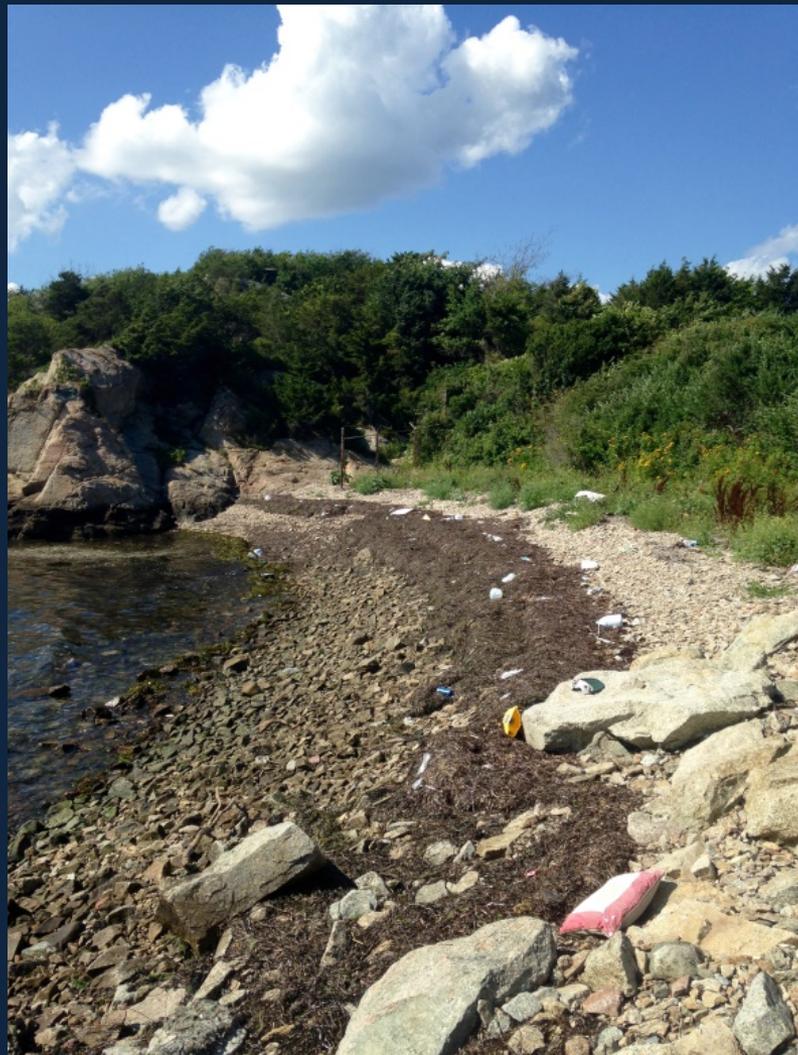


# **Controlling Marine Debris: An Exploration of the Responsible Behavior of Recreational Users in Rhode Island**

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# What is the environmental issue?



*“Only through changes in human behavior and informed choices in products and packaging, can this pollution issue be effectively addressed and dealt with worldwide.” –*  
Ocean Conservancy National Marine Debris Monitoring Program 2007

# Theoretical Framework

Values → Beliefs → Attitudes → Behavior

## Independent variables:

- Environmental worldview – NEP
- Interconnectedness scale
- Environmental concern scale

## Dependent variable:

- Environmentally Responsible Behavior Scale





## Research Questions

1. What predictors can be used to explain why someone reportedly behaves more or less environmentally responsible towards the marine environment?
2. How much does participation in a recreational activity influence these predictors and behavior?
3. How the relationships among variables can help reduce the amount of marine debris entering the environment?

# Methods

Summer of 2015

Public beaches, docks, and parks

186 surveys completed

Recreation Categories

- Fishing (31)
- Boating (44)
- Passive recreation (60)
- Active recreation (51)



# Results: Regression Analysis

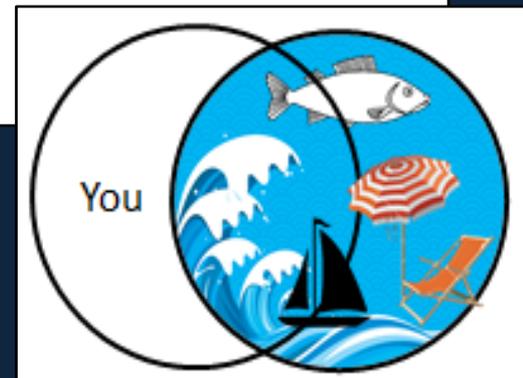
	<b>Environmentally Responsible Behavior<sup>a</sup></b>			
	Model 1	Model 2	Model 3	Model 4
<b>Background Characteristics</b>				
Gender	0.281***	0.234**	0.186*	0.189*
Age	0.190*	0.173*	0.130	0.087
Education	0.120	0.093	0.068	0.098
Income	-0.008	0.009	-0.011	0.063
Residence	NS	NS	NS	NS
<b>Environmental Worldview</b>				
NEP		0.189*	-0.006	0.013
<b>Environmental Attitudes</b>				
Interconnectedness			0.192*	0.220**
Environmental Concern			0.287**	0.317**
<b>Recreation Participation</b>				
				NS
R <sup>2</sup>	0.107	0.139	0.232	0.263
R <sup>2</sup> Change		0.033	0.093	0.031
Significance (F Change)	0.011	0.021	0.000	0.125
<sup>a</sup> = Standard Beta Coefficients ( $\beta$ )				
* $p \leq 0.05$ , ** $p \leq 0.01$ , *** $p \leq 0.001$				

# Results: ANOVA for Recreation Participation

	<b>Environmental Concern<sup>a</sup></b>	<b>Interconnectedness<sup>a</sup></b>
Fishing	3.68	5.77
Boating	4.17	6.34
Passive	4.05	5.52
Active	4.24	5.75
Overall	4.07	5.82
F	5.45	3.38
<i>p</i> - value	0.001	0.020

<sup>a</sup> = Least squares means

Not serious at all	Not very serious	Neutral	Somewhat serious	Very Serious
1	2	3	4	5



# Preliminary Conclusions



- Significant predictors – environmental attitudes and gender
- Recreation participation
  - Fishermen less concerned than others
  - Boaters feel more connected to the marine environment than passive recreationists
- Bring awareness to marine debris
  - Educational outreach, signage, and ways to encourage a behavioral change
- Environmentally Responsible Behavior scale
  - Low reliability
  - Improve measure of behavior

The background of the image is a close-up, high-angle view of the ocean's surface. The water is a deep, rich blue color, and the surface is covered in small, rhythmic ripples and waves that create a textured, undulating pattern. The lighting is even, highlighting the subtle variations in the water's color and the way the light reflects off the tiny peaks of the waves.

**THANK YOU!**