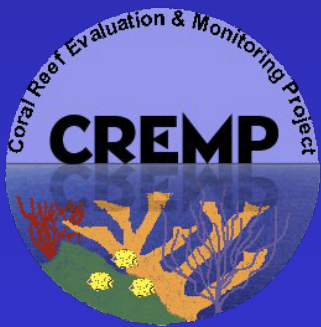


Coral Reef Evaluation & Monitoring Project Update

US EPA Water Quality Protection Program Steering Committee Meeting April 18th, 2019

**Rob Ruzicka; Mike Colella; Lindsay Huebner; Ananda Ellis;
Katy Cummings; Tiffany Boisvert; Jennifer Stein; Nate Berkebile;
Stephanie Schopmeyer**

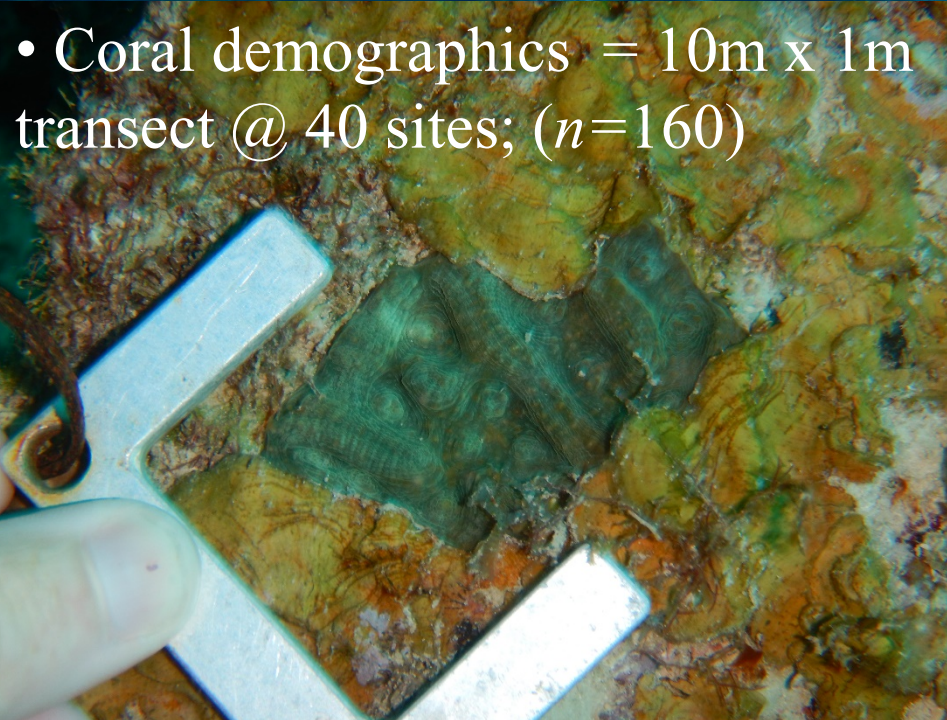


**CREMP is funded by US EPA Water Quality Protection Program
Federal Award No. X7-95447709**



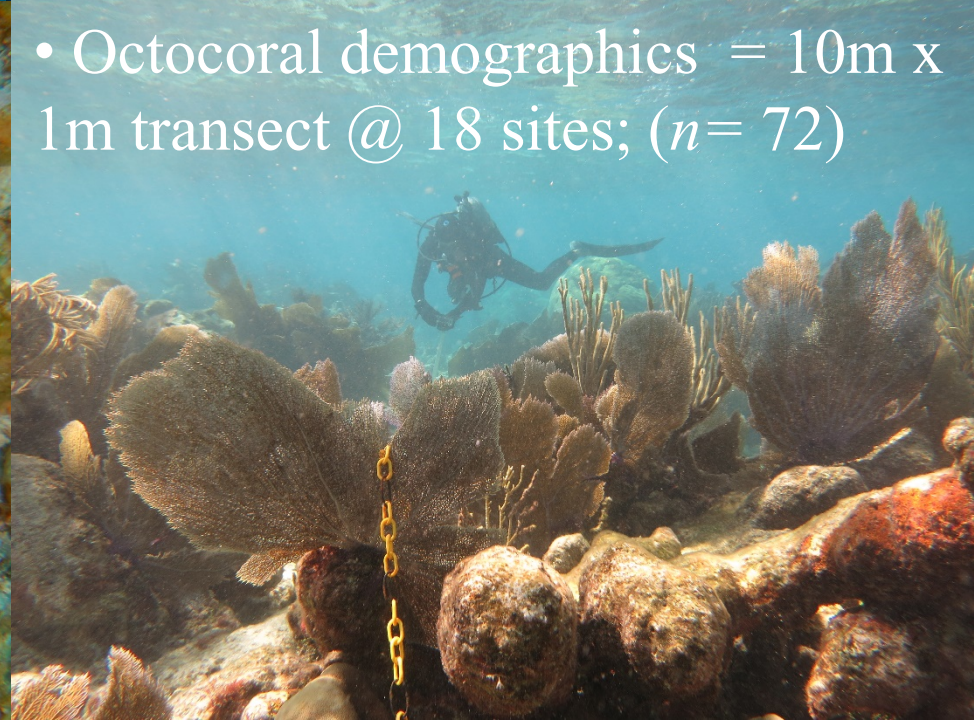
- Permanent transects @ 40 sites

- Coral demographics = 10m x 1m transect @ 40 sites; ($n=160$)

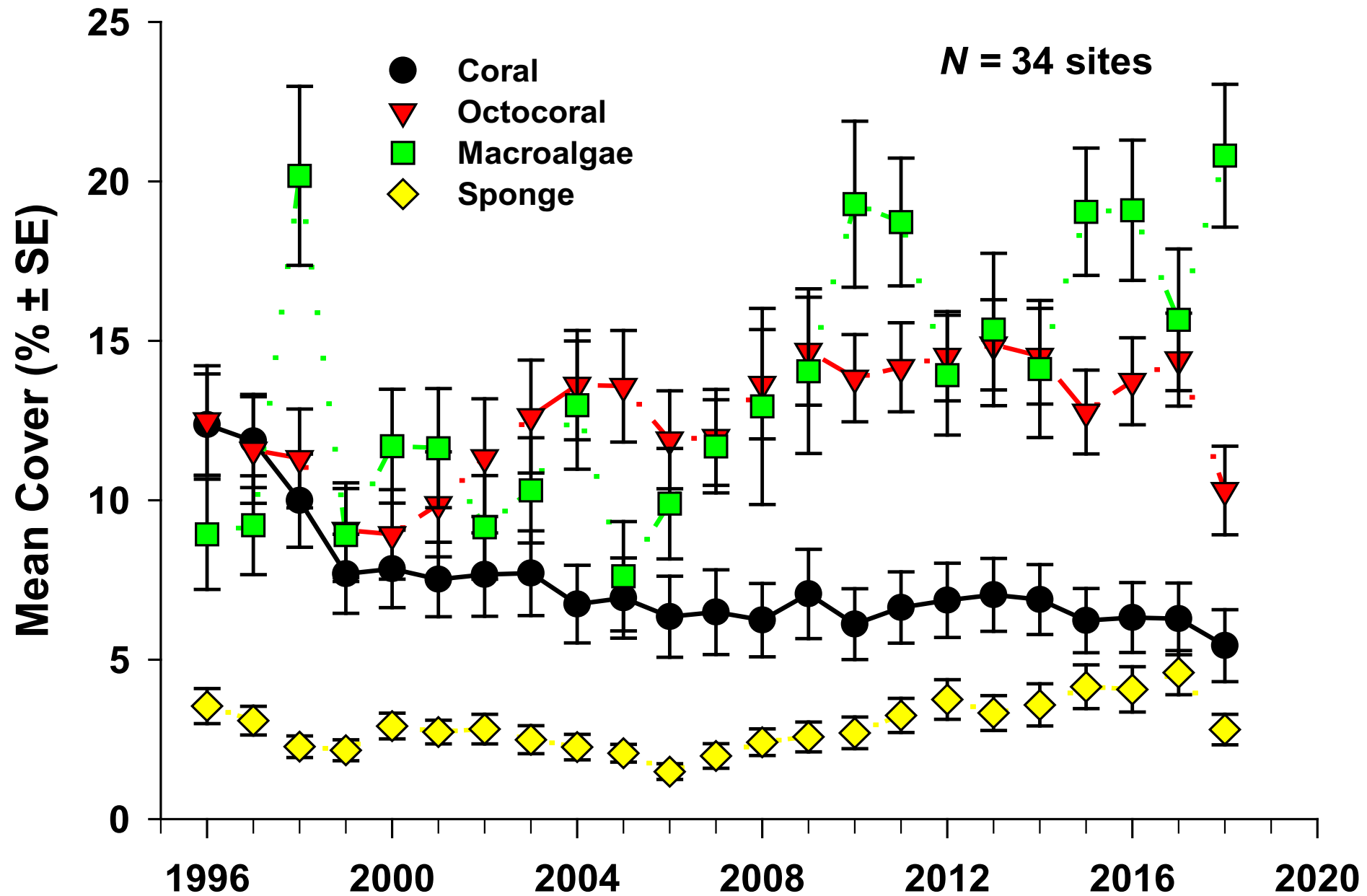


- Camera survey = 22m x 50cm transect @ 40 sites; ($n=160$)

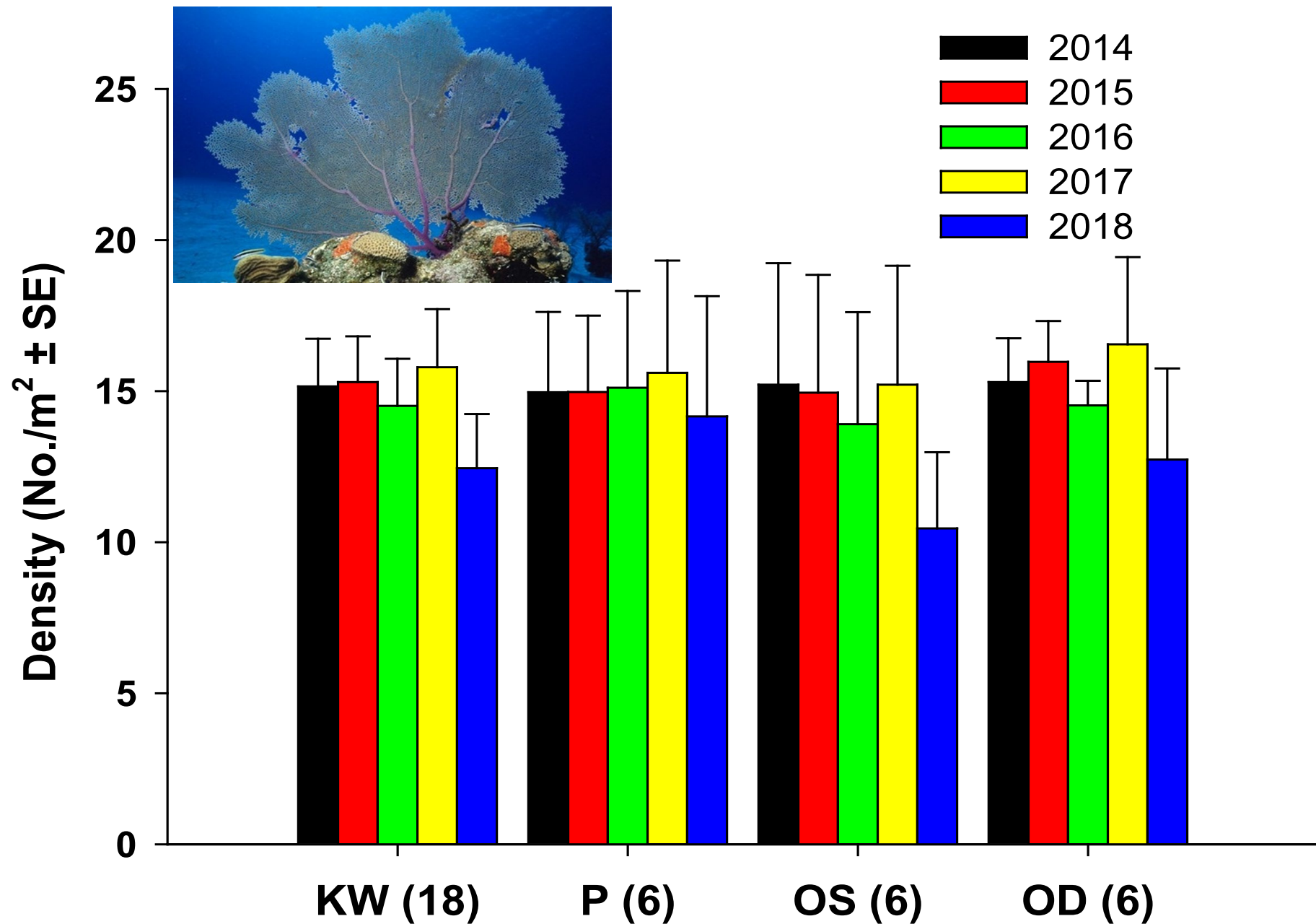
- Octocoral demographics = 10m x 1m transect @ 18 sites; ($n=72$)



Overall CREMP Benthic Cover in the Florida Keys – IRMA Effect

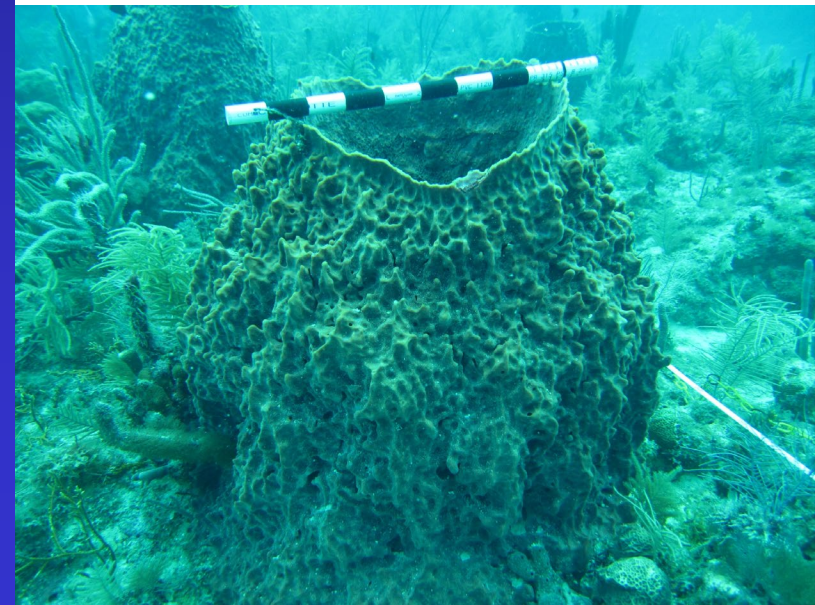
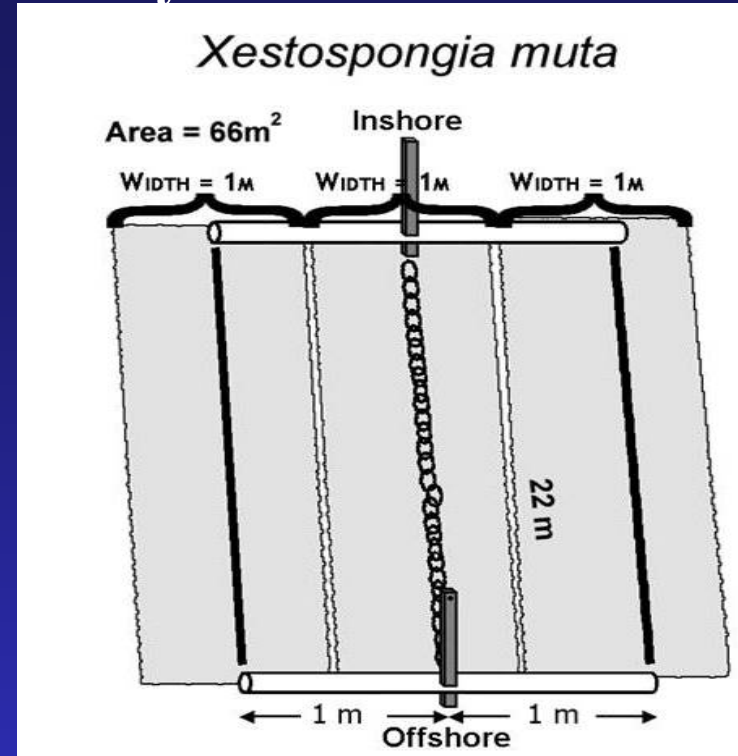


Octocoral Abundance After Hurricane IRMA

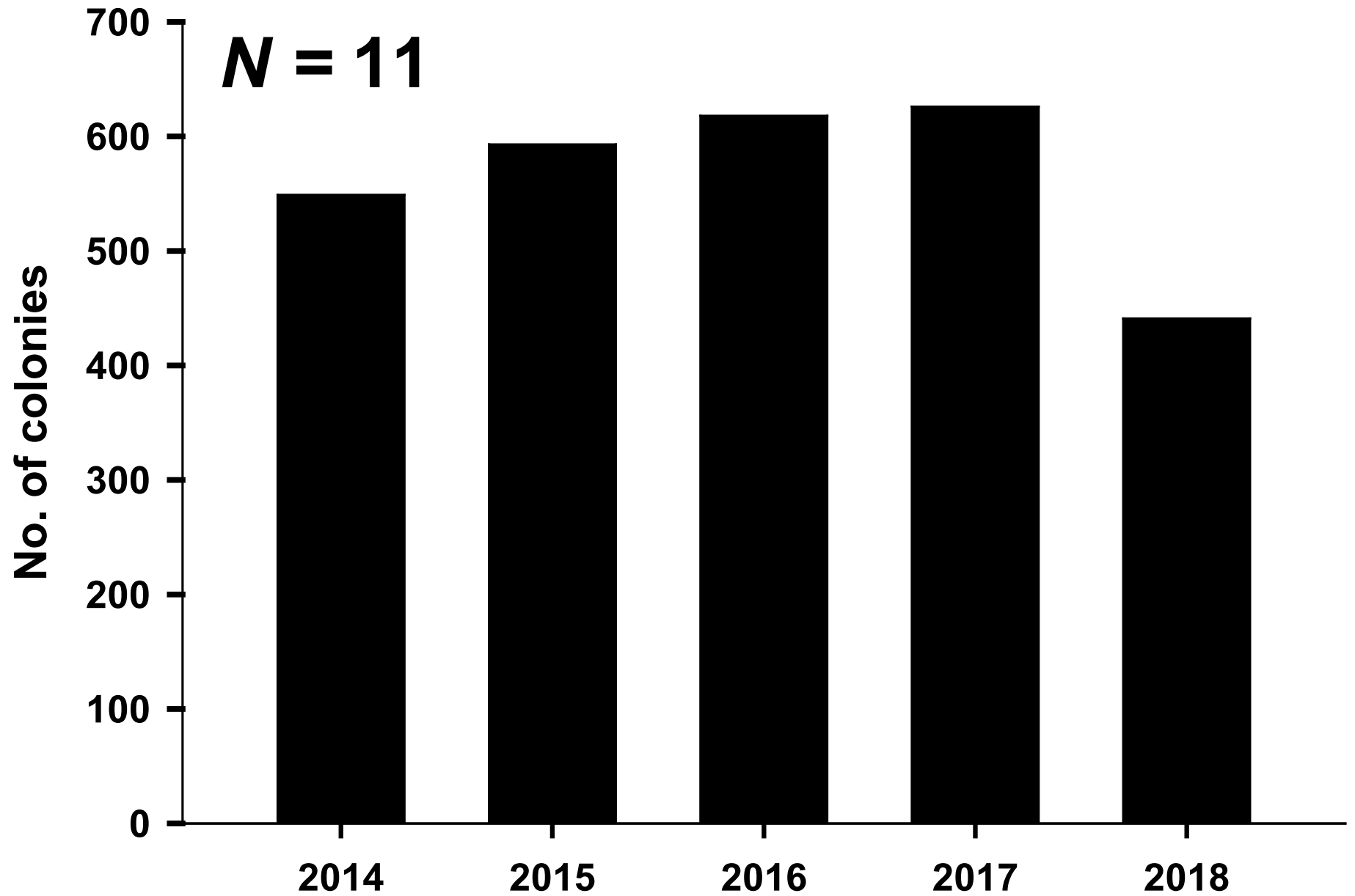


Xestospongia muta Survey

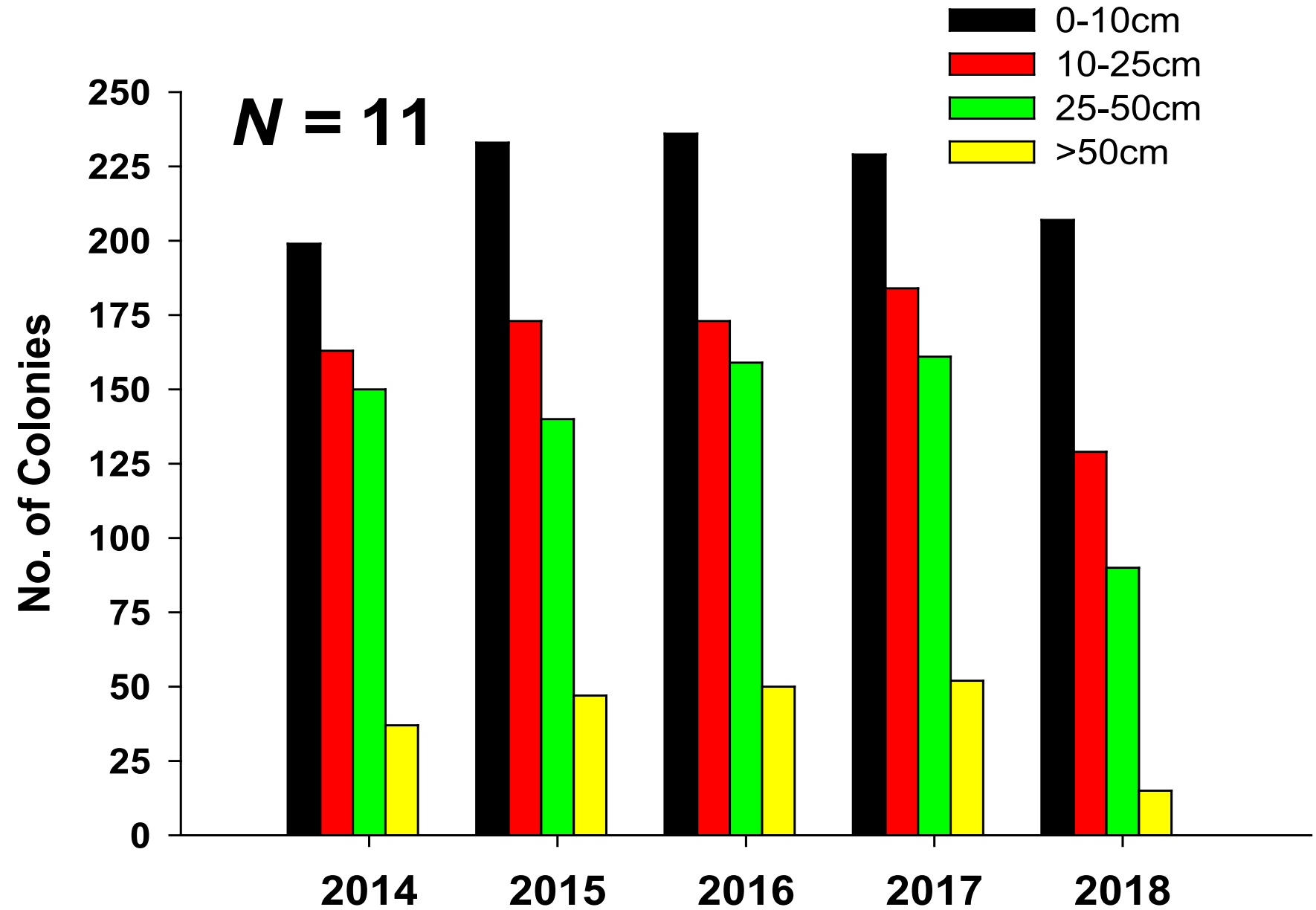
1. Annual census started in 2009
2. 11 deep forereefs; ranging between 8-20m depth
3. Six, 1 x 22m transects at each site
4. Three measurements (diameter of the base, height, and diameter of oscula)
5. Photographs of every sponge starting in 2011



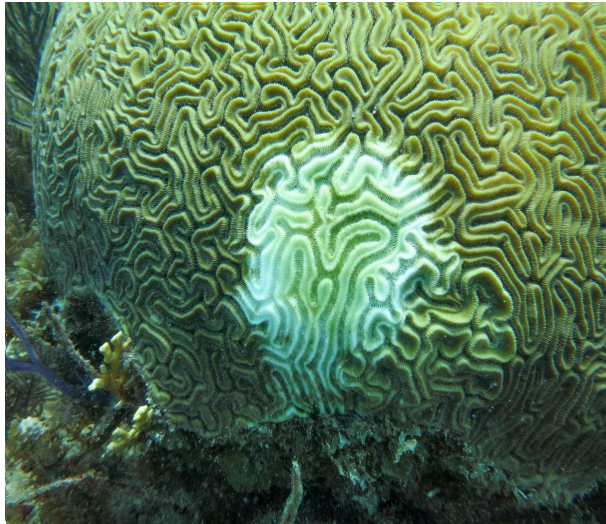
Barrel Sponge Abundance After Hurricane IRMA



Barrel Sponge Abundance After Hurricane IRMA



SCTLD Updates



Diploria labyrinthiformis



Montastraea cavernosa



Pseudodiploria strigosa



Dichocoenia stokesii








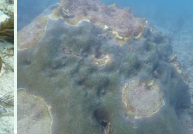


Meandrina Meandrites



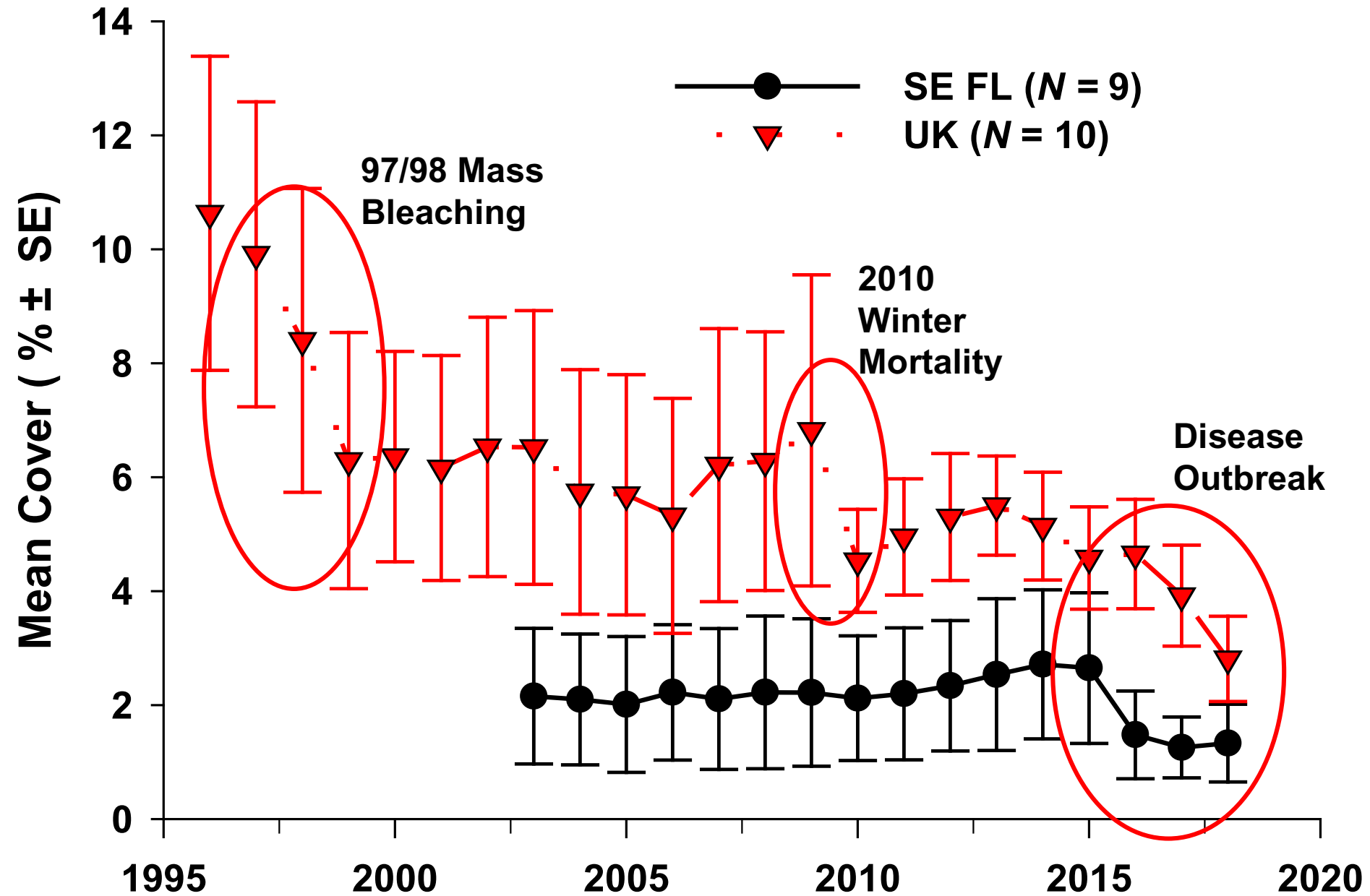
Colpophyllia natans

CREMP Changes in Abundance in the Upper Keys Due to Stony Coral Tissue Loss Disease

Year	CNAT	DLAB	DSTO	MCAV	MMEA	PSTR	SSID	ORBI	Total
									
2014	15	11	31	66	10	12	652	70	2343
2015	13	11	33	72	11	15	682	81	2293
2016	7	13	29	83	11	14	773	69	2349
2017	11	14	11	40	0	6	689	70	2098
2018	0	1	5	35	0	3	649	60	1934

- $N = 14$ sites in the Upper Keys;
- Totals pooled for sites
- Lesions still active on several species

CREMP & SECREMP Coral Cover





Disease Response Partners



Smithsonian

SOLUTIONS TODAY FOR REEFS TOMORROW.

NATIONAL MARINE SANCTUARIES

FLORIDA KEYS



NOAA CORAL REEF CONSERVATION PROGRAM



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