

## What You're Looking At Today:

The Coastal Observation and Seabird Survey Team (COASST) is dedicated to highly rigorous, standardized and effort-controlled data collected at a time and space scale useful in science and resource management. COASST is creating and implementing a **new marine debris module**, as part of a larger study of the factors affecting recruitment and retention of participants. This poster depicts our process, from idea to "boots on the beach," where each color is a community of practice involved in at least one of four major schema developments, and line thickness scales to number of people assessed cumulatively over time in each schema. Gray arrows and numbers are total people contributing. Circled numbers are versions captured by image or quote below the timeline.

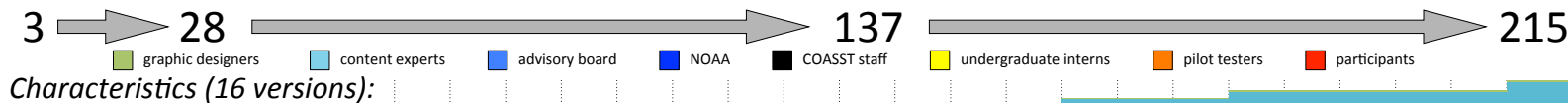
## What We've Learned So Far:

1. Balancing the wants and needs of experts and participants always takes longer; plan on it.
2. Science is TMI, boil down to the essence. Don't use content experts for everything!
3. Simple, foolproof and elegant is *really hard*; do it anyway.
4. Encourage participant innovations—they can catalyze program-wide improvements.
5. Find the meaning-making or people won't participate.

"Lots of folks that walk by ask what the heck I am doing so I give them a quick explanation; hopefully knowledge turns into action down the road!" - Lee

IDEA

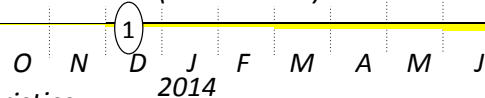
REALITY NOW



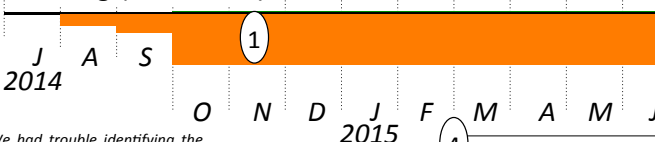
Characteristics (16 versions):

Survey Design (9 versions) & Field Kit (5 versions):

Data Sheets (11 versions):



Training (4 versions):



Training:

- 1 "My main recommendation is [to figure out] how to have hands-on interactivity be much earlier in training" - Cynthia Char, COASST Evaluator
- 1 "Set up a mock beach in the classroom or outside to demonstrate sampling within the zones/using the rope etc. Have people practice." - Keith
- 3 "I'd like to thank you for a well-planned and well-executed training. From the organized slides to the interactive activities outside to the practice on characterization, you engaged [us] in a way that should give us a good start." - Nancy

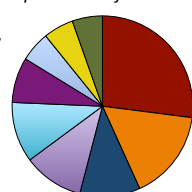
### Characteristics:

Five phase process: invent, incorporate expert knowledge, test interrater reliability, evaluate participant time investment, and reconnect to experts.

Phase 3. Undergraduate intern project: interrater reliability of debris characterization.

Trouble Areas		Reasoning Behind Decision-Making	
Attributes	% Agreement	Alloy	Rescue
Color	0.709	Used color wheel against the screen	Used color wheel against the screen
Hollow	0.848	less than 5cm = not hollow. Considered whether or not she would call it 2D or 3D when thinking about it.	Less than 5cm = not hollow. Considered filling it with liquid.
Loops	0.812	Counted loops such as cylindrical objects with holes on each side.	Counted loops that made full circles in 2D aspect but not necessarily in 3D like a cylinder.
Intact	0.812	Wooden beams = Intact, Caps = Intact	Wooden beams = Fragment, Caps = Fragment
Weathering	0.812	Counted faded material and worn away writing.	Counted faded material and worn away writing. Considered scratches as material worn away.

### Survey Design:



You need to explain:

- beach zones
- start & stop
- rectangle width
- debris #s
- photos
- survey timing

You need to address:

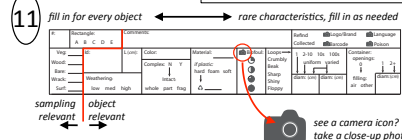
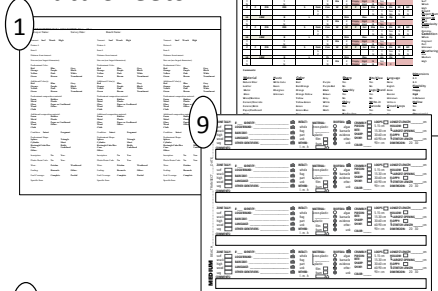
- simplify!!
- jargon alert!
- off-site debris processing?

"We had trouble identifying the line between Wood and Veg zone. Some logs were on the sand, which was the obvious start of our Wood zone. Some logs were washed all the way up to the base of the dune amid denser veg. Please clarify for us where our Veg zone starts." - Marlene

- create written and graphic protocol
- test for optimum and minimum transect #, reduce requirement
- scrub jargon and repilot

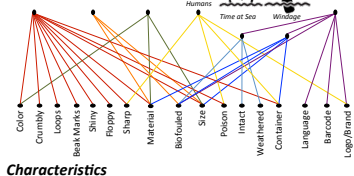
innovation: **Bag 'n Tag** allowing others to process debris off the beach; increases target audience.

Data Sheets:



Phase 5. Link characteristics to clues and consequences via expert knowledge.

### Consequences



"I generally found the protocol easy to apply and the data sheet convenient to use." - Michael