Collaborative Research: Recovery Of Seamount Precious Coral Beds From Heavy Trawling Disturbance

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Hypothesis

- Seamounts megafaunal communities take decades to recover, if they can recover at all, from trawling.
AUV Sentry 2014 and 2015 Expeditions

AUV Sentry photo survey along depth contours between 200-700m (50m intervals)

Maiden scientific voyage of the R.V. Sikuliaq (Nov 17 – Dec 12 2014)

R.V. Kilo Moana (Sept 24 – Nov 7 2015)

Sampling cruise (47 days) with ROV Jason in 2016
Sampling Cruise Objectives

- Video transects along depth contours – augment AUV transects and new data
- Voucher specimens of dominant fauna (no urchins)
- Collecting population genetic samples of Coralliiidae
- Collecting aging samples of Coralliiidae
- Size-Frequency data
- Opportunistic additions – lander recovery

RV Kilo Mauna mechanical issues cancelled ROV Jason cruise.
Hawaii Undersea Research Laboratory

**Pisces IV/V**

- Conducted as 2 dives days per site with both subs diving each day
- 2016/2017
2017 Cruise Summary

• 51 submersible dives (79 total for project) at 10 seamounts with 1-2 sites per seamount.

• 205 500m transects, many dives >10km in length.

• 258 aging specimens and 500 genetic samples of target species, plus 300 other coral as vouchers (total for project >400 aging, >1100 genetic)

• Weather (as expected) and ship mechanical issues cause the loss of a few dive days.
Vertical and Rough Terrain
Fishing Gear
Defying Dissolution: Discovery of Deep-Sea Scleractinian Coral Reefs in the North Pacific

Amy R. Baco, Nicole Morgan, E. Brendan Roark, Mauricio Silva, Kathryn E. F. Shamberger & Kelci Miller

Deep-sea scleractinian coral reefs are protected ecologically and biologically significant areas that support global fisheries. The absence of observations of deep-sea scleractinian reefs in the Central and
How can we save the Pisces subs?