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This is an observer data report prepared for the MSC Assessment of the New Zealand ling fisheries by Deepwater Group and the Ministry for Primary Industries.

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## 1. Introduction

This report provides a summary of fish and invertebrate non-target catch data (including both retained and discarded species) collected by the Ministry for Primary Industries (MPI) observer programme from ling target trawl fisheries and ling long line fisheries over the last five fishing years (2007-08 to 30 September 2011-12).

The raw data are held in MPI's Centralised Observer Database (COD). Observers record vessel effort and catch information independent of vessel reporting as well as recording the catch of benthic material and collecting biological data. Observer data provides a much greater level of detail on everything brought aboard in the catch.

In this report, the term non-target catch refers to all species caught, whether retained or discarded from vessels target fishing for ling unless indicated otherwise.

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## 2. Methods

MPI observers are placed on commercial fishing vessels to collect data on catch and effort that is independent of vessel reporting. This report presents a summary of the most recent five years (2007-08 to 2011-12 fishing years) of observer data from six target ling trawl fisheries and 6 target longline fisheries. These fisheries are LIN2, LIN3, LIN4, LIN5, LIN6 and LIN7.

No data grooming has been undertaken to identify or correct any errors in the data. However non-biological material that may have been identified in the catch, such as rocks and plastics, is excluded from this report. Wood debris is also not included. However anything that has a marine biological origin, such as coral rubble is included in the report.

There may be errors as a result of miscoding, misidentification or other factors. The summaries provided here are in the form of sorted tables that list the MPI species code, scientific name, basic information on scientific classification (some species) and the legal status of each species observed together with the total observed catch weight and the number of years in the five years of observer data that a catch of that species was identified in the observed catch. The percentage of the total observed catch weight that the observed weight of each category or species comprises is also given.

Observers are present on only a proportion of fishing vessels. Thus, the non-target retained and discarded species data presented in this report represents a sample of the total catch from each ling fishery. No attempt has been made to either scale up or to weight the data to correct for any sampling bias in the data set as a result of any variation between the distribution of observer coverage and the distribution or seasonality of commercial fishing effort. The tables may therefore not represent the true relative non-target retained and discarded species levels in the overall commercial fishery and should be considered as indicative only. However, where observer coverage is high, the data are likely to be more representative of the overall fishery than where observer coverage is low.

The primary value of the observer data presented here is to provide an indication of the relative level of non-target catch in each of the three individual ling fisheries. To date, the published literature on non-target catch in ling fisheries (see Bagley et al 2013, Bagley et al. 2012, Ballara 2012, Ballara et al 2010, O'Driscoll et al. 2011, Stevens et al. 2011, & Stevens et al. 2010) does not provide separate estimates of non-target catches by fishery and instead gives estimates on a New Zealand-wide basis. While the above published reports generally provide appropriate stratification to scale up the non-target catch and so give more reliable estimates, they do not provide the level of detail

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required to determine the main non-target species in each of the three separate ling target fisheries. The published reports above may provide more accurate estimates of non-target catches overall but the tables in this data report are potentially more informative in identifying the main non-target species in the individual ling fisheries. The two sources of information complement each other.

A series of tables is provided in this report for each of the four ling fisheries that give the overall non-target retained and discarded species by fishery and type of organism to more detailed tables that list the individual species in each phylum or category. The observer data in the tables is also available by individual year in four Excel files that are available on request.

Protected species and species managed under the QMS are listed first in each table where relevant, followed by other species that are not protected or managed under the QMS. Within each category, species or kinds of organisms are listed in descending order of total observed weight.

All catch weights by species or type of organism are of raw data. Information on scientific classification and legal status has been added to the original observer data assist in interpretation of the information. This supplementary information may not be error free.

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### 3. References

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- MPI (2013) Fisheries Assessment Plenary May. Stock Assessments and Yield Estimates. Volume 2 - Ling Chapter pp 544 -571
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- Stevens et al (2010) Age, growth, and maturity of four New Zealand rattail species. *New Zealand Aquatic Environment and Biodiversity Report No. 59*. 39p.

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# Ling Trawl

**Summary Table 1: LIN3 (Trawl) – Top 20 species - observed non-target catch of target hake fishery over the last 5 fishing years (2007-08 to 2011-12)**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (HAK1 target tows only) (t)	Observed catch (all fishing in HAK1) (t)	Proportion of catch from HAK1 target tows (%)
HOK	Macruronus novaezelandiae	Hoki	Fish	Hakes	QMS	306	23,323	1.3%
RAT	Macrouridae (Family)	Rattails	Fish	Rattails, Grenadiers	Non-QMS	33	1,809	1.8%
LIN	Genypterus blacodes	Ling	Fish	Cusk Eels	QMS	30	810	3.7%
JAV	Lepidorhynchus denticulatus	Javelinfinh	Fish	Rattails, Grenadiers	Non-QMS	26	1,572	1.7%
SWA	Serirolella punctata	Silver warehou	Fish	Raффishes, Medusafishes	QMS	25	2,469	1.0%
WWA	Serirolella caerulea	White warehou	Fish	Raффishes, Medusafishes	QMS	12	240	5.2%
HAK	Merluccius australis	Hake	Fish	Hakes	QMS	10.3	431	2.4%
SPD	Squalus acanthias	Spiny dogfish	Fish	Dogfishes	QMS	9.5	1,416	0.7%
SPE	Helicolenus spp.	Sea perch	Fish	Scorpionfishes	QMS	4.4	172	2.6%
GSP	Hydrolagus bemisi	Pale ghost shark	Fish	Chimaeras, Ghost Sharks	QMS	3.7	187	2.0%
STA	Kathetostoma spp.	Giant stargazer	Fish	Armourhead Stargazers	QMS	3.4	95	3.6%
LDO	Cyttus traversi	Lookdown dory	Fish	Dories	QMS	3.3	76	4.5%
GSH	Hydrolagus novaezealandiae	Ghost shark	Fish	Chimaeras, Ghost Sharks	QMS	2.6	239	1.1%
SSK	Dipturus innominatus	Smooth skate	Fish	Skates	QMS	2.2	69	3.2%
SQU	Nototodarus sloanii, N. gouldi	Arrow squid	Molluscs	-	QMS	2.2	665	0.3%
SSI	Argentina elongata	Silverside	Fish	Silversides	Non-QMS	2	27	7.3%
ONG	Porifera (Phylum)	Sponges	Porifera	-	Non-QMS	1.5	18	8.5%
WAR	Serirolella brama	Common warehou	Fish	Raффishes, Medusafishes	QMS	1.2	106	1.1%
RIB	Mora moro	Ribaldo	Fish	Morid Cods	QMS	0.9	87	1.0%
JMA	Trachurus declivis, T. murphyi, T. novaezelandiae	Jack mackerel	Fish	Jacks, Trevallies, Kingfishes	QMS	0.8	991	0.1%

**Table 1: LIN3 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12)**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
ACS	Actinostolidae (Family)	Smooth deepsea anemones	Cnidaria	Deepsea anemones	Non-QMS	5	3,054	0.2%
API	Alertichthys blacki	Alert pigfish	Fish	Pigfishes	Non-QMS	1	68	1.5%
BAR	Thyrsites atun	Barracouta	Fish	Snake Mackerels	QMS	216	7,266,166	0.0%
BBE	Centriscops humerosus	Banded bellowsfish	Fish	Snipefishes	Non-QMS	121	14,232	0.9%
BEE	Diastobranchus capensis	Basketwork eel	Fish	Cutthroat Eels	Non-QMS	6	2,775	0.2%
BEL	Centriscops spp.	Bellowsfish	Fish	Snipefishes	Non-QMS	153	40,669	0.4%
BER	Typhlonarke spp.	Electric ray	Fish	Sleeper rays	Non-QMS	22	596	3.7%
BNO	Benthoctopus spp.	Benthoctopus spp.	Molluscs	-	Non-QMS	15	29	51.7%
BNS	Hyperoglyphe antarctica	Bluenose	Fish	Raftfishes, Medusafishes	QMS	50	10,678	0.5%
BYS	Beryx splendens	Alfonsino	Fish	Alfonsinos	QMS	1	1,428	0.1%
BYX	Beryx splendens, B. decadactylus	Alfonsino & Long-finned beryx	Fish	Alfonsinos	QMS	19	215	8.8%
CAR	Cephaloscyllium isabellum	Carpet shark	Fish	Cat sharks	Non-QMS	30	27,252	0.1%
CDO	Capromimus abbreviatus	Capro dory	Fish	Dories	Non-QMS	10	502	2.0%
CJA	Crossaster multispinus	Sun-star	Echinoderms	-	Non-QMS	0	379	0.0%
CON	Conger spp.	Conger eel	Fish	Conger Eels	Non-QMS	174	9,323	1.9%
COU	Alcyonacea, Gorgonacea, Scleractinia, Antipatharia	Coral (Unidentified)	Cnidaria	Stylasteridae	Non-QMS	0	70	0.3%
CRB	N/A	Crab (Unspecified)	Crustacea	-	Non-QMS	106	682	15.5%
CRM	Callyspongia cf. ramosa	Airy finger sponge	Porifera	-	Non-QMS	2	413	0.4%
CYP	Centroscymnus crepidater	Longnose velvet dogfish	Fish	Dogfishes	Non-QMS	223	11,183	2.0%
DAP	Dagnaudus petterdi	Antlered crab	Crustacea	Homolid crabs	Non-QMS	2	133	1.5%

**Table 1: LIN3 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
DSK	Amblyraja hyperborea	Deepwater spiny skate	Fish	Skates	Non-QMS	76	3,339	2.3%
DWD	N/A	Deepwater dogfish (Unspecified)	Fish	-	Non-QMS	330	14,534	2.3%
DWE	N/A	Deepwater eel (Unspecified)	Fish	-	Non-QMS	6	919	0.7%
DWO	Graneledone spp.	Deepwater octopus	Molluscs	-	Non-QMS	5	1,480	0.3%
ERA	Torpedo fairchildi	Electric ray	Fish	Electric Rays	Non-QMS	26	941	2.8%
ETB	Etmopterus baxteri	Baxter's lantern dogfish	Fish	Dogfishes	Non-QMS	15	111,862	0.0%
ETL	Etmopterus lucifer	Lucifer dogfish	Fish	Dogfishes	Non-QMS	152	11,937	1.3%
FHD	Hoplichthys haswelli	Deepsea flathead	Fish	Ghostflatheads	Non-QMS	681	15,386	4.4%
FLA	N/A	Flatfish	Fish	-	QMS	20	340	5.9%
FMA	Fusitriton magellanicus	Fusitriton magellanicus	Molluscs	-	Non-QMS	44	3,845	1.1%
GON	Gonorynchus forsteri, G. greyi	Sandfish	Fish	Sandfish	Non-QMS	77	1,521	5.1%
GSC	Jacquiniotia edwardsii	Giant spider crab	Crustacea	Spider crabs	QMS	5	27,986	0.0%
GSH	Hydrolagus novaezealandiae	Ghost shark	Fish	Chimaeras, Ghost Sharks	QMS	2,664	239,258	1.1%
GSP	Hydrolagus bemisi	Pale ghost shark	Fish	Chimaeras, Ghost Sharks	QMS	3,709	186,885	2.0%
GUR	Chelidonichthys kumu	Gurnard	Fish	Gurnards	QMS	3	8,355	0.0%
GVO	Provocator mirabilis	Golden volute	Molluscs	Volutes	Non-QMS	1	153	0.7%
HAK	Merluccius australis	Hake	Fish	Hakes	QMS	10,374	430,934	2.4%
HAP	Polyprion oxygeneios	Hapuku	Fish	Wreckfishes	QMS	29	41,059	0.1%
HEX	Hexanchus griseus	Sixgill shark	Fish	Cow Sharks	Non-QMS	40	473	8.5%
HMT	Hormathiidae (Family)	Warty deepsea anemones	Cnidaria	-	Non-QMS	0	2,342	0.0%

Table 1: LIN3 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) **Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
HOK	Macruronus novaezelandiae	Hoki	Fish	Hakes	QMS	305,635	23,322,352	1.3%
HOO	Homola orientalis	Carrier crab	Crustacea	Homolid crabs	Non-QMS	2	7	28.6%
HTH	Holothuroidea (Class)	Sea cucumber (other than Stichopus mollis)	Echinoderms	-	Non-QMS	9	570	1.6%
HTR	Hippasteria phrygiana	Trojan star	Echinoderms	-	Non-QMS	5	829	0.6%
HYA	Hyalascus sp.	Floppy tubular sponge	Porifera	-	Non-QMS	280	30,537	0.9%
JAV	Lepidorhynchus denticulatus	Javelinfish	Fish	Rattails, Grenadiers	Non-QMS	26,306	1,571,266	1.7%
JMA	Trachurus declivis, T. murphyi, T. novaezelandiae	Jack mackerel	Fish	Jacks, Trevallies, Kingfishes	QMS	801	991,105	0.1%
KWH	Austrofuscus glans	Knobbed whelk	Molluscs	Whelks	QMS	2	39	5.2%
LCH	Harriotta raleighana	Long-nosed chimaera	Fish	Longnose chimaeras	Non-QMS	102	24,079	0.4%
LDO	Cyttus traversi	Lookdown dory	Fish	Dories	QMS	3,397	75,927	4.5%
LIN	Genypterus blacodes	Ling	Fish	Cusk Eels	QMS	30,094	810,296	3.7%
LSK	Arhynchobatis asperimus	Long-tailed skate	Fish	Skates	Non-QMS	9	1,048	0.9%
MOD	Moridae (Family)	Morids	Fish	Morid Cods	Non-QMS	1	4,829	0.0%
NCB	Nectocarcinus bennetti	Smooth red swimming crab	Crustacea	Swimming crabs	Non-QMS	1	30	3.3%
OCT	Pinnoctopus cordiformis	Octopus	Molluscs	-	Non-QMS	3	2,239	0.1%
ONG	Porifera (Phylum)	Sponges	Porifera	-	Non-QMS	1,507	17,794	8.5%
OPI	Opisthoteuthis spp.	Umbrella octopus	Molluscs	-	Non-QMS	1	1,682	0.1%
OSD	Selachii (Order)	Sharks & Dogfish	Fish	-	Non-QMS	149	64,157	0.2%
OSK	Rajidae (Family)	Skate, Other	Fish	Skates	Non-QMS	20	1,224	1.6%
PDG	Oxynotus bruniensis	Prickly dogfish	Fish	Rough Sharks	Non-QMS	38	2,104	1.8%

**Table 1: LIN3 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
PKN	Plutonaster knoxi	Abyssal star	Echinoderms	-	Non-QMS	5	80	5.8%
PRU	Pseudechinaster rubens	Pseudechinaster rubens	Echinoderms	-	Non-QMS	3	60	4.4%
PSI	Psilaster acuminatus	Geometric star	Echinoderms	-	Non-QMS	15	455	3.3%
QSC	Zygochlamys delicatula	Queen scallop	Molluscs	Scallops	QMS	6	2,727	0.2%
RAT	Macrouridae (Family)	Rattails	Fish	Rattails, Grenadiers	Non-QMS	33,437	1,808,244	1.8%
RBM	Brama brama	Ray's bream	Fish	Pomfrets	QMS	57	30,170	0.2%
RBT	Emmelichthys nitidus	Redbait	Fish	Bonnetmouths, Rovers	QMS	469	151,864	0.3%
RCO	Pseudophycis bachus	Red cod	Fish	Morid Cods	QMS	797	216,774	0.4%
RDO	Cyttopsis rosea	Rosy dory	Fish	Dories	Non-QMS	10	645	1.6%
RHY	Paratrachichthys trailli	Common roughy	Fish	Roughies, Slimeheads	Non-QMS	175	921	19.0%
RIB	Mora moro	Ribaldo	Fish	Morid Cods	QMS	895	87,182	1.0%
ROK	Geological	Rocks / Stones	Other	-	Non-QMS	2	13,799	0.0%
RSK	Zearaja nasuta	Rough skate	Fish	Skates	QMS	416	28,433	1.5%
RUD	Centrolophus niger	Rudderfish	Fish	Raftfishes, Medusafishes	Non-QMS	421	15,081	2.8%
SBK	Notacanthus sexspinis	Spineback	Fish	Spiny Eels	Non-QMS	19	2,521	0.8%
SBR	Pseudophycis barbata	Southern bastard cod	Fish	Morid Cods	Non-QMS	3	81	3.7%
SBW	Micromesistius australis	Southern blue whiting	Fish	True Cods	QMS	11	3,013	0.4%
SCH	Galeorhinus galeus	School shark	Fish	Smoothhounds	QMS	217	32,060	0.7%
SCI	Metanephrops challengeri	Scampi	Crustacea	Clawed lobsters	QMS	29	888	3.3%
SDF	Azygopus pinnifasciatus	Spotted flounder	Fish	Righteyed Flounders	Non-QMS	5	50	10.0%



**Table 1: LIN3 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
SDO	Cyttus novaezealandiae	Silver dory	Fish	Dories	Non-QMS	4	6,921	0.1%
SFI	Asteroidea and Ophiuroidea (Classes)	Starfish	Echinoderms	-	Non-QMS	43	2,241	1.9%
SKI	Rexea spp.	Gemfish	Fish	Snake Mackerels	QMS	7	2,643	0.3%
SMK	Teratomaia richardsoni	Spiny masking crab	Crustacea	Spider crabs	Non-QMS	1	48	2.1%
SND	Deania calcea	Shovelnose dogfish	Fish	Gulper Sharks	Non-QMS	327	111,550	0.3%
SNI	Macroramphosus scolopax	Snipefish	Fish	Snipefishes	Non-QMS	4	13,031	0.0%
SPD	Squalus acanthias	Spiny dogfish	Fish	Dogfishes	QMS	9,500	1,415,966	0.7%
SPE	Helicolenus spp.	Sea perch	Fish	Scorpionfishes	QMS	4,468	172,442	2.6%
SPT	Spatangus multispinus	Purple-heart urchin	Echinoderms	-	Non-QMS	1	172	0.6%
SQU	Nototodarus sloanii, N. gouldi	Arrow squid	Molluscs	-	QMS	2,159	664,574	0.3%
SQX	N/A	Squid (Unspecified)	Molluscs	-	Non-QMS	45	788	5.7%
SSI	Argentina elongata	Silverside	Fish	Silversides	Non-QMS	1,956	26,762	7.3%
SSK	Dipturus innominatus	Smooth skate	Fish	Skates	QMS	2,192	69,118	3.2%
STA	Kathetostoma spp.	Giant stargazer	Fish	Armourhead Stargazers	QMS	3,451	94,664	3.6%
SUA	Suberites affinis	Fleshy club sponge	Porifera	-	Non-QMS	1	51	1.2%
SWA	Seriolella punctata	Silver warehou	Fish	Raffishes, Medusafishes	QMS	24,761	2,468,943	1.0%
TAM	Echinothuriidae and Phormosomatidae (Families)	Tam O'Shanter urchins	Echinoderms	-	Non-QMS	2	578	0.4%
TFA	Trichopeltarion fantasticum	Frilled crab	Crustacea	Horse crabs	Non-QMS	2	19	10.6%
TOA	Neophrynichthys spp.	Toadfish	Fish	Fatheads	Non-QMS	331	7,773	4.3%
UNX	N/A	All and any unidentified species	Other	-	Non-QMS	5	235	2.1%

**Table 1: LIN3 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
VIT	Vitjazmaia latidactyla	Deep-sea spider crab	Crustacea	Spider crabs	Non-QMS	5	6	83.3%
WAR	Seriolella brama	Common warehou	Fish	Raffishes, Medusafishes	QMS	1,200	105,544	1.1%
WHE	N/A	Whelks	Molluscs	-	Non-QMS	2	70	2.9%
WIT	Arnoglossus scapha	Witch	Fish	Lefteyed Flounders	Non-QMS	47	4,905	1.0%
WSQ	Onykia spp.	Warty squid	Molluscs	-	Non-QMS	429	24,249	1.8%
WWA	Seriolella caerulea	White warehou	Fish	Raffishes, Medusafishes	QMS	12,403	240,362	5.2%
YBO	Pentaceros decacanthus	Yellow boarfish	Fish	Boarfishes, Armourheads	Non-QMS	1	2	50.0%

**Summary Table 2: LIN4 (Trawl) – Top 20 species - observed non-target catch of target hake fishery over the last 5 fishing years (2007-08 to 2011-12)**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (HAK1 target tows only) (t)	Observed catch (all fishing in HAK1) (t)	Proportion of catch from HAK1 target tows (%)
LIN	<i>Genypterus blacodes</i>	Ling	Fish	Cusk Eels	QMS	218	1,933	11.3%
SWA	<i>Seriolella punctata</i>	Silver warehou	Fish	Raффishes, Medusafishes	QMS	209	987	21.1%
HOK	<i>Macruronus novaezelandiae</i>	Hoki	Fish	Hakes	QMS	131	11,869	1.1%
GSH	<i>Hydrolagus novaezealandiae</i>	Ghost shark	Fish	Chimaeras, Ghost Sharks	QMS	87	351	24.9%
RHY	<i>Paratrachichthys trailli</i>	Common roughy	Fish	Roughies, Slimeheads	Non-QMS	48	123	39.1%
SPD	<i>Squalus acanthias</i>	Spiny dogfish	Fish	Dogfishes	QMS	35	811	4.3%
RAT	Macrouridae (Family)	Rattails	Fish	Rattails, Grenadiers	Non-QMS	27	795	3.4%
STA	<i>Kathetostoma</i> spp.	Giant stargazer	Fish	Armourhead Stargazers	QMS	25	129	19.6%
BAR	<i>Thyrsites atun</i>	Barracouta	Fish	Snake Mackerels	QMS	22	2,477	0.9%
JAV	<i>Lepidorhynchus denticulatus</i>	Javelinfish	Fish	Rattails, Grenadiers	Non-QMS	21	912	2.3%
SDO	<i>Cyttus novaezealandiae</i>	Silver dory	Fish	Dories	Non-QMS	18	29	61.7%
WAR	<i>Seriolella brama</i>	Common warehou	Fish	Raффishes, Medusafishes	QMS	14	14	99.7%
RCO	<i>Pseudophycis bachus</i>	Red cod	Fish	Morid Cods	QMS	12	58	20.6%
LDO	<i>Cyttus traversi</i>	Lookdown dory	Fish	Dories	QMS	10.4	83	12.6%
SPE	<i>Helicolenus</i> spp.	Sea perch	Fish	Scorpionfishes	QMS	9.6	318	3.0%
BBE	<i>Centriscope humerosus</i>	Banded bellowsfish	Fish	Snipefishes	Non-QMS	5.4	34	16.2%
SSI	<i>Argentina elongata</i>	Silverside	Fish	Silversides	Non-QMS	4.8	25	19.1%
BYX	<i>Beryx splendens</i> , <i>B. decadactylus</i>	Alfonsino & Long-finned beryx	Fish	Alfonsinos	QMS	4.7	70	6.8%
SQU	<i>Nototodarus sloanii</i> , <i>N. gouldi</i>	Arrow squid	Molluscs	-	QMS	4.6	97	4.8%
BYS	<i>Beryx splendens</i>	Alfonsino	Fish	Alfonsinos	QMS	4	357	1.1%

**Table 2: LIN4 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12)**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
BAR	Thyrsites atun	Barracouta	Fish	Snake Mackerels	QMS	21,745	2,476,983	0.9%
BBE	Centriscoops humerosus	Banded bellowsfish	Fish	Snipefishes	Non-QMS	5,424	33,564	16.2%
BEL	Centriscoops spp.	Bellowsfish	Fish	Snipefishes	Non-QMS	831	14,149	5.9%
BNS	Hyperoglyphe antarctica	Bluenose	Fish	Raффishes, Medusafishes	QMS	263	51,534	0.5%
BOO	Keratois spp.	Bamboo coral	Cnidaria	-	Non-QMS	0	37	0.5%
BPD	Brachiopoda (Phylum)	Lamp shells	Molluscs	Lamp shells	Non-QMS	0	29	0.3%
BRI	Colistium guntheri	Brill	Fish	Righteyed Flounders	QMS	30	164	18.3%
BSH	Dalatis licha	Seal shark	Fish	Kitefin sharks	Non-QMS	10	64,247	0.0%
BYS	Beryx splendens	Alfonsino	Fish	Alfonsinos	QMS	4,012	357,452	1.1%
BYX	Beryx splendens, B. decadactylus	Alfonsino & Long-finned beryx	Fish	Alfonsinos	QMS	4,760	69,564	6.8%
CAR	Cephaloscyllium isabellum	Carpet shark	Fish	Cat sharks	Non-QMS	129	3,428	3.8%
CAY	Caryophyllia spp.	Caryophyllia spp.	Cnidaria	-	Non-QMS	0	319	0.0%
CDO	Capromimus abbreviatus	Capro dory	Fish	Dories	Non-QMS	296	576	51.4%
CON	Conger spp.	Conger eel	Fish	Conger Eels	Non-QMS	157	8,481	1.9%
CRB	N/A	Crab (Unspecified)	Crustacea	-	Non-QMS	8	2,461	0.3%
CYP	Centroscymnus crepidater	Longnose velvet dogfish	Fish	Dogfishes	Non-QMS	2	58,860	0.0%
DAP	Dagnaudus petterdi	Antlered crab	Crustacea	Homolid crabs	Non-QMS	1	199	0.5%
DHO	Dermechinus horridus	Deepsea urchin	Echinoderms	-	Non-QMS	11	363	3.1%
DMG	Dipsacaster magnificus	Magnificent sea-star	Echinoderms	-	Non-QMS	2	255	0.8%
DSK	Amblyraja hyperborea	Deepwater spiny skate	Fish	Skates	Non-QMS	1	1,546	0.1%

**Table 2: LIN4 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
DWD	N/A	Deepwater dogfish (Unspecified)	Fish	-	Non-QMS	10	137,294	0.0%
EMA	<i>Scomber australasicus</i>	Blue mackerel	Fish	Mackerels, Tunas	QMS	104	59,268	0.2%
ERA	<i>Torpedo fairchildi</i>	Electric ray	Fish	Electric Rays	Non-QMS	60	1,170	5.1%
ETB	<i>Etmopterus baxteri</i>	Baxter's lantern dogfish	Fish	Dogfishes	Non-QMS	15	215,963	0.0%
FHD	<i>Hoplichthys haswelli</i>	Deepsea flathead	Fish	Ghostflatheads	Non-QMS	1,032	38,471	2.7%
FLA	N/A	Flatfish	Fish	-	QMS	142	858	16.6%
FMA	<i>Fusitriton magellanicus</i>	Fusitriton magellanicus	Molluscs	-	Non-QMS	1	2,050	0.1%
FRO	<i>Lepidopus caudatus</i>	Frostfish	Fish	Cutlassfishes	QMS	37	8,227	0.4%
GSH	<i>Hydrolagus novaezealandiae</i>	Ghost shark	Fish	Chimaeras, Ghost Sharks	QMS	87,248	350,703	24.9%
GSP	<i>Hydrolagus bemisi</i>	Pale ghost shark	Fish	Chimaeras, Ghost Sharks	QMS	627	118,579	0.5%
GVO	<i>Provocator mirabilis</i>	Golden volute	Molluscs	Volutes	Non-QMS	0	125	0.1%
HAG	<i>Eptatretus cirrhatu</i>	Hagfish	Fish	Hagfishes	Non-QMS	2	3,934	0.1%
HAK	<i>Merluccius australis</i>	Hake	Fish	Hakes	QMS	821	142,737	0.6%
HAP	<i>Polyprion oxygeneios</i>	Hapuku	Fish	Wreckfishes	QMS	674	21,938	3.1%
HEX	<i>Hexanchus griseus</i>	Sixgill shark	Fish	Cow Sharks	Non-QMS	41	2,149	1.9%
HOK	<i>Macruronus novaezealandiae</i>	Hoki	Fish	Hakes	QMS	131,418	11,868,782	1.1%
HTH	Holothuroidea (Class)	Sea cucumber (not <i>Stichopus mollis</i> )	Echinoderms	-	Non-QMS	5	7,008	0.1%
HYA	<i>Hyalascus</i> sp.	Floppy tubular sponge	Porifera	-	Non-QMS	473	9,964	4.7%
JAV	<i>Lepidorhynchus denticulatus</i>	Javelinfish	Fish	Rattails, Grenadiers	Non-QMS	21,253	912,175	2.3%
JFI	N/A	Jellyfish (Unspecified)	Cnidaria	-	Non-QMS	25	1,893	1.3%

**Table 2: LIN4 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
JMA	Trachurus declivis, T. murphyi, T. novaezelandiae	Jack mackerel	Fish	Jacks, Trevallies, Kingfishes	QMS	1,226	327,732	0.4%
JMD	Trachurus declivis	Trachurus declivis	Fish	Jacks, Trevallies, Kingfishes	QMS	32	15,432	0.2%
JMM	Trachurus murphyi	Murphy's mackerel	Fish	Jacks, Trevallies, Kingfishes	QMS	23	288,827	0.0%
LDO	Cyttus traversi	Lookdown dory	Fish	Dories	QMS	10,450	82,869	12.6%
LIN	Genypterus blacodes	Ling	Fish	Cusk Eels	QMS	217,543	1,933,498	11.3%
LSK	Arhynchobatis asperrimus	Long-tailed skate	Fish	Skates	Non-QMS	4	806	0.5%
LSO	Pelotretis flavilatus	Lemon sole	Fish	Righteyed Flounders	QMS	194	680	28.5%
MIQ	Onykia ingens	Warty squid	Molluscs	-	Non-QMS	4	2,514	0.2%
MOL	N/A	Molluscs (Unspecified)	Molluscs	-	Non-QMS	2	474	0.4%
MSL	Mediaster sladeni	Sladen's star	Echinoderms	-	Non-QMS	2	776	0.3%
NSD	Squalus griffini	Northern spiny dogfish	Fish	Dogfishes	Non-QMS	71	9,564	0.7%
OCT	Pinnocotopus cordiformis	Octopus	Molluscs	-	Non-QMS	17	560	3.0%
ONG	Porifera (Phylum)	Sponges	Porifera	-	Non-QMS	346	5,142	6.7%
OPA	Hemerocoetes spp.	Opalfish	Fish	Opalfishes	Non-QMS	85	153	55.6%
OPE	Lepidoperca aurantia	Orange perch	Fish	Sea Perches, Gropers	Non-QMS	1,323	27,944	4.7%
OSD	Selachii (Order)	Sharks & Dogfish	Fish	-	Non-QMS	10	98,388	0.0%
OSK	Rajidae (Family)	Skate, Other	Fish	Skates	Non-QMS	36	1,820	2.0%
PAZ	Pachymatisma spp.	Rocky dumpling sponge	Porifera	-	Non-QMS	11	11	100.0%
PDG	Oxynotus bruniensis	Prickly dogfish	Fish	Rough Sharks	Non-QMS	126	1,381	9.1%
PIG	Congiopodus leucopaecilus	Pigfish	Fish	Pigfishes	Non-QMS	40	377	10.6%

**Table 2: LIN4 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
PLN	Poecillastra laminaris	Fibreglass cup sponge	Porifera	-	Non-QMS	1	1	75.0%
PSI	Psilaster acuminatus	Geometric star	Echinoderms	-	Non-QMS	22	2,065	1.1%
PSY	Psychrolutes sp.	Blobfish	Fish	Fatheads	Non-QMS	1	695	0.1%
RAT	Macrouridae (Family)	Rattails	Fish	Rattails, Grenadiers	Non-QMS	27,301	794,924	3.4%
RAY	Torpedinidae, Narkidae, Dasyatidae, Myliobatidae, Mobulidae (Families)	Rays	Fish	-	Non-QMS	3	121	2.5%
RBT	Emmelichthys nitidus	Redbait	Fish	Bonnetmouths, Rovers	QMS	413	69,737	0.6%
RBY	Plagiogeneion rubiginosum	Rubyfish	Fish	Bonnetmouths, Rovers	QMS	6	10,024	0.1%
RCO	Pseudophycis bachus	Red cod	Fish	Morid Cods	QMS	11,882	57,688	20.6%
RDO	Cyttopsis rosea	Rosy dory	Fish	Dories	Non-QMS	1,560	2,414	64.6%
RHY	Paratrachichthys trailli	Common roughy	Fish	Roughies, Slimeheads	Non-QMS	47,927	122,573	39.1%
ROK	Geological	Rocks / Stones	Other	-	Non-QMS	278	51,076	0.5%
RSK	Zearaja nasuta	Rough skate	Fish	Skates	QMS	55	8,920	0.6%
RUD	Centrolophus niger	Rudderfish	Fish	Raftfishes, Medusafishes	Non-QMS	313	9,133	3.4%
SBR	Pseudophycis barbata	Southern bastard cod	Fish	Morid Cods	Non-QMS	1	14	7.1%
SCH	Galeorhinus galeus	School shark	Fish	Smoothhounds	QMS	3,418	57,523	5.9%
SCI	Metanephrops challengerii	Scampi	Crustacea	Clawed lobsters	QMS	71	113,824	0.1%
SDM	Sympagurus dimorphus	Hermit crab	Crustacea	-	Non-QMS	1	145	0.7%
SDO	Cyttus novaezealandiae	Silver dory	Fish	Dories	Non-QMS	17,963	29,107	61.7%
SEE	Gnathopis habenatus	Silver conger	Fish	Conger Eels	Non-QMS	15	3,665	0.4%
SEV	Notorynchus cepedianus	Broadnose sevengill shark	Fish	Cow Sharks	Non-QMS	25	174	14.4%

**Table 2: LIN4 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
SFI	Asteroidea and Ophiuroidea	Starfish	Echinoderms	-	Non-QMS	215	7,088	3.0%
SLS	Peltorhamphus tenuis	Slender sole	Fish	Righteyed Flounders	Non-QMS	30	65	46.2%
SNI	Macroramphosus scolopax	Snipefish	Fish	Snipefishes	Non-QMS	252	322	78.3%
SOT	Solaster torulatus	Chubby sun-star	Echinoderms	-	Non-QMS	1	102	1.0%
SPD	Squalus acanthias	Spiny dogfish	Fish	Dogfishes	QMS	34,682	811,174	4.3%
SPE	Helicolenus spp.	Sea perch	Fish	Scorpionfishes	QMS	9,626	317,842	3.0%
SPT	Spatangus multispinus	Purple-heart urchin	Echinoderms	-	Non-QMS	22	895	2.5%
SQU	Nototodarus sloanii, N. gouldi	Arrow squid	Molluscs	-	QMS	4,664	97,220	4.8%
SRH	Hoplostethus mediterraneus	Silver roughy	Fish	Roughies, Slimeheads	Non-QMS	8	3,878	0.2%
SSI	Argentina elongata	Silverside	Fish	Silversides	Non-QMS	4,840	25,368	19.1%
SSK	Dipturus innominatus	Smooth skate	Fish	Skates	QMS	2,682	67,021	4.0%
STA	Kathetostoma spp.	Giant stargazer	Fish	Armourhead Stargazers	QMS	25,318	129,481	19.6%
SWA	Seriolella punctata	Silver warehou	Fish	Raftfishes, Medusafishes	QMS	208,774	987,117	21.1%
TAM	Echinothuriidae and Phormosomatidae (Families)	Tam O'Shanter urchins	Echinoderms	-	Non-QMS	14	1,519	0.9%
TAR	Nemadactylus macropterus, Nemadactylus sp.	Tarakihi ("King Tarakihi")	Fish	Tarakihi, Morwongs	QMS	66	19,801	0.3%
TAY	Typhlonarke aysoni	Blind electric ray	Fish	Sleeper rays	Non-QMS	17	1,243	1.4%
TOA	Neophrynichthys spp.	Toadfish	Fish	Fatheads	Non-QMS	7	6,657	0.1%
UNX	N/A	unidentified species	Other	-	Non-QMS	5	54	9.4%
WAR	Seriolella brama	Common warehou	Fish	Raftfishes, Medusafishes	QMS	14,003	14,043	99.7%
WIT	Arnoglossus scapha	Witch	Fish	Lefteyed Flounders	Non-QMS	2,209	6,680	33.1%



**Table 2: LIN4 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
WSQ	Onykia spp.	Warty squid	Molluscs	-	Non-QMS	10	52,035	0.0%
WWA	Seriolella caerulea	White warehou	Fish	Raftfishes, Medusafishes	QMS	3,508	113,609	3.1%
YBF	Rhombosolea leporina	Yellowbelly flounder	Fish	Righteyed Flounders	QMS	153	167	91.6%
ZOR	Zoroaster spp.	Rat-tail star	Echinoderms	-	Non-QMS	2	847	0.2%

**Summary Table 3: LIN5 (Trawl) – Top 20 species - observed non-target catch of target hake fishery over the last 5 fishing years (2007-08 to 2011-12)**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (HAK1 target tows only) (t)	Observed catch (all fishing in HAK1) (t)	Proportion of catch from HAK1 target tows (%)
LIN	<i>Genypterus blacodes</i>	Ling	Fish	Cusk Eels	QMS	1,715	4,366	39.3%
HOK	<i>Macruronus novaezelandiae</i>	Hoki	Fish	Hakes	QMS	619	10,127	6.1%
WWA	<i>Seriolella caerulea</i>	White warehou	Fish	Raффishes, Medusafishes	QMS	246	2,008	12.3%
HAK	<i>Merluccius australis</i>	Hake	Fish	Hakes	QMS	79	732	10.8%
JAV	<i>Lepidorhynchus denticulatus</i>	Javelinfish	Fish	Rattails, Grenadiers	Non-QMS	39	258	15.1%
SWA	<i>Seriolella punctata</i>	Silver warehou	Fish	Raффishes, Medusafishes	QMS	37	3,518	1.1%
RAT	Macrouridae (Family)	Rattails	Fish	Rattails, Grenadiers	Non-QMS	32	233	13.7%
SQU	<i>Nototodarus sloanii</i> , <i>N. gouldi</i>	Arrow squid	Molluscs	-	QMS	26	30,505	0.1%
RCO	<i>Pseudophycis bachus</i>	Red cod	Fish	Morid Cods	QMS	19	455	4.2%
CSQ	<i>Centrophorus squamosus</i>	Leafscale gulper shark	Fish	Gulper Sharks	Non-QMS	18	51	34.7%
SPD	<i>Squalus acanthias</i>	Spiny dogfish	Fish	Dogfishes	QMS	15	1,714	0.9%
RIB	<i>Mora moro</i>	Ribaldo	Fish	Morid Cods	QMS	13	42	31.1%
STA	<i>Kathetostoma</i> spp.	Giant stargazer	Fish	Armourhead Stargazers	QMS	6.4	118	5.5%
OSD	Selachii (Order)	Sharks & Dogfish	Fish	-	Non-QMS	5.6	35	16.1%
BNS	<i>Hyperoglyphe antarctica</i>	Bluenose	Fish	Raффishes, Medusafishes	QMS	4.3	36	11.9%
WAR	<i>Seriolella brama</i>	Common warehou	Fish	Raффishes, Medusafishes	QMS	4.1	1,650	0.2%
PLS	<i>Centroscymnus plunketi</i>	Plunket's shark	Fish	Sleeper Sharks	Non-QMS	3.7	12	31.3%
BSH	<i>Dalatias licha</i>	Seal shark	Fish	Kitefin sharks	Non-QMS	3.3	19	18.0%
LDO	<i>Cyttus traversi</i>	Lookdown dory	Fish	Dories	QMS	3.3	117	19.8%
SND	<i>Deania calcea</i>	Shovelnose dogfish	Fish	Gulper Sharks	Non-QMS	3.2	13	25.5%

**Table 3: LIN5 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12)**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
ACS	Actinostolidae (Family)	Smooth deepsea anemones	Cnidaria	Deepsea anemones	Non-QMS	24	650	3.6%
AER	Aeneator recens	Aeneator recens	Molluscs	Whelks	Non-QMS	1	9	11.6%
ANT	Actiniaria, Ceriantharia, Corallimorpharia & Zoanthidea (Orders)	Anemones	Cnidaria	Corals, Sea anemones	Non-QMS	4	223	1.8%
APR	Apristurus spp.	Cat shark	Fish	Cat sharks	Non-QMS	4	1,196	0.3%
ASR	Asteroidea (Class)	Sea stars	Echinoderms	-	Non-QMS	1	67	1.5%
BAM	Bathyploetes spp.	Bathyploetes spp.	Echinoderms	-	Non-QMS	1	19	5.3%
BAR	Thyrsites atun	Barracouta	Fish	Snake Mackerels	QMS	1,213	13,592,266	0.0%
BBE	Centriscopterus humerosus	Banded bellowsfish	Fish	Snipefishes	Non-QMS	8	3,380	0.2%
BCA	Magnisudis prionosa	Barracudina	Fish	Barracudinas	Non-QMS	1	3	33.3%
BEE	Diastobranchius capensis	Basketwork eel	Fish	Cutthroat Eels	Non-QMS	19	52	36.5%
BEL	Centriscopterus spp.	Bellowsfish	Fish	Snipefishes	Non-QMS	32	11,902	0.3%
BER	Typhlonarke spp.	Electric ray	Fish	Sleeper rays	Non-QMS	2	143	1.4%
BGZ	Kathetostoma binigrasella	Banded stargazer	Fish	Armourhead Stargazers	Non-QMS	3	3,139	0.1%
BHE	Bathypsectinura heros	Deepsea brittle star	Echinoderms	-	Non-QMS	1	8	12.5%
BNS	Hyperoglyphe antarctica	Bluenose	Fish	Raftfishes, Medusafishes	QMS	4,280	35,910	11.9%
BOC	Bolocera spp.	Deepsea anemones	Cnidaria	Sea anemones	Non-QMS	0	182	0.1%
BOE	Alloctytus niger	Black oreo	Fish	Oreos	QMS	61	69,232	0.1%
BSH	Dalatias licha	Seal shark	Fish	Kitefin sharks	Non-QMS	3,337	18,562	18.0%
BTH	Notoraja spp.	Deepsea skates	Fish	Skates	Non-QMS	10	70	14.3%
BYD	Beryx decadactylus	Longfinned beryx	Fish	Alfonsinos	QMS	2	9	22.2%

**Table 3: LIN5 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
BYS	<i>Beryx splendens</i>	Alfonsino	Fish	Alfonsinos	QMS	33	112	29.5%
BYX	<i>Beryx splendens</i> , B. decadactylus	Alfonsino & Long-finned beryx	Fish	Alfonsinos	QMS	1	17	5.9%
CAL	<i>Caenopedina porphyrogigas</i>	Giant purple pedinid	Echinoderms	-	Non-QMS	1	1	100.0%
CDL	<i>Epigonus telescopus</i>	Cardinal fish	Fish	Cardinalfishes	QMS	792	43,734	1.8%
CDO	<i>Capromimus abbreviatus</i>	Capro dory	Fish	Dories	Non-QMS	15	849	1.8%
CHI	<i>Chimaera</i> spp.	<i>Chimaera</i> spp.	Fish	Chimaeras, Ghost Sharks	Non-QMS	15	236	6.4%
CHP	<i>Chimaera</i> sp.	Chimaera, purple	Fish	Chimaeras, Ghost Sharks	Non-QMS	15	50	30.0%
CIC	<i>Crella incrustans</i>	Orange frond sponge	Porifera	-	Non-QMS	2	296	0.7%
CJA	<i>Crossaster multispinus</i>	Sun-star	Echinoderms	-	Non-QMS	3	45	6.7%
CON	<i>Conger</i> spp.	Conger eel	Fish	Conger Eels	Non-QMS	719	6,241	11.5%
COU	Alcyonacea, Gorgonacea, Scleractinia, Antipatharia	Coral (Unidentified)	Cnidaria	Stylasteridae	Non-QMS	0	135	0.1%
CPA	<i>Ceramaster patagonicus</i>	Pentagon star	Echinoderms	-	Non-QMS	6	719	0.8%
CRB	N/A	Crab (Unspecified)	Crustacea	-	Non-QMS	22	2,330	0.9%
CRM	<i>Callyspongia</i> cf. <i>ramosa</i>	Airy finger sponge	Porifera	-	Non-QMS	28	672	4.2%
CSH	Other than <i>Apristurus</i> spp.	Cat shark	Fish	Cat sharks	Non-QMS	1	1,269	0.1%
CSQ	<i>Centrophorus squamosus</i>	Leafscale gulper shark	Fish	Gulper Sharks	Non-QMS	17,694	50,991	34.7%
CUC	<i>Chlorophthalmus nigripinnis</i>	Cucumber fish	Fish	Cucumberfishes, Tripod Fishes	Non-QMS	1	27	3.7%
CYL	<i>Centroscymnus coelolepis</i>	Potuguese dogfish	Fish	Dogfishes	Non-QMS	1,315	2,501	52.6%
CYO	<i>Centroscymnus owstoni</i>	Smooth skin dogfish	Fish	Dogfishes	Non-QMS	733	2,864	25.6%
CYP	<i>Centroscymnus crepidater</i>	Longnose velvet dogfish	Fish	Dogfishes	Non-QMS	1,665	2,701	61.6%

**Table 3: LIN5 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
DCS	Halaelurus dawsoni	Dawson's cat shark	Fish	Cat sharks	Non-QMS	1	41	2.4%
DEA	Trachipterus trachipterus	Dealfish	Fish	Dealfishes	Non-QMS	26	3,489	0.7%
DHO	Dermechinus horridus	Deepsea urchin	Echinoderms	-	Non-QMS	2	40	5.0%
DIR	Diacanthurus rubricatus	Hermit crab	Crustacea	-	Non-QMS	2	35	5.7%
DMG	Dipsacaster magnificus	Magnificent sea-star	Echinoderms	-	Non-QMS	2	284	0.7%
DPP	Diplopteraster sp.	Diplopteraster sp.	Echinoderms	-	Non-QMS	2	70	2.9%
DSK	Amblyraja hyperborea	Deepwater spiny skate	Fish	Skates	Non-QMS	59	285	20.7%
DWD	N/A	Deepwater dogfish (Unspecified)	Fish	-	Non-QMS	2,748	19,515	14.1%
DWE	N/A	Deepwater eel (Unspecified)	Fish	-	Non-QMS	10	443	2.3%
DWO	Graneledone spp.	Deepwater octopus	Molluscs	-	Non-QMS	581	789	73.6%
EGC	N/A	Egg Case	Other	-	Non-QMS	0	15	1.4%
ELP	Elthusa propinqua	Gill biter	Crustacea	-	Non-QMS	1	1	100.0%
EPL	Epigonus lenimen	Cardinal fish, bigeye	Fish	Cardinalfishes	Non-QMS	649	1,731	37.5%
EPR	Epigonus robustus	Cardinal fish, robust	Fish	Cardinalfishes	Non-QMS	270	1,293	20.9%
ERA	Torpedo fairchildi	Electric ray	Fish	Electric Rays	Non-QMS	29	521	5.6%
ETB	Etmopterus baxteri	Baxter's lantern dogfish	Fish	Dogfishes	Non-QMS	588	49,614	1.2%
ETL	Etmopterus lucifer	Lucifer dogfish	Fish	Dogfishes	Non-QMS	448	6,158	7.3%
EUC	Euclichthys polynemus	Eucla cod	Fish	Eucla Cod	Non-QMS	2	34	5.9%
EZE	Enteroctopus zealandicus	Yellow octopus	Molluscs	Octopuses	Non-QMS	32	221	14.5%
FHD	Hoplichthys haswelli	Deepsea flathead	Fish	Ghostflatheads	Non-QMS	204	1,108	18.4%

**Table 3: LIN5 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
FMA	Fusitriton magellanicus	Fusitriton magellanicus	Molluscs	-	Non-QMS	43	942	4.6%
FRO	Lepidopus caudatus	Frostfish	Fish	Cutlassfishes	QMS	17	9,100	0.2%
GMC	Leptomithrax garricki	Garrick's masking crab	Crustacea	Spider crabs	Non-QMS	7	417	1.7%
GON	Gonorynchus forsteri, G. greyi	Sandfish	Fish	Sandfish	Non-QMS	35	11,957	0.3%
GOR	Gorgonocephalus spp.	Gorgon's head basket-stars	Echinoderms	-	Non-QMS	2	35	5.6%
GSC	Jacquintia edwardsii	Giant spider crab	Crustacea	Spider crabs	QMS	154	62,035	0.2%
GSH	Hydrolagus novaezealandiae	Ghost shark	Fish	Chimaeras, Ghost Sharks	QMS	2,171	65,855	3.3%
GSP	Hydrolagus bemisi	Pale ghost shark	Fish	Chimaeras, Ghost Sharks	QMS	2,565	70,938	3.6%
GSQ	Architeuthis sp.	Giant squid	Molluscs	-	Non-QMS	160	568	28.2%
GUR	Chelidonichthys kumu	Gurnard	Fish	Gurnards	QMS	7	19,640	0.0%
GVE	Geodia vestigifera	Ostrich egg sponge	Porifera	-	Non-QMS	1	47	1.3%
GVO	Provocator mirabilis	Golden volute	Molluscs	Volutes	Non-QMS	2	74	2.7%
HAG	Eptatretus cirrhatus	Hagfish	Fish	Hagfishes	Non-QMS	26	1,205	2.2%
HAK	Merluccius australis	Hake	Fish	Hakes	QMS	79,200	731,541	10.8%
HAP	Polyprion oxygeneios	Hapuku	Fish	Wreckfishes	QMS	248	84,146	0.3%
HCO	Bassanago hirsutus	Hairy conger	Fish	Conger Eels	Non-QMS	2	3,131	0.1%
HDF	Order Leptomeduseae & Order Anthoathecatae	Feathery hydroids	Cnidaria	-	Non-QMS	0	833	0.0%
HEX	Hexanchus griseus	Sixgill shark	Fish	Cow Sharks	Non-QMS	195	2,790	7.0%
HMT	Hormathiidae (Family)	Warty deepsea anemones	Cnidaria	-	Non-QMS	12	84	14.3%
HOK	Macruronus novaezealandiae	Hoki	Fish	Hakes	QMS	618,644	10,127,295	6.1%

**Table 3: LIN5 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
HOW	Howella brodiei	Pelagic cardinalfish	Fish	-	Non-QMS	27	27	100.0%
HTH	Holothuroidea (Class)	Sea cucumber (other than Stichopus mollis)	Echinoderms	-	Non-QMS	4	100	4.0%
HTR	Hippasteria phrygiana	Trojan star	Echinoderms	-	Non-QMS	2	92	2.2%
HYA	Hyalascus sp.	Floppy tubular sponge	Porifera	-	Non-QMS	4	2,553	0.1%
JAV	Lepidorhynchus denticulatus	Javelinfish	Fish	Rattails, Grenadiers	Non-QMS	38,820	257,757	15.1%
KIC	Lithodes murrayi, Neolithodes brodiei	King crab	Crustacea	Deepwater king or stone crabs	QMS	29	80	36.3%
LAN	Myctophidae (Family)	Lanternfish	Fish	Lanternfishes	Non-QMS	1	3,741	0.0%
LCH	Harriotta raleighana	Long-nosed chimaera	Fish	Longnose chimaeras	Non-QMS	110	7,370	1.5%
LDO	Cyttus traversi	Lookdown dory	Fish	Dories	QMS	3,275	16,550	19.8%
LIN	Genypterus blacodes	Ling	Fish	Cusk Eels	QMS	1,714,635	4,365,617	39.3%
LLC	Leptomithrax longipes	Long-legged masking crab	Crustacea	Spider crabs	Non-QMS	3	821	0.4%
LMU	Lithodes murrayi	Murray's king crab	Crustacea	Deepwater king or stone crabs	Non-QMS	10	86	11.6%
LNV	Lithosoma novaezelandiae	Rock star	Echinoderms	-	Non-QMS	6	482	1.2%
LSK	Arhynchobatis asperimus	Long-tailed skate	Fish	Skates	Non-QMS	4	40	10.0%
MDO	Zenopsis nebulosa	Mirror dory	Fish	Dories	Non-QMS	1	353	0.3%
MIQ	Onykia ingens	Warty squid	Molluscs	-	Non-QMS	793	3,333	23.8%
MOD	Moridae (Family)	Morids	Fish	Morid Cods	Non-QMS	7	25	28.0%
MRQ	Onykia robsoni	Warty squid	Molluscs	-	Non-QMS	14	22	63.6%
NAT	N/A	Natant Decapod	Crustacea	-	Non-QMS	1	2	50.0%
NCB	Nectocarcinus bennetti	Smooth red swimming crab	Crustacea	Swimming crabs	Non-QMS	2	6,023	0.0%

**Table 3: LIN5 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
OCT	<i>Pinnoctopus cordiformis</i>	Octopus	Molluscs	-	Non-QMS	24	4,018	0.6%
ONG	Porifera (Phylum)	Sponges	Porifera	-	Non-QMS	76	10,727	0.7%
OPE	<i>Lepidoperca aurantia</i>	Orange perch	Fish	Sea Perches, Gropers	Non-QMS	1	13,515	0.0%
ORH	<i>Hoplostethus atlanticus</i>	Orange roughy	Fish	Roughies, Slimeheads	QMS	97	2,675	3.6%
OSD	Selachii (Order)	Sharks & Dogfish not specified in Sch3, Reporting Regs 2001	Fish	-	Non-QMS	5,633	35,013	16.1%
OSK	Rajidae (Family)	Skate, Other	Fish	Skates	Non-QMS	24	186	12.9%
PAD	<i>Ovalipes catharus</i>	Paddle crab	Crustacea	Swimming crabs	QMS	1	28	3.6%
PAO	<i>Pillsburiaster aoteanus</i>	<i>Pillsburiaster aoteanus</i>	Echinoderms	-	Non-QMS	2	67	3.0%
PDG	<i>Oxynotus bruniensis</i>	Prickly dogfish	Fish	Rough Sharks	Non-QMS	520	1,978	26.3%
PHB	<i>Phorbas</i> spp.	Grey fibrous massive sponge	Porifera	-	Non-QMS	1	136	0.7%
PKN	<i>Plutonaster knoxi</i>	Abyssal star	Echinoderms	-	Non-QMS	1	10	10.0%
PLS	<i>Centroscyrnus plunketi</i>	Plunket's shark	Fish	Sleeper Sharks	Non-QMS	3,701	11,812	31.3%
PNE	<i>Proserpinaster neozelanicus</i>	<i>Proserpinaster neozelanicus</i>	Echinoderms	-	Non-QMS	2	31	6.5%
POS	<i>Lamna nasus</i>	Porbeagle shark	Fish	Mackerel Sharks	QMS	351	9,390	3.7%
PRA	N/A	Prawn (Unspecified)	Crustacea	-	Non-QMS	10	32	31.3%
PRU	<i>Pseudechinaster rubens</i>	<i>Pseudechinaster rubens</i>	Echinoderms	-	Non-QMS	1	109	0.9%
PSI	<i>Psilaster acuminatus</i>	Geometric star	Echinoderms	-	Non-QMS	4	112	3.6%
PSP	<i>Psenes pellucidus</i>	Scissortail	Fish	Eyebrowserfishes, Driftfishes	Non-QMS	50	134	37.3%
PSQ	<i>Pholidoteuthis boschmai</i>	<i>Pholidoteuthis boschmai</i>	Molluscs	-	Non-QMS	102	126	81.0%



**Table 3: LIN5 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
PYC	Pycnogonida (Class)	Sea spiders	Crustacea	-	Non-QMS	1	8	12.3%
PZE	Paralomis zealandica	Prickly king crab	Crustacea	Deepwater king or stone crabs	Non-QMS	2	7	28.6%
RAG	Icichthys australis	Ragfish	Fish	Raффishes, Medusafishes	Non-QMS	11	44	25.0%
RAT	Macrouridae (Family)	Rattails	Fish	Rattails, Grenadiers	Non-QMS	31,941	232,579	13.7%
RBM	Brama brama	Ray's bream	Fish	Pomfrets	QMS	2,435	43,935	5.5%
RBT	Emmelichthys nitidus	Redbait	Fish	Bonnetmouths, Rovers	QMS	10	1,455,908	0.0%
RCO	Pseudophycis bachus	Red cod	Fish	Morid Cods	QMS	19,046	454,828	4.2%
RDO	Cyttopsis rosea	Rosy dory	Fish	Dories	Non-QMS	108	55,346	0.2%
RGR	Radiaster gracilis	Radiaster gracilis	Echinoderms	-	Non-QMS	1	40	2.5%
RHY	Paratrachichthys trailli	Common roughy	Fish	Roughies, Slimeheads	Non-QMS	61	1,261	4.8%
RIB	Mora moro	Ribaldo	Fish	Morid Cods	QMS	13,117	42,182	31.1%
RIS	Bathyraja richardsoni	Richardson's skate	Fish	Skates	Non-QMS	6	190	3.2%
ROK	Geological	Rocks / Stones	Other	-	Non-QMS	475	120,877	0.4%
RSK	Zearaja nasuta	Rough skate	Fish	Skates	QMS	2,111	79,919	2.6%
RSQ	Ommastrephes bartrami	Ommastrephes bartrami	Molluscs	-	Non-QMS	87	1,171	7.4%
RUD	Centrolophus niger	Rudderfish	Fish	Raффishes, Medusafishes	Non-QMS	610	5,816	10.5%
SAL	N/A	Salps	Zoo & Phytoplankton	-	Non-QMS	17	3,299	0.5%
SBK	Notacanthus sexspinis	Spineback	Fish	Spiny Eels	Non-QMS	21	372	5.6%
SBO	Pseudopentaceros richardsoni	Southern boarfish	Fish	Boarfishes, Armourheads	Non-QMS	10	42	23.8%
SBR	Pseudophycis barbata	Southern bastard cod	Fish	Morid Cods	Non-QMS	25	106	23.6%

**Table 3: LIN5 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
SBW	Micromesistius australis	Southern blue whiting	Fish	True Cod	QMS	24	2,018	1.2%
SCC	Stichopus mollis	Sea cucumber	Echinoderms	-	QMS	0	58	0.2%
SCH	Galeorhinus galeus	School shark	Fish	Smoothhounds	QMS	2,126	197,111	1.1%
SCI	Metanephrops challengerii	Scampi	Crustacea	Clawed lobsters	QMS	6	10	60.0%
SCM	Scymnodon macracanthus	Roughskin dogfish	Fish	Dogfishes	Non-QMS	717	2,871	25.0%
SCO	Bassanago bulbiceps	Swollenhead conger	Fish	Conger Eels	Non-QMS	43	1,402	3.1%
SDM	Sympagurus dimorphus	Hermit crab	Crustacea	-	Non-QMS	2	101	2.0%
SDO	Cyttus novaezealandiae	Silver dory	Fish	Dories	Non-QMS	483	232,151	0.2%
SEE	Gnathopis habenatus	Silver conger	Fish	Conger Eels	Non-QMS	104	624	16.7%
SEO	N/A	Seaweed	Seaweed	-	Non-QMS	2	602	0.3%
SEV	Notorynchus cepedianus	Broadnose sevengill shark	Fish	Cow Sharks	Non-QMS	18	1,818	1.0%
SFI	Asteroidea and Ophiuroidea (Classes)	Starfish	Echinoderms	-	Non-QMS	37	1,782	2.1%
SHA	N/A	Shark (Unspecified)	Fish	-	Non-QMS	5	405	1.2%
SKI	Rexea spp.	Gemfish	Fish	Snake Mackerels	QMS	576	16,254	3.5%
SLK	Alepocephalidae (Family)	Slickhead	Fish	Slickheads	Non-QMS	1	181	0.6%
SMK	Teratomaia richardsoni	Spiny masking crab	Crustacea	Spider crabs	Non-QMS	1	11	9.0%
SMO	Sclerasterias mollis	Cross-fish	Echinoderms	-	Non-QMS	1	357	0.3%
SND	Deania calcea	Shovelnose dogfish	Fish	Gulper Sharks	Non-QMS	3,198	12,555	25.5%
SOR	Neocyttus rhomboidalis	Spiky oreo	Fish	Oreos	QMS	335	2,466	13.6%
SOT	Solaster torulatus	Chubby sun-star	Echinoderms	-	Non-QMS	1	72	1.4%

**Table 3: LIN5 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
SPD	<i>Squalus acanthias</i>	Spiny dogfish	Fish	Dogfishes	QMS	15,250	1,713,722	0.9%
SPE	<i>Helicolenus</i> spp.	Sea perch	Fish	Scorpionfishes	QMS	583	42,016	1.4%
SPO	<i>Mustelus lenticulatus</i>	Rig	Fish	Smoothhounds	QMS	2	13,365	0.0%
SQU	<i>Nototodarus sloanii</i> , <i>N. gouldi</i>	Arrow squid	Molluscs	-	QMS	25,645	30,505,321	0.1%
SRH	<i>Hoplostethus mediterraneus</i>	Silver roughy	Fish	Roughies, Slimeheads	Non-QMS	57	223	25.6%
SSH	<i>Gollum attenuatus</i>	Slender smooth-hound	Fish	False Cat Sharks	Non-QMS	5	161	3.1%
SSI	<i>Argentina elongata</i>	Silverside	Fish	Silversides	Non-QMS	703	10,364	6.8%
SSK	<i>Dipturus innominatus</i>	Smooth skate	Fish	Skates	QMS	1,909	35,847	5.3%
SSO	<i>Pseudocyttus maculatus</i>	Smooth oreo	Fish	Oreos	QMS	186	67,773	0.3%
STA	<i>Kathetostoma</i> spp.	Giant stargazer	Fish	Armourhead Stargazers	QMS	6,473	118,286	5.5%
STU	<i>Allothunnus fallai</i>	Slender tuna	Fish	Mackerels, Tunas	Non-QMS	7	44,127	0.0%
SUA	<i>Suberites affinis</i>	Fleshy club sponge	Porifera	-	Non-QMS	0	45	0.2%
SWA	<i>Seriolella punctata</i>	Silver warehou	Fish	Raftfishes, Medusafishes	QMS	37,240	3,517,837	1.1%
TAM	Echinothuriidae and Phormosomatidae (Families)	Tam O'Shanter urchins	Echinoderms	-	Non-QMS	46	685	6.7%
TLD	<i>Tetilla leptoderma</i>	Furry oval sponge	Porifera	-	Non-QMS	6	77	8.1%
TOA	<i>Neophrynichthys</i> spp.	Toadfish	Fish	Fatheads	Non-QMS	241	1,808	13.3%
TOD	<i>Neophrynichthys latus</i>	Dark toadfish	Fish	Fatheads	Non-QMS	2	28	7.1%
TOP	<i>Neophrynichthys angustus</i>	Pale toadfish	Fish	Fatheads	Non-QMS	8	228	3.5%
TSQ	<i>Todarodes filippovae</i>	<i>Todarodes filippovae</i>	Molluscs	-	Non-QMS	356	667	53.4%
UNI	N/A	Unidentified fish	Fish	-	Non-QMS	4	406	1.1%

**Table 3: LIN5 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
URO	N/A	Sea urchin other (except SUR - Kina)	Echinoderms	-	Non-QMS	1	33	3.0%
VKI	Veprichlamys kiwaensis	Veprichlamys kiwaensis	Molluscs	Scallops	Non-QMS	1	35	2.9%
VSQ	Histioteuthis spp.	Violet squid	Molluscs	-	Non-QMS	135	232	58.2%
WAR	Seriolella brama	Common warehou	Fish	Raффishes, Medusafishes	QMS	4,100	1,649,827	0.2%
WHE	N/A	Whelks	Molluscs	-	Non-QMS	9	42	21.4%
WIT	Arnoglossus scapha	Witch	Fish	Lefteyed Flounders	Non-QMS	64	5,086	1.3%
WRA	Dasyatis thetidis	Whiptail ray	Fish	Whiptail stingrays	Non-QMS	20	25	80.0%
WSQ	Onykia spp.	Warty squid	Molluscs	-	Non-QMS	2,552	14,935	17.1%
WWA	Seriolella caerulea	White warehou	Fish	Raффishes, Medusafishes	QMS	246,168	2,007,739	12.3%
ZOR	Zoroaster spp.	Rat-tail star	Echinoderms	-	Non-QMS	1	539	0.2%

**Summary Table 4: LIN5 (Trawl) – Top 20 species - observed non-target catch of target hake fishery over the last 5 fishing years (2007-08 to 2011-12)**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (HAK1 target tows only) (t)	Observed catch (all fishing in HAK1) (t)	Proportion of catch from HAK1 target tows (%)
LIN	<i>Genypterus blacodes</i>	Ling	Fish	Cusk Eels	QMS	1,147	4,584	25.0%
HOK	<i>Macruronus novaezelandiae</i>	Hoki	Fish	Hakes	QMS	899	8,684	10.4%
SBW	<i>Micromesistius australis</i>	Southern blue whiting	Fish	True Cods	QMS	205	88,110	0.2%
HAK	<i>Merluccius australis</i>	Hake	Fish	Hakes	QMS	94	3,960	2.4%
JAV	<i>Lepidorhynchus denticulatus</i>	Javelinfish	Fish	Rattails, Grenadiers	Non-QMS	43	612	7.1%
WWA	<i>Seriolella caerulea</i>	White warehou	Fish	Raffishes, Medusafishes	QMS	42	442	9.6%
SPD	<i>Squalus acanthias</i>	Spiny dogfish	Fish	Dogfishes	QMS	30	382	7.8%
GSP	<i>Hydrolagus bemisi</i>	Pale ghost shark	Fish	Chimaeras, Ghost Sharks	QMS	26	319	8.3%
SSI	<i>Argentina elongata</i>	Silverside	Fish	Silversides	Non-QMS	20	152	13.1%
RAT	Macrouridae (Family)	Rattails	Fish	Rattails, Grenadiers	Non-QMS	19	392	4.9%
RSK	<i>Zearaja nasuta</i>	Rough skate	Fish	Skates	QMS	13	128	10.2%
RIB	<i>Mora moro</i>	Ribaldo	Fish	Morid Cods	QMS	10.1	163	6.2%
SQU	<i>Nototodarus sloanii</i> , <i>N. gouldi</i>	Arrow squid	Molluscs	N/A	QMS	7.2	32,869	0.0%
GSH	<i>Hydrolagus novaezealandiae</i>	Ghost shark	Fish	Chimaeras, Ghost Sharks	QMS	6.7	55	12.4%
ONG	Porifera (Phylum)	Sponges	Porifera	N/A	Non-QMS	4.4	10	44.1%
STA	<i>Kathetostoma</i> spp.	Giant stargazer	Fish	Armourhead Stargazers	QMS	4.1	21	20.0%
WSQ	<i>Onykia</i> spp.	Warty squid	Molluscs	N/A	Non-QMS	4	50	7.9%
CSQ	<i>Centrophorus squamosus</i>	Leafscale gulper shark	Fish	Gulper Sharks	Non-QMS	3.9	21	18.4%
MIQ	<i>Onykia ingens</i>	Warty squid	Molluscs	N/A	Non-QMS	3.5	27	13.0%
LDO	<i>Cyttus traversi</i>	Lookdown dory	Fish	Dories	QMS	3.3	15	22.1%

**Table 4: LIN6 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12)**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
ACA	Acanthephyra spp.	Subantarctic ruby prawn	Crustacea	N/A	Non-QMS	1	16	6.3%
ACS	Actinostolidae (Family)	Smooth deepsea anemones	Cnidaria	Deepsea anemones	Non-QMS	41	2,570	1.6%
AFO	Aristaeomorpha foliacea	Royal red prawn	Crustacea	N/A	Non-QMS	1	3	33.3%
ANT	Actiniaria, Ceriantharia, Corallimorpharia & Zoanthidea (Orders)	Anemones	Cnidaria	Corals, Sea anemones	Non-QMS	102	2,076	4.9%
APG	Epigonidae (Family)	Cardinalfish	Fish	Cardinalfishes	Non-QMS	4	4	100.0%
API	Alertichthys blacki	Alert pigfish	Fish	Pigfishes	Non-QMS	2	147	1.4%
APR	Apristurus spp.	Cat shark	Fish	Cat sharks	Non-QMS	2	508	0.4%
ASR	Asteroidea (Class)	Sea stars	Echinoderms	N/A	Non-QMS	3	3,273	0.1%
ATR	Actiniaria (Order)	Sea anemones	Cnidaria	Corals, Sea anemones	Non-QMS	0	8	1.2%
BAR	Thyrsites atun	Barracouta	Fish	Snake Mackerels	QMS	5	14,861	0.0%
BBE	Centriscopus humerosus	Banded bellowsfish	Fish	Snipefishes	Non-QMS	76	634	12.0%
BCD	Paranotothenia magellanica	Black cod	Fish	Antarctic Rock Cods	Non-QMS	53	131,921	0.0%
BCO	Parapercis colias	Blue cod	Fish	Weevers, Sandperches	QMS	5	1,114	0.4%
BEE	Diastobranchus capensis	Basketwork eel	Fish	Cutthroat Eels	Non-QMS	45	22,843	0.2%
BEL	Centriscopus spp.	Bellowsfish	Fish	Snipefishes	Non-QMS	25	432	5.8%
BNS	Hyperoglyphe antarctica	Bluenose	Fish	Rafffishes, Medusafishes	QMS	37	578	6.4%
BOC	Bolocera spp.	Deepsea anemones	Cnidaria	Sea anemones	Non-QMS	1	190	0.6%
BOE	Alloctytus niger	Black oreo	Fish	Oreos	QMS	27	6,911,265	0.0%
BPD	Brachiopoda (Phylum)	Lamp shells	Molluscs	Lamp shells	Non-QMS	4	9	44.0%
BSH	Dalatias licha	Seal shark	Fish	Kitefin sharks	Non-QMS	1,109	21,862	5.1%

**Table 4: LIN6 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
BTH	Notoraja spp.	Deepsea skates	Fish	Skates	Non-QMS	9	1,534	0.6%
BYS	Beryx splendens	Alfonsino	Fish	Alfonsinos	QMS	2	34	5.9%
CAM	Campylonotus rathbunae	Sabre prawn	Crustacea	N/A	Non-QMS	5	175	2.9%
CAR	Cephaloscyllium isabellum	Carpet shark	Fish	Cat sharks	Non-QMS	16	1,053	1.5%
CCO	Coelorinchus cookianus	Cooks rattail	Fish	Rattails, Grenadiers	Non-QMS	34	1,670	2.0%
CDL	Epigonus telescopus	Cardinal fish	Fish	Cardinalfishes	QMS	280	887	31.6%
CDX	Coelorinchus maurofasciatus	Dark banded rattail	Fish	Rattails, Grenadiers	Non-QMS	18	606	3.0%
CHI	Chimaera spp.	Chimaera spp.	Fish	Chimaeras, Ghost Sharks	Non-QMS	5	19,540	0.0%
CHP	Chimaera sp.	Chimaera, purple	Fish	Chimaeras, Ghost Sharks	Non-QMS	7	6,572	0.1%
CJA	Crossaster multispinus	Sun-star	Echinoderms	N/A	Non-QMS	3	323	0.9%
COF	Flabellum spp.	Flabellum cup corals	Cnidaria	N/A	Non-QMS	1	1	41.7%
CON	Conger spp.	Conger eel	Fish	Conger Eels	Non-QMS	259	5,611	4.6%
COU	Alcyonacea,Gorgonacea, Scleractinia,Antipatharia	Coral (Unidentified)	Cnidaria	Stylasteridae	Non-QMS	3	34	8.8%
CPA	Ceramaster patagonicus	Pentagon star	Echinoderms	N/A	Non-QMS	123	1,979	6.2%
CRB	N/A	Crab (Unspecified)	Crustacea	N/A	Non-QMS	7	22,362	0.0%
CRM	Callyspongia cf. ramosa	Airy finger sponge	Porifera	N/A	Non-QMS	1	1,121	0.0%
CSH	Other than Apristurus spp.	Cat shark	Fish	Cat sharks	Non-QMS	133	6,027	2.2%
CSQ	Centrophorus squamosus	Leafscale gulper shark	Fish	Gulper Sharks	Non-QMS	3,901	21,251	18.4%
CYL	Centroscyrnus coelolepis	Potuguese dogfish	Fish	Dogfishes	Non-QMS	156	334	46.7%
CYO	Centroscyrnus owstoni	Smooth skin dogfish	Fish	Dogfishes	Non-QMS	170	557	30.5%

**Table 4: LIN6 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
CYP	Centroscymnus crepidater	Longnose velvet dogfish	Fish	Dogfishes	Non-QMS	190	3,432	5.5%
DCS	Halaelurus dawsoni	Dawson's cat shark	Fish	Cat sharks	Non-QMS	6	636	0.9%
DEA	Trachipterus trachipterus	Dealfish	Fish	Dealfishes	Non-QMS	12	113	10.6%
DHO	Dermechinus horridus	Deepsea urchin	Echinoderms	N/A	Non-QMS	35	109	32.2%
DIR	Diacanthurus rubricatus	Hermit crab	Crustacea	N/A	Non-QMS	3	122	2.5%
DMG	Dipsacaster magnificus	Magnificent sea-star	Echinoderms	N/A	Non-QMS	15	225	6.7%
DSK	Amblyraja hyperborea	Deepwater spiny skate	Fish	Skates	Non-QMS	8	812	1.0%
DWD	N/A	Deepwater dogfish (Unspecified)	Fish	N/A	Non-QMS	224	5,489	4.1%
DWE	N/A	Deepwater eel (Unspecified)	Fish	N/A	Non-QMS	149	1,829	8.1%
DWO	Graneledone spp.	Deepwater octopus	Molluscs	N/A	Non-QMS	57	740	7.7%
ECH	Echinodermata (Phylum)	Echinoderms	Echinoderms	N/A	Non-QMS	4	80	5.0%
ECN	N/A	Echinoid (Sea Urchin)	Echinoderms	N/A	Non-QMS	15	117	12.8%
EGC	N/A	Egg Case	Other	N/A	Non-QMS	4	23	17.6%
EPL	Epigonus lenimen	Cardinal fish, bigeye	Fish	Cardinalfishes	Non-QMS	63	442	14.3%
EPR	Epigonus robustus	Cardinal fish, robust	Fish	Cardinalfishes	Non-QMS	1	282	0.4%
ETB	Etmopterus baxteri	Baxter's lantern dogfish	Fish	Dogfishes	Non-QMS	1,371	183,886	0.7%
ETL	Etmopterus lucifer	Lucifer dogfish	Fish	Dogfishes	Non-QMS	483	6,064	8.0%
ETM	Etmopterus spp.	Etmopterus spp.	Fish	Dogfishes	Non-QMS	10	7,119	0.1%
EUC	Euclichthys polynemus	Eucla cod	Fish	Eucla Cod	Non-QMS	4	6	66.7%
EZE	Enteroctopus zealandicus	Yellow octopus	Molluscs	Octopuses	Non-QMS	40	526	7.6%



**Table 4: LIN6 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
FHD	Hoplichthys haswelli	Deepsea flathead	Fish	Ghostflatheads	Non-QMS	154	952	16.2%
FMA	Fusitriton magellanicus	Fusitriton magellanicus	Molluscs	N/A	Non-QMS	61	787	7.8%
FRA	N/A	Fragments, Bones	Other	N/A	Non-QMS	60	225	26.7%
FUN	Funchalia spp.	Funchalia spp.	Crustacea	N/A	Non-QMS	1	2	50.0%
GAS	Gastropoda (Class)	Gastropods	Molluscs	N/A	Non-QMS	1	570	0.2%
GOR	Gorgonocephalus spp.	Gorgon's head basket-stars	Echinoderms	N/A	Non-QMS	3	225	1.3%
GRC	Tripterygius gilchristi	Grenadier cod	Fish	Morid Cods	Non-QMS	16	1,509	1.1%
GSC	Jacquintia edwardsii	Giant spider crab	Crustacea	Spider crabs	QMS	1,506	105,422	1.4%
GSH	Hydrolagus novaezealandiae	Ghost shark	Fish	Chimaeras, Ghost Sharks	QMS	6,752	54,594	12.4%
GSP	Hydrolagus bemisi	Pale ghost shark	Fish	Chimaeras, Ghost Sharks	QMS	26,523	318,595	8.3%
GSQ	Architeuthis sp.	Giant squid	Molluscs	N/A	Non-QMS	200	1,679	11.9%
GST	Gonostomatidae (Family)	Lightfishes	Fish	Lightfishes	Non-QMS	2	16	12.5%
GVO	Provocator mirabilis	Golden volute	Molluscs	Volutes	Non-QMS	10	191	5.2%
HAK	Merluccius australis	Hake	Fish	Hakes	QMS	94,285	3,960,245	2.4%
HCO	Bassanago hirsutus	Hairy conger	Fish	Conger Eels	Non-QMS	13	9,995	0.1%
HEC	Henricia compacta	Henricia compacta	Echinoderms	N/A	Non-QMS	1	82	1.2%
HMT	Hormathiidae (Family)	Warty deepsea anemones	Cnidaria	N/A	Non-QMS	9	1,956	0.5%
HOK	Macruronus novaezealandiae	Hoki	Fish	Hakes	QMS	899,356	8,683,698	10.4%
HTH	Holothuroidea (Class)	Sea cucumber (other than Stichopus mollis)	Echinoderms	N/A	Non-QMS	55	2,703	2.0%
HTR	Hippasteria phrygiana	Trojan star	Echinoderms	N/A	Non-QMS	13	374	3.5%

**Table 4: LIN6 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
HYA	Hyalascus sp.	Floppy tubular sponge	Porifera	N/A	Non-QMS	440	6,067	7.2%
HYD	Hydrolagus spp.	Hydrolagus spp.	Fish	Chimaeras, Ghost Sharks	Non-QMS	4	527	0.8%
JAV	Lepidorhynchus denticulatus	Javelinfish	Fish	Rattails, Grenadiers	Non-QMS	43,379	612,476	7.1%
JFI	N/A	Jellyfish (Unspecified)	Cnidaria	N/A	Non-QMS	5	734	0.7%
KIC	Lithodes murrayi, Neolithodes brodiei	King crab	Crustacea	Deepwater king or stone crabs	QMS	45	589	7.6%
LAG	Laetmogone spp.	Laetmogone spp.	Echinoderms	N/A	Non-QMS	0	3	2.9%
LCH	Harriotta raleighana	Long-nosed chimaera	Fish	Longnose chimaeras	Non-QMS	593	12,681	4.7%
LDO	Cyttus traversi	Lookdown dory	Fish	Dories	QMS	3,356	15,188	22.1%
LIN	Genypterus blacodes	Ling	Fish	Cusk Eels	QMS	1,146,712	4,584,208	25.0%
LLC	Leptomithrax longipes	Long-legged masking crab	Crustacea	Spider crabs	Non-QMS	8	144	5.6%
LMU	Lithodes murrayi	Murray's king crab	Crustacea	Deepwater king or stone crabs	Non-QMS	13	1,138	1.1%
LNV	Lithosoma novaezelandiae	Rock star	Echinoderms	N/A	Non-QMS	100	804	12.5%
LSK	Arhynchobatis asperrimus	Long-tailed skate	Fish	Skates	Non-QMS	7	577	1.2%
MAN	Neoachirosetta milfordi	Finless flounder	Fish	Lefteyed Flounders	Non-QMS	2	740	0.3%
MCA	Macrourus carinatus	Ridge scaled rattail	Fish	Rattails, Grenadiers	Non-QMS	18	78,931	0.0%
MIQ	Onykia ingens	Warty squid	Molluscs	N/A	Non-QMS	3,460	26,672	13.0%
MOD	Moridae (Family)	Morids	Fish	Morid Cods	Non-QMS	7	1,607	0.4%
MOL	N/A	Molluscs (Unspecified)	Molluscs	N/A	Non-QMS	12	206	5.8%
MRQ	Onykia robsoni	Warty squid	Molluscs	N/A	Non-QMS	91	180	50.6%
NAT	N/A	Natant Decapod	Crustacea	N/A	Non-QMS	4	34	11.7%

Table 4: LIN6 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
NCB	Nectocarcinus bennetti	Smooth red swimming crab	Crustacea	Swimming crabs	Non-QMS	3	1,106,150	0.0%
NEB	Neolithodes brodiei	Brodie's king crab	Crustacea	Deepwater king or stone crabs	Non-QMS	23	430	5.4%
NSD	Squalus griffini	Northern spiny dogfish	Fish	Dogfishes	Non-QMS	8	34	23.5%
OCT	Pinnoctopus cordiformis	Octopus	Molluscs	N/A	Non-QMS	22	1,963	1.1%
ODT	Odontaster benhami	Pentagonal tooth-star	Echinoderms	N/A	Non-QMS	2	28	7.1%
ONG	Porifera (Phylum)	Sponges	Porifera	N/A	Non-QMS	4,390	9,956	44.1%
OPA	Hemerocoetes spp.	Opalfish	Fish	Opalfishes	Non-QMS	26	1,713	1.5%
OPE	Lepidoperca aurantia	Orange perch	Fish	Sea Perches, Gropers	Non-QMS	1	8	12.5%
ORH	Hoplostethus atlanticus	Orange roughy	Fish	Roughies, Slimeheads	QMS	12	1,191,263	0.0%
OSD	Selachii (Order)	Sharks & Dogfish not specified in Reporting Regs 2001	Fish	N/A	Non-QMS	1,383	50,295	2.7%
OSK	Rajidae (Family)	Skate, Other	Fish	Skates	Non-QMS	803	3,916	20.5%
PAG	Paguroidea (Family)	Pagurid	Crustacea	N/A	Non-QMS	1	2	50.0%
PAM	Pannychia moseleyi	Pannychia moseleyi	Echinoderms	N/A	Non-QMS	1	243	0.4%
PAO	Pillsburiaster aoteanus	Pillsburiaster aoteanus	Echinoderms	N/A	Non-QMS	28	241	11.6%
PDG	Oxynotus bruniensis	Prickly dogfish	Fish	Rough Sharks	Non-QMS	52	602	8.6%
PHB	Phorbas spp.	Grey fibrous massive sponge	Porifera	N/A	Non-QMS	3	31	8.4%
PIG	Congiopodus leucopaecilus	Pigfish	Fish	Pigfishes	Non-QMS	704	12,844	5.5%
PLS	Centroscyrnus plunketi	Plunket's shark	Fish	Sleeper Sharks	Non-QMS	626	5,696	11.0%
PMO	Pseudostichopus mollis	Pseudostichopus mollis	Echinoderms	N/A	Non-QMS	1	303	0.3%

**Table 4: LIN6 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
PNE	<i>Proserpinaster neozelanicus</i>	Proserpinaster neozelanicus	Echinoderms	N/A	Non-QMS	2	452	0.5%
PNN	<i>Pennatula</i> spp.	Purple sea pen	Cnidaria	N/A	Non-QMS	1	1	76.9%
POS	<i>Lamna nasus</i>	Porbeagle shark	Fish	Mackerel Sharks	QMS	510	21,422	2.4%
PRA	N/A	Prawn (Unspecified)	Crustacea	N/A	Non-QMS	6	90	6.7%
PRU	<i>Pseudechinaster rubens</i>	<i>Pseudechinaster rubens</i>	Echinoderms	N/A	Non-QMS	10	102	9.6%
PSI	<i>Psilaster acuminatus</i>	Geometric star	Echinoderms	N/A	Non-QMS	5	1,053	0.5%
PSK	<i>Bathyraja shuntovi</i>	Longnosed deepsea skate	Fish	Skates	Non-QMS	7	1,422	0.5%
PZE	<i>Paralomis zealandica</i>	Prickly king crab	Crustacea	Deepwater king or stone crabs	Non-QMS	1	28	4.6%
QSC	<i>Zygochlamys delicatula</i>	Queen scallop	Molluscs	Scallops	QMS	3	23	13.3%
RAG	<i>Icichthys australis</i>	Ragfish	Fish	Raффishes, Medusafishes	Non-QMS	4	665	0.6%
RAT	Macrouridae (Family)	Rattails	Fish	Rattails, Grenadiers	Non-QMS	19,204	391,694	4.9%
RBM	<i>Brama brama</i>	Ray's bream	Fish	Pomfrets	QMS	144	11,444	1.3%
RCO	<i>Pseudophycis bachus</i>	Red cod	Fish	Morid Cods	QMS	2,811	702,395	0.4%
RGR	<i>Radiaster gracilis</i>	<i>Radiaster gracilis</i>	Echinoderms	N/A	Non-QMS	5	27	18.5%
RIB	<i>Mora moro</i>	Ribaldo	Fish	Morid Cods	QMS	10,140	163,383	6.2%
RIS	<i>Bathyraja richardsoni</i>	Richardson's skate	Fish	Skates	Non-QMS	75	256	29.3%
ROK	Geological	Rocks / Stones	Other	N/A	Non-QMS	333	67,500	0.5%
RSK	<i>Zearaja nasuta</i>	Rough skate	Fish	Skates	QMS	13,172	128,608	10.2%
RSQ	<i>Ommastrephes bartrami</i>	<i>Ommastrephes bartrami</i>	Molluscs	N/A	Non-QMS	143	4,512	3.2%
RUD	<i>Centrolophus niger</i>	Rudderfish	Fish	Raффishes, Medusafishes	Non-QMS	263	9,514	2.8%

**Table 4: LIN6 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
SAL	N/A	Salps	Zoo & Phytoplankton	N/A	Non-QMS	1	2,044	0.0%
SBK	Notacanthus sexspinis	Spineback	Fish	Spiny Eels	Non-QMS	1,330	2,152	61.8%
SBR	Pseudophycis barbata	Southern bastard cod	Fish	Morid Cods	Non-QMS	2	595	0.3%
SBW	Micromesistius australis	Southern blue whiting	Fish	True Cods	QMS	205,533	88,109,566	0.2%
SCD	Paranotothenia microlepidota	Smallscaled cod	Fish	Antarctic Rock Cods	Non-QMS	1	1,130	0.1%
SCH	Galeorhinus galeus	School shark	Fish	Smoothhounds	QMS	282	8,701	3.2%
SCI	Metanephrops challengerii	Scampi	Crustacea	Clawed lobsters	QMS	161	86,436	0.2%
SCM	Scymnodon macracanthus	Roughskin dogfish	Fish	Dogfishes	Non-QMS	17	1,582	1.1%
SCO	Bassanago bulbiceps	Swollenhead conger	Fish	Conger Eels	Non-QMS	91	584	15.6%
SDF	Azygopus pinnifasciatus	Spotted flounder	Fish	Righteyed Flounders	Non-QMS	5	48	10.4%
SDM	Sympagurus dimorphus	Hermit crab	Crustacea	N/A	Non-QMS	1	179	0.6%
SDO	Cyttus novaezealandiae	Silver dory	Fish	Dories	Non-QMS	6	1,384	0.4%
SEE	Gnathophis habenatus	Silver conger	Fish	Conger Eels	Non-QMS	32	223	14.3%
SEO	N/A	Seaweed	Seaweed	N/A	Non-QMS	84	1,047	8.0%
SFI	Asteroidea and Ophiuroidea (Classes)	Starfish	Echinoderms	N/A	Non-QMS	296	5,619	5.3%
SLL	Scyllaridae (Family)	Slipper lobsters	Crustacea	Slipper Lobsters	Non-QMS	6	6	100.0%
SND	Deania calcea	Shovelnose dogfish	Fish	Gulper Sharks	Non-QMS	567	2,653	21.4%
SNI	Macroramphosus scolopax	Snipefish	Fish	Snipefishes	Non-QMS	79	178	44.4%
SOT	Solaster torulatus	Chubby sun-star	Echinoderms	N/A	Non-QMS	3	195	1.5%
SPD	Squalus acanthias	Spiny dogfish	Fish	Dogfishes	QMS	29,645	382,491	7.8%

**Table 4: LIN6 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
SPE	Helicolenus spp.	Sea perch	Fish	Scorpionfishes	QMS	68	7,039	1.0%
SQU	Nototodarus sloanii, N. gouldi	Arrow squid	Molluscs	N/A	QMS	7,227	32,869,243	0.0%
SRH	Hoplostethus mediterraneus	Silver roughy	Fish	Roughies, Slimeheads	Non-QMS	1	6	16.7%
SSH	Gollum attenuatus	Slender smooth-hound	Fish	False Cat Sharks	Non-QMS	15	51	29.4%
SSI	Argentina elongata	Silverside	Fish	Silversides	Non-QMS	19,987	152,279	13.1%
SSK	Dipturus innominatus	Smooth skate	Fish	Skates	QMS	2,343	27,119	8.6%
SSO	Pseudocyttus maculatus	Smooth oreo	Fish	Oreos	QMS	29	4,025,114	0.0%
STA	Kathetostoma spp.	Giant stargazer	Fish	Armourhead Stargazers	QMS	4,174	20,844	20.0%
SUA	Suberites affinis	Fleshy club sponge	Porifera	N/A	Non-QMS	0	49	0.4%
SWA	Seriolella punctata	Silver warehou	Fish	Raftfishes, Medusafishes	QMS	883	264,645	0.3%
TAM	Echinothuriidae and Phormosomatidae (Families)	Tam O'Shanter urchins	Echinoderms	N/A	Non-QMS	407	5,770	7.1%
TLD	Tetilla leptoderma	Furry oval sponge	Porifera	N/A	Non-QMS	5	24	19.1%
TOA	Neophrynichthys spp.	Toadfish	Fish	Fatheads	Non-QMS	1,232	10,772	11.4%
TOP	Neophrynichthys angustus	Pale toadfish	Fish	Fatheads	Non-QMS	52	434	12.0%
TSQ	Todarodes filippovae	Todarodes filippovae	Molluscs	N/A	Non-QMS	349	3,414	10.2%
URO	N/A	Sea urchin other (except SUR - Kina)	Echinoderms	N/A	Non-QMS	2	120	1.7%
URP	Uroptychus spp.	Squat lobsters	Crustacea	Squat lobsters	Non-QMS	1	6	16.4%
VOL	Volutidae (Family)	Volute	Molluscs	Volutes	Non-QMS	36	211	17.1%
VSQ	Histioteuthis spp.	Violet squid	Molluscs	N/A	Non-QMS	116	491	23.6%
WIT	Arnoglossus scapha	Witch	Fish	Lefteyed Flounders	Non-QMS	1,491	8,154	18.3%

**Table 4: LIN6 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
WRA	<i>Dasyatis thetidis</i>	Whiptail ray	Fish	Whiptail stingrays	Non-QMS	2	104	1.9%
WSQ	<i>Onykia</i> spp.	Warty squid	Molluscs	N/A	Non-QMS	3,966	49,916	7.9%
WWA	<i>Seriolella caerulea</i>	White warehou	Fish	Raffishes, Medusafishes	QMS	42,534	442,467	9.6%
ZOR	<i>Zoroaster</i> spp.	Rat-tail star	Echinoderms	N/A	Non-QMS	39	2,799	1.4%

**Summary Table 5: LIN7 (Trawl) – Top 20 species - observed non-target catch of target hake fishery over the last 5 fishing years (2007-08 to 2011-12)**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (HAK1 target tows only) (t)	Observed catch (all fishing in HAK1) (t)	Proportion of catch from HAK1 target tows (%)
HOK	<i>Macruronus novaezelandiae</i>	Hoki	Fish	Hakes	QMS	12	59,399	0.0%
LIN	<i>Genypterus blacodes</i>	Ling	Fish	Cusk Eels	QMS	6.3	1,068	0.6%
SWA	<i>Seriolella punctata</i>	Silver warehou	Fish	Raffishes, Medusafishes	QMS	0.9	774	0.1%
STA	<i>Kathetostoma</i> spp.	Giant stargazer	Fish	Armourhead Stargazers	QMS	0.6	56	1.2%
NSD	<i>Squalus griffini</i>	Northern spiny dogfish	Fish	Dogfishes	Non-QMS	0.5	38	1.3%
GSH	<i>Hydrolagus novaezealandiae</i>	Ghost shark	Fish	Chimaeras, Ghost Sharks	QMS	0.5	29	1.7%
SKI	<i>Rexea</i> spp.	Gemfish	Fish	Snake Mackerels	QMS	0.3	142	0.2%
CSH	Other than <i>Apristurus</i> spp.	Cat shark	Fish	Cat sharks	Non-QMS	0.2	2.7	7.8%
WOD	N/A	Wood	Other	-	Non-QMS	0.2	12	1.5%
SPE	<i>Helicolenus</i> spp.	Sea perch	Fish	Scorpionfishes	QMS	0.2	69	0.3%
SSK	<i>Dipturus innominatus</i>	Smooth skate	Fish	Skates	QMS	0.1	49	0.3%
HAK	<i>Merluccius australis</i>	Hake	Fish	Hakes	QMS	0.1	4,563	0.0%
ERA	<i>Torpedo fairchildi</i>	Electric ray	Fish	Electric Rays	Non-QMS	0.1	8.7	1.2%
SND	<i>Deania calcea</i>	Shovelnose dogfish	Fish	Gulper Sharks	Non-QMS	0.09	32	0.3%
CAR	<i>Cephaloscyllium isabellum</i>	Carpet shark	Fish	Cat sharks	Non-QMS	0.08	10.2	0.8%
JAV	<i>Lepidorhynchus denticulatus</i>	Javelinfish	Fish	Rattails, Grenadiers	Non-QMS	0.06	230	0.0%
RBV	<i>Plagiogeneion rubiginosum</i>	Rubyfish	Fish	Bonnetmouths, Rovers	QMS	0.04	0.6	5.7%
FHD	<i>Hoplichthys haswelli</i>	Deepsea flathead	Fish	Ghostflatheads	Non-QMS	0.04	19	0.2%
SCH	<i>Galeorhinus galeus</i>	School shark	Fish	Smoothhounds	QMS	0.04	78	0.0%
BAS	<i>Polyprion americanus</i>	Bass	Fish	Wreckfishes	QMS	0.03	4.2	0.8%



**Table 5: LIN7 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
BAR	Thyrsites atun	Barracouta	Fish	Snake Mackerels	QMS	22	10,907,551	0.0%
BAS	Polyprion americanus	Bass	Fish	Wreckfishes	QMS	34	4,271	0.8%
CAR	Cephaloscyllium isabellum	Carpet shark	Fish	Cat sharks	Non-QMS	84	10,189	0.8%
CDO	Capromimus abbreviatus	Capro dory	Fish	Dories	Non-QMS	5	2,586	0.2%
CRB	N/A	Crab (Unspecified)	Crustacea	-	Non-QMS	1	353	0.3%
CSH	Other than Apristurus spp.	Cat shark	Fish	Cat sharks	Non-QMS	209	2,666	7.8%
ERA	Torpedo fairchildi	Electric ray	Fish	Electric Rays	Non-QMS	101	8,678	1.2%
FHD	Hoplichthys haswelli	Deepsea flathead	Fish	Ghostflatheads	Non-QMS	35	19,327	0.2%
FRO	Lepidopus caudatus	Frostfish	Fish	Cutlassfishes	QMS	26	3,111,201	0.0%
GSH	Hydrolagus novaezealandiae	Ghost shark	Fish	Chimaeras, Ghost Sharks	QMS	492	29,026	1.7%
HAK	Merluccius australis	Hake	Fish	Hakes	QMS	120	4,563,521	0.0%
HOK	Macruronus novaezealandiae	Hoki	Fish	Hakes	QMS	11,756	59,398,784	0.0%
JAV	Lepidorhynchus denticulatus	Javelinfinch	Fish	Rattails, Grenadiers	Non-QMS	60	229,536	0.0%
LDO	Cyttus traversi	Lookdown dory	Fish	Dories	QMS	6	91,254	0.0%
LIN	Genypterus blacodes	Ling	Fish	Cusk Eels	QMS	6,370	1,068,013	0.6%
LSK	Arhynchobatis asperimus	Long-tailed skate	Fish	Skates	Non-QMS	7	477	1.5%
MOD	Moridae (Family)	Morids	Fish	Morid Cods	Non-QMS	11	3,280	0.3%
MOL	N/A	Molluscs (Unspecified)	Molluscs	-	Non-QMS	1	8	12.5%
NSD	Squalus griffini	Northern spiny dogfish	Fish	Dogfishes	Non-QMS	498	38,422	1.3%
OPA	Hemerocoetes spp.	Opalfish	Fish	Opalfishes	Non-QMS	6	2,832	0.2%
OPE	Lepidoperca aurantia	Orange perch	Fish	Sea Perches, Gropers	Non-QMS	18	15,802	0.1%

**Table 5: LIN7 (Trawl) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
RAT	Macrouridae (Family)	Rattails	Fish	Rattails, Grenadiers	Non-QMS	30	201,580	0.0%
RBT	Emmelichthys nitidus	Redbait	Fish	Bonnetmouths, Rovers	QMS	1	1,803,998	0.0%
RBY	Plagiogeneion rubiginosum	Rubyfish	Fish	Bonnetmouths, Rovers	QMS	36	628	5.7%
RCO	Pseudophycis bachus	Red cod	Fish	Morid Cods	QMS	31	95,968	0.0%
RHY	Paratrachichthys trailli	Common roughy	Fish	Roughies, Slimeheads	Non-QMS	7	23,763	0.0%
RIB	Mora moro	Ribaldo	Fish	Morid Cods	QMS	2	310,148	0.0%
SCH	Galeorhinus galeus	School shark	Fish	Smoothhounds	QMS	35	78,611	0.0%
SCI	Metanephrops challengeri	Scampi	Crustacea	Clawed lobsters	QMS	7	3,471	0.2%
SDO	Cyttus novaezealandiae	Silver dory	Fish	Dories	Non-QMS	7	168,852	0.0%
SFI	Asteroidea and Ophiuroidea (Classes)	Starfish	Echinoderms	-	Non-QMS	13	6,623	0.2%
SKI	Rexea spp.	Gemfish	Fish	Snake Mackerels	QMS	337	141,887	0.2%
SND	Deania calcea	Shovelnose dogfish	Fish	Gulper Sharks	Non-QMS	85	31,688	0.3%
SPD	Squalus acanthias	Spiny dogfish	Fish	Dogfishes	QMS	34	756,731	0.0%
SPE	Helicolenus spp.	Sea perch	Fish	Scorpionfishes	QMS	178	69,411	0.3%
SQU	Nototodarus sloanii, N. gouldi	Arrow squid	Molluscs	-	QMS	20	171,457	0.0%
SRH	Hoplostethus mediterraneus	Silver roughy	Fish	Roughies, Slimeheads	Non-QMS	1	6,970	0.0%
SSI	Argentina elongata	Silverside	Fish	Silversides	Non-QMS	3	17,508	0.0%
SSK	Dipturus innominatus	Smooth skate	Fish	Skates	QMS	135	49,369	0.3%
STA	Kathetostoma spp.	Giant stargazer	Fish	Armourhead Stargazers	QMS	651	55,590	1.2%
SWA	Serirolella punctata	Silver warehou	Fish	Raftfishes, Medusafishes	QMS	892	773,995	0.1%
WIT	Arnoglossus scapha	Witch	Fish	Lefteyed Flounders	Non-QMS	3	571	0.5%



# Ling Longline

**Summary Table 6: LIN2 (BLL) – Top 20 species - observed non-target catch of target hake fishery over the last 5 fishing years (2007-08 to 2011-12 )**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (HAK1 target tows only) (t)	Observed catch (all fishing in HAK1) (t)	Proportion of catch from HAK1 target tows (%)
SSK	Dipturus innominatus	Smooth skate	Fish	Skates	QMS	0.3	14	2.3%
LIN	Genypterus blacodes	Ling	Fish	Cusk Eels	QMS	0.2	35	0.7%
SPD	Squalus acanthias	Spiny dogfish	Fish	Dogfishes	QMS	0.2	165	0.1%
SCH	Galeorhinus galeus	School shark	Fish	Smoothhounds	QMS	0.2	3.4	5.2%
SPE	Helicolenus spp.	Sea perch	Fish	Scorpionfishes	QMS	0.1	32	0.5%
HAP	Polyprion oxygeneios	Hapuku	Fish	Wreckfishes	QMS	0.06	1	6.6%
RIB	Mora moro	Ribaldo	Fish	Morid Cods	QMS	0.05	4.8	1.0%
BNS	Hyperoglyphe antarctica	Bluenose	Fish	Rafffishes, Medusafishes	QMS	0.04	78	0.0%
CON	Conger spp.	Conger eel	Fish	Conger Eels	Non-QMS	0.03	0.4	5.7%
GSH	Hydrolagus novaezealandiae	Ghost shark	Fish	Chimaeras, Ghost Sharks	QMS	0.03	3.7	0.7%
BAS	Polyprion americanus	Bass	Fish	Wreckfishes	QMS	0.02	0.4	4.8%
CAR	Cephaloscyllium isabellum	Carpet shark	Fish	Cat sharks	Non-QMS	0.02	1	1.5%
HAG	Eptatretus cirrhatus	Hagfish	Fish	Hagfishes	Non-QMS	0.01	15	0.1%
ETL	Etmopterus lucifer	Lucifer dogfish	Fish	Dogfishes	Non-QMS	0.007	0.8	0.9%
RCO	Pseudophycis bachus	Red cod	Fish	Morid Cods	QMS	0.006	6.4	0.1%
HOK	Macruronus novaezealandiae	Hoki	Fish	Hakes	QMS	0.005	12,979	0.0%
OSD	Selachii (Order)	Sharks & Dogfish not otherwise specified in Sch3, Part2 Reporting Regs 2001	Fish	-	Non-QMS	0.002	4.3	0.0%
SFI	Asteroidea and Ophiuroidea (Classes)	Starfish	Echinoderms	-	Non-QMS	0.001	1.5	0.1%
UNI	N/A	Unidentified fish	Fish	-	Non-QMS	0.001	0.03	2.7%

**Table 6: LIN2 (BLL) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12)**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
BAS	<i>Polyprion americanus</i>	Bass	Fish	Wreckfishes	QMS	23	479	4.8%
BNS	<i>Hyperoglyphe antarctica</i>	Bluenose	Fish	Raftfishes, Medusafishes	QMS	38	77,572	0.0%
CAR	<i>Cephaloscyllium isabellum</i>	Carpet shark	Fish	Cat sharks	Non-QMS	15	969	1.5%
CON	Conger spp.	Conger eel	Fish	Conger Eels	Non-QMS	27	476	5.7%
ETL	<i>Etmopterus lucifer</i>	Lucifer dogfish	Fish	Dogfishes	Non-QMS	7	822	0.9%
GSH	<i>Hydrolagus novaezealandiae</i>	Ghost shark	Fish	Chimaeras, Ghost Sharks	QMS	25	3,706	0.7%
HAG	<i>Eptatretus cirrhatus</i>	Hagfish	Fish	Hagfishes	Non-QMS	14	15,322	0.1%
HAP	<i>Polyprion oxygeneios</i>	Hapuku	Fish	Wreckfishes	QMS	65	983	6.6%
HOK	<i>Macruronus novaezealandiae</i>	Hoki	Fish	Hakes	QMS	5	12,979,037	0.0%
LIN	<i>Genypterus blacodes</i>	Ling	Fish	Cusk Eels	QMS	231	34,830	0.7%
OSD	Selachii (Order)	Sharks & Dogfish not specified in, Part2 Reporting Regs 2001	Fish	-	Non-QMS	2	4,288	0.0%
RCO	<i>Pseudophycis bachus</i>	Red cod	Fish	Morid Cods	QMS	6	6,417	0.1%
RIB	<i>Mora moro</i>	Ribaldo	Fish	Morid Cods	QMS	49	4,773	1.0%
SCH	<i>Galeorhinus galeus</i>	School shark	Fish	Smoothhounds	QMS	178	3,422	5.2%
SFI	Asteroidea and Ophiuroidea (Classes)	Starfish	Echinoderms	-	Non-QMS	1	1,467	0.1%
SPD	<i>Squalus acanthias</i>	Spiny dogfish	Fish	Dogfishes	QMS	188	164,823	0.1%
SPE	<i>Helicolenus</i> spp.	Sea perch	Fish	Scorpionfishes	QMS	152	32,320	0.5%
SSK	<i>Dipturus innominatus</i>	Smooth skate	Fish	Skates	QMS	317	13,848	2.3%
UNI	N/A	Unidentified fish	Fish	-	Non-QMS	1	37	2.7%
BAS	<i>Polyprion americanus</i>	Bass	Fish	Wreckfishes	QMS	23	479	4.8%

**Summary Table 7: LIN3 (BLL) – Top 20 species - observed non-target catch of target hake fishery over the last 5 fishing years (2007-08 to 2011-12)**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (HAK1 target tows only) (t)	Observed catch (all fishing in HAK1) (t)	Proportion of catch from HAK1 target tows (%)
LIN	<i>Genypterus blacodes</i>	Ling	Fish	Cusk Eels	QMS	111	810	13.9%
SPD	<i>Squalus acanthias</i>	Spiny dogfish	Fish	Dogfishes	QMS	44	1,416	3.1%
RIB	<i>Mora moro</i>	Ribaldo	Fish	Morid Cods	QMS	28	87	32.7%
SSK	<i>Dipturus innominatus</i>	Smooth skate	Fish	Skates	QMS	6.8	69	9.9%
HAK	<i>Merluccius australis</i>	Hake	Fish	Hakes	QMS	5.2	431	1.2%
SPE	<i>Helicolenus spp.</i>	Sea perch	Fish	Scorpionfishes	QMS	5.2	172	3.0%
SND	<i>Deania calcea</i>	Shovelnose dogfish	Fish	Gulper Sharks	Non-QMS	4.2	111	3.7%
OSD	Selachii (Order)	Sharks & Dogfish	Fish	N/A	Non-QMS	2.7	64	4.3%
HCO	<i>Bassanago hirsutus</i>	Hairy conger	Fish	Conger Eels	Non-QMS	2.6	3.1	84.1%
CSQ	<i>Centrophorus squamosus</i>	Leafscale gulper shark	Fish	Gulper Sharks	Non-QMS	2.3	6.7	35.4%
BSH	<i>Dalatias licha</i>	Seal shark	Fish	Kitefin sharks	Non-QMS	2.3	19	12.3%
SCH	<i>Galeorhinus galeus</i>	School shark	Fish	Smoothhounds	QMS	2.3	32	7.2%
PLS	<i>Centroscyrnus plunketi</i>	Plunket's shark	Fish	Sleeper Sharks	Non-QMS	2	3.8	54.2%
CAR	<i>Cephaloscyllium isabellum</i>	Carpet shark	Fish	Cat sharks	Non-QMS	1.9	27	7.1%
HAG	<i>Eptatretus cirrhatu</i>	Hagfish	Fish	Hagfishes	Non-QMS	1.3	1.6	84.6%
GSH	<i>Hydrolagus novaezealandiae</i>	Ghost shark	Fish	Chimaeras, Ghost Sharks	QMS	1.2	239	0.5%
RCO	<i>Pseudophycis bachus</i>	Red cod	Fish	Morid Cods	QMS	1.2	216	0.5%
BNS	<i>Hyperoglyphe antarctica</i>	Bluenose	Fish	Raftfishes, Medusafishes	QMS	1	10.7	9.7%
SEE	<i>Gnathopis habenatus</i>	Silver conger	Fish	Conger Eels	Non-QMS	1	1.4	74.8%
BAS	<i>Polyprion americanus</i>	Bass	Fish	Wreckfishes	QMS	0.8	1.1	81.2%

**Table 7: LIN3 (BLL) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12)**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
ACS	Actinostolidae (Family)	Smooth deepsea anemones	Cnidaria	Deepsea anemones	Non-QMS	7	3,054	0.2%
ASR	Asteroidea (Class)	Sea stars	Echinoderms	N/A	Non-QMS	54	95	57.0%
BAS	Polyprion americanus	Bass	Fish	Wreckfishes	QMS	893	1,100	81.2%
BNS	Hyperoglyphe antarctica	Bluenose	Fish	Raftfishes, Medusafishes	QMS	1,040	10,678	9.7%
BSH	Dalatias licha	Seal shark	Fish	Kitefin sharks	Non-QMS	2,327	18,908	12.3%
BWS	Prionace glauca	Blue shark	Fish	Requiem sharks	QMS	20	1,975	1.0%
BYS	Beryx splendens	Alfonsino	Fish	Alfonsinos	QMS	4	1,428	0.3%
CAR	Cephaloscyllium isabellum	Carpet shark	Fish	Cat sharks	Non-QMS	1,930	27,252	7.1%
CON	Conger spp.	Conger eel	Fish	Conger Eels	Non-QMS	675	9,323	7.2%
CSH	Other than Apristurus spp.	Cat shark	Fish	Cat sharks	Non-QMS	2	191	1.0%
CSQ	Centrophorus squamosus	Leafscale gulper shark	Fish	Gulper Sharks	Non-QMS	2,387	6,735	35.4%
EBT	#N/A	#N/A	#N/A	#N/A	Non-QMS	8	8	100.0%
ELT	Electrona spp.	Electrona spp.	Fish	Lanternfishes	Non-QMS	96	96	100.0%
ETB	Etmopterus baxteri	Baxter's lantern dogfish	Fish	Dogfishes	Non-QMS	103	111,862	0.1%
ETL	Etmopterus lucifer	Lucifer dogfish	Fish	Dogfishes	Non-QMS	62	11,937	0.5%
FRA	N/A	Fragments, Bones	Other	N/A	Non-QMS	7	7	100.0%
GSH	Hydrolagus novaezealandiae	Ghost shark	Fish	Chimaeras, Ghost Sharks	QMS	1,240	239,258	0.5%
GSP	Hydrolagus bemisi	Pale ghost shark	Fish	Chimaeras, Ghost Sharks	QMS	577	186,885	0.3%
HAG	Eptatretus cirrhatus	Hagfish	Fish	Hagfishes	Non-QMS	1,315	1,555	84.6%
HAK	Merluccius australis	Hake	Fish	Hakes	QMS	5,227	430,934	1.2%

**Table 7: LIN3 (BLL) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
HAP	<i>Polyprion oxygeneios</i>	Hapuku	Fish	Wreckfishes	QMS	265	41,059	0.6%
HCO	<i>Bassanago hirsutus</i>	Hairy conger	Fish	Conger Eels	Non-QMS	2,625	3,122	84.1%
HEP	<i>Heptranchias perlo</i>	Sharpnose sevengill shark	Fish	Cow Sharks	Non-QMS	70	70	100.0%
HEX	<i>Hexanchus griseus</i>	Sixgill shark	Fish	Cow Sharks	Non-QMS	135	473	28.5%
HOK	<i>Macruronus novaezelandiae</i>	Hoki	Fish	Hakes	QMS	462	23,322,352	0.0%
HOR	<i>Atrina zelandica</i>	Horse mussel	Molluscs	N/A	QMS	0	1	28.6%
HPB	<i>Polyprion oxygeneios, P. americanus</i>	Hapuku & Bass	Fish	Wreckfishes	QMS	530	1,966	27.0%
JAV	<i>Lepidorhynchus denticulatus</i>	Javelinfish	Fish	Rattails, Grenadiers	Non-QMS	13	1,571,266	0.0%
LIN	<i>Genypterus blacodes</i>	Ling	Fish	Cusk Eels	QMS	112,839	810,296	13.9%
MAK	<i>Isurus oxyrinchus</i>	Mako shark	Fish	Mackerel Sharks	QMS	37	980	3.8%
ONG	Porifera (Phylum)	Sponges	Porifera	N/A	Non-QMS	2	17,794	0.0%
OSD	Selachii (Order)	Sharks & Dogfish not otherwise specified in Sch3, Part2 Reporting Regs 2001	Fish	N/A	Non-QMS	2,763	64,157	4.3%
PLS	<i>Centroscyminus plunketi</i>	Plunket's shark	Fish	Sleeper Sharks	Non-QMS	2,077	3,829	54.2%
POS	<i>Lamna nasus</i>	Porbeagle shark	Fish	Mackerel Sharks	QMS	70	2,254	3.1%
PSK	<i>Bathyraja shuntovi</i>	Longnosed deepsea skate	Fish	Skates	Non-QMS	5	1,417	0.4%
RAT	Macrouridae (Family)	Rattails	Fish	Rattails, Grenadiers	Non-QMS	127	1,808,244	0.0%
RBM	<i>Brama brama</i>	Ray's bream	Fish	Pomfrets	QMS	32	30,170	0.1%
RCO	<i>Pseudophycis bachus</i>	Red cod	Fish	Morid Cods	QMS	1,184	216,774	0.5%
RIB	<i>Mora moro</i>	Ribaldo	Fish	Morid Cods	QMS	28,502	87,182	32.7%



**Table 7: LIN3 (BLL) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
RSK	Zearaja nasuta	Rough skate	Fish	Skates	QMS	837	28,433	2.9%
SCH	Galeorhinus galeus	School shark	Fish	Smoothhounds	QMS	2,317	32,060	7.2%
SCO	Bassanago bulbiceps	Swollenhead conger	Fish	Conger Eels	Non-QMS	219	1,048	20.9%
SEE	Gnathopis habenatus	Silver conger	Fish	Conger Eels	Non-QMS	1,019	1,362	74.8%
SEV	Notorynchus cepedianus	Broadnose sevengill shark	Fish	Cow Sharks	Non-QMS	15	423	3.5%
SFI	Asteroidea and Ophiuroidea (Classes)	Starfish	Echinoderms	N/A	Non-QMS	5	2,241	0.2%
SND	Deania calcea	Shovelnose dogfish	Fish	Gulper Sharks	Non-QMS	4,130	111,550	3.7%
SPD	Squalus acanthias	Spiny dogfish	Fish	Dogfishes	QMS	44,509	1,415,966	3.1%
SPE	Helicolenus spp.	Sea perch	Fish	Scorpionfishes	QMS	5,217	172,442	3.0%
SPP	Callanthias allporti	Splendid perch	Fish	Sea Perches, Gropers	Non-QMS	45	45	100.0%
SSK	Dipturus innominatus	Smooth skate	Fish	Skates	QMS	6,850	69,118	9.9%
SVA	Solenosmilia variabilis	Deepwater branching coral	Cnidaria	N/A	Non-QMS	1	28	3.6%
TAR	Nemadactylus macropterus, Nemadactylus sp. ("King Tarakihi")	Tarakihi	Fish	Tarakihi, Morwongs	QMS	2	24,193	0.0%
UNI	N/A	Unidentified fish	Fish	N/A	Non-QMS	233	755	30.9%
WHE	N/A	Whelks	Molluscs	N/A	Non-QMS	1	70	1.4%
WWA	Seriollella caerulea	White warehou	Fish	Raffishes, Medusafishes	QMS	7	240,362	0.0%

**Summary Table 3: LIN4 (BLL) – Top 20 species - observed non-target catch of target hake fishery over the last 5 fishing years (2007-08 to 2011-12)**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (HAK1 target tows only) (t)	Observed catch (all fishing in HAK1) (t)	Proportion of catch from HAK1 target tows (%)
LIN	<i>Genypterus blacodes</i>	Ling	Fish	Cusk Eels	QMS	1,166	1,933	60.3%
SPD	<i>Squalus acanthias</i>	Spiny dogfish	Fish	Dogfishes	QMS	405	811	50.0%
RIB	<i>Mora moro</i>	Ribaldo	Fish	Morid Cods	QMS	42	102	40.8%
SPE	<i>Helicolenus</i> spp.	Sea perch	Fish	Scorpionfishes	QMS	30	318	9.4%
SCH	<i>Galeorhinus galeus</i>	School shark	Fish	Smoothhounds	QMS	28	58	49.3%
HCO	<i>Bassanago hirsutus</i>	Hairy conger	Fish	Conger Eels	Non-QMS	26	26	99.3%
SSK	<i>Dipturus innominatus</i>	Smooth skate	Fish	Skates	QMS	20	67	29.7%
GSH	<i>Hydrolagus novaezealandiae</i>	Ghost shark	Fish	Chimaeras, Ghost Sharks	QMS	13	350	3.7%
SND	<i>Deania calcea</i>	Shovelnose dogfish	Fish	Gulper Sharks	Non-QMS	11	239	4.5%
RCO	<i>Pseudophycis bachus</i>	Red cod	Fish	Morid Cods	QMS	9.3	58	16.2%
CON	<i>Conger</i> spp.	Conger eel	Fish	Conger Eels	Non-QMS	6.3	8.4	74.6%
CSQ	<i>Centrophorus squamosus</i>	Leafscale gulper shark	Fish	Gulper Sharks	Non-QMS	4	10.7	37.1%
GSP	<i>Hydrolagus bemisi</i>	Pale ghost shark	Fish	Chimaeras, Ghost Sharks	QMS	3.9	119	3.3%
HAG	<i>Eptatretus cirrhatu</i> s	Hagfish	Fish	Hagfishes	Non-QMS	3.6	3.9	92.8%
OSD	Selachii (Order)	Sharks & Dogfish	Fish	-	Non-QMS	3	98	3.0%
SEE	<i>Gnathopis habenatus</i>	Silver conger	Fish	Conger Eels	Non-QMS	2	3.6	55.9%
HAP	<i>Polyprion oxygeneios</i>	Hapuku	Fish	Wreckfishes	QMS	1.6	22	7.3%
BSH	<i>Dalatias licha</i>	Seal shark	Fish	Kitefin sharks	Non-QMS	1.6	64	2.4%
HAK	<i>Merluccius australis</i>	Hake	Fish	Hakes	QMS	1.3	143	0.9%
RSK	<i>Zearaja nasuta</i>	Rough skate	Fish	Skates	QMS	1	8.9	12.1%

**Table 8: LIN4 (BLL) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12)**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
ASR	Asteroidea (Class)	Sea stars	Echinoderms	-	Non-QMS	154	287	53.6%
BAS	Polyprion americanus	Bass	Fish	Wreckfishes	QMS	89	645	13.8%
BNS	Hyperoglyphe antarctica	Bluenose	Fish	Rafffishes, Medusafishes	QMS	934	51,534	1.8%
BOO	Keratoisis spp.	Bamboo coral	Cnidaria	-	Non-QMS	7	37	19.1%
BSH	Dalatias licha	Seal shark	Fish	Kitefin sharks	Non-QMS	1,569	64,247	2.4%
BSI	#N/A	#N/A	#N/A	#N/A	Non-QMS	8	8	100.0%
BWS	Prionace glauca	Blue shark	Fish	Requiem sharks	QMS	4	205	2.0%
BYX	Beryx splendens, B. decadactylus	Alfonsino & Long-finned beryx	Fish	Alfonsinos	QMS	2	69,564	0.0%
CAR	Cephaloscyllium isabellum	Carpet shark	Fish	Cat sharks	Non-QMS	706	3,428	20.6%
CDY	Cosmasterias dyscrita	Cat's-foot star	Echinoderms	-	Non-QMS	1	36	2.8%
CJA	Crossaster multispinus	Sun-star	Echinoderms	-	Non-QMS	1	370	0.3%
CON	Conger spp.	Conger eel	Fish	Conger Eels	Non-QMS	6,324	8,481	74.6%
CSQ	Centrophorus squamosus	Leafscale gulper shark	Fish	Gulper Sharks	Non-QMS	3,975	10,724	37.1%
CYO	Centroscymnus owstoni	Smooth skin dogfish	Fish	Dogfishes	Non-QMS	4	4,485	0.1%
DCS	Haelaelurus dawsoni	Dawson's cat shark	Fish	Cat sharks	Non-QMS	39	324	12.0%
DDI	Desmophyllum dianthus	Crested cup coral	Cnidaria	-	Non-QMS	1	3,699	0.0%
DMG	Dipsacaster magnificus	Magnificent sea-star	Echinoderms	-	Non-QMS	24	255	9.4%
DWD	N/A	Deepwater dogfish (Unspecified)	Fish	-	Non-QMS	77	137,294	0.1%
ELL	N/A	Leptocephalus	Zoo & Phytoplankton	-	Non-QMS	2	2	100.0%
ERA	Torpedo fairchildi	Electric ray	Fish	Electric Rays	Non-QMS	15	1,170	1.3%

**Table 8: LIN4 (BLL) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
ETB	<i>Etmopterus baxteri</i>	Baxter's lantern dogfish	Fish	Dogfishes	Non-QMS	188	215,963	0.1%
ETD	#N/A	#N/A	#N/A	#N/A	Non-QMS	1	1	100.0%
ETL	<i>Etmopterus lucifer</i>	Lucifer dogfish	Fish	Dogfishes	Non-QMS	236	2,805	8.4%
ETP	<i>Etmopterus pusillus</i>	<i>Etmopterus pusillus</i>	Fish	Dogfishes	Non-QMS	129	135	95.6%
FHD	<i>Hoplichthys haswelli</i>	Deepsea flathead	Fish	Ghostflatheads	Non-QMS	1	38,471	0.0%
FMA	<i>Fusitriton magellanicus</i>	<i>Fusitriton magellanicus</i>	Molluscs	-	Non-QMS	2	2,050	0.1%
GAS	Gastropoda (Class)	Gastropods	Molluscs	-	Non-QMS	3	2,360	0.1%
GDU	<i>Goniocorella dumosa</i>	Bushy hard coral	Cnidaria	-	Non-QMS	1	5,325	0.0%
GSH	<i>Hydrolagus novaezealandiae</i>	Ghost shark	Fish	Chimaeras, Ghost Sharks	QMS	12,940	350,703	3.7%
GSP	<i>Hydrolagus bemisi</i>	Pale ghost shark	Fish	Chimaeras, Ghost Sharks	QMS	3,946	118,579	3.3%
HAG	<i>Eptatretus cirrhatus</i>	Hagfish	Fish	Hagfishes	Non-QMS	3,649	3,934	92.8%
HAK	<i>Merluccius australis</i>	Hake	Fish	Hakes	QMS	1,309	142,737	0.9%
HAP	<i>Polyprion oxygeneios</i>	Hapuku	Fish	Wreckfishes	QMS	1,604	21,938	7.3%
HCO	<i>Bassanago hirsutus</i>	Hairy conger	Fish	Conger Eels	Non-QMS	25,908	26,090	99.3%
HEX	<i>Hexanchus griseus</i>	Sixgill shark	Fish	Cow Sharks	Non-QMS	978	2,149	45.5%
HOK	<i>Macruronus novaezealandiae</i>	Hoki	Fish	Hakes	QMS	32	11,868,782	0.0%
HPB	<i>Polyprion oxygeneios</i> , <i>P. americanus</i>	Hapuku & Bass	Fish	Wreckfishes	QMS	62	4,775	1.3%
JAV	<i>Lepidorhynchus denticulatus</i>	Javelinfish	Fish	Rattails, Grenadiers	Non-QMS	43	912,175	0.0%
JFI	N/A	Jellyfish (Unspecified)	Cnidaria	-	Non-QMS	3	1,893	0.2%
LCH	<i>Harriotta raleighana</i>	Long-nosed chimaera	Fish	Longnose chimaeras	Non-QMS	1	74,472	0.0%

**Table 8: LIN4 (BLL) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
LIN	Genypterus blacodes	Ling	Fish	Cusk Eels	QMS	1,166,381	1,933,498	60.3%
MOD	Moridae (Family)	Morids	Fish	Morid Cods	Non-QMS	4	127,466	0.0%
MSL	Mediaster sladeni	Sladen's star	Echinoderms	-	Non-QMS	34	776	4.4%
NSD	Squalus griffini	Northern spiny dogfish	Fish	Dogfishes	Non-QMS	341	9,564	3.6%
ODO	Odontaspis ferox	Smalltooth sandtiger shark	Fish	Sand Tiger Sharks	Non-QMS	63	63	100.0%
ONG	Porifera (Phylum)	Sponges	Porifera	-	Non-QMS	4	5,142	0.1%
OSD	Selachii (Order)	Sharks & Dogfish not specified in Sch3, Reporting Regs 2001	Fish	-	Non-QMS	2,969	98,388	3.0%
OSP	Crassostrea gigas	Pacific oyster spat	Molluscs	-	Non-QMS	1	1	100.0%
PAB	Paragorgia arborea	Bubblegum coral	Cnidaria	-	Non-QMS	0	555	0.0%
PHB	Phorbas spp.	Grey fibrous massive sponge	Porifera	-	Non-QMS	1	14	7.2%
PKN	Plutonaster knoxi	Abyssal star	Echinoderms	-	Non-QMS	118	1,853	6.4%
PLS	Centroscymnus plunketi	Plunket's shark	Fish	Sleeper Sharks	Non-QMS	352	11,369	3.1%
PNE	Proserpinaster neozelanicus	Proserpinaster neozelanicus	Echinoderms	-	Non-QMS	116	675	17.2%
PRU	Pseudechinaster rubens	Pseudechinaster rubens	Echinoderms	-	Non-QMS	3	356	0.8%
PSI	Psilaster acuminatus	Geometric star	Echinoderms	-	Non-QMS	117	2,065	5.7%
PSK	Bathyraja shuntovi	Longnosed deepsea skate	Fish	Skates	Non-QMS	10	6,498	0.2%
RAT	Macrouridae (Family)	Rattails	Fish	Rattails, Grenadiers	Non-QMS	378	794,924	0.0%
RBM	Brama brama	Ray's bream	Fish	Pomfrets	QMS	6	2,198	0.3%
RCO	Pseudophycis bachus	Red cod	Fish	Morid Cods	QMS	9,350	57,688	16.2%
RIB	Mora moro	Ribaldo	Fish	Morid Cods	QMS	41,798	102,352	40.8%

**Table 8: LIN4 (BLL) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
RSK	Zearaja nasuta	Rough skate	Fish	Skates	QMS	1,080	8,920	12.1%
SCH	Galeorhinus galeus	School shark	Fish	Smoothhounds	QMS	28,334	57,523	49.3%
SCO	Bassanago bulbiceps	Swollenhead conger	Fish	Conger Eels	Non-QMS	577	937	61.6%
SEE	Gnathopis habenatus	Silver conger	Fish	Conger Eels	Non-QMS	2,048	3,665	55.9%
SFI	Asteroidea and Ophiuroidea (Classes)	Starfish	Echinoderms	-	Non-QMS	268	7,088	3.8%
SHA	N/A	Shark (Unspecified)	Fish	-	Non-QMS	107	138	77.5%
SIA	Scleractinia (Order)	Stony corals	Cnidaria	-	Non-QMS	7	4,407	0.2%
SMO	Sclerasterias mollis	Cross-fish	Echinoderms	-	Non-QMS	8	116	6.9%
SND	Deania calcea	Shovelnose dogfish	Fish	Gulper Sharks	Non-QMS	10,815	239,374	4.5%
SPD	Squalus acanthias	Spiny dogfish	Fish	Dogfishes	QMS	405,209	811,174	50.0%
SPE	Helicolenus spp.	Sea perch	Fish	Scorpionfishes	QMS	29,894	317,842	9.4%
SPR	Sprattus antipodum, S. muelleri	Sprats	Fish	Sardines, Sprats	QMS	100	100	100.0%
SSK	Dipturus innominatus	Smooth skate	Fish	Skates	QMS	19,895	67,021	29.7%
STA	Kathetostoma spp.	Giant stargazer	Fish	Armourhead Stargazers	QMS	9	129,481	0.0%
SUA	Suberites affinis	Fleshy club sponge	Porifera	-	Non-QMS	2	32	6.2%
THR	Alopias vulpinus	Thresher shark	Fish	Thresher Sharks	Non-QMS	77	77	100.0%
TOA	Neophrynichthys spp.	Toadfish	Fish	Fatheads	Non-QMS	8	6,657	0.1%
UNF	N/A	Unidentifiable	Other	-	Non-QMS	12	14	85.7%
UNI	N/A	Unidentified fish	Fish	-	Non-QMS	40	404	9.9%
WWA	Seriotelella caerulea	White warehou	Fish	Raftfishes, Medusafishes	QMS	19	113,609	0.0%

**Summary Table 9: LIN5 (BLL) – Top 20 species - observed non-target catch of target hake fishery over the last 5 fishing years (2007-08 to 2011-12)**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (HAK1 target tows only) (t)	Observed catch (all fishing in HAK1) (t)	Proportion of catch from HAK1 target tows (%)
LIN	Genypterus blacodes	Ling	Fish	Cusk Eels	Non-QMS	378	4,366	8.6%
RCO	Pseudophycis bachus	Red cod	Fish	Morid Cods	Non-QMS	15	455	3.3%
SPD	Squalus acanthias	Spiny dogfish	Fish	Dogfishes	Non-QMS	13	1,714	0.8%
SCH	Galeorhinus galeus	School shark	Fish	Smoothhounds	Non-QMS	10.2	197	5.2%
RIB	Mora moro	Ribaldo	Fish	Morid Cods	Non-QMS	6	42	14.3%
SSK	Dipturus innominatus	Smooth skate	Fish	Skates	Non-QMS	4.8	36	13.4%
SND	Deania calcea	Shovelnose dogfish	Fish	Gulper Sharks	#N/A	4.8	13	38.2%
CSQ	Centrophorus squamosus	Leafscale gulper shark	Fish	Gulper Sharks	#N/A	3.5	51	6.8%
CON	Conger spp.	Conger eel	Fish	Conger Eels	#N/A	3.4	6.2	54.3%
OSD	Selachii (Order)	Sharks & Dogfish	Fish	-	#N/A	3.1	35	9.1%
HAP	Polyprion oxygeneios	Hapuku	Fish	Wreckfishes	Non-QMS	1.7	84	2.1%
HCO	Bassanago hirsutus	Hairy conger	Fish	Conger Eels	#N/A	1.5	3.1	49.3%
HAG	Eptatretus cirratus	Hagfish	Fish	Hagfishes	#N/A	0.8	1.2	71.2%
RAT	Macrouridae (Family)	Rattails	Fish	Rattails, Grenadiers	#N/A	0.7	233	0.3%
CYP	Centroscymnus crepidater	Longnose velvet dogfish	Fish	Dogfishes	#N/A	0.6	2.7	23.0%
GSH	Hydrolagus novaezealandiae	Ghost shark	Fish	Chimaeras, Ghost Sharks	Non-QMS	0.5	66	0.8%
SPE	Helicolenus spp.	Sea perch	Fish	Scorpionfishes	Non-QMS	0.5	42	1.2%
ETB	Etmopterus baxteri	Baxter's lantern dogfish	Fish	Dogfishes	#N/A	0.4	50	0.7%
BNS	Hyperoglyphe antarctica	Bluenose	Fish	Rafffishes, Medusafishes	Non-QMS	0.1	36	0.4%
BSH	Dalatias licha	Seal shark	Fish	Kitefin sharks	#N/A	0.1	19	0.8%

**Table 9: LIN5 (BLL) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12)**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
BCO	Parapercis colias	Blue cod	Fish	Weevers, Sandperches	Non-QMS	5	7,473	0.1%
BNS	Hyperoglyphe antarctica	Bluenose	Fish	Raффishes, Medusafishes	Non-QMS	151	35,910	0.4%
BSH	Dalatias licha	Seal shark	Fish	Kitefin sharks	#N/A	143	18,562	0.8%
CAR	Cephaloscyllium isabellum	Carpet shark	Fish	Cat sharks	#N/A	127	22,233	0.6%
CON	Conger spp.	Conger eel	Fish	Conger Eels	#N/A	3,386	6,241	54.3%
CRB	N/A	Crab (Unspecified)	Crustacea	-	#N/A	1	2,330	0.0%
CSQ	Centrophorus squamosus	Leafscale gulper shark	Fish	Gulper Sharks	#N/A	3,472	50,991	6.8%
CYP	Centroscymnus crepidater	Longnose velvet dogfish	Fish	Dogfishes	#N/A	620	2,701	23.0%
ETB	Etmopterus baxteri	Baxter's lantern dogfish	Fish	Dogfishes	#N/A	368	49,614	0.7%
ETL	Etmopterus lucifer	Lucifer dogfish	Fish	Dogfishes	#N/A	141	6,158	2.3%
GSH	Hydrolagus novaezealandiae	Ghost shark	Fish	Chimaeras, Ghost Sharks	Non-QMS	557	65,855	0.8%
GSP	Hydrolagus bemisi	Pale ghost shark	Fish	Chimaeras, Ghost Sharks	Non-QMS	41	70,938	0.1%
HAG	Eptatretus cirrhatus	Hagfish	Fish	Hagfishes	#N/A	858	1,205	71.2%
HAP	Polyprion oxygeneios	Hapuku	Fish	Wreckfishes	Non-QMS	1,770	84,146	2.1%
HCO	Bassanago hirsutus	Hairy conger	Fish	Conger Eels	#N/A	1,545	3,131	49.3%
HOK	Macruronus novaezealandiae	Hoki	Fish	Hakes	Non-QMS	8	10,127,295	0.0%
JAV	Lepidorhynchus denticulatus	Javelin fish	Fish	Rattails, Grenadiers	#N/A	5	257,757	0.0%
LIN	Genypterus blacodes	Ling	Fish	Cusk Eels	Non-QMS	377,545	4,365,617	8.6%
NSD	Squalus griffini	Northern spiny dogfish	Fish	Dogfishes	#N/A	9	12	75.0%



**Table 9: LIN5 (BLL) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
OSD	Selachii (Order)	Sharks & Dogfish not specified in Sch3, Reporting Regs 2001	Fish	-	#N/A	3,191	35,013	9.1%
PLS	Centroscyrnus plunketi	Plunket's shark	Fish	Sleeper Sharks	#N/A	21	11,812	0.2%
RAT	Macrouridae (Family)	Rattails	Fish	Rattails, Grenadiers	#N/A	674	232,579	0.3%
RBM	Brama brama	Ray's bream	Fish	Pomfrets	Non-QMS	2	43,935	0.0%
RCO	Pseudophycis bachus	Red cod	Fish	Morid Cods	Non-QMS	14,974	454,828	3.3%
RIB	Mora moro	Ribaldo	Fish	Morid Cods	Non-QMS	6,038	42,182	14.3%
RSK	Zearaja nasuta	Rough skate	Fish	Skates	Non-QMS	24	79,919	0.0%
SCH	Galeorhinus galeus	School shark	Fish	Smoothhounds	Non-QMS	10,263	197,111	5.2%
SFI	Asteroidea and Ophiuroidea (Classes)	Starfish	Echinoderms	-	#N/A	13	1,782	0.7%
SMK	Teratomaia richardsoni	Spiny masking crab	Crustacea	Spider crabs	#N/A	1	11	9.0%
SND	Deania calcea	Shovelnose dogfish	Fish	Gulper Sharks	#N/A	4,802	12,555	38.2%
SPD	Squalus acanthias	Spiny dogfish	Fish	Dogfishes	Non-QMS	13,492	1,713,722	0.8%
SPE	Helicolenus spp.	Sea perch	Fish	Scorpionfishes	Non-QMS	502	42,016	1.2%
SSH	Gollum attenuatus	Slender smooth-hound	Fish	False Cat Sharks	#N/A	7	161	4.3%
SSK	Dipturus innominatus	Smooth skate	Fish	Skates	Non-QMS	4,808	35,847	13.4%
STA	Kathetostoma spp.	Giant stargazer	Fish	Armourhead Stargazers	Non-QMS	8	118,286	0.0%
TAR	Nemadactylus macropterus, Nemadactylus sp. ("King Tarakihi")	Tarakihi	Fish	Tarakihi, Morwongs	Non-QMS	1	4,941	0.0%

**Summary Table 10: LIN6 (BLL) – Top 20 species - observed non-target catch of target hake fishery over the last 5 fishing years (2007-08 to 2011-12)**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (HAK1 target tows only) (t)	Observed catch (all fishing in HAK1) (t)	Proportion of catch from HAK1 target tows (%)
LIN	<i>Genypterus blacodes</i>	Ling	Fish	Cusk Eels	QMS	1,151	4,584	25.1%
SPD	<i>Squalus acanthias</i>	Spiny dogfish	Fish	Dogfishes	QMS	141	382	36.7%
BCD	<i>Paranotothenia magellanica</i>	Black cod	Fish	Antarctic Rock Cods	Non-QMS	106	132	80.5%
RSK	<i>Zearaja nasuta</i>	Rough skate	Fish	Skates	QMS	97	129	75.5%
GSP	<i>Hydrolagus bemisi</i>	Pale ghost shark	Fish	Chimaeras, Ghost Sharks	QMS	94	319	29.5%
RIB	<i>Mora moro</i>	Ribaldo	Fish	Morid Cods	QMS	85	163	52.0%
OSD	Selachii (Order)	Sharks & Dogfish	Fish	-	Non-QMS	32	50	63.5%
BSH	<i>Dalatias licha</i>	Seal shark	Fish	Kitefin sharks	Non-QMS	9.5	22	43.9%
HCO	<i>Bassanago hirsutus</i>	Hairy conger	Fish	Conger Eels	Non-QMS	9.5	9.9	95.6%
RAT	Macrouridae (Family)	Rattails	Fish	Rattails, Grenadiers	Non-QMS	6	392	1.5%
CHP	<i>Chimaera</i> sp.	Chimaera, purple	Fish	Chimaeras, Ghost Sharks	Non-QMS	5	6.5	81.1%
SSK	<i>Dipturus innominatus</i>	Smooth skate	Fish	Skates	QMS	4	27	14.8%
PLS	<i>Centroscyrnus plunketi</i>	Plunket's shark	Fish	Sleeper Sharks	Non-QMS	3.5	5.7	61.7%
SPE	<i>Helicolenus</i> spp.	Sea perch	Fish	Scorpionfishes	QMS	3.3	7	47.1%
CHG	<i>Chimaera lignaria</i>	Purple chimaera	Fish	Chimaeras, Ghost Sharks	Non-QMS	3.1	4.1	74.8%
CSQ	<i>Centrophorus squamosus</i>	Leafscale gulper shark	Fish	Gulper Sharks	Non-QMS	2.2	21,	10.3%
ETB	<i>Etmopterus baxteri</i>	Baxter's lantern dogfish	Fish	Dogfishes	Non-QMS	1.4	184	0.8%
RCO	<i>Pseudophycis bachus</i>	Red cod	Fish	Morid Cods	QMS	1.3	702	0.2%
CON	Conger spp.	Conger eel	Fish	Conger Eels	Non-QMS	1	5.6	18.7%
ETL	<i>Etmopterus lucifer</i>	Lucifer dogfish	Fish	Dogfishes	Non-QMS	0.6	6	11.3%

**Table 10: LIN6 (BLL) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12)**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
ACS	Actinostolidae (Family)	Smooth deepsea anemones	Cnidaria	Deepsea anemones	Non-QMS	11	2,570	0.4%
ANT	Actiniaria, Ceriantharia, Corallimorpharia & Zoanthidea (Orders)	Anemones	Cnidaria	Corals, Sea anemones	Non-QMS	13	2,076	0.6%
ARO	Anthomastus (Bathyalcyon) robustus	Anthomastus robustus	Cnidaria	-	Non-QMS	1	1	50.0%
ASR	Asteroidea (Class)	Sea stars	Echinoderms	-	Non-QMS	15	3,273	0.5%
ATR	Actiniaria (Order)	Sea anemones	Cnidaria	Corals, Sea anemones	Non-QMS	8	8	92.9%
AWI	Alcithoe wilsonae	Alcithoe wilsonae	Molluscs	Volutes	Non-QMS	1	3	34.4%
BCD	Paranotothenia magellanica	Black cod	Fish	Antarctic Rock Cods	Non-QMS	106,260	131,921	80.5%
BCO	Parapercis colias	Blue cod	Fish	Weevers, Sandperches	QMS	275	1,114	24.7%
BEE	Diastobranchus capensis	Basketwork eel	Fish	Cutthroat Eels	Non-QMS	8	22,843	0.0%
BES	Benthopecten spp.	Benthopecten spp.	Echinoderms	-	Non-QMS	2	30	6.2%
BHE	Bathypectinura heros	Deepsea brittle star	Echinoderms	-	Non-QMS	2	5	40.0%
BNO	Benthoctopus spp.	Benthoctopus spp.	Molluscs	-	Non-QMS	1	55	1.8%
BOC	Bolocera spp.	Deepsea anemones	Cnidaria	Sea anemones	Non-QMS	0	190	0.1%
BOO	Keratoisis spp.	Bamboo coral	Cnidaria	-	Non-QMS	2	196	1.0%
BRC	Pseudophycis breviuscula	Northern bastard cod	Fish	Morid Cods	Non-QMS	15	15	100.0%
BRN	Cirripedia (Class)	Barnacle	Crustacea	-	Non-QMS	0	9	2.4%
BSH	Dalatias licha	Seal shark	Fish	Kitefin sharks	Non-QMS	9,589	21,862	43.9%
CAT	Ameiurus nebulosus	Brown bullhead catfish	Fish	North American Catfishes	Non-QMS	32	32	100.0%
CBB	N/A	Coral rubble	Cnidaria	-	Non-QMS	12	116	10.2%
CHG	Chimaera lignaria	Purple chimaera	Fish	Chimaeras, Ghost Sharks	Non-QMS	3,077	4,111	74.8%

Table 10: LIN6 (BLL) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) **Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
CHI	Chimaera spp.	Chimaera spp.	Fish	Chimaeras, Ghost Sharks	Non-QMS	561	19,540	2.9%
CHP	Chimaera sp.	Chimaera, purple	Fish	Chimaeras, Ghost Sharks	Non-QMS	5,329	6,572	81.1%
CJA	Crossaster multispinus	Sun-star	Echinoderms	-	Non-QMS	0	323	0.0%
CMT	Comatulida (Order)	Feather stars	Echinoderms	-	Non-QMS	0	6	1.6%
COD	N/A	Cod (Unspecified)	Fish	-	Non-QMS	1	230	0.4%
CON	Conger spp.	Conger eel	Fish	Conger Eels	Non-QMS	1,051	5,611	18.7%
COU	Alcyonacea, Gorgonacea, Scleractinia, Antipatharia (Orders)	Coral (Unidentified)	Cnidaria	Stylasteridae	Non-QMS	0	34	0.6%
COV	Comitas onokeana vivens	Comitas onokeana vivens	Molluscs	Turrids	Non-QMS	1	1	100.0%
CPA	Ceramaster patagonicus	Pentagon star	Echinoderms	-	Non-QMS	52	1,979	2.6%
CRB	N/A	Crab (Unspecified)	Crustacea	-	Non-QMS	3	22,362	0.0%
CSH	Other than Apristurus spp.	Cat shark	Fish	Cat sharks	Non-QMS	1	6,027	0.0%
CSQ	Centrophorus squamosus	Leafscale gulper shark	Fish	Gulper Sharks	Non-QMS	2,182	21,251	10.3%
DCS	Halaelurus dawsoni	Dawson's cat shark	Fish	Cat sharks	Non-QMS	315	636	49.5%
DDI	Desmophyllum dianthus	Crested cup coral	Cnidaria	-	Non-QMS	0	251	0.1%
DMG	Dipsacaster magnificus	Magnificent sea-star	Echinoderms	-	Non-QMS	19	225	8.4%
DPP	Diplopteraster sp.	Diplopteraster sp.	Echinoderms	-	Non-QMS	3	11	27.3%
DSC	#N/A	#N/A	#N/A	#N/A	Non-QMS	1	1	100.0%
DSO	Demospongiae (Class)	Demosponges	Porifera	-	Non-QMS	0	3	3.8%
DWD	N/A	Deepwater dogfish (Unspecified)	Fish	-	Non-QMS	254	5,489	4.6%
ECN	N/A	Echinoid (Sea Urchin)	Echinoderms	-	Non-QMS	5	117	4.4%

**Table 10: LIN6 (BLL) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
EGC	N/A	Egg Case	Other	-	Non-QMS	0	23	0.4%
ETB	Etmopterus baxteri	Baxter's lantern dogfish	Fish	Dogfishes	Non-QMS	1,418	183,886	0.8%
ETL	Etmopterus lucifer	Lucifer dogfish	Fish	Dogfishes	Non-QMS	684	6,064	11.3%
FMA	Fusitriton magellanicus	Fusitriton magellanicus	Molluscs	-	Non-QMS	18	787	2.3%
GAS	Gastropoda (Class)	Gastropods	Molluscs	-	Non-QMS	11	570	1.9%
GMC	Leptomithrax garricki	Garrick's masking crab	Crustacea	Spider crabs	Non-QMS	1	1,631	0.1%
GOR	Gorgonocephalus spp.	Gorgon's head basket-stars	Echinoderms	-	Non-QMS	1	225	0.4%
GPA	Goniocidaris parasol	Parasol urchin	Echinoderms	-	Non-QMS	8	8	100.0%
GSC	Jacquintia edwardsii	Giant spider crab	Crustacea	Spider crabs	QMS	88	105,422	0.1%
GSP	Hydrolagus bemisi	Pale ghost shark	Fish	Chimaeras, Ghost Sharks	QMS	93,895	318,595	29.5%
GVO	Provocator mirabilis	Golden volute	Molluscs	Volutes	Non-QMS	1	191	0.5%
GYS	Gyrophyllum sibogae	Siboga sea pen	Cnidaria	-	Non-QMS	1	46	2.6%
HAK	Merluccius australis	Hake	Fish	Hakes	QMS	289	3,960,245	0.0%
HAP	Polyprion oxygeneios	Hapuku	Fish	Wreckfishes	QMS	117	1,356	8.6%
HCO	Bassanago hirsutus	Hairy conger	Fish	Conger Eels	Non-QMS	9,553	9,995	95.6%
HDR	Hydrozoa (Class)	Hydroids	Cnidaria	Hydroid	Non-QMS	1	64	1.1%
HIS	Histocidaris spp.	Histocidaris spp.	Echinoderms	-	Non-QMS	0	0	100.0%
HMT	Hormathiidae (Family)	Warty deepsea anemones	Cnidaria	-	Non-QMS	82	1,956	4.2%
HOK	Macruronus novaezelandiae	Hoki	Fish	Hakes	QMS	47	8,683,698	0.0%
HTH	Holothuroidea (Class)	Sea cucumber (other than Stichopus mollis)	Echinoderms	-	Non-QMS	4	2,703	0.2%

**Table 10: LIN6 (BLL) Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
HTR	Hippasteria phrygiana	Trojan star	Echinoderms	-	Non-QMS	6	374	1.6%
HYA	Hyalascus sp.	Floppy tubular sponge	Porifera	-	Non-QMS	1	6,067	0.0%
JAV	Lepidorhynchus denticulatus	Javelinfish	Fish	Rattails, Grenadiers	Non-QMS	58	612,476	0.0%
JFI	N/A	Jellyfish (Unspecified)	Cnidaria	-	Non-QMS	1	734	0.1%
LAG	Laetmogone spp.	Laetmogone spp.	Echinoderms	-	Non-QMS	0	3	2.9%
LCH	Harriotta raleighana	Long-nosed chimaera	Fish	Longnose chimaeras	Non-QMS	3	12,681	0.0%
LIN	Genypterus blacodes	Ling	Fish	Cusk Eels	QMS	1,151,319	4,584,208	25.1%
MOD	Moridae (Family)	Morids	Fish	Morid Cods	Non-QMS	13	1,607	0.8%
NCB	Nectocarcinus bennetti	Smooth red swimming crab	Crustacea	Swimming crabs	Non-QMS	2	1,106,150	0.0%
NSD	Squalus griffini	Northern spiny dogfish	Fish	Dogfishes	Non-QMS	4	34	11.8%
NUD	Nudibranchia (Order)	Sea slug, Nudibranch	Molluscs	-	Non-QMS	2	26	7.7%
OCT	Pinnocotopus cordiformis	Octopus	Molluscs	-	Non-QMS	5	1,963	0.3%
ONG	Porifera (Phylum)	Sponges	Porifera	-	Non-QMS	9	9,956	0.1%
OPH	Ophiuroidea (Class)	Brittle stars, basket stars	Echinoderms	-	Non-QMS	3	246	1.2%
OPI	Opisthoteuthis spp.	Umbrella octopus	Molluscs	-	Non-QMS	1	439	0.2%
OSD	Selachii (Order)	Sharks & Dogfish not specified in Sch3, Reporting Regs 2001	Fish	-	Non-QMS	31,937	50,295	63.5%
OSK	Rajidae (Family)	Skate, Other	Fish	Skates	Non-QMS	22	3,916	0.6%
PAO	Pillsburiaster aoteanus	Pillsburiaster aoteanus	Echinoderms	-	Non-QMS	1	241	0.4%
PLN	Poecillastra laminaris	Fibreglass cup sponge	Porifera	-	Non-QMS	0	2	13.0%
PLS	Centroscymnus plunketi	Plunket's shark	Fish	Sleeper Sharks	Non-QMS	3,517	5,696	61.7%
POS	Lamna nasus	Porbeagle shark	Fish	Mackerel Sharks	QMS	138	21,422	0.6%

Table 10: LIN6 (BLL) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) **Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
PRU	Pseudechinaster rubens	Pseudechinaster rubens	Echinoderms	-	Non-QMS	1	102	0.7%
PSI	Psilaster acuminatus	Geometric star	Echinoderms	-	Non-QMS	1	1,053	0.1%
PSK	Bathyraja shuntovi	Longnosed deepsea skate	Fish	Skates	Non-QMS	12	1,422	0.8%
PSL	Paralomis dosleini	Paralomis dosleini	Crustacea	Deepwater king or stone crabs	Non-QMS	6	6	100.0%
PTO	Dissostichus eleginoides	Patagonian toothfish	Fish	Ice Cods	QMS	494	54,416	0.9%
PYR	Pyrosoma atlanticum	Pyrosoma atlanticum	Other	-	Non-QMS	0	0	100.0%
PZE	Paralomis zealandica	Prickly king crab	Crustacea	Deepwater king or stone crabs	Non-QMS	2	28	7.1%
QSC	Zygochlamys delicatula	Queen scallop	Molluscs	Scallops	QMS	2	23	8.9%
RAT	Macrouridae (Family)	Rattails	Fish	Rattails, Grenadiers	Non-QMS	6,042	391,694	1.5%
RBM	Brama brama	Ray's bream	Fish	Pomfrets	QMS	56	11,444	0.5%
RCO	Pseudophycis bachus	Red cod	Fish	Morid Cods	QMS	1,293	702,395	0.2%
RIB	Mora moro	Ribaldo	Fish	Morid Cods	QMS	84,940	163,383	52.0%
ROK	Geological	Rocks / Stones	Other	-	Non-QMS	71	67,500	0.1%
RSK	Zearaja nasuta	Rough skate	Fish	Skates	QMS	97,081	128,608	75.5%
SAL	N/A	Salps	Zoo/ Phytoplankton	-	Non-QMS	3	2,044	0.1%
SCH	Galeorhinus galeus	School shark	Fish	Smoothhounds	QMS	315	8,701	3.6%
SCI	Metanephrops challengerii	Scampi	Crustacea	Clawed lobsters	QMS	1	86,436	0.0%
SEO	N/A	Seaweed	Seaweed	-	Non-QMS	7	1,047	0.7%
SFI	Asteroidea and Ophiuroidea (Classes)	Starfish	Echinoderms	-	Non-QMS	247	5,619	4.4%
SHA	N/A	Shark (Unspecified)	Fish	-	Non-QMS	382	978	39.1%
SMC	Lepidion microcephalus	Small-headed cod	Fish	Morid Cods	Non-QMS	2	70	2.9%

Table 10: LIN6 (BLL) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) **Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
SMI	Somniosus microcephalus	Somniosus microcephalus	Fish	Sleeper Sharks	Non-QMS	7	17	41.2%
SMK	Teratomaia richardsoni	Spiny masking crab	Crustacea	Spider crabs	Non-QMS	1	5,180	0.0%
SND	Deania calcea	Shovelnose dogfish	Fish	Gulper Sharks	Non-QMS	352	2,653	13.3%
SOC	Alcyonacea (Order)	Soft coral	Cnidaria	Corals, Sea anemones	Non-QMS	0	1	12.5%
SOP	Somniosus pacificus	Pacific sleeper shark	Fish	Sleeper Sharks	Non-QMS	120	1,173	10.2%
SOT	Solaster torulatus	Chubby sun-star	Echinoderms	-	Non-QMS	4	195	2.1%
SPD	Squalus acanthias	Spiny dogfish	Fish	Dogfishes	QMS	140,565	382,491	36.7%
SPE	Helicolenus spp.	Sea perch	Fish	Scorpionfishes	QMS	3,317	7,039	47.1%
SSC	Leptomithrax australis	Giant masking crab	Crustacea	Spider crabs	Non-QMS	1	74	1.4%
SSK	Dipturus innominatus	Smooth skate	Fish	Skates	QMS	4,027	27,119	14.8%
STA	Kathetostoma spp.	Giant stargazer	Fish	Armourhead Stargazers	QMS	2	20,844	0.0%
STR	N/A	Stingray (Unspecified)	Fish	-	Non-QMS	4	4	100.0%
SUA	Suberites affinis	Fleshy club sponge	Porifera	-	Non-QMS	4	49	8.8%
THO	Thouarella spp.	Bottlebrush coral	Cnidaria	-	Non-QMS	0	15	0.5%
TLO	Telesto spp.	Long polyp soft corals	Cnidaria	-	Non-QMS	1	6	16.9%
TOA	Neophrynichthys spp.	Toadfish	Fish	Fatheads	Non-QMS	78	10,772	0.7%
TOP	Neophrynichthys angustus	Pale toadfish	Fish	Fatheads	Non-QMS	73	434	16.8%
VCO	Antimora rostrata	Violet cod	Fish	Morid Cods	Non-QMS	92	7,517	1.2%
VOL	Volutidae (Family)	Volute	Molluscs	Volutes	Non-QMS	3	211	1.4%
WWA	Serirolella caerulea	White warehou	Fish	Raffishes, Medusafishes	QMS	5	442,467	0.0%
ZOR	Zoroaster spp.	Rat-tail star	Echinoderms	-	Non-QMS	25	2,799	0.9%



**Summary Table 11: LIN7 (BLL) – Top 20 species - observed non-target catch of target hake fishery over the last 5 fishing years (2007-08 to 2011-12 )**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (HAK1 target tows only) (t)	Observed catch (all fishing in HAK1) (t)	Proportion of catch from HAK1 target tows (%)
LIN	<i>Genypterus blacodes</i>	Ling	Fish	Cusk Eels	QMS	31	1,068	2.9%
HAK	<i>Merluccius australis</i>	Hake	Fish	Hakes	QMS	4.6	4,564	0.1%
SPD	<i>Squalus acanthias</i>	Spiny dogfish	Fish	Dogfishes	QMS	1.2	757	0.2%
RIB	<i>Mora moro</i>	Ribaldo	Fish	Morid Cods	QMS	1.1	310	0.4%
SSK	<i>Dipturus innominatus</i>	Smooth skate	Fish	Skates	QMS	0.8	49	1.7%
NSD	<i>Squalus griffini</i>	Northern spiny dogfish	Fish	Dogfishes	Non-QMS	0.8	38	2.1%
SND	<i>Deania calcea</i>	Shovelnose dogfish	Fish	Gulper Sharks	Non-QMS	0.6	32	2.1%
SCO	<i>Bassanago bulbiceps</i>	Swollenhead conger	Fish	Conger Eels	Non-QMS	0.5	8.4	5.4%
BNS	<i>Hyperoglyphe antarctica</i>	Bluenose	Fish	Raффishes, Medusafishes	QMS	0.3	20	1.5%
SCH	<i>Galeorhinus galeus</i>	School shark	Fish	Smoothhounds	QMS	0.2	79	0.3%
CSQ	<i>Centrophorus squamosus</i>	Leafscale gulper shark	Fish	Gulper Sharks	Non-QMS	0.2	22	1.1%
BAS	<i>Polyprion americanus</i>	Bass	Fish	Wreckfishes	QMS	0.1	4.2	3.3%
SSH	<i>Gollum attenuatus</i>	Slender smooth-hound	Fish	False Cat Sharks	Non-QMS	0.1	13	0.8%
CSH	Other than <i>Apristurus</i> spp.	Cat shark	Fish	Cat sharks	Non-QMS	0.8	2.7	3.0%
CAR	<i>Cephaloscyllium isabellum</i>	Carpet shark	Fish	Cat sharks	Non-QMS	0.06	10.2	0.6%
HAP	<i>Polyprion oxygeneios</i>	Hapuku	Fish	Wreckfishes	QMS	0.04	10.6	0.4%
ETL	<i>Etmopterus lucifer</i>	Lucifer dogfish	Fish	Dogfishes	Non-QMS	0.03	3.4	0.9%
SKI	<i>Rexea</i> spp.	Gemfish	Fish	Snake Mackerels	QMS	0.03	149	0.0%
HOK	<i>Macruronus novaezelandiae</i>	Hoki	Fish	Hakes	QMS	0.03	59,399	0.0%
PLS	<i>Centroscymnus plunketi</i>	Plunket's shark	Fish	Sleeper Sharks	Non-QMS	0.02	1.9	1.0%

**Table 11: LIN7 (BLL) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12)**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
BAS	<i>Polyprion americanus</i>	Bass	Fish	Wreckfishes	QMS	139	4,271	3.3%
BNS	<i>Hyperoglyphe antarctica</i>	Bluenose	Fish	Raftfishes, Medusafishes	QMS	298	19,943	1.5%
CAR	<i>Cephaloscyllium isabellum</i>	Carpet shark	Fish	Cat sharks	Non-QMS	62	10,189	0.6%
CSH	Other than <i>Apristurus</i> spp.	Cat shark	Fish	Cat sharks	Non-QMS	79	2,666	3.0%
CSQ	<i>Centrophorus squamosus</i>	Leafscale gulper shark	Fish	Gulper Sharks	Non-QMS	245	22,254	1.1%
DEA	<i>Trachipterus trachipterus</i>	Dealfish	Fish	Dealfishes	Non-QMS	8	9,354	0.1%
EMO	<i>Etmopterus molleri</i>	Blackbelly lantern shark	Fish	Dogfishes	Non-QMS	12	12	100.0%
ETC	#N/A	#N/A	#N/A	#N/A	Non-QMS	1	1	100.0%
ETL	<i>Etmopterus lucifer</i>	Lucifer dogfish	Fish	Dogfishes	Non-QMS	32	3,373	0.9%
HAG	<i>Eptatretus cirrhatus</i>	Hagfish	Fish	Hagfishes	Non-QMS	2	34,600	0.0%
HAK	<i>Merluccius australis</i>	Hake	Fish	Hakes	QMS	4,610	4,563,521	0.1%
HAP	<i>Polyprion oxygeneios</i>	Hapuku	Fish	Wreckfishes	QMS	38	10,631	0.4%
HOK	<i>Macruronus novaezelandiae</i>	Hoki	Fish	Hakes	QMS	25	59,398,784	0.0%
JAV	<i>Lepidorhynchus denticulatus</i>	Javelinfish	Fish	Rattails, Grenadiers	Non-QMS	5	229,536	0.0%
LIN	<i>Genypterus blacodes</i>	Ling	Fish	Cusk Eels	QMS	30,848	1,068,013	2.9%
NSD	<i>Squalus griffini</i>	Northern spiny dogfish	Fish	Dogfishes	Non-QMS	814	38,422	2.1%
OPH	Ophiuroidea (Class)	Brittle stars, basket stars	Echinoderms	-	Non-QMS	1	4	23.3%
PLS	<i>Centroscymnus plunketi</i>	Plunket's shark	Fish	Sleeper Sharks	Non-QMS	19	1,943	1.0%
RBM	<i>Brama brama</i>	Ray's bream	Fish	Pomfrets	QMS	3	103,710	0.0%
RCO	<i>Pseudophycis bachus</i>	Red cod	Fish	Morid Cods	QMS	4	95,968	0.0%
RIB	<i>Mora moro</i>	Ribaldo	Fish	Morid Cods	QMS	1,099	310,148	0.4%

Table 11: LIN7 (BLL) - Observed non-target catch of target hake fishery over the last 5 fishing years by type of organism (2007-08 to 2011-12 ) **Cont**

Species code	Latin name	Common name	Organism type	Family Name	QMS/Non QMS	Observed catch (LIN3 target tows only) (t)	Observed catch (all fishing in LIN3) (t)	Proportion of catch from LIN3 target tows (%)
SCH	Galeorhinus galeus	School shark	Fish	Smoothhounds	QMS	256	78,611	0.3%
SCO	Bassanago bulbiceps	Swollenhead conger	Fish	Conger Eels	Non-QMS	459	8,431	5.4%
SEV	Notorynchus cepedianus	Broadnose sevengill shark	Fish	Cow Sharks	Non-QMS	5	1,265	0.4%
SKI	Rexea spp.	Gemfish	Fish	Snake Mackerels	QMS	26	141,887	0.0%
SND	Deania calcea	Shovelnose dogfish	Fish	Gulper Sharks	Non-QMS	652	31,688	2.1%
SPD	Squalus acanthias	Spiny dogfish	Fish	Dogfishes	QMS	1,202	756,731	0.2%
SPE	Helicolenus spp.	Sea perch	Fish	Scorpionfishes	QMS	2	69,411	0.0%
SSH	Gollum attenuatus	Slender smooth-hound	Fish	False Cat Sharks	Non-QMS	111	13,467	0.8%
SSK	Dipturus innominatus	Smooth skate	Fish	Skates	QMS	858	49,369	1.7%
WWA	Serirolella caerulea	White warehou	Fish	Raftfishes, Medusafishes	QMS	3	77,323	0.0%