

# **INT 2016/02: Identification of seabirds captured in New Zealand fisheries**

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Presentation of results from seabirds returned or photographed in New Zealand fisheries between 1 July 2016 to 31 March 2017 to the Department of Conservation CSP Technical Working Group

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## SPECIFIC OBJECTIVES:

NECROPSY (examination of returned dead seabird specimens):

- Determine **the taxon, sex, and where possible age-class and provenance** of seabirds killed in New Zealand fisheries;
- Detail the **injuries, body condition and stomach contents** and, where possible, the **likely cause of mortality** ;
- Report **any changes in the protocol** used for the necropsy of seabirds;

PHOTOGRAPHS (examination of photographs):

- Determine **the taxon and, where possible, sex, age-class and provenance** of seabirds captured in New Zealand fisheries (for live captures or dead specimens discarded at sea).



## STAGE OF PROJECT:

- Quarterly reports:

- Delivered on 5 January 2017 (covering 1 July to 30 Sept. 2016)
- Delivered on 31 March 2017 (covering 1 July to 31 Dec. 2016)
- Due 30 June 2017 (covering 1 July 2016 to 31 March 2017)

- Final reports:

- Draft due 31 October 2017 (covering 1 July 2016 to 30 June 2017)
- Final due 15 December 2017 (Bell, E.A.; Bell, M.D. 2017. Identification of seabirds captured in New Zealand fisheries: 1 July 2016 – 30 June 2017. CSP Contract Report, Department of Conservation, Wellington)



## NECROPSY PROGRAMME

(1 July 2016 to 31 March 2017):

**115 seabirds returned (to date)**

- 18 taxa
- 6 species (XWC, XWM, XSA, XLB, XBP, XSH) = 85.4% of returns
- **8 XBP to date**
- 32.0% returned in February
- 68.4% males
- 94.9% adults (28.8% breeding)
- **Bands: XBP (2005 as adult), 1 XCM (1992 as chick)**





## NECROPSY PROGRAMME

(1 July 2016 to 31 March 2017):

### 31 vessels (to date)

- 50 trips
- Maximum of 14 birds from a single trip (another 2 vessels returned 8 birds and one returned 10 birds)
- 10 vessels returned only 1 bird each
- 38 birds returned from longline vessels
- 65 birds returned from trawl vessels
- 12 birds returned from set net
- 1 bird impacted a vessel



## NECROPSY PROGRAMME (FISHERIES):

Species	Trawl	Surface Longline	Impact	Set Net	Total
Black (Parkinson's) petrel	2	6			8
Buller's albatross	3				3
Campbell albatross	2				2
Cape petrel	1				1
Common diving petrel	1				1
Fiordland crested penguin				2	2
Flesh-footed shearwater		2			2
Grey petrel	2				2
Little blue penguin				8	8
NZ white-capped albatross	21	2			23
Salvin's albatross	12	1			13
Sooty shearwater	4	1		1	6
Southern black-browed albatross		1			1
Southern royal albatross			1		1
Stewart Island shag				1	1
Westland petrel	1				1
White-chinned petrel	15	25			40
<b>Total (% Total)</b>	<b>65 (56.5%)</b>	<b>38 (33.5%)</b>	<b>1 (1.2%)</b>	<b>12 (10.4%)</b>	<b>115</b>

## NECROPSY PROGRAMME (INJURIES):

Species	No visible injuries	Broken bones	Greased	Lacerations	Liced	Hook	Waterlogged
Black (Parkinson's) petrel	4	1		1			2
Buller's albatross	3	1	1				1
Campbell albatross	1	2	1	1			2
Cape petrel				1			1
Common diving petrel	1		1				
Fiordland crested penguin	1	1					1
Flesh-footed shearwater		5		4		2	1
Grey petrel			1	2			1
Little blue penguin	2	7					
NZ white-capped albatross	3	14	4	8	2		1
Salvin's albatross	2	7	2	3			4
Sooty shearwater	2	3					3
Southern black-browed albatross							1
Southern royal albatross		1					
Stewart Island shag		1					1
Westland petrel	1						1
White-chinned petrel	14	11		4		14	11
<b>Total (% Total)</b>	<b>34 (18.8%)</b>	<b>54 (28.7%)</b>	<b>10 (5.3%)</b>	<b>24 (12.8%)</b>	<b>2 (1.1%)</b>	<b>16 (8.5%)</b>	<b>31 (16.5%)</b>

## NECROPSY PROGRAMME (INJURIES):

Species	No visible injuries	Broken bones	Greased	Lacerations	Liced	Hook	Waterlogged
Albatross	26.5%	46.3%	80.0%	50.0%	100.0%	0.0%	29.0%
Petrels etc.	73.5%	53.7%	20.0%	50.0%	0.0%	100.0%	71.0%



## NECROPSY PROGRAMME (OBSERVER ID):

Name	ID as Correct spp Group	ID as Petrel Unidentified	ID as Seabird Large or Albatross	ID Correct	ID Not on label	ID Wrong	Total Count
Black (Parkinson's) petrel				7	1		8
Buller's albatross				1	1	1	3
Campbell albatross	1				1		2
Cape petrel	1						1
Common diving petrel						1	1
Fiordland crested penguin				2			2
Flesh-footed shearwater				2			2
Grey petrel				2			2
Little blue penguin				8			8
NZ white-capped albatross	1		1	19	2		23
Salvin's albatross				12		1	13
Sooty shearwater				6			6
Southern black-browed albatross	1						1
Southern royal albatross	1						1
Stewart Island shag	1						1
Westland petrel						1	1
White-chinned petrel	1	1	1	29	8		40
	8	1	2	89	13	2	115

**WRONG IDS: XDP, XSA, XWM, & XWP recorded as XST, XBM, XSA and XWC**

## NECROPSY PROGRAMME (LOCATIONS):

Birds returned from:

FMA 1

FMA 2

FMA 3

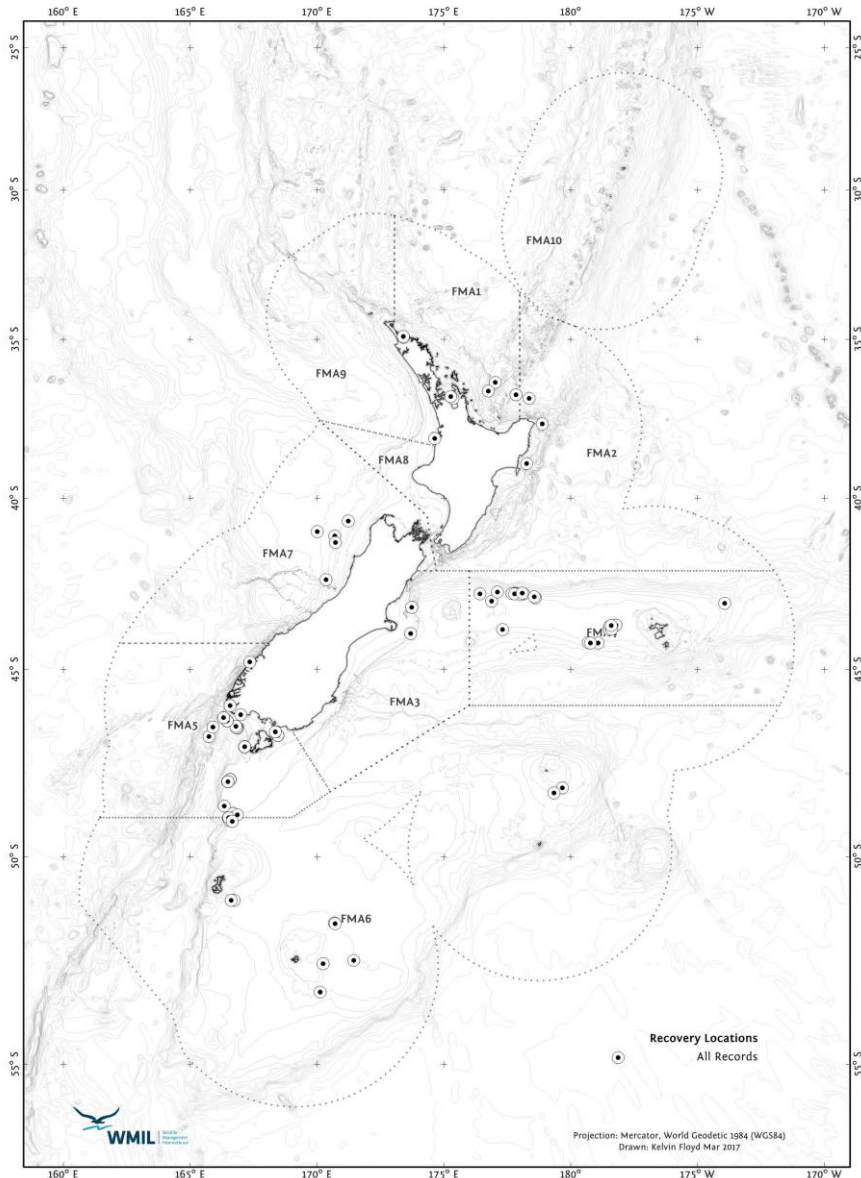
FMA 4

FMA 5

FMA 6

FMA 7

FMA 8



## NECROPSY PROGRAMME (DISPOSAL):

- Albatross stored indefinitely and non-albatross stored for 12 months (before disposal at landfill)
- Quarterly updates of available birds to Iwi, Museums and Universities
  - 1106 birds given to Iwi (since 2010)
  - 53 birds given to Museums (all banded birds go to Te Papa)
  - 33 birds given to University for research projects
  - 2 birds (petrels) given for the DOC seabird-detector dog training



## PHOTOGRAPH IDENTIFICATION

(1 July 2016 to 31 March 2017):

- 256 seabird interactions reported or photographed (excluding those returned in autopsy programme)
  - 22 photographed and reported in MPI COD extract
    - 7 photographs still to be delivered
  - 1 photographed, but not in extract
  - 233 listed in extract, but not photographed
- 16 different taxa
- Missing data from MPI COD extract (23 March onwards) needs to be delivered

## PHOTOGRAPHS (IDENTIFICATION) (1 July 2016 to 31 March 2017):

	Dead	Alive	Total
Photographed & listed in MPI COD extract	11	4	15
No photograph, but in MPI COD extract	9	224	233
Photographed, but not in MPI COD extract	0	1	1
Listed in extract as photographed, but not received to date	4	3	7
<b>Total</b>	<b>24 (9.4%)</b>	<b>232 (90.6%)</b>	<b>256</b>

**Of the 15 photographed/extract birds, all were correctly identified or as the correct group**



## PHOTO-IDENTIFICATION - ISSUES:



## PHOTO-IDENTIFICATION - ISSUES:

- Interactions that are not photographed (i.e. listed in extract, but no images)
- Photographs of bird interactions with no extract information
- Range in the quality of photographs, but generally improving
- Difficulties in matching photo with information
  - No label with some of the dead birds
  - Live specimens can't be labelled, but photo logs sometimes insufficient
- Delays in obtaining images and extracts, but improving
- Receiving only partial extracts for reporting period

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- This work is funded through the Conservation Services Programme (Project INT2016-02), Department of Conservation.
- Thanks to all Ministry of Fisheries observers who retained the birds for autopsy, took the photographs, and completed log books (which contain important information on cause of death and other aspects of the interaction onboard).
- Katie Clements-Seely who provided the link between Wildlife Management International Ltd, the Department of Conservation and the Ministry of Fisheries Observer Programme, and helped provide clarification on any discrepancy with autopsy tag data and photograph records.
- Kelvin Floyd (WMIL) developed the WMIL autopsy and photo-identification database.