



Franklin Tavares
©POPA



International Pole & Line Foundation Fishery Improvement Toolbox

Quantifying the low rates of fishing gear loss in the Azores pole & line fishery, while also identifying gear loss mitigation solutions.

IPNLF FIT CASE STUDY SERIES

FISHERY IMPROVEMENT TOOL: PLASTIC NEUTRALITY

AREA 4.2

IPNLF CONTACT: Z. EDWARDS

OCT.2020

INTRODUCTION

Modern commercial fishing gear is made of synthetic plastics, and Abandoned, Lost or otherwise Discarded Fishing Gear (ALDFG) is a key cause of ocean plastic pollution, with an estimated 640,000 tonnes deposited into the ocean every year. Plastic fishing nets are also widely recognised as the single most deadly form of ocean plastic. Despite this, there is little data being collected by the fishing sector or management authorities that quantify the amount of plastic fishing gear lost during fishing trips. In response, IPNLF initiated a project with partners in the Azores to collect data on the weight, amount, and rate of gear lost on fishing trips. The aim of this study was to help develop and demonstrate a replicable procedure for reporting lost gear, and evidence the low rate of gear loss that occurs in the fishery.

The tuna fishery in the Azores uses pole-and-line fishing methods. Pole-and-line fishing practices consistently and quickly land tuna during short feeding frenzies using monofilament fishing lines. High levels of gear loss would make pole-and-line fisheries in particular commercially unviable. As a result, the monofilament lines are carefully selected and monitored to ensure they can withstand the weight of the target catch, mostly skipjack and albacore tuna. The Azores pole-and-line fishery also uses low volumes of fishing gear by weight during fishing operations compared to other tuna fishing methods. For example, commercial purse seine nets can be more than 900,000 times the weight of plastic than the monofilament lines used in pole-and-line fisheries.

Activities

IPNLF and its partners conducted portside surveys, via crew interviews, to determine the overall amount of gear that had been lost from each vessel during the previous fishing season.

POPA observers also performed onboard surveys in 2019. Researchers easily observed gear loss incidents when fishers instantly replaced a damaged line or changed poles during fishing periods, ensuring sustained and efficient catch levels. Observers then calculated the length of the lost line by talking to fishers after the fishing event concluded, and/or by observing the amount of line remaining on the pole. Using applicable runnage figures, the length of line lost could be converted into total weight of plastic pollution per incident.

The results were extrapolated to scale up the weight of ALDFG recorded from the sub-samples of the study, allowing IPNLF and partners to estimate the annual weight of gear loss for the pole-and-line fishery in the Azores.

OUTCOMES

The average amount of plastic ALDFG per vessel per year is 0.51kg, with the average amount of ALDFG produced per tonne of tuna caught at 0.009g. In regard to the observer events, only 3.8% of the observed fishing events involved some lost gear (32 ALDFG events out of the 838 observed fishing events) with an average rate of gear loss 1.5%.

This project has evidenced an approach for recording ALDFG input that can be replicated across different types of fisheries in order to highlight their contribution to ALDFG plastic pollution. As a result, the methodologies developed in this study have already informed ocean conservation NGOs, ALDFG advocacy groups and governance actors on how ALDFG can be better monitored. These results are essential for IPNLF to evidence and promote the extremely low ALDFG impact of pole-and-line fisheries compared to other commercial fishing methods.

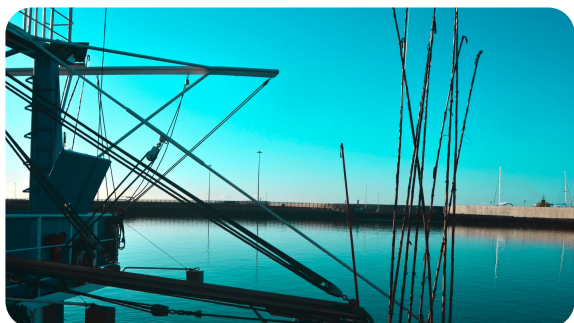
The project results indicate that three main explanations exist regarding why pole-and-line fisheries have a low environmental impact:

- Lost fishing gear **weighs far less** than the gear used in longline or purse seine fishing.
- Pole-and-line fishing in the Azores is **highly selective regarding target catch** -- line breaks often occur when larger species of tuna, such as BET, are present near albacore or skipjack schools. Moreover, the line breaks happen closer to the hook, meaning that fishers lose a small proportion of their line during loss events.

The ghost fishing **implications of lost monofilament lines are negligible** -- lost lines are likely to be attached to the barbless hook when lost at sea and sink to the seabed, bearing little threat of entanglement or entrapment thus have minimal impact on marine life.



OUTCOMES



(c) Popa - Pepe Brix



The results of this project, along with a parallel initiative in the Maldives, provide IPNLF with a strong evidence base to engage the Global Ghost Gear Initiative (GGGI) and highlight the low impact of pole-and-line fisheries relative to AFLDG pollution. The Azores study is being used to prepare a peer-reviewed publication, and evidence from the study already informed an updated pole-and-line rating for the new GGGI Best Practice Framework. The new document will distinguish pole-and-line fishing from the original “hook and line” group. This separation identifies pole-and-line fishing as a more sustainable method due to its minimal environmental impacts.

The data has also informed IPNLF engagements with workshops and governments, facilitated by the Food and Agriculture Organisation (FAO) and various Regional Fisheries Management Organisations (RFMOs).

Resources

bnd vmb dwwkjbgw/lrJGB/v,m msnv

RESOURCES AND ABOUT

Resources

bnd vmb dvwkjbgw/lrJGB/v,m msnv

About IPNLF

The International Pole and Line Foundation (IPNLF) promotes the sustainable management of the world's responsible pole-and-line, handline and troll (collectively known as 'one-by-one') tuna fisheries while also recognising the importance of safeguarding the livelihoods they support.

IPNLF's work to develop, support and promote one-by-one tuna fisheries is subsequently fully aligned with the 2030 Agenda for Sustainable Development. We believe effective and equitable global governance is essential to protect and restore the ocean, and this should be achieved by ensuring the participation of local and coastal communities in decision-making processes.

Environmental sustainability in tuna fisheries can only be fully achieved by also putting an end to the overfishing and destructive fishing practices that are driving the degradation of already threatened marine species, habitats and ecosystems. Allied with its members, IPNLF demonstrates the value of one-by-one caught tuna to consumers, policymakers and throughout the supply chain. IPNLF works across science, policy and the seafood sector, using an evidence-based, solutions-focused approach with strategic guidance from our Board of Trustees and advice from our Scientific and Technical Advisory Committee (STAC) and Market Advisory Group (MAG).

IPNLF was officially registered in the United Kingdom in 2012 (Charity 1145586), with branch offices in the UK, South Africa, Indonesia, The Netherlands, and the Maldives.

About FIT

IPNLF are the global one-by-one tuna fishery and supply chain specialists, and the Fishery Improvement Toolbox (FIT) provides a framework whereby we can offer tailor-made project support and consultancy services to our members. When IPNLF members seek to demonstrate their responsible seafood sourcing on IPNLF's Sourcing Transparency Platform (STP), they can also target strategic improvements to specific seafood supply chain issues by engaging IPNLF directly through its FIT. The FIT is designed to work collaboratively alongside IPNLF's STP and when combined, these tools offer members a way to transparently demonstrate their ongoing improvements and responsible performance to all stakeholders in seafood supply chains, including end-consumers.

The FIT also provides a clear pathway to our members so that they can actively engage in collaborative improvements made in the fisheries they source from, and in their associated supply chains. The FIT is underpinned by a holistic understanding of sustainability, offering a framework for social, economic, environmental and operational improvements. The FIT has five main components that will help facilitate targeted improvements in one-by-one supply chains:

- Social Responsibility
 - ToolEcosystem and Management Tool
 - Traceability Improvement Tool
 - Plastic Neutrality Tool
 - Seafood Quality Assurance Tool
-