

Management insinuation of dump in an estuarine multi-species gill net fishery

Griffin J. Bell*

Department of Epidemiology, University of North Carolina, USA

Received: 01-Mar-2023; Manuscript No: JAEFR-23-103378; Editor assigned: 03-Mar-2023; Pre QC No: JAEFR-23-103378 (PQ); Reviewed: 17-Mar-2023; QC No: JAEFR-23-103378; Revised: 22-Mar-2023 (R); Manuscript No: JAEFR-23-103378 (R); Published: 29-Mar-2023; DOI: 10.3153/JAEFR.9.3.028

Introduction

Gill nets have long been used as a fishing tool across the globe, serving as an effective means to catch various species of fish. However, despite their popularity, gill nets come with significant drawbacks that pose serious challenges to marine ecosystems and sustainability. This article aims to explore the negative impacts of gill nets and shed light on the urgent need for alternative fishing methods. One of the primary drawbacks of gill nets is their indiscriminate capture of marine life. These nets are designed to entangle fish by their gills as they attempt to pass through them. Unfortunately, this design flaw leads to unintended consequences, as the nets can catch not only the target species but also non-target species, including marine mammals, sea turtles, seabirds, and other endangered or protected species. Bycatch, the term used to describe the unintended capture of non-target species, is a significant concern associated with gill nets. This unintended capture results in injury, suffocation, or death of various marine organisms, contributing to the depletion of vulnerable populations and disrupting fragile marine ecosystems. Gill nets are often set in coastal areas or near the seabed to catch demersal fish species. However, this placement can result in severe habitat destruction. When gill nets are left unattended or drift with ocean currents, they can become entangled in coral reefs, seagrass beds, and other sensitive habitats.

Description

The entanglement of gill nets with these habitats causes physical damage, such as coral breakage or uprooting of seagrass, leading to long-term ecological consequences. The destruction of habitats disrupts the balance of marine ecosystems, reducing biodiversity and diminishing the overall health of the marine environment. Ghost fishing is another significant drawback associated with gill nets. When gill nets are lost or abandoned at sea, they continue to entrap and kill marine life, even in the absence of active fishing operations. This phenomenon occurs due to the non-

biodegradable nature of the net materials and the propensity of the nets to drift with ocean currents. Ghost nets have been found in vast quantities in certain regions, representing a persistent threat to marine life. These nets can continue to capture and kill marine organisms for years, exacerbating the problems of overfishing and species depletion. While gill nets are designed to catch specific fish species, their usage can have adverse effects on the targeted populations as well. Overfishing, a consequence of using gill nets, can lead to the decline of commercially important fish species, disrupting marine food webs and threatening the livelihoods of fishermen who depend on these species for their income. Additionally, gill nets often catch fish of all sizes, including juveniles and undersized individuals.

Conclusion

While gill nets have been used for centuries as a fishing tool, it is crucial to acknowledge their drawbacks and the negative impacts they impose on marine ecosystems and sustainability. Indiscriminate capture, habitat destruction, ghost fishing, and the lack of selectivity all contribute to the urgent need for alternative fishing methods. To promote sustainable fishing practices and protect the health of marine environments, it is essential to explore and adopt alternative fishing techniques that minimize bycatch, reduce habitat destruction, and promote the long-term viability of fish populations. Transitioning to more selective and environmentally friendly fishing methods is not only beneficial for marine ecosystems but also crucial for the livelihoods of fishermen and the sustainability of our oceans for future generations.

*Corresponding to

Griffin J. Bell

Department of Epidemiology, University of North Carolina,
USA

Email: gj_bell86@live.unc.edu