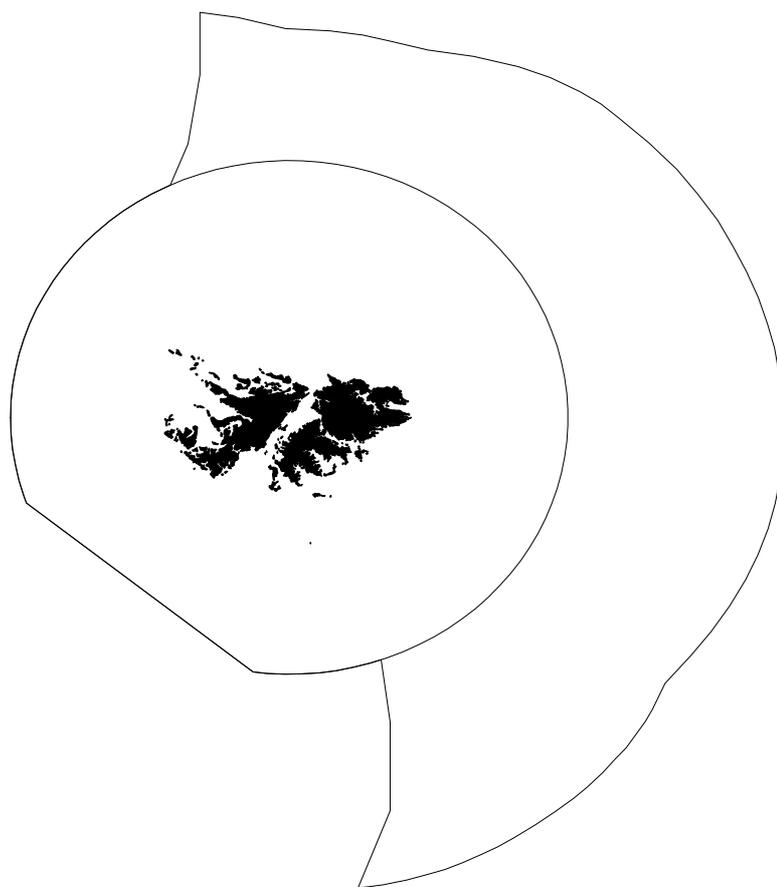


**FALKLAND ISLANDS GOVERNMENT
FISHERIES DEPARTMENT**



FISHERY STATISTICS

**Volume 10
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FOREWORD

1. The Falkland Islands' Fishery - 2005

The total catch for 2005 taken in the Falkland Islands Conservation Zones was the third lowest catch ever recorded since the start of the regulated fishery in 1987. It was just slightly higher at ~127,000 mt than in the poorest years of 2002 and 2004 (~100,000 mt). This was again due to the extremely poor performance of the *Illex* fishery, which only constituted 6.2% of the total annual catch. A major part of the total catch was taken in the *Loligo* fishery (46.3%), which completely recovered after relatively poor performance in 2004. The catches of southern blue whiting and hoki were ranked second (13.4%) and third (13.1%), respectively.

1.1. *Illex argentinus* – Illex squid

Until recently, the Argentine shortfin squid, *Illex argentinus*, represented one of the major fisheries in the Southwest Atlantic in general and in the Falkland Islands in particular. However, unfavourable oceanographic conditions (cold anomaly of sea surface temperatures in 2002 and warm anomaly in 2004) coupled with heavy exploitation, drastically reduced the abundance of the South Patagonian stock of *Illex*, the main contributor to the Falkland fishery. After almost a complete collapse of the Falkland *Illex* fishery in 2004, the stock unfortunately did not recover in 2005, which compounded the economic problems for both the fishing companies and the Falkland Islands Government alike.

Several trawlers fished for *Illex* on the High Seas at the beginning of December 2004, and had variable catches (4-6 mt/day, maximum 11 mt/day). A large jigging fleet (~100-150 vessels) appeared in the region at the end of December, but no information about their catches were available. The fishery greatly improved straight after the New Year. In the first two weeks of January, catches of trawlers reached 25-33 mt/day of relatively small and immature squid belonging to the winter-spawning cohort. In the second half of the month, the arrival of the Falkland-registered fleet increased the number of trawlers working and reporting on the high seas to 19-23 vessels. However, their catches decreased markedly down to 6-12 mt/day, and about half of the fleet relocated to the FICZ to fish for finfish.

The positive anomalies of sea surface temperatures observed in January 2005 on the high seas, contin-

ued in February, and they were quite similar to those observed in February 2004 (14-15°C on the High Seas). However, the oceanography was different. In 2004, the Falkland Current had weakened, whereas in 2005 the Falkland Current had intensified and created many eddies and gradient zones near the shelf at 45-46°S especially in the second half of the month. Usually, this oceanographic situation favours the aggregation of migrating *Illex* schools in the vicinity of the gradient zones. From 8 to 14 Falkland-licensed trawlers fished for *Illex* in the first half of February on the High Seas. CPUEs were stable but quite poor, with average catches of 5.3 mt/day. From the 20th February, catches improved to 10-12 mt/day. However, only 7 trawlers fished until the end of the month, with all the others moving to the FICZ preparing to fish for *Loligo* from the 1st March. The official date of the start of the *Illex* fishery in Falkland waters was as usual 15th February, with 5 jiggers fishing and catching very little (0.26 mt/day). One vessel was left monitoring the fishery situation and reported very poor CPUEs between 1 and 4 mt/day. During the last week of the month, up to 9 jiggers fished within the FICZ/FOCZ, with an average CPUE of only 1.1 mt/day.

The joint Argentine-UK survey on *Illex* was carried out in February 2005 to the south of 46°S in both the Argentinean EEZ and FICZ/FOCZ. The total number of recruits estimated by RRAG (Imperial College, London) from the results of the survey was low and only marginally better than in the previous poor year (360 million taking all squid in catches or only 136 million taking out mature squid supposedly belonging to another, summer-spawning stock). This total number of recruits was arguably too small to even open the fishery for the South Patagonian Stock. However, the abundance of the autumn spawners was reasonable, and it supported fisheries both in the Argentinean EEZ and on the High Seas. The Falkland Current intensified again in March, creating gradient zones of temperature and salinity over the shelf of 45-47°S. Two major peaks of catches were observed on the High Seas, from the 1st to 11th March (10-12 mt/day), and at the end of the month (24-27th March) – 9-11 mt/day. Interestingly, the squid were mainly small and immature unlike in previous years, indicating that possibly another, later spawning stock of squid might become available to the fishery. In the FICZ, catches were very poor throughout the month (2-4 mt/day). One small peak was observed in the middle of the month (6-9 mt/day). The poor fishery forced jigging vessels to search continuously for better fishing grounds, and they moved frequently between FICZ and high seas. The maximum number of jigging vessels in the FICZ coincided with the only peak in catches (65 vessels in the middle of the month).

Low catches of *Illex* were observed in the first two weeks of April. Between 14 and 21 jigging vessels fished in FICZ, catching 2-6 mt/day. Projecting the number of recruits up to the week 17 (end of April) assuming modest catches on the high seas (50,000mt) and average growth made it apparent that the target biomass of 90,000 mt (conservation measure which had been agreed at the SAFC Meeting in Mar del Plata in December 2004) would not be achieved. In the absence of any evidence of improvement within the fisheries, the Falkland fishery was closed on the 13th April, whereas the Argentinean fishery was closed on the 11th April. Low catches reported from the fleets combined with a low survey estimate meant that biomass projections for the 2005 fishery were very uncertain. Despite the early closure in both fisheries, projections indicated a point estimate of c.15-20,000 mt at the end of the week 17, which was at best, half the threshold level of minimum spawning stock biomass established for the South Patagonian Stock of *Illex* in the Southwest Atlantic.

The total catch of *Illex* during the whole Falklands fishery was just less than 8,000 mt, which represented another failure for this fishery, after the very poor previous year. A total catch of 145,000 mt was recorded for the Argentine *Illex* fishery (Mercopress data, 17 January 2006). The bulk of this catch supposedly

consisted of the Bonaerensis North Patagonian Stock (BNPS), and occurred mainly to the north of 45°S within the Argentinean EEZ.

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 May and August-October. The continuous decline in *Loligo* abundance over the last decade forced the Fisheries Department to implement strong conservation measures in the fishery in 2003 (including a marked reduction in fishing effort through reducing the length of the fishing season). These measures continued for the first seasons of 2004 and 2005. The whole fleet licensed to fish for *Loligo* only fished for 6 weeks, from 1 March until 14 April. In the remainder of the first season (1 – 28 February and 15 April – 9 June) a succession of fortnightly experimental licenses were issued primarily for monitoring purposes, with only one vessel being allowed to fish at any one time.

Only experimental fishing occurred in February. Both licensed vessels fished exclusively in the southern part of the *Loligo* box. Catches were exceptionally good and stable throughout the month, often with vessels fishing as much as they could process (up to 65 mt/day). A two-week recruit survey of the first cohort of *Loligo* was carried out on the fishing trawler *Capricorn* between 1st and 14th February 2005. Two biomass values were estimated: the current biomass, valid for the areas and time when the survey was performed (16,000 mt), and the starting projection biomass, valid to project the status of the stock into the future (36,000 mt). It became apparent later in the season that the estimated biomass represented only a part of the stock (first wave of abundance), which was fished in the first ten days of March. Another survey of nursery grounds of *Loligo* was performed on board the FPRV *Dorada* in the second half of February.

The results of both pre-recruit surveys showed that the abundance of the first cohort of *Loligo* was high. Large amounts of squid were encountered in shallow water ready to start their customary offshore migration to their feeding grounds. Upwelling of the Falkland Current near Beauchene Island was well-pronounced, favouring squid aggregations near the shelf break. As a result, the total catch of *Loligo* in March (17,904 mt) was the highest since 1990. All sixteen licensed vessels fished in just one area (around Beauchene) throughout the month. Two main peaks in catches were observed, around 8-12 March (40-45 mt/day) and 21-31 March (40-50 mt/day). Good performance in the *Loligo* fishery kept on until the end of the fishing season in the middle of April (30-40 mt/day), yielding a total catch for the first season of 24,600 mt, which was one of the highest catches for the same time period over the last ten years.

The biological data also showed the existence of two waves of recruitment abundance. The first pulse of squid migrations occurred around 10th March (smaller immature squid of 10-11 cm ML). The second pulse took place around 21st of March (larger immature squid of 12-13 cm ML). Stock assessment was undertaken using our implementation of the DeLury model. The initial biomass of the first wave of recruits into the Beauchene area was estimated by the De Lury depletion model (~ 23,600 mt), whereas initial biomass of the second wave was estimated to be as high as 93,730 mt. These estimations were made only for the southern part of the *Loligo* box, because the fishing fleet worked there throughout the whole season. The un-exploited biomass of squid in the Central and North areas remained unknown. About 93,000 mt were estimated to be left

after the fishing season as spawning stock biomass, which was much higher than the minimum target SSB (10,000 mt).

As in 2003-2004, only an experimental fishery was allowed in May. One vessel (Robin M. Lee) conducted a recruitment survey of the second cohort of squid during the first two weeks of May, and the other two vessels undertook monitoring periods of a fortnight each. During the survey, the total biomass of the second cohort of *Loligo* was estimated to be 29,000 mt, which is almost twice as high as in the last year. This figure represented the minimum estimate, as it appeared that not all of the squid of the second cohort had arrived into the fishing ground during the time of the survey with an unknown number of them still in shallow waters. A clear indication of the fact that the survey did not cover the whole stock was that the female biomass was estimated to be ~8,000 mt, whereas male biomass was estimated as ~21,000 mt.

As in 2004, the second season of 2005 started two weeks earlier than usual, on the 15th of July and finished a month earlier, on 30th September. The distribution of the second cohort of *Loligo* in 2005 was quite different from that observed in 2004. In July 2004, squid aggregations were found only around Beauchene Island. In July 2005, the squid distribution was much wider than in the previous year. After three days of good fishing around Beauchene (28-38 mt/day), all of the trawlers moved north, attaining high stable catches of ~40 mt/day, peaking at over 50 mt/day by the end of July. During the first week of August, the catches in the north gradually declined (to 15-20 mt/day), and the fleet moved south where they found dense aggregations of *Loligo* (40-47 mt/day). The good fishing in the southern region carried on almost until the end of the month, when catches dropped rather sharply to 15-20 mt/day. Catches in September were variable, but lower than those in August. Vessels frequently moved from one fishing area to another to get a better results, but CPUEs averaged only 10-15 mt/day. It should be noted that during the second season squid were 2-2.5 cm larger than those observed at the same time in 2003-2004, indicating that they had the highest growth rates observed at this time of the year. In both sexes, maturation started about one-two weeks earlier than in previous years.

The initial biomass of recruits of the second cohort in the whole *Loligo* box was estimated to be about 47,000 mt, being rather low when compared to that of the previous year. Only 8,665 mt of spawning stock biomass were estimated to remain after the fishing season. A sudden drop in catches and concurrent drop in stock biomass was observed both in the southern and northern parts of the *Loligo* box at the end of August. Taken together with earlier maturation, this fact strongly suggested that the squid started to migrate inshore relatively early. Therefore, the stock assessment results might have produced an overestimation of catchability and an underestimation of initial biomass during the second season. Consequently, the target spawning stock biomass was likely to have been achieved. Even with several conservation measures to the fishery, the total annual catch of *Loligo* in 2005 (~58,800 mt) was close to the highest *Loligo* catches (60-65,000 mt) during the last decade.

1.3. *Martialia hyadesi* – *Martialia* squid

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

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

Despite the second position occupied by southern blue whiting in the list of the total annual catches for 2005 in Falkland waters, its actual catch was the lowest on record during the last decade. Only ~17,000 mt of fish were caught, which was well below the recommended catch limit of 25,000 mt. The main reason for such a

low annual catch was not a decrease in stock abundance, but a significant reduction in fishing effort in both the surimi and finfish fleets.

One surimi vessel only worked during the first two weeks of January, having low catches of ca. 40mt/day and then left the fishery. Since then in the first half of the year, southern blue whiting was taken only as a by-catch by finfish trawlers, with total monthly catch not exceeding several hundred mt.

In the middle of August, several finfish trawlers started to target pre-spawning and spawning concentrations of southern blue whiting to the southwest of the Falkland Islands, with catches of 25-40 mt/day. This good performance in the fishery kept on in September. From 5 to 8 trawlers fished for southern blue whiting, catching usually 25-30 mt/day, that yielded the second highest catch in September (4,200 mt) since 1995 after the very productive 2001 year (~4,400 mt).

One surimi trawler started to fish again in October and had excellent catches averaging 180 mt/day in the first week peaking up to 230 mt/day in the last week of the month. Unfortunately, about 10 fishing days were lost because of technical issues. The finfish fleet caught about 700 mt of southern blue whiting, mainly in the southern area. One vessel was allowed to fish in the southern part of the *Loligo* box with pelagic net, but without success. The total catch of southern blue whiting (4,704 mt) was the second highest monthly catch in October since 1995. Catches of the surimi trawler decreased slightly in November (130-160 mt/day), and then further down to 75-90 mt in the first two weeks of December. The trawler did not work throughout the whole month, leaving the fishery earlier than expected. In November-December, the finfish fleet caught southern blue whiting only as a by-catch.

Unfortunately, a routine joint UK-Argentine acoustic survey of the spawning aggregations of southern blue whiting did not occur in 2005 with the Argentines citing technical difficulties. INIDEP (Mar del Plata, Argentina) informed that their vessel had a fault with the acoustic transducer, which was impossible to fix by the time of the survey. Therefore, no updates on spawning stock biomass estimates using acoustic methods are available.

1.5. *Macruronus magellanicus* - hoki

The total catch of one of the most abundant finfish resources in the Southwest Atlantic, hoki (whiptail hake) decreased significantly in 2005. Only ~16,700 mt of fish was caught, which made it the lowest annual hoki catch since 1998. However, the main reason for such a decrease in catch was not a decrease in abundance, but in fishing effort. Many trawlers preferred to catch hake species on the High Seas rather than hoki in Falkland waters. The highest catches of hoki by finfish trawlers were observed in April-May (10-11 mt/day), and then in August and October (mean CPUEs 8-9 mt/day). The highest monthly catch (3,400 mt) was observed in October. High hoki bycatch (~70 mt/day) occurred during the specialized southern blue whiting fishery by the surimi trawler in the beginning of December. Overall, the stock of hoki in Falkland waters seemed to be under-exploited in 2005.

1.6. *Merluccius hubbsi*, *Merluccius australis*, *Genypterus blacodes* and *Salilota australis* – Hakes, kingclip and red cod

The hake fishery was more successful in 2005 than in previous years, yielding a total of 2,700 mt of fish, which was the highest hake catch since 2000. The highest mean CPUEs were observed in May (up to 3-4

mt/day) during the finfish fishery. The highest monthly catches of both hakes occurred in August-September in the western part of FICZ, when about 60% of the total annual catch was taken.

Kingclip is a common by-catch species of the finfish fishery in Falkland waters, aggregating at times in dense schools during their migrations. The highest CPUEs in this fishery (mean of ~1 mt/day) were observed in June and October. The total annual catch in 2005 (~2,000 mt) was the highest catch since 2000.

The abundance of redcod continued to be at a low level, and this resulted in quite a low annual catch of this species in Falkland waters (~2,400 mt). Several finfish trawlers targeted spawning concentrations of redcod in the southwestern part of FICZ in September, which appeared to be the most productive month of the year (~700 mt). During the rest of the year, redcod was taken as by-catch with CPUEs usually not exceeding 1-2 mt/day.

1.7. *Dissostichus eleginoides* – Patagonian toothfish

In Falkland waters, toothfish is caught as a by-catch during the finfish fishery on the shelf, where juveniles and immature adults spend their first 4-5 years of life. At the age of 5-6 years (attaining sizes of 60-70 cm), the adults migrate to the deep waters of the continental slope, where they are targeted by specialized longlining vessels. Only two longliners are licensed to fish in the Falkland Zones. Catches of longliners are quite stable in the last five years (~1,500 mt), with the total annual catch in 2005 (1,559 mt) being very close to that. Contrary to this, catches of trawlers on the shelf are still in decline (123 mt) since very the abundant catches in 1999 (1,197 mt), suggesting that the recruitment to the longline fishery may be reduced over the next few years.

1.8. Rajidae – Skates and rays

An assemblage of at least a dozen species of skates and rays is targeted by specialized Korean trawlers, and also taken as a by-catch during the finfish fishery. The most common species in catches are *Bathyraja griseocauda*, *B. albomaculata*, *B. brachyurops* and *Raja flavirostris*. In 2005, the specialized fishery for skates started at the end of January, with two Korean vessels fishing through until the end of February. Catches were higher by the end of the period (mean 10 mt/day). During the second season, Korean trawlers started to fish skates in July. Peak catches (with maximum fishing effort of about 250 fishing days) were achieved in August, which was the most productive month and resulted in the highest monthly total of 2,266 mt for the last decade. As a result, the total annual catch (5,680 mt) was even higher than in the previous year, becoming the highest total catch in the last decade.

1.9. Others

Grenadiers (*Macrourus* spp., *Coelorhynchus* spp.), butterfish (*Stromateus brasiliensis*), redfish (*Sebastes oculatus*), and different notothenids (mainly rock cod *Patagonotothen ramsayi*) are included into this category with the total catch of 10,727 mt, which was the highest catch since 1995 due to a high abundance of rockcod especially in the *Loligo* fishery.

1.10. *Zygochlamys patagonica* - Patagonian scallop

As in 2004, the commercial fishery for Patagonian scallops occurred between January and March with

the total catch of 1,201 mt. One license was issued to a Uruguayan scallop trawler. As usual, the vessel worked mainly on the northeastern banks at 130-135 m depth. Additionally, 156 mt of scallops were taken during exploratory scallop fishery carried out by the same vessel in April and November. Scallop biomass was estimated on the two largest banks, Avel Mad and Fiona-Rachel using new techniques developed to determine the gear efficiency. The mean density of scallops on the Avel Mad bed was higher, which resulted in ~6,200 mt of biomass, which was comparable with previous years' estimations. The mean density of scallops on the Fiona-Rachel was found to be about four times lower than that of the Avel Mad bed, which produced only 8,693 mt of the total biomass, being less (about 60%) of what had been estimated previously.

1.11. *Eleginops maclovinus* - Falkland mullet

The small scale beach seine fishery for the Falkland mullet continued through 2005 with a total catch of only 6 mt. Ten creeks and inlets were visited around East Falkland; the most frequently visited was Teal Creek in Choiseul Sound. The total catch for 2005 was much lower than the previous year (16.9 mt) with reduction of 40% effort. The reduction in catch and effort for 2005 was partly a reflection of market demand.

2. Fisheries Department research cruises in 2005

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. Seven to eight scientists participated in each cruise.

2.1. Fisheries research cruise ZDLH1-02-2005 (10 - 24 February 2005)

A routine research cruise ZDLH1-02-2005 was carried out on the southern part of the Falkland shelf using a semi-pelagic trawl with the main purpose of studying distribution and recruitment abundance of the first cohort of *L. gahi* in their nursery and feeding grounds. Additionally, oceanographic data were collected. The temperature profile at transect P1 (east of Stanley) was consistent with those observed in 2003 and 2004, whereas temperatures encountered at transect P5 (Beauchene Island) were the warmest since 2000. Overall, the summer season of 2005 had a positive temperature anomaly, similar to the previous two years.

It was revealed that the abundance of the first cohort of *Loligo* was high. In the southern region, most squid had migrated to their feeding grounds (130-150 m depths). All of them were immature. However, in the shallow waters to the north of Sea Lion Island and in Falkland Sound a relatively high proportion of mature females were found, which was quite uncommon for this time of the year. They could either belong to the second cohort (of last year), or early maturing squid of the first cohort. An unusually high abundance of *Loligo* was observed in the shallow water bays of the West Falkland. One station in the north-western part of King George Bay yielded the largest catch of squid during the survey. Overall, the results of the survey indicated a high abundance of both cohorts of *Loligo* in 2005.

2.2. Fisheries research cruise ZDLH1-07-2005 (13 – 27 July 2005)

The primary objective of the cruise was to carry out a semi-pelagic deep-water survey of the southern part of the Falkland Islands and Burdwood Bank in order to study the spawning grounds of the Patagonian toothfish (*Dissostichus eleginoides*).

After departure on the 13th July the vessel proceeded to the first deep-water station to the southeast of Beauchêne Island with the intention to carry out trawl stations along the 1000 m isobath then to proceed to the southern part of the Falkland Islands' slope and the Burdwood Bank. During the first tow, a technical issue arose and the vessel had to return to Stanley. The survey resumed on the 18th July from the southern slope of the Falkland Islands. Every day, two to three deepwater trawls were carried out with the duration of each trawl being approximately two hours near the bottom. Several trawls were made in the water column at the trawling horizon of 900-1000 m over the 1500-2000 m bottom depth. Over 80 deepwater species of fish and squid were caught during the cruise. The most abundant species was the grenadier *Macrourus carinatus* followed by blue antimora *Antimora rostrata*, and the Patagonian toothfish *Dissostichus eleginoides*. These three species accounted for over 90% of the total catch. Toothfish sizes ranged from 35 to 110 cm L_T . Interestingly, toothfish as small as 35 cm L_T were encountered at depths of greater than 900 m. Previously, fish of this size had been usually found on the shelf at 150-300 m depth. Toothfish maturities ranged from 1 to 4, with the most common maturity being stage one for both sexes. Unfortunately, no spawning animals were found. The overall sex ratio on and around the Burdwood Bank showed a slight predominance of females (55%). Sizes of *M. carinatus* ranged from 3 to 34 cm L_{pa} . The sex ratio on the Bank was with prevalence of males (60%). Most of the fish sampled were resting or maturing with some post-spawning and fewer in a ripe condition

In order to get some live toothfish for further aquaculture experiments ashore (in case of difficulties in getting them from the trawl catch), one to two days were provisionally planned to work with a Falkland registered longliner. The longliner used pots to catch toothfish, which were then transferred to the *Dorada* at the end of the cruise. On the 24th July one of the trawl winches malfunctioned. After approximately two days of unfruitful attempts to repair it at sea it was decided to terminate the cruise and return to Stanley.

2.3. Fisheries research cruise ZDLH1-10-2005 (4 – 17 October 2005)

A joint UK-Argentine survey of southern blue whiting, which had been originally planned for September 2005, did not occur for various reasons from the Argentine side. It was decided to use the spare vessel time to investigate spawning grounds of several commercial finfish resources spawning around the Falkland Islands in the beginning of the austral spring. One of the main aims of the survey was to identify the spawning grounds of redcod to the southwest of the Falkland Islands in order to analyse their hydrographic characteristics, and to sample spawning fish for the analysis of age structure and fecundity. These data were acquired for the possible development of a set of conservation measures to manage this commercial stock. Another task was to catch and tag as many commercial species of skates and rays as possible for the further analysis of their migration patterns.

The vessel departed from Stanley on the 4th October and proceeded to the first station to the south of Beauchene Island. Three trawl stations were conducted on the 5th October, and next day the vessel spent the whole day in the grid square XUAH ('skate box') conducting four trawls to catch skates and rays for tagging.

During next week, three-four trawls were conducted every day to the southwest and west of the Falklands. Spawning aggregations of redcod were found only to the south of Cape Meredith where large numbers of mature females in maturity stage IV and V were encountered. Their gonads were collected for further studies of redcod fecundity.

All squid caught on the shelf (>100 m depths) belonged to the spring-spawning cohort (SSC). They were mainly in pre-spawning condition. Interestingly, two modes of mature females were present with a different distribution. Large females occurred mainly in the southern and northern parts of the area, whereas small females were abundant in the middle part (to the west of the Falklands). Low temperatures continued to prevail in inshore waters, and these conditions prevented squid migrations to their spawning grounds during the period studied. The weather deteriorated on the 12th October, and remained very windy (F8-F9) until 15th October. During this period, it was not possible to fish in open waters because of high seas, but two trawls daily were conducted in both Queen Charlotte and King George Bays, yielding good catches of shallow water rockcods and *Loligo*, the latter being quite small and immature squid (5-7 cm ML) of the autumn-spawning cohort (ASC). The remaining two days were devoted to trawling west of Jason Islands to try to catch some spawning redfish. The cruise was completed with the return to Stanley on 17th October.

3. Fisheries Department research contracts in 2005

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 2005 are presented below. The FIG had signed another 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 'Trace element analysis of southern blue whiting otoliths by LA-ICPMS'

This study was carried out by principal investigator Dr. Leonid Danyushevsky from University of Tasmania, Australia.

During the course of the project (which is in fact a continuation of last year's project), another sample of 380 otoliths of southern blue whiting *Micromesistius australis* collected on the High Seas and in Argentinean EEZ during the joint acoustic and trawl survey in September 2004 were analysed by laser-ablation inductively-coupled plasma mass-spectrometry (LA-ICPMS). The otoliths were ground through their centre and polished to obtain the best analytical results. Each otolith was analysed at its core and at the margin, resulting in 720 analyses. Analyses were performed for a set of twenty two elements (isotope used for the analysis is shown in brackets): Li (7), Mg(24), Ca(43), Sc(45), Ti(47), Cr(53), Mn(55), Fe(57), Ni(60), Cu(65), Zn(66), As(75), Rb(85), Sr(88), Y(89), Ag(107), Cd(111), Ba(137), La(139), Pb(208), Bi(209) U(238). Difference in otoliths' chemistry was observed between margin and core compositions. Concentrations of Mg, Mn, Ba and Zn were statistically higher in the core, whereas Sr contents were higher in the margins. This resulted in clear separation of core and margin element/element ratios such as Mg/Sr vs. Ba/Sr. No variations between the two sampling sites have been observed, suggesting that fish belong to the same stock.

3.2 ‘Seasonal and interannual variations in oceanographic conditions on the eastern continental slope and shelf of the Falkland Islands (November 1999 – February 2005)’

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.

The report included an analysis of the thermohaline structure and water masses, on transects P1 and P5, as well as the detailed analysis of oceanographic surveys in September 2004 and February 2005; namely Shelf Waters of the coastal zone, Atlantic Antarctic Intermediate Water mass (AAIW) representing slope waters of the Falkland Current, and Transient Zone Waters (TZ), which separated Shelf Waters from AAIW. Geostrophic transport varied significantly during 2004 with a maximum in January, December and September, and minimum in February-March and October-November. Austral winter conditions during 2004 both to the east and south of the Falkland Islands were the warmest since 2000. The summer of 2004-5 was also relatively warm in both regions.

4. Studies on reduction of the seabird mortality in the Falkland Islands

4.1 Longliners

In 2004, FIG adopted the National Plan of Action – Seabirds (NPOA-S) for longliners. Based on the 2001/2002 estimated level of bird by-catch for the Falkland Islands (134 mortalities, CV 20.2%) which represents a by-catch rate of 0.02 birds/1000 hooks, the aim of the NPOA-S was to reduce the by-catch levels to below 0.01 birds/1000 hooks by 2004/2005, and to further reduce the level of by-catch to below 0.002 birds/1000 hooks by 2006/2007. The longline fishery in the Falkland Islands attained by-catch rates below the target rate for 2004/2005 in 2003/2004 (see table below).

Year	Estimate rate*	NPOA target rate*
2001/2	0.016	
2002/3	0.011	
2003/4	0.005	
2004/5	0.004	0.01
2005/6		
2006/7		0.002
	* birds/1000 hooks	

Estimated seabird by-catch per year and the NPOA target by-catch rate.

The fishery has managed to reduce seabird mortality to current levels by employing correctly designed and effective tori lines, correct line weighting regimes and the use of ‘Brickle curtains’. This was enhanced with a higher awareness about seabird mortality among fishermen on longliners working in the Falkland Islands.

4.2 Trawlers

A NPOA for trawlers was also adopted in 2004 and included a set of objectives aimed at reducing seabird mortality on trawlers. In 2001 Falkland Islands Conservations Seabirds at Sea Team (SAST) documented sig-

nificant levels of mortality in seabirds feeding on offal discharge in the finfish fishery. Seabirds feeding on offal discharge at the stern of the vessel might be struck by the warp cable, dragged under water and drowned. In 2002/2003, SAST estimated that over 1,500 birds died in this way in the finfish fishery, the majority of which were black browed albatross. In 2001/2002, SAST and FIFD began designing and testing potential mitigation devices, some of which were more successful than others. FACT (Falklands Albatross Curtain for Trawlers) was developed in 2001 and was tested on a number of vessels in 2001 and 2002. It consisted of a series of ropes attached to the warp by carabiners. The theory of the device is that it was similar to tori lines. This device had a number of problems and this led to the development of the 'Falkland Islands Warp Scarer' in 2002 and it went through a series of upgrades in autumn and winter of 2003. This model consisted of a series of ring style devices joined together by a length of square mesh netting. The final model employed rollers in the rings to allow easy warp adjustment including splices. Ropes with reflective tape hung from each ring to the sea, scaring the birds from the warp as the vessel pitches and rolls. During spring 2003, a set of three emerging mitigation measures were trialed on a Falkland Islands registered finfish trawler. Four treatments (three mitigation devices, and a control treatment where no mitigation device was used) were randomly assigned to observed trawls. The mitigation devices were specifically adapted tori lines, the warp scarer and the Brady baffler. The baffler was developed in New Zealand and consisted of a tower fitted to each one of the two quarters of the stern gantry. Two steel arms, one aft of the stern and one outboard (aft of the discharge scupper), with ropes and plastic cones at the seaward end were lowered from each tower. As the vessel pitches and rolls the cones swing and prevent the birds from gathering in the area adjacent to the warp cable. The use of mitigation measures was clearly shown to reduce mortality from the collisions between the seabirds and the warp cable. Tori lines and the warp scarer were significantly more effective at reducing contacts than the Brady baffler, whilst the tori lines represented a smaller, but still significant, improvement on the warp scarer.

Because of their success and after discussion with the fishing fleet, tori lines became mandatory in the finfish fishery in July 2004. During 2004/2005 subsequent to their implementation observations on mortality and their use suggested that fishermen found the devices easy to use and that their use reduced estimated mortality by 90%.

5. New Fisheries Law

The Fisheries (Conservation and Management) Ordinance 2005 was assented to on 6 September 2005. It has been implemented in phases from late 2005, and will become fully effective by 1 July 2006.

The new Law achieves two very significant objectives. Firstly, it gives legislative effect to a major review of fisheries policy including the introduction of property rights in the fishery. Secondly, it provides the first comprehensive update of legislation since the 1986 Ordinance. It represents a major reform and re-statement of the law relating to fisheries resources and fisheries management. It modernizes fisheries law taking account of developments in the Falklands' fishery and national developments, particularly in relation to conservation of fishery resources. The introduction of property rights represents a fundamental change in the way in which access to the fishery is managed. It is anticipated that the new system will improve the economic performance of the sector. The increased security for fishing companies should encourage diversification and value added activities, together with investment in research and development. It is also anticipated that international competi-

tiveness will increase.

The Loligo and Toothfish fisheries are due to start in the new system on 1 July 2006, with most other fisheries following in January 2007.

6. Participation in Scientific Conferences and Symposia in 2005

6.1. ICEFISH Symposium - 2005

Paul Brickle was invited to attend the ICEFISH symposium held at the University of Maine's Darling Maine Laboratory between 21 and 25 August 2005 and present work on the age and growth of *Patagonotothen ramsayi*.

6.2. ICES Annual Scientific Meeting - 2005

Annual Scientific Meetings are organised every year by the International Council for the Exploration of the Seas (ICES). In 2005, the meeting was held in Aberdeen, United Kingdom on 24-27 September. Participant from FIFD: A. Arkhipkin. Two reports were presented for the Session N of the Meeting. 1). Age, growth and maturity of the broad nose skate, *Bathyraja brachyurups* (Fowler, 1910) and the grey tail skate, *Bathyraja griseocauda* (Norman, 1937) around the Falkland Islands' by N. Baumgartner, A. Arkhipkin, Z. Shcherbich, Z.N. and P. Brickle; and 2). 'Biology and fishery of rays, *Bathyraja brachiurops* and *B.griseocauda* around the Falkland Islands' by V. Laptikhovsky, A. Arkhipkin, P. Brickle, and J. Pompert.

6.3. Second International Symposium 'Coleoid Cephalopods through time' in Prague (26-28 September 2005).

The 2nd International Symposium 'Coleoid Cephalopods through time' was held in the Albertus University in Prague between 26 and 28 September 2005. Participant from FIFD: A. Arkhipkin. One report was presented: 'Allopatric speciation of the teuthid fauna on the shelf and slope of Northwest Africa' by A. Arkhipkin and V. Laptikhovsky.

6.4. Third International Symposium and Second International Workshop on Pacific squid

The 3rd International Symposium on Pacific squid and 2nd Workshop on Pacific squid were held in Lima (Peru) between 28th November and 2nd December 2005. Participant from FIFD: A. Arkhipkin. One report was presented: 'On the taxonomic status of *Loligo gahi* d'Orbigny, 1835 and *Loligo patagonica* Smith, 1881' by A. Arkhipkin.

7. Publications from scientific work carried out in FIG Fisheries Department in 2005

7.1 Peer-reviewed publications (appeared in 2005)

- Arkhipkin, A.I., 2005. Statoliths as black boxes (life recorders) in squid. *Mar Freshw Res.* **56**, 573-583.
- Arkhipkin, A.I., Roa, R., 2005. Identification of ontogenetic growth models for squid. *Mar. Freshw. Res.*, **56**, 371-386.
- Brickle, P., Arkhipkin, A.I., Shcherbich, Zh.N., 2005. Age and growth in a euryhaline notothenioid, *Eleginops maclovinus* from the Falkland Islands. *J.mar.biol.Ass.U.K.*, **85**, 1217-1222.
- Brickle, P., MacKenzie, K., Pike, A., 2005. Parasites of the Patagonian toothfish (*Dissostichus eleginoides* Smitt, 1898) from Antarctic waters. *Polar Biol.* **28**, 663-671.
- Brickle, P., Laptikhovskiy, V., Arkhipkin, A., 2005. Reproductive strategy of a primitive temperate notothenioid *Eleginops maclovinus* (Cuv., & Val., 1830) (Notothenioidea: Eleginopidae). *J. Fish.Biol.* **66**, 1044-1059.
- Clausen, A., Arkhipkin, A.I., Laptikhovskiy, V., Huin, N. 2005. What is out there: diversity in feeding of gentoo penguins (*Pygoscelis papua*) around the Falkland Islands (Southwest Atlantic). *Polar Biology* **28**, 653-662.
- Henderson, A. C., Arkhipkin, A. I., Chitchebich, J. N., 2005. Distribution, growth and reproduction of the white-spotted skate *Bathyraja albomaculata* around the Falkland Islands. *J. Northw. Atl. Fish. Sci.* **35**, 79-87.
- Laptikhovskiy V., 2005. A trophic ecology of two grenadier species (Macrouridae, Pisces) in deep waters of the Southwest Atlantic. *Deep – Sea Res. I*, **52**, 1502-1514.
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- Laptikhovskiy, V., Salman A, Moustahfid H., 2005. Morphological changes at maturation and systematics in the squid genus *Alloteuthis*. *Bull.Phuket.Mar.Biol.Centre* **66**, 187-193.
- Sacau, M., Pierce, G.J., Wang, J., Arkhipkin, A.I., Portela, J., Brickle, P., Santos, M.B., Zuur, A.F., Cardoso, X. 2005. The spatio-temporal pattern of Argentine shortfin squid *Illex argentinus* abundance in the southern Atlantic. *Aquatic Living Resources* **18**: 361-372.
- Salman A., Laptikhovskiy V., 2005. Fecundity and spawning of *Abralia veranyi* (Cephalopoda: Enoploteuthidae) in the Aegean Sea. *Scientia Marina* **69**, 211-214.
- Salman A., Laptikhovskiy V., Katağan T. 2005. Male and female fecundity of the Indo-Pacific octopus, *Octopus kagoshimensis* Ortmann, 1888 (Cephalopoda: Octopodidae) in the East Mediterranean. *Zool. Zh.* **84** (2), 269-271.
- Wakeford, R. C., D. J. Agnew, D. A. J. Middleton, J. H. W. Pompert, V. V. Laptikhovskiy. 2005. Management of the Falkland Islands multispecies ray fishery: is species-specific management required? *J. Northw. Atl. Fish. Sci.* **35**, 309-324.

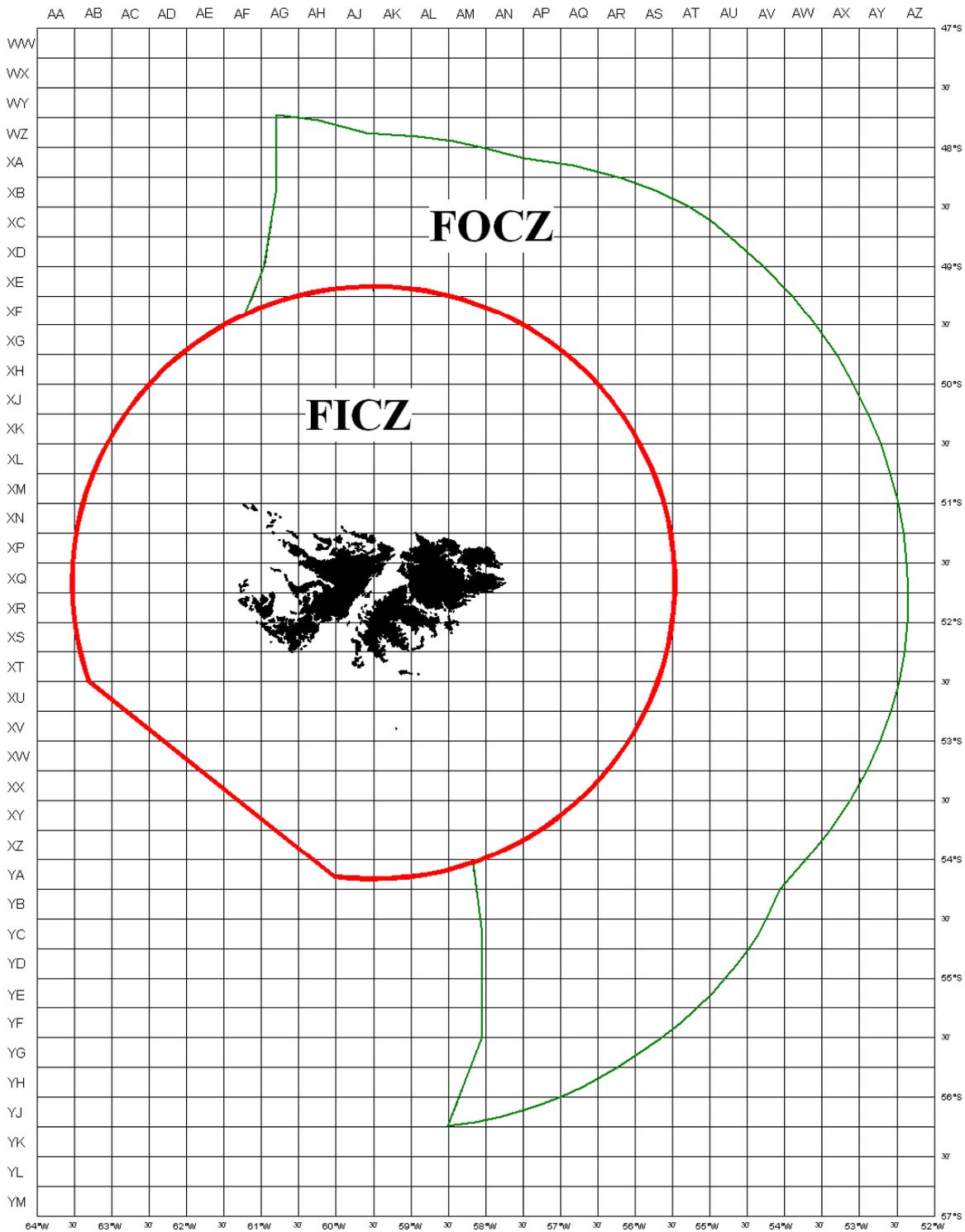
7.2 Scientific Reports

- Brickle, P., Shcherbich, Z., Laptikhovsky, V. and Arkhipkin, A. 2005. Aspects of the biology of the Falkland Islands' rockcod *Patagonotothen ramsayi* (Regan, 1913) on the southern Patagonian Shelf. Scientific Report. Falkland Islands Government Fisheries Department, Stanley. 52 pp + 33 plates.
- Otley, H. 2005. Seabird mortality associated with Patagonian toothfish longliners in Falkland Island waters during 2002/03 and 2003/04. Scientific Report. Falkland Islands Government Fisheries Department, Stanley. 45 pp.
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Alexander I. Arkhipkin

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
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
ILL	SQA	<i>Illex argentinus</i>	Illex squid
KIN	CUS	<i>Genypterus blacodes</i>	Kingclip
LOL	SQP	<i>Loligo gahi</i>	Patagonian squid
MAR	SQS	<i>Martialia hyadesi</i>	Martialia squid
PAT	HKX	<i>Merluccius spp</i> *	Hake
RAY	SRX	Rajidae	Skates and rays
TOO	TOP	<i>Dissostichus eleginoides</i>	Patagonian toothfish
WHI	GRM	<i>Macruronus magellanicus</i>	Hoki
OTH	MZZ/SKX	Osteichthyes/Chondrichthyes	Others
ZYP	ZYP	<i>Zygochlamys patagonica</i>	Scallop

* - *Merluccius spp.* represents catches of only two species:

M. hubbsi (ca 80%) and *M. australis* (ca 20%) .

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
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 - 2005.

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 2005 the 'E' licence was used to cover access to the *Loligo* fishery during the monitoring activities undertaken by single vessels. The Scallop fishery and sea urchin research 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
A	9
B	70
C	17
E	11
F	4
G	14
L	4
R	11
S	2
W	17
X	16
Y	12
Z	18
	205

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
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	.
CN	.	2	4	9	20	25	22	7	3
EE	.	.	.	.	.	.	.	1	.
ES	52	64	76	41	45	49	46	47	36
FK	32	43	49	47	55	49	80	71	76
FR	2	2	2	1	.	.	.	.	.
IS	3	.	.	.	.	.	.	.	.
JP	19	40	20	21	16	22	14	7	2
KR	98	48	71	84	67	71	64	61	43
NA	3	1	2	.	.	.	.	2	.
NO	1	.	.	.	.	.	.	.	.
NZ	.	.	.	.	.	.	1	.	.
PA	.	.	.	.	.	.	.	.	2
PT	.	.	.	1	.	.	.	.	.
RU	.	.	.	.	1	.	9	.	.
SC	3	.	.	.	.	.	.	.	.
SL	.	.	.	.	.	.	.	.	.
TW	3	2	4	16	22	26	29	33	33
UK	3	3	5	3	3	3	4	5	5
VC	.	.	.	.	1	.	.	.	.
UY	.	.	.	.	1	1	2	2	2
VU	.	.	.	.	.	.	.	.	2
	223	211	243	231	235	250	276	240	205

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

Fishing fleet	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
ES	2	2	4	6	3	4	3	2	1	2
FK	2	2	5	4	7	2	3	4	7	7
UK	1	.	.	1	.	.	.	.	.	.
	5	4	9	11	10	6	6	6	8	9

Licences

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

Fishing fleet	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
BZ	.	.	.	1	2	1	1	3	1	1
CB	.	.	.	.	2	1	1	1	1	.
CL	.	.	.	.	.	.	.	.	.	.
CN	.	.	2	4	9	20	25	22	7	3
ES	15	.	.	.	.	.	.	.	.	.
FK	2	.	.	.	.	.	.	.	.	1
FR	1	.	.	.	.	.	.	.	.	.
JP	7	15	34	15	17	14	19	12	5	.
KR	84	74	40	63	63	58	53	46	42	28
PA	.	.	1	.	.	.	.	.	.	2
PT	1	.	.	.	.	.	.	.	.	.
RU	.	.	.	.	.	.	.	9	.	.
TW	3	3	2	4	16	22	26	29	33	33
VU	.	.	.	.	.	.	.	.	.	2
	113	92	79	87	109	116	125	122	89	70

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

Fishing fleet	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
AU	.	.	1	1	.	.	.	.	.	.
CL	1	1	.	.	.	.	.	.	.	.
ES	7	3	2	4	2	2	2	.	.	.
FK	8	7	9	10	13	12	14	15	14	16
FR	1	1	1	1	1	.	.	.	.	.
NA	.	1	.	.	.	.	.	.	1	.
PT	1	.	.	.	.	.	.	.	.	.
SC	.	1	.	.	.	.	.	.	.	.
UK	1	1	1	1	1	1	1	1	1	1
VC	.	.	.	.	.	1	.	.	.	.
	19	15	14	17	17	16	17	16	16	17

Licences

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

Fishing fleet	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
AU	.	.	1	.	.	.	.	.	.	.
ES	.	.	.	.	.	.	.	1	.	.
FK	.	1	7	6	2	.	.	5	6	8
IS	1	1	.	.	.	.	.	.	.	.
KR	2	3	2	2	3	.	.	.	.	.
NO	1	1	.	.	.	.	.	.	.	.
UK	.	.	.	.	.	.	.	.	1	1
US	1	.	.	.	.	.	.	.	.	.
UY	.	.	.	.	.	1	1	2	2	2
	5	6	10	8	5	1	1	8	9	11

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

Fishing fleet	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
BZ	.	.	.	.	.	.	1	.	.	.
KR	5	.	.	.	4	1	8	4	7	4
	5	.	.	.	4	1	9	4	7	4

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

Fishing fleet	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
EE	1	.
ES	.	13	21	22	12	13	14	15	11	7
FK	.	3	4	5	4	6	5	9	5	7
IS	.	1	.	.	.	.	.	.	.	.
JP	.	.	2	1	.	.	.	.	.	.
NA	.	1	.	1	.	.	.	.	.	.
PA	.	1	.	.	.	.	.	.	.	.
UK	.	.	.	1	.	.	.	.	.	.
	.	19	27	30	16	19	19	24	17	14

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

Fishing fleet	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
FK	2	6	4	3	4	4
KR	1	.	2	4	1	.
NZ	1	.	.
	3	6	6	8	5	4

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

Fishing fleet	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
BZ	1	.	.	1	.	1	.	.	.	.
KR	9	10	2	6	7	8	8	10	11	11
PA	1	.	.	1	.	.	.	.	.	.
	11	10	2	8	7	9	8	10	11	11

Licences

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

Fishing fleet	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
CL	.	.	.	1	1	1	1	1	2	.
JP	.	.	.	1	2	2	3	2	2	2
	.	.	.	2	3	3	4	3	4	4

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

Fishing fleet	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
BZ	.	.	.	.	1	.	.	.	.	.
CL	1	1	1	1	.	.	.	.	.	.
ES	16	5	12	16	7	9	9	9	15	8
FK	6	.	2	3	1	4	2	13	9	8
FR	1	.	.	.	.	.	.	.	.	.
IS	.	1	.	.	.	.	.	.	.	.
JP	1	1	1	1	2	.	.	.	.	.
NA	.	1	.	.	.	.	.	.	.	.
PA	1	.	.	.	.	.	.	.	.	.
PL	1	.	.	.	.	.	.	.	.	.
PT	1	.	.	.	.	.	.	.	.	.
UK	.	.	.	.	.	.	.	1	1	1
	28	9	16	21	11	13	11	23	25	17

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

Fishing fleet	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
AU	.	.	1	1	.	.	.	.	.	.
CL	1	.	.	.	.	.	.	.	.	.
ES	10	7	3	2	2	2	3	.	.	.
FK	9	9	12	11	12	16	13	17	15	15
FR	1	1	1	1	.	.	.	.	.	.
JP	2	2	2	2	.	.	.	.	.	.
NA	.	.	.	.	.	.	.	.	1	.
SC	.	1	.	.	.	.	.	.	.	.
UK	1	1	1	1	1	1	1	1	1	1
Grand Total	24	21	20	18	15	19	17	18	17	16

Licences

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

Fishing fleet	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
ES	3	4	5	5	1	2	4	3	3	5
FK	2	6	2	2	2	4	3	8	6	7
RU	.	.	.	.	.	1	.	.	.	.
UK	1	1	1	1	1	1	1	1	1	.
	6	11	8	8	4	8	8	12	10	12

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

Fishing fleet	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
AU	.	.	.	1	.	.	.	.	.	.
BZ	.	.	.	.	2	.	.	.	.	.
CL	1	1	1	1	.	.	.	.	.	.
ES	16	18	17	21	14	13	14	16	17	14
FK	8	4	3	8	4	5	5	6	5	3
HN	1	.	.	.	.	.	.	.	.	.
JP	1	1	1	.	.	.	.	.	.	.
KR	12	11	4	1	6	.	.	.	.	.
NA	.	.	1	1	.	.	.	.	.	.
PA	1	.	.	1	.	.	.	.	.	.
PL	1	.	.	.	.	.	.	.	.	.
PT	1	.	.	.	1	.	.	.	.	.
SC	.	1	.	.	.	.	.	.	.	.
UK	1	.	.	.	.	.	.	.	.	1
	43	36	27	34	27	18	19	22	22	18

Licences

Table B.16 Annual revenue (Pounds sterling) by licence type

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

LICENCE	1995	1996	1997	1998	1999	2000
A	485,949	300,154	191,586	186,858	247,467	264,667
B	10,867,548	12,176,224	12,189,748	9,578,864	9,349,734	14,609,416
C	3,473,536	3,915,269	3,489,634	3,694,139	3,840,651	4,063,638
E	196,725	107,022	180,956	460,752	471,163	190,113
F	74,214	117,243	.	.	0	83,714
G	.	.	654,702	900,493	1,321,513	755,274
L	.	.	.	.	0	237,250
R	431,363	446,767	429,579	73,733	452,362	252,959
S	.	.	.	.	326,903	980,410
W	500,679	842,504	590,818	868,281	872,436	418,455
X	2,173,149	2,297,557	1,745,260	2,157,595	1,802,191	1,596,130
Y	164,690	174,748	284,846	327,707	235,446	276,522
Z	1,920,068	1,536,543	1,474,175	1,329,126	1,262,615	1,051,854
	20,348,929	21,977,242	21,296,309	19,577,548	20,182,480	24,780,401

LICENCE	2001	2002	2003	2004	2005
A	153,200	229,589	312,757	239,533	160,585
B	16,408,604	15,504,408	12,122,222	2,926,562	2,441,087
C	4,515,400	4,495,703	1,446,088	1,509,446	1,534,994
E	0	0	34,500	56,925	84,150
F	41,311	218,114	85,855	156,778	49,701
G	1,001,852	1,176,222	1,085,814	558,859	374,079
L	581,856	581,856	493,873	581,855	533,368
R	405,492	221,071	240,511	263,006	405,720
S	914,033	792,191	895,352	1,237,335	449,067
W	303,832	268,804	515,383	905,319	524,877
X	2,014,142	1,759,362	1,804,098	2,090,748	2,510,109
Y	375,871	384,723	434,158	407,128	650,185
Z	969,460	920,040	995,807	978,825	834,434
	27,685,053	26,552,083	20,466,419	11,912,319	10,552,357

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
CO	27
JI	7748
LO	1796
TR	117436
	127007

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
BAC	2449
BLU	17008
ILL	7936
KIN	1955
LOL	58809
MAR	0
PAT	2732
RAY	5680
TOO	1677
WHI	16672
OTH	10728
ZYP	1358
	127007

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
January	1712
February	7558
March	27435
April	10581
May	3861
June	709
July	11772
August	22531
September	17112
October	10987
November	9635
December	3113
	127007

Catch summary tables

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

GRT	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<400	4016	3735	1727	2203	7796	7829	3588	571	2186	276	0
400-599	13867	13617	16175	5904	26789	11671	13309	1502	6412	1604	2143
600-799	47630	51899	97294	43028	163915	110505	78231	14107	50758	3709	6951
800-999	15092	14467	15853	23115	37524	51052	46705	7974	42387	9987	13387
1000-1499	63921	34746	53422	59053	69138	59117	59440	34363	48736	31390	35548
1500-1999	27601	19983	7180	14431	15926	19525	15015	13455	15608	14958	24742
2000-2999	47252	29808	11607	30690	25317	35543	32726	13205	30373	16436	33003
>2999	25793	26735	27067	32450	30633	23864	16185	15803	12637	24738	11233
	245172	194991	230326	210874	377038	319107	265198	100979	209097	103098	127007

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

LOA	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<45	2316	2463	1579	1648	1803	865	2458	271	42	0	0
45-49	38782	40247	67856	29845	123498	76639	54447	8662	30524	5553	7822
50-54	30258	32307	45221	26581	71292	62017	42364	14062	36900	13790	18165
55-59	14600	15284	20103	13712	21017	29661	23807	8845	22691	4041	5797
60-64	25828	19851	16086	22027	44818	34635	41514	9615	31321	11646	16766
65-69	24499	13365	23579	32634	37289	32864	32676	18200	30024	19604	23742
70-79	53041	33442	22883	38559	33167	37047	32979	17773	28338	10501	20760
80-89	17465	6172	4037	8965	10100	17008	14026	5661	12649	11357	17924
>89	38382	31860	28981	36903	34054	28370	20928	17890	16606	26606	16030
	245172	194991	230326	210874	377038	319107	265198	100979	209097	103098	127007

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

BHP	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<1000	3464	2818	210	.	2964	1765	1320	183	42	0	0
1000-1199	11768	10134	12327	3013	12634	7711	9643	917	6666	28	0
1200-1399	18130	22848	43657	20483	68649	45064	32509	5516	17093	129	1795
1400-1599	25317	25885	52221	27875	86241	60183	46741	10995	34576	8407	9783
1600-1799	14119	16921	22907	26562	53105	36388	28040	4815	21161	5297	7237
1800-1999	28937	19194	33048	38781	52553	60145	55146	18246	40925	20248	22668
2000-2499	43307	23274	18759	23363	35572	35493	29519	18188	31772	19557	26872
2500-2999	13625	9377	5466	4082	6441	7449	9805	10652	10413	7303	9672
3000-3999	44894	30821	10739	25979	22061	31584	27147	11947	26292	14997	28613
>3999	41610	33718	30992	40736	36817	33324	25328	19519	20158	27133	20366
	245172	194991	230326	210874	377038	319107	265198	100979	209097	103098	127007

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	24485
FK	17117	43578	39131	62947	59820	35732	60596	43320	71206
FR	1545	4177	2381	2053	.	.	.	.	.
IS	268	.	.	.	.	.	.	.	.
IT	.	.	.	.	.	.	.	.	.
JP	46060	56992	57971	41737	27913	14485	18923	15062	11230
KR	129546	45082	207795	128940	86587	12637	53677	6008	10040
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	5098
UR	.	.	.	.	.	.	.	.	.
UY	.	36	.	.	81	61	690	1303	1369
VC	.	.	.	.	1820	.	.	.	.
VU	.	.	.	.	.	.	.	.	120
	230326	210874	377038	319107	265198	100979	209097	103098	127007

Illex argentinus—Illex squid

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

VESSEL TYPE	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
CO	1479	.	.	.	.	.	.	.	.	27
JI	73020	148633	79837	253997	182925	145919	13000	101753	1661	7748
TR	5225	1130	5156	12204	6784	4711	411	1622	59	162
	79724	149763	84993	266201	189709	150631	13411	103375	1720	7936

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

MONTH	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
January	.	.	0	2	39	.	1	.	.	.
February	5087	5	53	14160	26916	55	1293	1944	24	87
March	37721	22507	26799	83669	75957	69399	1911	71279	1424	6914
April	30597	55143	49219	93924	48565	57031	2766	28624	269	934
May	6203	62088	8800	63515	36412	22926	7439	1516	3	0
June	116	10020	120	10932	1820	1220	0	11	.	.
July	.	.	.	0	.	0	.	.	.	.
August	.	.	0	.	.	.	.	.	.	.
September	.	.	1	.	.	.	.	.	.	.
October	.	.	1	.	.	.	.	.	.	.
November	.	.	.	.	.	.	.	.	.	.
December	.	.	.	.	.	0	.	.	.	.
	79724	149763	84993	266201	189709	150631	13411	103375	1720	7936

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

Fishing fleet	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
AU	.	.	.	167	.	.	.	.	.	.
BZ	.	.	.	3796	4066	1692	124	2767	42	61
CB	.	.	.	.	2768	1195	33	857	17	.
CL	.	1	.	.	.	.	.	.	.	.
CN	.	.	1177	7301	11641	18838	1203	12652	99	99
EE	.	.	.	.	.	.	.	.	3	.
ES	1628	281	1758	3943	989	2807	271	960	22	95
FK	195	37	804	2582	716	1879	140	659	16	93
FR	28	.	.	56	0	.	.	.	.	.
IS	.	9	.	.	.	.	.	.	.	.
JP	8383	26311	35984	37495	25652	18126	1113	7746	93	.
KR	67395	120150	42437	201690	120628	80827	9338	48766	530	4168
NA	.	3	.	63	.	.	.	.	.	.
PA	.	.	1098	.	.	.	.	.	.	194
PT	193	.	.	.	.	.	.	.	.	.
RU	.	.	.	.	.	0	.	6891	31	.
TW	1902	2971	1734	8771	23243	25241	1189	22077	865	3106
UK	.	.	.	336	6	21	.	.	1	.
VC	.	.	.	.	.	4	.	.	.	.
VU	.	.	.	.	.	.	.	.	.	120
	79724	149763	84992	266201	189709	150631	13411	103375	1720	7936

***Illex argentinus*—Illex squid**

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

GRT	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<400	1479	.	663	5535	5755	2627	190	1888	24	.
400-599	12541	15451	4176	25341	11574	12799	1206	5030	26	280
600-799	46349	91878	33854	157725	103179	70730	7338	45406	493	3756
800-999	5974	10730	15998	28821	40053	39487	2530	34521	994	3487
1000-1499	9520	30868	27282	40926	23536	24066	2061	16232	153	381
1500-1999	645	1	283	1504	553	414	86	177	12	14
2000-2999	35	37	143	1293	30	508	1	120	1	19
>2999	3179	799	2593	5055	5030	.	.	.	17	.
	79724	149763	84993	266201	189709	150631	13411	103375	1720	7936

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

LOA	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<45	1930	1032	74	1865	1865	1865	.	.	0	.
45-49	36068	65537	22346	49259	49259	49259	5176	25175	277	1912
50-54	19032	33449	15667	28339	28339	28339	3089	24699	312	2206
55-59	7328	13910	4151	16588	16588	16588	1293	16753	447	1736
60-64	4281	6750	9480	27502	27502	27502	1779	18624	348	832
65-69	4281	18271	20194	17984	17984	17984	1583	13616	254	1091
70-79	3431	10015	10486	8622	8622	8622	490	4414	61	140
80-89	193	.	.	458	458	458	1	90	3	19
>89	3181	799	2593	14	14	14	.	4	17	.
	79724	149763	84993	150631	150631	150631	13411	103375	1720	7936

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

BHP	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<1000	760	.	.	2964	1765	1239	122	.	.	.
1000-1199	9751	11932	3013	12383	7711	9643	917	6597	28	1157
1200-1399	20910	42079	16878	66273	42851	30503	2808	16189	147	2218
1400-1599	23585	48513	18632	79824	51436	38463	4015	27928	329	937
1600-1799	12433	20526	19611	47198	30881	23703	2073	14773	214	2250
1800-1999	4747	19461	20192	36363	40765	37469	2610	26640	656	1041
2000-2499	3276	6406	3930	14482	9130	7795	766	10375	246	315
2500-2999	828	.	.	223	105	1286	99	753	80	19
3000-3999	255	46	143	1216	27	484	1	109	2	.
>3999	3181	799	2593	5273	5039	45	.	12	17	.
	79724	149763	84993	266201	189709	150631	13411	103375	1720	7936

Illex argentinus—*Illex squid*

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

GRT	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<400	1479	.	.	.	.	.	.	.	.	.
400-599	.	.	.	.	.	.	.	.	.	.
800-999	.	.	.	.	.	.	.	.	.	.
1000-1499	.	.	.	.	.	.	.	.	.	27
1500-1999	.	.	.	.	.	.	.	.	.	.
2000-2999	.	.	.	.	.	.	.	.	.	.
>2999	.	.	.	.	.	.	.	.	.	.
	1479	.	.	.	.	.	.	.	.	27

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

LOA	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<50	.	.	.	.	.	.	.	.	.	.
50-54	653	.	.	.	.	.	.	.	.	.
55-59	826	.	.	.	.	.	.	.	.	.
70-79	.	.	.	.	.	.	.	.	.	27
80-89	.	.	.	.	.	.	.	.	.	.
>89	.	.	.	.	.	.	.	.	.	.
	1479	.	.	.	.	.	.	.	.	27

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

BHP	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
1800-1999	.	.	.	.	.	.	.	.	.	27
2000-2499	653	.	.	.	.	.	.	.	.	.
2500-2999	826	.	.	.	.	.	.	.	.	.
3000-3999	.	.	.	.	.	.	.	.	.	.
>3999	.	.	.	.	.	.	.	.	.	.
	1479	.	.	.	.	.	.	.	.	27

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

GRT	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<400	.	.	663	5535	5754	2627	190	1888	24	.
400-599	12310	15440	4102	25190	11574	12799	1206	5030	26	280
600-799	46176	91780	33730	157195	103054	70286	7279	45203	489	3755
800-999	5826	10701	15638	28043	39901	38817	2484	34168	988	3484
1000-1499	8708	30713	25705	38034	22642	21392	1841	15463	133	228
1500-1999	.	.	.	.	.	.	.	.	.	.
2000-2999	.	.	.	.	.	.	.	.	.	.
	73020	148633	79837	253997	182925	145919	13000	101753	1660	7748

***Illex argentinus*—Illex squid**

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

LOA	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<45	1930	1021	.	.	.	1865	.	.	.	.
45-49	35660	65509	22022	116539	69863	48439	5130	24798	274	1910
50-54	18255	33354	15618	61052	45743	27806	3036	24461	305	2184
55-59	6326	13778	3764	10249	19532	15655	1214	16480	440	1706
60-64	4047	6750	8729	31137	21128	26968	1736	18420	345	776
65-69	3694	18244	19655	27589	18957	17586	1496	13372	244	1058
70-79	3109	9977	10049	7431	7704	7600	388	4222	52	113
>79	.	.	.	.	.	.	.	.	.	.
	73020	148633	79837	253997	182925	145919	13000	101753	1660	7748

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

BHP	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<1000	760	.	.	2964	1765	1239	122	.	.	.
1000-1199	9648	11932	3013	12383	7711	9643	917	6597	28	.
1200-1399	20781	42074	16789	65883	42790	30295	2775	16074	147	1157
1400-1599	23396	48381	18349	79370	51211	37349	3944	27446	320	2198
1600-1799	12300	20526	19119	46397	30831	23506	2063	14670	211	912
1800-1999	4151	19314	19178	34085	40101	35757	2439	26155	640	2137
2000-2400	1983	6405	3389	12915	8517	7169	667	10088	233	1029
2500-2999	.	.	.	.	.	960	74	723	81	315
3000-3999	.	.	.	.	.	.	.	.	.	.
	73020	148633	79837	253997	182925	145919	13000	101753	1660	7748

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

GRT	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<400	.	.	.	.	1	.	.	.	.	.
400-599	231	11	74	151	.	.	.	.	.	.
600-799	173	98	124	529	125	444	59	203	4	0
800-999	148	30	361	778	151	670	45	353	1	3
1000-1499	813	155	1577	2892	894	2675	220	769	25	126
1500-1999	645	1	283	1504	553	414	86	177	12	14
2000-2999	35	37	143	1293	30	508	1	120	1	19
<2999	3179	799	2593	5055	5030	.	.	.	17	.
	5225	1130	5156	12204	6784	4711	411	1622	59	162

Illex argentinus—Illex squid

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

LOA	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<45	.	11	74	87	.	.	.	.	.	.
45-49	408	28	324	607	165	820	46	378	3	3
50-54	124	95	49	366	94	533	53	237	7	22
55-59	176	132	387	1190	275	932	79	273	4	30
60-64	234	1	752	1395	298	534	43	204	7	56
65-69	587	27	539	469	266	399	87	244	10	33
70-79	322	37	437	2384	627	1022	101	192	9	0
80-89	193	.	0	584	29	458	1	90	3	19
>89	3181	799	2593	5121	5030	14	.	4	17	.
	5225	1130	5156	12204	6784	4711	411	1622	59	162

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

BHP	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
1000-1199	103	.	.	.	.	.	.	.	.	.
1200-1399	128	5	89	390	62	208	33	115	.	.
1400-1599	189	132	283	455	226	1114	71	482	8	20
1600-1799	132	.	492	801	50	197	10	103	2	25
1800-1999	595	147	1013	2279	664	1712	171	485	16	87
2000-2499	639	1	541	1567	612	626	98	287	14	11
2500-2999	2	.	.	223	105	326	25	31	0	0
3000-3999	255	46	143	1216	27	484	1	109	19	19
>3999	3181	799	2593	5273	5039	45	.	12	.	.
	5225	1130	5156	12204	6784	4711	411	1622	59	162

Illex argentinus

Illex argentinus

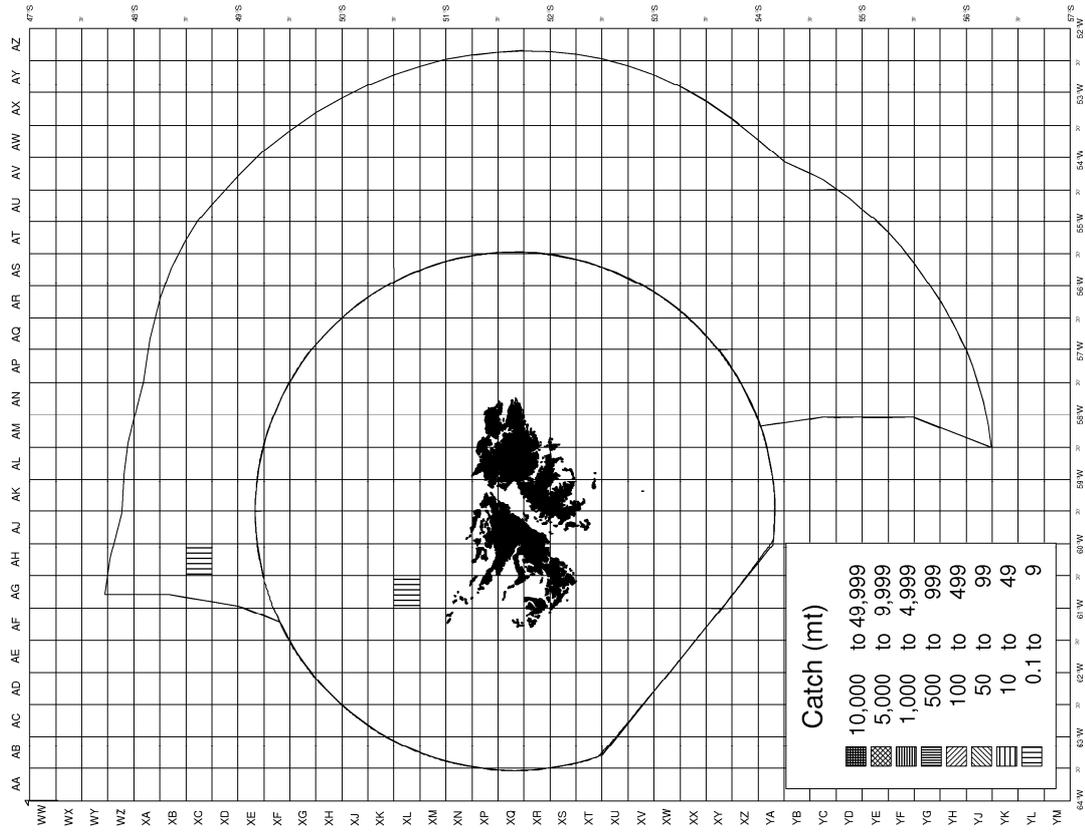
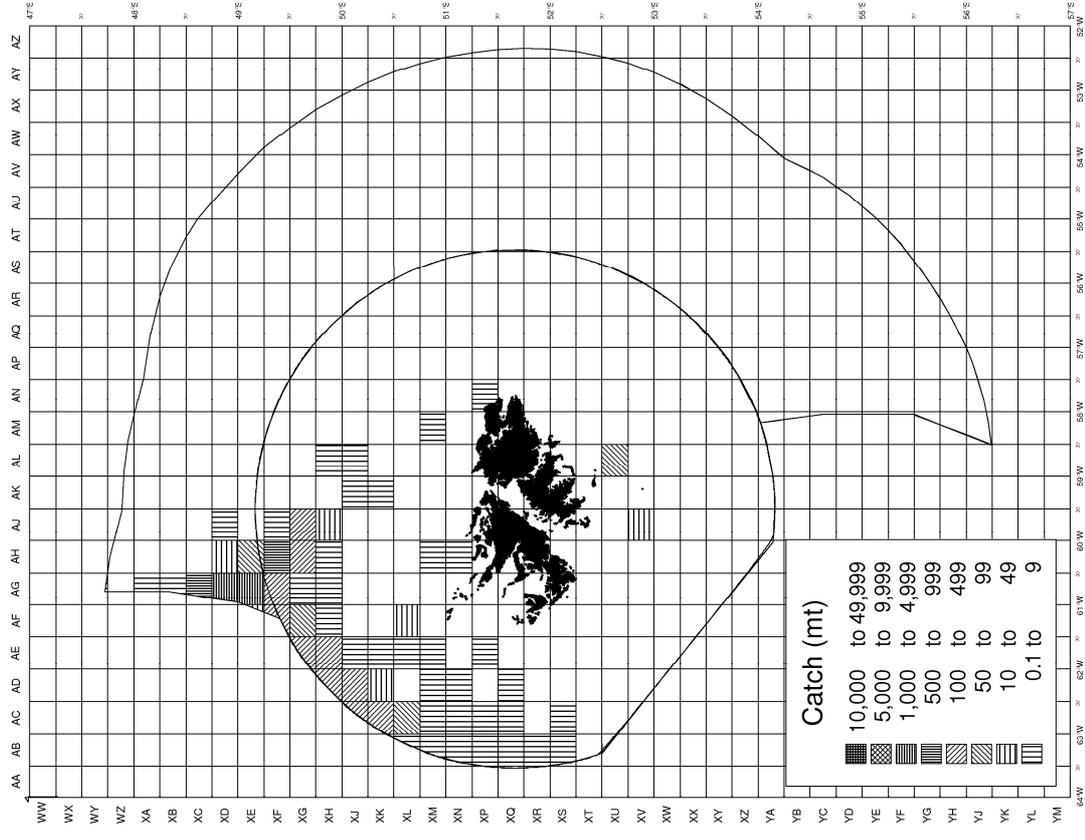
2005

FICZ and FOCZ

Catch (mt) by grid square

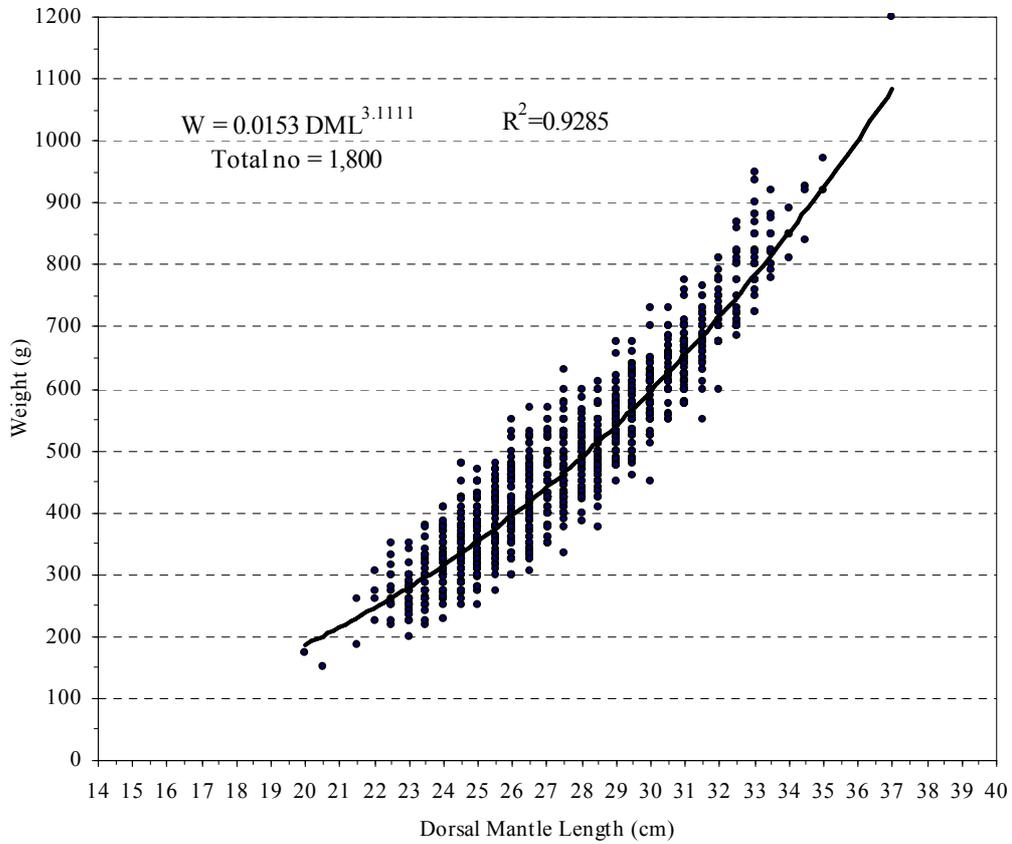
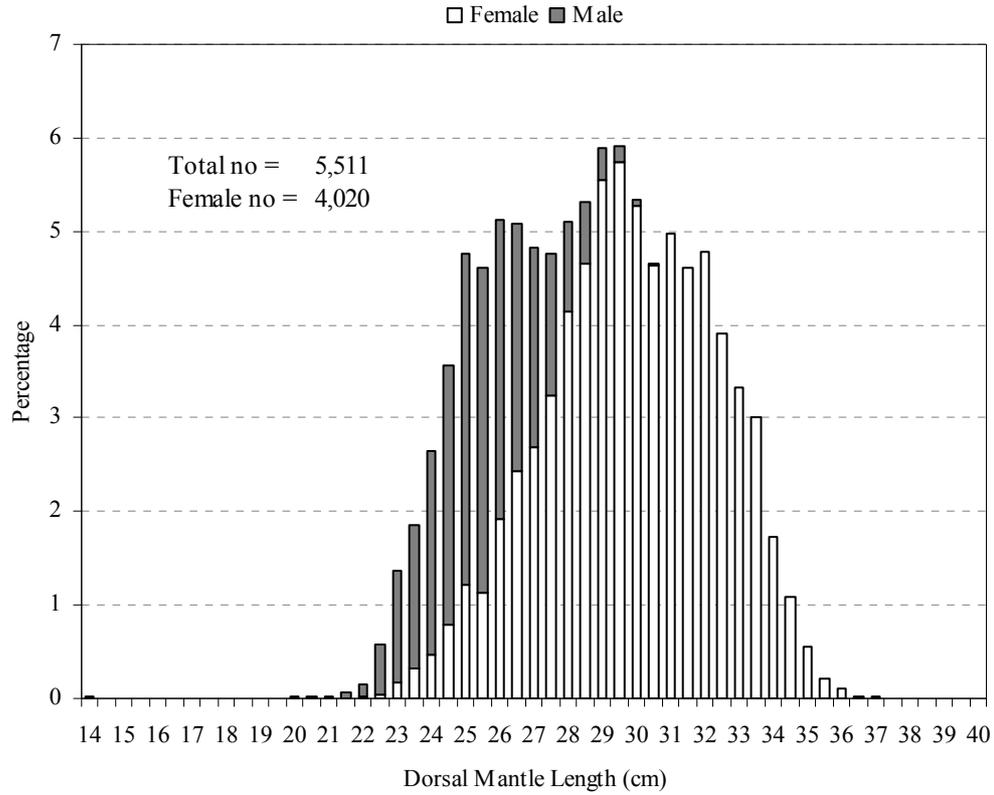
1st Season (01 Jan to 30 Jun)

2nd Season (01 Jul to 31 Dec)



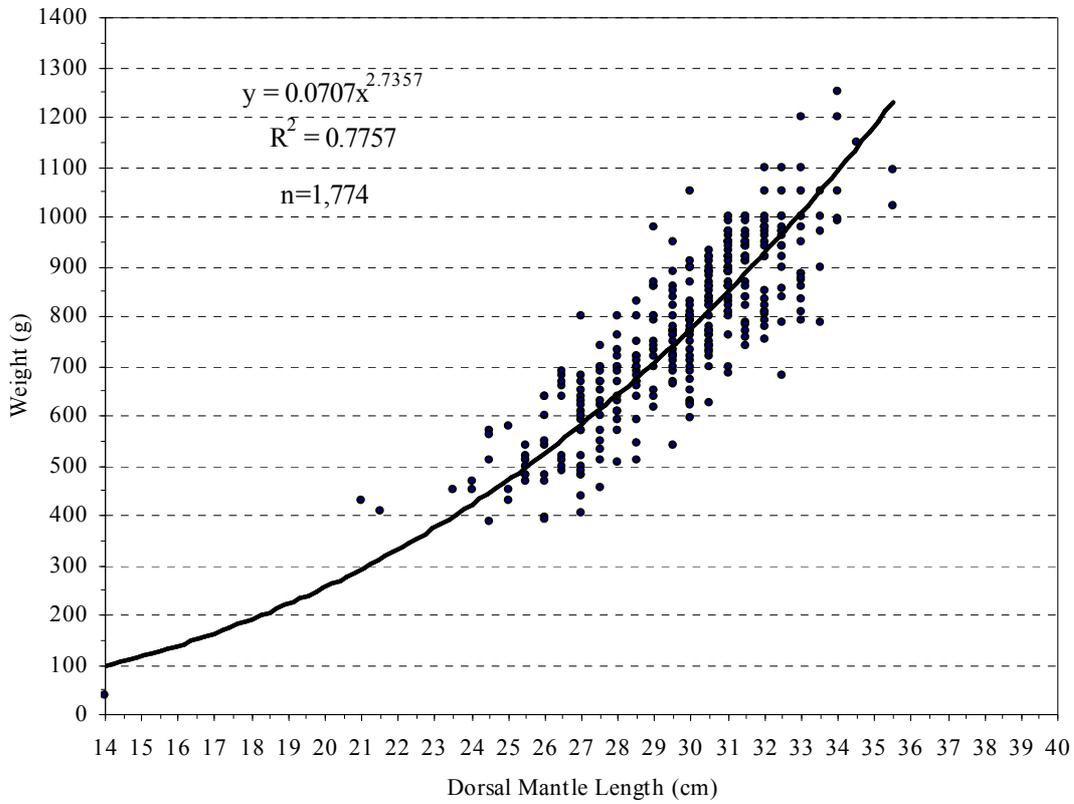
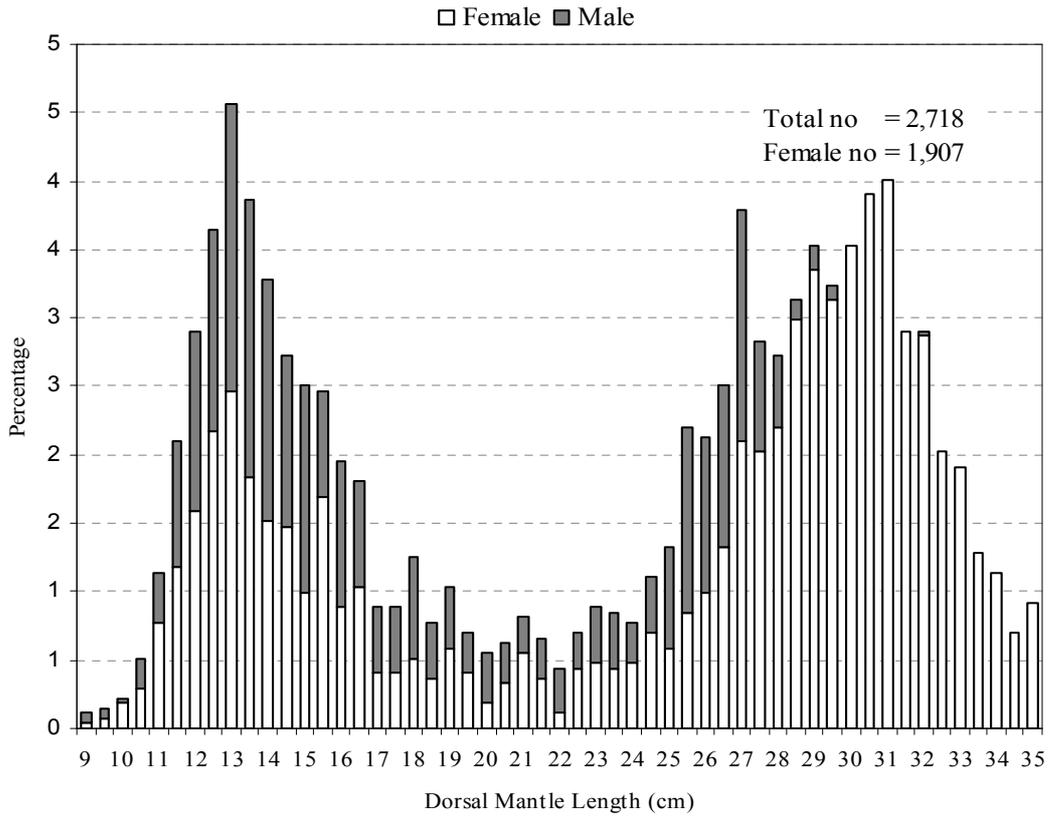
Illex argentinus—Illex squid

Length– frequency distribution and length-weight relationship in jigger fleets in 2005



Illex argentinus—Illex squid

Length– frequency distribution and length-weight relationship in trawler fleets in 2005



Loligo gahi - Patagonian squid

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

VESSEL TYPE	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
CO	.	.	.	.	.	.	.	.	.	.
TR	61374	26122	51559	34866	64493	53560	23712	47422	26835	58809
	61374	26122	51559	34866	64493	53560	23712	47422	26835	58809

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

MONTH	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
January	.	.	88	422	.	.	.	0	.	.
February	6423	2223	8618	7646	11006	4478	3980	1180	586	2050
March	6022	5068	12324	5599	9600	3754	2761	12340	4431	17905
April	14285	3863	6858	4264	8921	7854	2750	3851	2519	7427
May	11949	4808	4984	4682	9186	11538	4707	1224	869	1365
June	0	.	507	248	0	0	0	378	201	209
July	1	0	761	394	1	.	0	8	5852	10265
August	12157	6220	9622	6961	11288	14432	8007	16921	8045	14442
September	8180	3932	5942	4150	10620	8241	1213	9134	4301	5088
October	2355	7	1801	500	3863	3258	290	2372	30	42
November	1	0	5	1	9	3	3	11	1	15
December	.	0	47	.	0	1	0	1	0	0
	61374	26122	51559	34866	64493	53560	23712	47422	26835	58809

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

Fishing fleet	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
AU	.	.	3198	2486	.	.	.	.	.	.
BZ	.	.	.	.	2	.	.	.	.	.
CL	2431	656	.	.	.	.	.	.	.	.
ES	22716	6552	6197	3559	6805	5412	3036	458	98	104
FK	24366	12710	32029	22500	50308	42911	18613	43830	23573	54176
FR	4392	1512	4146	2309	2024	.	.	.	.	.
HN	8	.	.	.	.	.	.	.	.	.
JP	3186	1552	2618	1857	.	1	.	.	1	.
KR	38	4	.	7	27	10	13	38	53	13
NA	.	74	1	0	.	.	.	.	1141	.
PA	1	.	.	0	.	.	.	.	.	.
PL	1	.	.	.	.	.	.	.	.	.
PT	192	.	.	.	.	.	.	.	.	.
SC	.	1114	.	.	.	.	.	.	.	.
UK	4043	1948	3336	2148	5328	3431	2049	3095	1967	4516
UY	.	.	35	.	.	.	.	.	.	.
VC	.	.	.	.	.	1795	.	.	.	.
	61374	26122	51559	34866	64493	53560	23712	47422	26835	58809

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

GRT	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<400	2	0	.	0	5	.	.	.	.	.
400-599	0	0	3	0	.	.	.	4	2	.
600-799	1718	1188	2581	1433	2707	2160	1102	847	19	202
800-999	2873	442	836	541	3297	2640	1361	2095	1149	2671
1000-1499	15000	7613	9164	5390	11504	9449	3889	8088	5317	9844
1500-1999	13015	5637	11202	7290	14122	9248	5312	9611	7474	17527
2000-2999	25579	9690	25155	18352	32858	30063	12048	26776	12873	28562
>2999	3187	1552	2619	1857	.	.	.	.	1	3
	61374	26122	51559	34866	64493	53560	23712	47422	26835	58809

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

LOA	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<45	.	.	2	.	.	.	.	.	.	.
45-49	1275	438	803	543	3288	2638	1361	2089	1116	2666
50-54	4634	2671	5359	3309	6208	5404	2578	3621	1981	3601
55-59	2616	76	338	1	9	5	8	16	12	6
60-64	12542	5682	6486	3742	5738	6264	2630	5868	3211	7083
65-69	6329	2473	4229	4226	9619	6911	3114	6095	3844	8052
70-79	21155	7552	19416	10603	20381	15971	6898	15325	6965	17769
80-89	4797	3869	7996	7413	14917	11766	5114	10648	7890	14945
>89	8025	3361	6931	5029	4333	4601	2009	3761	1816	4687
	61374	26122	51559	34866	64493	53560	23712	47422	26835	58809

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

BHP	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<1000	1712	.	.	.	.	.	.	.	.	.
1000-1199	0	.	.	.	.	.	.	.	.	.
1200-1399	4	74	7	1	4	2	4	3	.	.
1400-1599	0	1114	2615	1431	2702	2650	1099	856	61	229
1600-1799	2836	475	840	875	3695	2623	1138	2290	1471	2901
1800-1999	7285	3477	2610	1166	3300	2658	1548	2127	1172	2716
2000-2499	9539	5770	11530	9027	16580	12044	5802	12238	8011	15686
2500-2999	4566	1366	2848	9	27	89	19	34	3004	4691
3000-3999	22804	8578	20608	14764	29008	24657	10541	22774	10851	24077
>3999	12629	5268	10501	7593	9178	8837	3561	7099	2266	8510
	61374	26122	51559	34866	64493	53560	23712	47422	26835	58809

Loligo gahi

2005

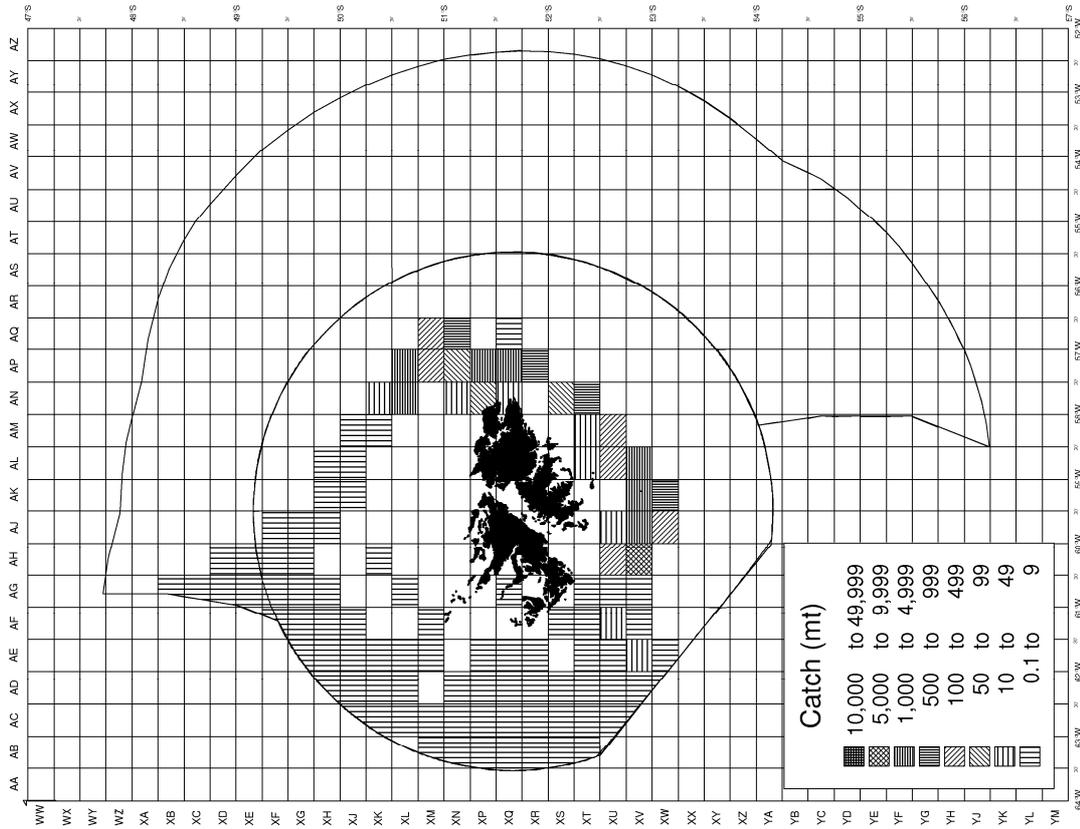
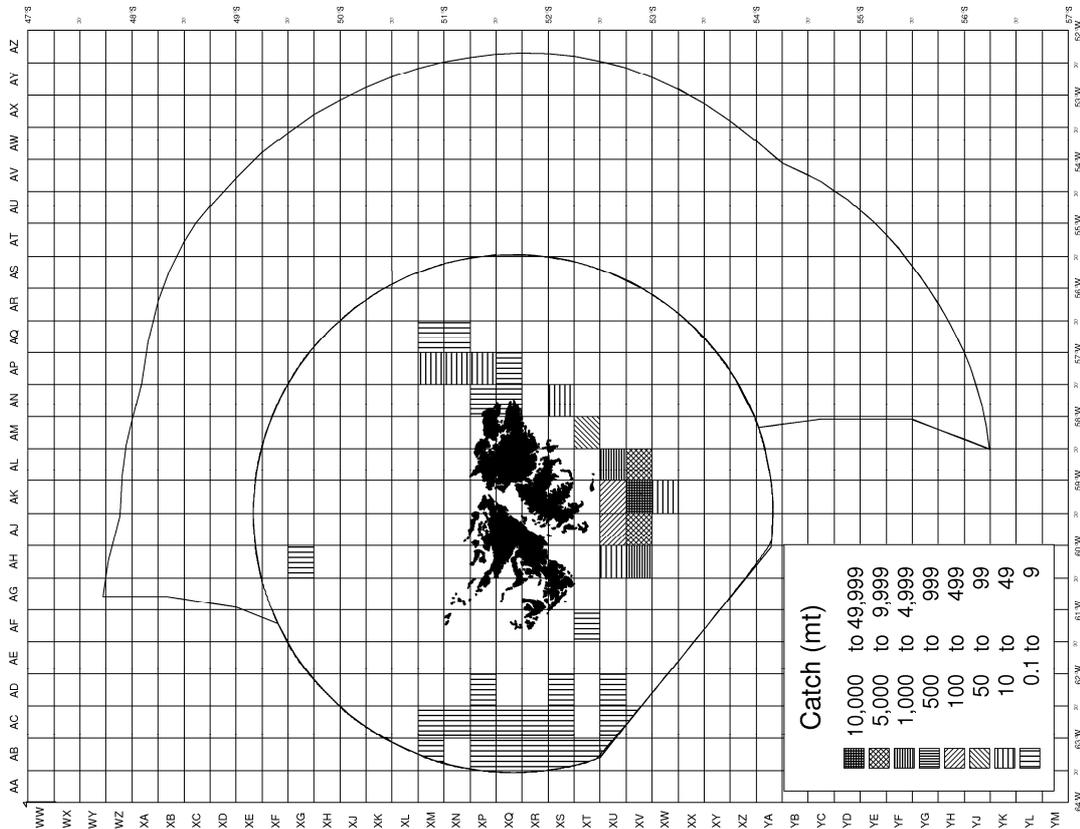
Loligo gahi

FICZ and FOCZ

Catch (mt) by grid square

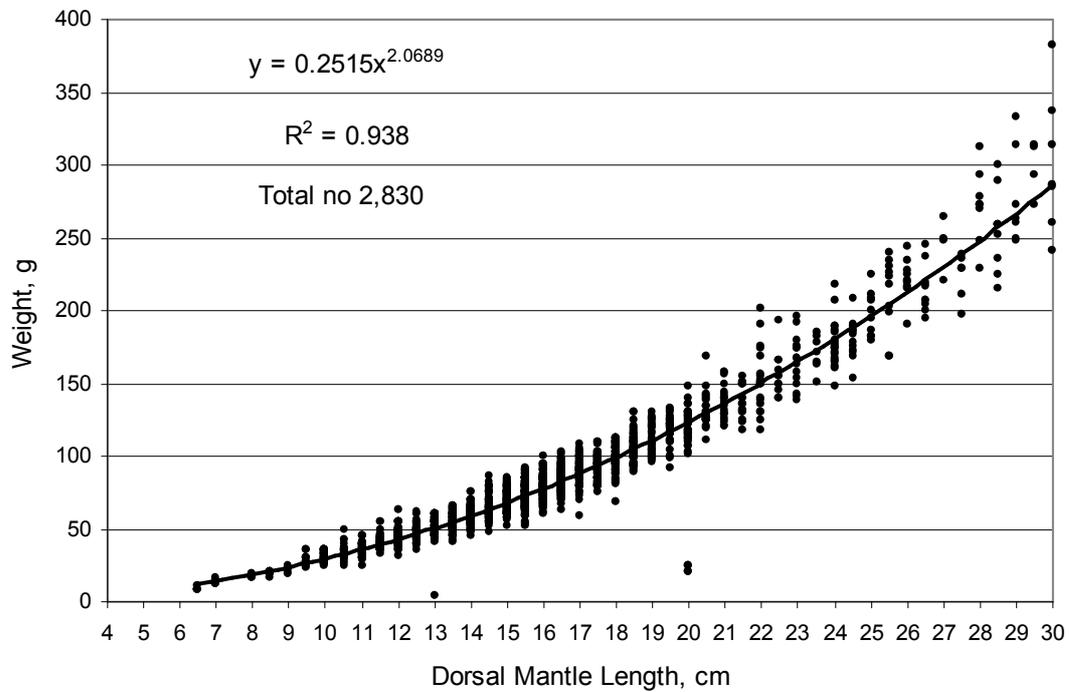
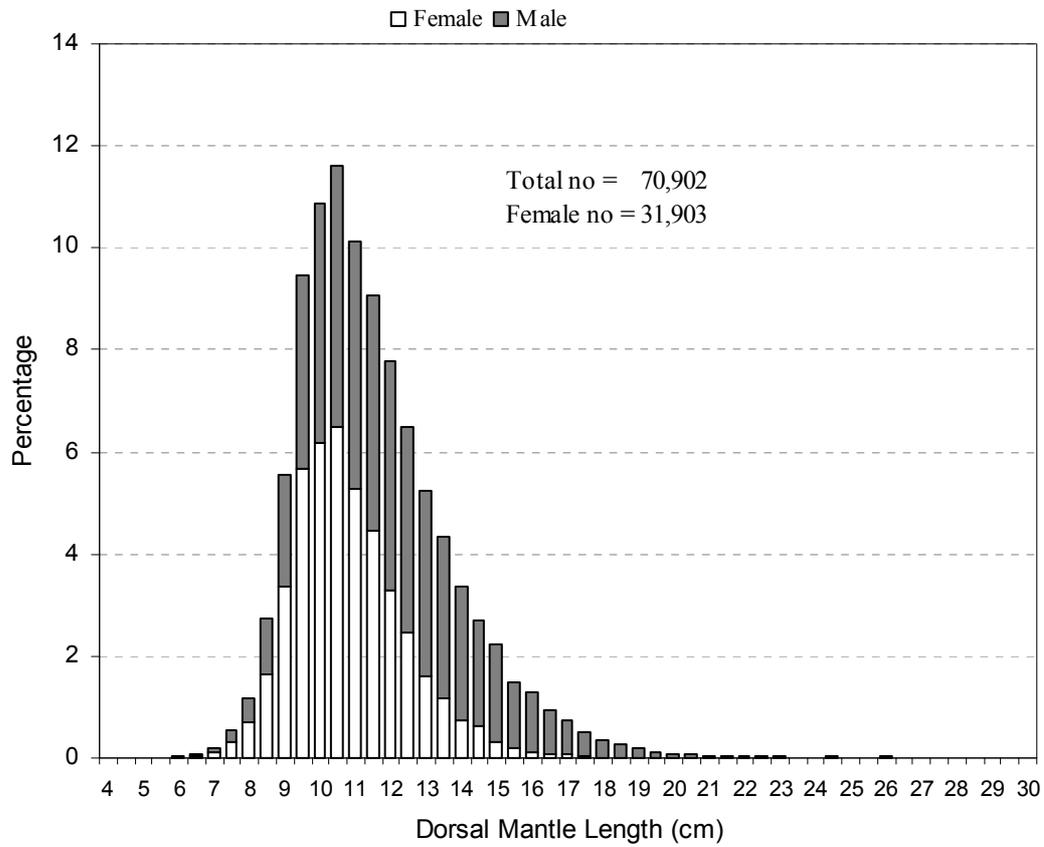
1st Season (01 Jan to 30 Jun)

2nd Season (01 Jul to 31 Dec)



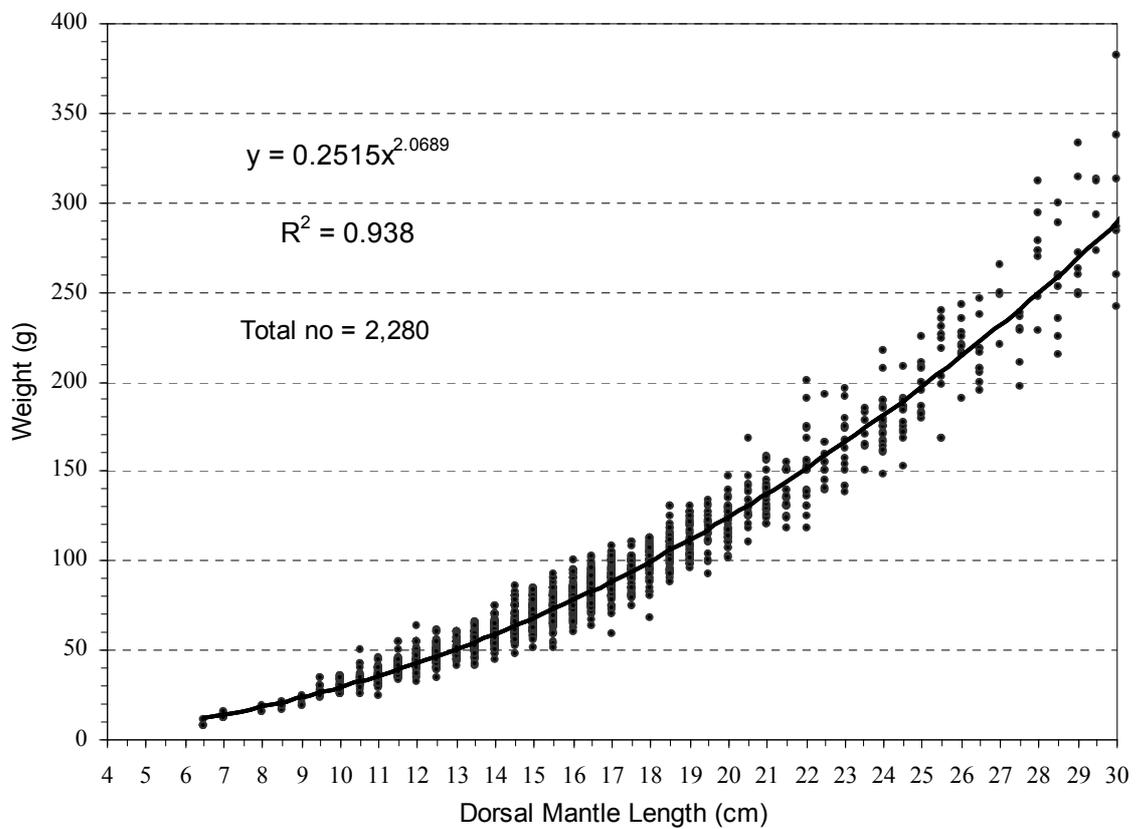
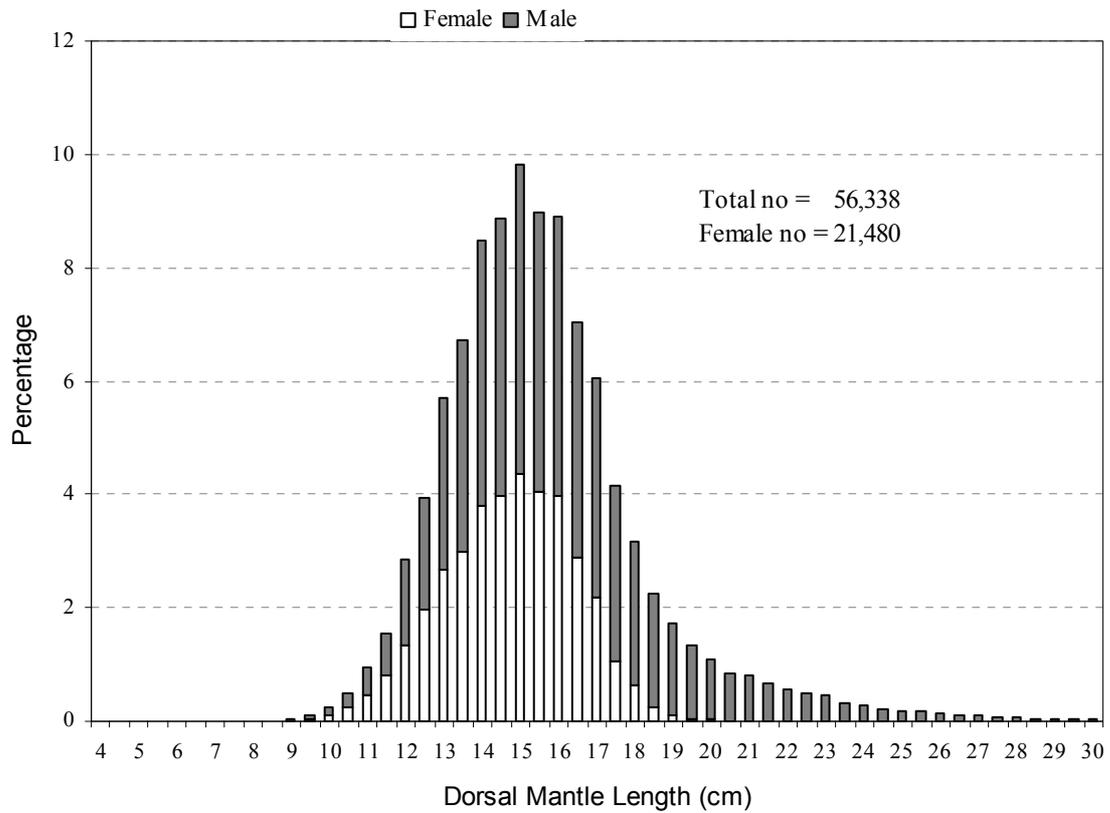
Loligo gahi—Patagonian squid

Length– frequency distribution and length-weight relationship during first season 2005



Loligo gahi—Patagonian squid

Length– frequency distribution and length-weight relationship during first season 2005



Martialia hyadesi - *Martialia squid*

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

VESSEL TYPE	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
CO	.	.	.	.	.	.	.	.	.	.
JI	107	2099	.	29	.	147	1	.	.	.
TR	4	.	.	.	.	.	.	30	24	0
	111	2099	.	29	.	147	1	30	24	0

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

MONTH	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
January	.	.	.	.	.	.	.	.	.	.
February	.	0	.	.	.	.	1	6	20	0
March	0	66	.	.	.	.	.	2	4	.
April	.	721	.	.	.	.	.	2	.	.
May	63	858	.	29	.	110	.	13	.	.
June	44	454	.	.	.	37	.	6	.	.
July	.	.	.	.	.	.	.	.	.	.
August	.	.	.	.	.	.	.	1	.	.
September	.	.	.	.	.	.	.	0	.	.
October	.	.	.	.	.	.	.	.	.	.
November	.	.	.	.	.	.	.	.	.	.
December	3	.	.	.	.	.	.	.	.	.
	111	2099	.	29	.	147	1	30	24	0

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

Fishing fleet	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
CB	.	.	.	.	.	8	.	.	.	.
ES	1	0	.	0	.	.	.	2	17	0
FK	0	.	.	0	.	.	.	28	7	.
JP	.	1021	.	28	.	.	.	.	.	.
KR	107	1035	.	0	.	.	.	.	.	.
PL	3	.	.	.	.	.	.	.	.	.
TW	.	43	.	.	.	139	1	.	.	.
	111	2099	.	29	.	147	1	30	24	0

Martialia hyadesi - *Martialia squid*

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

GRT	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<400	.	.	.	.	.	.	.	.	.	.
400-599	1	98	.	.	.	.	.	.	.	.
600-799	107	627	.	.	.	3	.	.	.	.
800-999	.	244	.	12	.	144	1	.	.	.
1000-1499	.	1130	.	17	.	.	.	27	11	0
1500-1999	1	.	.	.	.	.	.	3	13	.
2000-2999	.	.	.	.	.	.	.	.	.	.
>2999	3	.	.	.	.	.	.	.	.	.
	111	2099	.	29	.	147	1	30	24	0

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

LOA	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<45	.	.	.	.	.	.	.	.	.	.
45-49	55	387	.	.	.	.	.	.	.	.
50-54	52	365	.	0	.	7	.	25	7	.
55-59	.	245	.	.	.	44	1	0	.	.
60-64	.	27	.	4	.	27	.	1	.	.
65-69	1	570	.	19	.	68	.	3	17	0
70-79	0	504	.	6	.	.	.	1	.	.
80-89	.	.	.	.	.	.	.	.	.	.
>89	3	.	.	.	.	.	.	.	.	.
	111	2099	.	29	.	147	1	30	24	0

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

BHP	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<1000	.	.	.	.	.	.	.	.	.	.
1000-1199	1	223	.	1	.	.	.	.	.	.
1200-1399	67	263	.	.	.	.	.	.	.	.
1400-1599	39	712	.	.	.	20	.	25	7	.
1600-1799	0	252	.	15	.	10	.	1	.	.
1800-1999	.	562	.	12	.	61	1	2	17	0
2000-2499	1	96	.	0	.	55	.	2	.	.
2500-2999	.	.	.	.	.	.	.	.	.	.
3000-3999	3	.	.	.	.	.	.	.	.	.
>3999	.	.	.	.	.	.	.	.	.	.
	111	2099	.	29	.	147	1	30	24	0

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

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

VESSEL TYPE	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
CO	.	.	.	.	.	.	.	.	.	.
TR	23539	26296	31483	28564	23371	25735	24908	20798	28553	17008
	23539	26296	31483	28564	23371	25735	24908	20798	28554	17008

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

MONTH	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
January	4735	7446	5789	5444	2999	4253	2476	4545	234	759
February	3712	5359	8464	6047	4484	3612	4563	6448	3155	811
March	664	270	3871	5252	3624	5564	5875	5328	3652	227
April	163	37	531	677	939	2271	2443	1299	1785	158
May	21	19	365	522	83	294	580	40	103	142
June	14	.	66	22	4	.	17	.	.	7
July	6	0	.	3	.	.	.	.	7	1
August	665	78	150	63	87	79	302	32	598	527
September	1875	465	1295	755	2344	4385	668	1053	2192	4203
October	603	300	1290	536	1121	3023	770	1337	6390	4705
November	4831	5391	3677	4481	4344	564	4147	597	6624	3899
December	6250	6931	5986	4763	3341	1689	3068	119	3814	1569
	23539	26296	31483	28564	23371	25735	24908	20798	28554	17008

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

Fishing fleet	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
AU	.	.	23	165	.	.	.	.	.	.
BZ	.	.	.	.	257	206	.	.	.	.
CL	4188	7479	8635	4994	2723	6707	7155	5876	8218	.
EE	.	.	.	.	.	.	.	.	13	.
ES	2460	1591	3471	3132	3346	5246	3152	2865	4358	5237
FK	1083	727	1977	2127	2704	4621	2814	2511	2690	1674
FR	86	.	.	.	.	.	.	.	.	.
HN	3	.	.	.	.	.	.	.	.	.
IS	.	19	.	.	.	.	.	.	.	.
JP	12494	16340	17048	18028	14121	8918	11670	9515	12939	10023
KR	10	2	.	3	196	12	3	11	163	44
NA	.	83	282	29	.	.	.	.	.	.
PL	3098	.	.	.	.	.	.	.	.	.
PT	10	.	.	.	1	.	.	.	.	.
UK	108	56	48	85	22	24	116	20	173	29
	23539	26296	31483	28564	23371	25735	24908	20798	28554	17008

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

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

GRT	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<400	1	.	.	.	.	.	.	.	.	.
400-599	3	.	333	222	.	.	.	0	.	0
600-799	408	350	755	112	452	737	500	519	270	279
800-999	221	8	633	407	702	37	155	586	599	126
1000-1499	1889	1476	2555	2887	3265	8281	9545	7005	4145	4480
1500-1999	556	211	446	1219	1005	1892	1439	474	1491	1615
2000-2999	1059	431	1078	740	1104	702	428	928	892	485
>2999	19403	23819	25683	22977	16844	14085	12840	11285	21157	10023
	23539	26296	31483	28564	23371	25735	24908	20798	28554	17008

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

LOA	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<45	.	.	51	192	.	.	.	.	.	.
45-49	255	99	1071	380	511	87	226	115	610	155
50-54	232	179	415	30	797	1675	510	860	746	637
55-59	1012	792	1203	832	829	1036	891	532	264	451
60-64	638	145	381	1149	698	2066	1150	997	1497	1748
65-69	205	133	746	609	649	3220	7029	4711	2848	2848
70-79	1268	1044	1698	1991	1952	2869	2027	1727	602	607
80-89	390	62	196	381	1039	628	235	561	806	497
>89	19538	23843	25722	23000	16897	14153	12840	11295	21180	10064
	23539	26296	31483	28564	23371	25735	24908	20798	28554	17008

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

BHP	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<1000	12	.	.	.	.	.	.	.	.	.
1000-1199	.	.	.	.	.	.	.	.	.	.
1200-1399	301	119	561	60	236	564	273	77	.	66
1400-1599	130	233	756	572	737	1206	423	435	742	561
1600-1799	383	67	474	357	77	353	328	1076	799	843
1800-1999	1429	1130	1986	1818	2581	3802	2368	1269	3351	3195
2000-2499	437	224	894	1710	1178	2764	1962	1218	1286	1764
2500-2999	201	198	2	266	592	2233	6172	4488	176	79
3000-3999	3826	446	1011	777	1073	627	542	888	1036	437
>3999	16821	23879	25798	23005	16897	14184	12842	11345	21163	10062
	23539	26296	31483	28564	23371	25735	24908	20798	28554	17008

Micromesistius australis

Micromesistius australis

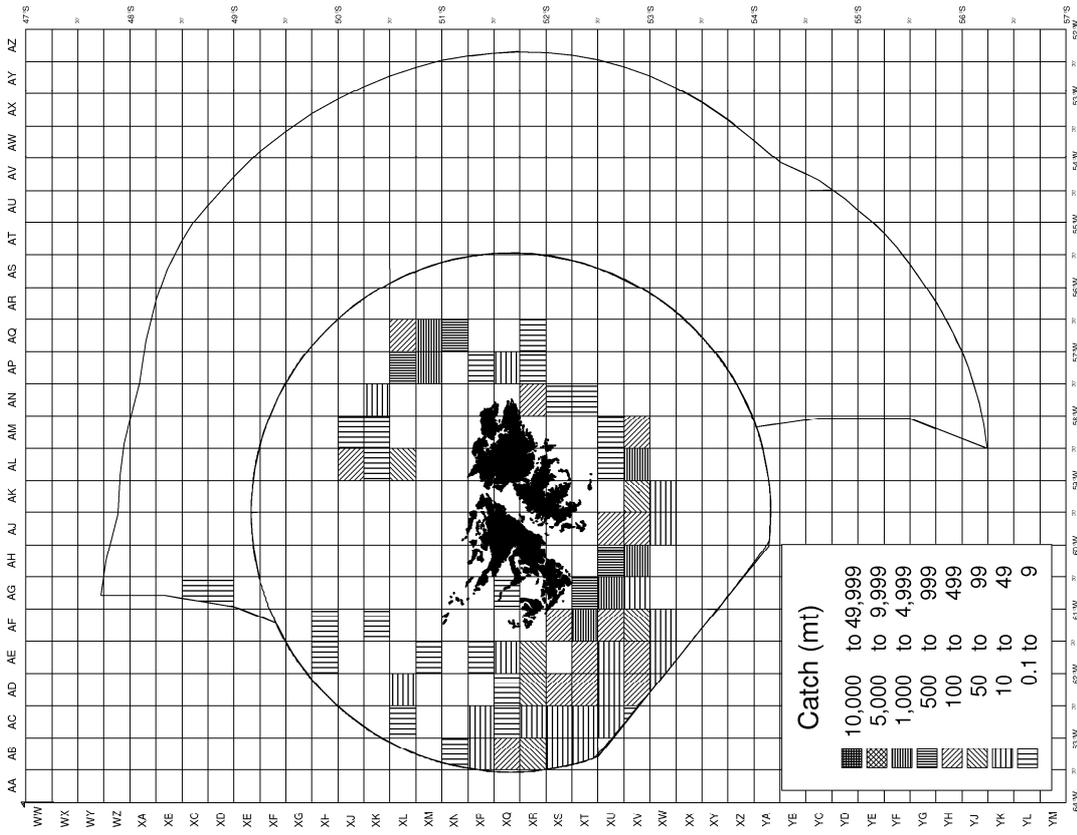
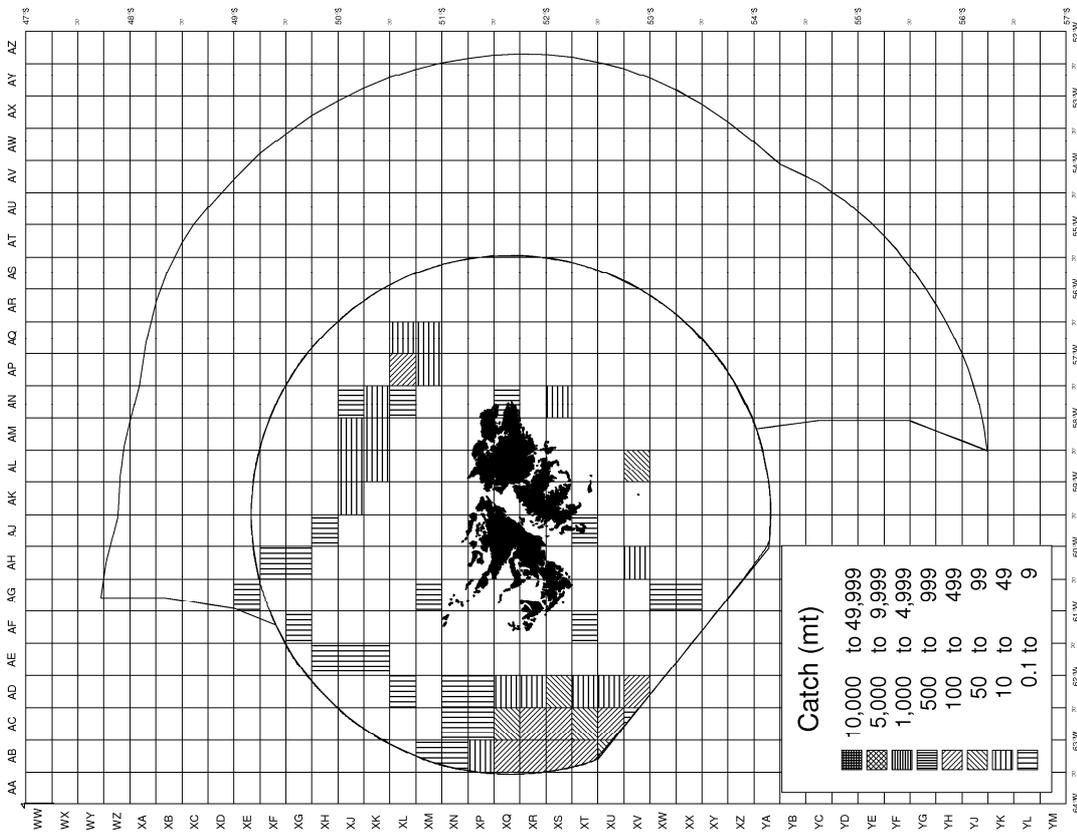
Catch (mt) by grid square

2005

FICZ and FOCZ

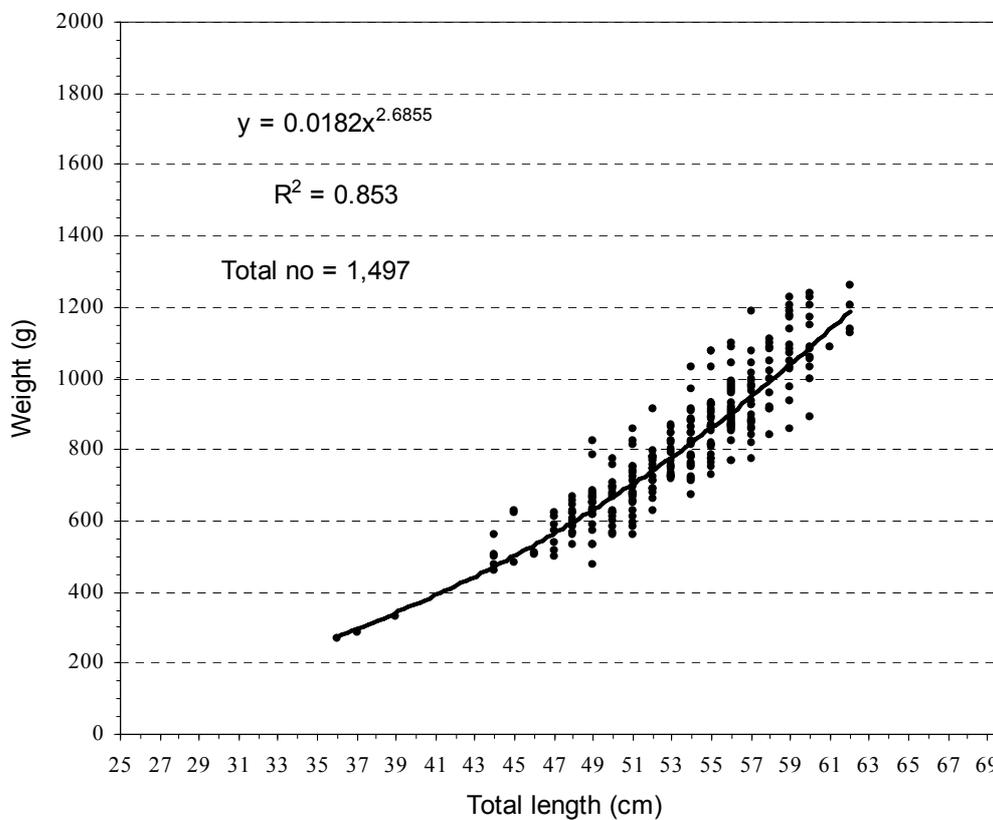
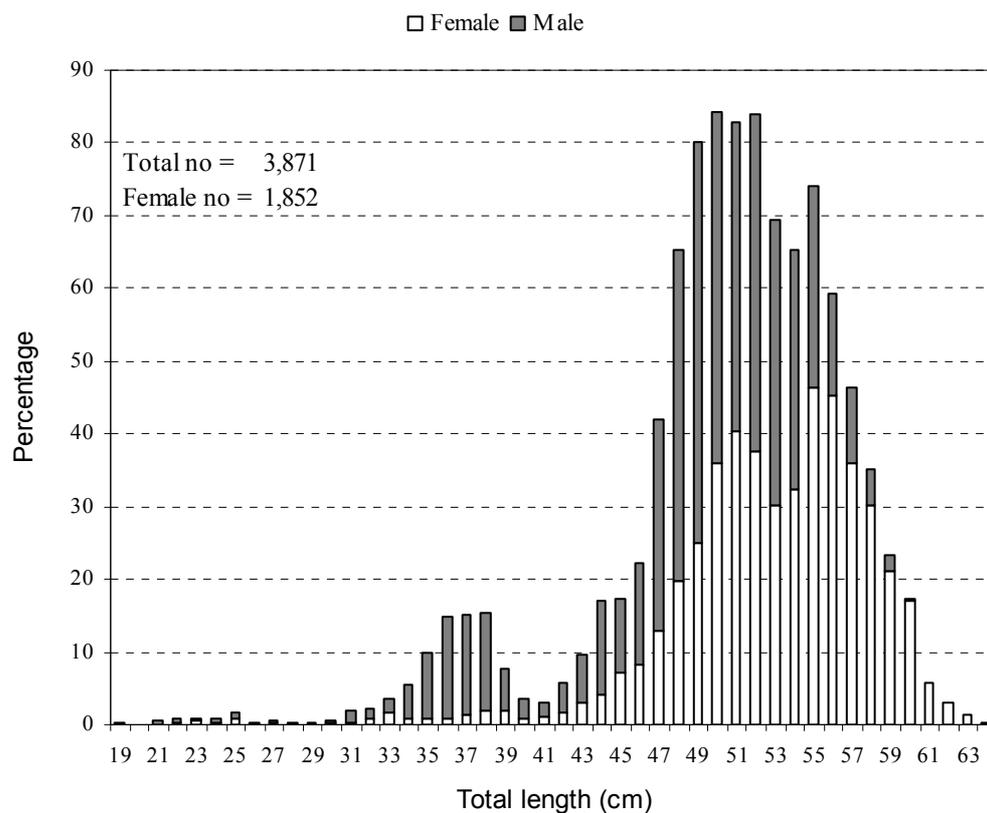
1st Season (01 Jan to 30 Jun)

2nd Season (01 Jul to 31 Dec)



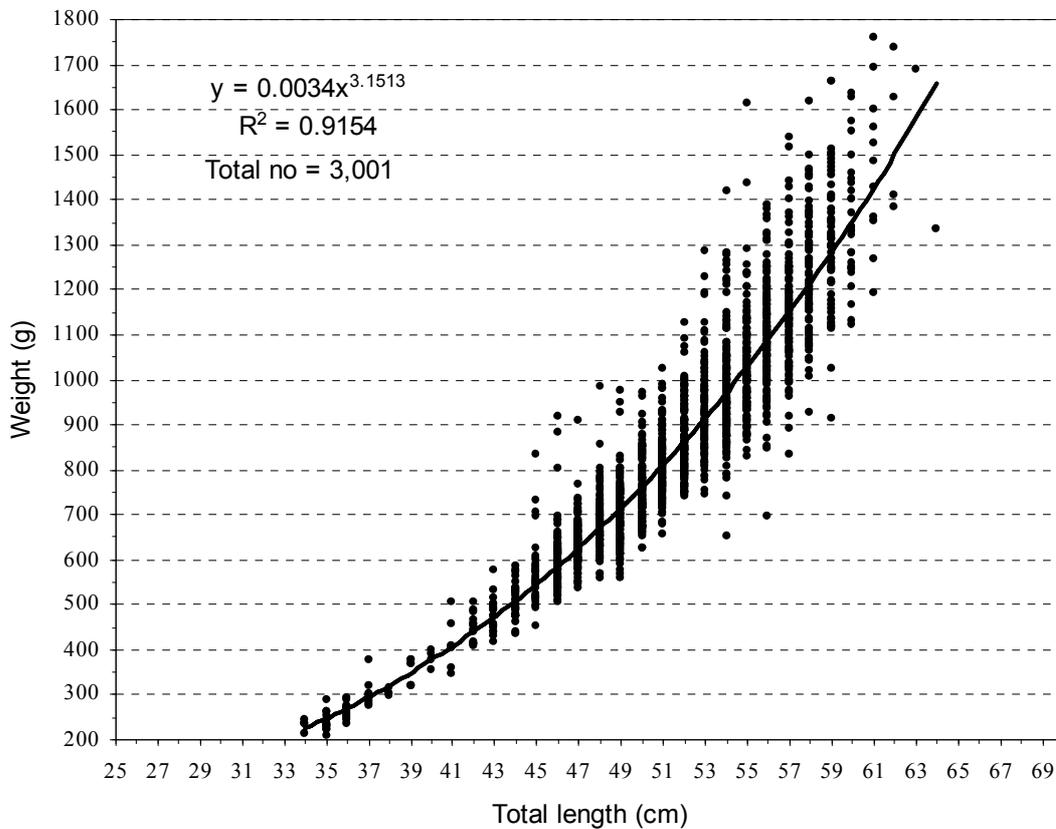
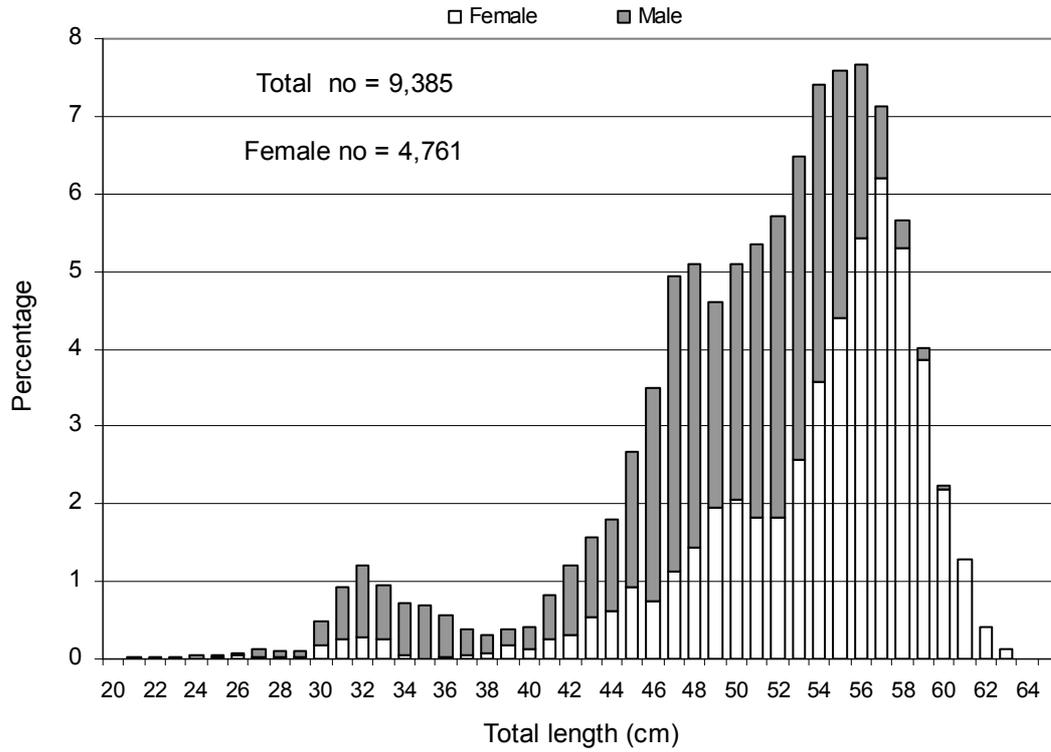
Micromesistius australis—Southern Blue Whiting

Length– frequency distribution and length–weight relationship in surimi fleet in 2005



Micromesistius australis—Southern Blue Whiting

Length– frequency distribution and length-weight relationship in trawler fleets in 2005



***Macruronus magellanicus*—Hoki**

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

VESSEL TYPE	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
CO	32	256	153	.	.	.	.	.	.	.
TR	13786	12751	22224	18765	19831	19471	26970	23815	25904	16670
	13817	13008	22378	18765	19831	19471	26970	23815	25904	16670

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

MONTH	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
January	174	218	1224	442	978	1541	589	969	506	269
February	376	476	1459	1037	3105	1739	1970	5780	3517	2566
March	3527	590	2734	2172	3700	1784	5268	1625	3821	954
April	2089	421	3827	2639	3244	2669	4404	3185	4868	1128
May	735	155	4501	1725	1220	2002	2031	1974	2496	887
June	584	.	930	359	476	582	1068	485	111	121
July	698	1004	441	455	1057	799	3	154	55	302
August	1167	1175	1249	1761	1590	833	2048	2026	2223	2372
September	585	1560	1296	2306	615	803	1481	2089	1452	1973
October	1871	4956	2841	4334	1281	3350	3177	3203	4907	3397
November	1542	2140	1493	1201	1792	3163	3590	1985	925	1750
December	470	313	383	334	774	204	1341	341	1022	951
	13817	13008	22378	18765	19831	19471	26970	23815	25904	16670

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

Fishing fleet	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
AU	.	.	31	377	.	.	.	.	.	.
BZ	.	.	.	87	1720	374	1	.	.	.
CL	1	61	204	420	26	1300	2097	613	1533	.
EE	.	.	.	.	.	.	.	.	143	.
ES	7787	7439	16186	11193	10176	9653	12984	11357	11713	8997
FK	2569	1829	4246	5109	3404	5471	9804	9519	9689	5764
FR	30	.	.	2	0	.	.	.	.	.
HN	62	.	.	.	.	.	.	.	.	.
IS	.	61	.	.	.	.	.	.	.	.
JP	544	644	844	400	1889	866	1612	1596	1998	1203
KR	1897	2673	658	522	2541	1633	420	642	512	683
NA	.	98	205	308	.	.	.	.	7	.
PA	344	.	.	1	.	.	.	.	.	.
PL	133	.	.	.	.	.	.	.	.	.
PT	362	.	.	.	32	.	.	.	.	.
RU	.	.	.	.	.	144	.	.	.	.
SC	.	35	.	.	.	.	.	.	.	.
UK	86	166	2	347	42	30	52	88	308	23
VC	.	.	.	.	.	0	.	.	.	.
	13817	13008	22378	18765	19831	19471	26970	23815	25904	16670

***Macruronus magellanicus*—Hoki**

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

GRT	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<400	493	256	153	78	362	293	.	.	.	1209
400-599	312	92	658	586	.	130	17	53	24	5324
600-799	1538	1582	3535	1613	2262	1842	3493	2018	1473	575
800-999	2017	1683	2872	2149	2488	1269	902	2049	1684	656
1000-1499	4158	7213	10862	8752	10433	10659	14144	12351	14515	3518
1500-1999	3634	766	1225	2553	2091	2420	5169	4258	3547	1279
2000-2999	986	711	2024	2452	281	766	293	1757	1130	2768
>2999	678	705	1049	581	1915	2091	2952	1330	3532	1340
	13817	13008	22378	18765	19831	19471	26970	23815	25904	16670

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

LOA	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<45	.	1	453	279	.	.	.	.	.	.
45-49	1296	842	3255	2284	1361	951	961	1247	1813	1340
50-54	2851	3019	2184	982	4085	3188	4571	3553	3949	3518
55-59	2281	3061	4788	4034	4507	2737	4177	2892	1068	1279
60-64	995	1868	3341	3113	3125	3491	2812	4176	3997	2768
65-69	1443	1394	3397	1830	1434	3063	5230	4301	8095	5324
70-79	3902	2093	3669	4716	3128	3202	6066	5240	1718	575
80-89	362	11	234	859	265	739	176	933	1723	656
>89	688	717	1056	668	1925	2099	2976	1474	3542	1210
	13817	13008	22378	18765	19831	19471	26970	23815	25904	16670

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

BHP	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<1000	11	.	.	.	.	.	.	.	.	.
1000-1199	66	.	.	10	.	.	.	.	.	.
1200-1399	806	734	1976	1206	1172	826	1934	528	.	388
1400-1599	840	732	3114	1769	2919	1888	3150	2736	3545	2766
1600-1799	730	524	2640	1894	377	922	630	2116	1459	1029
1800-1999	2989	5262	8165	5739	7071	6935	8737	7734	9935	7085
2000-2499	5388	2696	2899	3509	3616	3887	7354	5495	5583	2886
2500-2999	846	1416	509	1230	2439	2126	1844	2010	416	503
3000-3999	1587	926	1998	2740	312	781	327	1598	1383	722
>3999	554	717	1076	668	1925	2106	2993	1600	3584	1290
	13817	13008	22378	18765	19831	19471	26970	23815	25904	16670

Macruronus magellanicus

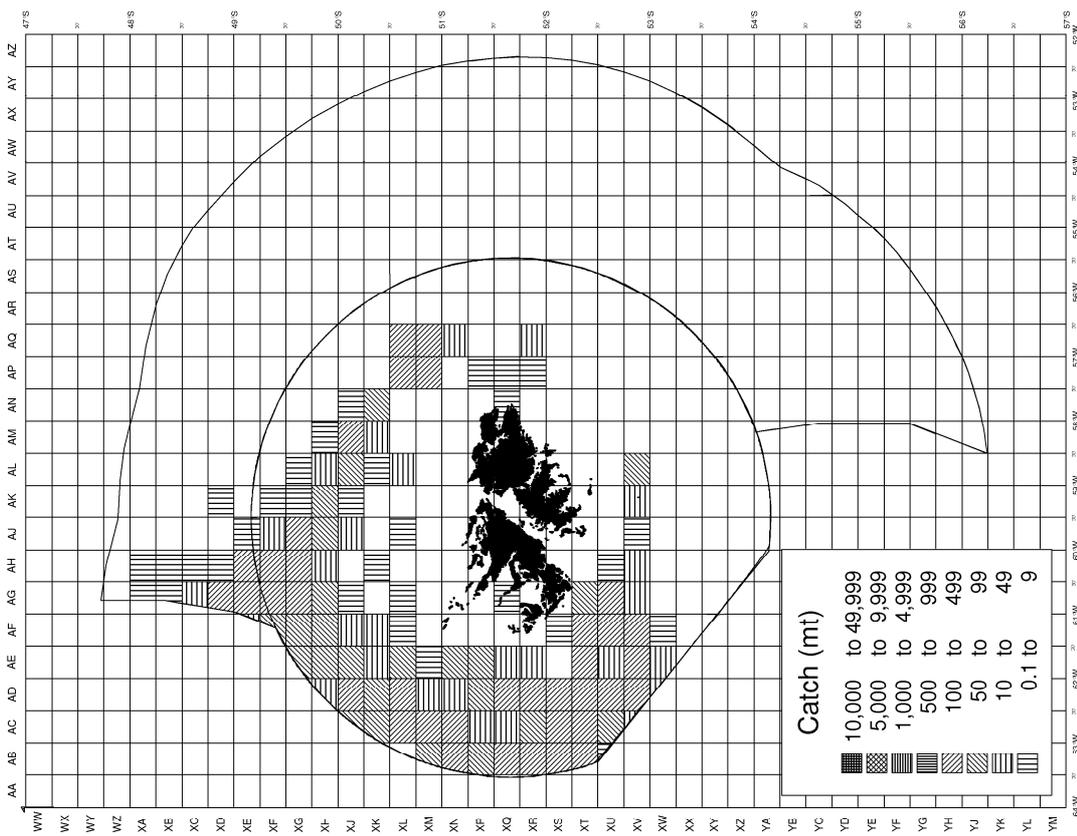
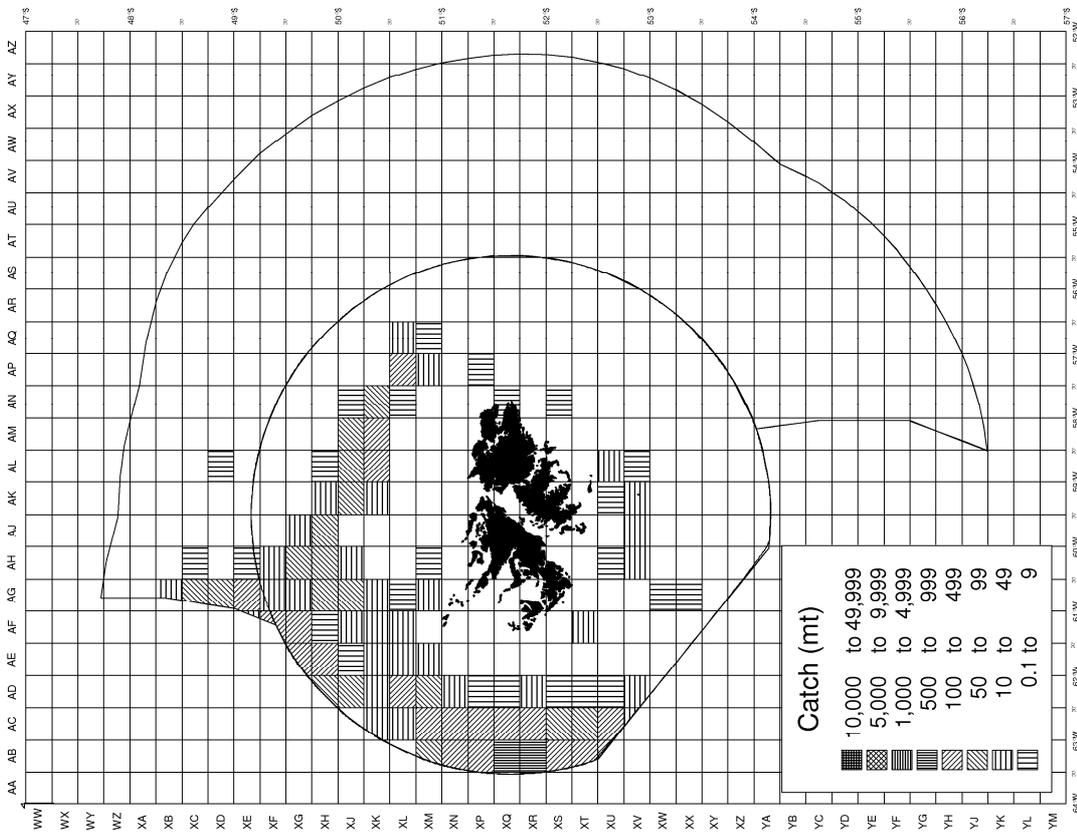
Catch (mt) by grid square

2005

FICZ and FOCZ

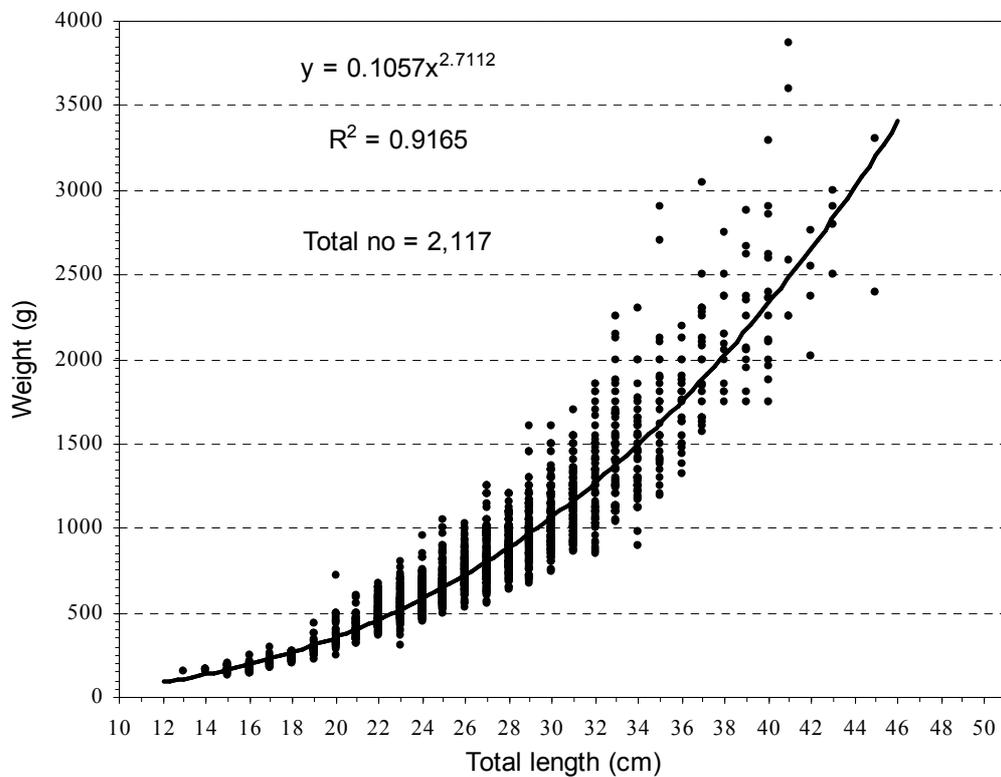
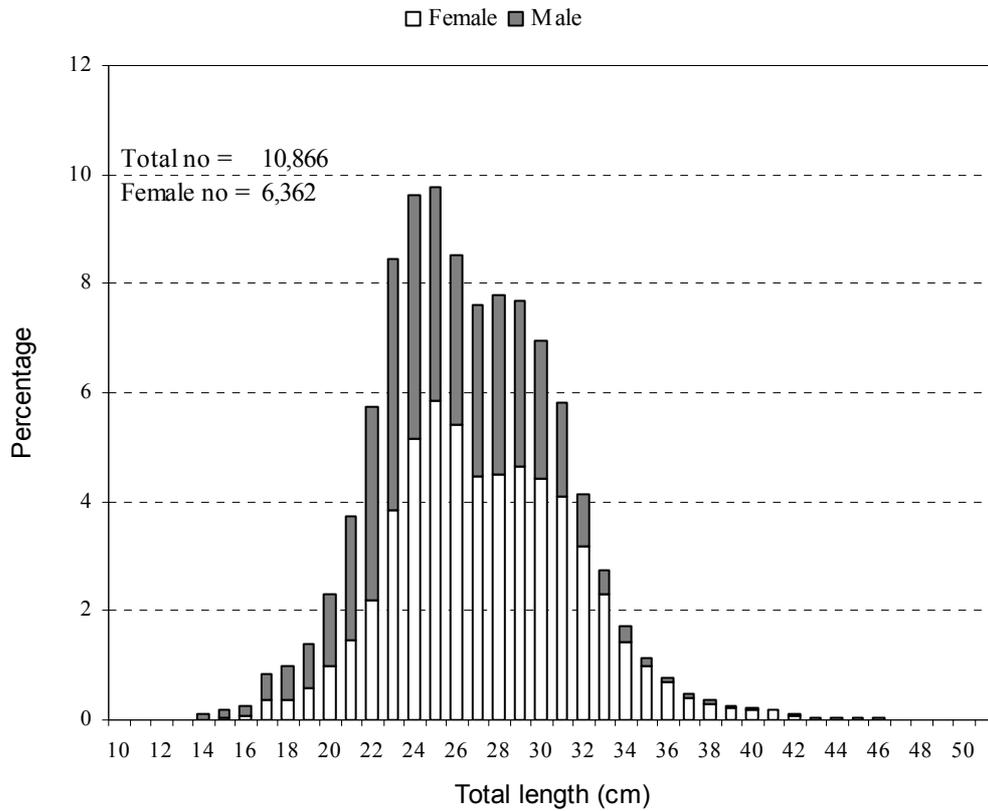
1st Season (01 Jan to 30 Jun)

2nd Season (01 Jul to 31 Dec)



Macrurus magellanicus—Hoki

Length– frequency distribution and length-weight relationship in trawler fleets in 2005



***Salilota australis* - Red cod**

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

VESSEL TYPE	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
CO	16	100	39	.	.	.	.	.	.	.
TR	6909	4549	8081	9313	6551	3896	2617	2285	2781	2449
	6925	4649	8121	9313	6551	3896	2617	2285	2781	2449

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

MONTH	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
January	141	.	164	105	451	210	33	57	80	4
February	115	203	310	307	796	291	165	248	362	202
March	1071	289	852	906	599	369	539	95	188	62
April	996	176	1151	1486	859	547	446	264	350	114
May	289	98	2061	1497	633	617	250	254	271	149
June	116	.	517	523	81	65	40	58	13	36
July	179	759	95	357	431	67	0	3	94	97
August	552	418	797	1081	822	297	171	235	258	460
September	959	920	812	1215	747	342	263	343	436	694
October	2038	1303	752	1046	590	679	325	490	583	334
November	382	439	543	353	403	387	296	192	134	247
December	87	43	66	437	139	26	90	46	11	50
	6925	4649	8121	9313	6551	3896	2617	2285	2781	2449

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

Fishing fleet	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
AU	.	.	85	60	.	.	.	.	.	.
BZ	.	.	.	28	237	42	.	.	.	.
CL	18	1	0	59	.	.	.	.	.	.
ES	3500	2503	6168	5937	3918	2222	1624	1279	1582	1563
FK	2033	817	1491	2692	1886	1374	950	958	1024	744
FR	31	25	11	5	29	.	.	.	.	.
HN	189	.	.	.	.	.	.	.	.	.
IS	.	4	.	.	.	.	.	.	.	.
JP	65	29	64	13	11	.	0	.	3	.
KR	861	1154	180	200	429	219	28	40	85	125
NA	.	20	100	128	.	.	.	.	7	.
PA	93	.	.	2	.	.	.	.	.	.
PL	0	.	.	.	.	.	.	.	.	.
PT	137	.	.	.	12	.	.	.	.	.
RU	.	.	.	.	.	8	.	.	.	.
SC	.	56	.	.	.	.	.	.	.	.
UK	18	41	22	188	30	17	15	9	63	17
UY	.	.	0	.	.	.	.	.	.	.
VC	.	.	.	.	.	14	.	.	.	.
	6925	4649	8121	9313	6551	3896	2617	2285	2781	2449

***Salilota australis* - Red cod**

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

GRT	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<400	189	100	39	33	85	17	.	.	.	.
400-599	211	75	466	324	.	11	1	0	2	14
600-799	485	676	1243	879	755	551	404	203	179	67
800-999	1222	627	1390	1198	763	261	122	228	210	135
1000-1499	2162	2513	3639	4304	3514	2284	1498	1262	1248	1466
1500-1999	1071	255	481	1574	900	511	474	278	828	586
2000-2999	1520	374	798	987	524	260	117	315	311	181
>2999	65	29	64	13	11	.	.	.	3	0
	6925	4649	8121	9313	6551	3896	2617	2285	2781	2449

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

LOA	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<45	.	9	366	197	.	.	.	.	.	.
45-49	894	317	1430	1384	688	312	162	168	213	71
50-54	1279	1269	685	475	869	630	439	358	362	379
55-59	868	1025	1828	1761	1519	578	454	317	199	126
60-64	605	605	865	1518	1021	669	309	339	347	440
65-69	515	302	1265	785	508	458	292	280	1180	1144
70-79	2403	1043	1463	2628	1590	1050	893	596	167	123
80-89	232	34	107	516	326	186	50	218	303	157
>89	129	46	112	49	30	12	19	9	9	9
	6925	4649	8121	9313	6551	3896	2617	2285	2781	2449

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

BHP	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<1000	4	.	.	.	.	.	.	.	.	.
1000-1199	64	.	.	14	.	.	.	.	.	.
1200-1399	185	132	628	544	357	224	156	71	.	4
1400-1599	631	545	1642	1238	892	500	333	337	401	257
1600-1799	253	155	769	612	227	200	105	171	129	114
1800-1999	1601	1769	2762	3163	2606	1567	1149	871	1399	1293
2000-2499	1928	977	1283	2115	1361	742	587	417	405	475
2500-2999	496	622	152	528	543	386	156	93	75	114
3000-3999	1540	373	753	1034	485	206	85	305	347	149
>3999	223	75	132	64	80	71	47	21	24	43
	6925	4649	8121	9313	6551	3896	2617	2285	2781	2449

Salilota australis

Salilota australis

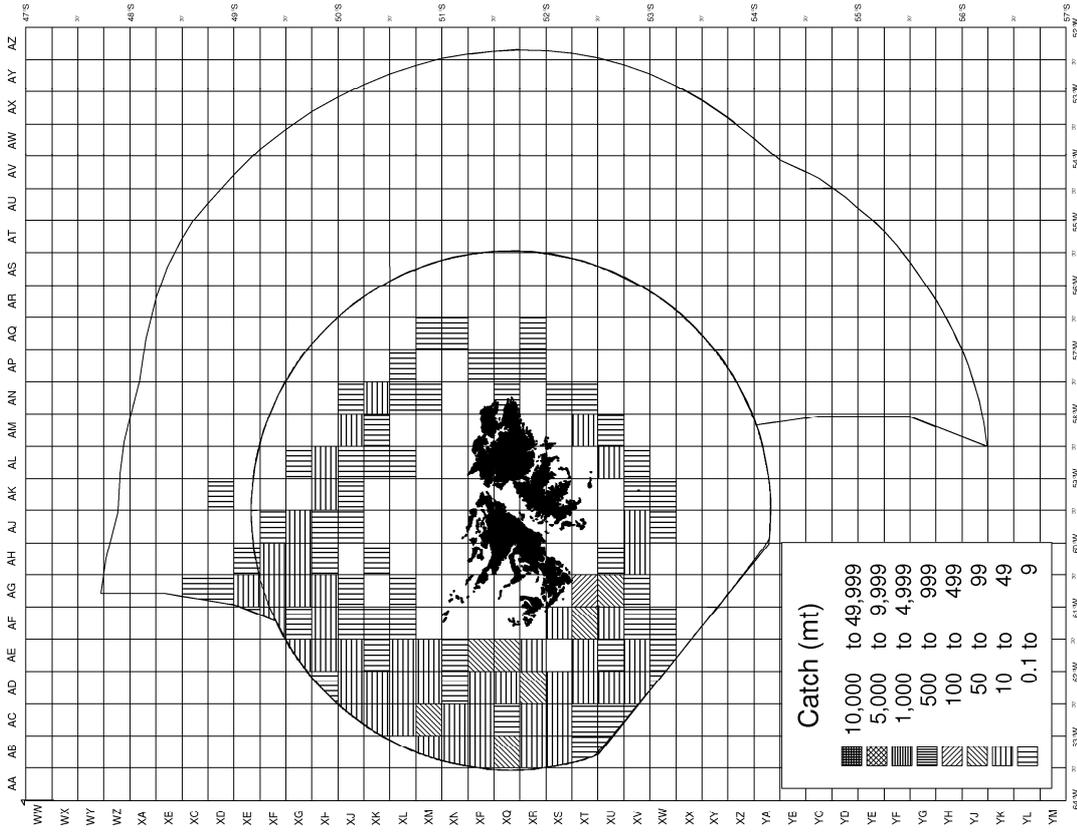
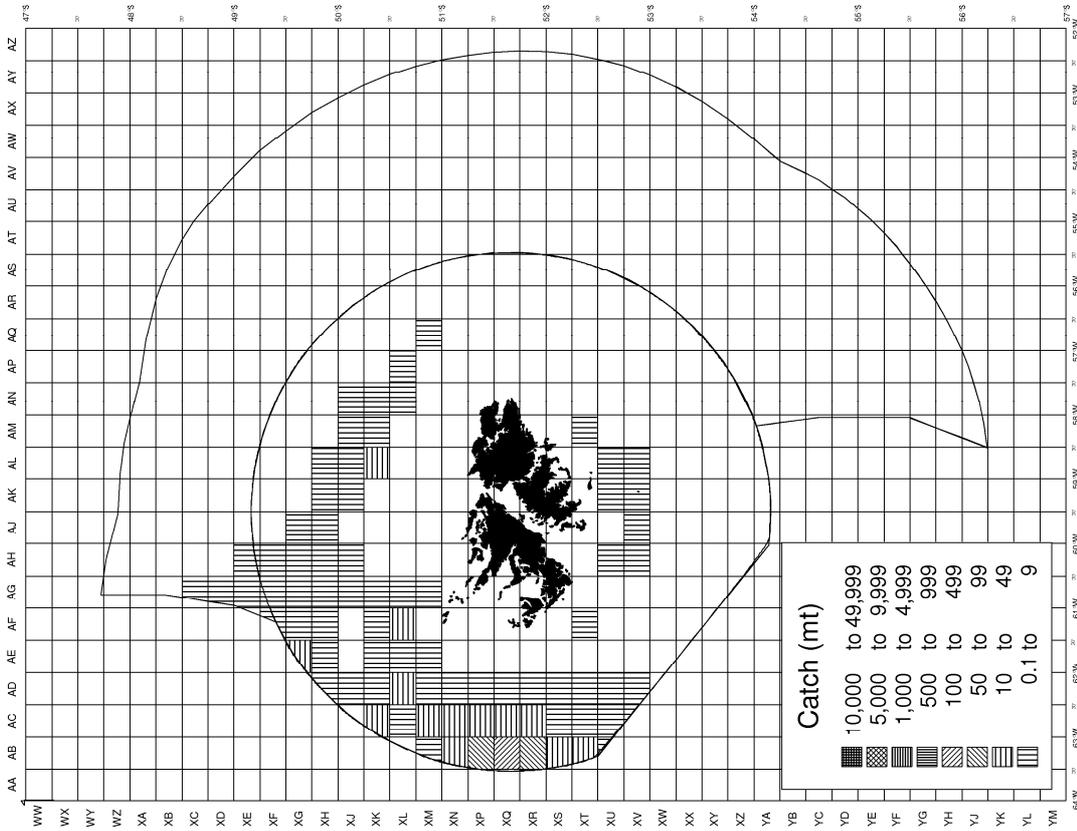
Catch (mt) by grid square

2005

FICZ and FOCZ

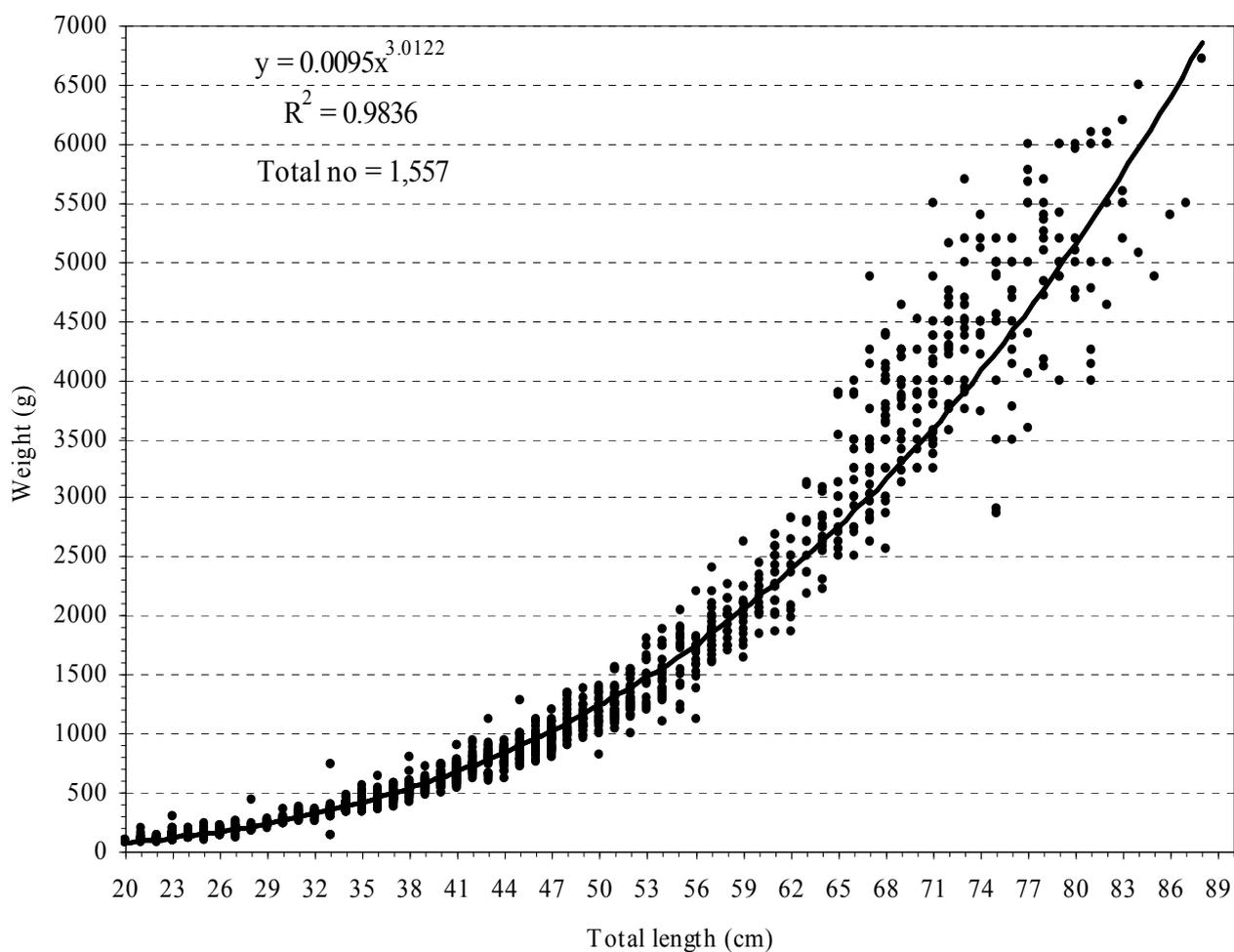
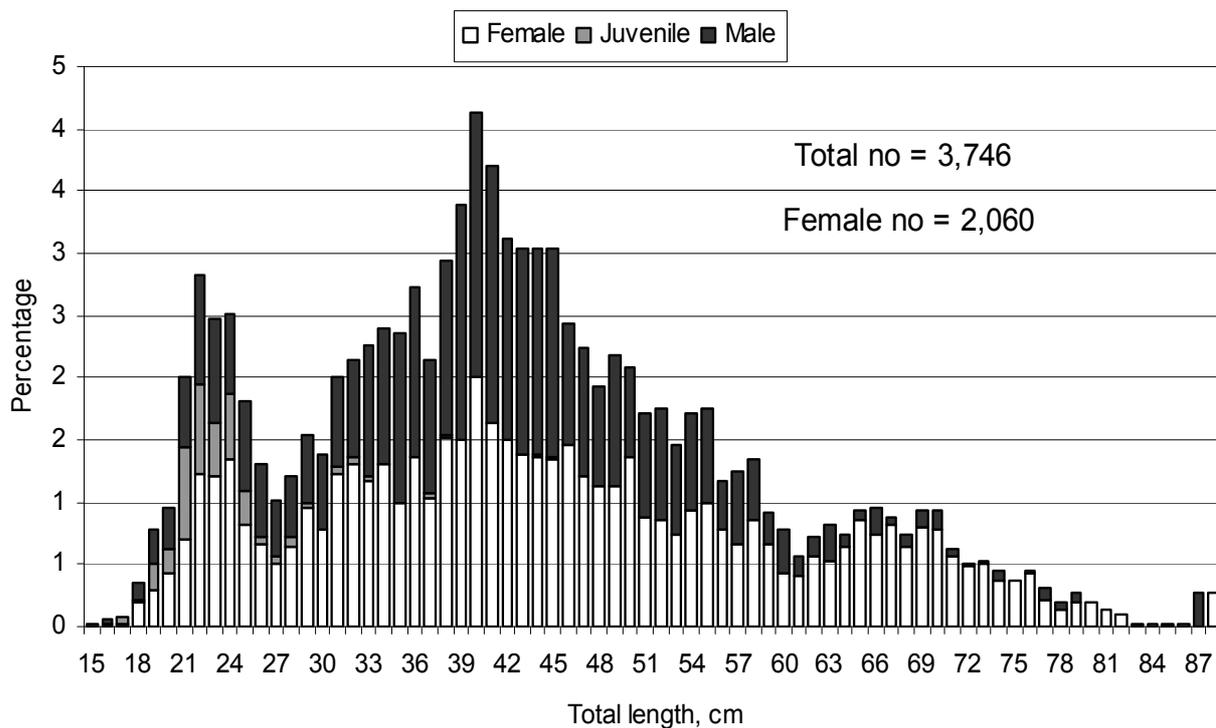
1st Season (01 Jan to 30 Jun)

2nd Season (01 Jul to 31 Dec)



Salilota australis - Red cod

Length– frequency distribution and length-weight relationship in trawler fleets in 2005



Merluccius spp - Hakes

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

VESSEL TYPE	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
CO	13	61	36	.	.	.	.	.	.	.
TR	1636	1493	3466	4224	3069	1978	1678	1967	1927	2731
	1649	1554	3502	4224	3069	1978	1678	1967	1927	2731

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

MONTH	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
January	73	.	47	7	57	7	48	51	14	0
February	11	67	112	136	87	24	96	142	196	81
March	345	100	429	339	180	110	223	34	141	65
April	352	92	542	591	309	462	288	253	269	168
May	109	100	1065	444	183	400	146	198	223	317
June	84	.	312	257	58	79	46	74	86	41
July	128	213	77	335	419	140	6	31	144	162
August	277	341	305	1068	934	338	244	263	441	696
September	133	304	401	508	604	202	388	633	261	855
October	77	256	152	414	179	166	113	215	128	275
November	46	75	58	86	54	49	43	64	23	67
December	16	4	2	40	3	1	39	7	1	2
	1649	1554	3502	4224	3069	1978	1678	1967	1927	2731

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

Fishing fleet	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
AU	.	.	3	10	.	.	.	.	.	.
BZ	.	.	.	35	63	4	0	.	.	.
CL	1	0	0	1	.	7	0	.	1	.
EE	.	.	.	.	.	.	.	.	6	.
ES	807	662	2387	2602	1522	1073	805	1021	810	1387
FK	382	267	959	1031	1000	564	655	731	798	1002
FR	17	4	3	3	0	.	.	.	.	.
HN	19	.	.	.	.	.	.	.	.	.
IS	.	1	.	.	.	.	.	.	.	.
JP	84	53	30	28	54	2	75	28	8	.
KR	241	517	86	387	396	264	123	187	277	308
NA	.	12	15	37	.	.	.	.	0	.
PA	14	.	.	36	.	.	.	.	.	.
PL	.	.	.	.	.	.	.	.	.	.
PT	46	.	.	.	3	.	.	.	.	.
RU	.	.	.	.	.	47	.	.	.	.
SC	.	27	.	.	.	.	.	.	.	.
UK	38	11	18	53	30	12	20	1	26	34
UY	.	.	0	.	.	.	.	0	.	.
VC	.	.	0	.	.	5	.	.	.	.
	1649	1554	3502	4224	3069	1978	1678	1967	1927	2731

Merluccius spp - Hakes

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

GRT	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<400	67	61	36	106	76	39	.	0	0	.
400-599	71	58	90	79	.	40	24	8	20	21
600-799	125	161	244	287	202	198	140	186	140	361
800-999	193	299	270	772	363	188	174	204	326	486
1000-1499	548	756	2243	1861	1890	1200	968	1199	1053	1563
1500-1999	375	73	218	664	218	174	316	199	217	205
2000-2999	187	93	370	426	265	131	57	167	162	96
>2999	84	54	30	28	54	9	0	5	9	0
	1649	1554	3502	4224	3069	1978	1678	1967	1927	2731

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

LOA	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<45	.	1	75	42	.	.	.	0	.	.
45-49	145	51	269	618	188	181	147	133	244	503
50-54	273	524	189	423	390	269	243	300	331	572
55-59	259	328	559	844	917	443	227	385	126	226
60-64	203	287	401	649	392	296	262	430	306	340
65-69	185	130	1356	490	529	261	386	323	670	959
70-79	442	154	549	978	337	418	371	287	137	40
80-89	53	16	58	136	261	95	36	100	103	92
>89	90	64	46	44	55	15	6	8	9	0
	1649	1554	3502	4224	3069	1978	1678	1967	1927	2731

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

BHP	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<1000	0	.	.	.	.	.	.	0	.	.
1000-1199	12	.	.	183	.	.	.	.	.	.
1200-1399	49	47	95	107	66	66	57	30	.	102
1400-1599	69	95	354	509	235	218	230	244	335	715
1600-1799	89	91	322	315	55	59	34	91	102	95
1800-1999	378	491	1005	1314	1192	824	561	826	634	816
2000-2499	529	416	1231	816	823	367	496	375	477	619
2500-2999	162	255	77	492	348	293	216	205	183	254
3000-3999	263	86	349	432	290	128	60	183	186	130
>3999	97	73	69	56	59	23	23	14	10	0
	1649	1554	3502	4224	3069	1978	1678	1967	1927	2731

Merluccius spp.

Merluccius spp.

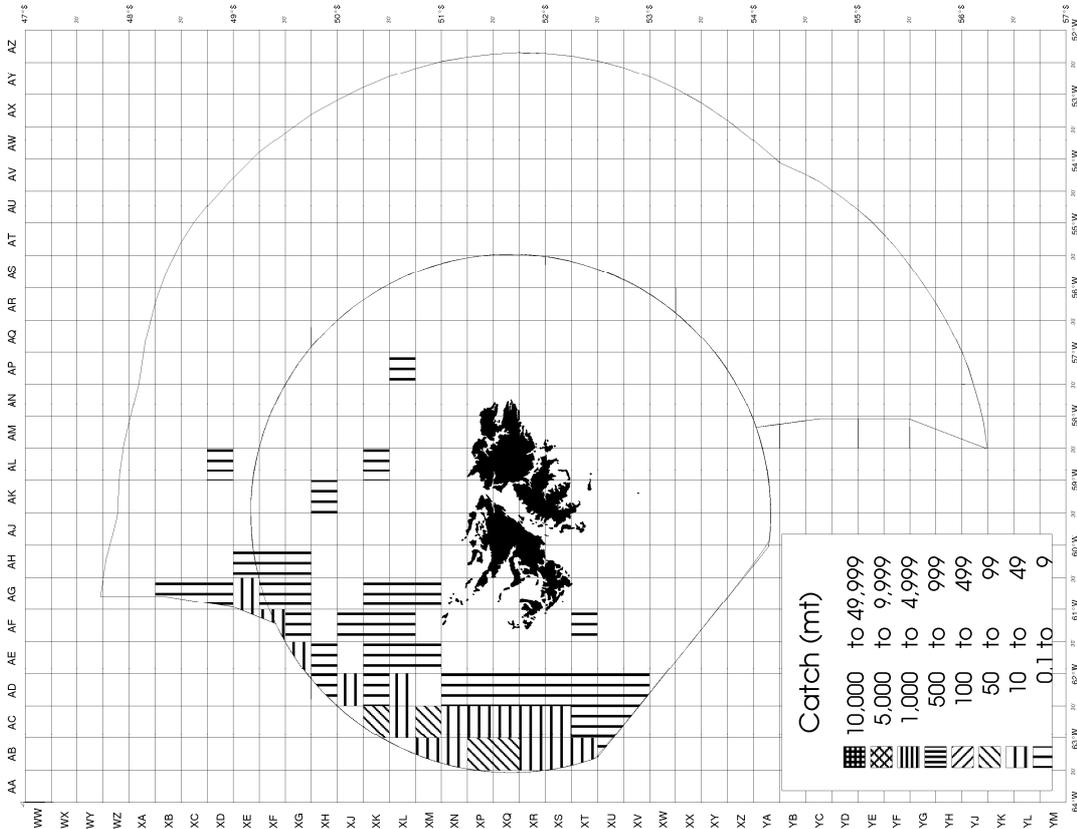
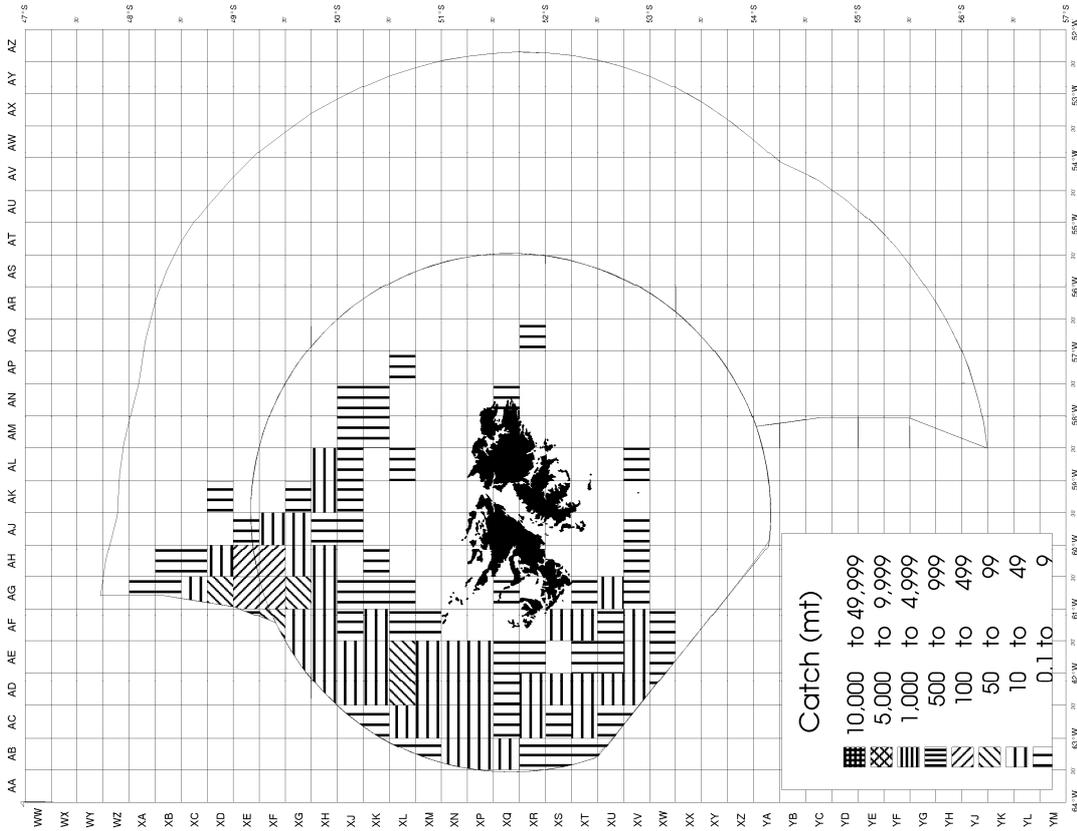
Catch (mt) by grid square

2005

FICZ and FOCZ

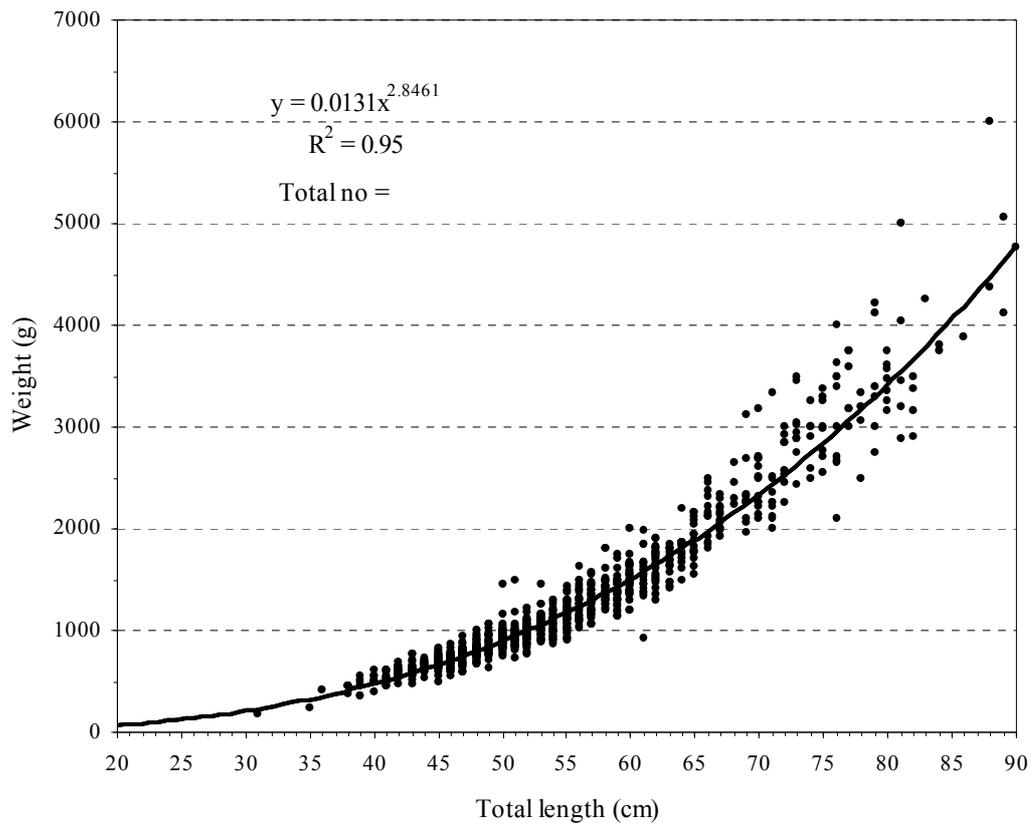
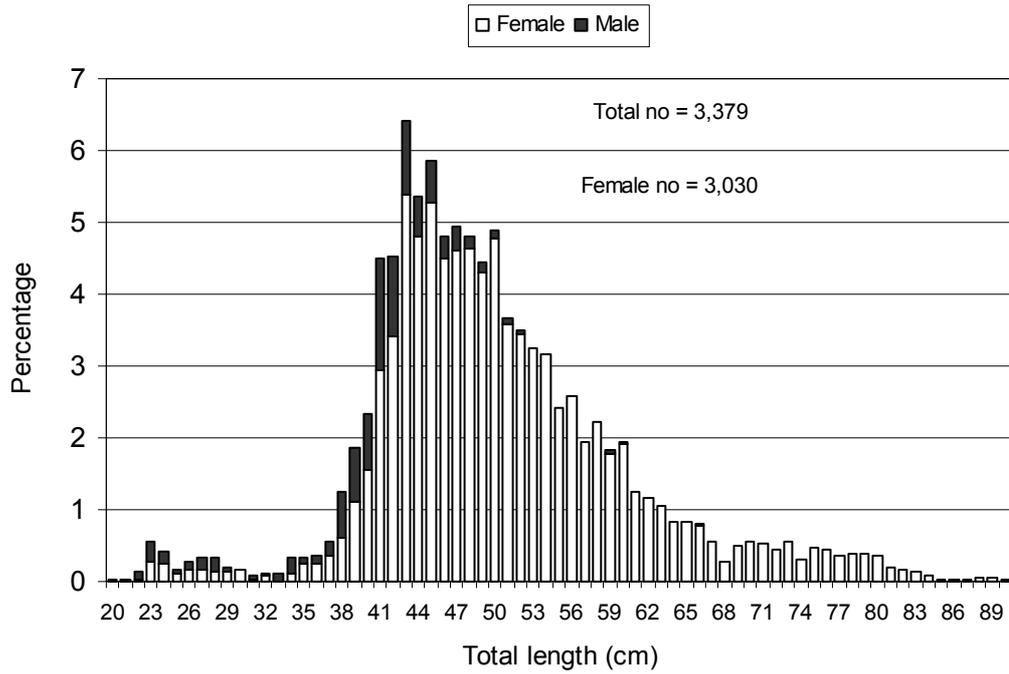
2nd Season (01 Jul to 31 Dec)

1st Season (01 Jan to 30 Jun)



Merluccius spp - Hakes

Length– frequency distribution and length-weight relationship in *M.hubbsi* in trawler fleets in 2005



Genypterus blacodes - Kingclip

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

VESSEL TYPE	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
CO	14	76	25	.	.	.	.	.	.	.
TR	1668	1316	2192	2602	1875	1625	1224	1274	1841	1956
	1682	1392	2217	2602	1875	1625	1224	1275	1841	1956

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

MONTH	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
January	25	.	33	18	55	64	8	21	54	3
February	13	46	59	51	125	79	57	110	192	149
March	257	90	249	217	126	95	282	29	114	56
April	363	55	360	443	280	319	234	143	289	84
May	114	12	503	360	166	259	85	102	172	72
June	50	.	83	108	26	36	20	28	19	29
July	70	180	58	133	178	36	1	16	95	58
August	189	219	277	401	313	177	58	141	263	291
September	261	233	260	363	259	154	45	271	144	372
October	164	349	180	347	158	202	225	224	354	526
November	155	192	132	92	152	193	169	154	132	253
December	22	15	23	69	39	12	40	36	12	65
	1682	1392	2217	2602	1875	1625	1224	1275	1841	1956

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

Fishing fleet	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
AU	.	.	2	10	.	.	.	.	.	.
BZ	.	.	.	15	87	8	0	.	.	.
CL	0	0	.	10	.	.	.	.	.	.
EE	.	.	.	.	.	.	.	.	11	.
ES	707	754	1805	1905	1154	1086	857	818	1135	1182
FK	297	153	253	451	304	348	334	387	530	543
FR	2	1	.	0	.	.	.	.	.	.
HN	59	.	.	.	.	.	.	.	.	.
IS	.	0	.	.	.	.	.	.	.	.
JP	4	4	2	1	2	.	4	0	4	0
KR	467	457	131	132	309	166	27	67	140	215
NA	.	5	25	45	.	.	.	.	0	.
PA	46	.	.	2	.	.	.	.	.	.
PL	0	.	.	.	.	.	.	.	.	.
PT	94	.	.	.	13	.	.	.	.	.
RU	.	.	.	.	.	16	.	.	.	.
SC	.	10	.	.	.	.	.	.	.	.
UK	6	8	0	32	7	2	1	3	20	15
	1682	1392	2217	2602	1875	1625	1224	1275	1841	1956

Genypterus blacodes - Kingclip

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

GRT	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<400	102	76	25	26	64	24	.	.	.	.
400-599	96	36	103	83	.	19	3	1	5	33.621
600-799	219	303	432	370	371	408	305	224	127	101.718
800-999	338	225	373	395	285	146	70	186	325	221.339
1000-1499	446	649	1033	1233	974	838	661	680	921	1097.738
1500-1999	377	45	73	241	149	144	175	121	376	383.022
2000-2999	100	55	176	254	31	46	8	63	82	117.968
>2999	4	4	2	1	2	.	1	0	4	0
	1682	1392	2217	2602	1875	1625	1224	1275	1841	1956

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

LOA	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<45	.	1	78	38	.	.	.	.	.	.
45-49	160	138	422	440	183	155	75	138	291	110
50-54	602	519	283	257	441	378	302	321	271	383
55-59	191	321	495	495	373	224	217	155	183	197
60-64	168	174	288	500	361	304	150	236	292	445
65-69	118	96	343	262	212	218	172	184	602	629
70-79	345	138	300	529	273	302	304	207	109	80
80-89	94	0	6	80	30	45	4	29	88	110
>89	4	5	2	1	2	.	1	5	4	1
	1682	1392	2217	2602	1875	1625	1224	1275	1841	1956

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

BHP	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<1000	0	.	.	.	.	.	.	.	.	.
1000-1199	19	.	.	15	.	.	.	.	.	.
1200-1399	53	60	206	231	185	218	146	88	.	13
1400-1599	73	216	460	367	258	178	161	229	377	232
1600-1799	83	46	215	224	91	71	49	153	81	125
1800-1999	262	450	796	884	635	589	518	469	876	883
2000-2499	784	336	256	414	393	272	236	185	296	393
2500-2999	201	217	106	196	274	250	103	82	104	176
3000-3999	201	62	176	269	38	47	7	62	101	130
>3999	4	5	2	1	2	1	4	8	5	3
	1682	1392	2217	2602	1875	1625	1224	1275	1841	1956

Genypterus blacodes

Genypterus blacodes

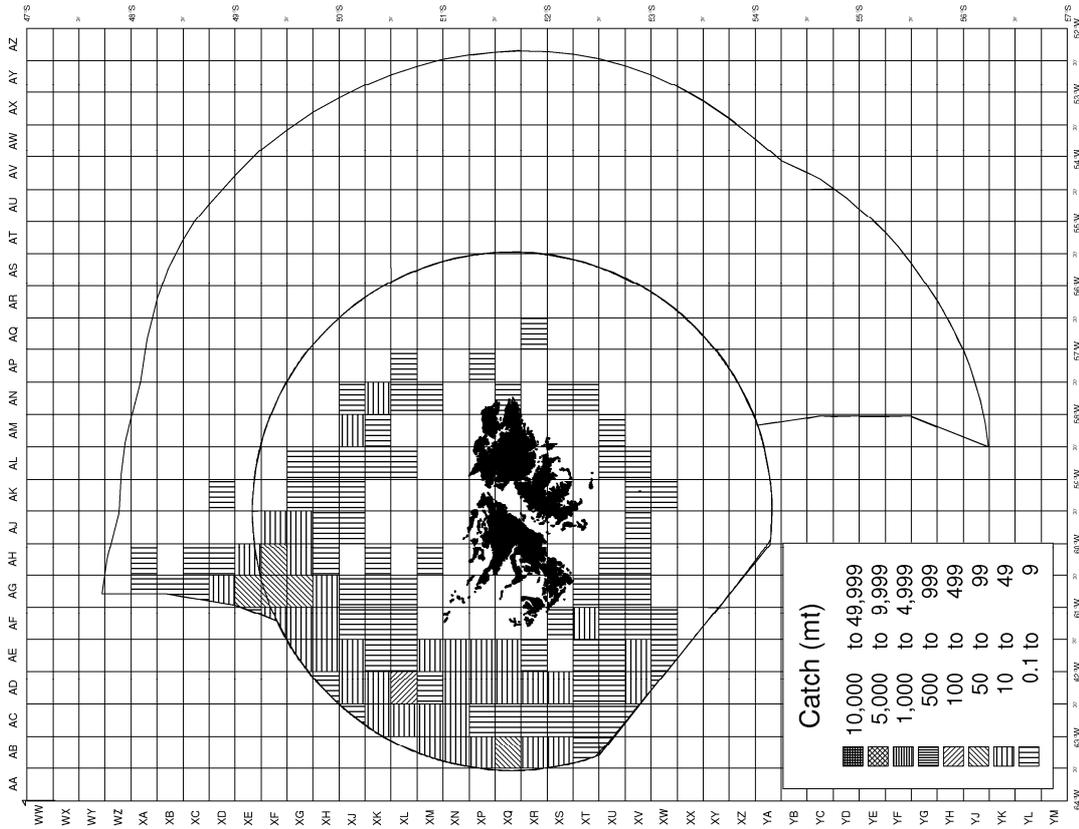
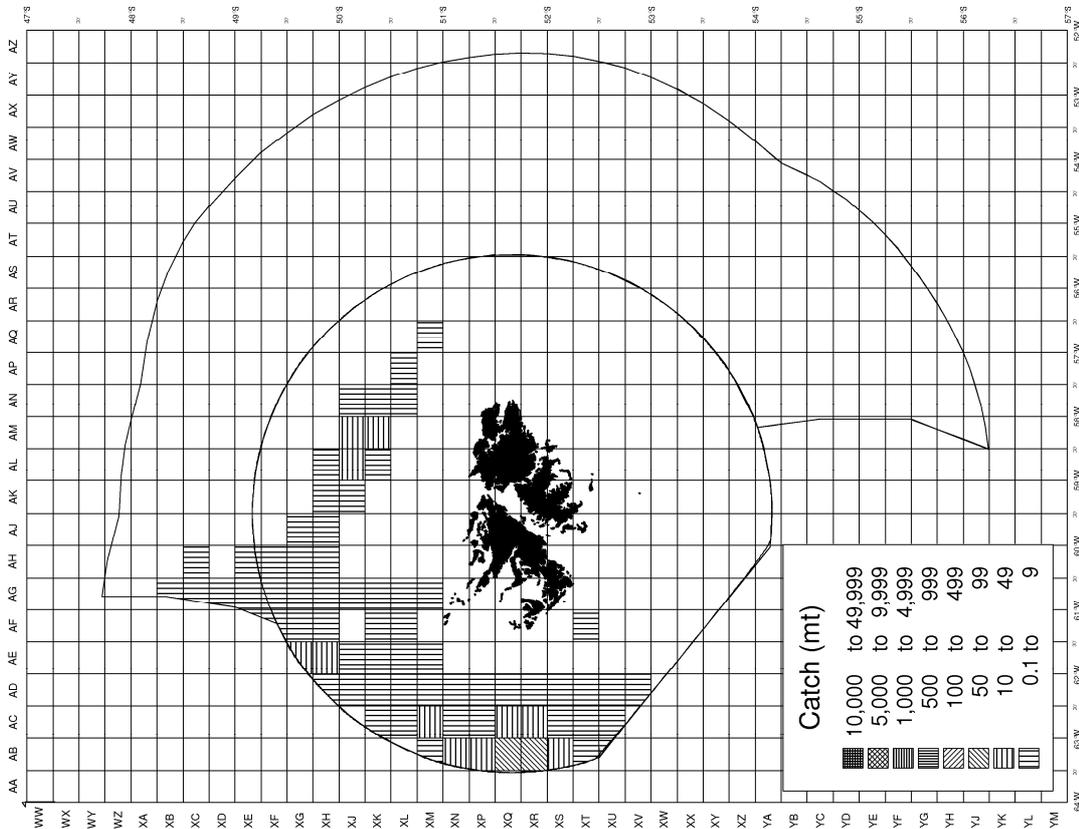
Catch (mt) by grid square

2005

FICZ and FOCZ

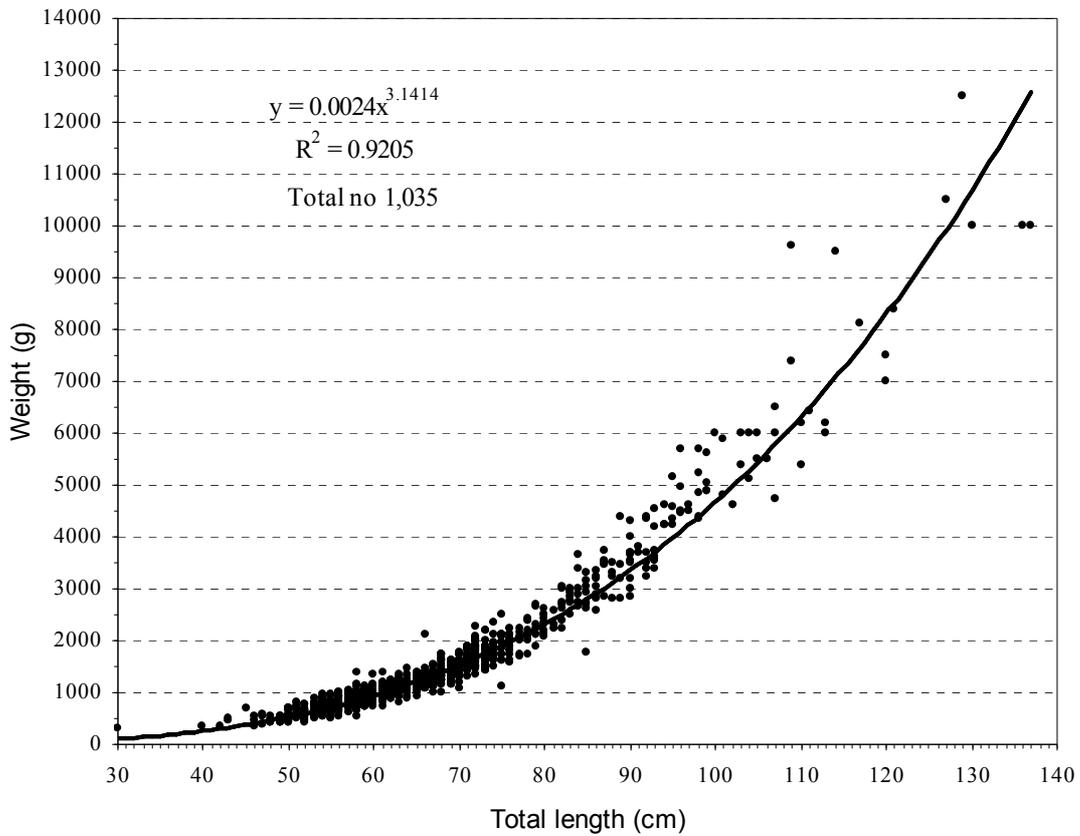
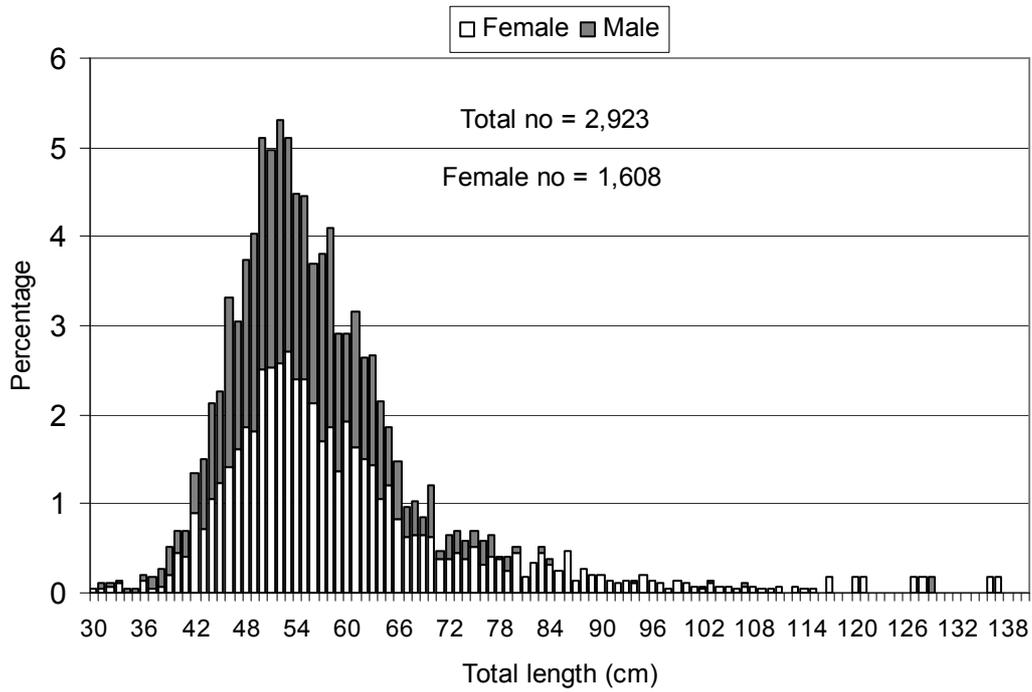
1st Season (01 Jan to 30 Jun)

2nd Season (01 Jul to 31 Dec)



Genypterus blacodes - Kingclip

Length– frequency distribution and length-weight relationship in trawler fleets in 2005



***Dissostichus eleginoides* - Toothfish**

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

VESSEL TYPE	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
CO	1	.	4	.	.	.	.	.	.	.
LO	513	1000	1474	1801	1554	1310	1440	1455	1725	1559
TR	172	208	625	1197	764	443	352	253	276	123
	686	1208	2103	2998	2318	1754	1793	1707	2002	1682

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

MONTH	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
January	24	204	151	93	213	105	100	143	167	147
February	11	127	110	116	296	172	58	196	188	144
March	14	128	137	210	224	172	116	103	167	116
April	14	98	195	278	149	206	108	49	113	64
May	4	28	213	278	242	178	103	61	150	119
June	9	.	112	141	226	107	87	90	97	99
July	7	9	108	204	209	128	192	162	157	116
August	107	30	238	328	190	181	303	194	269	219
September	137	117	241	444	159	157	262	157	142	186
October	136	300	204	356	161	145	183	277	218	219
November	107	33	266	315	160	138	144	160	223	115
December	116	134	127	225	88	65	136	115	110	138
	685	1208	2103	2988	2318	1754	1793	1707	2002	1682

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

Fishing fleet	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
AU	.	.	15	24	.	.	.	.	.	.
BZ	.	.	.	16	27	11	0	.	.	.
CL	1	0	.	5	.	.	.	.	.	.
EE	.	.	.	.	.	.	.	.	0	.
ES	77	109	354	574	360	230	191	147	158	73
FK	50	178	570	1109	928	1460	1323	967	1641	1601
FR	3	0	2	4	0	.	.	.	.	.
HN	7	.	.	.	.	.	.	.	.	.
IS	130	112	.	.	.	.	.	.	.	.
JP	1	2	3	1	1	.	2	0	0	.
KR	386	644	1121	1195	994	49	268	549	196	7
NA	.	2	21	28	.	.	.	.	.	.
NO	29	148	.	.	.	.	.	.	.	.
NZ	.	.	.	.	.	.	.	43	.	.
PA	.	.	.	1	.	.	.	.	.	.
PT	0	.	.	.	3	.	.	.	.	.
SC	.	1	.	.	.	.	.	.	.	.
RU	.	.	.	.	.	0	.	.	.	.
UK	1	12	17	30	6	3	8	1	6	0
VC	.	.	.	.	.	0	.	.	.	.
	685	1208	2103	2988	2318	1754	1793	1707	2002	1682

Dissostichus eleginoides - Toothfish

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

GRT	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<400	385	766	1104	1059	747	2	243	184	182	.
400-599	137	114	34	43	75	1	2	346	0	0
600-799	27	22	47	86	54	48	35	36	22	4
800-999	24	142	448	949	884	1072	1112	746	1564	1561
1000-1499	58	116	286	527	444	557	328	347	161	73
1500-1999	22	36	73	197	83	47	59	33	58	28
2000-2999	29	11	107	126	30	27	13	15	15	16
>2999	1	0	3	1	1	.	.	.	0	.
	685	1208	2103	2988	2318	1754	1793	1707	2002	1682

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

LOA	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<45	159	382	387	788	551	358	136	.	.	.
45-49	12	7	75	115	135	34	33	407	16	1
50-54	395	658	1152	1153	860	106	306	246	904	858
55-59	28	36	92	228	339	1020	1118	921	890	728
60-64	29	53	76	230	197	68	54	63	64	21
65-69	8	20	133	131	71	41	59	38	102	52
70-79	48	48	143	296	134	100	82	25	11	8
80-89	1	4	40	38	27	24	2	7	14	13
>89	1	0	5	8	2	0	1	1	0	1
	685	1208	2103	2988	2318	1754	1793	1707	2002	1682

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

BHP	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<1000	29	148	.	.	.	.	.	.	.	.
1000-1199	131	112	.	7	.	.	.	43	.	.
1200-1399	17	12	50	57	28	21	11	3	.	0
1400-1599	361	9	63	107	372	1029	1115	1269	1598	1577
1600-1799	12	632	1146	1083	735	16	264	243	213	8
1800-1999	34	79	182	330	254	165	129	84	123	56
2000-2499	38	169	505	1047	703	426	217	31	36	21
2500-2999	32	24	29	210	191	67	34	16	10	4
3000-3999	30	22	106	133	32	29	19	15	20	15
>3999	2	2	21	13	4	1	3	2	1	1
	685	1208	2103	2988	2318	1754	1793	1707	2002	1682

Dissostichus eleginoides - Toothfish

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

GRT	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<400	1	0	4	.	.	.	.	.	.	.
800-999	.	.	.	.	.	.	.	.	.	.
1000-1499	.	.	.	.	.	.	.	.	.	.
1500-1999	.	.	.	.	.	.	.	.	.	.
2000-2999	.	.	.	.	.	.	.	.	.	.
>2999	.	.	.	.	.	.	.	.	.	.
	1	0	4	.	.	.	.	.	.	.

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

LOA	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
50-54	0	0	4	.	.	.	.	.	.	.
55-59	0	.	.	.	.	.	.	.	.	.
70-79	.	.	.	.	.	.	.	.	.	.
80-89	.	.	.	.	.	.	.	.	.	.
>89	.	.	.	.	.	.	.	.	.	.
	1	0	4	.	.	.	.	.	.	.

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

BHP	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
2000-2499	0	0	4	.	.	.	.	.	.	.
2500-2999	0	.	.	.	.	.	.	.	.	.
3000-3999	.	.	.	.	.	.	.	.	.	.
>3999	.	.	.	.	.	.	.	.	.	.
	1	0	4	.	.	.	.	.	.	.

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

GRT	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<400	383	766	1101	1012	724	.	243	184	182	.
400-599	130	112	.	.	75	.	.	346	.	.
600-799	.	.	.	.	.	.	.	.	.	.
800-999	.	122	374	772	755	1011	1070	723	1543	1559
1000-1499	.	.	.	16	.	299	127	202	.	.
	513	1000	1474	1801	1554	1310	1440	1455	1725	1559

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

LOA	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<45	159	382	374	772	551	358	136	.	.	.
45-49	.	.	.	.	75	.	.	389	.	.
50-54	354	618	1101	1012	724	.	243	184	849	838
55-59	.	.	.	16	203	952	1061	881	876	721
	513	1000	1474	1801	1554	1310	1440	1455	1725	1559

***Dissostichus eleginoides* - Toothfish**

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

BHP	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<1000	29	148	.	.	.	.	.	.	.	.
1000-1199	130	112	.	.	.	.	.	43	.	.
1200-1399	.	.	.	.	.	.	.	.	.	.
1400-1599	354	.	.	16	278	952	1061	1227	1543	1559
1600-1799	.	618	1101	1012	724	.	243	184	182	.
1800-1999	.	.	.	.	.	.	.	.	.	.
2000-2499	.	122	374	772	551	358	136	.	.	.
	513	1000	1474	1801	1554	1310	1440	1455	1725	1559

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

GRT	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<400	2	.	.	1	23	2	.	.	0	.
400-599	7	2	34	43	.	1	2	0	0	0
600-799	27	22	47	86	54	48	35	36	22	4
800-999	27	20	74	177	130	61	42	23	20	2
1000-1499	58	116	286	511	444	258	200	146	161	73
1500-1999	22	36	73	197	83	47	59	33	58	28
2000-3999	29	11	107	126	30	27	15	15	15	16
>3999	1	0	3	1	1	.	.	.	0	.
	172	208	625	1142	764	443	352	253	276	123

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

LOA	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<45	.	0	13	15	.	.	.	.	.	.
45-49	12	7	75	115	60	34	33	18	16	1
50-54	41	40	48	141	136	106	63	62	55	20
55-59	28	36	92	166	136	69	57	39	13	7
60-64	29	53	76	230	197	68	54	62	64	21
65-69	12	20	133	131	71	41	59	38	102	52
70-79	48	48	143	296	134	100	82	25	11	8
80-89	1	4	40	38	27	24	2	7	14	13
>89	1	0	5	8	2	0	1	1	.	1
	172	208	625	1142	764	443	352	253	276	123

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

BHP	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<1000	.	.	.	.	.	.	.	.	.	.
1000-1199	1	.	.	7	.	.	.	.	.	.
1200-1399	17	12	50	57	28	21	11	3	.	0
1400-1599	7	9	63	91	93	77	54	42	55	19
1600-1799	12	14	46	71	11	16	21	58	31	8
1800-1999	34	79	182	330	254	165	129	84	123	56
2000-2499	38	47	128	274	151	68	81	31	36	21
2500-2999	31	24	29	165	191	67	34	16	10	4
3000-3999	30	22	106	133	32	29	19	15	20	15
>3999	2	2	21	13	4	1	3	2	1	1
	172	208	625	1142	764	443	352	253	276	123

Dissostichus eleginoides

Dissostichus eleginoides

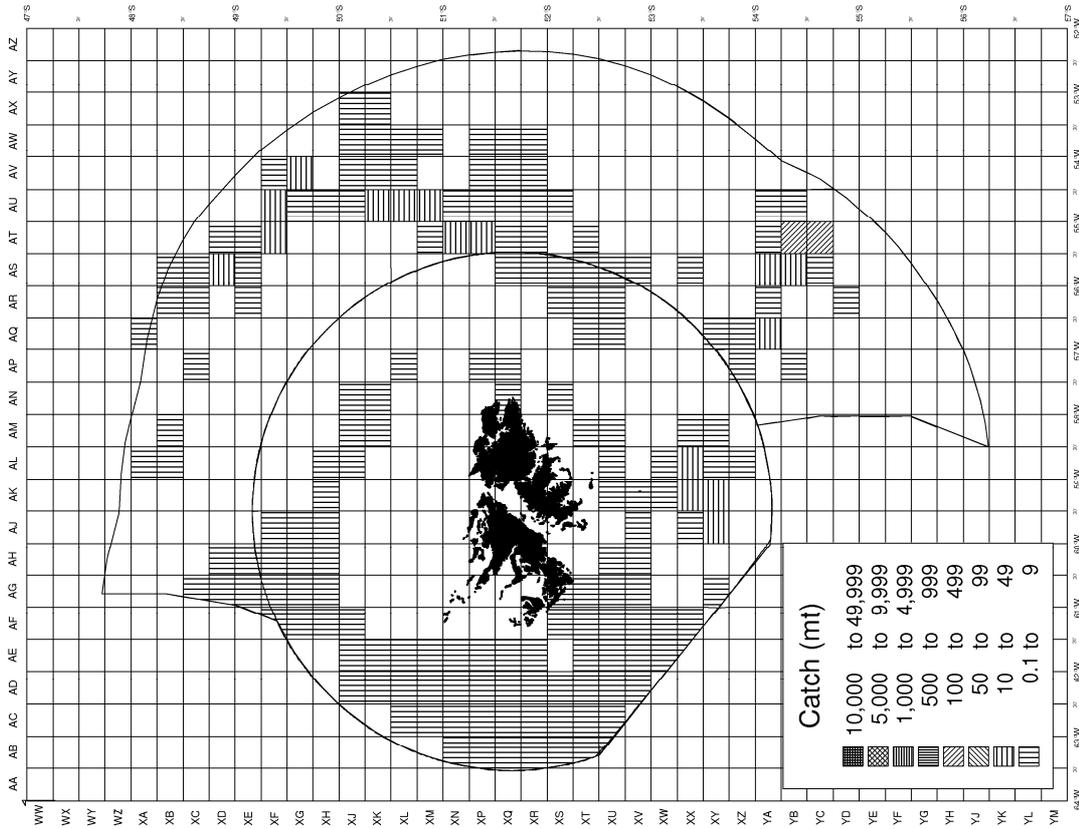
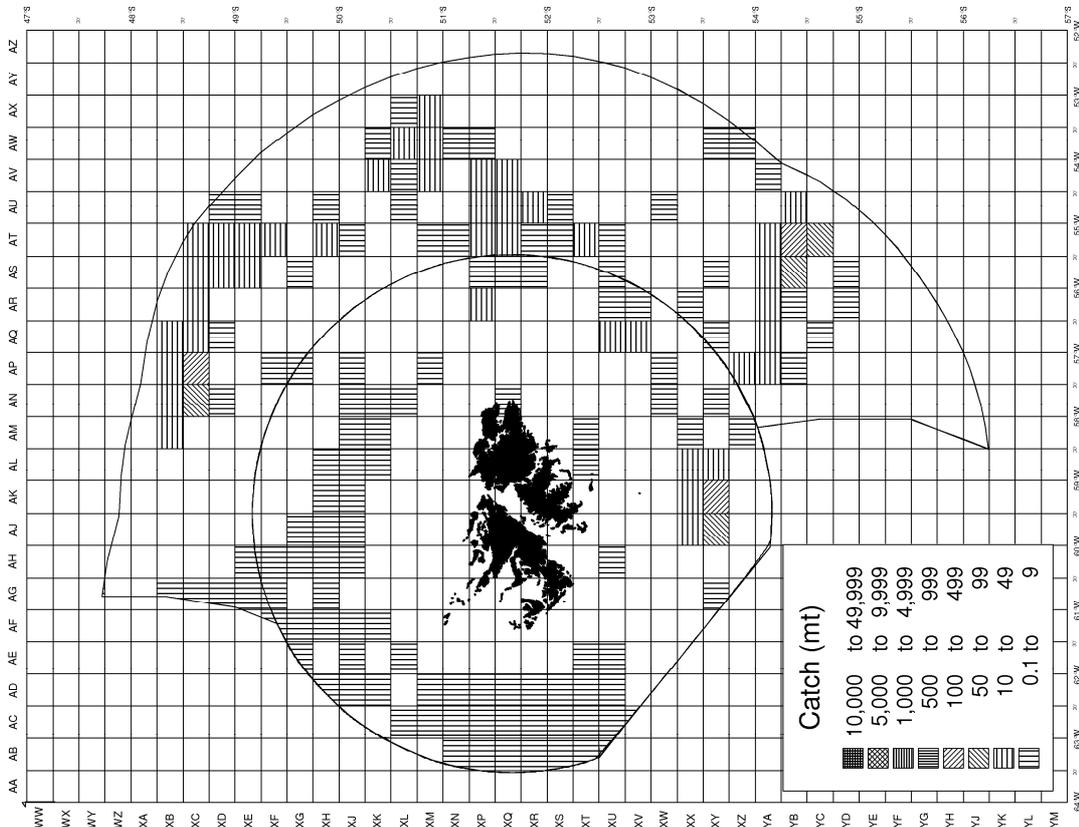
Catch (mt) by grid square

2005

FICZ and FOCZ

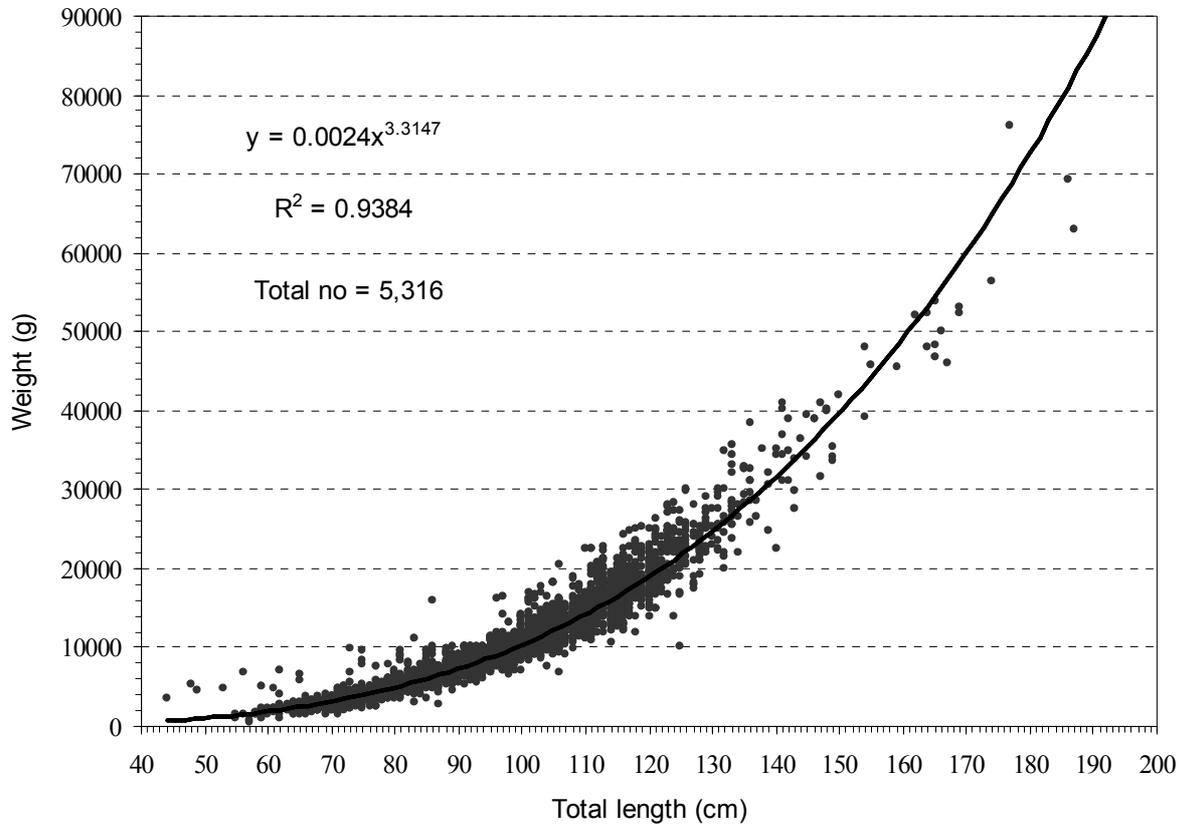
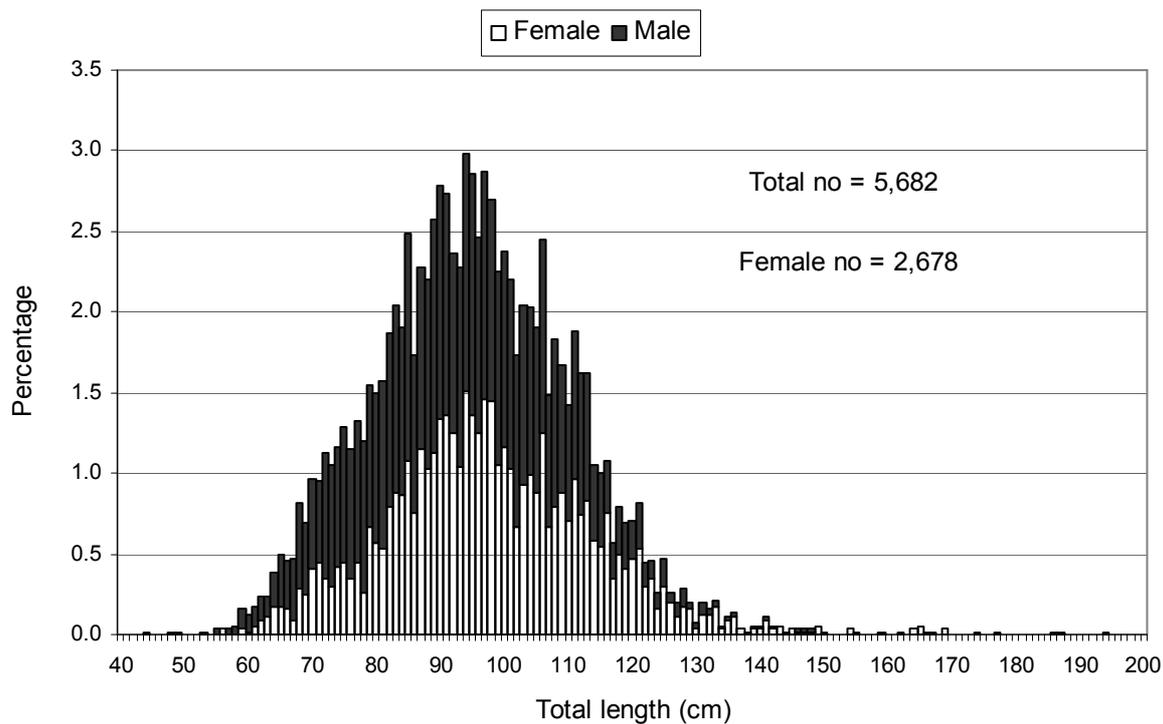
1st Season (01 Jan to 30 Jun)

2nd Season (01 Jul to 31 Dec)



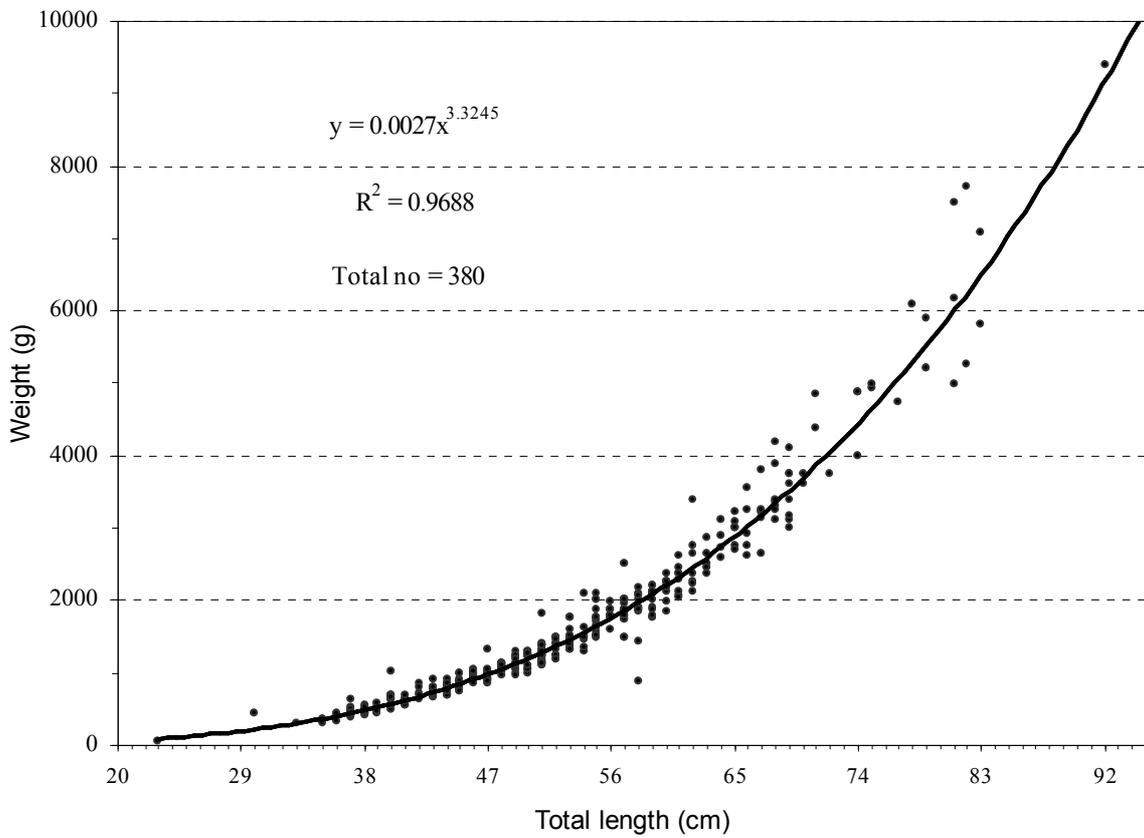
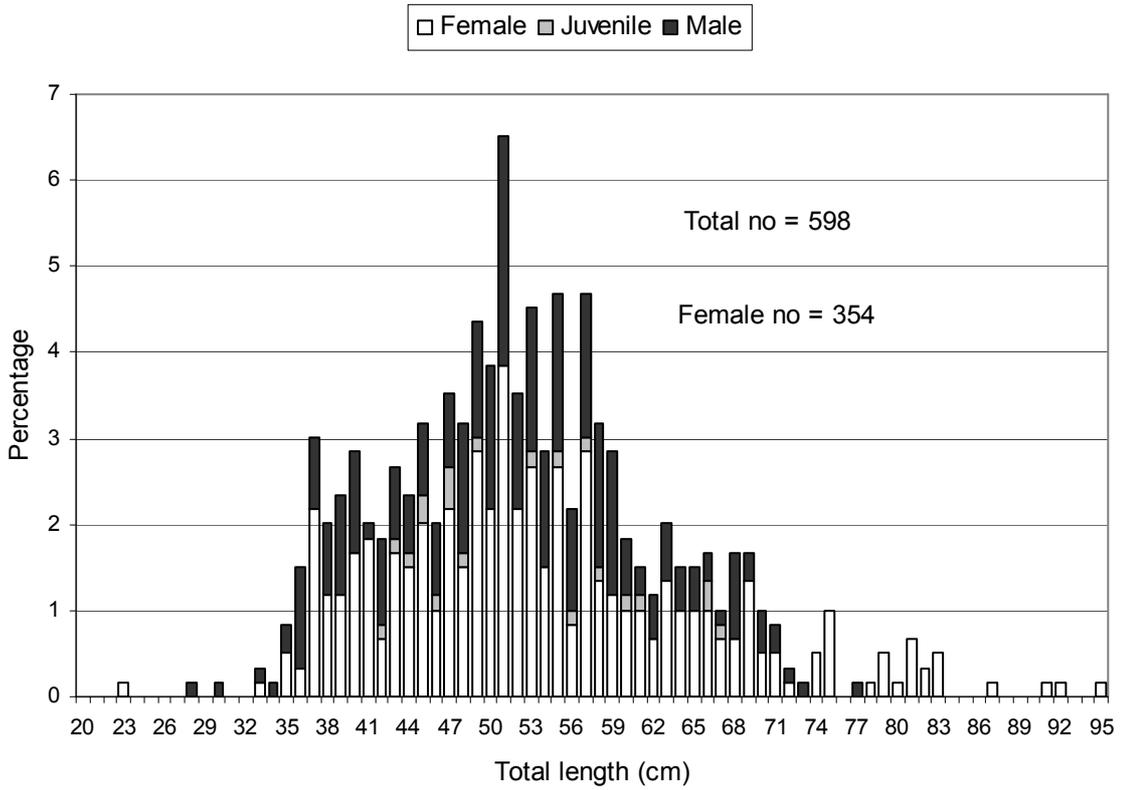
Dissostichus eleginoides - Toothfish

Length– frequency distribution and length-weight relationship in longliner fleet in 2005



***Dissostichus eleginoides* - Toothfish**

Length– frequency distribution and length-weight relationship in trawler fleets in 2005



Rajidae - Skates and Rays

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

VESSEL TYPE	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
CO	14	307	16	.	.	.	.	.	.	.
LO	315	92	82	76	161	101	96	152	168	75
TR	3145	2922	979	4709	3691	4207	3268	3836	4983	5605
	3475	3320	1077	4785	3853	4309	3364	3988	5151	5680

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

MONTH	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
January	28	14	41	9	217	199	196	32	1257	92
February	13	80	46	35	669	208	49	404	159	420
March	86	39	80	58	118	72	202	139	95	83
April	53	22	74	104	106	127	170	77	113	56
May	15	18	96	80	71	110	115	195	148	165
June	182	.	22	33	42	42	175	223	142	20
July	320	423	48	358	77	104	22	459	93	553
August	1103	1470	121	1284	975	950	552	1596	1589	2266
September	654	902	315	1252	1035	881	1248	592	1022	820
October	597	267	138	892	327	1294	431	161	352	489
November	227	72	78	392	178	306	168	81	59	590
December	133	14	19	289	38	16	35	29	120	125
	3475	3320	1077	4785	3853	4309	3364	3988	5151	5680

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

Fishing fleet	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
AU	.	.	3	23	.	.	.	.	.	.
BZ	.	.	.	528	48	201	10	.	.	.
CL	.	0	0	.	.	.	.	.	.	.
EE	.	.	.	.	.	.	.	.	4	.
ES	226	246	455	440	415	430	555	412	515	632
FK	184	204	216	314	353	417	474	320	653	612
FR	9	3	1	0	0	.	.	.	.	.
HN	460	.	.	.	.	.	.	.	.	.
IS	2	9	.	.	.	.	.	.	.	.
IT	.	.	.	.	.	.	.	.	.	.
JP	8	2	11	3	.	.	0	.	1	.
KR	2124	2797	369	3408	3019	3218	2304	3241	3937	4397
NA	.	3	14	12	.	.	.	.	.	.
NO	273	31	.	.	.	.	.	.	.	.
NZ	.	.	.	.	.	.	.	4	.	.
PA	170	.	.	18	.	.	.	.	.	.
PT	10	.	.	.	0	.	.	.	.	.
RU	.	.	.	.	.	12	.	.	.	.
SC	.	4	.	.	.	.	.	.	.	.
UK	8	21	7	40	17	26	19	5	16	16
UY	.	.	0	.	.	5	2	5	24	23
VC	.	.	.	.	.	0	.	.	.	.
	3474	3320	1077	4785	3853	4309	3364	3988	5151	5680

Rajidae - Skates and Rays

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

GRT	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<400	847	386	81	859	659	485	31	34	43	.
400-599	99	193	21	12	7	281	248	272	241	404
600-799	394	361	79	1143	228	1425	707	1194	889	918
800-999	1414	1374	112	1569	1615	1017	1250	1571	2636	2550
1000-1499	540	864	624	907	1197	949	805	636	904	1103
1500-1999	120	80	59	177	85	94	255	222	147	163
2000-2999	53	58	89	116	63	57	68	58	288	542
>2999	8	2	11	3	.	.	0	.	1	.
	3475	3320	1077	4785	3853	4309	3364	3988	5151	5680

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

LOA	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<45	275	43	24	35	74	47	15	1	.	.
45-49	24	25	78	59	48	701	427	905	636	660
50-54	2283	2352	174	2658	1765	1993	1792	2002	2938	3209
55-59	296	247	128	949	796	691	259	328	479	372
60-64	373	463	349	656	821	537	343	350	316	410
65-69	45	49	156	143	143	145	176	127	420	448
70-79	149	112	110	245	163	165	323	255	288	472
80-89	16	23	47	34	36	31	26	20	71	108
>89	15	7	12	6	6	.	1	.	1	.
	3475	3320	1077	4785	3853	4309	3364	3988	5151	5680

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

BHP	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<1000	273	31	.	.	.	5	2	1	.	.
1000-1199	5	9	.	7	.	.	.	4	.	.
1200-1399	22	21	40	34	44	31	78	12	.	15
1400-1599	57	31	78	62	86	166	230	269	361	339
1600-1799	35	96	150	99	80	43	94	88	101	33
1800-1999	128	194	279	241	318	343	362	281	400	485
2000-2499	1006	1573	120	1336	869	876	435	487	840	823
2500-2999	1868	1284	303	2854	2377	2762	1934	2638	3143	3427
3000-3999	60	56	68	137	53	75	221	208	299	555
>3999	20	26	40	16	27	8	6	0	7	3
	3475	3320	1077	4785	3853	4309	3364	3988	5151	5680

Rajidae

2005

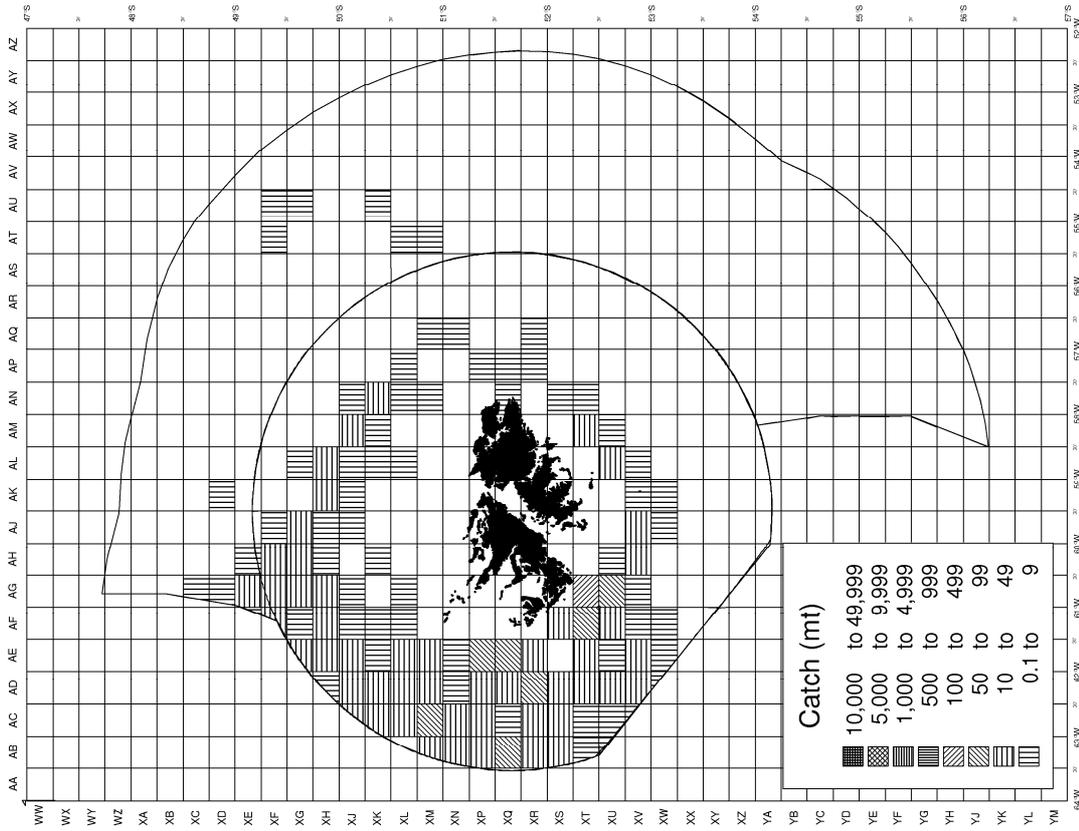
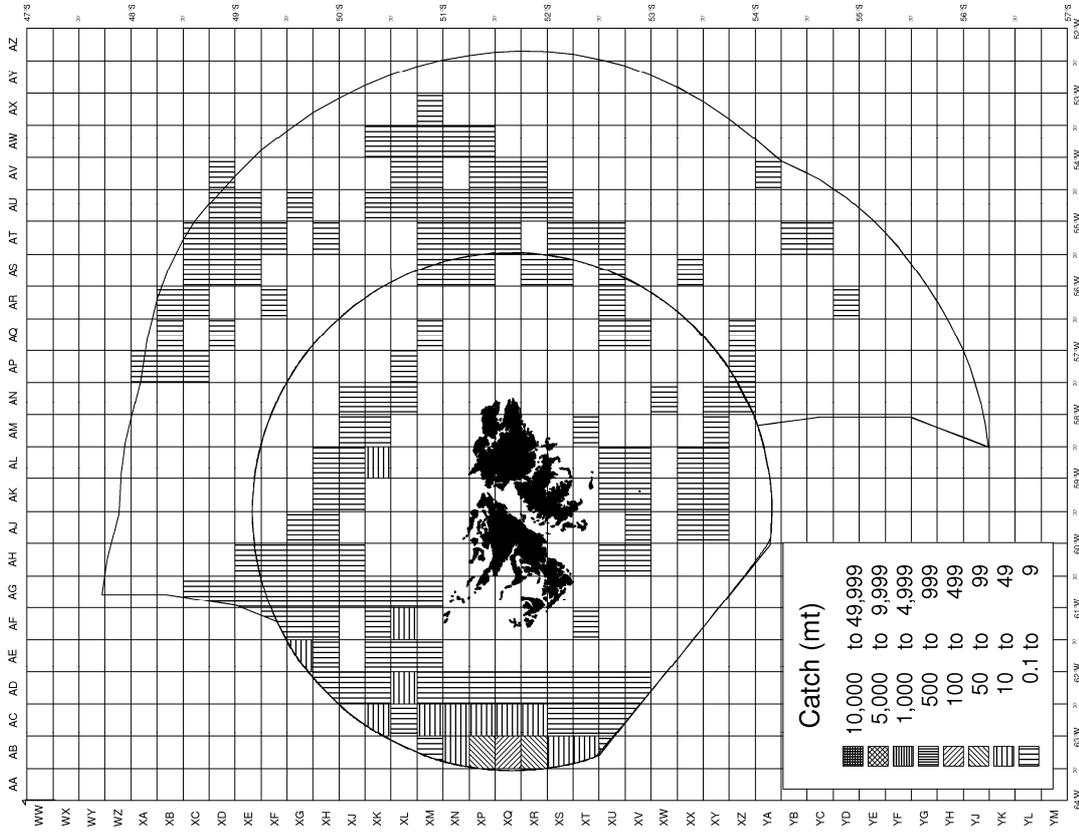
Rajidae

FICZ and FOCZ

Catch (mt) by grid square

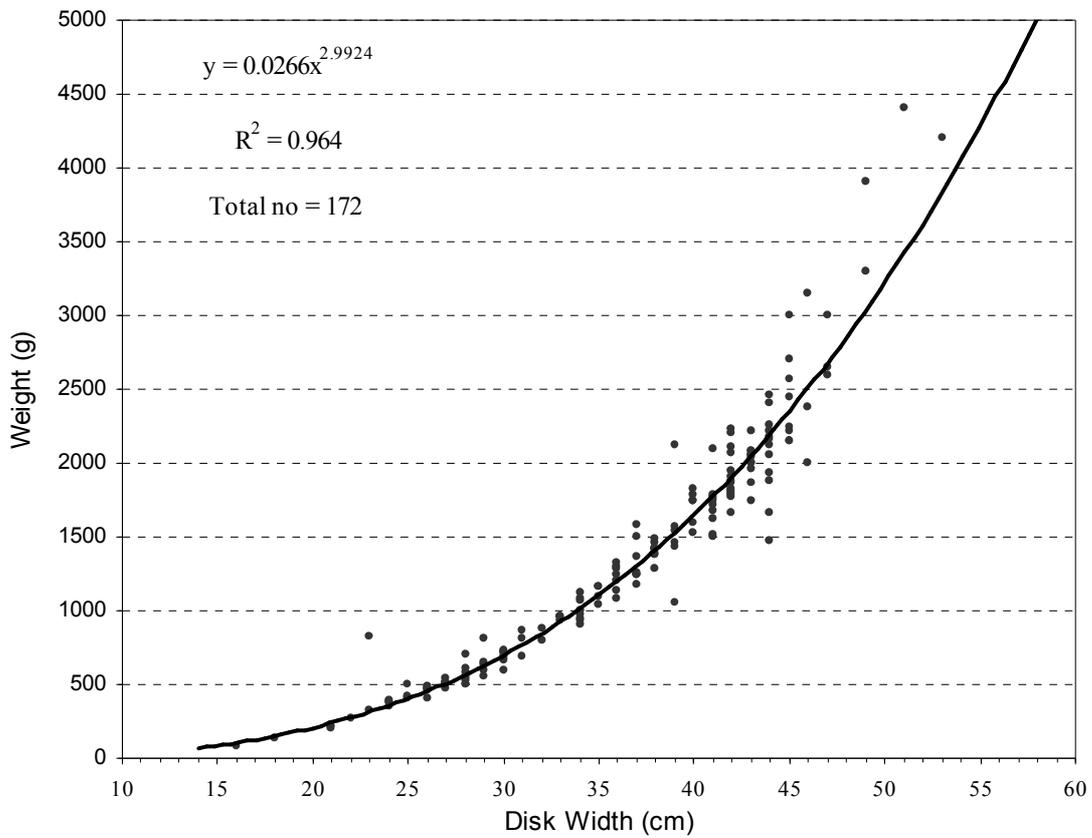
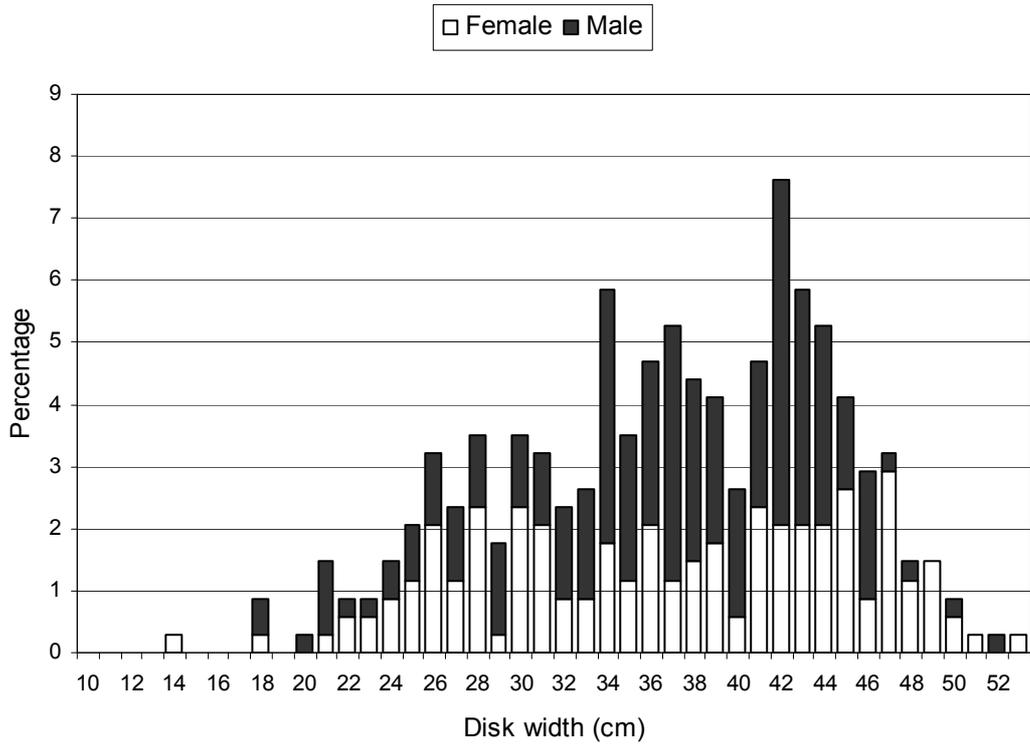
1st Season (01 Jan to 30 Jun)

2nd Season (01 Jul to 31 Dec)



Rajidae - Skates and Rays

Length– frequency distribution and length-weight relationship in 2005 for *Bathyraja albomaculata*



Zygochlamys patagonica - Scallop

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

VESSEL TYPE	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
TR	76	59	685	1279	1358
	76	59	685	1279	1358

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

MONTH	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
January	59	.	441	420
February	250	207
March	519	574
April	75
May	29	.	.
June	12	.	.
July	0
August	0
September
October	41	.
November	440	28	81
December	76	.	204	.	.
	76	59	685	1279	1358

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

Fishing fleet	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
FK	12
UK	1
UY	76	59	685	1279	1346
	76	59	685	1279	1358

Zygochlamys patagonica - Scallop

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

GRT	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<400	76	59	41	.	.
400-599	644	1279	1346
600-799
800-999
1000-1499
1500-1999	1
2000-2999	11
>2999
	76	59	685	1279	1358

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

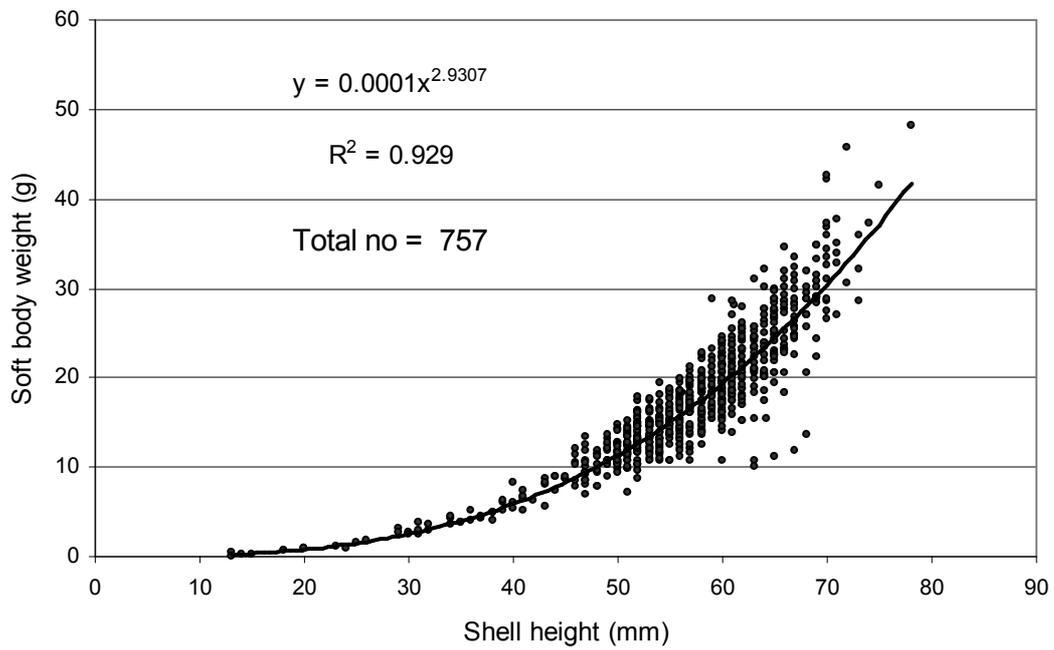
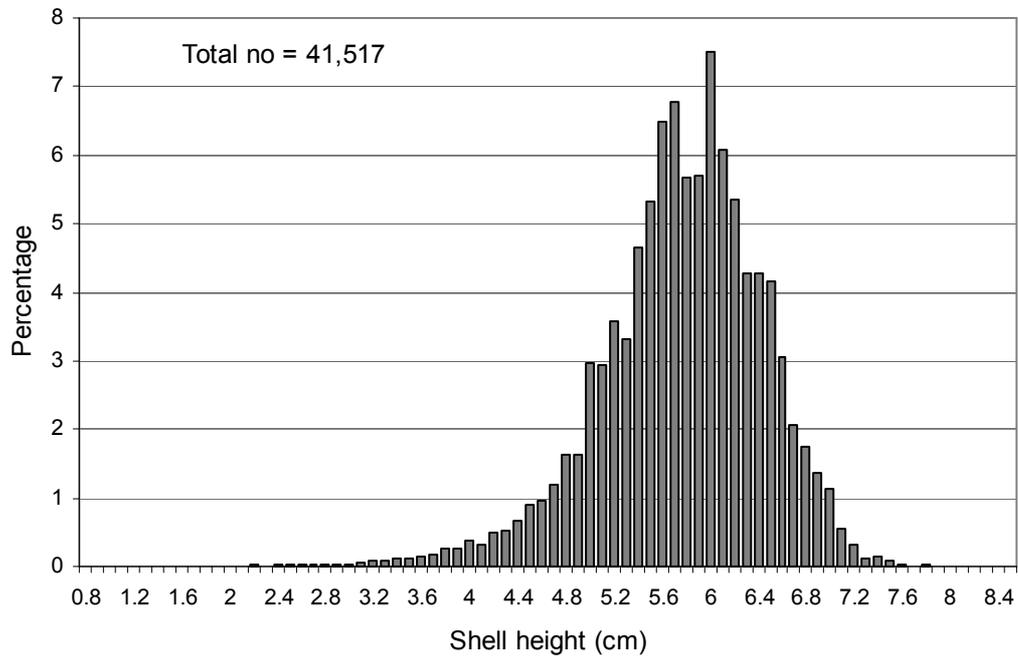
LOA	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<45	76	59	41	.	.
45-49
50-54	644	1279	1346
55-59	4
60-64	1
65-69	7
70-79	1
80-89
>89
	76	59	685	1279	1358

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

BHP	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<1000	76	59	41	.	.
1000-1199
1200-1399
1400-1599
1600-1799
1800-1999
2000-2499	644	1279	1347
2500-2999
3000-3999	12
>3999
	76	59	685	1279	1358

Zygochlamys patagonica - Scallop

Length– frequency distribution and length-weight relationship in 2005



Others

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

VESSEL TYPE	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
CO	.	10	1	.	.	.	.	.	.	.
LO	164	150	231	200	377	272	217	225	183	163
TR	1851	757	3211	4501	3660	1746	1025	1523	4897	10565
	2015	916	3443	4701	4037	2018	1242	1748	5081	10727

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

MONTH	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
January	17	36	150	63	206	117	28	63	147	19
February	21	81	713	91	441	269	73	155	770	840
March	180	60	324	209	407	255	158	61	508	477
April	75	94	306	421	467	450	203	82	716	373
May	19	50	348	659	489	189	47	73	495	645
June	10	.	151	41	119	30	19	21	59	146
July	16	36	8	74	130	24	28	44	273	217
August	245	67	252	418	329	94	178	81	657	1257
September	776	236	592	861	491	142	183	239	622	2923
October	486	205	418	1433	653	296	154	552	547	1001
November	113	36	143	218	215	131	78	296	264	2618
December	57	16	36	213	91	22	93	82	23	213
	2015	916	3443	4701	4037	2018	1242	1748	5081	10727

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

Fishing fleet	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
AU	.	.	234	389	.	.	.	.	.	.
BZ	.	.	.	7	223	43	0	.	.	.
CL	0	1	9	0	.	.	.	2	.	.
EE	.	.	.	.	.	.	.	.	29	.
ES	948	387	1525	2624	2046	1011	496	850	2079	5214
FK	370	181	1033	1217	1344	774	624	686	2696	4984
FR	2	.	15	.	.	.	.	.	.	.
HN	12	.	.	.	.	.	.	.	.	.
IS	83	53	.	.	.	.	.	.	.	.
IT	.	.	.	.	.	.	.	.	.	.
JP	101	103	388	116	9	.	10	38	14	4
KR	361	113	102	252	401	189	112	135	113	78
NA	.	4	14	96	.	.	.	.	25	.
NO	17	31	.	.	.	.	.	.	.	.
NZ	.	.	.	.	.	.	.	22	.	.
PA	43	.	.	0	.	.	.	.	.	.
PL	26	.	.	.	.	.	.	.	.	.
PT	5	.	.	.	2	.	.	.	.	.
RU	.	.	.	.	.	0	.	.	.	.
SC	.	6	.	.	.	.	.	.	.	.
UY	.	.	.	.	.	.	.	.	.	0
UK	48	38	124	0	13	.	.	15	125	448
	2015	916	3443	4701	4037	2018	1242	1748	5081	10727

Others

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

GRT	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<400	178	80	100	101	76	25	48	38	26	0
400-599	146	59	21	97	15	28	2	54	5	18
600-799	542	150	258	267	295	129	81	125	98	126
800-999	157	77	182	709	603	443	296	199	498	650
1000-1499	448	227	1365	2334	2361	1156	464	909	2960	5525
1500-1999	157	76	371	506	320	70	170	232	789	2214
2000-2999	263	143	750	571	358	166	172	174	684	2190
>2999	123	104	396	116	9	.	10	17	14	4
	2015	916	3443	4701	4037	2018	1242	1748	5081	10727

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

LOA	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<45	99	110	138	144	240	112	61	.	0	0
45-49	72	15	96	529	209	127	92	147	337	404
50-54	654	219	474	587	766	376	231	271	708	1456
55-59	413	73	130	435	565	440	200	393	249	672
60-64	27	34	360	726	856	291	126	237	1368	2677
65-69	235	142	813	734	478	304	161	345	1595	3188
70-79	297	161	725	1358	757	281	319	263	442	944
80-89	33	24	282	60	77	54	16	43	356	1328
>89	185	139	424	127	89	33	37	49	27	58
	2015	916	3443	4701	4037	2018	1242	1748	5081	10727

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

BHP	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<1000	17	31	.	.	.	.	.	.	0	0
1000-1199	83	51	.	13	.	.	.	22	.	0
1200-1399	432	116	41	137	120	53	48	93	.	50
1400-1599	103	32	159	361	547	422	240	250	627	889
1600-1799	79	44	395	431	172	39	98	158	638	1153
1800-1999	356	181	806	1523	1424	733	262	621	1778	3889
2000-2499	346	97	715	1116	841	290	334	304	1096	1818
2500-2999	163	76	56	433	554	314	75	92	110	108
3000-3999	252	138	768	560	266	113	143	151	776	2367
>3999	188	149	503	127	114	54	42	57	56	453
	2015	916	3443	4701	4037	2018	1242	1748	5081	10727

Other

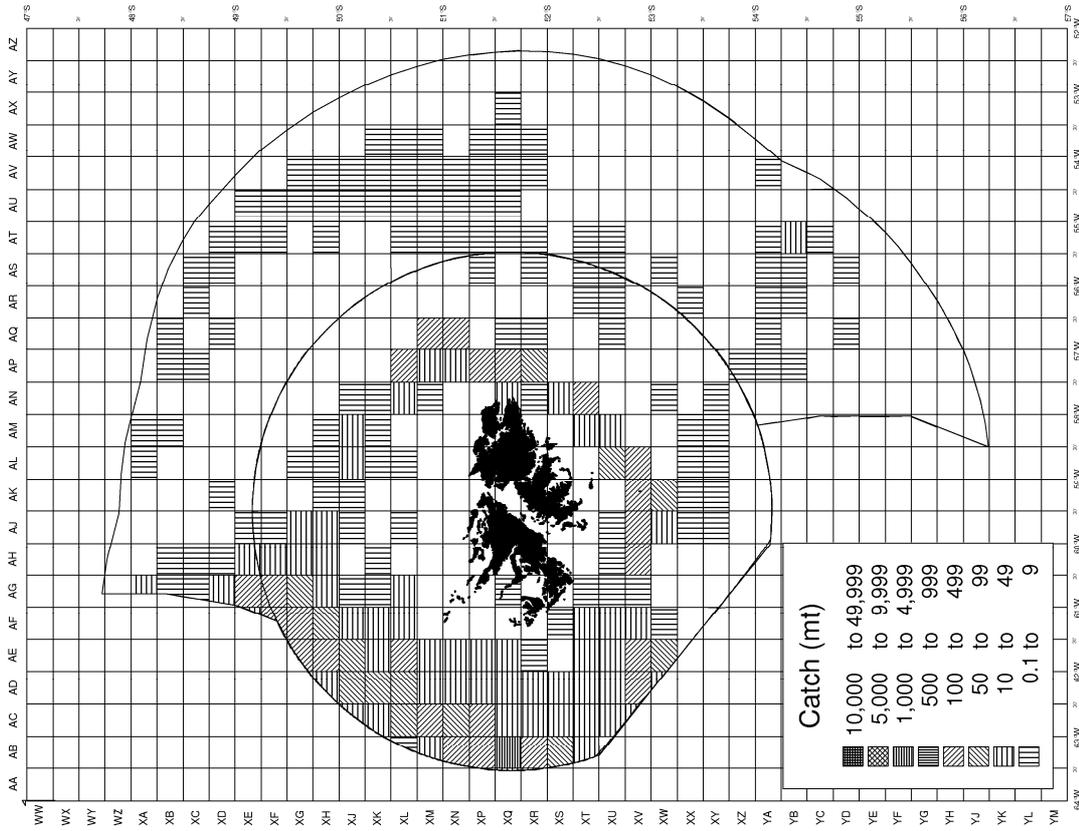
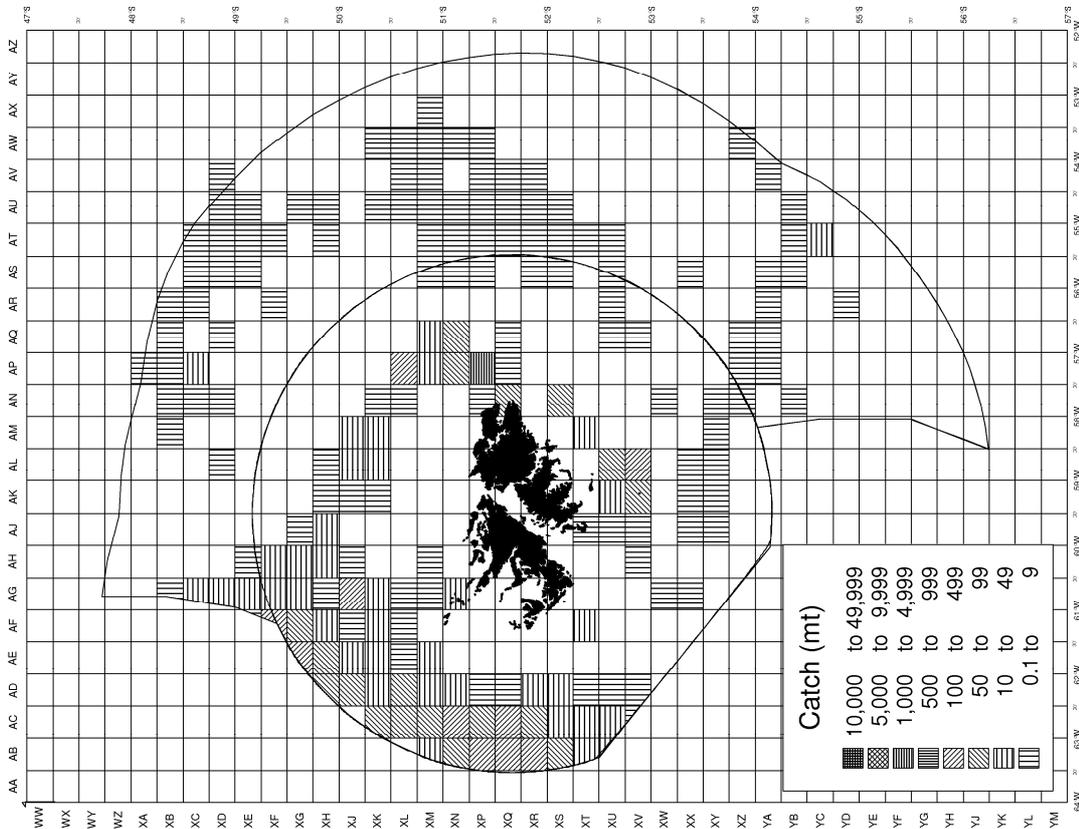
2005

FICZ and FOCZ

Catch (mt) by grid square

1st Season (01 Jan to 30 Jun)

2nd Season (01 Jul to 31 Dec)



Other

FALKLAND ISLANDS COMMERCIAL FISH & SHELLFISH

