

Proactive (and Reactive) Management of Fishery Resources in the Turks and Caicos Islands

Gestión Proactiva y Reactiva de los Recursos Pesqueros en las Islas Turcas y Caicos

Gestion Proactive et Réactive des Ressources Halieutiques dans les Îles Turks et Caicos

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EXTENDED ABSTRACT

In the Turks & Caicos Islands (TCI), fisheries target a multi-species complex of lobster, conch, fishes and turtles (Stringell et al 2013). To differing degrees, all fishers necessarily switch between species according to market, abundance, and closed seasons. The TCI has a large network of no-take marine reserves, but effort to manage fisheries has been almost exclusively dedicated to spiny lobster (*Panulirus argus*) and queen conch (*Strombus gigas*), the main focus of commercial fisheries (Béné and Tewfik 2001, Rudd 2003). In 2014, existing regulations for turtles were amended. However, other than a ban on parrotfish (introduced in 2010), there have been no species-specific regulations governing the harvest of fishes in the TCI.

For many species of reef fish, the lack of regulations in the TCI has had a negligible effect thanks to:

- i) Persistent stocks of lobster and conch,
- ii) Small number of full-time fishers,
- iii) Low human population density relative to the area of marine habitats, and
- iv) Limited market for reef fishes until the growth of tourism in 1990s (Rudd 2003).

However, for bonefish, the tradition of netting for food has evolved into one where juveniles are now also harvested, and sport-fishers report substantial declines in populations (>50%). In addition, the lobster and conch stocks have been in decline, and fishers have increasingly targeted alternative unregulated species (Department of Environment and Maritime Affairs, unpublished data).

In this context, the TCI Government saw the need to address the gap in the legislation guiding fisheries management, particularly with respect to fishes. In order to update the regulations, current and potential future fisheries management issues in the TCI were assessed. The aims were to create a regulatory framework that could assist in the sustainable management of fisheries, address local and regional conservation concerns, but without compromising the ability of local fishers to exploit traditionally important resources. The process also involved multiple rounds of public consultation meetings for all the major inhabited islands (Providenciales, South Caicos, North Caicos, Middle Caicos, Grand Turk).

Fishers generally appreciated reactive rather than proactive measures, and while they often called for regulations to address problems evident in the fisheries, regulations designed to prevent problems that had not yet manifested themselves were not popular: this proactive management was seen as punishing fishers for something they had not yet done, and was viewed as denying them an economic opportunities, even if these were opportunities that they were not currently exploiting. Fishers saw the value in closed seasons that protect breeding individuals/periods, and minimum size limits that prevent harvest of juveniles, and generally welcomed such measures for previously unregulated species. However, a proposed maximum size limit for Nassau grouper (designed to enhance spawning potential) was not popular among commercial fishers, conflicting with their perception that skilled, responsible fishers catch big fish. Fishers also commented that the proposed ban on fishing spawning aggregations should not include mutton snapper because an economically important traditional aggregation fishery exists, and declared that it was the only opportunity to catch this species in any quantities. The regulations introduced (or approved but yet to be drafted into law) were the result of this process (Table 1).






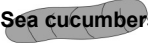

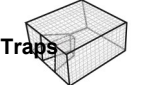

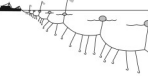

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Table 1. Fisheries Regulations introduced in 2015.

Species Gear	Measure	Proactive	Reactive	Data
 Nassau grouper	Size limits (commercial): min 18in*		X	c. 50% landings juvenile
	Size limits (recreational): min 21 max 31 in		X	(see above)
 Snappers	Closed season: Dec 01 to Feb 28	X		Limited aggregation fishing
	Size limits: min 7 in (except deep water red & black snappers)*	X		Limited data
 Bonefish	Size limits: min 20 in*		X	Sport fishers report declines
	Net restrictions (see below)			Juveniles caught by net
 Sharks & rays	Ban commercial export	X		Small catch for local market
 Snowcrab	Size limits: 4 in claw length	X		Currently minimal exploitation
	Closed season: Jun 01 to Oct 15	X		
	No females	X		
 Sea cucumbers	Ban: fishing, possession, export	X		Emergent fishery
 Spawning aggregations	Ban: catching fish at spawning aggregations (except mutton snapper)*	X		Limited # fishers target grouper spawning aggregations; traditional fishery of mutton snapper
 Traps	Limited number: max 20 traps per person	X		No data on effect of traps in TCI
	Trap boat licence: max 500 traps*; cap on # licences*; depth must be >80ft*	X		
 Nets	Mesh size limit: min 3 ½ in*		X	Juvenile bonefish caught
	Ban on plastic/monofilament nets		X	Sport-fishers report >50% decline in populations of bonefish
 Long lines	not placed across channels; always attended*			No commercial pelagic fishery in TCI
	Ban	X		
 Hawaiian slings	Legalised (commercial): to catch fish only*	X	X	Regularizes a common practice
	Lionfish licence: Hawaiian sling or pole-spear		X	Invasive lionfish threaten native fishes

* Regulations approved 2015, but drafted as law in 2016; all fish sizes are total length in inches