The Effect of Hurricane Irma on FWC’s Sponge Nurseries and a Near-Shore Sponge Community

FKNMS Advisory Council
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Sponge Restoration Efforts – The Need

- Periodic cyanobacteria blooms have plagued Florida Bay since early 1990s
- Result in loss of nearshore sponge community that has been slow to recover
- Inspired efforts to restore sponge community on experimental scale
Sponge Restoration Efforts – Scaling Up
Sponge Propagation Process
May 2017

- Nearly 8,000 Sponge Cuttings
Sponge Nurseries After Irma

- June 2017 Survival Rate = 84%
- Post-Irma Survival Rate = 40%; 3,000 cuttings
Sponge Nurseries -- Rebuilding

- Discontinued Burnt Point Nursery
- New Nursery in Long Key Bight
- Approximately 5,000 Cuttings as of May 2018
- Propagating Again Starting Fall 2018
Sponge Biomass Estimation

- All sponges identified to lowest taxonomic level possible; measured to estimate volume

- Sponges > 10 cm diameter
  - 3 2 x 25-m strip transects

- Sponges < 10 cm diameter
  - 12 1-m² quadrats

- Seagrass quantified by Braun-Blanquet rapid assessment method
Burnt Point
Post-Irma
Hurricane Irma Storm Surge Effect

9/8/2017 12:36 pm

Photo courtesy of Casey Scheu

9/10/2017 3:48 pm

Photo courtesy of Casey Scheu
Upcoming Sponge Restoration Activities

- **2019**: Restore Sponge Community on the East Side of Burnt Point
- Minimum of 5,000 Sponges of 6 Species