



Challenger ORH fishery: QMS (retained) species

Total commercial tows	64	78	112	106	154
Total observed tows	67	80	73	70	84
% tows observed	104.7%	102.6%	65.2%	66.0%	54.5%

Species	2008/09			2009/10			2010/11			2011/12			2012/13			Scaled up total 5-year catch	% of total catch	Average annual catch
	Unit	kg	%	tonnes														
Orange roughy	229,788	92.9%	229.8	332,083	98.6%	332.1	320,567	97.4%	491.8	238,623	94.6%	361.3	281,573	92.7%	516.2	1,931.3	95.2%	386.3
Spiky oreo	2,248	0.9%	2.2	488	0.1%	0.5	3,799	1.2%	5.8	6,401	2.5%	9.7	5,570	1.8%	10.2	28.5	1.4%	5.7
Ribaldo	838	0.3%	0.8	331	0.1%	0.3	767	0.2%	1.2	821	0.3%	1.2	2,134	0.7%	3.9	7.5	0.4%	1.5
Hake	270	0.1%	0.3	261	0.1%	0.3	284	0.1%	0.4	241	0.1%	0.4	418	0.1%	0.8	2.1	0.1%	0.4
Hoki	99	0.0%	0.1	138	0.0%	0.1	222	0.1%	0.3	325	0.1%	0.5	294	0.1%	0.5	1.6	0.1%	0.3
Cardinal fish		0.0%	0.0		0.0%	0.0	98	0.0%	0.2	163	0.1%	0.2	44	0.0%	0.1	0.5	0.0%	0.1
Pale ghost shark	35	0.0%	0.0	16	0.0%	0.0	36	0.0%	0.1	59	0.0%	0.1	111	0.0%	0.2	0.4	0.0%	0.1
Ray's bream	2	0.0%	0.0	1	0.0%	0.0	1	0.0%	0.0		0.0%	0.0	140	0.0%	0.3	0.3	0.0%	0.1
Sea perch	30	0.0%	0.0	17	0.0%	0.0	14	0.0%	0.0	9	0.0%	0.0	69	0.0%	0.1	0.2	0.0%	0.0
Smooth oreo	27	0.0%	0.0	13	0.0%	0.0	10	0.0%	0.0	16	0.0%	0.0	15	0.0%	0.0	0.1	0.0%	0.0
Silver warehou		0.0%	0.0		0.0%	0.0	27	0.0%	0.0		0.0%	0.0	2	0.0%	0.0	0.0	0.0%	0.0
Ghost shark	2	0.0%	0.0		0.0%	0.0	1	0.0%	0.0	13	0.0%	0.0		0.0%	0.0	0.0	0.0%	0.0
Smooth skate		0.0%	0.0	7	0.0%	0.0		0.0%	0.0		0.0%	0.0	6	0.0%	0.0	0.0	0.0%	0.0
Blue shark		0.0%	0.0		0.0%	0.0		0.0%	0.0	11	0.0%	0.0		0.0%	0.0	0.0	0.0%	0.0
Black oreo		0.0%	0.0		0.0%	0.0	1	0.0%	0.0	1	0.0%	0.0	9	0.0%	0.0	0.0	0.0%	0.0
Alfonsino		0.0%	0.0	2	0.0%	0.0	2	0.0%	0.0		0.0%	0.0	3	0.0%	0.0	0.0	0.0%	0.0
Ling		0.0%	0.0	6	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0	0.0	0.0%	0.0
Spiny dogfish		0.0%	0.0		0.0%	0.0		0.0%	0.0	3	0.0%	0.0	2	0.0%	0.0	0.0	0.0%	0.0
Giant stargazer	2	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0	3	0.0%	0.0	0.0	0.0%	0.0
King crab		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0	5	0.0%	0.0	0.0	0.0%	0.0
Arrow squid		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0	5	0.0%	0.0	0.0	0.0%	0.0
Lookdown dory		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0	2	0.0%	0.0	0.0	0.0%	0.0
Frostfish		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0	1	0.0%	0.0	0.0	0.0%	0.0
NZ Southern arrow squid		0.0%	0.0	1	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0	0.0	0.0%	0.0
Rough skate	1	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0	0.0	0.0%	0.0
Kingfish	1	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0	0.0	0.0%	0.0
QMS Total	233,343	94.3%	233.3	333,364	99.0%	333.4	325,829	99.0%	499.9	246,686	97.8%	373.6	290,406	95.6%	532.4	1,972.6	97.3%	394.5
ALL SPECIES	247,377	100.0%	247.4	336,694	100.0%	336.7	329,215	100.0%	505.1	252,224	100.0%	381.9	303,822	100.0%	557.0	2,028.1	100.0%	405.6

Where 5-year annual percentage catch exceeds 5%



Challenger ORH fishery: non-QMS (bycatch) species

Total commercial ORH target tows	64	78	112	106	154
Total observed ORH target tows	67	80	73	70	84
% tows observed	104.7%	102.6%	65.2%	66.0%	54.5%

Species	2008/09			2009/10			2010/11			2011/12			2012/13			Scaled up total 5-year catch	% of total catch	Average annual catch	
	Unit	kg	%	tonnes	kg	%	tonnes	kg	%	tonnes	kg	%	tonnes	kg	%	tonnes			
Leafscale gulper shark		1,072	0.4%	1.1	949	0.3%	0.9	1,197	0.4%	1.8	1,441	0.6%	2.2	2,412	0.8%	4.4	10.5	0.5%	2.1
Common roughy		0.0%	0.0	0.0	0.0%	0.0	0.0	0.0%	0.0	0.0	0.0%	0.0	0.0	4,959	1.6%	9.1	9.1	0.4%	1.8
Other sharks and dogfish		9,051	3.7%	9.1	0.0%	0.0	0.0	8	0.0%	0.0	0.0%	0.0	0.0	0.0%	0.0	0.0	9.1	0.4%	1.8
Shovelnose dogfish		634	0.3%	0.6	191	0.1%	0.2	411	0.1%	0.6	525	0.2%	0.8	726	0.2%	1.3	3.6	0.2%	0.7
Smooth skin dogfish		581	0.2%	0.6	409	0.1%	0.4	139	0.0%	0.2	527	0.2%	0.8	781	0.3%	1.4	3.4	0.2%	0.7
Johnson's cod		289	0.1%	0.3	185	0.1%	0.2	169	0.1%	0.3	238	0.1%	0.4	892	0.3%	1.6	2.7	0.1%	0.5
Plunket's shark		314	0.1%	0.3	0.0%	0.0	0.0	301	0.1%	0.5	494	0.2%	0.7	358	0.1%	0.7	2.2	0.1%	0.4
Unicorn rattail		324	0.1%	0.3	22	0.0%	0.0	195	0.1%	0.3	306	0.1%	0.5	478	0.2%	0.9	2.0	0.1%	0.4
Seal shark		197	0.1%	0.2	134	0.0%	0.1	283	0.1%	0.4	370	0.1%	0.6	172	0.1%	0.3	1.6	0.1%	0.3
Rattails		20	0.0%	0.0	308	0.1%	0.3	134	0.0%	0.2	168	0.1%	0.3	305	0.1%	0.6	1.3	0.1%	0.3
Longnose velvet dogfish		190	0.1%	0.2	244	0.1%	0.2	31	0.0%	0.0	129	0.1%	0.2	197	0.1%	0.4	1.0	0.1%	0.2
Potuguese dogfish		111	0.0%	0.1	16	0.0%	0.0	4	0.0%	0.0	130	0.1%	0.2	325	0.1%	0.6	0.9	0.0%	0.2
Black slickhead		85	0.0%	0.1	70	0.0%	0.1	21	0.0%	0.0	88	0.0%	0.1	281	0.1%	0.5	0.8	0.0%	0.2
Widenedose chimaera		158	0.1%	0.2	241	0.1%	0.2	34	0.0%	0.1	88	0.0%	0.1	126	0.0%	0.2	0.8	0.0%	0.2
Baxter's lantern dogfish		82	0.0%	0.1	62	0.0%	0.1	22	0.0%	0.0	97	0.0%	0.1	210	0.1%	0.4	0.7	0.0%	0.1
Bigscaled brown slickhead		25	0.0%	0.0	85	0.0%	0.1	0.0%	0.0	0.0	96	0.0%	0.1	91	0.0%	0.2	0.4	0.0%	0.1
Violet squid		51	0.0%	0.1	29	0.0%	0.0	16	0.0%	0.0	42	0.0%	0.1	69	0.0%	0.1	0.3	0.0%	0.1
Cape scorpionfish		28	0.0%	0.0	29	0.0%	0.0	2	0.0%	0.0	59	0.0%	0.1	75	0.0%	0.1	0.3	0.0%	0.1
Long-nosed chimaera		23	0.0%	0.0	11	0.0%	0.0	33	0.0%	0.1	14	0.0%	0.0	76	0.0%	0.1	0.2	0.0%	0.0
Serrulate rattail		44	0.0%	0.0	0.0%	0.0	0.0	12	0.0%	0.0	62	0.0%	0.1	48	0.0%	0.1	0.2	0.0%	0.0
Mahia rattail		51	0.0%	0.1	0.0%	0.0	0.0	7	0.0%	0.0	45	0.0%	0.1	58	0.0%	0.1	0.2	0.0%	0.0
Pholidoteuthis boschmai		27	0.0%	0.0	108	0.0%	0.1	4	0.0%	0.0	7	0.0%	0.0	44	0.0%	0.1	0.2	0.0%	0.0
Deepsea cardinalfish		99	0.0%	0.1	25	0.0%	0.0	60	0.0%	0.1	10	0.0%	0.0	0.0	0.0%	0.0	0.2	0.0%	0.0
Squid (Unspecified)		74	0.0%	0.1	17	0.0%	0.0	26	0.0%	0.0	51	0.0%	0.1	1	0.0%	0.0	0.2	0.0%	0.0
Smallscaled brown slickhead		19	0.0%	0.0	40	0.0%	0.0	0.0%	0.0	0.0	20	0.0%	0.0	64	0.0%	0.1	0.2	0.0%	0.0
Slickhead		16	0.0%	0.0	0.0%	0.0	0.0	46	0.0%	0.1	76	0.0%	0.1	0.0	0.0%	0.0	0.2	0.0%	0.0
Basketwork eel		36	0.0%	0.0	18	0.0%	0.0	15	0.0%	0.0	8	0.0%	0.0	61	0.0%	0.1	0.2	0.0%	0.0
Four-rayed rattail		46	0.0%	0.0	0.0%	0.0	0.0	8	0.0%	0.0	32	0.0%	0.0	43	0.0%	0.1	0.2	0.0%	0.0
Jellyfish (Unspecified)		128	0.1%	0.1	0.0%	0.0	0.0	0.0%	0.0	0.0	0.0%	0.0	0.0	30	0.0%	0.1	0.2	0.0%	0.0
Giant lepidion		4	0.0%	0.0	3	0.0%	0.0	30	0.0%	0.0	0.0%	0.0	0.0	46	0.0%	0.1	0.1	0.0%	0.0
Notable rattail		27	0.0%	0.0	0.0%	0.0	0.0	1	0.0%	0.0	38	0.0%	0.1	27	0.0%	0.0	0.1	0.0%	0.0
Rudderfish		7	0.0%	0.0	8	0.0%	0.0	3	0.0%	0.0	34	0.0%	0.1	22	0.0%	0.0	0.1	0.0%	0.0
Warty squid		12	0.0%	0.0	28	0.0%	0.0	0.0%	0.0	0.0	18	0.0%	0.0	22	0.0%	0.0	0.1	0.0%	0.0
Talismania longifilis		17	0.0%	0.0	5	0.0%	0.0	0.0%	0.0	0.0	2	0.0%	0.0	41	0.0%	0.1	0.1	0.0%	0.0
Todarodes filippovae		3	0.0%	0.0	23	0.0%	0.0	3	0.0%	0.0	4	0.0%	0.0	31	0.0%	0.1	0.1	0.0%	0.0
Javelinfish		13	0.0%	0.0	3	0.0%	0.0	9	0.0%	0.0	27	0.0%	0.0	10	0.0%	0.0	0.1	0.0%	0.0
Unidentified fish		1	0.0%	0.0	0.0%	0.0	0.0	21	0.0%	0.0	2	0.0%	0.0	24	0.0%	0.0	0.1	0.0%	0.0
Spinyfin		0.0%	0.0	0.0%	0.0	0.0	0.0	2	0.0%	0.0	18	0.0%	0.0	24	0.0%	0.0	0.1	0.0%	0.0
Common halosaur		5	0.0%	0.0	4	0.0%	0.0	4	0.0%	0.0	13	0.0%	0.0	14	0.0%	0.0	0.1	0.0%	0.0
Morids		0.0%	0.0	0.0%	0.0	0.0	0.0	38	0.0%	0.1	0.0%	0.0	0.0	0.0	0.0	0.0	0.1	0.0%	0.0
Octopoteuthidae		0.0%	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0	37	0.0%	0.1	0.0	0.0	0.0	0.1	0.0%	0.0
Schedophilus buttoni		4	0.0%	0.0	10	0.0%	0.0	0.0%	0.0	0.0	0.0%	0.0	0.0	21	0.0%	0.0	0.1	0.0%	0.0
Coryphaenoides sp. b		4	0.0%	0.0	0.0%	0.0	0.0	3	0.0%	0.0	17	0.0%	0.0	9	0.0%	0.0	0.1	0.0%	0.0
Omega prawn		5	0.0%	0.0	0.0%	0.0	0.0	0.0%	0.0	0.0	11	0.0%	0.0	14	0.0%	0.0	0.0	0.0%	0.0
Deepwater spiny skate		0.0%	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0	30	0.0%	0.0	0.0	0.0	0.0	0.0	0.0%	0.0
Viper fish		0.0%	0.0	1	0.0%	0.0	0.0	6	0.0%	0.0	6	0.0%	0.0	14	0.0%	0.0	0.0	0.0%	0.0
Giant squid		0.0%	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0	0.0%	0.0	0.0	24	0.0%	0.0	0.0	0.0%	0.0
Dana octopus squid		0.0%	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0	0.0%	0.0	0.0	21	0.0%	0.0	0.0	0.0%	0.0
Coryphaenoides mcmillani		0.0%	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0	0.0%	0.0	0.0	19	0.0%	0.0	0.0	0.0%	0.0
Slender smooth-hound		0.0%	0.0	0.0%	0.0	0.0	0.0	22	0.0%	0.0	0.0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0
Dealish		0.0%	0.0	8	0.0%	0.0	0.0	0.0%	0.0	0.0	0.0%	0.0	0.0	12	0.0%	0.0	0.0	0.0%	0.0
Pale toadfish		1	0.0%	0.0	0.0%	0.0	0.0	0.0%	0.0	0.0	14	0.0%	0.0	3	0.0%	0.0	0.0	0.0%	0.0
Discfish		13	0.0%	0.0	13	0.0%	0.0	0.0%	0.0	0.0	1	0.0%	0.0	0.0	0.0%	0.0	0.0	0.0%	0.0
Spider crabs (Unspecified)		26	0.0%	0.0	3	0.0%	0.0	7	0.0%	0.0	3	0.0%	0.0	3	0.0%	0.0	0.0	0.0%	0.0
Spineback		2	0.0%	0.0	3	0.0%	0.0	0.0	0.0%	0.0	1	0.0%	0.0	3	0.0%	0.0	0.0	0.0%	0.0
Swollenhead conger		9	0.0%	0.0	0.0%	0.0	0.0	1	0.0%	0.0	3	0.0%	0.0	5	0.0%	0.0	0.0	0.0%	0.0
Witch		0.0%	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0	16	0.0%	0.0	0.0	0.0	0.0	0.0	0.0%	0.0
Bulbous rattail		3	0.0%	0.0	0.0%	0.0	0.0	5	0.0%	0.0	5	0.0%	0.0	7	0.0%	0.0	0.0	0.0%	0.0
Banded rattail		1	0.0%	0.0	0.0%	0.0	0.0	4	0.0%	0.0	4	0.0%	0.0	8	0.0%	0.0	0.0	0.0%	0.0
Bollons rattail		6	0.0%	0.0	0.0%	0.0	0.0	4	0.0%	0.0	2	0.0%	0.0	3	0.0%	0.0	0.0	0.0%	0.0
Longnosed deepsea skate		0.0%	0.0	0.0%	0.0	0.0	0.0	11	0.0%	0.0	0.0%	0.0	0.0	2	0.0%	0.0	0.0	0.0%	0.0
Lucifer dogfish		3	0.0%	0.0	3	0.0%	0.0	0.0%	0.0	0.0	4								



Umbrella octopus	3	0.0%	0.0		0.0%	0.0		0.0%	0.0	1	0.0%	0.0	2	0.0%	0.0		0.0	0.0%	0.0	
Abyssal halosaur	6	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0	1	0.0%	0.0		0.0	0.0%	0.0	
Melanostomias spp.	0.0%	0.0		1	0.0%	0.0		1	0.0%	0.0	1	0.0%	0.0	2	0.0%	0.0		0.0	0.0%	0.0
Chimaera spp.	0.0%	0.0			0.0%	0.0		5	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0
Ox-eye oreo	0.0%	0.0			0.0%	0.0			0.0%	0.0		0.0%	0.0	4	0.0%	0.0		0.0	0.0%	0.0
Upturned snout rattail	2	0.0%	0.0		0.0%	0.0		1	0.0%	0.0		0.0%	0.0	2	0.0%	0.0		0.0	0.0%	0.0
Slickheads	5	0.0%	0.0		2	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0
Seadevil	0.0%	0.0		2	0.0%	0.0		0.0%	0.0		2	0.0%	0.0	1	0.0%	0.0		0.0	0.0%	0.0
Hairy conger	4	0.0%	0.0		1	0.0%	0.0		0.0%	0.0	1	0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0
Deep-sea spider crab	1	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0	3	0.0%	0.0		0.0	0.0%	0.0	
Conger eel	0.0%	0.0			0.0%	0.0		1	0.0%	0.0		3	0.0%	0.0		0.0	0.0%	0.0		
Dark banded rattail	2	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0	2	0.0%	0.0		0.0	0.0%	0.0	
Silver roughy	0.0%	0.0			0.0%	0.0		1	0.0%	0.0		0.0%	0.0	2	0.0%	0.0		0.0	0.0%	0.0
Scarlet prawn	0.0%	0.0			0.0%	0.0		0.0%	0.0		1	0.0%	0.0	2	0.0%	0.0		0.0	0.0%	0.0
Sawtooth eels	0.0%	0.0			0.0%	0.0		0.0%	0.0		1	0.0%	0.0	2	0.0%	0.0		0.0	0.0%	0.0
Notoraja asperula	1	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0	2	0.0%	0.0		0.0	0.0%	0.0	
Red scorpion fish	0.0%	0.0			0.0%	0.0		3	0.0%	0.0		0.0%	0.0	0.0%	0.0		0.0	0.0%	0.0	
Loosejaws	1	0.0%	0.0		0.0%	0.0		0.0%	0.0		2	0.0%	0.0	0.0%	0.0		0.0	0.0%	0.0	
Shortsnouted lancetfish	0.0%	0.0		4	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0	
Dark toadfish	0.0%	0.0			0.0%	0.0		0.0%	0.0		0.0%	0.0	2	0.0%	0.0		0.0	0.0%	0.0	
Spider prawns	0.0%	0.0			0.0%	0.0		0.0%	0.0		0.0%	0.0	2	0.0%	0.0		0.0	0.0%	0.0	
Southern loosejaw	0.0%	0.0			0.0%	0.0		0.0%	0.0		0.0%	0.0	2	0.0%	0.0		0.0	0.0%	0.0	
Kuronezumia leonis	0.0%	0.0			0.0%	0.0		0.0%	0.0		1	0.0%	0.0	1	0.0%	0.0		0.0	0.0%	0.0
Prawn (Unspecified)	0.0%	0.0			0.0%	0.0		1	0.0%	0.0		1	0.0%	0.0		0.0	0.0%	0.0		
Dwarf cod	0.0%	0.0			0.0%	0.0		0.0%	0.0		2	0.0%	0.0	0.0%	0.0		0.0	0.0%	0.0	
Octopod	0.0%	0.0			0.0%	0.0		0.0%	0.0		2	0.0%	0.0	0.0%	0.0		0.0	0.0%	0.0	
Frill shark	0.0%	0.0			0.0%	0.0		0.0%	0.0		2	0.0%	0.0	0.0%	0.0		0.0	0.0%	0.0	
Brodies king crab	0.0%	0.0			0.0%	0.0		0.0%	0.0		2	0.0%	0.0	0.0%	0.0		0.0	0.0%	0.0	
Murray's king crab	0.0%	0.0		3	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0	
Deepsea skates	3	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0	
Rough pomfret	0.0%	0.0		1	0.0%	0.0		0.0%	0.0		0.0%	0.0	1	0.0%	0.0		0.0	0.0%	0.0	
Ragfish	0.0%	0.0		1	0.0%	0.0		0.0%	0.0		0.0%	0.0	1	0.0%	0.0		0.0	0.0%	0.0	
Giant hatchetfish	1	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0	1	0.0%	0.0		0.0	0.0%	0.0	
Lyconus sp.	0.0%	0.0		1	0.0%	0.0		1	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0
Deepsea flathead	1	0.0%	0.0		0.0%	0.0		1	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0
Lanternfish	1	0.0%	0.0		0.0%	0.0		1	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0
Notoraja spinifera	1	0.0%	0.0		0.0%	0.0		0.0%	0.0		1	0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0
Chimaera, purple	0.0%	0.0		2	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0	
Schedophilus sp.	0.0%	0.0		2	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0	
Black javelinfish	2	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0	
Benthoctopus cylindropera	0.0%	0.0			0.0%	0.0		0.0%	0.0		0.0%	0.0		1	0.0%	0.0		0.0	0.0%	0.0
Deepwater prawn	0.0%	0.0			0.0%	0.0		0.0%	0.0		0.0%	0.0	1	0.0%	0.0		0.0	0.0%	0.0	
Crab (Unspecified)	0.0%	0.0			0.0%	0.0		0.0%	0.0		0.0%	0.0	1	0.0%	0.0		0.0	0.0%	0.0	
Large scaled blackchin	0.0%	0.0			0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0	
Cardinal fish, robust	0.0%	0.0			0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0	
Snubnosed eel	0.0%	0.0			0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0	
Manefish	0.0%	0.0			0.0%	0.0		0.0%	0.0		0.0%	0.0		1	0.0%	0.0		0.0	0.0%	0.0
Scabbardfish	0.0%	0.0			0.0%	0.0		0.0%	0.0		0.0%	0.0	1	0.0%	0.0		0.0	0.0%	0.0	
Deepsea lightfish	0.0%	0.0			0.0%	0.0		0.0%	0.0		0.0%	0.0	1	0.0%	0.0		0.0	0.0%	0.0	
Nemichthys curvirostris	0.0%	0.0			0.0%	0.0		0.0%	0.0		0.0%	0.0	1	0.0%	0.0		0.0	0.0%	0.0	
Olivers rattail	0.0%	0.0			0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0	
Borostomias antarcticus	0.0%	0.0			0.0%	0.0		0.0%	0.0		1	0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0
Duckbill eel	0.0%	0.0			0.0%	0.0		0.0%	0.0		1	0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0
Opistomias micripnus	0.0%	0.0			0.0%	0.0		0.0%	0.0		1	0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0
Deepsea lizardfish	0.0%	0.0			0.0%	0.0		0.0%	0.0		1	0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0
Cranchiid squid	0.0%	0.0			0.0%	0.0		0.0%	0.0		1	0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0
Deep-sea blind lobster	0.0%	0.0			0.0%	0.0		0.0%	0.0		1	0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0
Snaggletooths	0.0%	0.0			0.0%	0.0		0.0%	0.0		1	0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0
Baracudina	0.0%	0.0			0.0%	0.0		0.0%	0.0		1	0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0
Crested oarfish, Crestfish	1	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0	
Globeosehead rattail	1	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0	
Kaiyomaru rattail	1	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0	
Horrible rattail	1	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0	
Gastropods	1	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0	
Melanorus gracilis	0.0%	0.0		1	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0	
Cutthroat eels (except Basketwork eels)	1	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0	0	0.0%	0.0		0.0	0.0%	0.0	
Black snipe eel	1	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0	
Ommastrephes bartramii	1	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0	
Fanfish	0.0%	0.0		1	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0	
Two-spined crab	0.0%	0.0			0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0	
Brine shrimp	0.0%	0.0	0	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0		
Deepwater octopod	0.0%	0.0			0.0%	0.0		0.0%	0.0		0	0.0%	0.0		0.0%	0.0		0.0	0.0%	0.0
NON-QMS TOTAL	14,034	5.7%	14.0	3,330	1.0%	3.3	3,385	1.0%	5.2	5,534	2.2%	8.4	13,415	4.4%	24.6			55.5	2.7%	11.1



Challenger ORH fishery: elasmobranch (potentially vulnerable) species

	All commercial tows	64	78	112	106	154									
	All observed tows	67	80	73	70	84									
	Percentage of tows observed	104.7%	102.6%	65.2%	66.0%	54.5%									
Species	2008/09		2009/10		2010/11		2011/12		2012/13		Scaled up total 5 yr catch	% of total catch	Average annual catch		
Unit	kg	%	tonnes	kg	%	tonnes	kg	%	tonnes	kg	%	tonnes	tonnes	%	tonnes
Leafscale gulper shark	1,072	0.4%	1.1	949	0.3%	0.9	1,197	0.4%	1.8	1,441	0.6%	2.2	2,412	0.8%	4.4
Other sharks and dogfish	9,051	3.7%	9.1		0.0%	0.0	8	0.0%	0.0		0.0%	0.0		0.0%	0.0
Shovelnose dogfish	634	0.3%	0.6	191	0.1%	0.2	411	0.1%	0.6	525	0.2%	0.8	726	0.2%	1.3
Smooth skin dogfish	581	0.2%	0.6	409	0.1%	0.4	139	0.0%	0.2	527	0.2%	0.8	781	0.3%	1.4
Plunket's shark	314	0.1%	0.3		0.0%	0.0	301	0.1%	0.5	494	0.2%	0.7	358	0.1%	0.7
Seal shark	197	0.1%	0.2	134	0.0%	0.1	283	0.1%	0.4	370	0.1%	0.6	172	0.1%	0.3
Longnose velvet dogfish	190	0.1%	0.2	244	0.1%	0.2	31	0.0%	0.0	129	0.1%	0.2	197	0.1%	0.4
Potuguese dogfish	111	0.0%	0.1	16	0.0%	0.0	4	0.0%	0.0	130	0.1%	0.2	325	0.1%	0.6
Widenedose chimaera	158	0.1%	0.2	241	0.1%	0.2	34	0.0%	0.1	88	0.0%	0.1	126	0.0%	0.2
Baxter's lantern dogfish	82	0.0%	0.1	62	0.0%	0.1	22	0.0%	0.0	97	0.0%	0.1	210	0.1%	0.4
Pale ghost shark	35	0.0%	0.0	16	0.0%	0.0	36	0.0%	0.1	59	0.0%	0.1	111	0.0%	0.2
Long-nosed chimaera	23	0.0%	0.0	11	0.0%	0.0	33	0.0%	0.1	14	0.0%	0.0	76	0.0%	0.1
Deepwater spiny skate		0.0%	0.0		0.0%	0.0		0.0%	0.0	30	0.0%	0.0		0.0%	0.0
Slender smooth-hound		0.0%	0.0		0.0%	0.0	22	0.0%	0.0		0.0%	0.0		0.0%	0.0
Ghost shark	2	0.0%	0.0		0.0%	0.0	1	0.0%	0.0	13	0.0%	0.0		0.0%	0.0
Longnosed deepsea skate		0.0%	0.0		0.0%	0.0	11	0.0%	0.0		0.0%	0.0	2	0.0%	0.0
Lucifer dogfish	3	0.0%	0.0	3	0.0%	0.0		0.0%	0.0	4	0.0%	0.0	4	0.0%	0.0
Cat shark	2	0.0%	0.0	2	0.0%	0.0		0.0%	0.0	5	0.0%	0.0	4	0.0%	0.0
Smooth skate		0.0%	0.0	7	0.0%	0.0		0.0%	0.0		0.0%	0.0	6	0.0%	0.0
Electric ray		0.0%	0.0		0.0%	0.0	5	0.0%	0.0		0.0%	0.0	5	0.0%	0.0
Blue shark		0.0%	0.0		0.0%	0.0		0.0%	0.0	11	0.0%	0.0		0.0%	0.0
Prickly dogfish		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0	8	0.0%	0.0
Etmopterus pusillus		0.0%	0.0		0.0%	0.0		0.0%	0.0	4	0.0%	0.0	2	0.0%	0.0
Spiny dogfish		0.0%	0.0		0.0%	0.0		0.0%	0.0	3	0.0%	0.0	2	0.0%	0.0
Chimaera spp.		0.0%	0.0		0.0%	0.0	5	0.0%	0.0		0.0%	0.0		0.0%	0.0
Notoraja asperula	1	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0	2	0.0%	0.0
Frill shark		0.0%	0.0		0.0%	0.0		0.0%	0.0	2	0.0%	0.0		0.0%	0.0
Deepsea skates	3	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0
Notoraja spinifera	1	0.0%	0.0		0.0%	0.0		0.0%	0.0	1	0.0%	0.0		0.0%	0.0
Chimaera, purple		0.0%	0.0	2	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0
Rough skate	1	0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0		0.0%	0.0
Elasmobranch total catch	12,461	5.0%	12.5	2,287	0.7%	2.3	2,543	0.8%	3.9	3,947	1.6%	6.0	5,529	1.8%	10.1
ALL SPECIES	247,377	100.0%	247.4	336,694	100.0%	336.7	329,215	100.0%	505.1	252,224	100.0%	381.9	303,822	100.0%	557.0
													34.8	1.7%	7.0
													2,028.1	100.0%	405.6



Challenger ORH fishery: wider area information

No additional information is provided as no species other than orange roughy made up more than 5% or 1% of the total catch.