Fisheries as a source of beach litter in the Arctic: causes and solutions

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Introduction

Wouter-Jan Strietman, MSc:

- Wageningen Social & Economic Research (part of Wageningen University & Research), the Netherlands
- Marine litter, fisheries and marine governance

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Photo: H Strietman

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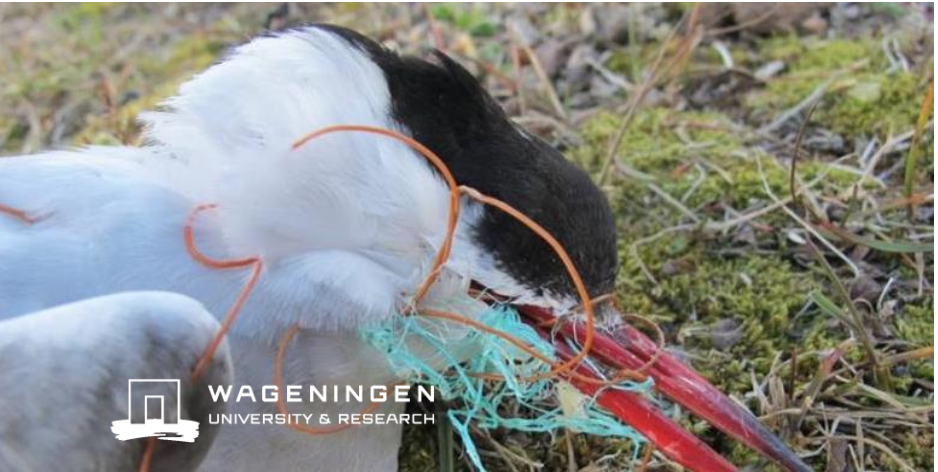

Photos: Sysselmannen & WJ Strietman

Six rescued off Cork coast after ghost net wrapped around boat's propeller

Ghost nets are a major environmental hazard to both marine and other wildlife, the RNLI said.

The RNLI lifeboat, The Douglas Aikman Smith, was launched and the crew were able to locate the stricken vessel

THU, 16 FEB, 2023 - 15:07

MICHELLE MCGLYNN

Six people have been rescued off the coast of Cork after their fishing boat suffered propeller failure.

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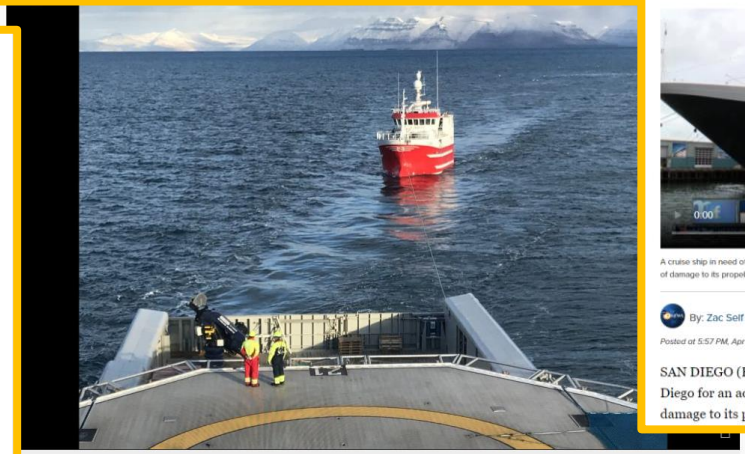

hoto: Governors

Trawlers in trouble - got a net in the propeller

A 20 meter long trawler with six people on trawl net in the propeller in Isfjorden.

Cruise ship's propeller reportedly gets stuck in fishing net, prompting San Diego stay

A cruise ship in need of repair will be in San Diego for an additional day after passengers say it received some sort of damage to its propeller.

By: Zac Self

Posted at 5:57 PM, Apr 29, 2019 and last updated 4:49 AM, Apr 30, 2019

SAN DIEGO (KGTV) -- A cruise ship in need of repair will be in San Diego for an additional day after passengers say it received some sort of damage to its propeller.

News › Cornwall News › Newquay

Fishing boat stranded at sea after propeller is snagged by drifting trawler nets off Newquay

The fishing boat was stranded at sea four miles north west of Newquay

SHARE COMMENTS By Olivier Vergnault Senior Reporter 09:50, 11 JAN 2018 NEWS

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Photo: Down Under Ral

Our mission

To create a deeper understanding of the sources and causes of marine litter on the coastline of the Arctic, in order to more effectively address the issue

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Photo: WJ Strietman

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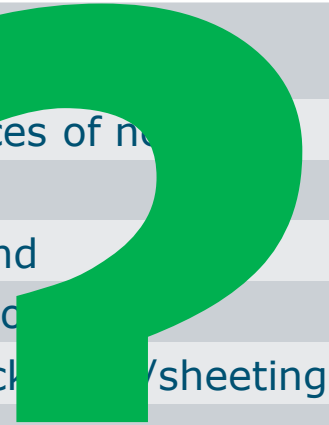
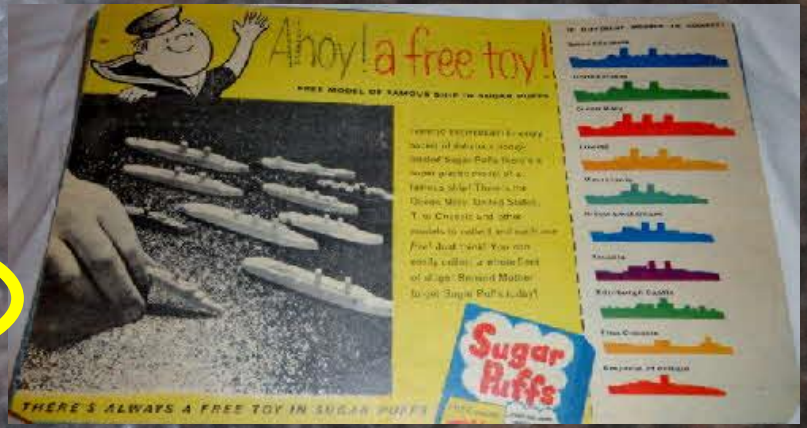
Photo: WJ Strietman

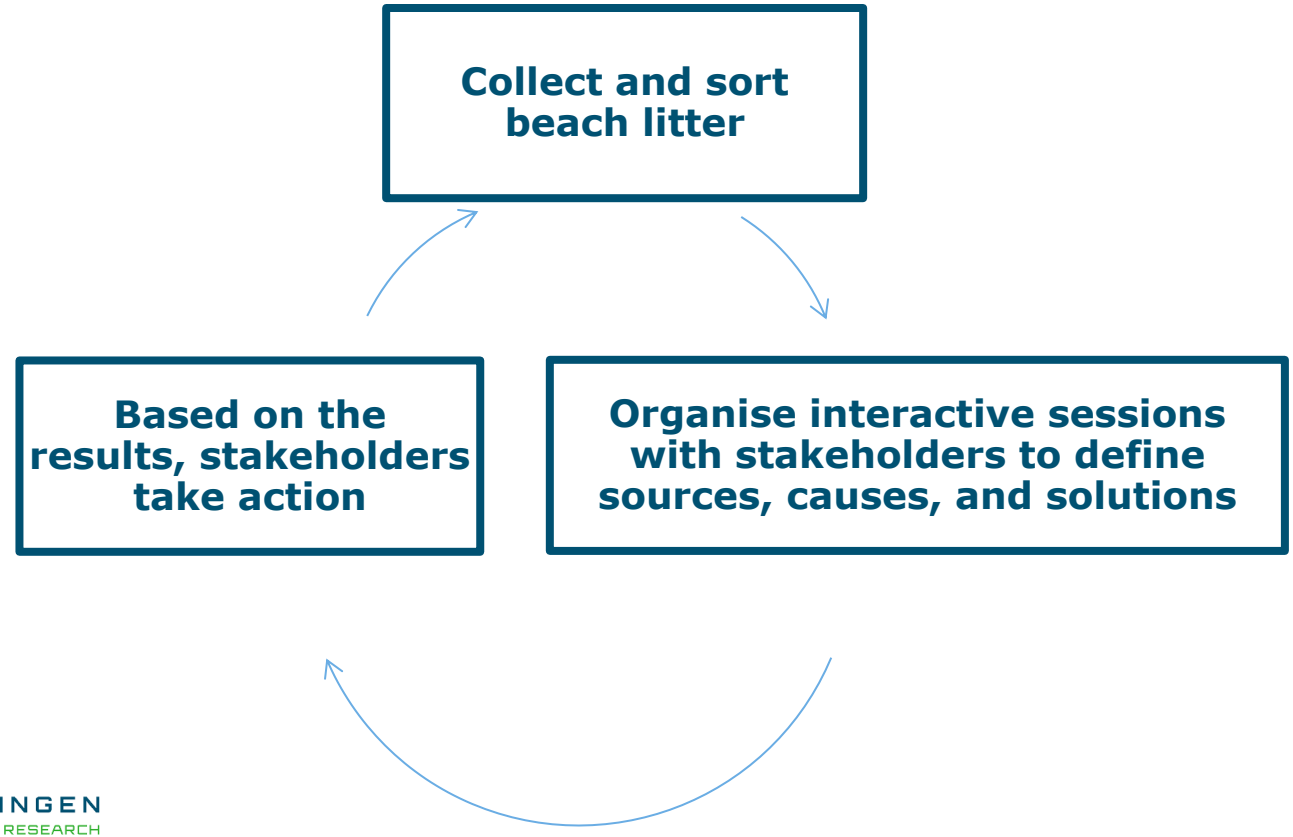
#	Top-10 of items (Jan Mayen)	Share
1	All unide	60%
2	Nets and pieces of n	7%
3	Caps/lids	6%
4	Strapping band	5%
5	String and cho	3%
6	Industrial pack /sheeting	3%
7	Floats/buoys	2%
8	Plastic bottles ntainers	2%
9	Plastic bags	2%
10	Cotton bud sticks	1%
	Other items	9%





Issued in the UK in 1958

Our approach



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Study areas and collaboration partners since 2017

Step 1: collecting litter

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Photo: WJ Strietman

Step 2: involving fisheries experts, policymakers, researchers, NGOs, citizens and other stakeholders in determining sources, causes, and solutions

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Photo: WJ Strietman

For each litter category, we conduct a detailed analysis and aim to gather as much information as possible about the items

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Photo: WJ Strietman

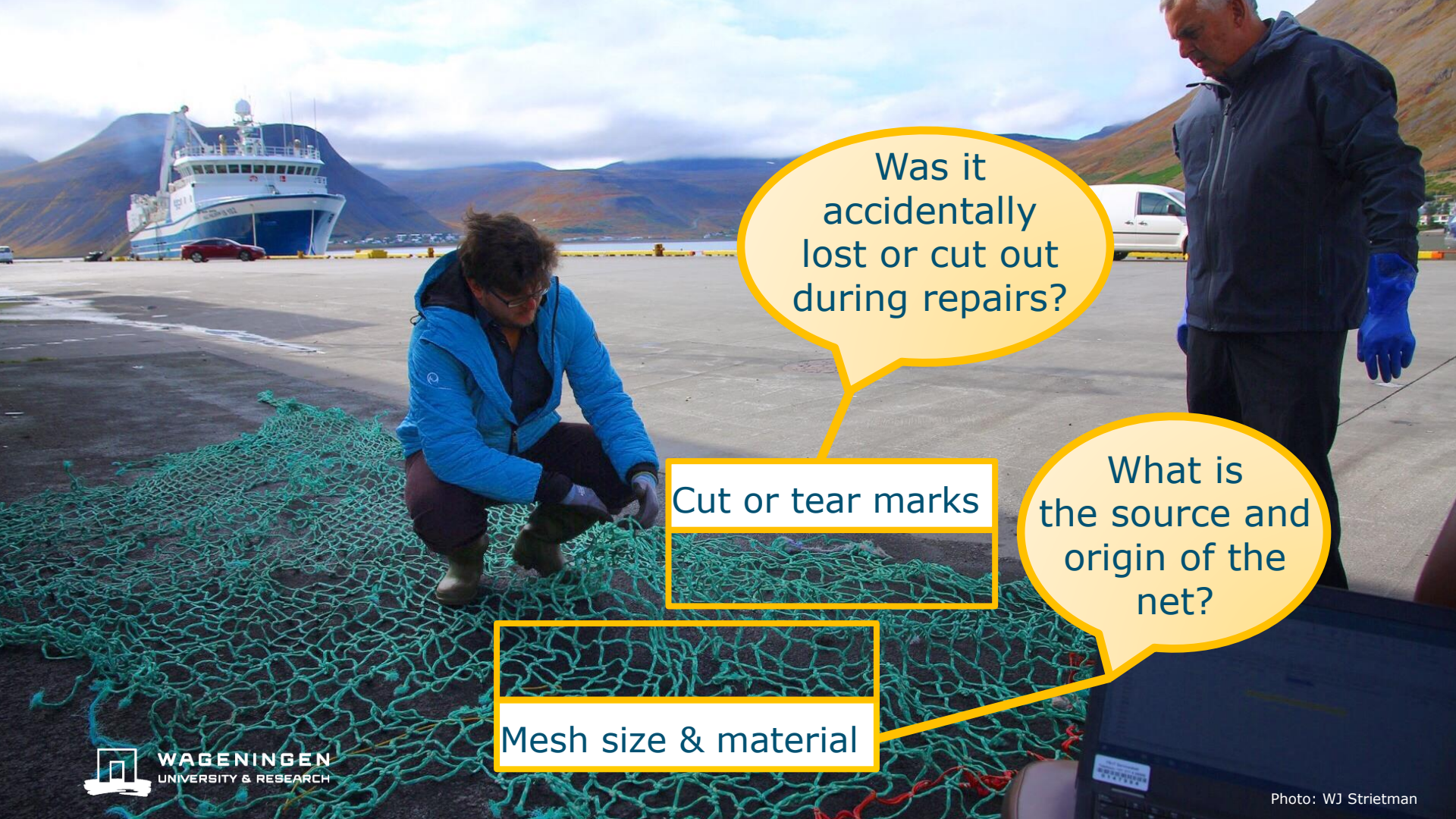

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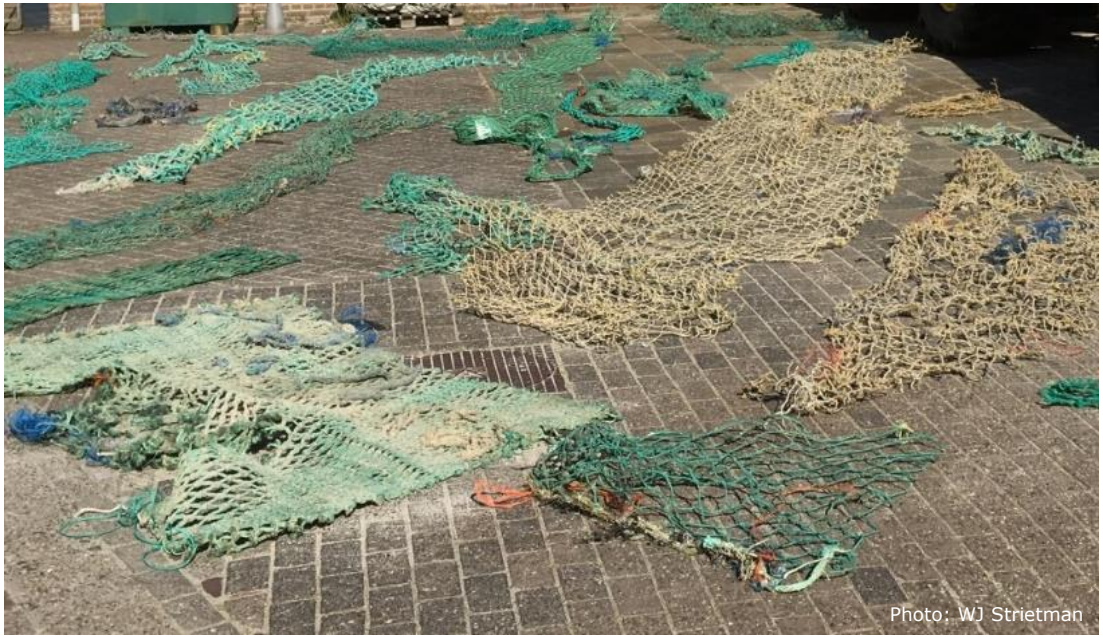
Photo: WJ Strietman

Key finding 1: all fishing net litter consists of pieces (none were intact nets)

Most pieces are small

Of the larger pieces, most are less than 5m^2 in size



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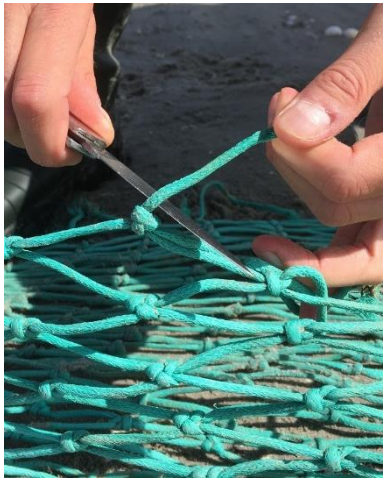
Key finding 2: Most of such pieces were net cuttings, produced on deck



All of the small bits were off-cuts from loose mesh ends, a by-product of net repair

-> Of the larger net pieces, 80% were cut out during repairs, while only 20% were accidentally lost.

-> All study areas showed similar results, also outside of the Arctic

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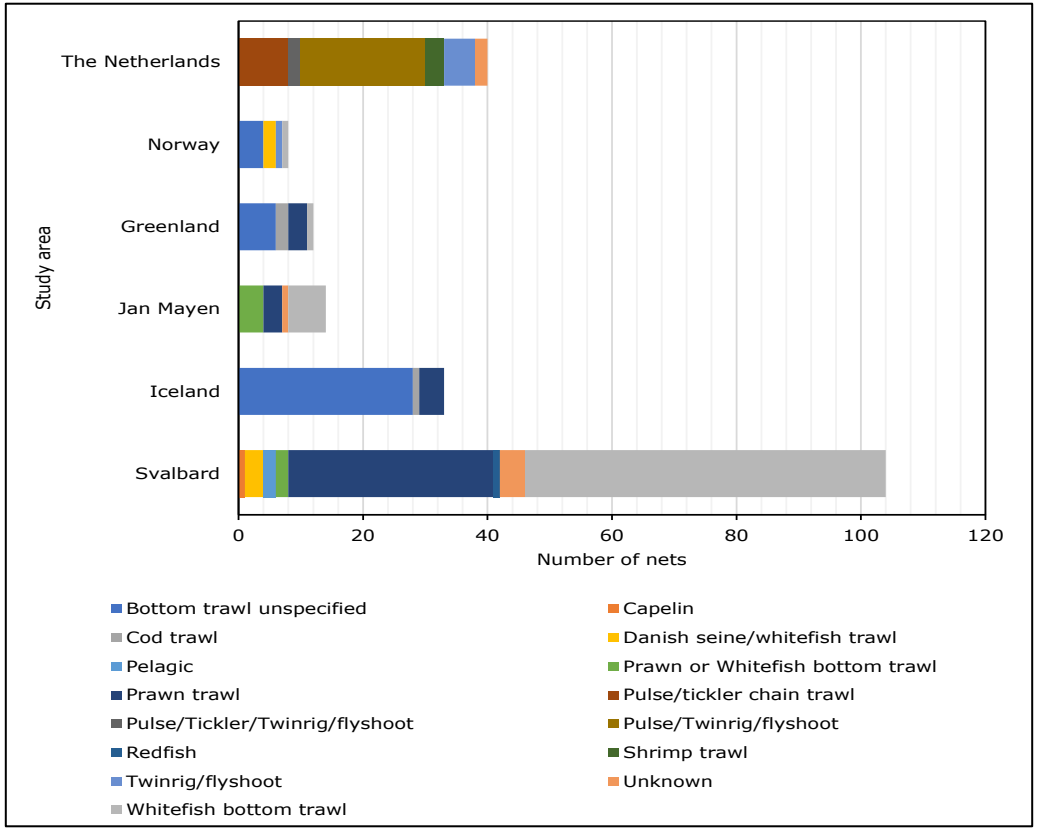
Key finding 3: Most nets are bottom trawl nets, used in nearby areas



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Why is trawl gear more likely to wash up on the coast compared to set gear?

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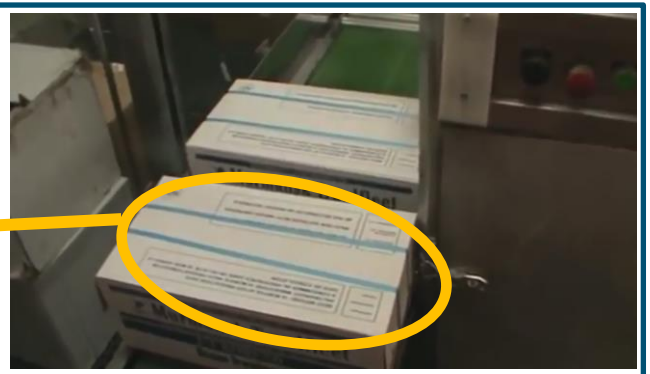
Key finding 4: other types waste from fishing vessels are also a common feature of the Arctic coastline



Source: https://www.youtube.com/watch?v=WC3CD4dmSdo

Based on our research, we conclude that most fisheries litter on the Arctic coastline is caused by inadequate waste management practices on board (bottom) trawl vessels

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Improving waste management practices

On board

- Adequate collection and storage of all waste produced on deck, specifically smaller bits and pieces
- Adequate collection and storage of all other types of waste produced below deck

In ports

- Offering practical, affordable delivery options for fishing vessels to dispose of their stored waste

Fishing vessels across the Arctic are increasingly adopting good practices, but further efforts from the industry, ports, and governments are required to fully resolve this issue

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Photo: WJ Strietman

Reflecting on the results, in relation to marking and reporting of lost gear

1. Marking or tagging of nets

- Since trawl nets are large and cuttings are usually small, it would be challenging to ensure that each part of the net that could potentially be cut is tagged or marked.

2. Reporting of (parts of) lost gear

- Most nets (along with ropes and other pieces of gear) found on the Arctic coastline are discarded and thus not accidentally lost (and thus not reported);
- Most accidentally lost pieces are small and likely also not to be reported if lost.
- Intact sets of lost gear are likely to be reported; however, such gear was not identified as a source of litter along the Arctic coastline (though such gear may lie on the seabed)

-> Such measures seem inadequate to prevent fishing gear litter that ends up on the Arctic coastline, but are adequate to prevent seabed litter caused by set gear

Policy recommendations

1. In the evaluation of the IMO Strategy on Marine Litter, consider including additional actions on improving waste management practices on deck & below deck & align with work on this topic by the Arctic Council, OSPAR, and others;
2. Include the topic of waste management practices on deck into education and awareness campaigns (e.g. by applying IMO model course 1.38 on Marine Environmental Awareness);
3. Strengthen efforts to implement the Cape Town Agreement to enhance fishing safety

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INF paper and submission on this topic by the Netherlands & Norway

INTERNATIONAL MARITIME ORGANIZATION

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SUB-COMMITTEE ON POLLUTION PREVENTION AND RESPONSE
10th session
Agenda item 13

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3 March 2023
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Pre-session public release: ☒

FOLLOW-UP WORK EMANATING FROM THE ACTION PLAN TO ADDRESS MARINE PLASTIC LITTER FROM SHIPS

Comments on document PPR10/13

Submitted by The Netherlands

SUMMARY

Executive summary: This document is submitted as a response to the work of the Correspondence Group on Marine Plastic Litter from Ships under Terms of Reference number 2 described in the report of the Correspondence Group contained in document PPR10/13 and proposes additional discussions and research into the sources and causes of marine plastic litter, specifically for (floating) fishing net litter.

INTERNATIONAL MARITIME ORGANIZATION

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MARINE ENVIRONMENT PROTECTION COMMITTEE
80th session
Agenda item 8

MEPC 80/8
31 March 2023
Original: ENGLISH
Pre-session public release: ☒

FOLLOW-UP WORK EMANATING FROM THE ACTION PLAN TO ADDRESS MARINE PLASTIC LITTER FROM SHIPS

Measures to reduce the loss of fishing gear and parts thereof

Submitted by Norway

SUMMARY

Executive summary: This document provides information on reasons for loss of fishing gear and proposes additional active measures to reduce such losses and facilitate discussions on developing new guidance for management of fishing gear on board fishing vessels.

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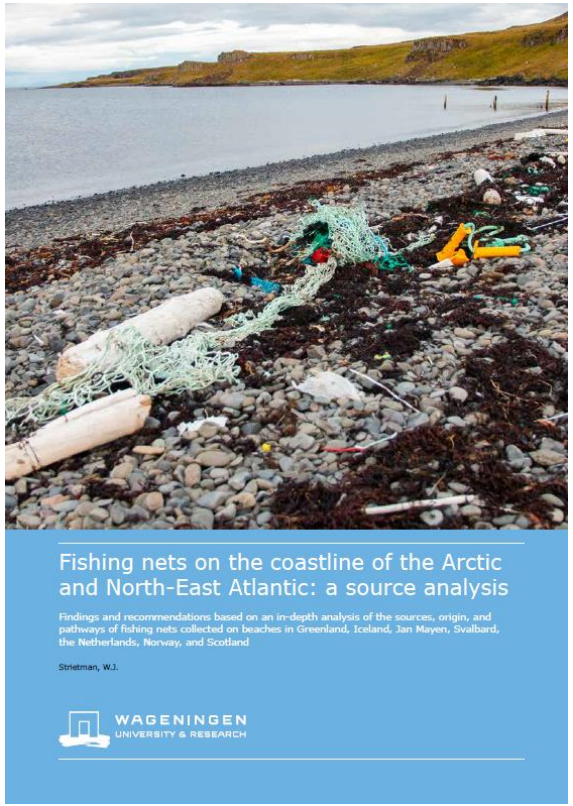
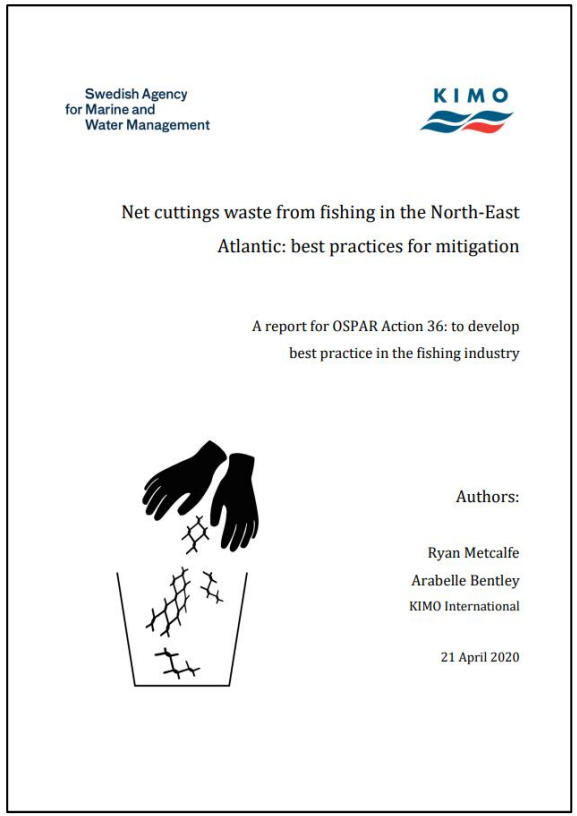
Relevant recent OSPAR reports by WUR & KIMO





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Take home message

1. Most fishing gear litter on Arctic beaches can be prevented
2. Improved waste management on deck/board of (bottom) trawl vessels is key
3. This will not only improve marine environmental conditions, but also improve safety of navigation in the Arctic


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Thank you for your attention

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