Bleaching and Recovery of Boulder Corals on a Patch Reef in the Middle Florida Keys

***Sharla Sugierski**, Chelsea McLaughlin, Dr. Kristene T. Parsons, and William C. Sharp*
Florida Fish and Wildlife Research Institute, Marathon, FL, USA

The 2023 marine heatwave brought persistent, extreme water temperatures to Florida, triggering the most severe coral bleaching event ever documented on Florida's Coral Reef. While *Acropora* species suffered high mortality, boulder coral species exhibited greater resilience at most sites in the Florida Keys, highlighting the need to understand species-specific recovery dynamics. This study investigated coral bleaching incidence, mortality, and recovery in a nearshore patch reef off Marathon, FL using photomosaic imagery. Nearly all boulder coral species at the site bleached in July 2023, but site-wide recovery was observed after nearly two years, and ongoing analysis will assess recovery patterns in relation to species, size, spatial factors, and environmental context. These findings will inform restoration and conservation strategies amid ongoing climate change and recurring thermal events.