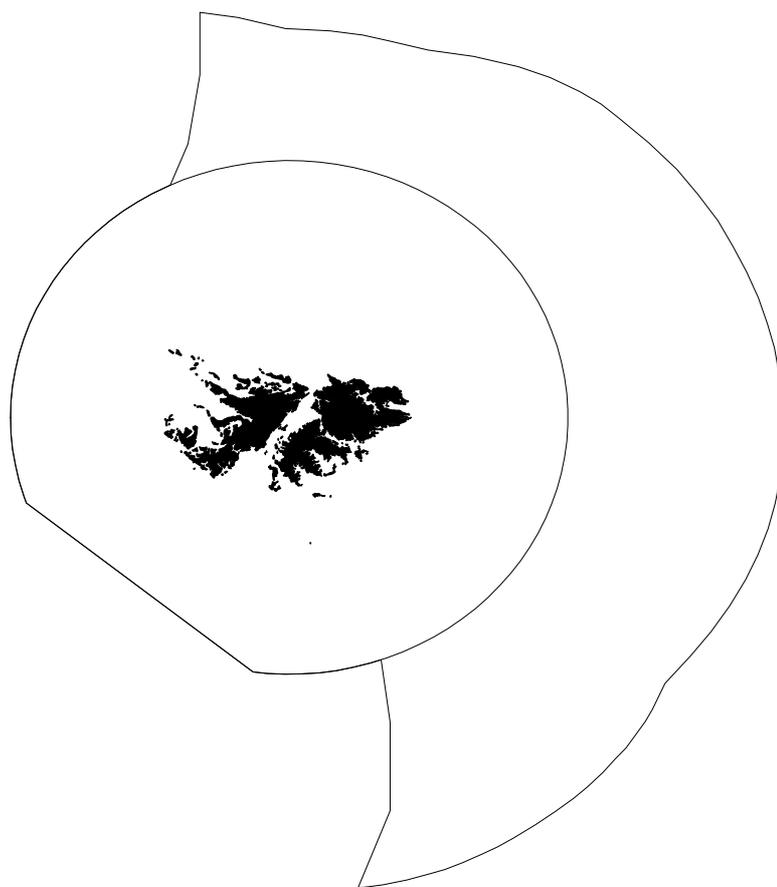


**FALKLAND ISLANDS GOVERNMENT
FISHERIES DEPARTMENT**



FISHERY STATISTICS

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FOREWORD

1. The Falkland Islands' Fishery - 2009

This year once again demonstrated how volatile fisheries based mainly on short-lived resources such as squid can be. After the two bumper years of 2007 and 2008, *Illex* did not migrate to Falkland Zones at all in 2009, causing problems for squid fishing companies. The abundance of *Loligo* was also at low level with a total annual catch of 31,475 t. In contrast to this, the most abundant catch (58,149 t) in FICZ/FOCZ was that of rock cod, which has become the most abundant finfish resource in the Falkland fishery over the last three years.

1.1. *Illex argentinus* – Illex squid

Illex stocks are prone to high variability in abundance, bringing instability to its fishery and marketing. The years of 2004 and 2005 were characterized by rather poor abundances of *Illex* and were followed by three consecutive years (2006-2008) of high abundances. During the 2008 fishery, the Fisheries Department expressed concerns about the status of *Illex* stocks in 2009 due to much slower growth rates and consequently reduced fecundity because of the colder than usual water temperatures during feeding season in February-May. Together with the possibility of spawning being delayed until August 2008, the decrease in fecundity might lead to quite a significant drop in recruitment abundance for 2009. Nevertheless, fishing companies showed their interest in the *Illex* fishery, and applied for 46 licenses to fish in Falkland waters.

In the beginning of 2009, there was no indication of the dramatic change in *Illex* abundance. The temperature regime on the high seas was quite stable throughout January, with sea surface temperatures (SST) being 14-15°C on the shelf at 45°S. Two types of temperature anomalies were observed. To the north of 47 °S SST had positive anomalies of 1.5-2°C. The southern part of the Patagonian Shelf including FICZ was characterized by a weak negative anomaly of -1.0°C. The warm temperatures on the shelf at 45-47°C favoured migrations of *Illex* outside the Argentinean EEZ. Two trawlers started reporting their catches on the high seas from the second week of January, taking 25-30 t per day. In the middle of the month catches decreased to 13-15 t per day, and then increased again (up to 20 t per day) to the end of the month. The majority of squid belonged to the South Patagonian stock. Squid were mainly 20-22 cm mantle length (ML), with immature females and maturing males. No *Illex* catches were reported from the FICZ/FOCZ.

For the first time in the last three years, there was a positive anomaly in SST over the Falkland Shelf in February (+1-1.5°C). The Falkland Current was shifted to the east, which induced the spread of a large in-

flow of warm waters (11-12°C) from the Argentinean Shelf to the northern part of FICZ. The gradients in SST were observed only on the high seas favouring *Illex* concentrations there. Three to eight Falkland-registered trawlers fished for *Illex* on the high seas before the start of the first *Loligo* season in February. Their catches were quite variable (11 to 60 t per day, average 18 t). This was about a half of that observed during the same period of 2008 when the abundance of *Illex* was extremely high (average catches were ~30 mt per day). All licensed jiggers preferred to fish on the high seas, without a single day spent in the Falkland waters. As a result, only 1 t of *Illex* was caught in FICZ as bycatch by the finfish fleet.

Overall, according to the results of the trawl fishery in January-February on the high seas, the abundance of the South Patagonian Stock of *Illex* in 2008 was moderate. The Falkland Current was shifted eastwards and did not create strong gradients of temperature and salinity in the northern part of FICZ/FOCZ in March. Moderate positive anomalies in SST were observed over the entire Falkland shelf, being very similar to those in the *Illex* rich year of 2008. So, in this respect there was nothing obvious to prevent squid entering into FOCZ/FICZ. However, for some reason which was difficult to understand without oceanographic data, squid did not appear in FICZ/FOCZ in March at all. All licensed jiggers carried on fishing on the high seas. Seven jiggers appeared in the northern part of FICZ on 6 March, but did not catch anything and left. Two other jiggers checked the situation on 25 March. After yielding 3 t per night, they also steamed back to the high seas. Catches of *Illex* by finfish trawlers were miniscule with a total of 30 t caught during the whole month.

Two possible scenarios for the rest of the fishing season were suggested. If waters underneath the surface were cold (as in 2002) squid would not appear in the Falkland Zones at all. If the waters were relatively warm (as in 2007-2008), squid from the Argentinean EEZ would migrate through the northern part of FICZ, but CPUEs would be much lower than in 2007-2008 as the whole abundance of *Illex* seemed to be 2-3 times lower than in the last two years. Unfortunately, fishing in the following two months proved the first scenario to be true.

In contrast to March with its moderate positive anomalies in SST in the northern part of FICZ, April was characterized by the development of negative SST anomalies. The inflow of shelf waters from the Argentinean EEZ cooled down to 7°C and was constantly present throughout the month in the north-western part of FICZ. However, unlike 2007-2008 there was no *Illex* squid present. The whole B-licensed jigging fleet worked on the high seas, with one to two vessels periodically (11 fishing days) checking the commercial situation in FICZ. The zero *Illex* catches were obviously not an attractive prospect for the remainder of the fleet. Catches of G-licensed trawlers were in a range of several hundred kilos of *Illex* per day. In Argentina, the *Illex* fishery south of 46°S was closed on 8 April because of low stock abundance.

The SST in May had a negative anomaly, being quite similar to that in April. However, the warm inflow of shelf waters was still present in the northwest of FICZ. In normal years, the presence of this inflow favoured *Illex* migrations through the Falkland waters. No squid were present in 2009. All jigging vessels worked on the high seas and never appeared in FICZ/FOCZ in May. As a result, only 1 t of squid was reported as a by-catch by trawlers. The Falkland fishery was closed early on 15th May.

The *Illex* season of 2009 was virtually non-existent, being the worst in the history of the Falkland fishery with a meager total catch of 45 t. All companies issued with B-licenses were reimbursed, resulting in a significant reduction in Falkland fishing revenues.

1.2. *Loligo gahi* – Patagonian squid

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

To estimate the level of the *Loligo* biomass before the first season, a research survey was conducted in the *Loligo* box on board F/V *Castelo* between the 9th and 23rd of February 2009. The whole catch of *Loligo* was 193 tonnes, most of squid (94%) being caught in the southern area. The highest densities were found to the east and north-east of Beauchêne Island. Squid distribution was different from those observed in the previous two years when *Loligo* were more concentrated in the northern part of the southern area, and had not yet arrived to the Beauchêne Island area. This suggested that most of the first group of *Loligo* had migrated to the *Loligo* box due to positive anomalies in water temperatures. A preliminary estimation of the *Loligo* biomass was at 16,104 t; twice as large as the biomass estimated during the biomass survey in February 2008.

The first season started as usual on 24th February with 16 C-licensed trawlers. All vessels fished to the east and north-east of Beauchêne Island at 140-160 m depths. The catches were reasonable averaging 16-25 t per day (maximum 52 t per day). The squid were mainly immature, about 0.5 cm smaller than in 2008 (mean ML of females 10.6 cm, males 11.6 cm). The total *Loligo* catch for the month (1,995 t) was only a half of that observed during the same period of the last year.

In the first week of March, the whole *Loligo* fleet fished between 150-160 m mainly to the east of Beauchêne Island, yielding average catches of 15-17 t per day. A decreasing trend in catches forced some vessels to move to the northern part of the *Loligo* box. Dense aggregations of squid were found at much shallower depths (95-110 m). During the first days of the ‘northern fishery’ (between 15 and 19 March) catches were high (>30 t per day), but these aggregations were quickly depleted (less than 10 t per day by 22 March), and the vessels moved again to the south where the catches remained at low level of 13-15 t per day until the end of the month.

In April, the fleet continued to fish for *Loligo* in the southern and central areas. Two peaks of abundance occurred in April (7 and 11 April), but the quantities of squid were rather small (average CPUEs of 16 and 20 t per day).

The overall abundance of *Loligo* this year was at low level, with the total catch for the first season equaling at 12,971 t. This catch is the third lowest catch of the autumn-spawning group of *Loligo* since 2000. The average mantle size of squid in catches was 12.1 cm, similar to the sizes in 2008 and 2007, but greater than in 2006. In-season stock assessment of the escapement biomass was estimated to be 10,500 t, close to the 10,000 t escapement limit.

To estimate the biomass of *Loligo* before the second season, another research survey was conducted in the *Loligo* box onboard the F/V *Baffin Bay* between the 30th June and 14th July. Fifty one trawls were conducted with a total *Loligo* catch of 113 t. *Loligo* was concentrated in the northern area, with a low abundance in the southern area. The standardized biomass was estimated at 22,830 t being almost the same as before the second seasons of 2006 and 2007.

The second season fishery started as usual on 15th July, with the whole fleet fishing in the northern area. The catches were good (mean 27 t per day). Some vessels checked the southern area, but without success

(7-9 t per day). The first peak in catches occurred on 24-25th July in both regions (40-50 t per day). *Loligo* also appeared in the western part of the southern area, migrating from the outside of the *Loligo* box. The second peak in CPUEs took place only in the southern area (mean 42 t per day) on 29th July. The average size of squid in catches was 11-12 cm of mantle length in the north, and 12-13 cm in the south. In August, CPUEs gradually decreased from 27-30 t per day during the first week of the month to 10-15 t per day by the end of the month. The decreasing trend in catches carried on to the first week of September, with average CPUEs being only around 10 t per day. The average sizes were 11.9 cm ML for females and 12.9 cm ML for males.

The total catch of *Loligo* during the second fishing season was 17,873 t with about 60% being caught in the central and northern parts of the *Loligo* box. The small contribution of the southern area to the whole catch was consistent with quite low biomass found in this area during the pre-season *Loligo* survey.

The fishing season closed early on 11th September to preserve the escapement spawning biomass, ensuring it remained above the 10,000 t threshold limit. After updating the stock assessment model with the last 5 days data, the escapement biomass was estimated at 10,000-12,000 t. To investigate possible arrivals of new squid groups after the early closure of the fishery, a scientific survey was conducted between 12 and 30th September. Thirty two trawls were made in two successive sample periods to cover the ‘*Loligo* box’ and 14 adaptive trawls were also made to intensify sampling in areas of high *Loligo* density. It was found that squid were more abundant in the northern part of the box. The biomass was estimated to be 6,045 t during the first sample period (11-19 September) and 12,120 t during the second sample period (20-30 September), suggesting that late immigration of a new group of *Loligo* may have been occurred.

The total annual catch of *Loligo* in 2009 attained 31,475 t which was the third lowest annual catch in the last decade.

1.3. *Martialia hyadesi* – *Martialia* squid

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

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

Traditionally the southern blue whiting fishery has been one of the most important resources in the Falkland Island finfish fishery with annual catches of approximately 25,000 tonnes taken by specialized pelagic vessels as well as by the bottom-trawl finfish fishery.

The downward trend in catches observed since 2007 continued in 2009 with the total annual catch just reaching 10,543 t. More than a half of that (6,580 t) was taken by the pelagic fleet targeting post spawning aggregations of southern blue whiting between October and December. Two pelagic vessels (including one surimi trawler) were fishing for southern blue whiting without much success, having historically low catches. One trawler tried to fish in March and April but did not have any success either. The finfish fleet targeted aggregations of southern blue whiting in September – October in the southern part of FICZ. Catches were low with the total catch of the fleet amounting to 3,555 t.

Catches in Argentina were at a similar low level with the annual catch reaching 15,900 tonnes. A stock assessment of southern blue whiting was undertaken in 2009 using an age-structured-production model. It included the data from previous stock assessments up to 2004 and also recent catch data collected both in Falkland and Argentinean waters until 2008. The stock assessment showed a continuous downward trend of the

stock since 1993 and a critical condition with the total biomass consisting of 23% of B_0 . It was recommended to close the spawning grounds for the commercial fishery during spawning time (September – October) and reduce the TAC considerably to allow the stock to recover. These conservation measures will only be effective if similar actions are taken in Argentina.

1.5. *Macruronus magellanicus* - Hoki

Hoki is one of the most abundant pelagic species around South America, migrating in austral winter from their feeding grounds around the Falkland Islands north towards spawning grounds in Argentina and southwest to Chile. After spawning, fish return from their spawning grounds to their feeding grounds. On the other hand a proportion of adult fish and younger fish remain on the feeding grounds throughout the year. The distribution of stock biomass is thus highly variable and difficult to estimate.

After the poor fishing year of 2008, catches in 2009 were very good (23,170 t). The annual catch was the second highest hoki catch on record after 2002. 6,351 t of this catch were recorded as bycatch (i.e. hoki accounting for less than 40% of the total catch) in various fisheries. The largest catches were taken in the first half of the year, with high catches (quite unusually) even throughout the austral winter. CPUEs were high in the first half of the year, indicating high abundance of hoki in Falkland waters. The average CPUEs were 1.58 t per hour in targeted hauls with densest aggregations encountered between February and April (average CPUEs of 2.38 t per hour). The highest CPUE (19.1t per hour) was recorded for a surimi vessel in December.

Catches of hoki in the austral summer consisted of an unusually high proportion of young fishes in the north of FICZ, which might indicate that a good recruitment event has taken place between 2006 and 2008. However, overall catches decreased rather than increased in the austral summer, indicating that fish had not migrated back in time from their spawning grounds. This was most likely due to extremely cold weather conditions observed in FICZ in the second half of the year.

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

Common and Patagonian hakes are highly valuable migratory finfish species on the Patagonian Shelf. Over the years catches of hakes have fluctuated strongly due to variability in the proportion of hake stocks migrating into Falkland waters from the high seas and Argentinean EEZ. Since 2006, the amount of hakes migrating into the FICZ has been considerably larger than in previous years, with 2009 setting a new record with the total annual catch amounting to 13,055 t.

Catches were the highest in austral autumn and throughout the austral winter; high catches and densities lasted longer into the year, with vessels still attaining high CPUEs in August in contrast to 2007 when the majority of catches occurred before June. Dense aggregations of hakes were encountered between February and August with average CPUEs of 775 kg/hr in “targeted” hauls (i.e. any hauls with more than 30% hake), while surprisingly the highest CPUEs were encountered in October, up to 1,992 kg/hr. From the observer reports, general knowledge about fish behaviour, migratory routes and seasons of both common and austral hake, it is possible to deduce that the majority of fish were common hakes (*Merluccius hubbsi*) while catches of austral hake remained at low level.

As the proportion of the common hake stock migrating to the Falkland waters remains low in comparison its total stock size, the observed increase in catches in recent years does not necessarily imply an increase

in stock biomass but rather a shift in migratory behaviour, likely due to environmental factors. This is a matter of concern because the total hake catches in the Southwest Atlantic have been declining rather than increasing.

1.7. *Genypterus blacodes* – Kingclip

Kingclip is one of the most valuable by-catch species in the Falkland Islands fishery. It appears to have a seasonal spawning migration in and out of Falkland Islands waters especially in the western parts of the FICZ. They leave in winter and return in early summer with many individuals in post spawning condition. Recently, however, mature females have been found in the northwestern part of FICZ in February which may suggest that kingclip may be batch spawners with extended spawning periods.

The cumulative catch of kingclip reached 3,393 t which makes 2009 the second highest kingclip catch on record after the most productive 2007. As in previous years, the fishing effort in the finfish fishery has remained relatively stable indicating an increase in abundance of kingclip from 2003 onwards. The reasons for this increase in abundance still remain unclear but, similar to common hakes, could be a result of regional changes in oceanography.

Monthly catches increased steadily from January through to May (70 – 437 t), then decreased in June (179 t) due to a decrease in fishing effort. The same increasing trend in monthly catches was observed from July to October (257 – 548 t) after which it declined again due to a drop in fishing effort. Most of the large catches were encountered in the western and northern parts of the FICZ.

1.8. *Salilota australis* – Red cod

The total annual catch of red cod reached 5,079 t making it the 9th highest catch on record in the Falkland Zones. As usual the highest catches were taken between August and November when some vessels were targeting pre-spawning, spawning and post spawning aggregations to the west and south west of the Falkland Islands. The other productive months were March and May with 530 t and 603 t respectively.

In assessing stocks for 2009, an Age Structured Production Model (ASPM) was used with the CASAL software. For the ASPM, the SSB_0 and SSB_{1987} were calculated to be 67,850 t and 67,915 t respectively. The final SSB_{2008} was 18,311 t and therefore 26.98% of SSB_0 . Both the CEDA and ASPM models produced similar results for SSB_{2002} at 17,000 and 18,094 t respectively. The ASPM illustrated a relatively steep decline in both SSB and total biomass from 1987 until 2003. After this SSB seems to remain stable at approximately 17,000 – 18,000 t whereas total biomass has increased slightly from ~ 33,000 to 39,000 t.

Clearly there is a worrying decline in red cod biomass. To identify the red cod spawning grounds, the data on spawning behaviour and distribution were collected over three research cruises in 2005, 2006 and 2007. The results of these cruises enabled us to develop mitigation measures to protect spawning aggregations of red cod for the future, with twelve grid squares in the southwestern part of FICZ being closed to all fishing activities between 1 and 31 October.

1.9. *Dissostichus eleginoides* – Patagonian toothfish

In 2007, the toothfish longline fishery became the first fishery in the Falkland Islands to be managed with TAC, rather than total allowable effort (TAE). The original TAC for 2008 was set at 1,200 t, however prior to the end of 2008 the CFL (ITQ holder) requested the bringing forward of 15% from the next 2009 TAC.

That was allowed and resulted in a new TAC of 1,380 t for 2008. CFL managed to catch 1,368 t and were thus 12 t short of the new TAC. The latter was carried forward to 2009 with a resultant TAC of 1032 t.

Catches were reasonably good throughout the year up until the only longliner *CFL Gambler* left the fishery on the 10th October for dry dock and maintenance. Daily CPUEs ranged between 0 and 10.94 t per day (mean = 4.3 t). Prior to the *CFL Gambler* return to the fishery, the CFL requested bringing forward 10% from the 2010 TAC, and this was approved. This resulted in a new 2009 TAC of 1,152 t. The vessel started to fish again on the 2nd December and for the remainder of the period catches were at a slightly lower level ranging from 0.55 to 6.77 t per day (mean = 3.63 t). By the end of year, the longliner had caught 1,134 t and therefore were 18 t short of their new TAC, which will be carried over to 2010.

The cumulative catch for toothfish in 2009 caught in the trawl fishery reached 285 t making it the 6th highest in the last 10 years. Trawlers continued to catch 2+ and 3+ year fish on the shelf indicating that 2006 and 2007 were good years for recruitment, the benefits of which, for the longline fishery, may be seen in 6 – 7 years time.

During April 2009 the FIFD conducted another experiment on board the *CFL Gambler* in order to compare the CPUEs of both the umbrella and Spanish longline systems in order to arrive at a factor to enable the use of both data sets in the CPUE time series for stock assessments. The March 2008 longline/umbrella experiment suggested a nonlinear relationship with their CPUEs as the umbrella system was saturated before the longline system when the local toothfish abundance was high. This illustrated that the longline system could outperform the umbrella system when local abundance was high. The experiment in April 2009 used a pair wise allocation of treatments so there would be direct comparison of the two systems. Data from both experiments (2008 and 2009) allowed FIFD to produce a Gamma Distribution model fitted to the ratio of CPUE Umbrella/CPUE Longliner which enabled the use of the umbrella data in stock assessments.

The stock assessment for 2009 was carried out using an ASPM. The MSY estimations varied between 1,130 t and 1,312 t, which were close to the current TAC of 1,200 t. It was recommended that the TAC remain the same (1,200 t) for 2010.

1.10. Rajidae – Skates and rays

The year 2009 recorded 5,865 t of skate caught in the Falklands Conservation Zones, the highest total catch since the start of a specific fishery in 1994. Nearly half of the total catch was taken as targeted catch, under 'F' or 'R' licenses. As previously, targeted fishing for skate peaked in the third quarter of the year with 1,340 t taken by six Korean trawlers and 436 tonnes by two Spanish trawlers. Overall, 76% of the targeted skate catch was harvested by Korean vessels and 24% by Spanish vessels. The Spanish vessels had a mean yearly CPUE of 599 kg/hr and the Korean vessels had a mean yearly CPUE of 650 kg/hr. Mean monthly CPUE peaked between June and September for all vessels.

In 2009, 2,941 tonnes of skate were reported as bycatch in various fisheries. Most skate bycatch in 2009 was taken during the first half of the year under 'W'-licence (1,181 t) and 'A'-licence (1,097 t).

Fifteen observer deployments reported a total of 160.4 tonnes of skate catch identified to species. The five most prevalent species comprised 85% of the total by weight: broadnose skate *Bathyraja brachyurops* (33.3%), yellownose skate *Dipturus chilensis* (19.1%), grey-tailed skate *Bathyraja griseocauda* (17.7%), white spotted skate *Bathyraja albomaculata* (9.6%), and cuphead skate *Bathyraja scaphiops* (5.3%).

1.11. *Patagonotothen ramsayi* – Rock cod

The annual catch of rock cod reached 58,149 t and was similar to that in the previous year. A total of 44,701 t of medium-sized and large fish (76.9%) was processed.

Rockcod was targeted mainly by trawlers with finfish licenses (52,594 t) and was also taken as by-catch in other fisheries, particularly during the *Loligo* trawl fishery (4,418 t). Most of rock cod was caught on the northwestern shelf between 150 and 220 m. Mean daily CPUEs of finfish trawlers peaked up to 20-25 t in January, they gradually decreased to 5-10 t in late July – early September, and then increased again to 15-20 t by the end of December. In 2009, mean daily catch was 13.6 t in contrast to 15.1 t in 2008 and 8.2 t in 2007. Fish size in catches was generally smaller, than in the years 2007 and 2008 that was probably a consequence of heavy exploitation of the stock over the last few years. The possible recruitment of a strong year class can be disregarded as no significant CPUE increase was observed in 2009 compared to 2008.

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

Grenadiers, *Macrourus* spp. and *C. fasciatus* were taken as a bycatch by longliners and trawlers throughout the year. Total longline bycatch was 77.6 t, trawlers took another 145 t. These data did not include the catch taken during an exploratory deep-sea fishery onboard a Spanish trawler in February - March, which accounted for 733 t of the total annual catch of 958 t. The exploratory survey covered the area between 50°05' S and 53°38' S with depths ranging from 512 to 931 m. The spatial distribution of grenadiers in summer was found to be relatively even all over the study area. The entire population had just started to move northwards to the autumn spawning grounds with females becoming relatively more abundant to the north of 52°S, and males extending the zone of their maximum abundance to almost 51°S. Before, in winter and spring, grenadiers were aggregated mostly on the southern Falkland slope. Modal sizes of males in catches varied between 20 and 22 cm, those of females between 23 and 27 cm of pre-anal length (PL). Female maturity and GSI increased with their northward migration from southern feeding grounds.

1.13. *Zygochlamys patagonica* - Patagonian scallop

There was no specialized scallop fishery in Falkland waters in 2009. A small by-catch of 13 t was taken by *Loligo* and finfish fleets.

1.14. *Eleginops maclovinus* - Falkland mullet

The mullet fishery continued at a low level. Fishing occurred from January to the beginning of March and then stopped over the austral winter. Fishing recommenced in September and continued until the end of November. A total of 2.8 tonnes were caught in 6 creeks which was 3.3 tonnes lower than in 2008, however the effort in 2009 was also half that of the previous year. The two most frequently visited creeks were Body Creek and Teal Creek.

1.15. Others

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

2. Fisheries Department research cruises in 2009

After reviewing all tender proposals, the commercial fishing trawler *Castelo* has been chosen as a new research vessel for the Fisheries Department. A few major renovations have been done to the vessel including the installation of a dry lab to accommodate several scientists and installing an oceanographic winch to deploy CTDs.

The south-western part of FICZ was chosen as the study region of the first research cruise on *Castelo* with main aims: a) to examine distribution and biology of hoki and Patagonian hakes during their post-spawning migrations to Falkland waters, b) to examine distribution and biology of grenadier community in deeper part of the Falkland slope and c) to carry out an oceanographic survey of the area.

The vessel departed Stanley in the afternoon of 17 October, and in the evening made its first trawl and oceanographic station to the east of Lively Island. The following thirteen days of the research cruise were dedicated to the demersal trawl survey of the south-western part of FICZ. The vessel started the survey from the eastern grid squares XVAK and XVAL, then proceeded to fishing northern grid squares and finished the survey in the southern grid squares XUAE and XUAF. Every day, two grid squares of the survey were fished. In each grid square, two trawls were made at random locations, usually one in shallower and one in deeper waters. During the last two days of the survey, four plankton tows were performed just after the dusk, at depths of the main backscattering layer (80-100 m) and above it (25-30 m).

After finishing the biomass survey on 29 October, the vessel moved to a deepwater area of the Falkland Trough to the south of Beauchêne Island. Three deepwater trawls were made at depths of 550, 650 and 900 m on 30th October, studying distribution and abundance of deepwater fauna with grenadiers *Macrourus carinatus* being the dominant species. To compare the demographic structure of juvenile toothfish inhabiting deepwater and shelf regions, three additional trawls were made at 250-350 m depths to the southeast of Beauchêne Island on 31st October. A good collection of genetic and otolith samples from toothfish were collected from both regions. On 1st November, two shallow water trawls (65-70 m depth) were made in one of the potential *Loligo* spawning grounds between East Falkland and Sea Lion Islands. Mature and spawning squid of the spring-spawning cohort together with juvenile squid of the autumn-spawning cohort were sampled. The *Castelo* arrived in Stanley in the morning of 2nd November. Despite strong winds and rough seas encountered during nine out of sixteen days of the cruise, only a half day was lost due to bad weather.

Mean density (kg/km^2) and total biomass was estimated for each abundant species in the area studied, with maximum biomasses represented by rock cod (~34,000 t) and post-spawning aggregations of red cod (~18,000 t).

3. Fisheries Department research contracts in 2009

The Falkland Islands Government's financial year runs from 1 July to 30 June and most external research contracts in the Fisheries Department have these same start and end dates. Contracts completed by the end of June 2009 are presented below. A contract for the years 2008-2010 has been signed with the Renewable Resources Assessment Group (RRAG, Imperial College, London, principal investigator Dr. David Agnew) to provide fisheries management advice and analysis of license fees.

3.1. “Providing satellite sea surface water temperature (SST) data for the area of the Falkland-Patagonian shelf between January and May 2009”.

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

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

3.2. ‘Is genetic isolation of the *Loligo gahi* populations on the east and west coasts of S. America related to the Peruvian upwelling system or isolation-by-distance?’

This work was carried out by Dr. Paul W. Shaw from the Environmental & Evolutionary Biology Research Group, School of Biological Sciences, Royal Holloway and Bedford New College, University of London, United Kingdom.

Microsatellite DNA markers for population genetic assessment of *Loligo gahi* were developed to test whether populations of this species around the Falkland Islands represent a single breeding unit or whether they should be considered separately for the purposes of fishery management. In the course of this study, comparison with a sample from Peruvian waters uncovered extensive genetic differences between the Atlantic and Pacific populations of this species, raising the question as to what features could cause the breakdown in effective migration. Local oceanographic and physical features associated with the cold upwelling system on the west coast of South America were suggested as representing a barrier to dispersal/migration in this species. The aim of the present study was to test whether populations to either side of the upwelling region are genetically isolated, or whether the perceived Peru-Falkland divergence results from isolation-by-distance effects between the geographically most remote parts of the species distribution. Samples from Peru and Chile were screened for genetic variation and differentiation at 6 microsatellite DNA markers and one mtDNA gene region (COI), and compared to previously screened samples from Peru and the FICZ.

The main objectives of the study were successfully completed. Genetic variation at the same six microsatellite loci, and a new mtDNA marker, was assessed in 403 individuals from 13 Chilean, Peruvian and Falkland Islands samples. It was shown that levels of genetic variability in *L. gahi* (number of alleles per locus and observed heterozygosity) were comparable to previous samples from the FICZ, Peru and Chile. Estimates of the between-sample component of genetic variation (F_{ST}) across all loci were low, and not significantly different to zero, between the majority of samples within the Peru region and within the Chile-FICZ region ($F_{ST} = 0.004$ and 0.002 respectively). It was concluded that there was no substantial evidence for genetic differentiation between subpopulations within the two regions, and that there were effectively single genetic populations of *L. gahi* within Peruvian and Chile-Falkland Islands waters. The hypothesis of an isolation-by-distance effect generating genetic differentiation was rejected within the two regional populations.

Estimates of the between-sample component of genetic variation (F_{ST}) across all loci were low but significantly different from zero for all between-region sample comparisons, indicating a significant genetic break between Peruvian and Chile-Falkland *L. gahi* populations. The barrier to genetic exchange between these two regional populations was identified as lying between 12°S and 33°S on the Pacific coast of S. America, corresponding to the position of the cold upwelling system here.

A newly developed mitochondrial DNA marker, the COI gene region, revealed haplotypic diversity, characteristic of recently expanded populations of *L. gahi*, with the northern population probably resulting from a founder/colonization process from the southern population. Patterns in mtDNA haplotype diversity support the genetic differentiation indicated by microsatellite markers, with a distinct divergence between Peruvian and Chilean-Falkland populations.

3.3. 'Genetic structuring of hoki populations around the Falkland Islands and southern Chile'.

This work was carried out by Dr. Paul W. Shaw from the Environmental & Evolutionary Biology Research Group, School of Biological Sciences, Royal Holloway and Bedford New College, University of London, United Kingdom.

The main objectives of the study were successfully completed. Genetic variation at six microsatellite loci, developed previously for hoki (D'Amato et al. 1999), was assessed in 249 individuals from 2 sites in SW Chile and 1 site in the Falkland Islands, plus a temporal replicate sample from the Falklands site. A novel mtDNA marker (Control Region) was successfully developed for hoki, and subset of 101 individuals were tested for sequence variation.

Results are summarised as follows:

Microsatellite locus variation complied with previous studies using the same loci (D'Amato et al. 1999), generating a dataset with sufficient statistical power to test for population genetic differentiation. Haplotype variation at the CR mtDNA locus was extremely high and consistent across samples, and displayed very low nucleotide diversity. Excess haplotype diversity resulted in low statistical power of the mtDNA marker to test for population differentiation, but good power for tests of demographic processes.

Estimates of the between-sample component of genetic variation (F_{ST}) across all loci were low (0.002), and not significantly different to zero, between samples within Chile. It is concluded that there is no evidence for genetic differentiation within Chile, although this conclusion is qualified by the apparent temporal instability of gene frequencies within the Falkland Islands site. Further sampling and testing for temporal stability within the Chile population, would be required to confirm the absence of multiple genetic stocks within this region. Estimates of the between-sample component of genetic variation (F_{ST}) across all loci were higher (0.005-0.006), and significantly different to zero, between samples from Chile and the Falklands. It is concluded that there is evidence for genetic differentiation around southern S America between southern Chile and the Falkland Islands. Further sampling and testing for temporal stability within and between the Chile / Falklands populations would be required to confirm where barriers to genetic exchange exist.

Estimates of the between-sample component of genetic variation (F_{ST}) across all loci were high, for marine fish (0.011), and significantly different to zero, between the temporal samples taken at the Falklands site. It is concluded that there is a lack of temporal stability in gene frequencies at this site, suggesting the presence of genetically distinct sub-populations in this area (either migrating through at different times of year or being sampled in different proportions from a mixed stock). Further sampling and testing for temporal stability within the Falkland Islands population would be required to confirm the presence of mixed or temporally changing stocks

A newly developed mitochondrial DNA marker, the Control Region, revealed haplotypic diversity, characteristic of recently expanded populations of hoki. Patterns in mtDNA haplotype diversity, although lim-

ited in statistical power, support the genetic differentiation of the autumn Falkland Islands sample from the Chilean and spring Falklands samples.

3.4. 'Are early and late autumn recruitment cohorts of *Illex argentinus* distinct populations? A genetic test using microsatellite DNA markers.

This work was carried out by Dr. Paul W. Shaw from the Environmental & Evolutionary Biology Research Group, School of Biological Sciences, Royal Holloway and Bedford New College, University of London, United Kingdom.

The main aim of the project was to test for significant genetic differentiation in gene frequencies between geographical and/or temporal samples of *I. argentinus*, and so test for genetic differences between early and late autumn recruitment cohorts in waters to the north and west of the Falkland Islands. Genetic variation at five microsatellite loci, developed previously for *I. argentinus* (Adcock et al. 1999a), was assessed in 298 individuals from 15 samples.

Substantial problems were encountered with extraction of high quality DNA from all samples, leading to high failure rates of PCR amplification. Re-extraction of all 658 individuals using a phenol clean-up modification achieved significant improvement in PCR amplification success, but only 298 individuals could be screened successfully for a core of 5 microsatellite loci. Extensive degradation of sample DNA, probably resulting from long-term storage (since 2001), was identified as the source of amplification failure. In the samples that were screened successfully, microsatellite locus variation complied with previous studies using the same loci (Adcock et al. 1999b) and levels of variation were similar amongst all samples: expected heterozygosity (HE) ranged from 0.534 (Ia422) to 0.895 (Ia112); number of alleles ranged from 9 (Ia201) to 21 (Ia112). The global estimate of the between-sample component of genetic variation (F_{ST}) across the whole dataset and across all loci was low (0.012) and not significantly different to zero. Pairwise estimates of F_{ST} between individual samples ranged from 0.000 to 0.043, and no values were significantly different from zero. It is concluded that there is no evidence for statistically significant genetic differentiation among samples within the present dataset.

An alternative approach to uncovering genetic sub-structuring within a dataset, Bayesian clustering-based analysis, was used to test for the presence of mixtures of genetically differentiated subpopulations within samples. STRUCTURE analysis indicated that the most likely number of populations represented within the dataset was 1, i.e. no sub-structuring or presence of cryptic subpopulations. There was no evidence of significant clusters of individual genotypes. Assignment tests generated low levels of self-classification (<10% for all samples) of individuals to their sample of origin and simulations did not permit any sample to be excluded as a likely source of any individual.

Both sample-based differentiation tests and multiple clustering-based analyses failed to detect any signal of genetic sub-structuring of the sample set, therefore failing to reject the null hypothesis of a single genetically homogeneous population with no evidence of differentiated seasonal spawning populations.

4. Reductions in seabird mortality in the Falkland Islands

In 2004 the Falkland Islands Government adopted the National Plan of Action – Seabirds for longliners (NPOA – S). This is currently under review and will pave the way for targets to 2011. The aims of the NPOA – S were to reduce by catch rates to below 0.01 birds/1000 hooks by 2004/2005 and to further reduce this level to below 0.002 birds/1000 hooks by 2006/2007. Due to considerable effort and the use of a new

longlining method (umbrella method) the mortality was reduced to zero for 2007/2008 and again for 2008/2009. These excellent results were in part due to good 'house keeping' on longliners working in the Falklands zones and included correct line weighting regimes, correctly designed and effective tori lines, the use of the 'Brickle Curtain' and the removal of hooks from by-catch and discards.

The NPOA – Trawlers is also currently under review and will also set targets until 2011. A new tori line designed in 2008 is now being used by trawlers operating in the Falkland Islands. The new lines are essentially shorter, use a different float to stop it travelling and to improve the line tension, and streamer lines are made of different material as well.

5. Fishing Effort and Catch Limits for 2009

The limits on Total Allowable Effort (TAE) and Total Allowable Catch (TAC) were set for the 2010 calendar year. 2009 was the second year when this process was conducted by the Fisheries Department rather than RRAG. TAE were calculated as the number of fishing vessel units required to achieve the management objectives by fisheries. TAC was estimated for toothfish.

6. Participation in Scientific Workshops, Conferences and Symposia in 2009

6.1. ICES International Symposium “Issues confronting deep-sea oceans: the economic, scientific and governance challenges and opportunities of working in deep sea”

The symposium was held in Horta (Faial), Azores, Portugal on 27-30 April 2009 and was broadcasted live on www.tv.azoresglobal.com (watched daily by 200-400 persons worldwide). It was attended by about 170 participants from 26 countries and consisted of opening and closing lectures, everyday's 1-2 plenary lectures, followed by presentations organised in 7 sessions. Participant from FIFD: V. Laptikhovsky. Two oral presentations were given: 'Deep-sea fishery resources and fisheries around the Falkland Islands' by V.Laptikhovsky, A.Arkipkin and P.Brickle, and 'Grenadier fishery and its management in the Southwest Atlantic' by V.Laptikhovsky and A.Arkipkin.

6.2. 4th International Otolith Symposium

The Fourth International Otolith Symposium was held in Monterey, California, USA between 23rd and 28th August 2009. Participants from FIFD: A. Arkipkin and Z. Shcherbich. Two oral reports were presented at the Symposium: 'Growth in evolutionary exile: morid fishes (Gadiformes) in the Southwest Atlantic' by Shcherbich Zh. N., Brickle P., Arkipkin A. I.; and 'Thirty years after: state-of-the-art in cephalopod age and growth studies' by A. Arkipkin.

6.3. Cephalopod International Advisory Council (CIAC) Symposium - 2009

The triannual CIAC Symposium was held in Vigo, Spain between 3rd and 11th September 2009. The Symposium was attended by ~160 delegates from around the globe. Participants from FIFD: A. Arkipkin and V. Laptikhovsky. Two oral presentations were reported during the Symposium: 'Invasion from the deep: utilisation of shelf resources by deep-sea squid and fish' by A. Arkipkin and V. Laptikhovsky, and 'Squid as fish

prey in the Patagonian ecosystem of the Southwest Atlantic' by V. Laptikhovskiy and A. Arkhipkin. Additionally, A. Arkhipkin was a chairman of the workshop 'Recent advances in age, growth and production estimations in cephalopods'.

6.4. XIII European Congress of Ichthyology

The meeting was held in Klaipeda, Lithuania between 6th and 12th September 2009. The conference venue was the Hotel Klaipeda, which was situated in the centre of the city. The conference was attended by P. Brickle, who presented a report entitled 'Life history strategies in the most species rich notothenid genus, *Patagonotothen*' by P. Brickle, A. Arkhipkin, S. Ramsvatn, N. Anders, V. Laptikhovskiy and Z. Shcherbich.

6.5. ICES Annual Scientific Meeting - 2009

The ICES Annual Science Conference was held in Berlin, Germany between the 21st and 25th September 2009. Participants from FIFD: I. Payá and J. Brown. Three papers were accepted as oral presentations for the conference. 'Augmentation of length sampling using production by commercial size categories in the *Loligo gahi* fishery off the Falkland Islands: A simple hierarchical Bayesian model' by Ignacio Paya; 'Progress and future of using CTD loggers in collaborative swept area surveys of *Loligo gahi* in the Falkland Island: Spatial distribution and biomass estimations' by I. Paya, and 'Initial results of satellite linked archival tagging in the Patagonian toothfish (*Dissostichus eleginoides* Smitt, 1898) around the Falkland Islands' by J. Brown, P. Brickle and A. Arkhipkin.

7. Publications from scientific work carried out in FIG Fisheries Department in 2009

7.1. Peer-reviewed publications (appeared in 2009)

- Arkhipkin, A.I., Schuchert, P.C., Danyushevsky, L. 2009. Otolith chemistry reveals fine population structure and close affinity to the Pacific and Atlantic oceanic spawning grounds in migratory marine fish southern blue whiting (*Micromesistius australis australis*). *Fisheries Research*, **96**, 188-194.
- Brickle, P., Arkhipkin, A., Laptikhovskiy, V.V., Stocks, A.F., Taylor, A. 2009. Resource partitioning by two large planktivorous fishes *Micromesistius australis* and *Macruronus magellanicus* in the Southwest Atlantic. *Estuarine, Coastal and Shelf Science*, **84**, 91-98.
- Collins, M.A., Laptikhovskiy, V., Strugnell J.M. 2009. Expanded description of *Opisthoteuthis hardyi* based on new specimens from the Patagonian slope. *Journal of the Marine Biological Association of the United Kingdom* (on line July 2009: doi: 10.1017/S0025315409000988)
- Laptikhovskiy, V. 2009. Oceanographic factors influencing the distribution of South American fur seal, *Arctocephalus australis* around the Falkland Islands before the breeding season. *Journal of the Marine Biological Association of the United Kingdom*, **89**, 1597-1600.
- Laptikhovskiy, V., Arkhipkin, A., Bolstad, K.S. 2009. A second species of the squid genus *Kondakovia* (Cephalopoda: Onychoteuthidae) from the sub-Antarctic, with new insight into the evolutionary history of the family. *Polar Biology*, **32**, 21-26.

- Laptikhovskiy, V., Brickle, P. 2009. Aspects of embryonic development in two Southwest Atlantic gadiform fish: Tadpole codling, *Salilota australis* (Moridae), and southern blue whiting, *Micromesistius australis* (Gadidae). *ACTA Ichthyologica et Piscatoria*, **39**, 127-131.
- Laptikhovskiy, V., Pereira, J., Salman, A., Arkhipov, A., Costa, A. 2009. A habitat-dependence in reproductive strategies of cephalopods and pelagophile fish in the Mediterranean Sea. *Bolletín Malacológico*, **45**, 95-102 (suppl. 2009).
- Laptikhovskiy V., Reyes P.R. 2009. Distribution and reproductive biology of a subantarctic deep-sea lobster, the Patagonian lobsterette *Thymops birsteini* (Zarenkov and Semenov, 1972) (Decapoda, Astacidea, Nephropidae). *Journal of Natural History*, **43** (1&2), 35-46.

7.2. Technical reports:

- Payá, I. 2009. *Loligo gahi* stock assessment survey, first season 2009. Falkland Islands Government Fisheries Department, Stanley. 44 pp.
- Payá, I. 2009. *Loligo gahi*, first season 2009. Fishery Statistics, Biological Trends, Stock Assessment and Risk Analysis. Falkland Islands Government Fisheries Department, Stanley. 41 pp.
- Payá, I. 2009. *Loligo gahi* stock assessment survey, second season 2009. Falkland Islands Government Fisheries Department, Stanley. 44 pp.
- Payá, I. 2009. *Loligo gahi*, second season 2009. Fishery Statistics, Biological Trends, Stock Assessment and Risk Analysis. Falkland Islands Government Fisheries Department, Stanley. 41 pp.
- Payá, I. 2009. Vessel Units and Allowable Effort 2009. *Loligo* - C licences for Second Season 2009. Falkland Islands Government Fisheries Department, Stanley. 10 pp.
- Payá, I. 2009. Vessel Units and Allowable Effort 2010. *Loligo* - C licences for first Season 2010. Falkland Islands Government Fisheries Department, Stanley. 14 pp.
- Payá, I. and A. Winter. 2009. *Loligo gahi* Stock Assessment Survey, post-Second Season 2009. 27 pp.
- Payá, I., P. Schuchert & P. Brickle. 2009. Vessel Units, Allowable Effort and Allowable Catch, 2010. Falkland Islands Government Fisheries Department, Stanley. 43 pp.

Dr Alexander I. Arkhipkin (Editor), sections 1.1-1.3; 1.15; 2; 3; 6; 7

Dr Paul Brickle, sections 1.7-1.9; 1.13-1.14; 4

Ignacio Paya, sections 1.2; 1.9; 1.12 (stock assessment parts); 5

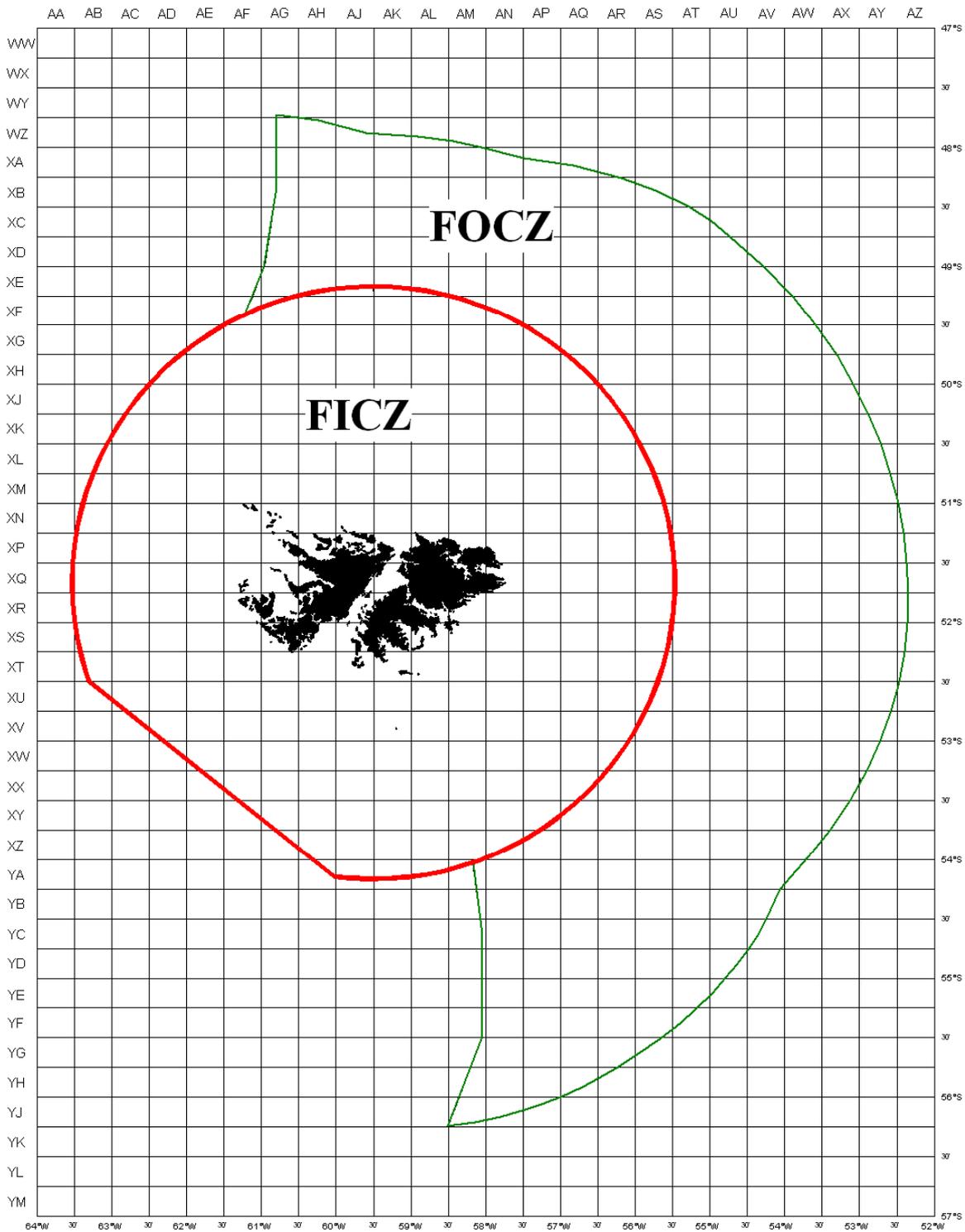
Dr Pia Schuchert, sections 1.4-1.6

Dr Vladimir Laptikhovskiy, sections 1.11-1.12

Dr Andreas Winter, section 1.10

Introduction

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



This chart is illustrative NOT definitive

Introduction

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

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

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

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

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

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

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

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

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

Introduction

Table A.4 Licence types, target species and periods of application 1989 - 2009

Licence	Target species	Period of application
First Season		
A	Unrestricted finfish	1989—2007
B	<i>Illex</i> squid	1989 - 1992
	<i>Illex</i> and <i>Martialia</i> squid	1993 -
C	Patagonian squid (<i>Loligo</i>)	1989 -
F	Skates and rays	1995 –2007
G	<i>Illex</i> squid and restricted finfish*	1997 -
W	Restricted finfish**	1994 –2007
Second Season		
R	Skate and rays	1994 - 2007
X	All species	1989 - 1990
	Patagonian squid (<i>Loligo</i>)	1991 -
Y	Unrestricted finfish	1989 –2007
Z	Restricted finfish**	1989 –2007
All year		
A	Unrestricted finfish	2008-
F	Skates and rays	2008-
E	Experimental fishery***	1996-
L	Toothfish (Longliners)	mid 1999 -
S	Blue Whiting and Hoki	1999 -
W	Restricted finfish**	2008-

* The 'G' licence was introduced in 1997. It represents a combination of the 'B' *Illex* squid licence and 'W' restricted finfish licences. It is limited to trawlers using nets with a minimum mesh size of 90 mm.

** Restricted finfish - Main target species:

Micromesistius australis - Southern blue whiting - BLU

Macruronus magellanicus - Hoki - WHI.

*** Experimental fishing licences 'E' are issued on an occasional basis to denote exploratory or experimental fishing activities. The 'E' licence included longliners fishing for toothfish up to mid 1999, when the 'L' licence was instituted for this activity. In 2006 the 'E' licence was used to cover access to the *Loligo* fishery during the monitoring activities undertaken by single vessels. The Scallop fishery, exploratory trawl fishery for grenadiers and longline fishery for kingclip have also been operating on an E licence.

Table A5 Register of ITQ holding on 28 April 2009

Quota Owner	Finfish	Scallops	Squid - Jig or Trawl <i>Illex argentinus</i>	Squid - <i>Loligo gahi</i> (Summer)	Skate	FISHERY				
						Squid and Restricted Finfish	Restricted Finfish Pelagic	Restricted Finfish	Toothfish Longline	Squid - <i>Loligo gahi</i> (Winter)
Argos	8.15%			18.75%		11.22%		2.00%		18.75%
Beauchene	3.10%			12.97%				1.88%		12.97%
Bold Ventures						15.30%		22.21%		
Byron Holdings	2.28%					10.355%		19.97%	100%	
CFL										
FIG							70%			
Fortuna	24.96%			27.53%		0.04%	30%	0.27%		27.53%
International Fish J.K. (Marine)					36.80%	2.28%		2.06%		
Pioneer Seafoods	7.86%					2.52%		0.86%		
RBC	38.33%					2.99%		1.95%		10.45%
Seafish					29.20%	14.14%		19.95%		4.40%
Seaview					14.34%					14.34%
SFS						10.355%				
Southern Cross	4.18%			11.56%		7.71%		10.42%		11.56%
Sullivan Shipping	11.14%				34.00%	23.09%		18.43%		
Total	100.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Note:										

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

Figures in italics represent provisional quota which is not transferable.

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

Licences

Table B.1 Licence allocations by licence type and year

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

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

LICENCE	2005	2006	2007	2008	2009
A*	9	11	10	23	21
B	70	43	57	44	44
C	17	16	16	17	17
E	11	8	6	4	5
F**	4	.	1	8	8
G	14	20	18	23	27
L	4	6	6	2	1
R	11	11	10	.	.
S	2	2	2	3	4
W***	17	21	14	27	30
X	16	16	17	20	18
Y	12	16	18	.	.
Z	18	24	25	..	.
	205	194	200	171	179

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

Licences

Table B.2 Licence allocations by fishing fleet and year

Fishing fleet	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
BG	9	14	8	6	2	.	.	.	.	3
BZ	.	.	.	.	.	.	1	.	.	.
CL	1	1	.	3	2	8	8	4	3	.
ES	99	72	66	74	74	108	100	69	52	2
FK	7	4	2	3	3	8	19	37	32	2
FR	.	.	.	.	.	5	3	4	2	.
GR	5	3	.	.	.	.	.	.	.	64
HN	.	.	2	3	4	7	8	2	.	43
IS	.	.	.	.	.	.	.	1	3	2
IT	7	3	2	5	6	3	2	.	.	.
JP	95	82	77	63	30	36	13	11	19	.
KR	30	32	42	55	60	86	105	112	98	40
NA	.	.	.	.	.	.	.	.	3	48
NL	1	1	.	.	.	.	.	.	.	1
NO	.	2	.	.	.	.	.	1	1	.
PA	.	.	5	4	3	3	2	3	.	.
PL	68	53	40	21	8	8	4	2	.	1
PT	7	7	4	4	3	4	8	4	.	.
RU	.	.	.	.	.	1	.	.	.	.
SC	.	.	.	.	.	.	.	.	3	.
SL	.	.	.	1	1	1	.	.	.	2
TW	32	17	39	49	77	43	8	3	3	3
UK	11	1	1	.	1	3	2	5	3	.
UR	.	.	.	.	.	1	.	.	.	.
US	.	.	.	.	.	.	.	1	.	.
	372	292	288	291	274	325	283	259	223	211

Licences

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

Fishing fleet	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AU	3	.	.	.	.	.	.	.	.	.	.
BZ	2	5	2	2	3	1	1	.	.	.	.
CB	.	2	1	1	1	1	.	.	.	.	.
CL	3	1	1	1	1	2	.	1	2	1	.
CN	4	9	20	25	22	7	3	2	5	.	.
EE	.	.	.	.	.	1	.	2	.	.	.
ES	76	41	45	49	46	47	36	59	65	59	61
FK	49	47	55	49	80	71	76	69	61	55	55
FR	2	1	.	.	.	.	.	.	.	.	.
GH	.	.	.	.	.	.	.	1	.	.	.
IS	.	.	.	.	.	.	.	.	.	.	.
JP	20	21	16	22	14	7	2	1	1	1	1
KR	71	84	67	71	64	61	43	42	42	38	39
NA	2	.	.	.	.	2	.	.	.	.	.
NZ	.	.	.	.	1	.	.	.	.	.	.
PA	2	.	.	.	.	.	2	1	1	.	1
PT	.	1	.	.	.	.	.	.	.	.	.
RU	.	.	1	.	9	.	.	.	.	.	.
TW	4	16	22	26	29	33	33	10	19	13	15
UK	5	3	3	3	4	5	5	4	4	4	6
VC	.	.	1	.	.	.	.	.	.	.	.
UY	.	.	1	1	2	2	2	2	.	.	.
VU	.	.	.	.	.	.	2	.	.	.	1
	243	231	235	250	276	240	205	194	200	171	179

Table B.3 Licence 'A' (Unrestricted finfish - first season, 1998-2007; both seasons in 2008) allocations by fishing fleet and year

Fishing fleet	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
ES	6	3	4	3	2	1	2	3	2	12	11
FK	4	7	2	3	4	7	7	8	8	10	9
UK	1	.	.	.	.	.	.	.	.	1	1
	11	10	6	6	6	8	9	11	10	23	21

Licences

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

Fishing fleet	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
BZ	2	1	1	3	1	1	.	.	.	.
CB	2	1	1	1	1	.	.	.	.	.
CN	9	20	25	22	7	3	2	5	.	.
ES	.	.	.	.	.	.	.	.	.	.
FK	.	.	.	.	.	1	.	.	.	.
GH	.	.	.	.	.	.	1	.	.	.
JP	17	14	19	12	5	.	.	.	.	.
KR	63	58	53	46	42	28	29	33	31	29
PA	.	.	.	.	.	2	1	.	.	1
RU	.	.	.	9	.	.	.	.	.	.
TW	16	22	26	29	33	33	10	19	13	15
VU	.	.	.	.	.	2	.	.	.	1
	109	116	125	122	89	70	43	57	44	46

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

Fishing fleet	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
ES	2	2	2	.	.	.	.	.	1	2
FK	13	12	14	15	14	16	15	14	15	14
FR	1	.	.	.	.	.	.	.	.	.
NA	.	.	.	.	1	.	.	.	.	.
PA	.	.	.	.	.	.	.	1	.	.
UK	1	1	1	1	1	1	1	1	1	1
VC	.	1	.	.	.	.	.	.	.	.
	17	16	17	16	16	17	16	16	17	17

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

Fishing fleet	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AU	.	.	.	.	.	.	.	.	.	.
ES	.	.	.	1	.	.	2	1	2	1
FK	2	.	.	5	6	8	4	5	2	2
IS	.	.	.	.	.	.	.	.	.	.
KR	3	.	.	.	.	.	.	.	.	.
UK	.	.	.	.	1	1	.	.	.	2
UY	.	1	1	2	2	2	2	.	.	.
	5	1	1	8	9	11	8	6	4	5

Licences

Table B.7 Licence 'F' (Skates and rays - first season in 1999-2007, both seasons in 2008-2009) allocations by fishing fleet and year

Fishing fleet	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
BZ	.	.	1	.	.	.	.	.	.	.
KR	4	1	8	4	7	4	.	.	6	6
ES	.	.	.	.	.	.	.	1	2	2
	4	1	9	4	7	4	.	1	8	8

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

Fishing fleet	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
EE	.	.	.	.	1	.	1	.	.	.
ES	12	13	14	15	11	7	13	16	19	22
FK	4	6	5	9	5	7	6	2	4	5
JP	.	.	.	.	.	.	.	.	.	.
NA	.	.	.	.	.	.	.	.	.	.
UK	.	.	.	.	.	.	.	.	.	.
	16	19	19	24	17	14	20	18	23	27

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

Fishing fleet	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
CL	.	.	.	.	.	.	.	1	.	.
FK	2	6	4	3	4	4	4	4	2	1
KR	1	.	2	4	1	.	2	1	.	.
NZ	.	.	.	1	.	.	.	.	.	.
	3	6	6	8	5	4	6	6	2	1

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

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

Licences

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

Fishing fleet	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
CL	1	1	1	1	2	.	1	1	1	.
FK	.	.	.	.	.	.	.	.	1	3
JP	2	2	3	2	2	2	1	1	1	1
	3	3	4	3	4	2	2	1	3	4

Table B.12 Licence 'W' (Restricted finfish - first season, 1998-2007; both seasons in 2008) allocations by fishing fleet and year

Fishing fleet	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
BZ	1	.	.	.	.	.	.	.	.	.
EE	.	.	.	.	.	.	1	.	.	.
ES	7	9	9	9	15	8	16	10	20	22
FK	1	4	2	13	9	8	3	3	5	5
KR	.	.	.	.	.	.	.	.	1	2
JP	2	.	.	.	.	.	.	.	.	.
UK	.	.	.	1	1	1	1	1	1	1
	11	13	11	23	25	17	21	14	27	30

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

Fishing fleet	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
ES	2	2	3	.	.	.	.	1	3	1
FK	12	16	13	17	15	15	15	15	16	16
FR	.	.	.	.	.	.	.	.	.	.
JP	.	.	.	.	.	.	.	.	.	.
NA	.	.	.	.	1	.	.	.	.	.
UK	1	1	1	1	1	1	1	1	1	1
	15	19	17	18	17	16	16	17	20	18

Licences

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

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

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

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

Licences

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

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

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

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

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

Catch summary tables

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

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

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

VESSEL TYPE	2005	2006	2007	2008	2009
JI	7776	68950	157533	100317	3
PO	.	295	.	.	.
LO	1791	1620	1624	1506	1245
TR	117537	142390	142890	168584	152009
	127104	213256	302046	270407	153258

Catch summary tables

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

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

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

SPECIES	2005	2006	2007	2008	2009
BAC	2467	3469	5195	4076	5079
BLU	17047	20533	22204	13208	10395
ILL	7937	85614	161402	106608	44
KIN	1936	2821	3592	2226	3395
LOL	58811	43067	42003	52260	31475
MAR	0	0	0	0	0
HAK	.	8414**	11,908**	8805**	13051**
PAT	2735*	23***	0***	0***	0***
RAY	5698	4679	5663	3853	5865
TOO	1677	1572	1519	1429	1419
WHI	16721	19761	16669	15902	23170
GRX	.	797	622	943	958
COX	.	20211	30157	60589	58149
ZYP	1358	1161	14	6	13
OTH	10717	1133	1099	502	246
	127104	213256	302046	270407	153258

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

Catch summary tables

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

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

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

	2005	2006	2007	2008	2009
January	1712	2180	2371	4071	3800
February	7562	10861	11130	14310	12414
March	27436	47995	40165	39441	20340
April	10581	46967	86250	65734	18753
May	3870	28046	69260	46724	17810
June	712	1839	8694	16356	5955
July	11786	10173	12356	10253	14481
August	22576	23408	26168	20955	16497
September	17104	15626	20049	23083	15138
October	11008	13522	14000	15444	13460
November	9644	8846	9748	9967	9259
December	3113	3792	1856	4069	5350
	127104	213256	302046	270407	153258

Catch summary tables

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

GRT	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<400	7796	7829	3588	571	2186	276	0	0	0	0	0
400-599	26789	11671	13309	1502	6412	1604	2143	3527	3143	0	0
600-799	163915	110505	78231	14107	50758	3709	6955	52598	85767	61835	11579
800-999	37524	51052	46705	7974	42387	9987	13419	34392	79405	59514	19389
1000-1499	69138	59117	59440	34363	48736	31390	35548	54044	63161	71711	65100
1500-1999	15926	19525	15015	13455	15608	14958	24797	29284	33452	36462	31054
2000-2999	25317	35543	32726	13205	30373	16436	33009	25230	24456	32065	18921
>2999	30633	23864	16185	15803	12637	24738	11233	14180	12663	8820	7214
	377038	319107	265198	100979	209097	103098	127104	213256	302046	270407	153258

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

LOA	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<45	1803	865	2458	271	42	0	0	0	0	0	0
45-49	123498	76639	54447	8662	30524	5553	7824	24366	39348	31052	13343
50-54	71292	62017	42364	14062	36900	13790	18202	46204	66139	50664	15783
55-59	21017	29661	23807	8845	22691	4041	5826	22869	39903	32374	13976
60-64	44818	34635	41514	9615	31321	11646	16725	29214	41920	42074	31319
65-69	37289	32864	32676	18200	30024	19604	23806	34678	56105	52366	30813
70-79	33167	37047	32979	17773	28338	10501	20768	23791	28571	31227	27653
80-89	10100	17008	14026	5661	12649	11357	17923	14811	14052	17598	11048
>89	34054	28370	20928	17890	16606	26606	16030	17323	16009	13052	9323
	377038	319107	265198	100979	209097	103098	127104	213256	302046	270407	153258

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

BHP	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<1000	2964	1765	1320	183	42	0	0	0	0	0	0
1000-1199	12634	7711	9643	917	6666	28	0	0	0	0	0
1200-1399	68649	45064	32509	5516	17093	129	1796	15688	29866	18662	2144
1400-1599	86241	60183	46741	10995	34576	8407	9782	40838	58657	44745	21354
1600-1799	53105	36388	28040	4815	21161	5297	7206	24325	40361	37133	15135
1800-1999	52553	60145	55146	18246	40925	20248	22760	47600	68196	57387	37866
2000-2499	35572	35493	29519	18188	31772	19557	26874	34833	52344	55518	40866
2500-2999	6441	7449	9805	10652	10413	7303	9703	6063	11512	11060	5067
3000-3999	22061	31584	27147	11947	26292	14997	28618	22392	21237	28380	23601
>3999	36817	33324	25328	19519	20158	27133	20366	21517	19874	17522	7224
	377038	319107	265198	100979	209097	103098	127104	213256	302046	270407	153258

Catch summary tables

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

Fishing fleet	1989	1990	1991	1992	1993	1994	1995	1996
BG	13503	22369	21888	8981	2976	.	.	.
BZ	.	.	.	.	.	.	585	.
CL	1150	1884	.	3145	1514	5223	9997	6638
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	.	.
SL	.	.	.	1150	822	373	.	.
TW	37529	10479	12590	27002	59853	13497	2323	1901
UK	11685	1383	1992	.	445	1255	2083	4357
UR	.	.	.	.	.	21	.	.
	426814	284516	304503	314957	251605	196798	245172	194991

Catch summary tables

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

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

Fishing fleet	2006	2007	2008	2009
BZ	.	2285	.	.
CL	2131	3948	1640	.
CN	3555	8575	.	.
EE	1247	.	.	.
ES	42024	56165	72570	80122
FK	65229	65812	76949	58537
GH	1244	.	.	.
JP	12049	9042	8820	7214
KR	60943	99171	81224	3317
PA	1375	3150	.	.
TW	18554	49970	24353	.
UK	3734	3928	4850	4067
UY	1169	.	.	.
	213256	302046	270407	153258

Illex argentinus—Illex squid

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

VESSEL TYPE	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
JI	182925	145919	13000	101753	1661	7776	68950	157533	100317	3
TR	6784	4711	411	1622	59	162	16665	3869	6290	41
	189709	150631	13411	103375	1720	7937	85614	161402	106608	44

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

MONTH	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
January	39	.	1	.	.	.	6	4	0	.
February	26916	55	1293	1944	24	87	454	3056	952	1
March	75957	69399	1911	71279	1424	6915	26654	22693	11460	30
April	48565	57031	2766	28624	269	934	36353	71559	48116	11
May	36412	22926	7439	1516	3	0	21922	58852	34088	1
June	1820	1220	0	11	.	.	225	5237	11991	0
July	.	0	.	.	.	.	.	.	1	.
August	.	.	.	.	.	.	.	.	.	.
September	.	.	.	.	.	.	.	.	.	.
October	.	.	.	.	.	.	.	.	.	.
November	.	.	.	.	.	.	.	.	.	.
December	.	0	.	.	.	.	.	.	.	.
	189709	150631	13411	103375	1720	7937	85614	161402	106608	44

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

Fishing fleet	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AU	.	.	.	.	.	.	.	.	.	.
BZ	4066	1692	124	2767	42	61	.	2285	.	.
CB	2768	1195	33	857	17	.	.	.	.	.
CL	.	.	.	.	.	.	.	.	.	.
CN	11641	18838	1203	12652	99	99	3555	8575	.	.
EE	.	.	.	.	3	.	472	.	.	.
ES	989	2807	271	960	22	95	2320	3297	3197	33
FK	716	1879	140	659	16	93	1050	537	442	8
FR	0	.	.	.	.	.	.	.	.	.
GH	.	.	.	.	.	.	1244	.	.	.
IS	.	.	.	.	.	.	.	.	.	.
JP	25652	18126	1113	7746	93	.	.	.	.	.
KR	120628	80827	9338	48766	530	4170	57030	94807	78612	3
NA	.	.	.	.	.	.	.	.	.	.
PA	.	.	.	.	.	194	1375	1896	.	.
RU	.	0	.	6891	31	.	.	.	.	.
TW	23243	25241	1189	22077	865	3106	18554	49970	24353	0
UK	6	21	.	.	1	.	15	35	4	0
VC	.	4	.	.	.	.	.	.	.	.
VU	.	.	.	.	.	120	.	.	.	.
	189709	150631	13411	103375	1720	7937	85614	161402	106608	44

Illex argentinus*—*Illex squid

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

GRT	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<400	5755	2627	190	1888	24	.	.	.	.	.
400-599	11574	12799	1206	5030	26	280	2067	3143	.	.
600-799	103179	70730	7338	45406	493	3757	47876	76265	52635	3
800-999	40053	39487	2530	34521	994	3487	23849	66413	43624	6
1000-1499	23536	24066	2061	16232	153	381	10690	13554	9842	34
1500-1999	553	414	86	177	12	14	1022	2026	430	1
2000-2999	30	508	1	120	1	19	111	0	69	0
>2999	5030	.	.	.	17	.	.	.	.	.
	189709	150631	13411	103375	1720	7937	85614	161402	106608	44

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

LOA	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<45	1865	1865	.	.	0	.	.	.	.	.
45-49	49259	49259	5176	25175	277	1914	16493	28700	17640	3
50-54	28339	28339	3089	24699	312	2206	30895	49460	39423	5
55-59	16588	16588	1293	16753	447	1736	15719	31360	20204	1
60-64	27502	27502	1779	18624	348	832	10718	20600	11409	17
65-69	17984	17984	1583	13616	254	1091	9264	26783	17496	4
70-79	8622	8622	490	4414	61	140	2412	4499	283	14
80-89	458	458	1	90	3	19	111	.	145	0
>89	14	14	.	4	17	.	3	.	1	0
	150631	150631	13411	103375	1720	7937	85614	161402	106608	44

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

BHP	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<1000	1765	1239	122	.	.	.	.	.	.	.
1000-1199	7711	9643	917	6597	28	1158	.	.	.	.
1200-1399	42851	30503	2808	16189	147	2218	14549	27556	16162	0
1400-1599	51436	38463	4015	27928	329	937	28947	45081	30225	5
1600-1799	30881	23703	2073	14773	214	2250	14749	28652	21576	17
1800-1999	40765	37469	2610	26640	656	1041	20250	36701	19369	7
2000-2499	9130	7795	766	10375	246	315	6994	20302	14772	14
2500-2999	105	1286	99	753	80	19	3	3075	4423	0
3000-3999	27	484	1	109	2	.	120	35	62	0
>3999	5039	45	.	12	17	.	3	.	12	.
	189709	150631	13411	103375	1720	7937	85614	161402	106608	44

Illex argentinus—Illex squid

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

GRT	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<400	5754	2627	190	1888	24	.	.	.	.	.
400-599	11574	12799	1206	5030	26	280	2067	3143	.	.
600-799	103054	70286	7279	45203	489	3756	40707	75854	52171	3
800-999	39901	38817	2484	34168	988	3484	17667	66034	40683	0
1000-1499	22642	21392	1841	15463	133	228	8509	10680	7463	0
1500-1999	.	.	.	.	.	.	.	1822	.	.
2000-2999	.	.	.	.	.	.	.	.	.	.
	182925	145919	13000	101753	1660	7749	68950	157533	100317	3

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

LOA	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<45	.	1865	.	.	.	.	.	.	.	.
45-49	69863	48439	5130	24798	274	1911	16300	28068	17342	.
50-54	45743	27806	3036	24461	305	2184	24724	49197	36397	2
55-59	19532	15655	1214	16480	440	1706	10861	30972	20091	.
60-64	21128	26968	1736	18420	345	776	9800	19021	9523	.
65-69	18957	17586	1496	13372	244	1058	5342	25958	16965	0
70-79	7704	7600	388	4222	52	113	1923	4316	.	1
>79	.	.	.	.	.	.	.	.	.	.
	182925	145919	13000	101753	1660	7749	68950	157533	100317	3

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

BHP	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<1000	1765	1239	122	.	.	.	.	.	.	.
1000-1199	7711	9643	917	6597	28	.	.	.	.	.
1200-1399	42790	30295	2775	16074	147	1158	10574	27350	16102	.
1400-1599	51211	37349	3944	27446	320	2198	25095	44568	29644	.
1600-1799	30831	23506	2063	14670	211	912	10957	28114	20503	3
1800-1999	40101	35757	2439	26155	640	2137	16038	34783	18255	0
2000-2400	8517	7169	667	10088	233	1029	6286	19643	14039	.
2500-2999	.	960	74	723	81	315	.	3075	1774	.
3000-3999	.	.	.	.	.	.	.	.	.	.
	182925	145919	13000	101753	1660	7749	68950	157533	100317	3

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

GRT	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<400	1	.	.	.	.	.	.	.	.	.
400-599	.	.	.	.	.	.	7168	.	.	.
600-799	125	444	59	203	4	0	6183	412	464	3
800-999	151	670	45	353	1	3	2181	379	2941	4
1000-1499	894	2675	220	769	25	126	1022	2874	2379	34
1500-1999	553	414	86	177	12	14	111	204	438	1
2000-2999	30	508	1	120	1	19	.	0	69	0
<2999	5030	.	.	.	17	.	.	.	.	.
	6784	4711	411	1622	59	162	16665	3869	6290	41

Illex argentinus—*Illex squid*

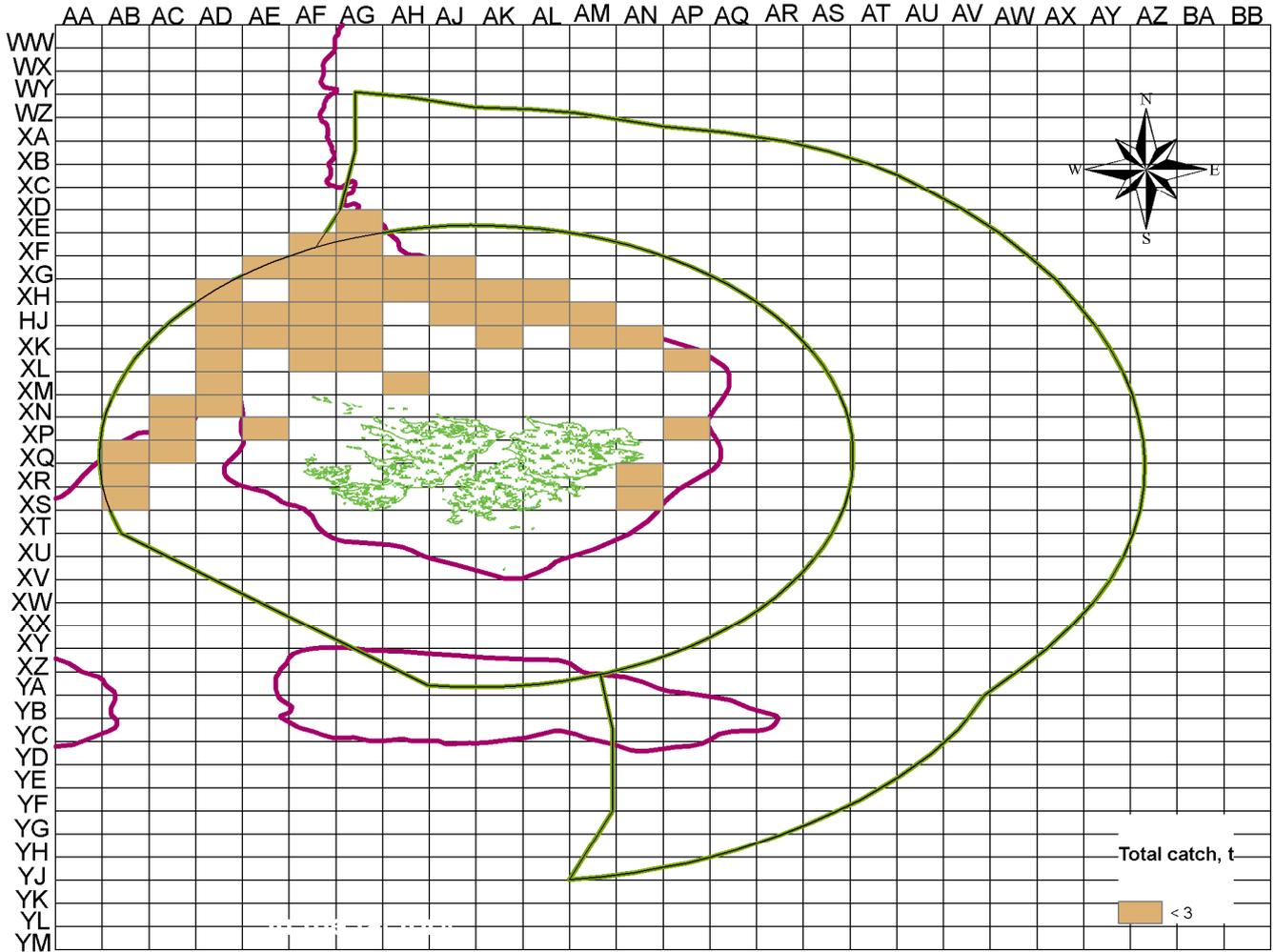
Table D.11 Total catch (tonnes) of trawlers by length overall (m) (LOA) and year

LOA	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<45	.	.	.	.	.	.	.	.	.	.
45-49	165	820	46	378	3	3	193	631	298	3
50-54	94	533	53	237	7	22	6171	263	3026	2
55-59	275	932	79	273	4	30	4858	388	113	1
60-64	298	534	43	204	7	56	918	1578	1886	17
65-69	266	399	87	244	10	33	3922	825	539	3
70-79	627	1022	101	192	9	0	489	184	283	13
80-89	29	458	1	90	3	19	111	.	145	0
>89	5030	14	.	4	17	.	3	.	1	0
	6784	4711	411	1622	59	162	16665	3869	6290	41

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

BHP	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1000-1199	.	.	.	.	.	.	.	.	.	.
1200-1399	62	208	33	115	.	.	3975	206	61	.
1400-1599	226	1114	71	482	8	20	3853	513	581	5
1600-1799	50	197	10	103	2	25	3792	538	1073	15
1800-1999	664	1712	171	485	16	87	4212	1918	1121	6
2000-2499	612	626	98	287	14	11	707	659	732	14
2500-2999	105	326	25	31	0	0	3	.	2648	0
3000-3999	27	484	1	109	19	19	120	35	62	0
>3999	5039	45	.	12	.	.	3	.	12	.
	6784	4711	411	1622	59	162	16665	3869	6290	41

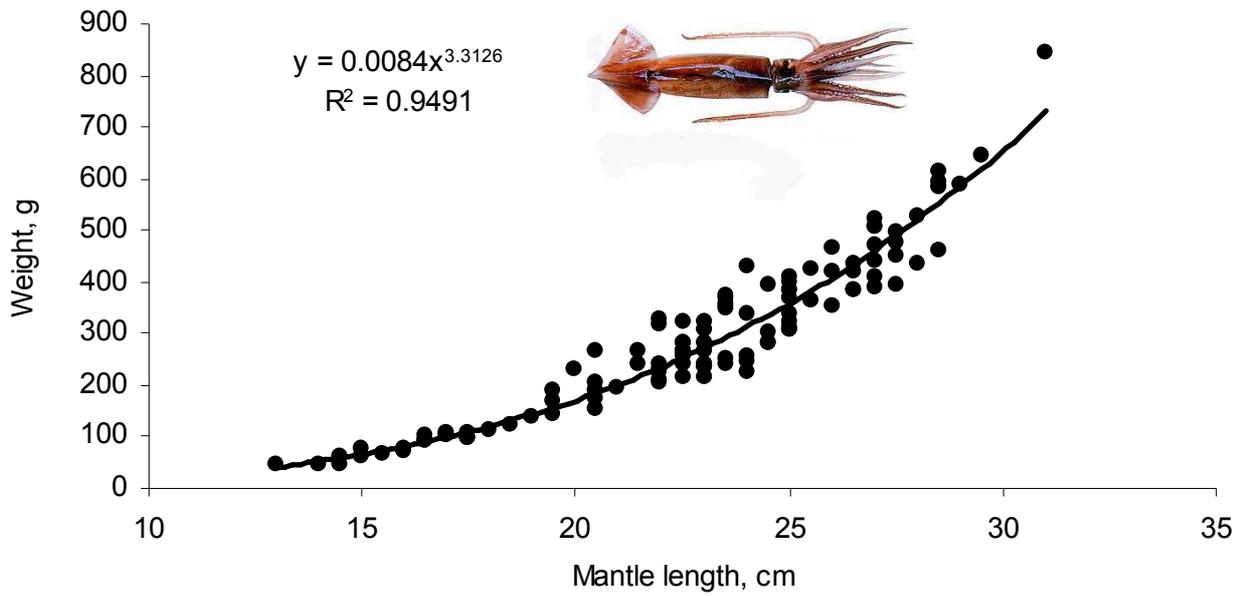
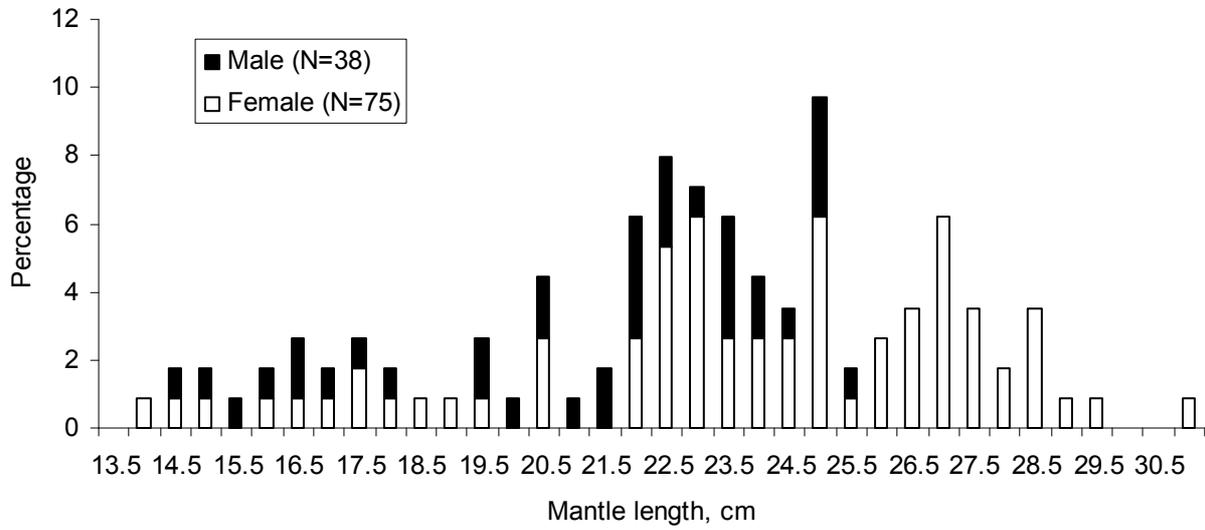
Illex argentinus



Catch (mt) by grid square)

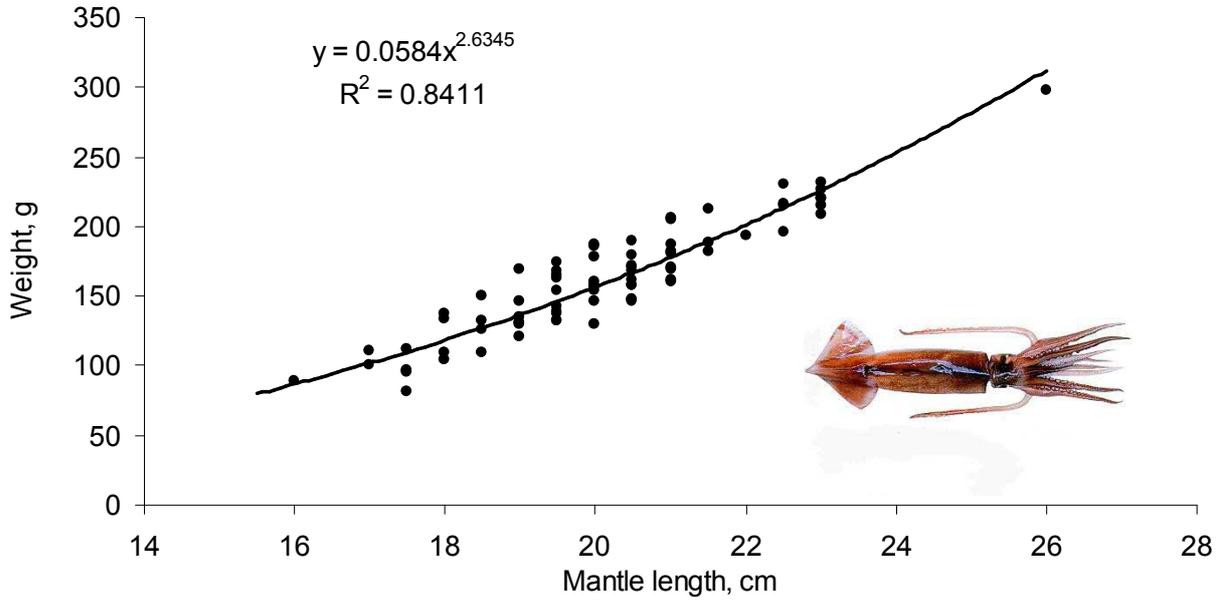
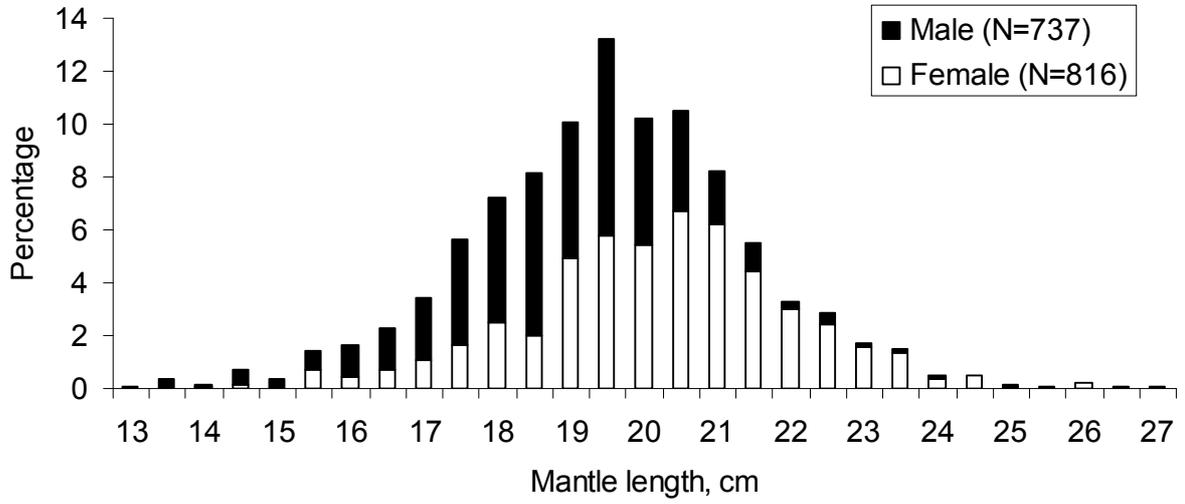
Illex argentinus—Illex squid

Length– frequency distribution and length-weight relationship in trawler fleets in 2009 in the Falkland waters



Illex argentinus—Illex squid

Length– frequency distribution and length-weight relationship in trawler fleets in 2009 on high seas



Loligo gahi - Patagonian squid

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

VESSEL TYPE	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
TR	64493	53560	23712	47422	26835	58811	43067	42003	52260	31475
	64493	53560	23712	47422	26835	58811	43067	42003	52260	31475

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

MONTH	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
January	.	.	.	0	.	.	.	0	.	0
February	11006	4478	3980	1180	586	2050	2943	729	3972	2013
March	9600	3754	2761	12340	4431	17905	13716	10271	15406	8573
April	8921	7854	2750	3851	2519	7427	2770	6388	5633	2403
May	9186	11538	4707	1224	869	1365	2	35	4	17
June	0	0	0	378	201	209	6	10	18	8
July	1	.	0	8	5852	10265	8132	6325	5611	8228
August	11288	14432	8007	16921	8045	14442	13988	14435	10780	8102
September	10620	8241	1213	9134	4301	5090	1425	3743	10780	2030
October	3863	3258	290	2372	30	42	81	56	52	82
November	9	3	3	11	1	15	4	9	4	19
December	0	1	0	1	0	0	0	1	.	.
	64493	53560	23712	47422	26835	58811	43067	42003	52260	31475

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

Fishing fleet	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AU	.	.	.	.	.	.	.	.	.	.
BZ	2	.	.	.	.	.	.	.	.	.
CL	.	.	.	.	.	.	.	.	.	.
ES	6805	5412	3036	458	98	104	74	134	3055	1756
FK	50308	42911	18613	43830	23573	54178	40165	38090	45684	27181
FR	2024	.	.	.	.	.	.	.	.	.
HN	.	.	.	.	.	.	.	.	.	.
JP	.	1	.	.	1	.	.	2	1	0
KR	27	10	13	38	53	13	41	22	6	2
NA	.	.	.	.	1141	.	.	.	.	.
PA	.	.	.	.	.	.	.	1075	.	.
PL	.	.	.	.	.	.	.	.	.	.
PT	.	.	.	.	.	.	.	.	.	.
SC	.	.	.	.	.	.	.	.	.	.
UK	5328	3431	2049	3095	1967	4516	2786	2681	3515	2535
UY	.	.	.	.	.	.	.	.	.	.
VC	.	1795	.	.	.	.	.	.	.	.
	64493	53560	23712	47422	26835	58811	43067	42003	52260	31475

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

GRT	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<400	5	.	.	.	.	.	.	.	.	.
400-599	.	.	.	4	2	.	.	.	.	.
600-799	2707	2160	1102	847	19	202	8	29	14	179
800-999	3297	2640	1361	2095	1149	2671	2165	2199	2872	1747
1000-1499	11504	9449	3889	8088	5317	9844	6578	7552	8439	5299
1500-1999	14122	9248	5312	9611	7474	17527	13227	12577	15577	9975
2000-2999	32858	30063	12048	26776	12873	28564	21089	19645	25358	14275
>2999	.	.	.	.	1	3	.	2	1	0
	64493	53560	23712	47422	26835	58811	43067	42003	52260	31475

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

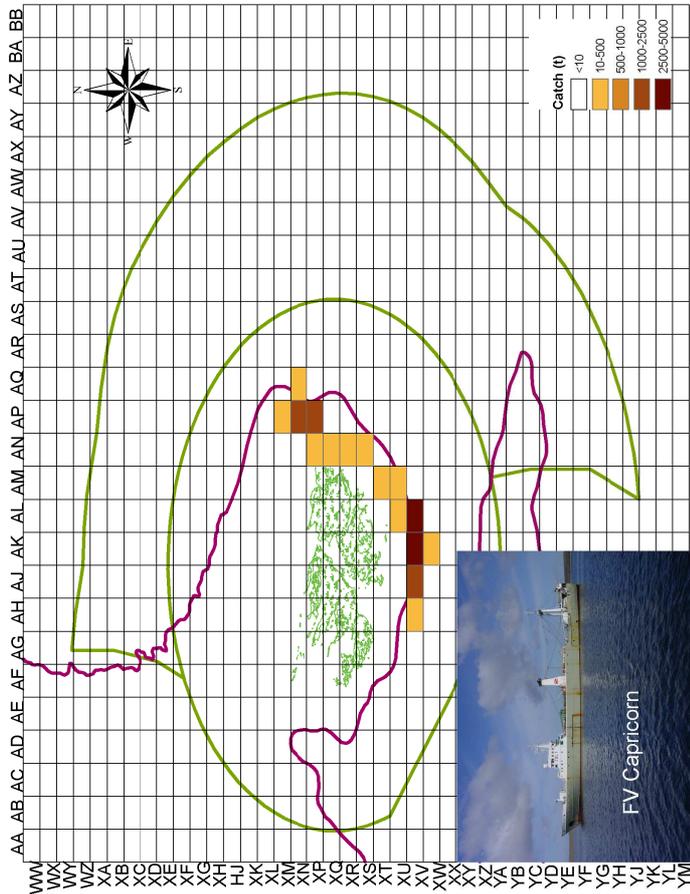
LOA	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<45	.	.	.	.	.	.	.	.	.	.
45-49	3288	2638	1361	2089	1116	2666	2157	2186	2872	1742
50-54	6208	5404	2578	3621	1981	3601	2319	2335	24	265
55-59	9	5	8	16	12	6	8	18	33	20
60-64	5738	6264	2630	5868	3211	7083	5190	4980	6315	3678
65-69	9619	6911	3114	6095	3844	8052	4978	4829	9221	6174
70-79	20381	15971	6898	15325	6965	17771	14510	13592	17337	10116
80-89	14917	11766	5114	10648	7890	14945	11208	11087	13103	7632
>89	4333	4601	2009	3761	1816	4687	2696	2977	3355	1848
	64493	53560	23712	47422	26835	58811	43067	42003	52260	31475

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

BHP	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<1000	.	.	.	.	.	.	.	.	.	.
1000-1199	.	.	.	.	.	.	.	.	.	.
1200-1399	4	2	4	3	.	.	.	.	.	.
1400-1599	2702	2650	1099	856	61	229	13	63	155	381
1600-1799	3695	2623	1138	2290	1471	2901	2091	1965	103	29
1800-1999	3300	2658	1548	2127	1172	2716	2189	2226	5389	3222
2000-2499	16580	12044	5802	12238	8011	15686	11493	11276	13702	8621
2500-2999	27	89	19	34	3004	4691	2722	4071	3360	1850
3000-3999	29008	24657	10541	22774	10851	24078	18196	15913	21741	17373
>3999	9178	8837	3561	7099	2266	8510	6363	6491	7810	0
	64493	53560	23712	47422	26835	58811	43067	42003	52260	31475

Loligo gahi

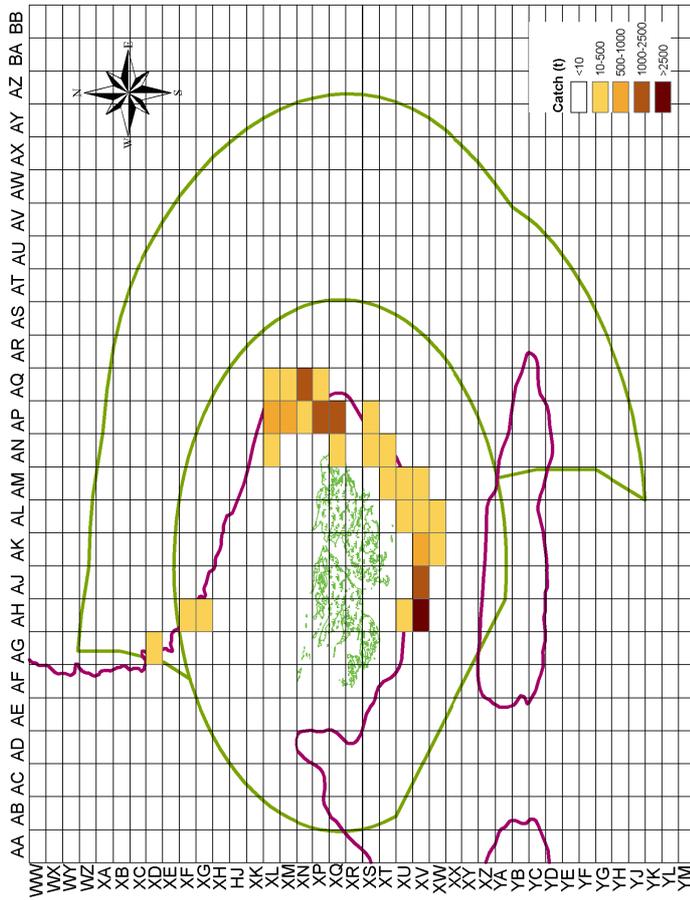
1st Season 2009 (01 Jan - 30 Jun)



Catch (mt) by grid square

Loligo gahi

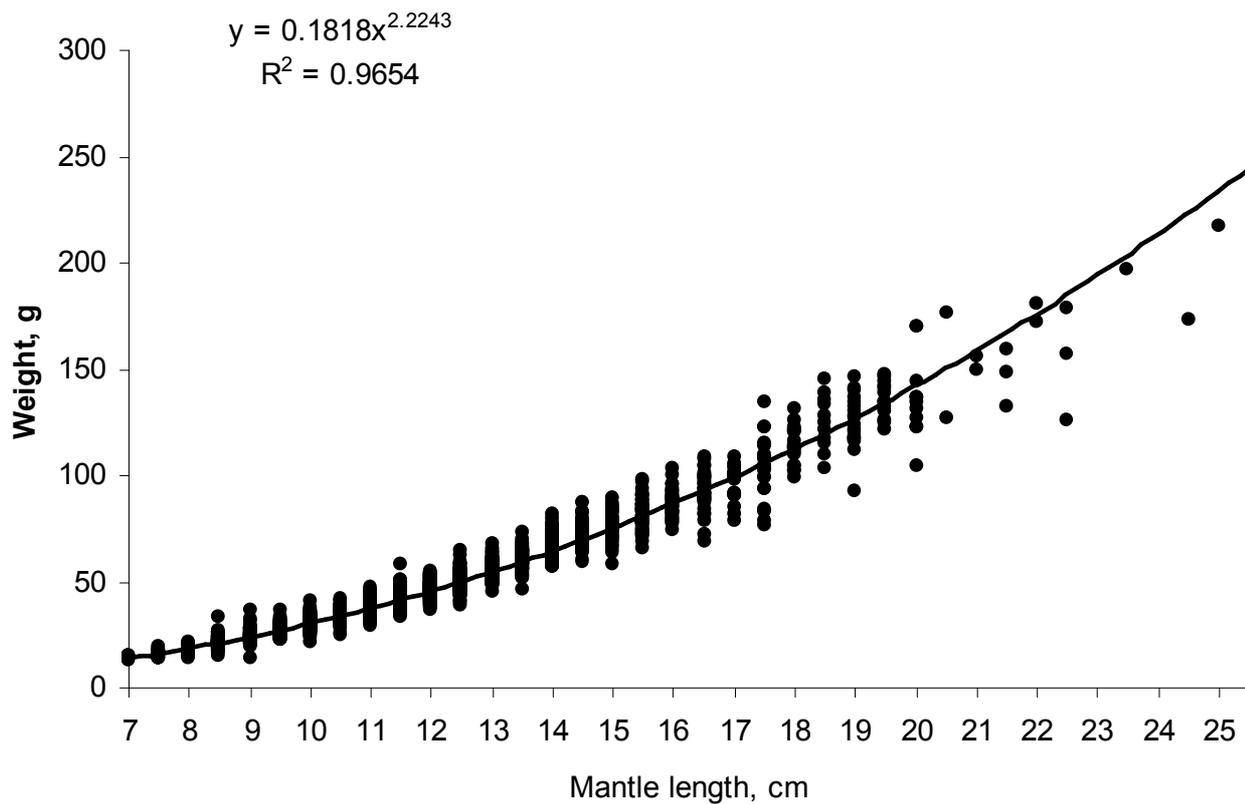
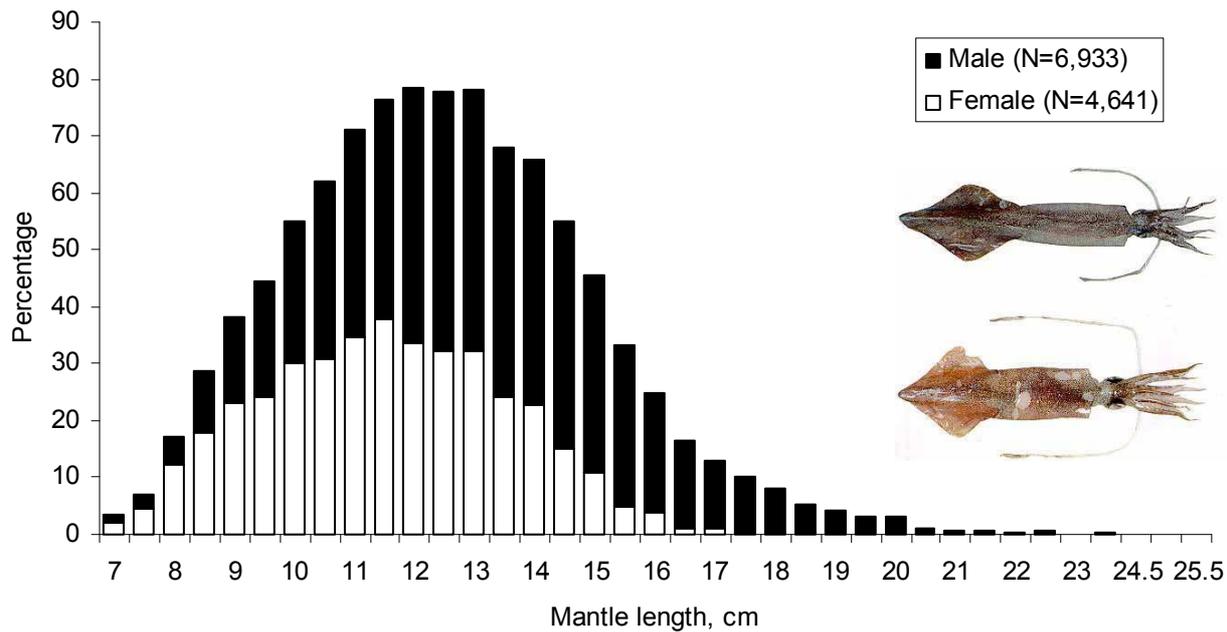
2nd Season 2009 (01 Jul - 31 Dec)



Catch (mt) by grid square

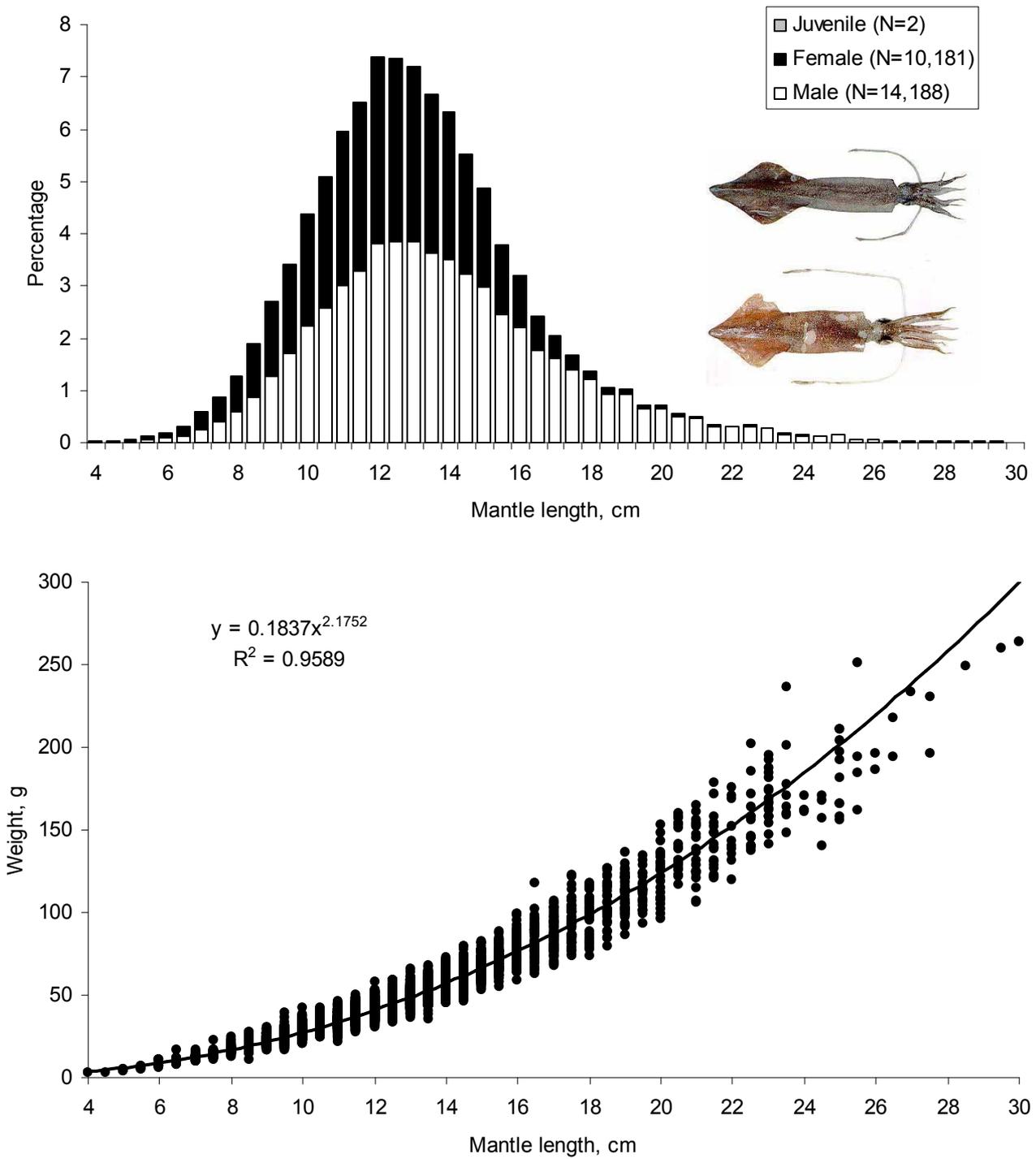
Loligo gahi—Patagonian squid

Length– frequency distribution and length-weight relationship during first season 2009



Loligo gahi—Patagonian squid

Length– frequency distribution and length-weight relationship during second season 2009



Martialia hyadesi - *Martialia squid*

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

VESSEL TYPE	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
JI	.	147	1	.	.	.	.	.	.	.
TR	.	.	.	30	24	0	.	.	.	0
	.	147	1	30	24	0	.	.	.	0

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

MONTH	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
January
February	.	.	1	6	20	0	.	.	.	.
March	.	.	.	2	4	.	.	.	.	.
April	.	.	.	2	.	.	.	.	.	.
May	.	110	.	13	.	.	.	.	.	.
June	.	37	.	6	.	.	.	.	.	.
July
August	.	.	.	1	.	.	.	.	.	.
September	.	.	.	0	.	.	.	.	.	.
October	0
November
December
	.	147	1	30	24	0	.	.	.	0

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

Fishing fleet	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
CB	.	8	.	.	.	.	.	.	.	.
ES	.	.	.	2	17	0	.	.	.	.
FK	.	.	.	28	7	.	.	.	.	0
JP
KR
TW	.	139	1	.	.	.	.	.	.	.
	.	147	1	30	24	0	.	.	.	0

Martialia hyadesi - *Martialia squid*

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

GRT	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<400
400-599
600-799	.	3	.	.	.	.	.	.	.	.
800-999	.	144	1	.	.	.	.	.	.	.
1000-1499	.	.	.	27	11	0	.	.	.	0
1500-1999	.	.	.	3	13	.	.	.	.	.
2000-2999
>2999
	.	147	1	30	24	0	.	.	.	0

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

LOA	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<45
45-49
50-54	.	7	.	25	7	.	.	.	.	.
55-59	.	44	1	0	.	.	.	.	.	.
60-64	.	27	.	1	.	.	.	.	.	.
65-69	.	68	.	3	17	0	.	.	.	0
70-79	.	.	.	1	.	.	.	.	.	.
80-89
>89
	.	147	1	30	24	0	.	.	.	0

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

BHP	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<1000
1000-1199
1200-1399
1400-1599	.	20	.	25	7	.	.	.	.	.
1600-1799	.	10	.	1	.	.	.	.	.	.
1800-1999	.	61	1	2	17	0	.	.	.	.
2000-2499	.	55	.	2	.	.	.	.	.	0
2500-2999
3000-3999
>3999
	.	147	1	30	24	0	.	.	.	0

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

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

VESSEL TYPE	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
TR	23371	25735	24908	20798	28553	17047	20533	22204	13208	10543
	23371	25735	24908	20798	28554	17047	20533	22204	13208	10395

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

MONTH	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
January	2999	4253	2476	4545	234	759	164	84	12	129
February	4484	3612	4563	6448	3155	811	383	515	243	139
March	3624	5564	5875	5328	3652	227	2029	172	252	339
April	939	2271	2443	1299	1785	158	303	84	150	126
May	83	294	580	40	103	142	86	11	42	51
June	4	.	17	.	.	7	6	0	0	6
July	.	.	.	.	7	1	0	56	70	3
August	87	79	302	32	598	527	145	865	662	608
September	2344	4385	668	1053	2192	4242	4772	8126	2817	2520
October	1121	3023	770	1337	6390	4705	6609	6549	3914	1947
November	4344	564	4147	597	6624	3899	3199	5400	3165	1877
December	3341	1689	3068	119	3814	1569	2837	342	1881	2651
	23371	25735	24908	20798	28554	17047	20533	22204	13208	10395

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

Fishing fleet	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AU	.	.	.	.	.	.	.	.	.	.
BZ	257	206	.	.	.	.	.	.	.	.
CL	2723	6707	7155	5876	8218	.	1884	3260	1527	.
EE	.	.	.	.	13	.	13	.	.	.
ES	3346	5246	3152	2865	4358	5275	5514	6810	2809	2450
FK	2704	4621	2814	2511	2690	1676	1773	3074	1753	1670
JP	14121	8918	11670	9515	12939	10023	11302	8896	6859	6173
KR	196	12	3	11	163	44	0	96	237	1
NA	.	.	.	.	.	.	.	.	.	.
PT	1	.	.	.	.	.	.	.	.	.
UK	22	24	116	20	173	29	47	69	24	100
	23371	25735	24908	20798	28554	17047	20533	22204	13208	10395

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

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

GRT	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<400	.	.	.	.	.	.	.	.	.	.
400-599	.	.	.	0	.	0	.	.	.	.
600-799	452	737	500	519	270	279	448	940	606	250
800-999	702	37	155	586	599	126	0	719	350	252
1000-1499	3265	8281	9545	7005	4145	4480	2472	3452	1465	1273
1500-1999	1005	1892	1439	474	1491	1653	4355	4763	3155	2334
2000-2999	1104	702	428	928	892	487	72	174	773	113
>2999	16844	14085	12840	11285	21157	10023	13186	12156	6859	6173
	23371	25735	24908	20798	28554	17047	20533	22204	13208	10395

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

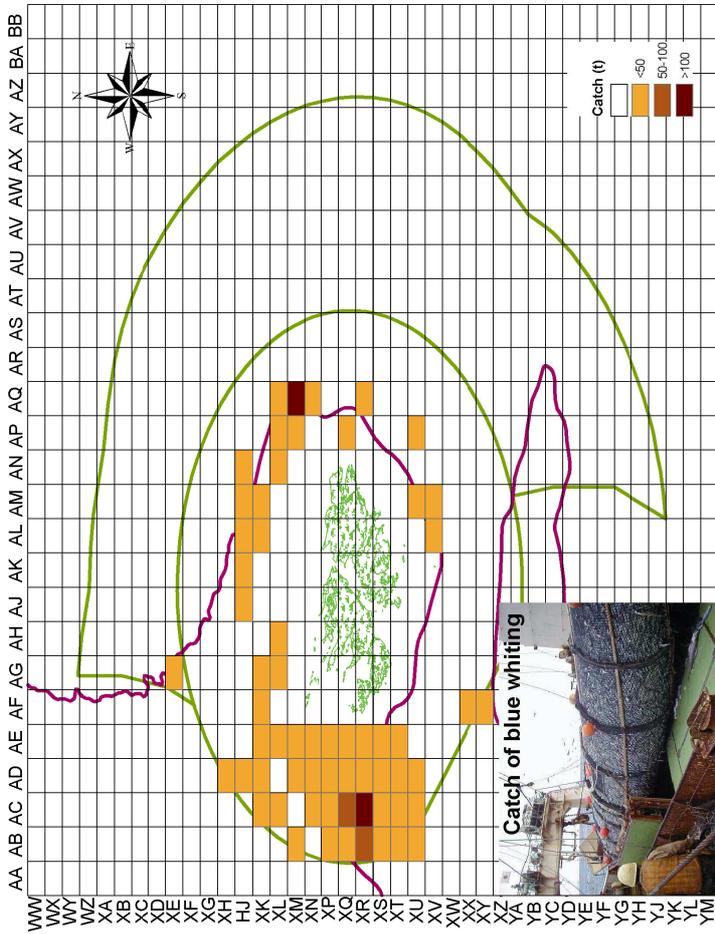
LOA	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<45	.	.	.	.	.	.	.	.	.	.
45-49	511	87	226	115	610	155	98	272	85	143
50-54	797	1675	510	860	746	637	533	1357	845	717
55-59	829	1036	891	532	264	451	59	1014	97	142
60-64	698	2066	1150	997	1497	1749	1114	1180	1012	524
65-69	649	3220	7029	4711	2848	2886	3621	3885	3036	1657
70-79	1952	2869	2027	1727	602	609	1310	1662	449	441
80-89	1039	628	235	561	806	497	609	641	341	597
>89	16897	14153	12840	11295	21180	10064	13188	12192	7345	6173
	23371	25735	24908	20798	28554	17047	20533	22204	13208	10395

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

BHP	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<1000	.	.	.	.	.	.	.	.	.	.
1000-1199	.	.	.	.	.	.	.	.	.	.
1200-1399	236	564	273	77	.	66	.	3	.	5
1400-1599	737	1206	423	435	742	561	544	1624	682	897
1600-1799	77	353	328	1076	799	843	575	536	193	92
1800-1999	2581	3802	2368	1269	3351	3233	3676	4363	1512	1618
2000-2499	1178	2764	1962	1218	1286	1764	2423	3178	2915	1386
2500-2999	592	2233	6172	4488	176	79	2	132	722	1
3000-3999	1073	627	542	888	1036	439	75	182	288	223
>3999	16897	14184	12842	11345	21163	10062	13238	12187	6895	6173
	23371	25735	24908	20798	28554	17047	20533	22204	13208	10395

Micromesistius australis

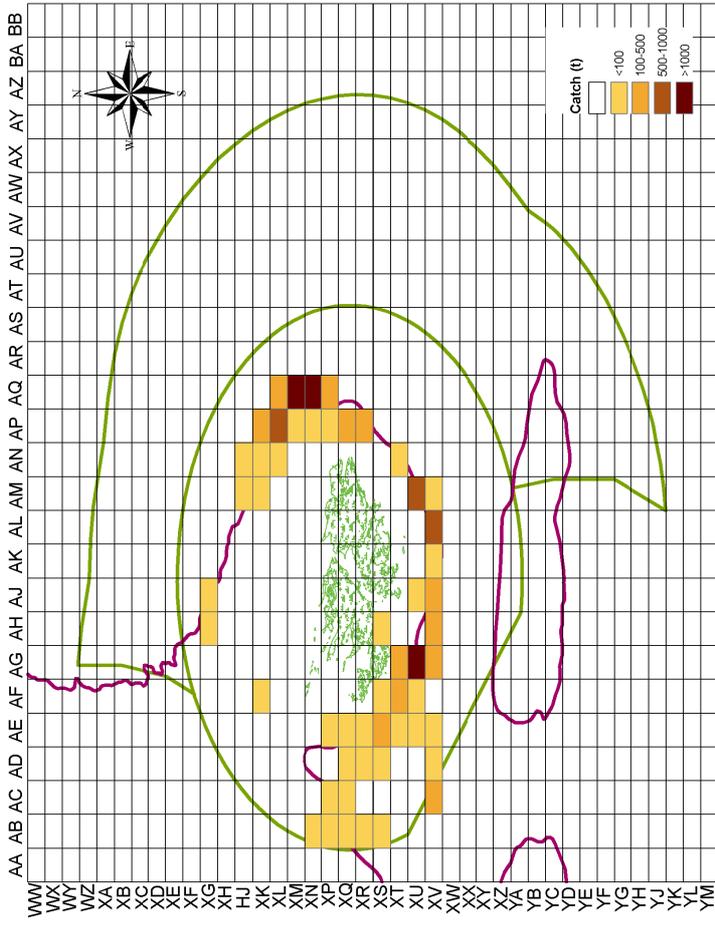
1st Season 2009 (01 Jan - 30 Jun)



Catch (mt) by grid square

Micromesistius australis

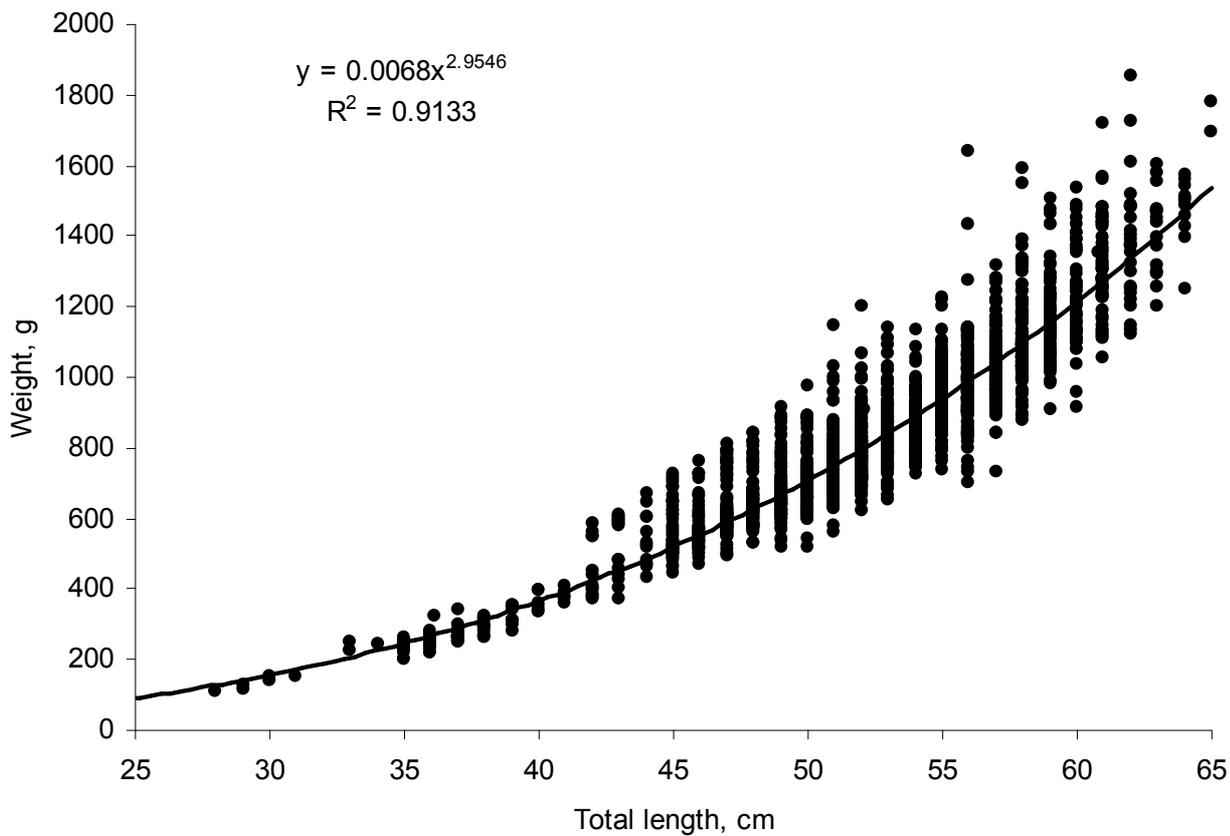
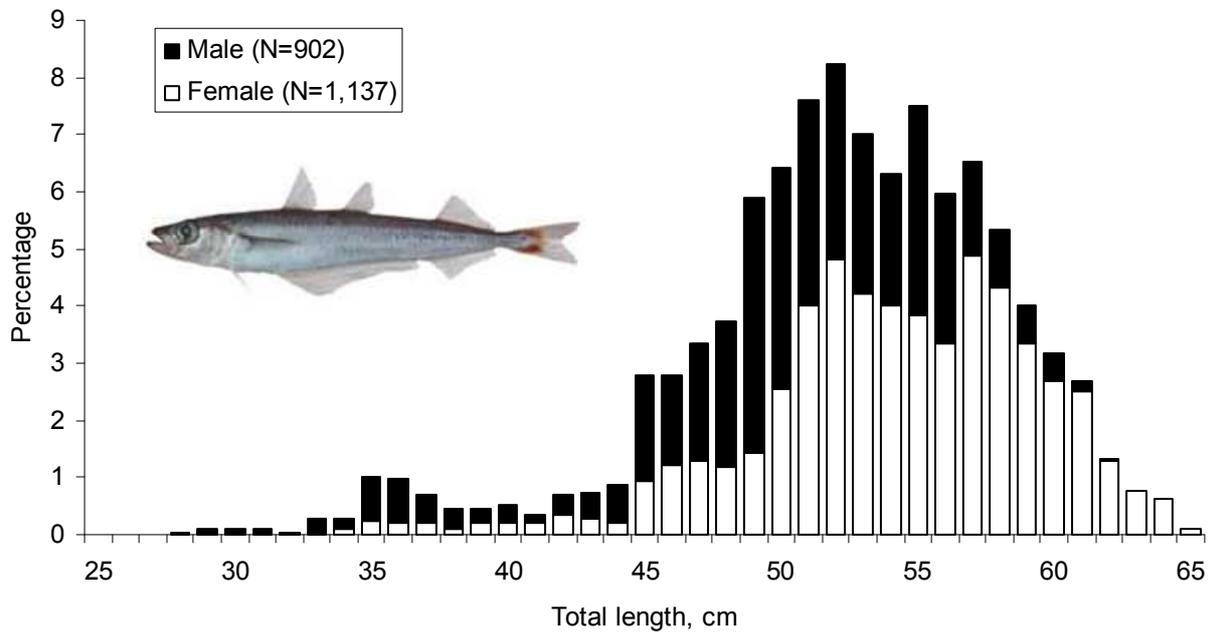
2nd Season 2009 (01 Jul - 31 Dec)



Catch (mt) by grid square

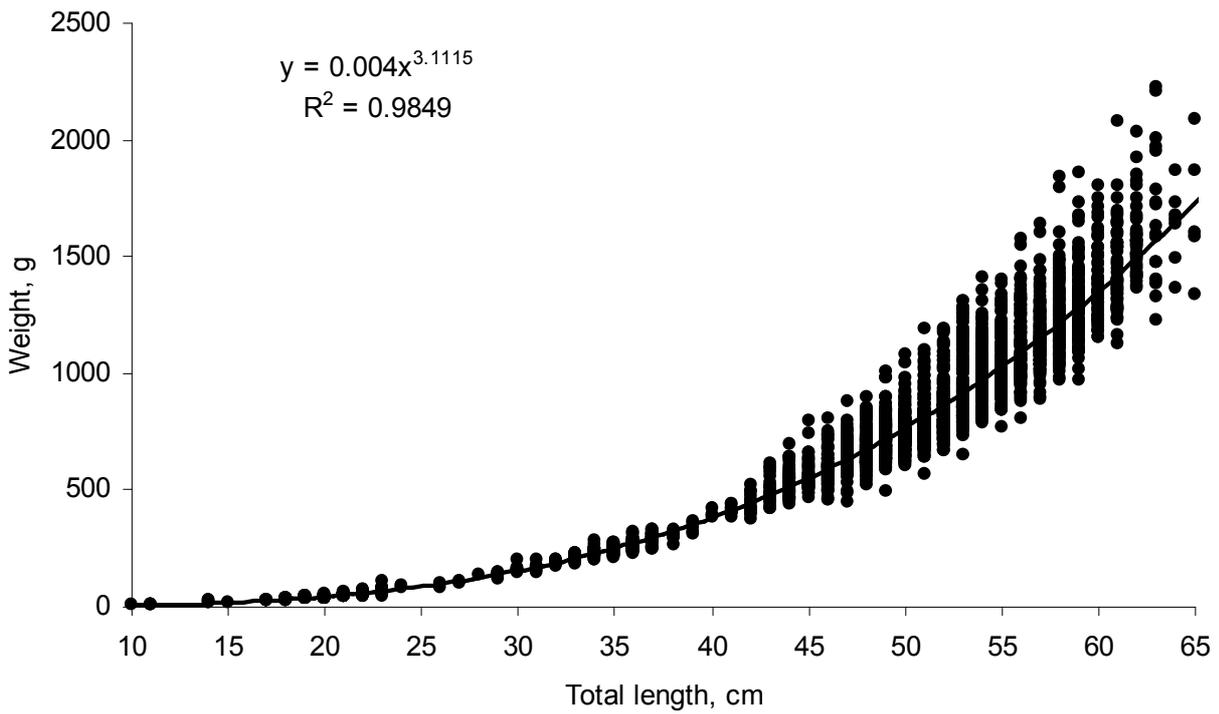
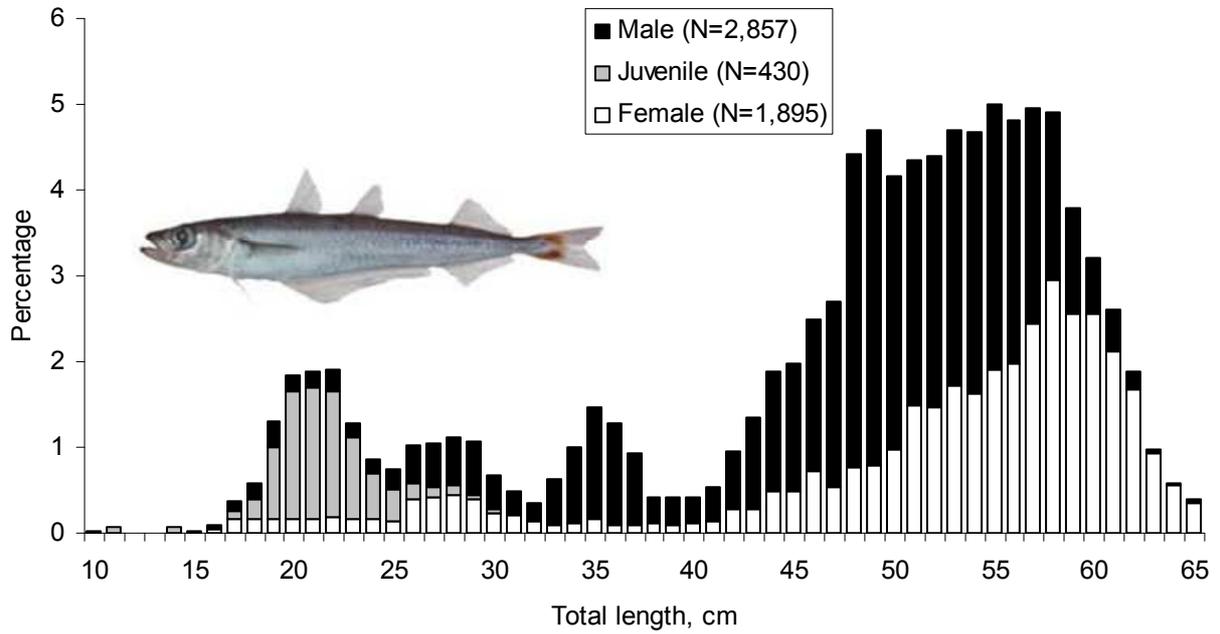
Micromesistius australis—Southern Blue Whiting

Length– frequency distribution and length-weight relationship in surimi fleet in 2009



Micromesistius australis—Southern Blue Whiting

Length– frequency distribution and length-weight relationship in trawler fleets in 2009



***Macruronus magellanicus*—Hoki**

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

VESSEL TYPE	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
CO	.	.	.	.	.	.	.	.	.	.
LO	.	.	.	.	.	.	0	.	.	.
TR	19831	19471	26970	23815	25904	16721	19761	16669	15902	23170
	19831	19471	26970	23815	25904	16721	19761	16669	15902	23170

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

MONTH	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
January	978	1541	589	969	506	269	660	1265	505	395
February	3105	1739	1970	5780	3517	2566	2520	2365	1128	2551
March	3700	1784	5268	1625	3821	954	1476	1376	865	4653
April	3244	2669	4404	3185	4868	1128	2070	2080	1342	3377
May	1220	2002	2031	1974	2496	894	2182	1591	1012	2278
June	476	582	1068	485	111	121	617	245	395	646
July	1057	799	3	154	55	304	256	513	593	1069
August	1590	833	2048	2026	2223	2378	2182	1720	1903	933
September	615	803	1481	2089	1452	1997	3201	1065	1716	2258
October	1281	3350	3177	3203	4907	3403	1964	2447	4152	1449
November	1792	3163	3590	1985	925	1756	2077	1580	1560	2904
December	774	204	1341	341	1022	951	557	422	730	656
	19831	19471	26970	23815	25904	16721	19761	16669	15902	23170

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

Fishing fleet	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AU	.	.	.	.	.	.	.	.	.	.
BZ	1720	374	1	.	.	.	.	.	.	.
CL	26	1300	2097	613	1533	.	247	343	114	.
EE	.	.	.	.	143	.	253	.	.	.
ES	10176	9653	12984	11357	11713	9014	12122	10350	9386	15172
FK	3404	5471	9804	9519	9689	5788	6091	5065	4129	5994
FR	0	.	.	.	.	.	.	.	.	.
HN	.	.	.	.	.	.	.	.	.	.
IS	.	.	.	.	.	.	.	.	.	.
JP	1889	866	1612	1596	1998	1203	743	141	1956	1038
KR	2541	1633	420	642	512	693	171	600	249	792
NA	.	.	.	.	7	.	.	.	.	.
PA	.	.	.	.	.	.	.	4	.	.
PL	.	.	.	.	.	.	.	.	.	.
PT	32	.	.	.	.	.	.	.	.	.
RU	.	144	.	.	.	.	.	.	.	.
SC	.	.	.	.	.	.	.	.	.	.
UK	42	30	52	88	308	23	135	166	69	174
VC	.	0	.	.	.	.	.	.	.	.
	19831	19471	26970	23815	25904	16721	19761	16669	15902	23170

***Macruronus magellanicus*—Hoki**

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

GRT	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<400	362	293	.	.	.	.	.	.	.	.
400-599	.	130	17	53	24	27	32	.	.	.
600-799	2262	1842	3493	2018	1473	1136	1415	2426	1934	3521
800-999	2488	1269	902	2049	1684	1510	1261	1992	1672	4305
1000-1499	10433	10659	14144	12351	14515	10033	12316	8697	6046	9744
1500-1999	2091	2420	5169	4258	3547	2006	3264	2783	3911	4223
2000-2999	281	766	293	1757	1130	807	484	287	383	338
>2999	1915	2091	2952	1330	3532	1203	990	484	1956	1038
	19831	19471	26970	23815	25904	16721	19761	16669	15902	23170

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

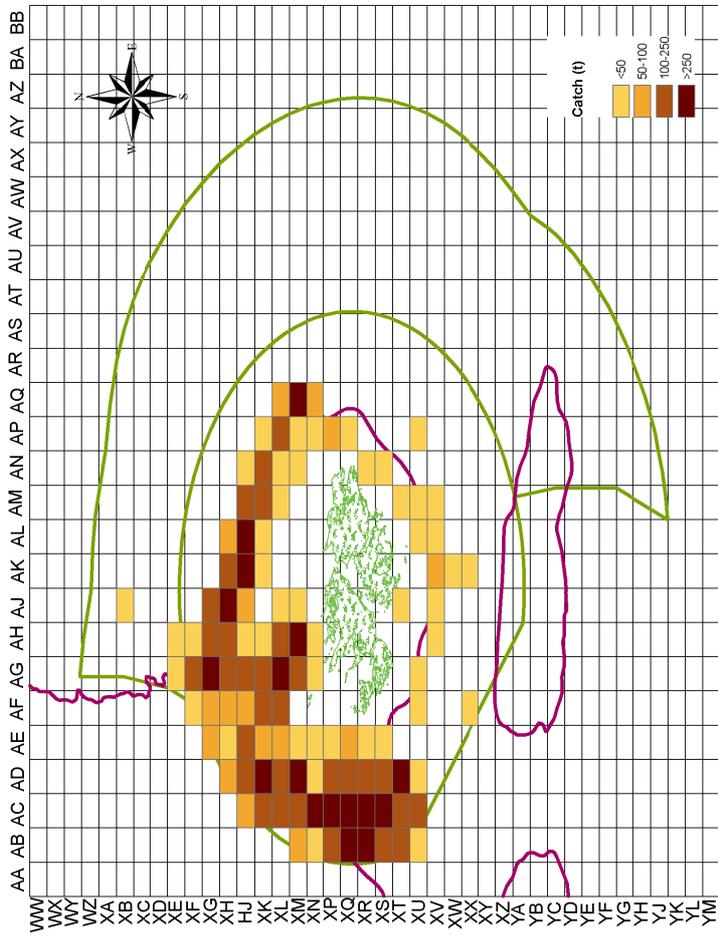
LOA	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<45	.	.	.	.	.	.	.	.	.	.
45-49	1361	951	961	1247	1813	1340	919	1585	1478	1968
50-54	4085	3188	4571	3553	3949	3527	3103	3734	2134	4546
55-59	4507	2737	4177	2892	1068	1284	1856	1227	994	3146
60-64	3125	3491	2812	4176	3997	2775	4563	2545	3128	4948
65-69	1434	3063	5230	4301	8095	5329	5664	4297	2989	3521
70-79	3128	3202	6066	5240	1718	577	1707	2515	2222	3135
80-89	265	739	176	933	1723	679	896	242	950	833
>89	1925	2099	2976	1474	3542	1210	1053	526	2008	1072
	19831	19471	26970	23815	25904	16721	19761	16669	15902	23170

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

BHP	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<1000	.	.	.	.	.	.	.	.	.	.
1000-1199	.	.	.	.	.	.	.	.	.	.
1200-1399	1172	826	1934	528	.	388	163	271	191	446
1400-1599	2919	1888	3150	2736	3545	2766	3340	3654	2823	6722
1600-1799	377	922	630	2116	1459	1029	2400	1349	1310	1885
1800-1999	7071	6935	8737	7734	9935	7102	7569	4602	3791	4854
2000-2499	3616	3887	7354	5495	5583	2888	4504	5262	5132	6955
2500-2999	2439	2126	1844	2010	416	512	217	593	291	790
3000-3999	312	781	327	1598	1383	746	518	364	332	480
>3999	1925	2106	2993	1600	3584	1290	1050	574	2033	1038
	19831	19471	26970	23815	25904	16721	19761	16669	15902	23170

Macruronus magellanicus

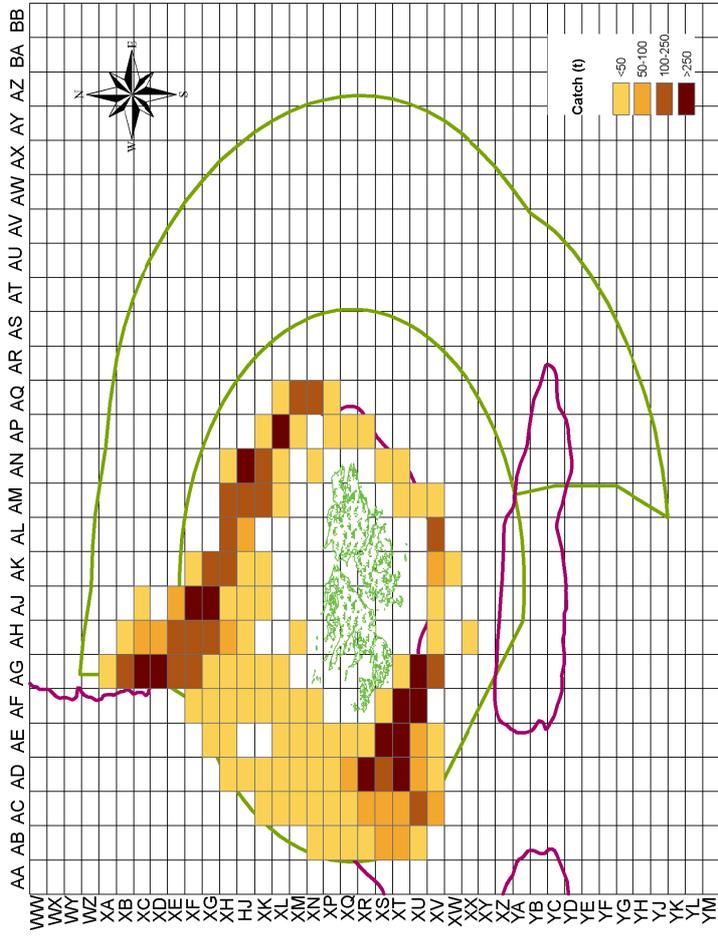
1st Season 2009 (01 Jan - 30 Jun)



Catch (mt) by grid square)

Macruronus magellanicus

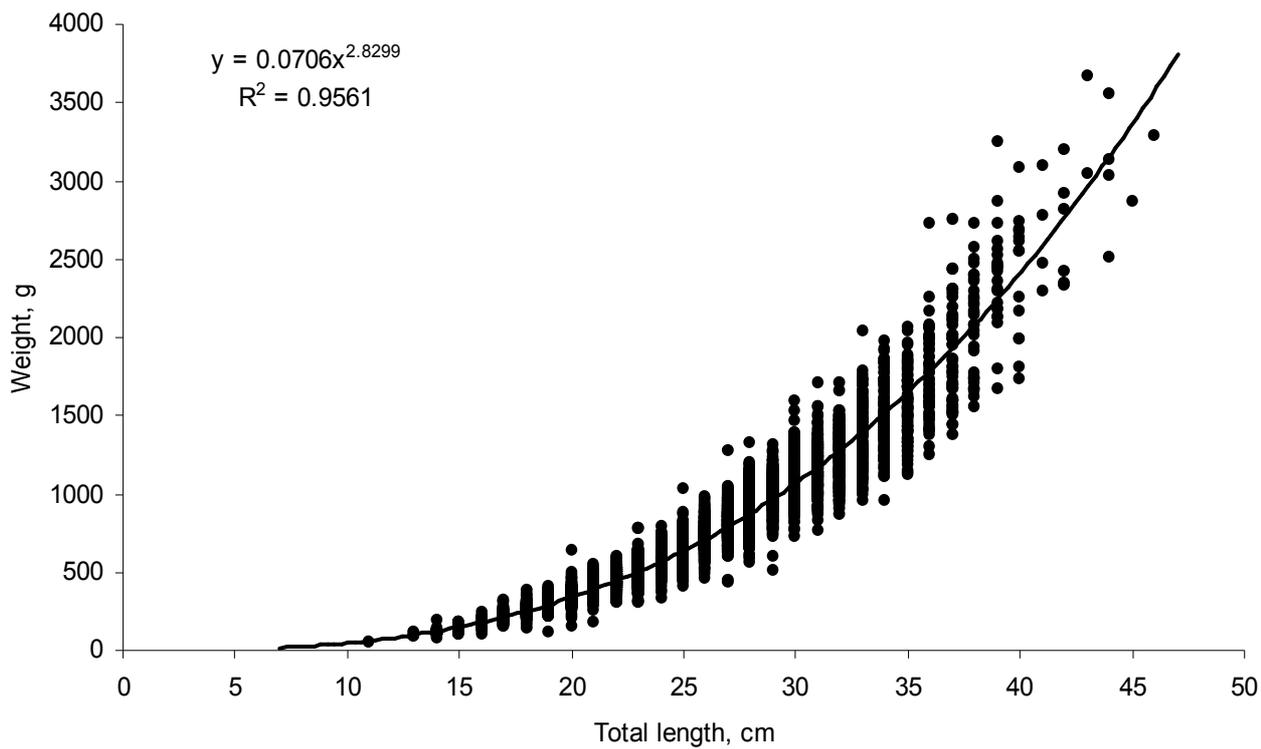
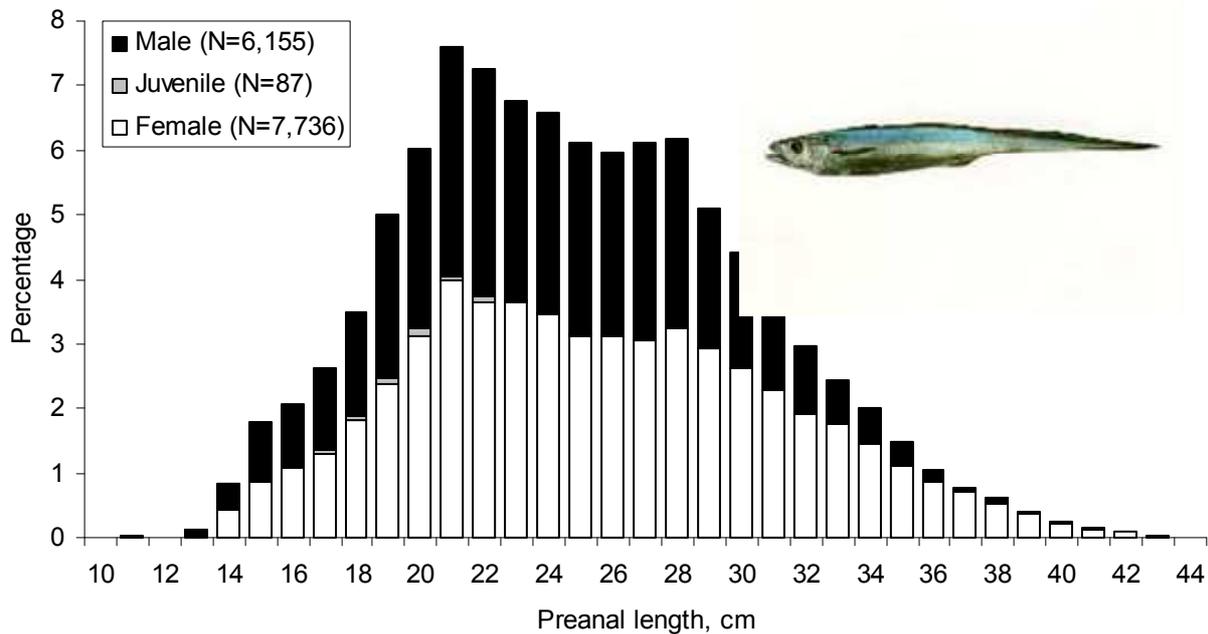
2nd Season 2009 (01 Jul - 31 Dec)



Catch (mt) by grid square)

Macruronus magellanicus—Hoki

Length– frequency distribution and length–weight relationship in trawler fleets in 2009



***Salilota australis* - Red cod**

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

VESSEL TYPE	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
LO	.	.	.	.	.	.	6	.	.	.
TR	6551	3896	2617	2285	2781	2467	3463	5195	4076	5079
	6551	3896	2617	2285	2781	2467	3469	5195	4076	5079

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

MONTH	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
January	451	210	33	57	80	4	73	82	110	148
February	796	291	165	248	362	202	222	290	189	328
March	599	369	539	95	188	62	215	423	506	530
April	859	547	446	264	350	114	558	502	350	480
May	633	617	250	254	271	149	290	504	426	603
June	81	65	40	58	13	36	59	77	59	159
July	431	67	0	3	94	97	196	338	101	214
August	822	297	171	235	258	492	571	905	421	669
September	747	342	263	343	436	676	623	1043	987	661
October	590	679	325	490	583	337	459	770	668	819
November	403	387	296	192	134	248	164	234	189	337
December	139	26	90	46	11	50	40	27	71	131
	6551	3896	2617	2285	2781	2467	3469	5195	4076	5079

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

Fishing fleet	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AU	.	.	.	.	.	.	.	.	.	.
BZ	237	42	.	.	.	.	.	.	.	.
CL	.	.	.	.	.	.	.	.	.	.
EE	.	.	.	.	.	.	84	.	.	.
ES	3918	2222	1624	1279	1582	1579	2246	3997	3140	3737
FK	1886	1374	950	958	1024	746	1047	1127	900	1308
FR	29	.	.	.	.	.	.	.	.	.
HN	.	.	.	.	.	.	.	.	.	.
IS	.	.	.	.	.	.	.	.	.	.
JP	11	.	0	.	3	.	0	1	.	0
KR	429	219	28	40	85	125	60	49	17	11
NA	.	.	.	.	7	.	.	.	.	.
PA	.	.	.	.	.	.	.	.	.	.
PL	.	.	.	.	.	.	.	.	.	.
PT	12	.	.	.	.	.	.	.	.	.
RU	.	8	.	.	.	.	.	.	.	.
SC	.	.	.	.	.	.	.	.	.	.
UK	30	17	15	9	63	17	31	22	20	23
UY	.	.	.	.	.	.	.	.	.	.
VC	.	14	.	.	.	.	.	.	.	.
	6551	3896	2617	2285	2781	2467	3469	5195	4076	5079

***Salilota australis* - Red cod**

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

GRT	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<400	85	17	.	.	.	.	.	.	.	.
400-599	.	11	1	0	2	14	4	.	.	.
600-799	755	551	404	203	179	67	209	648	467	598
800-999	763	261	122	228	210	135	216	721	610	569
1000-1499	3514	2284	1498	1262	1248	1468	1855	2191	1303	2034
1500-1999	900	511	474	278	828	600	1066	1571	1535	1747
2000-2999	524	260	117	315	311	184	118	52	161	131
>2999	11	.	.	.	3	0	0	1	.	0
	6551	3896	2617	2285	2781	2467	3469	5183	4076	5079

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

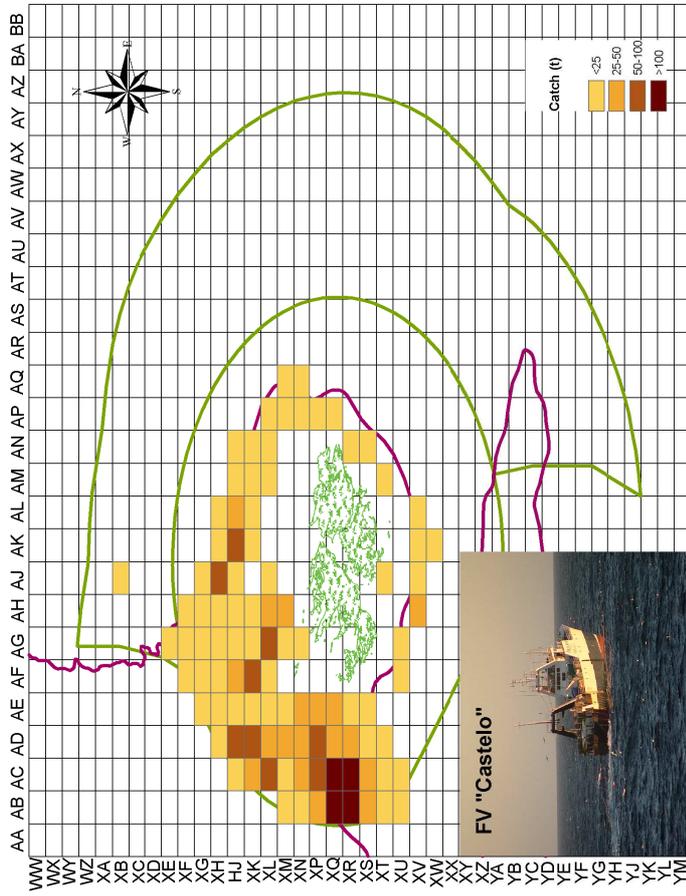
LOA	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<45	.	.	.	.	.	.	.	.	.	.
45-49	688	312	162	168	213	71	259	566	535	293
50-54	869	630	439	358	362	379	519	892	539	653
55-59	1519	578	454	317	199	126	212	485	265	486
60-64	1021	669	309	339	347	442	410	829	623	1057
65-69	508	458	292	280	1180	1158	1678	1787	1373	1770
70-79	1590	1050	893	596	167	123	278	553	492	613
80-89	326	186	50	218	303	159	102	63	215	153
>89	30	12	19	9	9	9	10	9	34	53
	6551	3896	2617	2285	2781	2467	3469	5183	4076	5079

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

BHP	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<1000	.	.	.	.	.	.	.	.	.	.
1000-1199	.	.	.	.	.	.	.	.	.	.
1200-1399	357	224	156	71	.	4	51	112	40	83
1400-1599	892	500	333	337	401	257	551	1134	926	851
1600-1799	227	200	105	171	129	115	219	539	367	489
1800-1999	2606	1567	1149	871	1399	1307	1661	2127	1603	1827
2000-2499	1361	742	587	417	405	475	774	1148	939	1657
2500-2999	543	386	156	93	75	114	66	57	51	63
3000-3999	485	206	85	305	347	152	116	46	105	108
>3999	80	71	47	21	24	43	31	20	46	0
	6551	3896	2617	2285	2781	2467	3469	5183	4076	5079

Salilota australis

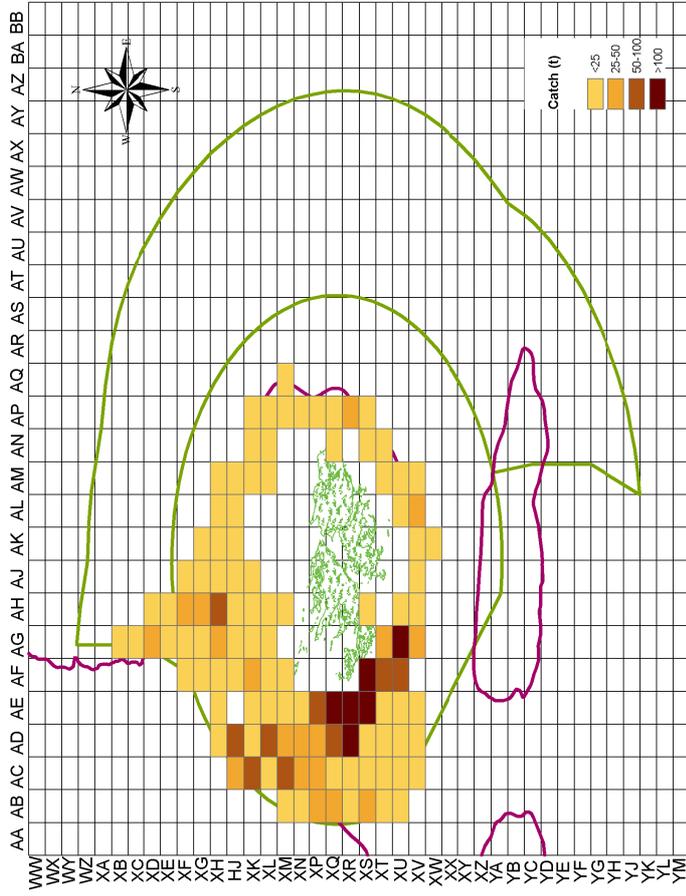
1st Season 2009 (01 Jan to 30 Jun)



Catch (mt) by grid square

Salilota australis

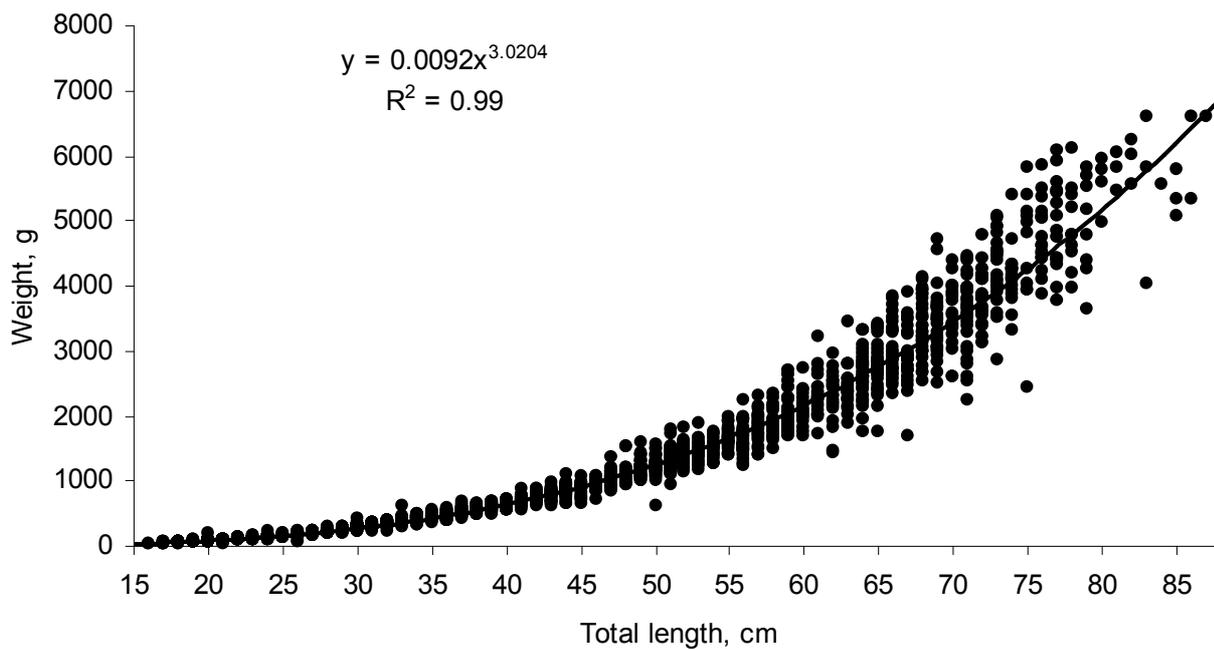
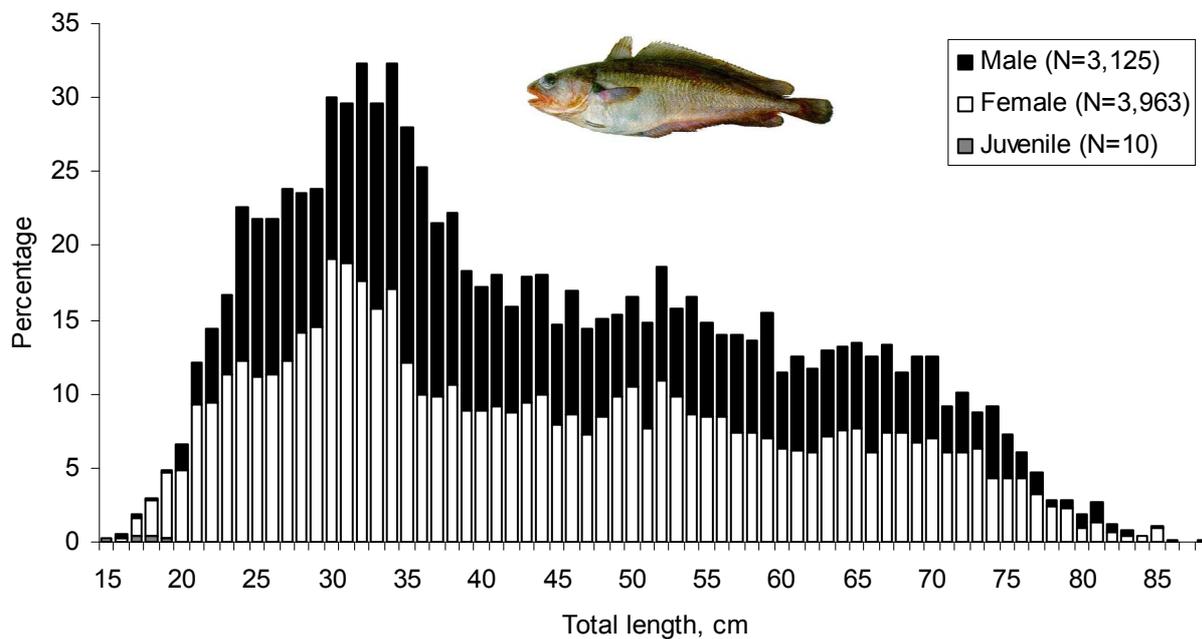
2nd Season 2009 (01 Jul to 31 Dec)



Catch (mt) by grid square

Salilota australis - Red cod

Length– frequency distribution and length-weight relationship in trawler fleets in 2009



Merluccius spp - Hakes

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

VESSEL TYPE	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
LO						.	5	.	.	.
TR	3069	1978	1678	1967	1927	2735	8433	11908	8805	13051
	3069	1978	1678	1967	1927	2735	8438	11908	8805	13051

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

MONTH	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
January	57	7	48	51	14	0	7	31	4	38
February	87	24	96	142	196	81	254	215	68	152
March	180	110	223	34	141	65	267	556	356	474
April	309	462	288	253	269	168	1098	1089	1115	2059
May	183	400	146	198	223	318	1002	3134	2078	2667
June	58	79	46	74	86	41	130	2321	1372	1044
July	419	140	6	31	144	163	415	1975	970	1238
August	934	338	244	263	441	698	2051	1879	1160	1412
September	604	202	388	633	261	854	1906	462	766	2343
October	179	166	113	215	128	277	964	201	794	1488
November	54	49	43	64	23	67	329	42	113	131
December	3	1	39	7	1	2	16	2	10	5
	3069	1978	1678	1967	1927	2735	8438	11908	8805	13051

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

Fishing fleet	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AU	.	.	.	.	.	.	.	.	.	.
BZ	63	4	0	.	.	.	.	.	.	.
CL	.	7	0	.	1	.	.	.	.	.
EE	.	.	.	.	6	.	66	.	.	.
ES	1522	1073	805	1021	810	1388	4837	7604	5327	8038
FK	1000	564	655	731	798	1003	3038	4022	3021	4696
FR	0	.	.	.	.	.	.	.	.	.
HN	.	.	.	.	.	.	.	.	.	.
IS	.	.	.	.	.	.	.	.	.	.
JP	54	2	75	28	8	.	.	.	0	.
KR	396	264	123	187	277	309	394	163	117	90
NA	.	.	.	.	0	.	.	.	.	.
PA	.	.	.	.	.	.	.	.	.	.
PL	.	.	.	.	.	.	.	.	.	.
PT	3	.	.	.	.	.	.	.	.	.
RU	.	47	.	.	.	.	.	.	.	.
SC	.	.	.	.	.	.	.	.	.	.
UK	30	12	20	1	26	35	103	120	341	228
UY	.	.	.	0	.	.	.	.	.	.
VC	.	5	.	.	.	.	.	.	.	.
	3069	1978	1678	1967	1927	2735	8438	11908	8805	13051

Merluccius spp - Hakes

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

GRT	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<400	76	39	.	0	0	.	.	.	.	.
400-599	.	40	24	8	20	21	33	.	.	.
600-799	202	198	140	186	140	362	852	1198	872	1211
800-999	363	188	174	204	326	487	1511	988	929	1763
1000-1499	1890	1200	968	1199	1053	1564	4971	6831	4935	6730
1500-1999	218	174	316	199	217	205	963	2346	1742	2842
2000-2999	265	131	57	167	162	96	108	545	328	505
>2999	54	9	0	5	9	0	.	.	0	.
	3069	1978	1678	1967	1927	2735	8438	11908	8805	13051

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

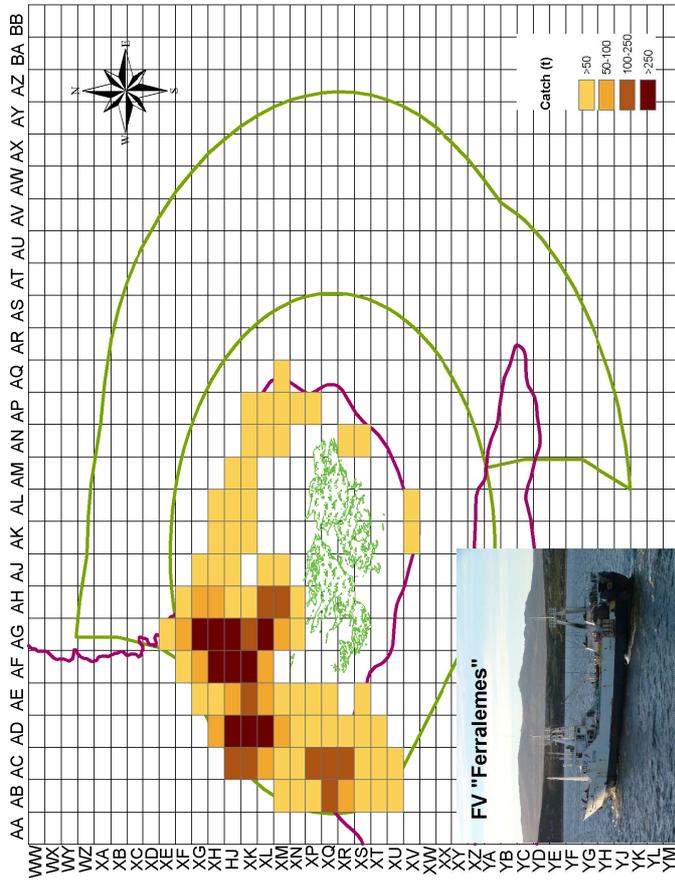
LOA	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<45	.	.	.	0	.	.	.	.	.	.
45-49	188	181	147	133	244	503	1526	1339	1118	1840
50-54	390	269	243	300	331	574	1379	2248	800	996
55-59	917	443	227	385	126	227	1095	1354	1210	1463
60-64	392	296	262	430	306	340	1122	1700	2301	3291
65-69	529	261	386	323	670	960	2652	4128	2351	2820
70-79	337	418	371	287	137	40	506	609	633	2377
80-89	261	95	36	100	103	92	157	531	377	243
>89	55	15	6	8	9	0	1	0	15	20
	3069	1978	1678	1967	1927	2735	8438	11908	8805	13051

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

BHP	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<1000	.	.	.	0	.	.	.	.	.	.
1000-1199	.	.	.	.	.	.	.	.	.	.
1200-1399	66	66	57	30	.	102	236	56	202	173
1400-1599	235	218	230	244	335	716	1704	2214	1109	1684
1600-1799	55	59	34	91	102	95	813	1166	1696	2104
1800-1999	1192	824	561	826	634	817	3166	5246	3615	4531
2000-2499	823	367	496	375	477	620	1946	2433	1403	3744
2500-2999	348	293	216	205	183	255	361	130	126	101
3000-3999	290	128	60	183	186	131	205	659	640	714
>3999	59	23	23	14	10	0	6	5	16	.
	3069	1978	1678	1967	1927	2735	8438	11908	8805	13051

Merluccius spp.

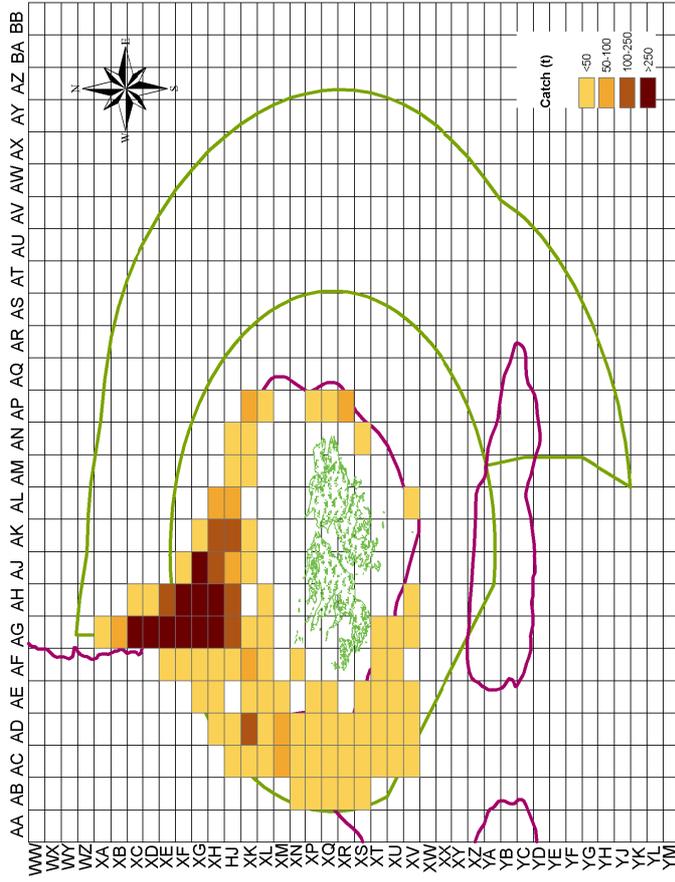
1st Season 2009 (01 Jan - 30 Jun)



Catch (mt) by grid square

Merluccius spp.

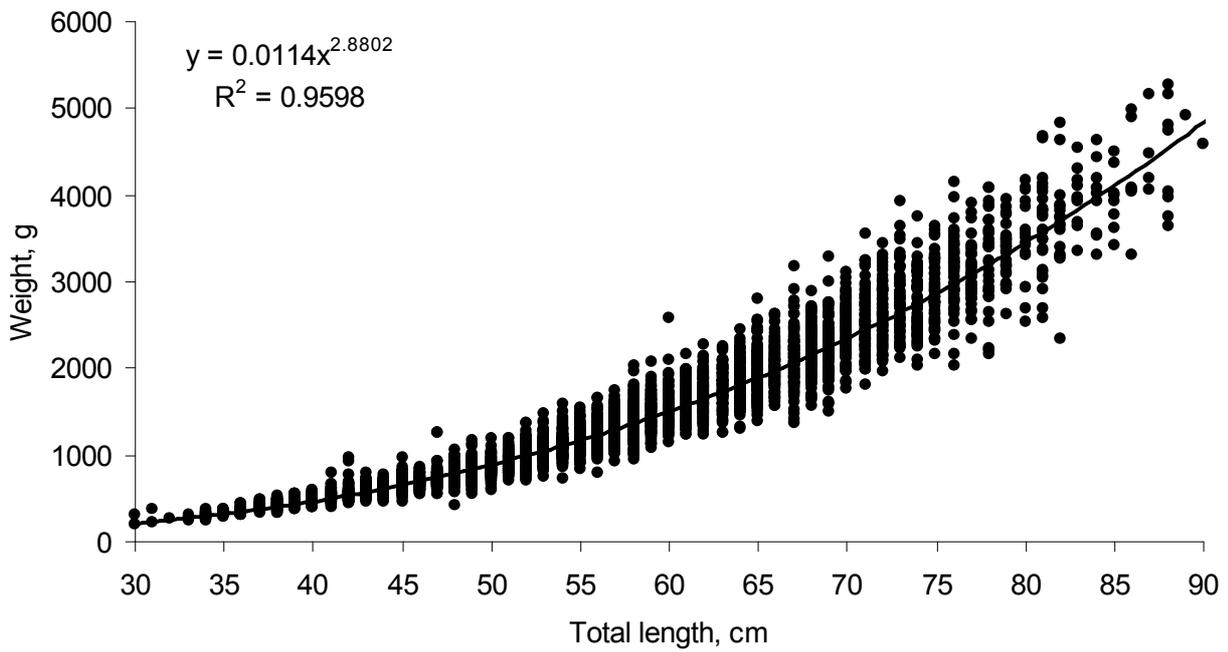
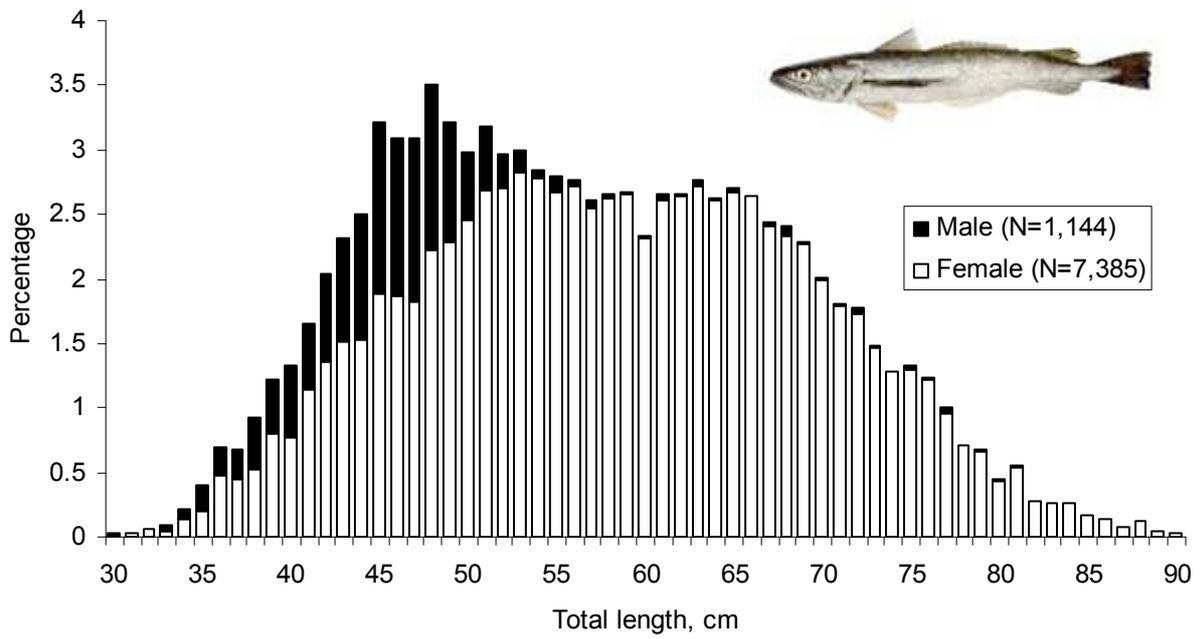
2nd Season 2009 (01 Jul - 31 Dec)



Catch (mt) by grid square

Merluccius spp - Hakes

Length– frequency distribution and length-weight relationship in *M.hubbsi* in trawler fleets in 2009



Genypterus blacodes - Kingclip

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

VESSEL TYPE	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
LO	.	.	.	.	.	.	64	.	.	.
TR	1875	1625	1224	1274	1841	1936	2757	3592	2226	3395
	1875	1625	1224	1275	1841	1936	2821	3592	2226	3395

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

MONTH	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
January	55	64	8	21	54	3	57	84	80	70
February	125	79	57	110	192	149	213	327	107	138
March	126	95	282	29	114	56	173	370	231	214
April	280	319	234	143	289	84	322	460	222	320
May	166	259	85	102	172	73	221	330	234	437
June	26	36	20	28	19	29	35	60	54	179
July	178	36	1	16	95	58	77	204	107	258
August	313	177	58	141	263	291	405	711	326	481
September	259	154	45	271	144	350	530	498	437	428
October	158	202	225	224	354	523	494	356	240	548
November	152	193	169	154	132	255	253	166	142	195
December	39	12	40	36	12	65	41	25	48	126
	1875	1625	1224	1275	1841	1936	2821	3592	2226	3395

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

Fishing fleet	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AU	.	.	.	.	.	.	.	.	.	.
BZ	87	8	0	.	.	.	.	.	.	.
CL	.	.	.	.	.	.	.	.	.	.
EE	.	.	.	.	11	.	43	.	.	.
ES	1154	1086	857	818	1135	1184	1701	2735	1691	2623
FK	304	348	334	387	530	517	911	740	479	726
FR	.	.	.	.	.	.	.	.	.	.
IS	.	.	.	.	.	.	.	.	.	.
JP	2	.	4	0	4	0	0	2	0	1
KR	309	166	27	67	140	219	135	84	31	33
NA	.	.	.	.	0	.	.	.	.	.
PA	.	.	.	.	.	.	.	.	.	.
PT	13	.	.	.	.	.	.	.	.	.
RU	.	16	.	.	.	.	.	.	.	.
SC	.	.	.	.	.	.	.	.	.	.
UK	7	2	1	3	20	15	31	31	26	11
	1875	1625	1224	1275	1841	1936	2821	3592	2226	3395

Genypterus blacodes - Kingclip

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

GRT	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<400	64	24	.	.	.	.	.	.	.	.
400-599	.	19	3	1	5	34	13	.	.	.
600-799	371	408	305	224	127	102	215	458	393	675
800-999	285	146	70	186	325	225	333	565	297	431
1000-1499	974	838	661	680	921	1099	1650	1834	986	1456
1500-1999	149	144	175	121	376	383	569	692	533	814
2000-2999	31	46	8	63	82	92	42	41	18	19
>2999	2	.	1	0	4	0	0	2	0	1
	1875	1625	1224	1275	1841	1936	2821	3592	2226	3395

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

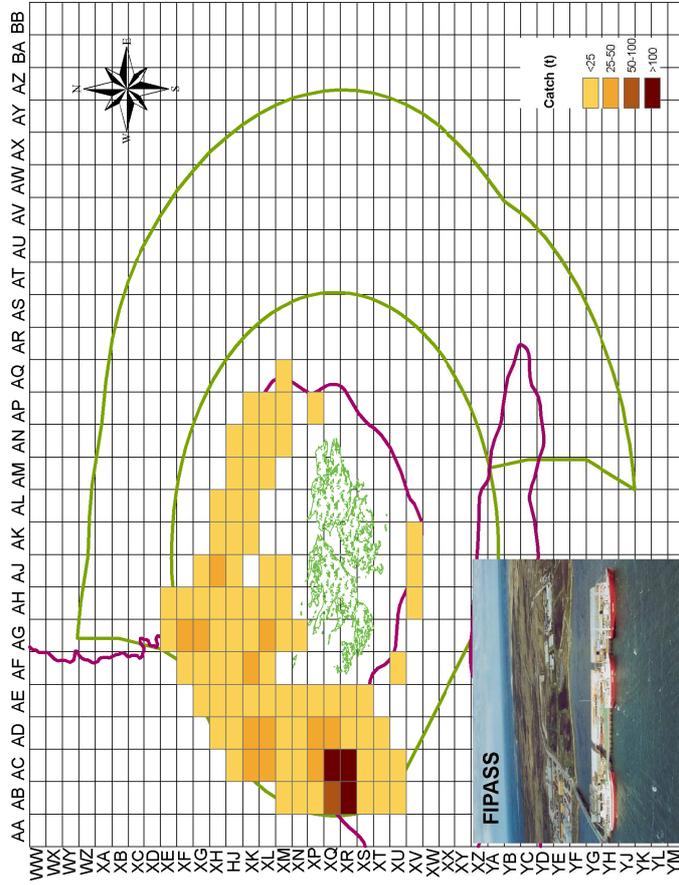
LOA	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<45	.	.	.	.	.	.	.	.	.	.
45-49	183	155	75	138	291	110	299	435	285	300
50-54	441	378	302	321	271	387	459	604	499	742
55-59	373	224	217	155	183	197	354	402	187	389
60-64	361	304	150	236	292	445	484	805	490	834
65-69	212	218	172	184	602	630	899	943	468	677
70-79	273	302	304	207	109	80	255	354	223	407
80-89	30	45	4	29	88	85	70	41	73	44
>89	2	.	1	5	4	1	0	7	2	1
	1875	1625	1224	1275	1841	1936	2821	3592	2226	3395

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

BHP	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<1000	.	.	.	.	.	.	.	.	.	.
1000-1199	.	.	.	.	.	.	.	.	.	.
1200-1399	185	218	146	88	.	13	65	133	57	127
1400-1599	258	178	161	229	377	232	609	856	661	914
1600-1799	91	71	49	153	81	126	232	427	265	338
1800-1999	635	589	518	469	876	884	1041	1194	638	1035
2000-2499	393	272	236	185	296	394	677	825	532	917
2500-2999	274	250	103	82	104	179	125	88	32	32
3000-3999	38	47	7	62	101	105	72	51	41	29
>3999	2	1	4	8	5	3	1	18	1	1
	1875	1625	1224	1275	1841	1936	2821	3592	2226	3395

Genypterus blacodes

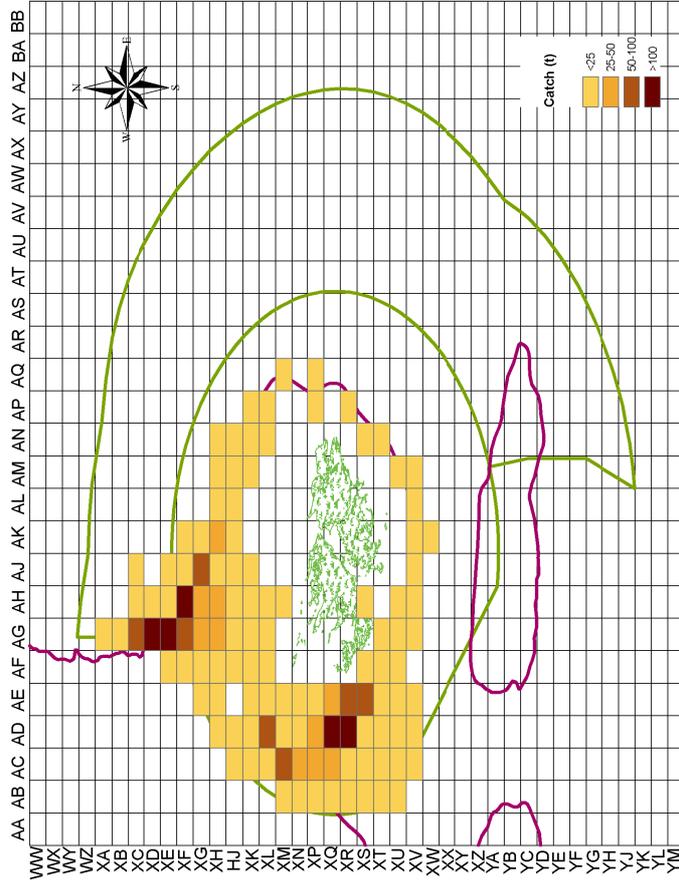
1st Season 2009 (01 Jan - 30 Jun)



Catch (mt) by grid square)

Genypterus blacodes

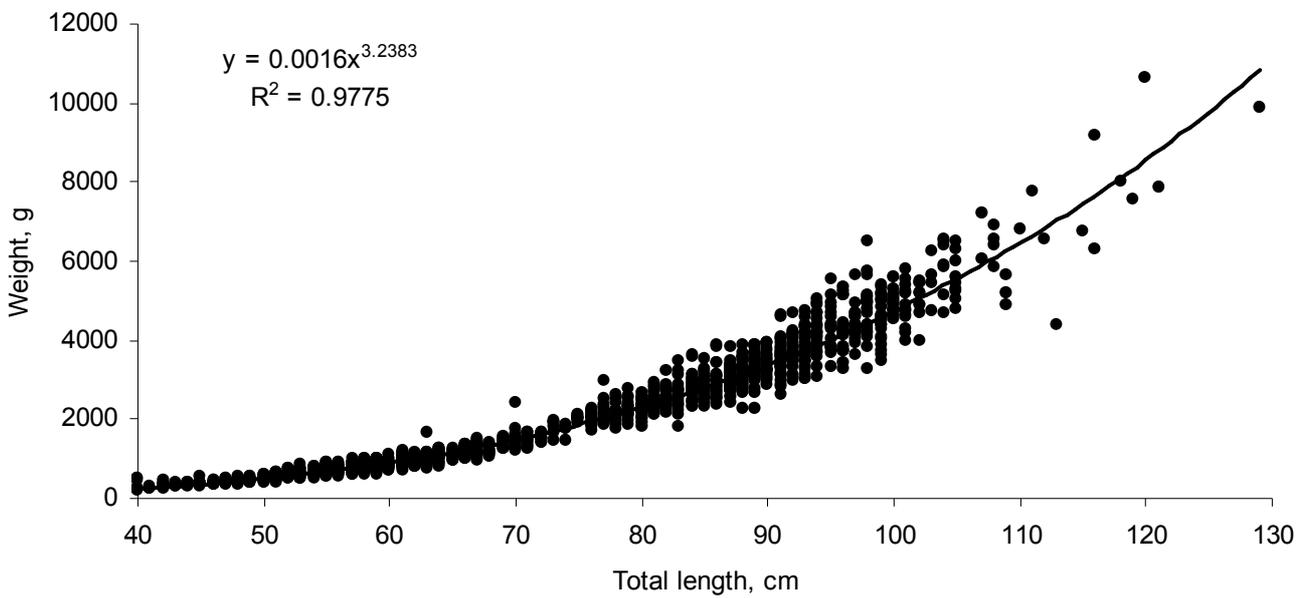
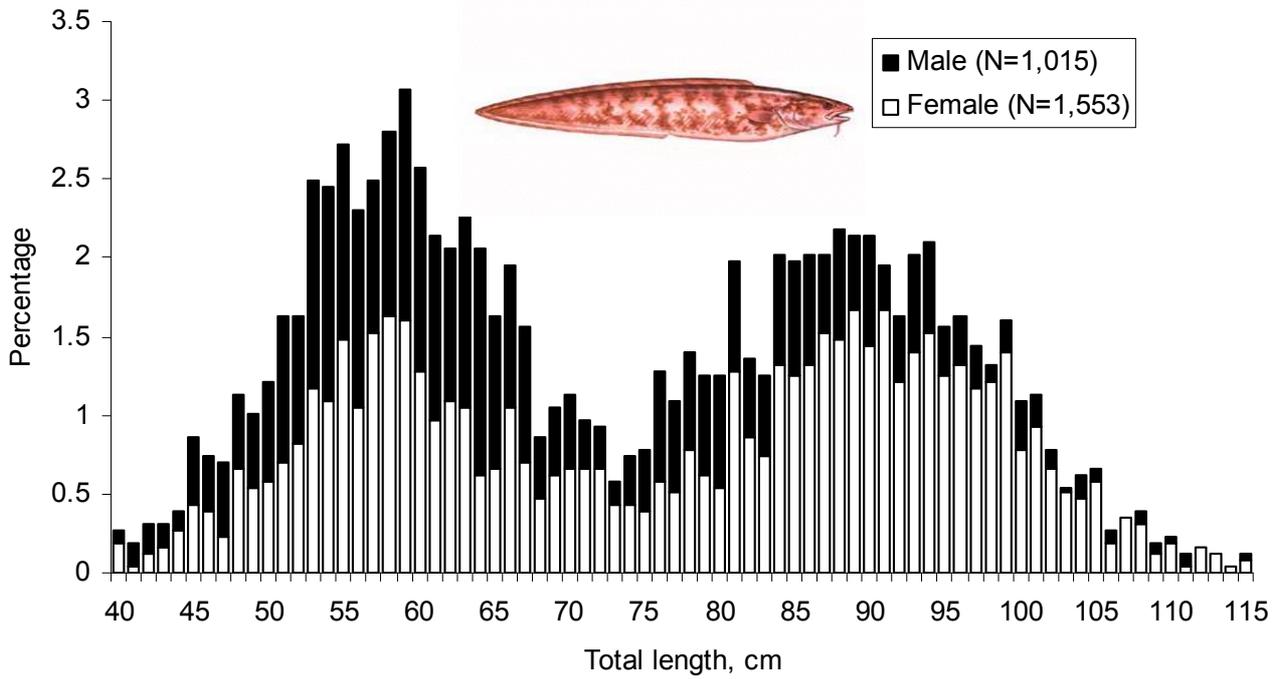
2nd Season 2009 (01 Jul - 31 Dec)



Catch (mt) by grid square)

Genypterus blacodes - Kingclip

Length– frequency distribution and length-weight relationship in trawler fleets in 2009



Dissostichus eleginoides - Toothfish

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

VESSEL TYPE	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
LO	1554	1310	1440	1455	1725	1554	1244	1407	1368	1134
PO	.	.	.	.	.	.	263	59	.	.
TR	764	443	352	253	276	123	65	53	61	285
	2318	1754	1793	1707	2002	1677	1572	1519	1429	1419

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

MONTH	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
January	213	105	100	143	167	147	331	123	248	123
February	296	172	58	196	188	144	174	116	181	163
March	224	172	116	103	167	116	247	103	159	210
April	149	206	108	49	113	64	146	50	193	84
May	242	178	103	61	150	119	65	106	93	116
June	226	107	87	90	97	99	98	61	51	98
July	209	128	192	162	157	116	150	56	113	91
August	190	181	303	194	269	214	95	137	116	129
September	159	157	262	157	142	186	124	167	52	184
October	161	145	183	277	218	219	54	124	10	80
November	160	138	144	160	223	116	79	209	102	26
December	88	65	136	115	110	138	8	266	111	115
	2318	1754	1793	1707	2002	1677	1572	1519	1429	1419

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

Fishing fleet	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AU	.	.	.	.	.	.	.	.	.	.
BZ	27	11	0	.	.	.	.	.	.	.
CL	.	.	.	.	.	.	.	301	.	.
EE	.	.	.	.	0	.	0	.	.	.
ES	360	230	191	147	158	73	43	34	36	203
FK	928	1460	1323	967	1641	1597	1264	1123	1391	1210
FR	0	.	.	.	.	.	.	.	.	.
HN	.	.	.	.	.	.	.	.	.	.
IS	.	.	.	.	.	.	.	.	.	.
JP	1	.	2	0	0	.	.	.	.	.
KR	994	49	268	549	196	7	264	60	1	.
NA	.	.	.	.	.	.	.	.	.	.
NO	.	.	.	.	.	.	.	.	.	.
NZ	.	.	.	43	.	.	.	.	.	.
PA	.	.	.	.	.	.	.	.	.	.
PT	3	.	.	.	.	.	.	.	.	.
SC	.	.	.	.	.	.	.	.	.	.
RU	.	0	.	.	.	.	.	.	.	.
UK	6	3	8	1	6	0	1	1	0	5
VC	.	0	.	.	.	.	.	.	.	.
	2318	1754	1793	1707	2002	1677	1572	1519	1429	1419

Dissostichus eleginoides - Toothfish

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

GRT	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<400	747	2	243	184	182	.	.	.	.	.
400-599	75	1	2	346	0	0	0	.	.	.
600-799	54	48	35	36	22	4	268	67	10	33
800-999	884	1072	1112	746	1564	1556	1248	1108	1369	1166
1000-1499	444	557	328	347	161	73	31	322	20	106
1500-1999	83	47	59	33	58	28	25	21	29	88
2000-2999	30	27	13	15	15	16	1	0	1	25
>2999	1	.	.	.	0	.	.	.	.	.
	2318	1754	1793	1707	2002	1677	1572	1519	1429	1419

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

LOA	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<45	551	358	136	.	.	.	.	.	.	.
45-49	135	34	33	407	16	1	148	61	1	10
50-54	860	106	306	246	904	858	718	529	990	1169
55-59	339	1020	1118	921	890	723	662	592	392	26
60-64	197	68	54	63	64	21	12	312	4	27
65-69	71	41	59	38	102	52	25	14	23	75
70-79	134	100	82	25	11	8	5	9	15	89
80-89	27	24	2	7	14	13	3	1	3	16
>89	2	0	1	1	0	1	.	0	.	5
	2318	1754	1793	1707	2002	1677	1572	1519	1429	1419

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

BHP	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<1000	.	.	.	.	.	.	.	.	.	.
1000-1199	.	.	.	43	.	.	.	.	.	.
1200-1399	28	21	11	3	.	0	146	59	.	.
1400-1599	372	1029	1115	1269	1598	1572	1258	1119	1382	1191
1600-1799	735	16	264	243	213	8	120	304	5	20
1800-1999	254	165	129	84	123	56	31	14	23	68
2000-2499	703	426	217	31	36	21	15	20	17	110
2500-2999	191	67	34	16	10	4	1	1	1	5
3000-3999	32	29	19	15	20	15	1	1	1	25
>3999	4	1	3	2	1	1	.	.	.	.
	2318	1754	1793	1707	2002	1677	1572	1519	1429	1419

Dissostichus eleginoides - Toothfish

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

GRT	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<400
600-799	263*	59*	.	.
	263	59	.	.

*- potters

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

LOA	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
45-49	146*	59*	.	.
50-54	117*	.	.	.
0	263	59	.	.

*- potters

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

BHP	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1200-1499	146*	59*	.	.
1600-1799	117*	.	.	.
0	263	59	.	.

*- potters

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

GRT	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<400	724	.	243	184	182	.	.	.	.	.
400-599	75	.	.	346	.	.	.	.	.	.
600-799	.	.	.	.	.	.	.	.	.	.
800-999	755	1011	1070	723	1543	1554	1244	1106	1368	1134
1000-1499	.	299	127	202	.	.	.	301	.	.
	1554	1310	1440	1455	1725	1554	1244	1407	1368	1134

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

LOA	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<45	551	358	136	.	.	.	.	.	.	.
45-49	75	.	.	389	.	.	.	.	.	.
50-54	724	.	243	184	849	838	587	516	976	1134
55-59	203	952	1061	881	876	716	657	590	392	.
60-64	.	.	.	.	.	.	.	301	.	.
	1554	1310	1440	1455	1725	1554	1244	1407	1368	1134

***Dissostichus eleginoides* - Toothfish**

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

BHP	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<1000	.	.	.	.	.	.	.	.	.	.
1000-1199	.	.	.	43	.	.	.	.	.	.
1200-1399	.	.	.	.	.	.	.	.	.	.
1400-1599	278	952	1061	1227	1543	1554	1244	1106	1368	1134
1600-1799	724	.	243	184	182	.	.	301	.	.
1800-1999	.	.	.	.	.	.	.	.	.	.
2000-2499	551	358	136	.	.	.	.	.	.	.
	1554	1310	1440	1455	1725	1554	1244	1407	1368	1134

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

GRT	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<400	23	2	.	.	0	.	.	.	.	.
400-599	.	1	2	0	0	0	0	.	.	.
600-799	54	48	35	36	22	4	5	8	10	33
800-999	130	61	42	23	20	2	4	2	1	33
1000-1499	444	258	200	146	161	73	31	21	20	106
1500-1999	83	47	59	33	58	28	25	21	29	88
2000-2999	30	27	15	15	15	16	1	0	1	25
>2999	1	.	.	.	0	.	.	.	.	.
	764	443	352	253	276	123	65	53	61	285

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

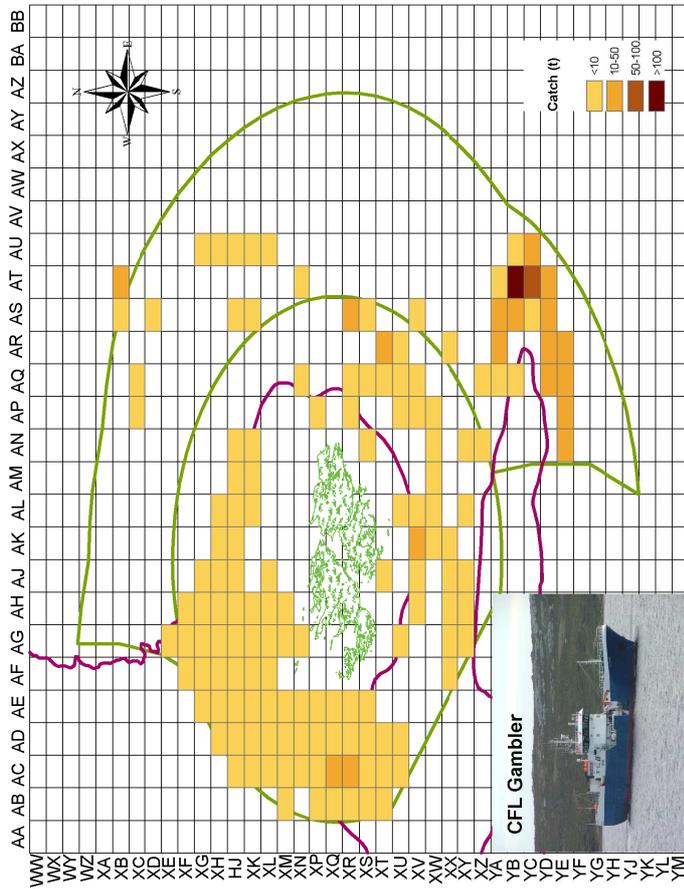
LOA	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<45	.	.	.	.	.	.	.	.	.	.
45-49	60	34	33	18	16	1	2	2	1	10
50-54	136	106	63	62	55	20	14	13	14	35
55-59	136	69	57	39	13	7	5	2	0	26
60-64	197	68	54	62	64	21	12	12	4	27
65-69	71	41	59	38	102	52	25	14	23	75
70-79	134	100	82	25	11	8	5	9	15	89
80-89	27	24	2	7	14	13	3	1	3	16
>89	2	0	1	1	.	1	.	0	.	5
	764	443	352	253	276	123	65	53	61	285

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

BHP	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<1000	.	.	.	.	.	.	.	.	.	.
1000-1199	.	.	.	.	.	.	.	.	.	.
1200-1399	28	21	11	3	.	0	.	.	.	.
1400-1599	93	77	54	42	55	19	14	13	14	58
1600-1799	11	16	21	58	31	8	3	3	5	20
1800-1999	254	165	129	84	123	56	31	14	23	68
2000-2499	151	68	81	31	36	21	15	20	17	110
2500-2999	191	67	34	16	10	4	1	1	1	5
3000-3999	32	29	19	15	20	15	1	1	1	25
>3999	4	1	3	2	1	1	.	.	.	.
	764	443	352	253	276	123	65	53	61	285

Dissostichus eleginoides

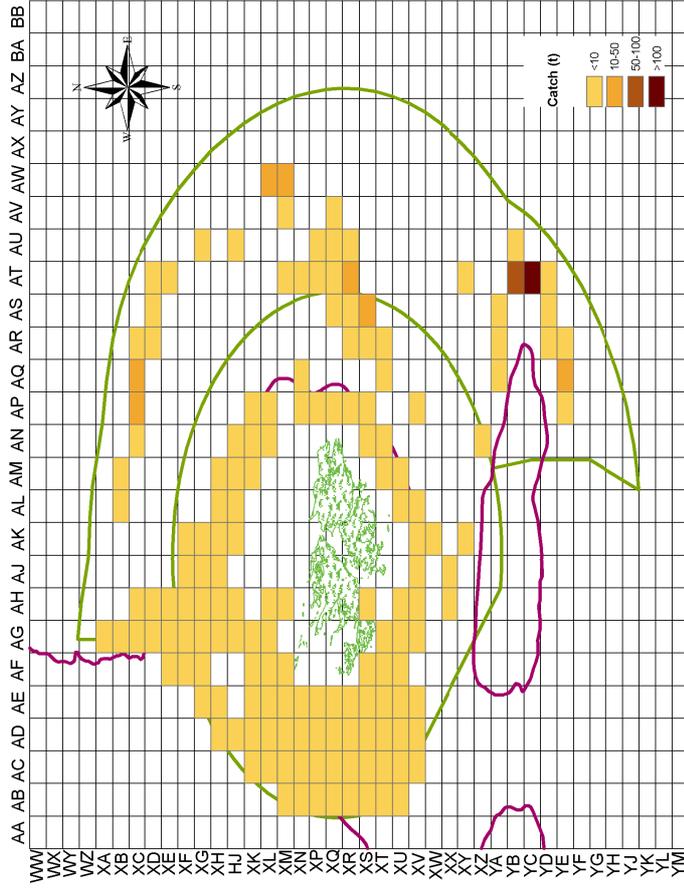
1st Season 2009 (01 Jan - 30 Jun)



Catch (mt) by grid square)

Dissostichus eleginoides

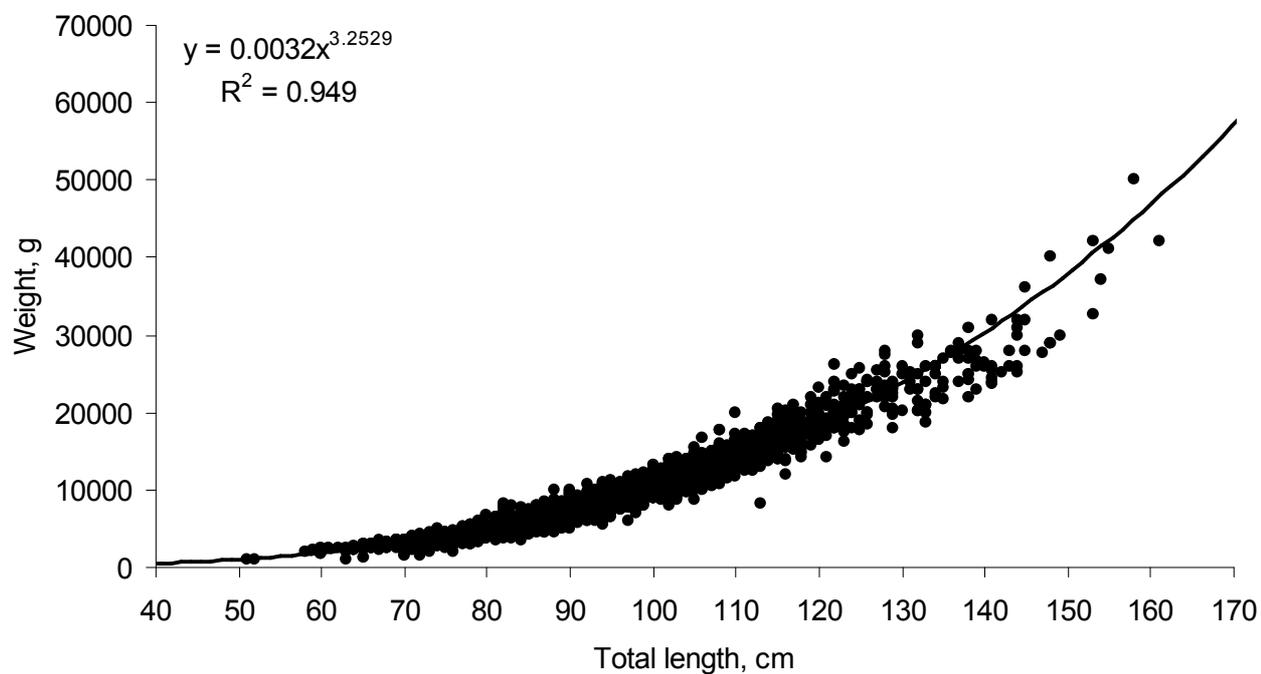
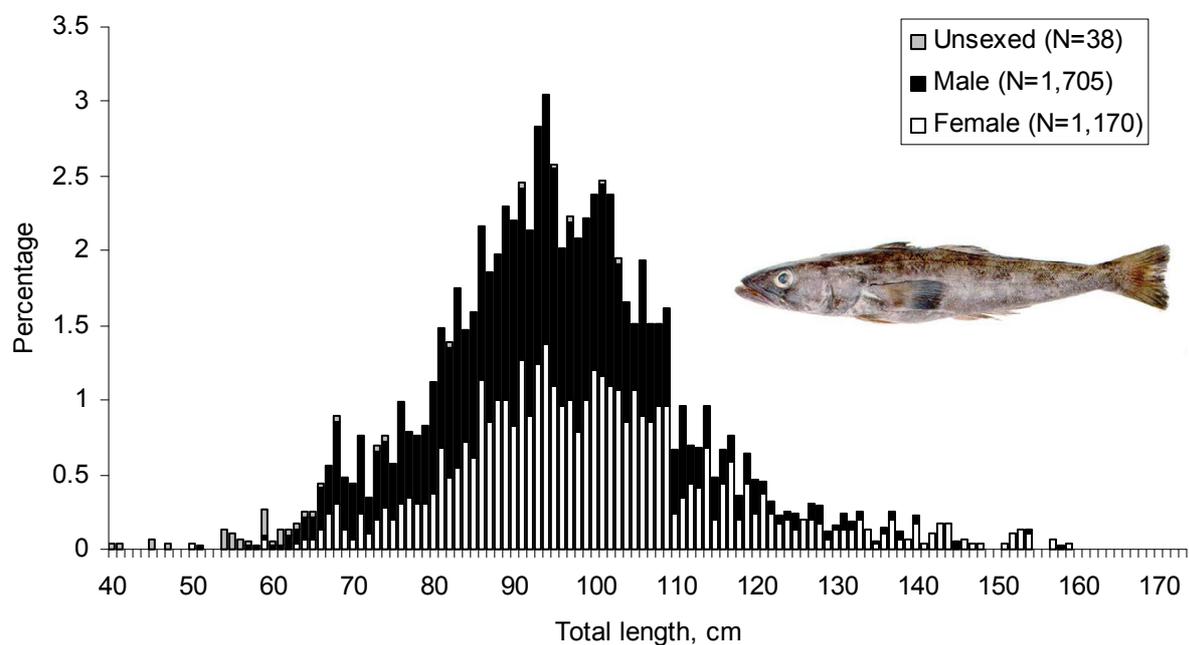
2nd Season 2009 (01 Jul - 31 Dec)



Catch (mt) by grid square)

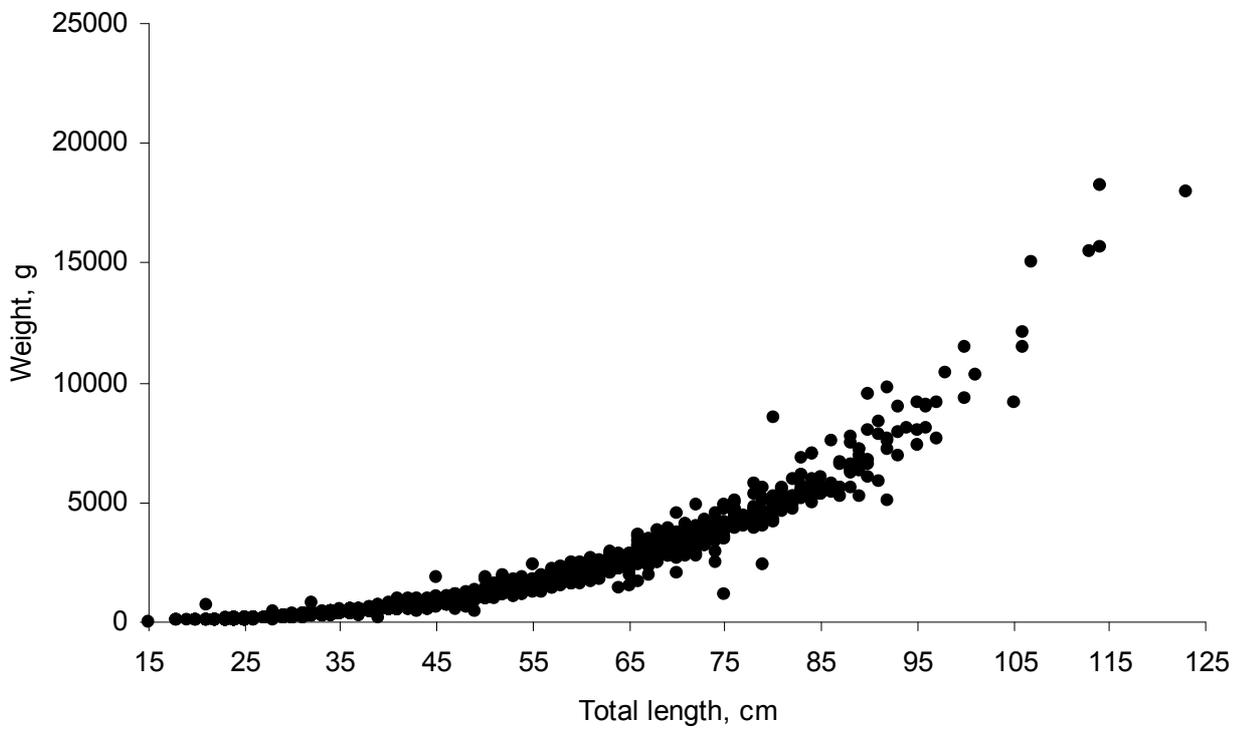
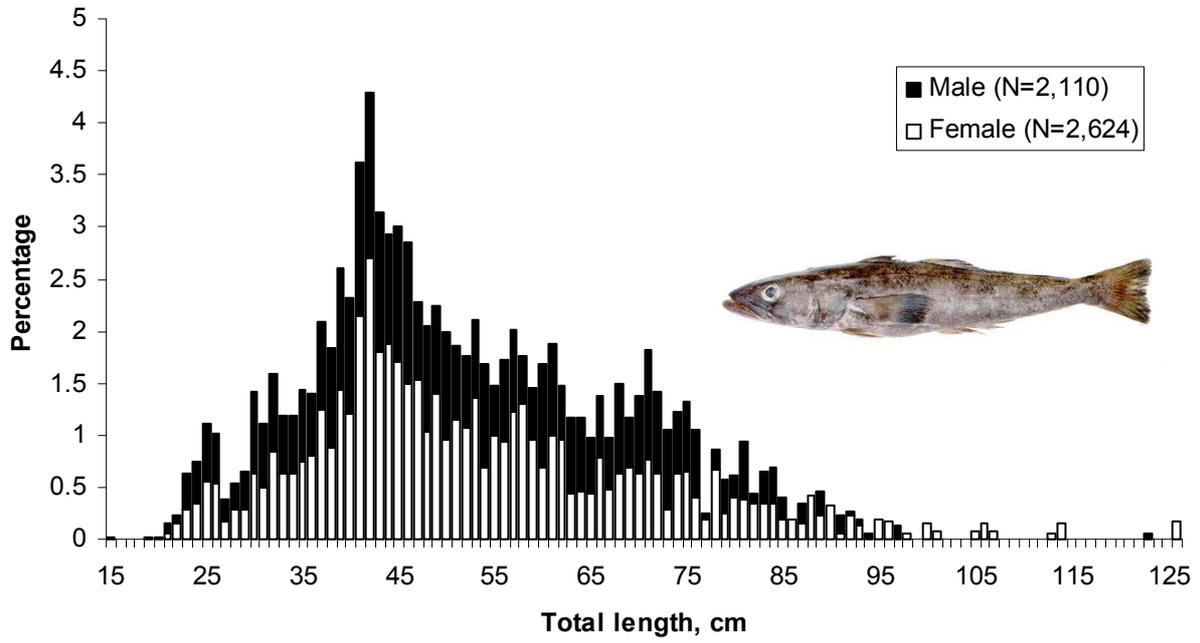
Dissostichus eleginoides - Toothfish

Length– frequency distribution and length-weight relationship in longliner fleet in 2009



Dissostichus eleginoides - Toothfish

Length– frequency distribution and length-weight relationship in trawler fleets in 2009



Rajidae - Skates and Rays

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

VESSEL TYPE	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
LO	161	101	96	152	168	75	150	42	28	22
PO	.	.	.	.	.	.	0	.	.	.
TR	3691	4207	3268	3836	4983	5623	4529	5621	3825	5843
	3853	4309	3364	3988	5151	5698	4679	5663	3853	5865

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

MONTH	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
January	217	199	196	32	1257	92	86	108	120	96
February	669	208	49	404	159	423	160	173	200	179
March	118	72	202	139	95	83	80	179	142	178
April	106	127	170	77	113	56	134	176	187	304
May	71	110	115	195	148	165	122	190	189	555
June	42	42	175	223	142	21	32	124	95	662
July	77	104	22	459	93	566	133	394	516	570
August	975	950	552	1596	1589	2267	1665	1999	1229	1327
September	1035	881	1248	592	1022	821	1019	1109	668	848
October	327	1294	431	161	352	490	881	722	220	406
November	178	306	168	81	59	590	305	141	119	511
December	38	16	35	29	120	125	62	350	167	228
	3853	4309	3364	3988	5151	5698	4679	5663	3853	5865

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

Fishing fleet	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AU	.	.	.	.	.	.	.	.	.	.
BZ	48	201	10	.	.	.	.	.	.	.
CL	.	.	.	.	.	.	.	12	.	.
EE	.	.	.	.	4	.	11	.	.	.
ES	415	430	555	412	515	634	1160	1745	1518	2661
FK	353	417	474	320	653	612	770	675	419	898
FR	0	.	.	.	.	.	.	.	.	.
HN	.	.	.	.	.	.	.	.	.	.
IS	.	.	.	.	.	.	.	.	.	.
IT	.	.	.	.	.	.	.	.	.	.
JP	.	.	0	.	1	.	.	.	.	.
KR	3019	3218	2304	3241	3937	4413	2720	3197	1891	2262
NA	.	.	.	.	.	.	.	.	.	.
NZ	.	.	.	4	.	.	.	.	.	.
PA	.	.	.	.	.	.	.	.	.	.
PT	0	.	.	.	.	.	.	.	.	.
RU	.	12	.	.	.	.	.	.	.	.
UK	17	26	19	5	16	16	11	34	25	44
UY	.	5	2	5	24	23	6	.	.	.
VC	.	0	.	.	.	.	.	.	.	.
	3853	4309	3364	3988	5151	5698	4679	5663	3853	5865

Rajidae - Skates and Rays

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

GRT	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<400	659	485	31	34	43	.	.	.	.	.
400-599	7	281	248	272	241	404	209	.	.	.
600-799	228	1425	707	1194	889	918	531	1230	957	1214
800-999	1615	1017	1250	1571	2636	2568	1861	2014	1298	1746
1000-1499	1197	949	805	636	904	1103	1713	1905	1299	2208
1500-1999	85	94	255	222	147	163	208	464	248	606
2000-2999	63	57	68	58	288	542	156	51	51	91
>2999	.	.	0	.	1	.	.	.	.	.
	3853	4309	3364	3988	5151	5698	4679	5663	3853	5865

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

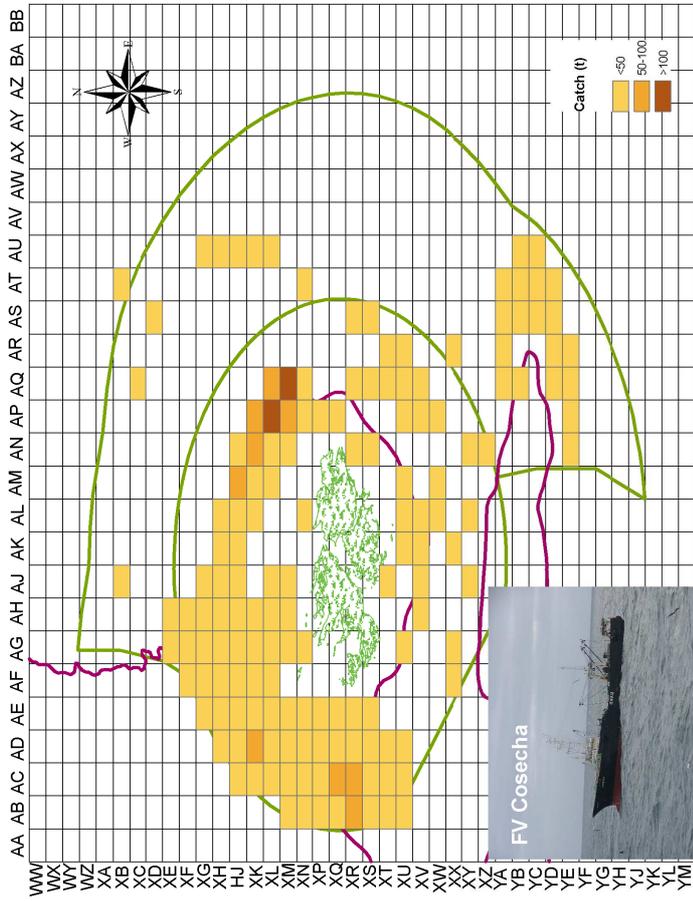
LOA	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<45	74	47	15	1	.	.	.	.	.	.
45-49	48	701	427	905	636	661	529	1028	848	858
50-54	1765	1993	1792	2002	2938	3228	1951	2003	1208	1782
55-59	796	691	259	328	479	371	689	770	453	726
60-64	821	537	343	350	316	410	670	760	647	985
65-69	143	145	176	127	420	448	558	800	346	579
70-79	163	165	323	255	288	472	241	258	293	845
80-89	36	31	26	20	71	108	40	43	57	88
>89	6	.	1	.	1	.	0	1	2	1
	3853	4309	3364	3988	5151	5698	4679	5663	3853	5865

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

BHP	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<1000	.	5	2	1	.	.	.	.	.	.
1000-1199	.	.	.	4	.	.	.	.	.	.
1200-1399	44	31	78	12	.	15	41	57	50	52
1400-1599	86	166	230	269	361	340	590	512	312	556
1600-1799	80	43	94	88	101	34	146	149	264	436
1800-1999	318	343	362	281	400	486	728	979	533	897
2000-2499	869	876	435	487	840	826	882	1037	914	1827
2500-2999	2377	2762	1934	2638	3143	3439	2126	2845	1706	1962
3000-3999	53	75	221	208	299	555	160	82	67	134
>3999	27	8	6	0	7	3	6	1	6	.
	3853	4309	3364	3988	5151	5698	4679	5663	3853	5865

Rajidae

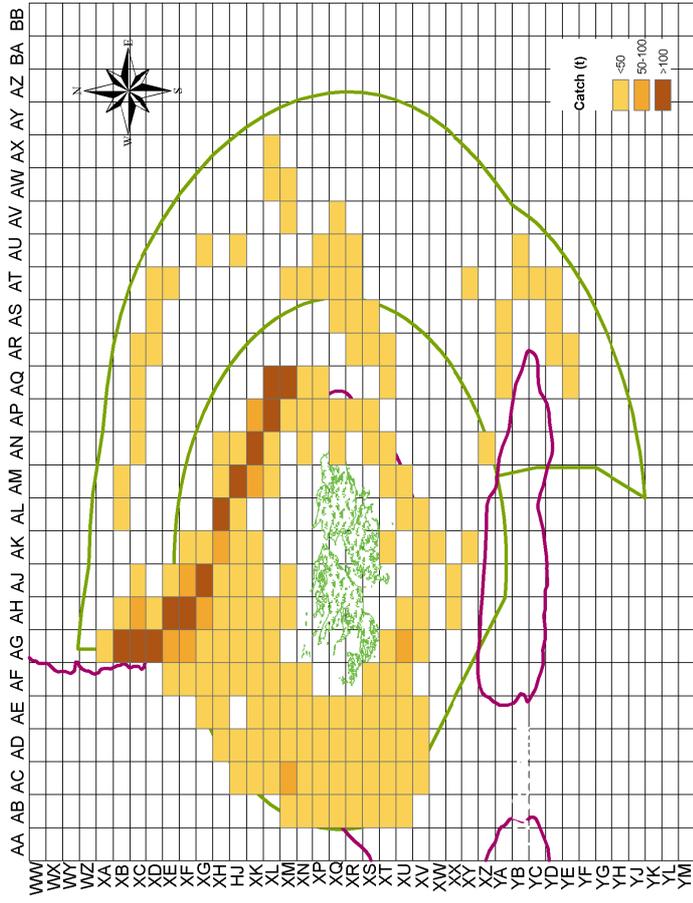
1st Season 2009 (01 Jan - 30 Jul)



Catch (mt) by grid square)

Rajidae

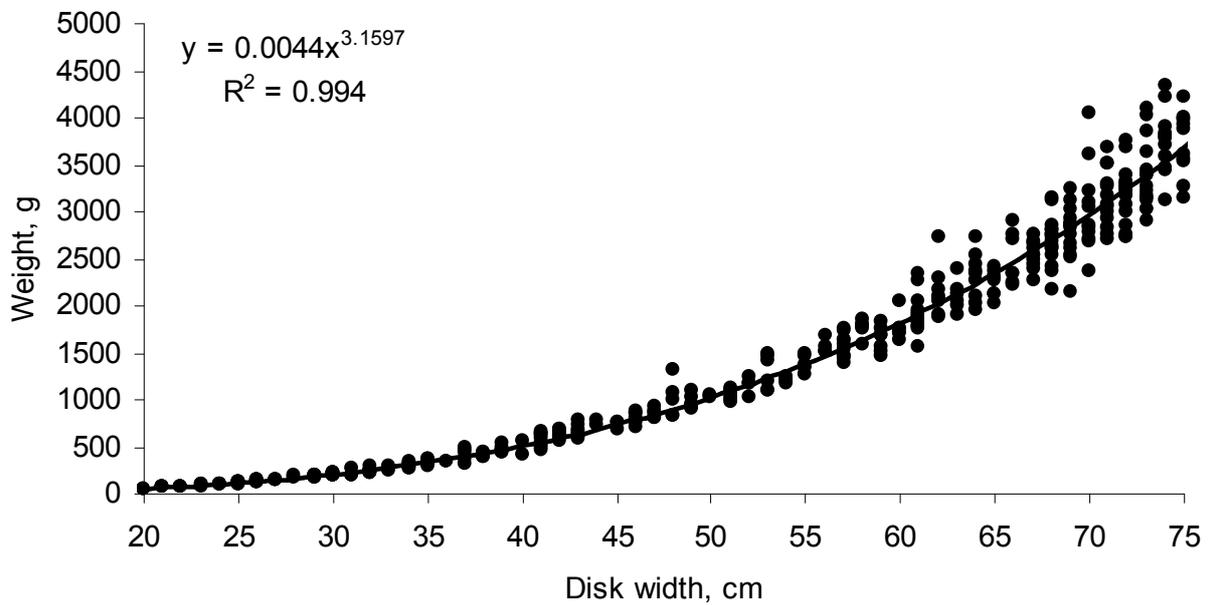
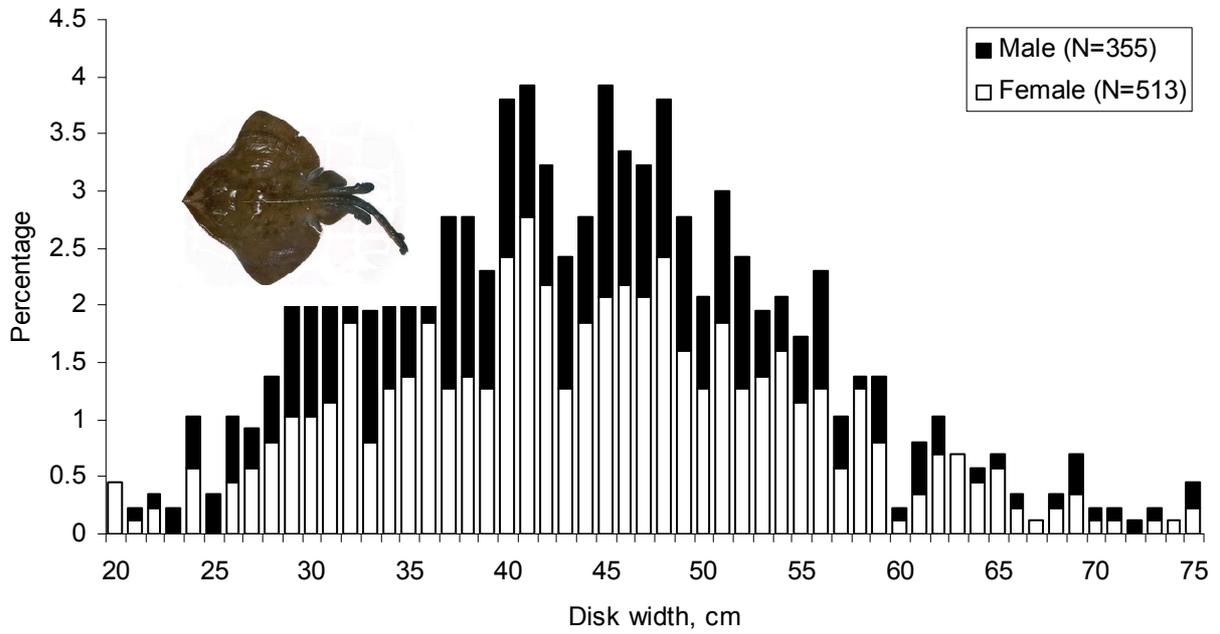
2nd Season 2009 (01 Jul - 31 Dec)



Catch (mt) by grid square)

Rajidae - Skates and Rays

Length– frequency distribution and length-weight relationship in 2009 for *Bathyraja brachiurops*



Zygochlamys patagonica - Scallop

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

VESSEL TYPE	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
TR	.	76	59	685	1279	1358	1161	14*	6*	13*
	.	76	59	685	1279	1358	1161	14*	6*	13*

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

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

MONTH	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
January	.	.	59	.	441	420	342	.	.	.
February	250	207	273	0	0	1
March	519	574	450	8	3	9
April	75	18	4	1	2
May	.	.	.	29	.	.	74	.	.	.
June	.	.	.	12	.	.	.	.	.	.
July	0	.	0	1	.
August	0	.	1	0	.
September	0	.
October	41	.	.	.	.	0
November	.	.	.	440	28	81	5	.	.	.
December	.	76	.	204	.	.	.	.	.	.
	.	76	59	685	1279	1358	1161	14	6	13

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

Fishing fleet	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
FK	12	7	13	6	12
PA	1	.	.
UK	1	3	0	.	0
UY	.	76	59	685	1279	1346	1152	.	.	.
	.	76	59	685	1279	1358	1161	14	6	13

Zygochlamys patagonica - Scallop

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

GRT	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<400	.	76	59	41	.	.	.	.	.	.
400-599	.	.	.	644	1279	1346	1152	.	.	.
600-799
800-999	2
1000-1499	1	.	3
1500-1999	1	3	0	.	0
2000-2999	11	7	13	6	8
>2999
	.	76	59	685	1279	1358	1161	14	6	13

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

LOA	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<45	.	76	59	41	.	.	.	.	.	.
45-49
50-54	.	.	.	644	1279	1346	1152	.	.	2
55-59	4	.	.	.	.
60-64	1	2	.	.	.
65-69	7	3	0	.	4
70-79	1	4	1	2	1
80-89	1	12	3	6
>89	0	0	.
	.	76	59	685	1279	1358	1661	14	6	13

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

BHP	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<1000	.	76	59	41	.	.	.	.	.	.
1000-1199
1200-1399
1400-1599
1600-1799
1800-1999	2
2000-2499	.	.	.	644	1279	1347	1152	.	.	3
2500-2999	1	0	.
3000-3999	12	9	13	6	8
>3999
	.	76	59	685	1279	1358	1161	14	6	13

Others

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

VESSEL TYPE	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
CO	.	.	.	.	.	.	33*	.	.	.
LO	377	272	217	225	183	163	152	116	110	90
TR	3660	1746	1025	1523	4897	10554	21830	31771	61928	59277
	4037	2018	1242	1748	5081	10717	22015	31887	62039	59366

*-potters

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

MONTH	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
January	206	117	28	63	147	19	455	588	2991	2801
February	441	269	73	155	770	838	3265	3340	7271	6750
March	407	255	158	61	508	476	2687	4024	10063	5140
April	467	450	203	82	716	373	3193	3862	8427	9589
May	489	189	47	73	495	645	2080	4507	8558	11084
June	119	30	19	21	59	146	631	558	2320	3154
July	130	24	28	44	273	217	814	2495	2173	2810
August	329	94	178	81	657	1252	2306	3517	4357	2836
September	491	142	183	239	622	2920	1905	3834	4861	3865
October	653	296	154	552	547	1001	2013	2775	5394	6640
November	215	131	78	296	264	2617	2433	1967	4573	3258
December	91	22	93	82	23	213	232	421	1051	1439
	4037	2018	1242	1748	5081	10717	22015	31887	62039	59366

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

Fishing fleet	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AU	.	.	.	.	.	.	.	.	.	.
BZ	223	43	0	.	.	.	.	.	.	.
CL	.	.	.	2	.	.	.	32	.	.
EE	.	.	.	.	29	.	306	.	.	.
ES	2046	1011	496	850	2079	5201	11885	19456	42411	43449
FK	1344	774	624	686	2696	4984	9109	11360	18732	14846
FR	.	.	.	.	.	.	.	.	.	.
HN	.	.	.	.	.	.	.	.	.	.
IS	.	.	.	.	.	.	.	.	.	.
IT	.	.	.	.	.	.	.	.	.	.
JP	9	.	10	38	14	4	4	1	4	2
KR	401	189	112	135	113	78	127	93	65	123
NA	.	.	.	.	25	.	.	.	.	.
NO	.	.	.	.	.	.	.	.	.	.
NZ	.	.	.	22	.	.	.	.	.	.
PA	.	.	.	.	.	.	.	175	.	.
PL	.	.	.	.	.	.	.	.	.	.
PT	2	.	.	.	.	.	.	.	.	.
RU	.	0	.	.	.	.	.	.	.	.
SC	.	.	.	.	.	.	.	.	.	.
UY	.	.	.	.	.	0	11	.	.	.
UK	13	.	.	15	125	450	573	769	826	946
	4037	2018	1242	1748	5081	10717	22015	31887	62039	59366

Others

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

GRT	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<400	76	25	48	38	26	0	.	0	.	.
400-599	15	28	2	54	5	18	18	.	.	.
600-799	295	129	81	125	98	127	776	2501	3947	3897
800-999	603	443	296	199	498	648	1949	2687	6494	7402
1000-1499	2361	1156	464	909	2960	5520	11762	16819	37377	36217
1500-1999	320	70	170	232	789	2212	4464	6203	9293	8425
2000-2999	358	166	172	174	684	2188	3043	3659	4923	3424
>2999	9	.	10	17	14	4	4	18	4	2
	4037	2018	1242	1748	5081	10717	22015	31887	62039	59366

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

LOA	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<45	240	112	61	.	0	0	.	.	.	.
45-49	209	127	92	147	337	404	1938	3175	6191	6184
50-54	766	376	231	271	708	1457	3176	2977	4204	4908
55-59	565	440	200	393	249	673	2215	2676	8541	7578
60-64	856	291	126	237	1368	2677	4921	8208	16145	15956
65-69	478	304	161	345	1595	3179	5220	8635	15055	13535
70-79	757	281	319	263	442	941	2561	4516	9280	9616
80-89	77	54	16	43	356	1328	1613	1403	2334	1441
>89	89	33	37	49	27	58	371	296	290	148
	4037	2018	1242	1748	5081	10717	22015	31887	62039	59366

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

BHP	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<1000	.	.	.	.	0	0	.	.	.	.
1000-1199	.	.	.	22	.	0	.	.	.	.
1200-1399	120	53	48	93	.	50	438	1619	1960	1257
1400-1599	547	422	240	250	627	890	3282	2396	6470	8152
1600-1799	172	39	98	158	638	1152	2974	5275	11356	9726
1800-1999	1424	733	262	621	1778	3881	7174	10735	20906	19806
2000-2499	841	290	334	304	1096	1816	3970	6862	15191	15636
2500-2999	554	314	75	92	110	108	440	520	349	262
3000-3999	266	113	143	151	776	2367	2917	3904	5103	4526
>3999	114	54	42	57	56	453	820	577	704	2
	4037	2018	1242	1748	5081	10717	22015	31887	62039	59366

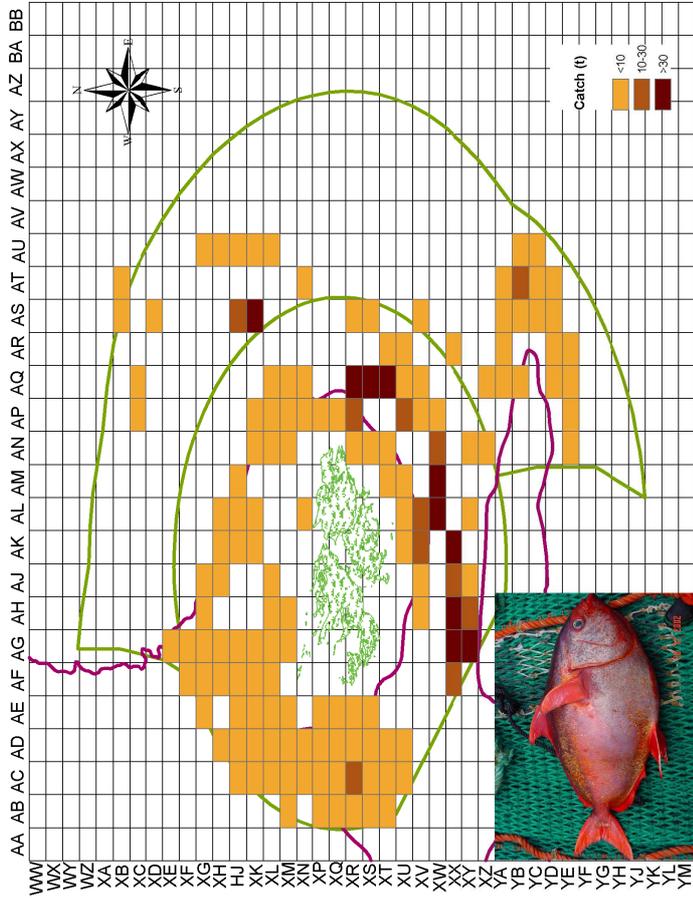
Table O.7 Total catch (tonnes) of others by species in 2009

Common name	Latin name	Catch
Blue Antimora	<i>Antimora rostrata</i>	11
Butterfish	<i>Stromateus brasiliensis</i>	75
Chinese Baby Face	<i>Psychrolutes marmoratus</i>	0
Crab	Lithodidae	10
Dogfish	<i>Squalus acanthias</i>	0
Eelpout	<i>Iluocetes fimbriatus</i>	0
Falkland Herring	<i>Sprattus fuegensis</i>	0
Flat fish	<i>Mancopsetta spp.</i>	0
Frogmouth	<i>Cottoperca gobio</i>	16
Greater Hooked Squid	<i>Moroteuthis ingens</i>	87
Grenadier	Macrouridae	958
Icefish	<i>Chamsocephalus esox</i>	0
Lobster Krill	<i>Munida spp</i>	0
Moonfish	<i>Lampris immaculatus</i>	1
Mullet	<i>Eleginops maclovinus</i>	0
Porbeagle	<i>Lamna nasus</i>	3
Red Fish	<i>Sebastes oculatus</i>	31
Rock cod	<i>Patagonotothen spp.</i>	58149
Scallop	<i>Zygochlamys patagonica</i>	13
Sculpin	<i>Cottunculus granulatus</i>	0
Smooth Oreo	<i>Pseudocyttus maculatus</i>	0
Others		10
Total		59366



OTHERS (Rock cod not included)

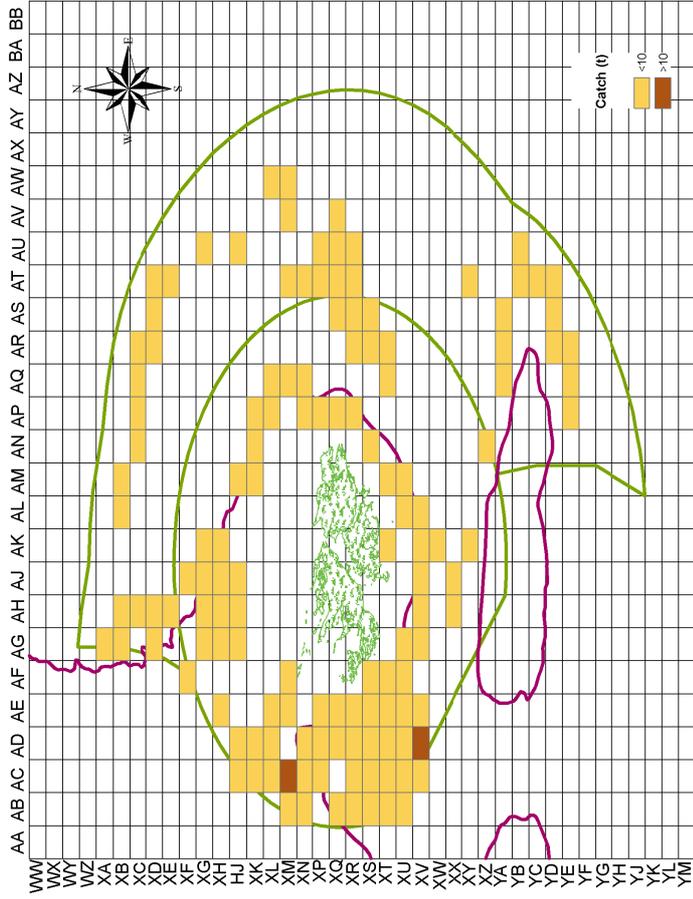
1st Season 2009 (01 Jan - 30 Jun)



Catch (mt) by grid square

OTHERS (Rock cod not included)

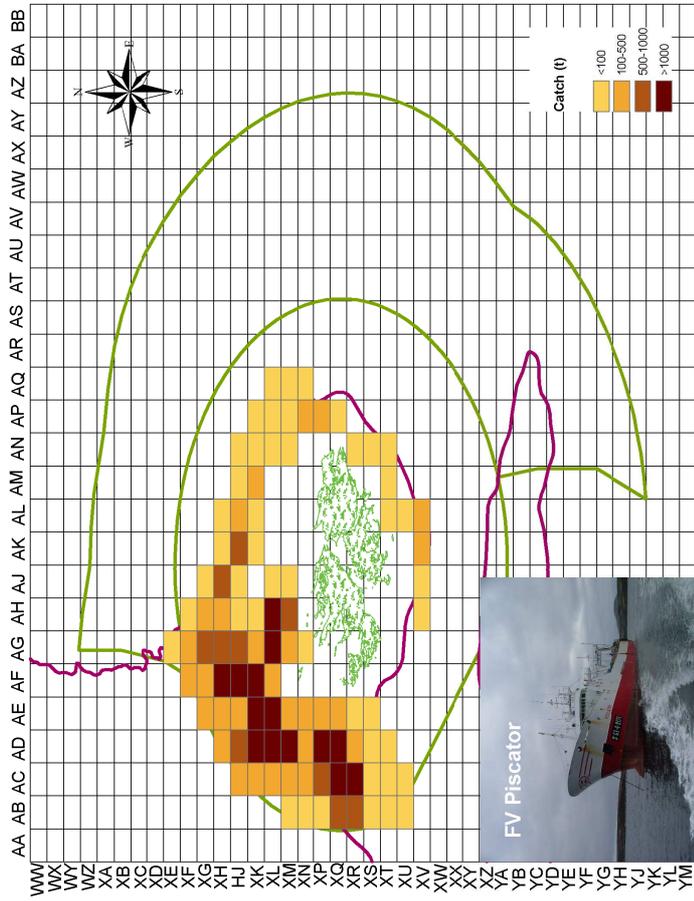
2nd Season 2009 (01 Jul - 31 Dec)



Catch (mt) by grid square

Patagonotothen ramsayi

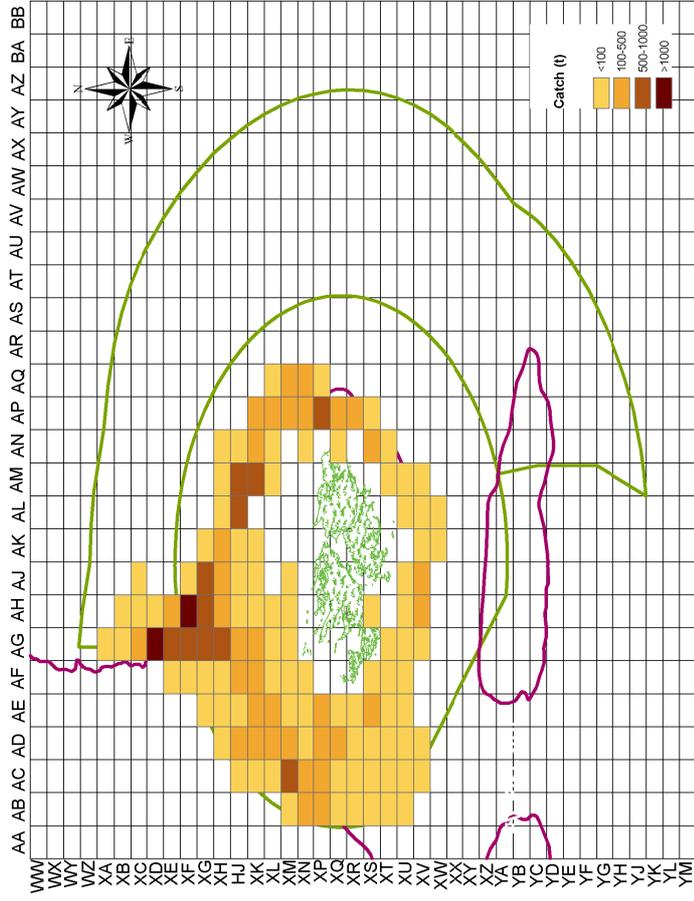
1st Season 2009 (01 Jan - 30 Jul)



Catch (mt) by grid square

Patagonotothen ramsayi

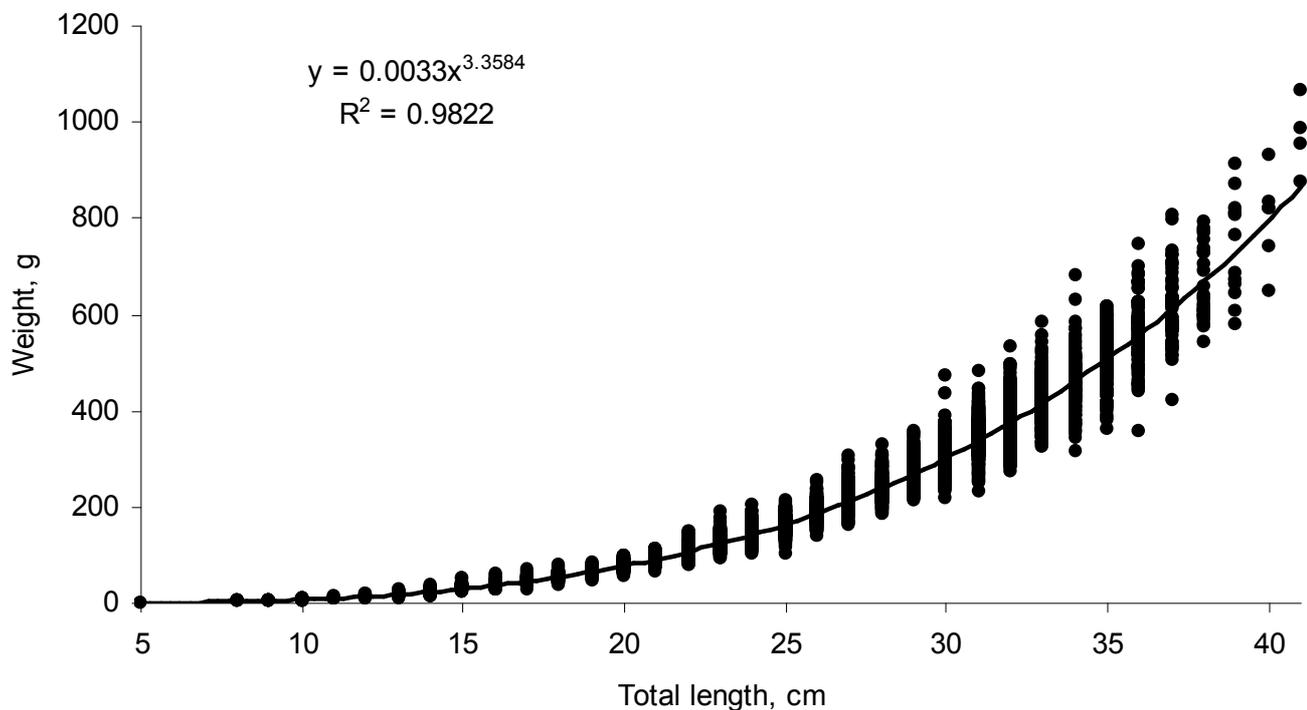
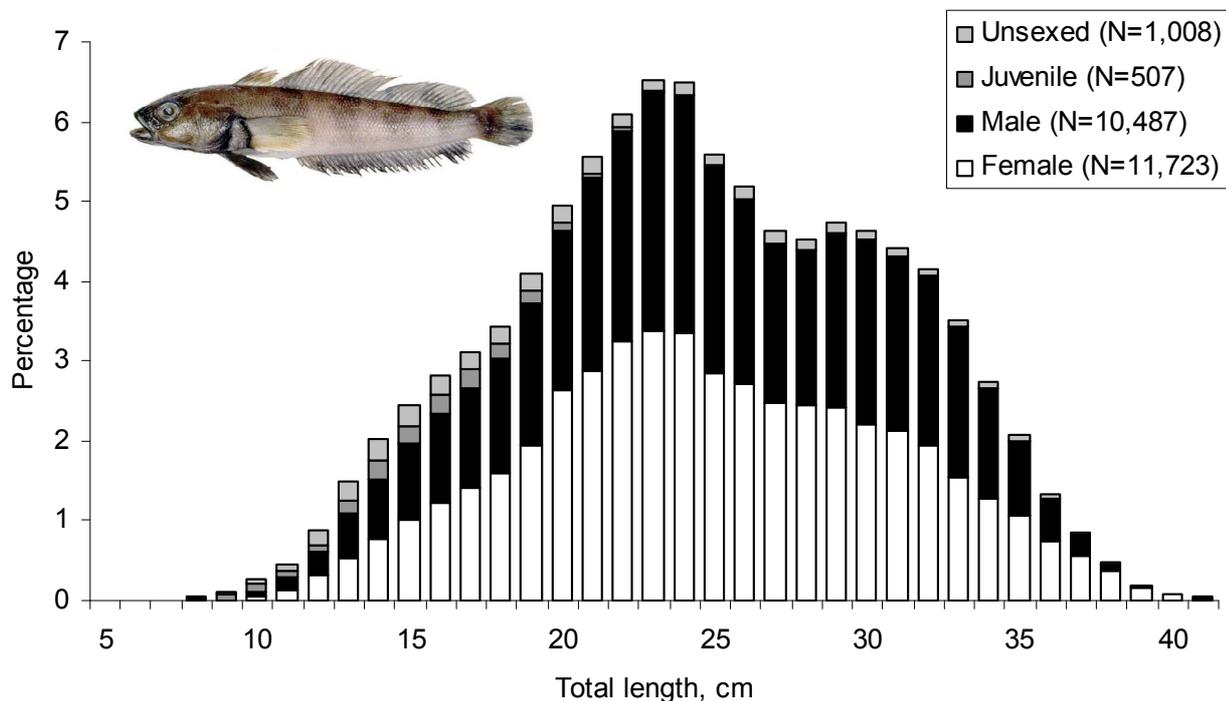
2nd Season 2009 (01 Jul - 31 Jan)



Catch (mt) by grid square

Patagonotothen ramsayi—Rock Cod

Length– frequency distribution and length-weight relationship in 2009



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