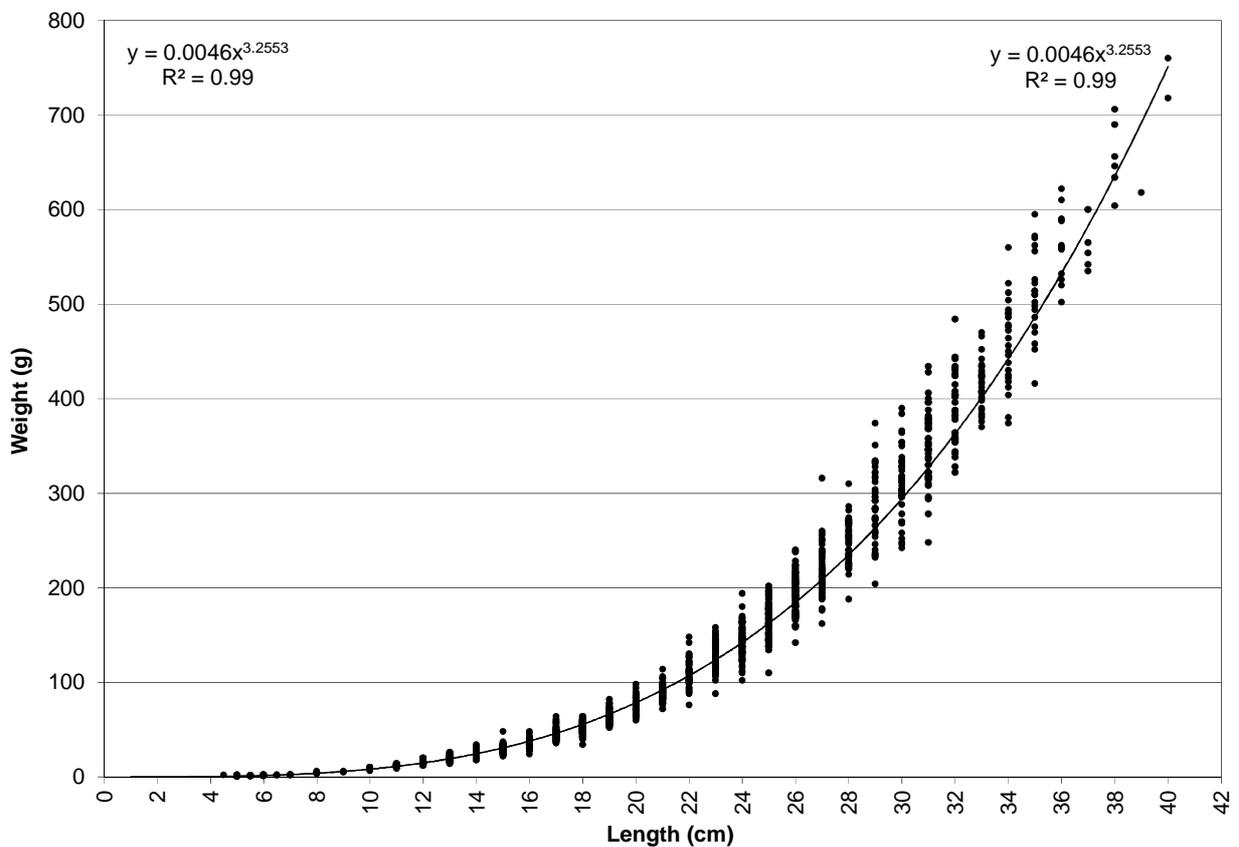
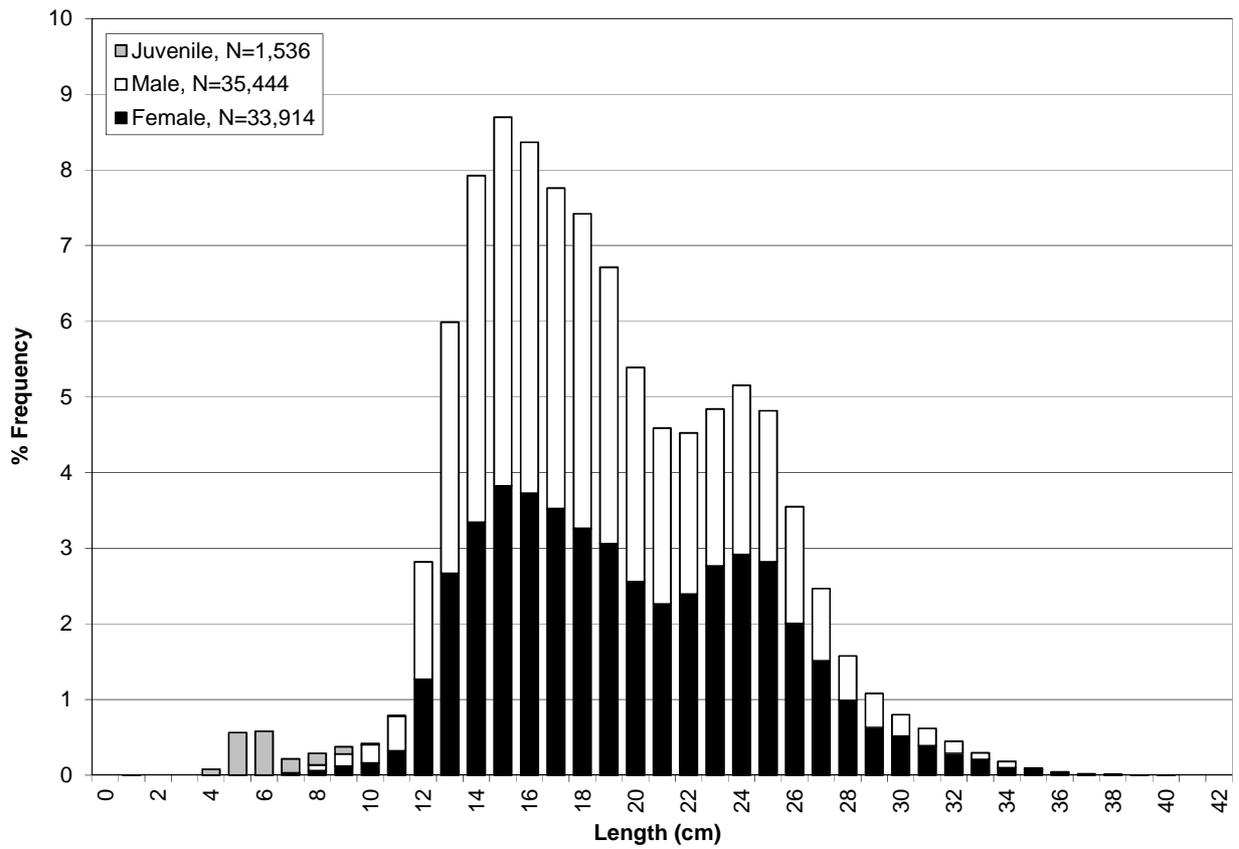


*Patagonotothen ramsayi*  
Second Season 2017 (01 Jul to 31 Dec)



*Patagonotothen ramsayi*—Rock Cod

Length– frequency distribution and length-weight relationship in 2017



## Others

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

VESSEL TYPE	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LO	115	99	94	130	104	97	83	107	109	68
PO	-	-	1	-	-	6	7	5	-	-
TR	1,365	1,130	600	2,264	468	920	281	603	2,500	3,620
	<b>1,479</b>	<b>1,229</b>	<b>696</b>	<b>2,393</b>	<b>572</b>	<b>1,023</b>	<b>371</b>	<b>715</b>	<b>2,609</b>	<b>3,687</b>

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

MONTH	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
January	74	59	14	28	18	45	12	13	93	166
February	109	700	36	69	24	216	76	30	356	40
March	159	171	72	32	30	179	45	57	158	60
April	72	55	77	66	38	106	34	79	260	119
May	60	33	16	350	26	28	11	17	127	64
June	31	18	7	921	10	21	35	5	70	49
July	341	9	17	573	26	11	33	23	46	89
August	243	21	178	90	104	185	26	67	92	186
September	38	56	118	73	145	47	45	109	47	161
October	30	45	20	126	63	85	20	89	51	680
November	96	41	99	40	54	75	22	100	583	1,710
December	226	22	42	26	34	26	13	127	727	363
	<b>1,479</b>	<b>1,229</b>	<b>696</b>	<b>2,393</b>	<b>572</b>	<b>1,023</b>	<b>371</b>	<b>715</b>	<b>2,609</b>	<b>3,687</b>

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

FISHING FLEET	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
CL	-	-	-	-	-	-	10	-	-	12
ES	1,166	970	318	2,008	258	261	114	475	2,274	3,214
FK	300	234	324	358	300	748	241	203	321	407
JP	4	2	38	5	0	-	-	-	-	-
KR	7	14	10	23	11	9	6	19	3	34
RU	-	-	1	-	-	-	-	-	-	-
UK	2	9	4	0	3	5	0	17	12	20
	<b>1,479</b>	<b>1,229</b>	<b>696</b>	<b>2,393</b>	<b>572</b>	<b>1,023</b>	<b>371</b>	<b>715</b>	<b>2,609</b>	<b>3,687</b>

## Others

Table N.4 Total catch (tonnes) by gross registered tonnage (GRT) and year

<b>GRT</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<400	-	-	-	-	-	6	7	5	-	-
400-599	-	-	-	-	-	-	-	-	-	-
600-799	87	11	66	97	16	20	27	16	80	34
800-999	310	184	141	183	162	275	87	270	1,375	292
1,000-1,499	172	168	239	142	154	595	133	264	720	2,042
1,500-1,999	860	827	203	1,954	196	93	86	125	373	1,206
2,000-2,999	46	36	9	12	43	34	28	34	60	114
>2,999	4	2	38	6	0	-	3	-	-	-
	<b>1,479</b>	<b>1,229</b>	<b>696</b>	<b>2,393</b>	<b>572</b>	<b>1,023</b>	<b>371</b>	<b>715</b>	<b>2,609</b>	<b>3,687</b>

Table N.5 Total catch (tonnes) by length overall (m) (LOA) and year

<b>LOA</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<45	28	4	0	6	-	6	7	30	539	-
45-49	250	54	67	107	32	20	7	33	70	46
50-54	106	116	137	161	129	259	104	221	622	177
55-59	30	76	77	104	73	98	6	19	249	241
60-64	37	81	76	1,764	66	366	101	218	453	1,719
65-69	835	803	119	148	145	219	94	110	536	1,333
70-79	182	86	177	95	105	48	25	70	121	158
80-89	2	1	2	1	16	3	9	2	3	11
>89	9	10	41	6	6	4	19	11	16	2
	<b>1,479</b>	<b>1,229</b>	<b>696</b>	<b>2,393</b>	<b>572</b>	<b>1,023</b>	<b>371</b>	<b>715</b>	<b>2,609</b>	<b>3,687</b>

Table N.6 Total catch (tonnes) by brake horsepower (BHP) and year

<b>BHP</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<1,000	-	-	1	-	-	6	7	5	-	-
1,000-1,199	-	-	0	1	-	0	-	25	539	-
1,200-1,399	38	-	3	1	2	9	1	1	-	-
1,400-1,599	328	174	198	179	138	286	114	211	801	268
1,600-1,799	5	45	83	71	7	334	91	78	366	554
1,800-1,999	841	792	138	181	173	259	77	117	504	1,775
2,000-2,499	190	156	209	1,920	180	78	44	198	209	815
2,500-2,999	11	21	13	23	27	13	22	33	124	103
3,000-3,999	42	36	9	11	25	32	3	37	53	122
>3,999	25	4	40	6	20	6	12	9	13	50
	<b>1,479</b>	<b>1,229</b>	<b>696</b>	<b>2,393</b>	<b>572</b>	<b>1,023</b>	<b>371</b>	<b>715</b>	<b>2,609</b>	<b>3,687</b>

## Others

Table N.7 Total catch (tonnes) of others by species in 2016

Common name	Latin Name	Catch mt
Blue Antimora	<i>Antimora rostrata</i>	15.9
Butterfish	<i>Stromateus brasiliensis</i>	7.9
Chinese Baby Face	<i>Neophrynichthys marmoratus</i>	0
Crested bellowfish	<i>Notopogon lilliei</i>	0
Dogfish, Catshark	<i>Schroederichthys bivius</i>	52.9
Dogfish, Spurdog	<i>Squalus acanthias</i>	50.4
Driftfish	<i>Seriolella porosa</i>	0.1
Eelpout	<i>Iluocoetes fimbriatus</i>	2.5
Falkland Herring	<i>Sprattus fuegensis</i>	17
Flat fish	<i>Mancopstta tricholepsis</i>	0.7
Frogmouth	<i>Cottoperca gobio</i>	56.1
Greater Hooked Squid	<i>Moroteuthis ingens</i>	2.1
Greenland Shark	<i>Somniosus microcephalus</i>	10.4
Hagfish	<i>Myxinidae</i>	0
Hairlip Brotula	<i>Cataetyx messieri</i>	0
Horsefish	<i>Congiopodus peruvianus</i>	0.1
Icefish	<i>Champscephalus esox</i>	3.5
King Crab	<i>Lithodes murrayi</i>	0.8
King Crab	<i>Paralomis formosa</i>	0.1
Krill	<i>Euphasia superba</i>	3.7
Lobster Krill	<i>Mundia gregaria</i>	156.4
Moonfish	<i>Lampris immaculatus</i>	0.5
Mullet	<i>Eleginops maclovinus</i>	0.1
Myctophid	<i>Myctophidae</i>	0.3
Notothened	<i>Patagonotothen tessellata</i>	9.2
Octopus	<i>Octopus/eledone spp.</i>	4.8
Pomfret Bream	<i>Bramidae</i>	3.4
Porbeagle	<i>Lamna nasus</i>	4.1
Red Fish	<i>Sebastes oculatus</i>	0.2
Sculpin	<i>Cottunculus granulosus</i>	0.3
Shrimp	<i>Campylonotus vagans</i>	0.7
Slender Tuna	<i>Allothunnus fallai</i>	7.6
Smooth Oreo	<i>Pseudocyttus maculatus</i>	0.1
Southern Driftfish	<i>Icichthys australis</i>	0.9
Stone King Crab	<i>Neolithodes diomedea</i>	0.2
Others	Others	0.8
		413.8

