

# Data Analyses for Compliance Assessment and Identification of IUU Fishing Activities

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## CCAMLR

Commission for the Conservation of Antarctic Marine Living Resources  
Commission pour la conservation de la faune et la flore marines de l'Antarctique  
Комиссия по сохранению морских живых ресурсов Антарктики  
Comisión para la Conservación de los Recursos Vivos Marinos Antárticos

# UII for IUU (and compliance evaluation)

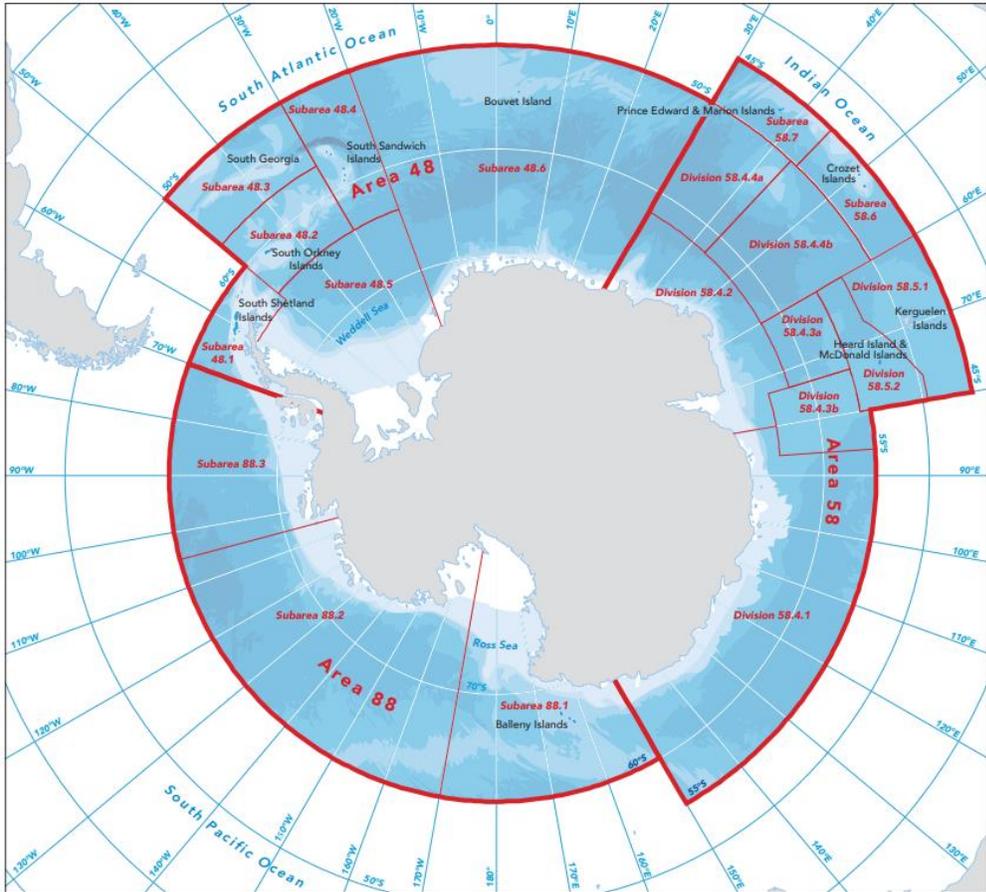
Understand

Identify

Implement



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## CCAMLR Convention Area

- 36 million km<sup>2</sup>
- Similar size to the North or South Atlantic Oceans
- 10% of the world's ocean area
- Boundary based on the position of Antarctic Convergence
- CCAMLR manages all living resources in the Convention Area (except whales and seals)
- Conservation focused

# Three types of fisheries



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# CCAMLR COMPLIANCE EVALUATION PROCEDURE

Analytical

Transparent

Equitable

Repeatable



# Conservation Measures

## Understand

What is the objective of that conservation measure?

What does compliance with that look like?

What does non-compliance look like?

## Identify

What is being assessed?

How can we assess this?

## Implement

Design and apply an analysis



# Data

## Understand

What data do you have access to?

What considerations do you need to know with using it?

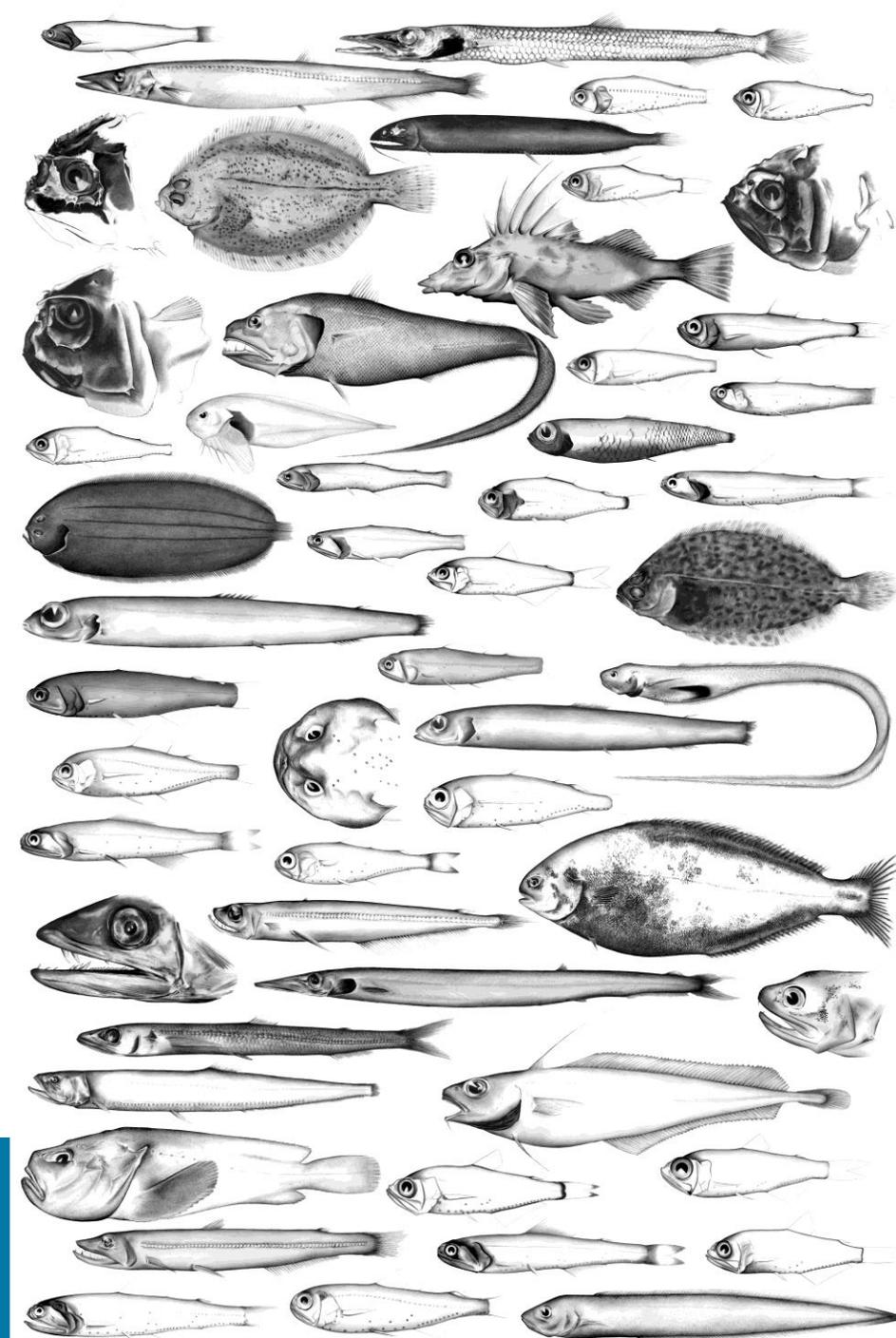
## Identify

What is contained in this data?

What data could be applicable to conservation measures?

## Implement

Design and apply an analysis



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# Case Study - Transshipment

## Conservation Measure 10-09

Requirement to notify – 72 hr or 2 hr

Requirement to confirm – 3 working days

Prohibited areas

## Data holdings

Transshipment notifications

Transshipment confirmations

VMS data



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# Case Study - Transshipment

**General variables**

**Date range input**

2023-07-11 to 2023-07-21

**Specific TRANSHIPMENTS variables**

Wanna see the details of transshipments?

**Specific port inspection variables**

Only consider catches in CCAMLR area

**how many days of tolerance for port\_inspections?**

20

Click to check results

Transshipments   Transshipment map   Port Inspections

Transshipments not yet confirmed

Transshipments of marine life resources, fuel or bait notified with less than 72h

Other Transshipments notified with less than 2h

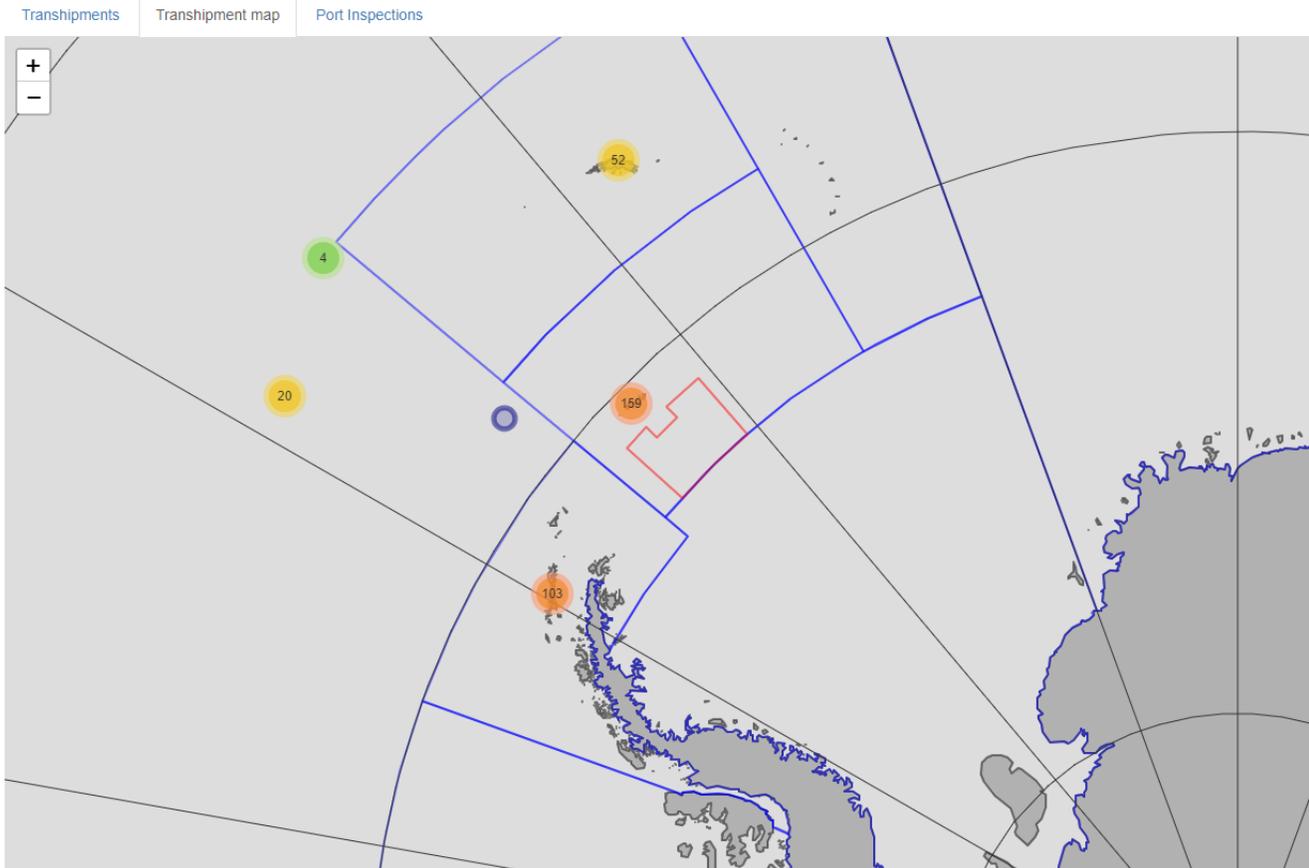
Transshipments confirmed after 3 working days

Before 01/12/2020, we just recorded the first of the confirmations received

All Transshipments during the period



# Case Study - Transshipment



# Case Study - Transshipment

## Compliance assessments

2019 - 99.5 %

2020 – 78 %

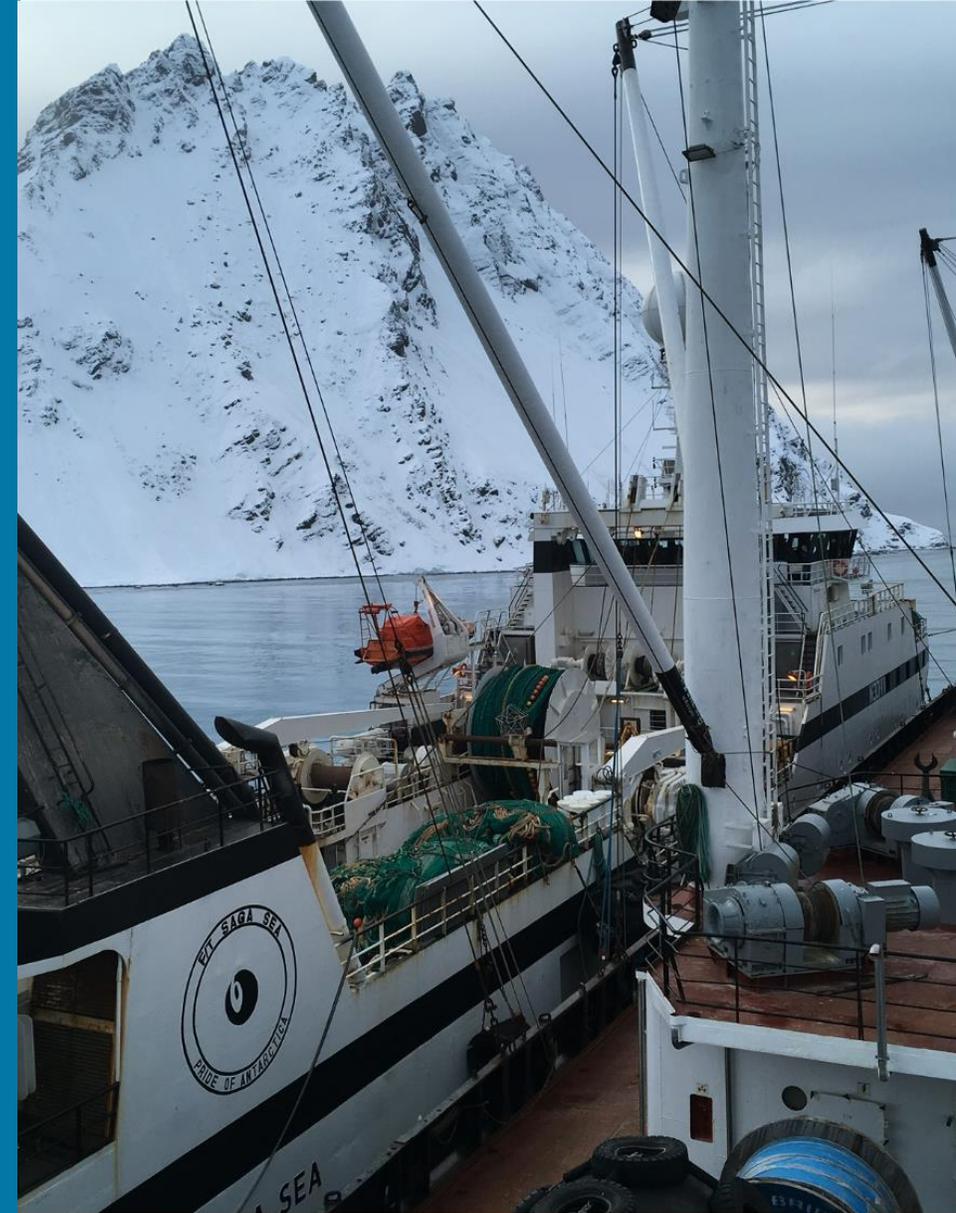
2021 – 57 %

2022 – 91 %

## Outcomes

Review of CM 10-09 in 2021

Improved engagement by Contracting Parties  
and industry



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# Case Study - Tagging

Tag release recapture program a core foundation of Toothfish stock assessments

18 different tagging rates dependent on area and species

Overlap statistic calculation

Tagging practice requirements

Data holdings

- Tagging data – release & recapture

- Observer reports

- VMS data



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# Case Study – Tagging rate & Overlap

Tag\_overlap.R x overlap\_statistic\_function\_CCEP.R x olap\_toa x

Filter

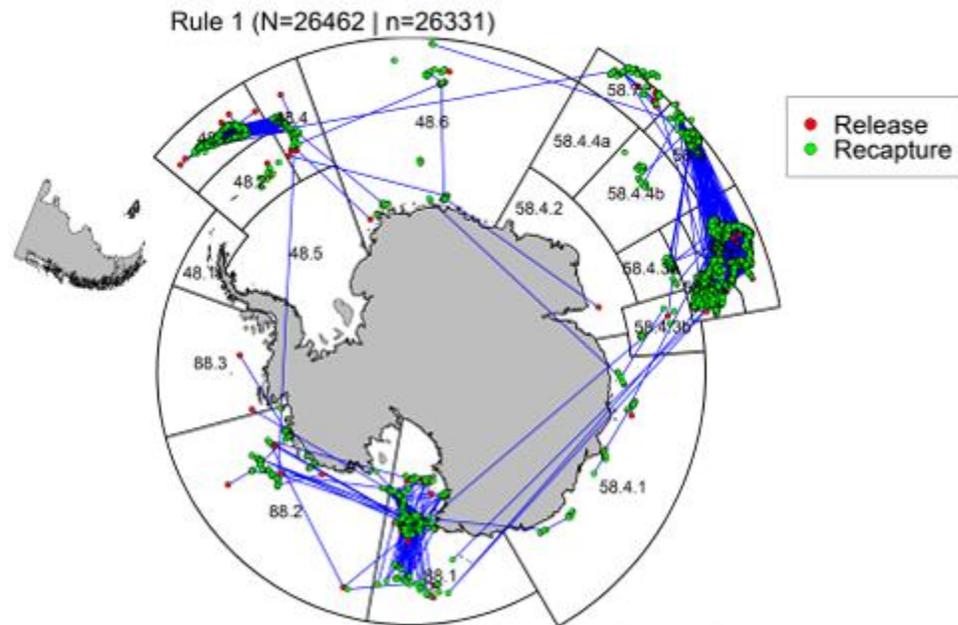
grouping	AREA	SEASON	SHIP_NAME	NATIONALITY_CODE	TAXON	CATCH_TONNES	CATCH_N	CRUISES	MEASURED_N	TAGGED_N	RECAPTURED_N	TAG_RATE	TAG_OVERLAP
1 2022_██████████_N70	N70	2022	██████████	██	TOA	20.5	633	2161	256	22	2	1.1	NC
2 2022_██████████_S70	S70	2022	██████████	██	TOA	93.3	2946	2161	2100	95	18	1.0	78.45
3 2022_██████████_5842_1	5842_1	2022	██████████	██	TOA	49.1	1924	2228	1987	288	4	5.9	86.76
4 2022_██████████_5842_2	5842_2	2022	██████████	██	TOA	13.9	622	2228	684	87	0	6.3	77.82
5 2022_██████████_N70	N70	2022	██████████	██	TOA	7.2	219	2153	103	10	0	1.4	NC
6 2022_██████████_S70	S70	2022	██████████	██	TOA	104.4	3571	2153	2173	114	24	1.1	77.85
7 2022_██████████_882D	882D	2022	██████████	██	TOA	169.3	13882	2174	2344	510	36	3.0	79
8 2022_██████████_882E	882E	2022	██████████	██	TOA	38.5	2752	2174	636	120	8	3.1	82.02
9 2022_██████████_882F	882F	2022	██████████	██	TOA	58.5	7834	2174	1622	182	12	3.1	86.96



# Case Study – Tagging handling



# Case Study – Tag Recaptures



# Strategic planning

## MCS activities in remote locations

Identification of emerging issues

Supply chain activities through CDS

Tracking transhipments

Tracking hook retrievals and CPUE

Outside of the box thinking



# Summary

Invest in knowledge

Understand your laws/CMs/CMMs

Understand your data holdings



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