## Round 1

	Species	TACC FMA 1	Caught	Habitat	Diet	
1	Anchovy	200	0-5%	Found mostly inshore, particularly in gulfs, bays, harbours, and some large estuaries.	Planktivorous schooling species	http://fs.fish.govt.nz/Doc/23543/03_ANC _2014%20FINAL.pdf.ashx
2	Barracouta	11000 (BAR1= FMA 1 , 2 & 3)	49-105%	Inshore areas all around NZ, down to about 400 m depth	opportunistic feeders; anchovy, small barracouta, pilchards, jack mackerel.	http://fs.fish.govt.nz/Doc/23545/05_BAR_ %202014%20FINAL.pdf.ashx
3	Blue cod	46 (BCO1 = FMA 1 & 9)	12-26%	Bottom-dwelling species. More abundant south of Cook Strait and around the Chatham Islands.	Small fish and crabs	http://fs.fish.govt.nz/Doc/23548/08_BCO %202014%20FINAL.pdf.ashx
4	Bigeye Tuna	714 (BIG1 = All FMAs)	20-33%	Found in open water broadly across the Pacific Ocean.	epi-pelagic opportunistic predators: lancetfish, skipjack tuna, ray's bream; squid, nautilus, crab ,crayfish	http://fs.fish.govt.nz/Doc/24011/02- BIG 2015 FINAL.pdf.ashx
5	Blue Nose	786 (BNS1 = FMA 1 & 9)	59-103%	Pelagic juvenile phase. Adult depth distribution extends from near-surface waters to about 1200 m (main depth: 250-750m).	tunicates, fish, molluscs, squid, crustaceans.	http://fs.fish.govt.nz/Doc/23552/12 BNS_ 2014%20FINAL.pdf.ashx
6	Butterfish	3 (BUT 1 = FMA 1 & 9)	33-100%	Occur from North Cape to the Snares Islands. Rocky coastlines, seaweed beds. Main depth: 0-20m.	Herbivorous; several of the larger seaweeds	http://fs.fish.govt.nz/Doc/23553/13_BUT_ 2014%20FINAL.pdf.ashx
7	Blue shark	1860 (BWS1= all FMAs)	35-43%	Highly migratory, pelagic carcharhinids found throughout the world's oceans in all tropical and temperate waters from about 50N to 50S.	Small fishes, invertebrates and carcasses; have gill rakers, can eat very small prey (crabs, anchovies)	http://fs.fish.govt.nz/Doc/24012/03- BWS_2015_FINAL.pdf.ashx
8	Frilled Venus shell	1	0%	Shellfish, found around the coast in sediments at depths between 6-9 m.	plankton	http://fs.fish.govt.nz/Doc/23635/95_BYA_ 2014%20FINAL.pdf.ashx
9	Alfonsino	300 (BYX1= FMA 1 & 9)	22-118%	Throughout the world's tropical and temperate waters, in depths from 25 to 1200 m.	small crustaceans, larger prawn species and mesopelagic fish	http://fs.fish.govt.nz/Doc/23542/02_BYX_ 2014%20FINAL.pdf.ashx
10	Black Cardinal fish	1200 ( CDL 1 _ FMA 1	16-54%	Widely distributed in NZ waters at depths of 300-1100 m.	schooling species: small fishes and planktonic invertebrates	http://fs.fish.govt.nz/Doc/23546/06_CDL_ 2014%20FINAL.pdf.ashx
11	Deepwater red crab	10 (CHC1=FMA1)	0-59%	On and North of the Chatham Rise, and particularly along the east coast north of Hawkes Bay to North Cape. Burrowing crab, recorded between 80-1100 m depths around NZ.	Plankton, fish, worms, mussels, clams etc.	http://fs.fish.govt.nz/Doc/23614/74_CHC_ 2014%20FINAL.pdf.ashx
12	Cockles	346 (COC1B & 1C= FMA1)	25-68%	Found in soft mud to fine sand on protected beaches and enclosed shores around the North and South Island, Stewart Island, The Chatham Islands and the Auckland Islands.	Suspension feeder	http://fs.fish.govt.nz/Doc/23554/14_COCi ntro_2014%20FINAL.pdf.ashx
13	Spiny rock lobster	236	83-98%	All around North and South Islands, Stewart Island and the Chatham Islands.	crabs, clams, mussels, starfish, small fish.	http://fs.fish.govt.nz/Doc/22108/09- CRA_09.pdf.ashx

14	Ringed Dosinia	7 (DAN1=FMA1)	0%	Around NZ coat on sediments in the North Island at depths between 5 and 8 m, and in the S-Island between 6-10m. Often found on exposed beaches	Suspension feeder	http://fs.fish.govt.nz/Doc/23637/97_DAN %202014%20FINAL.pdf.ashx
15	Silky Dosinia	1 (DSU1=FMA1)	0%	Around NZ coat on sediments in the North Island at depths between 6 and 10 m, and in the S-Island between 5-8m. Often found on exposed beaches	Suspension feeder	http://fs.fish.govt.nz/Doc/23634/94_DSU _2014%20FINAL.pdf.ashx
16	Elephant fish	10 (ELE1= FMA 1 &9)	1-20%	Uncommon of the N-Island. Most plentiful around the east coast of the S-Island.	shellfish & crustaceans (crabs, shrimps), seldom eat fish, if so only small ones	http://fs.fish.govt.nz/Doc/22239/22_ELE_ 2010.pdf.ashx
17	Blue (English mackarel	7630 (EMA1=FMA1)	58-92%	Juvenile and immature are northerly in their distribution; North Island and into Golden and Tasman Bay at the top of S-Island. Adults have been recorded around both the S-Island to stewart Island and across the Chatham Rise almost to the Chatham Islands. Found near the surface	Surface feeding schooling species: zooplankton, copepods, larval crustaceans and molluscs, fish eggs and fish larvae	http://fs.fish.govt.nz/Doc/23549/09 EMA _2014%20FINAL.pdf.ashx
18	Flatfish	1187 (FLA1= FMA 1 & 9)	50-87%	Shallow-water species, generally found in waters less than 50 m depth.	crustaceans, squid, clams, sea urchins, worms, fish	http://fs.fish.govt.nz/Doc/22237/24_FLA_ 2010.pdf.ashx
19	Frostfish	149 (FRO1=FMA1)	24-88%	Found from about 34S to 49S in NZ, at depths of 50-600m.	Feed in mid-water: crustaceans, small fish and squid.	http://fs.fish.govt.nz/Doc/23562/22_FRO_ 2014%20FINAL.pdf.ashx
20	Garfish (piper)	25 (GAR1=FMA1)	24-53%	Around most of NZ, and are present at the Chatham Islands. Most abundant in sheltered gulfs, bays, and large estuaries, particularly around seagrass beds in shallow water, and over shallow reefs.	Schooling species: Larger zooplankton, mysids, crab larvae and polychaete larvae, eelgrass, seaweed and small crustaceans	http://fs.fish.govt.nz/Doc/23563/23_GAR _2014%20FINAL.pdf.ashx
21	Green-lipped mussels	10 (GLM1=FMA1)	34-124%	Distributed throughout NZ, most common in central and northern parts where it frequently forms dense beds.	Filer feeding mollusc	http://fs.fish.govt.nz/Doc/23568/28_GLM _2014%20FINAL.pdf.ashx
22	Grey Mullet	925 (GMU1= FMA1&9)	73-102%	World wide distribution, occurring commonly along coasta, in estuaries, and in lower river systems.	schooling species: detritus and plant material, graze surface of aquatic plants	http://fs.fish.govt.nz/Doc/23569/29_GMU _2014%20FINAL.pdf.ashx
23	Giant spider crab	1 (GSC1= FMA1, 9, 8 & 7 )	0-100%	From the intertidal to over 500 m in the southeast and south of NZ.	detritus feeders, algae, shellfish, bivalves, gastropods.	http://fs.fish.govt.nz/Doc/23567/27_GSC_ 2014%20FINAL.pdf.ashx
24	Ghost shark (dark	22 (GSH1=FMA1)	64-223%	throughout much of the NZ EEZ in depths from 30-850 m.	starfish, shellfish and other invertebrates	http://fs.fish.govt.nz/Doc/23565/25_GSH _2014%20FINAL.pdf.ashx
25	Ghost shark (pale)	1150 (GSP1=FMA1, 2,3 & 4)	42-251%	throughout much of the NZ EEZ in depths from 270- 1200 m.	starfish, shellfish and other invertebrates	http://fs.fish.govt.nz/Doc/23566/26_GSP_ 2014%20FINAL.pdf.ashx
26	Gurnard	2287 (GUR1=FMA1&9)	41-59%	3-6y inshore areas of the west coast S-Island and older fish predominantly found further offshore.	small crustaceans: shrimps and crabs, small fishes, shell fish and forms.	http://fs.fish.govt.nz/Doc/23615/74_GUR _2014%20FINAL.pdf.ashx
27	Hake	3701 (HAK1= FMA1,9,8,2,3,5,6)	55-130%	Widely distributed throughout the middle depths of the NZ EEZ.	teleost fishes: macrourids and merlucciids, hoki	http://fs.fish.govt.nz/Doc/23571/31_HAK _2014%20FINAL.pdf.ashx

28	Hoki	150,000 (HOK1=All FMAs (-FMA 10)	90-150%	Hoki are widely distributed throughout New Zealand waters from 34o S to 54o S, from depths of 10 m to over 900 m.	myctophids, squid, pelagic crustaceans, euphausiids, mesopelagic and benthopelagic fishes, and natant decopods.	http://fs.fish.govt.nz/Doc/23572/32_HOK _2014%20FINAL.pdf.ashx
29	Horse mussel	4 (HOR1=FMA1)	0%	widespread endemic bivalve that lives mainly on muddy-sand substrates in the lowest inter-tidal and sub-tidal shallows of mainly sheltered waters. Horse mussels are also found in deeper waters (to 50 m) off open coasts.	filter-feeding mollusc	http://fs.fish.govt.nz/Doc/23573/33_HOR _2014%20FINAL.pdf.ashx
30	Hapuku and Bass	480	88-92%	throughout NZ. Hapuku most abundant in 100-300m and Bass in 250-500m.	large range of fish species, invertebrates and crustaceans, red cod, blue cod, hoki, crabs and crayfish	http://fs.fish.govt.nz/Doc/17425/2002%2 0FARs/02_13_FAR.pdf.ashx
31	John Dory	704 (DJO1=FMA1&9)	60-95%	common in the inshore coastal waters of northern New Zealand, and to a lesser extent in Tasman Bay, to depths of 50 m. In the Hauraki Gulf, adults move to deeper waters during summer, and occasional feeding aggregations occur during winter.	Found in areas close to the seabed and are generall soliraty. Feed mainly on schooling bony fishes, occasionally on cephalopods and crustaceans.	http://fs.fish.govt.nz/Doc/23576/35 JDO 2014%20FINAL.pdf.ashx
32	Jack Mackarel	10000 (JMA=FMA1&2)	29-112%	The three species of jack mackerel in New Zealand have different geographical distributions, but their ranges partially overlap. T. novaezelandiae predominates in waters shallower than 150 m and warmer than 13oC; it is uncommon south of latitude 42oS. T. declivis generally occurs in deeper (but less than 300 m) waters less than 16o C, north of latitude 45o S. T. murphyi occurs to depths of least 500 m and has a wide latitudinal range	Surface feeding schooling species: zooplankton, copepods, larval crustaceans and molluscs, fish eggs and fish larvae	http://fs.fish.govt.nz/Doc/23574/34 JMA _2014%20FINAL.pdf.ashx
33	Kahawai	1075 (KAH1=FMA1)	84-97%	Found around the N-Island, S-Island, the Kermadec and Chatham Islands. Occur mainly in coastal seas, harbours and estuaries	schooling pelagic species: small fish such as pilchard, crustaceans such as krill, copepods and other zooplanktons. Shellfish, crabs, annelid worms	http://fs.fish.govt.nz/Doc/23577/36 KAH _2014%20FINAL.pdf.ashx
34	King Crab	10 (KIC1=FMA1)	0-1%	Found at depths between 120 m and 700 m from the east coast of Northland to southern parts of Campbell Plateau. Occur mainly of soft substrates, but have been found on rocky bottoms.	Omnivorous, although animal food (sessile, sedentary, and mobile invertebrates, and small fish), including dead material, is their predominant food.	http://fs.fish.govt.nz/Doc/23579/38_KIC_ 2014%20FINAL.pdf.ashx

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35	Kingfish	91 (KIN1=FMA1)	52-72%	Predominatnly found in the northern half of the North Island, but also acccurs from 29S-46S, Kermadec Islands to Foveaux Strait and to depths of 200m.  Occupy a semi-pelagic existence and occur mainly in open coastal waters, preferring areas of high current and or tidal flow adjacent to rocky outcrops, reefs and pinnacles.	Large predatory schooling fish (few fish to well over a 100): other fishes, either bottom or surface kinds such as pilchards, mullet, herring and garfish, squid, octopus.	http://fs.fish.govt.nz/Doc/23580/39_KIN_ 2014%20FINAL.pdf.ashx
36	Knobbed whelk	1 (KWH1=FMA1)	0-10%	Widely distributed, found from low tide to about 600 m all throughout New Zealand.	Carnivorous gastropod	http://fs.fish.govt.nz/Doc/23581/40_KWH 2014%20FINAL.pdf.ashx
37	Lookdown Dory	168 (LDO1 FMA 7, 8,9,1,2,4)	86-107%	Widely distributed throughout NZ waters with most records from the Chatham Rise. Adults most common between 400-600m, but havea wide depth range, from 50-1200 m.	natant decapod crustaceans, euphausid, mysid, galatheid and nephropsid crustaceans, and fish.	http://fs.fish.govt.nz/Doc/23584/43 LDO 2014%20FINAL.pdf.ashx
38	Leatherjacket	188 (LEA1=FMA1&9)	72-101%	Present around much of NZ, but most common in the north. Usually occur near reefs and over rough seafloor, but may be found over sand or some distance above the bottom.	Although not a schooling species they do occur in small groups: Feed on a variety of prey species such as molluscs and sea urchins.	http://fs.fish.govt.nz/Doc/23582/41_LEA_ 2014%20FINAL.pdf.ashx
39	Long-finned freshwater eel?	32	46-97%	Abundant throughout NZ .	Omnivorous opportunistic feeders: Insect larvae, small fish	http://fs.fish.govt.nz/Page.aspx?pk=7≻= LFE&ey=2017
40	Ling	400 (LIN1= FMA1&9)	62-114%	Widely distributed through the middle depths (200-800m) of the New Zealand EEZ, particularly to the south of latitude 40S.	Bottom dwellers: curstaceans and fish. Commercial fishing discards are a significant dietary component.	http://fs.fish.govt.nz/Doc/22213/48 LIN 2010.pdf.ashx
41	Mako shark	200 (MAK1=All FMAs)	30-150%		Feeds mainly on cephalopods and bonu fish, including: mackerel, tunas, bonitos, and swordfish. They hunt by swimming below their prey and then lunging vertically up.	http://fs.fish.govt.nz/Doc/24017/08- MAK 2014 FINAL.pdf.ashx
42	Through shell	1(MDI1=FMA1)	0%	Most common in southern NZ (Blueskin Bay, Te Waewae, and Oreti)	filter-feeding mollusc	http://fs.fish.govt.nz/Doc/23901/90_SURF CLAMintro 2015 FINAL.pdf.ashx
43	Large through shell	2 (FMA1)	0%	Most common in southern NZ (Blueskin Bay, Te Waewae, and Oreti)	filter-feeding mollusc	http://fs.fish.govt.nz/Doc/23901/90_SURF CLAMintro_2015_FINAL.pdf.ashx
44	Blue Moki	402 (MOK1=FMA1,2,6,7,8,9 )	91-117%	found all around NZ, with most catch from east coast between Bay of Plenty and Kaikoura. juveniles found inshore, usually around rocky reefs, while most adults school offshore over mainly open bottom.	invertebrates such as crabs, small sea urchins, worms and shellfish	http://fs.fish.govt.nz/Doc/23550/10_MOK _2014%20FINAL.pdf.ashx
45	Moonfish	527 (MOO1=All FMAs)		All around NZ. Bulk of the catch from east coast N- Island and west-coast S-Island	mid-water pelagic fish with a narrow range of prey items with the most common being squid.	http://fs.fish.govt.nz/Doc/24018/09- MOO 2015 FINAL.pdf.ashx

46	Oreo	2500 (OEO1=FMA9,8,7,5,2,1)	20-50% (in recent years), used to fluctuate between200 0-4000t before)	Have been found within a 600 m to 1300 m depth range. Geographical distribution south of about 45S is not well known. It is a southern species and is abundant on the south Chatham Rise, along the east coast of the South Island, the north and east slope of Pukaki Rise, the Bounty platform, the Snares slope, Puysegur Bank and the northern end of the Macquarie ridge.	nge. Geographical distribution south of about 45S is t well known. It is a southern species and is undant on the south Chatham Rise, along the east ast of the South Island, the north and east slope of kaki Rise, the Bounty platform, the Snares slope, ysegur Bank and the northern end of the Macquarie ge.	
47	Orange roughy	1400 (ORH1=FMA1&9)	65-92%	w Zealand waters .  such as mysids, amphipods and euphausiids occasionally being important.		http://fs.fish.govt.nz/Doc/23327/044_OR Hintro_2013.pdf.ashx
48	Dredge oysters	1 (OYS1=FMA1)	0%	vora Grow in avtanciva hade in the Sucland's Itiltar tooding challtich		http://fs.fish.govt.nz/Doc/23471/004_OYS 5_November_2013.pdf.ashx
49	Paddle crab	220 (PAD1=FMA1)	16-104%	tuaries throughout mainland N7 the Chatham		http://fs.fish.govt.nz/Doc/23596/55_PAD _2014%20FINAL.pdf.ashx
50	Parore	61 (PAR1=FMA1)	78-96%	east and west coast of the N-Island, from North Cape to Cook Strait. Juveniles found on seagrass meadows and beds of Neptunes Necklace on shallow reefs	Usually occur in schools: Herbivores	http://fs.fish.govt.nz/Doc/22199/62 PAR 2010.pdf.ashx
51	Paua	1.9 (PAU=FMA1)	14%	Reefs in shallow subtidal coastal habitats	Herbivores	http://fs.fish.govt.nz/Doc/23340/058_PA Uintro 2013.pdf.ashx
52	Deepwater tuatua	1 (PDO1=FMA1)		Mainly around the lower half of the North Island and from Pegasus Bay north in the South Island, and on the north coast of Stewart Island.	Filter-feeders	http://fs.fish.govt.nz/Doc/23633/93_PDO _2014%20FINAL.pdf.ashx
53	Packhorse rock lobster	40 (PHC1= ALL FMAs	19-90%	Taken mainly in the north of the North Island.	crabs, clams, mussels, starfish, small fish.	http://fs.fish.govt.nz/Doc/23102/Novemb er%202012%20Plenary%20Online.pdf.ash x
54	Pilchard	2000 (PIL1=FMA1)	32-64%	Occur around most of NZ. Found in shore, particularly in gulfs, bays and harbours.	schooling fish: feed dominantly on phytoplankton	http://fs.fish.govt.nz/Doc/23607/66 PIL 2 014%20DRAFT-MG.pdf.ashx
55	Porae	62(POR1=FMA1)	73-105%	Common inshore species of northern NZ. Inshore on reef/sand interfaces in 10-60m depth.	worms, brittlestars, sea urchins, crabs, invertebrates	http://fs.fish.govt.nz/Doc/22187/74_POR _2010.pdf.ashx

56	Porbeagle shark	215 (POS1=All FMAs)	19-29%	Porbeagles live mainly in the latitudinal bands 30–50oS and 30–70oN. They occur in the North Atlantic Ocean, and in a circumglobal band in the Southern Hemisphere.	Active predator that predominantly ingests small to medium sized bony fishes.	http://fs.fish.govt.nz/Doc/23478/011_POS _November_2013.pdf.ashx
57	Pipi	203 (PIP1a,b&c=FMA1)	67-75%	around the New Zealand coastline, including the Chatham and Auckland Islands, and are characteristic of sheltered beaches, bays and estuaries	Burrowing bivalve mollusc	http://fs.fish.govt.nz/Doc/23608/68_PPI_ 2014%20FINAL.pdf.ashx
58	Prawn killer	24.5 (PRK1=FMA1)	1-22%	Widely distributed around NZ: Found in depths of 80- 300 m in soft sediment seafloors	crabs, clams, mussels, starfish, small fish.	http://fs.fish.govt.nz/Doc/22185/75 PRK 2010.pdf.ashx
59	Deepwater (king) clam	1.2 (PZL1=FMA1)	0%	Occur around thr North, South and Stewart Islands.	Deepwater clam	http://fs.fish.govt.nz/Doc/23558/18_PZL_ 2014%20FINAL.pdf.ashx
60	Ray's bream	980 (RBM1=All FMAs)	15-26%	Ray's bream is a highly migratory species and has a wide distribution, being found throughout the subtropical to sub-Antarctic waters across the whole South Pacific between New Zealand and Chile.	Bathypelagic and prey on: myctiphids, lighthouse fish, salps, squid, crustaceans	http://fs.fish.govt.nz/Doc/24021/12- RBM_2015_FINAL.pdf.ashx
61	Red bait	19 (RBT1=FMA1,2)	9-110	widely distributed around New Zealand in depths from 85 to 500m. Juveniles are found at the surface and adults near the bottom in deeper waters, including seamounts.	Schooling bathypelagic species: Larget zooplankton	http://fs.fish.govt.nz/Doc/23612/72 RBT 2014%20FINAL.pdf.ashx
62	Ruby fish	300 RBY1=FMA1)	6-98%	Rubyfish live at depths from 50-800 m, but are most commonly found around 300 m.	crustaceans, salps and myctophid fish	http://fs.fish.govt.nz/Page.aspx?pk=8&tk= 41&stock=RBY1
63	Red cod	42 (RCO1=FMA1&9)	7-60%	Red cod are seasonally abundant, with schools appearing in the Canterbury Bight and Banks Peninsula area around November. Move into deeper water after this time.	fish, crustaceans and other invertebrates	http://fs.fish.govt.nz/Doc/23613/73 RCO 2014%20FINAL.pdf.ashx
64	Ribaldo	121 (ROB1=FMA1)	5-44%	Widespread in NZ, has been caught by research trawl at depths of about 200–1300 m.	fish, crustaceans, molluscs and other invertebrates	http://fs.fish.govt.nz/Doc/23617/77_RIB_ 2014%20FINAL.pdf.ashx
65	Rough skate	111 (RSK1=FMA1&2)	44-72%	distributed throughout most of New Zealand, from the Three Kings Islands to Campbell Island and the Chatham Islands, including the Challenger Plateau, Chatham Rise and Bounty Plateau.	sprats, pipefish, red cod, ahuru, sole, opal fish, crabs, krill, worms	http://fs.fish.govt.nz/Doc/23625/85_RSK_ SKATES_2014%20FINAL.pdf.ashx
66	Red Snapper	124 (RSN1=FMA1)	24-56%	Occurs in association with deep coastal reefs to depths of about 400m.	schooling species: zooplankton in the midwaters	http://fs.fish.govt.nz/Doc/23616/76 RSN 2014%20FINAL.pdf.ashx
67	Triangle shell	9(SAE1=FMA1)	0%	occurs from Bay of Plenty southwards on the east coast of both islands, and on the Wellington-Manawatu coast.	Shellfish: filter-feeder	http://fs.fish.govt.nz/Doc/23638/98_SAE_ 2014%20FINAL.pdf.ashx

68	Southern blue whiting	8 (SBW1=FMA1,2,3,4,5,7, 8,9)	19-266%	almost entirely restricted in distribution to Sub-Antarctic waters. They are dispersed throughout the Campbell Plateau and Bounty Platform for much of the year, but during August and September they aggregate to spawn near the Campbell Islands, on Pukaki Rise, on Bounty Platform, and near the Auckland Islands over depths of 250–600 m.	schooling species: plankton and small fishes	http://fs.fish.govt.nz/Doc/23628/88 SBW %202014%20FINAL.pdf.ashx
69	Scallop	40 (SCA1=FMA9,1,2)	62-173%	found in a variety of coastal habitats, but particularly in semi-enclosed areas where circulating currents are thought to retain larvae.	bivalve molluscs	http://fs.fish.govt.nz/Doc/23102/Doc/231 02/November%202012%20Plenary%20On line.pdf.ashx
70	Sea cucumber	4(SCC1a&b=FMA1)	0-109%	distributed throughout New Zealand, and as far south as the Snares Islands.	detritus feeders	http://fs.fish.govt.nz/Doc/23622/82_SCC_ 2014%20FINAL.pdf.ashx
71	School shark	689 (SCH1=FMA9&1)	95-113%	Distributed across the shelf, generally being inshore in summer and offshore in winter.	feed predominantly on small fish and cephalopods.	http://fs.fish.govt.nz/Doc/23621/81_SCH_ 2014%20FINAL.pdf.ashx
72	Scampi	120 (SCI1=FMA1)	72-103%	widely distributed around the New Zealand coast, principally in depths between 200 and 500 m on the continental slope.	worms, fish	http://fs.fish.govt.nz/Doc/23620/80_SCI_ 2014%20FINAL.pdf.ashx
73	Short-finned freshwater eel	220 (SFE20&21=FMA1&9)	59-93%	Abundant throughout NZ .	Omnivorous opportunistic feeders: Insect larvae, small fish	http://fs.fish.govt.nz/Page.aspx?pk=7&tk= 100≻=SFE
74	Gemfish	210 (SKI1=FMA1&9)	73-111%	occur on the continental shelf and slope, from about 50–550 m depth.	squid, lanternfish, dories and rattails	http://fs.fish.govt.nz/Doc/23564/24_SKI_ 2014%20FINAL.pdf.ashx
75	Snapper	4500 (SNA1=FMA1)	97-103%	demersal fish found down to depths of about 200 m, but are most abundant in 15–60 m. They are the dominant fish in northern inshore communities and occupy a wide range of habitats, including rocky reefs and areas of sand and mud bottom. They are widely distributed in the warmer waters of New Zealand, being most abundant in the Hauraki Gulf.	diverse and opportunistic.	http://fs.fish.govt.nz/Doc/23627/87 SNA 2014%20FINAL.pdf.ashx
76	Spiny dogfish	331 (SPD1=FMA1&2)	50-72%	widely distributed around the South Island and extend as far north as Manakau Harbour and East Cape on the west and east coasts of the North Island respectively.	feed on a very wide range of species, including munida, krill, fish, squid, and crabs.	http://fs.fish.govt.nz/Doc/23629/89 SPD 2014%20FINAL.pdf.ashx
77	Sea Perch	33 (SPE1=FMA1)	83-228%	Sea perch are widely distributed around most of New Zealand, but are rare on the Campbell Plateau. They inhabit waters ranging from the shoreline to 1200 m and are most common between 150 and 500 m.	opportunistic feeders : variety of animals on or close to the seafloor.	http://fs.fish.govt.nz/Doc/23623/83_SPE_ 2014%20FINAL.pdf.ashx
78	Rig	692 (SPO1=FMA1&9)	43-90%	coastal waters throughout New Zealand.	mainly on animals that burrow in the seafloor, especially crabs	http://fs.fish.govt.nz/Doc/23618/78 SPO 2014%20FINAL.pdf.ashx

79	Sprat	70 (SPR1=FMA1,2,9&8)	1-2%	Sprats occur in coastal waters from the Bay of Islands to Stewart Island, and are present at the Auckland Islands.	zooplanktivores (only)	http://fs.fish.govt.nz/Doc/23630/90_SPR_ 2014%20FINAL.pdf.ashx
80	Squid	44740	37-111%	found over the continental shelf in water up to 500 m depth, most prevalent in water less than 300 m depth.	small fish, crabs, shrimps	http://fs.fish.govt.nz/Doc/23544/04_SQU _2014%20FINAL.pdf.ashx
81	Smooth skate	37 (SSK1= FMA1,2)	102-223%	distributed throughout most of New Zealand, from the Three Kings Islands to Campbell Island and the Chatham Islands, including the Challenger Plateau, Chatham Rise and Bounty Plateau. Smooth skates have not been recorded from QMA 10.	sprats, pipefish, red cod, ahuru, sole, opal fish, crabs, krill, worms	http://fs.fish.govt.nz/Doc/23626/86_SSK_ SKATES_2014%20FINAL.pdf.ashx
82	Stargazer	21 (STA1=FMA1&9)	104-172%	Found throughout the NZ EEZ, most plentiful around the South Island and on the Mernoo Bank on the Chatham Rise.	fish and invertebrates	http://fs.fish.govt.nz/Doc/23631/91 STA 2014%20FINAL.pdf.ashx
83	Southern bluefin tuna	413 (STN1=All FMAs)	58-111%	Southern bluefin tuna caught in the New Zealand EEZ appear to represent the easternmost extent of a stock whose centre is in the Indian Ocean. most southern bluefin tuna are caught in FMA1, FMA2, FMA5 and FMA7.	pelagic teleost (large range), ray's bream, mesopelagics, myctiphids, lighthousefish, salps, squid, cephalopods	http://fs.fish.govt.nz/Doc/24024/15- STN 2015 FINAL.pdf.ashx
84	Kina	180 (SUR1A&1B=FMA1)	67-102%	throughout New Zealand and the sub-Antarctic Islands.	Mainly herbivorous	http://fs.fish.govt.nz/Doc/23578/37_SUR_ 2014%20FINAL.pdf.ashx
85	Silver warehou	3000 (SWA1=FMA1,2,7,8,9)	34-159%	common around the South Island and on the Chatham Rise in depths of 200–800 m. The. Migrate to feed along the continental slope off the east ans southeast coast of the South Island during spring-summer	schooling species: salps, krill and small squid	http://fs.fish.govt.nz/Doc/23624/84 SWA _2014%20FINAL.pdf.ashx
86	Swordfish	885 (SWO1= All FMAs)	36-62%	swordfish range from 50ºN to 45ºS in the western Pacific Ocean and from 45ºN to 35ºS in the eastern Pacific Ocean.	epi-pelagic and mesopelagic: medium sized pelagic teleost, elasmobranchs, ray's bream, hoki, hake, saury, jack mackerel, lancetfish	http://fs.fish.govt.nz/Doc/24026/17- SWO 2015 FINAL.pdf.ashx
87	Tarakihi	1447 (TAR1=FMA1&9)	85-110%	coastal waters of the North and South Islands, Stewart Island and the Chatham Islands, down to depths of about 250 m.	polychaete worms, crustaceans, molluscs, echinoderms.	http://fs.fish.govt.nz/Doc/23640/100_TAR _2014%20FINAL.pdf.ashx
88	Pacific bluefin tuna	116 (TOR1=All FMAs)	11-19%	fishing effort is distributed along the east coast of the North Island and the south west coast of the South Island.	Epipelagic opportunistic predators of fish, crustaceans and cephalopods.	http://fs.fish.govt.nz/Doc/24019/10- TOR 2015 FINAL.pdf.ashx
89	Trevally	1506 (TRE1=FMA1)	52-97%	Caught around the North Island and the north of the South Island, with the main catches from the northern coasts of the North Island.	Schooling species, both pelagic and demersal in behaviour: planktonic organisms and wide range of invertebrates	http://fs.fish.govt.nz/Doc/23641/101 TRE %202014%20FINAL.pdf.ashx
90	Trumpeter	3 (TRU1=FMA1)	0-34%	occur from the Three Kings Islands through all of mainland New Zealand to the Auckland Islands; however they are rare north of East Cape and Cape Egmont	Octopus, crustaceans and small fish.	http://fs.fish.govt.nz/Doc/23642/102_TRU _2014%20FINAL.pdf.ashx

91	Tuatua	0 (PDO1)	0%	occurs mainly around the lower half of the North Island and from Pegasus Bay north in the South Island, and on the north coast of Stewart Island. It is found from low tide to about 4 m, although juveniles may extend to the mid-tide mark.	filter-feeders	http://fs.fish.govt.nz/Doc/23633/93_PDO _2014%20FINAL.pdf.ashx
92	Blue warehou	41 (WAR1=FMA1&9)	9-47%	caught in coastal waters of the South Island and lower North Island down to depths of about 400 m.	Salps, krill, crabs and small squid	http://fs.fish.govt.nz/Doc/23551/11_WAR _2014%20FINAL.pdf.ashx
93	White warehou	4 (WWA1=FMA1)	0-6%	mostly caught in 150 to 800 m depth salps, fish and euphausiids		http://fs.fish.govt.nz/Doc/23644/104_W WA_2014%20FINAL.pdf.ashx
94	Yellow-eyed mullet	20 (YEM1=FMA1)	13-45%	ange extends from North Cape to Stewart Island in lew Zealand. Occurs commonly along coasts, in stuaries and in lower river systems.  Schooling species: omnivorous: algorithms of the crustaceans, diatom and more		http://fs.fish.govt.nz/Doc/23645/105 YE M 2014%20FINAL.pdf.ashx
95	Yellowfin tuna	263 (YFN1=All Fmas	2-14%	Fishing effort is distributed along the east coast of the North Island and the south west coast of the South Island. They are found from the surface to depths where low oxygen levels are limiting.	Epi-pelagic opportunistic predators: fish, crustaceans and cephalopods.	http://fs.fish.govt.nz/Doc/24027/18- YFN 2015 FINAL.pdf.ashx
96	Albacore tuna	Non-ITQ		Fishing effort is distributed along the east coast of the North Island and the south west coast of the South Island	schooling pelagic predators – open-sea hunters. Main source of food is cephalopods.	http://fs.fish.govt.nz/Doc/24054/FAR- 2016-33-Albacore-sampling.pdf.ashx
97	Skipjack tuna	Non-ITQ		Fishing effort is distributed along the east coast of the North Island and the south west coast of the South Island	epi-pelagic opportunistic schooling species: fish, crustaceans and cephalopods found within the upper few hundred meters of the surface.	http://fs.fish.govt.nz/Doc/24023/14- SKJ 2015 FINAL.pdf.ashx

## Round 2

Species coloured in red are species that did not make it through the round

Species	TACC FMA 1	Caught	Type of fishery	Fishing gear	Habitat	Diet	Notes
Anchovy	200	0-5%	Mostly non-target (Pilchard fishery)	Purse seine	Found mostly inshore, particularly in gulfs, bays, harbours, and some large estuaries.	Planktivorous schooling species	
Barracouta	11 (BAR1= FMA 1 , 2 & 3)	49-105%	Target fisheries, non-target in west coast North Island jack mackerel and Snares squid fisheries	Trawl	Inshore areas all around NZ, down to about 400 m depth	opportunistic feeders; anchovy, small barracouta, pilchards, jack mackerel.	
Blue cod	46 (BCO1 = FMA 1 & 9)	12-26%	Target fisheries	trawl and pots	Bottom-dwelling species. More abundant south of Cook Strait and around the Chatham Islands.	Small fish and crabs	Bottom dwelling
Bigeye Tuna	714 (BIG1 = All FMAs)	20-33%	Target. However, North Island fishery targets a range of species: bigeye, swordfish, southern bluefin tuna	Surface longline	Found in open water broadly across the Pacific Ocean.	epi-pelagic opportunistic predators: lancetfish, skipjack tuna, ray's bream; squid, nautilus, crab ,crayfish	
Blue Nose	786 (BNS1 = FMA 1 & 9)	59-103%	Target fisheries	86% bottom longline, 5% by Dahn line and small amounts by midwater trawl, bottom trawl, setnet and trot line	Pelagic juvenile phase. Adult depth distribution	tunicates, fish, molluscs, squid, crustaceans.	
Butterfish	3 (BUT 1 = FMA 1 & 9)	33-100%	Target fisheries	Setnet	Occur from North Cape to the Snares Islands. Rocky coastlines, seaweed beds. Main depth: 0- 20m.	Herbivorous; several of the larger seaweeds	
Blue shark	1860 (BWS1= all FMAs)	35-43%	Non-target (tuna surface longline fishery).	Mainly surface longline. Small amounts by bottom longline, trawk and setnet.	Highly migratory, pelagic carcharhinids found throughout the world's oceans in all tropical and temperate waters from about 50N to 50S.	Small fishes, invertebrates and carcasses; have gill rakers, can eat very small prey (crabs, anchovies)	
Frilled Venus shell	1	0%	6 Surf clam fishery	Surf clam fishery	Shellfish, found around the coast in sediments at depths between 6-9 m.	plankton	Shellfish
Alfonsino	300 (BYX1= FMA 1 & 9)	22-118%	Target trawl fishery and as bycatch in other trawl fisheries. Non-target in bluenose BLL fisheries.	61% bottom trawl, 25% midwater trawl and 12% bottom longline	Throughout the world's tropical and temperate waters, in depths from 25 to 1200 m.	small crustaceans, larger prawn species and mesopelagic fish	
Black Cardinal fish	1200 ( CDL 1 _ FMA 1	16-54%	Target fishery and non-target in orange rouchy fishery	Bottom trawl	Widely distributed in NZ waters at depths of 300-1100 m.	schooling species: small fishes and planktonic invertebrates	Deepwater
Deepwater red crab	10 (CHC1=FMA1)	0-59%	exploratory fishing (target?)	Potting	On and North of the Chatham Rise, and particularly along the east coast north of Hawkes Bay to North Cape. Burrowing crab, recorded between 80-1100 m depths around NZ.	Plankton, fish, worms, mussels, clams etc.	Deepwater

Cockles	346 (COC1B & 1C= FMA1)	25-68%	Target fisheries	dredged/hand digging	Found in soft mud to fine sand on protected beaches and enclosed shores around the North and South Island, Stewart Island, The Chatham Islands and the Auckland Islands.  All around North and South Islands, Stewart	Suspension feeder crabs, clams, mussels, starfish,	Shellfish
Spiny rock lobster  Ringed Dosinia	7 (DAN1=FMA1)	83-98%	Target fisheries  7% Part of surf clam fisheries	Potting  Surf clam fishery	Island and the Chatham Islands.  Around NZ coat on sediments in the North Island at depths between 5 and 8 m, and in the S-Island between 6-10m. Often found on exposed beaches	small fish.  Suspension feeder	Lobster Shellfish
Silky Dosinia	1 (DSU1=FMA1)	(	)% Part of surf clam fisheries	Surf clam fishery	Around NZ coat on sediments in the North Island at depths between 6 and 10 m, and in the S-Island between 5-8m. Often found on exposed beaches	Suspension feeder	Shellfish
Elephant fish	10 (ELE1= FMA 1 &9)	1-20%	Target by setnet (little); non- target of trawl fisheries	setnet ; trawl	Uncommon of the N-Island. Most plentiful around the east coast of the S-Island.	shellfish & crustaceans (crabs, shrimps), seldom eat fish, if so only small ones	Uncommon in North Island
Blue (English mackarel	7630 (EMA1=FMA1)	58-92%	Target purse seine fisheries and non-target in jack mackerel mid-water trawl	Purse seine, mid-water trawl; low catches in Bottom longline, bottom pair trawl, beach seine, bottom trawl, drift net, dip net, Danish seine, handline, lampara, mid-water trawl, lobster pot, ring net, SLL, setnet and troll	Juvenile and immature are northerly in their distribution; North Island and into Golden and Tasman Bay at the top of S-Island. Adults have been recorded around both the S-Island to stewart Island and across the Chatham Rise almost to the Chatham Islands. Found near the surface	Surface feeding schooling species: zooplankton, copepods, larval crustaceans and molluscs, fish eggs and fish larvae	
Flatfish	1187 (FLA1= FMA 1 & 9)	50-87%	Target fisheries	mainly Inshore trawl & Danish seine; set and drag net.	Shallow-water species, generally found in waters less than 50 m depth.	crustaceans, squid, clams, sea urchins, worms, fish	Bottom feederes
Frostfish	149 (FRO1=FMA1)	24-88%	non-target in jack mackerel, hoki, squid, barracoura and gemfish fisheries	trawl fisheries	Found from about 34S to 49S in NZ, at depths of 50-600m. Around most of NZ, and are present at the	Feed in mid-water: crustaceans, small fish and squid.	
Garfish (piper)	25 (GAR1=FMA1)	24-53%	Target fisheries and non-target in the pilchard fishery	beach seine, lampara net	Chatham Islands. Most abundant in sheltered gulfs, bays, and large estuaries, particularly around seagrass beds in shallow water, and over shallow reefs.	Schooling species: Larger zooplankton, mysids, crab larvae and polychaete larvae, eelgrass, seaweed and small crustaceans	
Green-lipped mussels	10 (GLM1=FMA1)		Target fisheries	dredging and hand picking	Distributed throughout NZ, most common in central and northern parts where it frequently forms dense beds.	Filer feeding mollusc	Filer feeding mollusc

Grey Mullet	925 (GMU1= FMA1&9)	73-102%	Target and non-target	setnet & beach seine	along coasta, in estuaries, and in lower river	schooling species: detritus and plant material, graze surface of aquatic plants	
	1 (GSC1= FMA1,				From the intertidal to over 500 m in the	detritus feeders, algae, shellfish,	
Giant spider crab	9,8&7)	0-100%	Target fisheries	Potting	southeast and south of NZ.	bivalves, gastropods.	Crustacean
				trawl (hoki, silver warehou,	throughout much of the NZ EEZ in depths from	starfish, shellfish and other	Deepwater
Ghost shark (dark	22 (GSH1=FMA1)	64-223%	non-target fisheries (bycatch)	squid, barracouta)	30-850 m.	invertebrates	bottom feeder
Chartal and Coals	(GSP1=FMA1, 2,3	42.2540/	and the section of the section (in section).	trawl (hoki, silver warehou,	throughout much of the NZ EEZ in depths from	starfish, shellfish and other	Deepwater
Ghost shark (pale)	& 4)	42-251%	non-target fisheries (bycatch)	squid, barracouta)	270-1200 m.	invertebrates small crustaceans: shrimps and	bottom feeder
Constant	2287	44 500/			3-6y inshore areas of the west coast S-Island and		Mostly found
Gurnard	(GUR1=FMA1&9)	41-59%	target and bycatch	Inshore trawl	older fish predominantly found further offshore.	forms.	in S-Island
	3701 (HAK1=				Widely distributed throughout the middle depths		
Hake	FMA1,9,8,2,3,5,6)	55-130%	Target and bycatch (hoki)	Trawl	of the NZ EEZ.	merlucciids, hoki	
	150,000 (HOK1=All FMAs (-				Hoki are widely distributed throughout New Zealand waters from 34o S to 54o S, from depths	myctophids, squid, pelagic crustaceans, euphausiids,	
Hoki	FMA 10)	90-150%	Target fisheries	Trawl	of 10 m to over 900 m.	fishes, and natant decopods.	
				Bottom trawl, Dredge and	widespread endemic bivalve that lives mainly on muddy-sand substrates in the lowest inter-tidal and sub-tidal shallows of mainly sheltered waters. Horse mussels are also found in deeper		
Horse mussel	4 (HOR1=FMA1)	0%	Bycatch	Danish seine	waters (to 50 m) off open coasts.	filter-feeding mollusc	Mussel
						large range of fish species, invertebrates and crustaceans, red	
Hapuku and Bass	480	88-92%	target fisheries	longline, trawl, danish seine, setnetting	throughout NZ. Hapuku most abundant in 100- 300m and Bass in 250-500m.	cod, blue cod, hoki, crabs and crayfish	Deepwater spp
TEPUKU SHU USS	704	J270	organisments	John dory and Snapper trawl fisheries; Trawl &	common in the inshore coastal waters of northern New Zealand, and to a lesser extent in Tasman Bay, to depths of 50 m. In the Hauraki Gulf, adults move to deeper waters during	Found in areas close to the seabed and are generall soliraty. Feed mainly on schooling bony fishes, occasionally on cephalopods and	
John Dory		60-95%	Target fisheries; bycatch	Danish seine	occur during winter.	crustaceans.	

The three species of jack mackerel in New Zealand have different geographical distributions, but their ranges partially overlap.	
T. novaezelandiae predominates in waters shallower than 150 m and warmer than 130C; it is uncommon south of latitude 42oS. T. declivis generally occurs in deeper (but less than 300 m)  Targer fisheries; bycatch from 10000 kahawai and blue mackerel bottom trawl, mid-water 10000 kahawai and blue mackerel 10000 kahawai	es:
Found around the N-Island, S-Island, the such as pilchard, crustacea fish such as pilchard, crustac	
Found at depths between 120 m and 700 m from the east coast of Northland to southern parts of potting (target); bycatch in orange roughy fishery and the variety of potting (target) and substrates, but have been found on rocky fish), including dead material, bottoms.  Found at depths between 120 m and 700 m from the coast of Northland to southern parts of food (sessile, sedentary, and mobile invertebrates, and small substrates, but have been found on rocky fish), including dead material, bottoms.	
Predominatnly found in the northern half of the North Island, but also acccurs from 29S-46S, Kermadec Islands to Foveaux Strait and to depths of 200m. Occupy a semi-pelagic existence and occur mainly in open coastal waters, Mostly bycatch; small amount as specieally licencesed target Kingfish  91 (KIN1=FMA1)  52-72%  Predominatnly found in the northern half of the North Island, but also acccurs from 29S-46S, Kermadec Islands to Foveaux Strait and to depths of 200m. Occupy a semi-pelagic existence and occur mainly in open coastal waters, setnet, trawl, longline (bycatch); setnet (target)  preferring areas of high current and or tidal flow herring and garfish, squid, octopus.	
Knobbed whelk 1 (KWH1=FMA1) 0-10% target fisheries potting 600 m all throughout New Zealand. Carnivorous gastropod	Gastropod
Widely distributed throughout NZ waters with most records from the Chatham Rise. Adults natant decapod crustaceans, most common between 400-600m, but havea euphausid, mysid, galatheid ar lookdown Dory 8,9,1,2,4) 86-107% Non-target Bottom trawling wide depth range, from 50-1200 m. nephropsid crustaceans, and fi	ı
Present around much of NZ, but most common in the north. Usually occur near reefs and over rough seafloor, but may be found over sand or Leatherjacket (LEA1=FMA1&9) 72-101% Bycatch Trawl some distance above the bottom.  Although not a schooling specing they do occur in small groups: rough seafloor, but may be found over sand or such as molluscs and sea urching the common in the north. Usually occur near reefs and over they do occur in small groups: rough seafloor, but may be found over sand or such as molluscs and sea urching the common in the north. Usually occur near reefs and over they do occur in small groups: rough seafloor, but may be found over sand or such as molluscs and sea urching the common in the north. Usually occur near reefs and over they do occur in small groups: rough seafloor, but may be found over sand or such as molluscs and sea urching the common in the north. Usually occur near reefs and over they do occur in small groups: rough seafloor, but may be found over sand or such as molluscs and sea urching the common in the north. Usually occur near reefs and over they do occur in small groups: rough seafloor, but may be found over sand or such as molluscs and sea urching the common in the north. Usually occur near reefs and over they do occur in small groups: rough seafloor, but may be found over sand or such as molluscs and sea urching the common in the north. Usually occur near reefs and over they do occur in small groups: rough seafloor, but may be found over sand or such as molluscs and sea urching the common in the north.	S
Long-finned Omnivorous opportunistic	Unlikely to push up prey

					Widely distributed through the middle depths	fish. Commercial fishing discards	
	400 (LIN1=				(200-800m) of the New Zealand EEZ, particularly	are a significant dietary	Bottom
ing	FMA1&9)	62-114%	Target fisheries	Trawlers, longliners	to the south of latitude 40S.	component.	dwelling
						Feeds mainly on cephalopods and	
						bonu fish, including: mackerel,	
				Tuna Longliners, bottom		tunas, bonitos, and swordfish.	
	200 (MAK1=All			longliners and bottom and		They hunt by swimming below	
Aako shark	FMAs)	30-150%	Bycatch	mid-water trawl (bycatch)		their prey and then lunging	
					Most common in southern NZ (Blueskin Bay, Te		
hrough shell	1(MDI1=FMA1)	0%	Target	dredging and hand picking	Waewae, and Oreti)	filter-feeding mollusc	Mollusc
					Most common in southern NZ (Blueskin Bay, Te		
arge through shell	2 (FMA1)	0%	Target	dredging and hand picking	Waewae, and Oreti)	filter-feeding mollusc	Mollusc
					found all around NZ, with most catch from east		
					coast between Bay of Plenty and Kaikoura.		
	402				juveniles found inshore, usually around rocky		
	(MOK1=FMA1,2,6				reefs, while most adults school offshore over	invertebrates such as crabs, small	Unlikely to
Blue Moki	,7,8,9)	91-117%	Target fisheries	Setnet and trawl	mainly open bottom.	sea urchins, worms and shellfish	push up prey
						mid-water pelagic fish with a	
	527 (MOO1=All	Below 20% in		Surface longline, mid-water	All around NZ. Bulk of the catch from east coast	narrow range of prey items with	
Moonfish	FMAs)	recent years	70% bycatch	trawling and bottom lining.	N-Island and west-coast S-Island	the most common being squid.	
					Have been found within a 600 m to 1300 m		
					depth range. Geographical distribution south of		
		20-50% (in			about 45S is not well known. It is a southern		
		recent years),			species and is abundant on the south Chatham	mesopelagic & benthopelagic	
		used to			Rise, along the east coast of the South Island, the	prawns, fish and squid, with other	
	2500	fluctuate			north and east slope of Pukaki Rise, the Bounty	organisms such as mysids,	
	(OEO1=FMA9,8,7,	between2000-			platform, the Snares slope, Puysegur Bank and	amphipods and euphausiids	Deepwater
Oreo	5,2,1)	4000t before)	Target fisheries	Trawl	the northern end of the Macquarie ridge.	occasionally being important.	spp
						mesopelagic & benthopelagic	
						prawns, fish and squid, with other	
						organisms such as mysids,	
	1400				Inhabits depthe between 700 m and at least	amphipods and euphausiids	Deepwater
Orange roughy	(ORH1=FMA1&9)	65-92%	Target fisheries	Trawl	1500 m in New Zealand waters .	occasionally being important.	spp
					All around NZ coast in small patches to depths of		
					35 m or more. Grow in extensive beds in the S-		
					Island's Foveaux Strait, Golden Bay and Tasman		
Predge oysters	1 (OYS1=FMA1)	0%	Target	dredged	Вау.	filter-feeding shellfish	Shellfish
						Versatile and opportunistic	
						predators: molluscs, crustaceans,	
					Found off sandy beaches, and in harbours and	polychaetes, several fish species,	
	220		Target; bycatch (discarded) in			cumaceans and occasionally on	
Paddle crab	(PAD1=FMA1)	16-104%	inshore trawl	lift and set pots	Islands and east and south Australia	algae.	Crustacean

				Sotnot (grov poullet flatfield	east and west coast of the N-Island, from North Cape to Cook Strait. Juveniles found on seagrass	Henally accur in echapte	
D	C1 (DAD1 FMAA1)	70.000/	Manth. Disantah		meadows and beds of Neptunes Necklace on	Usually occur in schools:	
Parore	61 (PAR1=FMA1)		Mostly Bycatch	trevally)	shallow reefs	Herbivores	D.O. a Ulivaria
Paua	1.9 (PAU=FMA1)	14%	Target	hand picking	Reefs in shallow subtidal coastal habitats	Herbivores	Molluscs
					Mainly around the lower half of the North Island		
					*		
	1 (55.01 51.111)	00/		C. of the confidence	and from Pegasus Bay north in the South Island,	5'll a a Cara I a ca	ch . HC. h
Deepwater tuatua	1 (PDO1=FMA1)	U%	Target	Surf clam fishery	and on the north coast of Stewart Island.	Filter-feeders	Shellfish
Packhorse rock	40 (PHC1= ALL FMAs	10.000/	T	Dattin -	Taken majak in the month of the Newto John d	crabs, clams, mussels, starfish,	Constant
obster	FIVIAS	19-90%	Target	Potting	Taken mainly in the north of the North Island.	small fish.	Crustacean
	2000		Mainly target: small bycatch in	Mainly nurse seiner lampara	Occur around most of NZ. Found in shore,	schooling fish: feed dominantly	
Pilchard	(PIL1=FMA1)	32-64%	jack mackerel fisheries		particularly in gulfs, bays and harbours.	,	
riiciiaiu	(PILI-FIVIAL)	32-04%	Jack mackerer hisheries	netting, beach seine	particularly in guils, bays and harbours.	on phytoplankton	
			Non-target/bycatch (snapper		Common inshore species of northern NZ. Inshore	worms hrittlestars sea urchins	
Porae	62(POR1=FMA1)	73-105%	& trevally)	setnet	on reef/sand interfaces in 10-60m depth.	crabs, invertebrates	
Orac	02(I ORI=I WAI)	73-103/0	d trevarry)	settlet	on reel/sand interfaces in 10-00in deptil.	crabs, invertebrates	
					Porbeagles live mainly in the latitudinal bands		
			non-target in tuna longlining,	Surface longline (74-84%)	30–50oS and 30–70oN. They occur in the North	Active predator that	
	215 (POS1=All		mid-water and bottom	, ,	Atlantic Ocean, and in a circumglobal band in the	· ·	
Porbeagle shark	FMAs)	19-29%	trawling	,	Southern Hemisphere.	medium sized bony fishes.	
or a sugression and	, , , , , , , , , , , , , , , , , , , ,				around the New Zealand coastline, including the	,	
	203				Chatham and Auckland Islands, and are		1
	(PIP1a,b&c=FMA1				characteristic of sheltered beaches, bays and		
Pipi	)	67-75%	Target	hand picking	estuaries	Burrowing bivalve mollusc	Molluscs
	24.5			Scampi target trawl	Widely distributed around NZ: Found in depths	crabs, clams, mussels, starfish,	
Prawn killer	(PRK1=FMA1)	1-22%	Mostly bycatch	fisheries	of 80-300 m in soft sediment seafloors	small fish.	Crustacean
Deepwater (king)					Occur around thr North, South and Stewart		
clam	1.2 (PZL1=FMA1)	0%	Target	hand picking	Islands.	Deepwater clam	Shellfish
					Ray's bream is a highly migratory species and has		
					a wide distribution, being found throughout the		
				trawl, surface longlining,	subtropical to sub-Antarctic waters across the	Bathypelagic and prey on:	
	980 (RBM1=All			trolling and bottom	whole South Pacific between New Zealand and	myctiphids, lighthouse fish, salps,	
Ray's bream	FMAs)	15-26%	Mostly bycatch	longlining	Chile.	squid, crustaceans	Bathypelagic
			Mainly bycatch in jack		widely distributed around New Zealand in depths		
			mackerel, barracouta, squid &		from 85 to 500m. Juveniles are found at the		
	19		hoki; target fishery developed		surface and adults near the bottom in deeper	Schooling bathypelagic species:	
Red bait	(RBT1=FMA1,2)	9-110	in the mid-2000s	Trawl	waters, including seamounts.	Larget zooplankton	
	200 0000 0000	5 000/			Rubyfish live at depths from 50-800 m, but are	crustaceans, salps and myctophid	
Ruby fish	300 RBY1=FMA1)	6-98%	<u>'</u>	Trawl	most commonly found around 300 m. Red cod are seasonally abundant, with schools	fish	found around
	42		Target fisheries, and hysatch		appearing in the Canterbury Bight and Banks Peninsula area around November. Move into	fish, crustaceans and other	
Pod cod		7.60%	Target fisheries; and bycatch			l '	
Red cod	(RCO1=FMA1&9)	/-bU%	in deepwater fisheries	Trawl	deeper water after this time.	invertebrates	

	121				Widespread in NZ, has been caught by research	fish, crustaceans, molluscs and	
Ribaldo	(ROB1=FMA1)	5-44%	Target (BLL); bycatch (TWL)	Bottom longlines & trawling	trawl at depths of about 200–1300 m.	other invertebrates	Bathypelagic
					distributed throughout most of New Zealand,		
					from the Three Kings Islands to Campbell Island		
					and the Chatham Islands, including the		
	111			Bottom trawlers &	Challenger Plateau, Chatham Rise and Bounty	sprats, pipefish, red cod, ahuru,	
Rough skate	(RSK1=FMA1&2)	44-72%	Bycatch	longliners	Plateau.	sole, opal fish, crabs, krill, worms	<b>Bottom feeder</b>
	124				Occurs in association with deep coastal reefs to	schooling species: zooplankton in	
Red Snapper	(RSN1=FMA1)	24-56%	Bycatch	Longline, trawl, setnet.	depths of about 400m.	the midwaters	
					occurs from Bay of Plenty southwards on the		
					east coast of both islands, and on the Wellington-		
Triangle shell	9(SAE1=FMA1)	0%	Target	Surf clam fishery	Manawatu coast.	Shellfish: filter-feeder	Shellfish
					Anterestic waters. They are dispersed throughout		
					Antarctic waters. They are dispersed throughout		
					the Campbell Plateau and Bounty Platform for		
					much of the year, but during August and		
					September they aggregate to spawn near the		
	8				Campbell Islands, on Pukaki Rise, on Bounty		
Southern blue	(SBW1=FMA1,2,3,				Platform, and near the Auckland Islands over	schooling species: plankton and	
whiting	4,5,7,8,9)	19-266%	Target	Trawl	depths of 250–600 m.	small fishes	
					found in a variety of coastal habitats, but		
	40				particularly in semi-enclosed areas where		
Scallop	(SCA1=FMA9,1,2)	62-173%	Target	Dredging		bivalve molluscs	Molluscs
	4(SCC1a&b=FMA		Target (diving); bycatch	Diving; bottom trawl;	distributed throughout New Zealand, and as far		
Sea cucumber	1)	0-109%	(bottom trawl and dredging)	dredging	south as the Snares Islands.	detritus feeders	Echinoderms
	689	05 4400/	L	Bottom longline, setnet,	Distributed across the shelf, generally being	feed predominantly on small fish	
School shark	(SCH1=FMA9&1)	95-113%	Target?	bottom trawl	inshore in summer and offshore in winter.	and cephalopods.	
					widely distributed around the New Zealand		
	120 (00)1 51111	70 4000/			coast, principally in depths between 200 and 500		
Scampi	120 (SCI1=FMA1)	/2-103%	Target	Bottom trawl	m on the continental slope.	worms, fish	Crustacean
Chart finand	220						Halibah da
Short-finned	(SFE20&21=FMA1		La cont Calondar	E 1	Alexander de la companya de la NIZ	Omnivorous opportunistic	Unlikely to
freshwater eel	&9) 210	59-93%	target fisheries	Fyke nets	Abundant throughout NZ . occur on the continental shelf and slope, from	feeders: Insect larvae, small fish	push up prey
Camafiah		73-111%	Tayant & Divertals	Tanad		squid, lanternfish, dories and	double source
Gemfish	(SKI1=FIVIA1&9)	/3-111%	Target & Bycatch	Trawl	about 50–550 m depth.	rattails	depth range
					demersal fish found down to depths of about		
					200 m, but are most abundant in 15–60 m. They		
					are the dominant fish in northern inshore		
	1				communities and occupy a wide range of		
	1				habitats, including rocky reefs and areas of sand		ĺ
	1				and mud bottom. They are widely distributed in		
	4500				the warmer waters of New Zealand, being most		
Spanner		07 1029/	Target	traud longling		diverse and enperturistic	ĺ
Snapper	(SNA1=FMA1)	97-103%	Target	trawl, longline	abundant in the Hauraki Gulf.	diverse and opportunistic.	

Silver warehou	3000 (SWA1=FMA1,2,7 ,8,9)	34-159%	mostly Bycatch, small target fishery		Migrate to feed along the continental slope off the east ans southeast coast of the South Island during spring-summer	schooling species: salps, krill and small squid epi-pelagic and mesopelagic: medium sized pelagic teleost,	depth range
Kina	180 (SUR1A&1B=FMA 1)	67-102%	Target	diving & dredging	throughout New Zealand and the sub-Antarctic Islands. common around the South Island and on the Chatham Rise in depths of 200–800 m. The.	Mainly herbivorous	sea urchin
Southern bluefin tuna	413 (STN1=All FMAs)	58-111%	Target	Surface longline, small amounts handline			
Smooth skate Stargazer	37 (SSK1= FMA1,2) 21 (STA1=FMA1&9)	102-223% 104-172%	Bycatch Target & Bycatch	Bottom trawlers & longliners	distributed throughout most of New Zealand, from the Three Kings Islands to Campbell Island and the Chatham Islands, including the Challenger Plateau, Chatham Rise and Bounty Plateau. Smooth skates have not been recorded from QMA 10.  Found throughout the NZ EEZ, most plentiful around the South Island and on the Mernoo Bank on the Chatham Rise.	sole, opal fish, crabs, krill, worms	Bottom dwelling Bottom dwelling
Sprat Squid	<b>&amp;8) 44740</b>	1-2% 37-111%	non-target/mix Target	beach seine jiggers, trawl,	Auckland Islands. found over the continental shelf in water up to 500 m depth, most prevalent in water less than 300 m depth.	zooplanktivores (only) small fish, crabs, shrimps	
Rig	692 (SPO1=FMA1&9) 70 (SPR1=FMA1,2,9	43-90%	Bycatch and Target	Setnet & trawl	coastal waters throughout New Zealand.  Sprats occur in coastal waters from the Bay of Islands to Stewart Island, and are present at the	mainly on animals that burrow in the seafloor, especially crabs	
Sea Perch	33 (SPE1=FMA1)	83-228%	Bycatch	Trawl & longlining	widely distributed around most of New Zealand, but are rare on the Campbell Plateau. They inhabit waters ranging from the shoreline to 1200 m and are most common between 150 and 500 m.	seafloor.	deepwater spp
Spiny dogfish	331 (SPD1=FMA1&2)	50-72%	Bycatch	Bottom trawl, inshore trawl, setnet, longlining	North Island respectively.	feed on a very wide range of species, including munida, krill, fish, squid, and crabs.	

					coastal waters of the North and South Islands,		
	1447				Stewart Island and the Chatham Islands, down to	polychaete worms, crustaceans,	
Tarakihi	(TAR1=FMA1&9)	85-110%	Target * bycatch	Trawl	depths of about 250 m.	molluscs, echinoderms.	depth range
	,		,		fishing effort is distributed along the east coast	Epipelagic opportunistic predators	
	116 (TOR1=All				of the North Island and the south west coast of	of fish, crustaceans and	
Pacific bluefin tuna	FMAs)	11-19%	Bycatch (bigeye tuna)	Longline	the South Island.	cephalopods.	
						Schooling species, both pelagic	
					Caught around the North Island and the north of	and demersal in behaviour:	
	1506				the South Island, with the main catches from the	planktonic organisms and wide	
Trevally	(TRE1=FMA1)	52-97%	Target	Trawl, Purse seine, setnet	northern coasts of the North Island.	range of invertebrates	
					occur from the Three Kings Islands through all of		
					mainland New Zealand to the Auckland Islands;		
					however they are rare north of East Cape and	Octopus, crustaceans and small	
Trumpeter	3 (TRU1=FMA1)	0-34%	Mostly bycatch	Line fisheries; trawl	Cape Egmont	fish.	
					occurs mainly around the lower half of the North		
					Island and from Pegasus Bay north in the South		
					Island, and on the north coast of Stewart Island.		
					It is found from low tide to about 4 m, although		
Tuatua	0 (PDO1)	0%	Target	Surf clam fishery	,	filter-feeders	Shellfish
					caught in coastal waters of the South Island and		
	41				lower North Island down to depths of about 400		
Blue warehou	(WAR1=FMA1&9)	9-47%	Bycatch	Trawl	m.	Salps, krill, crabs and small squid	depth range
White warehou	4 (WWA1=FMA1)	0-6%	Bycatch	Trawl	mostly caught in 150 to 800 m depth	salps, fish and euphausiids	depth range
					range extends from North Cape to Stewart Island	Schooling species : omnivorous:	
				setnets, gillnets, beach		algae, crustaceans, diatom and	
Yellow-eyed mullet	20 (YEM1=FMA1)	13-45%	Target?	seine, drag net	in estuaries and in lower river systems.	more	
,	,		Ŭ	, ,	,		
					Fishing effort is distributed along the east coast		
					of the North Island and the south west coast of	Epi-pelagic opportunistic	
	263 (YFN1=All				the South Island. They are found from the surface	predators: fish, crustaceans and	
Yellowfin tuna	Fmas	2-14%	Non-target/Bycatch	Purse seine & longline		cephalopods.	
						schooling pelagic predators –	
					of the North Island and the south west coast of	open-sea hunters. Main source of	
Albacore tuna	Non-ITQ		Target	Troll & longline	the South Island	food is cephalopods.	
						epi-pelagic opportunistic	
						schooling species: fish,	
						crustaceans and cephalopods	
Skipjack tuna	Non-ITQ		Target	Purse Seine	the South Island	found within the upper few	

## Round 3

Species coloured in red are species that did not make it through the round

Species  Albacore tuna	TACC FMA 1	Caught	Type of fishery  Non-QMS species - Target	Fishing gear  Troll & longline	Fishing effort is distributed along the east coast of the North Island and the south west coast of the South Island	schooling pelagic predators  open-sea hunters. Main source of food is cephalopods.	Apex predator and they opportunistically feed on schooling fish. Because of their size and status, they are likely to have a "top-down" effect on the fish, crustaceans and squid they feed on.	Notes on catch & landings  Troll catch in 2007 was the lowest for nearly 20 years, mainly because of reduction in vessel numbers. Catches have fluctuated since then between 1794 and	Comments
Alfonsino	300 (BYX1= FMA 1 & 9)	22-118%	Target trawl fishery and as bycatch in other trawl fisheries. Non-target in bluenose BLL fisheries.	61% bottom trawl, 25% mid-water trawl and 12% bottom longline	Throughout the world's tropical and temperate waters, in depths from 25 to 1200 m.	small crustaceans, larger prawn species and mesopelagic fish	Occur in a wide range of depths (10- 1200m), often over sea mounts and banks, mostly found at 200-800m depth througout New Zealand.	Essentially confined to BYX2 & 3. TACC for BYX1(FMA1&9) was increased for the 2001/02 year from 31t to 300, was attained for the first time in 04/05 and has been undercaught since then. Catches in BYX1 have dropped significantly since 09/10	Confined to BYX 2 & 3. Small catches from FMA 1 & 9 in the recent years.
Anchovy	200	0-5%	Mostly non-target (Pilchard fishery)	Purse seine	Found mostly inshore, particularly in gulfs, bays, harbours, and some large estuaries.	Planktivorous schooling	Important prey species for larger fish, seabirds, marine mammals	Historically, most landings have been reported from northeastern NZ, ANC 1 (FMA1).	

Barracouta	11 (BAR1= FMA 1, 2 & 3)	49-105%	Target fisheries, non- target in west coast North Island jack mackerel and Snares squid fisheries	Trawl	Inshore areas all around NZ, down to about 400 m depth	opportunistic feeders; anchovy, small barracouta, pilchards, jack mackerel.	Important predator of many smaller commercially exploited species	Catch went down from 2001-2009 and have been increasing again in the past years.	
Bigeye Tuna	714 (BIG1 = All FMAs)	20-33%	Target. However, North Island fishery targets a range of species: bigeye, swordfish, southern bluefin tuna	Surface longline	Found in open water broadly across the Pacific Ocean.	epi-pelagic opportunistic predators: lancetfish, skipjack tuna, ray's bream; squid, nautilus, crab ,crayfish	Opportunistic predators. Likely to have a top-down effect on their prey species		
Blue (English) mackerel	7630 (EMA1=FMA1 )	58-92%	Target purse seine fisheries and non- target in jack mackerel mid-water trawl	Purse seine, mid-water trawl; low catches in Bottom longline, bottom pair trawl, beach seine, bottom trawl, drift net, dip net, Danish seine, handline, lampara, mid-water trawl, lobster pot, ring net, SLL, setnet and troll	Juvenile and immature are northerly in their distribution; North Island and into Golden and Tasman Bay at the top of S-Island. Adults have been recorded around both the S-Island to stewart Island and across the Chatham Rise almost to the Chatham Islands. Found near the surface		Presumed to be generally off the bottom at night, and surface schools can be quite common during the day. Predators of blue mackerel are likely to include many fishes, seabirds and marine mammals. Could be either competing for prey with seabirds, prey of seabirds or the schools are pushing up prey.	Largest and most consistent catches from the target purse seine fishery in EMA 1(FMA1, 2 & 7). Catches in Purse seine fishery in EMA1 have grown substantially.	
Blue Nose	786 (BNS1 = FMA 1 & 9)	59-103%	Target fisheries	86% bottom longline, 5% by Dahn line and small amounts by midwater trawl, bottom trawl, setnet and trot line	Pelagic juvenile phase. Adult depth distribution extends from near- surface waters to about 1200 m (main depth: 250-750m).	tunicates, fish, molluscs, squid, crustaceans.	Fishermen that target bluenose also target tuna, bluenose fishery tends to occur when tuna are less abundant, or after tuna fishing has ceased.	Catch has been doing down. Negligible amounts come from the Hauraki Gulf	Very small catches from Hauraki Gulf
Blue shark	1860 (BWS1= all FMAs)	35-43%	Non-target (tuna surface longline fishery).	Mainly surface longline. Small amounts by bottom longline, trawk and setnet.	Highly migratory, pelagic carcharhinids found throughout the world's oceans in all tropical and temperate waters from about 50N to 50S.	Small fishes, invertebrates and carcasses; have gill rakers, can eat very small prey (crabs, anchovies)	Active pelagic predators, could have top-down effects on their prey and push prey up to the surface when feeding?	Nearly all catch from FMA1 & FMA2	

Frostfish	149 (FRO1=FMA1)	24-88%	non-target in jack mackerel, hoki, squid, barracoura and gemfish fisheries	trawl fisheries	Found from about 34S to 49S in NZ, at depths of 50-600m.	Feed in mid-water: crustaceans, small fish and squid.	Benthopelagic lifestyle. Occur mainly in depths of 50-600m with the largest catches made at around 200m depth. Migrate into mid-water at night to feed.	extent QMA 8 in the north and south	Main catches from west of NZ in QMA 7 & 8
Garfish (piper)	25 (GAR1=FMA1 )	24-53%	Target fisheries and non-target in the pilchard fishery	beach seine, lampara net	Around most of NZ, and are present at the Chatham Islands. Most abundant in sheltered gulfs, bays, and large estuaries, particularly around seagrass beds in shallow water, and over shallow reefs.	Schooling species: Larger zooplankton, mysids, crab larvae and polychaete larvae, eelgrass, seaweed and small crustaceans	Localised schooling behaviour. Form single-species schools, but occur in close proximity with other smalle pelagic fishes in shallow coastal waters, particularly yellow-eyed mullet.	Largest catches and landings in FMA1.	
(-rov N/111110t	925 (GMU1= FMA1&9)	73-102%	Target and non- target	setnet & beach seine	World wide distribution, occurring commonly along coasta, in estuaries, and in lower river systems.	schooling species: detritus and plant material, graze surface of aquatic plants		Largest catches and landings in FMA 1 & 9	

Jack Mackarel	10000 (JMA=FMA1& 2)	29-112%	Targer fisheries; bycatch from kahawai and blue mackerel fisheries.	96% purse seine (rest by bottom trawl, mid- water trawl, purse seine)	The three species of jack mackerel in New Zealand have different geographical distributions, but their ranges partially overlap. T. novaezelandiae predominates in waters shallower than 150 m and warmer than 13oC; it is uncommon south of latitude 42oS. T. declivis generally occurs in deeper (but less than 300 m) waters less than 16o C, north of latitude 45o S. T. murphyi occurs to depths of least 500 m and has a wide latitudinal range	copepods, larval crustaceans	Could be either competing for prey with seabirds, prey of seabirds or push prey up to the surface.	Since 1991-92, jack mackerel targeted landings in JMA 1 (FMA1&2) have represented more than 80% of total catch.	
John Dory	704 (DJO1=FMA1 &9)	60-95%	Target fisheries; bycatch	John dory and Snapper trawl fisheries; Trawl & Danish seine	common in the inshore coastal waters of northern New Zealand, and to a lesser extent in Tasman Bay, to depths of 50 m. In the Hauraki Gulf, adults move to deeper waters during summer, and occasional feeding aggregations occur during winter.	Found in areas close to the seabed and are generall soliraty. Feed mainly on schooling bony fishes, occasionally on cephalopods and crustaceans.	Move to deeper waters during summer, and only occasoionally form feeding aggregations in winter.		
Kahawai	1075 (KAH1=FMA1 )	84-97%	Purse seine target fisheries (mixed); bycatch in setnet, longline and trawl	Mainly purse seins; some quantities in setnets, longline and trawl	Found around the N-Island, S-Island, the Kermadec and Chatham Islands. Occur mainly in coastal seas, harbours and estuaries	crustaceans such as krill,	surface feeding schools. Could be either competing for prey with seabirds, prey of seabirds or push prey up to the surface.	Highest landings in KAH 1	

Kingfish	91 (KIN1=FMA1)	52-72%	Mostly bycatch; small amount as specially licencesed target fisheries	setnet, trawl, longline (bycatch); setnet (target)	Predominatnly found in the northern half of the North Island, but also aoccurs from 29S-46S, Kermadec Islands to Foveaux Strait and to depths of 200m. Occupy a semi-pelagic existence and occur mainly in open coastal waters, preferring areas of high current and or tidal flow adjacent to rocky outcrops, reefs and pinnacles.	Ibottom or surface kinds		Landings are largely reported as bycatch! Largest commercial landings generally come from KIN1(FMA1).	
Leatherjacket	188 (LEA1=FMA1 &9)	72-101%	Bycatch	Trawl	Present around much of NZ, but most common in the north. Usually occur near reefs and over rough seafloor, but may be found over sand or some distance above the bottom.	Although not a schooling species they do occur in small groups: Feed on a variety of prey species such as molluscs and sea urchins.	mostly bottom feeding	Most commonly caught by bottom trawlers.	bottom feeders
Lookdown Dory	168 (LDO1 FMA 7, 8,9,1,2,4)	86-107%	Non-target	Bottom trawling	Widely distributed throughout NZ waters with most records from the Chatham Rise. Adults most common between 400-600m, but havea wide depth range, from 50-1200 m.	natant decapod crustaceans, euphausid, mysid, galatheid and nephropsid crustaceans, and fish.	key species characterising the demersal fish community 350-550m on the chatham rise	Small landings from FMA 1 (few tonnes) in the last years.	Small catches

Mako shark	200 (MAK1=AII FMAs)	30-150%	Bycatch	Tuna Longliners, bottom longliners and bottom and mid-water trawl (bycatch)	Occur throughout NZ but are most abundant in the north, especially during the colder months.	Feeds mainly on cephalopods and bonu fish, including: mackerel, tunas, bonitos, and swordfish. They hunt by swimming below their prey and then lunging vertically up.	Active pelagic top predators. Could be pushing prey up to surface.	Catches are concentrated off the west and southwest coast of the S-Island, and the northeast coast of the N-Island. Most landings in FMA 1 & 2. Has been an increase in discarded mako sharks since 1996.	
Moonfish	527 (MOO1=All FMAs)	Below 20% in recent years	70% bycatch	Surface longline, mid- water trawling and bottom lining.	All around NZ. Bulk of the catch from east coast N-Island and west- coast S-Island	mid-water pelagic fish with a narrow range of prey items with the most common being squid.	large pelagic predators.	Reached a maximum of 351 t in 00-01, but have declined since then as a result of decreasing effort in SLL.	Low over all catch in recent years.
Pacific bluefin tuna	116 (TOR1=All FMAs)	11-19%	Bycatch (bigeye tuna)	Longline	fishing effort is distributed along the east coast of the North Island and the south west coast of the South Island.	Epipelagic opportunistic predators of fish, crustaceans and cephalopods.	Large opportunistic predators. likely to have a top-down effect on the fish, crustaceans and squid they feed on. Could cause upward movement of prey.	Most catch from FMA 1&2	
Parore	61 (PAR1=FMA1)	78-96%	Mostly Bycatch	Setnet (grey mullet, flatfish, trevally)	east and west coast of the N-Island, from North Cape to Cook Strait. Juveniles found on seagrass meadows and beds of Neptunes Necklace on shallow reefs	Usually occur in schools: Herbivores	Herbivores.	Most catch comes from FMA1 and FMA9	Algal feeders
Pilchard	2000 (PIL1=FMA1)	32-64%	Mainly target; small bycatch in jack mackerel fisheries	Mainly purse seine; lampara netting, beach seine	Occur around most of NZ. Found in shore, particularly in gulfs, bays and harbours.	schooling fish: feed dominantly on phytoplankton	heavily preyed upon by larger fishes, seabirds and marine mammals.	PIL 1 (FMA1) has the highest catch	

Porae	62(POR1=FM A1)	73-105%	Non-target/bycatch (snapper & trevally)	setnet	Common inshore species of northern NZ. Inshore on reef/sand interfaces in 10-60m depth.	worms, brittlestars, sea urchins, crabs, invertebrates	Bottom feeders	Majority caught in FMA 1, catch has halved since the early 1990s	bottom feeders
Porbeagle shark	215 (POS1=All FMAs)	19-29%	non-target in tuna longlining, mid-water and bottom trawling	Surface longline (74- 84%) and mid-water trawl (13-22%) & bottom trawling	Porbeagles live mainly in the latitudinal bands 30–50S and 30–70N. They occur in the North Atlantic Ocean, and in a circumglobal band in the Southern Hemisphere.	Active predator that predominantly ingests small to medium sized bony fishes.	Active pelagic predators, could push prey up to the surface when feeding.	Most Catch comes from FMAs 1, 2 and 7, overall catch still low.	Small catches
Red bait	19 (RBT1=FMA1, 2)	9-110	Mainly bycatch in jack mackerel, barracouta, squid & hoki; target fishery developed in the mid-2000s	Trawl	widely distributed around New Zealand in depths from 85 to 500m. Juveniles are found at the surface and adults near the bottom in deeper waters, including seamounts.	Schooling bathypelagic species: Larget zooplankton	Might be a prey species to large fish, seabirds, marine mammals.	Landings from RBT 1 have been small, less than 5t, but increased slightly in the late 2000s (2t) but have been around 2t after that.	Small catches
Red cod	42 (RCO1=FMA1 &9)	7-60%	Target fisheries; and bycatch in deepwater fisheries	Trawl	Red cod are seasonally abundant, with schools appearing in the Canterbury Bight and Banks Peninsula area around November. Move into deeper water after this time.	fish, crustaceans and other invertebrates	feeding aggregation of red cod schools during spring/summer most common in the South Island	Landings in RCO 1 (FMA1&9) reached a peak in 94-95 (63t) but have not gone over 25 t since 97-98	schools most
Red Snapper	124 (RSN1=FMA1)	24-56%	Bycatch	Longline, trawl, setnet.	Occurs in association with deep coastal reefs to depths of about 400m.	schooling species: zooplankton in the midwaters	occur in association with deep coastal reefs, in particular caves and overhangs, as well as open water, to depths of about 400m.	Recorded landings in FMA1 have been below 45t for the past 10 years.	Low catches in FMA1
Rig	692 (SPO1=FMA1 &9)	43-90%	Bycatch and Target	Setnet & trawl	coastal waters throughout New Zealand.	mainly on animals that burrow in the seafloor, especially crabs	Found in coastal waters, but predominantly feed on burrowing animals & crustaceans.	Landings in SPO 1 (FMA 1&9) have declined consistently since 91-92.	bottom feeders

School shark	689 (SCH1=FMA9 &1)	95-113%	Target	Bottom longline, setnet, bottom trawl	Distributed across the shelf, generally being inshore in summer and offshore in winter.	feed predominantly on small fish and cephalopods.	Research has shown that massive depletion of sharks has cascading effects throughout the ocean's ecosystems. Removing sharks can result in the loss of commercially important fish and shellfish species down the food chain.	Catch has been relatively stable for many years.	
Skipjack tuna	Non-ITQ		Non-QMS species - Target	Purse Seine	Fishing effort is distributed along the east coast of the North Island and the south west coast of the South Island	schooling species: fish, crustaceans and cephalopods found within the upper few hundred		Mostly from FMA1,2&9 during summer months. Catches quite high and can approximate 10.000 t in a good season.	
Snapper	4500 (SNA1=FMA1 )	97-103%	Target	trawl, longline	demersal fish found down to depths of about 200 m, but are most abundant in 15–60 m. They are the dominant fish in northern inshore communities and occupy a wide range of habitats, including rocky reefs and areas of sand and mud bottom. They are widely distributed in the warmer waters of New Zealand, being most abundant in the Hauraki Gulf.	diverse and opportunistic.	lindicated that the maximilm size of fish	Some stocks showed signs of overfishing in by the mid-1980s so the TACC are set at levels intended to allow for stock rebuilding.	

outhern blue vhiting	8 (SBW1=FMA1 ,2,3,4,5,7,8,9)		Target	Trawl	almost entirely restricted in distribution to Sub-Antarctic waters. They are dispersed throughout the Campbell Plateau and Bounty Platform for much of the year, but during August and September they aggregate to spawn near the Campbell Islands, on Pukaki Rise, on Bounty Platform, and near the Auckland Islands over depths of 250–600 m.	schooling species: plankton and small fishes	Very small fishery in FMA1, main catch around the Sub-Antarctic waters	Almost entirely restricted in distribution to Sub- Antarctic waters	Almost entirely restricted in distribution to Sub- Antarctic waters
 outhern	413 (STN1=All FMAs)	58-111%	Target	Surface longline, small amounts handline	Southern bluefin tuna caught in the New Zealand EEZ appear to represent the easternmost extent of a stock whose centre is in the Indian Ocean. most southern bluefin tuna are caught in FMA1, FMA2, FMA5 and FMA7.	pelagic teleost (large range), ray's bream, mesopelagics, myctiphids, lighthousefish, salps, squid, cephalopods	Could be pushing prey species up to the surface	FMA1&2 that accounted for small proportions of tuna before 1998, have in recent years accounted for about the same amount as the southern FMAs. Change in spatial distribution of catches attributed to increase in domestic longline effort in the northern waters.	
. , .	331 (SPD1=FMA1 &2)	50-72%	Bycatch	Bottom trawl, inshore trawl, setnet, longlining	widely distributed around the South Island and extend as far north as Manakau Harbour and East Cape on the west and east coasts of the North Island respectively.	feed on a very wide range of species, including munida, krill, fish, squid, and crabs.	bottom dweller	Reported catch from SPD 1 is largely coming from FMA2, with small catches in FMA 1.	Bottom dwellers

Sprat	70 (SPR1=FMA1, 2,9&8)	1-2%	non-target/mix	bottom trawl, setnet and beach seine	Sprats occur in coastal waters from the Bay of Islands to Stewart Island, and are present at the Auckland Islands.	zooplanktivores (only)	Could be a prey species, but are most abundant off the southeastern coast of the South Island, where anchovies are absent.	The sprat fishery is minor and intermittent. Catches and landings have ranged from less than 1 t to 7 since 1990. Most consistent catches have been by bottomg trawl.	Very small catches
Squid	44740	37-111%	Target	jiggers, trawl,	found over the continental shelf in water up to 500 m depth, most prevalent in water less than 300 m depth.	small fish, crabs, shrimps	Most prevalent around 300m depth	Mostly caught in the lower S-Island, around the snares shelf through to the Mernoo bank.	Most catches in S- Island
Swordfish	885 (SWO1= All FMAs)	36-62%	Targeted; or bycatch in tuna longline fishery.	Longline	swordfish range from 50°N to 45°S in the western Pacific Ocean and from 45°N to 35°S in the eastern Pacific Ocean.	epi-pelagic and mesopelagic: medium sized pelagic teleost, elasmobranchs, ray's bream, hoki, hake, saury, jack mackerel, lancetfish	Large pelagic predator. Move between surface and deeper layers depending on the time of the day.	Most of the catch from FMA 1, 2 &9	
Trevally	1506 (TRE1=FMA1)	52-97%	Target	Trawl, Purse seine, setnet	Caught around the North Island and the north of the South Island, with the main catches from the northern coasts of the North Island.	Schooling species, both pelagic and demersal in behaviour: planktonic organisms and wide range of invertebrates	Surface feeding trevally feed on planktonic organisms, particularly euphausids and may play a role in pushing prey up for surface feeding birds.	In 2010-11 & 2011-12, 86% of the catch came from FMA1	
Trumpeter	3 (TRU1=FMA1 )	0-34%	Mostly bycatch	Line fisheries; trawl	occur from the Three Kings Islands through all of mainland New Zealand to the Auckland Islands; however they are rare north of East Cape and Cape Egmont	Octopus, crustaceans and small fish.	usually occur over rocky reefs ranging from shallow isnhore waters to deep reefs on central continental shelf	Very small catches from FMA 1, with ladings being under 1t in most years	Very small catches in FMA1

Yellow-eyed mullet	20 (YEM1=FMA1 )	13-45%	Target?	setnets, gillnets, beach seine, drag net	range extends from North Cape to Stewart Island in New Zealand. Occurs commonly along coasts, in estuaries and in lower river systems.	Schooling species : omnivorous: algae, crustaceans, diatom and more	Grow up to about 25cm, could be an important prey species for larger predatory fish, marine mammals and birds?	High landings recorded since the mid 1980s most likely reflect increased fishing in the Auckland area in reponse to an increase in market demand.	
Yellowfin tuna	263 (YFN1=All Fmas	2-14%	Non-target/Bycatch	Purse seine & longline	Fishing effort is distributed along the east coast of the North Island and the south west coast of the South Island. They are found from the surface to depths where low oxygen levels are limiting.	Epi-pelagic opportunistic predators: fish, crustaceans and cephalopods.	, , , , , ,	Most catches from FMA 1, 2 & 9	
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## Final List

These species are believed to be of most relevance to the seabird prey availability in the North East

North Island

Species	TACC FMA 1	Caught	Type of fishery	Fishing gear	Habitat	Diet	General Notes on role or/and importance	Notes on catch & landings
Albacore tuna	Non-ITQ		Non-QMS species - Target	Troll & longline	Fishing effort is distributed along the east coast of the North Island and the south west coast of the South Island	schooling pelagic predators – open-sea hunters. Main source of food is cephalopods.	Apex predator and they opportunistically feed on schooling fish. Because of their size and status, they are likely to have a "top down" effect on the fish, crustaceans and squid they feed on.	Troll catch in 2007 was the lowest for nearly 20 years, mainly because of reduction in vessel numbers. Catches have fluctuated since then between 1794 and 3352 t
Anchovy	200	0-5%	Mostly non-target (Pilchard fishery)	Purse seine	Found mostly inshore, particularly in gulfs, bays, harbours, and some large estuaries.	Planktivorous schooling species	Important prey species for larger fish, seabirds, marine mammals	Historically, most landings have been reported from north-eastern NZ, ANC 1 (FMA1).
Barracouta	11 (BAR1= FMA 1, 2 & 3)	49-105%	Target fisheries, non- target in west coast North Island jack mackerel and Snares squid fisheries	Trawl	Inshore areas all around NZ, down to about 400 m depth	opportunistic feeders; anchovy, small barracouta, pilchards, jack mackerel.	Important predator of many smaller commercially exploited species	Catch went down from 2001- 2009 and have been increasing again in the past years.
Bigeye Tuna	714 (BIG1 = All FMAs)	20-33%	Target. However, North Island fishery targets a range of species: bigeye, swordfish, southern bluefin tuna	Surface longline	Found in open water broadly	epi-pelagic opportunistic predators: lancetfish, skipjack tuna, ray's bream; squid, nautilus, crab ,crayfish	Opportunistic predators. Likely to have a top-down effect on their prey species	Single QMA, effort distributed along the east coast of the North Island and the south west coast of South Island.
Blue (English mackerel	7630 (EMA1=FMA1 )	58-92%	Target purse seine fisheries and non-target in jack mackerel mid- water trawl	pair trawl, beach seine, bottom trawl, drift net, dip net, Danish seine, handline, lampara, mid- water trawl, lobster pot,	' '	Surface feeding schooling species: zooplankton, copepods, larval crustaceans and molluscs, fish eggs and fish larvae	Presumed to be generally off the bottom at night, and surface schools can be quite common during the day. Predators of blue mackerel are likely to include many fishes, seabirds and marine mammals. Could be either competing for prey with seabirds, prey of seabirds or the schools are pushing up prey.	Largest and most consistent catches from the target purse seine fishery in EMA 1(FMA1, 2 & 7). Catches in Purse seine fishery in EMA1 have grown substantially.

Blue shark	1860 (BWS1= all FMAs)	35-43%	Non-target (tuna surface longline fishery).	Small amounts by bottom longline, trawl	Highly migratory, pelagic carcharhinids found throughout the world's oceans in all tropical and temperate waters from about 50N to 50S.	Small fishes, invertebrates and carcasses; have gill rakers, can eat very small prey (crabs, anchovies)	Active pelagic predators, could have top-down effects on their prey and push prey up to the surface when feeding	Nearly all catch from FMA1 & FMA2
Garfish (piper)	25 (GAR1=FMA1 )	24-53%	Target fisheries and non- target in the pilchard fishery	beach seine, lampara net	IMost abundant in sheltered	Schooling species: Larger zooplankton, mysids, crab larvae and polychaete larvae, eelgrass, seaweed and small crustaceans	·	Largest catches and landings in FMA1.
Grey Mullet	925 (GMU1= FMA1&9)	73-102%	Target and non-target	setnet & beach seine	World wide distribution, occurring commonly along coasta, in estuaries, and in lower river systems.	schooling species: detritus and plant material, graze surface of aquatic plants	·	Largest catches and landings in FMA 1 & 9

Jack Mackarel	10000 (JMA=FMA1& 2)	29-112%		bottom trawl, mid-water trawl, purse seine)	The three species of jack mackerel in New Zealand have different geographical distributions, but their ranges partially overlap. T. novaezelandiae predominates in waters shallower than 150 m and warmer than 130C; it is uncommon south of latitude 42oS. T. declivis generally occurs in deeper (but less than 300 m) waters less than 16o C, north of latitude 45o S. T. murphyi occurs to depths of least 500 m and has a wide latitudinal range	Surface feeding schooling species: zooplankton, copepods, larval crustaceans and molluscs, fish eggs and fish larvae	Could be either competing for prey with seabirds, prey of seabirds or push prey up to the surface.	Since 1991-92, jack mackerel targeted landings in JMA 1 (FMA1&2) have represented more than 80% of total catch.
Kahawai	1075 (KAH1=FMA1 )	84-97%	Purse seine target fisheries (mixed); bycatch in setnet, longline and trawl	Mainly purse seins; some quantities in setnets, longline and trawl		schooling pelagic species: small fish such as pilchard, crustaceans such as krill, copepods and other zooplanktons. Shellfish, crabs, annelid worms	surface feeding schools. Could be either competing for prey with seabirds, prey of seabirds or push prey up to the surface.	Highest landings in KAH 1
Kingfish	91 (KIN1=FMA1)	52-72%	Mostly bycatch; small amount as specially licencesed target fisheries	setnet, trawl, longline (bycatch); setnet (target)	Predominantly found in the northern half of the North Island, but also aoccurs from 29S-46S, Kermadec Islands to Foveaux Strait and to depths of 200m. Occupy a semi-pelagic existence and occur mainly in open coastal waters, preferring areas of high current and or tidal flow adjacent to rocky outcrops, reefs and pinnacles.	Large predatory schooling fish (few fish to well over a 100): other fishes, either bottom or surface kinds such as pilchards, mullet, herring and garfish, squid, octopus.	Could have a role in pushing prey up to the surface.	Landings are largely reported as bycatch! Largest commercial landings generally come from KIN1(FMA1).

Mako shark	200 (MAK1=All FMAs)	30-150%	Bycatch	longliners and bottom	most abundant in the north, especially during the colder			Catches are concentrated off the west and southwest coast of the S-Island, and the northeast coast of the N- Island. Most landings in FMA 1 & 2. Has been an increase in discarded mako sharks since 1996.
Pacific bluefin tuna	116 (TOR1=All FMAs)	11-19%	Bycatch (bigeye tuna)	Longline	fishing effort is distributed along the east coast of the North Island and the south west coast of the South Island.		Large opportunistic predators. likely to have a top-down effect on the fish, crustaceans and squid they feed on. Could cause upward movement of prey.	Most catch from FMA 1&2
Pilchard	2000 (PIL1=FMA1)	32-64%	Mainly target; small bycatch in jack mackerel fisheries	Mainly purse seine; lampara netting, beach seine	Occur around most of NZ. Found in shore, particularly in gulfs, bays and harbours.	schooling fish: feed dominantly on phytoplankton	heavily preyed upon by larger fishes, seabirds and marine mammals.	PIL 1 (FMA1) has the highest catch
School shark	689 (SCH1=FMA9 &1)	95-113%	Target	Bottom longline, setnet, bottom trawl	Distributed across the shelf, generally being inshore in summer and offshore in winter.	feed predominantly on small fish and cephalopods.	Research has shown that massive depletion of sharks has cascading effects throughout the ocean's ecosystems. Removing sharks can result in the loss of commercially important fish and shellfish species down the food chain.	Catch has been relatively stable for many years.
Skipjack tuna	Non-ITQ		Non-QMS species - Target	Purse Seine	Fishing effort is distributed along the east coast of the North Island and the south west coast of the South Island	epi-pelagic opportunistic schooling species: fish, crustaceans and cephalopods found within the upper few hundred meters of the surface.	Opportunistic active predators that seek out schools of prey. Because of their size and status, they are likely to have a "top-down" effect on the fish, crustaceans and squid they feed on.	Mostly from FMA1,2&9 during summer months. Catches quite high and can approximate 10.000 t in a good season.

Snapper	4500 (SNA1=FMA1 )	97-103%	Target	trawl, longline	demersal fish found down to depths of about 200 m, but are most abundant in 15–60 m. They are the dominant fish in northern inshore communities and occupy a wide range of habitats, including rocky reefs and areas of sand and mud bottom. They are widely distributed in the warmer waters of New Zealand, being most abundant in the Hauraki Gulf.	diverse and opportunistic.	have indicated that the maximum size of fish has decreased in the	Some stocks showed signs of overfishing in by the mid- 1980s so the TACC are set at levels intended to allow for stock rebuilding.
Southern bluefin tuna	413 (STN1=All FMAs)	58-111%	Target	Surface longline, small amounts handline	extent of a stock whose centre is	lighthousefish, salps, squid,	Could be pushing prey species up to the surface	FMA1&2 that accounted for small proportions of tuna before 1998, have in recent years accounted for about the same amount as the southern FMAs. Change in spatial distribution of catches attributed to increase in domestic longline effort in the northern waters.
Swordfish	885 (SWO1= All FMAs)	36-62%	Targeted; or bycatch in tuna longline fishery.	Longline	swordfish range from 50°N to 45°S in the western Pacific Ocean and from 45°N to 35°S in the eastern Pacific Ocean.	epi-pelagic and mesopelagic: medium sized pelagic teleost, elasmobranchs, ray's bream, hoki, hake, saury, jack mackerel, lancetfish	Large pelagic predator. Move between surface and deeper layers depending on the time of the day.	Most of the catch from FMA 1, 2 &9

	Trevally	1506 (TRE1=FMA1)	52-97%	Target	Trawl, Purse seine,	Island, with the main catches from the porthern coasts of the	Schooling species, both pelagic and demersal in behaviour: planktonic organisms and wide range of invertebrates	Surface feeding trevally feed on planktonic organisms, particularly euphausids and may play a role in pushing prey up for surface feeding birds.	In 2010-11 & 2011-12, 86% of the catch came from FMA1
- 1	/ellow-eved	20 (YEM1=FMA1 )	13-45%	l arget?	setnets, gillnets, beach seine, drag net	Zealand. Occurs commonly along	Schooling species : omnivorous:	Grow up to about 25cm, could be an important prey species for larger predatory fish, marine mammals and birds?	High landings recorded since the mid 1980s most likely reflect increased fishing in the Auckland area in reponse to an increase in market demand.
	ellowfin tuna	263 (YFN1=All Fmas	2-14%	Non-target/Bycatch	_	South Island.They are found	Eni-nelagic opportunistic	Opportunistic predators, diet varies both spatially and temporally. Because of their size and status, they are likely to have a "topdown" effect on the fish, crustaceans and squid they feed on.	Most catches from FMA 1, 2 & 9