Appendix 1. Summary information relating to observer coverage and non-fish captures

Hoki

Table 2. Number of target tows and observed target tows made by FCVs and domestic vessels > 28m in the hoki fishery during the 2008/09 and 2009/10 fishing years

Area	FCVs			Domestic vessels >28m		
2009/10	**Total target tows**	**Observed target tows**	**% observed**	**Total target tows**	**Observed target tows**	**% observed**
Cook Strait	0	0	0	1,401	315	22%
Chatham Rise / East Coast South Island	384	181	47%	3,872	416	11%
Southland / Sub-Antarctic	124	16	13%	1,166	382	33%
Other	3	0	0	40	4	10%
West Coast South Island	1,192	279	23%	658	373	57%
2008/09						
Cook Strait	0	0		1,675	181	11%
Chatham Rise / East Coast South Island	482	43	9%	3,215	471	15%
Southland / Sub-Antarctic	59	7	12%	906	405	45%
Other				25	0	0%
West Coast South Island	779	467	60%	248	0	0%

Table 3. Summary of non-fish captures reported by observers on vessels targeting hoki (all areas) during the 2008/09 and 2009/10 fishing years. Information from 2009/10 is bracketed.

2008/09 and (2009/10)	**FCVs**		**Domestic vessels >28m**		
Common name	**Alive**	**Dead**	**Alive**	**Dead**	**Unknown**
Albatrosses (unidentified)	(1)			2	
Black (Parkinson's) petrel				(1)	
Black-bellied storm petrel			(1)	1	
Buller's albatross	1	1		1 (2)	
Campbell albatross				(1)	
Cape petrels	3	1	(2)	2 (4)	
Chatham Island albatross				(1)	
Common diving petrel			(1)		
Fairy prion	1				
Grey-backed storm petrel	1		(1)		
Grey-headed albatross		1			
NZ fur seal	1 (4)	8 (2)	(1)	14 (14)	(1)
Northern royal albatross				(1)	
Petrel (unidentified)	(1)				
Petrels, prions and shearwaters				1	
Salvin's albatross	(10)	(2)		3 (2)	
Smaller albatrosses				(1)	
Sooty shearwater	1 (2)	(12)	2 (1)	15 (7)	
Storm petrels	(2)	(2)	(1)		
Westland petrel	1	(1)		(3)	
White-capped albatross	(2)	(1)	1	4 (4)	
White-chinned petrel	(2)	(1)		1 (2)	
Totals	*9 (24)*	*11 (21)*	*3 (8)*	*44 (43)*	*(1)*

Ling (excludes the LIN1 and LIN2 fisheries)

Table 4. Number of target tows and observed target tows made by FCVs and domestic vessels > 28m in the ling fishery during the 2008/09 and 2009/10 fishing years

QMA	FCVs			Domestic vessels >28m		
2009/10	**Total target tows**	**Observed target tows**	**% observed**	**Total target tows**	**Observed target tows**	**% observed**
LIN3	91	13	14%	0	0	-
LIN4	37	19	51%	0	0	-
LIN5	102	23	23%	164	70	43%
LIN6	40	8	20%	29	29	100%
LIN7	14	3	21%	0	0	-
2008/09						
LIN3	131	16	12%	0	0	-
LIN4	21	2	10%	2	0	O%
LIN5	43	0	0%	285	34	12%
LIN6	162	7	4%	124	82	66%
LIN7	1	0	0%	12	0	0%

Table 5. Summary of non-fish captures reported by observers on vessels targeting ling (all areas) during the 2008/09 and 2009/10 fishing years. Information from 2009/10 is bracketed.

2008/09 and (2009/10)	FCVs		Domestic vessels >28m	
Common name	**Alive**	**Dead**	**Alive**	**Dead**
Buller's albatross		(1)		
Cape petrels			(1)	
NZ fur seal		(1)		(2)
Prions (unidentified)			1	
Sooty shearwater		4 (2)		
White-chinned petrel			1	(1)
Totals	*0 (0)*	*4 (4)*	*2 (1)*	*0 (3)*

Hake

Table 6. Number of target tows and observed target tows made by FCVs and domestic vessels > 28m in the hake fishery during the 2008/09 and 2009/10 fishing years

QMA	FCVs			Domestic vessels >28m		
2009/10	**Total target tows**	**Observed target tows**	**% observed**	**Total target tows**	**Observed target tows**	**% observed**
HAK1	215	190	88%	13	0	0%
HAK4	29	0	0%	0	0	-
HAK7	494	129	26%	32	0	0%
2008/09						
HAK1	395	123	31%	45	14	31%
HAK4	290	3	1%	0	0	-
HAK7	927	208	22%	54	0	0%

Table 7. Summary of non-fish captures reported by observers on vessels targeting hake (all areas) during the 2008/09 and 2009/10 fishing years. Information from 2009/10 is bracketed.

2008/09 and (2009/10)	FCVs		Domestic vessels >28m	
Common name	**Alive**	**Dead**	**Alive**	**Dead**
Cape petrels		(2)		
NZ fur seal	(4)	4 (2)	1	
Salvin's albatross	1	1		
Shy albatross		1		
Sooty shearwater	3	3		
Westland petrel	1			
White-capped albatross		(1)		
Totals	*5 (4)*	*9 (4)*	*1 (0)*	*(0)*

Barracouta

Table 8. Number of target tows and observed target tows made by FCVs and domestic vessels > 28m in the barracouta fishery during the 2008/09 and 2009/10 fishing years

QMA	FCVs			Domestic vessels >28m		
2009/10	**Total target tows**	**Observed target tows**	**% observed**	**Total target tows**	**Observed target tows**	**% observed**
BAR1	351	101	30%	2	0	0%
BAR4	56	30	54%	4	0	0%
BAR5	171	62	36%	3	0	0%
BAR7	93	19	20%	5	0	0%
2008/09						
BAR1	208	20	10%	3	0	0%
BAR4	77	0	0%	0	0	0%
BAR5	147	70	48%	1	0	0%
BAR7	136	24	18%	32	0	0%

Table 9. Summary of non-fish captures reported by observers on vessels targeting barracouta (all areas) during the 2008/09 and 2009/10 fishing years. Information from 2009/10 is bracketed.

2008/09 and (2009/10)	FCVs		Domestic vessels >28m	
Common name	**Alive**	**Dead**	**Alive**	**Dead**
Albatrosses (unidentified)	1			
Buller's albatross		2		
NZ fur seal		(4)		
Salvin's albatross		(4)		
Sooty shearwater	(1)	5 (1)		
White-capped albatross		1 (2)		
White-chinned petrel		2 (2)		
Totals	*1 (1)*	*10 (13)*	*0 (0)*	*0 (0)*

Squid (excluding SQU1J)

Table 10. Number of target tows and observed target tows made by FCVs and domestic vessels > 28m in the squid fishery during the 2008/09 and 2009/10 fishing years

QMA	FCV			Domestic vessels >28m		
2009/10	**Total target tows**	**Observed target tows**	**% observed**	**Total target tows**	**Observed target tows**	**% observed**
SQU1T	2,236	669	30%	86	75	87%
SQU6T	1,094	245	22%	82	54	66%
2008/09						
SQU1T	1,660	432	26%	71	70	99%
SQU6T	1,760	613	35%	149	140	94%

Table 11. Summary of non-fish captures reported by observers on vessels targeting squid (all areas) during the 2008/09 and 2009/10 fishing years. Information from 2009/10 is bracketed.

2008/09 and (2009/10)	**FCVs**		**Domestic vessels >28m**	
Common name	**Alive**	**Dead**	**Alive**	**Dead**
Albatrosses (unidentified)	3 (1)	3 (2)		
Black-bellied storm petrel	1			
Black-browed albatross (unidentified)	(1)			
Buller's albatross	1 (5)	2		1
Common diving petrel		1		
Fairy prion			(1)	
Giant petrels (unidentified)	(1)			
Great albatrosses	1	1		
Grey-headed albatross		1		
NZ fur seal	(2)	1 (6)		
NZ sea lion	(1)	1 (2)		1 (1)
Petrel (unidentified)	27 (8)	8 (12)		1
Petrels, prions and shearwaters	6 (7)	11 (1)		
Salvin's albatross		1		
Seabird - large		1		
Smaller albatrosses	3	3		1
Sooty shearwater	23 (2)	42 (2)	1	6 (2)
Southern royal albatross		2		
Wandering albatross (unidentified)	(1)			
Westland petrel		(1)		
White-capped albatross	8 (10)	34 (6)		3
White-chinned petrel	16 (11)	41 (19)		8 (3)
Totals	*89 (50)*	*153 (51)*	*1 (1)*	*21 (6)*

Jack mackerel (excluding JMA1)

Table 12. Number of target tows and observed target tows made by FCVs and domestic vessels > 28m in the jack mackerel trawl fishery during the 2008/09 and 2009/10 fishing years

QMA	FCVs			Domestic vessels >28m		
2009/10	**Total target tows**	**Observed target tows**	**% observed**	**Total target tows**	**Observed target tows**	**% observed**
JMA3	100	52	52%	0	0	-
JMA7	2,184	724	33%	7	0	0%
2008/09						
JMA3	120	25	21%	0	0	-
JMA7	1,880	720	38%	1	0	0%

Table 13. Summary of non-fish captures reported by observers on vessels targeting jack mackerel (JMA3 and JMA7 areas only) during the 2008/09 and 2009/10 fishing years. Information from 2009/10 is bracketed.

2008/09 and (2009/10)	FCVs		Domestic vessels >28m	
Common name	**Alive**	**Dead**	**Alive**	**Dead**
Albatrosses (unidentified)		(2)		
Common diving petrel	1			
Common dolphin		11 (4)		
NZ fur seal		7 (2)		
Petrel (unidentified)	(1)			
Pilot whale		2		
Prions (unidentified)	1 (4)	1 (1)		
Storm petrels	(1)			
Westland petrel		1		
White-chinned petrel		3		
Totals	*2 (6)*	*25 (9)*	*0 (0)*	*0 (0)*

Southern blue whiting

Table 14. Number of target tows and observed target tows made by FCVs and domestic vessels > 28m in the southern blue whiting fishery during the 2009/10 and 2010/11 April fishing years [1]

QMA	FCVs			Domestic vessels >28m		
2010/11 (April year)	**Total target tows**	**Observed target tows**	**% observed**	**Total target tows**	**Observed target tows**	**% observed**
SBW6A	0	0	-	0	0	-
SBW6B	319	88	28%	64	0	0%
SBW6I	375	222	59%	173	12	7%
SBW6R	143	81	57%	26	0	0%
2009/10 (April year)						
SBW6A	2	0	0%	8	2	25%
SBW6B	256	123	48%	145	0	0%
SBW6I	432	124	29%	188	0	0%
SBW6R	151	50	33%	11	0	0%

Table 15. Summary of non-fish captures reported by observers on vessels targeting southern blue whiting (all areas) during the 2009/10 and 2010/11 April fishing years. Information from 2010/11 is bracketed.

2009/10 and (2010/11) April years	**FCVs**		**Domestic vessels >28m**	
Common name	**Alive**	**Dead**	**Alive**	**Dead**
Grey petrel	(13)	(6)		
NZ fur seal		17 (16)		
NZ sea lion	(2)	(9)		
Prions (unidentified)	(3)			
Salvin's albatross	1			
Smaller albatrosses	(1)			
Storm petrels	(7)			
Totals	1 (26)	17 (31)	*0 (0)*	*0 (0)*

[1] The April fishing year refers to the period between 1 April and 31 March the following year

White warehou

Note that white warehou target fishing by FCVs and domestic vessels >28 was only undertaken in the WWA3, WWA4 and WWA5B QMAs during the 2008/09 and 2009/10 years.

Table 16. Summary of non-fish captures reported by observers on vessels targeting white warehou (all areas) during the 2008/09 and 2009/10 fishing years. Information from 2009/10 is bracketed.

QMA	FCVs			Domestic vessels >28m		
2009/10	**Total target tows**	**Observed target tows**	**% observed**	**Total target tows**	**Observed target tows**	**% observed**
WWA3	3	0	0%	2	0	0%
WWA4	0	0	-	5	0	0%
WWA5B	167	102	61%	10	8	80%
2008/09						
WWA3	6	0	0%	4	0	0%
WWA4	0	0	-	0	0	-
WWA5B	280	112	40%	1	0	0%

Table 17. Summary of non-fish captures reported by observers on vessels targeting white warehou (all areas) during the 2008/09 and 2009/10 fishing years. Information from 2009/10 is bracketed.

2008/09 and (2009/10)	FCVs		Domestic vessels >28m	
Common name	**Alive**	**Dead**	**Alive**	**Dead**
Albatrosses (unidentified)	1	1		
Buller's albatross		1		
NZ fur seal		(1)		
Salvin's albatross		(1)		
Shy albatross	1			
Sooty shearwater	2	3 (1)		
Totals	4 (0)	5 (3)	*0 (0)*	*0 (0)*

Silver warehou

Table 18. Summary of non-fish captures reported by observers on vessels targeting silver warehou (all areas) during the 2008/09 and 2009/10 fishing years. Information from 2009/10 is bracketed.

QMA	FCVs			Domestic vessels >28m		
2009/10	**Total target tows**	**Observed target tows**	**% observed**	**Total target tows**	**Observed target tows**	**% observed**
SWA1	43	11	26%	6	0	0%
SWA3	221	43	19%	22	0	0%
SWA4	218	81	37%	15	1	7%
2008/09						
SWA1	69	6	9%	41	0	0%
SWA3	293	28	10%	112	41	37%
SWA4	186	57	31%	49	21	43%

Table 19. Summary of non-fish captures reported by observers on vessels targeting silver warehou (all areas) during the 2008/09 and 2009/10 fishing years. Information from 2009/10 is bracketed.

2008/09 and (2009/10)	FCVs		Domestic vessels >28m	
Common name	**Alive**	**Dead**	**Alive**	**Dead**
Buller's albatross		4		3
NZ fur seal				1
Petrel (unidentified)	4	1		
Salvin's albatross	1 (3)			
Shy albatross		8		
Smaller albatrosses	1			
Sooty shearwater	3	2		
Storm petrels	(1)	(2)		
White-chinned petrel	(5)	(5)		
Totals	9 (9)	15 (7)	0 (0)	4 (0)

Summary of non-fish captures by area and target species

Tables 20-28 below summarise seabird and marine mammal captures by fishery management area (FMA), target species and vessel type.

Table 20. Summary of seabird captures (dead and unknown) by FCVs during the 2009/10 fishing year

	Target species									
FMA	**Barracouta**	**Hake**	**Hoki**	**Jack mackerel**	**Ling**	**Southern blue whiting**	**Squid**	**Silver warehou**	**White warehou**	*Total*
3	5		17					7		*29*
4										*0*
5	4		1	2	2		32		2	*43*
6		1			1	6				*8*
7		2	1	1						*4*
SQU6T							11			*11*
Total	*9*	*3*	*19*	*3*	*3*	*6*	*43*	*7*	*2*	*95*

Table 21. Summary of seabird captures (dead and unknown) by FCVs during the 2008/09 fishing year

		Target species								
FMA	**Barracouta**	**Hake**	**Hoki**	**Jack mackerel**	**Ling**	**Southern blue whiting**	**Squid**	**Silver warehou**	**White warehou**	*Total*
3	3	3			4		14	1		*25*
4										*0*
5	7			3			51	14	5	*80*
6		2								*2*
7			3	2						*5*
SQU6T							86			*86*
Total	*10*	*5*	*3*	*5*	*4*	-	*151*	*15*	*5*	*198*

Table 22. Summary of seabird captures (dead and unknown) by domestic vessels >28m during the 2009/10 fishing year

	Target species				
FMA	**Hoki**	**Ling**	**Squid**	**Silver warehou**	*Total*
2	7				*7*
3	6				*6*
4	3				*3*
5	5	8	5		*18*
6	5	2			*7*
7	2				*2*
SQU6T	1				*1*
Total	*29*	*10*	*5*	-	*44*

Table 23. Summary of seabird captures (dead and unknown) by domestic vessels >28m during the 2008/09 fishing year

	Target species				
FMA	**Hoki**	**Ling**	**Squid**	**Silver warehou**	*Total*
2	1				*1*
3	19				*19*
4		2		3	*5*
5	4		7		*11*
6	5	1			*6*
7	1				*1*
SQU6T			13		*13*
Total	*30*	*3*	*20*	*3*	*56*

Table 24. Summary of marine mammal captures (dead and unknown) by FCVs during the 2009/10 fishing year

	Target species								
FMA	**Barracouta**	**Hake**	**Hoki**	**Jack mackerel**	**Ling**	**Southern blue whiting**	**Squid**	**White warehou**	*Total*
3	1		2						*3*
4									*0*
5	3						6	1	*10*
6		1			1	25			*27*
7		1		3					*4*
8				2					*2*
9				1					*1*
SQU6T							2		*2*
Total	*4*	*2*	*2*	*6*	*1*	*25*	*8*	*1*	*49*

Table 25. Summary of marine mammal captures (dead and unknown) by FCVs during the 2008/09 fishing year

	Target species								
FMA	**Barracouta**	**Hake**	**Hoki**	**Jack mackerel**	**Ling**	**Southern blue whiting**	**Squid**	**White warehou**	*Total*
3		1							*1*
4									*0*
5							1	1	*2*
6						17			*17*
7		3	8	9					*20*
8				5					*5*
9				6					*6*
SQU6T							1		*1*
Total		*4*	*8*	*20*		*17*	*2*	*1*	*52*

Table 26. Summary of marine mammal captures (dead and unknown) by domestic vessels >28m during the 2009/10 fishing year

	Target species				
FMA	**Hoki**	**Ling**	**Squid**	**Silver warehou**	*Total*
2	6				*6*
3	4				*4*
4					*0*
5		1	1		*2*
6	2	1			*3*
7	3				*3*
SQU6T					*0*
Total	*15*	*2*	*1*	*0*	*16*

Table 27. Summary of marine mammal captures (dead and unknown) by domestic vessels >28m during the 2008/09 fishing year

	Target species				
FMA	**Hoki**	**Ling**	**Squid**	**Silver warehou**	*Total*
2	7				7
3	3			1	4
4					0
5	2				2
6	1				1
7	1				1
SQU6T			1		1
Total	14	0	1	1	16