Assessing Exploitation Trends of Blue-Spotted Seabream and West African Spanish Mackerel in Liberia's EEZ

Korto D. Neufville[1], Sigurvin Bjarnason[2], Hreiðar Þór Valtýsson[3]

[1] Department of Fisheries and Aquaculture Sciences, University of Liberia, [2] Marine and Freshwater Research Institute (MFRI), [3] University of Akureyri

INTRODUCTION

- Fisheries vital for food security
- Key target species: seabream & mackerel
- Limited sock data; raising concerns about over exploitation
- Study assesses catch, CPUE, SST

OBJECTIVES & METHODS

Objectives

- Analyse catch by sector/species
- Standardise CPUE (2019–2023)
- Map fishing effort & hotspots
- Assess SST effects
- Propose policy actions

Methods

- NaFAA landings (2019–2023)
- Gamma GLM for CPUE
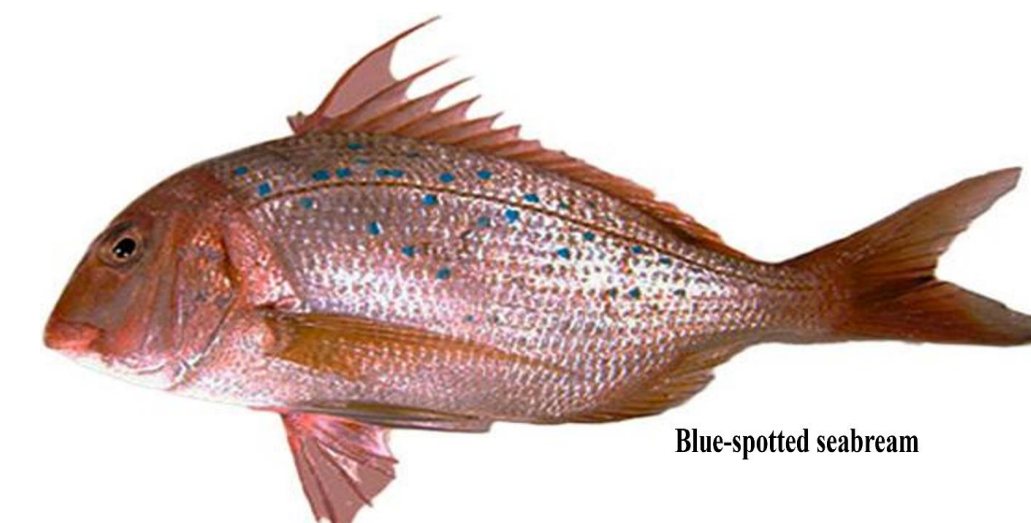- Spatial effort maps by region

KEY FINDINGS

Spatial Distribution

- Efforts high in central-west Liberia
- Major regions: Western, West-Eastern, and South-Eastern
- Monrovia = main port

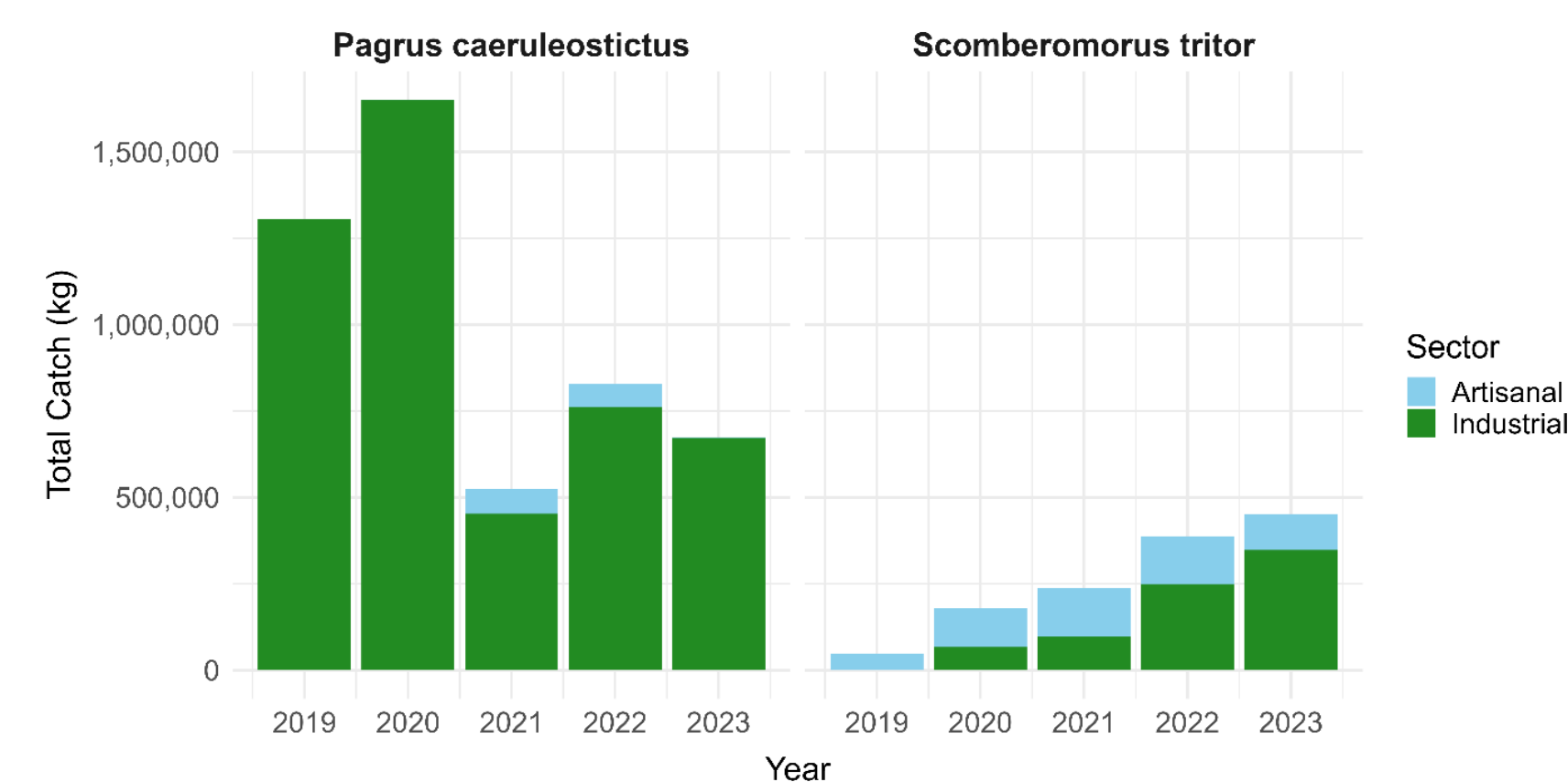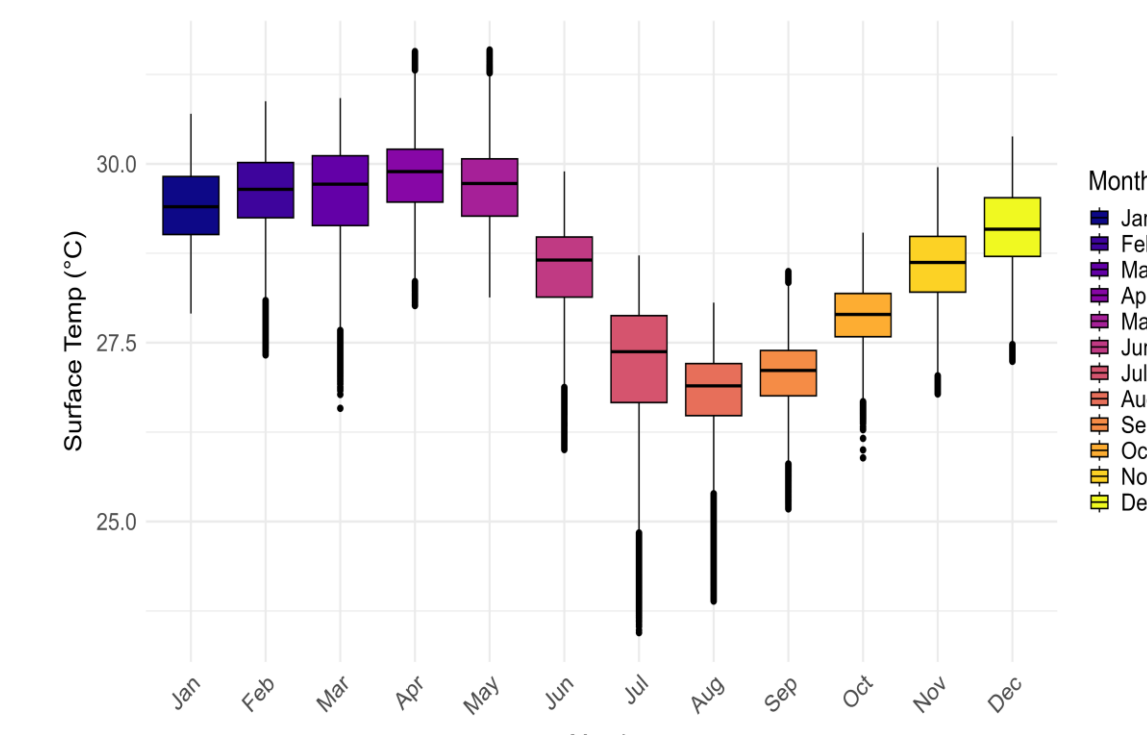Source: GADM | Map Created by Korto D. Neufville

Trends in Catch and Effort

- Industrial fleet dominates seabream
- Artisanal mackerel share declined after 2022

CPUE and Environmental Drivers

- CPUE shows downward trends
- Higher SST → lower CPUE

Blue-spotted seabream

West African Spanish Mackerel

CONCLUSION

- Stocks declining; interpretation needs caution
- Results support adaptive management

RECOMMENDATIONS

- Improve data, enforce seasonal closures
- Use SST trends in management plans

ACKNOWLEDGMENTS