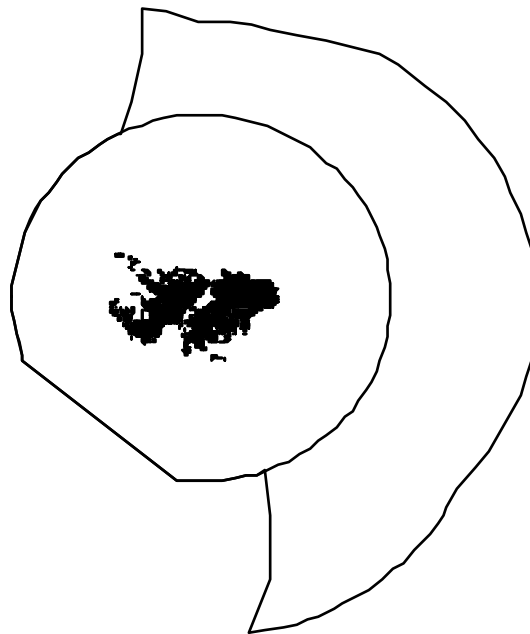




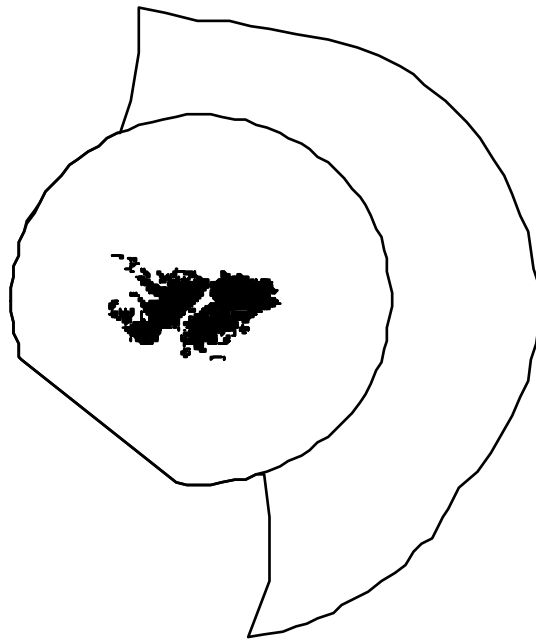
**FALKLAND ISLANDS GOVERNMENT
FISHERIES DEPARTMENT**



FISHERY STATISTICS

**Volume 9
(1995 - 2004)**

**FALKLAND ISLANDS GOVERNMENT
FISHERIES DEPARTMENT**



FISHERY STATISTICS

**Volume 9
(1995 - 2004)**

© Crown Copyright 2005

No part of this publication may be reproduced without prior permission.

For citation purposes this publication should be referenced as follows:

Falkland Islands Government, (2005).
Fisheries Department Fisheries Statistics, Volume 9, 2004: 70 pp
Stanley, FIG Fisheries Department

Printed by the Falkland Islands Government Printing Office.
Stanley,
Falkland Islands

Contents

Page

Foreword	i
Pre face	xvi

Section A Introduction

Figure A.1	Chart of the Falkland Islands Interim Conservation and Management Zone (FICZ) and Falkland Islands Outer Conservation Zone (FOCZ)	1
Table A.1	Abbreviations for vessel types used in the tables	2
Table A.2	Abbreviations for species names used in the tables	2
Table A.3	Abbreviations for fishing fleets used in the tables	2
Table A.4	Licence types, target species and periods of application 1989 - 2005.	3

Section B Licences

Table B.1	Licence allocations by licence type and year	4
Table B.2	Licence allocations by fishing fleet and year	5
Table B.3	Licence 'A' (Unrestricted finfish - first season) allocations by fishing fleet and year	6
Table B.4	Licence 'B' (Illex squid) allocations by fishing fleet and year	7
Table B.5	Licence 'C' (Patagonian squid) allocations by fishing fleet and year	7
Table B.6	Licence 'E' (Experimental) allocations by fishing fleet and year	8
Table B.7	Licence 'F' (Skates and rays - first season) allocations by fishing fleet and year	8
Table B.8	Licence 'G' (Illex squid and restricted finfish) allocations by fishing fleet and year	8
Table B.9	Licence 'L' (Toothfish Long liners) allocations by fishing fleet and year	8
Table B.10	Licence 'R' (Skates and rays - second season) allocations by fishing fleet and year	8
Table B.11	Licence 'S' (Blue Whiting and Hoki - surimi vessels) allocations by fishing fleet and year	9
Table B.12	Licence 'W' (Restricted finfish - first season) allocations by fishing fleet and year	9
Table B.13	Licence 'X' (Patagonian squid - second season) allocations by fishing fleet and year	9
Table B.14	Licence 'Y' (Unrestricted finfish - second season) allocations by fishing fleet and year	10
Table B.15	Licence 'Z' (Restricted finfish - second season) allocations by fishing fleet and year	10
Table B.16	Annual revenue (Pounds sterling) by licence type	11

Section C Catch summary tables

Table C.1	Total catch (tonnes) by vessel type and year	12
Table C.2	Total catch (tonnes) of all species by year	12
Table C.3	Total catch (tonnes) by month and year	13
Table C.4	Total catch (tonnes) by gross registered tonnage (GRT) and year	14
Table C.5	Total catch (tonnes) by length overall (m) (LOA) and year	14
Table C.6	Total catch (tonnes) by brake horsepower (BHP) and year	14
Table C.7	Total catch (tonnes) by fishing fleet and year	15

Section D Illex argentinus (ILL) - Illex squid

Table D.1	Total catch (tonnes) by vessel type and year	17
Table D.2	Total catch (tonnes) by month and year	17
Table D.3	Total catch (tonnes) by fishing fleet and year	17
Table D.4	Total catch (tonnes) by gross registered tonnage (GRT) and year	18
Table D.5	Total catch (tonnes) by length overall (m) (LOA) and year	18
Table D.6	Total catch (tonnes) by brake horsepower (BHP) and year	18
Table D.7	Total catch (tonnes) of combination vessels by gross registered tonnage (GRT) and year	19
Table D.8	Total catch (tonnes) of combination vessels by length overall (m) (LOA) and year	19
Table D.9	Total catch (tonnes) of combination vessels by brake horsepower (BHP) and year	19
Table D.10	Total catch (tonnes) of jiggers by gross registered tonnage (GRT) and year	19

Table D.11	Total catch (tonnes) of jiggers by length overall (m) (LOA) and year	20
Table D.12	Total catch (tonnes) of jiggers by brake horsepower (BHP) and year	20
Table D.13	Total catch (tonnes) of trawlers by gross registered tonnage (GRT) and year	20
Table D.14	Total catch (tonnes) of trawlers by length overall (m) (LOA) and year	21
Table D.15	Total catch (tonnes) of trawlers by brake horsepower (BHP) and year	21
Figures D		
	Chart of catches (tonnes) by grid square and season; 2004	22
	Length-frequency distribution and length-weight relationship in jigger fleets in 2004	23
	Length-frequency distribution and length-weight relationship in trawler fleets in 2004	24

Section E *Loligo gahi* (LOL) - Patagonian squid

Table E.1	Total catch (tonnes) by vessel type and year	25
Table E.2	Total catch (tonnes) by month and year	25
Table E.3	Total catch (tonnes) by fishing fleet and year	25
Table E.4	Total catch (tonnes) by gross registered tonnage (GRT) and year	26
Table E.5	Total catch (tonnes) by length overall (m) (LOA) and year	26
Table E.6	Total catch (tonnes) by brake horsepower (BHP) and year	26
Figures E		
	Chart of catches (tonnes) by grid square and season; 2004	27
	Length-frequency distribution and length-weight relationship during first season 2004	28
	Length-frequency distribution and length-weight relationship during second season 2004	29

Section F *Martialia hyadesi* (MAR) - Martialia squid

Table F.1	Total catch (tonnes) by vessel type and year	30
Table F.2	Total catch (tonnes) by month and year	30
Table F.3	Total catch (tonnes) by fishing fleet and year	30
Table F.4	Total catch (tonnes) by gross registered tonnage (GRT) and year	31
Table F.5	Total catch (tonnes) by length overall (m) (LOA) and year	31
Table F.6	Total catch (tonnes) by brake horsepower (BHP) and year	31

Section G *Micromesistius australis* (BLU) - Southern blue whiting

Table G.1	Total catch (tonnes) by vessel type and year	32
Table G.2	Total catch (tonnes) by month and year	32
Table G.3	Total catch (tonnes) by fishing fleet and year	32
Table G.4	Total catch (tonnes) by gross registered tonnage (GRT) and year	33
Table G.5	Total catch (tonnes) by length overall (m) (LOA) and year	33
Table G.6	Total catch (tonnes) by brake horsepower (BHP) and year	33
Table G.7	Total catch (tonnes) of combination vessels by gross registered tonnage (GRT) and year	34
Table G.8	Total catch (tonnes) of combination vessels by length overall (m) (LOA) and year	34
Table G.9	Total catch (tonnes) of combination vessels by brake horsepower (BHP) and year	34
Table G.10	Total catch (tonnes) of trawlers by gross registered tonnage (GRT) and year	34
Table G.11	Total catch (tonnes) of trawlers by length overall (m) (LOA) and year	35
Table G.12	Total catch (tonnes) of trawlers by brake horsepower (BHP) and year	35
Figures G		
	Chart of catches (tonnes) by grid square and season; 2004	36
	Length-frequency distribution and length-weight relationship in surimi fleets in 2004	37
	Length-frequency distribution and length-weight relationship in trawler fleets in 2004	38

Section H *Macrurus magellanicus* (WHI) - Hoki

Table H.1	Total catch (tonnes) by vessel type and year	37
Table H.2	Total catch (tonnes) by month and year	37
Table H.3	Total catch (tonnes) by fishing fleet and year	37

Table H.4	Total catch (tonnes) by gross registered tonnage (GRT) and year	38
Table H.5	Total catch (tonnes) by length overall (m) (LOA) and year	38
Table H.6	Total catch (tonnes) by brake horsepower (BHP) and year	38
Figures H		
	Chart of catches (tonnes) by grid square and season; 2004	39
	Length-frequency distribution and length-weight relationship in 2004	40
Section I Salilota australis (BAC) - Red cod		
Table I.1	Total catch (tonnes) by vessel type and year	41
Table I.2	Total catch (tonnes) by month and year	41
Table I.3	Total catch (tonnes) by fishing fleet and year	41
Table I.4	Total catch (tonnes) by gross registered tonnage (GRT) and year	42
Table I.5	Total catch (tonnes) by length overall (m) (LOA) and year	42
Table I.6	Total catch (tonnes) by brake horsepower (BHP) and year	42
Figures I		
	Chart of catches (tonnes) by grid square and season; 2004	43
	Length-frequency distribution and length-weight relationship in 2004	44
Section J Merluccius spp. (PAT) - Hakes		
Table J.1	Total catch (tonnes) by vessel type and year	45
Table J.2	Total catch (tonnes) by month and year	45
Table J.3	Total catch (tonnes) by fishing fleet and year	45
Table J.4	Total catch (tonnes) by gross registered tonnage (GRT) and year	46
Table J.5	Total catch (tonnes) by length overall (m) (LOA) and year	46
Table J.6	Total catch (tonnes) by brake horsepower (BHP) and year	46
Figures J		
	Chart of catches (tonnes) by grid square and season; 2004	47
	Length-frequency distribution and length-weight relationship in 2004	48
Section K Genypterus blacodes (KIN) - Kingclip		
Table K.1	Total catch (tonnes) by vessel type and year	49
Table K.2	Total catch (tonnes) by month and year	49
Table K.3	Total catch (tonnes) by fishing fleet and year	49
Table K.4	Total catch (tonnes) by gross registered tonnage (GRT) and year	50
Table K.5	Total catch (tonnes) by length overall (m) (LOA) and year	50
Table K.6	Total catch (tonnes) by brake horsepower (BHP) and year	50
Figures K		
	Chart of catches (tonnes) by grid square and season; 2004	51
	Length-frequency distribution and length-weight relationship in 2004	52
Section L Dissostichus eleginoides (TOO) - Patagonian toothfish		
Table L.1	Total catch (tonnes) by vessel type and year	53
Table L.2	Total catch (tonnes) by month and year	53
Table L.3	Total catch (tonnes) by fishing fleet and year	53
Table L.4	Total catch (tonnes) by gross registered tonnage (GRT) and year	54
Table L.5	Total catch (tonnes) by length overall (m) (LOA) and year	54
Table L.6	Total catch (tonnes) by brake horsepower (BHP) and year	54
Table L.7	Total catch (tonnes) of combination vessels by gross registered tonnage (GRT) and year	55
Table L.8	Total catch (tonnes) of combination vessels by length overall (m) (LOA) and year	55
Table L.9	Total catch (tonnes) of combination vessels by brake horsepower (BHP) and year	55
Table L.10	Total catch (tonnes) of longliners by gross registered tonnage (GRT) and year	55

Table L.11	Total catch (tonnes) of longliners by length overall (m) (LOA) and year	56
Table L.12	Total catch (tonnes) of longliners by brake horsepower (BHP) and year	56
Table L.13	Total catch (tonnes) of trawlers by gross registered tonnage (GRT) and year	56
Table L.14	Total catch (tonnes) of trawlers by length overall (m) (LOA) and year	57
Table L.15	Total catch (tonnes) of trawlers by brake horsepower (BHP) and year	57
Figures L		
	Chart of catches (tonnes) by grid square and season, 2004	58
	Length-frequency distribution and length-weight relationship in longliner fleets in 2004	59
	Length-frequency distribution and length-weight relationship in trawler fleets in 2004	60

Section M Rajidae (RAY) - Skates and rays

Table M.1	Total catch (tonnes) by vessel type and year	61
Table M.2	Total catch (tonnes) by month and year	61
Table M.3	Total catch (tonnes) by fishing fleet and year	61
Table M.4	Total catch (tonnes) by gross registered tonnage (GRT) and year	62
Table M.5	Total catch (tonnes) by length overall (m) (LOA) and year	62
Table M.6	Total catch (tonnes) by brake horsepower (BHP) and year	62
Figures M		
	Chart of catches (tonnes) by grid square and season, 2004	63
	Length-frequency distribution and length-weight relationship in 2004	64

Section N Scallops (ZYP)

Table N.1	Total catch (tonnes) by vessel type and year	65
Table N.2	Total catch (tonnes) by month and year	65
Table N.3	Total catch (tonnes) by fishing fleet and year	65
Table N.4	Total catch (tonnes) by gross registered tonnage (GRT) and year	66
Table N.5	Total catch (tonnes) by length overall (m) (LOA) and year	66
Table N.6	Total catch (tonnes) by brake horsepower (BHP) and year	66
Figures N		
	Length-frequency distribution and length-weight relationship in 2004	67

Section O Others (OTH)

Table O.1	Total catch (tonnes) by vessel type and year	68
Table O.2	Total catch (tonnes) by month and year	68
Table O.3	Total catch (tonnes) by fishing fleet and year	68
Table O.4	Total catch (tonnes) by gross registered tonnage (GRT) and year	69
Table O.5	Total catch (tonnes) by length overall (m) (LOA) and year	69
Table O.6	Total catch (tonnes) by brake horsepower (BHP) and year	69
Figures O		
	Chart of catches (tonnes) by grid square and season, 2004	70



FOREWORD

1. The Falkland Islands' Fishery - 2004

The year 2004 was another unsuccessful year in the Falkland's squid fisheries. As two years ago, the total annual catch was just above 100,000 mt, which made it the second lowest catch in the Falklands history. The *Illex* stock collapsed almost completely, comprising just a mere 1.6% of the total catch. The *Loligo* catch was at its third lowest level (26%), although the financial results for the *Loligo* fleet have been satisfactory. Southern blue whiting constituted the largest catch within the FICZ/FOCZ in 2004 (27.7%), with hoki being in third position (25.1%).

1.1. *Illex argentinus* – Illex squid

The Argentine shortfin squid, *Illex argentinus*, has been the most important commercial species in the Falkland Islands fishery until 2002, when unusually cold sea temperatures inhibited feeding migrations of squid to the southern part of the Patagonian Shelf, including Falklands Conservation Zones. This squid is targeted by numerous vessels (mainly Asian jiggers) during the first season (February-May). After the partial recovery of *Illex* catches in the Falklands Zones in 2003, the stock collapsed almost completely in 2004. The main reasons of this collapse remain unknown. The causes in part seem likely to be due in part to unfavourable oceanography, and in part due to excessive fishing effort in the Southwest Atlantic. This highlights the need for a fishery management organization which would include the High Seas.

Before the season, there was no prediction of such a collapse. The fishing season for *Illex* on the High Seas started however quite late, probably because colder than usual waters of the Falkland Current occupied the whole fishery region of the High Seas at 45-47°S outside the Argentinean EEZ and prevented feeding migrations of squid into the region. About a hundred jiggers and several trawlers were present there at the end of December, but without any significant catch (< 10 mt/day).

The fishing situation improved only in the last week of January 2004, when a warm inflow of shelf waters appeared in the northern part of the region. Catches of trawlers increased to 11-12 mt/day on 25-26 January, but then dropped to 3-6 mt/day by the end of the month.

In February, the wind regime in the Southwest Atlantic weakened, causing the formation of the superficial warm water layer with a strong thermocline over the shelf edge and continental slope. Sea surface temperatures on the High Seas rose to 17-18°C (~ two degrees warmer than usual). Some 12 Falkland registered trawlers worked there during the whole month. Catches of *Illex* were low throughout the month, not exceeding 10 mt/day. The official *Illex* fishing season in the Falkland Zones started on the 15th February. Up to 76 jigging vessels fished there in the last two weeks of the month. Catches were very poor; most vessels did not have any catch at all. Frequently jiggers moved between Falkland Conservation Zones and High Seas, but did not have much success there either.

The results of the joint Argentine-UK survey on *Illex* carried out in February 2004 showed very low abundance of squid to the south of 46°S in the Argentinean EEZ. The total biomass was assessed to be only ~61,000 mt, comparing with >200,000 mt in 2002 (another poor year of *Illex* catches).

Unfortunately, the *Illex* jigging fishery in March confirmed the worst scenario in the history of this fishery. In general, squid did not appear in their usual numbers and did not aggregate in their common feeding grounds in the southern part of the Patagonian shelf. From 61 to 80 Asian jiggers were fishing for *Illex* in the northern part of FICZ/FOCZ, and usually had 1-2 mt of squid per night, with quite a significant proportion of vessels reporting no catch at all. The situation improved slightly during the last week of the month, when quite a strong influx of shelf water appeared in the

northern part of FICZ, and some vessels had a maximum of 10-15 mt of squid. Sizes and maturity condition of *Illex* were approximately the same as in the same period of 2003.

This slight improvement in catches was over by the beginning of April. Just over 260 mt of *Illex argentinus* were caught in FICZ/FOCZ during the whole month, which was more than ten times lower than the previous lowest April catch (2,766 tonnes in April 2002). Due to the extraordinary low catches of *Illex* in Falkland Zones, the Falkland fishery was closed on 14 April, the same day as the Argentinean fishery to the south of 44°S. One jigging vessel remained fishing on an experimental basis, and its catches improved immediately after the closure of the main fishery, peaking at almost 10 mt/day, but this improvement lasted only for a week. Catches for the last few days of April were extremely low. Trawlers (2 – 7 vessels) fishing out of zone reported some catches of *Illex* in the beginning of April (mean of 3 – 4 mt/day), but much lower catches towards the end of the month (generally averaging < 0.5 mt/day).

One Taiwanese jigger was granted an experimental license to check the abundance of *Illex* in Falkland Zones in May, but the first six days of their work mainly in the northern part of FICZ/FOCZ resulted in only 135 kg of squid, and the vessel decided to abandon the fishery. A small by-catch of *Illex* was taken during the finfish fishery in the northwestern part of FICZ, and on the High Seas.

Only 1,704 mt of *Illex* were caught during the whole Falklands fishery, which represents almost a complete failure of this fishery in 2004. A total catch of 74,594 mt was recorded for the Argentine *Illex* fishery (FIS report). Whilst Argentine catches were significantly better than Falkland Islands catches, they represented low total catch for the Argentine EEZ.

1.2. *Loligo gahi* – Patagonian squid

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

October. Conservation measures in the *Loligo* fishery implemented in 2003 were continued in the first season of 2004 with the same reduction in fishing effort. The whole C-licensed fleet fished for *Loligo* for only 6 weeks, from 1 March until 14 April. In the remainder of the first season (1-29 February and 15 April – 9 June) a succession of experimental licenses were used primarily for monitoring purposes, with only one vessel being allowed to fish in any one time.

The first two weeks of February were fished by a medium size trawler, and the last two weeks by a larger trawler. Both vessels fished almost exclusively in the southern part of the *Loligo* box. Catches in the first two weeks were lower (15-20 mt/day) than in the last two weeks of the month (25-30 mt/day). The squid belonged to the first cohort and were larger than in the previous year with a mean mantle length of 12-12.5 cm possibly due to warmer than usual environmental conditions in the nursery grounds and corresponding higher growth rates of squid.

As in 2003, sixteen C-licensed vessels started fishing *Loligo* on 1 March. After a couple of days of high catches (2-3 mt/hr), CPUEs dropped to approximately 1 mt/hr and continued at this rate throughout the month. As a result, the total catch in March was only 4,429 mt, which is low level of catch for March. The trawlers fished mainly around Beauchene, to the north (110-120 m depths) and east (140-150 m depths) of the Island.

The April, catch of just over 2,500 tonnes of *Loligo gahi* was also the lowest recorded April catch. Although average CPUE was not quite as low as during the first season 2002, the shorter season led to the lowest ever first season total. The experimental vessels fishing since the close of the main season on 14 April achieved catch rates of about 1.5 t/hr, which was higher than the fleet was achieving prior to the end of the season (< 1 t/hr).

As last year, only an experimental fishery was allowed in May. In the beginning of the month, an additional E-licensed trawler carried out a ten-day scientific survey of the whole *Loligo* box to evaluate the potential of swept area assessment methods in this fishery. Preliminary estimations of the standing stock biomass gave ~17,000 mt of squid (36,000 mt at the start of September in the absence of fishing), indicating the medium stock level for the second season. The total monthly catch of

Loligo in May was about 30% less than that taken in the same period of 2003. Oceanographic conditions could be one of the reasons of such a decrease. In March-May 2004, the Falkland Current was further offshore, and therefore did not create the pronounced upwelling of deep waters near Beauchene Island. Squid aggregations were dispersed over a wider than usual area, decreasing catchability of the fleet. As in May 2003, *Loligo* was taken as a by-catch during hake fishery on the High Seas at depths 140-160 m at 46-47°S.

Another precautionary conservation measure was implemented during the second fishing season of 2004. Its timing was changed, and the season started two weeks earlier than usual, on the 15th of July and finished a month earlier, on 30th September. All 16 X-licensed trawlers began to fish for *Loligo* around Beauchene Island. In the first days of the fishery, CPUEs were the highest reaching 2.4-2.5 mt/hr, some vessels having catches of 35-40 mt/day. The whole fleet remained in the same area almost until the end of the month. CPUEs steadily declined to 1.1-1.3 mt/hr, and on 29th July some vessels tried to fish in the northern part of the *Loligo* box. Catches appeared to be better than near Beauchene, and on 30-31 July most of the fleet relocated to the northern deepwater part (250-300 m depths) of the *Loligo* box. CPUEs improved attaining 2-2.2 mt/hr, some trawlers had catches ~50 mt/day.

The same movements of the fishing fleet between three parts of the *Loligo* box were observed in August. Different captains decided to switch to the central or northern fishing grounds while some decided to stay near Beauchene. Total daily catch showed a steady decrease from 2.2 to 1 mt/hr over the month both in the Beauchene and Northern areas. The decreasing trend was less marked in total CPUE for all the three areas. Thus it appears that vessels switched fishing grounds in order to maintain the catch per day as close to the initial value as possible. In other words, fleet movement dynamics had a stabilising effect on CPUE.

In September, the performance of the fishing fleet was low with catches averaging 9.2 mt/day for the whole month. Because of low densities of squid aggregations, a majority of vessels fished for long hours, and the mean daily CPUE was only 0.6 mt/hr. There were two small peaks in CPUEs (~1mt/hr) on 16 and 20 September, both in the southern part of the *Loligo* box. Squid were 1.5-2 cm larger than those ob-

served in 1999-2002 with mean mantle length of females being 15-16 cm, and males 16-17 cm.

According to our estimations, by the end of September the total spawning stock biomass left in the boundaries of the *Loligo* box was 17,500 tonnes, which exceeded the long term conservation target of at least 10,000 mt spawning stock biomass. It was sufficiently close to revised (higher) conservation target which are believed to be necessary to stabilize the *Loligo* resource. The total catch of *Loligo* in the second season of 2004 was 18,200 mt, which meant that escapement was slightly less than 50% of the total biomass. The total annual catch of *Loligo* in 2004 (~26,800 mt) was just over half that in 2003.

1.3. *Martialia hyadesi* – *Martialia* squid

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

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

Poor fisheries for both squid species resulted in southern blue whiting *Micromesistius a. australis* rising to first place in terms of catches in the Falkland fishery in 2004. The total annual catch of this fish was the highest in recent years (28,700 mt). This catch was slightly higher than the conservation target recommended for the Falkland Conservation Zones. However, in 2003 the total Falkland catch was less than 25,000 mt, and the catches remained within the target when averaged over the two years. Unlike 2003, surimi vessels fished for southern blue whiting in both halves of the year, targeting feeding concentrations in February-March and post-spawning aggregations in October-December.

In absence of surimi trawlers in January, only 234 mt of southern blue whiting were caught, which was the lowest catch for January in the last decade. The fish were taken only as a by-catch during hoki and skate/ray fisheries. The total catch in February (3,134 mt) was also quite low. The main reason of such a low catch was not due to poor stock size (which was reasonably high), but the late arrival of two surimi trawlers into FICZ. These trawlers only started fishing around the middle of the month.

CPUEs of surimi vessels were high (60-70 mt/day), achieving almost 130 mt/day in the last week of the month. In March, CPUEs tended to decrease from the average 70 mt/day in the beginning of the month to 45 mt/day in the end of the month. Only one surimi vessel continued to work in April 2004 taking about two thirds of the monthly total. CPUE was higher in the SW (~ 53 mt/day) of the zone than the NE of the zone (~30 mt/day).

In May-August, southern blue whiting was caught only as a bycatch. In September, when fish started to migrate outside their spawning grounds (south of the Falkland Shelf), it became one of the main target species for the finfish fleet with the total monthly catch over 2,000 mt. The specialized surimi fishery resumed in the beginning of October with arrival of one surimi trawler into Falkland waters. Its performance was excellent, with CPUEs increasing from 125 mt/day in the beginning to 200 mt/day at the end of the month. Moreover, two additional grid squares (south-western part of the *Loligo* box) were opened for the Z-licensed finfish trawlers to fish post-spawning concentrations. As a result, the total monthly catch in October (6,388 mt) was the highest October catch since 1994. The peak of catches was observed in the first half of November (with arrival of the second surimi trawler), when CPUEs achieved 235 mt/day. Despite the sharp decline in CPUEs to 125 mt/day at the end of November, the good fishery kept on until the end of the year with CPUEs around 80-90 mt/day.

According to stock assessment of southern blue whiting performed by RRAG (Imperial College) and prepared for 22nd Meeting of the SAFC Scientific Sub-Committee (see section 4.3), the stocks had started to recover. However, estimations of spawning stock biomass by different models varied, and further investigations are needed to make a definitive confirmation of this increase. In the meantime, it was recommended that catch levels in 2005 would need to be reduced to below 50,000 mt to allow stock recovery.

The 10th joint Argentine – UK survey of southern blue whiting spawning aggregations was performed by two vessels, as in 2003. This year, it was decided that the Falkland R/V *Dorada* would do an extensive trawl survey outside the main spawning grounds (cruise ZDLH1-09-2004, see section 2.2 below), whereas the Ar-

gentinean R/V *Dr Eduardo L. Holmberg* would do an acoustic survey of the spawning area to the south of the Falkland Islands. Both surveys were carried out in September 2004.

1.5. *Macruronus magellanicus* - hoki

Hoki (whip-tail hake) is one of the most abundant pelagic fishes in the Southwest Atlantic with the stock estimated at being over 2 million mt. This fish is the main target species for the finfish trawling fleet in the Falkland Zones. Poor performance in both squid fisheries in recent years has resulted in a part of fishing effort being re-directed to hoki, producing large yields of this fish. In 2004, the highest CPUEs in the hoki fishery were observed in the first half of April (12-13 mt/day), second half of October (11 mt/day) and first half of December (14 mt/day). Significant amounts of hoki were taken as a bycatch during the specialized southern blue whiting fishery by surimi trawlers, with maximum CPUEs in October (25 mt/day) and December (39 mt/day). The total annual catch (~25,900 mt) was only slightly below the record hoki catch taken in 2002.

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

Total catch of both hakes was almost the same as in previous year (1,927 mt). The highest monthly catch was observed in August (443 mt), when several finfish vessels had reasonable CPUEs in the western part of the FICZ (1-2 mt/day), catching mainly southern hake migrating to this region after spawning.

Kingclip is a valuable and desirable by-catch species in the finfish fishery in the Southwest Atlantic. The highest CPUE in this fishery was observed in July (1-4 mt/day), however only two vessels were fishing. There were two peaks in kingclip catches, in April and October. The total annual catch in 2004 was the highest since 2000 (1,837 mt).

The total catch of redcod slightly recovered from the previous year is minimum, but was still at a low level (2,781 mt). CPUEs were low throughout the year, not exceeding an average of 2 mt/day. As in recent years, redcod did not make com-

mercial spawning aggregations in spring, however some vessels specifically targeted this fish in August-September and had reasonable catches. Maximum catches were observed in September-October in the southwest of the Falkland Islands.

1.7. *Dissostichus eleginoides* – Patagonian toothfish

This fish is the most valuable and highly priced resource in the Falkland Zones. Toothfish juveniles migrate from their spawning and nursery grounds around the Burdwood Bank and North Scotia Ridge to shallow waters of the Patagonian Shelf, where they are caught as by-catch during the finfish fishery. Adults migrate into deepwater of the Argentine basin, where they are targeted by specialized long-lining vessels. Only two Falkland-flagged longliners are licensed to fish in the Falkland Zones. The by-catch of juvenile and immature toothfish was similar to that observed in the last year (276 mt), whereas the annual catch of longliners increased by some 300 mt to 1,725 mt.

1.8. Rajidae – Skates and rays

An assemblage of at least a dozen species of skates and rays is targeted by specialized F- and R- licensed Korean trawlers, and also taken as a by-catch during the finfish fishery. The most common species in catches are *Bathyraja griseocauda*, *B. albomaculata*, *B. brachyurops* and *Raja flavirostris*. In 2004, the specialized fishery for skates started in the beginning of the year, when six F-licensed Korean trawlers fished for various species of skates and rays in the northern part of FICZ. The total catch (1,257 mt, which is the record catch for January since 1989) was a result of increased fishing effort rather than a higher abundance of skates within the FICZ/FOCZ. Fishing resumed in usual period (August-September), with good total catches (more than 1,000 mt each month). As a result, the total annual catch was the second highest catch in the last decade after productive fishery of 1995.

1.9. Others

Grenadiers (*Macrourus* spp., *Coelorhynchus* spp.), butterfish (*Stromateus brasiliensis*), redfish (*Sebastes oculatus*), and different notothen (mainly rock cod *Patagonotothen ramsayi*) are included into this category with the total catch of 5,053 mt.

1.10. *Zygochlamys patagonica* - Patagonian scallop

The commercial fishery for Patagonian scallops started in January and carried on through March. One license was issued to a large Uruguayan scallop trawler, which fished here last year. Fishing effort concentrated on the northeastern banks at 130-135 m depth. This fishery yielded a total of 1210 mt (whole scallop green weight). Additionally, 69 mt of scallops were taken during exploratory scallop fishery (be the same vessel) in October-November, during which several new scallop beds were identified.

1.11. *Eleginops maclovinus* - Falkland mullet

The small scale beach seine fishery for the Falkland mullet continued through 2004 with a total catch of 16.9 mt. Fifteen creeks and inlets were visited around East Falkland; the most frequently visited was Teal Creek in Choiseul Sound. The total catch for 2004 was slightly higher than the previous year (16.8 mt), but with less than 50% of the effort. Reasons for this could be attributed to finding new fishing grounds on the southwest coasts of East Falkland.

2. Fisheries Department research cruises in 2004

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

2.1. Fisheries research cruise ZDLH1-02-2004 (14 - 27 February 2004)

The main research objective of the cruise ZDLH1-02-2004 was to carry out a semi-pelagic trawl and acoustic survey of the southern part of the Falkland shelf to

study migration routes of the first cohort of *L. gahi* to their offshore feeding grounds. Additionally, oceanographic as well as plankton data were sampled. Three days of the cruise were devoted to a small-scale survey of the northern part of Burdwood Bank to collect *L. gahi* and different species of rockcod.

Oceanographic data showed that the temperature regime on the Falkland Shelf in February 2004 was quite similar to that observed in February 2003. Temperatures throughout the water column were 0.5-1.5°C warmer than in 2002. Two offshore transects P1 (to the east of Stanley) and P5 (to the south of Beauchene) revealed that the Falkland Current was weakened and at its offshore position, thereby reducing upwelling of deepwater especially near Beauchene. Lack of pronounced gradient zones in the regions resulted in wider than usual dispersal of *L. gahi* aggregations.

2.2. Fisheries research cruise ZDLH1-09-2004 (30 August – 24 September 2004)

In September 2004, The Falkland R/V *Dorada* took part in the 10th joint UK – Argentine southern blue whiting survey carried out in the Southwest Atlantic under the auspices of the South Atlantic Fisheries Commission. The general aim of the research cruise ZDLH1-09-2004 was to carry out a trawl survey of southern blue whiting, and other demersal species, at the time of the peak southern blue whiting spawning. This was primarily to identify the extent to which southern blue whiting was present at low densities, in mixed aggregations, over the wider shelf and slope area outside its main spawning areas south of the Falkland Islands. The survey coincided with a single snapshot acoustic survey of the main spawning grounds by the Argentine R/V *Dr. Eduardo L. Holmberg*.

The survey area covered the entire slope area of the Southwest Atlantic from 45°S round to Isla de Los Estados (Staten Island) between the depths of 200 and 700 meters (extending to 120 m south of the Falkland Islands to allow for placement of some trawls in the main spawning area). The survey area was split into two regions, north and south of 51.7°S, with a short port call between them. Unfortunately, a lot of bad weather was encountered during the survey (10 days), which prevented the survey being completed as planned. The results of the survey showed that southern blue whiting

ing were encountered throughout the sampling area, except in the far south near the Isla de los Estados. The catches were very low especially compared to those observed in the spawning area. It was a clear indication that there were just a few southern blue whiting outside the main spawning grounds during the spawning season. Hoki was the most abundant associated species. Oceanographic data were collected at 72 oceanographic stations. It was revealed that the hydrographic situation was very similar to that in 2003. Both years 2003 and 2004 were much warmer than the years 2000-2002.

3. Fisheries Department research contracts in 2004

The Falkland Islands Government's financial year runs from 1 July to 30 June and most external research contracts in the Fisheries Department had these same start and end dates. Contracts completed by the end of June 2004 are presented below. The Fisheries Department has signed another five-year contract (2003-2007) with the Renewable Resources Assessment Group (RRAG, Imperial College, London, principal investigator Dr. David Agnew) to provide stock assessments, fisheries management and licensing advice for the main fisheries stocks around the Falkland Islands.

3.1. 'Testing for genetic subdivision of the southern blue whiting (*Micromesistius australis*) population around the Falkland Islands, using mtDNA 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.

Samples of southern blue whiting, analysed for microsatellite variation during the previous project, were tested for variation in their mitochondrial (mt)DNA. Initial tests identified three different regions that could be amplified with universal primers. Tests of haplotype frequencies among samples indicated no significant differentiation among any of the samples. This may be interpreted as evidence of historically unstable population size fluctuations that have resulted in periodic bottlenecks and loss of mtDNA genetic variation. It therefore appears that the microsatellite data collected in the previous project still offer the most informative picture of genetic structuring of the southern blue whiting population around South America.

3.2. ‘Trace element analysis of southern blue whiting otoliths by LA-ICPMS’

This study was carried out by the principal investigator Dr. Leonid Danyush-evsky from CODES SRC, University of Tasmania, Australia.

During the course of the project, 400 otoliths of southern blue whiting *Micro-mesistius australis* have been analysed by laser-ablation inductively-coupled plasma mass-spectrometry (LA-ICPMS). The otoliths were ground through their centre and polished to obtain the best analytical results. Each otolith was analysed in its core and at the margin, resulting in 800 analyses. Analyses were performed for a set of twenty two elements (isotope used for the analysis is shown in brackets): Li (7), Mg(24), Ca(43), Sc(45), Ti(47), Cr(53), Mn(55), Fe(57), Ni(60), Cu(65), Zn(66), As(75), Rb(85), Sr(88), Y(89), Ag(107), Cd(111), Ba(137), La(139), Pb(208), Bi(209) U(238). Difference in otolith chemistry was observed between main sampling sites (Chile and Falkland islands) and was manifested in the values of such element/element ratios as Fe/Mg, Fe/Ni, Sr/Li, Sr/Mn and Li/Ba.

3.3. ‘Seasonal and interannual variations in oceanographic conditions on the eastern continental slope and shelf of the Falkland Islands (November 1999 – February 2004)’

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

Water structure and its dynamics, as well as their characteristic variability were studied on the shelf of the Falkland Islands using the data collected by the R/V *Dorada* in 1999-2004. Seasonal and interannual variability of water masses on the eastern shelf (transect P1) and southern shelf (transect P5) were described. Data from three surveys to the south and northeast of the Falkland Islands were used to reveal the environmental conditions on the shelf. The results obtained may be used for estimation of the environmental impact on fishery resources; biology and fishery management. It was also proposed that further progress in oceanographic studies in this

region may be possible using the joint analysis of hydrographic data and data of remote sensing (AVHRR, satellite altimetry).

3.4. ‘Genetic relationships within groups of long finned pilot whales involved in mass strandings in the Falkland Islands: a test of molecular genetic marker systems for suitability to address this issue’

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.

A series of molecular genetic techniques were tested for their applicability to the study of pilot whale social organisation. Three approaches were tested, providing three different but complementary sources of data: molecular sex determination; mtDNA haplotypes identification; microsatellite DNA genotyping. Levels of mtDNA haplotype variability appeared to be suitable for investigation of matriarchal structuring in whale pods. Sharing of a single mtDNA haplotype by most members of a pod supported the hypothesis of matriarchal social structuring. The preliminary mtDNA Control Region sequence dataset suggested that southern hemisphere long finned pilot whales may be genetically divergent from northern hemisphere long finned pilot whales.

3.5. ‘Reproductive biology of southern blue whiting (*Micromesistius australis* Norman 1933) in the waters of the Falkland Islands: peculiarities in gonad maturation, maturity scale, spawning patterns and fecundity’

This study was carried out by Dr. F.E.Alexeev and E.I. Alexeeva from the Laboratory of Population Ecology, Atlantic Institute of Marine Fisheries and Oceanography (AtlantNIRO), Kaliningrad, Russia.

Reproductive biology of southern blue whiting (*Micromesistius australis*) was studied using samples collected during the joint UK – Argentine survey in September 2002 onboard the *Dorada*. Various stages of gametogenesis were described on the basis of gonad histological examination. Ovary and testis maturation, female and male spawning pattern, daily rhythm of maturation and spawning were studied. Spawning

frequency and daily egg production to body weight unit were estimated. Absolute and relative values of annual individual fecundity were assessed, and for the first time the absolute and relative values of batch fecundity were estimated. The findings are compared with literature data. Some suggestions on future investigations of the reproductive biology of southern blue whiting were put forward.

3.6. 'Promoting higher added value to a finfish species rejected to sea'

Starting in January 2003 for a 24-month period, this Craft Project was funded by the European Union. The project is co-ordinated by Mr V. Tato of 'MG Otero Consultores' and Mr Julio Potela of the Instituto Español de Oceanografía (Vigo, Spain). The biological coordinator is Dr. Paul Brickle (FIFD).

The aims of the project were to develop the research and technology necessary to promote higher added value to mainly *Patagonotothen ramsayi* that are usually discarded at sea. FIFD has completed its task and has produced reports of their studies on the reproductive biology, age and growth and population dynamics of *P. ramsayi* from Falkland waters.

4. Participation in Scientific Conferences and Symposia in 2004

4.1. Fourth World Fisheries Congress

The 4th World Fisheries Congress was organised by the American Fisheries Society and held on 2-6 May 2004 in Vancouver, BC, Canada. Participant from FIFD: A. Arkhipkin. Two reports were presented: 'Management and stock conservation of a short-living fishery resource: *Loligo gahi* around the Falkland Islands' by A. Arkhipkin, D. Middleton and J. Barton; and 'Life history, fishery and stock conservation of the Patagonian toothfish around the Falkland Islands' by V. Laptikhovsky, A. Arkhipkin and P. Brickle.

4.2. ICES Scientific Conference ‘The influence of climate change on North Atlantic Fish stocks’

This Conference was organized by the International Council for the Exploration of the Seas (ICES) and held in Bergen, Norway on 11-14 May 2004. Participant from FIFD: A. Arkhipkin.

4.3. 22nd Meeting of the Scientific Sub-Committee of the South Atlantic Fisheries Commission

The 22nd meeting of the SAFC SSC was held at Imperial College (London) on 30 June to 2 July 2003. Participants from FIFD: J. Barton, D. Middleton. A workshop to compare and integrate the results of the joint acoustic surveys of southern blue whiting in 2002 was held on 30 June.

4.4. Third International Symposium on Fish Otolith Research and Application

The Symposium was held in Townsville, Australia on 11-16 July 2004. Participants from FIFD: A. Arkhipkin and P. Brickle. Two reports were presented: ‘Statoliths as black boxes (life recorders) in squid’ by A. Arkhipkin; and ‘Age and growth in a euryhaline Subantarctic notothenioid, *Eleginops maclovinus* (Cuv & Val., 1830)’ by P. Brickle, A. Arkhipkin and Z. Shcherbich.

4.5. ICES Annual Scientific Meeting - 2004

Annual Scientific Meetings are organised every year by the International Council for the Exploration of the Seas (ICES). In 2004, the meeting was held in Vigo, Spain on 24-27 September 2004. Participants from FIFD: P. Brickle, R. Roa. Two reports were presented. ‘A trophic ecology and reproductive investment in two grenadier sibling-species (Macrouridae: Pisces) in deep waters of the South west Atlantic.’ On behalf of Dr. V. Laptikhovsky; and ‘Approaches to short term and long term stock assessment of *Loligo gahi* around the Falkland Islands’ by R. Roa and A. Arkhipkin.

4.6. 23rd Meeting of the Scientific Sub-Committee of the South Atlantic Fisheries Commission

The 23rd meeting of the SAFC SSC was held at INIDEP (Mar del Plata) on 2-4 and 6-7 December 2004. Participants from FIFD: J. Barton and A. Arkhipkin. A workshop on implementation of new conservative measures on stocks of the short-fin squid *Illex argentinus* was held on 1 December.

4. Publications from scientific work carried out in FIG Fisheries Department in 2004

5.1 Peer-reviewed publications (appeared in 2004)

Arkhipkin, A.I. 2004. Diversity in growth and longevity in short-lived animals: squid of the suborder Oegopsina. *Mar. Freshw. Res.*, **55**, 341-355.

Arkhipkin, A.I., Campana, S.E., Fitzgerald, J. and Thorrold, S.R. 2004. Spatial and temporal variation in elemental signatures of statoliths from the Patagonian longfin squid (*Loligo gahi*). *Can. J. Fish. Aquat. Sci.*, **61**, 1212-1224.

Arkhipkin, A., Grzebielec, R., Sirota, A.M., Remeslo, A.V., Polishchuk, I.A., and Middleton, D.A.J. 2004. The influence of seasonal environmental changes on ontogenetic migrations of the squid *Loligo gahi* on the Falkland shelf. *Fisheries Oceanography*, **13**, 1-9.

Arkhipkin, A.I., Middleton, D.A.J., Sirota, A.M., and Grzebielec, R. 2004. The effect of Falkland Current inflows on offshore ontogenetic migrations of the squid *Loligo gahi* on the southern shelf of the Falkland Islands. *Estuarine, Coastal and Shelf Science*, **60**, 1, 11-22.

Barton, A.J., Agnew, D.J and Purchase, L.V. 2004. The Southwest Atlantic; achievements of bilateral management and the case for a multilateral arrangement.

In *Management of shared fish stocks* (eds. A.I.L. Payne, C.M. O'Brien and S.I. Rogers), pp. 202-222. Blackwell Publishing Ltd, Oxford.

- Laptikhovskiy, V. 2004. A comparative study of the diet in three sympatric populations of *Patagonotothen* sp (Pisces: Nototheniidae). *Polar Biol.*, **27**, 202-205.
- Laptikhovskiy, V. 2004. The survival rates of rays discarded by the squid-targeting bottom trawl fishery off the Falkland Islands. *Fish. Bull.*, **102**(4), 757-759.
- Nyegaard, M., Arkhipkin, A.I., and Brickle, P. 2004. Variation in the diet of the kingclip, *Genypterus blacodes* (Ophidiidae) around the Falkland Islands. *J. Fish. Biol.* **64**, 666-682.
- Reid, T.A., Sullivan, B.J., Pompert, J., Enticott, J.W. and Black, A.D. 2004. Seabird mortality associated with Patagonian Toothfish (*Dissostichus eleginoides*) longliners in Falkland Islands waters. *Emu*, **104** (4), 317-326.
- Shaw, P.W., Arkhipkin, A.I., Adcock, G.J., Burnett, W.J., Carvalho, G.R., Scherbich, J.N. and Villegas, P.A. 2004. DNA markers indicate that distinct spawning cohorts and aggregations of Patagonian squid, *Loligo gahi*, do not represent genetically discrete subpopulations. *Mar. Biol.*, **144**, 961-970.
- Shaw, P.W., Arkhipkin, A.I. and Al-Khairulla, H. 2004. Genetic structuring of Patagonian toothfish populations in the Southwest Atlantic Ocean: the effect of the Antarctic Polar Front and deep water troughs as barriers to genetic exchange. *Mol. Ecol.*, **13**, 3293-3303.

5.1 Scientific Reports

- Bizikov, V.A., Arkhipkin, A.I., Laptikhovskiy, V.V., Pompert, J. 2004. Identification guide and biology of the Falkland Islands skates. Scientific Report. Falkland Islands Government Fisheries Department, Stanley. 52 pp + 33 plates.
- Laptikhovskiy V., Brickle P., Payne A. 2004. Biology and fishery of Patagonian toothfish, *Dissostichus eleginoides* in Conservation Zones of the Falkland Islands. Scientific Report. Falkland Islands Government Fisheries Department, Stanley. 45 pp.

Alexander I. Arkhipkin
Senior Fisheries Scientist

PREFACE

This bulletin of fishery statistics provides a summary of data received by the Fisheries Department of the Falkland Islands Government from vessels licensed to operate in Falkland Islands waters and from observers onboard the licensed vessels.

Licence conditions dictate that every fishing vessel provides a daily catch report and twice daily positions on a reporting grid. Trawler catches were assumed to be related to a vessel's midday position and jiggers catches to the vessels's midnight position. The reporting grid is formed of grid squares of 15 minutes latitude by 30 minutes longitude covering the areas of the Falkland Islands Interim Conservation and Management Zone (FICZ) and Falkland Islands Outer Conservation Zone (FOCZ). Licence conditions provide for the placement of FIG Observers on any licensed vessel.

Catch reports, which are submitted daily from fishing vessels, are used to generate many of the tables included in this bulletin. These are checked against logbooks, which take longer to collect and process and which can result in correction of some data. As a consequence there may be some minor differences for data presented in each year. In practice it should only be the most recent years which show any variations.

Charts contained within the bulletin present catch data for two seasons: 01 January to 30 June, and 01 July to 31 December, respectively. Charts of catches by grid square and season for each of the main species and graphs with the observed length-frequency distribution and length-weight relationship are presented for the year 2004. The catch and licence tables generally cover the last 10 years.

The statistics presented include all reported catches of major commercial species of fish and squid within Falkland Islands waters. For reference purposes two sets of species codes are presented in the appropriate summary table: The Falkland Islands Fisheries Department Code (FIFD) and the Food and Agriculture Organisation of the United Nations Alfa-3 Code (defined by the International Standard Statistical Classification of Aquatic Animals and Plants (ISSCAAP)). The FIFD code is used within the statistical tables to define species

Although catch data is reported to the Fisheries Department in kilograms, the statistical tables present data summarised and rounded to the nearest tonne. Discrepancies between the individual sum of table cells and the appropriate table total are artefacts of this method of aggregation. Within the table structure, the flag of the vessel taking the catches is used to assign catches to a particular fleet, a cell value of zero represents catches of less than 0.5 tonnes, and a blank cell value indicates no reported catch.

The information on licences (Tables B1 to B13) reflects the total number of licences issued. In most cases this exceeds the number of vessels, as a number of vessels are allocated more than one licence type.

The assistance and co-operation of fishing companies and the officers and crew of licensed vessels providing catch data is gratefully acknowledged. The work of all observers from FIFD, who collected biological samples and data, is also gratefully acknowledged.

Inquires about the technical content of this publication or requests for copies should be addressed to:

Post:

Falkland Islands Government
Fisheries Department
Stanley
P.O Box 598
Falkland Islands, FIQQ 1ZZ

Telephone:

00 500 27260 (8-12 a.m. 1-4.30 p.m. LT, LT = GMT -3 or -4)

Facsimile:

00 500 27265

Email:

director@fisheries.gov.fk

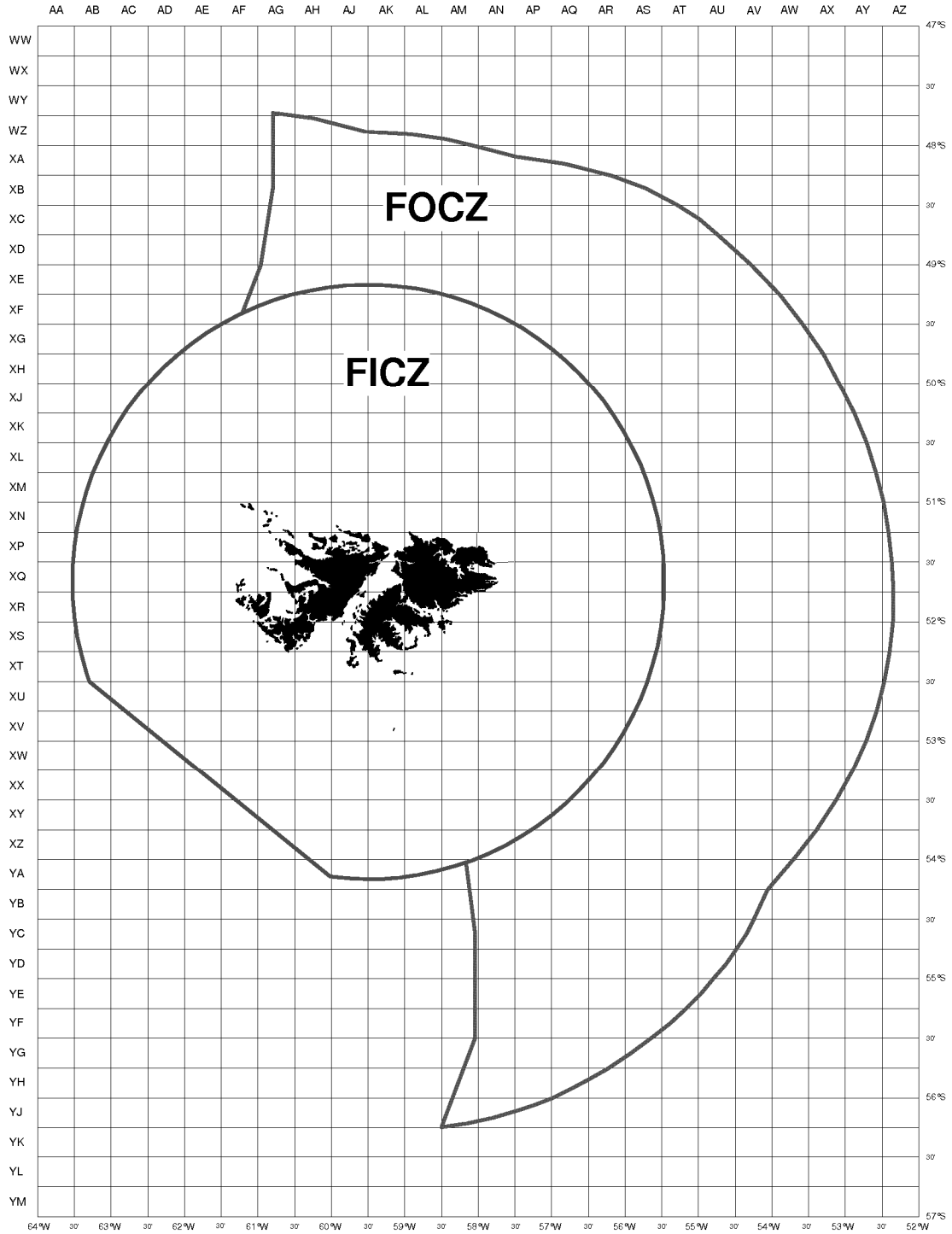
Web:

<http://www.falklandislands.com>

<http://www.fis.com/falklandfish>

Introduction

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



This Chart is Illustrative NOT Definitive

Introduction

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

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

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

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

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

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

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

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

* - 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 - 2004.

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

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

** Restricted finfish - Main target species:

Micromesistius australis - Southern blue whiting - BLU

Macruronus magellanicus - Hoki - WHI.

No *Merluccius* spp. - Hakes - PAT, permitted.

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

**** Experimental fishing licences 'E' are issued on an occasional basis to denote exploratory or experimental fishing activities. The 'E' licence included longliners fishing for toothfish up to mid 1999, when the 'L' licence was instituted for this activity. In 2004 the 'E' licence was used to cover access to the Loligo fishery during the monitoring activities undertaken by single vessels. The Scallop fishery and sea urchin research have also been operating as an E licence.

Licences

Table B.1 Licence allocations by licence type and year

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

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

Licences

Table B.2 Licence allocations by fishing fleet and year

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

Licences

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

Fishing fleet	1997	1998	1999	2000	2001	2002	2003	2004
AU	.	3	3	.	.	.	.	.
BG	.	.	.	.	.	.	.	.
BZ	.	.	2	5	2	2	3	1
CB	.	.	.	2	1	1	1	1
CL	3	2	3	1	1	1	1	2
CN	.	2	4	9	20	25	22	7
EE	.	.	.	.	.	.	.	1
ES	52	64	76	41	45	49	46	47
FK	32	43	49	47	55	49	80	71
FR	2	2	2	1	.	.	.	.
GR	.	.	.	.	.	.	.	.
HN	.	.	.	.	.	.	.	.
IS	3	.	.	.	.	.	.	.
IT	.	.	.	.	.	.	.	.
JP	19	40	20	21	16	22	14	7
KR	98	48	71	84	67	71	64	61
NA	3	1	2	.	.	.	.	2
NL	.	.	.	.	.	.	.	.
NZ	.	.	.	.	.	.	1	.
NO	1	.	.	.	.	.	.	.
PA	1	1	2	.	.	.	.	.
PL	.	.	.	.	.	.	.	.
PT	.	.	.	1	.	.	.	.
RU	.	.	.	.	1	.	9	.
SC	3	.	.	.	.	.	.	.
SL	.	.	.	.	.	.	.	.
TW	3	2	4	16	22	26	29	33
UK	3	3	5	3	3	3	4	5
UR	.	.	.	.	.	.	.	.
US	.	.	.	.	.	.	.	.
VC	.	.	.	.	1	.	.	.
UY	.	.	.	.	1	1	2	2
	223	211	243	231	235	250	276	240

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

Fishing fleet	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
BG	.	.	.	.	.	.	.	.	.	.
ES	4	2	2	4	6	3	4	3	2	1
FK	1	2	2	5	4	7	2	3	4	7
FR	.	.	.	.	.	.	.	.	.	.
IT	.	.	.	.	.	.	.	.	.	.
JP	.	.	.	.	.	.	.	.	.	.
NO	.	.	.	.	.	.	.	.	.	.
PL	.	.	.	.	.	.	.	.	.	.
PT	.	.	.	.	.	.	.	.	.	.
UK	.	1	.	.	1	.	.	.	.	.
	5	5	4	9	11	10	6	6	6	8

Licences

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

Fishing fleet	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
BZ	1	.	.	.	1	2	1	1	3	1
CB	.	.	.	.	.	2	1	1	1	1
CL	.	.	.	.	.	.	.	.	.	.
CN	.	.	.	2	4	9	20	25	22	7
ES	19	15	.	.	.	.	.	.	.	.
FK	1	2	.	.	.	.	.	.	.	.
FR	1	1	.	.	.	.	.	.	.	.
HN	3	.	.	.	.	.	.	.	.	.
IT	1	.	.	.	.	.	.	.	.	.
JP	7	7	15	34	15	17	14	19	12	5
KR	77	84	74	40	63	63	58	53	46	42
PA	.	.	.	1	.	.	.	.	.	.
PL	.	.	.	.	.	.	.	.	.	.
PT	2	1	.	.	.	.	.	.	.	.
RU	.	.	.	.	.	.	.	.	9	.
TW	8	3	3	2	4	16	22	26	29	33
UK	.	.	.	.	.	.	.	.	.	.
UR	.	.	.	.	.	.	.	.	.	.
	120	113	92	79	87	109	116	125	122	89

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

Fishing fleet	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
AU	.	.	.	1	1	.	.	.	.	.
CL	1	1	1	.	.	.	.	.	.	.
ES	9	7	3	2	4	2	2	2	.	.
FK	5	8	7	9	10	13	12	14	15	14
FR	1	1	1	1	1	1	.	.	.	.
IT	.	.	.	.	.	.	.	.	.	.
JP	.	.	.	.	.	.	.	.	.	.
NA	.	.	1	.	.	.	.	.	.	1
PL	.	.	.	.	.	.	.	.	.	.
PT	1	1	.	.	.	.	.	.	.	.
SC	.	.	1	.	.	.	.	.	.	.
UK	.	1	1	1	1	1	1	1	1	1
VC	.	.	.	.	.	.	1	.	.	.
	17	19	15	14	17	17	16	17	16	16

Licences

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

Fishing fleet	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
AU	.	.	.	1	.	.	.	.	.	.
CL	5	.	.	.	.	.	.	.	.	.
ES	.	.	.	.	.	.	.	.	1	.
FK	.	.	1	7	6	2	.	.	5	6
IS	.	1	1	.	.	.	.	.	.	.
KR	1	2	3	2	2	3	.	.	.	.
NO	.	1	1	.	.	.	.	.	.	.
RU	.	.	.	.	.	.	.	.	.	.
UK	.	.	.	.	.	.	.	.	.	1
US	.	1	.	.	.	.	.	.	.	.
UY	.	.	.	.	.	.	1	1	2	2
	6	5	6	10	8	5	1	1	8	9

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

Fishing fleet	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
BZ	.	.	.	.	.	.	.	1	.	.
KR	4	5	.	.	.	4	1	8	4	7
	4	5	.	.	.	4	1	9	4	7

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

Fishing fleet	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
EE	1
ES	.	.	13	21	22	12	13	14	15	11
FK	.	.	3	4	5	4	6	5	9	5
IS	.	.	1	.	.	.	.	.	.	.
JP	.	.	.	2	1	.	.	.	.	.
NA	.	.	1	.	1	.	.	.	.	.
PA	.	.	1	.	.	.	.	.	.	.
UK	1	.	.	.	.	.
	.	.	19	27	30	16	19	19	24	17

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

Fishing fleet	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
FK	2	6	4	3	4
KR	1	.	2	4	1
NZ	1	.
	3	6	6	8	5

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

Fishing fleet	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
BZ	.	.	.	.	1	.	1	.	.	.
ES	1	.	.	.	.	.	.	.	.	.
HN	1	1	.	.	.	.	.	.	.	.
KR	8	9	10	2	6	7	8	8	10	11
PA	.	1	.	.	1	.	.	.	.	.
	10	11	10	2	8	7	9	8	10	11

Licences

Table B.1.1 Licence 'S' (Blue Whiting and Hoki - surimi vessels) allocations by fishing fleet and year

Fishing fleet	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
CL	1	1	1	1	1	2
JP	1	2	2	3	2	2
	2	3	3	4	3	4

Table B.1.2 Licence 'W' (Restricted finfish - first season) allocations by fishing fleet and year

Fishing fleet	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
BZ	.	.	.	.	.	1	.	.	.	.
CL	.	1	1	1	1	.	.	.	.	.
ES	15	16	5	12	16	7	9	9	9	15
FK	2	6	.	2	3	1	4	2	13	9
FR	.	1	.	.	.	.	.	.	.	.
HN	2	.	.	.	.	.	.	.	.	.
IS	.	.	1	.	.	.	.	.	.	.
IT	1	.	.	.	.	.	.	.	.	.
JP	3	1	1	1	1	2	.	.	.	.
KR	1	.	.	.	.	.	.	.	.	.
NA	.	.	1	.	.	.	.	.	.	.
PA	1	1	.	.	.	.	.	.	.	.
PL	2	1	.	.	.	.	.	.	.	.
PT	2	1	.	.	.	.	.	.	.	.
UK	.	.	.	.	.	.	.	.	1	1
	29	28	9	16	21	11	13	11	23	25

Table B.1.3 Licence 'X' (Patagonian squid - second season) allocations by fishing fleet and year

Fishing fleet	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
AU	.	.	.	1	1	.	.	.	.	.
CL	1	1	.	.	.	.	.	.	.	.
ES	11	10	7	3	2	2	2	3	.	.
FK	6	9	9	12	11	12	16	13	17	15
FR	1	1	1	1	1	.	.	.	.	.
GR	.	.	.	.	.	.	.	.	.	.
IT	.	.	.	.	.	.	.	.	.	.
JP	2	2	2	2	2	.	.	.	.	.
NA	.	.	.	.	.	.	.	.	.	1
PT	1	.	.	.	.	.	.	.	.	.
SC	.	.	1	.	.	.	.	.	.	.
UK	1	1	1	1	1	1	1	1	1	1
Grand Total	23	24	21	20	18	15	19*	17	18	17

Licences

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

Fishing fleet	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
BG	.	.	.	.	.	.	.	.	.	.
ES	5	3	4	5	5	1	2	4	3	3
FK	3	2	6	2	2	2	4	3	8	6
FR	.	.	.	.	.	.	.	.	.	.
GR	.	.	.	.	.	.	.	.	.	.
IT	.	.	.	.	.	.	.	.	.	.
JP	.	.	.	.	.	.	.	.	.	.
KR	.	.	.	.	.	.	.	.	.	.
PA	.	.	.	.	.	.	.	.	.	.
PT	.	.	.	.	.	.	.	.	.	.
RU	.	.	.	.	.	.	1	.	.	.
UK	1	1	1	1	1	1	1	1	1	1
	9	6	11	8	8	4	8	8	12	10

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

Fishing fleet	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
AU	.	.	.	.	1	.	.	.	.	.
BG	.	.	.	.	.	.	.	.	.	.
BZ	.	.	.	.	.	2	.	.	.	.
CL	1	1	1	1	1	.	.	.	.	.
ES	36	16	18	17	21	14	13	14	16	17
FK	1	8	4	3	8	4	5	5	6	5
HN	2	1	.	.	.	.	.	.	.	.
IT	.	.	.	.	.	.	.	.	.	.
JP	1	1	1	1	.	.	.	.	.	.
KR	14	12	11	4	1	6	.	.	.	.
NA	.	.	.	1	1	.	.	.	.	.
PA	1	1	.	.	1	.	.	.	.	.
PL	2	1	.	.	.	.	.	.	.	.
PT	2	1	.	.	.	1	.	.	.	.
SC	.	.	1	.	.	.	.	.	.	.
SL	.	.	.	.	.	.	.	.	.	.
UK	.	1	.	.	.	.	.	.	.	.
	60	43	36	27	34	27	18	19	22	22

Licences

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

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

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

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

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	1653
LO	1241	1787	2077	2092	1684	1754	1832	2076
TR	77542	128976	120935	134089	117449	86224	105511	99302
	230326	210874	377038	319107	265198	100979	209097	103031

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	2780
BLU	26296	31483	28564	23371	25735	24908	20798	28557
ILL	149763	84993	266201	189709	150631	13411	103375	1709
KIN	1392	2217	2602	1875	1625	1224	1275	1837
LOL	26122	51559	34866	64493	53560	23712	47422	26837
MAR	2099		29		147	1	31	24
PAT	1554	3502	4224	3069	1978	1678	1967	1927
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	25875
OTH	916	3443	4701	4037	2018	1242	1748	5053
ZYP					76	59	685	1279
	230326	210874	377038	319107	265198	100979	209097	103031

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	2900
February	8660	19942	29626	47924	10926	12306	16612	9395
March	29199	47799	98631	94536	81574	17335	91036	15073
April	60718	63064	104827	63840	71936	13811	37830	11291
May	68234	22936	73790	48684	38621	15504	5680	4921
June	10474	2821	12665	2854	2199	1473	1385	727
July	2625	1596	2313	2502	1299	253	877	6770
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	13522
November	8381	6395	7138	7306	4933	8638	3981	8404
December	7470	6689	6370	4513	2112	4841	980	5114
	230326	210874	377038	319107	265198	100979	209097	103031

Catch summary tables

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

GRT	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<400	4016	3735	1727	2203	7796	7829	3588	571	2186	276
400-599	13867	13617	16175	5904	26789	11671	13309	1502	6412	1604
600-799	47630	51899	97294	43028	163915	110505	78231	14107	50758	3713
800-999	15092	14467	15853	23115	37524	51052	46705	7974	42387	9968
1000-1499	63921	34746	53422	59053	69138	59117	59440	34363	48736	31348
1500-1999	27601	19983	7180	14431	15926	19525	15015	13455	15608	14949
2000-2999	47252	29808	11607	30690	25317	35543	32726	13205	30373	16435
>2999	25793	26735	27067	32450	30633	23864	16185	15803	12637	24738
	245172	194991	230326	210874	377038	319107	265198	100979	209097	103031

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

LOA	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<45	2316	2463	1579	1648	1803	865	2458	271	42	0
45-49	38782	40247	67856	29845	123498	76639	54447	8662	30524	5554
50-54	30258	32307	45221	26581	71292	62017	42364	14062	36900	13786
55-59	14600	15284	20103	13712	21017	29661	23807	8845	22691	3914
60-64	25828	19851	16086	22027	44818	34635	41514	9615	31321	11732
65-69	24499	13365	23579	32634	37289	32864	32676	18200	30024	19598
70-79	53041	33442	22883	38559	33167	37047	32979	17773	28338	10485
80-89	17465	6172	4037	8965	10100	17008	14026	5661	12649	11356
>89	38382	31860	28981	36903	34054	28370	20928	17890	16606	26606
	245172	194991	230326	210874	377038	319107	265198	100979	209097	103031

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

BHP	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<1000	3464	2818	210		2964	1765	1320	183	42	0
1000-1199	11768	10134	12327	3013	12634	7711	9643	917	6666	28
1200-1399	18130	22848	43657	20483	68649	45064	32509	5516	17093	147
1400-1599	25317	25885	52221	27875	86241	60183	46741	10995	34576	8385
1600-1799	14119	16921	22907	26562	53105	36388	28040	4815	21161	4953
1800-1999	28937	19194	33048	38781	52553	60145	55146	18246	40925	20312
2000-2499	43307	23274	18759	23363	35572	35493	29519	18188	31772	19531
2500-2999	13625	9377	5466	4082	6441	7449	9805	10652	10413	7547
3000-3999	44894	30821	10739	25979	22061	31584	27147	11947	26292	14996
>3999	41610	33718	30992	40736	36817	33324	25328	19519	20158	27133
	245172	194991	230326	210874	377038	319107	265198	100979	209097	103031

Catch summary tables

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

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

Catch summary tables

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

Fishing fleet	1997	1998	1999	2000	2001	2002	2003	2004
AU	.	3593	3711	.	.	.	.	.
BG	.	.	.	.	.	.	.	.
BZ	.	.	4511	6729	2581	136	2788	42
CB	.	.	.	2768	1204	33	857	17
CL	8199	8849	5491	2749	8014	9252	6490	9752
CN	.	1177	7301	11641	18838	1203	12 652	99
EE	.	.	.	.	.	.	.	226
ES	20510	40307	35909	30732	29170	23972	20 169	22443
FK	17117	43578	39131	62947	59820	35732	60596	43309
FR	1545	4177	2381	2053	.	.	.	.
GR	.	.	.	.	.	.	.	.
HN	.	.	.	.	.	.	.	.
IS	268	.	.	.	.	.	.	.
IT	.	.	.	.	.	.	.	.
JP	46060	56992	57971	41737	27913	14485	18923	15062
KR	129546	45082	207795	128940	86587	12637	53 677	6005
NA	303	676	746	.	.	.	.	1181
NL	.	.	.	.	.	.	.	.
NO	210	.	.	.	.	.	.	.
NZ	.	.	.	.	.	.	69	.
PA	.	1098	61	.	.	.	.	.
PL	.	.	.	.	.	.	.	.
PT	.	.	.	66	.	.	.	.
RU	.	.	.	.	228	.	6891	31
SC	1252	.	.	.	.	.	.	.
SL	.	.	.	.	.	.	.	.
TW	3013	1734	8771	23243	25380	1190	22057	858
UK	2302	3575	3259	5501	3564	2279	3238	2703
UR	.	.	.	.	.	.	.	.
UY	.	36	.	.	81	61	690	1303
VC	.	.	.	.	1820	.	.	.
230326	210874	377038	319107	265198	100979	209097	103031	

Illex argentinus - *Illex sqiud*

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

VESSEL TYPE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
CO	576	1479	.	.	.	.	.	.	.	.
JJ	56914	73020	148633	79837	253997	182925	145919	13000	101753	1653
TR	6632	5225	1130	5156	12204	6784	4711	411	1622	56
	64122	79724	149763	84993	266201	189709	150631	13411	103375	1709

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

MONTH	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
January	2	.	.	0	2	39	.	1	.	.
February	6844	5087	5	53	14160	26916	55	1293	1944	24
March	24296	37721	22507	26799	83669	75957	69399	1911	71279	1417
April	29121	30597	55143	49219	93924	48565	57031	2766	28624	265
May	3858	6203	62088	8800	63515	36412	22926	7439	1516	3
June	0	116	10020	120	10932	1820	1220	0	11	.
July	.	.	.	.	0	.	0	.	.	.
August	.	.	.	0	.	.	.	.	.	.
September	.	.	.	1	.	.	.	.	.	.
October	.	.	.	1	.	.	.	.	.	.
November	.	.	.	.	.	.	.	.	.	.
December	1	.	.	.	.	.	0	.	.	.
	64122	79724	149763	84993	266201	189709	150631	13411	103375	1709

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

Fishing fleet	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
AU	.	.	.	.	167	.	.	.	.	.
BG	.	.	.	.	.	.	.	.	.	.
BZ	528	.	.	.	3796	4066	1692	124	2767	42
CB	.	.	.	.	.	2768	1195	33	857	17
CL	.	.	1	.	.	.	.	.	.	.
CN	.	.	.	1177	7301	11641	18838	1203	12652	99
EE	.	.	.	.	.	.	.	.	.	3
ES	3891	1628	281	1758	3943	989	2807	271	960	19
FK	351	195	37	804	2582	716	1879	140	659	16
FR	23	28	.	.	56	0	.	.	.	.
HN	679	.	.	.	.	.	.	.	.	.
IS	.	.	9	.	.	.	.	.	.	.
IT	110	.	.	.	.	.	.	.	.	.
JP	6313	8383	26311	35984	37495	25652	18126	1113	7746	93
KR	50002	67395	120150	42437	201690	120628	80827	9338	48766	530
NA	.	.	3	.	63	.	.	.	.	.
NL	.	.	.	.	.	.	.	.	.	.
NO	.	.	.	.	.	.	.	.	.	.
PA	.	.	.	1098	.	.	.	.	.	.
PL	.	.	.	.	.	.	.	.	.	.
PT	176	193	.	.	.	.	.	.	.	.
RU	.	.	.	.	.	.	0	.	6891	31
TW	2049	1902	2971	1734	8771	23243	25241	1189	22077	858
UK	.	.	.	.	336	6	21	.	.	0
UR	.	.	.	.	.	.	.	.	.	.
VC	.	.	.	.	.	.	4	.	.	.
	64122	79724	149763	84992	266201	189709	150631	13411	103375	1709

Illex argentinus - *Illex squid*

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

GRT	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<400	1028	1479	.	663	5535	5755	2627	190	1888	24
400-599	9143	12541	15451	4176	25341	11574	12799	1206	5030	26
600-799	36630	46349	91878	33854	157725	103179	70730	7338	45406	497
800-999	4782	5974	10730	15998	28821	40053	39487	2530	34521	977
1000-1499	8952	9520	30868	27282	40926	23536	24066	2061	16232	158
1500-1999	1292	645	1	283	1504	553	414	86	177	10
2000-2999	353	35	37	143	1293	30	508	1	120	1
>2999	1943	3179	799	2593	5055	5030	.	.	.	17
	64122	79724	149763	84993	266201	189709	150631	13411	103375	1709

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

LOA	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<45	1978	1930	1032	74	1865	1865	1865	.	.	0
45-49	26950	36068	65537	22346	49259	49259	49259	5176	25175	277
50-54	12230	19032	33449	15667	28339	28339	28339	3089	24699	312
55-59	8154	7328	13910	4151	16588	16588	16588	1293	16753	443
60-64	3243	4281	6750	9480	27502	27502	27502	1779	18624	345
65-69	5151	4281	18271	20194	17984	17984	17984	1583	13616	254
70-79	4473	3431	10015	10486	8622	8622	8622	490	4414	59
80-89	0	193	.	.	458	458	458	1	90	3
>89	1943	3181	799	2593	14	14	14	.	4	17
	64122	79724	149763	84993	150631	150631	150631	13411	103375	1709

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

BHP	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<1000	.	760	.	.	2964	1765	1239	122	.	.
1000-1199	8425	9751	11932	3013	12383	7711	9643	917	6597	28
1200-1399	15272	20910	42079	16878	66273	42851	30503	2808	16189	147
1400-1599	17719	23585	48513	18632	79824	51436	38463	4015	27928	329
1600-1799	10043	12433	20526	19611	47198	30881	23703	2073	14773	212
1800-1999	5909	4747	19461	20192	36363	40765	37469	2610	26640	656
2000-2499	4104	3276	6406	3930	14482	9130	7795	766	10375	244
2500-2999	331	828	.	.	223	105	1286	99	753	77
3000-3999	376	255	46	143	1216	27	484	1	109	2
>3999	1943	3181	799	2593	5273	5039	45	.	12	17
	64122	79724	149763	84993	266201	189709	150631	13411	103375	1709

Illex argentinus - Illex squid

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

GRT	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<400	412	1479	.	.	.	.	.	.	.	.
400-599	.	.	.	.	.	.	.	.	.	.
800-999	21	.	.	.	.	.	.	.	.	.
1000-1499	142	.	.	.	.	.	.	.	.	.
1500-1999	.	.	.	.	.	.	.	.	.	.
2000-2999	.	.	.	.	.	.	.	.	.	.
>2999	.	.	.	.	.	.	.	.	.	.
	576	1479	.	.	.	.	.	.	.	.

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

LOA	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<50	.	.	.	.	.	.	.	.	.	.
50-54	274	653	.	.	.	.	.	.	.	.
55-59	302	826	.	.	.	.	.	.	.	.
70-79	.	.	.	.	.	.	.	.	.	.
80-89	.	.	.	.	.	.	.	.	.	.
>89	.	.	.	.	.	.	.	.	.	.
	576	1479	.	.	.	.	.	.	.	.

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

BHP	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
1000-1200	.	.	.	.	.	.	.	.	.	.
2000-2499	417	653	.	.	.	.	.	.	.	.
2500-2999	159	826	.	.	.	.	.	.	.	.
3000-3999	.	.	.	.	.	.	.	.	.	.
>3999	.	.	.	.	.	.	.	.	.	.
	576	1479	.	.	.	.	.	.	.	.

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

GRT	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<400	552	.	.	663	5535	5754	2627	190	1888	24
400-599	8882	12310	15440	4102	25190	11574	12799	1206	5030	26
600-799	36330	46176	91780	33730	157195	103054	70286	7279	45203	493
800-999	4198	5826	10701	15638	28043	39901	38817	2484	34168	976
1000-1499	6952	8708	30713	25705	38034	22642	21392	1841	15463	133
1500-1999	.	.	.	.	.	.	.	.	.	.
2000-2999	.	.	.	.	.	.	.	.	.	.
	56914	73020	148633	79837	253997	182925	145919	13000	101753	1653

Illex argentinus* - *Illex squid

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

LOA	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<45	1717	1930	1021	.	.	.	1865	.	.	.
45-49	26350	35660	65509	22022	116539	69863	48439	5130	24798	274
50-54	11631	18255	33354	15618	61052	45743	27806	3036	24461	305
55-59	7528	6326	13778	3764	10249	19532	15655	1214	16480	440
60-64	2512	4047	6750	8729	31137	21128	26968	1736	18420	338
65-69	4687	3694	18244	19655	27589	18957	17586	1496	13372	244
70-79	2489	3109	9977	10049	7431	7704	7600	388	4222	52
>79	.	.	.	.	.	.	.	.	.	.
	56914	73020	148633	79837	253997	182925	145919	13000	101753	1653

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

BHP	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<1000	.	760	.	.	2964	1765	1239	122	.	.
1000-1199	8332	9648	11932	3013	12383	7711	9643	917	6597	28
1200-1399	15104	20781	42074	16789	65883	42790	30295	2775	16074	147
1400-1599	17128	23396	48381	18349	79370	51211	37349	3944	27446	320
1600-1799	9873	12300	20526	19119	46397	30831	23506	2063	14670	209
1800-1999	4535	4151	19314	19178	34085	40101	35757	2439	26155	640
2000-2400	1943	1983	6405	3389	12915	8517	7169	667	10088	233
2500-2999	.	.	.	.	.	.	960	74	723	77
3000-3999	.	.	.	.	.	.	.	.	.	.
	56914	73020	148633	79837	253997	182925	145919	13000	101753	1653

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

GRT	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<400	64	.	.	.	.	1	.	.	.	.
400-599	261	231	11	74	151	.	.	.	.	.
600-799	300	173	98	124	529	125	444	59	203	4
800-999	563	148	30	361	778	151	670	45	353	1
1000-1499	1857	813	155	1577	2892	894	2675	220	769	25
1500-1999	1292	645	1	283	1504	553	414	86	177	10
2000-2999	353	35	37	143	1293	30	508	1	120	1
>2999	1943	3179	799	2593	5055	5030	.	.	.	17
	6632	5225	1130	5156	12204	6784	4711	411	1622	56

Illex argentinus* - *Illex squid

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

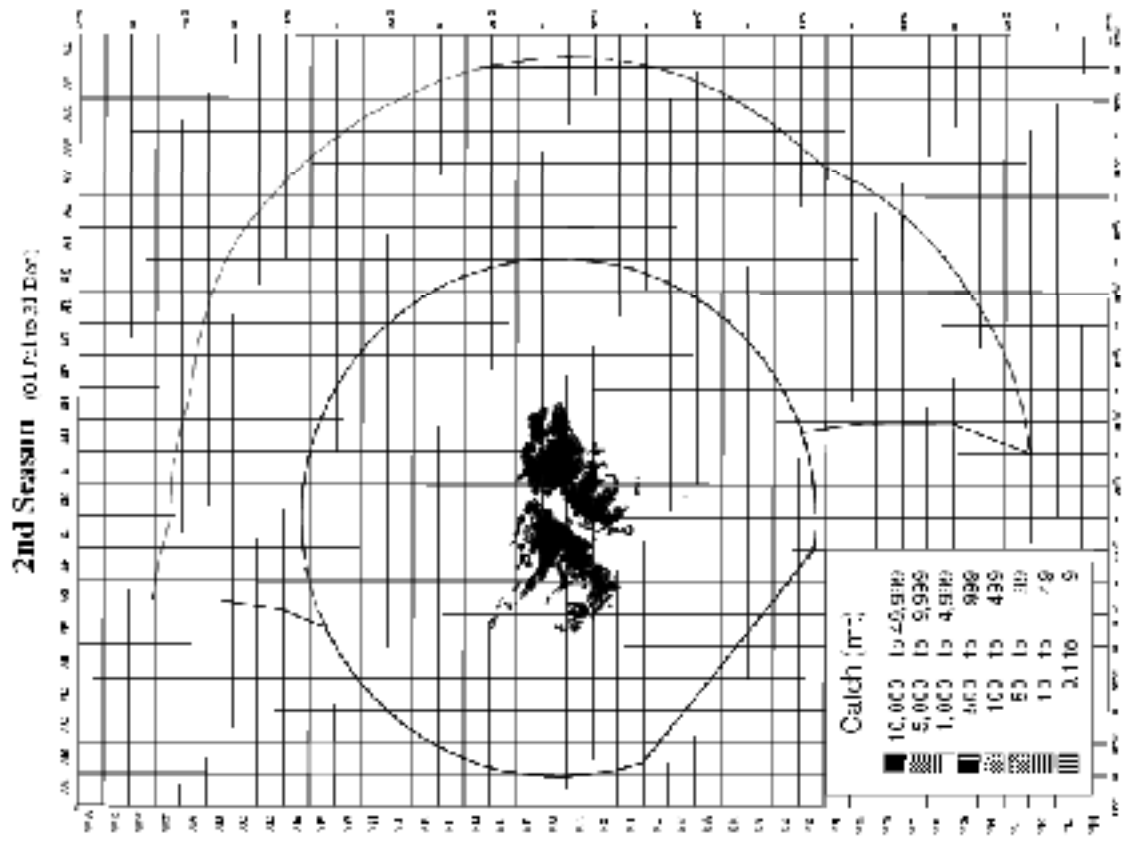
LOA	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<45	261	.	11	74	87	.	.	.	.	.
45-49	600	408	28	324	607	165	820	46	378	3
50-54	325	124	95	49	366	94	533	53	237	7
55-59	323	176	132	387	1190	275	932	79	273	4
60-64	731	234	1	752	1395	298	534	43	204	7
65-69	465	587	27	539	469	266	399	87	244	10
70-79	1984	322	37	437	2384	627	1022	101	192	6
80-89	0	193	.	0	584	29	458	1	90	1
>89	1943	3181	799	2593	5121	5030	14	.	4	20
	6632	5225	1130	5156	12204	6784	4711	411	1622	56

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

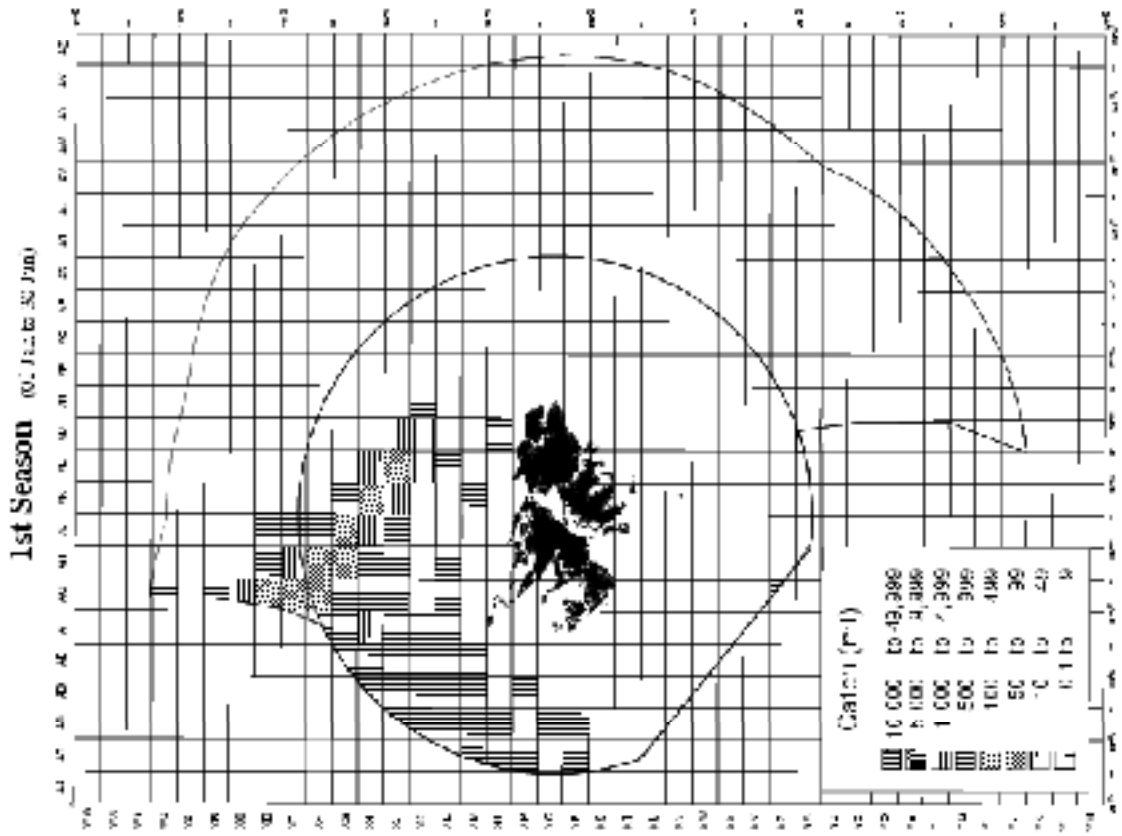
BHP	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
1000-1199	93	103	.	.	.	.	.	.	.	.
1200-1399	169	128	5	89	390	62	208	33	115	.
1400-1599	592	189	132	283	455	226	1114	71	482	8
1600-1799	170	132	.	492	801	50	197	10	103	2
1800-1999	1374	595	147	1013	2279	664	1712	171	485	16
2000-2499	1744	639	1	541	1567	612	626	98	287	11
2500-2999	172	2	.	.	223	105	326	25	31	0
3000-3999	376	255	46	143	1216	27	484	1	109	18
>3999	1943	3181	799	2593	5273	5039	45	.	12	.
	6632	5225	1130	5156	12204	6784	4711	411	1622	56

2004 *Illex argentinus*

Catch (mt) by grid square

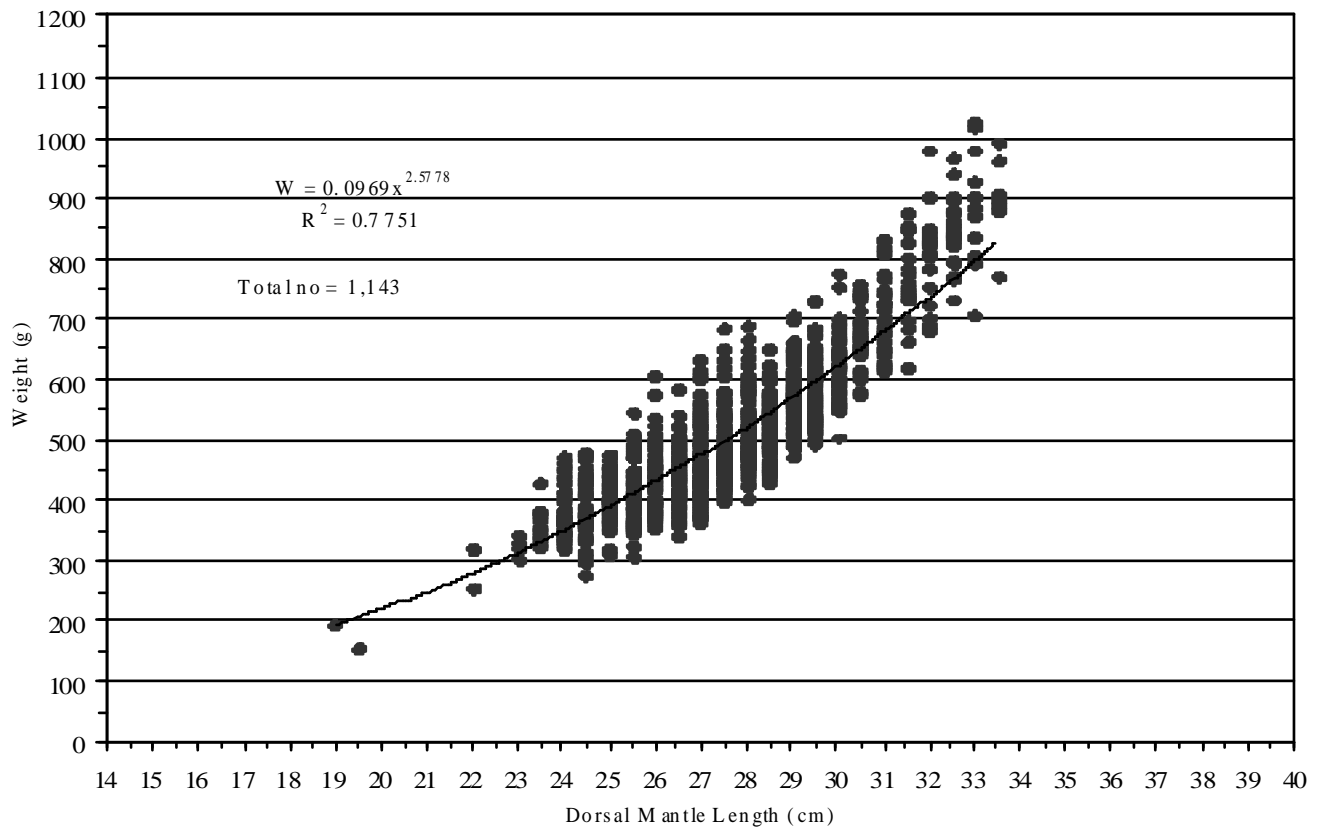
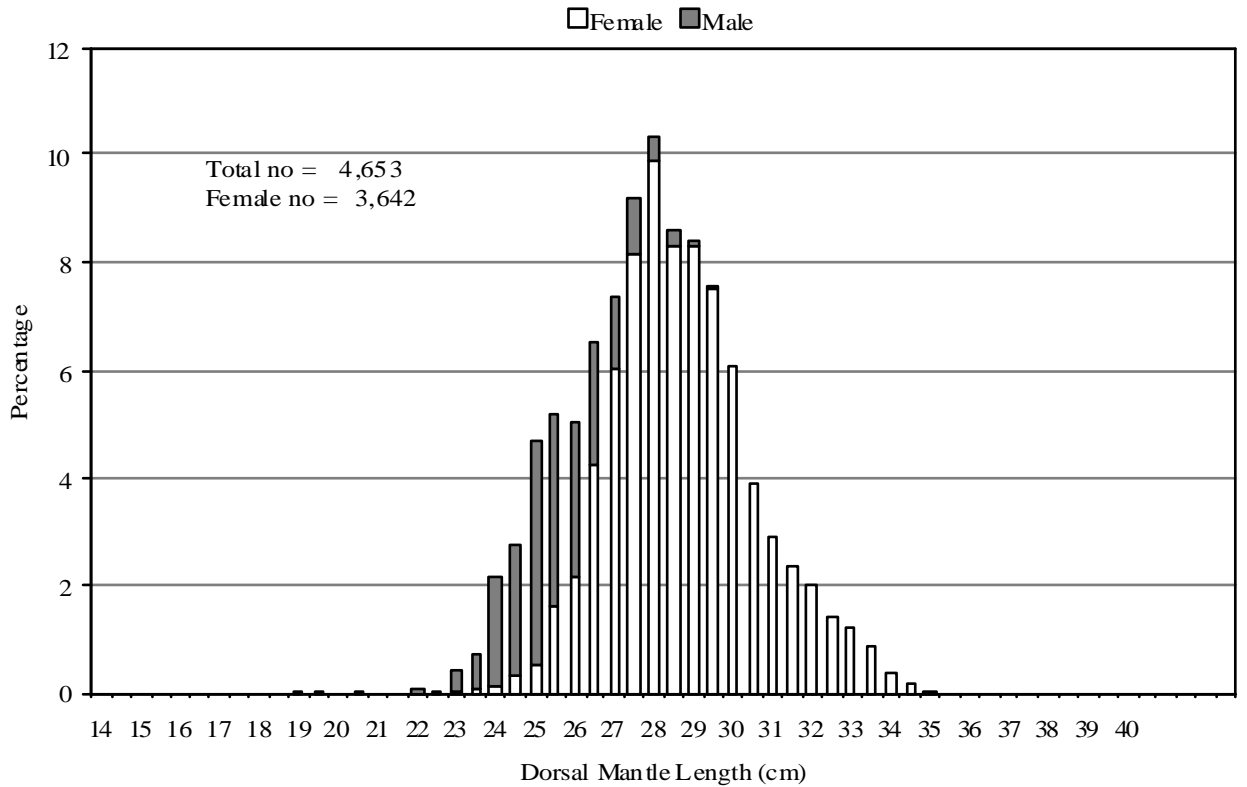


FICZ and HICZ



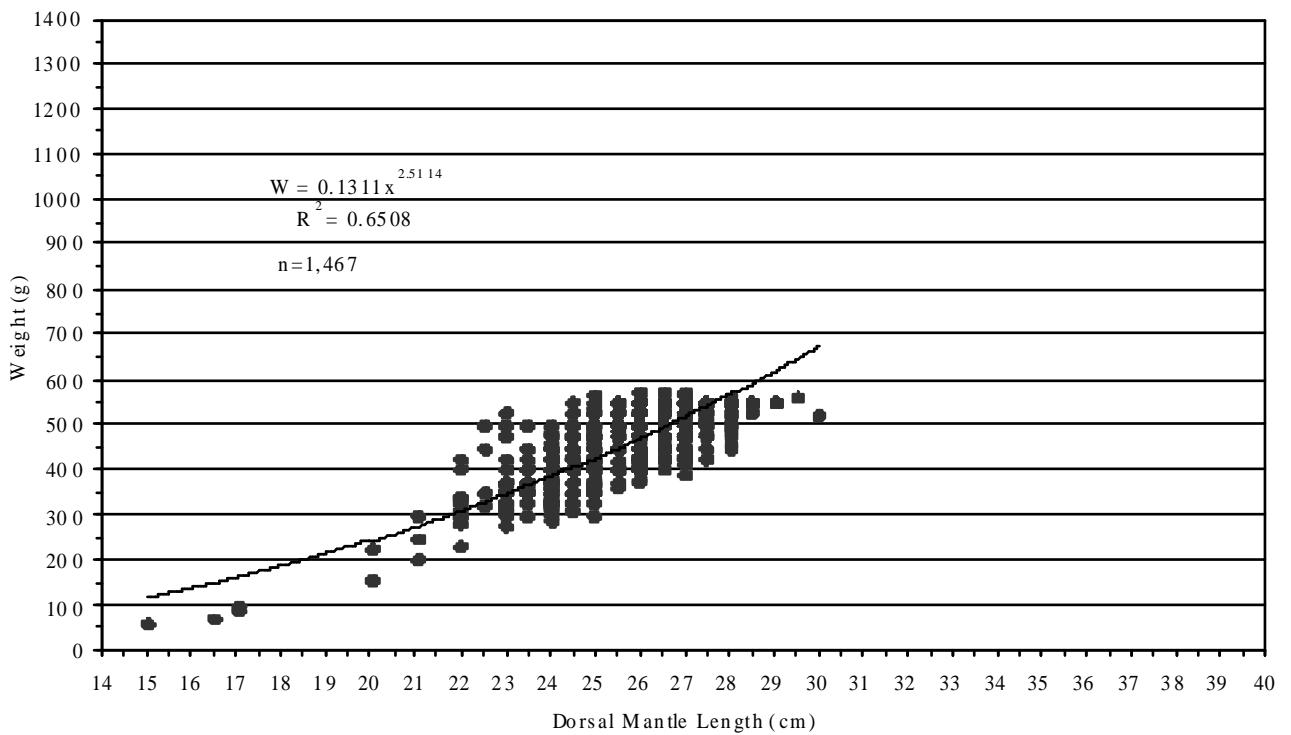
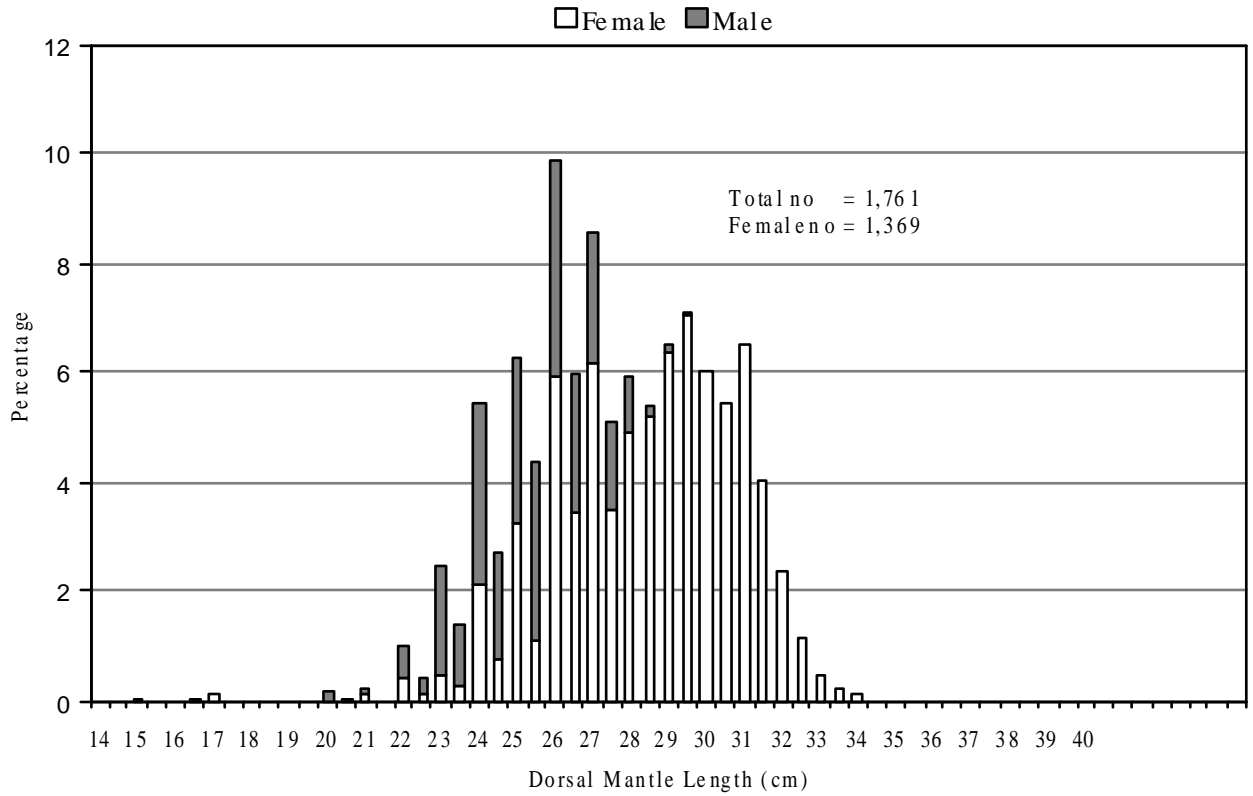
Illex argentiunus - Illex squid

Length-frequency distribution and length-weight relationship in jigger fleets in 2004



Illex argentinus - Illex squid

Length-frequency distribution and length-weight relationship in trawler fleets in 2004



Loligo gahi - Patagonian squid

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

VESSEL TYPE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
CO	52	.	.	.	.	.	.	.	.	.
TR	98357	61374	26122	51559	34866	64493	53560	23712	47422	26837
	98409	61374	26122	51559	34866	64493	53560	23712	47422	26837

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

MONTH	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
January	.	.	.	88	422	.	.	.	0	.
February	17686	6423	2223	8618	7646	11006	4478	3980	1180	586
March	17851	6022	5068	12324	5599	9600	3754	2761	12340	4431
April	16837	14285	3863	6858	4264	8921	7854	2750	3851	2522
May	8548	11949	4808	4984	4682	9186	11538	4707	1224	869
June	1	0	.	507	248	0	0	0	378	201
July	4	1	0	761	394	1	.	0	8	5852
August	18756	12157	6220	9622	6961	11288	14432	8007	16921	8045
September	14619	8180	3932	5942	4150	10620	8241	1213	9134	4301
October	4088	2355	7	1801	500	3863	3258	290	2372	30
November	13	1	0	5	1	9	3	3	11	1
December	6	.	0	47	.	0	1	0	1	0
	98409	61374	26122	51559	34866	64493	53560	23712	47422	26837

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

Fishing fleet	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
AU	.	.	.	3198	2486	.	.	.	.	.
BG	.	.	.	.	.	.	.	.	.	.
BZ	.	.	.	.	.	2	.	.	.	.
CL	4003	2431	656	.	.	.	.	.	.	.
ES	53768	22716	6552	6197	3559	6805	5412	3036	458	101
FK	22310	24366	12710	32029	22500	50308	42911	18613	43830	23573
FR	7240	4392	1512	4146	2309	2024	.	.	.	.
GR	.	.	.	.	.	.	.	.	.	.
HN	25	8	.	.	.	.	.	.	.	.
IT	6	.	.	.	.	.	.	.	.	.
JP	5558	3186	1552	2618	1857	.	1	.	.	1
KR	151	38	4	.	7	27	10	13	38	53
NA	.	.	74	1	0	.	.	.	.	1141
NL	.	.	.	.	.	.	.	.	.	.
NO	.	.	.	.	.	.	.	.	.	.
PA	1	1	.	.	0	.	.	.	.	.
PL	.	1	.	.	.	.	.	.	.	.
PT	3430	192	.	.	.	.	.	.	.	.
RU	.	.	.	.	.	.	.	.	.	.
SC	.	.	1114	.	.	.	.	.	.	.
SL	.	.	.	.	.	.	.	.	.	.
UK	1916	4043	1948	3336	2148	5328	3431	2049	3095	1967
UY	.	.	.	35	.	.	.	.	.	.
VC	.	.	.	.	.	.	1795	.	.	.
	98409	61374	26122	51559	34866	64493	53560	23712	47422	26837

***Loligo gahi* - Patagonian squid**

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

GRT	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<400	33	2	0	.	0	5	.	.	.	.
400-599	11	0	0	3	0	.	.	.	4	2
600-799	3113	1718	1188	2581	1433	2707	2160	1102	847	19
800-999	1692	2873	442	836	541	3297	2640	1361	2095	1149
1000-1499	39533	15000	7613	9164	5390	11504	9449	3889	8088	5317
1500-1999	14871	13015	5637	11202	7290	14122	9248	5312	9611	7477
2000-2999	33597	25579	9690	25155	18352	32858	30063	12048	26776	12873
>2999	5558	3187	1552	2619	1857	.	.	.	.	0
	98409	61374	26122	51559	34866	64493	53560	23712	47422	26837

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

LOA	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<45	1	.	.	2	.	.	.	.	.	.
45-49	1632	1275	438	803	543	3288	2638	1361	2089	1116
50-54	7598	4634	2671	5359	3309	6208	5404	2578	3621	1981
55-59	49	2616	76	338	1	9	5	8	16	13
60-64	14186	12542	5682	6486	3742	5738	6264	2630	5868	3211
65-69	12045	6329	2473	4229	4226	9619	6911	3114	6095	3844
70-79	36849	21155	7552	19416	10603	20381	15971	6898	15325	6967
80-89	12701	4797	3869	7996	7413	14917	11766	5114	10648	7890
>89	13349	8025	3361	6931	5029	4333	4601	2009	3761	1816
	98409	61374	26122	51559	34866	64493	53560	23712	47422	26837

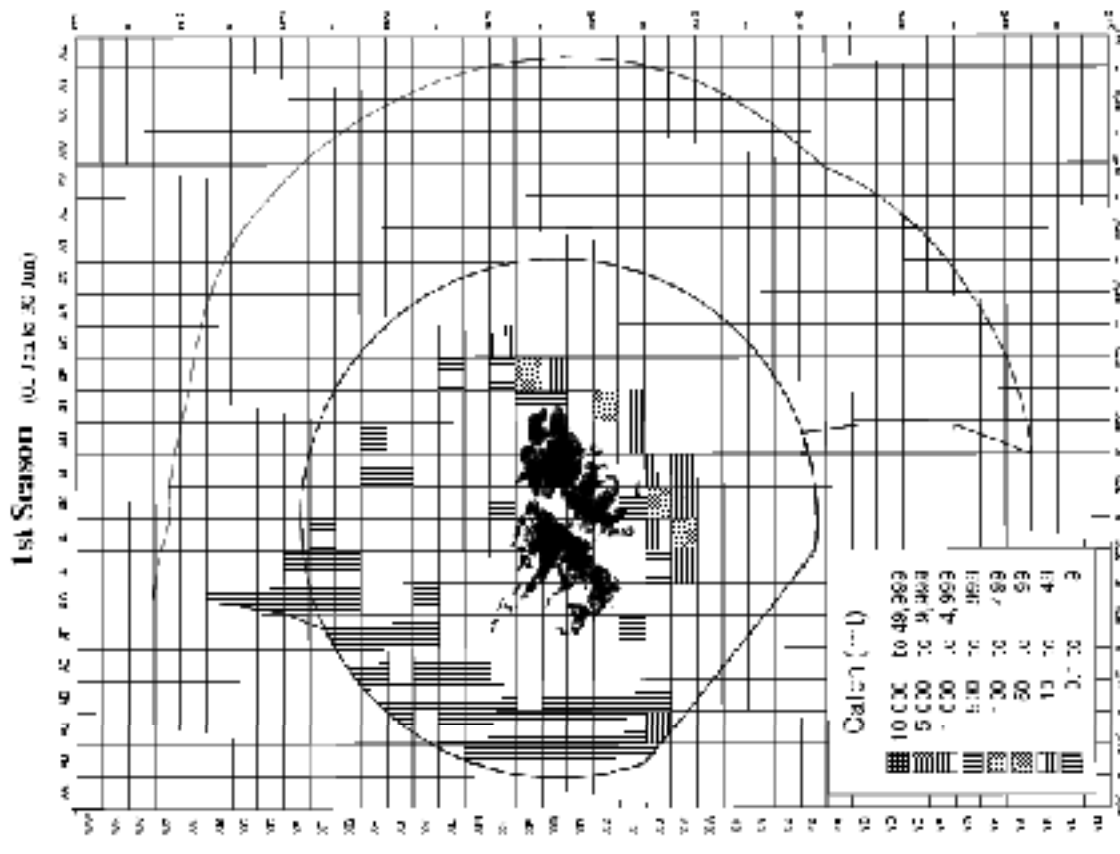
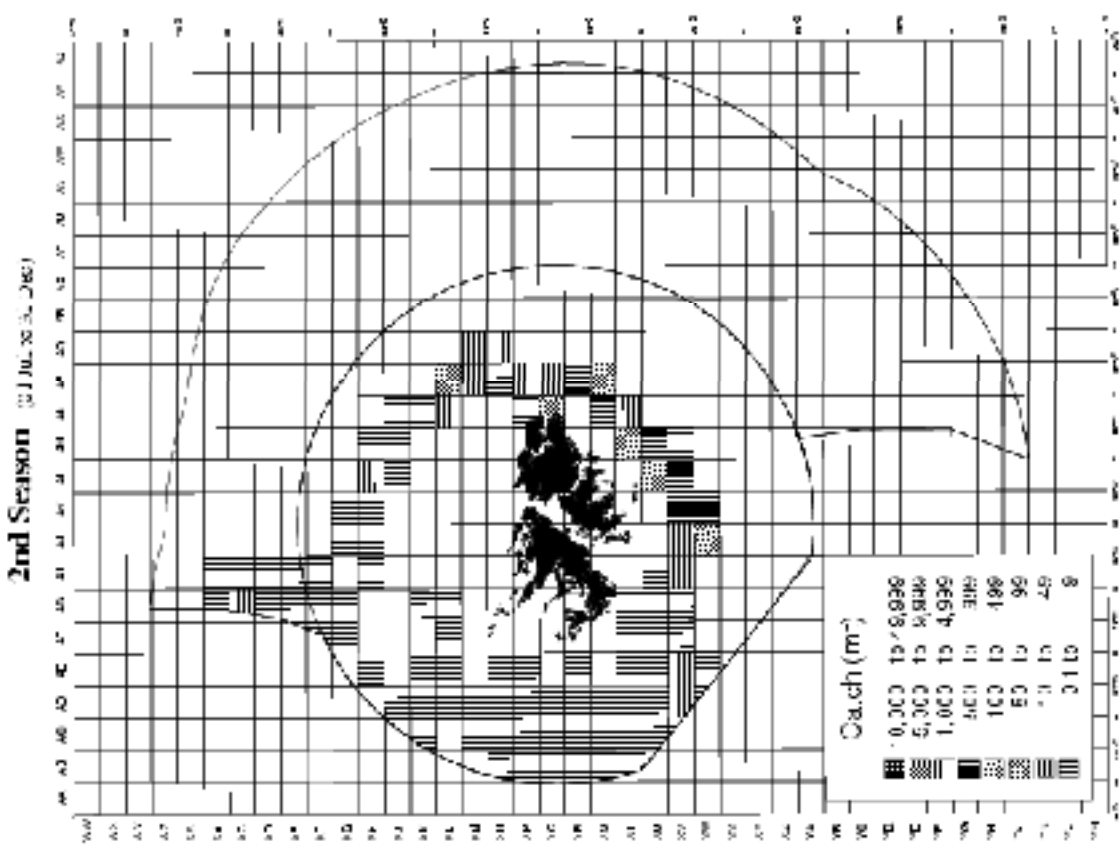
Table E.6 Total catch (tonnes) by brakehorsepower (BHP) and year

BHP	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<1000	3078	1712	.	.	.	.	.	.	.	.
1000-1199	6	0	.	.	.	.	.	.	.	.
1200-1399	3	4	74	7	1	4	2	4	3	.
1400-1599	46	0	1114	2615	1431	2702	2650	1099	856	61
1600-1799	1067	2836	475	840	875	3695	2623	1138	2290	1471
1800-1999	11824	7285	3477	2610	1166	3300	2658	1548	2127	1172
2000-2499	22567	9539	5770	11530	9027	16580	12044	5802	12238	8013
2500-2999	7503	4566	1366	2848	9	27	89	19	34	3004
3000-3999	31376	22804	8578	20608	14764	29008	24657	10541	22774	10851
>3999	20938	12629	5268	10501	7593	9178	8837	3561	7099	2266
	98409	61374	26122	51559	34866	64493	53560	23712	47422	26837

2004 *Loligo gahi*

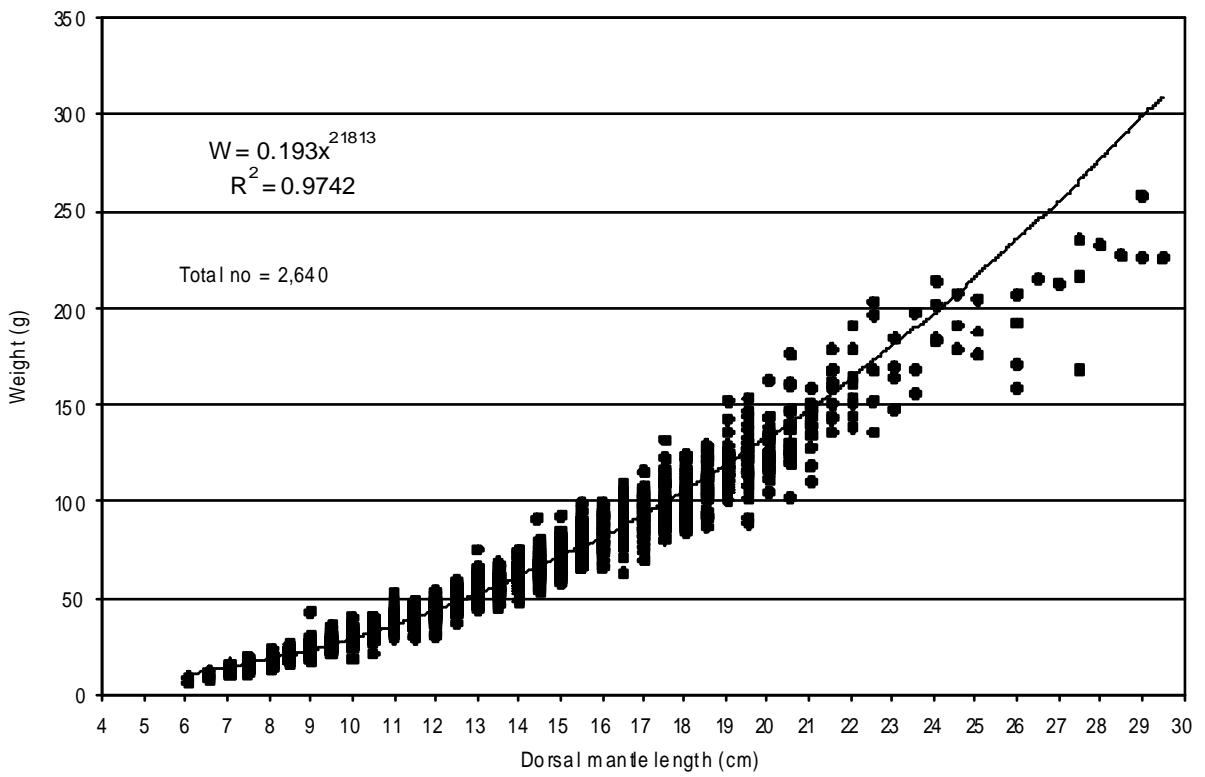
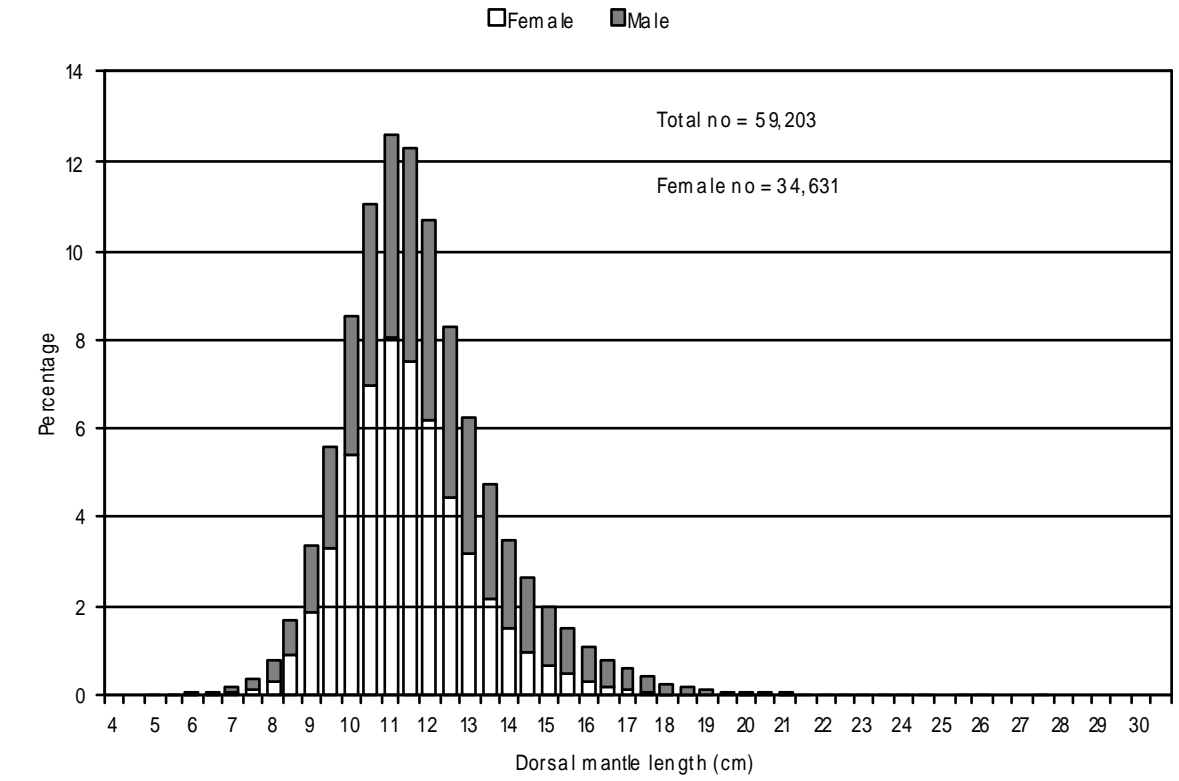
Catch (mt) by grid square

FIG. 2 and FIG. 3



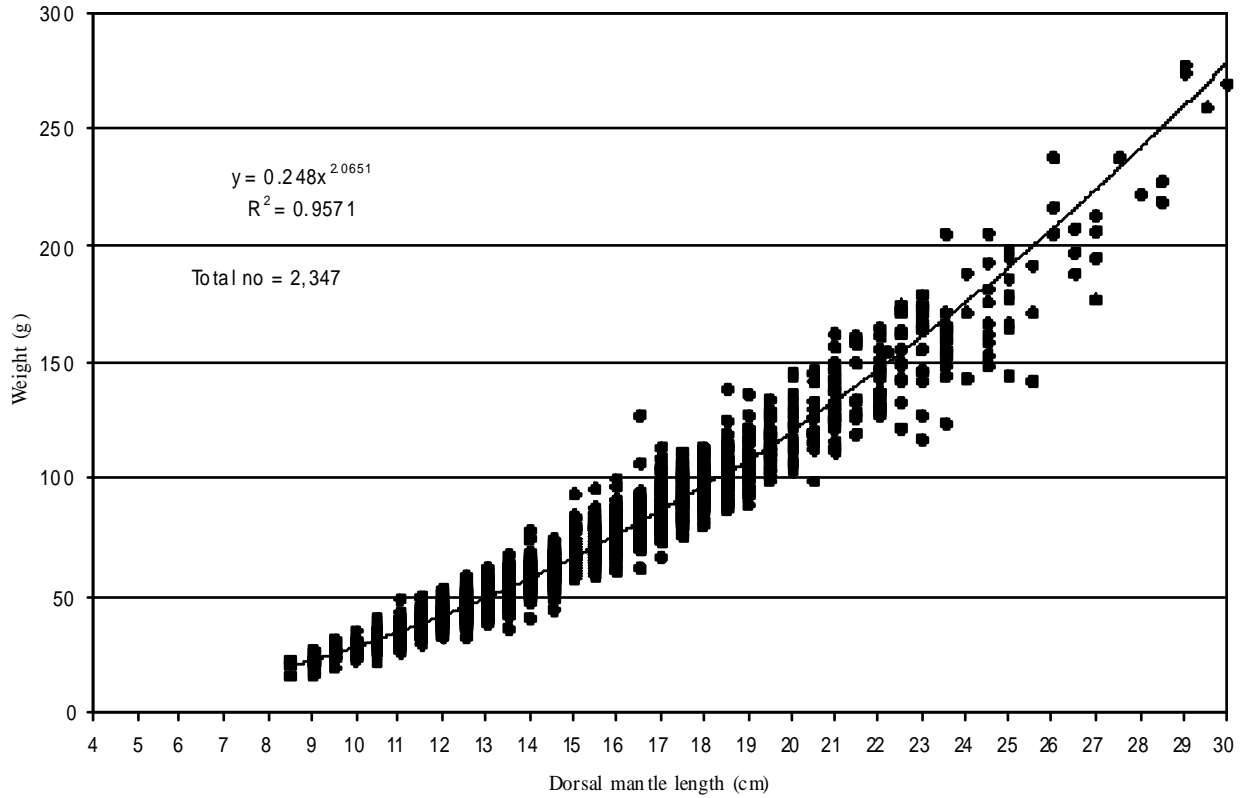
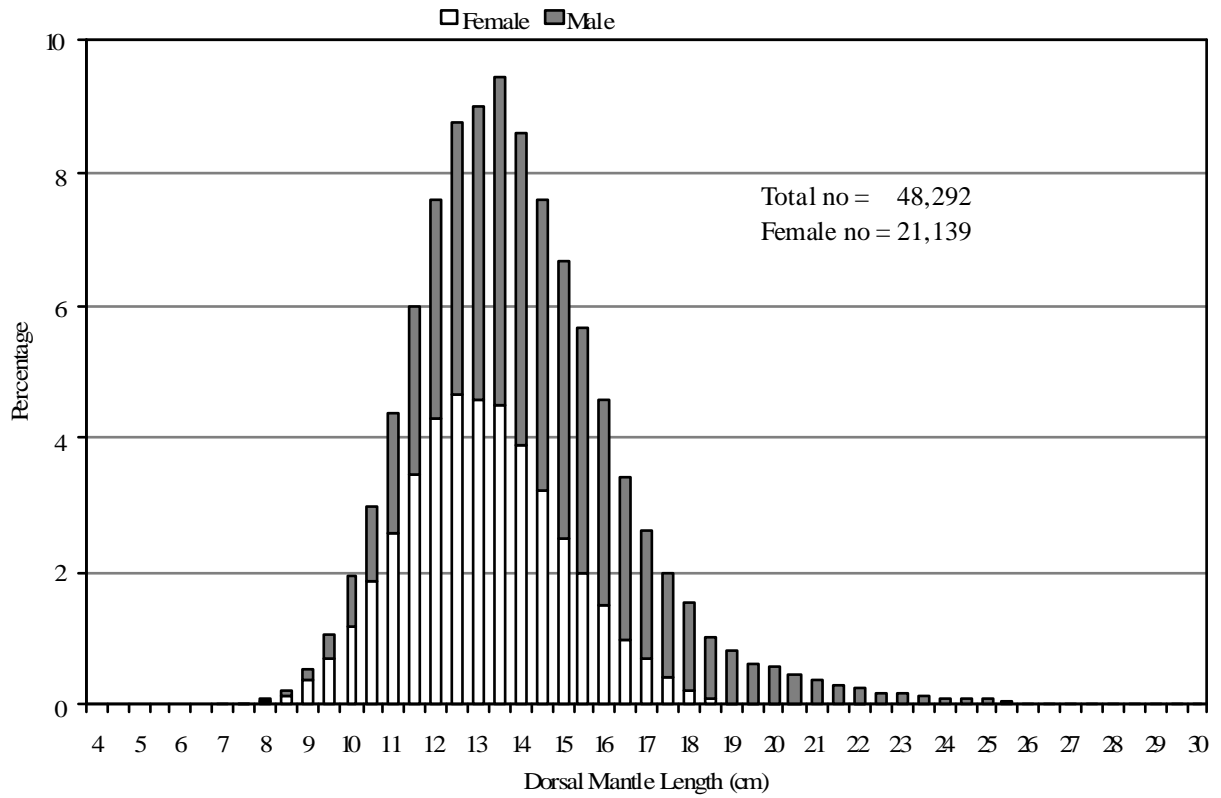
Loligo gahi - Patagonian squid

Length-frequency distribution and length-weight relationship during first season 2004



Loligo gahi - Patagonian squid

Length-frequency distribution and length-weight relationship during second season 2004



Martialia hyadesi - *Martialia squid*

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

VESSEL TYPE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
CO	.	.	.	.	.	.	.	.	.	.
JI	5807	107	2099	.	29	.	147	1	.	.
TR	.	4	.	.	.	.	.	.	30	24
	5807	111	2099	.	29	.	147	1	30	24

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

MONTH	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
January	.	.	.	.	.	.	.	.	.	.
February	.	.	0	.	.	.	.	1	6	20
March	.	0	66	.	.	.	.	.	2	4
April	21	.	721	.	.	.	.	.	2	.
May	5782	63	858	.	29	.	110	.	13	.
June	4	44	454	.	.	.	37	.	6	.
July	.	.	.	.	.	.	.	.	.	.
August	.	.	.	.	.	.	.	.	1	.
September	.	.	.	.	.	.	.	.	0	.
October	.	.	.	.	.	.	.	.	.	.
November	.	.	.	.	.	.	.	.	.	.
December	.	3	.	.	.	.	.	.	.	.
	5807	111	2099	.	29	.	147	1	30	24

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

Fishing fleet	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
BG	.	.	.	.	.	.	.	.	.	.
BZ	57	.	.	.	.	.	.	.	.	.
CB	.	.	.	.	.	.	8	.	.	.
CL	.	.	.	.	.	.	.	.	.	.
ES	.	1	0	.	0	.	.	.	2	17
FK	.	0	.	.	0	.	.	.	28	7
HN	118	.	.	.	.	.	.	.	.	.
JP	36	.	1021	.	28	.	.	.	.	.
KR	5322	107	1035	.	0	.	.	.	.	.
PA	.	.	.	.	.	.	.	.	.	.
PL	.	3	.	.	.	.	.	.	.	.
PT	.	.	.	.	.	.	.	.	.	.
RU	.	.	.	.	.	.	.	.	.	.
TW	274	.	43	.	.	.	139	1	.	.
UK	.	.	.	.	.	.	.	.	.	.
	5807	111	2099	.	29	.	147	1	30	24

Martialia hyadesi - *Martialia squid*

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

GRT	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<400	64	.	.	.	.	.	.	.	.	.
400-599	1001	1	98	.	.	.	.	.	.	.
600-799	3884	107	627	.	.	.	3	.	.	.
800-999	479	.	244	.	12	.	144	1	.	.
1000-1499	379	.	1130	.	17	.	.	.	27	11
1500-1999	.	1	.	.	.	.	.	.	3	13
2000-2999	.	.	.	.	.	.	.	.	.	.
>2999	.	3	.	.	.	.	.	.	.	.
	5807	111	2099	.	29	.	147	1	30	24

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

LOA	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<45	225	.	.	.	.	.	.	.	.	.
45-49	2709	55	387	.	.	.	.	.	.	.
50-54	1448	52	365	.	0	.	7	.	25	7
55-59	844	.	245	.	.	.	44	1	0	.
60-64	249	.	27	.	4	.	27	.	1	.
65-69	233	1	570	.	19	.	68	.	3	17
70-79	99	0	504	.	6	.	.	.	1	.
80-89	.	.	.	.	.	.	.	.	.	.
>89	.	3	.	.	.	.	.	.	.	.
	5807	111	2099	.	29	.	147	1	30	24

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

BHP	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<1000	.	.	.	.	.	.	.	.	.	.
1000-1199	623	1	223	.	1	.	.	.	.	.
1200-1399	1984	67	263	.	.	.	.	.	.	.
1400-1599	1838	39	712	.	.	.	20	.	25	7
1600-1799	997	0	252	.	15	.	10	.	1	.
1800-1999	213	.	562	.	12	.	61	1	2	17
2000-2499	148	1	96	.	0	.	55	.	2	.
2500-2999	.	.	.	.	.	.	.	.	.	.
3000-3999	.	3	.	.	.	.	.	.	.	.
>3999	.	.	.	.	.	.	.	.	.	.
	5807	111	2099	.	29	.	147	1	30	24

Micromesistius australis - Southern Blue Whiting

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

VESSEL TYPE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
CO	.	.	.	.	.	.	.	.	.	.
TR	39154	23539	26296	31483	28564	23371	25735	24908	20798	28557
	39154	23539	26296	31483	28564	23371	25735	24908	20798	28557

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

MONTH	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
January	7303	4735	7446	5789	5444	2999	4253	2476	4545	234
February	3578	3712	5359	8464	6047	4484	3612	4563	6448	3155
March	1100	664	270	3871	5252	3624	5564	5875	5328	3652
April	211	163	37	531	677	939	2271	2443	1299	1785
May	70	21	19	365	522	83	294	580	40	109
June	2	14	.	66	22	4	.	17	.	.
July	1	6	0	.	3	.	.	.	.	7
August	1958	665	78	150	63	87	79	302	32	598
September	5314	1875	465	1295	755	2344	4385	668	1053	2192
October	3966	603	300	1290	536	1121	3023	770	1337	6388
November	9002	4831	5391	3677	4481	4344	564	4147	597	6624
December	6650	6250	6931	5986	4763	3341	1689	3068	119	3814
	39154	23539	26296	31483	28564	23371	25735	24908	20798	28557

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

Fishing fleet	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
AU	.	.	.	23	165	.	.	.	.	.
BG	.	.	.	.	.	.	.	.	.	.
BZ	.	.	.	.	.	257	206	.	.	.
CL	4617	4188	7479	8635	4994	2723	6707	7155	5876	8218
EE	.	.	.	.	.	.	.	.	.	13
ES	10864	2460	1591	3471	3132	3346	5246	3152	2865	4363
FK	1616	1083	727	1977	2127	2704	4621	2814	2511	2689
FR	40	86	.	.	.	.	.	.	.	.
GR	.	.	.	.	.	.	.	.	.	.
HN	.	3	.	.	.	.	.	.	.	.
IS	.	.	19	.	.	.	.	.	.	.
IT	56	.	.	.	.	.	.	.	.	.
JP	12864	12494	16340	17048	18028	14121	8918	11670	9515	12939
KR	10	10	2	.	3	196	12	3	11	162
NA	.	.	83	282	29	.	.	.	.	.
PA	.	.	.	.	.	.	.	.	.	.
PL	8861	3098	.	.	.	.	.	.	.	.
PT	196	10	.	.	.	1	.	.	.	.
RU	.	.	.	.	.	.	.	.	.	.
SL	.	.	.	.	.	.	.	.	.	.
UK	30	108	56	48	85	22	24	116	20	173
	39154	23539	26296	31483	28564	23371	25735	24908	20798	28557

Micromeststius australis - Southern Blue Whiting

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

GRT	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<400	.	1	.	.	.	.	.	.	.	.
400-599	239	3	.	333	222	.	.	.	0	.
600-799	1038	408	350	755	112	452	737	500	519	270
800-999	1724	221	8	633	407	702	37	155	586	599
1000-1499	4281	1889	1476	2555	2887	3265	8281	9545	7005	4151
1500-1999	3767	556	211	446	1219	1005	1892	1439	474	1491
2000-2999	10625	1059	431	1078	740	1104	702	428	928	890
>2999	17481	19403	23819	25683	22977	16844	14085	12840	11285	21157
	39154	23539	26296	31483	28564	23371	25735	24908	20798	28557

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

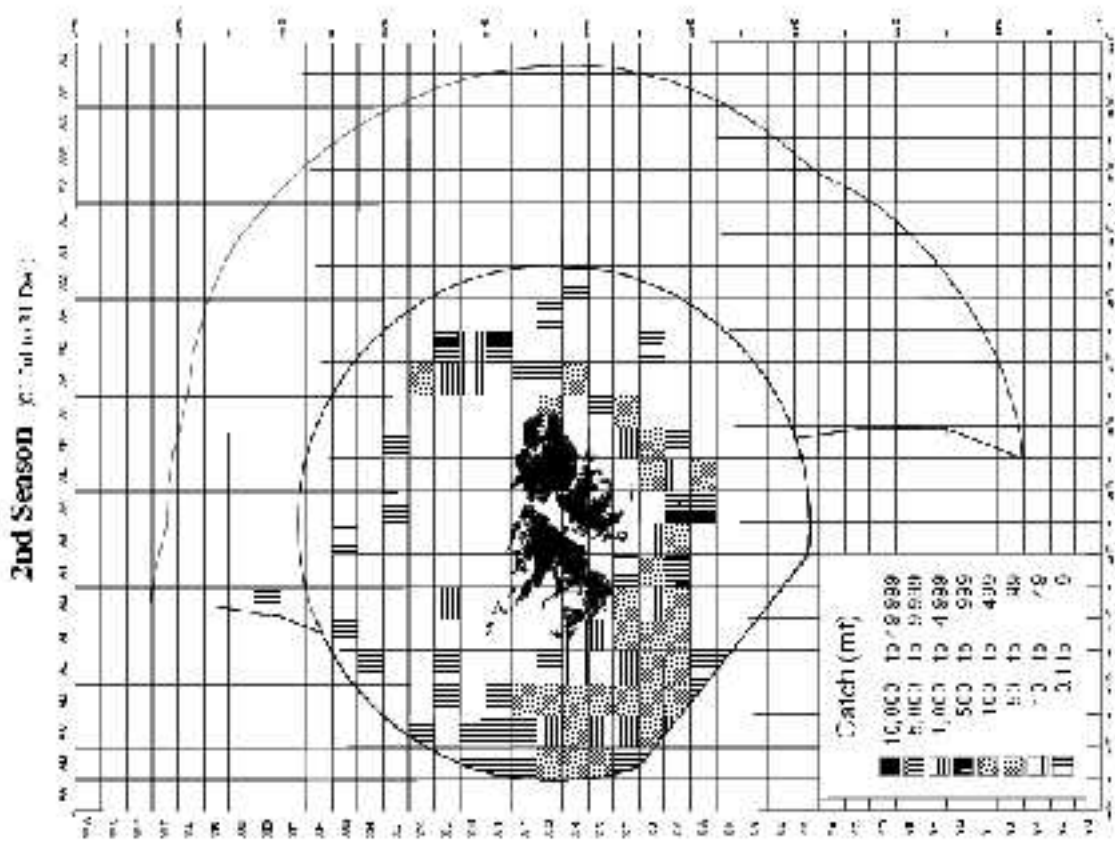
LOA	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<45	.	.	.	51	192	.	.	.	.	.
45-49	2083	255	99	1071	380	511	87	226	115	610
50-54	291	232	179	415	30	797	1675	510	860	745
55-59	1333	1012	792	1203	832	829	1036	891	532	264
60-64	2253	638	145	381	1149	698	2066	1150	997	1503
65-69	2002	205	133	746	609	649	3220	7029	4711	2848
70-79	4521	1268	1044	1698	1991	1952	2869	2027	1727	602
80-89	4465	390	62	196	381	1039	628	235	561	805
>89	22206	19538	23843	25722	23000	16897	14153	12840	11295	21180
	39154	23539	26296	31483	28564	23371	25735	24908	20798	28557

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

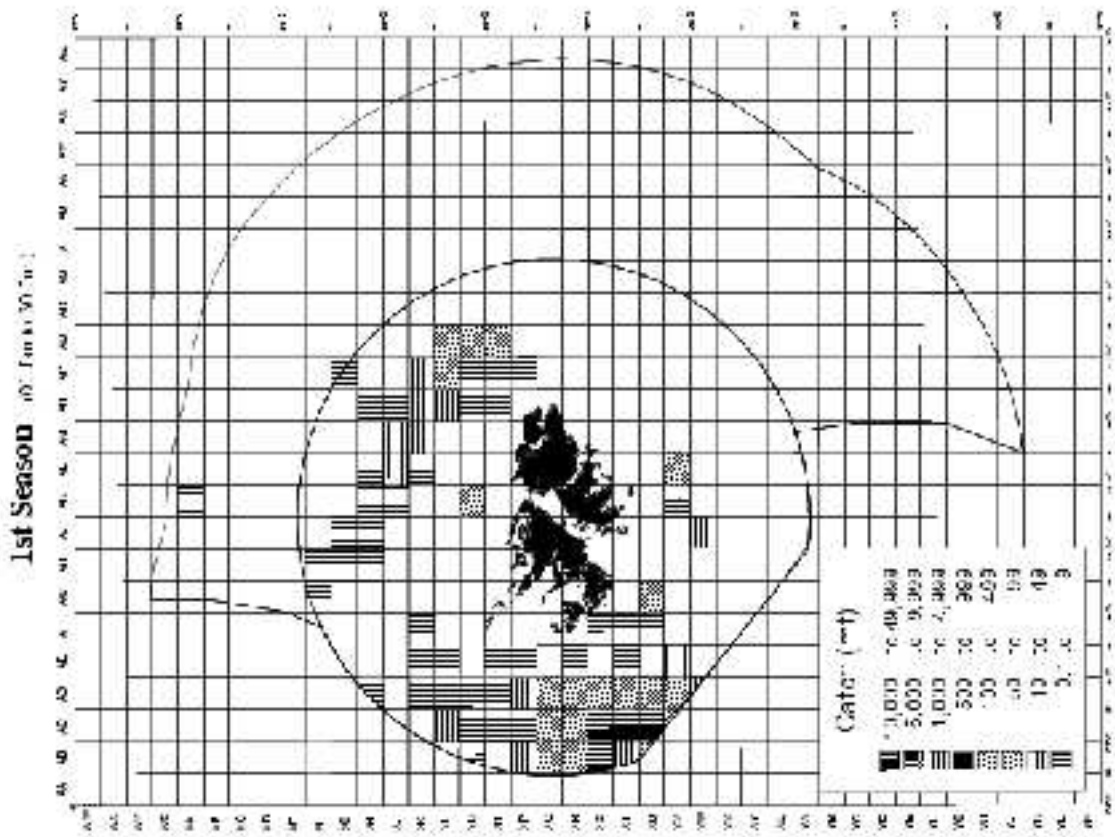
BHP	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<1000	2	12	.	.	.	.	.	.	.	.
1000-1199	774	.	.	.	.	.	.	.	.	.
1200-1399	251	301	119	561	60	236	564	273	77	.
1400-1599	1527	130	233	756	572	737	1206	423	435	742
1600-1799	946	383	67	474	357	77	353	328	1076	799
1800-1999	3994	1429	1130	1986	1818	2581	3802	2368	1269	3357
2000-2499	3241	437	224	894	1710	1178	2764	1962	1218	1286
2500-2999	245	201	198	2	266	592	2233	6172	4488	175
3000-3999	10438	3826	446	1011	777	1073	627	542	888	1034
>3999	17738	16821	23879	25798	23005	16897	14184	12842	11345	21163
	39154	23539	26296	31483	28564	23371	25735	24908	20798	28557

2004 *Micromesistius australis*

Catch (mt) by grid square

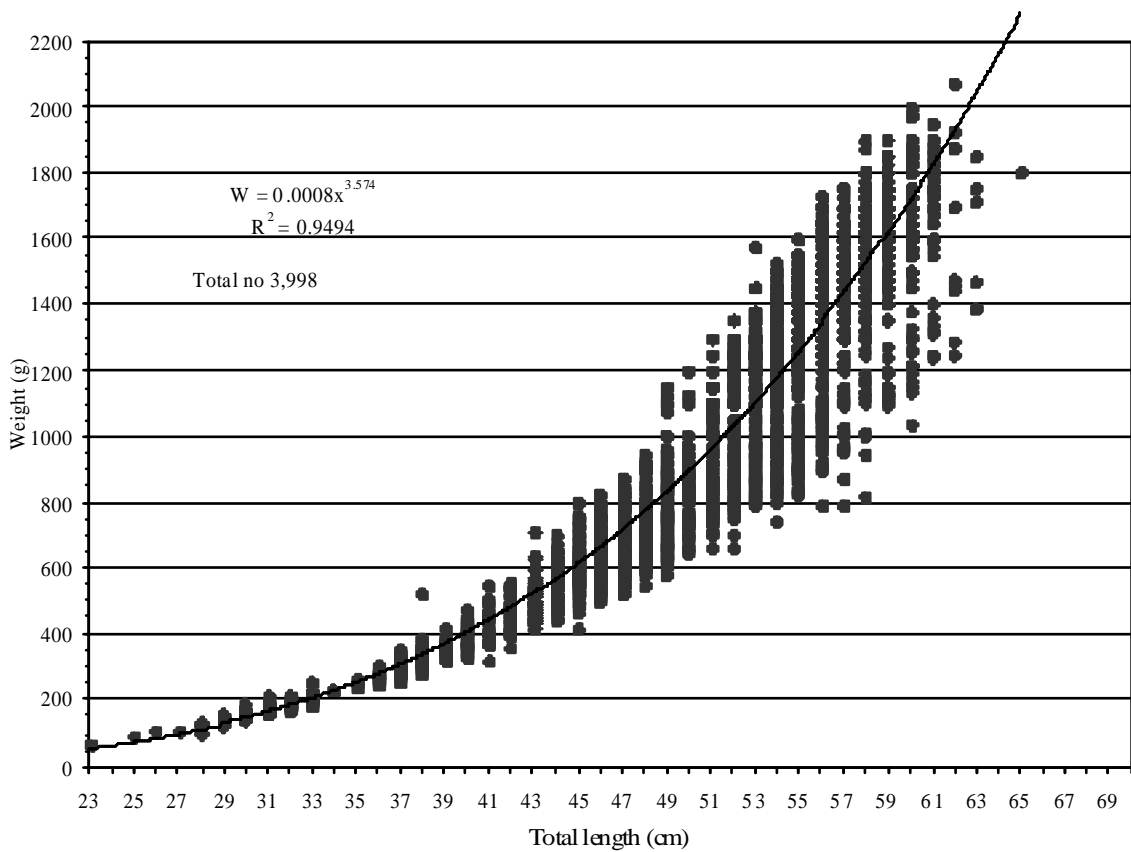
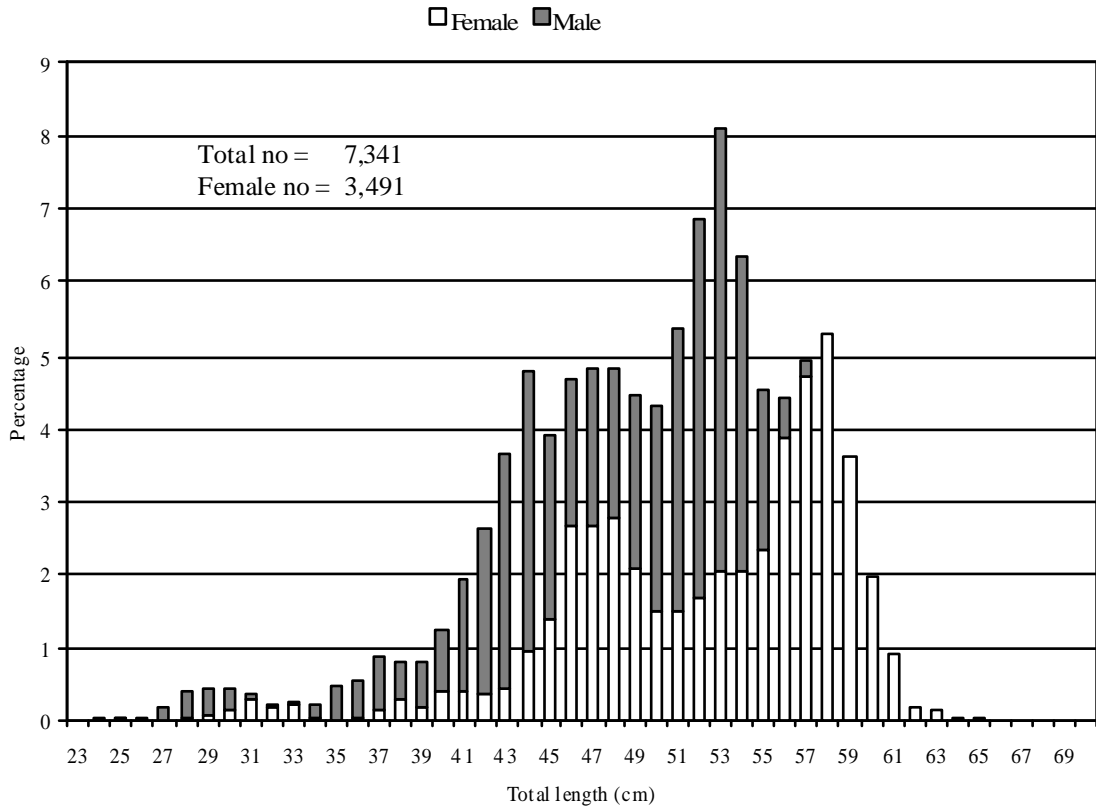


FICZ and FOCZ



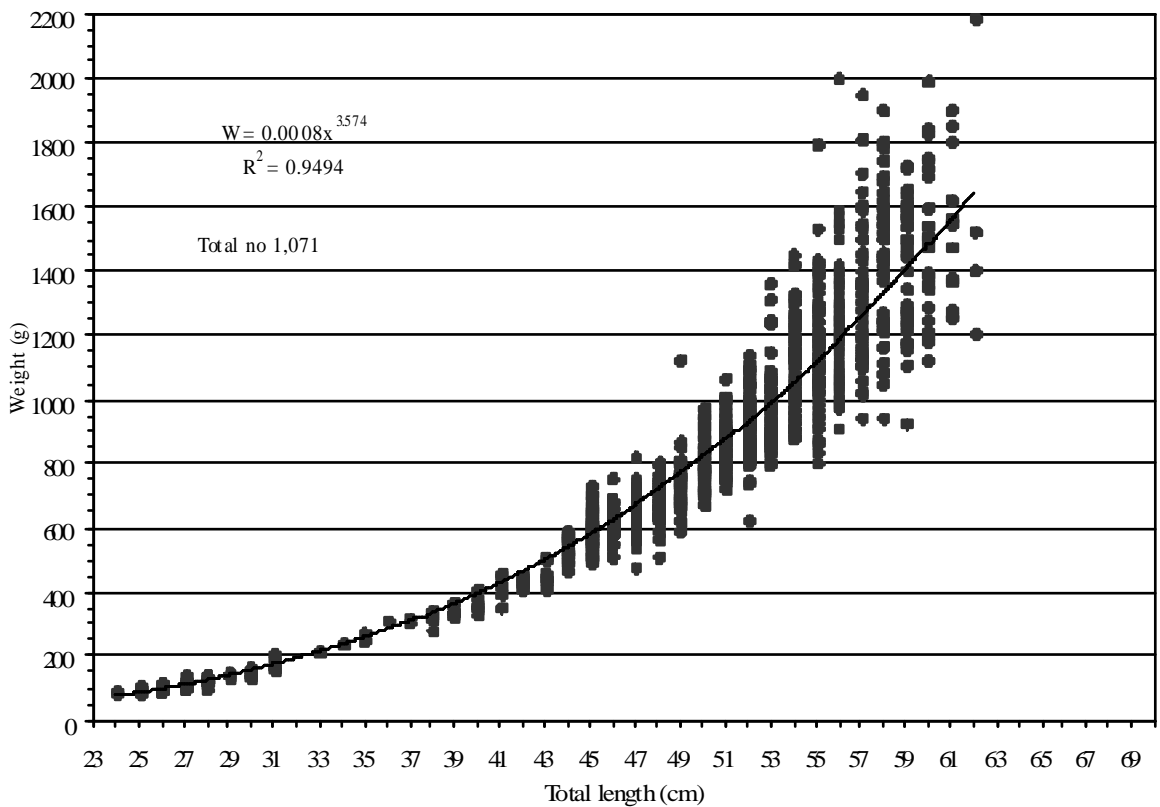
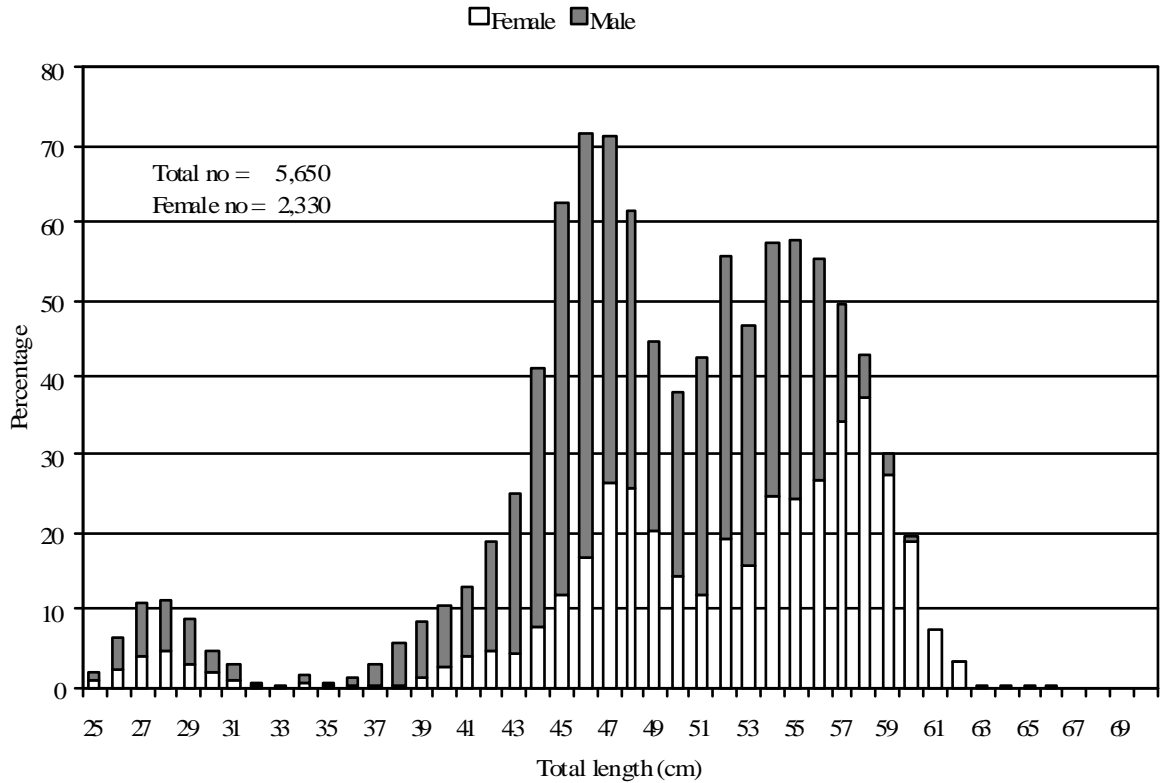
Micromesistius australis - Southern Blue Whiting

Length-frequency distribution and length-weight relationship in surimi fleets in 2004



Micromesistius australis - Southern blue whiting

Length-frequency distribution and length-weight relationship in trawler fleets in 2004



Macruronus magellanicus - Hoki

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

VESSEL TYPE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
CO	783	32	256	153	.	.	.	.	.	.
TR	14820	13786	12751	22224	18765	19831	19471	26970	23815	25875
	15603	13817	13008	22378	18765	19831	19471	26970	23815	25875

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

MONTH	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
January	87	174	218	1224	442	978	1541	589	969	506
February	329	376	476	1459	1037	3105	1739	1970	5780	3517
March	1993	3527	590	2734	2172	3700	1784	5268	1625	3821
April	2102	2089	421	3827	2639	3244	2669	4404	3185	4868
May	1964	735	155	4501	1725	1220	2002	2031	1974	2490
June	1108	584	.	930	359	476	582	1068	485	111
July	1004	698	1004	441	455	1057	799	3	154	55
August	1321	1167	1175	1249	1761	1590	833	2048	2026	2223
September	1291	585	1560	1296	2306	615	803	1481	2089	1452
October	2028	1871	4956	2841	4334	1281	3350	3177	3203	4884
November	1254	1542	2140	1493	1201	1792	3163	3590	1985	925
December	1123	470	313	383	334	774	204	1341	341	1022
	15603	13817	13008	22378	18765	19831	19471	26970	23815	25875

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

Fishing fleet	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
AU	.	.	.	31	377	.	.	.	.	.
BG	.	.	.	.	.	.	.	.	.	.
BZ	.	.	.	.	87	1720	374	1	.	.
CL	.	1	61	204	420	26	1300	2097	613	1533
EE	.	.	.	.	.	.	.	.	.	143
ES	10655	7787	7439	16186	11193	10176	9653	12984	11357	11687
FK	864	2569	1829	4246	5109	3404	5471	9804	9519	9689
FR	15	30	.	.	2	0	.	.	.	.
GR	.	.	.	.	.	.	.	.	.	.
HN	1068	62	.	.	.	.	.	.	.	.
IS	.	.	61	.	.	.	.	.	.	.
IT	22	.	.	.	.	.	.	.	.	.
JP	554	544	644	844	400	1889	866	1612	1596	1998
KR	1238	1897	2673	658	522	2541	1633	420	642	512
NA	.	.	98	205	308	.	.	.	.	7
NL	.	.	.	.	.	.	.	.	.	.
NO	.	.	.	.	.	.	.	.	.	.
PA	223	344	.	.	1	.	.	.	.	.
PL	.	133	.	.	.	.	.	.	.	.
PT	884	362	.	.	.	32	.	.	.	.
RU	.	.	.	.	.	.	144	.	.	.
SC	.	.	35	.	.	.	.	.	.	.
SL	.	.	.	.	.	.	.	.	.	.
UK	80	86	166	2	347	42	30	52	88	305
VC	.	.	.	.	.	.	0	.	.	.
	15603	13817	13008	22378	18765	19831	19471	26970	23815	25875

Macruronus magellanicus - Hoki

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

GRT	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<400	948	493	256	153	78	362	293	.	.	.
400-599	596	312	92	658	586	.	130	17	53	24
600-799	881	1538	1582	3535	1613	2262	1842	3493	2018	1473
800-999	1840	2017	1683	2872	2149	2488	1269	902	2049	1683
1000-1499	5182	4158	7213	10862	8752	10433	10659	14144	12351	14489
1500-1999	4795	3634	766	1225	2553	2091	2420	5169	4258	3545
2000-2999	807	986	711	2024	2452	281	766	293	1757	1130
>2999	554	678	705	1049	581	1915	2091	2952	1330	3532
	15603	13817	13008	22378	18765	19831	19471	26970	23815	25875

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

LOA	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<45	35	.	1	453	279	.	.	.	.	.
45-49	1616	1296	842	3255	2284	1361	951	961	1247	1813
50-54	2005	2851	3019	2184	982	4085	3188	4571	3553	3948
55-59	1990	2281	3061	4788	4034	4507	2737	4177	2892	1068
60-64	2869	995	1868	3341	3113	3125	3491	2812	4176	3991
65-69	3049	1443	1394	3397	1830	1434	3063	5230	4301	8083
70-79	3427	3902	2093	3669	4716	3128	3202	6066	5240	1708
80-89	55	362	11	234	859	265	739	176	933	1723
>89	557	688	717	1056	668	1925	2099	2976	1474	3542
	15603	13817	13008	22378	18765	19831	19471	26970	23815	25875

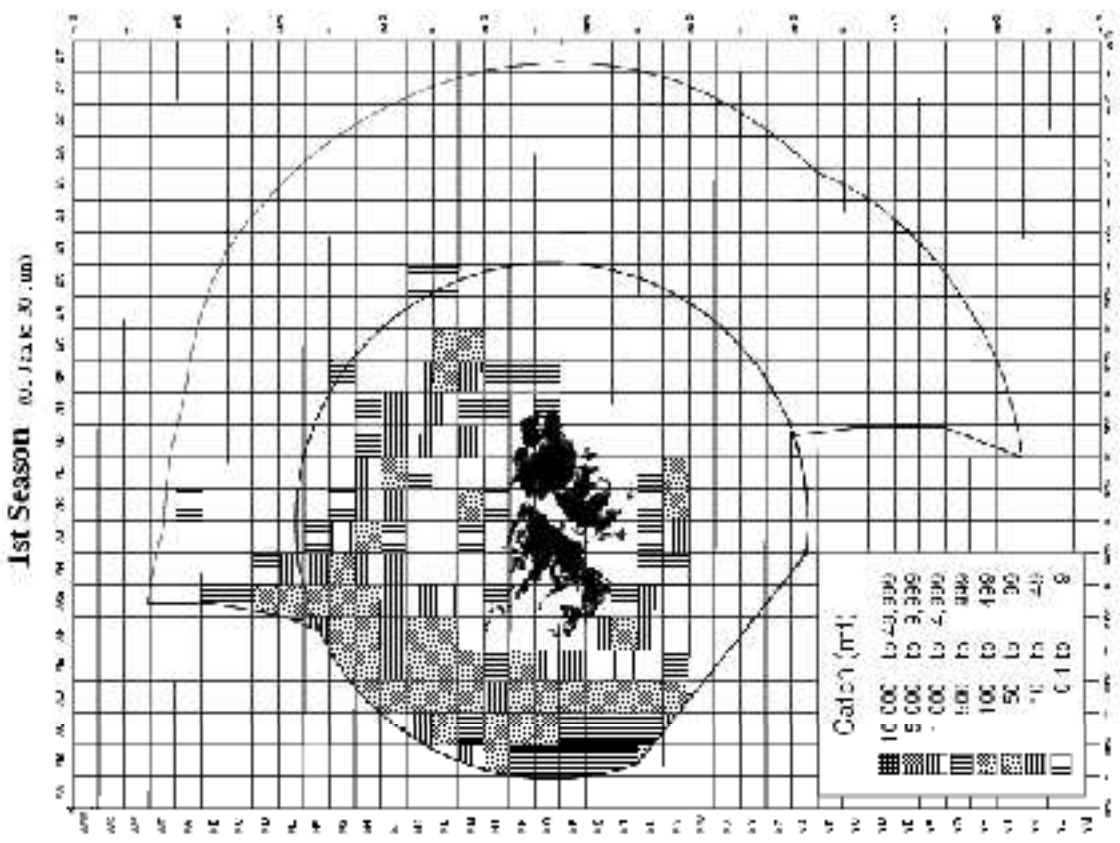
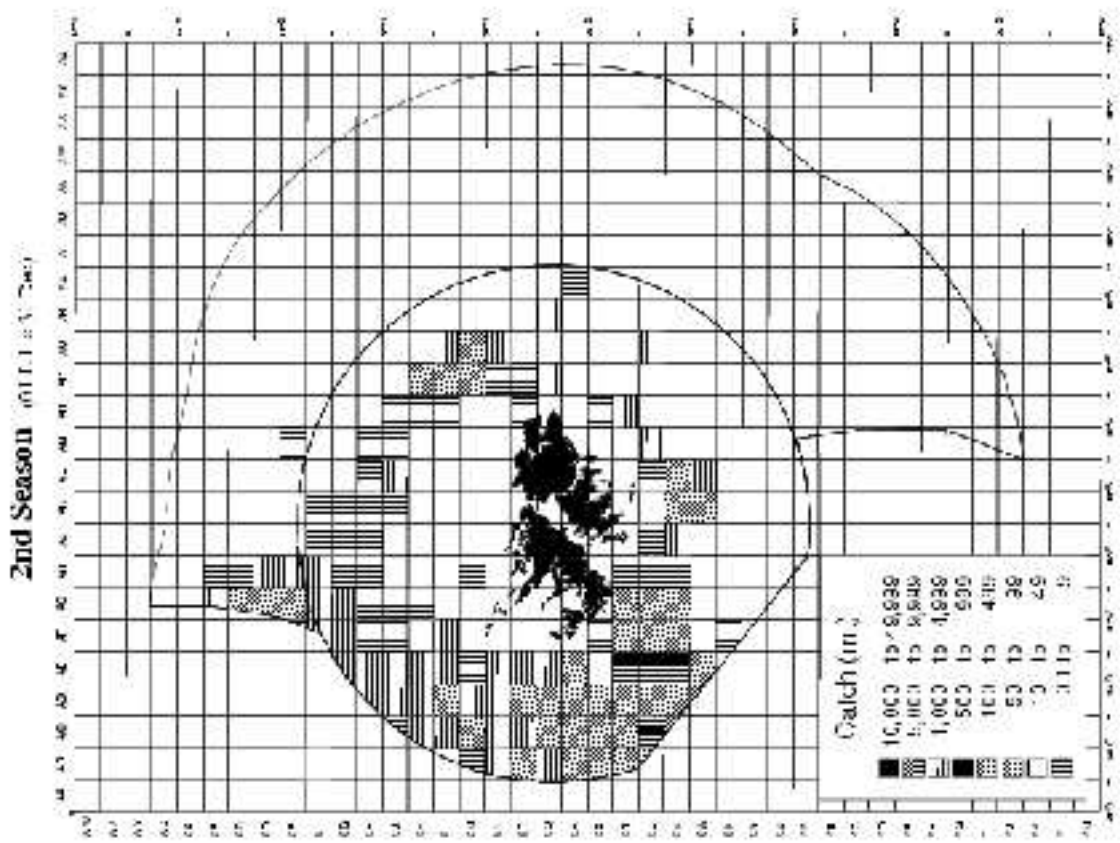
Table H.6 Total catch (tonnes) by brake horsepower (BHP) and year

BHP	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<1000	.	11	.	.	.	.	.	.	.	.
1000-1199	446	66	.	.	10	.	.	.	.	.
1200-1399	239	806	734	1976	1206	1172	826	1934	528	.
1400-1599	1433	840	732	3114	1769	2919	1888	3150	2736	3545
1600-1799	564	730	524	2640	1894	377	922	630	2116	1459
1800-1999	3269	2989	5262	8165	5739	7071	6935	8737	7734	9919
2000-2499	6269	5388	2696	2899	3509	3616	3887	7354	5495	5573
2500-2999	1929	846	1416	509	1230	2439	2126	1844	2010	416
3000-3999	894	1587	926	1998	2740	312	781	327	1598	1380
>3999	561	554	717	1076	668	1925	2106	2993	1600	3584
	15603	13817	13008	22378	18765	19831	19471	26970	23815	25875

2004 *Macrurus magellanicus*

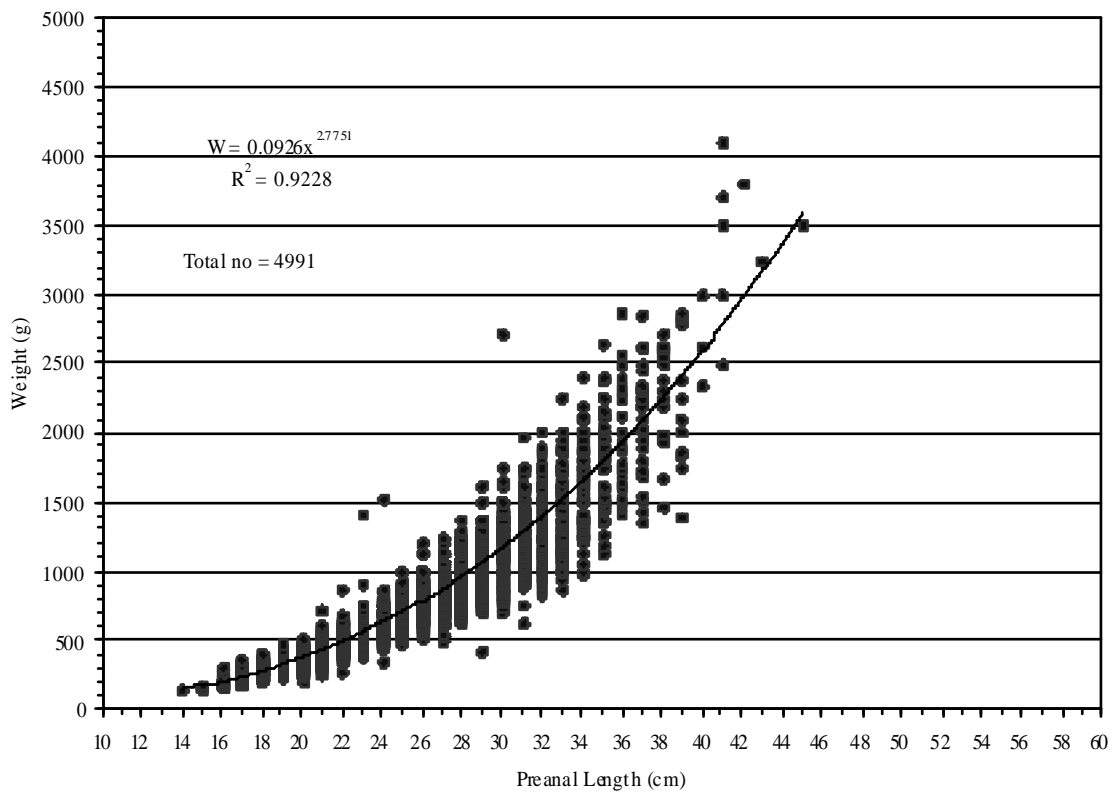
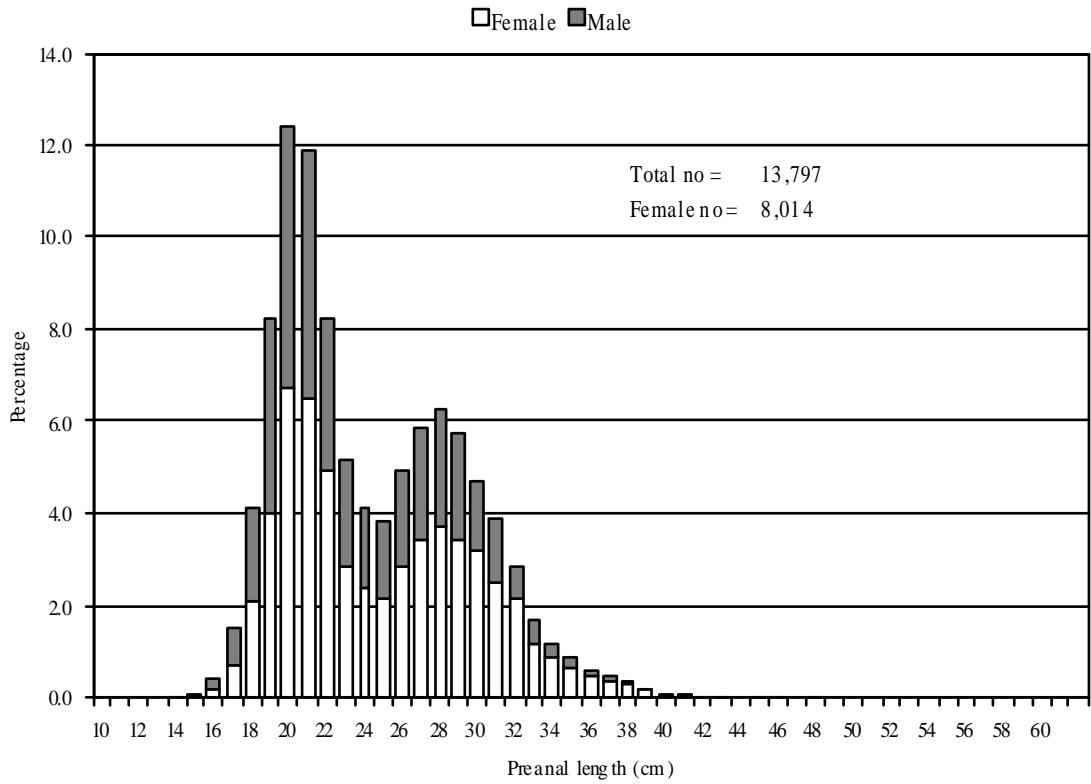
Catch (mt) by grid square

FICZ 1000J FOCZ



Macrurus magellanicus - Hoki

Length-frequency distribution and length-weight relationship in trawler fleets in 2004



***Salilota australis* - Red cod**

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

VESSEL TYPE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
CO	164	16	100	39	.	.	.	.	.	.
TR	8920	6909	4549	8081	9313	6551	3896	2617	2285	2781
	9084	6925	4649	8121	9313	6551	3896	2617	2285	2781

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

MONTH	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
January	33	141	.	164	105	451	210	33	57	80
February	101	115	203	310	307	796	291	165	248	362
March	354	1071	289	852	906	599	369	539	95	188
April	411	996	176	1151	1486	859	547	446	264	350
May	509	289	98	2061	1497	633	617	250	254	271
June	46	116	.	517	523	81	65	40	58	13
July	422	179	759	95	357	431	67	0	3	94
August	1046	552	418	797	1081	822	297	171	235	258
September	2398	959	920	812	1215	747	342	263	343	436
October	2199	2038	1303	752	1046	590	679	325	490	583
November	811	382	439	543	353	403	387	296	192	134
December	754	87	43	66	437	139	26	90	46	11
	9084	6925	4649	8121	9313	6551	3896	2617	2285	2781

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

Fishing fleet	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
AU	.	.	.	85	60	.	.	.	.	.
BZ	.	.	.	.	28	237	42	.	.	.
CL	4	18	1	0	59	.	.	.	.	.
EE	.	.	.	.	.	.	.	.	.	16
ES	5979	3500	2503	6168	5937	3918	2222	1624	1279	1582
FK	1530	2033	817	1491	2692	1886	1374	950	958	1024
FR	21	31	25	11	5	29	.	.	.	.
GR	.	.	.	.	.	.	.	.	.	.
HN	108	189	.	.	.	.	.	.	.	.
IS	.	.	4	.	.	.	.	.	.	.
IT	14	.	.	.	.	.	.	.	.	.
JP	85	65	29	64	13	11	.	0	.	3
KR	1072	861	1154	180	200	429	219	28	40	85
NA	.	.	20	100	128	.	.	.	.	7
NL	.	.	.	.	.	.	.	.	.	.
NO	.	.	.	.	.	.	.	.	.	.
PA	90	93	.	.	2	.	.	.	.	.
PL	.	0	.	.	.	.	.	.	.	.
PT	165	137	.	.	.	12	.	.	.	.
RU	.	.	.	.	.	.	8	.	.	.
SC	.	.	56	.	.	.	.	.	.	.
SL	.	.	.	.	.	.	.	.	.	.
UK	17	18	41	22	188	30	17	15	9	63
UY	.	.	.	0	.	.	.	.	.	.
VC	.	.	.	.	.	.	14	.	.	.
	9084	6925	4649	8121	9313	6551	3896	2617	2285	2781

Salilota australis - Red Cod

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

GRT	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<400	201	189	100	39	33	85	17	.	.	.
400-599	493	211	75	466	324	.	11	1	0	2
600-799	791	485	676	1243	879	755	551	404	203	179
800-999	1935	1222	627	1390	1198	763	261	122	228	210
1000-1499	2424	2162	2513	3639	4304	3514	2284	1498	1262	1248
1500-1999	1727	1071	255	481	1574	900	511	474	278	828
2000-2999	1428	1520	374	798	987	524	260	117	315	311
>2999	85	65	29	64	13	11	.	.	.	3
	9084	6925	4649	8121	9313	6551	3896	2617	2285	2781

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

LOA	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<45	42	.	9	366	197	.	.	.	.	.
45-49	1816	894	317	1430	1384	688	312	162	168	213
50-54	1150	1279	1269	685	475	869	630	439	358	362
55-59	933	868	1025	1828	1761	1519	578	454	317	199
60-64	1157	605	605	865	1518	1021	669	309	339	347
65-69	1151	515	302	1265	785	508	458	292	280	1180
70-79	2583	2403	1043	1463	2628	1590	1050	893	596	167
80-89	132	232	34	107	516	326	186	50	218	303
>89	120	129	46	112	49	30	12	19	9	9
	9084	6925	4649	8121	9313	6551	3896	2617	2285	2781

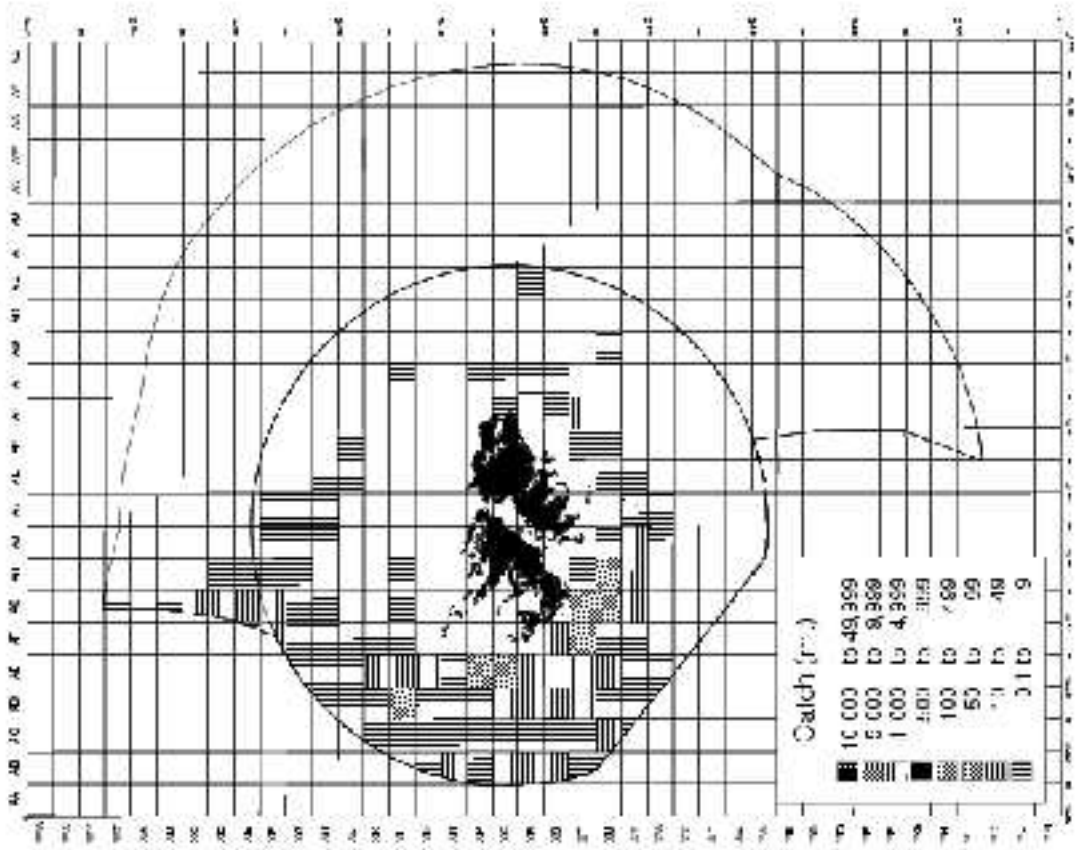
Table I.6 Total catch (tonnes) by brake horsepower (BHP) and year

BHP	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<1000	3	4	.	.	.	.	.	.	.	.
1000-1199	350	64	.	.	14	.	.	.	.	.
1200-1399	193	185	132	628	544	357	224	156	71	.
1400-1599	1383	631	545	1642	1238	892	500	333	337	401
1600-1799	261	253	155	769	612	227	200	105	171	129
1800-1999	2134	1601	1769	2762	3163	2606	1567	1149	871	1399
2000-2499	2610	1928	977	1283	2115	1361	742	587	417	405
2500-2999	595	496	622	152	528	543	386	156	93	75
3000-3999	1340	1540	373	753	1034	485	206	85	305	347
>3999	215	223	75	132	64	80	71	47	21	24
	9084	6925	4649	8121	9313	6551	3896	2617	2285	2781

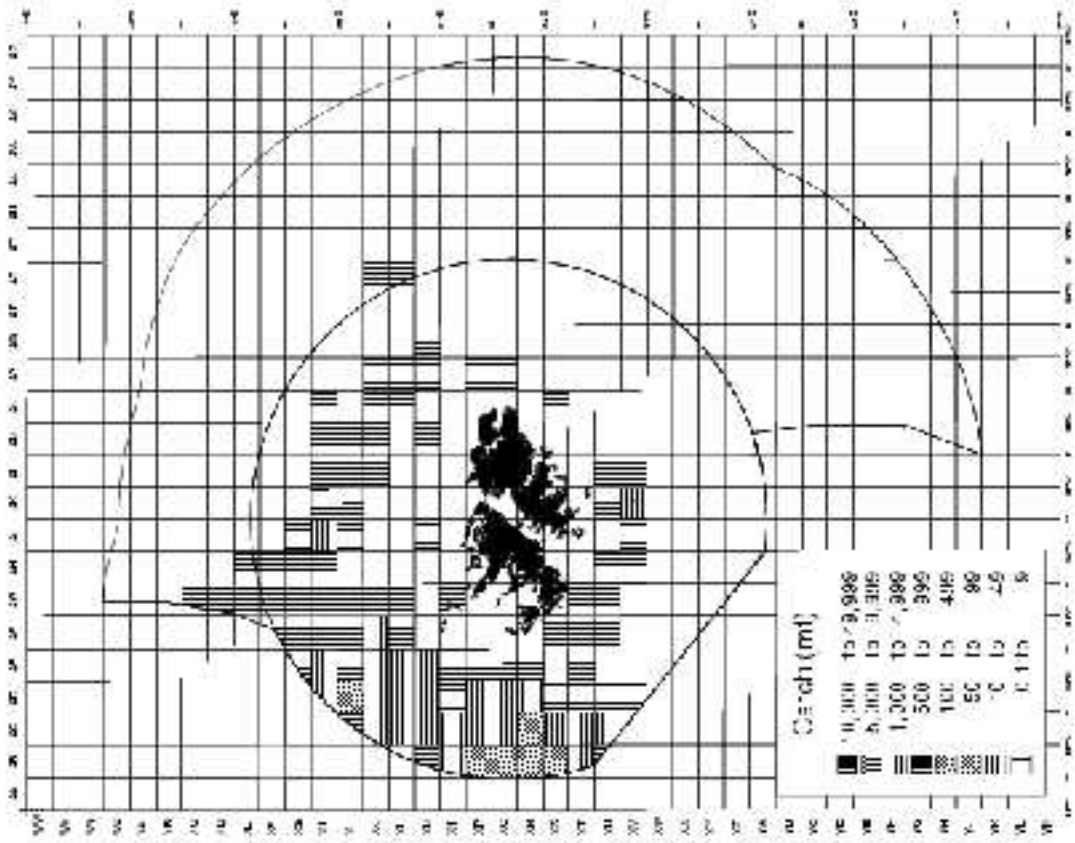
2004 *Salilota australis*

Maximum by grid square

2nd Season (1/1/04 to 31/12/04)



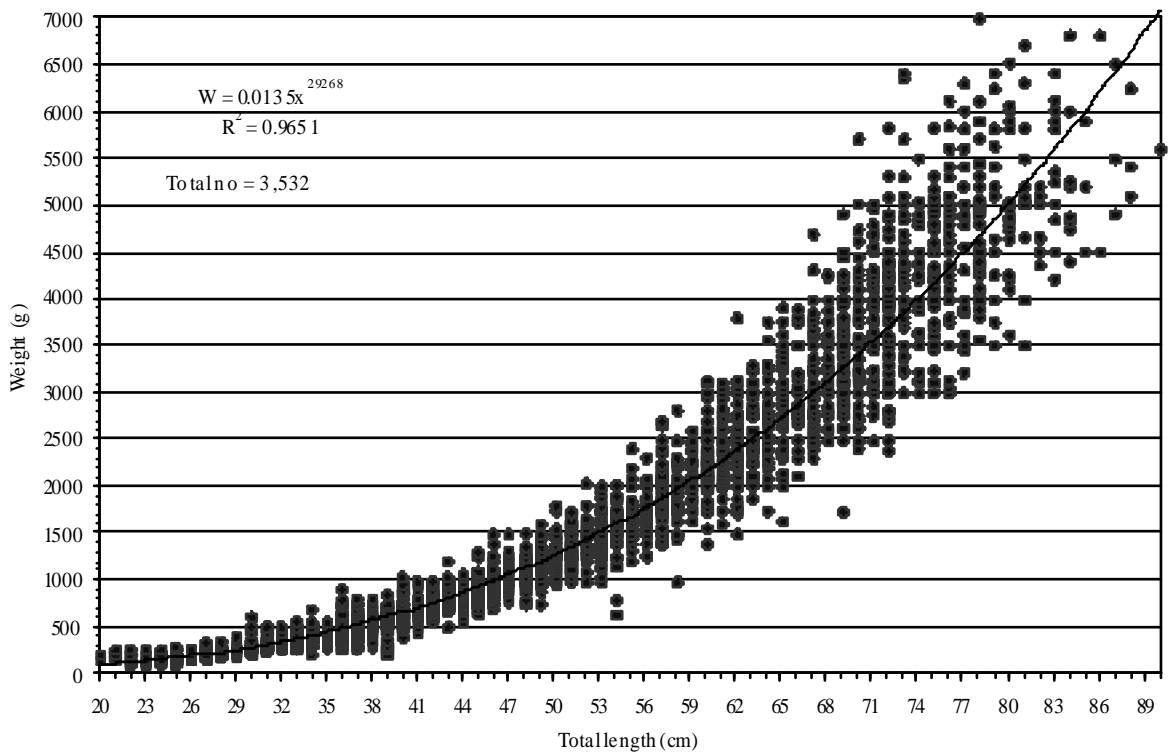
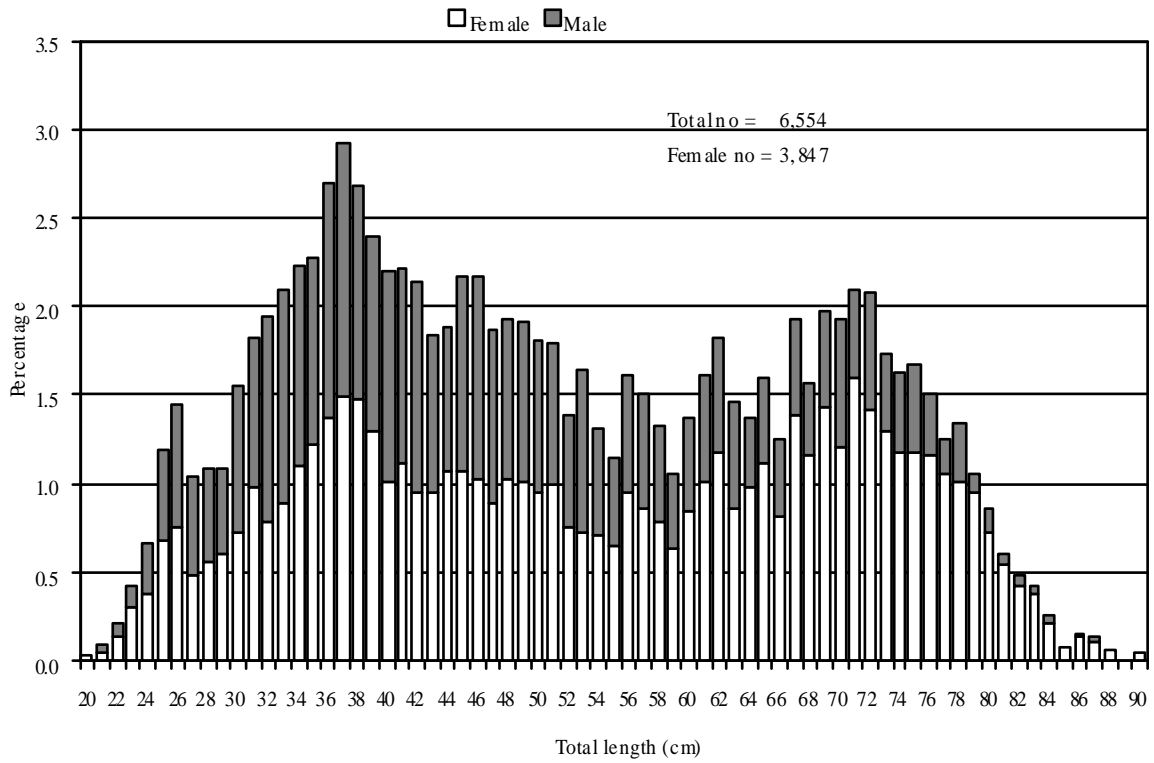
1st Season (1/1/03 to 31/12/03)



EOZ and FOCZ

Salilota australis - Red cod

Length-frequency distribution and length-weight relationship in 2004



Merluccius spp - Hakes

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

VESSEL TYPE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
CO	116	13	61	36	.	.	.	.	.	.
TR	1872	1636	1493	3466	4224	3069	1978	1678	1967	1927
	1988	1649	1554	3502	4224	3069	1978	1678	1967	1927

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

MONTH	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
January	33	73	.	47	7	57	7	48	51	14
February	23	11	67	112	136	87	24	96	142	196
March	137	345	100	429	339	180	110	223	34	141
April	230	352	92	542	591	309	462	288	253	269
May	183	109	100	1065	444	183	400	146	198	222
June	108	84	.	312	257	58	79	46	74	86
July	289	128	213	77	335	419	140	6	31	144
August	334	277	341	305	1068	934	338	244	263	441
September	275	133	304	401	508	604	202	388	633	261
October	171	77	256	152	414	179	166	113	215	131
November	91	46	75	58	86	54	49	43	64	23
December	114	16	4	2	40	3	1	39	7	1
	1988	1649	1554	3502	4224	3069	1978	1678	1967	1927

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

Fishing fleet	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
AU	.	.	.	3	10	.	.	.	.	.
BG	.	.	.	.	.	.	.	.	.	.
BZ	.	.	.	.	35	63	4	0	.	.
CL	.	1	0	0	1	.	7	0	.	1
EE	.	.	.	.	.	.	.	.	.	6
ES	1154	807	662	2387	2602	1522	1073	805	1021	810
FK	195	382	267	959	1031	1000	564	655	731	798
FR	5	17	4	3	3	0	.	.	.	.
GR	.	.	.	.	.	.	.	.	.	.
HN	80	19	.	.	.	.	.	.	.	.
IS	.	.	1	.	.	.	.	.	.	.
IT	4	.	.	.	.	.	.	.	.	.
JP	75	84	53	30	28	54	2	75	28	8
KR	371	241	517	86	387	396	264	123	187	277
NA	.	.	12	15	37	.	.	.	.	0
NL	.	.	.	.	.	.	.	.	.	.
NO	.	.	.	.	.	.	.	.	.	.
PA	16	14	.	.	36	.	.	.	.	.
PL	.	.	.	.	.	.	.	.	.	.
PT	89	46	.	.	.	3	.	.	.	.
RU	.	.	.	.	.	.	47	.	.	.
SC	.	.	27	.	.	.	.	.	.	.
SL	.	.	.	.	.	.	.	.	.	.
TW	.	.	.	.	.	.	.	.	.	.
UK	.	38	11	18	53	30	12	20	1	26
UY	.	.	.	0	.	.	.	.	0	.
VC	.	.	.	0	.	.	5	.	.	.
	1988	1649	1554	3502	4224	3069	1978	1678	1967	1927

Merluccius spp - Hakes

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

GRT	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<400	129	67	61	36	106	76	39	.	0	0
400-599	130	71	58	90	79	.	40	24	8	20
600-799	129	125	161	244	287	202	198	140	186	140
800-999	310	193	299	270	772	363	188	174	204	326
1000-1499	732	548	756	2243	1861	1890	1200	968	1199	1053
1500-1999	283	375	73	218	664	218	174	316	199	217
2000-2999	201	187	93	370	426	265	131	57	167	162
>2999	75	84	54	30	28	54	9	0	5	9
	1988	1649	1554	3502	4224	3069	1978	1678	1967	1927

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

LOA	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<45	14	.	1	75	42	.	.	.	0	.
45-49	231	145	51	269	618	188	181	147	133	244
50-54	367	273	524	189	423	390	269	243	300	331
55-59	251	259	328	559	844	917	443	227	385	126
60-64	371	203	287	401	649	392	296	262	430	306
65-69	241	185	130	1356	490	529	261	386	323	670
70-79	349	442	154	549	978	337	418	371	287	137
80-89	88	53	16	58	136	261	95	36	100	103
>89	77	90	64	46	44	55	15	6	8	9
	1988	1649	1554	3502	4224	3069	1978	1678	1967	1927

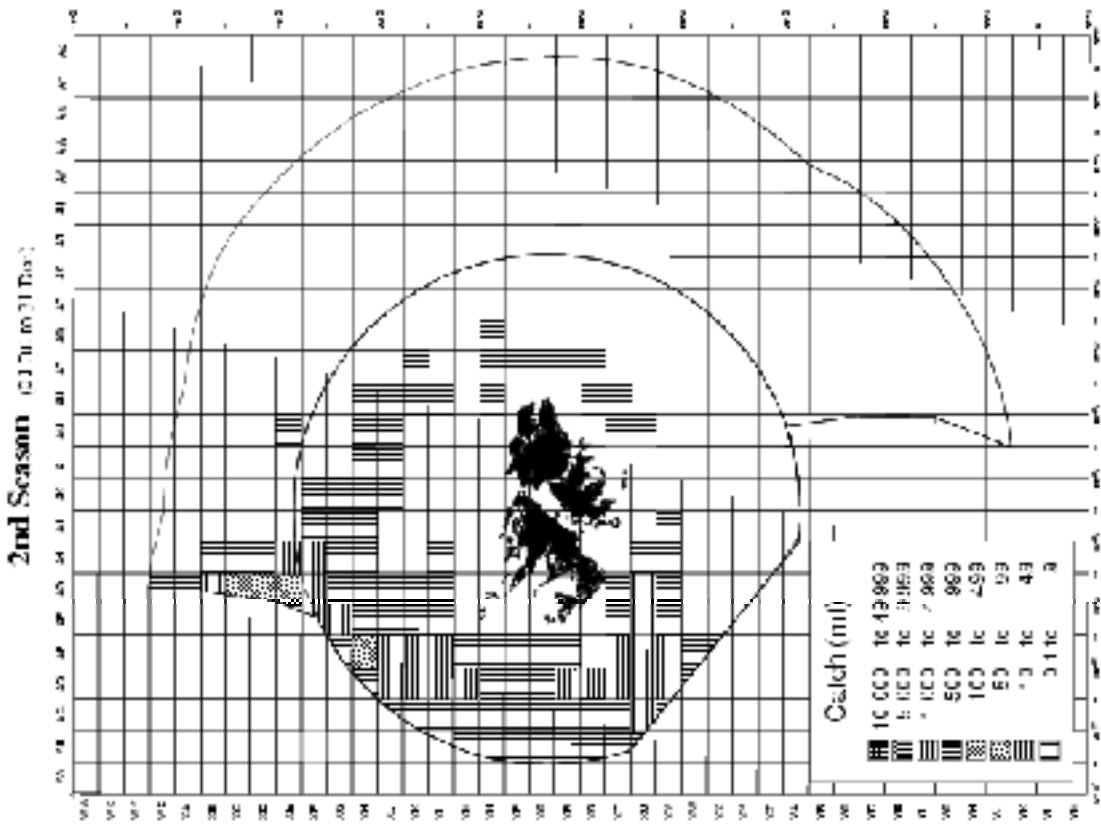
Table J.6 Total catch (tonnes) by brake horsepower (BHP) and year

BHP	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<1000	0	0	.	.	.	.	.	.	0	.
1000-1199	42	12	.	.	183	.	.	.	.	.
1200-1399	35	49	47	95	107	66	66	57	30	.
1400-1599	198	69	95	354	509	235	218	230	244	335
1600-1799	56	89	91	322	315	55	59	34	91	102
1800-1999	434	378	491	1005	1314	1192	824	561	826	634
2000-2499	686	529	416	1231	816	823	367	496	375	477
2500-2999	255	162	255	77	492	348	293	216	205	183
3000-3999	202	263	86	349	432	290	128	60	183	186
>3999	79	97	73	69	56	59	23	23	14	10
	1988	1649	1554	3502	4224	3069	1978	1678	1967	1927

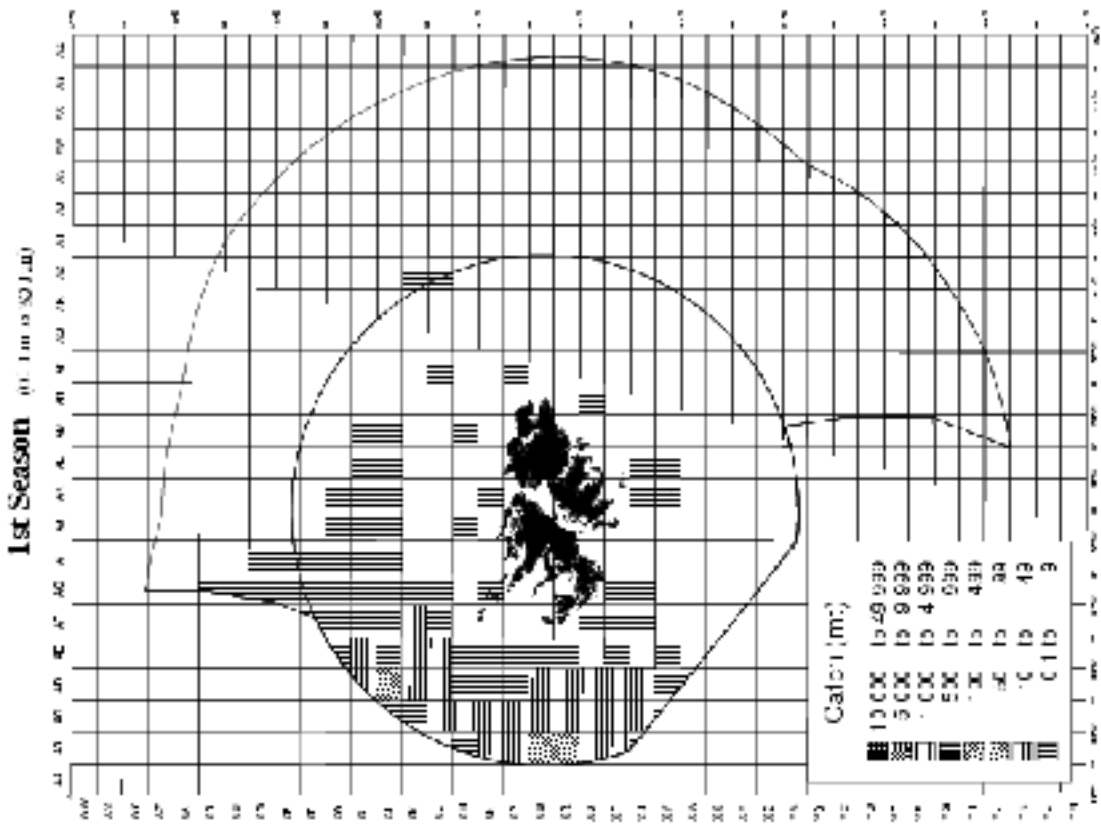
Merluccius spp.

2004 *Merluccius spp.*

Catch (mt) by grid square

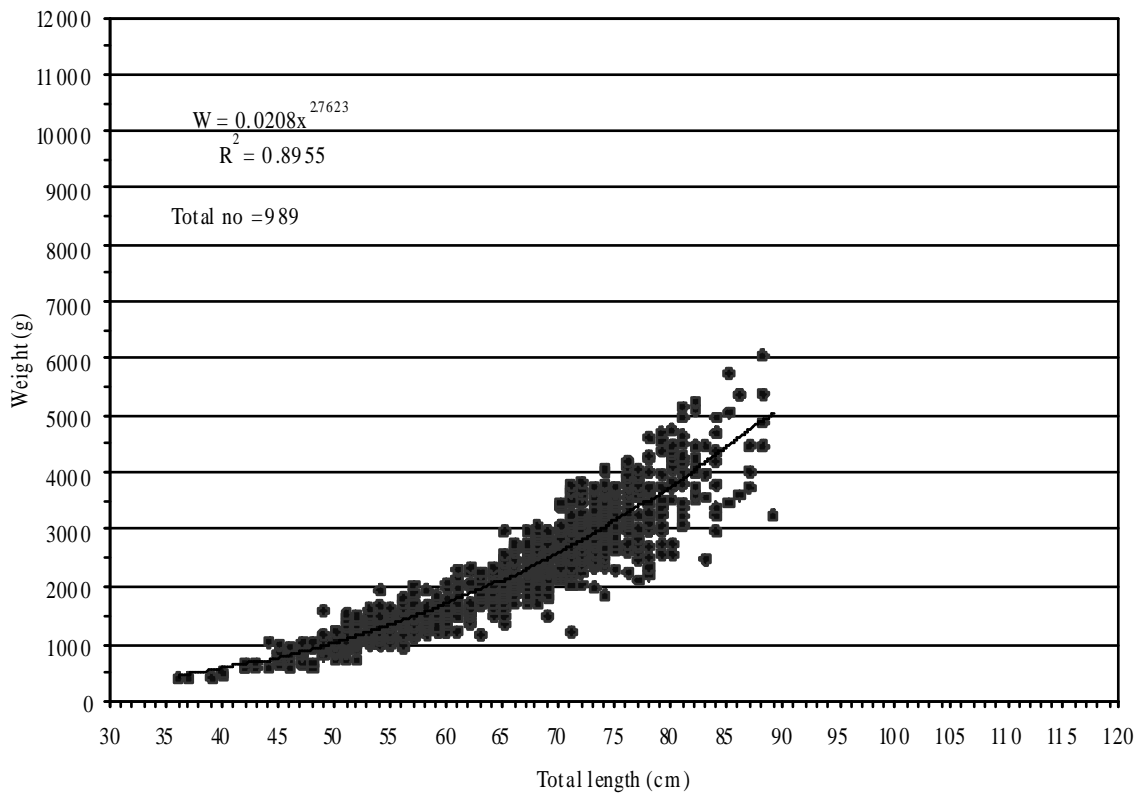
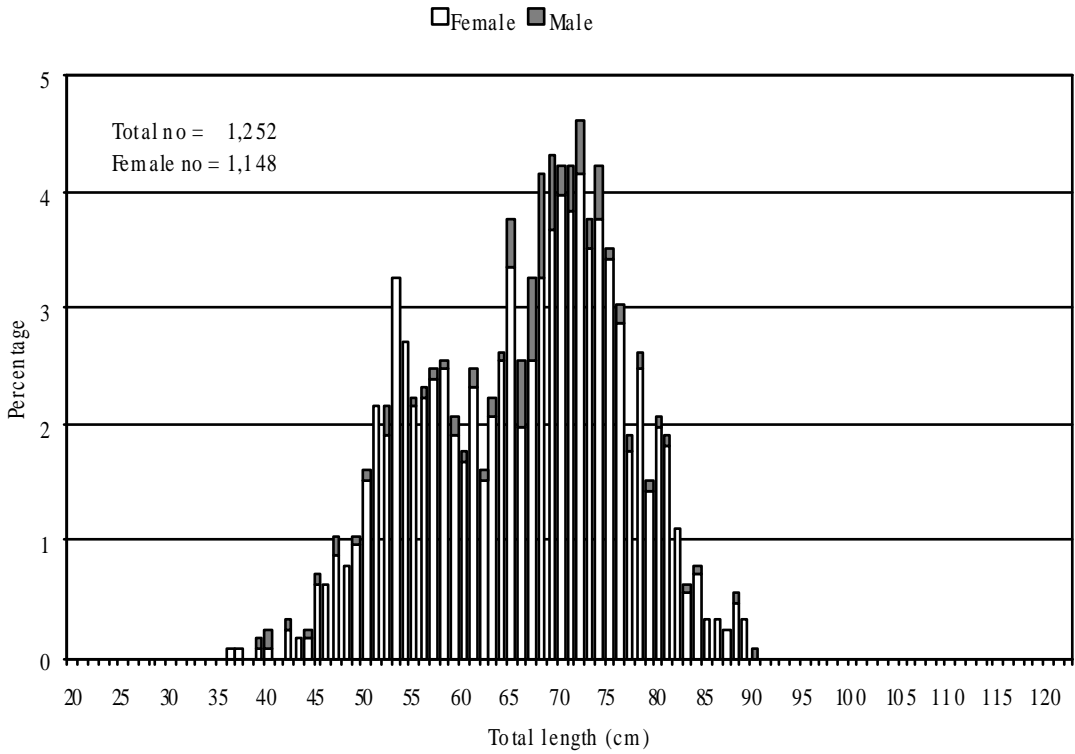


FICZ and FOCZ



Merluccius spp. - Hakes

Length-frequency distribution and length-weight relationship in 2004



Genypterus blacodes - Kingclip

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

VESSEL TYPE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
CO	133	14	76	25	.	.	.	.	.	.
TR	1852	1668	1316	2192	2602	1875	1625	1224	1274	1837
	1985	1682	1392	2217	2602	1875	1625	1224	1275	1837

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

MONTH	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
January	10	25	.	33	18	55	64	8	21	54
February	30	13	46	59	51	125	79	57	110	192
March	122	257	90	249	217	126	95	282	29	114
April	141	363	55	360	443	280	319	234	143	289
May	102	114	12	503	360	166	259	85	102	172
June	22	50	.	83	108	26	36	20	28	19
July	139	70	180	58	133	178	36	1	16	95
August	296	189	219	277	401	313	177	58	141	263
September	354	261	233	260	363	259	154	45	271	144
October	279	164	349	180	347	158	202	225	224	352
November	228	155	192	132	92	152	193	169	154	132
December	262	22	15	23	69	39	12	40	36	12
	1985	1682	1392	2217	2602	1875	1625	1224	1275	1837

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

Fishing fleet	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
AU	.	.	.	2	10	.	.	.	.	.
BG	.	.	.	.	.	.	.	.	.	.
BZ	.	.	.	.	15	87	8	0	.	.
CL	0	0	0	.	10	.	.	.	.	.
EE	.	.	.	.	.	.	.	.	.	11
ES	1297	707	754	1805	1905	1154	1086	857	818	1132
FK	116	297	153	253	451	304	348	334	387	530
FR	4	2	1	.	0	.	.	.	.	.
GR	.	.	.	.	.	.	.	.	.	.
HN	73	59	.	.	.	.	.	.	.	.
IS	.	.	0	.	.	.	.	.	.	.
IT	3	.	.	.	.	.	.	.	.	.
JP	16	4	4	2	1	2	.	4	0	4
KR	382	467	457	131	132	309	166	27	67	139
NA	.	.	5	25	45	.	.	.	.	0
NL	.	.	.	.	.	.	.	.	.	.
NO	.	.	.	.	.	.	.	.	.	.
PA	34	46	.	.	2	.	.	.	.	.
PL	.	0	.	.	.	.	.	.	.	.
PT	56	94	.	.	.	13	.	.	.	.
RU	.	.	.	.	.	.	16	.	.	.
SC	.	.	10	.	.	.	.	.	.	.
SL	.	.	.	.	.	.	.	.	.	.
UK	5	6	8	0	32	7	2	1	3	20
UY	.	.	.	.	.	.	.	.	.	.
VC	.	.	.	.	.	.	.	.	.	.
	1985	1682	1392	2217	2602	1875	1625	1224	1275	1837

Genypterus blacodes - Kingclip

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

GRT	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<400	122	102	76	25	26	64	24	.	.	.
400-599	105	96	36	103	83	.	19	3	1	5
600-799	243	219	303	432	370	371	408	305	224	127
800-999	401	338	225	373	395	285	146	70	186	324
1000-1499	623	446	649	1033	1233	974	838	661	680	920
1500-1999	364	377	45	73	241	149	144	175	121	374
2000-2999	110	100	55	176	254	31	46	8	63	82
>2999	16	4	4	2	1	2	.	1	0	4
	1985	1682	1392	2217	2602	1875	1625	1224	1275	1837

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

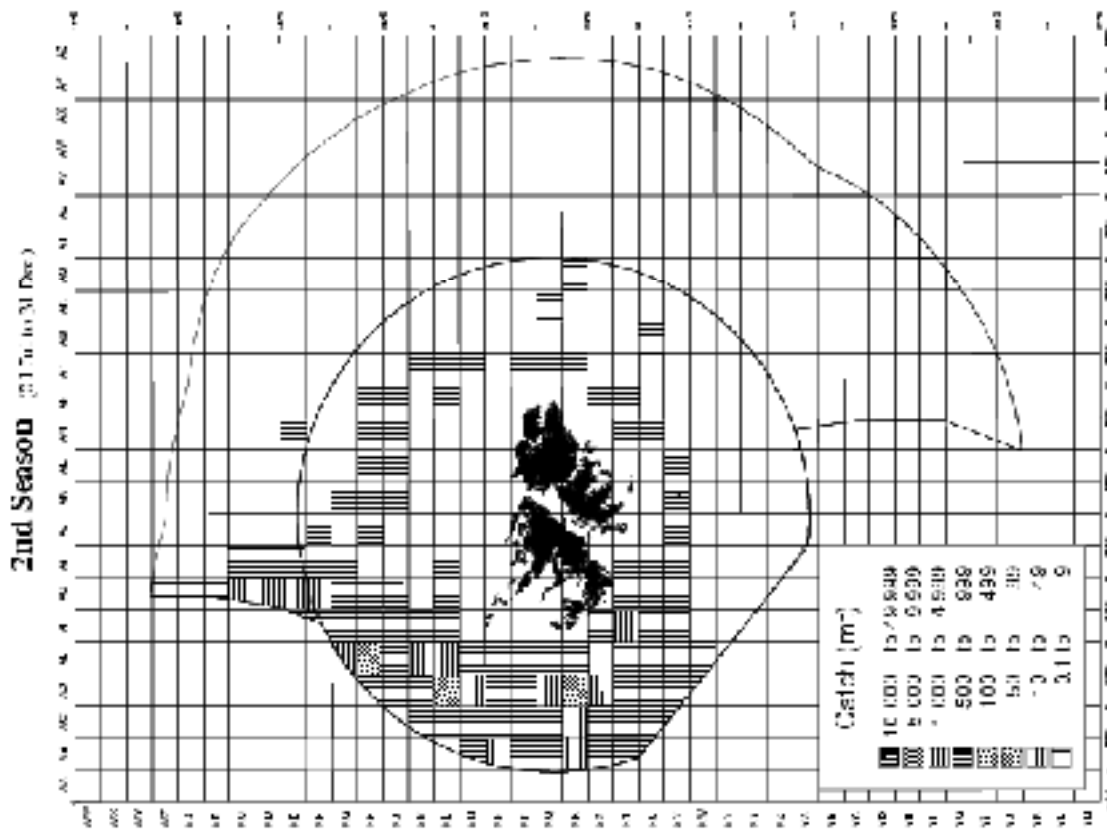
LOA	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<45	8	.	1	78	38	.	.	.	.	.
45-49	259	160	138	422	440	183	155	75	138	291
50-54	474	602	519	283	257	441	378	302	321	271
55-59	261	191	321	495	495	373	224	217	155	183
60-64	397	168	174	288	500	361	304	150	236	291
65-69	254	118	96	343	262	212	218	172	184	599
70-79	299	345	138	300	529	273	302	304	207	109
80-89	16	94	0	6	80	30	45	4	29	88
>89	16	4	5	2	1	2	.	1	5	4
	1985	1682	1392	2217	2602	1875	1625	1224	1275	1837

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

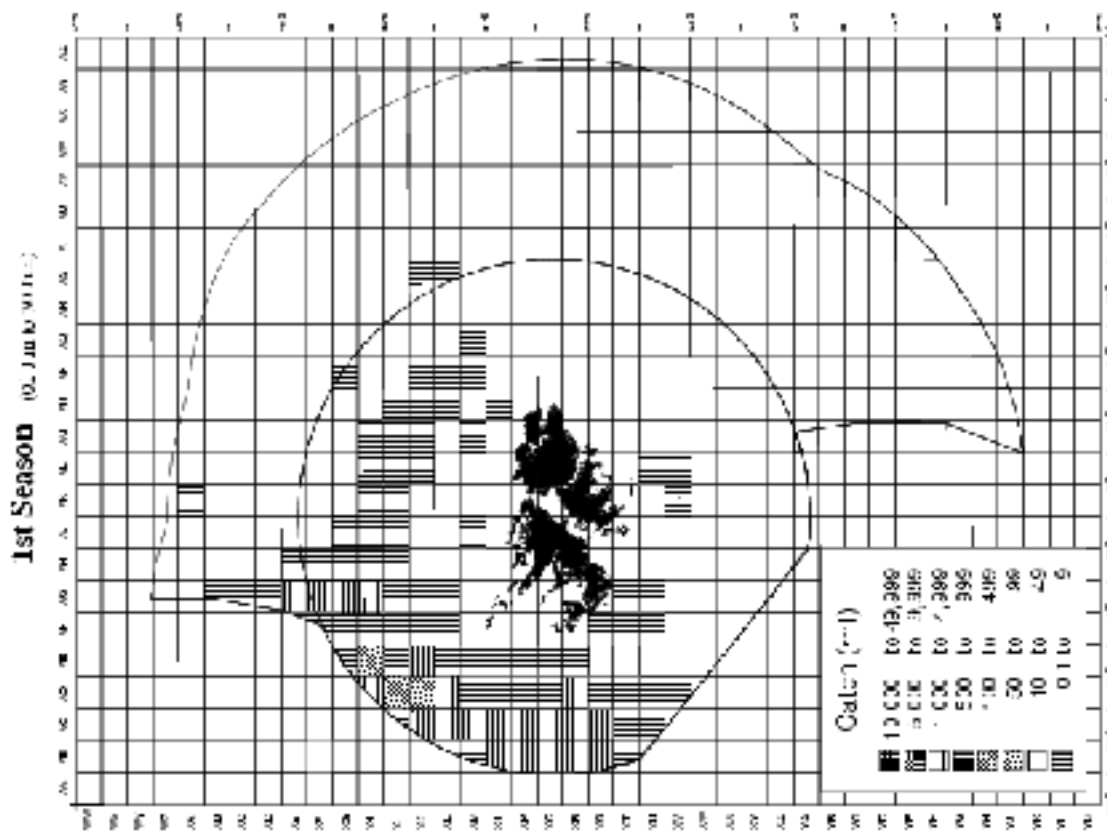
BHP	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<1000	0	0	.	.	.	.	.	.	.	.
1000-1199	64	19	.	.	15	.	.	.	.	.
1200-1399	78	53	60	206	231	185	218	146	88	.
1400-1599	204	73	216	460	367	258	178	161	229	377
1600-1799	83	83	46	215	224	91	71	49	153	81
1800-1999	548	262	450	796	884	635	589	518	469	873
2000-2499	637	784	336	256	414	393	272	236	185	296
2500-2999	235	201	217	106	196	274	250	103	82	103
3000-3999	116	201	62	176	269	38	47	7	62	101
>3999	20	4	5	2	1	2	1	4	8	5
	1985	1682	1392	2217	2602	1875	1625	1224	1275	1837

2004 *Genypterus blacodes*

Catch (mt) by grid square

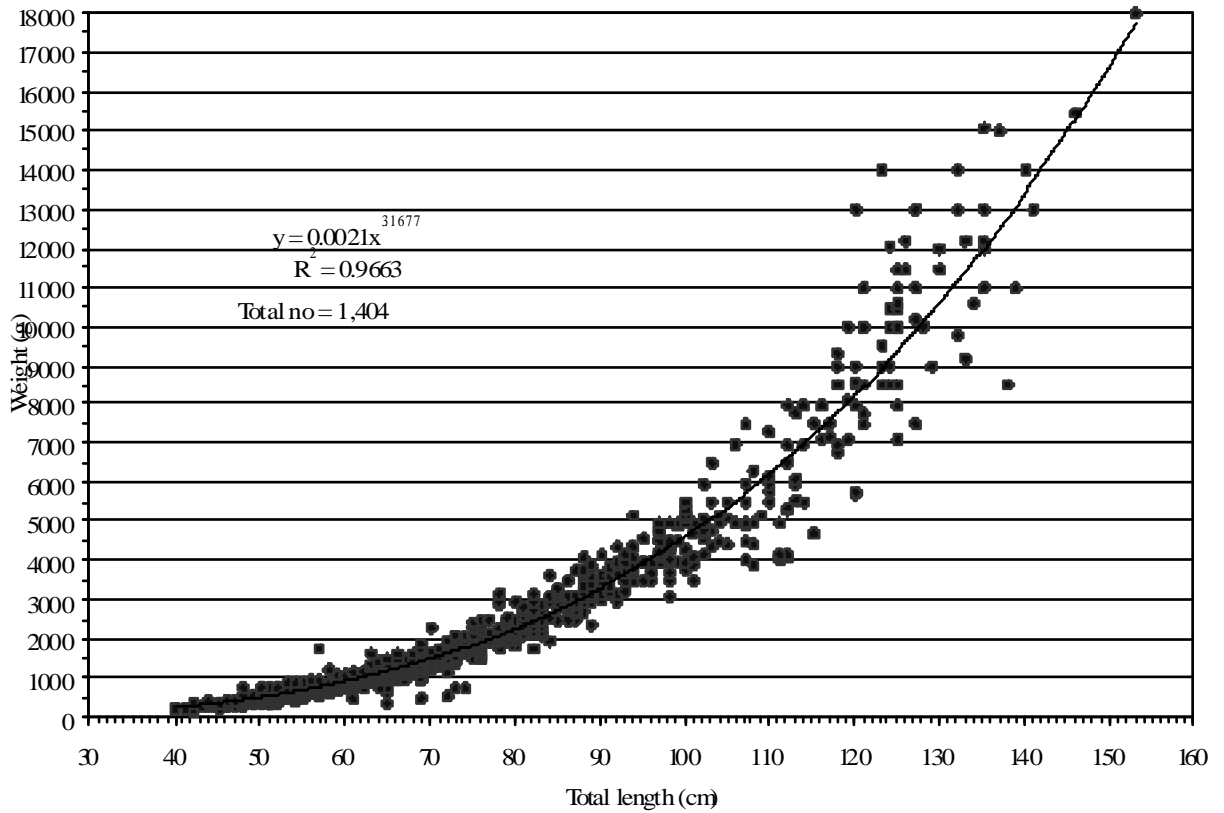
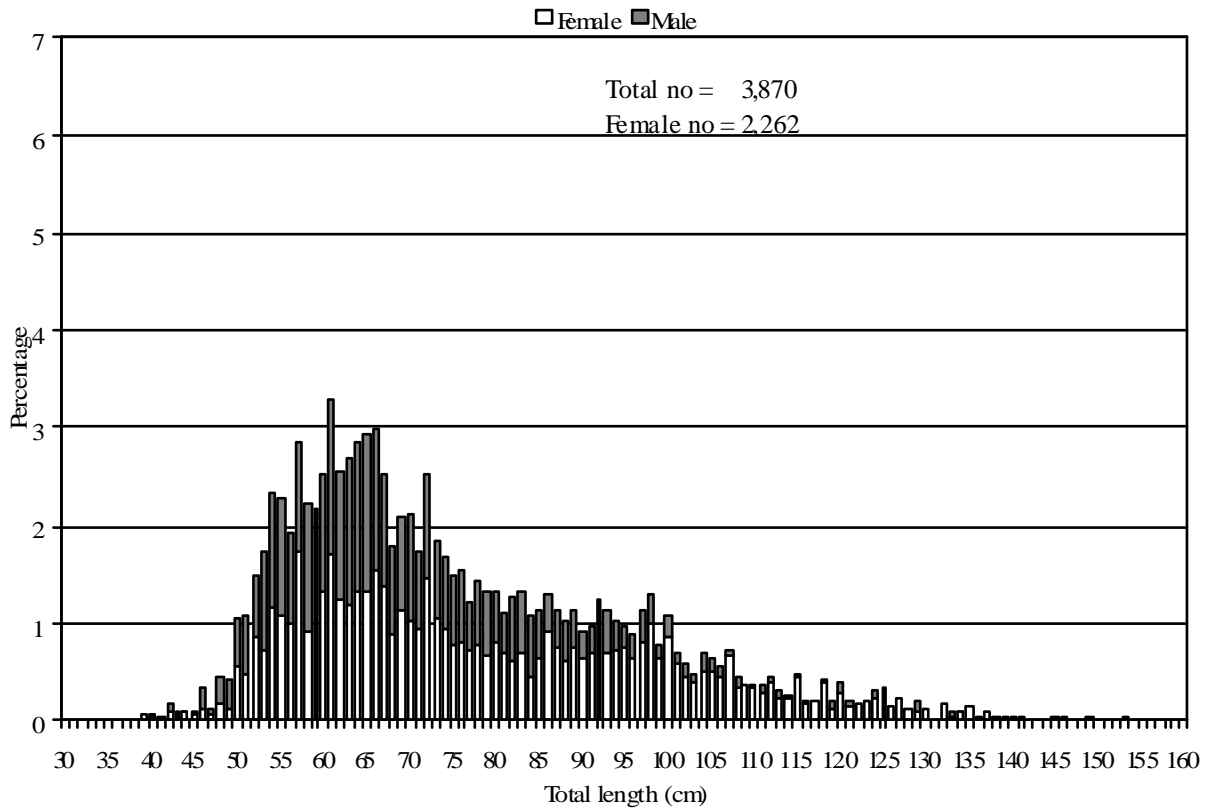


FOZZ (mt) by grid square



Genypterus blacodes - Kingclip

Length-frequency distribution and length-weight relationship in 2004



Dissostichus eleginoides - Toothfish

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

VESSEL TYPE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
CO	22	1	.	4	.	.	.	.	.	.
LO	1746	513	1000	1474	1801	1554	1310	1440	1455	1725
TR	301	172	208	625	1197	764	443	352	253	276
	2069	686	1208	2103	2998	2318	1754	1793	1707	2002

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

MONTH	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
January	315	24	204	151	93	213	105	100	143	167
February	183	11	127	110	116	296	172	58	196	188
March	123	14	128	137	210	224	172	116	103	167
April	221	14	98	195	278	149	206	108	49	113
May	214	4	28	213	278	242	178	103	61	150
June	92	9	.	112	141	226	107	87	90	97
July	47	7	9	108	204	209	128	192	162	157
August	181	107	30	238	328	190	181	303	194	269
September	212	137	117	241	444	159	157	262	157	142
October	148	136	300	204	356	161	145	183	277	218
November	190	107	33	266	315	160	138	144	160	223
December	142	116	134	127	225	88	65	136	115	110
	2069	685	1208	2103	2988	2318	1754	1793	1707	2002

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

Fishing fleet	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
AU	.	.	.	15	24	.	.	.	.	.
BG	.	.	.	.	.	.	.	.	.	.
BZ	.	.	.	.	16	27	11	0	.	.
CL	1311	1	0	.	5	.	.	.	.	.
EE	.	.	.	.	.	.	.	.	.	0
ES	189	77	109	354	574	360	230	191	147	158
FK	34	50	178	570	1109	928	1460	1323	967	1641
FR	1	3	0	2	4	0	.	.	.	.
GR	.	.	.	.	.	.	.	.	.	.
HN	27	7	.	.	.	.	.	.	.	.
IS	.	130	112	.	.	.	.	.	.	.
IT	1	.	.	.	.	.	.	.	.	.
JP	0	1	2	3	1	1	.	2	0	0
KR	488	386	644	1121	1195	994	49	268	549	196
NA	.	.	2	21	28	.	.	.	.	.
NO	.	29	148	.	.	.	.	.	.	.
NZ	.	.	.	.	.	.	.	.	43	.
PA	9	.	.	.	1	.	.	.	.	.
PL	.	.	.	.	.	.	.	.	.	.
PT	8	0	.	.	.	3	.	.	.	.
SC	.	.	1	.	.	.	.	.	.	.
SL	.	.	.	.	.	.	.	.	.	.
RU	.	.	.	.	.	.	0	.	.	.
UK	1	1	12	17	30	6	3	8	1	6
UY	.	.	.	.	.	.	.	.	.	.
VC	.	.	.	.	.	.	0	.	.	.
	2069	685	1208	2103	2988	2318	1754	1793	1707	2002

Dissostichus eleginoides - Toothfish

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

GRT	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<400	455	385	766	1104	1059	747	2	243	184	182
400-599	1185	137	114	34	43	75	1	2	346	0
600-799	174	27	22	47	86	54	48	35	36	22
800-999	82	24	142	448	949	884	1072	1112	746	1564
1000-1499	92	58	116	286	527	444	557	328	347	161
1500-1999	52	22	36	73	197	83	47	59	33	58
2000-2999	28	29	11	107	126	30	27	13	15	15
>2999	0	1	0	3	1	1	.	.	.	0
	2069	685	1208	2103	2988	2318	1754	1793	1707	2002

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

LOA	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<45	8	159	382	387	788	551	358	136	.	.
45-49	984	12	7	75	115	135	34	33	407	16
50-54	870	395	658	1152	1153	860	106	306	246	904
55-59	59	28	36	92	228	339	1020	1118	921	890
60-64	53	29	53	76	230	197	68	54	63	64
65-69	40	8	20	133	131	71	41	59	38	102
70-79	50	48	48	143	296	134	100	82	25	11
80-89	3	1	4	40	38	27	24	2	7	14
>89	2	1	0	5	8	2	0	1	1	0
	2069	685	1208	2103	2988	2318	1754	1793	1707	2002

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

BHP	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<1000	359	29	148	.	.	.	.	.	.	.
1000-1199	818	131	112	.	7	.	.	.	43	.
1200-1399	13	17	12	50	57	28	21	11	3	.
1400-1599	473	361	9	63	107	372	1029	1115	1269	1598
1600-1799	25	12	632	1146	1083	735	16	264	243	213
1800-1999	74	34	79	182	330	254	165	129	84	123
2000-2499	209	38	169	505	1047	703	426	217	31	36
2500-2999	66	32	24	29	210	191	67	34	16	10
3000-3999	28	30	22	106	133	32	29	19	15	20
>3999	3	2	2	21	13	4	1	3	2	1
	2069	685	1208	2103	2988	2318	1754	1793	1707	2002

Dissostichus eleginoides - Patagonian toothfish

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

GRT	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<400	2	1	0	4	.	.	.	.	.	.
800-999	17	.	.	.	.	.	.	.	.	.
1000-1499	3	.	.	.	.	.	.	.	.	.
1500-1999	.	.	.	.	.	.	.	.	.	.
2000-2999	.	.	.	.	.	.	.	.	.	.
>2999	.	.	.	.	.	.	.	.	.	.
	22	1	0	4	.	.	.	.	.	.

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

LOA	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
50-54	17	0	0	4	.	.	.	.	.	.
55-59	5	0	.	.	.	.	.	.	.	.
70-79	.	.	.	.	.	.	.	.	.	.
80-89	.	.	.	.	.	.	.	.	.	.
>89	.	.	.	.	.	.	.	.	.	.
	22	1	0	4	.	.	.	.	.	.

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

BHP	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
2000-2499	5	0	0	4	.	.	.	.	.	.
2500-2999	18	0	.	.	.	.	.	.	.	.
3000-3999	.	.	.	.	.	.	.	.	.	.
>3999	.	.	.	.	.	.	.	.	.	.
	22	1	0	4	.	.	.	.	.	.

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

GRT	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<400	435	383	766	1101	1012	724	.	243	184	182
400-599	1166	130	112	.	.	75	.	.	346	.
600-799	145	.	.	.	.	.	.	.	.	.
800-999	.	.	122	374	772	755	1011	1070	723	1543
1000-1499	.	.	.	.	16	.	299	127	202	.
	1746	513	1000	1474	1801	1554	1310	1440	1455	1725

Dissostichus eleginoides - Patagonian toothfish

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

LOA	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<45	8	159	382	374	772	551	358	136	.	.
45-49	943	.	.	.	.	75	.	.	389	.
50-54	794	354	618	1101	1012	724	.	243	184	849
55-59	.	.	.	.	16	203	952	1061	881	876
	1746	513	1000	1474	1801	1554	1310	1440	1455	1725

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

BHP	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<1000	359	29	148	.	.	.	.	.	.	.
1000-1199	806	130	112	.	.	.	.	.	43	.
1200-1399	.	.	.	.	.	.	.	.	.	.
1400-1599	435	354	.	.	16	278	952	1061	1227	1543
1600-1799	.	.	618	1101	1012	724	.	243	184	182
1800-1999	.	.	.	.	.	.	.	.	.	.
2000-2499	145	.	122	374	772	551	358	136	.	.
	1746	513	1000	1474	1801	1554	1310	1440	1455	1725

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

GRT	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<400	19	2	.	.	1	23	2	.	.	0
400-599	19	7	2	34	43	.	1	2	0	0
600-799	29	27	22	47	86	54	48	35	36	22
800-999	65	27	20	74	177	130	61	42	23	20
1000-1499	88	58	116	286	511	444	258	200	146	161
1500-1999	52	22	36	73	197	83	47	59	33	58
2000-3999	28	29	11	107	126	30	27	13	15	15
>3999	0	1	0	3	1	1	.	.	.	0
	301	172	208	625	1142	764	443	352	253	276

Dissostichus eleginoides - Patagonian toothfish

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

LOA	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<45	0	.	0	13	15	.	.	.	.	.
45-49	40	12	7	75	115	60	34	33	18	16
50-54	58	41	40	48	141	136	106	63	62	55
55-59	54	28	36	92	166	136	69	57	39	13
60-64	53	29	53	76	230	197	68	54	62	64
65-69	40	12	20	133	131	71	41	59	38	102
70-79	50	48	48	143	296	134	100	82	25	11
80-89	3	1	4	40	38	27	24	2	7	14
>89	2	1	0	5	8	2	0	1	1	.
	301	172	208	625	1142	764	443	352	253	276

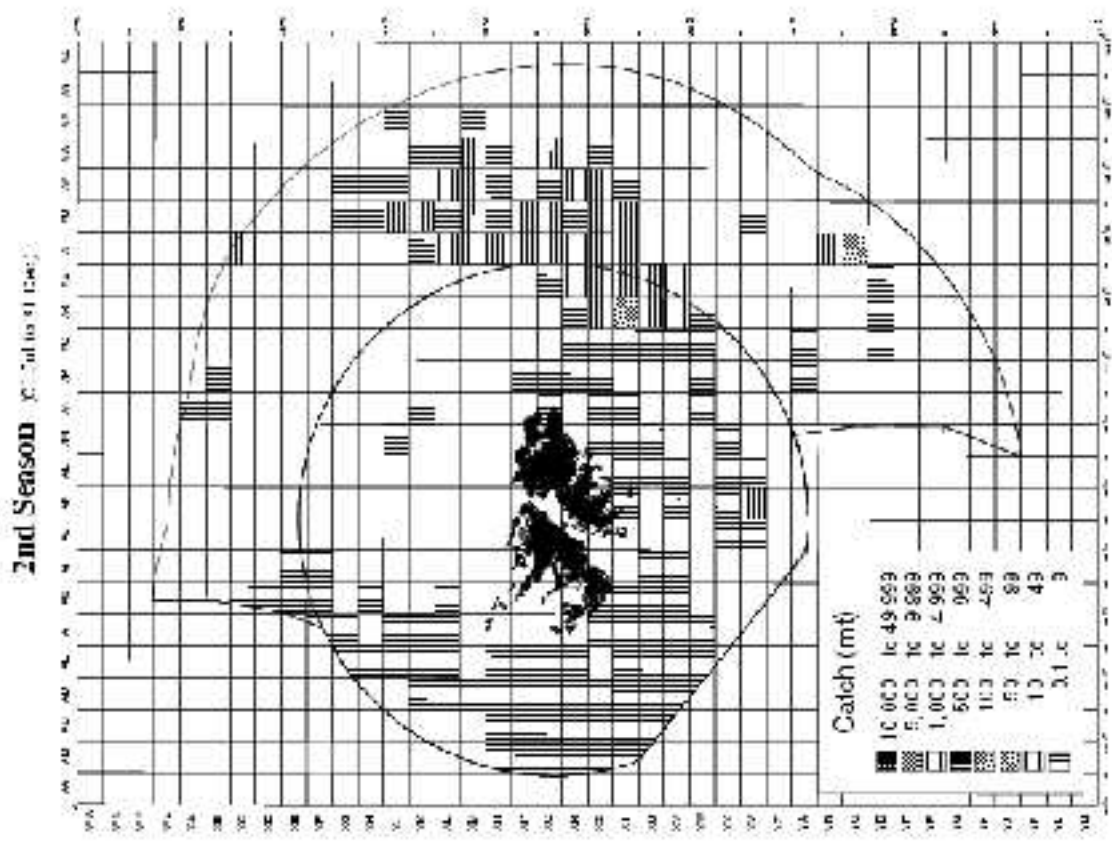
Table L.15 Total catch (tonnes) of trawlers by brake horsepower (BHP) and year

BHP	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<1000	.	.	.	.	.	.	.	.	.	.
1000-1199	11	1	.	.	7	.	.	.	.	.
1200-1399	13	17	12	50	57	28	21	11	3	.
1400-1599	39	7	9	63	91	93	77	54	42	55
1600-1799	25	12	14	46	71	11	16	21	58	31
1800-1999	74	34	79	182	330	254	165	129	84	123
2000-2499	60	38	47	128	274	151	68	81	31	36
2500-2999	49	31	24	29	165	191	67	34	16	10
3000-3999	28	30	22	106	133	32	29	19	15	20
>3999	3	2	2	21	13	4	1	3	2	1
	301	172	208	625	1142	764	443	352	253	276

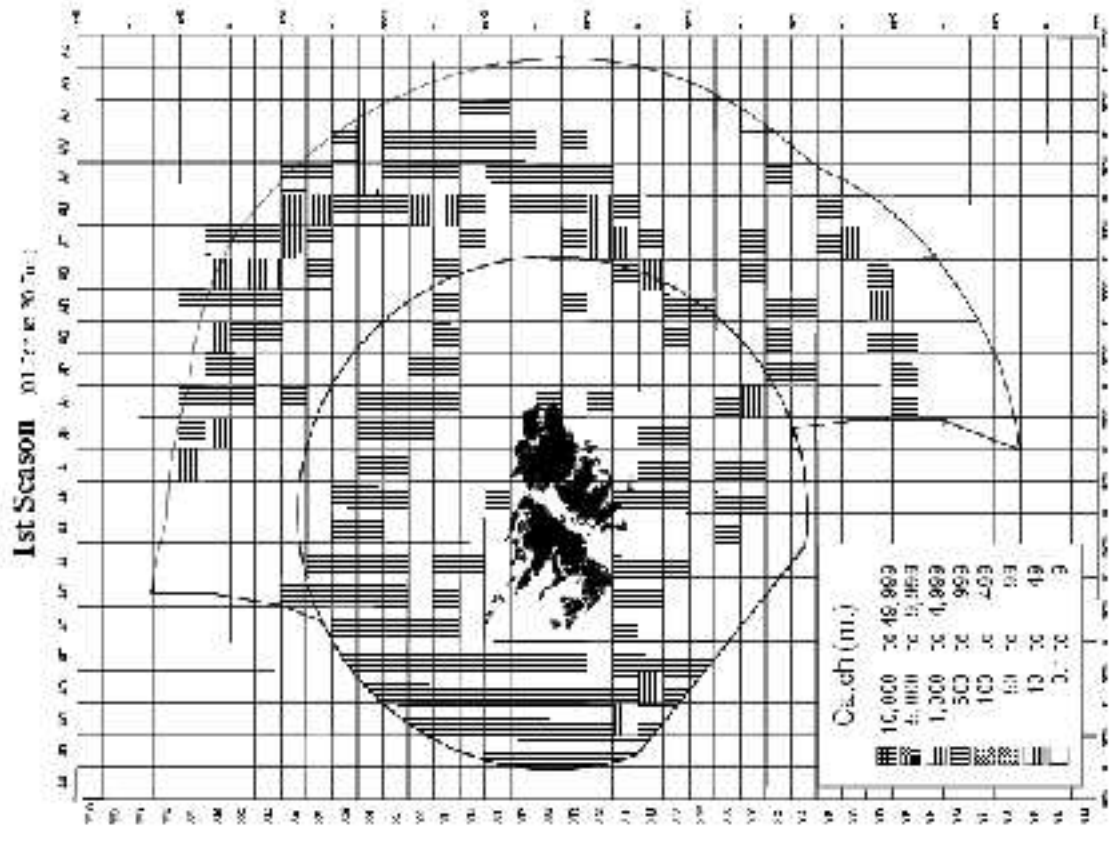
Dissostichus eleginoides

2004 *Dissostichus eleginoides*

Catch (mt) by grid square

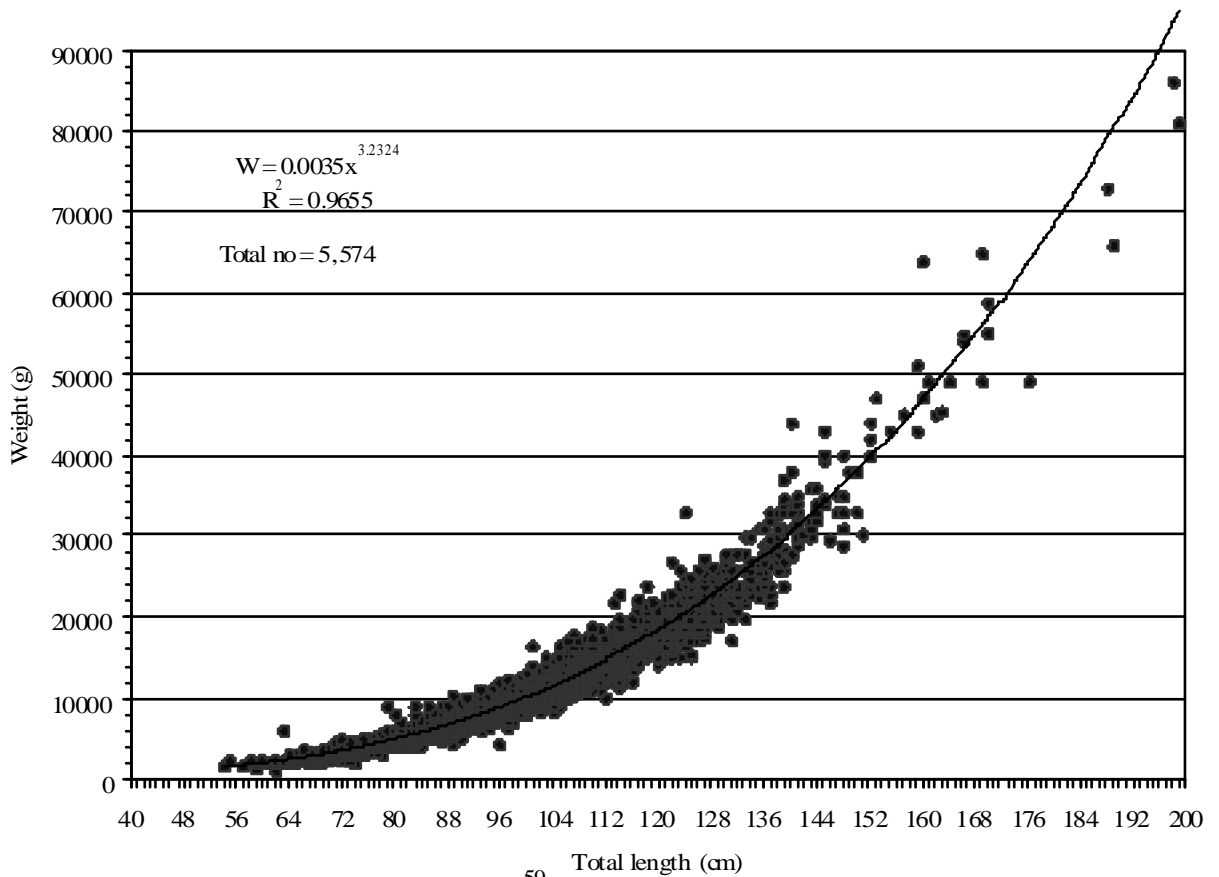
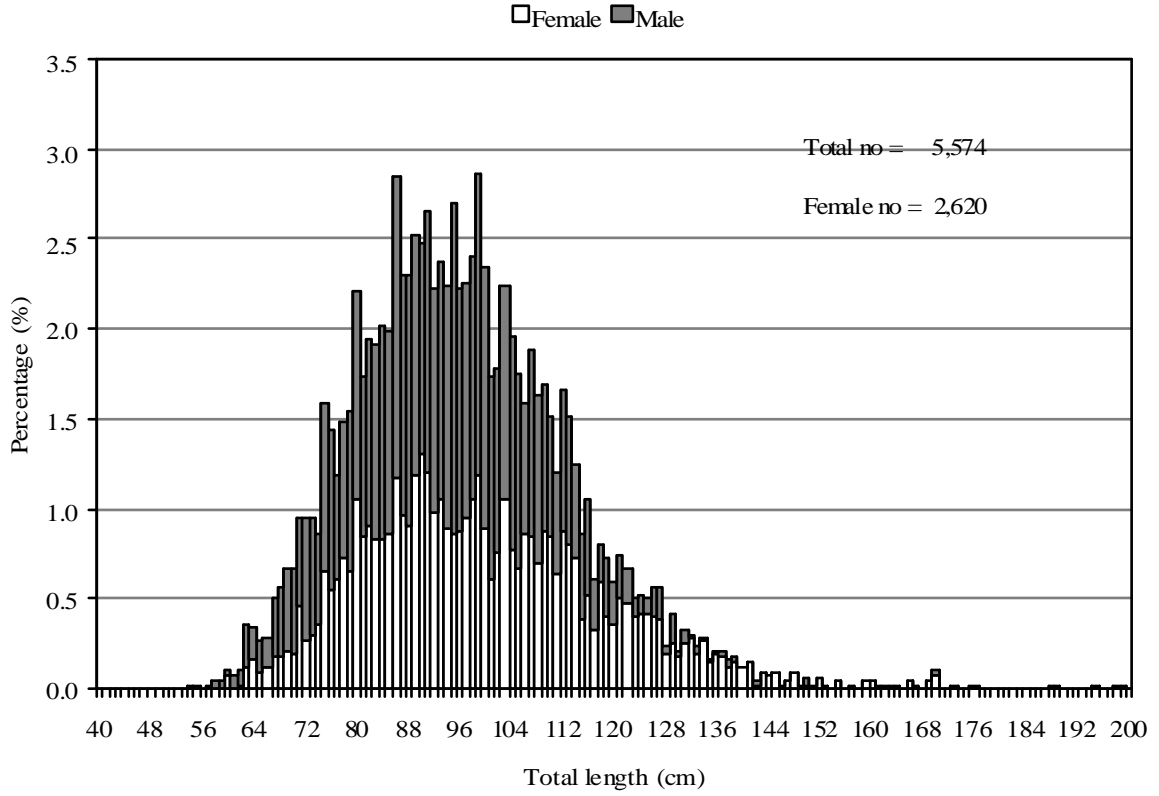


FOCZ and FOCZ



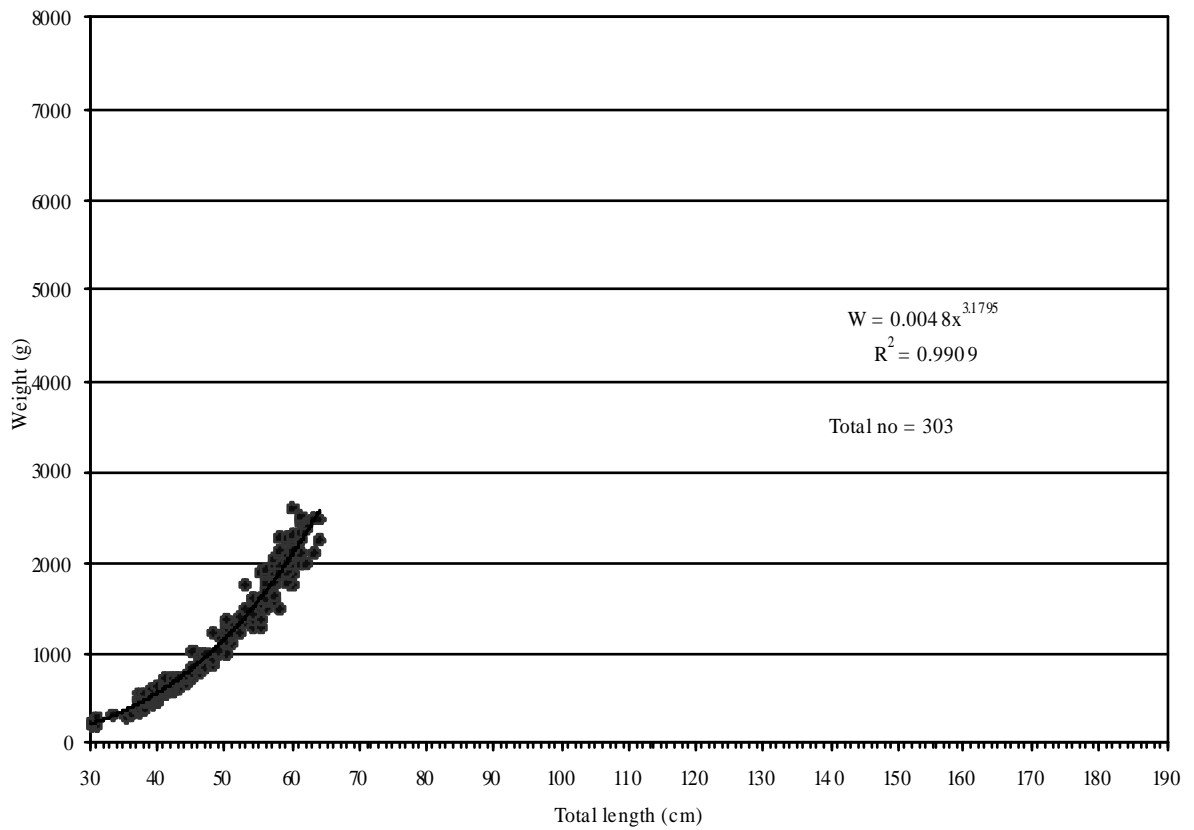
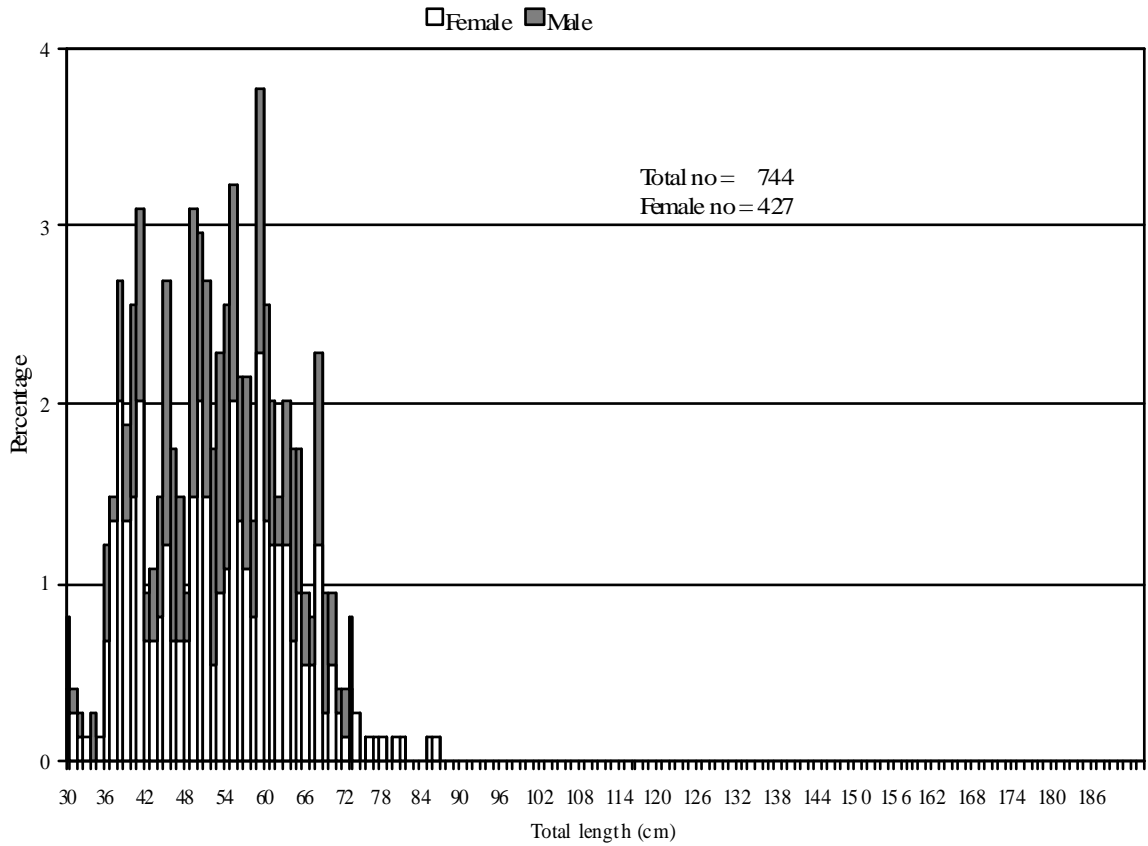
Dissostichus eleginoides - Patagonian toothfish

Length-frequency distribution and length-weight relation in longliner fleets in 2004



Dissostichus eginoides - Patagonian toothfish

Length-frequency distribution and length-weight relationship in trawler fleets in 2004



Rajidae - Skates and rays

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

VESSEL TYPE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
CO	1358	14	307	16	.	.	.	.	.	.
LO	46	315	92	82	76	161	101	96	152	168
TR	4029	3145	2922	979	4709	3691	4207	3268	3836	4983
	5432	3475	3320	1077	4785	3853	4309	3364	3988	5151

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

MONTH	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
January	11	28	14	41	9	217	199	196	32	1257
February	15	13	80	46	35	669	208	49	404	159
March	43	86	39	80	58	118	72	202	139	95
April	38	53	22	74	104	106	127	170	77	113
May	261	15	18	96	80	71	110	115	195	148
June	399	182	.	22	33	42	42	175	223	142
July	1007	320	423	48	358	77	104	22	459	93
August	1720	1103	1470	121	1284	975	950	552	1596	1589
September	904	654	902	315	1252	1035	881	1248	592	1022
October	767	597	267	138	892	327	1294	431	161	352
November	160	227	72	78	392	178	306	168	81	59
December	107	133	14	19	289	38	16	35	29	120
	5432	3475	3320	1077	4785	3853	4309	3364	3988	5151

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

Fishing fleet	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
AU	.	.	.	3	23	.	.	.	.	.
BG	.	.	.	.	.	.	.	.	.	.
BZ	.	.	.	.	528	48	201	10	.	.
CL	9	.	0	0	.	.	.	.	.	.
EE	.	.	.	.	.	.	.	.	.	4
ES	397	226	246	455	440	415	430	555	412	515
FK	117	184	204	216	314	353	417	474	320	653
FR	5	9	3	1	0	0	.	.	.	.
GR	.	.	.	.	.	.	.	.	.	.
HN	650	460	.	.	.	.	.	.	.	.
IS	.	2	9	.	.	.	.	.	.	.
IT	1	.	.	.	.	.	.	.	.	.
JP	5	8	2	11	3	.	.	0	.	1
KR	4101	2124	2797	369	3408	3019	3218	2304	3241	3937
NA	.	.	3	14	12	.	.	.	.	.
NO	.	273	31	.	.	.	.	.	.	.
NZ	.	.	.	.	.	.	.	.	4	.
PA	83	170	.	.	18	.	.	.	.	.
PL	.	.	.	.	.	.	.	.	.	.
PT	50	10	.	.	.	0	.	.	.	.
RU	.	.	.	.	.	.	12	.	.	.
SC	.	.	4	.	.	.	.	.	.	.
SL	.	.	.	.	.	.	.	.	.	.
UK	13	8	21	7	40	17	26	19	5	16
UY	.	.	.	0	.	.	5	2	5	24
VC	.	.	.	.	.	.	0	.	.	.
	5432	3474	3320	1077	4785	3853	4309	3364	3988	5151

Rajidae - Skates and rays

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

GRT	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<400	962	847	386	81	859	659	485	31	34	43
400-599	742	99	193	21	12	7	281	248	272	241
600-799	597	394	361	79	1143	228	1425	707	1194	889
800-999	1680	1414	1374	112	1569	1615	1017	1250	1571	2636
1000-1499	1238	540	864	624	907	1197	949	805	636	904
1500-1999	158	120	80	59	177	85	94	255	222	147
2000-2999	51	53	58	89	116	63	57	68	58	288
>2999	5	8	2	11	3	.	.	0	.	1
	5432	3475	3320	1077	4785	3853	4309	3364	3988	5151

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

LOA	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<45	4	275	43	24	35	74	47	15	1	.
45-49	87	24	25	78	59	48	701	427	905	636
50-54	3670	2283	2352	174	2658	1765	1993	1792	2002	2938
55-59	614	296	247	128	949	796	691	259	328	479
60-64	802	373	463	349	656	821	537	343	350	316
65-69	76	45	49	156	143	143	145	176	127	420
70-79	161	149	112	110	245	163	165	323	255	288
80-89	5	16	23	47	34	36	31	26	20	71
>89	14	15	7	12	6	6	.	1	.	1
	5432	3475	3320	1077	4785	3853	4309	3364	3988	5151

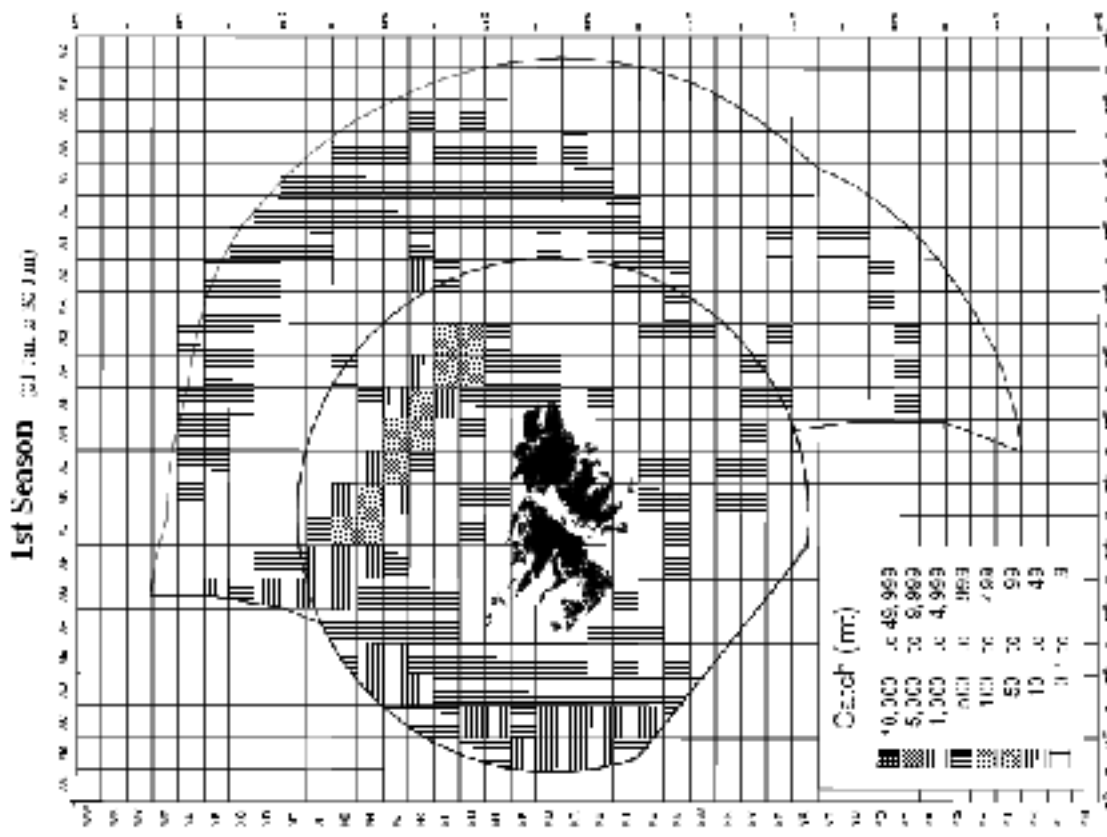
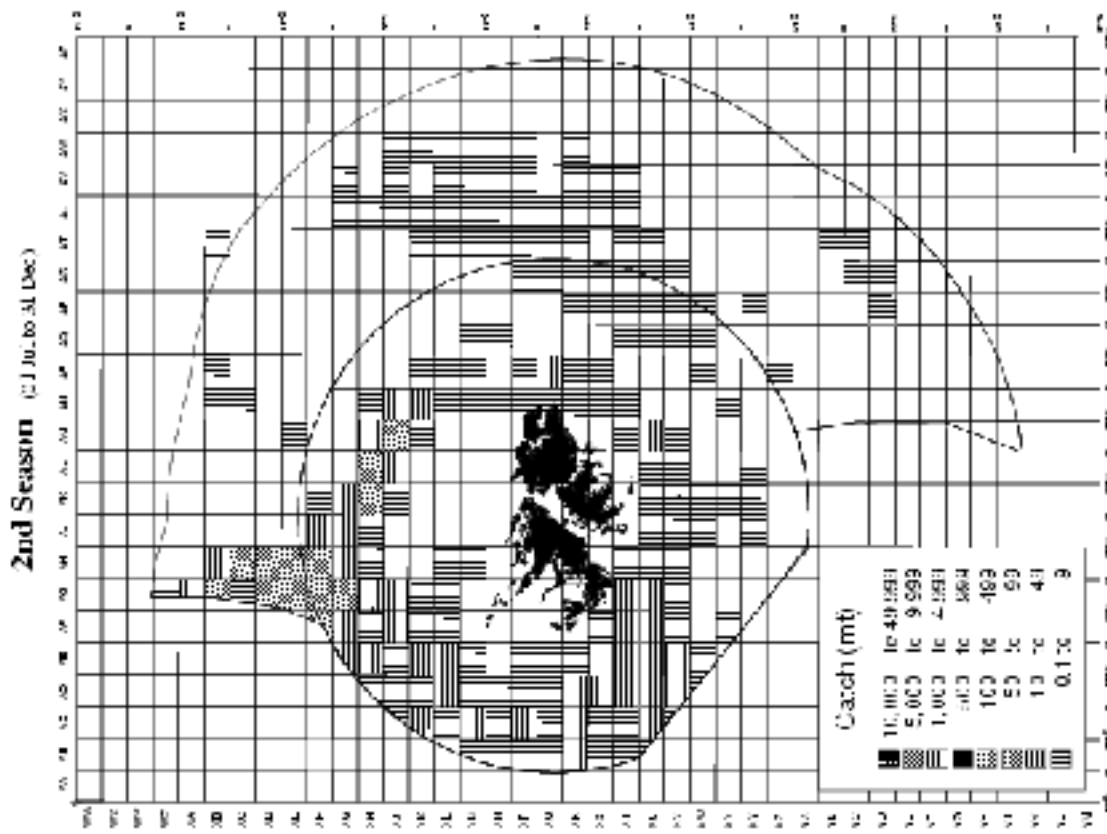
Table M.6 Total catch (tonnes) by brake horsepower (BHP) and year

BHP	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<1000	3	273	31	.	.	.	5	2	1	.
1000-1199	21	5	9	.	7	.	.	.	4	.
1200-1399	44	22	21	40	34	44	31	78	12	.
1400-1599	125	57	31	78	62	86	166	230	269	361
1600-1799	38	35	96	150	99	80	43	94	88	101
1800-1999	149	128	194	279	241	318	343	362	281	400
2000-2499	2544	1006	1573	120	1336	869	876	435	487	840
2500-2999	2433	1868	1284	303	2854	2377	2762	1934	2638	3143
3000-3999	59	60	56	68	137	53	75	221	208	299
>3999	16	20	26	40	16	27	8	6	0	7
	5432	3475	3320	1077	4785	3853	4309	3364	3988	5151

2004 *Rajidae*

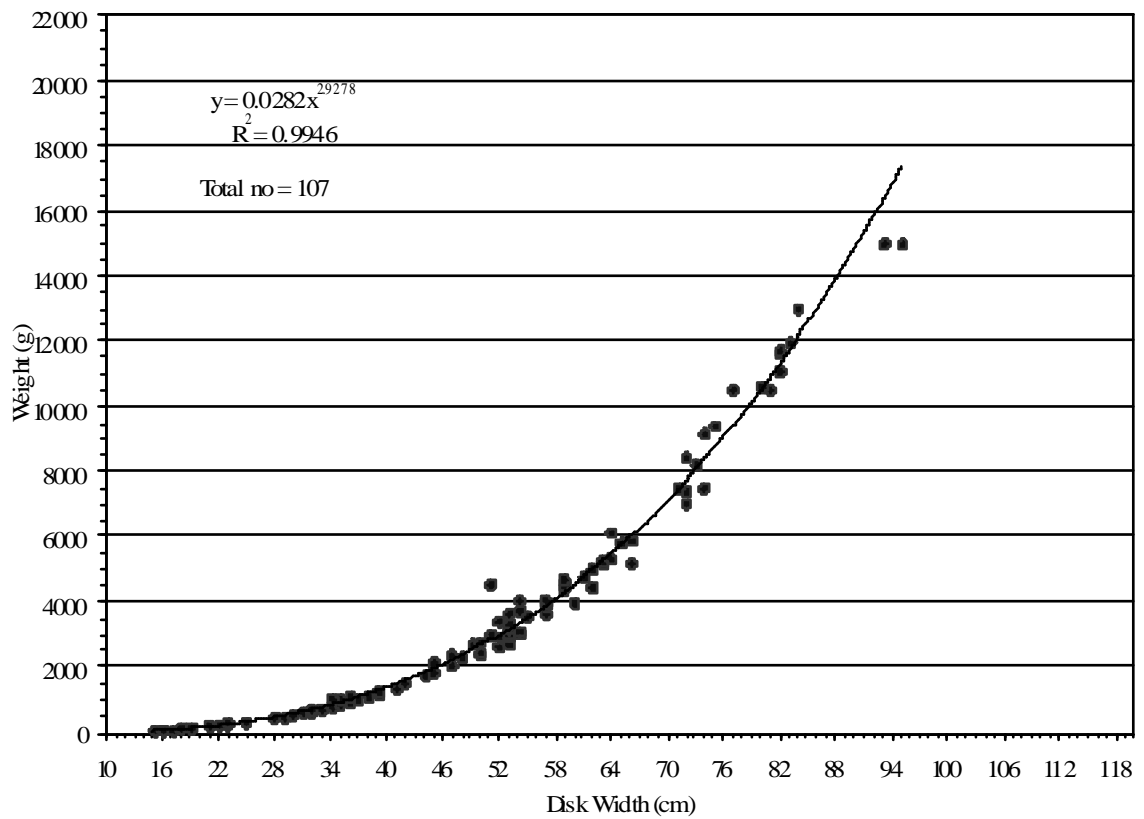
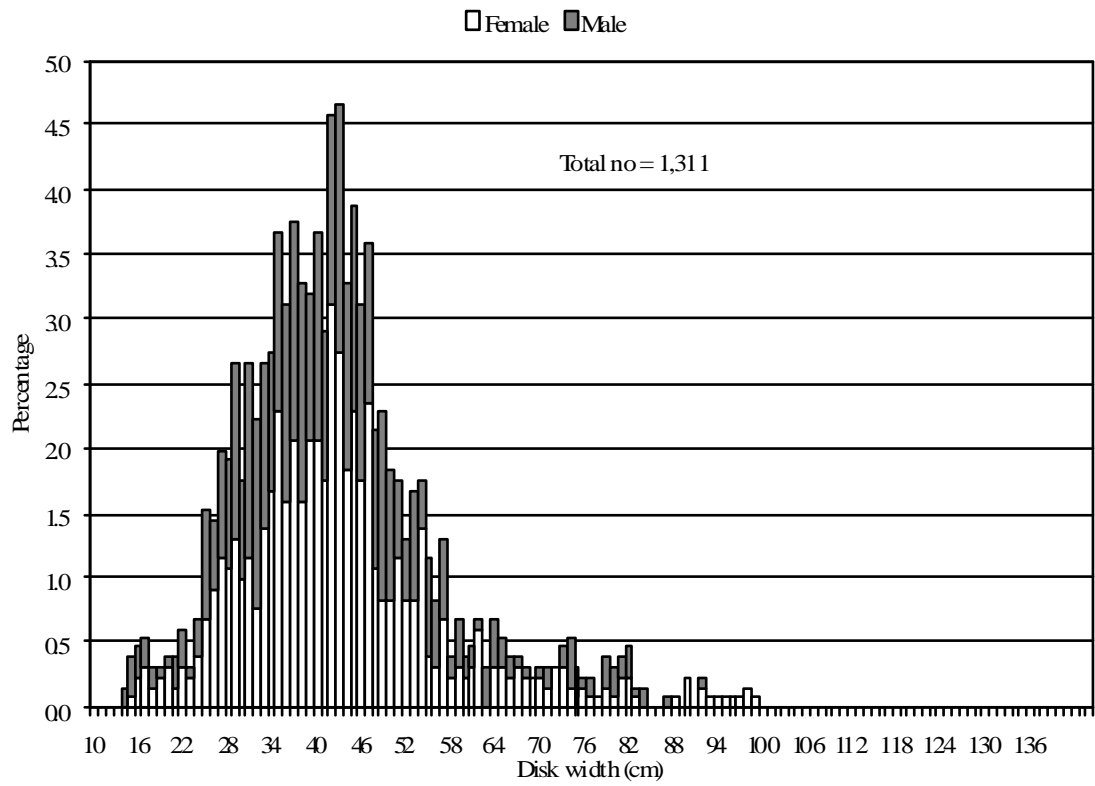
FOCZ and FOCZ

Catch (mt) by grid square



Rajidae - Skates and rays

Length-frequency distribution and length-weight relationship in 2004 for *Bathyraja griseocauda*



Zygochlamys patagonica - Scallop

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

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

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

MONTH	1996	1997	1998	1999	2000	2001	2002	2003	2004
January	59	.	441
February	250
March	519
April
May	29	.
June	12	.
July
August
September
October	41
No vember	440	28
December	76	.	204	.
	76	59	685	1279

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

Fishing fleet	1996	1997	1998	1999	2000	2001	2002	2003	2004
UY	76	59	685	1279
	76	59	685	1279

***Zygochlamys patagonica* - Scallop**

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

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

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

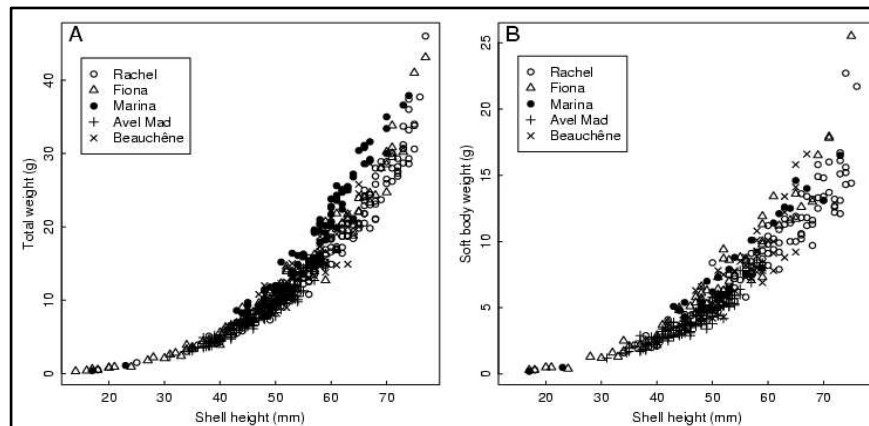
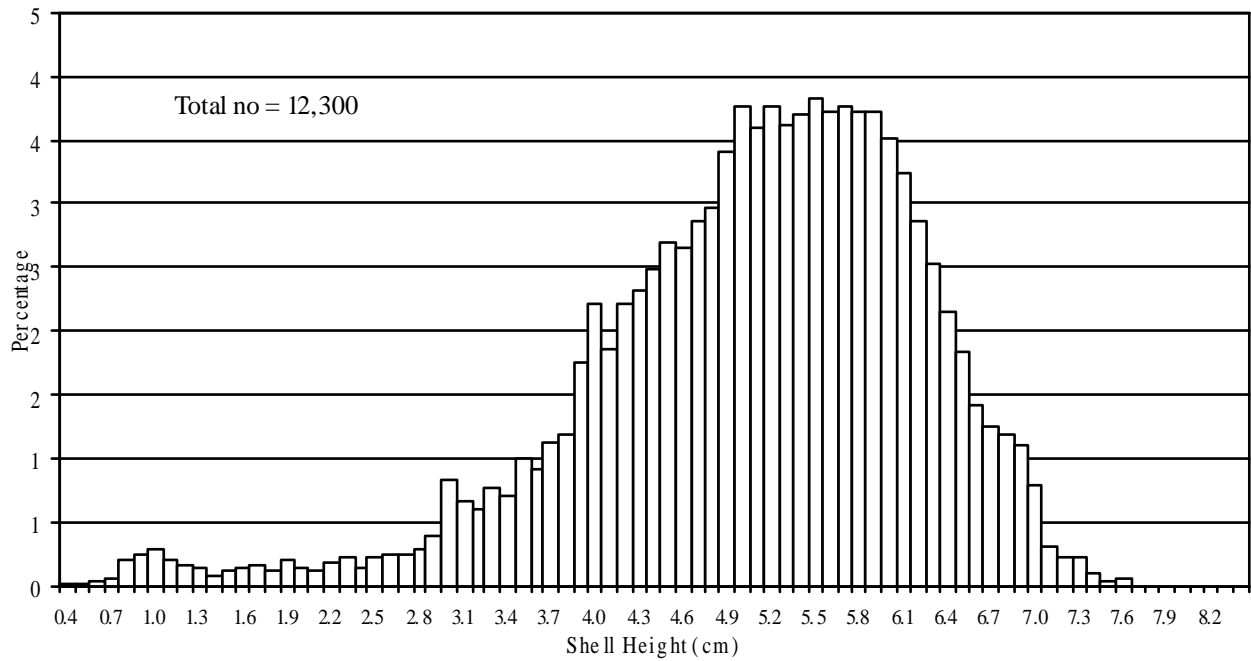
LOA	1996	1997	1998	1999	2000	2001	2002	2003	2004
<45	76	59	41	.
45-49	1279
50-54	644	.
55-59
60-64
65-69
70-79
80-89
>89
	76	59	685	1279

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

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

Zygochlamys patagonica - Scallop

Length-frequency distribution and length-weight relationship in 2004



$$\text{Total weight (or Soft body weight)} = a * \text{Shell Height}^b$$

	a	b	R ²	n
Total weight; females (all beds)	-9.217	2.98±0.029	0.974	282
Total weight; males (all beds)	-9.678	3.11±0.036	0.955	357
Total weight, Marina bed	-9.734	3.17±0.054	0.975	92
Total weight; other beds	-9.199	2.96±0.020	0.973	547
Soft body weight (all beds)	-9.766	2.96±0.034	0.947	547

Bzikov, A.A, D.A.J. Middleton (2002). Scallop *Zygochlamys patagonica* (Bivalvia; Pectinidae): a potential new fishery resources for the Falkland Islands. Scientific Report. Fisheries Department Falkland Islands Government, Stanley, Falkland Islands

Others

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

VESSEL TYPE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
CO	17	.	10	1	.	.	.	.	.	.
LO	110	164	150	231	200	377	272	217	225	183
TR	1387	1851	757	3211	4501	3660	1746	1025	1523	4870
	1514	2015	916	3443	4701	4037	2018	1242	1748	5053

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

MONTH	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
January	17	17	36	150	63	206	117	28	63	147
February	11	21	81	713	91	441	269	73	155	760
March	64	180	60	324	209	407	255	158	61	508
April	60	75	94	306	421	467	450	203	82	716
May	22	19	50	348	659	489	189	47	73	487
June	8	10	.	151	41	119	30	19	21	59
July	24	16	36	8	74	130	24	28	44	273
August	125	245	67	252	418	329	94	178	81	658
September	173	776	236	592	861	491	142	183	239	622
October	832	486	205	418	1433	653	296	154	552	544
November	132	113	36	143	218	215	131	78	296	257
December	45	57	16	36	213	91	22	93	82	23
	1514	2015	916	3443	4701	4037	2018	1242	1748	5053

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

Fishing fleet	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
AU	.	.	.	234	389	.	.	.	.	.
BG	.	.	.	.	.	.	.	.	.	.
BZ	.	.	.	.	7	223	43	0	.	.
CL	53	0	1	9	0	.	.	.	2	.
CN	.	.	.	.	.	.	.	.	.	.
EE	.	.	.	.	.	.	.	.	.	29
ES	1090	948	387	1525	2624	2046	1011	496	850	2060
FK	50	370	181	1033	1217	1344	774	624	686	2688
FR	15	2	.	15	.	.	.	.	.	.
GR	.	.	.	.	.	.	.	.	.	.
HN	4	12	.	.	.	.	.	.	.	.
IS	.	83	53	.	.	.	.	.	.	.
IT	1	.	.	.	.	.	.	.	.	.
JP	76	101	103	388	116	9	.	10	38	14
KR	96	361	113	102	252	401	189	112	135	113
NA	.	.	4	14	96	.	.	.	.	25
NO	.	17	31	.	.	.	.	.	.	.
NZ	.	.	.	.	.	.	.	.	22	.
PA	4	43	.	.	0	.	.	.	.	.
PL	.	26	.	.	.	.	.	.	.	.
PT	103	5	.	.	.	2	.	.	.	.
RU	.	.	.	.	.	.	0	.	.	.
SC	.	.	6	.	.	.	.	.	.	.
SL	.	.	.	.	.	.	.	.	.	.
TW	.	.	.	.	.	.	.	.	.	.
UK	21	48	38	124	0	13	.	.	15	125
UR	.	.	.	.	.	.	.	.	.	.
UY	.	.	.	.	.	.	.	.	.	.
	1514	2015	916	3443	4701	4037	2018	1242	1748	5053

Others

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

GRT	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<400	73	178	80	100	101	76	25	48	38	26
400-599	222	146	59	21	97	15	28	2	54	5
600-799	154	542	150	258	267	295	129	81	125	98
800-999	160	157	77	182	709	603	443	296	199	499
1000-1499	486	448	227	1365	2334	2361	1156	464	909	2938
1500-1999	292	157	76	371	506	320	70	170	232	789
2000-2999	52	263	143	750	571	358	166	172	174	684
>2999	76	123	104	396	116	9	.	10	17	14
	1514	2015	916	3443	4701	4037	2018	1242	1748	5053

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

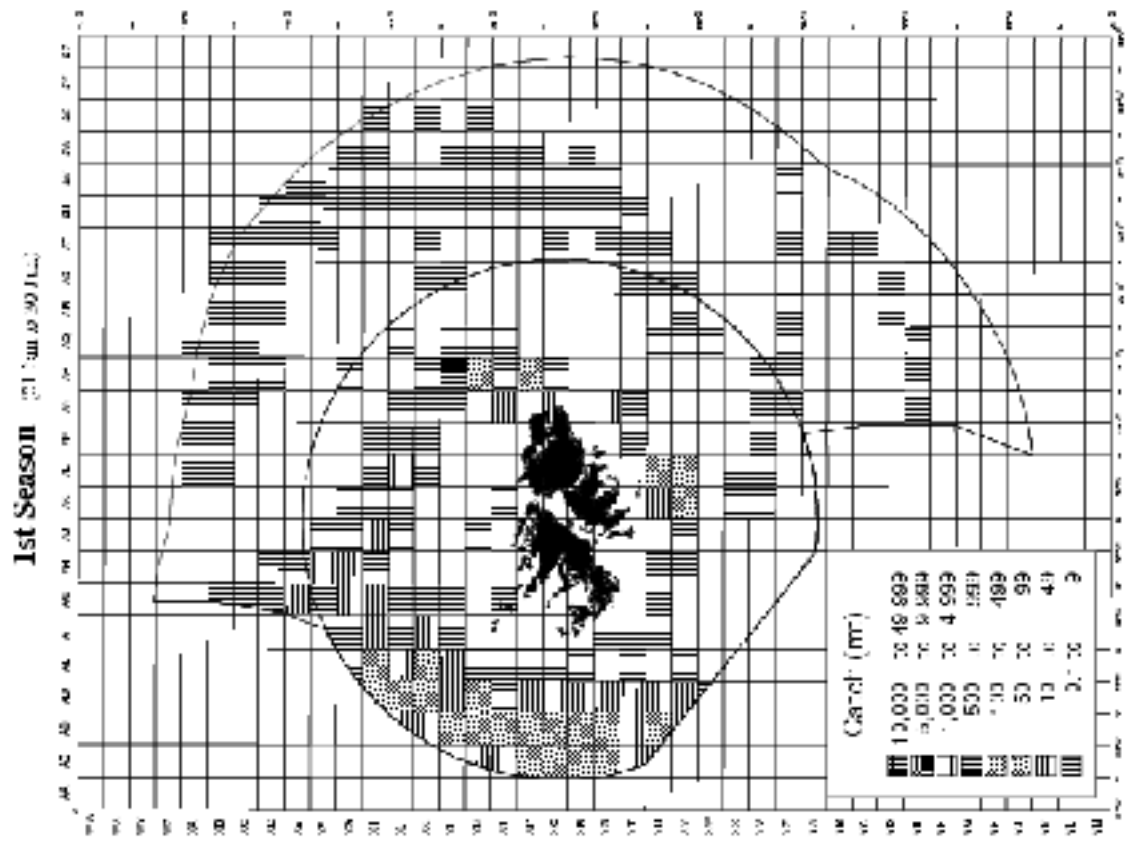
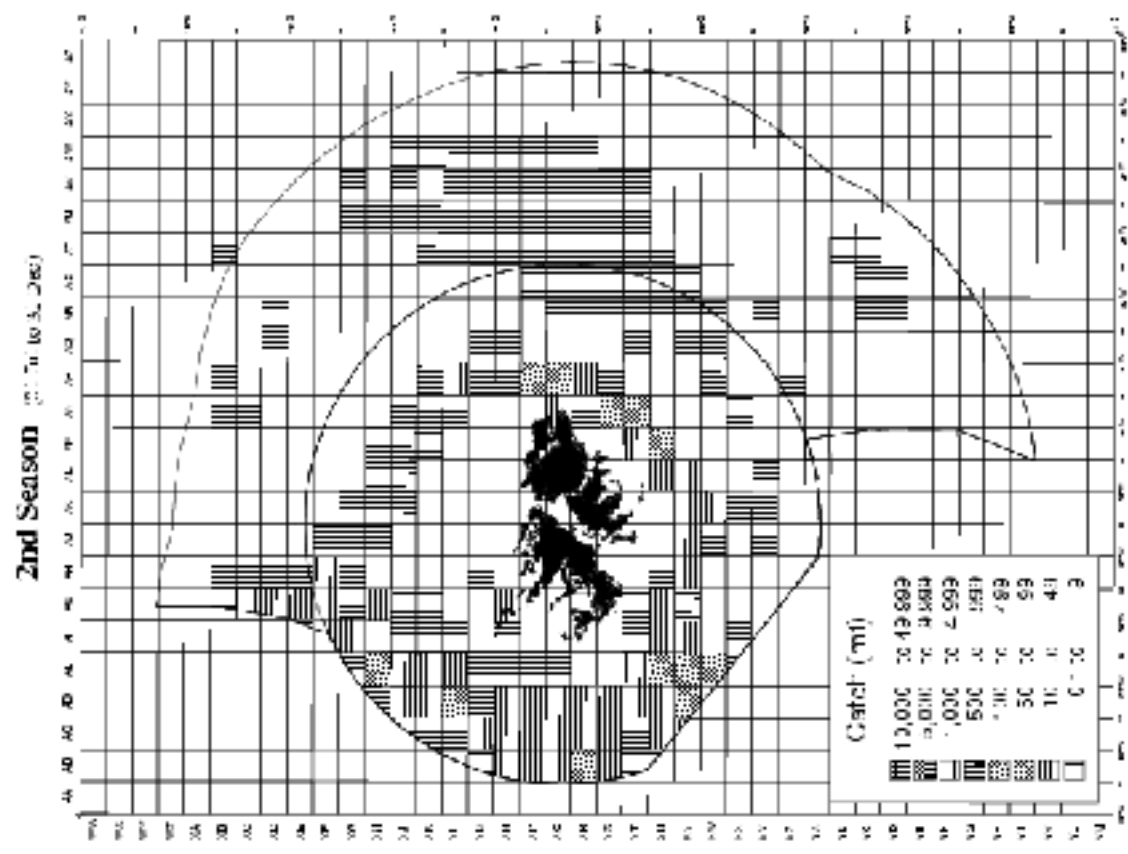
LOA	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<45	1	99	110	138	144	240	112	61	.	0
45-49	415	72	15	96	529	209	127	92	147	339
50-54	148	654	219	474	587	766	376	231	271	708
55-59	112	413	73	130	435	565	440	200	393	249
60-64	252	27	34	360	726	856	291	126	237	1358
65-69	257	235	142	813	734	478	304	161	345	1580
70-79	231	297	161	725	1358	757	281	319	263	437
80-89	1	33	24	282	60	77	54	16	43	356
>89	97	185	139	424	127	89	33	37	49	27
	1514	2015	916	3443	4701	4037	2018	1242	1748	5053

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

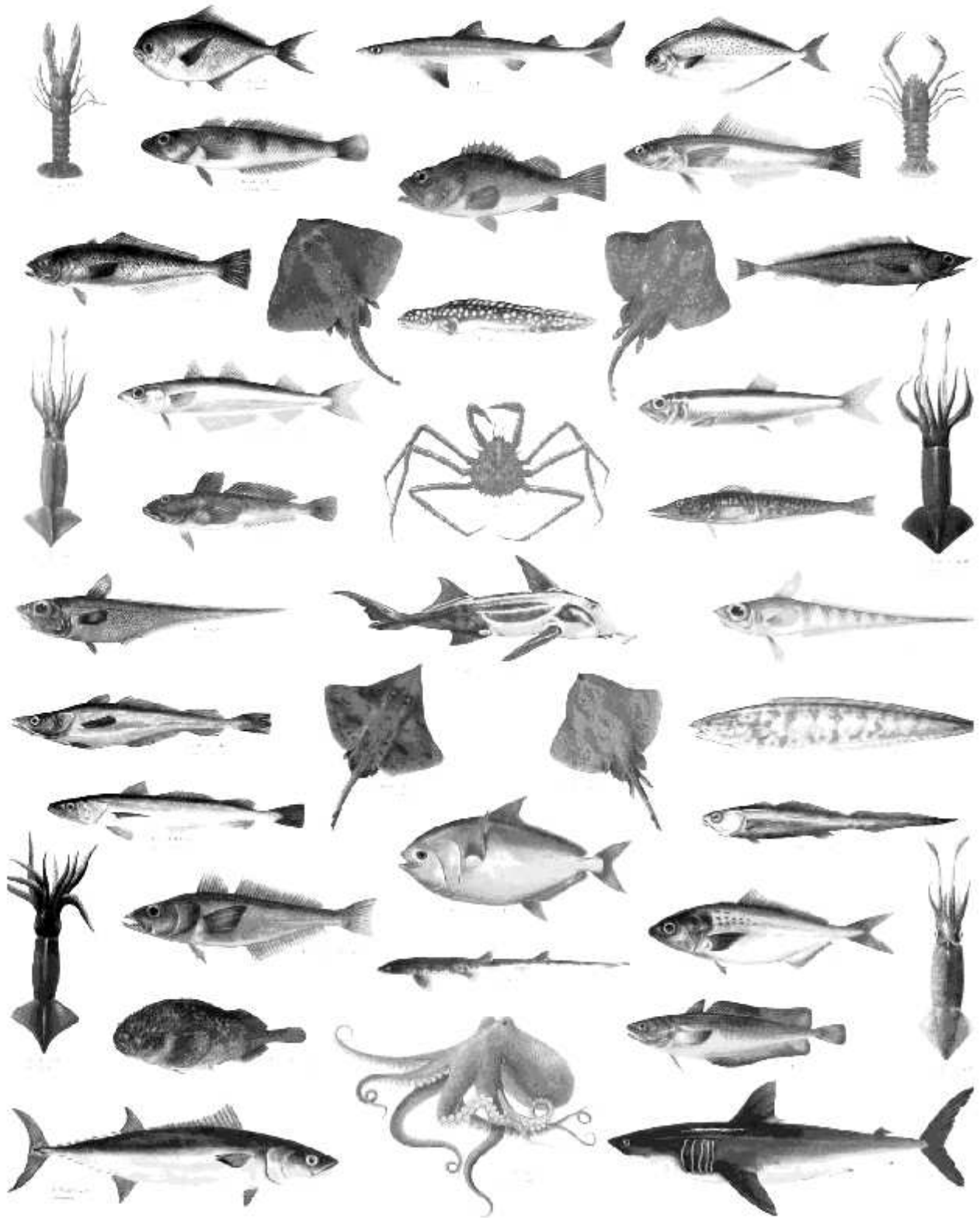
BHP	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<1000	19	17	31	.	.	.	.	.	.	0
1000-1199	199	83	51	.	13	.	.	.	22	.
1200-1399	18	432	116	41	137	120	53	48	93	.
1400-1599	369	103	32	159	361	547	422	240	250	629
1600-1799	39	79	44	395	431	172	39	98	158	638
1800-1999	390	356	181	806	1523	1424	733	262	621	1763
2000-2499	284	346	97	715	1116	841	290	334	304	1082
2500-2999	31	163	76	56	433	554	314	75	92	110
3000-3999	66	252	138	768	560	266	113	143	151	776
>3999	98	188	149	503	127	114	54	42	57	56
	1514	2015	916	3443	4701	4037	2018	1242	1748	5053

2004 Other

Catch (mt) by grid square



FALKLAND ISLANDS COMMERCIAL FISH & SHELLFISH



Falkland Islands Government
 Department of Fisheries
 PO Box 100
 Stanley, Falkland Islands
 Tel: +44 (0)1752 233444
 Fax: +44 (0)1752 233445
 Email: fisheries@falkland.gov.fk

Department of Fisheries
 PO Box 100
 Stanley, Falkland Islands
 Tel: +44 (0)1752 233444
 Fax: +44 (0)1752 233445
 Email: fisheries@falkland.gov.fk

FORTUNA
 FORTUNA SEAFOODS LTD
 PO Box 100
 Stanley, Falkland Islands
 Tel: +44 (0)1752 233444
 Fax: +44 (0)1752 233445
 Email: fortuna@falkland.gov.fk

SEAFISH (FALKLANDS) LTD
 PO Box 100
 Stanley, Falkland Islands
 Tel: +44 (0)1752 233444
 Fax: +44 (0)1752 233445
 Email: seafish@falkland.gov.fk



**Falkland Islands Government,
Fisheries Department,
Stanley, FIPASS**

Falkland Islands, FIQQ 1ZZ

Telephone : 00 500 27260

Fax : 00 500 27265

E-mail: director@fisheries.gov.fk

Web Site: www.fis.com/falklandfish

www.falklandislands.com/fisheries