

Colac MarCuba 2009

SPECIAL SESSION

## **“Trends in Innovative Fisheries Management”**

*Hosted by Environmental Defense Fund*



**When:** Wednesday, Oct. 28 (14:00 – 15:30 PM)

**Where:** Room 3/ Plenario

**General Description:** This session will focus on trends in fisheries management in the United States, Mexico, and Cuba. Panelists will focus on the emerging use of fishing cooperatives, sector allocations, individual fishing quotas, and other catch shares systems to addressing conservation and economic problems in fisheries. The panel will also address how fisheries management can be integrated with marine protected areas to achieve sustainability. Audience members are encouraged to participate in the discussion.

**Moderator:** Daniel Whittle, Senior Attorney, Environmental Defense Fund

### **Panelists:**

#### **1. Dr. Steve Gaines and Christopher Costello**

*Authors: Christopher Costello and Steven Gaines*

*Institution: University of California, Santa Barbara*

*Address: 4410 Bren Hall, UC Santa Barbara, Santa Barbara, CA 93106, USA*

**Title: “Marine protected areas and catch shares – coupling proven tools to ensure a sustainable global seafood supply”**

Marine protected areas (MPAs) and territorial user right fisheries (TURFs) are two seemingly contradictory approaches commonly advocated as solutions to failures in fisheries. MPAs limit harvest to certain areas, but may enhance profits outside via spillover. TURFs incentivize local stewardship but may be compromised when the TURF is too small to retain the offspring of adult fish in the TURF. As a result, the dispersal of young enhances the benefits of MPAs, but reduces the effectiveness of TURFs. We explore whether using MPAs and TURFs in combination can have synergistic effects. Within a numerical model parameterized to California marine species, we explore the economic and ecological effects of implementing MPAs on a TURF-regulated fishery. Whether MPAs can enhance or diminish profits (or fish abundance) hinges critically on the level of coordination already occurring between TURF owners. If coordination is complete, private MPAs may already emerge in some TURFs; implementing additional MPAs reduces profits. However, to the extent that coordination is incomplete, strategically-sited MPAs may be an effective complement to spatial property-rights based fisheries, increasing both

fishery profits and abundance. This latter results seems to strongly contradict other results on the efficacy of implementing MPAs in fisheries regulated with incomplete property rights.

## **2. Pamela Baker, Gulf of Mexico Office**

*Institution: Environmental Defense Fund*

*Address: 44 East Avenue, Austin, TX 78701, USA*

*Co-Author: David Krebs*

*Institution: Ariel Seafoods, Inc.*

*Address: P.O. Box 5401, Destin, FL 32541, USA*

### **Title: "Reducing overfishing in the Gulf of Mexico: A Case Study of the U.S. Commercial Red Snapper Fishery"**

Gulf of Mexico red snapper have been a valuable U.S. seafood species since the 1800s. For two decades, the stock has been "overfished" and annual commercial catches have declined from ten to 2.5 million pounds between the 1960s and today. To reduce overfishing, an annual landings cap and fishery closure were implemented in 1990, but these inadvertently caused a "race-for-fish" with closures lasting up to ten months. Rules to slow racing – including monthly "mini" seasons and fish size restrictions – resulted in worsening overcapacity, high regulatory discard mortality, escalating harvest costs, falling ex-vessel fish prices, and difficult enforcement.

By the late 1990s, Gulf communities called for better management. In an uncommon partnership, fishermen, seafood dealers, and environmentalists worked cooperatively with regulators to find solutions. The partnership focused on plans that would align fishermen's business incentives with conserving fish. An agreement was reached to replace existing management with a catch share program called "individual fishing quotas" (IFQs).

In 2007, regulators implemented IFQs for commercial red snapper. A portion of the annual catch was allocated to each fisherman as secure fishing privileges which can be traded between boats and landed any time in the year. Results are encouraging. Fishermen comply with rules to track landings and fishing activities. Overfishing is alleviated since landings are below the cap and discarding is falling. Fish are worth more at the dock because they are delivered when demand is high, and fishermen report lower costs and safer fishing. Partnership efforts and catch shares hold promise to improve management of other commercial and recreational fisheries.

## **3. Dr. Rafael Tizol Correa**

*Institución: Centro de Investigaciones Pesqueras*

*Dirección: 5ta Ave y 248, Barlovento, Santa Fé, Ciudad Habana, Cuba*

### **Titulo: "Manejo de las pesquerías marinas, la experiencia cubana"**

El manejo de las pesquerías en Cuba es un sistema integrado donde participan activamente científicos, tomadores de decisión, inspectores y pescadores. El Centro de Investigaciones Pesqueras con el apoyo de los Buroes de Captura en cada empresa pesquera recomienda y propone medidas las cuales se llevan a ejecución después de un proceso de discusión a todos los niveles hasta llegar al pescador, sin dejar de llevar a cabo las medidas necesarias de control. Este sistema permite una aplicación consiente de las regulaciones por los ejecutores directos basada más en la información y la educación que en las medidas coercitivas.

#### 4. Scott Edwards, Latin America and Caribbean Program

*Author: Scott Edwards, Director*

*Institution: Environmental Defense Fund*

*Address: Revolución No. 345 | E/5 de Mayo y Constitución La Paz, Baja California Sur, Mexico*

##### **Title: "Improving fishermen's livelihoods and protecting marine ecosystems in the Gulf of California, Mexico, through catch shares"**

In 2008, Environmental Defense Fund embarked on an unprecedented partnership with the World Wildlife Fund, Noroeste Sustentable, the Mexican National Commission for Fisheries and Aquaculture (CONAPESCA) and the Mexican National Fisheries Institute (INAPESCA). Together this team set out to transform Mexican fisheries management with the goal of improving both fishermen's livelihoods and the marine ecosystems upon which they depend.

In order to achieve this lofty goal, the team took an approach of implementing incentive-based fisheries management in a single fishery in 2009 to demonstrate success and set an example for other fisheries in the Gulf of California. Together we chose the shrimp fishery in the state of Sinaloa – shrimp is the most important fishery in Mexico and the Gulf of California is the most important shrimping region of the country.

This fishery is marked by intense conflict between the ribereno and industrial sectors. The catch has been holding relatively steady over the last several years. This presented a unique situation of using a catch share with the primary goal of solving the social conflict. Economic and biological considerations were also important. The team has seen that catch share implementation can be fairly swift with good support from government and the fishing sector.

The team implemented several initial elements of the catch share in time for the 2009 shrimp season and will continue to review lessons learned. We will then use our continued research to implement additional catch share details for the 2010 shrimp season.

#### 5. Susana Perera, Especialista Marina

*Institución: Centro Nacional Áreas Protegidas*

*Dirección: Calle 18 a, No 1441, e/ 41 y 47, Playa, Ciudad Habana, Cuba*

##### **Titulo: "Las Áreas Marinas Protegidas de Cuba y su relevancia para las pesquerías cubanas"**

El Sistema Nacional de Áreas Protegidas de Cuba propone 253 áreas protegidas, de las cuales 108 son marinas, extendiéndose sobre el 24% de la plataforma insular. Estas áreas incluyen de manera general, los arrecifes coralinos mejor conservados del país, extensiones importantes de ecosistemas de manglar y pastos marinos, así como sitios de interés geológico submarino. Para la declaración de áreas marinas protegidas se le prestó especial atención a numerosas zonas relevantes para la reproducción y supervivencia de poblaciones marinas de interés económico. En este trabajo se comenta sobre la importancia de las áreas marinas protegidas de Cuba para el mantenimiento de las pesquerías cubanas y se ilustra con ejemplos la factibilidad de su establecimiento para este fin. Se aborda la relevancia del trabajo conjunto del Sistema Nacional de Áreas Protegidas (en el marco de la Junta Coordinadora Nacional), con instituciones pesqueras como la Dirección de Medio Ambiente y Regulaciones Pesqueras y la Oficina Nacional de Inspección Pesquera del Ministerio de la Industria Alimenticia y la importancia de la declaración de Zonas Bajo Régimen Especial de Uso y Protección. Se comenta además sobre el futuro de las

áreas marinas protegidas de Cuba a partir de la implementación del proyecto GEF “Aplicación de un Enfoque Regional al Manejo de Áreas Protegidas Marinas y Costeras en los archipiélagos del sur de Cuba”.

## 6. Jose Gerhartz, Field Manager for Cuba, Havana Field Office

*Institution: WWF-Canada*

*Address: Miramar Trade Centre, Edificio Santiago de Cuba, Oficina 203*

*5ta Ave. y 78, Miramar, Playa, La Habana, Cuba*

### **Title: “WWF’s experience working on fisheries management and marine protected areas in Cuba—challenges and opportunities”**

The Cuban Archipelago is home to significant biodiversity and the conservation of its marine resources and associated ecological processes is key to achieving sustainability for the entire Caribbean region. WWF has identified the Greater Antilles Marine Ecoregion as one of the 200 top priorities for its work in the World. Accordingly, we have focused our programme in Cuba during the last seven years to conserving the most relevant coastal-marine habitats of the country and preventing their degradation. WWF’s strategy has been focused on four complementary areas: (1) developing a representative network of MPAs, (2) advancing more sustainable fisheries practices, (3) protecting globally endangered marine turtles and (4) promoting a greener tourism approach in coastal and marine areas. Through significant financial investment and the joint efforts of WWF and its local partners, significant conservation and sustainability goals have been achieved. Some of the most outstanding results are:

- Permanent and total ban of any marine turtle harvesting in Cuba waters
- Development of a fisheries policy aimed at promoting sustainable practices and stopping previously widespread unsustainable practices such as “tranques” and bottom trawling
- Establishment of a growing network of MPAs and particularly key National Parks as Jardines de la Reina

Several successful pilot projects were of paramount importance for these achievements which yielded important lessons for policy-making for conservation and sustainable use of the coastal-marine resources in Cuba.

