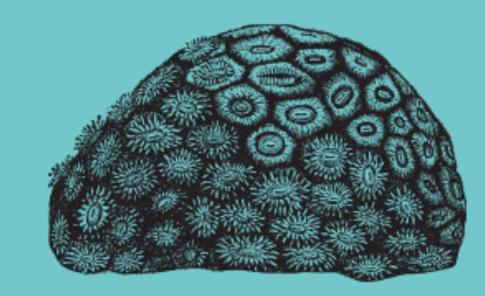
Coastal Reefsilience: the world's first coral reef

Presented by co-founders Adele Colwell & Austen Stovall on June 3rd, 2021

insurance brokerage









Our Journey

Burnout Turnout. Chapter 2 Chapter 8 **Impact** Just keep Investing is a Chapter 7 swimming thing, right? Change the Chapter 1 name, change Chapter 6 What are Chapter 3 the game Groan Wait, FEMA we doing? More than Zone has money a structure Chapter 5 R² Now Chapter 4 Let's build Team a school! Turmoil

Chapter 10
I think we can actually do this!
Chapter 9
Insurance is the way





Can reef restoration be designed to save coastal communities?

Can the flood risk reduction value provided by coral reefs pay for their restoration?

Initial Hypothesis: Restoration for resilience is limited by current restoration methods and if a technically and economically feasible and scalable solution was available, restoration for resilience projects would be implemented.

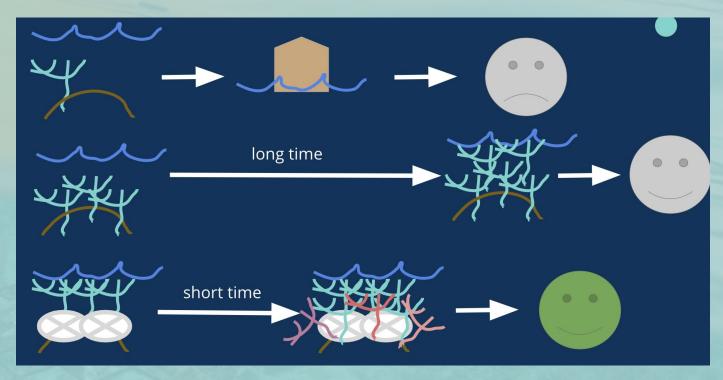
Mentor: Craig Dudenhoeffer



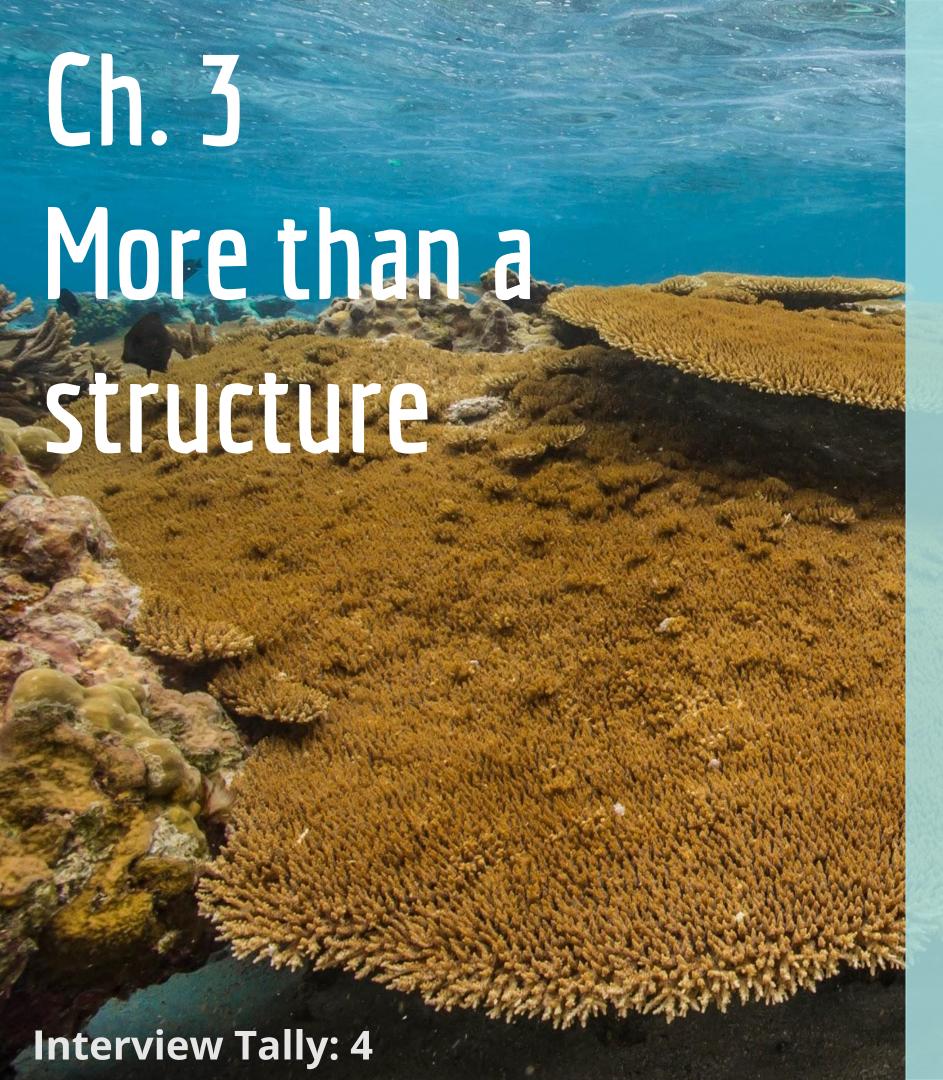
Sponsor:
Bernie Tershy
OneReef



- "We know where we want to go but how exactly are we going to get there?" - Adele & Austen
- Single Structure made of hybrid material implemented in restoration zone, coral recruitment and stability of structure are monitored
- Hypothesis: If there is a structure that can recruit corals and withstand coastal storms, then if it was scaled up it will be able to protect coastlines from storm damage and restore coral populations





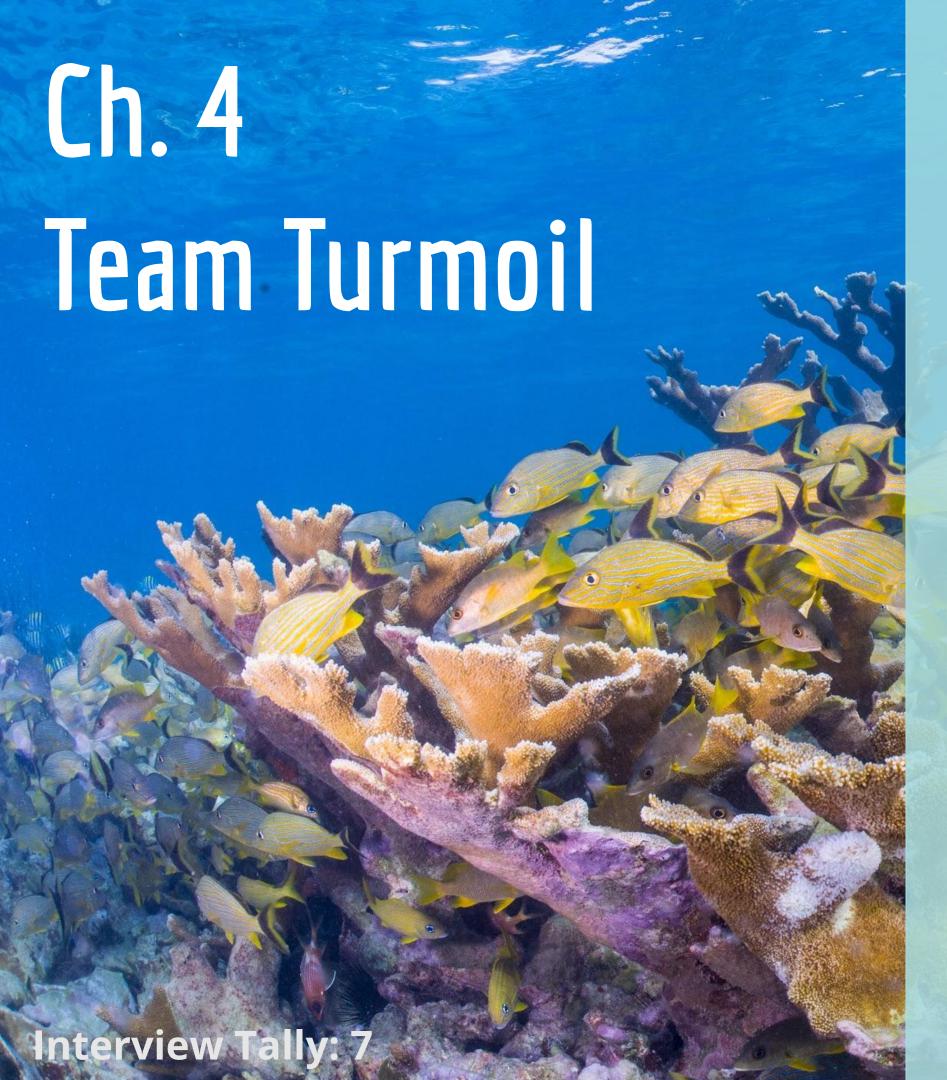


- "3 brains are better than 2"- A&A
- Hybrid methods for scaling up coral restoration
- A green-grey structure to be used in restoration can realize restoration benefits sooner than just restoration alone.
- Is the restoration industry at a point where a hybrid solution is scalable?
 - We need to talk to more people!

Pivot: Our product doesn't have to be a physical object. Our solution may be more successful at the policy or financing level.



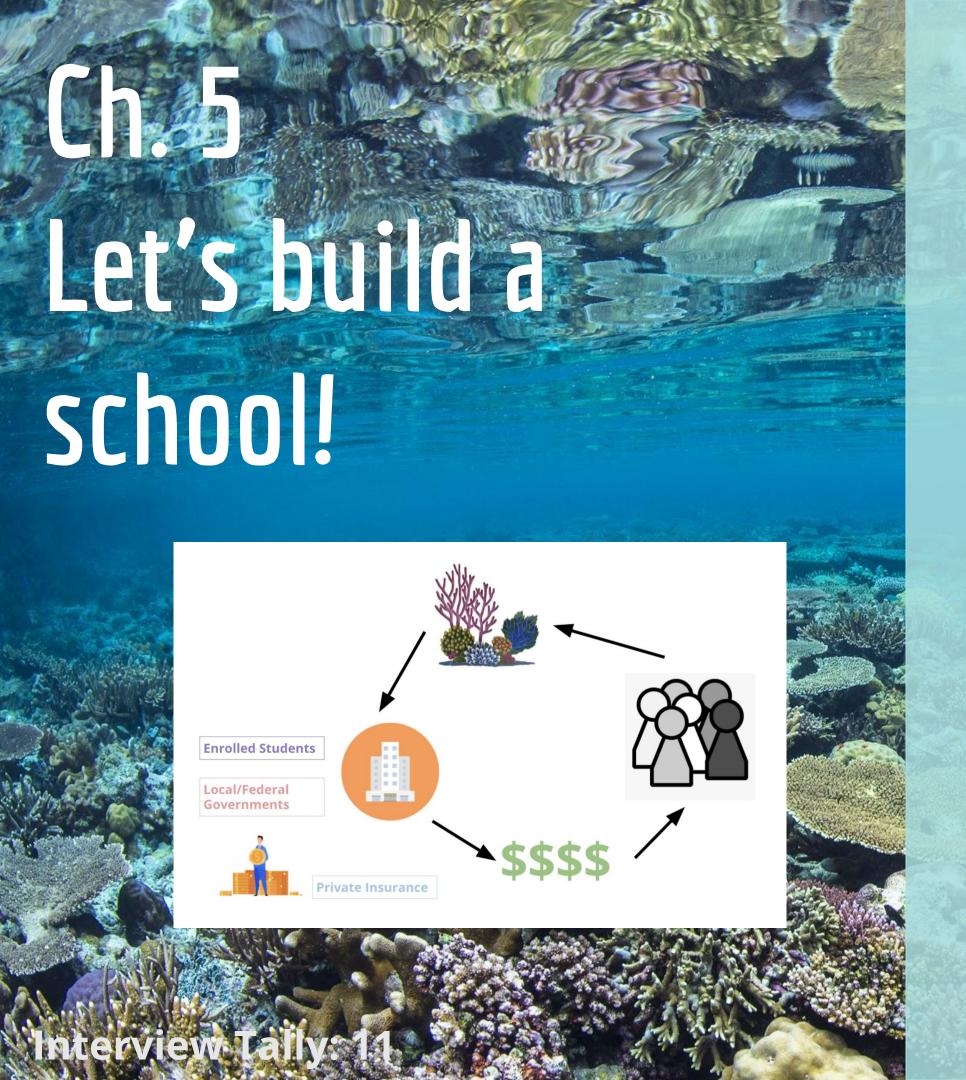




- "Teamwork makes the dream work?" A&A
- While there are a lot of moving pieces and concurrent players in the coral conservation/restoration field right now, not every party involved in the field is an direct beneficiary.
- Our team should find a way to work parallel with the already innovative work going on in restoration/conservation.
- "There's no one size fits all financing solution"- Borja Reguero

Pivot: What's the limiting factor for scaling up existing restoration work?





- "Then there were 2." A&A
- The demand is there (& increasing) for coral restoration, however the skilled workforce ("supply") is not.
- R2 Now seeks to establish a continuous flow of skilled coral reef restoration technicians to support a blue economy workforce in the face of increasing demand for nature-based solutions.
- Creation of a career pathway: If we build it, they will come.

Pivot: "You don't want to set yourselves up as the next Trump University" - Bernie



COASTAL Resilience



- Makeover!
- How can we actually get more money into restoration work?
- They money exists, but coral restoration disaster mitigation benefits need to be *proven* to work.
- Coastal Reefsilience will establish a network of coral reef restoration for protection demonstration sites to incentive risk management agencies to invest in coral reef restoration for pre-hazard mitigation.

Pivot: Other people are doing this work. Let's just work off the assumption that it will get done.





- "Why is the insurance industry avoiding us?" A&A
- Coastal Reefsilience seeks to establish a coral reef insurance fund to support the advancement of the coral restoration industry
- If we invest in nature, we invest in coastal communities' ability to recover faster after disasters
- We want to show industry decision makers that coral reefs as natural infrastructure are a better investment than grey infrastructure.
 - o If we start with FEMA, other industries will follow
- "There needs to be a lot more money to scale up the coral restoration industry which is still in its infancy" -Ashlee Lillis

Pivot: Okay, but what does all this mean? Let's go back to the drawing board.



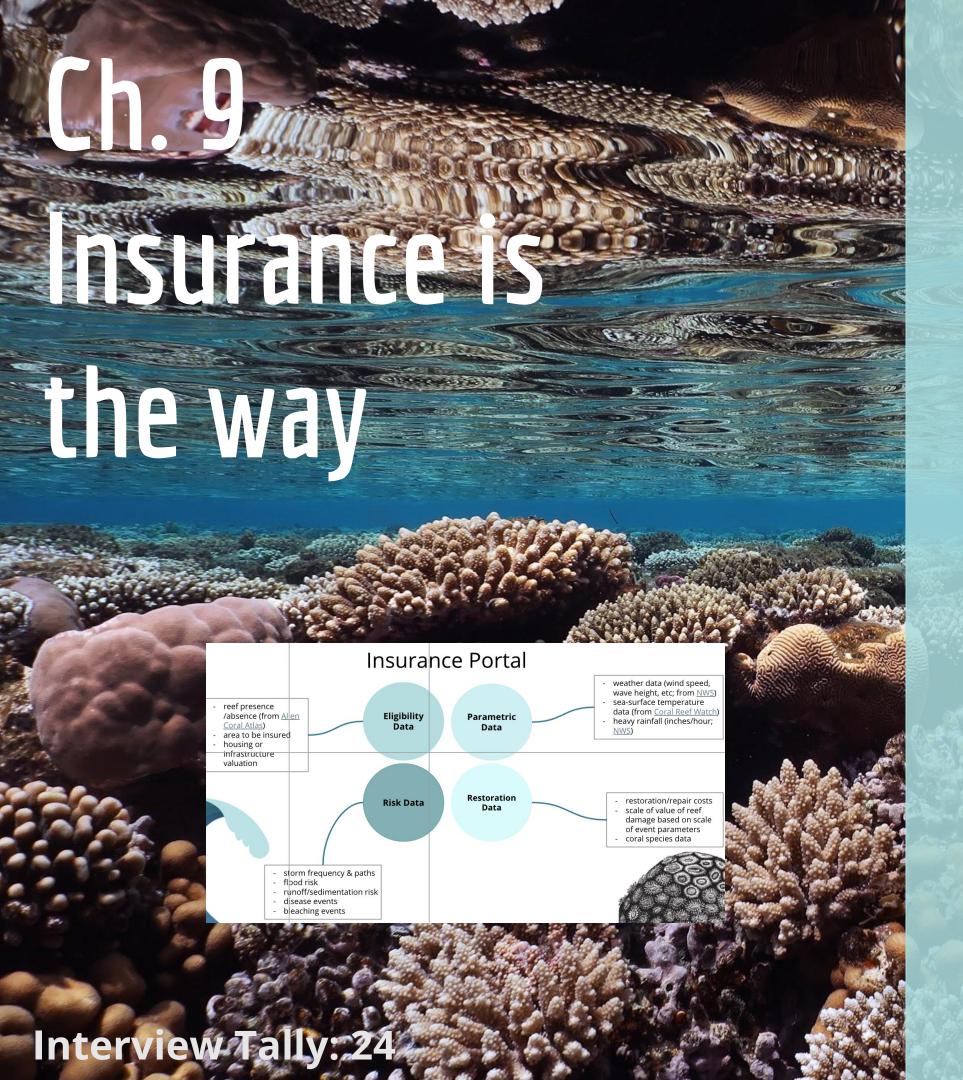




- "No one is responding to my emails..." -A&A
- We put investors' money in the hands of the smartest people in the world conducting coral restoration work.
- There isn't enough money being spent to solve the problem of coral reefs disappearing at alarming rates and the loss coastal communities feel in their absence.
- "We need additional sources of capital beyond government grants to solve the coral reef problem" -Craig Dudenhoeffer

Pivot: We can do more than just collect investors...

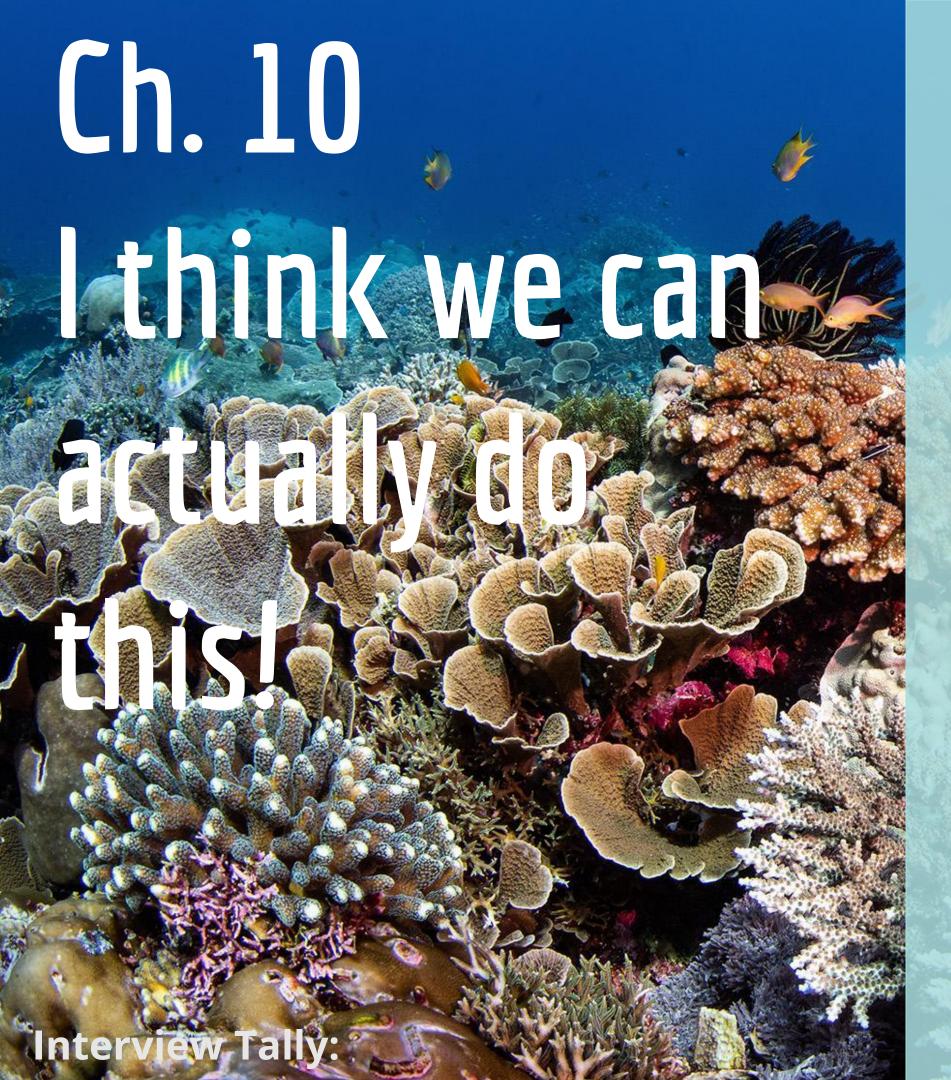




- "Meeting in person really does wonders."- A&A
- There is no one stop shop or format to determine eligibility and policy structure for coral reef insurance.
- The data to inform eligibility and risk is available, but currently policies are developed on a case by case basis, limiting their scalability and accessibility.
- The Coastal Reefsilience Insurance Portal informs customers of their eligibility for coral reef insurance and offers them a variety of quotes from insurance companies on what it would look like for them to insure their reefs.
- "Insurance industries are starting to care a lot about climate change" - Bill Gorham
- "The reason there isn't parametric insurance in the reef industry is there is a lot of upfront work that needs to be done, and no one's done it yet" Tamaki Bieri







"We just really like pivoting okay!?" - A&A

"[Creating a solution] in insurance is super cool b/c it will have to be creative and innovative, thus challenging" - Mike Beck

Our fatal flaw: making assumptions off of too few interviews with the same types of people.

Our shining star: talking ourselves in circles until we find a viable solution path.

"Wow you've really gotten to experience every aspect of developing a start-up" - Craig Dudenhoeffer



Coastal Reefsilience Insurance Portal

Insurance Policy Options

Annual Policy Quote Information

Algorithm that uses existing databases and available information to determine local level eligibility for coral reef insurance policies.

The output of the algorithm includes a series of insurance policies for which the buyer is eligible. These include upgrades to each policy to pay more on the front end for active restoration of their reef.

The annual premium quotes associated with each policy offer a tangible view on just how much insuring their reef will cost the buyer each year. Policy quotes will be developed in partnership with participating insurance agencies.

MVP: We find and secure natural resource insurance for your coral reef against storm events, bleaching events, disease events, and other stressors.

Insurance Policies (potential)

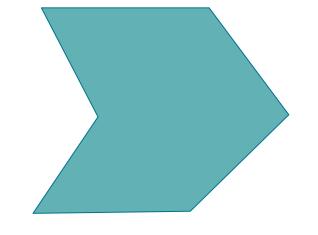
Tropical Storm Policy

Coral Disease Policy

Coral Bleaching Policy

LBSP Policy

Rare Event Policy (Tsunami, Landslide, etc)



Tier 1

Insurance payout
triggered by
established parameter
pays for reef
restoration after the
triggering event.

Tier 2

Premium payments include active restoration to stabilize and/or improve reef in preparation for future triggering events.



