

Florida's Marine Aquarium Fishery: Integrating Regulatory Strengths with Fisher Engagement for Coral Reef Conservation

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Florida's coral reefs and associated marine aquarium fisheries are under increasing pressure from climate change, population growth, coastal development, pollution, runoff, and resource extraction. Recent restrictions and closures of marine aquarium fisheries elsewhere highlight the need for robust, adaptive management frameworks to ensure both ecological sustainability and socioeconomic viability in Florida. This presentation synthesizes a comparative regulatory assessment of Florida's commercial marine aquarium fishery with an innovative fisher engagement initiative designed to bolster reef resilience. Our regulatory analysis reveals that Florida, through the Florida Fish and Wildlife Conservation Commission (FWC), has developed one of the world's most comprehensive management systems for marine aquarium fisheries. This system employs a limited-entry framework, co-management with fishers, spatial and temporal closures, gear and catch restrictions, and rigorous fisheries-dependent and -independent monitoring programs. The majority of aquarium fish taxa demonstrate stable or increasing catch-per-unit-effort (CPUE) and abundance trends, contrasting with the depletion of under-managed fisheries seen in other major source countries. Moving forward, the fishery can benefit from an assessment of the economic impacts of the regulatory framework on its fishers, a statewide fisheries management plan specific for the fishery, the further development of a comprehensive program for fisheries data collection and analysis to address data gaps, an assessment of resources at hand and those needed to implement these recommendations, and the elevation of marine aquarium fisheries for support at the national level to support state-level management. Building on this regulatory foundation, our Florida Fisher Engagement Program offers a holistic, value-chain approach to further strengthen reef conservation outcomes. The program seeks to empower fishers with additional professional training in best practices for animal husbandry, handling, and transport. By shifting from a volume-driven to a value-driven market paradigm, we aim to incentivize fishers to improve efficiency, reduce post-capture mortalities, and command premium prices for higher-quality, well-cared-for livestock. This approach not only enhances fisher livelihoods and business viability, but also reduces fishing pressure on wild populations, allowing critical reef species to continue providing essential ecosystem services that underpin coral recovery and resilience. Together, Florida's strong regulatory framework and participatory engagement initiatives offer a scalable model for balancing conservation and livelihoods in marine aquarium fisheries. By integrating adaptive management with fisher empowerment, Florida is charting a path towards a sustainable value chain for marine aquarium fisheries in the face of accelerating environmental change.