



Restoration in southern Belize

*Seeing is
Belizeing*



Our strategy to date:

- Mapping extant acroporids (during hottest months)
- SHALLOW SITES!
- Host & symbiont genetics
- Outplanting multiple genets in proximity
- Documenting spawning
- Long term monitoring growth, survival, thermal tolerance, % coral cover change



Challenges: How to measure % live acroporid cover increased? Survivorship?

Mosaics..

4 frags/m²



October 2011



May 2016

Laughing Bird Caye National Park fragmentsofhope.org

Day of
out-plant
Feb 2010
2 harvested
Ropes
with nails
36 acer reps
4 apro reps



Feb
2012



May 2016



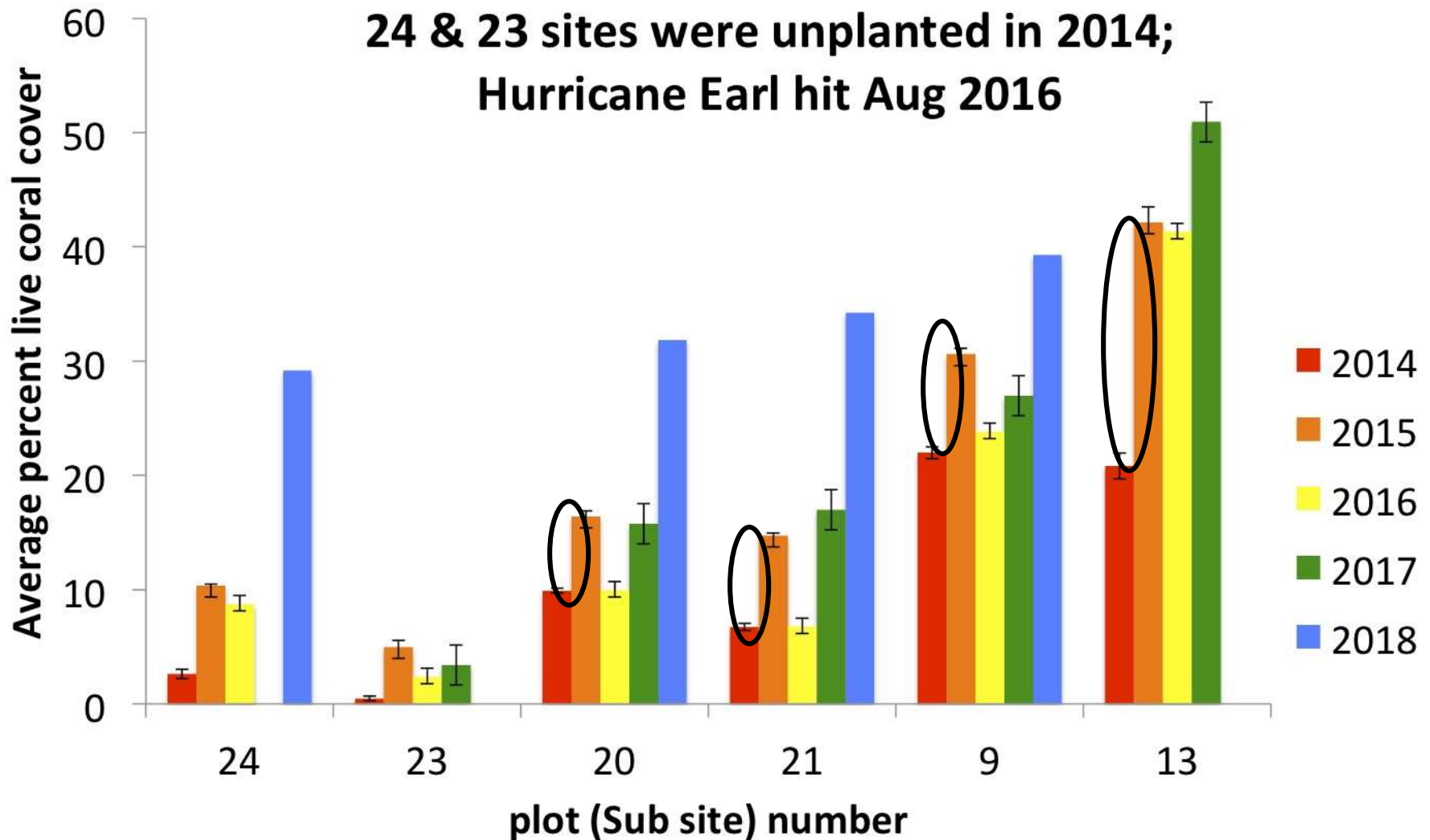
October 2017



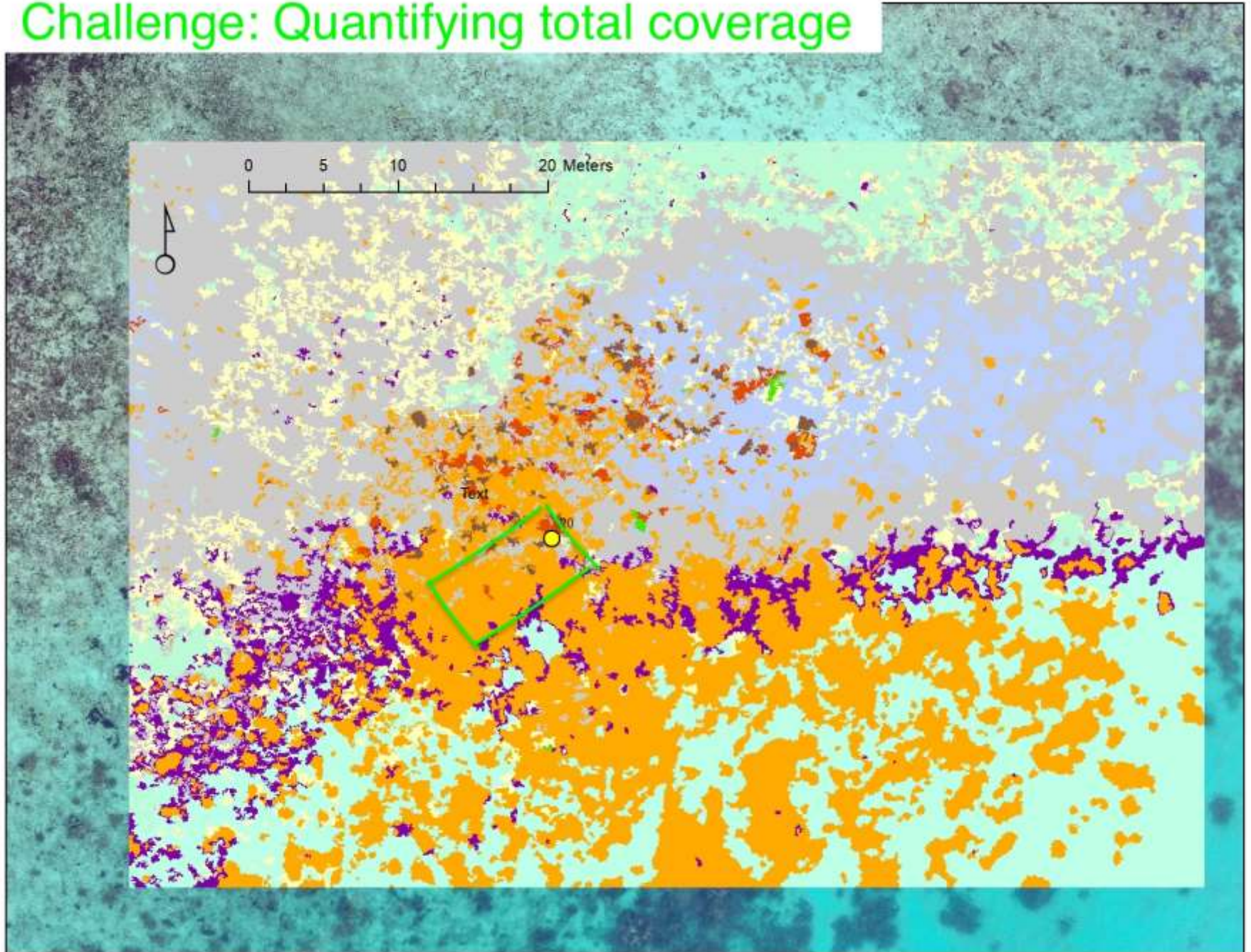
June 2019

Preliminary mosaic results

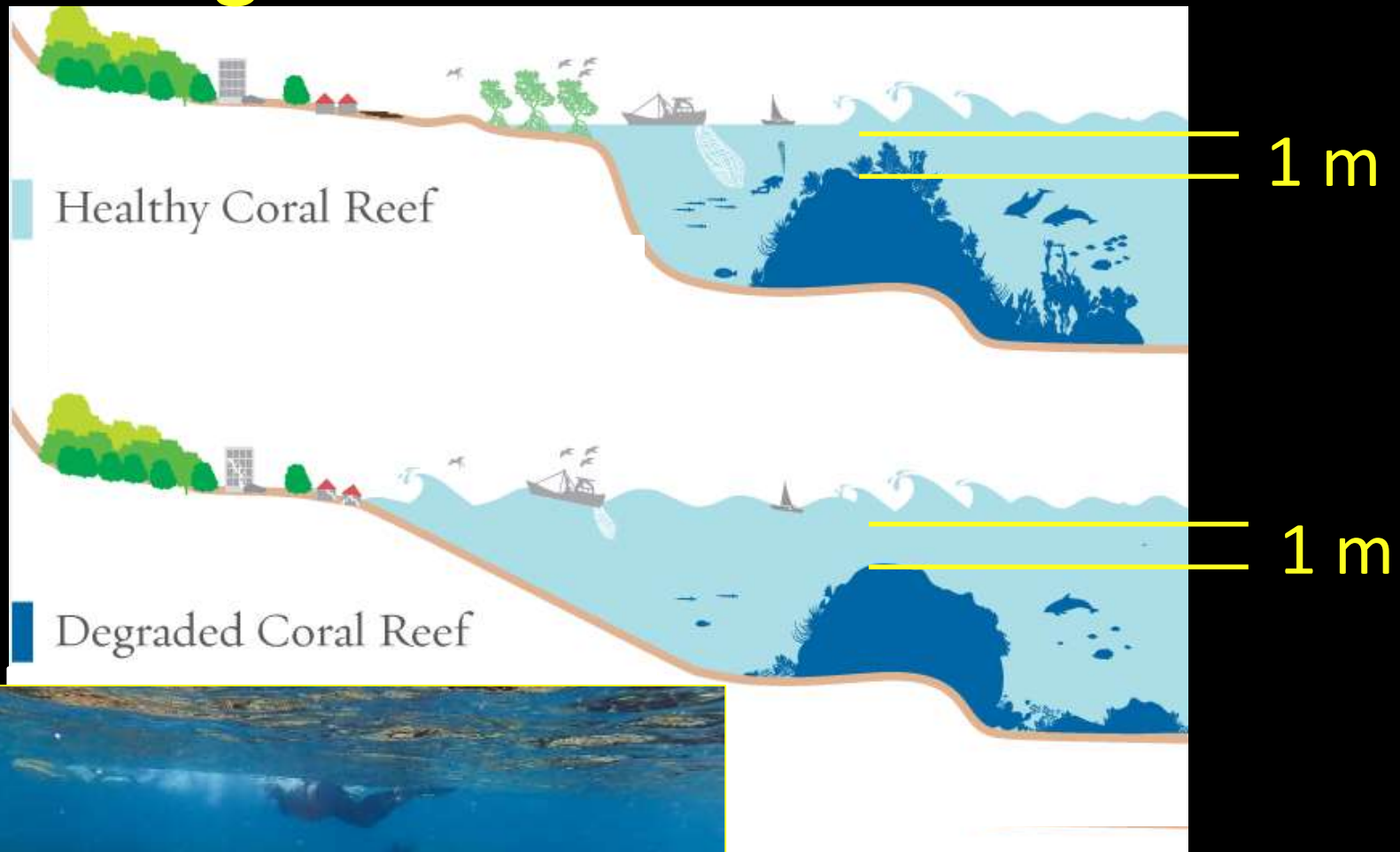
Comparing live coral cover every year (2014-2018) on six replenished plots, LBCNP. Note: 24 & 23 sites were unplanted in 2014; Hurricane Earl hit Aug 2016



Challenge: Quantifying total coverage



Valuing Coastal Processes & Reef Loss



Belize:
USD\$9million/year in
averted damages
Beck et al. 2018.
Nature Communications.

ARMS=Autonomous Reef Monitoring Structures units (Knowlton, Nancy)

Comparing biodiversity in replenished vs. un-replenished sites, inside and outside MPA



FRAGMENTS
of HOPE



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