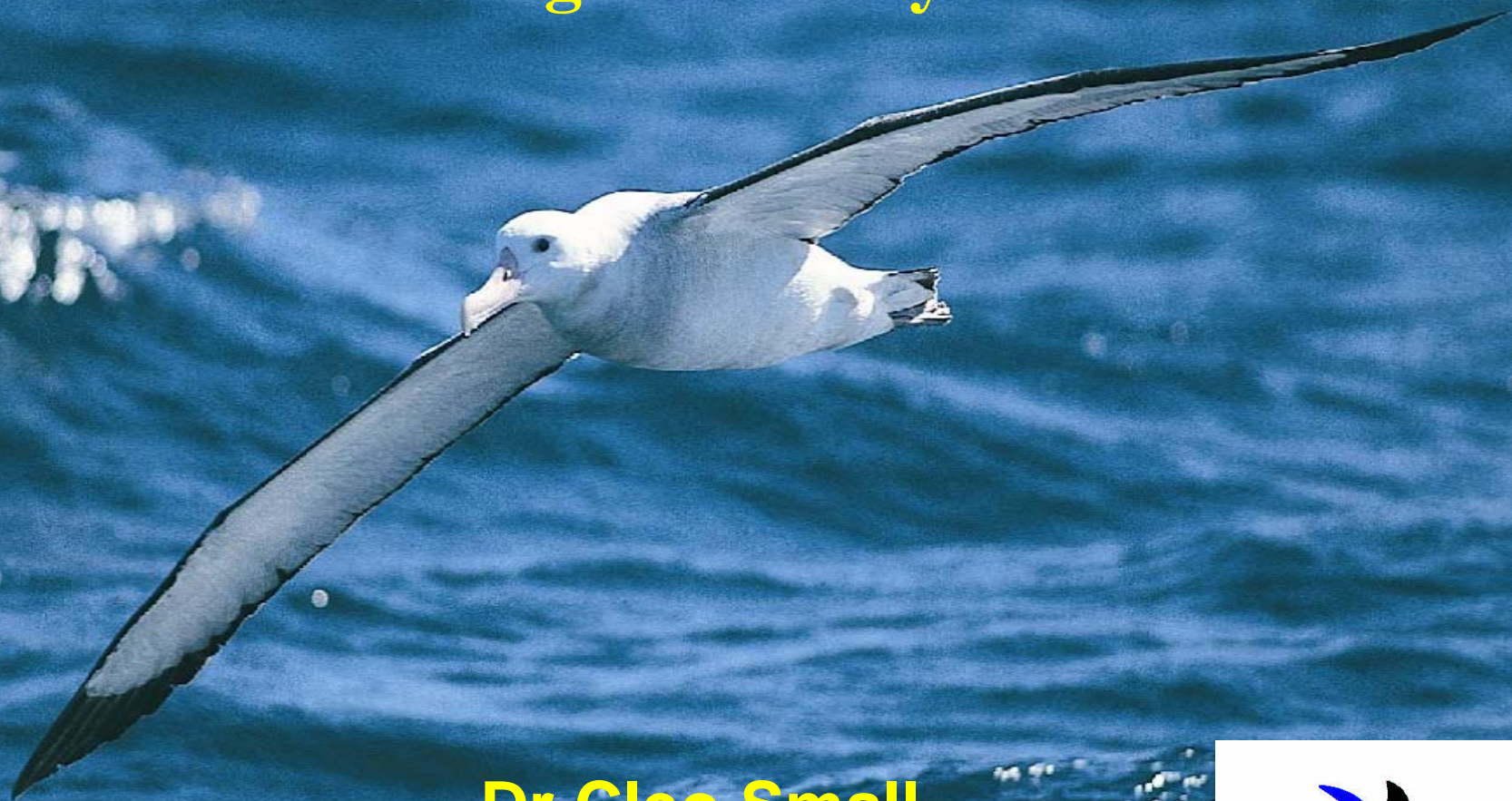


# **Regional Fisheries Management Organisations: their role and performance in reducing seabird bycatch**



**Dr Cleo Small**  
**BirdLife International**



# THE BIRDLIFE INTERNATIONAL PARTNERSHIP

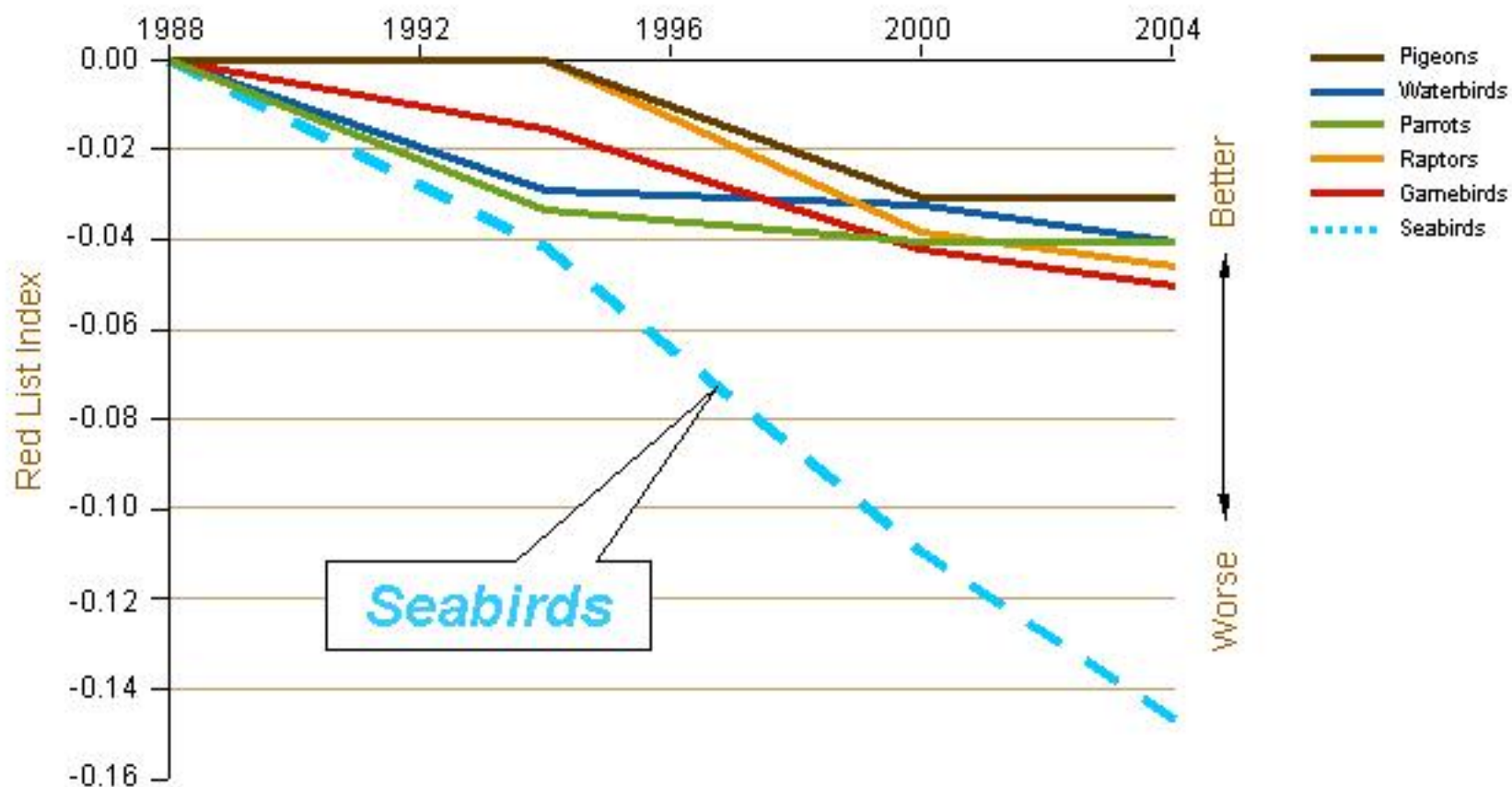




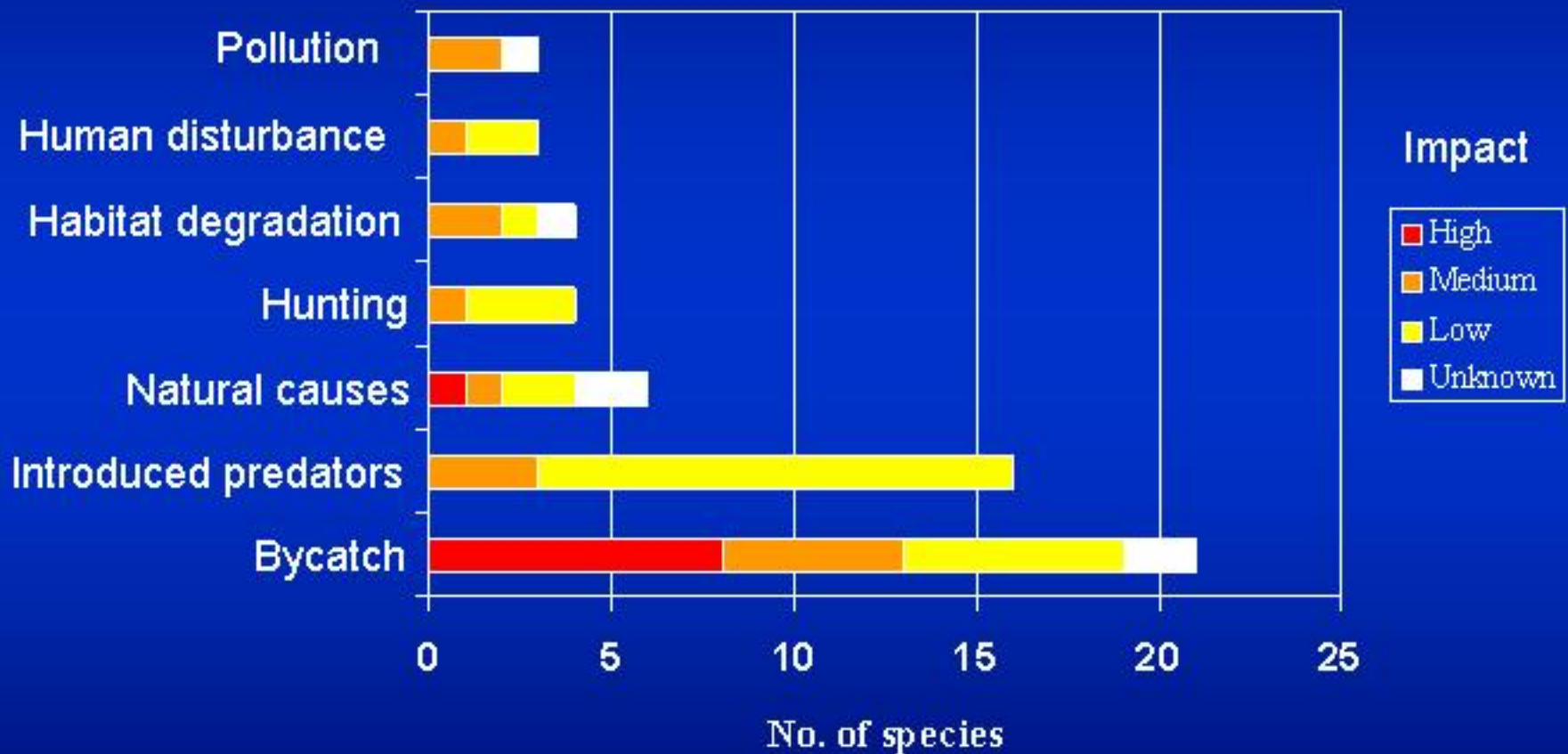
# Overview

- 1. Threats to seabirds from bycatch**
- 2. Importance of RFMOs in reducing bycatch**
- 3. Albatross satellite tracking:  
top RFMOs for albatross distribution**
- 4. RFMO performance**
- 5. Future work**

## Red List Indices for selected species-groups

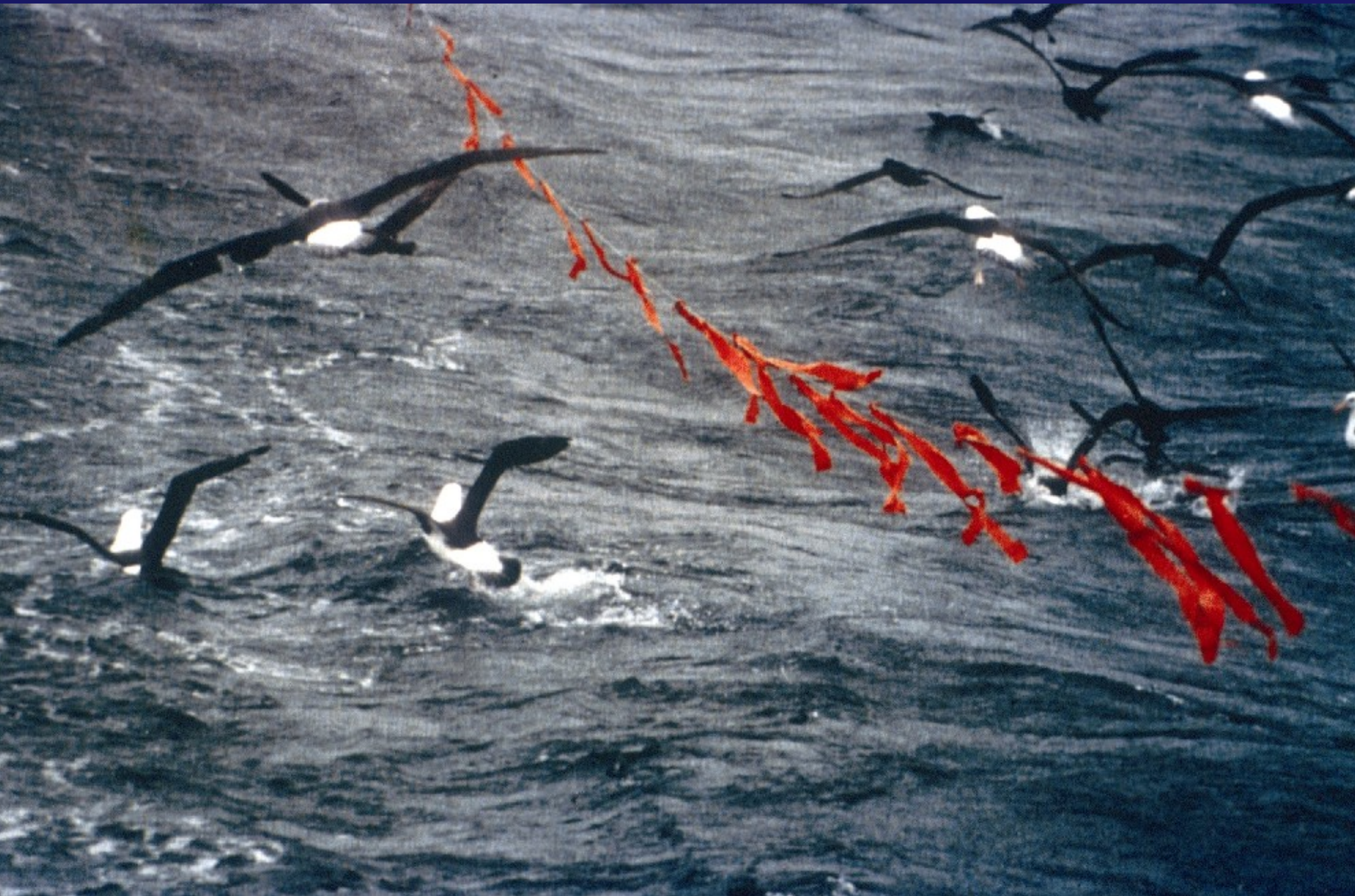


# Threats to albatrosses and petrels





# Bird scaring 'Tori' Lines





# Bird scaring 'Tori' Lines



# Other measures



Line weighting



Night setting



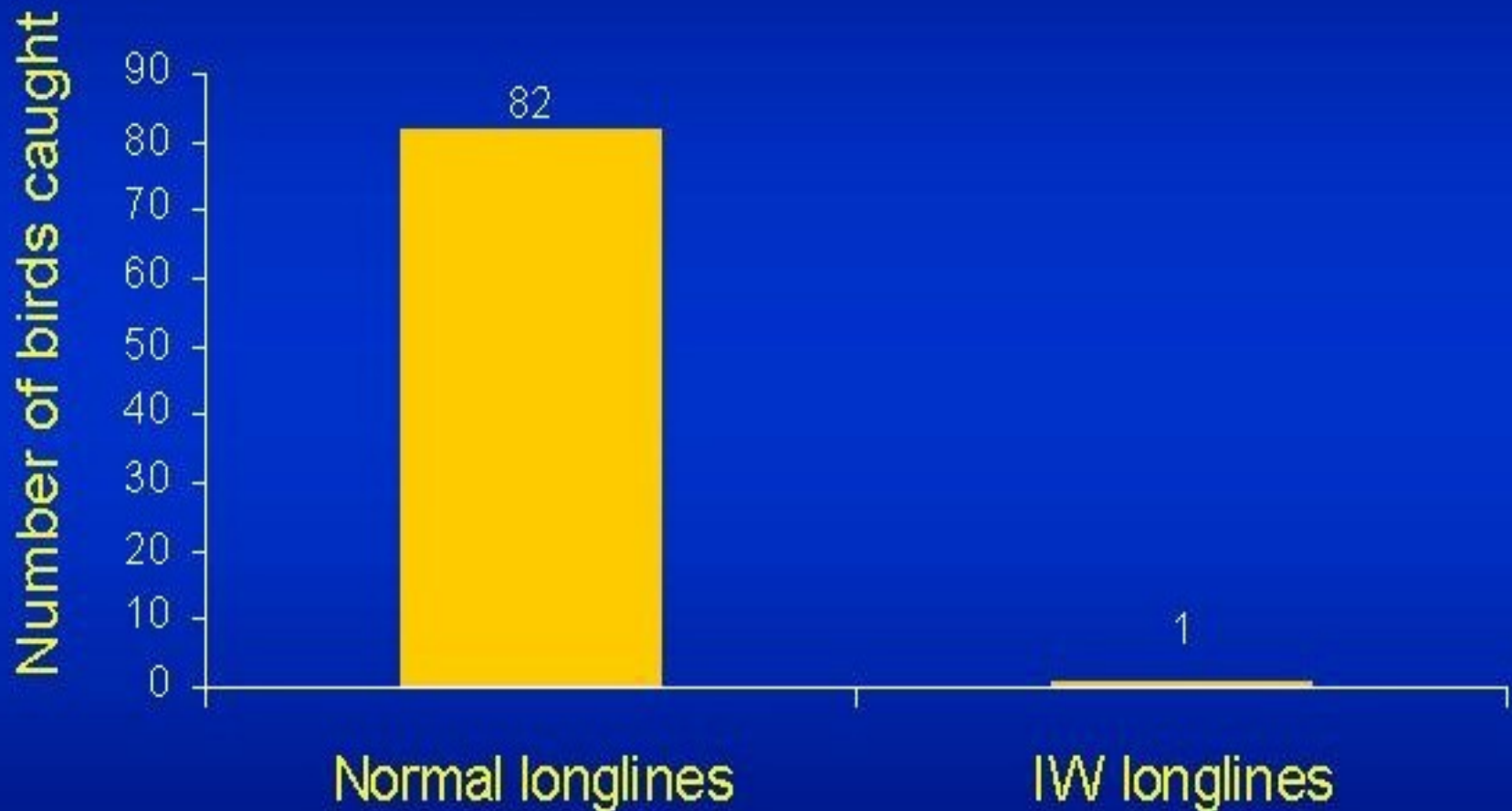
Dyed Baits

Control offal discharge  
during line setting



# Integrated Line Weights

Trial in New Zealand Ling fishery Nov 2002  
Sink rate 10m/s compared to 4m/s



# **Seabird bycatch mitigation measures**

- **Highly effective**
- **Many are simple & inexpensive**
- **Potential benefits for fishermen**



# **RFMOs are key to reducing bycatch**

**Central importance for sustainable management  
of highly migratory and straddling fish stocks**

**.... and for conservation of highly migratory and  
vulnerable species caught as bycatch, including  
albatrosses**



# Central role for RFMOs in reducing bycatch

- **Code of Conduct**
- **UNFSA**
- **IPOA-Seabirds (para 19)**



# Duties of RFMOs

## Code of Conduct for Responsible Fisheries

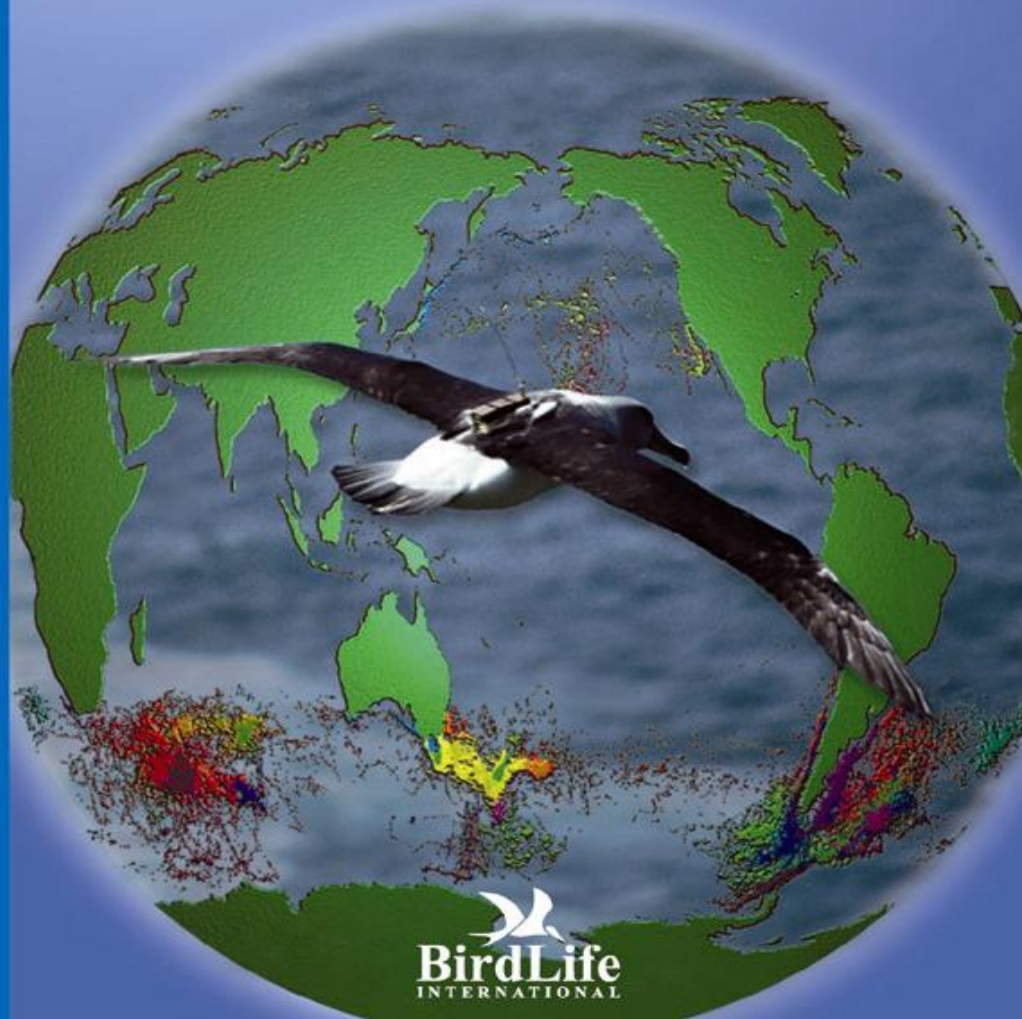
### Article 7.2.2

**‘States and sub-regional or regional fisheries management organisations and arrangements should take appropriate measures to ensure that ..discards, catch of non-target species, both fish and non-fish species, and impacts on associated or dependent species are minimised..’**

# TRACKING OCEAN WANDERERS

The global distribution of albatrosses and petrels

Results from the Global Procellariiform Tracking Workshop,  
1–5 September, 2003, Gordon's Bay, South Africa





# Data contributors

## PTT Data Contributors:

### **Wandering, Blackbrowed, Sooty Albatross and Whitechinned Petrel (Crozet and Kerguelen Islands), Blackbrowed, Greyheaded and Southern Royal Albatross (Campbell Island), Lightmantled Albatross (Crozet Islands, Macquarie Island), Indian Yellow-nosed and Amsterdam Albatross (Amsterdam Island):**

Henri Weimerskirch, Centre d'Etudes Biologiques de Chizé, (CNRS UPR 1934), France  
Support from Institut Paul-Emile Victor (IPEV - programme 109)

### **Blackbrowed, Greyheaded and Wandering Albatross, Southern and Northern Giant Petrel and Whitechinned Petrel (South Georgia):**

John Croxall, Richard Phillips, Jacob Gonzalez-Solis & Andy Wood, British Antarctic Survey, Natural Environment Research Council

### **Blackbrowed and Greyheaded Albatross (Chile):**

Graham Robertson, Australian Antarctic Division  
Javier Arata, Instituto de Ecología y Evolución, Universidad Austral de Chile  
Instituto Antartico Chileno

### **Blackfooted and Laysan Albatross (Hawaii):**

Yann Tremblay<sup>1</sup>, Scott A. Shaffer<sup>1</sup>, Jill Awkerman<sup>2</sup>, Dan P. Costa<sup>1</sup> & Dave J. Anderson<sup>2</sup>

<sup>1</sup>Department of Ecology and Evolutionary Biology, University of California Santa Cruz

<sup>2</sup>Department of Biology, Wake Forest University  
Support from Tagging of Pacific Pelagics (TOPP) and U.S. Fish & Wildlife Service, Honolulu

### **Laysan Albatross (Mexico):**

Bill Henry, Don A. Croll & Scott A. Shaffer  
Dept. of Ecology and Evolutionary Biology, University of California Santa Cruz  
Support from Island Conservation Ecology Group (ICEG) and Tagging of Pacific Pelagics (TOPP)

### **Shy Albatross (Tasmania), Greyheaded, Blackbrowed and Lightmantled Albatross (Macquarie Island):**

Nigel Brothers, April Hedd, Rosemary Gales & Aleks Terauds, Department of Primary Industries, Water and Environment (DPIWE), Tasmania

### **Chatham Albatross (New Zealand)**

D.G. Nicholls, M.D. Murray & C.J.R. Robertson.  
Support from WWF, Ian Potter Foundation, Chisholm Institute, La Trobe University, Department of Conservation, David Bell, Hans Rook

### **Chatham Albatross (New Zealand)**

C.J.R. Robertson, Department of Conservation New Zealand, D.G. Nicholls and M.D. Murray.  
Support from Department of Conservation – Conservation Services Program, David Bell

### **Northern Royal Albatross (New Zealand):**

C.J.R. Robertson, D.G. Nicholls & M.D. Murray.  
Support from Ian Potter Foundation, WWF Australia, Department of Conservation, David and Mike Bell, Isobel Burns, Sandra McGrouther

### **Wandering and Greyheaded Albatross (Marion Island):**

Deon Nel & Peter Ryan, Percy FitzPatrick Institute, University of Cape Town, South Africa

### **Blackfooted Albatross (USA):**

David Hyrenbach, Scripps Institution of Oceanography, University of California San Diego, USA

### **Antipodean and Gibson's Albatross (New Zealand)**

D.G. Nicholls, M.D. Murray & E.C. Butcher.  
Support from Kath Walker, Graeme Elliott, WWF Australia

### **Antipodean and Gibson's Albatross (New Zealand)**

D.G. Nicholls, M.D. Murray, E.C. Butcher, Kath Walker  
Graeme Elliott & Department of Conservation New Zealand.  
Support from Peter Dilks, Andy Cox, Southland Conservancy, Department of Conservation New Zealand

### **Wandering Albatross (Australia):**

D.G. Nicholls, M.D. Murray & E.C. Butcher.  
Support from La Trobe University, Australian Research Council, Ian Potter Foundation, W V West Estate, WWF Australia, Chisholm Institute, Dandenong, SOSSA, Dick Smith Foundation, Environment Australia

### **Southern Giant Petrel (Antarctic Peninsula):**

Donna Patterson & William Fraser, Polar Oceans Research Group, USA

### **Short-tailed Albatross (Japan):**

Rob Suryan, Hatfield Marine Science Center, Oregon State University  
Greg Balogh, U.S. Fish & Wildlife Service  
Kiyooki Ozaki and Fumio Sato, Yamashina Institute for Ornithology  
Shiho Kanie, Nature Conservation Bureau, Ministry of Environment, Japan

### **Tristan Albatross (Gough):**

Richard Cuthbert, Royal Society for the Protection of Birds, UK  
Percy FitzPatrick Institute, University of Cape Town, South Africa

### **Southern Giant Petrel (Argentina):**

Flavio Quintana, Centro Nacional Patagonico, Argentina

### **Blackbrowed Albatross (Falklands):**

Nic Huin, Falklands Conservation

### **Buller's Albatross (New Zealand):**

Jean-Claude Stahl, Museum of New Zealand Te Papa Tongarewa  
Paul Sagar, National Institute of Water and Atmospheric Research

## GLS Data Contributors:

### **Blackbrowed Albatross (Chile):**

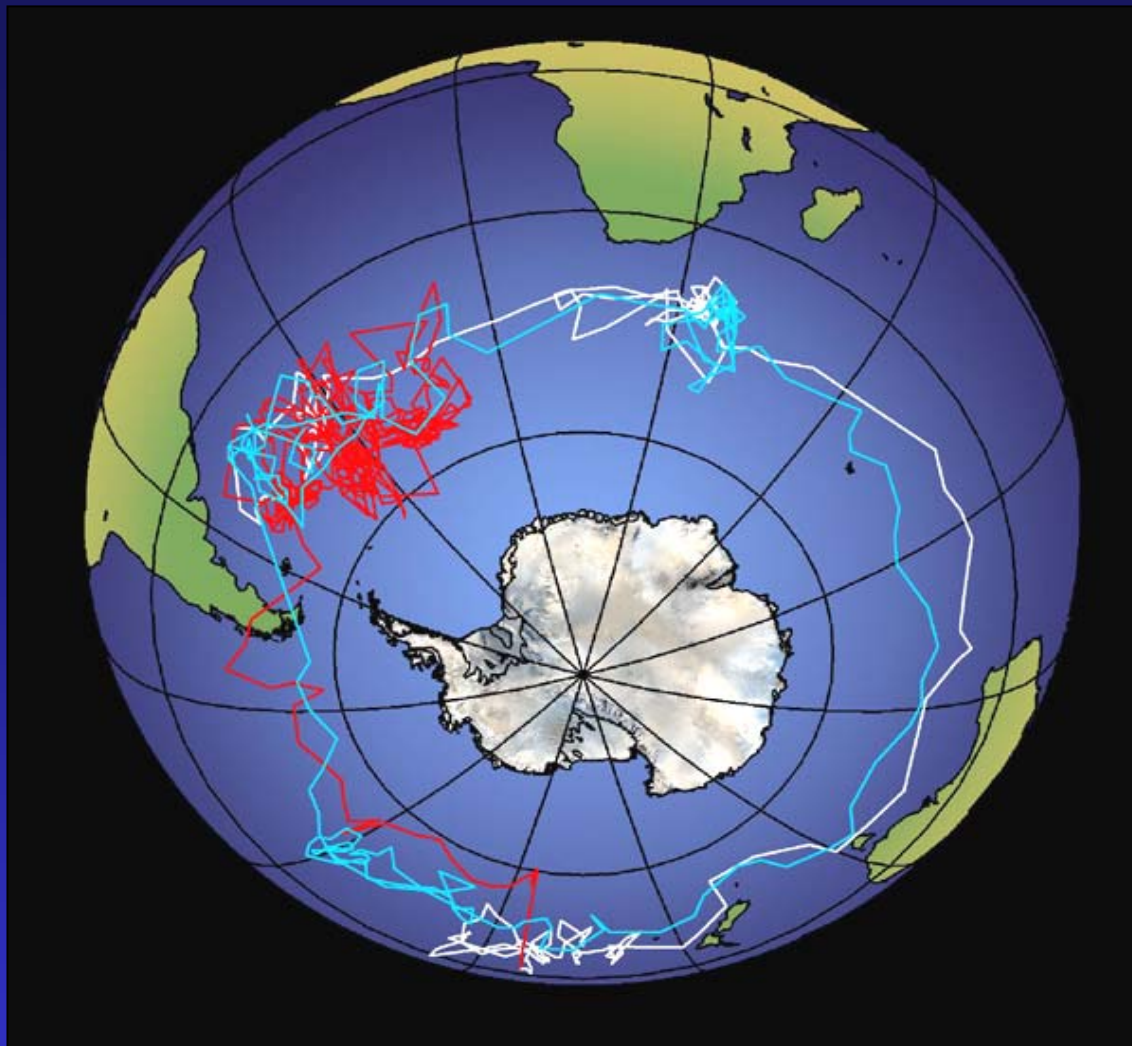
John Croxall, Janet Silk, British Antarctic Survey  
Javier Arata, Universidad Austral de Chile

### **Blackbrowed Albatross (Falklands):**

Nic Huin, Falklands Conservation  
John Croxall, British Antarctic Survey

### **Blackbrowed and Greyheaded Albatross (South Georgia)**

John Croxall, Richard Phillips, Janet Silk & Dirk Briggs  
British Antarctic Survey



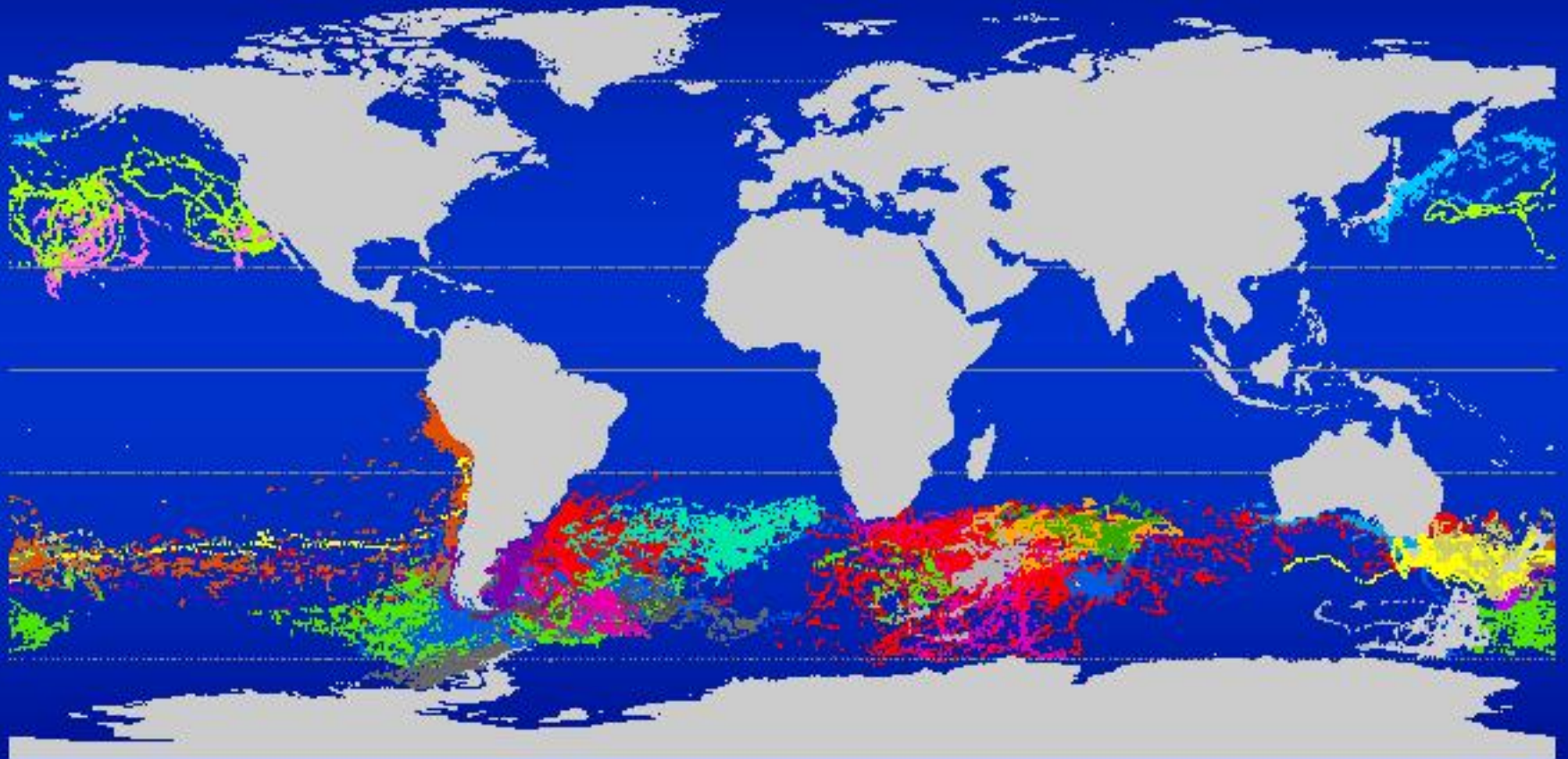
### Grey-headed albatross from South Georgia

- Winter 1999
- Summer 2000
- Winter 2000

Data courtesy of the British Antarctic Survey



# Albatross and petrel satellite tracking





# Top 5 RFMOs for albatross distribution

## Albatross time

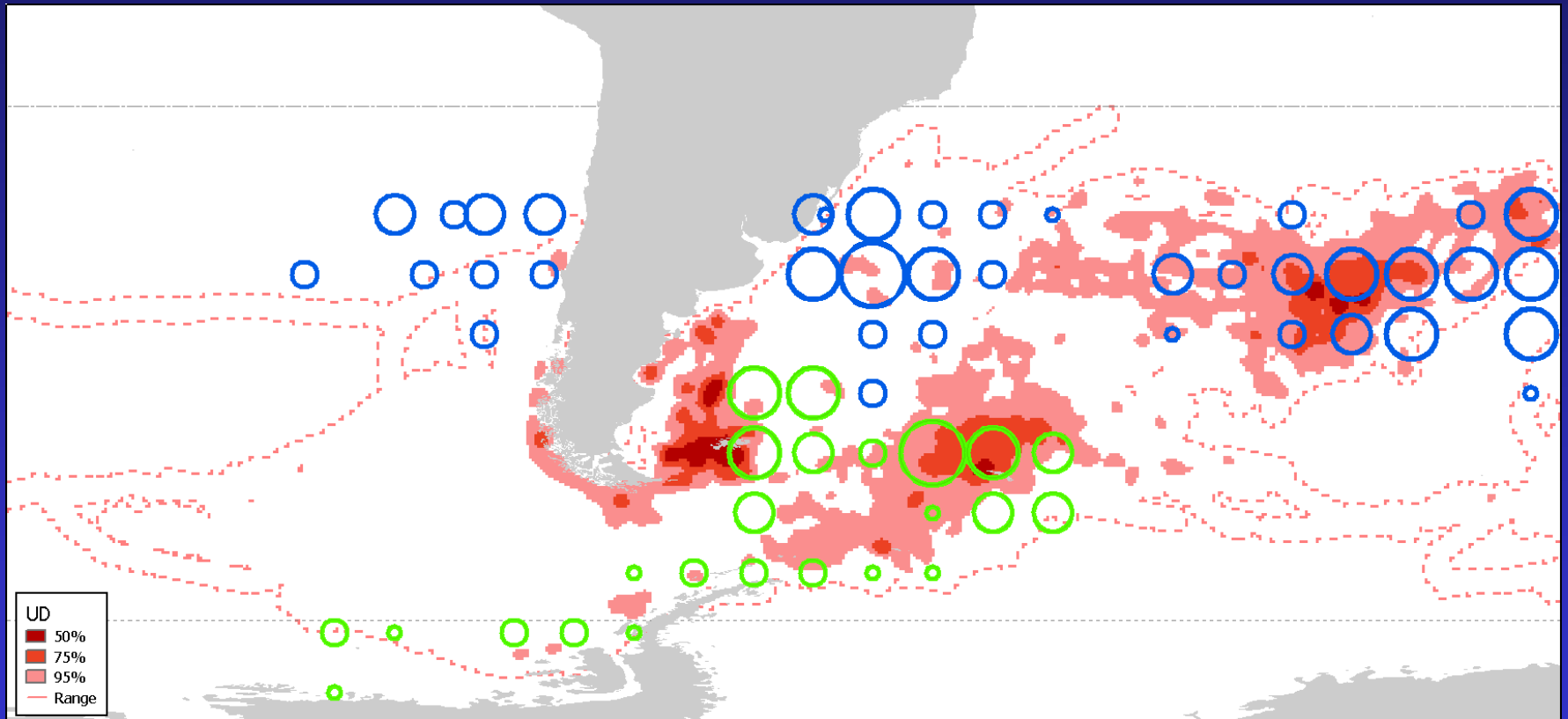
CCSBT	67 %
WCPFC	46 %
IOTC	21 %
ICCAT	17 %
CCAMLR	16 %

## Also

**SEAFO, SWIOFC, IPHC, IATTC,  
CPPS/Galapagos Agreement**

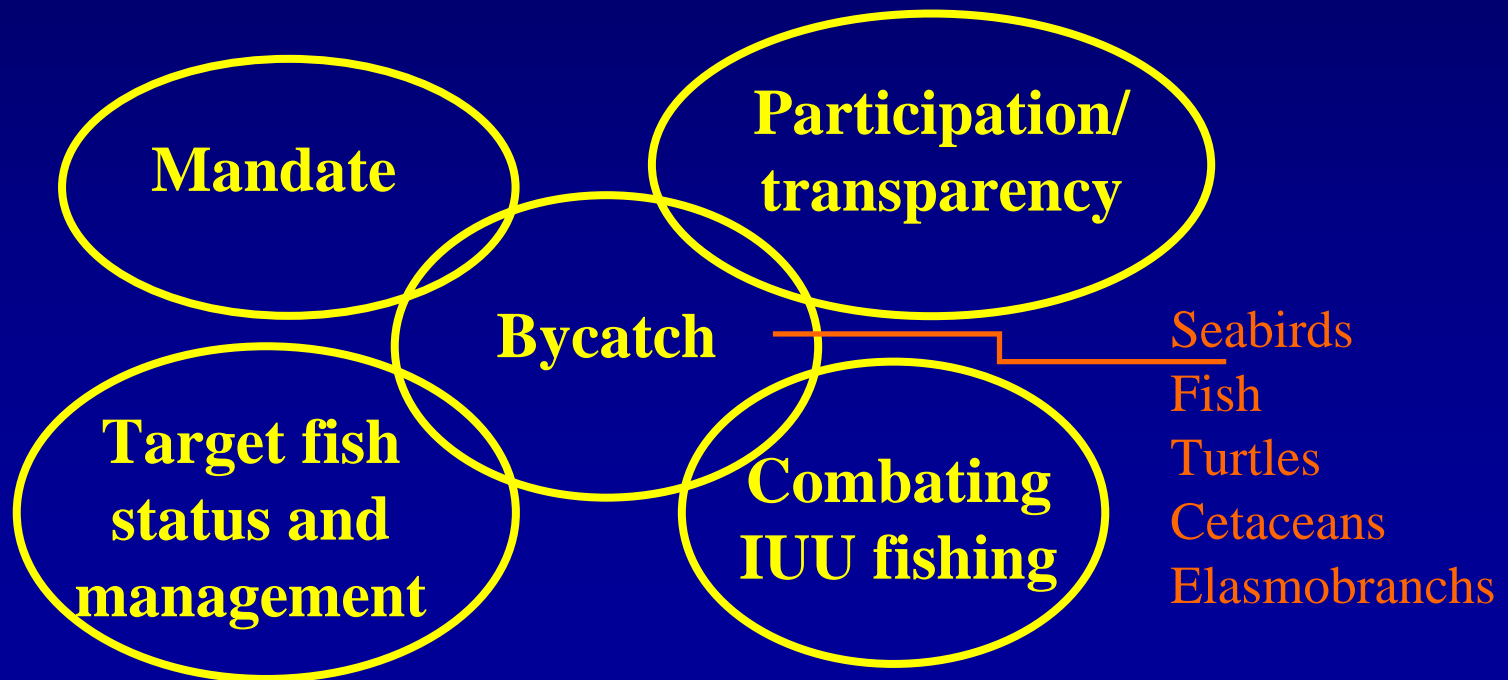


# To measure risk: overlap albatross data with fishing effort data



# BirdLife RFMO evaluation

- **Based on UN Fish Stocks Agreement & Code of Conduct for Responsible Fisheries**
- **100 + criteria**



# RFMO performance (% scores)

	CCSBT	WCPFC	IOTC	ICCAT	CCAMLR	IATTC
A. Participation & transparency	58	82	78	82	70	70
B. Target fish: data & assessment	55	64	36	57	100	64
C. Target fish: management & status	41	-	14	39	82	43
D. Combating IUU fishing	31	62	58	62	90	50
E1. Commitment to reducing bycatch	60	53	33	55	88	63
E2. Bycatch data collection	26	-	8	31	97	87
E3. Bycatch mitigation	4	-	0	13	90	31
<b>TOTAL %</b>	<b>35</b>	<b>-</b>	<b>27</b>	<b>44</b>	<b>89</b>	<b>63</b>



# Five essential elements

1. **Mandate includes non-target species**
2. **Commitment to minimising bycatch**
3. **Bycatch sub-group**
4. **On-Board Observer programme**
5. **Albatross bycatch mitigation**

## Albatross distribution

	CCSBT	WCPFC	IOTC	ICCAT	CCAMLR
1. Mandate includes non-target species	■	■	□	□	■
2. Commitment to minimising bycatch	▣	■	□	□	■
3. Bycatch sub-group	▣	■	□	▣	■
4. On-Board Observer programme	□	▣	.	.	■
5. Albatross bycatch mitigation	□	.	.	.	■



**Commission for the Conservation of Antarctic Marine Living Resources:**  
Regional observer programme.

Wide range of mitigation measures including streamer lines, line weighting, offal management, night setting.

# **Incidental mortality of seabirds in longline fisheries managed by CCAMLR**



**1997 = 6589 birds killed**

**2003 = 15 birds killed**

Source: CCAMLR, 2003



## Albatross distribution

	CCSBT	WCPFC	IOTC	ICCAT	CCAMLR
1. Mandate includes non-target species	■	■	□	□	■
2. Commitment to minimising bycatch	▣	■	□	□	■
3. Bycatch sub-group	▣	■	□	▣	■
4. On-Board Observer programme	□	▣	.	.	■
5. Albatross bycatch mitigation	□	.	.	.	■

### Indian Ocean Tuna Commission:

Agreed to establish a Bycatch Group (not yet met, initial focus on sharks).

## Albatross distribution

	CCSBT	WCPFC	IOTC	ICCAT	CCAMLR
1. Mandate includes non-target species	■	■	□	□	■
2. Commitment to minimising bycatch	▣	■	□	□	■
3. Bycatch sub-group	▣	■	□	▣	■
4. On-Board Observer programme	□	▣	.	.	■
5. Albatross bycatch mitigation	□	.	.	.	■

**International Commission for the Conservation of Atlantic Tunas:**  
 2002 resolution on seabirds. Resolved to produce seabird report.  
 Has requested delegations include seabird experts.

## Albatross distribution

	CCSBT	WCPFC	IOTC	ICCAT	CCAMLR
1. Mandate includes non-target species	■	■	□	□	■
2. Commitment to minimising bycatch	▣	■	□	□	■
3. Bycatch sub-group	▣	■	□	▣	■
4. On-Board Observer programme	□	▣	.	.	■
5. Albatross bycatch mitigation	□	.	.	.	■

**Commission for Conservation of Southern Bluefin Tuna:**  
 1995 requirement for streamer lines below 30°S.  
 New observer programme gives low priority to recording data on non-fish species.



## Albatross distribution

	CCSBT	WCPFC	IOTC	ICCAT	CCAMLR
1. Mandate includes non-target species	■	■	□	□	■
2. Commitment to minimising bycatch	▣	■	□	□	■
3. Bycatch sub-group	▣	■	□	▣	■
4. On-Board Observer programme	□	▣	.	.	■
5. Albatross bycatch mitigation	□	.	.	.	■

**Western & Central Pacific Fisheries Commission:**  
 Convention based on UN Fish Stocks Agreement.  
 In force June 2004.  
 Will have a bycatch group & observer programme

# What Next?

## BirdLife International:

- **Satellite Tracking database**
- **Overlap of albatross distribution with fishing effort**
- **Economic cost-benefit analysis**
- **Other seabird species**
- **Experience with NPOAs & regional workshops**

**=> Work programme over next 2 years**

# Summary

- Central role of RFMOs in reducing albatross bycatch
- International legal framework
- CCAMLR has shown potential
- RFMO performance
- BirdLife International

