

Pioneering a First-in-Kind Guide-Led Model for Rapid Scientific and Ecological Response

Allison Delashmit¹, Captain Justin Rees², Captain Chad Huff², and LKGA Guide Partners¹

¹Lower Keys Guides Association, Summerland Key, FL, USA

²Florida Fishing Guides United, Florida, USA

Fishing guides are uniquely positioned as both first sentinels and first responders in coastal ecosystems. Their daily presence on the water, extensive local knowledge, and deep connection to the environment allow them to detect early signs of ecological disturbance that others might miss. In 2023, guides across the Florida Keys began reporting an unusual phenomenon: several species of nearshore fish exhibiting erratic spinning behavior. Recognizing the potential ecological significance, the Key West and Lower Keys Fishing Guides Association (dba Lower Keys Guides Association or LKGA) mobilized quickly, forming the Guide Rapid Response Network (GRRN)—a grassroots, guide-led effort to detect, document, and respond to marine anomalies in real time. Backed by funding from the Ocean Reef Conservation Association, the GRRN recruited and equipped over 30 guides throughout the Keys to contribute their skills to scientific response. These guides collected water samples, documented unusual behavior, provided tissue specimens, and helped coordinate access for follow-up investigation. Their capacity to operate swiftly and independently on the water made them invaluable in the immediate response effort. In its first year, the network logged 127 hours of guide-led fieldwork and established five strategically placed freezer depots from Key West to Key Largo to support sample storage and transport. Equipment and protocols developed through GRRN have since been shared with peer groups in South Carolina, Mississippi, and Montana, demonstrating the network's scalability and impact. The LKGA Rapid Response Network represents the first program of its kind in the United States—built by fishing guides, for fishing guides, to serve science. This initiative flips the script on traditional research models—placing trusted watermen and women at the helm of both observation and action. These guides are not passive participants; they are proactive stewards with the insight, access, and skills needed to detect and respond to ecological change in real time. Since its inception, the LKGA Guide Rapid Response Network has expanded to include guides from the Florida Keys Fishing Guides Association (FKFGA), strengthening its reach across the entire island chain. Together, this growing network of professional guides stands ready to assist any scientific, academic, or management entity with research question development, logistical on-water support, and, in some cases, direct implementation of research activities. Their frontline perspective, operational flexibility, and deep-rooted conservation ethic make them indispensable partners in monitoring, mitigation, and marine resilience. The LKGA GRRN represents a new standard in community-led science—proving that real solutions often begin with those who know the water best.