



Uncovering the Fate of Tagged Reef Fish Through Marina Telemetry and Angler Participation

Noah Reiser, Jesse Secord, Jack Olson, Samantha Hagedorn, Danielle Morley

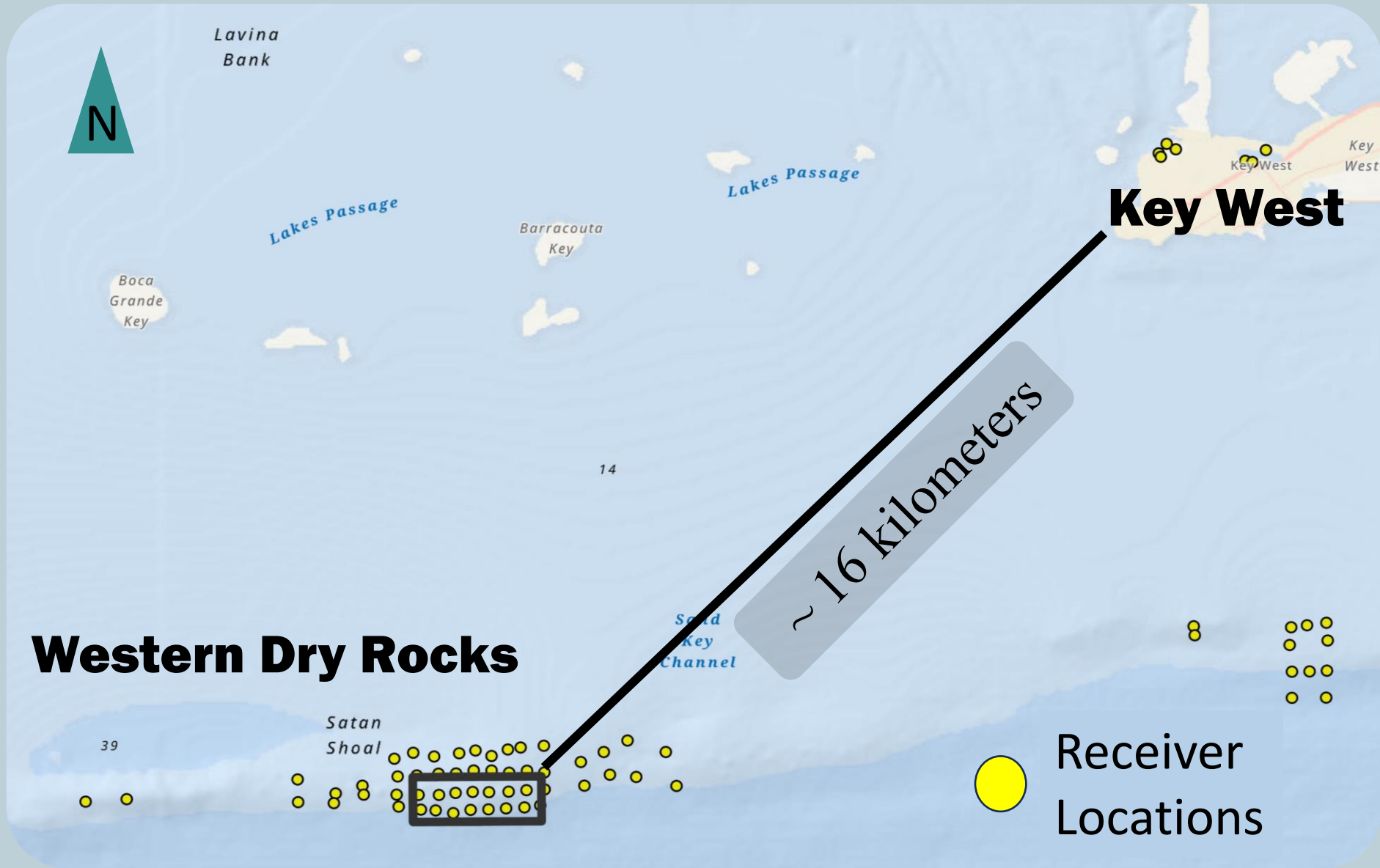
Florida Fish & Wildlife Conservation Commission, Fish and Wildlife Research Institute
2796 Overseas Highway, Suite 119 Marathon, Florida 33050 USA

For more information
go to our webpage:



Background

- In 2021 the Florida Fish and Wildlife Conservation Commission (FWC) implemented a seasonal fishing closure at Western Dry Rocks, a stie near Key West.
- Closure was implemented to reduce fishing pressure on a multi-species fish spawning aggregation site
- After seven years, FWC will review research and monitoring efforts in the area to understand the effectiveness of this management decision
- Part of our research uses acoustic telemetry to document fish spawning aggregation movements
- Understanding what happens to fish that leave an acoustic telemetry array can be challenging



Objective

To better understand the fate of acoustically tagged fish that leave the array. Thus, we created two programs:

Angler Participation Program

Incentivize anglers to report tagged fish they harvest



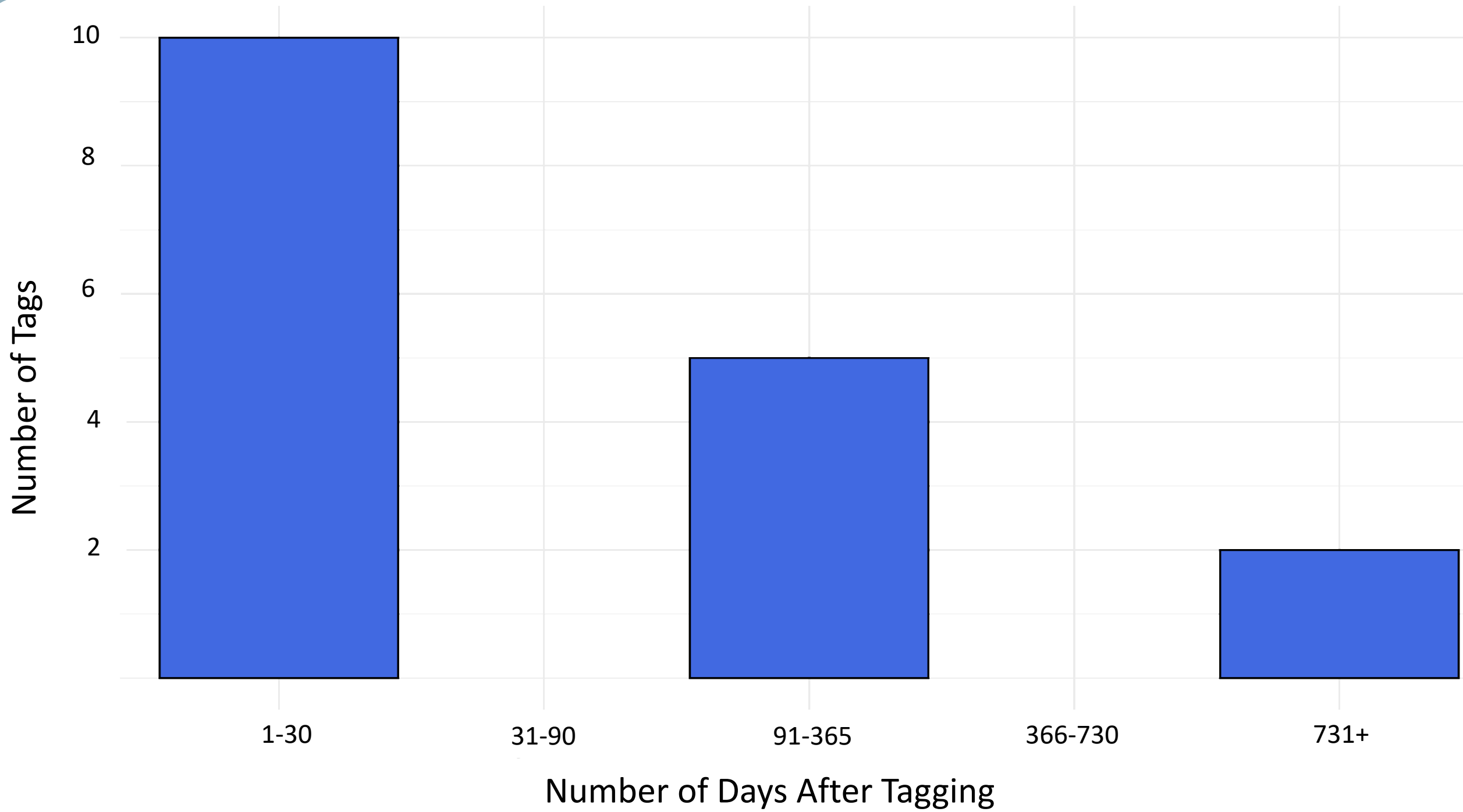
2021-2023

- T-shirts & posters for reward
- 14 tags reported
- 8 tags returned

2024

- Gift card reward
- 11 tags reported and 100% returned

Length of Deployment

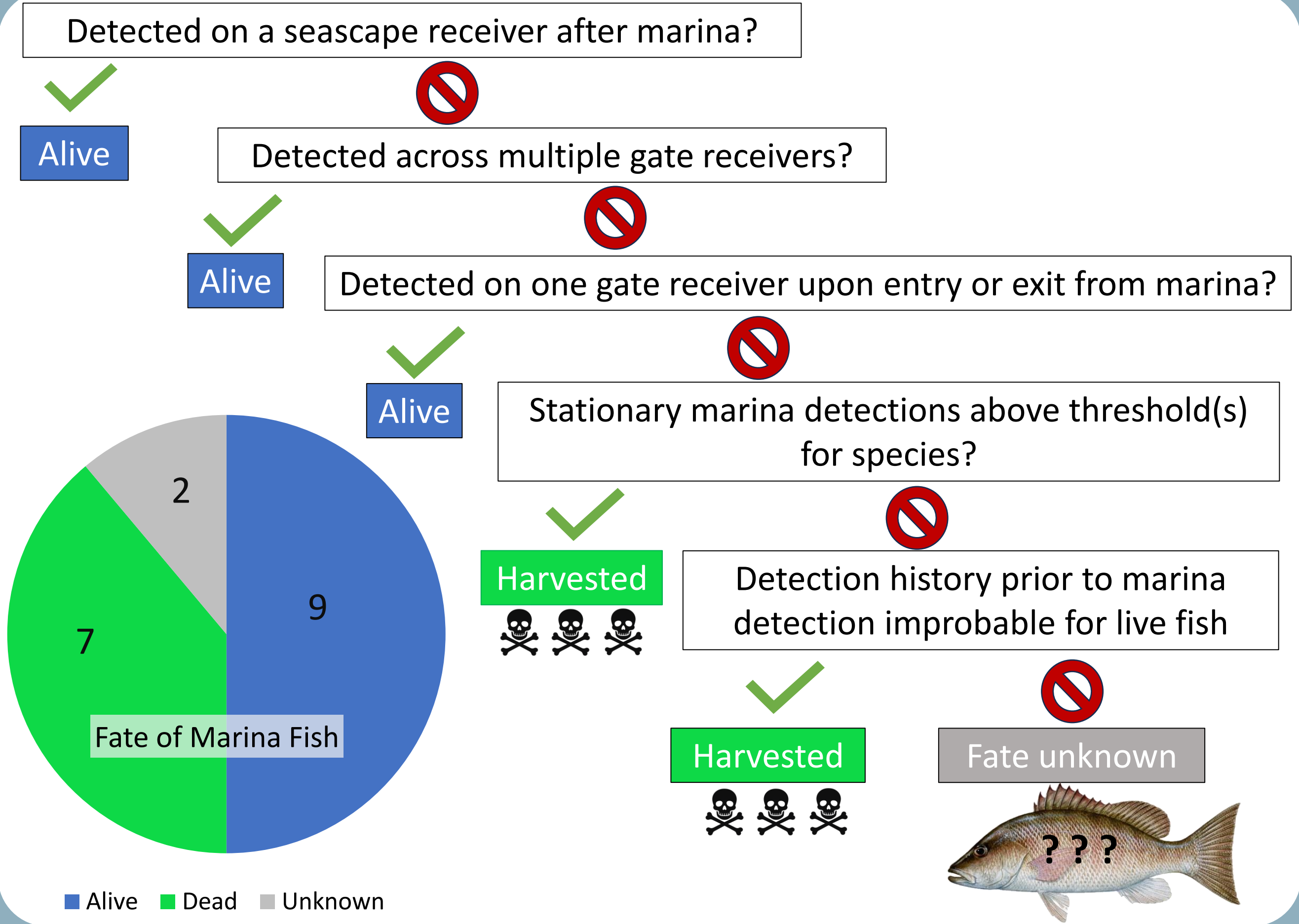


- Most tagging efforts occurred within the closure area
- Majority of tags returned are within the first 30 days of deployment
- Fish are still susceptible to fishing pressure, even though they are tagged within the closure

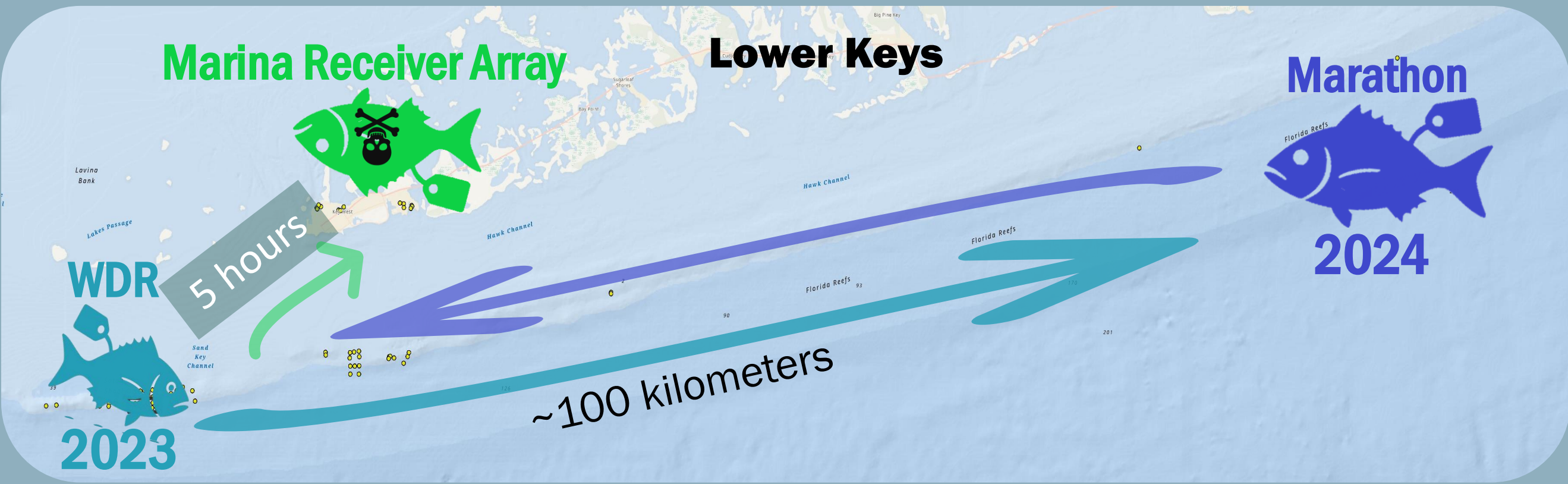
Marina Detection Program



Fate Logic



What this looks like:



Key Findings

Angler Participation Program has filled in data gaps in 25 reported fish

- Provided additional datapoints to consider outside of the stationary array

Marina Detection Program recorded 18 snapper, with 7 snapper harvested

- Some Gray Snapper used the marinas as seasonal habitat

Both programs greatly improved our understanding of fish movement and angler interactions

Acknowledgements



We thank everyone that made this field work possible including: D. Eaken, A. Tobin, L. Lapham, T. Lowke, J. Hornbeck, and the rest of the South Florida Regional Lab

We also thank the funders and partners whose logos are depicted here. Without their support, this research would not be possible. Research conducted under permit FKNMS-2022-015

