



Available MFish observer information

Comments and capture information: 2000-2007

Comments depended on observer – not consistent or standardised Subset of data which concentrates on obvious net captures

Main info:

- state of bird
- recovery location
- record information photograph/specimen number
- □ time of capture shoot, haul, etc.
- gear event
- fishing management
- use of mitigation device
- bird behaviour
- weather conditions
- □ unknown



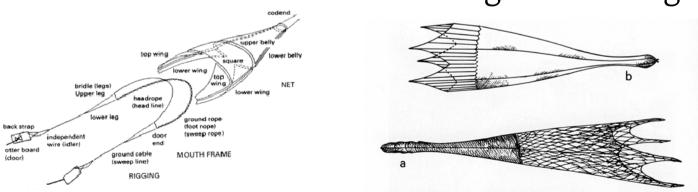
What information is available?

- Area: Chatham Rise, Puysegur, Stewart-Snares shelf, Auckland Islands Shelf
- 2. Time: January-June
- 3. Seabird taxa: Albatrosses, petrels, shearwaters
- 4. Fleets: Korea, NZ, Poland, Russia, Ukraine
- 5. Target: middle depths species, scampi
- 6. Gear: bottom and midwater trawls



When, where, how do captures occur

- 1. Overlap of fishing and foraging
- 2. Birds attracted to the vessel
- 3. Shoot and haul of trawl net alive/dead
- 4. Birds feeding from or around the net
- 5. Birds were recovered from codend through to net wings





Fishing practices identified — 1

Net at or near surface — prolonged time

- Gear event/breakage
- Problems in shooting net
- 3. Shooting practices
- 4. Partial haul during tow including turn
- 5. Slow haul breakage, vessel, weather



Fishing practices identified — 2

Offal discharge

Deployment of unclean nets

Nets shot immediately after a codend has been lifted

Few vessels in area

Individual vessel practices increased likelihood



Seabird taxa — verified identification

Albatross: Antipodean, Buller's, Campbell, Salvin's, southern royal, white-capped

Petrels: black, grey, southern giant, Westland, white-chinned, southern cape, grey-backed storm

Shearwaters: flesh-footed, short-tailed, sooty

Others: fairy prion

Captures of different taxa often fishery/area/time specific — especially multiple captures



Life status on recovery

- More albatrosses and petrels were dead than alive on recovery from midwater net hauls
- 2. Similar numbers of alive and dead albatrosses from **bottom trawl** net hauls
- 3. Fate of petrels caught during **bottom trawl** net hauls differed by fleet



Summary — 1

Main causes of captures

		Bottom trawl		Midwater trawl	
		Shoot	Haul	Shoot	Haul
Gear event	Albatross				
	Petrel				
Fishing management	Albatross				
	Petrel				
Fishing strategy	Albatross				
	Petrel				
Bird behaviour	Albatross				
	Petrel				
Weather	Albatross				
	Petrel				



Summary — 2

Specific examples relating to fishing practices

Gear events

Fishing management

Fishing strategy

Weather

Bird behaviour