Decades of Dedication: Fish Spawning Aggregation Research in the Florida Keys

Danielle Morley¹, Alejandro Acosta¹, Aaron J. Adams², Joel W. Bickford³, Benjamin M. Binder⁴, Kevin M. Boswell⁴, Ross E. Boucek², Jacob W. Brownscome⁵, Sarah Burnsed³, Michael L. Burton⁶, Laurent M. Cherubin⁷, Gina Clementi⁴, Steven J. Cooke⁵, Andy J. Danylchuk⁸, Erik Ebert⁶, Michael W. Feeley⁹, Kirk Gastrich⁴, Lucas P. Griffin¹⁰, Samantha R. Hagedorn¹, Michael Heithaus⁴, William D. Heyman¹¹, Jessica A. Keller^{12,1}, G. Todd Kellison⁶, James V. Locascio¹³, Susan K. Lowerre-Barbieri^{12,3}, Roldan C. Muñoz⁶, Jack C. Olson¹, Jessica A. Robichaud⁵, Noah A. Reiser¹, Timothy J. Rowell⁶, Jesse J. Secord¹, J. Christopher Taylor¹⁴ and Kara Wall³

¹Fish and Wildlife Research Institute, Florida Fish and Wildlife Conservation Commission, South Florida Regional Lab, Marathon, FL, USA

²Bonefish and Tarpon Trust, Miami, FL, USA

³Fish and Wildlife Research Institute, Florida Fish and Wildlife Conservation Commission, St. Petersburg, FL, USA

⁴Florida International University, Institute of Environment, North Miami, FL, USA

⁵Carleton University, Ottawa, ON, Canada

⁶National Marine Fisheries Service, National Oceanic and Atmospheric Administration, Beaufort, NC, USA

⁷Harbor Branch Oceanographic Institute, Florida Atlantic University, Fort Pierce, FL, USA

⁸University of Massachusetts, Amherst, MA, USA

⁹National Park Service, Miami, FL, USA

¹⁰University of South Florida, Tampa, FL, USA

¹¹Sustainable Marine Solutions, College Station, TX, USA

¹²University of Florida, Gainesville, FL, USA

¹³Mote Marine Lab, Sarasota, FL, USA

¹⁴National Centers for Coastal Ocean Sciences, National Oceanic and Atmospheric Administration, Beaufort, NC, USA

Research on fish spawning aggregations in the Florida Keys has spanned several decades, evolving through collaborative efforts among federal and state agencies, non-governmental organizations, academic institutions, resource users, and other interested parties. Given these diverse partnerships, sustaining long-term, standardized datasets across the region remains a significant challenge. Shifting management priorities and variable funding have led to uneven resource allocation and related scientific focus among aggregation sites, resulting in data gaps—especially with respect to long-term biomass trends. While some locations have robust time-series data, others remain under-documented or only studied during limited periods. Here we provide a comprehensive overview of historic and ongoing fish spawning aggregation research in the Florida Keys, including focal species, geographic coverage, participating partners, and techniques employed. We also discuss how selected datasets have informed fisheries management at places such as Riley's Hump and Western Dry Rocks and highlight opportunities to strengthen data continuity and integration moving forward.