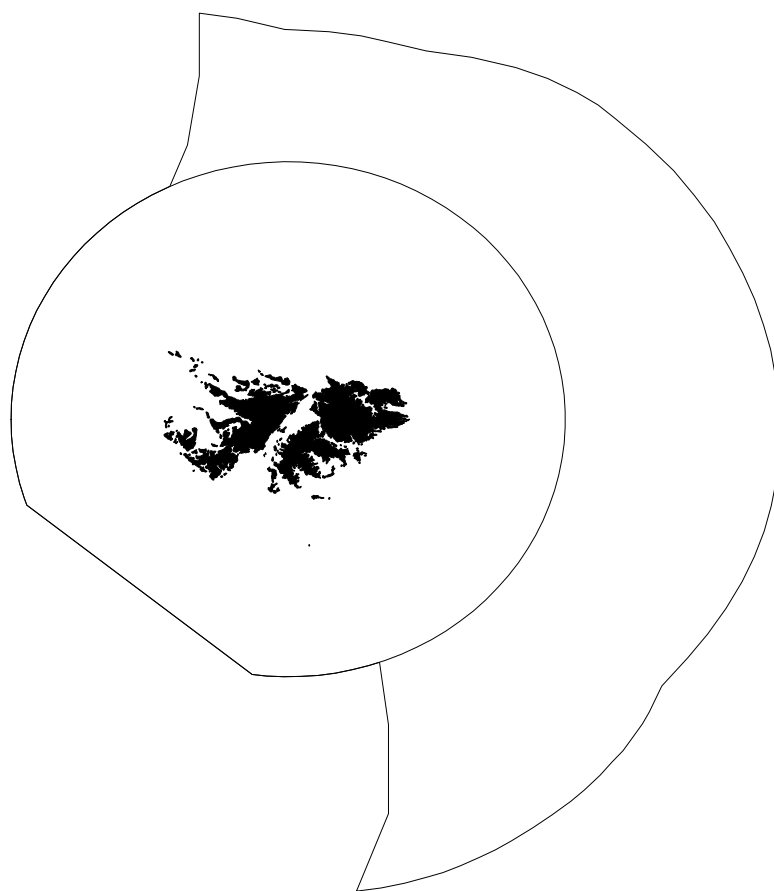


**FALKLAND ISLANDS GOVERNMENT
FISHERIES DEPARTMENT**



FISHERY STATISTICS

**Volume 12
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FOREWORD

1. The Falkland Islands' Fishery - 2007

The Falkland fishery marked its 20th anniversary with the highest catch since the year 2000. An excellent performance in both squid fisheries topped the total annual catch up to ~302 thousand tonnes. A major part of the total catch was taken in the *Illex* fishery (53.5%), followed by the *Loligo* fishery (13.9%). For the first time in the history of the Falkland fishery, the third position was taken by rockcod *Patagonotothen ramsayi* (9.9%), exceeding catches of other abundant finfish such as southern blue whiting (7.3%) and hoki (5.5%).

1.1. *Illex argentinus* – *Illex* squid

An increased variability in the environment in the Southwest Atlantic in conjunction with the presence of the large fishing fleet taking out adult squid and therefore contributing more to their mortality has caused enormous fluctuations (more than hundred times) in the abundance of *Illex* over the last 20 years of the Falkland fishery, this was reflected in the record catch of 266,000 tonnes in the 'bumper' year 1999 to the miniscule catch of just 2,000 tonnes in the unfortunate year 2004. This example shows how risky the squid fishing business can be and also has implications for the Falkland's economy where a significant proportion of revenue is derived from selling *Illex* licenses to fishing companies.

The good *Illex* fishery in 2006 raised some hopes about the recovery of the *Illex* stocks when only 43 licensed jiggers caught an impressive 82 thousand tonnes of squid. More fishing companies were attracted by that potential perspective, and 58 jiggers received their licenses to fish in the Falkland Zones in 2007. This year *Illex* licence fees amounted to some £6.26 million. As such *Illex* is still the most important fishery in terms of licence fee value, although it is significantly less than in some previous years, for example, £16.4 million in 2001.

The fishing started on a positive note on the High Seas, where several trawlers reported catches between 20 and 40 tonnes of *Illex* in January. Squid were rather small and immature, indicating that they belonged to the South Patagonian Stock (SPS) that usually migrate to the Falkland waters later in the season.

However, oceanographic conditions in the Southwest Atlantic in January-February appeared to be unfavourable for the SPS squid. A strong negative anomaly of sea surface temperatures (1-1.5°C) was observed over the entire Patagonian Shelf, causing a delay in southbound squid migrations. As a result, squid stayed for

longer on the High Seas, providing stable catches of 20-25 tonnes per day both for trawlers and jiggers in January.

In February, the Falkland Current was intensified throughout the whole month, creating strong gradient zones with warm shelf waters on the High Seas, and bringing colder waters to the northern part of FICZ. On the High Seas, trawlers had stable catches of 20-25 tonnes per day in the first half of the month. In the second half of February, catches decreased down to 11-15 tonnes per day, and then increased again to 18-22 tonnes per day by the end of the month. According to the information of 10-11 reporting jiggers, their catches on the High Seas were at a maximum in the middle of February (15-22 tonnes per night), with quite poor catches for the rest of the period (4-6 tonnes per night). The squid were quite small (19-21 cm ML) and immature. The proportion of larger squid of the summer-spawning cohort was small (<10%).

In the Falklands, the *Illex* fishery started as usual on 15th February with only 1-2 jiggers fishing. During the last week of February, the number of vessels increased up to 53 jiggers, all of them fishing in the north-west of FICZ in the area of a rather warm (11°C) inflow of shelf waters from the Argentinean EEZ. Catches were rather low (9-14 tonnes per night, with some vessels having ~50 tonnes per night), decreasing to 4-5 tonnes per night by the end of the month. Finfish trawlers reported a few hundred kg of *Illex* as by-catch in FICZ/FOCZ.

A strong negative anomaly of sea surface temperatures (1-1.5°C) persisted in March, causing a further delay in squid southbound migrations to their feeding grounds situated in Falkland waters. The fishery on the High Seas showed that the abundance of the Southern Patagonian Stock (SPS) this year was high. Outside the Argentinean EEZ, the fishing was extremely good during the first three weeks of March with trawlers having regular catches of 20-30 tonnes per day. By the end of the month, catches decreased to 8-10 tonnes per day due to the southern migrations of squid. Dense aggregations of *Illex* on the High Seas attracted all Falkland-licensed jiggers to fish there in the first half of March, with only 1-2 vessels checking the north-western part of FOCZ on their way to transship in Berkeley Sound. This was how the first jigger finally discovered the presence of *Illex* within the FICZ/FOCZ having a catch of 70 tonnes per night on 13 March. It took about a week for the jigging fleet to move to Falkland's waters, where catches remained consistently high until the end of the month, averaging 40 tonnes per night for 30-35 working vessels. A large portion of licensed jiggers (~22 vessels) still preferred to fish on the High Seas where the catches may have been even higher than those in the Falklands. Several trawlers targeted *Illex* in Falkland waters, and had good catches of 20-30 tonnes per day throughout the month. However, the majority of the trawlers had *Illex* as a by-catch preferring to target more valuable finfish species. Two groups of squid were observed in March, smaller and immature squid of late South Patagonian Stock (LSPS, 23-26 cm ML) and larger and more mature squid of early South Patagonian Stock (ESPS, 26-31 cm ML). The proportion of ESPS increased to the end of the month, when these squid start to migrate from the Argentinean EEZ through the FICZ/FOCZ to the shelf edge for subsequent pre-spawning migration northwards which occurred in April.

Oceanography in the Southwest Atlantic returned back to normal in April, with only a slight negative anomaly of sea surface temperatures (0.5°C) observed in the west of the FICZ. A relatively warm inflow of shelf waters (~9°C) was present throughout the month in the northern part of the FICZ/FOCZ and favoured concentration of *Illex* on its borders with colder waters of the Falkland Current (~7°C). Together with high abundance of the South Patagonian Stock (SPS) it resulted in the outstanding fishery for *Illex* in Falkland

Zones. The whole fleet of Falkland-licensed jiggers fished in the warm inflow throughout the month, having stable catches of ~60 tonnes of squid per night. At any given time, only 43-45 vessels were actually fishing, with the rest either being transhipped or waiting for transshipment in Berkeley Sound. With catches like this, it usually took about a week to fill up a vessel. Maximum catches achieved 130 tonnes per night. Almost all squid belonged to ESPS, with mainly maturing females of 30-32 cm modal ML, and mature males of 27-29 cm modal ML. At the end of April, LSPS started to appear in catches of trawlers working in the west of the FICZ (33-34 cm ML). The abundance of *Illex* on the High Seas in April was also high, as indicated by catches of *Loligo*-licensed trawlers returning to Spain after the end of the first *Loligo* season in the second half of the month (40-60 tonnes per day).

In May, the warm inflow of shelf waters in the northwest part of the FICZ/FOCZ cooled down to 8°C on the surface. There were quite strong temperature gradients on its both sides, favouring concentration of *Illex*. In the first half of the month, jiggers worked mainly in the northern part of the FICZ/FOCZ, having stable catches of 50-60 tonnes per night. Later, squid of the late South Patagonian stock (LSPS) migrated from the Argentinean EEZ to the western part of FICZ, and a part of the fleet moved there and had good catches (40-50 tonnes per night). In the last week of the month the LSPS squid moved further north outside the Falkland Zones, and catches declined to 20-25 tonnes per night. A majority of jiggers followed squid to the High Seas, with only 6 vessels left in FICZ/FOCZ.

The warm inflow of shelf waters in the northwest part of the FICZ/FOCZ finally dissipated in June with SST being 7-7.5°C everywhere to the north of the Falkland Islands. After the significant drop in catches at the end of May, only 10 jiggers stayed inside the FOCZ on the 1st of June, having catches of 25 tonnes per night. Four more vessels left the Falkland Zones on the 2nd of June, but catches increased again up to 35-45 tonnes per night. As a result, 6 to 7 jiggers returned to the Falkland waters to fish for squid, and the whole fleet of 10-14 vessels had stable mean daily catches of 40-42 tonnes per night until the end of the fishing season. Only LSPS squid were caught in June, mainly maturing females of 32-35 cm modal length. Sex ratio was with the prevalence of females (87%).

The fishing season was closed as planned on 15th June. The total Falkland *Illex* catch for the year 2007 achieved 161.5 thousand tonnes, which was the highest annual catch since the year 2000. However, taking into account the squid abundance (in terms of catch per vessel day) the season 2007 was the best season on record. There was a certain ambiguity about the recent squid season. On the one hand, it was excellent that the *Illex* stocks recovered indeed after two dramatic years of low abundance in 2004 and 2005. On another hand, large quantities of frozen squid from this year's catch had flooded the market and caused some difficulties to fishing companies.

1.2. *Loligo gahi* – Patagonian squid

The second most important squid resource, the Patagonian longfin squid *Loligo gahi* is fished in the eastern and southern parts of the Falkland Shelf in the region called the '*Loligo* box'. Two main cohorts of *L. gahi* are usually exploited; the autumn-spawning cohort in February-April and spring-spawning cohort in July-September.

Similar to *Illex* distribution, the intensified and colder than usual Falkland Current impacted the distribution of *Loligo* before the start of the first season. Several shallow water trawls were made during the research

cruise onboard the *Dorada* before the first season. They revealed a significant abundance of *Loligo* in their in-shore nursery grounds. The squid did not appear in their common feeding grounds by the time of the biomass survey onboard the commercial trawler *Argos Vigo* (between 9 and 23 February), causing a severe underestimation of their biomass. During the biomass survey, 65 hauls were made in selected localities with a total catch of about 100 tonnes of *Loligo*. The estimated biomass at the time of the survey was 2,684 tonnes and it was composed by 71% females. This biomass corresponded to 26% and 7% of the biomass estimated in February 2005 and February 2006 surveys, respectively.

After some controversy about the timing of the start of the fishing season, it was decided to start it as usual on 25th February with all 16 licensed trawlers. After the first two days of unsuccessful fishery (average 4-5 tonnes per day), catches increased and stabilized at 14-15 tonnes per day until the end of the month. The main effort was concentrated in a small area to the south of Sea Lion Islands at 80-90 m depths. The squid were all immature, about 1 cm larger than in 2006 (mean ML of 11 cm), belonging to the autumn-spawning cohort.

In March, colder than usual waters of the Falkland Current occupied the fishing grounds of *Loligo*. That forced squid to stay longer in shallow waters. However, frequent strong northern and north-westerly winds pushed squid out to the fishing grounds. For the most of March, the fleet worked around Beauchene Island, first in shallow waters to the north-east (80-100 m), and then to the east at 130-140 m depths. Catches were quite stable throughout the month with the mean of 21 tonnes per day. Several peaks in CPUEs were observed indicating new pulses of squid migrating from shallow waters. They were more frequent in the second half of the month (17, 22 and 29 March). All squid caught belonged to the autumn-spawning cohort. Squid sizes were larger than usual by 1-1.5 cm as a result of their longer stay in relatively warmer shallow waters.

The almost complete disappearance of the cold anomaly of water temperatures around the Falklands in April improved the *Loligo* fishery as well. An abundant wave of relatively small squid (10-11 cm ML) migrated from shallow waters to the fishing grounds to the east of Beauchene Island at 140-150 m depth. Three peaks in catches (>35 tonnes per day) were observed in the last two weeks of the fishery (on 4, 10 and 14 April), with quite sharp declines in CPUEs after each peak (to 20-25 tonnes per day). The first season was closed as planned on 15th April. The whole biomass that arrived to the fishing grounds was estimated at 37,517 tonnes, and the spawning stock biomass was estimated to be 12,250 tonnes. The management objective of leaving 10,000 tonnes of SSB was met with a precautionary risk of 0.017.

The total catch for the whole first season equaled 17,388 tonnes, which was at an intermediate catch level for the last five years.

Another biomass survey was conducted before the second fishing season on board the F/V *Sil* between the 30th of June and 14th of July 2007. Fifty two trawls were conducted at selected localities with a total *Loligo* catch of 131 tonnes. Only daytime trawls (40 trawls) were used in biomass estimations because *Loligo* schools disperse in the water column at night. The estimated biomass at the time of the survey was 19,198 tonnes of the spring-spawning cohort squid. This biomass was 15% lower than the biomass estimated in July 2006 survey, but in terms of number of individuals it was 47% lower, because squid were about 2 cm larger than in the same period of 2006. Later in the fishing season it was recognized that the biomass estimated during the survey represented only the first wave of squid that had migrated to the *Loligo* box. Three more abundant waves of squid migrated to the fishing grounds during the second season, two waves to the Southern area and one wave to the Central-Northern area.

The second season fishery started on 15th July, with the bulk of vessels fishing in the southern area to the east of Beauchene Island (12 trawlers). The catches near Beauchene Island were variable (17-20 tonnes per day). In the next few days the fleet relocated to the Northern and Central areas, where the catches increased up to 30-40 tonnes per day. Unfortunately the catches were not stable, and during the last week of the month, the fleet returned to fish mainly in the Southern and Central areas, having 15-20 tonnes per day. Average size of squid in catches was 13-14 cm ML, which was about 1.5 cm larger than during the same period of the last year.

In the beginning of August, catches increased again up to 35 tonnes per day, and remained stable until the fourth week of the month. The fleet fished mainly in the southern part of the *Loligo* box to the west of Beauchene Island at depths of 210-240 m. The maximum peak in CPUEs was observed on the 19th August (mean of 51 tonnes per day) followed by a sharp decrease to 13-17 tonnes per day during the fourth week. At the end of the month, squid aggregations appeared again in the 'Seco' area, resulting in another although smaller peak in CPUE's (29-30 tonnes per day). The fleet spent relatively small effort in the Northern area in August, with catches up to 20 tonnes per day. Because of large concentrations of rock cod in that area, trawlers preferred to fish in the south where *Loligo* catches were much cleaner. All squid in catches belonged to the spring-spawning cohort with average size of squid was 14-15 cm ML.

During the first week of September, CPUEs gradually declined from 30 tonnes per day down to 10 tonnes per day. Projections of the stock biomass showed that it might fall down to the 10,000 tonnes limit if the fishery would carry on after 15th September, and it was decided to finish the second season two weeks early. The fishery was closed on 15th September. Total catch by the *Loligo* fleet during the second season was approximately 24,000 tonnes, being an intermediate catch for the last 10 years. The post-season stock assessment used a new integrated depletion model that had been developed to estimate simultaneously the biomass by wave of abundance and the catchability coefficients by vessel and area. It was estimated that the total *Loligo* biomass appeared in the fishing grounds during the second season was about 48,500 tonnes and the spawning stock biomass was estimated at 11,458 tonnes. The probability that CPUE would continue decreasing after the 15th of September was estimated at 0.84; the risk that spawning stock biomass was lower than 10,000 tonnes was estimated at 0.09. Therefore the management objective to leave the minimum SSB was met with a combined risk at 0.07.

Even with the delay in *Loligo* migrations in the first season and early closure of the second season, the total annual catch of *Loligo* in 2007 attained ~42,000 tonnes being at the intermediate level for the decade.

1.3. *Martialia hyadesi* – *Martialia* squid

No catch of *Martialia* squid was reported within the FICZ/FOCZ.

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

Southern blue whiting fishery is one of the most important finfish resources in the Falkland Islands, being caught in large quantities by specialised surimi vessels as well as by the finfish fleet.

In 2007, the total catch (22,154 tonnes) remained below the 25,000 tonnes threshold suggested for the Falkland fishery. While the owners of surimi vessels credited the lower catches to decreasing abundance of southern blue whiting, those could be also explained by decreased fishing effort. Usually, surimi trawlers caught southern blue whiting during two seasons, one in autumn (feeding aggregations) and another one in

spring (spawning aggregations). However, as in 2006 surimi trawlers did not operate in autumn, and southern blue whiting was caught only as a bycatch during finfish fishery. Pre-spawning concentrations of southern blue whiting appeared in the southwest of FICZ at the end of August. They were targeted by several finfish trawlers with CPUEs as high as 50-60 tonnes per day. In September, the fish aggregated at their spawning grounds. Both spawning and post-spawning aggregations were targeted by the finfish trawlers that resulted in an impressive monthly catch of ~ 8,000 tonnes. Sometimes half an hour' trawl produced enough catch (50-60 tonnes) to require processing it for the rest of the day. One surimi trawler finally appeared in the beginning of October, and started to fish in the southern area, having 200-250 tonnes per day. The catches dropped in the second week (to 130-150 tonnes per day), but then again increased peaking up to 387 tonnes per day by the end of the month. Surimi vessels continued targeting post spawning aggregations in November, but the catches were lower due to earlier migrations of fish outside the FICZ/FOCZ. In December, a surimi trawler fished only for the first five days, with maximum catches up to 150 tonnes per day, and then left the fishery.

In the absence of the joint UK-Argentine acoustic survey of southern blue whiting in the last few years, their stocks have been assessed by the VPA analysis using commercial catch data. It indicated that the stocks have been starting to recover from their downward trend observed between 2000 and 2003. However, the stock abundance was still far away from reaching the biomass similar to that observed in early 1990-s. Also, stock estimations based only on the fish caught in Falkland waters are quite arbitrary as an unknown part of the stock migrates outside the Falkland waters in summer-autumn, and also another unknown proportion of southern blue whiting remains in the Argentinean waters.

1.5. *Macruronus magellanicus* - hoki

Hoki is one of the most abundant pelagic fishes occurring in Falkland waters. The total biomass of hoki in Falkland waters has been difficult to estimate as only a part of the total stock migrates to the FICZ. In the Falklands, hoki is one the main finfish species targeted by the finfish trawl fleet. It is also occasionally caught in large amounts as by-catch by surimi vessels targeting southern blue whiting.

In 2007, a total of 16,653 tonnes of hoki were caught, which was the lowest annual hoki catch in the last decade. As in the previous two years, the relatively low catches seem to originate not from the low abundance of hoki but from lower fishing effort. In autumn and winter the trawlers, especially those with A- licences, preferred to target abundant aggregations of hake and kingclip rather than hoki. Even vessels working under 'restricted finfish' licences had the odd haul consisting of 80% hake. Some of these vessels had difficulties to find fishing grounds where they could target hoki without going over their 10% allowance of hake by-catch. After hake emigration in September, the vessels returned to target hoki in October and November.

The highest monthly catches were in October (2,461 tonnes), with CPUEs of up to 2.5 tonnes per hour. Surimi vessels while targeting southern blue whiting had some large catches of hoki in November and December, including one particular haul in November of 198 tonnes with a record CPUE of 20 tonnes per hour.

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

Hake abundance in Falkland waters continued to be very high. As in 2006, large numbers of common hakes migrated from their spawning grounds in Argentinean waters in autumn, and stayed in the northwestern part of FICZ until September. Catches in May and June saw the record CPUEs of up to 3.5 tonnes per hour.

Once again vessels whose owners had not purchased an unrestricted finfish licence struggled to find good fishing areas to be able to fish for other finfish species while staying within the allowable bycatch limits (<10%). Hakes emigrated from their feeding grounds earlier than in 2006 (second half of September rather than end of October), causing a drastic drop in CPUEs. Nevertheless, the total annual catch hit a record again for the last 15 years, reaching 11,899 tonnes.

1.7. *Genypterus blacodes* – kingclip

Kingclip is one of the most valuable by-catch species on the Falklands Shelf. During their migrations individuals aggregate in dense schools to the north – western and western parts of FICZ. The cumulative catch for 2007 (3,582 tonnes) represents the highest catch on record since the beginning of the Falkland fishery in 1987. This year saw high catches in August and September, 709 and 494 tonnes respectively with the former also being a record for that particular month in the history of the fishery. The effort in the trawl fishery has remained relatively stable over the last 4 years but the catch and thus the CPUE have shown an upward trend indicating a greater abundance of kingclip in Falkland waters from 2003 onwards. The reasons of such an abundance increase are unclear but could be a result of changes in regional oceanography.

1.8. *Salilota australis* – red cod

The total catch of red cod increased again in 2007 yielding the highest catch in the last six years (5,184 tonnes). The highest catches tended to be from August to November when some vessels, depending on market demand, targeted pre-spawning, spawning and post spawning aggregations to the west and south west of the Falkland Islands. The other productive months for red cod were April and May with 502 and 504 tonnes being caught respectively. The trawler effort had been relatively stable since 2003 but there was an upward trend in catches suggesting that red cod abundance is on the increase. Further examination of the data suggested that a handful of vessels targeted red cod between September and October with one vessel in particular being most successful. CPUEs over 10 tonnes per day, during this period, rose from 8 in 2003 to 19, 10, and 35 for 2004, 2005, 2006 and 2007 respectively. This suggested that the vessels were targeting red cod in their spawning aggregations at greater rate because of increased market demands. Therefore the increased catch and CPUE in 2007 was not necessarily a reflection of an increased abundance.

1.9. *Dissostichus eleginoides* – Patagonian toothfish

TAC for 2007 was set at 1,500 tonnes as suggested by an Age Structured Production Model (ASPM) conducted by RRAG in 2006. The RRAG ASPM estimated that the spawning stock biomass varied between 18,000 to 18,500 tonnes with MSY estimates between 1,468 and 1,640 tonnes. A FIFD assessment using 3 surplus production models also concurred with the above estimates. The table below illustrates the results of the assessments:

<i>Model</i>	<i>R – Yield</i>	<i>Final stock/Virgin Stock</i>	<i>Coefficient of correlation</i>
Fox	1,569 t	76.3%	0.450
Schaefer	1,566 t	73.4%	0.463
Pella - Tomlinson	1,293 t	42.0%	0.721

The longline fishery started reasonably with both the *CFL Gambler* and *CFL Valiant* fishing. The average daily catch between January and the end of March was 3.6 tonnes. However, technical problems on *CFL Valiant* forced her to go to Montevideo for repairs in April, where she stayed until the beginning of August. Another longliner, *Jung Woo 1* entered the fishery in the 22nd April to substitute the *CFL Valiant* and remained in the fishery until 13th May, having an average of 2.9 tonnes per day. This left only one vessel in the fishery until the *CFL Valiant* returned on the 8th of August. As a result, CFL were severely behind in their TAC and this was further compounded by the *CFL Gambler* leaving for dry dock on the 4th October which took over two months seeing her return on the 16th of December. To increase the catch and reach the TAC target, CFL chartered a Chilean longliner, the *Global Pesca 1* from the 23rd of October until the end of the year. All three vessels were in the fishery from the 16th of December and this resulted in the highest monthly toothfish catch for December in a decade (266 tonnes).

May saw the experimental introduction of the umbrella system of longlining by the *CFL Gambler* and by September this system was being used on an almost full time basis. This relatively new system eliminated the need for the ‘mother line’ used in the classic Spanish system. The umbrella or ‘cachalotera’ covers the toothfish as they are being hauled and anecdotal evidence suggests that this reduces depredation, leading to an increase in CPUE in the presence of whales. Additionally, the hook line has a 6 kg weight attached to its bottom that make it sinking faster behind the vessel, reducing incidental seabird mortality. Data analyses suggested that there was as much as a threefold increase in catch per 1000 hooks. Interestingly, when all three vessels were fishing together in December, the *Global Pesca 1* almost consistently had better catches and this was due to the fact that they had a faster hauling winch and could therefore haul more umbrellas. With the help of the *Global Pesca 1*, CFL only fell 34 tonnes short of their TAC.

1.10. Rajidae – Skates and rays

The most common species caught in the 2007 fishery were *Bathyraja brachyurops*, *Dipturus chilensis*, *Bathyraja griseocauda*, *Bathyraja albomaculata* and *Psammobatis* spp. However, figures for individual skate species were only available from January to April. Similar to 2006, no vessels operated under skate licence during the first half of the year and skates caught during this period were taken as bycatch by the finfish and longline fleets. Seven Korean-flagged vessels entered the fishery in the second half of the year and were joined for the first time by 3 Spanish-flagged vessels. A single Korean and Spanish vessel operated in July with relatively high CPUEs of 14 and 11 tonnes per day respectively, and then were joined by six more Korean and one more Spanish trawlers in August. Average CPUE for the Spanish vessels was lower (10 tonnes per day) in comparison with 15 tonnes per day for Korean vessels. Seven Korean vessels continued to target skates in September, maintaining a CPUE of 15 tonnes per day. In October, most of the Korean vessels withdrew from the fishery leaving only two vessels, however all three Spanish flagged vessels carried on fishing. The highest CPUE of 18 tonnes per day were reported by Korean vessels, and Spanish CPUE also increased to over 13 tonnes per day. One Spanish vessel withdrew for the season in November, the remaining two ceased fishing by December after reporting very low CPUE of less than 5 tonnes per day. Only one Korean vessel fished in November but was replaced in December by 3 other vessels with CPUEs of 14 tonnes per day for the final month of fishing for 2007.

After just one season of fishing by Spanish flagged vessels there are still relatively few coincident

points (spatially and temporally) where direct comparisons between vessels of different nations can be made. Superficially however, the Spanish boats seemed to be fishing somewhat below potential if GRT were an indication of fishing power. With the exception of *Pesmar Dos* (which had a CPUE comparable to Korean vessels - and was fishing within areas fished by the Korean trawlers), the Spanish vessels fished areas not generally targeted by Koreans. Another notable contrast was relatively high levels of bycatch reported by the Spanish vessels in comparison to Korean vessels. Total skate catch for 2007 under skate licence was 3,513 tonnes which was below the conservation target of 4000 tonnes. However a further 2,139 tonnes were taken under other licences resulting in the total skate catch for 2007 of 5,652 tonnes. This total annual catch was the second highest recorded; only slightly less than the 5,698 tonnes of skate taken in 2005.

1.11. *Patagonotothen ramsayi* – Rock cod

Rock cod was targeted by Spanish and taken also by Korean trawlers more or less evenly throughout the year, with some decrease in monthly catches during decreases in fishing activity (January, June and December). Catches of skate-targeting Korean trawlers were low, being of about several hundred kg per day, whereas catches of Spanish and Falkland vessels often exceeded 30 tonnes per day, maximum – 77 tonnes per day. Mean daily catch was 8.5 tonnes per day for Spanish trawlers and 5 tonnes per day for the Falkland registered vessels. Most of the catch was taken in the northwestern part of FICZ. Fish were targeted between 100 and 300 m, the best catches obtained between 150 and 200 m. Fish size in catches ranged from 15 to 37 cm in length (22-29 cm modal length). Annual catch of 30,635 tonnes was the largest ever recorded. A total of 19,098 tonnes (62.3%) of medium – sized and large fish were processed HGT and frozen to export to the Eastern Europe.

1.12. *Macrourus* spp., *Coelorhynchus* spp. – Grenadiers

Grenadiers were taken as a bycatch by longliners and trawlers throughout the year. Total longline bycatch was 67 tonnes, while the trawlers took 162 tonnes of fish. Most of the longliners' catch and 36% of trawlers' catch were processed. These data do not include the results of an exploratory survey.

The deep-sea exploratory survey was conducted onboard a Spanish trawler between 20 October and 30 November, that resulted in additional catch of 393 tonnes of grenadiers. The survey covered the area between 45°28' S and 53°37' S, with depth ranged from 401 to 1,404 m. Areas of the Falkland slope covered by abundant deep sea corals were left unexplored. The survey showed relatively low grenadier abundance on the high seas; a majority of fishes being small-sized subadults. Dense commercial aggregations of *Macrourus carinatus* (CPUEs >15 tonnes per day) were revealed on the southern Falkland slope, mostly between 700 and 900 m. Fish of the commercial size (>12 cm pre-anal length, PL) comprised 95.2% of the total catch by number. Mean fish size in catches was 19.6 cm PL, mean weight was 1,077 g. The stock biomass was estimated using the swept area method. Assuming catchability coefficient being equal 1, the minimum stock biomass of *M.carinatus* within the area studied was estimated as about 200,000 tonnes with a possible MSY of 8,000 tonnes per year.

1.13. *Zygochlamys patagonica* - Patagonian scallop

After the last year's grounding and capsizing of the only scallop trawler, a small by-catch of scallops (14 tonnes) was reported for 2007.

1.14. *Eleginops maclovinus* - Falkland mullet

The small scale beach seine fish for the Falkland mullet continued through 2007 with a gap in winter. A total of 8.7 tonnes were caught in 8 creeks and inlets around East Falkland. The most popular sites visited in 2007 were, in order, Fish Creek (Port Louis), Teal Creek (Darwin Area) and Rincon Boundary. The total catch for 2007 was slightly lower than that of 2006.

1.15. *Paralomis granulosa* - false king crab

Only 352 kg of false king crab were caught in 2007 which was much reduced in comparison to the 6.1 tonnes caught in 2006.

1.16. Others

Butterfish (*Stromateus brasiliensis*), redfish (*Sebastes oculatus*), lobster krill (*Munida* spp.) and other various 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 2007

Research cruises were conducted on board the Fishery Patrol/Research Vessel *Dorada* registered in the Falkland Islands. The *Dorada* (ZDLH1) is a stern trawler of 76 m in length, 2360 GRT, having a crew of 16-20. Six to eight scientists participated in each cruise.

2.1. Fisheries research cruise ZDLH1-02-2007 (2 - 15 February 2007)

This research cruise was undertaken in the northern and north-eastern parts of the Falkland Islands shelf with the primary objectives to examine the species composition and distribution of skates, and to reveal the abundance of juvenile and young *Loligo gahi* in their shallow water spawning and nursery grounds.

The vessel departed Stanley in the evening of 2nd February, and proceeded to the southernmost transect (R5) of the 'ray' box. Three transects (R3-R5) in the eastern part of the box were made between 3rd and 5th February. After receiving a gale warning in the evening of 5th February, the vessel moved to shallow waters north of the Islands, where the following four days were spent trawling for *Psammobatis* skates and *Loligo*. Strong south-westerly winds did not allow the vessel to proceed to the western part of the ray box until 10th February, and the survey of the box was completed only on 13th February. The last day of the cruise was spent in shallow waters to the northeast of the East Falkland, fishing for shallow water skates and *Loligo*. The *Dorada* arrived to Stanley in the morning of 15th February. No days were lost due to bad weather.

During the cruise, a total of 36 bottom trawls were made with the total catch of 41 tonnes comprising over 100 species of marine animals. The greatest catches were the Patagonian rockcod (*Patagonotothen ramsayi*) and hoki (*Macruronus magellanicus*). A total of 15 skate species were caught, 1532 of them were tagged to investigate their migrations.

2.2. Fisheries research cruise ZDLH1-06-2007 (26 May – 12 June 2007)

The second research cruise was carried out in the northern parts of the FICZ/FOCZ with the objectives to ascertain where and when the squid *Illex argentinus* migrate off the Falkland's shelf at the start of their northerly spawning migration, and to gather oceanographic data on the shelf and shelf break in order to identify environmental features involved in this migratory behaviour. The cruise team consisted of 7 FIFD scientists and one scientist from Falklands Conservation. The FC scientist was on board to try and improve the efficiency of trawler tori lines.

The *Dorada* departed Stanley on the 26th May and proceeded to the deepest station on R4 (600 m). After finishing a CTD at R4-200 m, the vessel came back to Stanley to pick up a winchman, after which the remainder of the cruise was spent looking for *I. argentinus* from R3 to R1 and R7 between transects in order to locate dense aggregations. The survey was designed to be flexible in order to map out oceanographic features associated with any large aggregations. The vessel fished shallower stations on the shelf and upper slope (~150–350 m) during the day and deepwater stations at night (~600–700 m) as *I. argentinus* behaviour indicated that they were near the bottom at these times. No days were lost to bad weather; however, strong winds prevented a CTD and a trawl being conducted on 1st June. The cruise was completed successfully and the vessel returned to port on the 12th June.

Over the period of the cruise a total of 39 semi-pelagic trawls, 2 pelagic trawls and 46 oceanographic stations were conducted. A total of 10,732 kg was caught comprising over 110 species. In terms of weight, the greatest catches were *Illex* squid, hoki, grenadiers, jellyfish and *Loligo* squid.

The survey revealed an oceanographic “gateway” that enabled *I. argentinus* to migrate off the shelf into deeper water for their northerly spawning migration. Tests on the buoyancy of different maturity stages of *I. argentinus* helped to explain their depth segregation by maturity. This illustrated that *Illex* used different density waters at differing buoyancy properties (i.e. maturity stages) in order to conserve energy.

2.3. Fisheries research cruise ZDLH1-10-2007 (3 – 18 October 2007)

The third research cruise for 2007 was undertaken on the shelf to the south and west of the Falkland Islands. The main task of the cruise was to continue studies of the spawning grounds of red cod started in 2006 (cruise ZDLH1-10-2006). Additionally, migrations of skates were further investigated by tagging the most common species occurred in the Falkland Shelf.

The vessel departed in the evening of 3 September, and proceeded to the Beauchene Island, where the first bottom trawls were made next day. Several days were spent attempting to find spawning aggregations of red cod in the XUAH grid square (where they were in 2006), but it was not successful. Then the vessel moved to the western part of the survey, where dense concentrations of spawning and post-spawning red cod were finally found to the west of New Island and Jason Islands. Two last days of the cruise were spent again in XUAH, where finally small aggregations of post-spawning red cod were found. No days were lost because of bad weather. The *Dorada* arrived in Stanley on the morning of 18 October.

During the cruise a total of 48 bottom trawls and 58 oceanographic stations were conducted. This cruise yielded over 25 tonnes of over 110 species of fish and marine invertebrates. The most important species in terms of weight caught during this cruise were *Patagonotothen ramsayi* (Patagonian rockcod), *Salilota australis* (redcod) and *Genypterus blacodes* (kingclip). The results of the cruise significantly extended the spawning grounds of redcod from southern areas of Cape Meredith to the western areas of new Island and Jason Is-

lands. Spawning aggregations were found only on rocky bottoms. An experiment on survival rates of rockcod showed that significant numbers of these fish can survive after being caught and kept up to one hour in the fish bin with running water.

3. Fisheries Department research contracts in 2007

The Falkland Islands Government's financial year runs from 1 July to 30 June and most external research contracts in the Fisheries Department had these same start and end dates. Contracts completed by the end of June 2007 are presented below. This was the final year of the current five-year contract (2003-2007) with the Renewable Resources Assessment Group (RRAG, Imperial College, London, principal investigator Dr. David Agnew) to provide stock assessments, fisheries management and licensing advice for the main fisheries stocks around the Falkland Islands.

3.1 'Seasonal and interannual variations in oceanographic conditions on the eastern continental slope and shelf of the Falkland Islands (November 1999 – February 2007)'

This study was carried out by principal investigator Dr. P.P. Chernyshkov and Dr. A. Sirota from the Laboratory of Oceanography, Atlantic Institute of Marine Fisheries and Oceanography (AtlantNIRO), Kaliningrad, Russia.

Water structure and dynamics, as well as their variability on the Falkland Island shelf have been studied using the data collected by the PV Dorada in 2006-2007. Seasonal and interannual variability of water masses on the eastern shelf (transect P1) and southern shelf (transect P5) were described. Data from two surveys to the south and to the southwest of the Falkland Islands were used to monitor environmental conditions on the shelf.

3.2 'An individual-based model for the evaluation of spawning biomass and management tactics in the *Loligo gahi* stocks of the Falkland Islands'

This work was carried out by R. Roa-Ureta, Scientific Consultant, Departamento de Oceanografía, Universidad de Concepción, Concepción, Chile.

An individual-based model to project the evolution of the two cohorts of the squid *Loligo gahi* has been developed in Matlab. The model introduced the most updated biological and population ecology knowledge of the squid and of operation of the Falkland fishing fleet. The model was run with abundance estimates from 2005 for the Spring Spawning Cohort (SSC), fished in the winter season, and from 2006 for the Autumn Spawning Cohort (ASC), fished in the summer season. Two scenarios were defined, one in which the management target (MT) was set at the current level of 10,000 tonnes of spawning biomass, and another where the MT was raised to 15,000 tonnes. The model predicted that the spawning biomass of the SSC and the catches taken from it would increase in the mid term (few years) if the MT is raised and/or the winter season is shortened, whereas it also predicts that an increase in the MT for the ASC would not yield noticeable benefits. In the model it was assumed that management took two weeks to realize that the spawning biomass was under the MT and to stop the fishing activities. Under this condition the SSC fishery would often be terminated before the scheduled finish date under both MT levels.

4. Reductions in seabird mortality in the Falkland Islands

In 2004 the FIG adopted the National Plan of Action – Seabirds for Longliners (NPOA – S). The aim of the NPOA was to reduce bycatch rates to below 0.01 birds/1000 hooks by 2004/2005 and to further reduce the level of bycatch to the level of 0.002 birds/1000 hooks by 2006/2007. The NPOA longliner target for 2006/2007 was reached in 2005/2006. The mortality estimate for 2006/2007 was 0.0034 birds/1000 hooks which was above the target set for 2006/2007. However, it was agreed that the result was still sufficient to be considered a positive outcome (see ACAP Falkland Islands – Roles and Responsibilities: A review of activities undertaken during 2006/2007 and priorities for the future. 2008). The longline fishery has managed to keep the current mortality levels at a low level by employing the correct line weighting regimes, correctly designed and effective tori lines, and the use of ‘Brickle Curtains’ on the hauling hatch to reduce secondary hooking. This was also enhanced by the over all good house keeping practices on the longliners operating in the Falkland Islands’ fishery. The NPOA-S for longliners ended in 2007 and the FIFD are currently drafting an update.

This year saw the introduction of the umbrella or cachaltera system of longlining. Anecdotal evidence suggests that the system is primarily designed to reduce whale depredation however trials in Chile have indicated that it also reduces seabird mortality due to the greater sink rates of the hook line. Trials to test these particular attributes will be conducted on a longliner in March 2008.

The trawl – NPOA was less prescriptive and the experimental work on bird scaring line through all fisheries has progressed. Falklands Conservation has employed a mitigation observer and he will be tasked to provide input into the redrafting of the NPOA – trawlers in 2008.

5. Logbooks

The electronic logbooks were used successfully for both *Loligo* seasons in 2007 with all vessels participating in completing and returning the daily logs. The data returned was used to monitor and assess the fishery for each season (detailed elsewhere in this report). Feedback from users was positive and several requests were made to move away from the paper version of the logs in favour of the electronic log returns. Following on the introduction of logbooks for the *Loligo* fishery, a similar system is currently in development for the longline fishery and is planned for trials later in 2008.

6. Participation in Scientific Workshops, Conferences and Symposia in 2007

6.1. 1st International Conference on Sclerochronology

The 1st International Conference on Sclerochronology was held in St. Petersburg, Florida, USA between 14 and 28 July 2007. It was organised by the University of Florida and its several partners, including the Florida Museum on Natural History. The Conference organisers were Drs. Bill Arnold and Doug Jones.

Participants from FIFD: A. Arkhipkin and P. Brickle. Two reports have been accepted as oral presentations for the conference. A. Arkhipkin presented a report ‘Reality and illusion in interpretation of daily growth increments in cephalopod statoliths and fish otoliths’ by A. Arkhipkin and Zh. Shcherbich, and P. Brickle presented the report ‘Age and growth of the Patagonian scallop *Zygochlamys patagonica* (King and

Broderip, 1832) using a new technique on the hinge ligament' by P. Brickle, M. Hattersley, Zh. Shcherbich and V. Bizikov.

6.2. Echoview Acoustic Data Analysis Training Workshop

An acoustic data analysis training workshop was held in San Francisco, USA, from 29th August to 3rd September, 2007. The course was presented by Dr Matthew Wilson and Dr Sue Woon (Sonardata Pty Ltd). The FIFD attendee was Wetjens Dimmlich. Course content consisted of data visualisation; echo integration and biomass calculation; target strength analysis; advanced virtual data analyses; fish tracking and 3D visualisation. The use of Echoview in relation to Falklands-specific issues was discussed as well in one-on-one sessions, including the extraction of bathymetric data from our archive of EK500 logfiles.

6.3. Stock Assessment and Management Workshop

Until 2007, only the *Loligo* stock assessment was made by FIFD and the stock assessment and management advice for the others resources were conducted by RRAG at the Imperial College. In order to transfer all stock assessments to FIFD, a workshop was held at the Imperial College between 10th and 14th September. The FIFD participants were Wetjens Dimmlich, Ignacio Paya, and Pia Schuchert. The RRAG scientists were David Agnew and Pia Orr. Data analysis and stock assessments were discussed for the following commercial species; Patagonian squid (*Loligo gahi*), Illex squid (*Illex argentinus*), Patagonian toothfish (*Dissostichus eleginoides*), hoki (*Macruronus magellanicus*), southern blue whiting (*Micromesistius australis*), Skates and Rays (Rajidae) and hakes (*Merluccius hubbsi* and *Merluccius australis*). The stock assessment methods included depletion models for squids, Age Structured Production Model (ASPM) for toothfish, VPA for southern blue whiting, hoki and hakes and swept area method for skates and rays. The statistical analysis included frequentist and Bayesian techniques. The stock assessment algorithms were programmed with Excel, VisualBasic, R, AD model builder, Matlab and CASAL. Estimations of total allowable effort (TAE) and allowable effort by vessel and total allowable catch (TAC) were also discussed.

6.4. The XII European Congress of Ichthyology

The XII European Congress of Ichthyology was held in Cavtat (Dubrovnik) Croatia between 9th and 13th September 2007. The venue was the Hotel Croatia. The congress was attended by 450 delegates from 58 countries. Participant from FIFD: V.Laptikhovsky. One report was presented for the Theme Session "Life history strategies and population ecology": 'Reproductive strategies in fish and cephalopods around the Falkland Islands'.

6.5. VII International Symposium on Fish Parasites

The conference took place in Viterbo, Italy between 24th and 28th September. P. Brickle attended and gave a presentation entitled "Parasite as indicators of population structure in the Patagonian rockcod *Patagonotothen ramsayi* (Regan, 1913)." He also co-chaired the session on "Parasites as biological tags of fish stocks and biology" for the conference.

6.6. ICES Annual Scientific Meeting - 2007

Annual Scientific Meetings are organised every year by the International Council for the Exploration of the Seas (ICES). In 2007, the meeting was held in Helsinki, Finland on 19-23 September. Participants from FIFD: A. Arkhipkin and I. Payá. Two reports were presented for the conference: ‘Usage of the island water dynamics by spawning red cod, *Salilota australis* (Pisces: Moridae) on the Falkland Islands Shelf (Southwest Atlantic)’ by A. Arkhipkin, P. Brickle, V. Laptikhovsky for Section G and ‘Spatial management procedures for early closure of the *Loligo gahi* fishery off Falkland Islands based on a precautionary analysis using bootstrapping and Bayesian techniques’ by I. Payá for Section O.

6.7. 17th Biennial Conference on the Biology of Marine Mammals and the workshop “Sperm Whales and Ecosystems: Past, Present and Future”

The Conference and Workshop were organised by the Society for Marine Mammalogy and was held in Cape Town, South Africa, between 29 November and 3 December 2007. It was the second largest attendances (about 2,000 participants) in the conference history. Participant from FIFD: A. Arkhipkin. Two presentations were made: ‘Hypothesis: Sperm whales - how do they catch the giant squid?’ and ‘On the biology of long-finned pilot whales (*Globicephala melas edwardii*) from mass strandings in the Falkland Islands (Southwest Atlantic)’.

7. Publications from scientific work carried out in FIG Fisheries Department in 2007

7.1. Peer-reviewed publications (appeared in 2007)

- Arkhipkin, A. I. and Laptikhovsky, V.V. 2006. Allopatric speciation of the teuthid fauna on the shelf and slope of Northwest Africa. *Acta Universitatis Carolina – Geologica* **49**: 15–19.
- Ashford, J. R., A. I. Arkhipkin, and C. M. Jones. 2007. Otolith chemistry reflects frontal systems in the Antarctic Circumpolar Current. *Marine Ecology Progress Series* **351**: 249–260.
- Brickle, P., and MacKenzie, K. 2007. Parasites as biological tags for the Falklands mullet (Teleostei: Eleginopidae). *Journal of Helminthology* **81**: 147 – 153.
- Gonzales, M. J., Gallardo, J. M., Brickle, P. and Medina, I. 2007. Chemical and nutritional characteristics of *Patagonotothen ramsayi* (Pisces: Nototheniidae), a discard species from around the Patagonian Shelf. *Journal of Food Chemistry* **42**: 1240 – 1248.
- Harte, M. and Barton, J. 2007. Balancing local ownership with foreign investment in a small island fishery. *Ocean and Coastal Management* **50**: 523-537.
- Harte, M. and Barton, J. 2007. Reforming management of commercial fisheries in a small island territory. *Marine Policy* **31**: 371-378.
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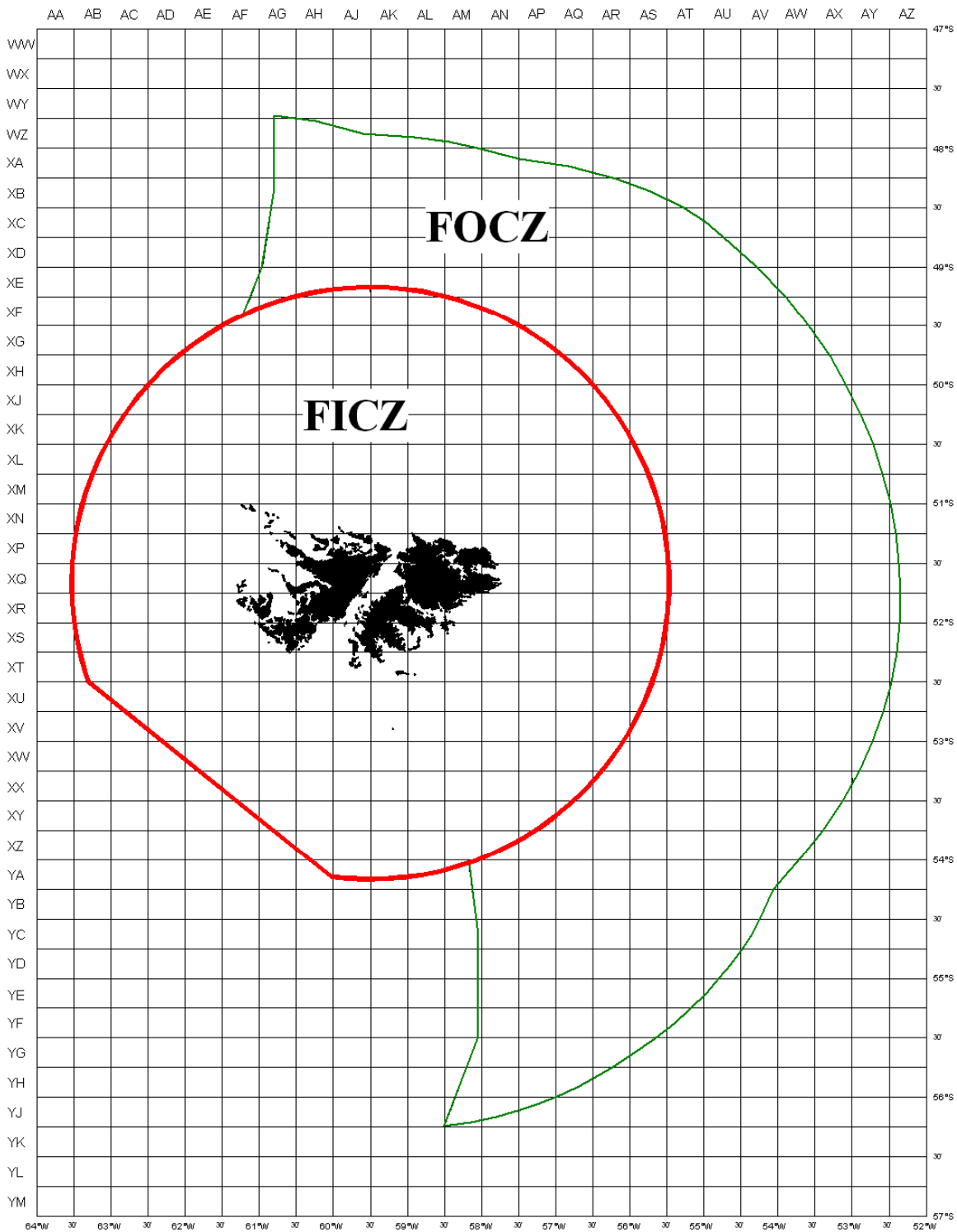
Dr. Pia Schuchert, sections 1.4-1.6

Dr. Vladimir Laptikhovsky, sections 1.11-1.12

Mr. Wetjens Dimmlich, sections 1.10; 5

Introduction

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



This chart is illustrative NOT definitive

Introduction

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

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

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

FIFD Code	FAO Code	Scientific name	Common name
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>Loligo gahi</i>	Patagonian squid
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 eleginoides</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

ISO Alfa-2 code	ISO Alfa-3 code	Fishing Fleet
AU	AUS	Australia
BZ	BLZ	Belize
CB*	KHM	Cambodia
CL	CHL	Chile
CN	CHN	China
EE	EST	Estonia
ES	ESP	Spain
FK	FLK	Falkland Islands
FR	FRA	France
GH	GHC	Ghana
GR	GRC	Greece
HN	HDN	Honduras
IS	ISL	Iceland
IT	ITA	Italy
JP	JPN	Japan
KR	KOR	Korea
NA	NAM	Namibia
NO	NOR	Norway
PA	PAN	Panama
PL	POL	Poland
PT	PRT	Portugal
RU	RUS	Russia
SC	SYC	Seychelles
SL	SLE	Sierra Leone
TW *	TWN	Taiwan
UK	GBR	United Kingdom
UR	UKR	Ukraine
US	USA	United States of America
UY	URY	Uruguay
VC	VCT	Saint Vincent
VU	VUT	Vanuatu

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

Introduction

Table A.4 Licence types, target species and periods of application 1989 - 2007

Licence	Target species	Period of application
First Season		
A	Unrestricted finfish	1989 -
B	<i>Illex</i> squid	1989 - 1992
	<i>Illex</i> and <i>Martialia</i> squid	1993 -
C	Patagonian squid (<i>Loligo</i>)	1989 -
F	Skates and rays	1995 -
G	<i>Illex</i> squid and restricted finfish*	1997 -
W	Restricted finfish**	1994 -
Second Season		
R	Skate and rays	1994 -
X	All species	1989 - 1990
	Patagonian squid (<i>Loligo</i>)	1991 -
Y	Unrestricted finfish	1989 -
Z	Restricted finfish**	1989 -
All year***		
E	Experimental fishery****	1996-
L	Toothfish (Longliners)	mid 1999 -
S	Blue Whiting and Hoki (Surimi)	1999 -

* 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:

Micromesistius australis - Southern blue whiting - BLU
Macruronus magellanicus - Hoki - WHI.

*** All year licences are split into two separate half-year seasons (separate applications are needed).

**** 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.

Licences

Table B.1 Licence allocations by licence type and year

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

LICENCE	1997	1998	1999	2000	2001	2002	2003	2004
A	4	9	11	10	6	6	6	8
B	92	79	86	109	116	125	122	89
C	15	14	17	17	16	17	16	16
E	6	9	8	5	1	1	8	9
F	.	.	.	4	1	9	4	7
G	19	27	30	16	19	19	24	17
L	.	.	.	3	6	6	8	5
R	10	2	8	7	9	8	10	11
S	.	.	2	3	3	4	3	4
W	9	16	21	11	13	11	23	25
X	21	20	18	15	19	17	18	17
Y	11	8	8	4	8	8	12	10
Z	36	27	34	27	18	19	22	22
	223	211	243	231	235	250	276	240

LICENCE	2005	2006	2007
A	9	11	10
B	70	43	57
C	17	16	16
E	11	8	6
F	4	.	1
G	14	20	18
L	4	6	6
R	11	11	10
S	2	2	2
W	17	21	14
X	16	16	17
Y	12	16	18
Z	18	24	25
	205	194	200

Licences

Table B.2 Licence allocations by fishing fleet and year

Fishing fleet	1989	1990	1991	1992	1993	1994	1995	1996
BG	9	14	8	6	2	.	.	.
BZ	.	.	.	.	.	.	1	.
CL	1	1	.	3	2	8	8	4
CN	.	.	.	.	.	.	.	.
ES	99	72	66	74	74	108	100	69
FK	7	4	2	3	3	8	19	37
FR	.	.	.	.	.	5	3	4
GR	5	3	.	.	.	.	.	.
HN	.	.	2	3	4	7	8	2
IS	.	.	.	.	.	.	.	1
IT	7	3	2	5	6	3	2	.
JP	95	82	77	63	30	36	13	11
KR	30	32	42	55	60	86	105	112
NL	1	1	.	.	.	.	.	.
NO	.	2	.	.	.	.	.	1
PA	.	.	5	4	3	3	2	3
PL	68	53	40	21	8	8	4	2
PT	7	7	4	4	3	4	8	4
RU	.	.	.	.	.	1	.	.
SL	.	.	.	1	1	1	.	.
TW	32	17	39	49	77	43	8	3
UK	11	1	1	.	1	3	2	5
UR	.	.	.	.	.	1	.	.
US	.	.	.	.	.	.	.	1
	372	292	288	291	274	325	283	259

Licences

Table B.2 Licence allocations by fishing fleet and year, continued

Fishing fleet	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
AU	.	3	3	.	.	.	.	.	.	.	.
BZ	.	.	2	5	2	2	3	1	1	.	.
CB	.	.	.	2	1	1	1	1	.	.	.
CL	3	2	3	1	1	1	1	2	.	1	2
CN	.	2	4	9	20	25	22	7	3	2	5
EE	.	.	.	.	.	.	.	1	.	2	.
ES	52	64	76	41	45	49	46	47	36	59	65
FK	32	43	49	47	55	49	80	71	76	69	61
FR	2	2	2	1	.	.	.	.	.	.	.
GH	.	.	.	.	.	.	.	.	.	1	.
IS	3	.	.	.	.	.	.	.	.	.	.
JP	19	40	20	21	16	22	14	7	2	1	1
KR	98	48	71	84	67	71	64	61	43	42	42
NA	3	1	2	.	.	.	.	2	.	.	.
NO	1	.	.	.	.	.	.	.	.	.	.
NZ	.	.	.	.	.	.	1	.	.	.	.
PA	1	1	2	.	.	.	.	.	2	1	1
PT	.	.	.	1	.	.	.	.	.	.	.
RU	.	.	.	.	1	.	9	.	.	.	.
SC	3	.	.	.	.	.	.	.	.	.	.
TW	3	2	4	16	22	26	29	33	33	10	19
UK	3	3	5	3	3	3	4	5	5	4	4
VC	.	.	.	.	1	.	.	.	.	.	.
UY	.	.	.	.	1	1	2	2	2	2	.
VU	.	.	.	.	.	.	.	.	2	.	.
	223	211	243	231	235	250	276	240	205	194	200

Table B.3 Licence 'A' (Unrestricted finfish - first season) allocations by fishing fleet and year

Fishing fleet	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
ES	2	4	6	3	4	3	2	1	2	3	2
FK	2	5	4	7	2	3	4	7	7	8	8
UK	.	.	1	.	.	.	.	.	.	.	.
	4	9	11	10	6	6	6	8	9	11	10

Licences

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

Fishing fleet	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
BZ	.	1	2	1	1	3	1	1	.	.
CB	.	.	2	1	1	1	1	.	.	.
CL	.	.	.	.	.	.	.	.	.	.
CN	2	4	9	20	25	22	7	3	2	5
ES	.	.	.	.	.	.	.	.	.	.
FK	.	.	.	.	.	.	.	1	.	.
GH	.	.	.	.	.	.	.	.	1	.
JP	34	15	17	14	19	12	5	.	.	.
KR	40	63	63	58	53	46	42	28	29	33
PA	1	.	.	.	.	.	.	2	1	.
RU	.	.	.	.	.	9	.	.	.	.
TW	2	4	16	22	26	29	33	33	10	19
VU	.	.	.	.	.	.	.	2	.	.
	79	87	109	116	125	122	89	70	43	57

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

Fishing fleet	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
AU	1	1	.	.	.	.	.	.	.	.
CL	.	.	.	.	.	.	.	.	.	.
ES	2	4	2	2	2	.	.	.	.	.
FK	9	10	13	12	14	15	14	16	15	14
FR	1	1	1	.	.	.	.	.	.	.
NA	.	.	.	.	.	.	1	.	.	.
SC	.	.	.	.	.	.	.	.	.	.
PA	.	.	.	.	.	.	.	.	.	1
UK	1	1	1	1	1	1	1	1	1	1
VC	.	.	.	1	.	.	.	.	.	.
	14	17	17	16	17	16	16	17	16	16

Licences

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

Fishing fleet	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
AU	1	.	.	.	.	.	.	.	.	.
ES	.	.	.	.	.	1	.	.	2	1
FK	7	6	2	.	.	5	6	8	4	5
IS	.	.	.	.	.	.	.	.	.	.
KR	2	2	3	.	.	.	.	.	.	.
UK	.	.	.	.	.	.	1	1	.	.
UY	.	.	.	1	1	2	2	2	2	.
	10	8	5	1	1	8	9	11	8	6

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

Fishing fleet	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
BZ	1	.	.	.	.	.
KR	.	.	4	1	8	4	7	4	.	.
ES	1
	.	.	4	1	9	4	7	4	.	1

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

Fishing fleet	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
EE	.	.	.	.	.	.	1	.	1	.
ES	21	22	12	13	14	15	11	7	13	16
FK	4	5	4	6	5	9	5	7	6	2
JP	2	1	.	.	.	.	.	.	.	.
NA	.	1	.	.	.	.	.	.	.	.
UK	.	1	.	.	.	.	.	.	.	.
	27	30	16	19	19	24	17	14	20	18

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

Fishing fleet	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
CL	1
FK	.	.	2	6	4	3	4	4	4	4
KR	.	.	1	.	2	4	1	.	2	1
NZ	1	.	.	.	.
	.	.	3	6	6	8	5	4	6	6

Table B.10 Licence 'R' (Skates and rays - second season) allocations by fishing fleet and year

Fishing fleet	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
BZ	.	1	.	1	.	.	.	.	.	.
ES	.	.	.	.	.	.	.	.	.	3
KR	2	6	7	8	8	10	11	11	11	7
PA	.	1	.	.	.	.	.	.	.	.
	2	8	7	9	8	10	11	11	11	10

Licences

Table B.11 Licence 'S' (Blue Whiting and Hoki - surimi vessels) allocations by fishing fleet and year

Fishing fleet	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
CL	.	1	1	1	1	1	2	.	1	1
JP	.	1	2	2	3	2	2	2	1	1
	.	2	3	3	4	3	4	2	2	1

Table B.12 Licence 'W' (Restricted finfish - first season) allocations by fishing fleet and year

Fishing fleet	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
BZ	.	.	1	.	.	.	.	.	.	.
CL	1	1	.	.	.	.	.	.	.	.
EE	.	.	.	.	.	.	.	.	1	.
ES	12	16	7	9	9	9	15	8	16	10
FK	2	3	1	4	2	13	9	8	3	3
JP	1	1	2	.	.	.	.	.	.	.
UK	.	.	.	.	.	1	1	1	1	1
	16	21	11	13	11	23	25	17	21	14

Table B.13 Licence 'X' (Patagonian squid - second season) allocations by fishing fleet and year

Fishing fleet	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
AU	1	1	.	.	.	.	.	.	.	.
ES	3	2	2	2	3	.	.	.	.	1
FK	12	11	12	16	13	17	15	15	15	15
FR	1	1	.	.	.	.	.	.	.	.
JP	2	2	.	.	.	.	.	.	.	.
NA	.	.	.	.	.	.	1	.	.	.
UK	1	1	1	1	1	1	1	1	1	1
Grand Total	20	18	15	19	17	18	17	16	16	17

Licences

Table B.14 Licence 'Y' (Unrestricted finfish - second season) allocations by fishing fleet and year

Fishing fleet	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
ES	5	5	1	2	4	3	3	5	6	11
FK	2	2	2	4	3	8	6	7	10	7
RU	.	.	.	1	.	.	.	.	.	.
UK	1	1	1	1	1	1	1	.	.	.
	8	8	4	8	8	12	10	12	16	18

Table B.15 Licence 'Z' (Restricted finfish - second season) allocations by fishing fleet and year

Fishing fleet	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
AU	.	1	.	.	.	.	.	.	.	.
BZ	.	.	2	.	.	.	.	.	.	.
CL	1	1	.	.	.	.	.	.	.	.
ES	17	21	14	13	14	16	17	14	19	19
FK	3	8	4	5	5	6	5	3	4	4
JP	1	.	.	.	.	.	.	.	.	.
KR	4	1	6	.	.	.	.	.	.	1
NA	1	1	.	.	.	.	.	.	.	.
PA	.	1	.	.	.	.	.	.	.	.
PT	.	.	1	.	.	.	.	.	.	.
UK	.	.	.	.	.	.	.	1	1	1
	27	34	27	18	19	22	22	18	24	25

Licences

Table B.16 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
	29,001,223	27,942,586	26,360,901	26,513,702	21,073,205	25,690,547	20,348,929

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
	21,977,242	21,296,309	19,577,548	20,182,480	24,780,401	27,685,053	26,552,083

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

Catch summary tables

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

VESSEL TYPE	1989	1990	1991	1992	1993	1994	1995	1996
CO	59069	46211	27896	17669	1151	4807	3222	1569
JI	195476	94743	160754	149557	144189	62874	62717	73128
LO	.	.	.	131	10	2855	1901	992
TR	172270	143561	115853	147601	106257	126262	177332	119303
	426814	284516	304503	314957	251605	196798	245172	194991

VESSEL TYPE	1997	1998	1999	2000	2001	2002	2003	2004
CO	811	274	.	.	.	.	.	.
JI	150732	79837	254026	182925	146066	13001	101754	1661
LO	1241	1787	2077	2092	1684	1754	1832	2076
TR	77542	128976	120935	134089	117449	86224	105511	99361
	230326	210874	377038	319107	265198	100979	209097	103098

VESSEL TYPE	2005	2006	2007
JI	7776	68950	157624
PO	.	295	.
LO	1791	1620	1623
TR	117537	142390	142704
	127104	213256	301952

Catch summary tables

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

SPECIES	1989	1990	1991	1992	1993	1994	1995	1996
BAC	2814	2778	2880	7055	6224	4043	9084	6925
BLU	43468	72326	50491	34078	24900	38697	39154	23539
ILL	224022	102417	174745	160016	145185	66996	64122	79724
KIN	977	850	949	1952	1643	899	1985	1682
LOL	118720	82990	53817	83384	52279	65757	98417	61374
MAR	0	4	141	1	33	0	5803	111
PAT	16480	11900	6759	4070	3029	1414	1988	1649
RAY	1749	1500	6923	8108	8523	5542	5432	3475
TOO	236	208	980	912	393	2963	2069	685
WHI	13313	7553	4499	14188	8506	10064	15603	13813
OTH	5036	1989	2317	1192	890	423	1514	2015
	426814	284516	304503	314957	251605	196798	245172	194991

SPECIES	1997	1998	1999	2000	2001	2002	2003	2004
BAC	4649	8121	9313	6551	3896	2617	2285	2781
BLU	26296	31483	28564	23371	25735	24908	20798	28554
ILL	149763	84993	266201	189709	150631	13411	103375	1720
KIN	1392	2217	2602	1875	1625	1224	1275	1841
LOL	26122	51559	34866	64493	53560	23712	47422	26835
MAR	2099	.	29	.	147	1	31	24
PAT	1554	3502	4224	3069	1978	1678	1967	1926
RAY	3320	1077	4785	3853	4309	3364	3988	5151
TOO	1208	2103	2988	2318	1754	1793	1707	2002
WHI	13006	22378	18765	19831	19471	26970	23815	25905
OTH	916	3443	4701	4037	2018	1242	1748	5080
ZYP	.	.	.	.	76	59	685	1279
	230326	210874	377038	319107	265198	100979	209097	103098

SPECIES	2005	2006	2007
BAC	2467	3469	5183
BLU	17047	20533	22155
ILL	7937	85614	161493
KIN	1936	2821	3584
LOL	58811	43067	41979
MAR	0	0	0
HAK	.	8414**	11,899**
PAT	2735*	23***	0***
RAY	5698	4679	5653
TOO	1677	1572	1519
WHI	16721	19761	16659
GRX	.	797	622
COX	.	20211	30157
ZYP	1358	1161	14
OTH	10717	1133	1035
	127104	213256	301952

* - *Merluccius spp*, ** - *M.hubbsi*, *** - *M.australis*

Catch summary tables

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

MONTH	1989	1990	1991	1992	1993	1994	1995	1996
January	2475	.	5128	5217	3723	9149	7810	5217
February	30652	26620	19493	21028	6789	13273	28800	15782
March	89952	74890	88553	96826	39900	52894	46084	49887
April	131835	56338	83954	79745	79365	27654	49391	48971
May	73998	28475	32258	24303	51777	18914	21514	19526
June	11913	1017	112	107	437	2002	1786	1211
July	5265	2437	2538	223	1577	2172	2937	1418
August	24987	13196	14895	22415	20227	18151	25736	16451
September	26143	33653	21075	26933	16111	19569	25540	13562
October	14221	17836	13123	19839	11891	16105	14486	8315
November	8909	19119	9832	10736	11056	8805	11881	7406
December	6463	10934	13542	7585	8751	8111	9205	7245
	426814	284516	304503	314957	251605	196798	245172	194991

	1997	1998	1999	2000	2001	2002	2003	2004
January	7918	7687	6605	5213	6497	3536	5881	2901
February	8660	19942	29626	47924	10926	12306	16612	9405
March	29199	47799	98631	94536	81574	17335	91036	15081
April	60718	63064	104827	63840	71936	13811	37830	11292
May	68234	22936	73790	48684	38621	15504	5680	4930
June	10474	2821	12665	2854	2199	1473	1385	727
July	2625	1596	2313	2502	1299	253	877	6771
August	10019	13012	13364	16528	17380	11863	21491	14344
September	8668	11157	11853	16874	15306	5751	14513	10571
October	7960	7778	9857	8333	12413	5668	8831	13552
November	8381	6395	7138	7306	4933	8638	3981	8412
December	7470	6689	6370	4513	2112	4841	980	5114
	230326	210874	377038	319107	265198	100979	209097	103098

	2005	2006	2007
January	1712	2180	2371
February	7562	10861	11142
March	27436	47995	40209
April	10581	46967	86242
May	3870	28046	69292
June	712	1839	8647
July	11786	10173	12,333
August	22576	23408	26108
September	17104	15626	19994
October	11008	13522	14,004
November	9644	8846	9756
December	3113	3792	1854
	127104	213256	301952

Catch summary tables

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

GRT	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<400	1727	2203	7796	7829	3588	571	2186	276	0	0	0
400-599	16175	5904	26789	11671	13309	1502	6412	1604	2143	3527	3143
600-799	97294	43028	163915	110505	78231	14107	50758	3709	6955	52598	85852
800-999	15853	23115	37524	51052	46705	7974	42387	9987	13419	34392	79376
1000-1499	53422	59053	69138	59117	59440	34363	48736	31390	35548	54044	63124
1500-1999	7180	14431	15926	19525	15015	13455	15608	14958	24797	29284	33365
2000-2999	11607	30690	25317	35543	32726	13205	30373	16436	33009	25230	24429
>2999	27067	32450	30633	23864	16185	15803	12637	24738	11233	14180	12663
	230326	210874	377038	319107	265198	100979	209097	103098	127104	213256	301952

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

LOA	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<45	1579	1648	1803	865	2458	271	42	0	0	0	0
45-49	67856	29845	123498	76639	54447	8662	30524	5553	7824	24366	39386
50-54	45221	26581	71292	62017	42364	14062	36900	13790	18202	46204	66123
55-59	20103	13712	21017	29661	23807	8845	22691	4041	5826	22869	39913
60-64	16086	22027	44818	34635	41514	9615	31321	11646	16725	29214	41927
65-69	23579	32634	37289	32864	32676	18200	30024	19604	23806	34678	56038
70-79	22883	38559	33167	37047	32979	17773	28338	10501	20768	23791	28533
80-89	4037	8965	10100	17008	14026	5661	12649	11357	17923	14811	14022
>89	28981	36903	34054	28370	20928	17890	16606	26606	16030	17323	16009
	230326	210874	377038	319107	265198	100979	209097	103098	127104	213256	301952

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

BHP	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<1000	210	.	2964	1765	1320	183	42	0	0	0	0
1000-1199	12327	3013	12634	7711	9643	917	6666	28	0	0	0
1200-1399	43657	20483	68649	45064	32509	5516	17093	129	1796	15688	29909
1400-1599	52221	27875	86241	60183	46741	10995	34576	8407	9782	40838	58694
1600-1799	22907	26562	53105	36388	28040	4815	21161	5297	7206	24325	40347
1800-1999	33048	38781	52553	60145	55146	18246	40925	20248	22760	47600	68111
2000-2499	18759	23363	35572	35493	29519	18188	31772	19557	26874	34833	52328
2500-2999	5466	4082	6441	7449	9805	10652	10413	7303	9703	6063	11483
3000-3999	10739	25979	22061	31584	27147	11947	26292	14997	28618	22392	21207
>3999	30992	40736	36817	33324	25328	19519	20158	27133	20366	21517	19872
	230326	210874	377038	319107	265198	100979	209097	103098	127104	213256	301952

Catch summary tables

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

Fishing fleet	1989	1990	1991	1992	1993	1994	1995	1996
AU	.	.	.	.	.	.	.	.
BG	13503	22369	21888	8981	2976	.	.	.
BZ	.	.	.	.	.	.	585	.
CB	.	.	.	.	.	.	.	.
CL	1150	1884	.	3145	1514	5223	9997	6638
CN	.	.	.	.	.	.	.	.
ES	82345	65908	57605	87763	58143	67191	89284	40842
FK	781	5853	1470	1846	1978	5906	27184	31520
FR	.	.	.	.	.	1945	7369	4600
GR	4960	3121	.	.	.	.	.	.
HN	.	.	1712	2761	3681	2976	2833	850
IS	.	.	.	.	.	.	.	214
IT	10391	4547	2409	2923	2142	1181	218	.
JP	125567	60028	93652	68325	39510	39916	25583	24870
KR	51133	32996	61614	72489	65228	42987	63236	73861
NA	.	.	.	.	.	.	.	.
NL	4587	3369	.	.	.	.	.	.
NO	.	1384	.	.	.	.	.	319
PA	.	.	2425	4027	1060	598	459	706
PL	74039	64765	43878	32996	12442	11178	8861	3262
PT	9143	6430	3268	1548	1809	2512	5157	1052
RU	.	.	.	.	.	39	.	.
SC	.	.	.	.	.	.	.	.
SL	.	.	.	1150	822	373	.	.
TW	37529	10479	12590	27002	59853	13497	2323	1901
UK	11685	1383	1992	.	445	1255	2083	4357
UR	.	.	.	.	.	21	.	.
	426814	284516	304503	314957	251605	196798	245172	194991

Catch summary tables

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

Fishing fleet	1997	1998	1999	2000	2001	2002	2003	2004	2005
AU	.	3593	3711	.	.	.	.	.	.
BZ	.	.	4511	6729	2581	136	2788	42	61
CB	.	.	.	2768	1204	33	857	17	.
CL	8199	8849	5491	2749	8014	9252	6490	9752	.
CN	.	1177	7301	11641	18838	1203	12652	99	99
EE	.	.	.	.	.	.	.	226	.
ES	20510	40307	35909	30732	29170	23972	20169	22488	24546
FK	17117	43578	39131	62947	59820	35732	60596	43320	71205
FR	1545	4177	2381	2053	.	.	.	.	.
IS	268	.	.	.	.	.	.	.	.
JP	46060	56992	57971	41737	27913	14485	18923	15062	11230
KR	129546	45082	207795	128940	86587	12637	53677	6008	10074
NA	303	676	746	.	.	.	.	1181	.
NO	210	.	.	.	.	.	.	.	.
NZ	.	.	.	.	.	.	69	.	.
PA	.	1098	61	.	.	.	.	.	194
PT	.	.	.	66	.	.	.	.	.
RU	.	.	.	.	228	.	6891	31	.
SC	1252	.	.	.	.	.	.	.	.
TW	3013	1734	8771	23243	25380	1190	22057	866	3106
UK	2302	3575	3259	5501	3564	2279	3238	2703	5100
UR	.	.	.	.	.	.	.	.	.
UY	.	36	.	.	81	61	690	1303	1369
VC	.	.	.	.	1820	.	.	.	.
VU	.	.	.	.	.	.	.	.	120
	230326	210874	377038	319107	265198	100979	209097	103098	127104

Fishing fleet	2006	2007
BZ	.	2285
CL	2131	3948
CN	3555	8575
EE	1247	.
ES	42024	56057
FK	65229	65764
GH	1244	.
JP	12049	9042
KR	60943	99224
PA	1375	3149
TW	18554	49985
UK	3734	3923
UY	1169	.
	213256	301952

Illex argentinus—Illex squid

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

VESSEL TYPE	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
JI	79837	253997	182925	145919	13000	101753	1661	7776	68950	157635
TR	5156	12204	6784	4711	411	1622	59	162	16665	3869
	84993	266201	189709	150631	13411	103375	1720	7937	85614	161493

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

MONTH	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
January	0	2	39	.	1	.	.	.	6	4
February	53	14160	26916	55	1293	1944	24	87	454	3071
March	26799	83669	75957	69399	1911	71279	1424	6915	26654	22741
April	49219	93924	48565	57031	2766	28624	269	934	36353	71556
May	8800	63515	36412	22926	7439	1516	3	0	21922	58883
June	120	10932	1820	1220	0	11	.	.	225	5237
July	.	0	.	0	.	.	.	.	.	.
August	0	.	.	.	.	.	.	.	.	.
September	1	.	.	.	.	.	.	.	.	.
October	1	.	.	.	.	.	.	.	.	.
November	.	.	.	.	.	.	.	.	.	.
December	.	.	.	0	.	.	.	.	.	.
	84993	266201	189709	150631	13411	103375	1720	7937	85614	161493

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

Fishing fleet	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
AU	.	167	.	.	.	.	.	.	.	.
BZ	.	3796	4066	1692	124	2767	42	61	.	2285
CB	.	.	2768	1195	33	857	17	.	.	.
CL	.	.	.	.	.	.	.	.	.	.
CN	1177	7301	11641	18838	1203	12652	99	99	3555	8575
EE	.	.	.	.	.	.	3	.	472	.
ES	1758	3943	989	2807	271	960	22	95	2320	3297
FK	804	2582	716	1879	140	659	16	93	1050	537
FR	.	56	0	.	.	.	.	.	.	.
GH	.	.	.	.	.	.	.	.	1244	.
IS	.	.	.	.	.	.	.	.	.	.
JP	35984	37495	25652	18126	1113	7746	93	.	.	.
KR	42437	201690	120628	80827	9338	48766	530	4170	57030	94884
NA	.	63	.	.	.	.	.	.	.	.
PA	1098	.	.	.	.	.	.	194	1375	1896
RU	.	.	.	0	.	6891	31	.	.	.
TW	1734	8771	23243	25241	1189	22077	865	3106	18554	49985
UK	.	336	6	21	.	.	1	.	15	35
VC	.	.	.	4	.	.	.	.	.	.
VU	.	.	.	.	.	.	.	120	.	.
	84992	266201	189709	150631	13411	103375	1720	7937	85614	161493

***Illex argentinus*—Illex squid**

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

GRT	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<400	663	5535	5755	2627	190	1888	24	.	.	.
400-599	4176	25341	11574	12799	1206	5030	26	280	2067	3143
600-799	33854	157725	103179	70730	7338	45406	493	3757	47876	76353
800-999	15998	28821	40053	39487	2530	34521	994	3487	23849	66417
1000-1499	27282	40926	23536	24066	2061	16232	153	381	10690	13554
1500-1999	283	1504	553	414	86	177	12	14	1022	2026
2000-2999	143	1293	30	508	1	120	1	19	111	0
>2999	2593	5055	5030	.	.	.	17	.	.	.
	84993	266201	189709	150631	13411	103375	1720	7937	85614	161493

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

LOA	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<45	74	1865	1865	1865	.	.	0	.	.	.
45-49	22346	49259	49259	49259	5176	25175	277	1914	16493	28747
50-54	15667	28339	28339	28339	3089	24699	312	2206	30895	49469
55-59	4151	16588	16588	16588	1293	16753	447	1736	15719	31395
60-64	9480	27502	27502	27502	1779	18624	348	832	10718	20600
65-69	20194	17984	17984	17984	1583	13616	254	1091	9264	26783
70-79	10486	8622	8622	8622	490	4414	61	140	2412	4499
80-89	.	458	458	458	1	90	3	19	111	.
>89	2593	14	14	14	.	4	17	.	3	.
	84993	150631	150631	150631	13411	103375	1720	7937	85614	161493

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

BHP	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<1000	.	2964	1765	1239	122	.	.	.	.	.
1000-1199	3013	12383	7711	9643	917	6597	28	1158	.	.
1200-1399	16878	66273	42851	30503	2808	16189	147	2218	14549	27603
1400-1599	18632	79824	51436	38463	4015	27928	329	937	28947	45121
1600-1799	19611	47198	30881	23703	2073	14773	214	2250	14749	28652
1800-1999	20192	36363	40765	37469	2610	26640	656	1041	20250	36704
2000-2499	3930	14482	9130	7795	766	10375	246	315	6994	20302
2500-2999	.	223	105	1286	99	753	80	19	3	3075
3000-3999	143	1216	27	484	1	109	2	.	120	35
>3999	2593	5273	5039	45	.	12	17	.	3	.
	84993	266201	189709	150631	13411	103375	1720	7937	85614	161493

***Illex argentinus*—Illex squid**

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

GRT	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<400	663	5535	5754	2627	190	1888	24	.	.	.
400-599	4102	25190	11574	12799	1206	5030	26	280	2067	3143
600-799	33730	157195	103054	70286	7279	45203	489	3756	40707	75941
800-999	15638	28043	39901	38817	2484	34168	988	3484	17667	66038
1000-1499	25705	38034	22642	21392	1841	15463	133	228	8509	10680
1500-1999	.	.	.	.	.	.	.	.	.	1822
2000-2999	.	.	.	.	.	.	.	.	.	.
	79837	253997	182925	145919	13000	101753	1660	7749	68950	157624

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

LOA	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<45	.	.	.	1865	.	.	.	.	.	.
45-49	22022	116539	69863	48439	5130	24798	274	1911	16300	28116
50-54	15618	61052	45743	27806	3036	24461	305	2184	24724	49206
55-59	3764	10249	19532	15655	1214	16480	440	1706	10861	31007
60-64	8729	31137	21128	26968	1736	18420	345	776	9800	19021
65-69	19655	27589	18957	17586	1496	13372	244	1058	5342	25958
70-79	10049	7431	7704	7600	388	4222	52	113	1923	4316
>79	.	.	.	.	.	.	.	.	.	.
	79837	253997	182925	145919	13000	101753	1660	7749	68950	157624

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

BHP	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<1000	.	2964	1765	1239	122	.	.	.	.	.
1000-1199	3013	12383	7711	9643	917	6597	28	.	.	.
1200-1399	16789	65883	42790	30295	2775	16074	147	1158	10574	27397
1400-1599	18349	79370	51211	37349	3944	27446	320	2198	25095	44607
1600-1799	19119	46397	30831	23506	2063	14670	211	912	10957	28114
1800-1999	19178	34085	40101	35757	2439	26155	640	2137	16038	34787
2000-2400	3389	12915	8517	7169	667	10088	233	1029	6286	19643
2500-2999	.	.	.	960	74	723	81	315	.	3075
3000-3999	.	.	.	.	.	.	.	.	.	.
	79837	253997	182925	145919	13000	101753	1660	7749	68950	157624

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

GRT	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<400	.	.	1	.	.	.	.	.	.	.
400-599	74	151	.	.	.	.	.	.	7168	.
600-799	124	529	125	444	59	203	4	0	6183	412
800-999	361	778	151	670	45	353	1	3	2181	379
1000-1499	1577	2892	894	2675	220	769	25	126	1022	2874
1500-1999	283	1504	553	414	86	177	12	14	111	204
2000-2999	143	1293	30	508	1	120	1	19	.	0
<2999	2593	5055	5030	.	.	.	17	.	.	.
	5156	12204	6784	4711	411	1622	59	162	16665	3869

Illex argentinus*—*Illex squid

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

LOA	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<45	74	87	.	.	.	.	.	.	.	.
45-49	324	607	165	820	46	378	3	3	193	631
50-54	49	366	94	533	53	237	7	22	6171	263
55-59	387	1190	275	932	79	273	4	30	4858	388
60-64	752	1395	298	534	43	204	7	56	918	1578
65-69	539	469	266	399	87	244	10	33	3922	825
70-79	437	2384	627	1022	101	192	9	0	489	184
80-89	0	584	29	458	1	90	3	19	111	.
>89	2593	5121	5030	14	.	4	17	.	3	.
	5156	12204	6784	4711	411	1622	59	162	16665	3869

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

BHP	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
1000-1199	.	.	.	.	.	.	.	.	.	.
1200-1399	89	390	62	208	33	115	.	.	3975	206
1400-1599	283	455	226	1114	71	482	8	20	3853	513
1600-1799	492	801	50	197	10	103	2	25	3792	538
1800-1999	1013	2279	664	1712	171	485	16	87	4212	1918
2000-2499	541	1567	612	626	98	287	14	11	707	659
2500-2999	.	223	105	326	25	31	0	0	3	.
3000-3999	143	1216	27	484	1	109	19	19	120	35
>3999	2593	5273	5039	45	.	12	.	.	3	.
	5156	12204	6784	4711	411	1622	59	162	16665	3869

Illex argentinus

Illex argentinus

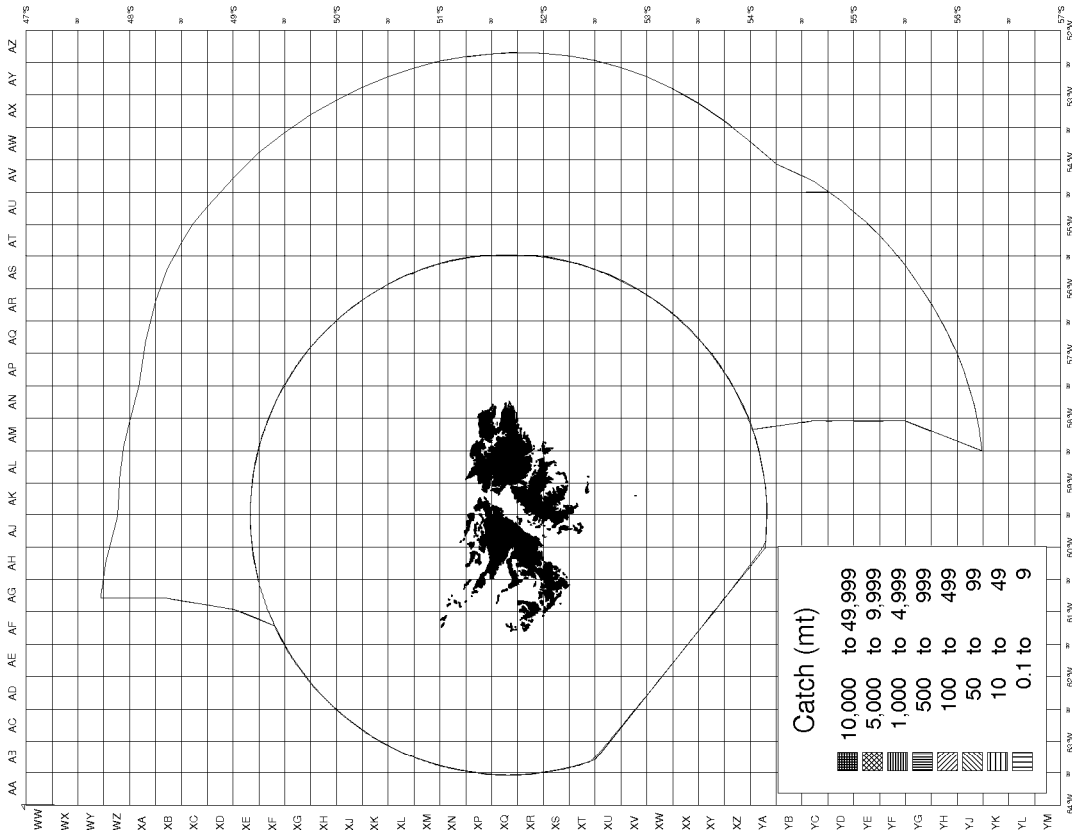
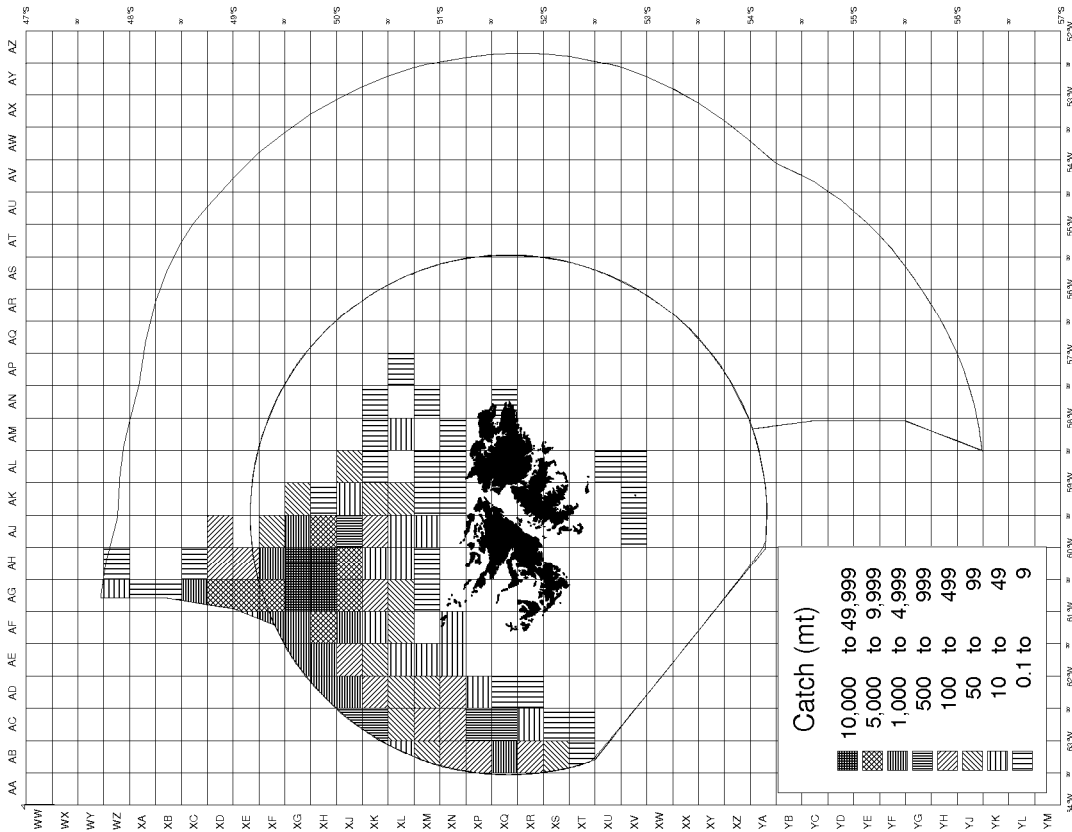
Catch (mt) by grid square

2007

FICZ and FOCZ

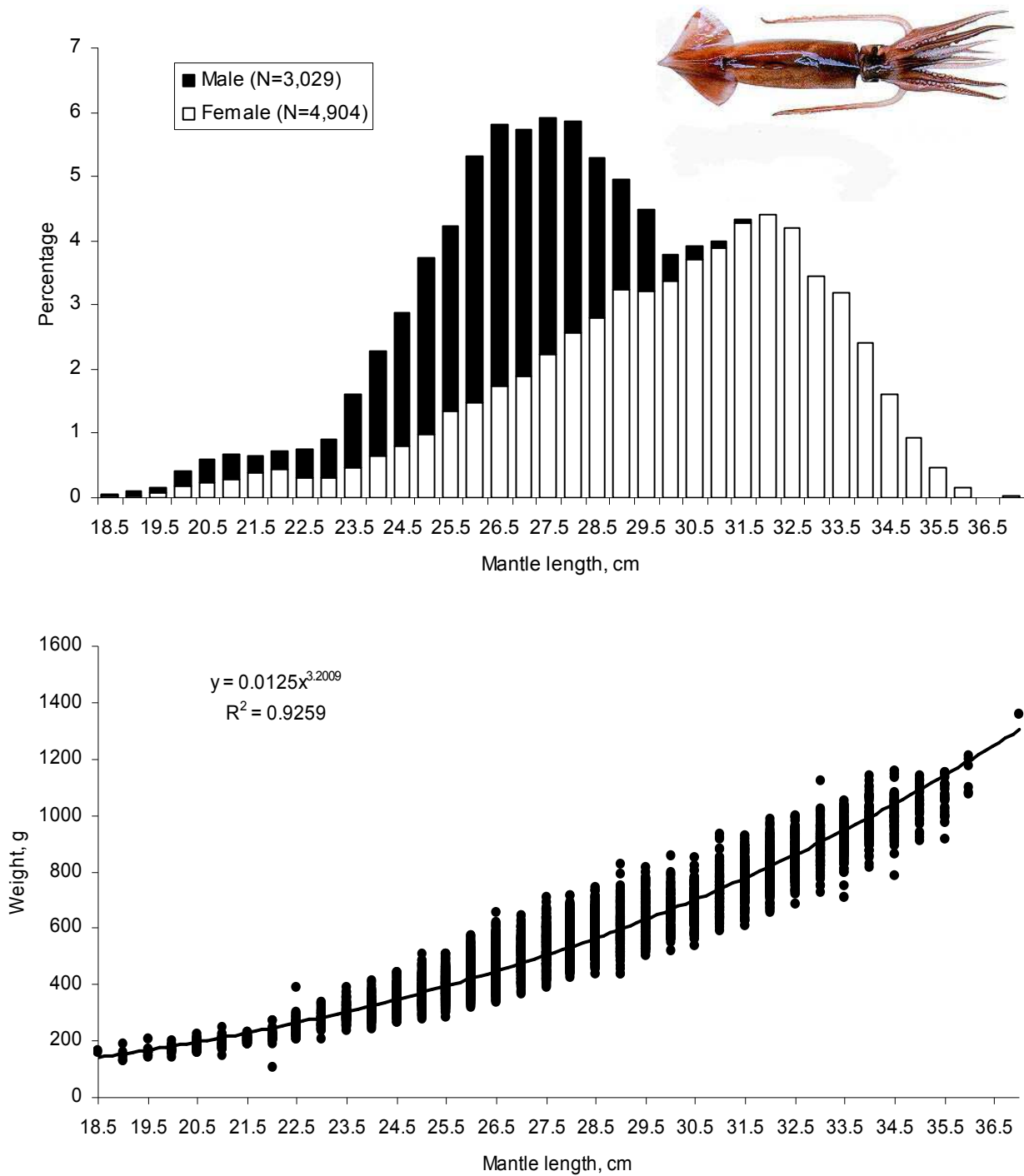
1st Season (01 Jan to 30 Jun)

2nd Season (01 Jul to 31 Dec)



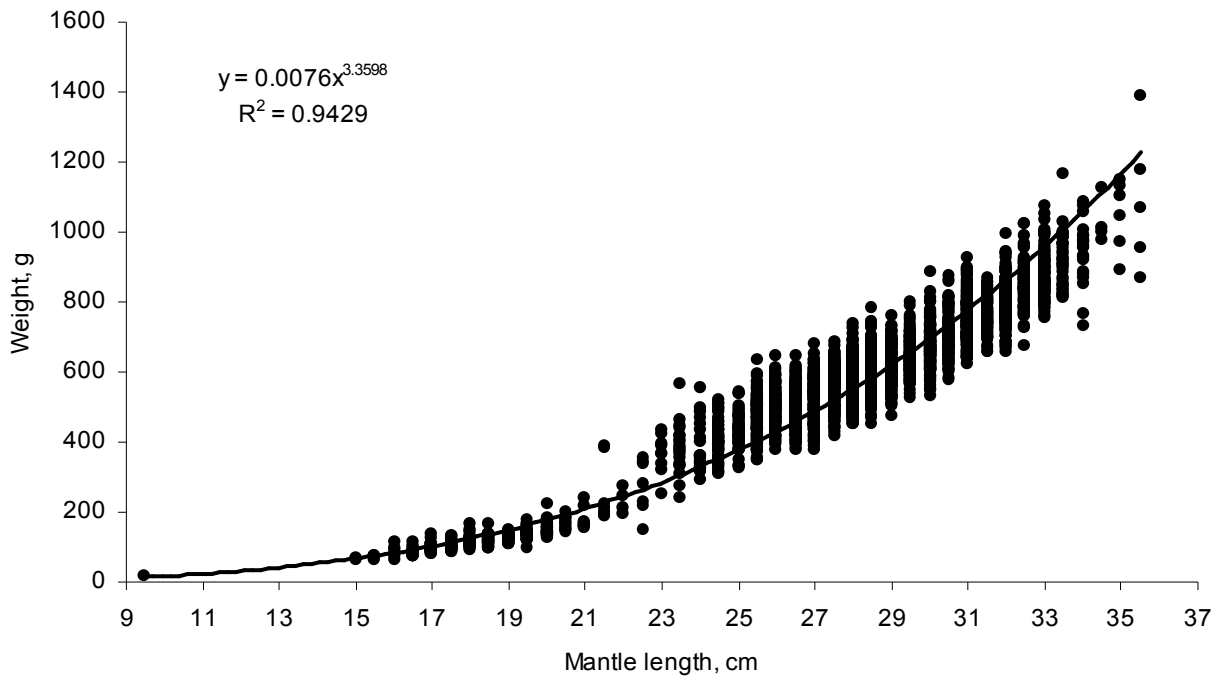
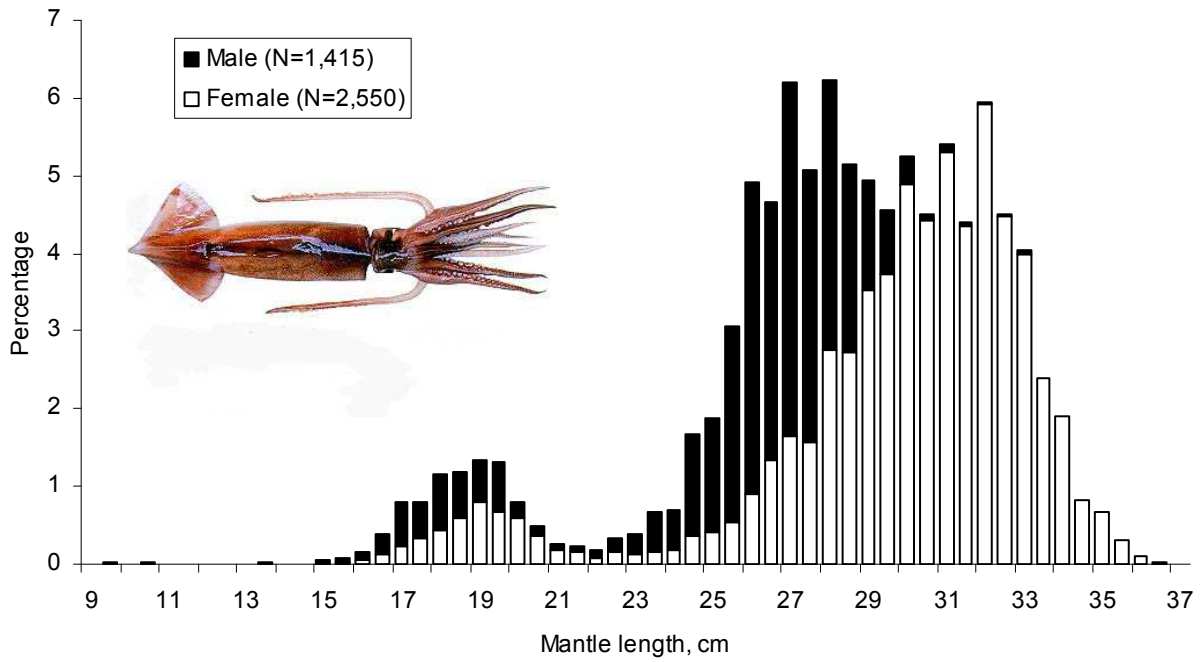
Illex argentinus—Illex squid

Length– frequency distribution and length-weight relationship in jigger fleets in 2007



Illex argentinus—Illex squid

Length– frequency distribution and length-weight relationship in trawler fleets in 2007



Loligo gahi - Patagonian squid

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

VESSEL TYPE	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
TR	51559	34866	64493	53560	23712	47422	26835	58811	43067	41979
	51559	34866	64493	53560	23712	47422	26835	58811	43067	41979

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

MONTH	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
January	88	422	.	.	.	0	.	.	.	0
February	8618	7646	11006	4478	3980	1180	586	2050	2943	729
March	12324	5599	9600	3754	2761	12340	4431	17905	13716	10271
April	6858	4264	8921	7854	2750	3851	2519	7427	2770	6388
May	4984	4682	9186	11538	4707	1224	869	1365	2	35
June	507	248	0	0	0	378	201	209	6	10
July	761	394	1	.	0	8	5852	10265	8132	6325
August	9622	6961	11288	14432	8007	16921	8045	14442	13988	14411
September	5942	4150	10620	8241	1213	9134	4301	5090	1425	3743
October	1801	500	3863	3258	290	2372	30	42	81	56
November	5	1	9	3	3	11	1	15	4	9
December	47	.	0	1	0	1	0	0	0	1
	51559	34866	64493	53560	23712	47422	26835	58811	43067	41979

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

Fishing fleet	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
AU	3198	2486	.	.	.	.	.	.	.	.
BZ	.	.	2	.	.	.	.	.	.	.
CL	.	.	.	.	.	.	.	.	.	.
ES	6197	3559	6805	5412	3036	458	98	104	74	134
FK	32029	22500	50308	42911	18613	43830	23573	54178	40165	38065
FR	4146	2309	2024	.	.	.	.	.	.	.
HN	.	.	.	.	.	.	.	.	.	.
JP	2618	1857	.	1	.	.	1	.	.	2
KR	.	7	27	10	13	38	53	13	41	22
NA	1	0	.	.	.	.	1141	.	.	.
PA	.	0	.	.	.	.	.	.	.	1075
PL	.	.	.	.	.	.	.	.	.	.
PT	.	.	.	.	.	.	.	.	.	.
SC	.	.	.	.	.	.	.	.	.	.
UK	3336	2148	5328	3431	2049	3095	1967	4516	2786	2681
UY	35	.	.	.	.	.	.	.	.	.
VC	.	.	.	1795	.	.	.	.	.	.
	51559	34866	64493	53560	23712	47422	26835	58811	43067	41979

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

GRT	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<400	.	0	5	.	.	.	.	.	.	.
400-599	3	0	.	.	.	4	2	.	.	.
600-799	2581	1433	2707	2160	1102	847	19	202	8	29
800-999	836	541	3297	2640	1361	2095	1149	2671	2165	2199
1000-1499	9164	5390	11504	9449	3889	8088	5317	9844	6578	7552
1500-1999	11202	7290	14122	9248	5312	9611	7474	17527	13227	12577
2000-2999	25155	18352	32858	30063	12048	26776	12873	28564	21089	19621
>2999	2619	1857	.	.	.	.	1	3	.	2
	51559	34866	64493	53560	23712	47422	26835	58811	43067	41979

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

LOA	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<45	2	.	.	.	.	.	.	.	.	.
45-49	803	543	3288	2638	1361	2089	1116	2666	2157	2186
50-54	5359	3309	6208	5404	2578	3621	1981	3601	2319	2335
55-59	338	1	9	5	8	16	12	6	8	18
60-64	6486	3742	5738	6264	2630	5868	3211	7083	5190	4980
65-69	4229	4226	9619	6911	3114	6095	3844	8052	4978	4829
70-79	19416	10603	20381	15971	6898	15325	6965	17771	14510	13591
80-89	7996	7413	14917	11766	5114	10648	7890	14945	11208	11063
>89	6931	5029	4333	4601	2009	3761	1816	4687	2696	2977
	51559	34866	64493	53560	23712	47422	26835	58811	43067	41979

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

BHP	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<1000	.	.	.	.	.	.	.	.	.	.
1000-1199	.	.	.	.	.	.	.	.	.	.
1200-1399	7	1	4	2	4	3	.	.	.	.
1400-1599	2615	1431	2702	2650	1099	856	61	229	13	63
1600-1799	840	875	3695	2623	1138	2290	1471	2901	2091	1965
1800-1999	2610	1166	3300	2658	1548	2127	1172	2716	2189	2226
2000-2499	11530	9027	16580	12044	5802	12238	8011	15686	11493	11276
2500-2999	2848	9	27	89	19	34	3004	4691	2722	4071
3000-3999	20608	14764	29008	24657	10541	22774	10851	24078	18196	15889
>3999	10501	7593	9178	8837	3561	7099	2266	8510	6363	6491
	51559	34866	64493	53560	23712	47422	26835	58811	43067	41979

Loligo gahi

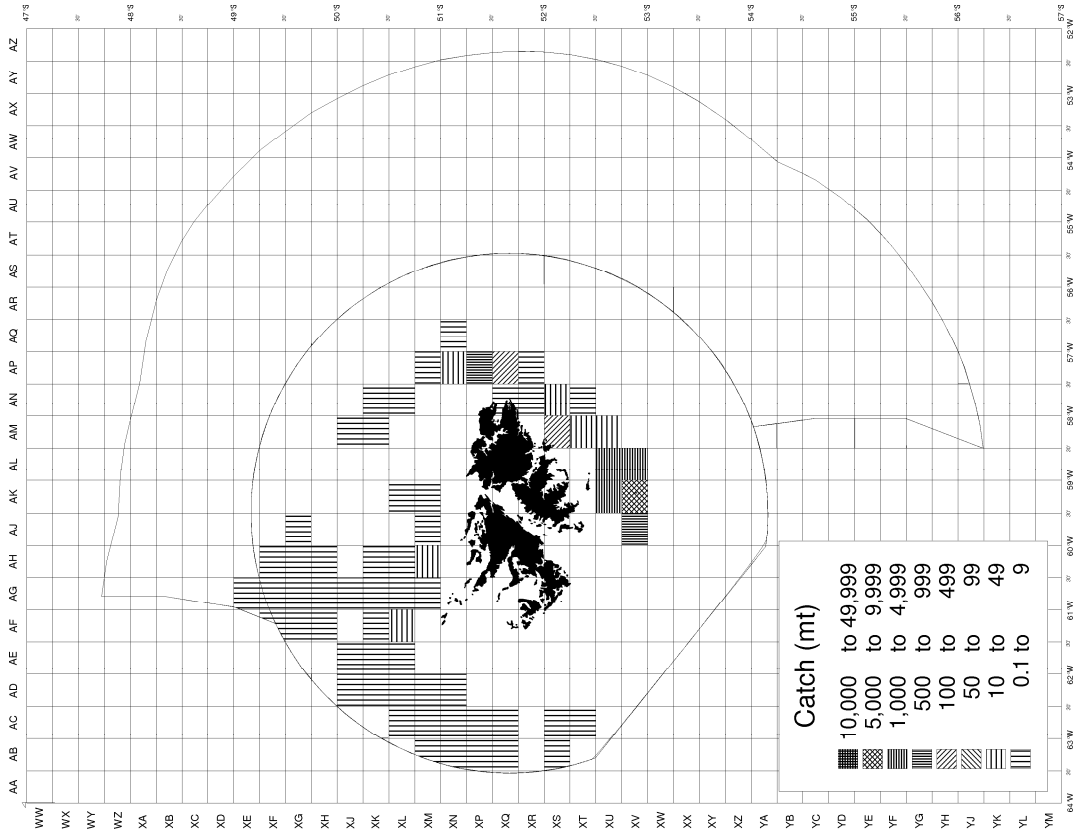
Loligo gahi

Catch (mt) by grid square

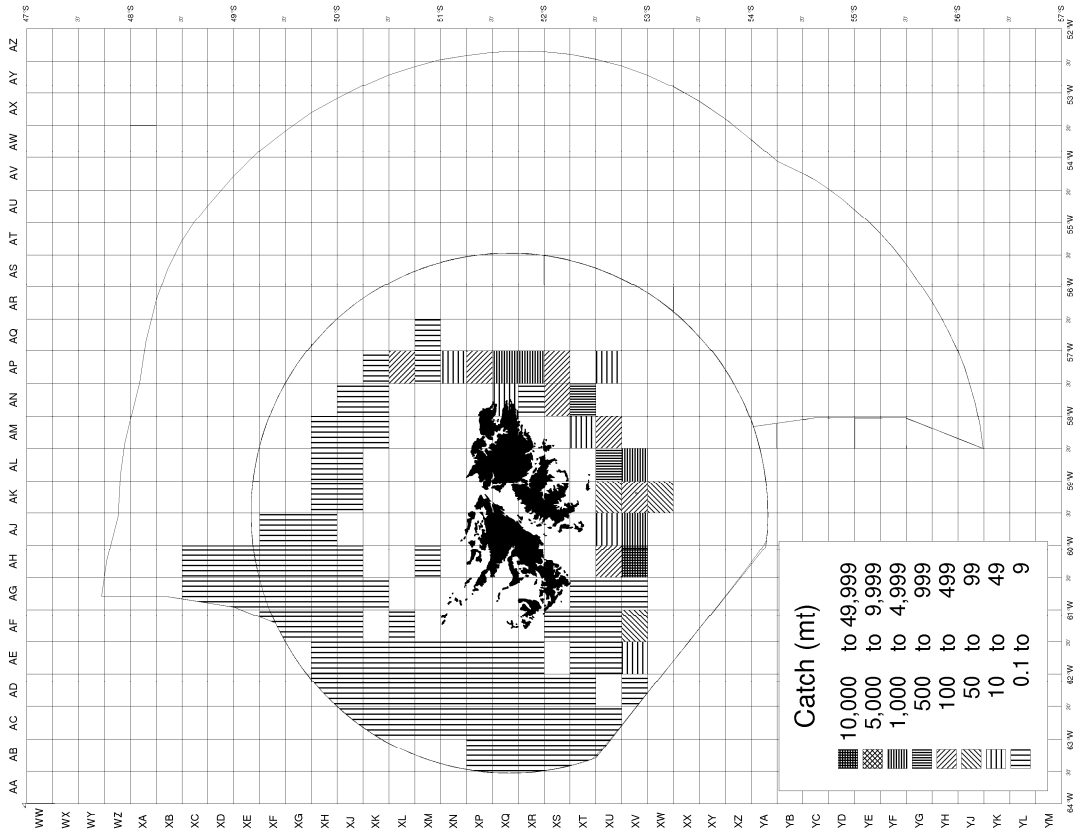
2007

FICZ and FOCZ

1st Season (01 Jan to 30 Jun)

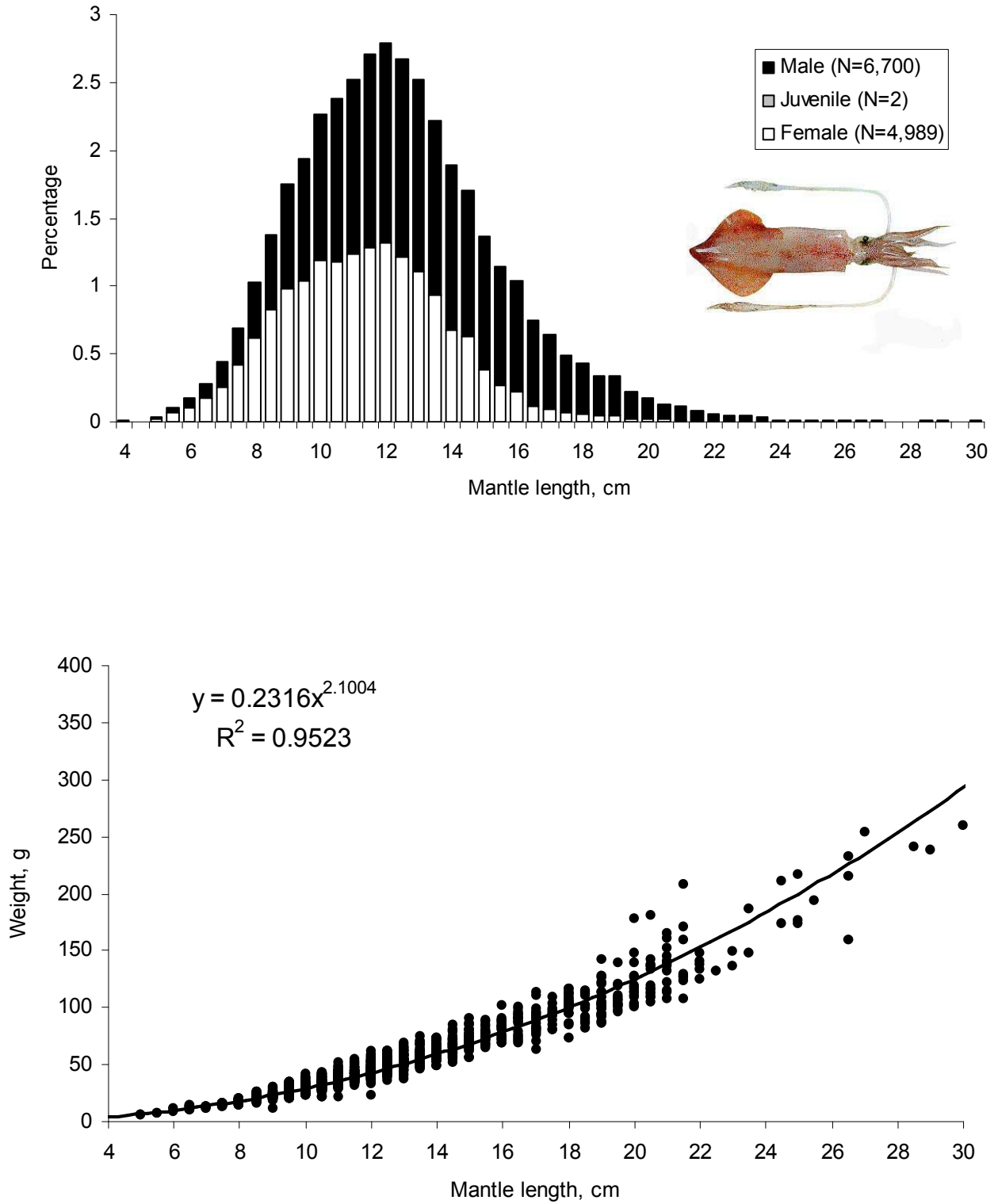


2nd Season (01 Jul to 31 Dec)



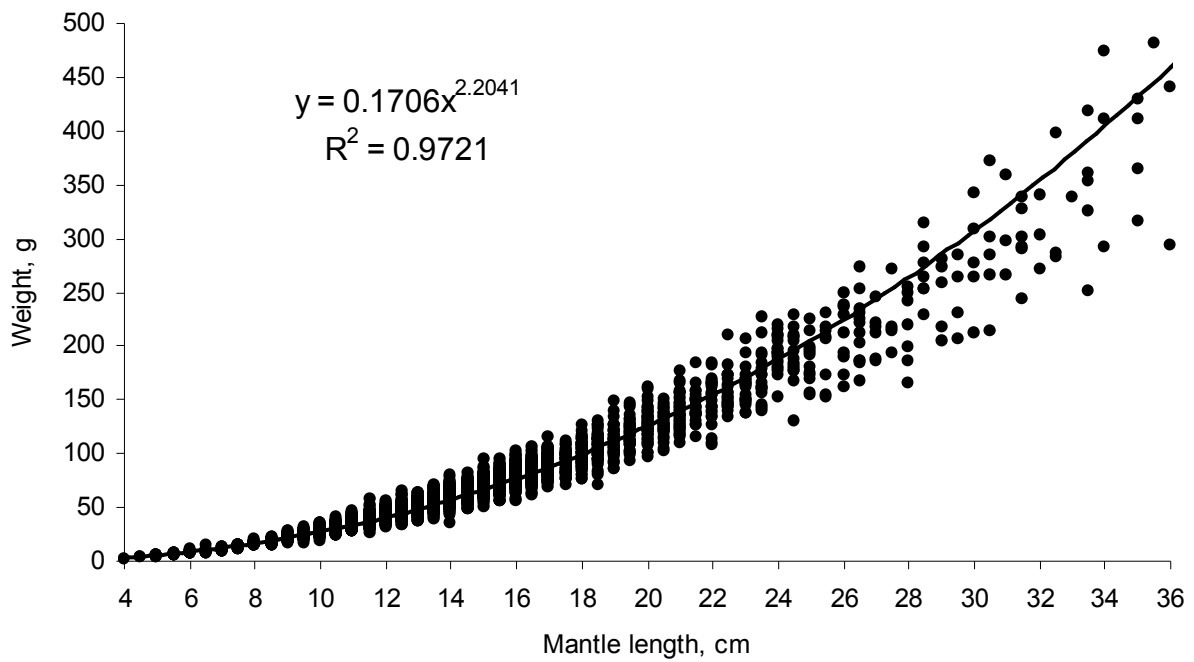
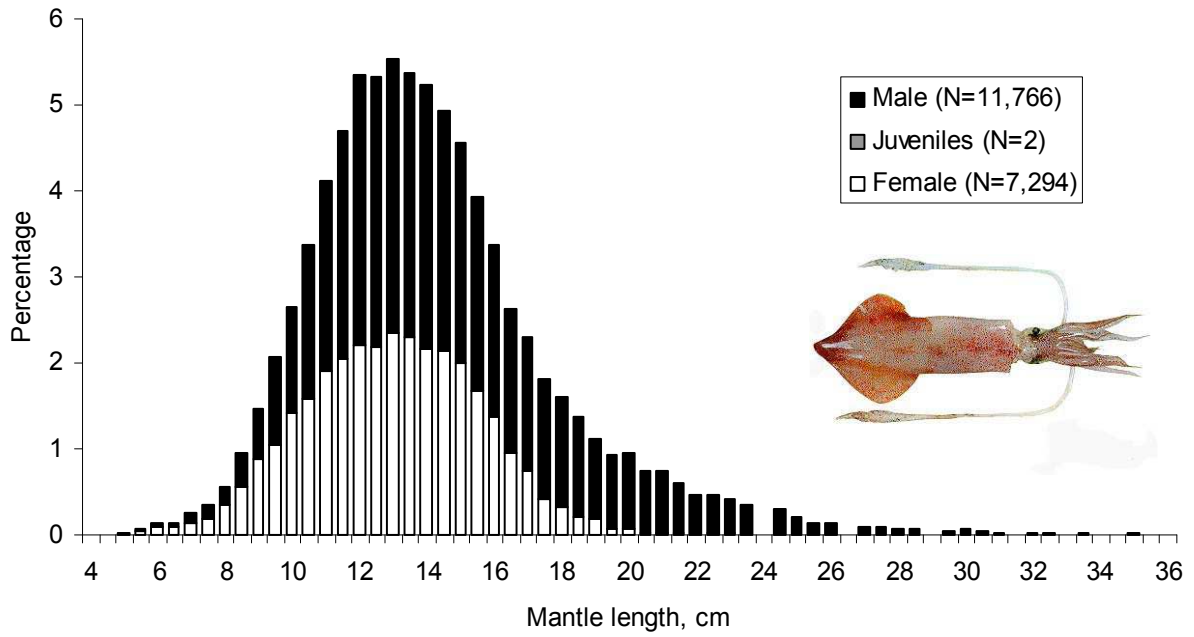
Loligo gahi—Patagonian squid

Length– frequency distribution and length-weight relationship during first season 2007



Loligo gahi—Patagonian squid

Length– frequency distribution and length-weight relationship during second season 2007



Martialia hyadesi - *Martialia squid*

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

VESSEL TYPE	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
JI	.	29	.	147	1	.	.	.	.	.
TR	30	24	0	.	.
	.	29	.	147	1	30	24	0	.	.

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

MONTH	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
January
February	1	6	20	0	.	.
March	2	4	.	.	.
April	2	.	.	.	.
May	.	29	.	110	.	13	.	.	.	.
June	.	.	.	37	.	6	.	.	.	.
July
August	1	.	.	.	.
September	0	.	.	.	.
October
November
December
	.	29	.	147	1	30	24	0	.	.

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

Fishing fleet	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
CB	.	.	.	8	.	.	.	.	.	.
ES	.	0	.	.	.	2	17	0	.	.
FK	.	0	.	.	.	28	7	.	.	.
JP	.	28	.	.	.	.	.	.	.	.
KR	.	0	.	.	.	.	.	.	.	.
TW	.	.	.	139	1	.	.	.	.	.
	.	29	.	147	1	30	24	0	.	.

Martialia hyadesi - *Martialia squid*

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

GRT	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<400
400-599
600-799	.	.	.	3	.	.	.	.	.	.
800-999	.	12	.	144	1	.	.	.	.	.
1000-1499	.	17	.	.	.	27	11	0	.	.
1500-1999	3	13	.	.	.
2000-2999
>2999
	.	29	.	147	1	30	24	0	.	.

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

LOA	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<45
45-49
50-54	.	0	.	7	.	25	7	.	.	.
55-59	.	.	.	44	1	0	.	.	.	.
60-64	.	4	.	27	.	1	.	.	.	.
65-69	.	19	.	68	.	3	17	0	.	.
70-79	.	6	.	.	.	1	.	.	.	.
80-89
>89
	.	29	.	147	1	30	24	0	.	.

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

BHP	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<1000
1000-1199	.	1	.	.	.	.	.	.	.	.
1200-1399
1400-1599	.	.	.	20	.	25	7	.	.	.
1600-1799	.	15	.	10	.	1	.	.	.	.
1800-1999	.	12	.	61	1	2	17	0	.	.
2000-2499	.	0	.	55	.	2	.	.	.	.
2500-2999
3000-3999
>3999
	.	29	.	147	1	30	24	0	.	.

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

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

VESSEL TYPE	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
TR	31483	28564	23371	25735	24908	20798	28553	17047	20533	22155
	31483	28564	23371	25735	24908	20798	28554	17047	20533	22155

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

MONTH	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
January	5789	5444	2999	4253	2476	4545	234	759	164	84
February	8464	6047	4484	3612	4563	6448	3155	811	383	515
March	3871	5252	3624	5564	5875	5328	3652	227	2029	172
April	531	677	939	2271	2443	1299	1785	158	303	84
May	365	522	83	294	580	40	103	142	86	11
June	66	22	4	.	17	.	.	7	6	0
July	.	3	.	.	.	.	7	1	0	56
August	150	63	87	79	302	32	598	527	145	868
September	1295	755	2344	4385	668	1053	2192	4242	4772	8073
October	1290	536	1121	3023	770	1337	6390	4705	6609	6550
November	3677	4481	4344	564	4147	597	6624	3899	3199	5400
December	5986	4763	3341	1689	3068	119	3814	1569	2837	342
	31483	28564	23371	25735	24908	20798	28554	17047	20533	22155

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

Fishing fleet	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
AU	23	165	.	.	.	.	.	.	.	.
BZ	.	.	257	206	.	.	.	.	.	.
CL	8635	4994	2723	6707	7155	5876	8218	.	1884	3260
EE	.	.	.	.	.	.	13	.	13	.
ES	3471	3132	3346	5246	3152	2865	4358	5275	5514	6760
FK	1977	2127	2704	4621	2814	2511	2690	1676	1773	3074
JP	17048	18028	14121	8918	11670	9515	12939	10023	11302	8896
KR	.	3	196	12	3	11	163	44	0	96
NA	282	29	.	.	.	.	.	.	.	.
PT	.	.	1	.	.	.	.	.	.	.
UK	48	85	22	24	116	20	173	29	47	69
	31483	28564	23371	25735	24908	20798	28554	17047	20533	22155

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

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

GRT	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<400	.	.	.	.	.	.	.	.	.	.
400-599	333	222	.	.	.	0	.	0	.	.
600-799	755	112	452	737	500	519	270	279	448	941
800-999	633	407	702	37	155	586	599	126	0	720
1000-1499	2555	2887	3265	8281	9545	7005	4145	4480	2472	3422
1500-1999	446	1219	1005	1892	1439	474	1491	1653	4355	4743
2000-2999	1078	740	1104	702	428	928	892	487	72	174
>2999	25683	22977	16844	14085	12840	11285	21157	10023	13186	12156
	31483	28564	23371	25735	24908	20798	28554	17047	20533	22155

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

LOA	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<45	51	192	.	.	.	.	.	.	.	.
45-49	1071	380	511	87	226	115	610	155	98	273
50-54	415	30	797	1675	510	860	746	637	533	1357
55-59	1203	832	829	1036	891	532	264	451	59	1014
60-64	381	1149	698	2066	1150	997	1497	1749	1114	1150
65-69	746	609	649	3220	7029	4711	2848	2886	3621	3865
70-79	1698	1991	1952	2869	2027	1727	602	609	1310	1662
80-89	196	381	1039	628	235	561	806	497	609	641
>89	25722	23000	16897	14153	12840	11295	21180	10064	13188	12192
	31483	28564	23371	25735	24908	20798	28554	17047	20533	22155

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

BHP	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<1000	.	.	.	.	.	.	.	.	.	.
1000-1199	.	.	.	.	.	.	.	.	.	.
1200-1399	561	60	236	564	273	77	.	66	.	3
1400-1599	756	572	737	1206	423	435	742	561	544	1624
1600-1799	474	357	77	353	328	1076	799	843	575	506
1800-1999	1986	1818	2581	3802	2368	1269	3351	3233	3676	4343
2000-2499	894	1710	1178	2764	1962	1218	1286	1764	2423	3178
2500-2999	2	266	592	2233	6172	4488	176	79	2	132
3000-3999	1011	777	1073	627	542	888	1036	439	75	182
>3999	25798	23005	16897	14184	12842	11345	21163	10062	13238	12187
	31483	28564	23371	25735	24908	20798	28554	17047	20533	22155

Micromesistius australis

Micromesistius australis

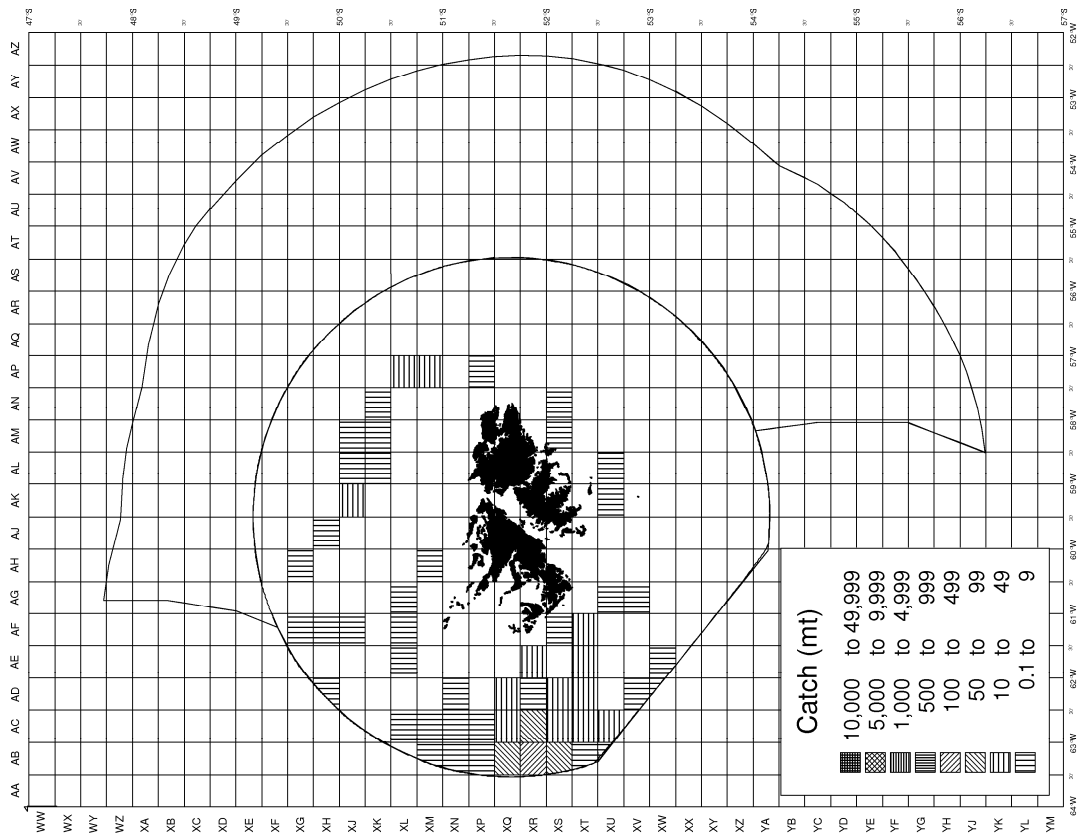
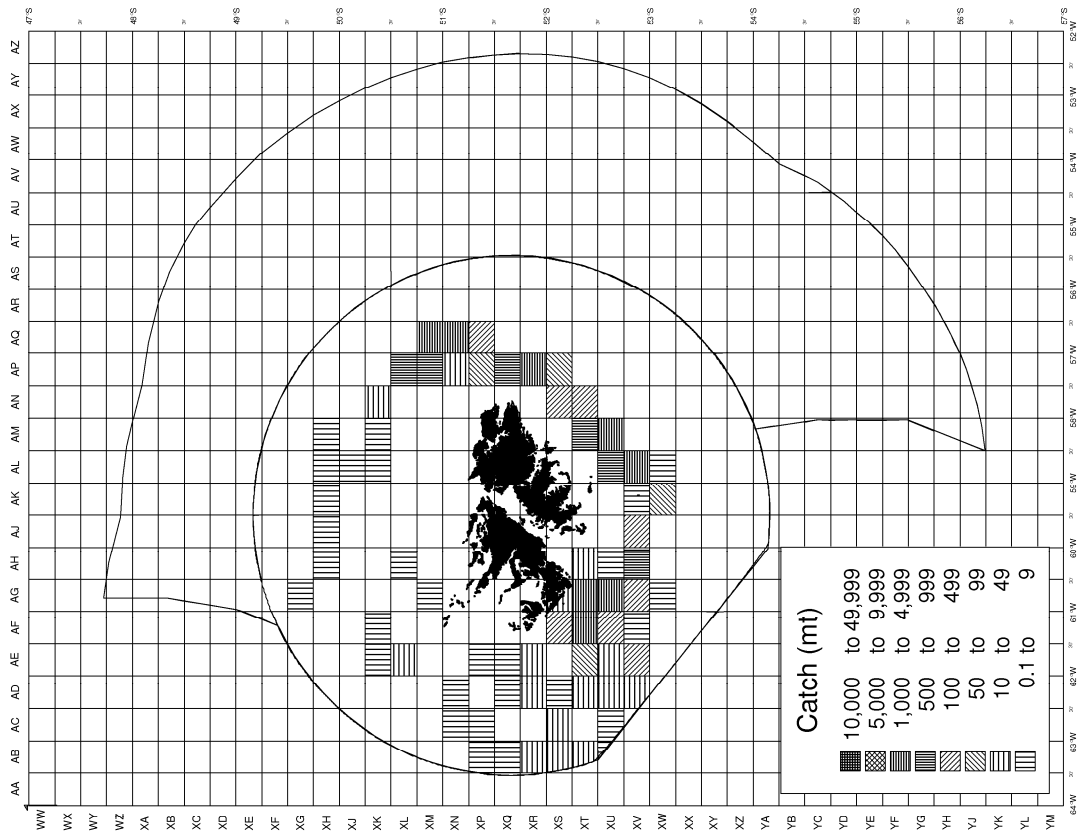
Catch (mt) by grid square

2007

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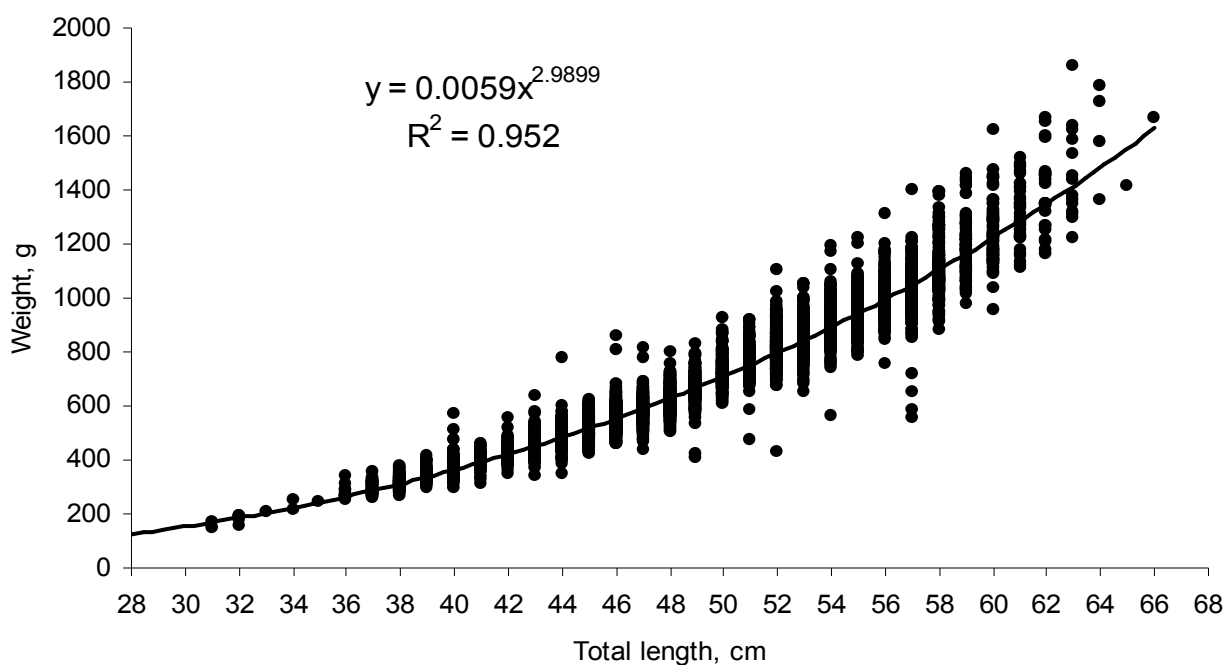
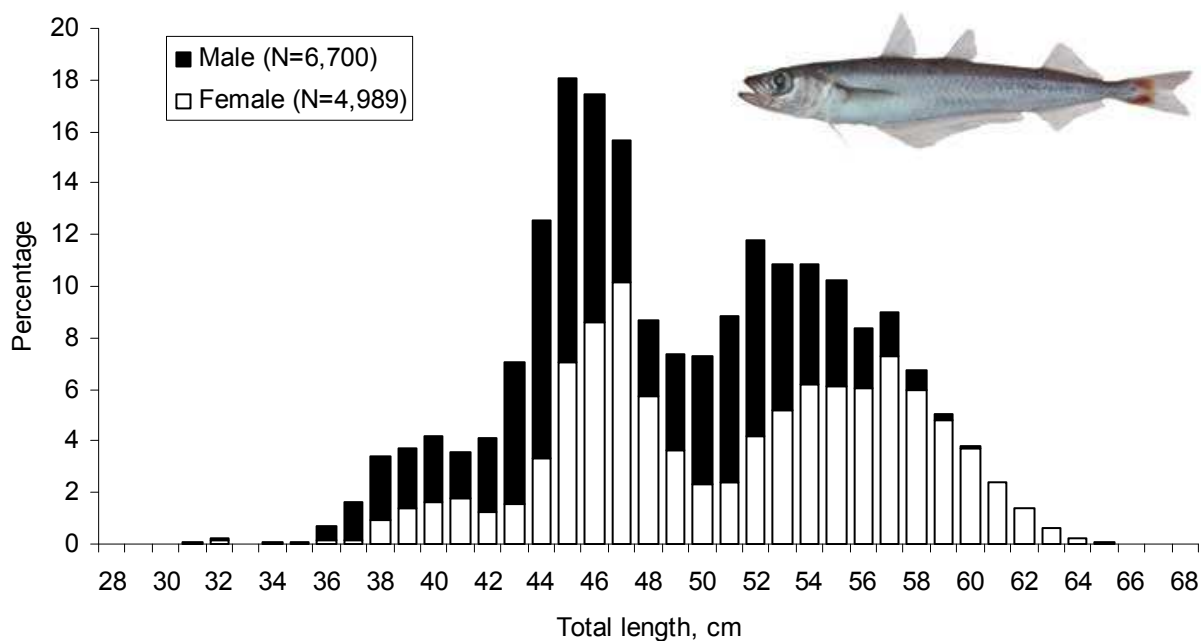
2nd Season (01 Jul to 31 Dec)

1st Season (01 Jan to 30 Jun)



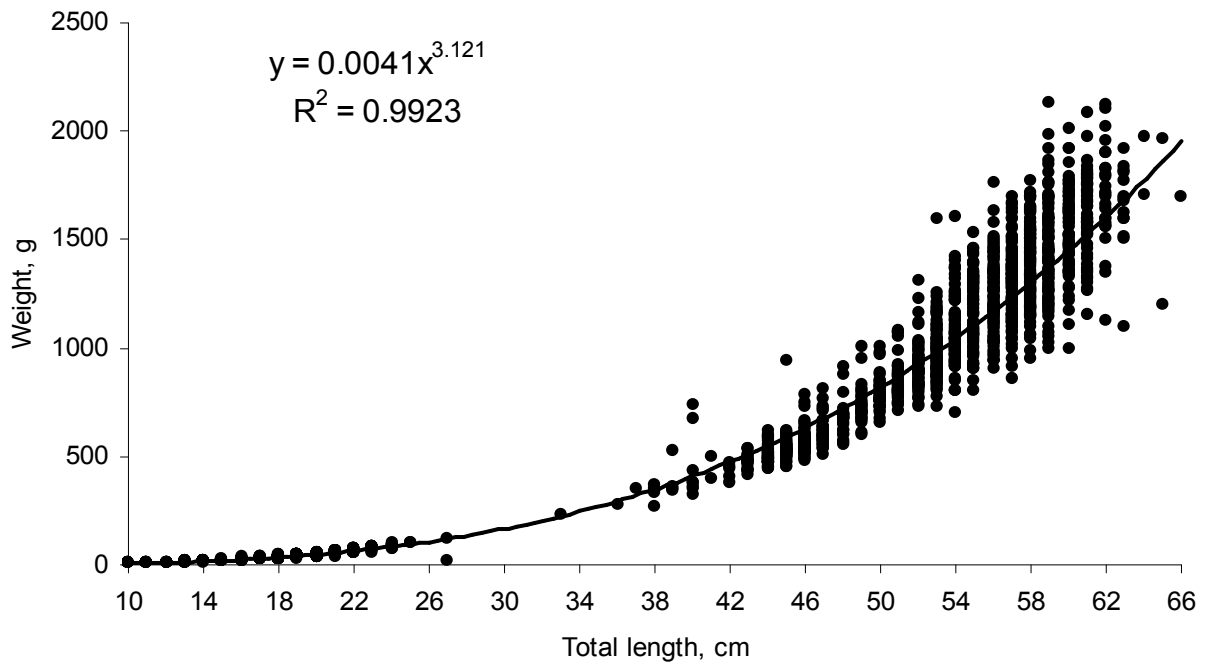
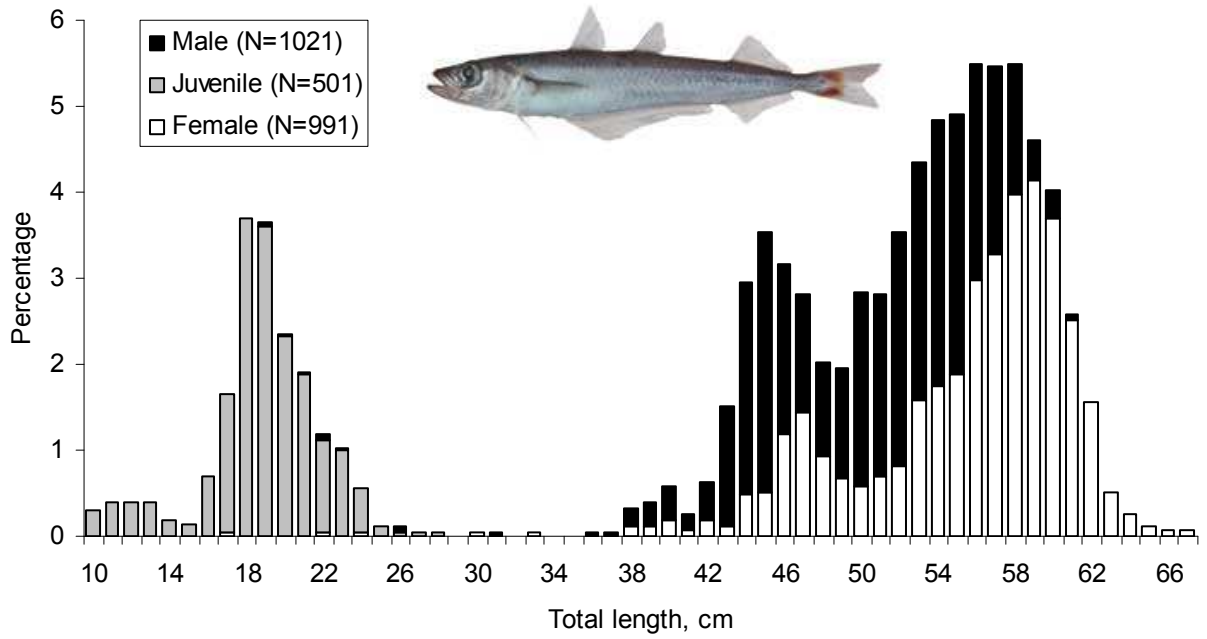
Micromesistius australis—Southern Blue Whiting

Length– frequency distribution and length–weight relationship in surimi fleet in 2007



Micromesistius australis—Southern Blue Whiting

Length– frequency distribution and length-weight relationship in trawler fleets in 2007



***Macruronus magellanicus*—Hoki**

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

VESSEL TYPE	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
CO	153	.	.	.	.	.	.	.	.	.
LO	.	.	.	.	.	.	.	.	0	.
TR	22224	18765	19831	19471	26970	23815	25904	16721	19761	16659
	22378	18765	19831	19471	26970	23815	25904	16721	19761	16659

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

MONTH	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
January	1224	442	978	1541	589	969	506	269	660	1265
February	1459	1037	3105	1739	1970	5780	3517	2566	2520	2365
March	2734	2172	3700	1784	5268	1625	3821	954	1476	1376
April	3827	2639	3244	2669	4404	3185	4868	1128	2070	2080
May	4501	1725	1220	2002	2031	1974	2496	894	2182	1591
June	930	359	476	582	1068	485	111	121	617	245
July	441	455	1057	799	3	154	55	304	256	512
August	1249	1761	1590	833	2048	2026	2223	2378	2182	1708
September	1296	2306	615	803	1481	2089	1452	1997	3201	1070
October	2841	4334	1281	3350	3177	3203	4907	3403	1964	2461
November	1493	1201	1792	3163	3590	1985	925	1756	2077	1565
December	383	334	774	204	1341	341	1022	951	557	421
	22378	18765	19831	19471	26970	23815	25904	16721	19761	16659

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

Fishing fleet	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
AU	31	377	.	.	.	.	.	.	.	.
BZ	.	87	1720	374	1	.	.	.	.	.
CL	204	420	26	1300	2097	613	1533	.	247	343
EE	.	.	.	.	.	.	143	.	253	.
ES	16186	11193	10176	9653	12984	11357	11713	9014	12122	10338
FK	4246	5109	3404	5471	9804	9519	9689	5788	6091	5065
FR	.	2	0	.	.	.	.	.	.	.
HN	.	.	.	.	.	.	.	.	.	.
IS	.	.	.	.	.	.	.	.	.	.
JP	844	400	1889	866	1612	1596	1998	1203	743	141
KR	658	522	2541	1633	420	642	512	693	171	602
NA	205	308	.	.	.	.	7	.	.	.
PA	.	1	.	.	.	.	.	.	.	4
PL	.	.	.	.	.	.	.	.	.	.
PT	.	.	32	.	.	.	.	.	.	.
RU	.	.	.	144	.	.	.	.	.	.
SC	.	.	.	.	.	.	.	.	.	.
UK	2	347	42	30	52	88	308	23	135	166
VC	.	.	.	0	.	.	.	.	.	.
	22378	18765	19831	19471	26970	23815	25904	16721	19761	16659

***Macrurus magellanicus*—Hoki**

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

GRT	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<400	153	78	362	293	.	.	.	.	.	.
400-599	658	586	.	130	17	53	24	27	32	.
600-799	3535	1613	2262	1842	3493	2018	1473	1136	1415	2421
800-999	2872	2149	2488	1269	902	2049	1684	1510	1261	1992
1000-1499	10862	8752	10433	10659	14144	12351	14515	10033	12316	8709
1500-1999	1225	2553	2091	2420	5169	4258	3547	2006	3264	2765
2000-2999	2024	2452	281	766	293	1757	1130	807	484	287
>2999	1049	581	1915	2091	2952	1330	3532	1203	990	484
	22378	18765	19831	19471	26970	23815	25904	16721	19761	16659

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

LOA	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<45	453	279	.	.	.	.	.	.	.	.
45-49	3255	2284	1361	951	961	1247	1813	1340	919	1578
50-54	2184	982	4085	3188	4571	3553	3949	3527	3103	3735
55-59	4788	4034	4507	2737	4177	2892	1068	1284	1856	1227
60-64	3341	3113	3125	3491	2812	4176	3997	2775	4563	2545
65-69	3397	1830	1434	3063	5230	4301	8095	5329	5664	4304
70-79	3669	4716	3128	3202	6066	5240	1718	577	1707	2502
80-89	234	859	265	739	176	933	1723	679	896	242
>89	1056	668	1925	2099	2976	1474	3542	1210	1053	526
	22378	18765	19831	19471	26970	23815	25904	16721	19761	16659

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

BHP	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<1000	.	.	.	.	.	.	.	.	.	.
1000-1199	.	10	.	.	.	.	.	.	.	.
1200-1399	1976	1206	1172	826	1934	528	.	388	163	266
1400-1599	3114	1769	2919	1888	3150	2736	3545	2766	3340	3653
1600-1799	2640	1894	377	922	630	2116	1459	1029	2400	1349
1800-1999	8165	5739	7071	6935	8737	7734	9935	7102	7569	4610
2000-2499	2899	3509	3616	3887	7354	5495	5583	2888	4504	5250
2500-2999	509	1230	2439	2126	1844	2010	416	512	217	594
3000-3999	1998	2740	312	781	327	1598	1383	746	518	363
>3999	1076	668	1925	2106	2993	1600	3584	1290	1050	574
	22378	18765	19831	19471	26970	23815	25904	16721	19761	16659

Macruronus magellanicus

Macruronus magellanicus

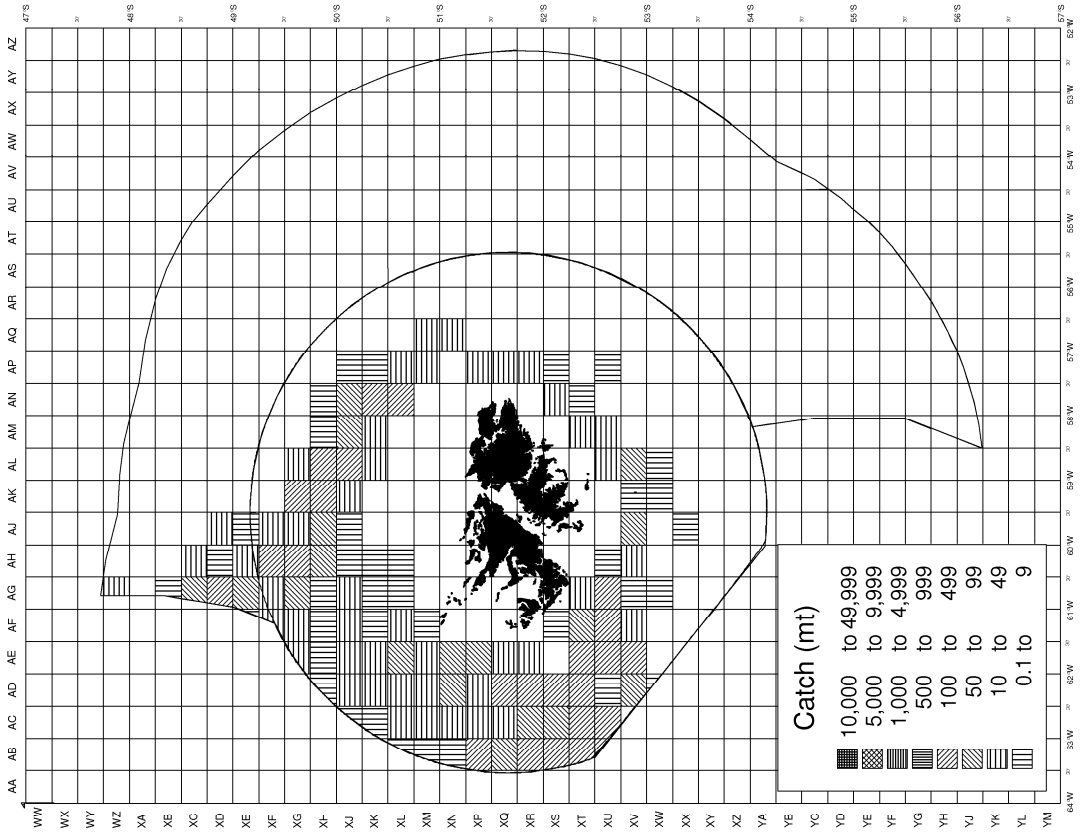
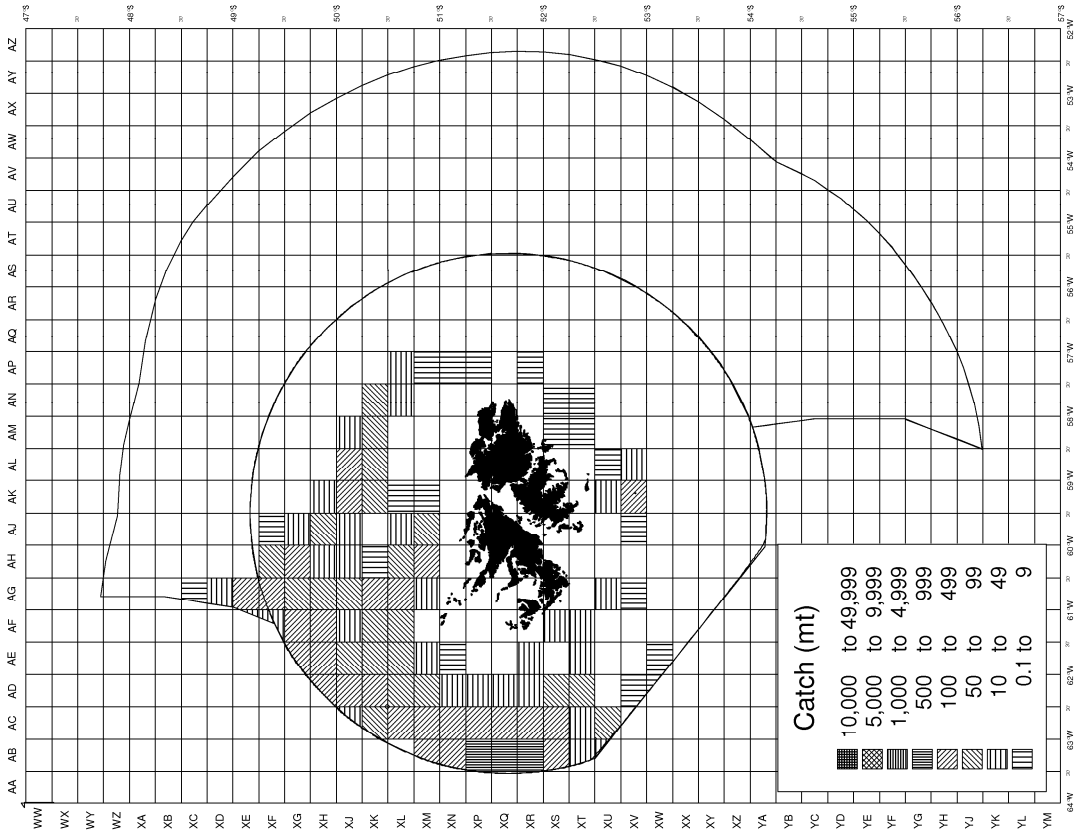
Catch (mt) by grid square

2007

FICZ and FOCZ

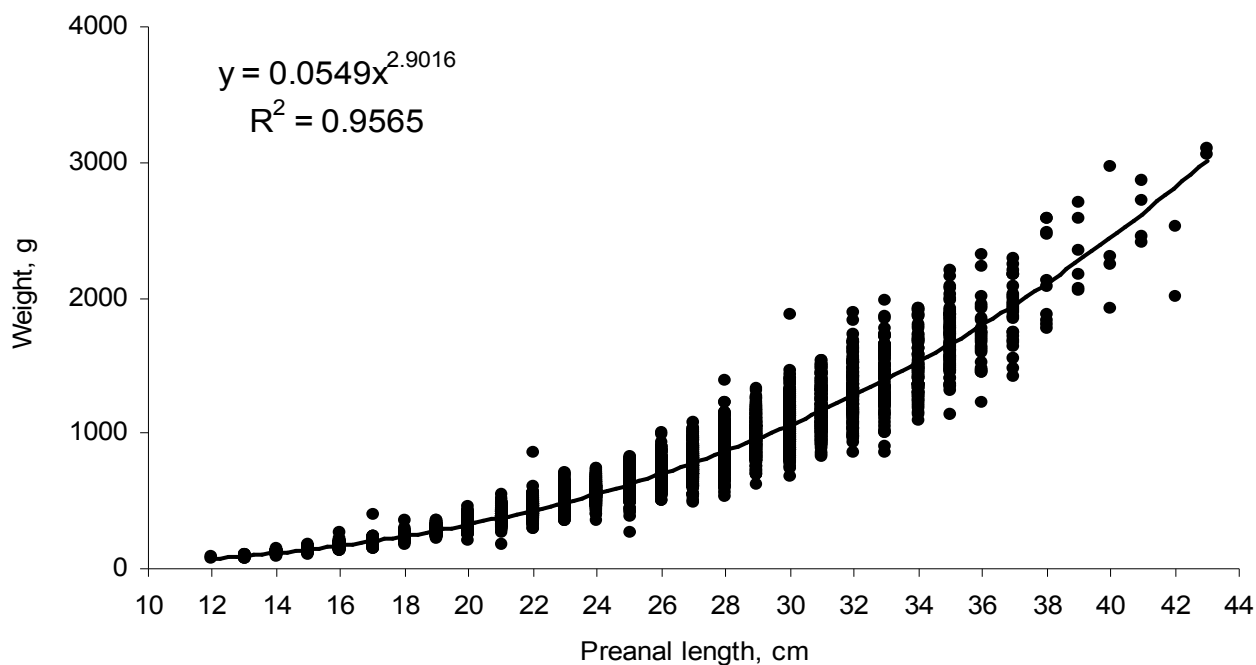
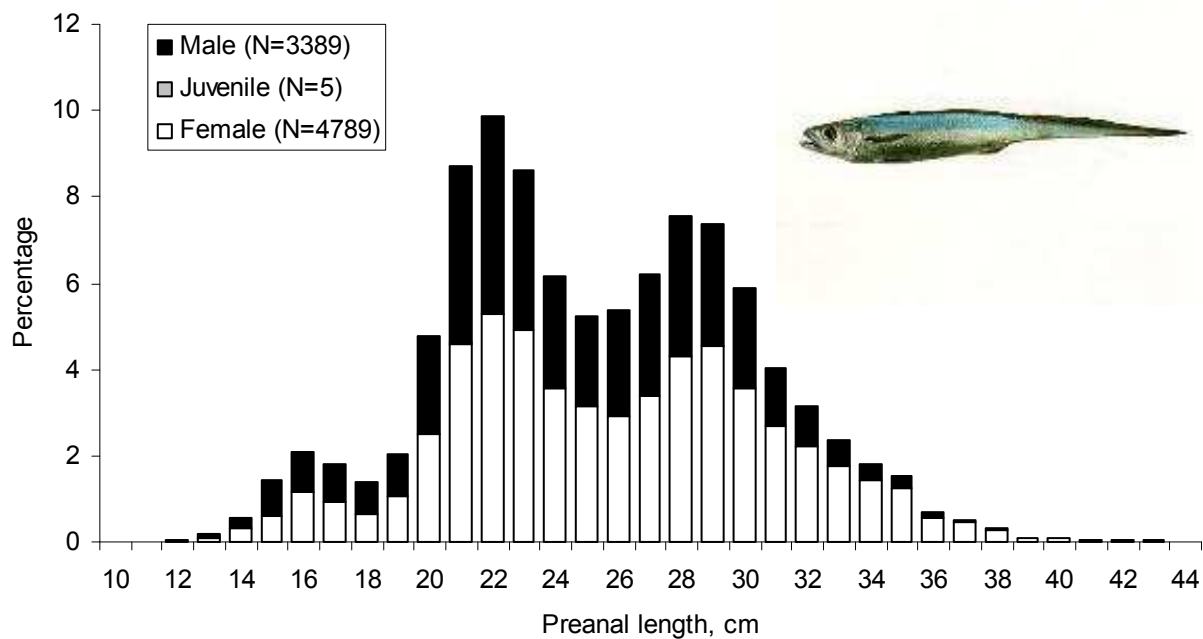
1st Season (01 Jan to 30 Jun)

2nd Season (01 Jul to 31 Dec)



Macruronus magellanicus—Hoki

Length– frequency distribution and length-weight relationship in trawler fleets in 2007



***Salilota australis* - Red cod**

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

VESSEL TYPE	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
CO	39	.	.	.	.	.	.	.	.	.
LO	.	.	.	.	.	.	.	.	6	.
TR	8081	9313	6551	3896	2617	2285	2781	2467	3463	5183
	8121	9313	6551	3896	2617	2285	2781	2467	3469	5183

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

MONTH	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
January	164	105	451	210	33	57	80	4	73	82
February	310	307	796	291	165	248	362	202	222	290
March	852	906	599	369	539	95	188	62	215	423
April	1151	1486	859	547	446	264	350	114	558	502
May	2061	1497	633	617	250	254	271	149	290	504
June	517	523	81	65	40	58	13	36	59	77
July	95	357	431	67	0	3	94	97	196	338
August	797	1081	822	297	171	235	258	492	571	904
September	812	1215	747	342	263	343	436	676	623	1033
October	752	1046	590	679	325	490	583	337	459	770
November	543	353	403	387	296	192	134	248	164	234
December	66	437	139	26	90	46	11	50	40	27
	8121	9313	6551	3896	2617	2285	2781	2467	3469	5183

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

Fishing fleet	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
AU	85	60	.	.	.	.	.	.	.	.
BZ	.	28	237	42	.	.	.	.	.	.
CL	0	59	.	.	.	.	.	.	.	.
EE	.	.	.	.	.	.	.	.	84	.
ES	6168	5937	3918	2222	1624	1279	1582	1579	2246	3985
FK	1491	2692	1886	1374	950	958	1024	746	1047	1127
FR	11	5	29	.	.	.	.	.	.	.
HN	.	.	.	.	.	.	.	.	.	.
IS	.	.	.	.	.	.	.	.	.	.
JP	64	13	11	.	0	.	3	.	0	1
KR	180	200	429	219	28	40	85	125	60	49
NA	100	128	.	.	.	.	7	.	.	.
PA	.	2	.	.	.	.	.	.	.	.
PL	.	.	.	.	.	.	.	.	.	.
PT	.	.	12	.	.	.	.	.	.	.
RU	.	.	.	8	.	.	.	.	.	.
SC	.	.	.	.	.	.	.	.	.	.
UK	22	188	30	17	15	9	63	17	31	22
UY	0	.	.	.	.	.	.	.	.	.
VC	.	.	.	14	.	.	.	.	.	.
	8121	9313	6551	3896	2617	2285	2781	2467	3469	5183

***Salilota australis* - Red cod**

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

GRT	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<400	39	33	85	17	.	.	.	.	.	.
400-599	466	324	.	11	1	0	2	14	4	.
600-799	1243	879	755	551	404	203	179	67	209	648
800-999	1390	1198	763	261	122	228	210	135	216	721
1000-1499	3639	4304	3514	2284	1498	1262	1248	1468	1855	2191
1500-1999	481	1574	900	511	474	278	828	600	1066	1571
2000-2999	798	987	524	260	117	315	311	184	118	52
>2999	64	13	11	.	.	.	3	0	0	1
	8121	9313	6551	3896	2617	2285	2781	2467	3469	5183

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

LOA	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<45	366	197	.	.	.	.	.	.	.	.
45-49	1430	1384	688	312	162	168	213	71	259	566
50-54	685	475	869	630	439	358	362	379	519	892
55-59	1828	1761	1519	578	454	317	199	126	212	485
60-64	865	1518	1021	669	309	339	347	442	410	829
65-69	1265	785	508	458	292	280	1180	1158	1678	1787
70-79	1463	2628	1590	1050	893	596	167	123	278	553
80-89	107	516	326	186	50	218	303	159	102	63
>89	112	49	30	12	19	9	9	9	10	9
	8121	9313	6551	3896	2617	2285	2781	2467	3469	5183

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

BHP	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<1000	.	.	.	.	.	.	.	.	.	.
1000-1199	.	14	.	.	.	.	.	.	.	.
1200-1399	628	544	357	224	156	71	.	4	51	112
1400-1599	1642	1238	892	500	333	337	401	257	551	1134
1600-1799	769	612	227	200	105	171	129	115	219	539
1800-1999	2762	3163	2606	1567	1149	871	1399	1307	1661	2127
2000-2499	1283	2115	1361	742	587	417	405	475	774	1148
2500-2999	152	528	543	386	156	93	75	114	66	57
3000-3999	753	1034	485	206	85	305	347	152	116	46
>3999	132	64	80	71	47	21	24	43	31	20
	8121	9313	6551	3896	2617	2285	2781	2467	3469	5183

Salilota australis

Salilota australis

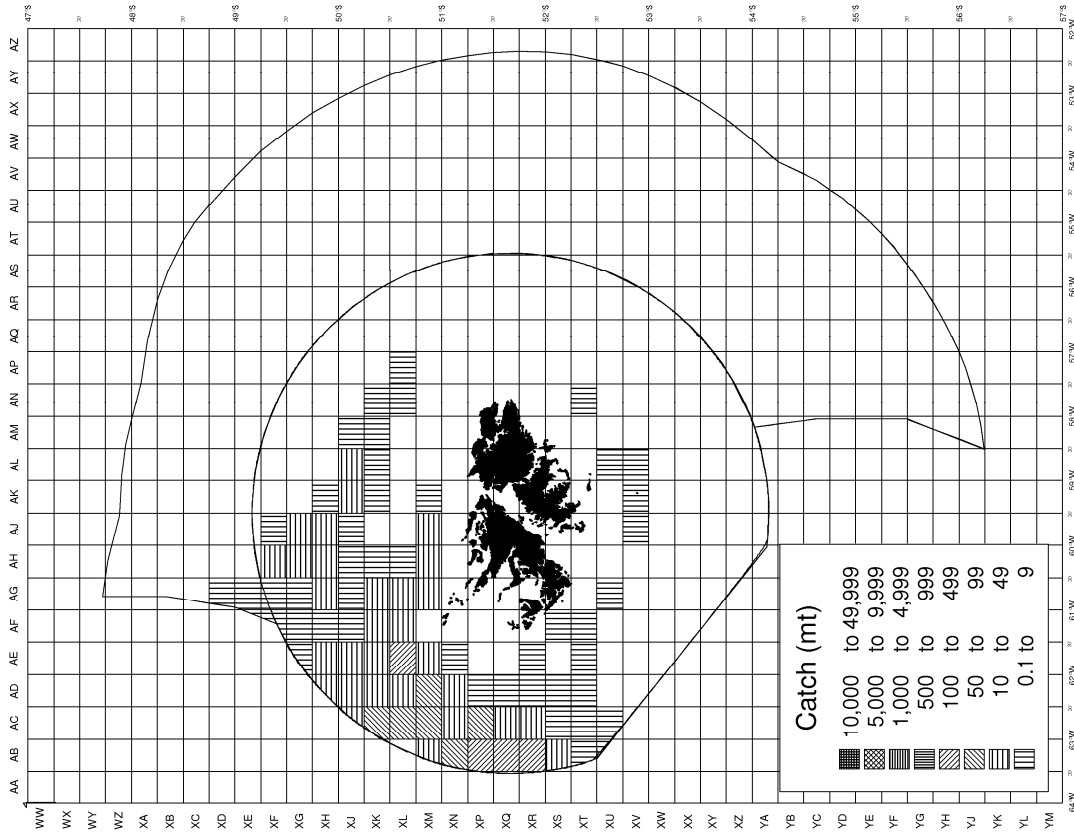
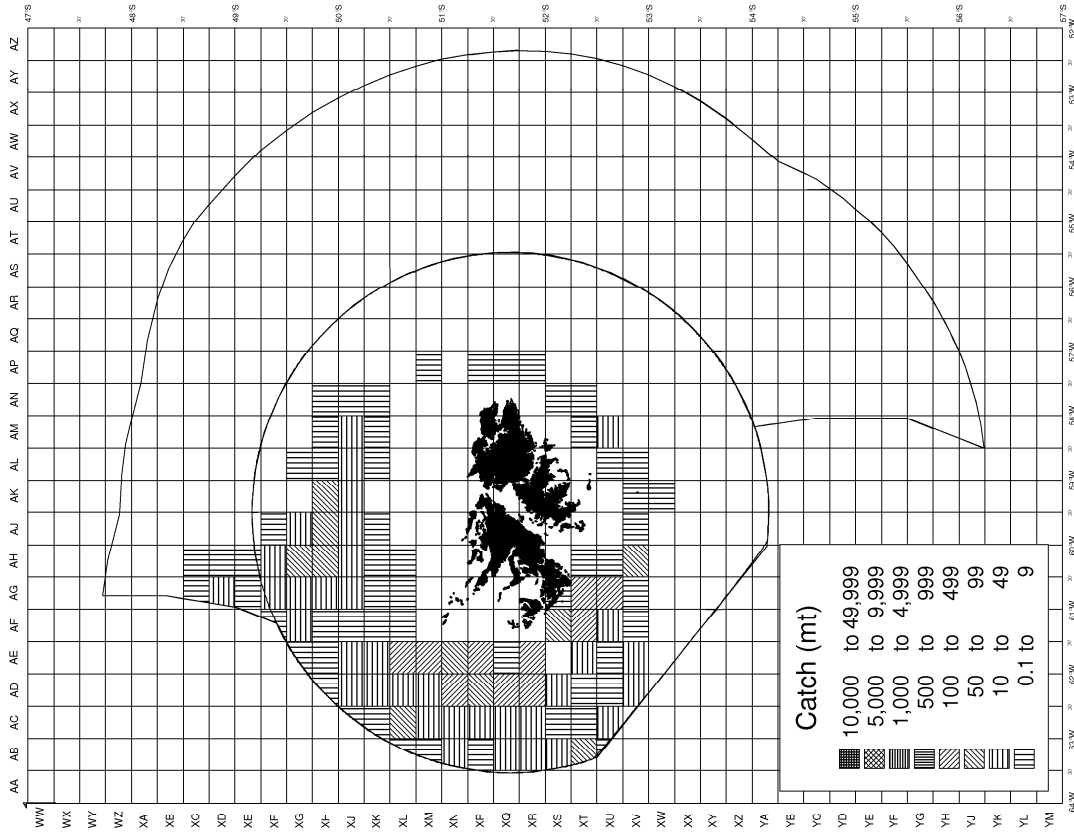
Catch (mt) by grid square

2007

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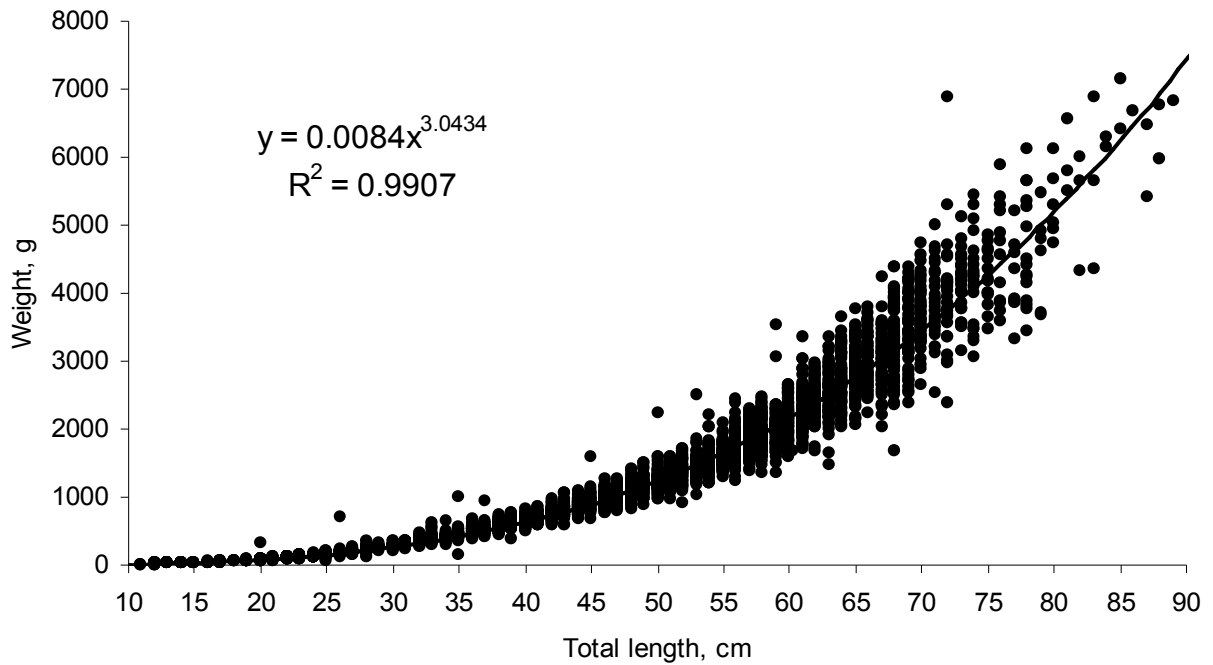
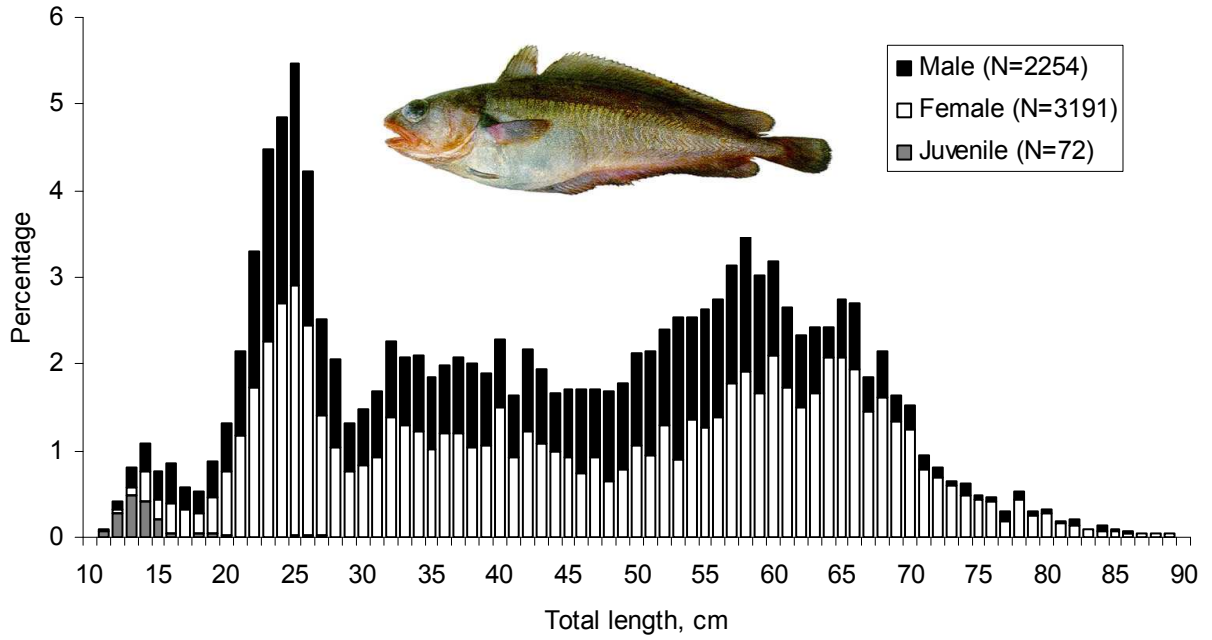
2nd Season (01 Jul to 31 Dec)

1st Season (01 Jan to 30 Jun)



Salilota australis - Red cod

Length– frequency distribution and length-weight relationship in trawler fleets in 2007



Merluccius spp - Hakes

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

VESSEL TYPE	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
CO	36	.	.	.	.	.	.	.	.	.
LO	.	.	.	.	.	.	.	.	5	.
TR	3466	4224	3069	1978	1678	1967	1927	2735	8433	11899
	3502	4224	3069	1978	1678	1967	1927	2735	8438	11899

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

MONTH	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
January	47	7	57	7	48	51	14	0	7	31
February	112	136	87	24	96	142	196	81	254	215
March	429	339	180	110	223	34	141	65	267	556
April	542	591	309	462	288	253	269	168	1098	1089
May	1065	444	183	400	146	198	223	318	1002	3134
June	312	257	58	79	46	74	86	41	130	2276
July	77	335	419	140	6	31	144	163	415	1976
August	305	1068	934	338	244	263	441	698	2051	1881
September	401	508	604	202	388	633	261	854	1906	491
October	152	414	179	166	113	215	128	277	964	200
November	58	86	54	49	43	64	23	67	329	48
December	2	40	3	1	39	7	1	2	16	2
	3502	4224	3069	1978	1678	1967	1927	2735	8438	11899

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

Fishing fleet	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
AU	3	10	.	.	.	.	.	.	.	.
BZ	.	35	63	4	0	.	.	.	.	.
CL	0	1	.	7	0	.	1	.	.	.
EE	.	.	.	.	.	.	6	.	66	.
ES	2387	2602	1522	1073	805	1021	810	1388	4837	7597
FK	959	1031	1000	564	655	731	798	1003	3038	4022
FR	3	3	0	.	.	.	.	.	.	.
HN	.	.	.	.	.	.	.	.	.	.
IS	.	.	.	.	.	.	.	.	.	.
JP	30	28	54	2	75	28	8	.	.	.
KR	86	387	396	264	123	187	277	309	394	159
NA	15	37	.	.	.	.	0	.	.	.
PA	.	36	.	.	.	.	.	.	.	.
PL	.	.	.	.	.	.	.	.	.	.
PT	.	.	3	.	.	.	.	.	.	.
RU	.	.	.	47	.	.	.	.	.	.
SC	.	.	.	.	.	.	.	.	.	.
UK	18	53	30	12	20	1	26	35	103	120
UY	0	.	.	.	.	0	.	.	.	.
VC	0	.	.	5	.	.	.	.	.	.
	3502	4224	3069	1978	1678	1967	1927	2735	8438	11899

Merluccius spp - Hakes

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

GRT	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<400	36	106	76	39	.	0	0	.	.	.
400-599	90	79	.	40	24	8	20	21	33	.
600-799	244	287	202	198	140	186	140	362	852	1204
800-999	270	772	363	188	174	204	326	487	1511	986
1000-1499	2243	1861	1890	1200	968	1199	1053	1564	4971	6858
1500-1999	218	664	218	174	316	199	217	205	963	2306
2000-2999	370	426	265	131	57	167	162	96	108	545
>2999	30	28	54	9	0	5	9	0	.	.
	3502	4224	3069	1978	1678	1967	1927	2735	8438	11899

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

LOA	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<45	75	42	.	.	.	0	.	.	.	.
45-49	269	618	188	181	147	133	244	503	1526	1345
50-54	189	423	390	269	243	300	331	574	1379	2244
55-59	559	844	917	443	227	385	126	227	1095	1352
60-64	401	649	392	296	262	430	306	340	1122	1730
65-69	1356	490	529	261	386	323	670	960	2652	4087
70-79	549	978	337	418	371	287	137	40	506	609
80-89	58	136	261	95	36	100	103	92	157	531
>89	46	44	55	15	6	8	9	0	1	0
	3502	4224	3069	1978	1678	1967	1927	2735	8438	11899

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

BHP	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<1000	.	.	.	.	.	0	.	.	.	.
1000-1199	.	183	.	.	.	.	.	.	.	.
1200-1399	95	107	66	66	57	30	.	102	236	61
1400-1599	354	509	235	218	230	244	335	716	1704	2215
1600-1799	322	315	55	59	34	91	102	95	813	1196
1800-1999	1005	1314	1192	824	561	826	634	817	3166	5203
2000-2499	1231	816	823	367	496	375	477	620	1946	2432
2500-2999	77	492	348	293	216	205	183	255	361	127
3000-3999	349	432	290	128	60	183	186	131	205	660
>3999	69	56	59	23	23	14	10	0	6	5
	3502	4224	3069	1978	1678	1967	1927	2735	8438	11899

Merluccius spp.

Merluccius spp.

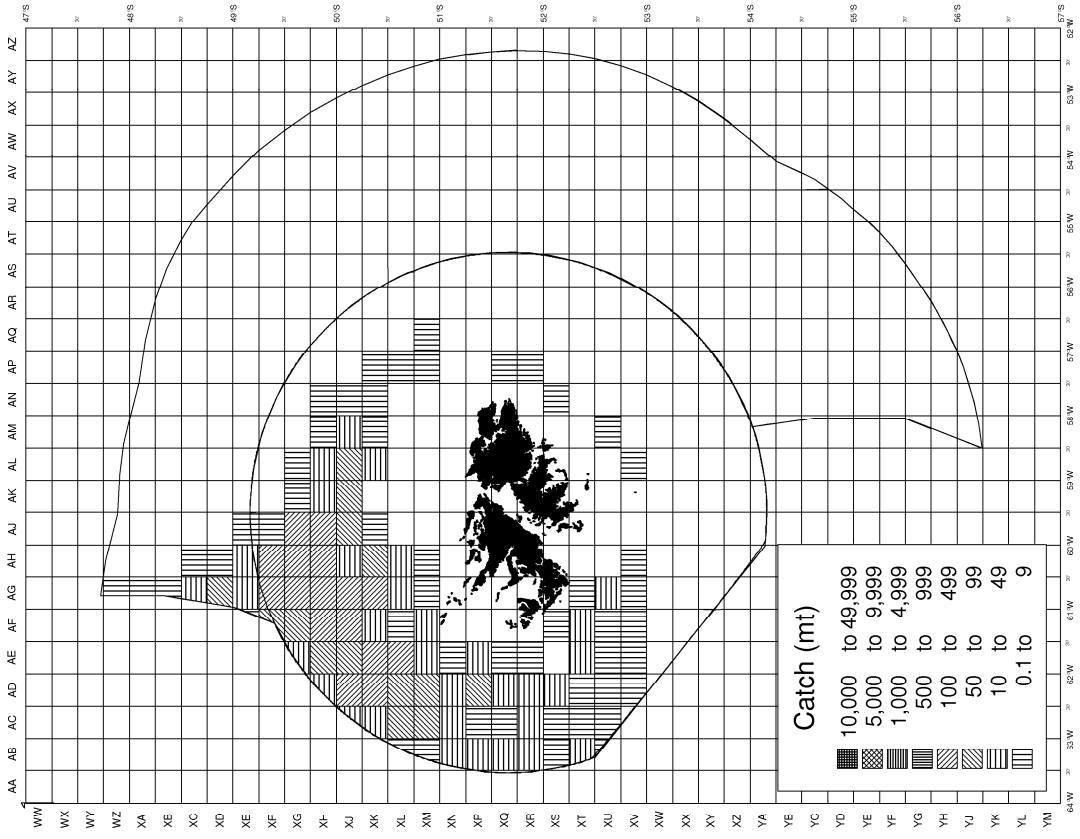
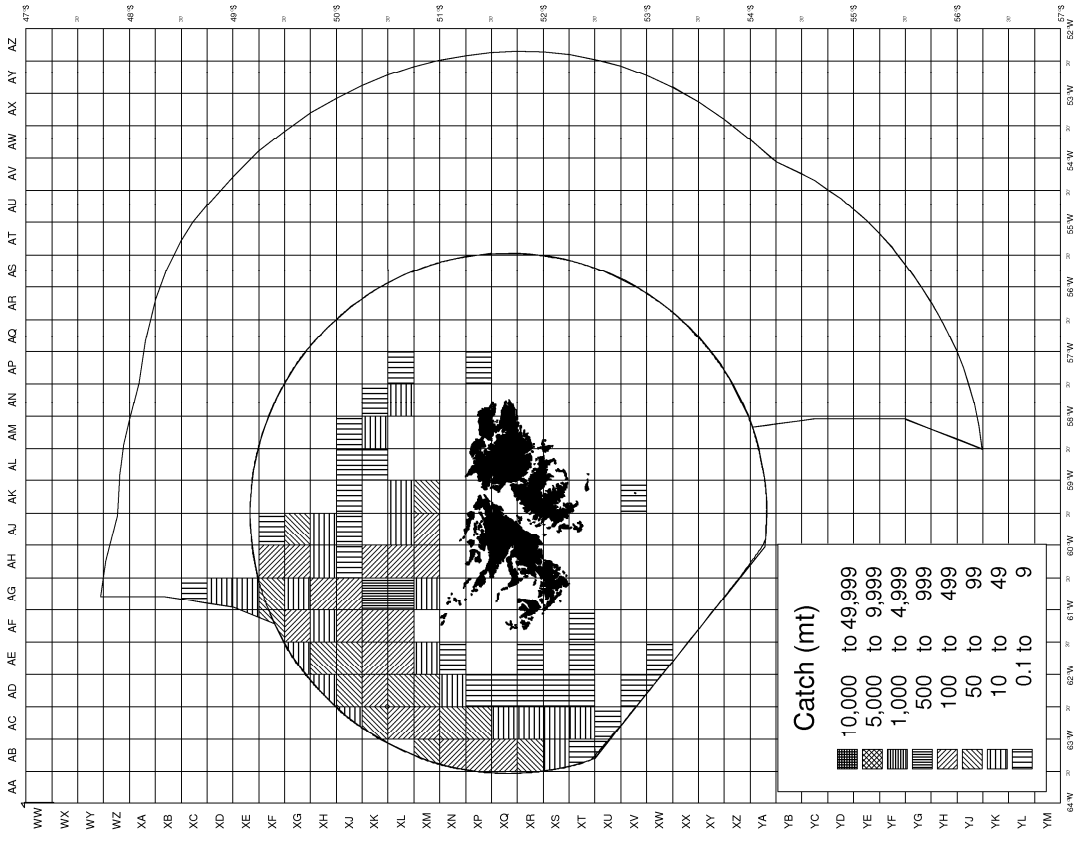
Catch (mt) by grid square

2007

FICZ and FOCZ

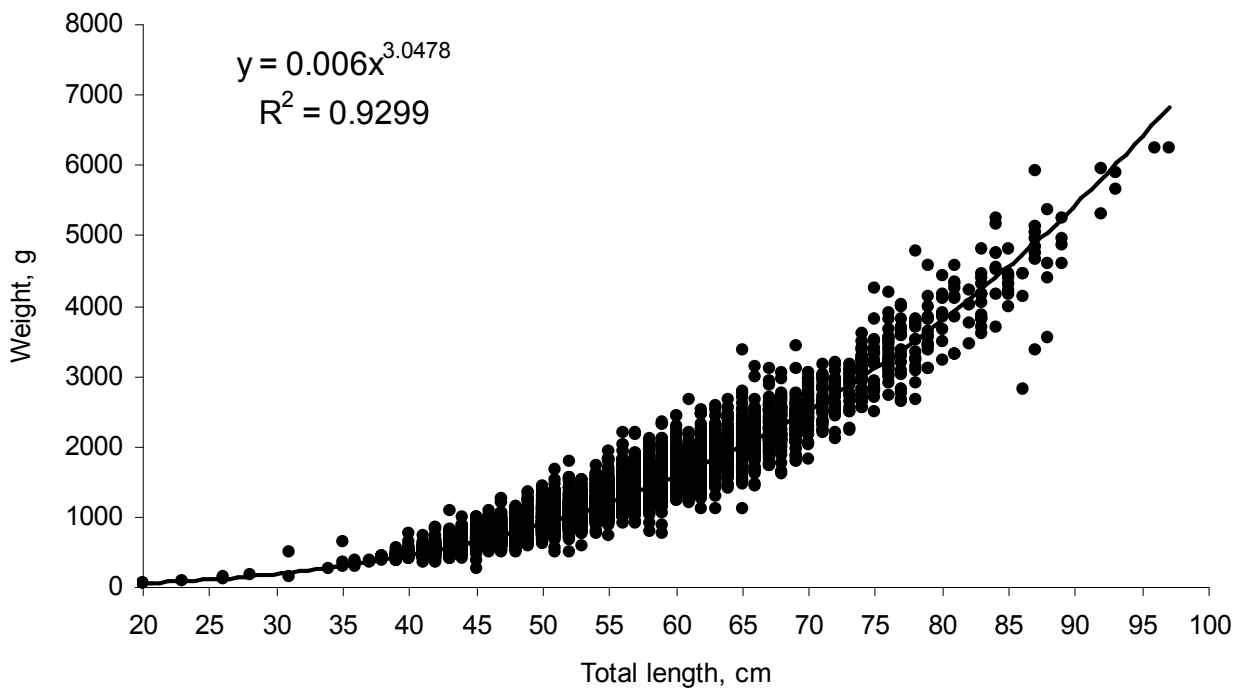
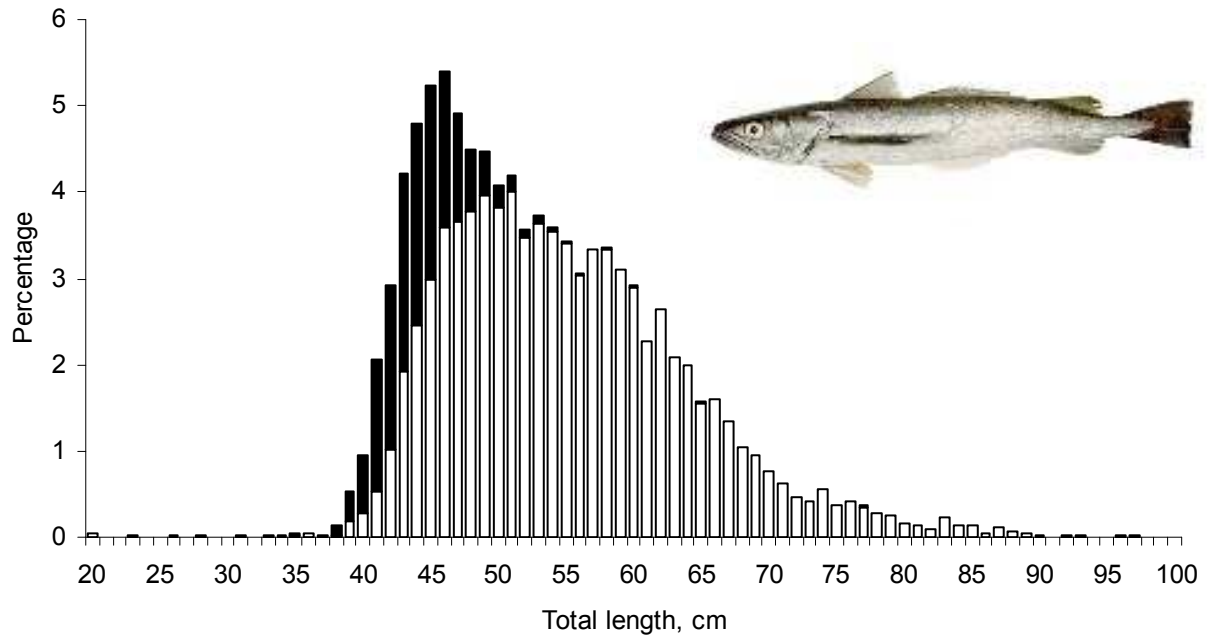
1st Season (01 Jan to 30 Jun)

2nd Season (01 Jul to 31 Dec)



Merluccius spp - Hakes

Length– frequency distribution and length-weight relationship in *M.hubbsi* in trawler fleets in 2007



Genypterus blacodes - Kingclip

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

VESSEL TYPE	1998	1999	2000	2001	2002	2003	2004	2005	2006	2008
CO	25	.	.	.	.	.	.	.	.	.
LO	.	.	.	.	.	.	.	.	64	.
TR	2192	2602	1875	1625	1224	1274	1841	1936	2757	3584
	2217	2602	1875	1625	1224	1275	1841	1936	2821	3584

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

MONTH	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
January	33	18	55	64	8	21	54	3	57	84
February	59	51	125	79	57	110	192	149	213	327
March	249	217	126	95	282	29	114	56	173	370
April	360	443	280	319	234	143	289	84	322	460
May	503	360	166	259	85	102	172	73	221	330
June	83	108	26	36	20	28	19	29	35	60
July	58	133	178	36	1	16	95	58	77	204
August	277	401	313	177	58	141	263	291	405	709
September	260	363	259	154	45	271	144	350	530	494
October	180	347	158	202	225	224	354	523	494	356
November	132	92	152	193	169	154	132	255	253	164
December	23	69	39	12	40	36	12	65	41	25
	2217	2602	1875	1625	1224	1275	1841	1936	2821	3584

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

Fishing fleet	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
AU	2	10	.	.	.	.	.	.	.	.
BZ	.	15	87	8	0	.	.	.	.	.
CL	.	10	.	.	.	.	.	.	.	.
EE	.	.	.	.	.	.	11	.	43	.
ES	1805	1905	1154	1086	857	818	1135	1184	1701	2729
FK	253	451	304	348	334	387	530	517	911	740
FR	.	0	.	.	.	.	.	.	.	.
IS	.	.	.	.	.	.	.	.	.	.
JP	2	1	2	.	4	0	4	0	0	2
KR	131	132	309	166	27	67	140	219	135	83
NA	25	45	.	.	.	.	0	.	.	.
PA	.	2	.	.	.	.	.	.	.	.
PT	.	.	13	.	.	.	.	.	.	.
RU	.	.	.	16	.	.	.	.	.	.
SC	.	.	.	.	.	.	.	.	.	.
UK	0	32	7	2	1	3	20	15	31	31
	2217	2602	1875	1625	1224	1275	1841	1936	2821	3584

Genypterus blacodes - Kingclip

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

GRT	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<400	25	26	64	24	.	.	.	.	.	.
400-599	103	83	.	19	3	1	5	34	13	.
600-799	432	370	371	408	305	224	127	102	215	459
800-999	373	395	285	146	70	186	325	225	333	564
1000-1499	1033	1233	974	838	661	680	921	1099	1650	1824
1500-1999	73	241	149	144	175	121	376	383	569	693
2000-2999	176	254	31	46	8	63	82	92	42	41
>2999	2	1	2	.	1	0	4	0	0	2
	2217	2602	1875	1625	1224	1275	1841	1936	2821	3584

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

LOA	1998	1999	2000	2001	2002	2003	2004	2005	2006	
<45	78	38	.	.	.	.	.	.	.	.
45-49	422	440	183	155	75	138	291	110	299	435
50-54	283	257	441	378	302	321	271	387	459	605
55-59	495	495	373	224	217	155	183	197	354	396
60-64	288	500	361	304	150	236	292	445	484	803
65-69	343	262	212	218	172	184	602	630	899	942
70-79	300	529	273	302	304	207	109	80	255	355
80-89	6	80	30	45	4	29	88	85	70	41
>89	2	1	2	.	1	5	4	1	0	7
	2217	2602	1875	1625	1224	1275	1841	1936	2821	3584

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

BHP	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<1000	.	.	.	.	.	.	.	.	.	.
1000-1199	.	15	.	.	.	.	.	.	.	.
1200-1399	206	231	185	218	146	88	.	13	65	132
1400-1599	460	367	258	178	161	229	377	232	609	858
1600-1799	215	224	91	71	49	153	81	126	232	427
1800-1999	796	884	635	589	518	469	876	884	1041	1185
2000-2499	256	414	393	272	236	185	296	394	677	826
2500-2999	106	196	274	250	103	82	104	179	125	87
3000-3999	176	269	38	47	7	62	101	105	72	51
>3999	2	1	2	1	4	8	5	3	1	18
	2217	2602	1875	1625	1224	1275	1841	1936	2821	3584

Genypterus blacodes

Genypterus blacodes

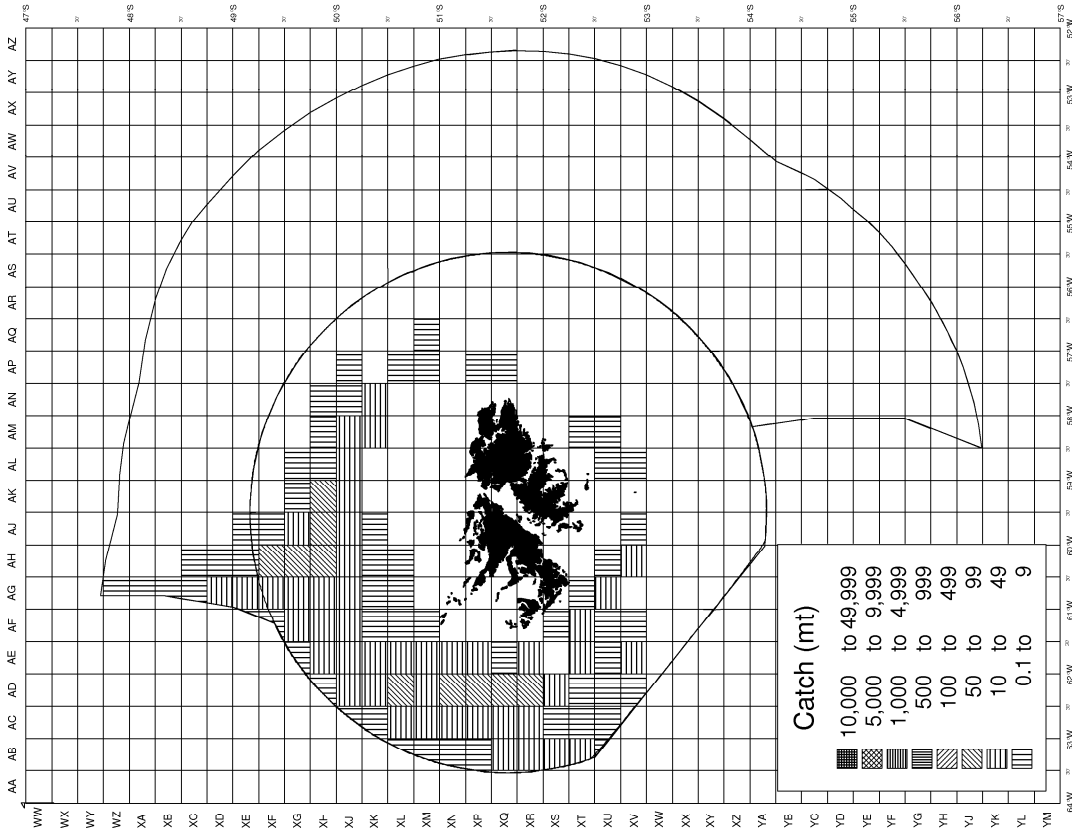
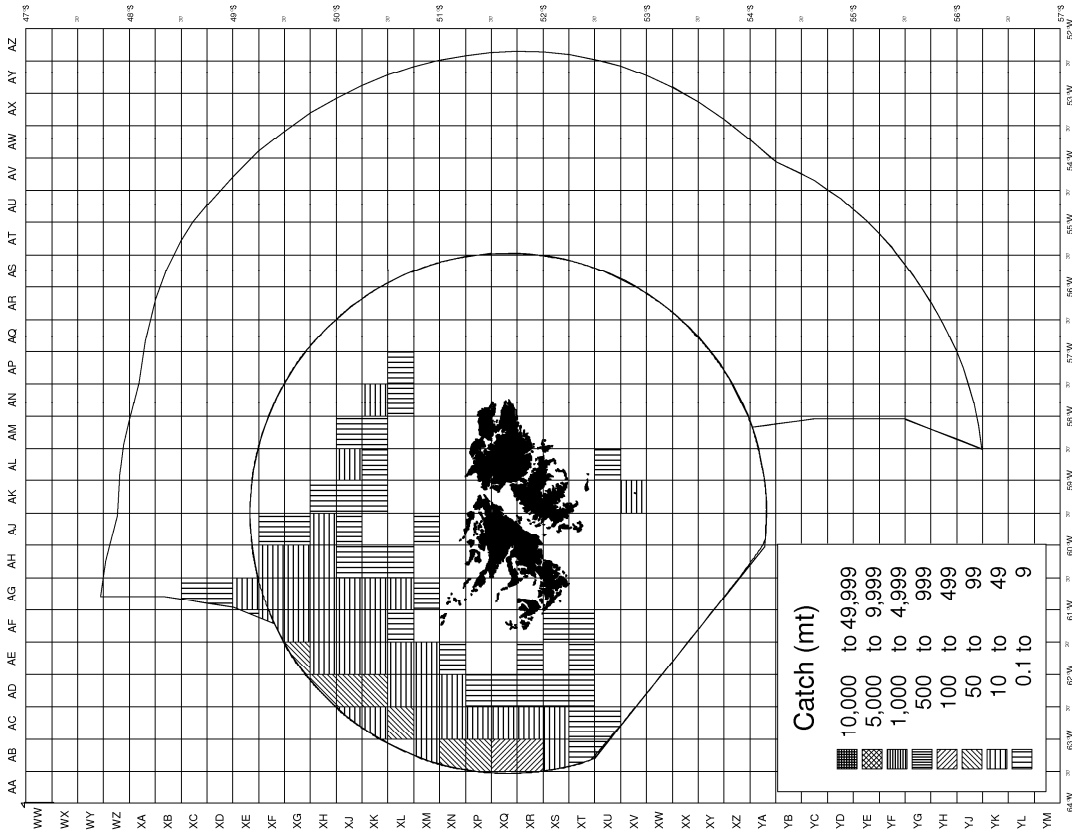
Catch (mt) by grid square

2007

FICZ and FOCZ

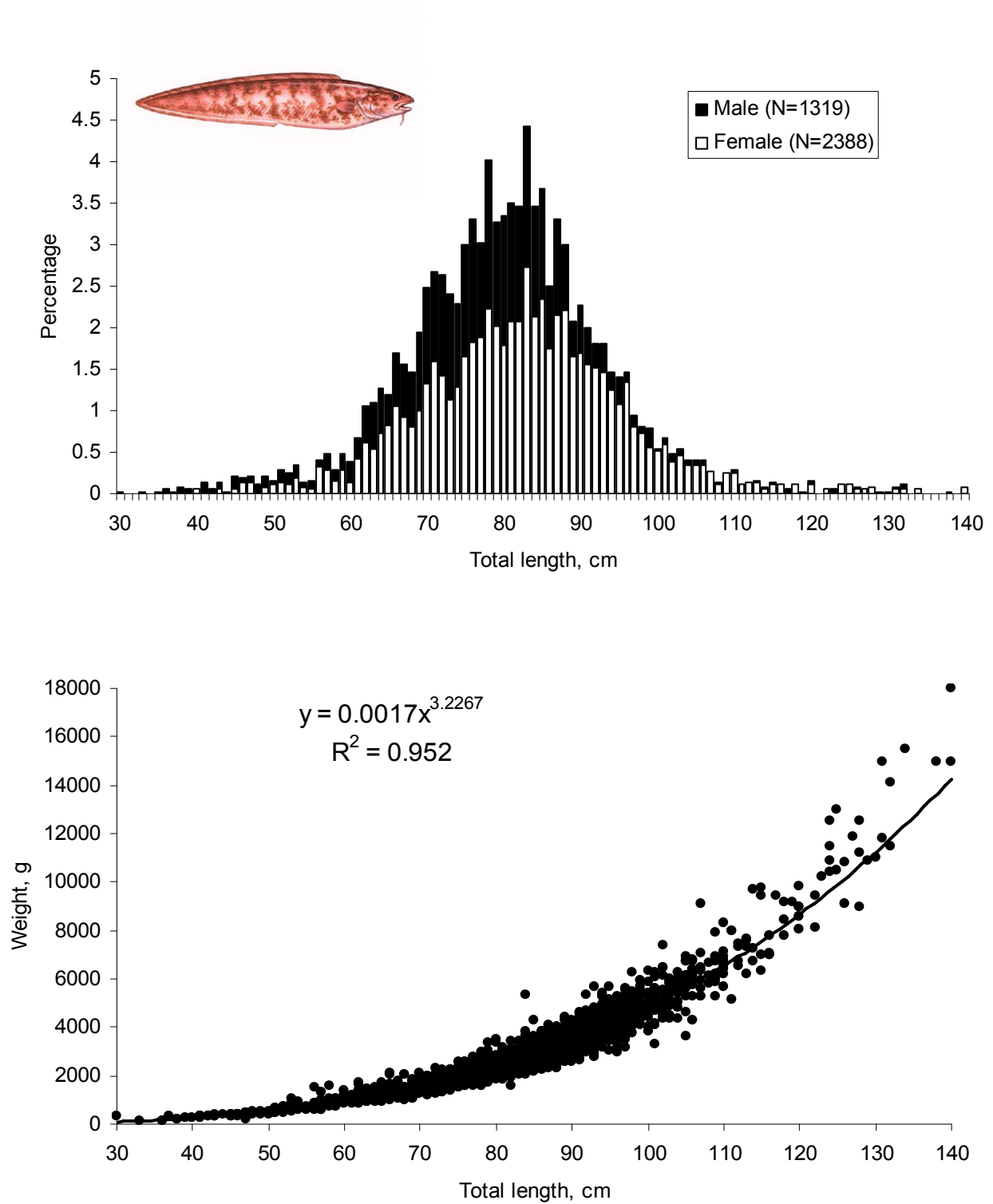
1st Season (01 Jan to 30 Jun)

2nd Season (01 Jul to 31 Dec)



Genypterus blacodes - Kingclip

Length– frequency distribution and length-weight relationship in trawler fleets in 2007



Dissostichus eleginoides - Toothfish

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

VESSEL TYPE	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
CO	4	.	.	.	.	.	.	.	.	.
LO	1474	1801	1554	1310	1440	1455	1725	1554	1244	1407
PO	.	.	.	.	.	.	.	.	263	59
TR	625	1197	764	443	352	253	276	123	65	53
	2103	2998	2318	1754	1793	1707	2002	1677	1572	1519

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

MONTH	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
January	151	93	213	105	100	143	167	147	331	123
February	110	116	296	172	58	196	188	144	174	116
March	137	210	224	172	116	103	167	116	247	103
April	195	278	149	206	108	49	113	64	146	50
May	213	278	242	178	103	61	150	119	65	106
June	112	141	226	107	87	90	97	99	98	61
July	108	204	209	128	192	162	157	116	150	56
August	238	328	190	181	303	194	269	214	95	137
September	241	444	159	157	262	157	142	186	124	167
October	204	356	161	145	183	277	218	219	54	124
November	266	315	160	138	144	160	223	116	79	209
December	127	225	88	65	136	115	110	138	8	266
	2103	2988	2318	1754	1793	1707	2002	1677	1572	1519

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

Fishing fleet	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
AU	15	24	.	.	.	.	.	.	.	.
BZ	.	16	27	11	0	.	.	.	.	.
CL	.	5	.	.	.	.	.	.	.	301
EE	.	.	.	.	.	.	0	.	0	.
ES	354	574	360	230	191	147	158	73	43	34
FK	570	1109	928	1460	1323	967	1641	1597	1264	1123
FR	2	4	0	.	.	.	.	.	.	.
HN	.	.	.	.	.	.	.	.	.	.
IS	.	.	.	.	.	.	.	.	.	.
JP	3	1	1	.	2	0	0	.	.	.
KR	1121	1195	994	49	268	549	196	7	264	60
NA	21	28	.	.	.	.	.	.	.	.
NO	.	.	.	.	.	.	.	.	.	.
NZ	.	.	.	.	.	43	.	.	.	.
PA	.	1	.	.	.	.	.	.	.	.
PT	.	.	3	.	.	.	.	.	.	.
SC	.	.	.	.	.	.	.	.	.	.
RU	.	.	.	0	.	.	.	.	.	.
UK	17	30	6	3	8	1	6	0	1	1
VC	.	.	.	0	.	.	.	.	.	.
	2103	2988	2318	1754	1793	1707	2002	1677	1572	1519

Dissostichus eleginoides - Toothfish

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

GRT	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<400	1104	1059	747	2	243	184	182	.	.	.
400-599	34	43	75	1	2	346	0	0	0	.
600-799	47	86	54	48	35	36	22	4	268	67
800-999	448	949	884	1072	1112	746	1564	1556	1248	1108
1000-1499	286	527	444	557	328	347	161	73	31	322
1500-1999	73	197	83	47	59	33	58	28	25	21
2000-2999	107	126	30	27	13	15	15	16	1	0
>2999	3	1	1	.	.	.	0	.	.	.
	2103	2988	2318	1754	1793	1707	2002	1677	1572	1519

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

LOA	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<45	387	788	551	358	136	.	.	.	.	.
45-49	75	115	135	34	33	407	16	1	148	61
50-54	1152	1153	860	106	306	246	904	858	718	529
55-59	92	228	339	1020	1118	921	890	723	662	592
60-64	76	230	197	68	54	63	64	21	12	312
65-69	133	131	71	41	59	38	102	52	25	14
70-79	143	296	134	100	82	25	11	8	5	9
80-89	40	38	27	24	2	7	14	13	3	1
>89	5	8	2	0	1	1	0	1	.	0
	2103	2988	2318	1754	1793	1707	2002	1677	1572	1519

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

BHP	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<1000	.	.	.	.	.	.	.	.	.	.
1000-1199	.	7	.	.	.	43	.	.	.	.
1200-1399	50	57	28	21	11	3	.	0	146	59
1400-1599	63	107	372	1029	1115	1269	1598	1572	1258	1119
1600-1799	1146	1083	735	16	264	243	213	8	120	304
1800-1999	182	330	254	165	129	84	123	56	31	14
2000-2499	505	1047	703	426	217	31	36	21	15	20
2500-2999	29	210	191	67	34	16	10	4	1	1
3000-3999	106	133	32	29	19	15	20	15	1	1
>3999	21	13	4	1	3	2	1	1	.	.
	2103	2988	2318	1754	1793	1707	2002	1677	1572	1519

Dissostichus eleginoides - Toothfish

Table L.7 Total catch (tonnes) of combination vessels by gross registered tonnage (GRT) and year

GRT	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<400	4	.	.	.	.	.	.	.	.	.
600-799	.	.	.	.	.	.	.	.	263*	59*
	4	.	.	.	.	.	.	.	263	59

*- potters

Table L.8 Total catch (tonnes) of combination vessels by length overall (m) (LOA) and year

LOA	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
45-49	.	.	.	.	.	.	.	.	146*	59*
50-54	4	.	.	.	.	.	.	.	117*	.
55-59	.	.	.	.	.	.	.	.	.	.
	4	.	.	.	.	.	.	.	263	59

Table L.9 Total catch (tonnes) of combination vessels by brake horsepower (BHP) and year

BHP	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
1200-1499	.	.	.	.	.	.	.	.	146*	59*
1600-1799	.	.	.	.	.	.	.	.	117*	.
2000-2499	4	.	.	.	.	.	.	.	.	.
	4	.	.	.	.	.	.	.	263	59

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

GRT	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<400	1101	1012	724	.	243	184	182	.	.	.
400-599	.	.	75	.	.	346	.	.	.	.
600-799	.	.	.	.	.	.	.	.	.	.
800-999	374	772	755	1011	1070	723	1543	1554	1244	1106
1000-1499	.	16	.	299	127	202	.	.	.	301
	1474	1801	1554	1310	1440	1455	1725	1554	1244	1407

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

LOA	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<45	374	772	551	358	136	.	.	.	.	.
45-49	.	.	75	.	.	389	.	.	.	.
50-54	1101	1012	724	.	243	184	849	838	587	516
55-59	.	16	203	952	1061	881	876	716	657	590
60-64	.	.	.	.	.	.	.	.	.	301
	1474	1801	1554	1310	1440	1455	1725	1554	1244	1407

***Dissostichus eleginoides* - Toothfish**

Table L.12 Total catch (tonnes) of longliners by brake horsepower (BHP) and year

BHP	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<1000	.	.	.	.	.	.	.	.	.	.
1000-1199	.	.	.	.	.	43	.	.	.	.
1200-1399	.	.	.	.	.	.	.	.	.	.
1400-1599	.	16	278	952	1061	1227	1543	1554	1244	1106
1600-1799	1101	1012	724	.	243	184	182	.	.	301
1800-1999	.	.	.	.	.	.	.	.	.	.
2000-2499	374	772	551	358	136	.	.	.	.	.
	1474	1801	1554	1310	1440	1455	1725	1554	1244	1407

Table L.13 Total catch (tonnes) of trawlers by gross registered tonnage (GRT) and year

GRT	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<400	.	1	23	2	.	.	0	.	.	.
400-599	34	43	.	1	2	0	0	0	0	.
600-799	47	86	54	48	35	36	22	4	5	8
800-999	74	177	130	61	42	23	20	2	4	2
1000-1499	286	511	444	258	200	146	161	73	31	21
1500-1999	73	197	83	47	59	33	58	28	25	21
2000-3999	107	126	30	27	15	15	15	16	1	0
>3999	3	1	1	.	.	.	0	.	.	.
	625	1142	764	443	352	253	276	123	65	53

Table L.14 Total catch (tonnes) of trawlers by length overall (m) (LOA) and year

LOA	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<45	13	15	.	.	.	.	.	.	.	.
45-49	75	115	60	34	33	18	16	1	2	2
50-54	48	141	136	106	63	62	55	20	14	13
55-59	92	166	136	69	57	39	13	7	5	2
60-64	76	230	197	68	54	62	64	21	12	12
65-69	133	131	71	41	59	38	102	52	25	14
70-79	143	296	134	100	82	25	11	8	5	9
80-89	40	38	27	24	2	7	14	13	3	1
>89	5	8	2	0	1	1	.	1	.	0
	625	1142	764	443	352	253	276	123	65	53

Table L.15 Total catch (tonnes) of trawlers by brake horsepower (BHP) and year

BHP	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<1000	.	.	.	.	.	.	.	.	.	.
1000-1199	.	7	.	.	.	.	.	.	.	.
1200-1399	50	57	28	21	11	3	.	0	.	.
1400-1599	63	91	93	77	54	42	55	19	14	13
1600-1799	46	71	11	16	21	58	31	8	3	3
1800-1999	182	330	254	165	129	84	123	56	31	14
2000-2499	128	274	151	68	81	31	36	21	15	20
2500-2999	29	165	191	67	34	16	10	4	1	1
3000-3999	106	133	32	29	19	15	20	15	1	1
>3999	21	13	4	1	3	2	1	1	.	.
	625	1142	764	443	352	253	276	123	65	53

Dissostichus eleginoides

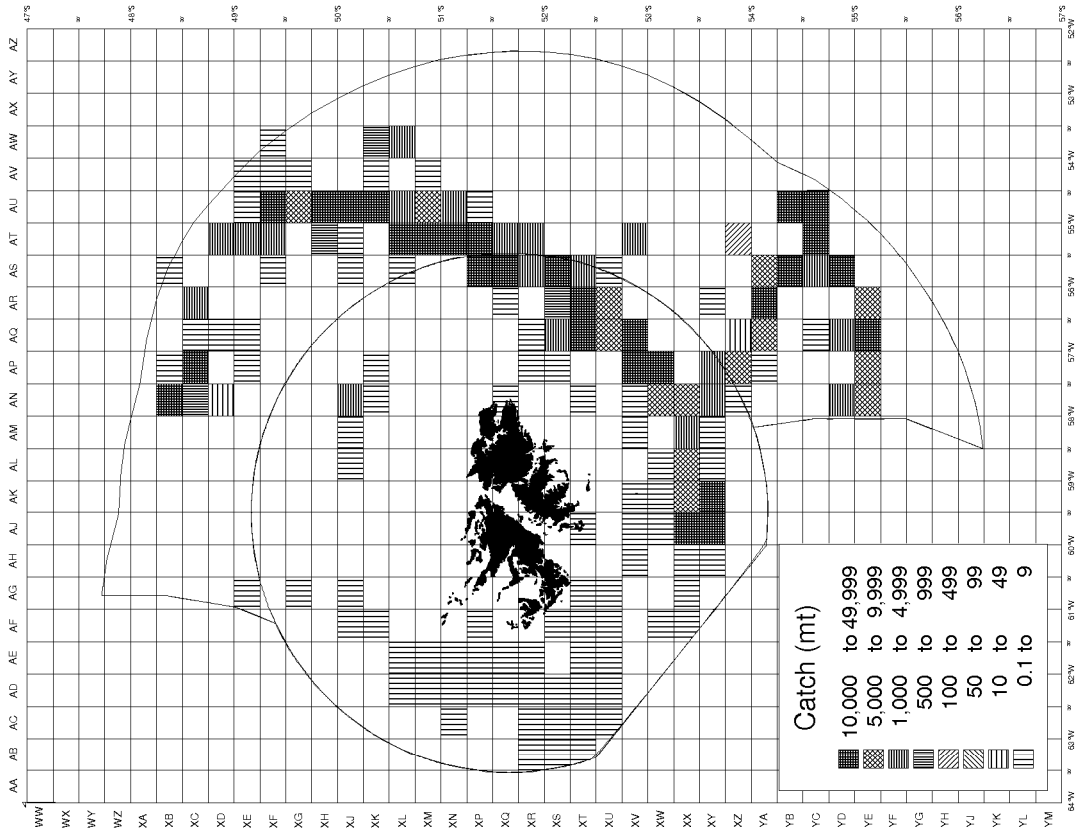
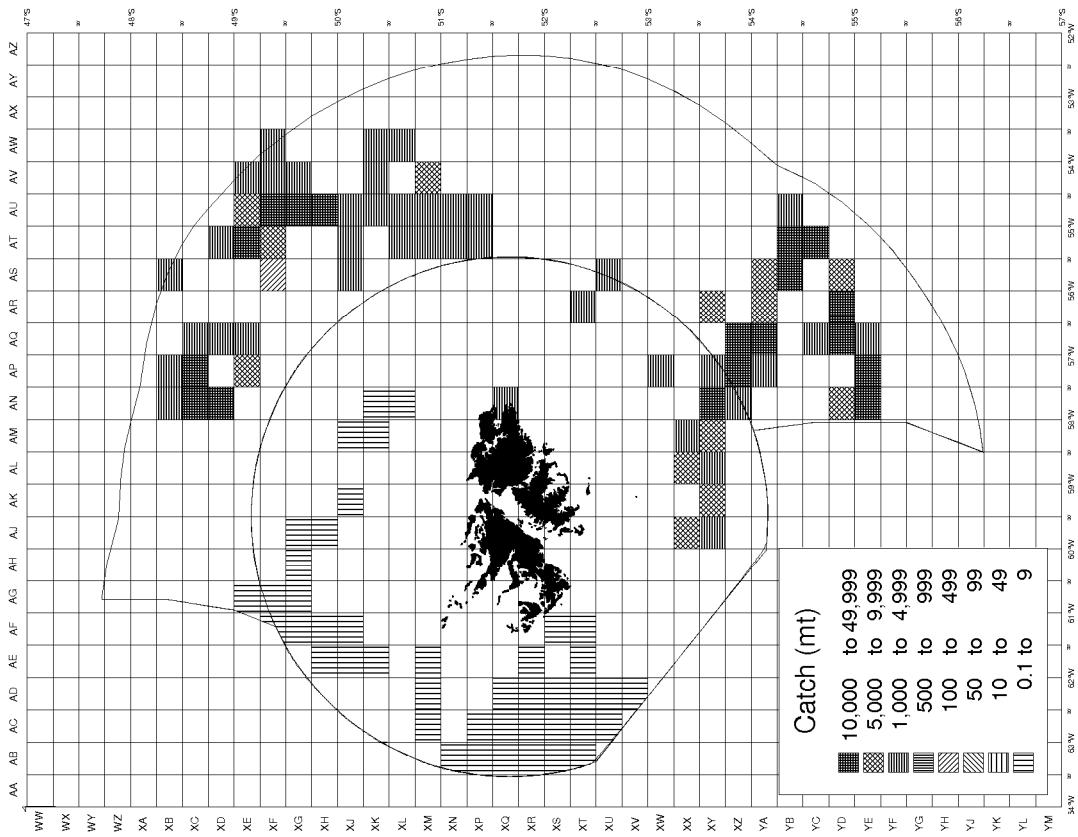
2007

FICZ and FOCZ

Catch (mt) by grid square

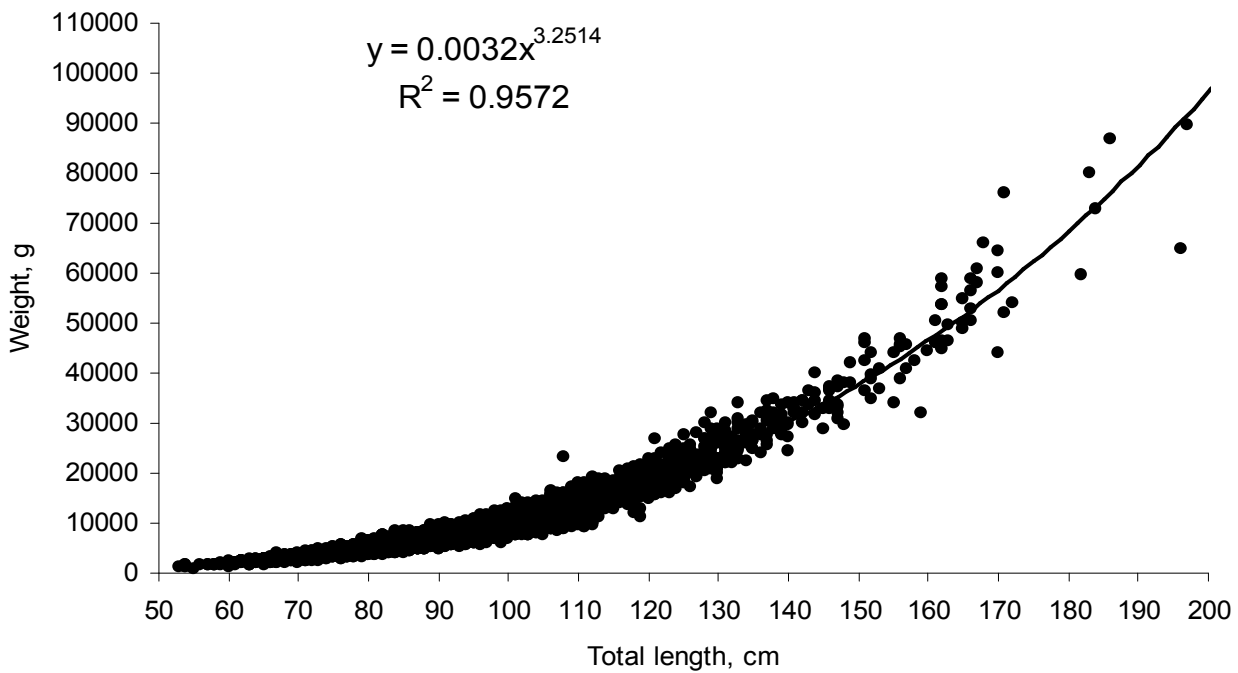
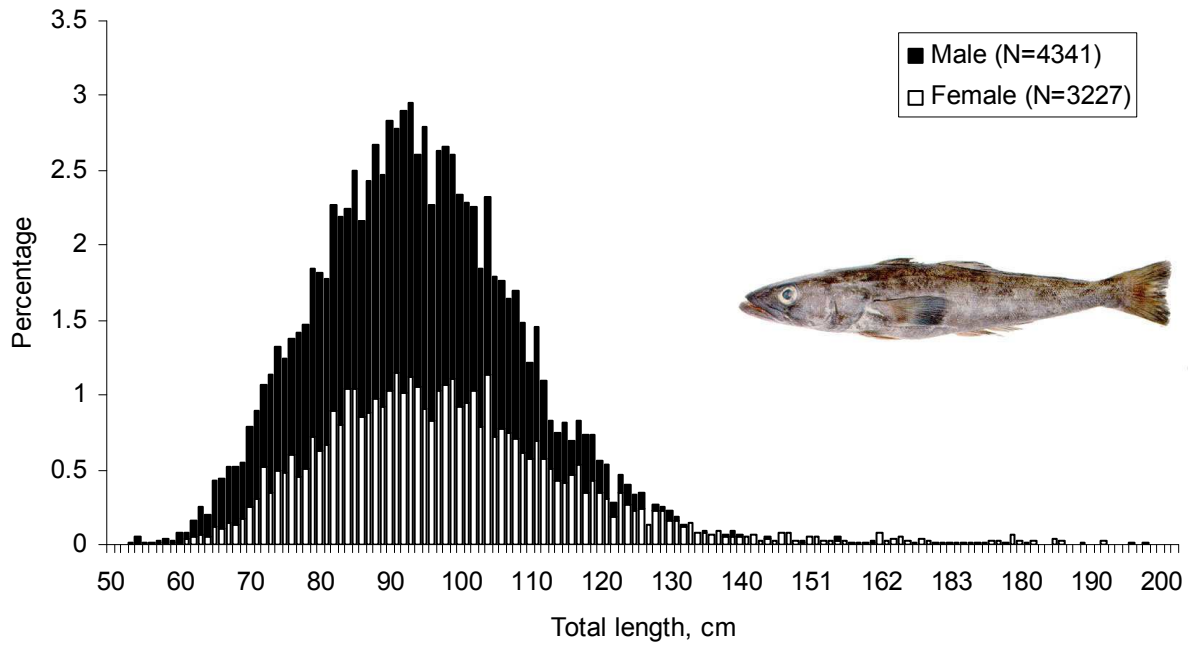
1st Season (01 Jan to 30 Jun)

2nd Season (01 Jul to 31 Dec)



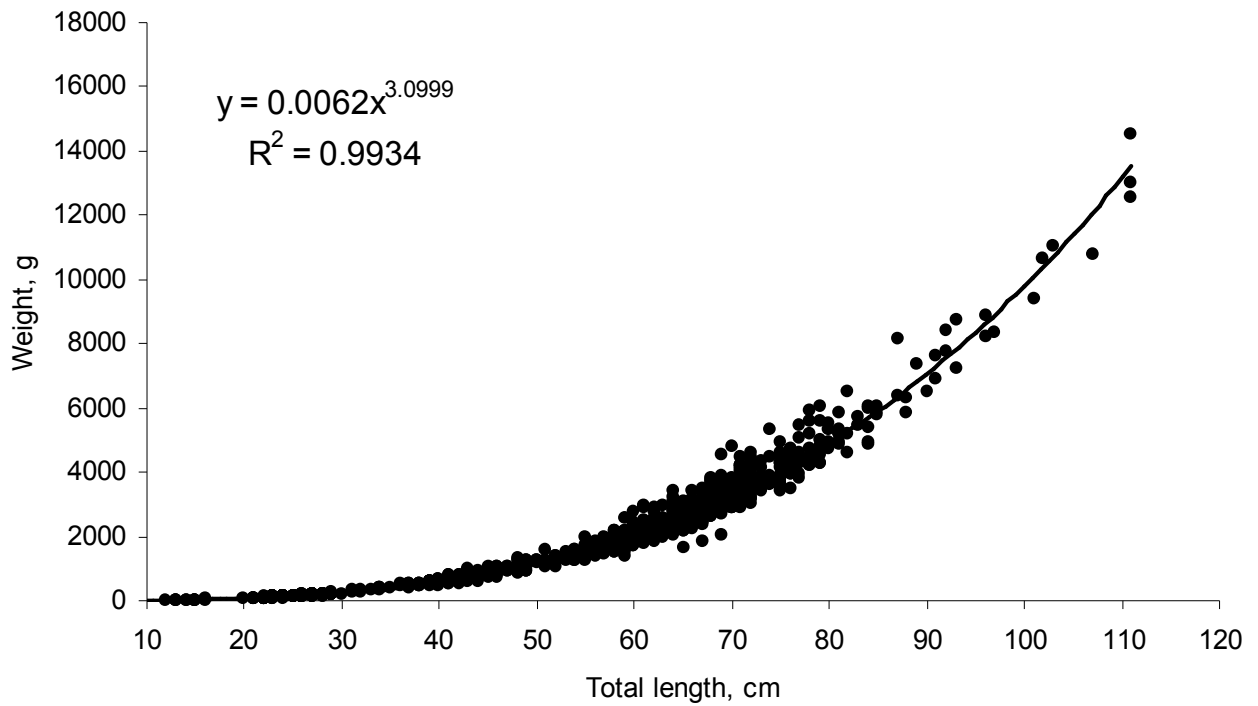
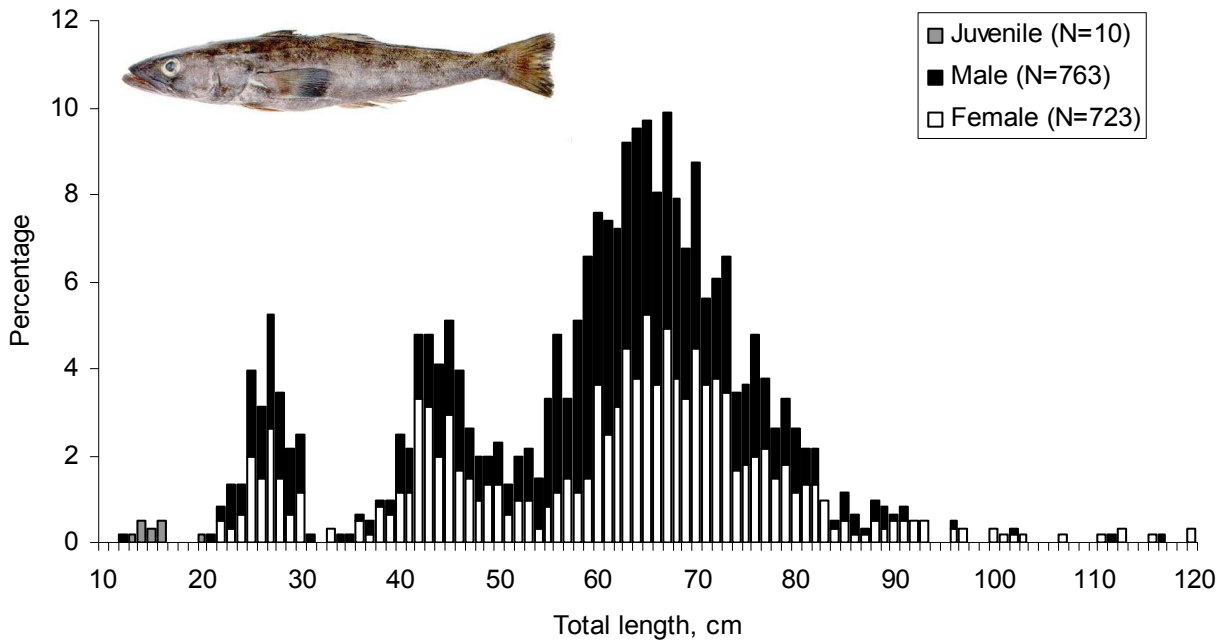
Dissostichus eleginoides - Toothfish

Length– frequency distribution and length-weight relationship in longliner fleet in 2007



Dissostichus eleginoides - Toothfish

Length– frequency distribution and length-weight relationship in trawler fleets in 2007



Rajidae - Skates and Rays

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

VESSEL TYPE	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
CO	16	.	.	.	.	.	.	.	.	.
LO	82	76	161	101	96	152	168	75	150	42
PO	.	.	.	.	.	.	.	.	0	.
TR	979	4709	3691	4207	3268	3836	4983	5623	4529	5610
	1077	4785	3853	4309	3364	3988	5151	5698	4679	5653

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

MONTH	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
January	41	9	217	199	196	32	1257	92	86	108
February	46	35	669	208	49	404	159	423	160	173
March	80	58	118	72	202	139	95	83	80	179
April	74	104	106	127	170	77	113	56	134	176
May	96	80	71	110	115	195	148	165	122	190
June	22	33	42	42	175	223	142	21	32	122
July	48	358	77	104	22	459	93	566	133	394
August	121	1284	975	950	552	1596	1589	2267	1665	1988
September	315	1252	1035	881	1248	592	1022	821	1019	1109
October	138	892	327	1294	431	161	352	490	881	723
November	78	392	178	306	168	81	59	590	305	141
December	19	289	38	16	35	29	120	125	62	350
	1077	4785	3853	4309	3364	3988	5151	5698	4679	5653

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

Fishing fleet	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
AU	3	23	.	.	.	.	.	.	.	.
BZ	.	528	48	201	10	.	.	.	.	.
CL	0	.	.	.	.	.	.	.	.	12
EE	.	.	.	.	.	.	4	.	11	.
ES	455	440	415	430	555	412	515	634	1160	1749
FK	216	314	353	417	474	320	653	612	770	675
FR	1	0	0	.	.	.	.	.	.	.
HN	.	.	.	.	.	.	.	.	.	.
IS	.	.	.	.	.	.	.	.	.	.
IT	.	.	.	.	.	.	.	.	.	.
JP	11	3	.	.	0	.	1	.	.	.
KR	369	3408	3019	3218	2304	3241	3937	4413	2720	3183
NA	14	12	.	.	.	.	.	.	.	.
NZ	.	.	.	.	.	4	.	.	.	.
PA	.	18	.	.	.	.	.	.	.	.
PT	.	.	0	.	.	.	.	.	.	.
RU	.	.	.	12	.	.	.	.	.	.
UK	7	40	17	26	19	5	16	16	11	34
UY	0	.	.	5	2	5	24	23	6	.
VC	.	.	.	0	.	.	.	.	.	.
	1077	4785	3853	4309	3364	3988	5151	5698	4679	5653

Rajidae - Skates and Rays

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

GRT	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<400	81	859	659	485	31	34	43	.	.	.
400-599	21	12	7	281	248	272	241	404	209	.
600-799	79	1143	228	1425	707	1194	889	918	531	1234
800-999	112	1569	1615	1017	1250	1571	2636	2568	1861	1994
1000-1499	624	907	1197	949	805	636	904	1103	1713	1913
1500-1999	59	177	85	94	255	222	147	163	208	462
2000-2999	89	116	63	57	68	58	288	542	156	50
>2999	11	3	.	.	0	.	1	.	.	.
	1077	4785	3853	4309	3364	3988	5151	5698	4679	5653

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

LOA	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<45	24	35	74	47	15	1	.	.	.	.
45-49	78	59	48	701	427	905	636	661	529	1027
50-54	174	2658	1765	1993	1792	2002	2938	3228	1951	1988
55-59	128	949	796	691	259	328	479	371	689	776
60-64	349	656	821	537	343	350	316	410	670	760
65-69	156	143	143	145	176	127	420	448	558	799
70-79	110	245	163	165	323	255	288	472	241	258
80-89	47	34	36	31	26	20	71	108	40	42
>89	12	6	6	.	1	.	1	.	0	1
	1077	4785	3853	4309	3364	3988	5151	5698	4679	5653

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

BHP	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<1000	.	.	.	5	2	1	.	.	.	.
1000-1199	.	7	.	.	.	4	.	.	.	.
1200-1399	40	34	44	31	78	12	.	15	41	57
1400-1599	78	62	86	166	230	269	361	340	590	513
1600-1799	150	99	80	43	94	88	101	34	146	148
1800-1999	279	241	318	343	362	281	400	486	728	985
2000-2499	120	1336	869	876	435	487	840	826	882	1042
2500-2999	303	2854	2377	2762	1934	2638	3143	3439	2126	2826
3000-3999	68	137	53	75	221	208	299	555	160	81
>3999	40	16	27	8	6	0	7	3	6	1
	1077	4785	3853	4309	3364	3988	5151	5698	4679	5653

Rajidae

2007

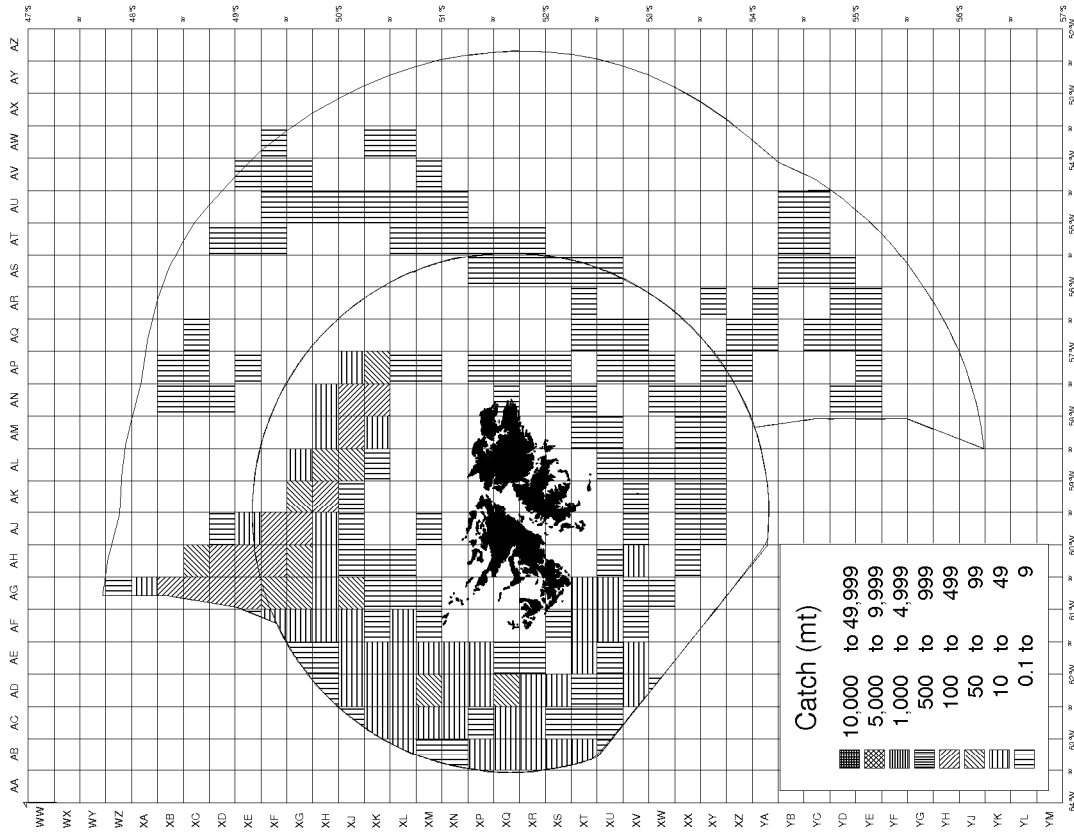
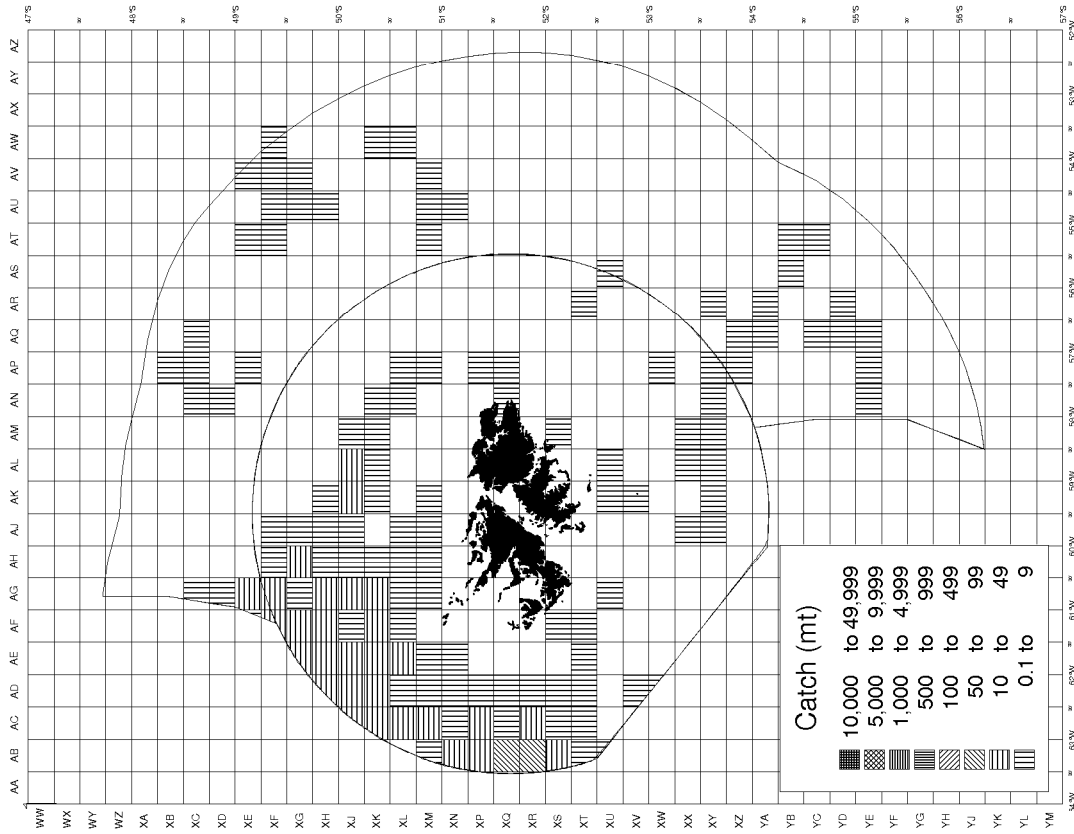
Rajidae

FICZ and FOCZ

Catch (mt) by grid square

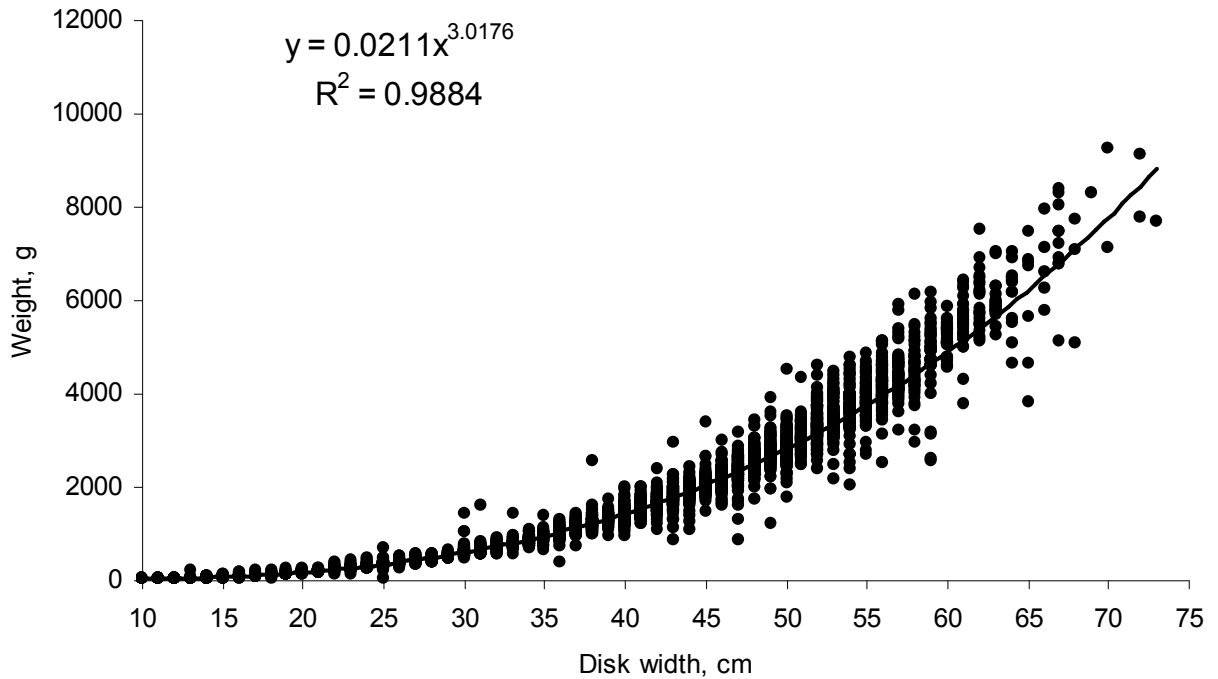
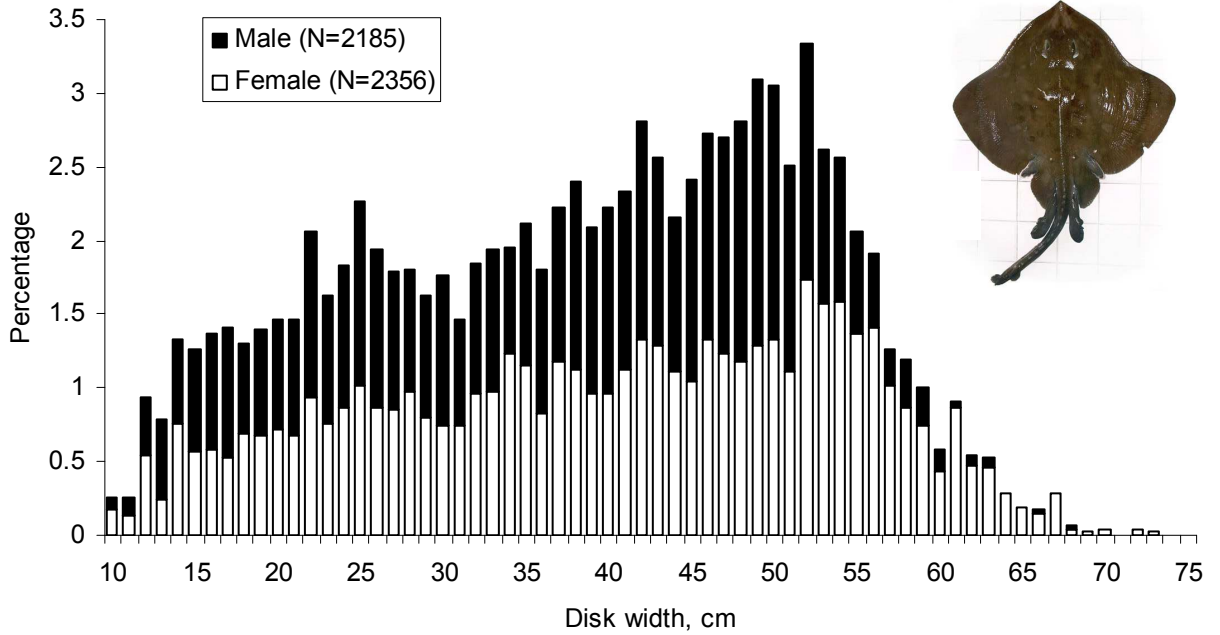
1st Season (01 Jan to 30 Jun)

2nd Season (01 Jul to 31 Dec)



Rajidae - Skates and Rays

Length– frequency distribution and length-weight relationship in 2007 for *Bathyraja brachiurops*



Zygochlamys patagonica - Scallop

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

VESSEL TYPE	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
TR	.	.	.	76	59	685	1279	1358	1161	14*
	.	.	.	76	59	685	1279	1358	1161	14*

* - No specialised fishery, just a discarded bycatch. Included into "others" in Tables O1-O7

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

MONTH	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
January	59	.	441	420	342	.
February	250	207	273	0
March	519	574	450	8
April	75	18	4
May	29	.	.	74	.
June	12	.	.	.	.
July	0	.	0
August	0	.	1
September
October	41	.	.	.
November	440	28	81	5	.
December	.	.	.	76	.	204	.	.	.	.
	.	.	.	76	59	685	1279	1358	1161	14

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

Fishing fleet	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
FK	12	7	13
PA	1
UK	1	3	0
UY	.	.	.	76	59	685	1279	1346	1152	.
	.	.	.	76	59	685	1279	1358	1161	14

Zygochlamys patagonica - Scallop

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

GRT	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<400	.	.	.	76	59	41	.	.	.	.
400-599	644	1279	1346	1152	.
600-799
800-999
1000-1499	1
1500-1999	1	3	0
2000-2999	11	7	13
>2999
	.	.	.	76	59	685	1279	1358	1161	14

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

LOA	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<45	.	.	.	76	59	41	.	.	.	.
45-49
50-54	644	1279	1346	1152	.
55-59	4	.	.
60-64	1	2	.
65-69	7	3	0
70-79	1	4	1
80-89	1	12
>89	0
	.	.	.	76	59	685	1279	1358	1661	14

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

BHP	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<1000	.	.	.	76	59	41	.	.	.	.
1000-1199
1200-1399
1400-1599
1600-1799
1800-1999
2000-2499	644	1279	1347	1152	.
2500-2999	1
3000-3999	12	9	13
>3999
	.	.	.	76	59	685	1279	1358	1161	14

Others

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

VESSEL TYPE	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
CO	1	.	.	.	.	.	.	.	33*	.
LO	231	200	377	272	217	225	183	163	152	115
TR	3211	4501	3660	1746	1025	1523	4897	10554	21830	31714
	3443	4701	4037	2018	1242	1748	5081	10717	22015	31828

*-potters

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

MONTH	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
January	150	63	206	117	28	63	147	19	455	588
February	713	91	441	269	73	155	770	838	3265	3340
March	324	209	407	255	158	61	508	476	2687	4021
April	306	421	467	450	203	82	716	373	3193	3856
May	348	659	489	189	47	73	495	645	2080	4509
June	151	41	119	30	19	21	59	146	631	557
July	8	74	130	24	28	44	273	217	814	2473
August	252	418	329	94	178	81	657	1252	2306	3501
September	592	861	491	142	183	239	622	2920	1905	3812
October	418	1433	653	296	154	552	547	1001	2013	2765
November	143	218	215	131	78	296	264	2617	2433	1987
December	36	213	91	22	93	82	23	213	232	419
	3443	4701	4037	2018	1242	1748	5081	10717	22015	31828

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

Fishing fleet	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
AU	234	389	.	.	.	.	.	.	.	.
BZ	.	7	223	43	0	.	.	.	.	.
CL	9	0	.	.	.	2	.	.	.	32
EE	.	.	.	.	.	.	29	.	306	.
ES	1525	2624	2046	1011	496	850	2079	5201	11885	19433
FK	1033	1217	1344	774	624	686	2696	4984	9109	11337
FR	15	.	.	.	.	.	.	.	.	.
HN	.	.	.	.	.	.	.	.	.	.
IS	.	.	.	.	.	.	.	.	.	.
IT	.	.	.	.	.	.	.	.	.	.
JP	388	116	9	.	10	38	14	4	4	1
KR	102	252	401	189	112	135	113	78	127	86
NA	14	96	.	.	.	.	25	.	.	.
NO	.	.	.	.	.	.	.	.	.	.
NZ	.	.	.	.	.	22	.	.	.	.
PA	.	0	.	.	.	.	.	.	.	175
PL	.	.	.	.	.	.	.	.	.	.
PT	.	.	2	.	.	.	.	.	.	.
RU	.	.	.	0	.	.	.	.	.	.
SC	.	.	.	.	.	.	.	.	.	.
UY	.	.	.	.	.	.	.	0	11	.
UK	124	0	13	.	.	15	125	450	573	764
	3443	4701	4037	2018	1242	1748	5081	10717	22015	31828

Others

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

GRT	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<400	100	101	76	25	48	38	26	0	.	0
400-599	21	97	15	28	2	54	5	18	18	.
600-799	258	267	295	129	81	125	98	127	776	2496
800-999	182	709	603	443	296	199	498	648	1949	2675
1000-1499	1365	2334	2361	1156	464	909	2960	5520	11762	16780
1500-1999	371	506	320	70	170	232	789	2212	4464	6202
2000-2999	750	571	358	166	172	174	684	2188	3043	3657
>2999	396	116	9	.	10	17	14	4	4	18
	3443	4701	4037	2018	1242	1748	5081	10717	22015	31828

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

LOA	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<45	138	144	240	112	61	.	0	0	.	.
45-49	96	529	209	127	92	147	337	404	1938	3167
50-54	474	587	766	376	231	271	708	1457	3176	2969
55-59	130	435	565	440	200	393	249	673	2215	2658
60-64	360	726	856	291	126	237	1368	2677	4921	8218
65-69	813	734	478	304	161	345	1595	3179	5220	8628
70-79	725	1358	757	281	319	263	442	941	2561	4493
80-89	282	60	77	54	16	43	356	1328	1613	1399
>89	424	127	89	33	37	49	27	58	371	296
	3443	4701	4037	2018	1242	1748	5081	10717	22015	31828

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

BHP	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<1000	.	.	.	.	.	.	0	0	.	.
1000-1199	.	13	.	.	.	22	.	0	.	.
1200-1399	41	137	120	53	48	93	.	50	438	1615
1400-1599	159	361	547	422	240	250	627	890	3282	2395
1600-1799	395	431	172	39	98	158	638	1152	2974	5263
1800-1999	806	1523	1424	733	262	621	1778	3881	7174	10715
2000-2499	715	1116	841	290	334	304	1096	1816	3970	6855
2500-2999	56	433	554	314	75	92	110	108	440	512
3000-3999	768	560	266	113	143	151	776	2367	2917	3899
>3999	503	127	114	54	42	57	56	453	820	576
	3443	4701	4037	2018	1242	1748	5081	10717	22015	31828

Table O.7 Total catch (tonnes) of others by species in 2007

Common name	Latin name	Catch
Blue Antimora	<i>Antimora rostrata</i>	16
Butterfish	<i>Stromateus brasiliensis</i>	6
Crab	Lithodidae	25
Dogfish, Spurdog	<i>Squalus acanthias</i>	9
Falkland Herring	<i>Sprattus fuegensis</i>	9
Frogmouth	<i>Cottoperca gobio</i>	30
Greater Hooked Squid	<i>Moroteuthis ingens</i>	71
Grenadier	Macrouridae	622
Icefish	<i>Chamsocephalus esox</i>	2
Lobster Krill	<i>Munida spp</i>	348
Moonfish	<i>Lampris immaculatus</i>	1
Pomfret Bream	<i>Brama dussumieri</i>	0
Porbeagle	<i>Lamna nasus</i>	2
Red Fish	<i>Sebastes oculatus</i>	24
Rock Cod	<i>Patagonotothen spp.</i>	30157
Scallops	<i>Zygochlamys patagonica</i>	14
Scampi/Crayfish	<i>Thysmops birsteini</i>	11
Others		483
Total		31828

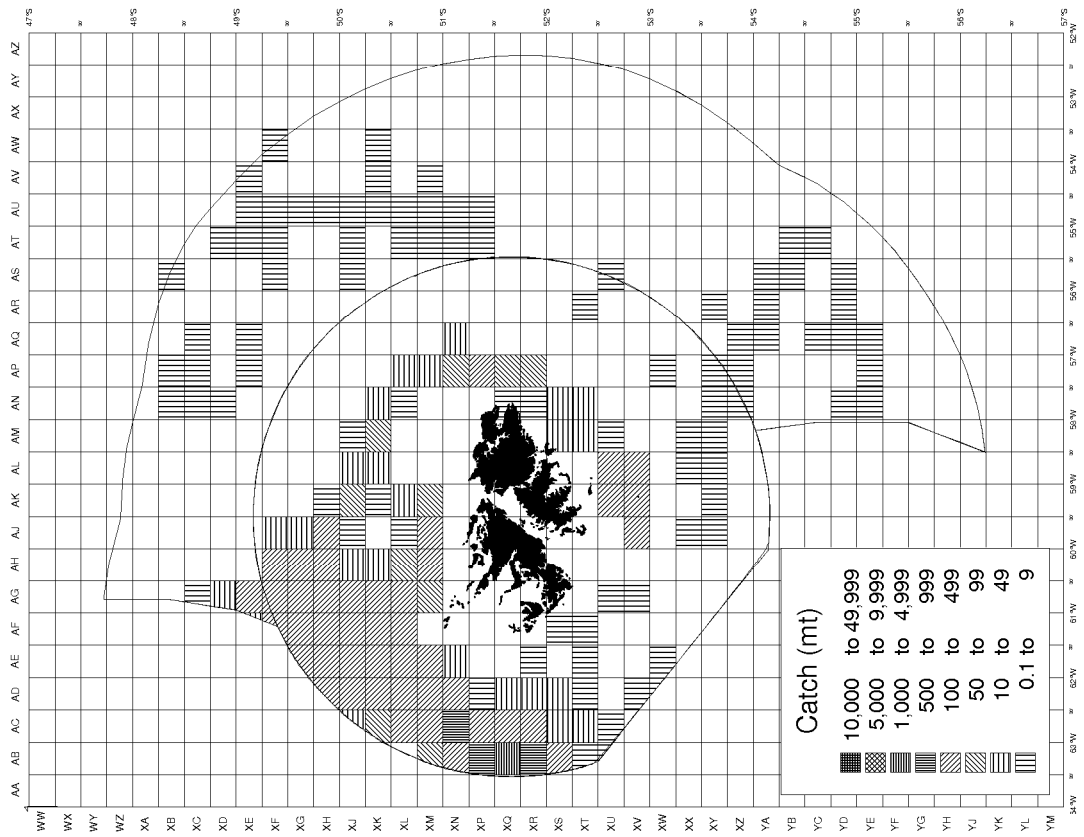


Other

2007

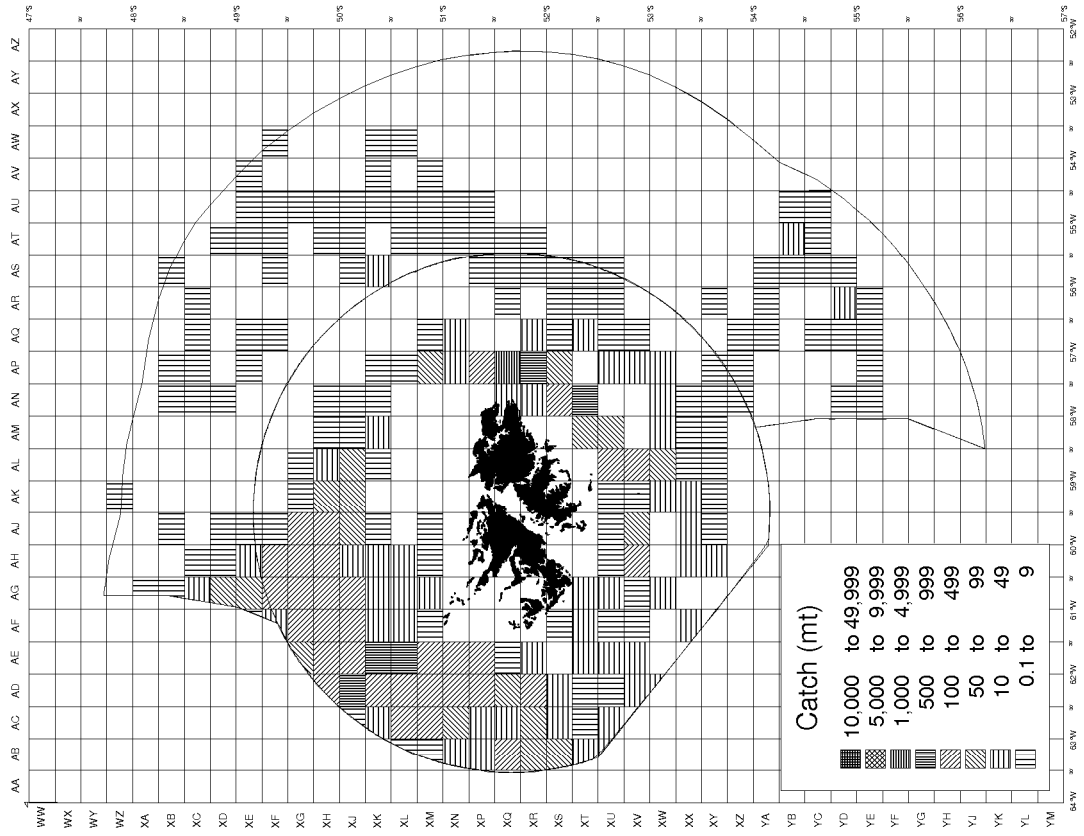
FICZ and FOCZ

1st Season (01 Jan to 30 Jun)



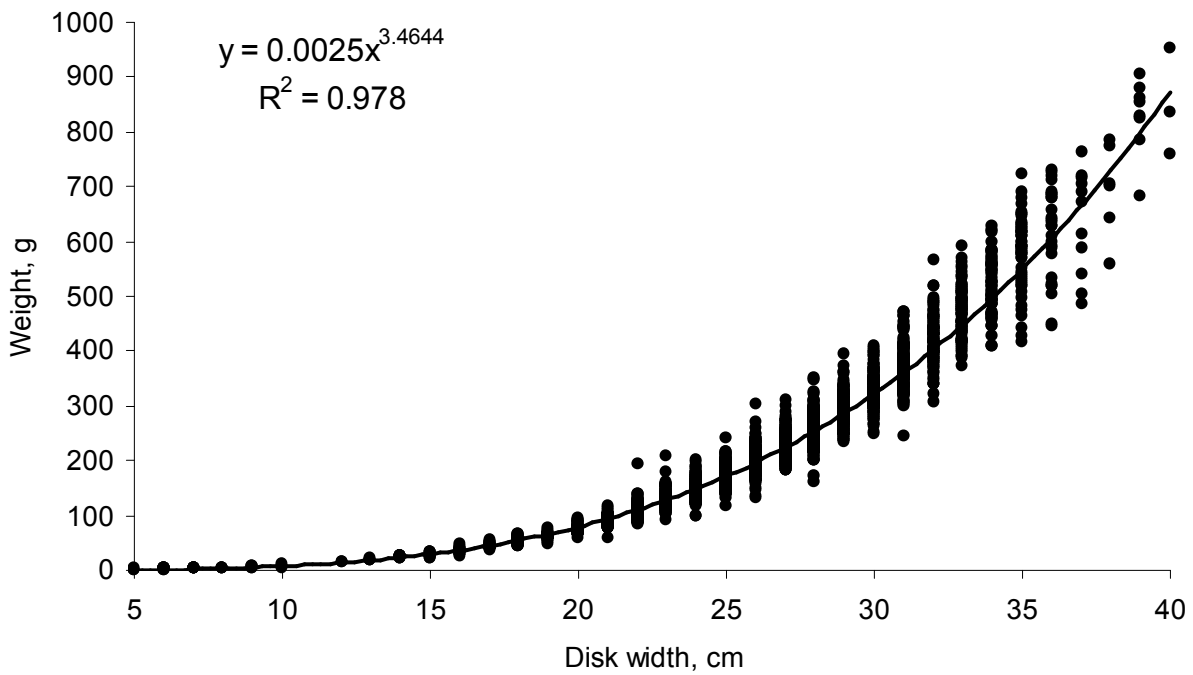
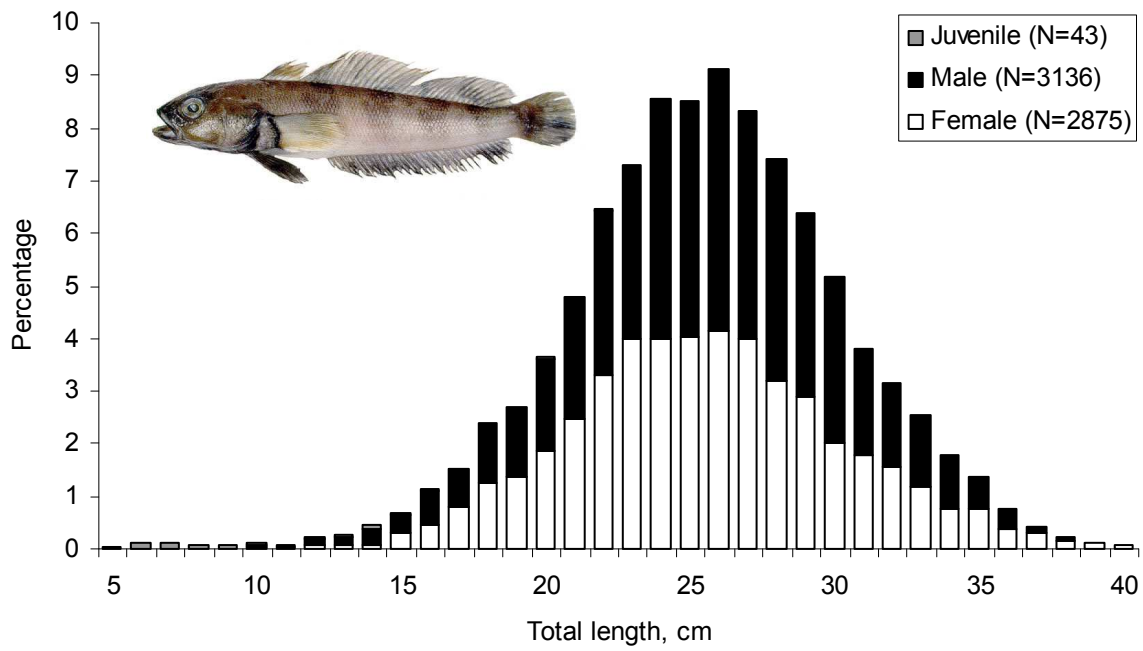
Catch (mt) by grid square

2nd Season (01 Jul to 31 Dec)



Patagonotothen ramsayi—Rock Cod

Length– frequency distribution and length-weight relationship in 2007



FALKLAND ISLANDS COMMERCIAL FISH & SHELLFISH

