Executive Summary

The executive summary goes here.

Abstract

Abstract goes here.

Contents

1 Introduction

Fish are great.

1.1 Overview of tools

Lorem ipsum dolor sit amet (Paolo et al., 2024).

1.2 Friends

2 Material and Methods

2.1 Data sources

Fishing effort data was obtained from Global Fishing Watch (GFW). They generate a publicly available global dataset of apparent fishing hours based on AIS data (Watch, 2025). For this, GFW analyses >190,000 unique AIS devices which are each assigned a unique Maritime Mobile Service Identity (MMSI). The AIS devices ping the location of the vessel up to every 2 seconds (Kontas, n.d.; Taconet et al., 2019). Along with the exact location, the AIS message also transmits the time, speed, and heading of the vessel. These positional data points are then analysed by two different Convolutional Neural Networks (CNN's) which are described in detail in Kroodsma et al. (2018). The first CNN classifies fishing vessels into one of sixteen categories.

2.2 Data filtering

Global apparent fishing hours were:

1. daily csv files aggregated for each year
2. cropped with Med shapefile
3. filtered for gear type drifting longlines and purse seiners
4. filtered with ICCAT registry being listed

5. known purse seiners assigned a different gear type were added from own database

6. 0 added where value was recorded in one year but not in others

3 Results

Lorem ipsum dolor sit amet Paolo et al. (2024).

4 Discussion

Lorem ipsum dolor sit amet Paolo et al. (2024).

5 Conclusion

Lorem ipsum dolor sit amet, consectetur adipiscing elit Paolo et al. (2024).

6 Acknowledgements

Thank you to.

Bibliography

Vasilis Kontas. How often do the positions of the vessels get updated on Marine Traffic?, n.d. URL https://support.marinetraffic.com/en/articles/9552905-how-often-do-the-positions-of-the-vessels-get-updated-on-marinetraffic. Retrieved 5 January 2025.

David A. Kroodsma, Juan Mayorga, Timothy Hochberg, Nathan A. Miller, Kristina Boerder, Francesco Ferretti, Alex Wilson, Bjorn Bergman, Timothy D. White, Barbara A. Block, Paul Woods, Brian Sullivan, Christopher Costello, and Boris Worm. Tracking the global footprint of fisheries. *Science*, 359(6378):904–908, 2018. doi: 10.1126/science.aao5646. URL https://www.science.org/doi/abs/10.1126/science.aao5646.

Fernando S. Paolo, David Kroodsma, Jennifer Raynor, Tim Hochberg, Pete Davis, Jesse Cleary, Luca Marsaglia, Sara Orofino, Christian Thomas, and Patrick Halpin. Satellite mapping reveals extensive industrial activity at sea. *Nature*, 625(7993):85–91, 2024. doi: 10.1038/s41586-023-06825-8. URL https://doi.org/10.1038/s41586-023-06825-8.

M. Taconet, D. Kroodsma, J. Gee, and J. A. Fernandes. Introduction of Global Atlas of AIS-based fishing activity. In M. Taconet, D. Kroodsma, and J. A. Fernandes, editors, *Global Atlas of AIS-based fishing activity - Challenges and opportunities*. FAO, Rome, 2019. URL http://www.fao.org/3/ca7012en/ca7012en.pdf.

Global Fishing Watch. Global ais-based apparent fishing effort dataset, version 3.0, 2025. URL https://doi.org/10.5281/zenodo.14982712.

A Supplementary Material

Annex 1