

Towards the development of an Eco-Friendly C.O.D.E. Drifter



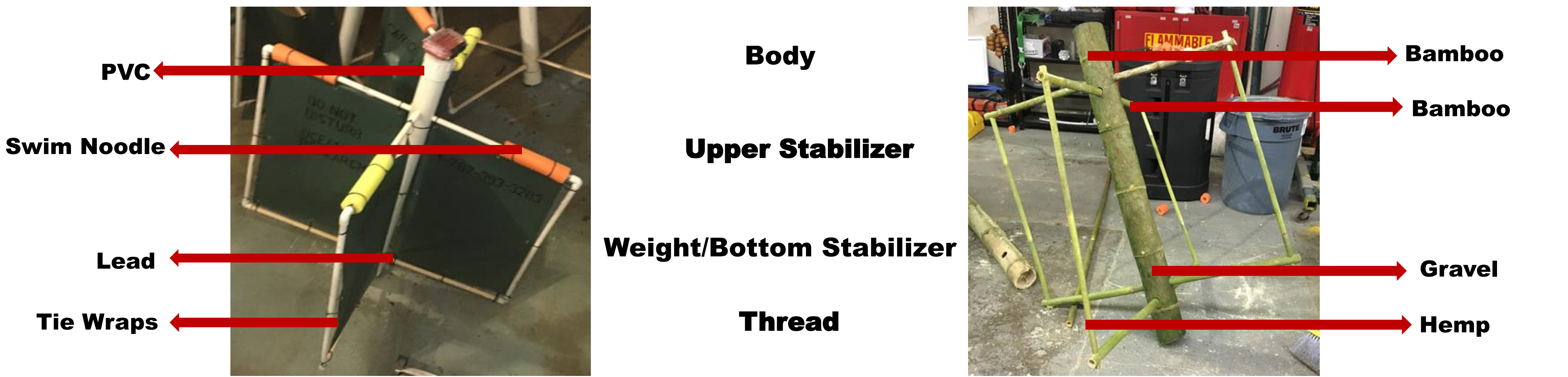
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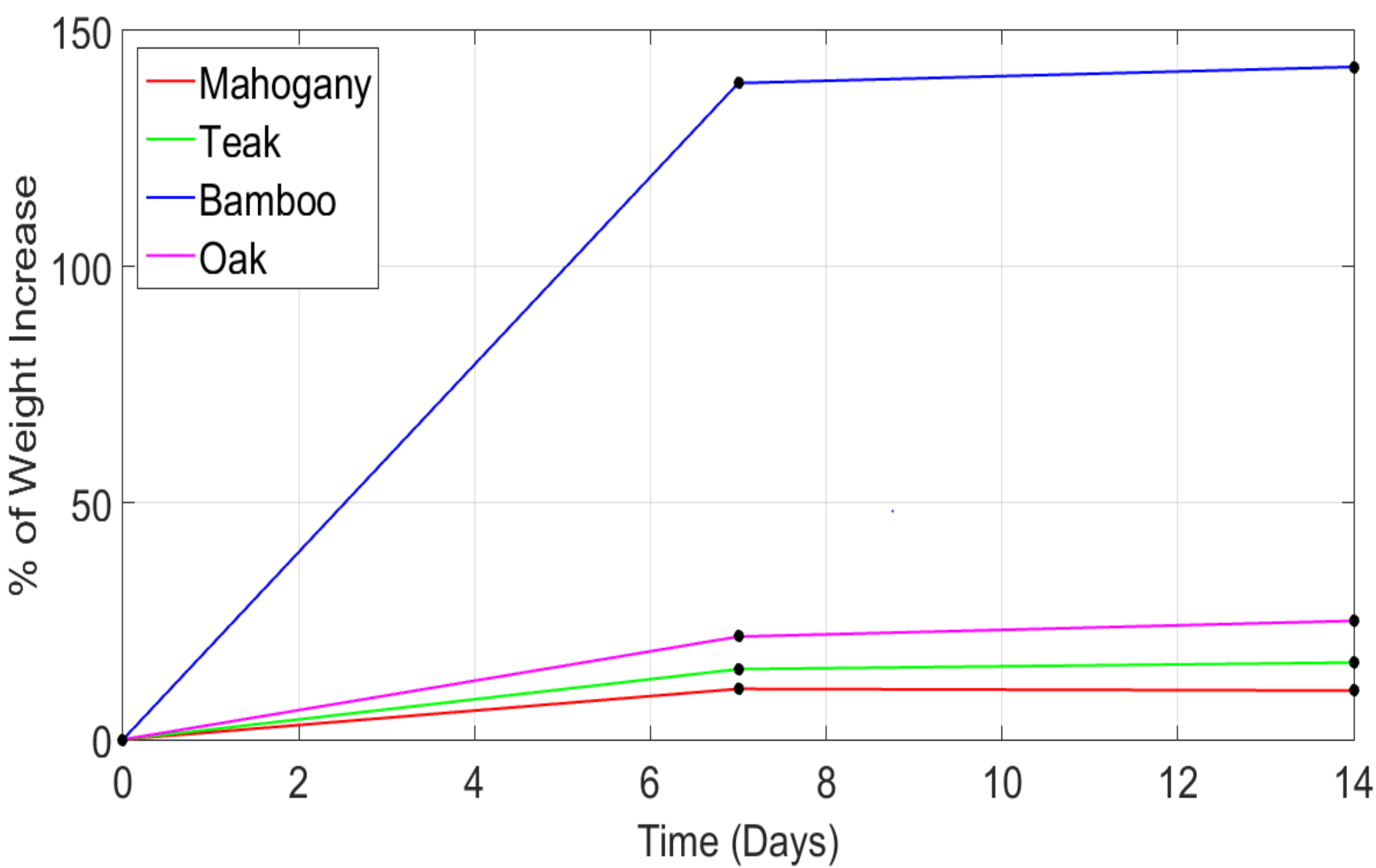
OVERVIEW

Between February 2015 and April 2016, twenty-five satellite-tracked drifters were deployed off the southwest coast of Puerto Rico. These drifters were made in-house with PVC tubing and vinyl vanes following the design of the Coastal Ocean Dynamics Experiment (C.O.D.E.) drifter. Since their successful deployments have contributed to recent and on-going projects (larval dispersal and model validation projects), CARICOOS has decided to improve the design of this asset. We are now transitioning to an eco-friendly wooden design that will minimize any potential impacts to Puerto Rico's marine ecosystems.

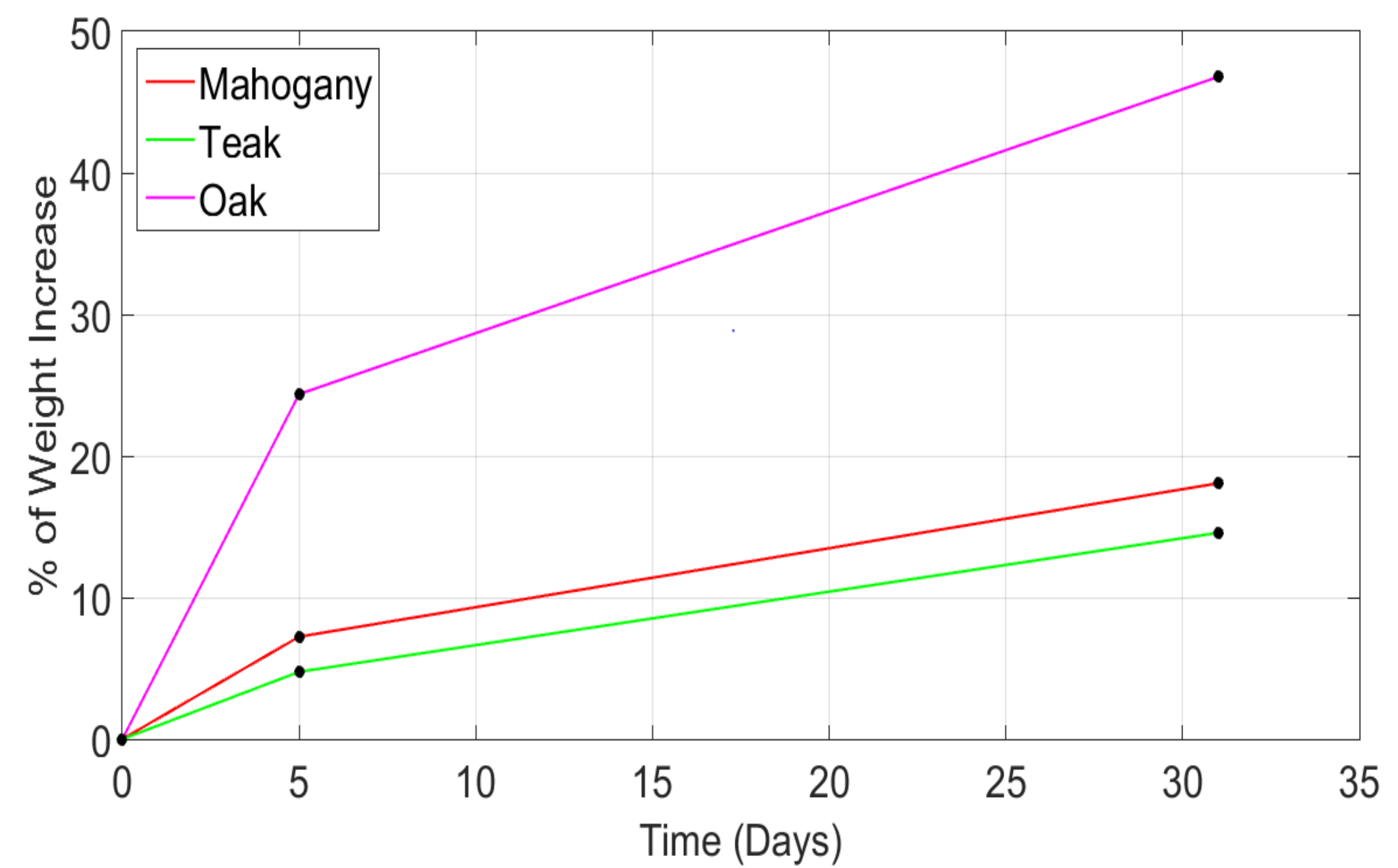
DESIGN TRANSITION



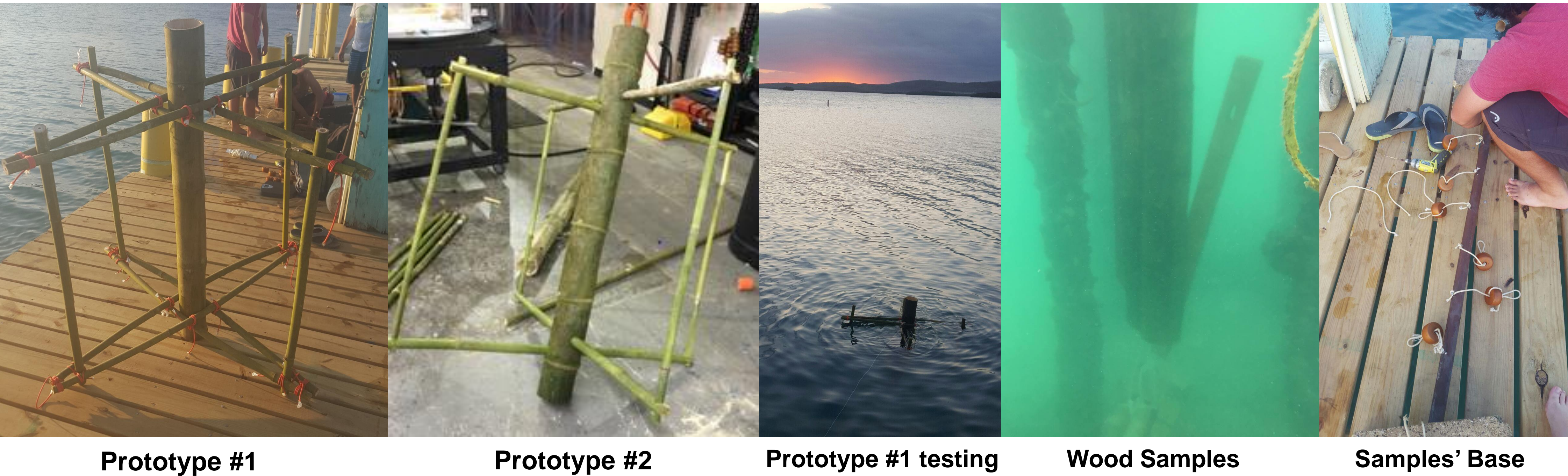
EXPERIMENTATION



Percentage of weight increase for wood samples submerged in fresh water. After 14 days, the bamboo and oak samples sunk, while the teak and mahogany samples were still afloat with their upper surface visibly dry.



Percentage of weight increase for model sized samples of wood submerged in saltwater under the Magueyes Island dock. So far, the samples have been monitored for a month, but will be kept submerged for a total of two months.



FUTURE WORK

Next, we will be working on replacing other parts of the drifter like the GPS casing and the vinyl vanes. Further testing will be necessary for these following stages.

ACKNOWLEDGEMENTS

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