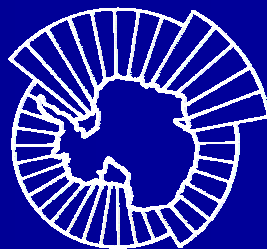


CCAMLR's Approach to Marine Debris Management in the Antarctic

**Eric Appleyard
CCAMLR**



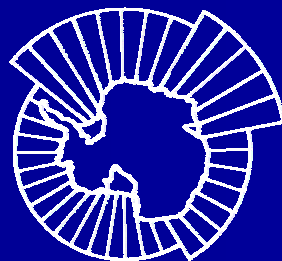
CCAMLR

**Commission for the
Conservation of
Antarctic
Marine
Living
Resources**



What is CCAMLR?

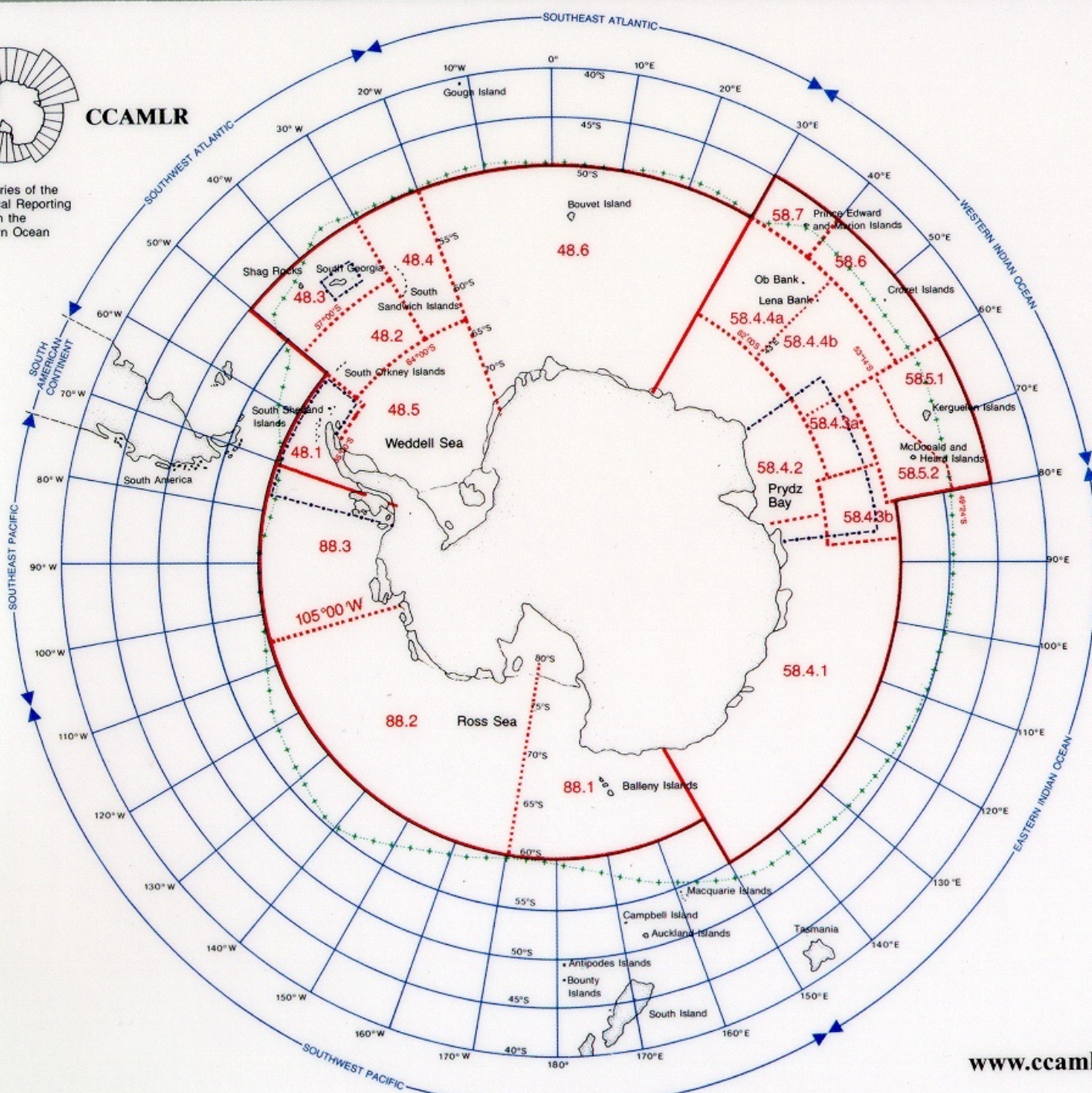
- The Convention on the Conservation of Antarctic Marine Living Resources came into force in 1982
- Secretariat based in Hobart, Australia
- 24 Member States and 7 acceding States
- Observers from NGOs (FAO, IWC etc.) and interested non-contracting parties also attend the annual meetings





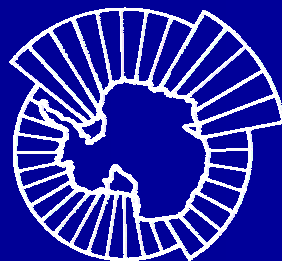
CCAMLR

Boundaries of the
Statistical Reporting
Areas in the
Southern Ocean



Article II of the Convention

- Conservation of Antarctic marine living resources
- Conservation includes rational use of the resources
- Prevention of the decrease in size of any harvested population
- Maintain ecological relationships between harvested, dependent and related populations and to restore depleted populations back to sustainable levels
- Minimise the risk of harvesting activities on the Antarctic marine ecosystem



Fishing in CCAMLR

- Large scale trawl fishing for krill in CCAMLR waters commenced in the 1970s



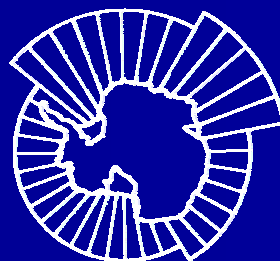
Fishing in CCAMLR

- By mid 1970 the fishery had expanded to include finfish and had moved further south (South Orkney Islands etc.)
- Longline fishing for Patagonian toothfish commenced in the early 1980s
- Fishing remained relatively unrestricted until 1982 when the Convention came into force



Protection of the Antarctic

- Collection and reporting of marine debris by vessels
- Conduct surveys of marine debris on beaches and in seal colonies near coastal stations
- Reporting of entanglement in, or ingestion of, marine debris by birds, marine mammals, fish and other animals
- Requiring that each fishing, research or re-supply vessel of CCAMLR Flag States be aware of the procedures for handling and disposing of garbage collected on a vessel



Marine Debris Standard Methods

- In 1993 CCAMLR adopted its first standard method for conducting Surveys of Beached Marine Debris



Beach Survey Details

- Researcher information
- Beach description
 - location (map), substrate type, length of beach surveyed, average slope
- Survey details
 - date of last survey, current survey date and duration
- Description of items found
 - plastic packaging, fishing gear, glass, rubber, metal, paper, wood, fabric
 - number, weight, size category, country or vessel of origin

By 2001 the following standard methods had been adopted

- Marine Debris Associated with Seabird Colonies



Seabird Colony Survey Details

- Researcher information
- Seabird colony description
 - location (map), substrate type, seabird species
- Location of debris in relation to colony
 - debris in or near nests, in faeces, on or ingested by bird, regurgitated
- Description of items found
 - fishing gear, plastic, bottles/glass, other
 - number, weight, size category, country or vessel of origin

- Marine Mammal Entanglement



Mammal Entanglement Survey Details

- Researcher information
- Location
 - colony description (map), latitude and longitude if at sea or outside of a known colony
- Survey details
 - date of last survey (or isolated incident), current survey date and duration, species information (sex, age species)
- Description of entanglement
 - material, description of the entanglement, severity, was the entangling item able to be removed, survival status

- Hydrocarbon Soiling



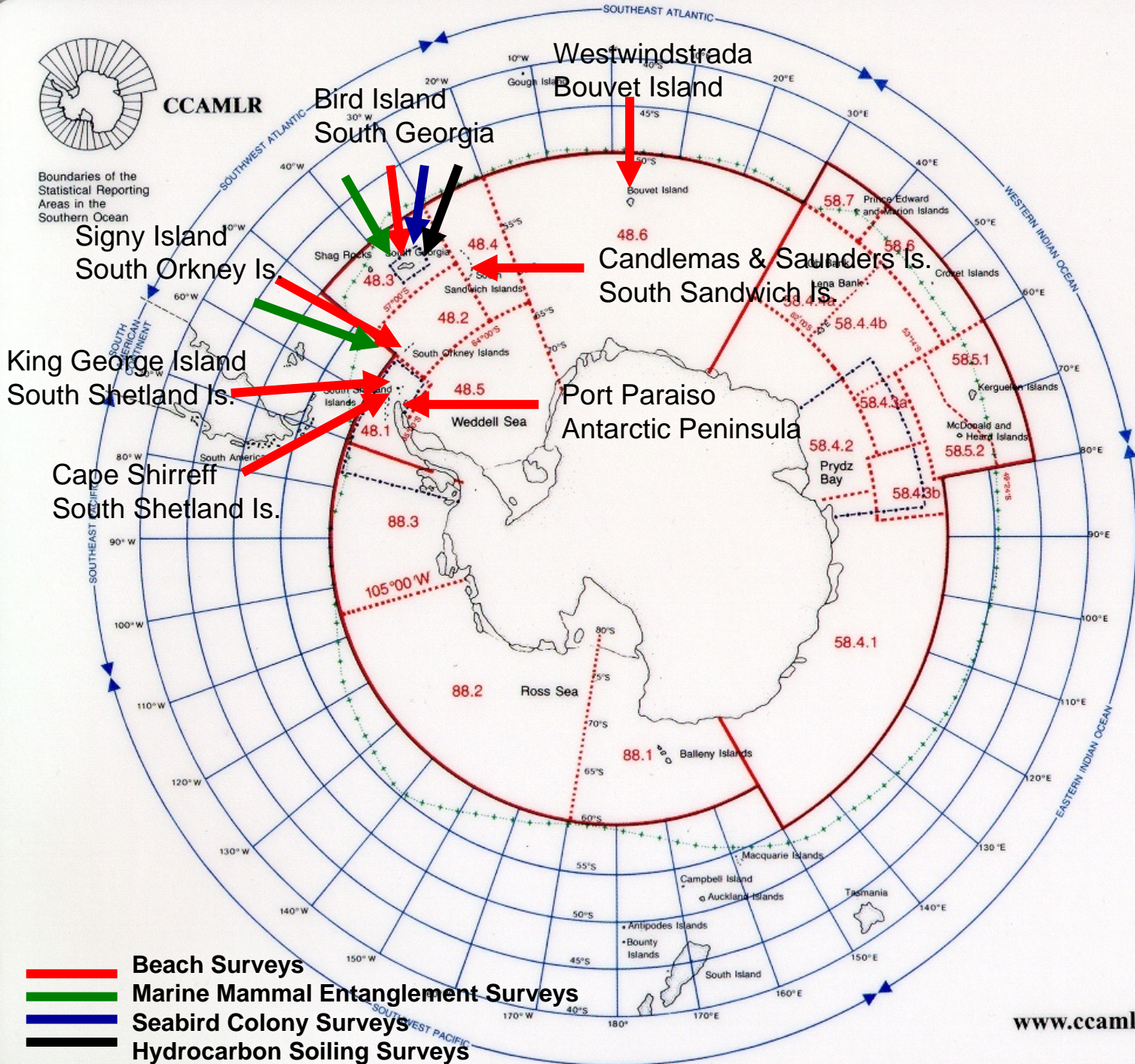
Hydrocarbon Soiling Survey Details

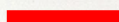



- Researcher information
- Location
 - colony description (map), latitude and longitude if at sea or outside of a known colony
- Survey details
 - date of last survey (or isolated incident), current survey date and duration, species information (sex, age species)
- Description of soiling
 - hydrocarbon type, description of the soiling, severity, was the soiling able to be removed, survival status



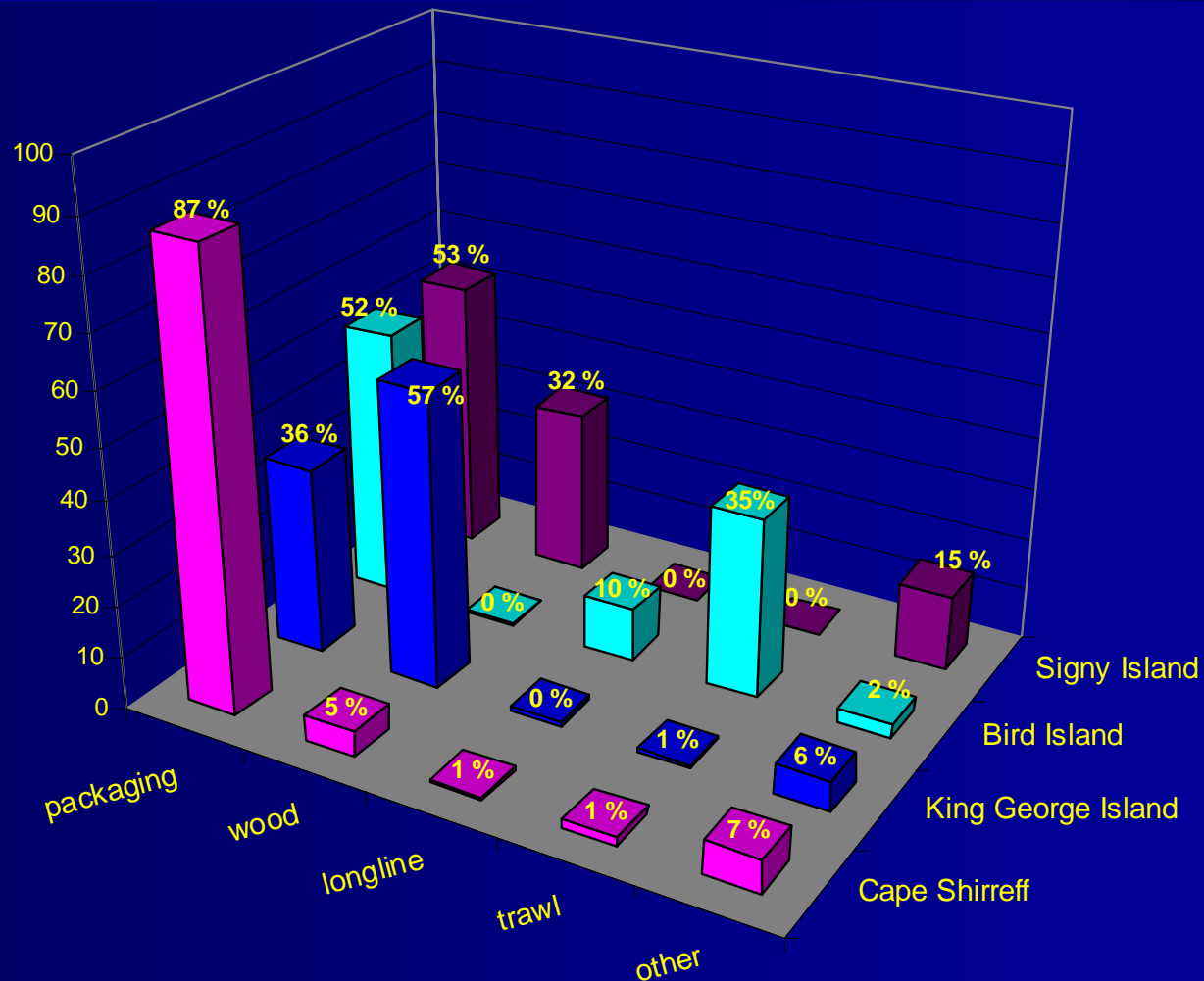
CCAMLR

Boundaries of the
Statistical Reporting
Areas in the
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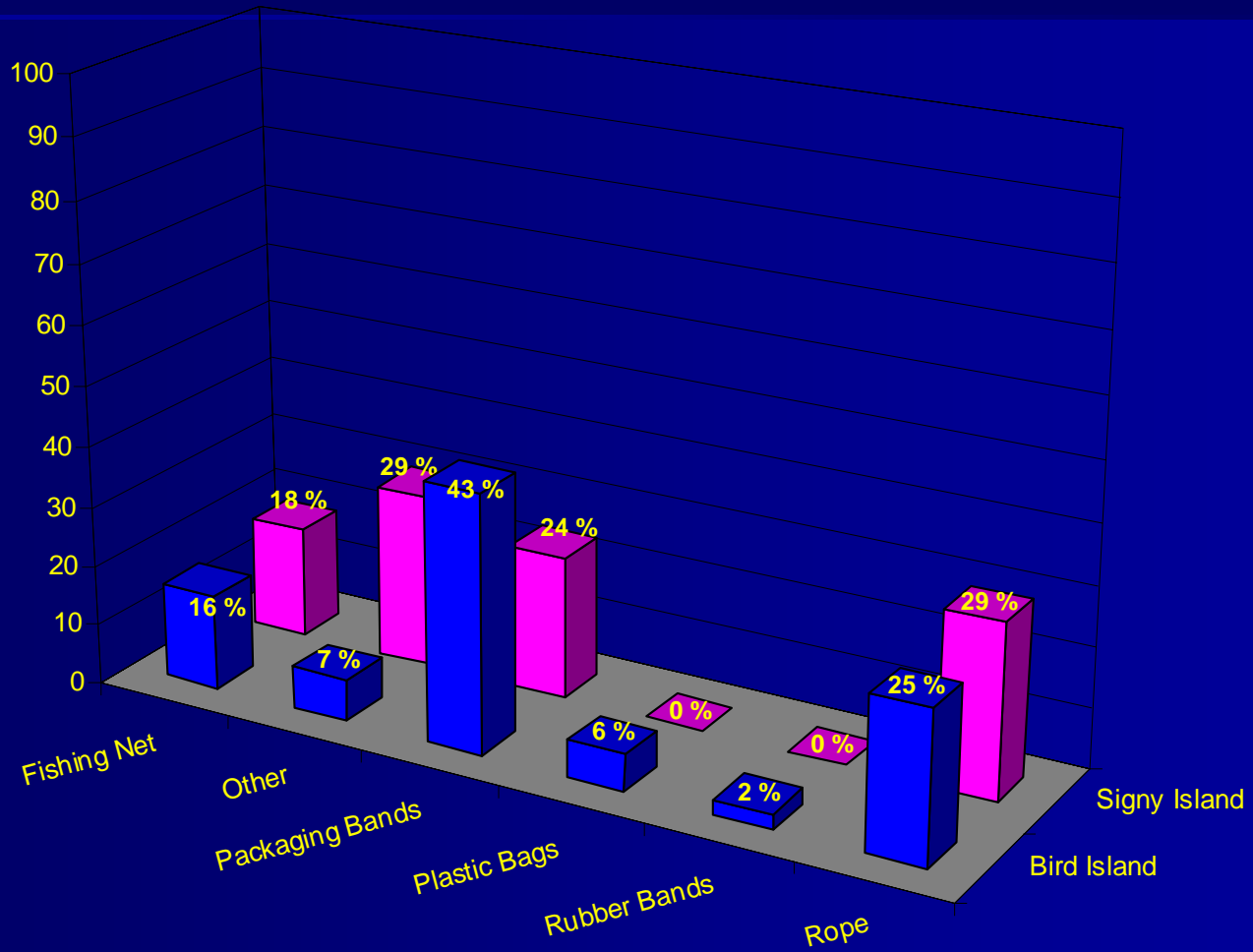


-  Beach Surveys
-  Marine Mammal Entanglement Surveys
-  Seabird Colony Surveys
-  Hydrocarbon Soiling Surveys

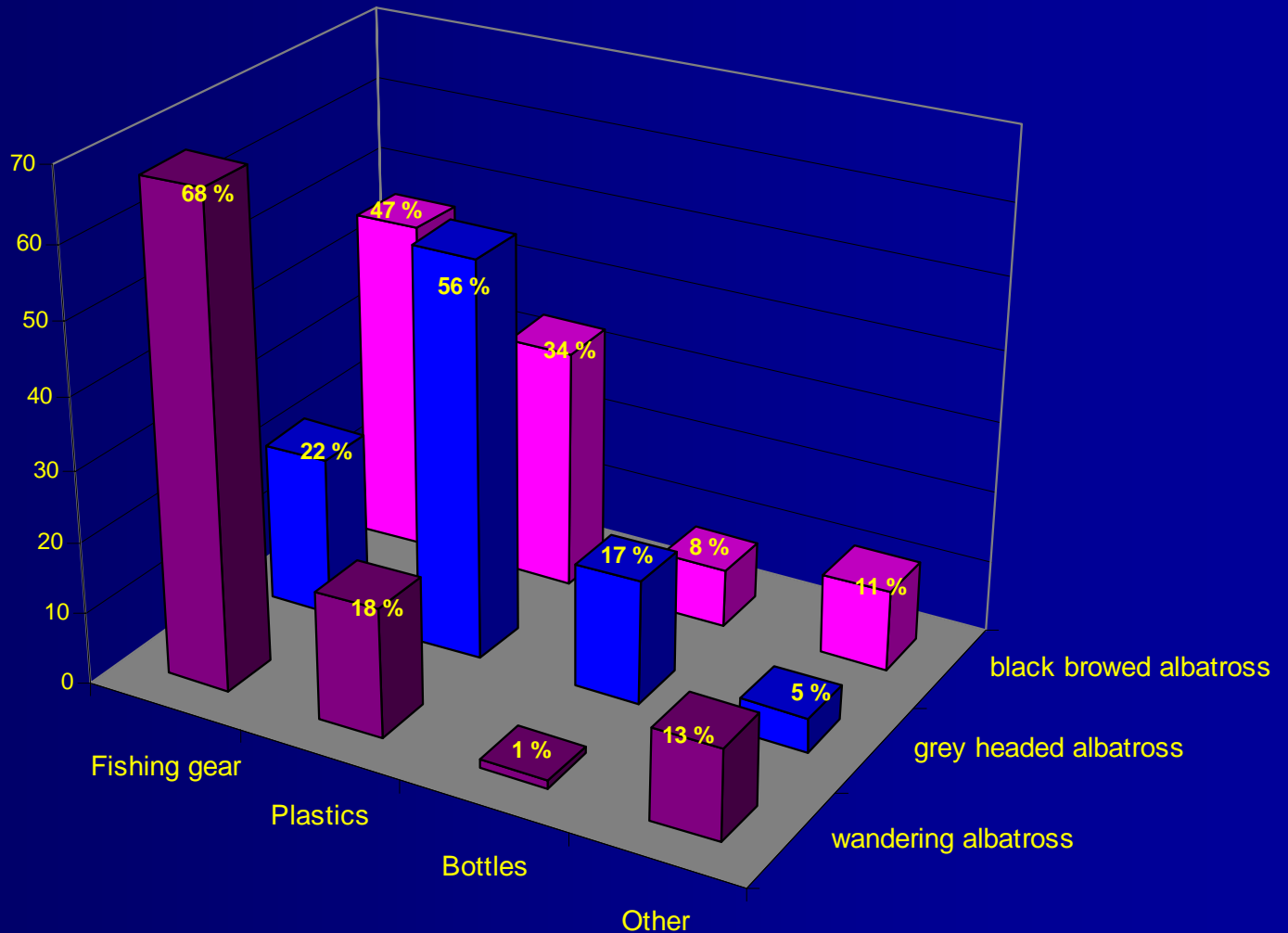
Debris Composition (%) from Beach Surveys in the Convention Area



Debris Composition (%) from Marine Mammal Entanglement Surveys

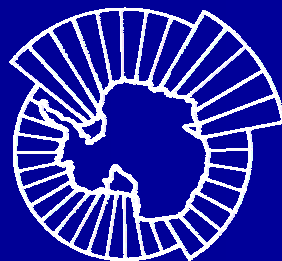


Debris Composition (%) from Seabird Colony Surveys



What CCAMLR does to reduce marine debris

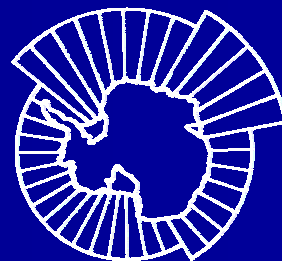
- Legally binding Conservation Measures
 - 10-01 Marking of Fishing Gear: all fishing gear such as pots, marker buoys, floats etc. must be marked with the vessel name, call sign and flag state
 - 25-01 Regulation of the Use and Disposal of Plastic Packaging Bands on Fishing Vessels
 - 25-02 Minimisation of the Incidental Mortality of Seabirds in the Course of Longline Fishing or Longline Research in the Convention Area
 - MARPOL Provisions



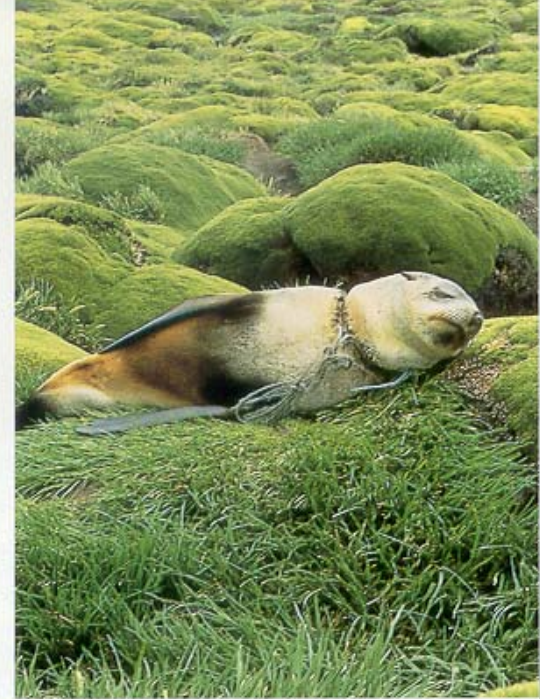
CCAMLR Educational Material

- Marine debris placard mandatory on all CCAMLR vessels

AVOIDANCE OF INCIDENTAL MORTALITY OF
ANTARCTIC MARINE ANIMALS



- Marine Debris – Potential Threat to Antarctic Marine Animals
 - Distributed to all CCAMLR Members



**MARINE
DEBRIS**



**A POTENTIAL THREAT
TO
ANTARCTIC
MARINE ANIMALS**

Marine debris in Antarctic waters does more than just pollute the Southern Ocean and litter beaches...

It kills and injures thousands of seabirds and marine mammals every year.

EACH OF US CAN HELP TO COMBAT THE PROBLEM

International Efforts to Keep Antarctica Clean

In response to the escalating problem of marine debris, international laws have been enacted to prohibit the disposal of plastics, garbage, oil, hazardous materials, and sewage into the oceans. The most important legislation is contained in the International Convention for the Prevention of Pollution from Ships (better known as MARPOL). This regulates methods of disposal of ship-generated waste and garbage.

Antarctica and its waters are governed by a set of international agreements (of which the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR)* is one), collectively known as the Antarctic Treaty System.

Of these, the Environmental Protocol to the Treaty is designed to minimise human impact on the Antarctic environment.

Code of Practice for Garbage Disposal

To minimise the impact of marine debris on the Antarctic marine environment, vessels in waters south of 60°S should ensure that they observe the following Code of Practice:

- The disposal overboard of all plastics is prohibited. This includes, but is not

limited to, synthetic ropes, synthetic fishing nets and lines, plastic garbage bags and packaging bands.

- The disposal overboard of all other garbage, including paper products, rags, glass, metal, bottles, crockery, incineration ash, dunnage, lining and packaging materials, is also prohibited.
- If used on board, incinerators should be designed, constructed, operated and maintained in accordance with International Maritime Organisation (IMO) standards. Except in an emergency, no open burning of waste should be carried out.

- If not incinerated, all garbage must be kept safely on board for disposal at waste-disposal facilities in ports outside the Antarctic Treaty Area. Arrangements for disposal of such wastes at port facilities must be made before vessels enter the area. Garbage must be stored securely to ensure that it is not lost overboard.

HOW CAN YOU HELP PROTECT ANTARCTIC WATERS?

Here is what you can do to put this code into practice:

- Make it a rule not to dump waste overboard.

- Install a waste shredder and waste compactor on your vessel.
- Install containers capable of safely storing all garbage accumulated during Antarctic operations.
- Retrieve marine debris you encounter, e.g. lost or discarded fishing nets.
- Avoid using longline bait boxes secured with plastic bands – alternative packaging exists.
- Bring any unusable net, line, and other fishing gear back to shore for proper disposal.

Ultimately, the solution to marine debris pollution in Antarctica depends on cooperation from the fishing industry and the public at large. That means you! We can all help get rid of marine debris in Antarctic waters.

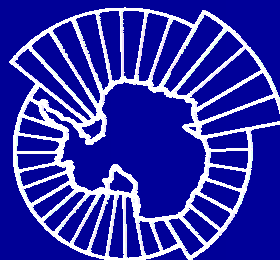
REMEMBER, DUMPING GARBAGE OVERBOARD IS PROHIBITED...

DON'T DO IT!

* For more information about CCAMLR and its measures, see overleaf.

MARINE DEBRIS - A THREAT TO ANTARCTIC MARINE ANIMALS

- Posters and mini-posters explaining the regulations in force



FISH THE SEA NOT THE SKY

HOW TO AVOID BY-CATCH OF
SEABIRDS WHEN FISHING
WITH BOTTOM LONGLINES



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COMMISSION FOR THE CONSERVATION OF ANTARCTIC MARINE LIVING RESOURCES

For enquiries and correspondence regarding this website please contact
webmaster@ccamlr.org