Bahamas national report -CFMC/OSPESCA/WECAFC/CRFM working group on queen conch

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1.0 Description of the fishing industry

The queen conch fishery varies year to year between the secondary and tertiary commercially important fishery in terms of weight and value of landings with spiny lobster (*P. argus*) being the primary fishery. The conch fishery takes place primarily on the Little Bahama Bank and Great Bahama Bank. Within these areas fishing for conch is primarily done by free diving with hand collection or with the aid of an air compressor outside of the summer.

A fisheries census conducted in 1995 showed that there were approximately 9,300 fulltime fishers and over 4,000 small boats and vessels. Of these fishers, the vast majority target spiny lobster but the exact proportion of fishers that target conch is not known. However, seasonality in fishing effort for conch and conch landings are evident as it is typical for over 60% of conch landings (by weight) to take place during the four summer months (April-July) that the lobster fishery is closed.

Small vessels (<20 ft in length) are typically used in the conch fishery. In some instances these small vessels work in conjunction with a larger "mothership" vessel. Day vessels tend to land conch in the shell while vessels that make longer trips tend to land frozen conch meat only.

2.0 Policy and Legislation

Bahamian legislation governing conch fisheries include the Fishery Resources (Jurisdiction and Conservation) Act 1977, the resulting Fisheries Resources (Jurisdiction and Conservation) Regulations 1986, the Wildlife Conservation and Trade Act 2004 which incorporates CITES into Bahamian law, and the Archipelagic Waters and Maritime Jurisdiction Act 1993.

There is also a five year (2010-2014) sector strategic plan as well as a draft fisheries management plan. Policy also allows only Bahamian citizens to take part in commercial fishing unless the individual is in possession an appropriate permit from the Immigration Department allowing them to work in fishing. However, there are avenues for foreign participation in the processing sector.

With regards to the Fishery Resources (Jurisdiction and Conservation) Act 1977 and the Wildlife Conservation and Trade Act, enforcement is the responsibility of the Department of Marine Resources, the Royal Bahamas Defence Force, the Royal Bahamas Police Force and the Customs

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Department. In addition, Agricultural officers are empowered to conduct enforcement according to The Wildlife Conservation and Trade Act 2004. The Department of Marine Resources is the scientific authority in relation to CITES whereas the Department of Agriculture is the Management Authority.

3.0 Development activities

The government of The Bahamas seeks to encourage aquaculture development with the ultimate purpose of enhancing food security as well as provision of employment. All ventures demonstrating adequate involvement of aquaculture expertise, minimization of environmental impact and adherence to National Economic Council foreign investment guidelines have a strong chance of gaining the necessary approvals to begin operations as well as securing exemption from customs duty fees for certain items imported. Over the decades many approvals have been given by the government however there are no successful long-term ventures. There is a renewed interest in developing the aquaculture sector. An initial step being currently taken is assessment of past ventures to ascertain reasons for failures.

4.0 Fisheries management and conservation activities

In terms of monitoring control and surveillance of the conch fishery as well as other fisheries in accordance with the Fishery Resources (Jurisdiction and Conservation) Act 1977 and the Wildlife Conservation and Trade Act, enforcement is the responsibility of the Department of Marine Resources, the Royal Bahamas Defence Force, the Royal Bahamas Police Force and the Customs Department. Agrucultural officers also assist in the enforcement of the Wildlife Conservation and Trade Act. However, beyond enforcement, the management and development of the conch fishery and other fisheries is the responsibility of the Department of Marine Resources. The Department of Marine Resources also functions as the CITES Scientific Authority while the Department of Agriculture functions as CITES Management Authority.

Specific management measures in place include a ban on the use of SCUBA for commercial fishing, limitation on the use of compressed air, the presence of an expanding network of marine protected areas and a conch export quota.

There is adherence to the ban on the use of SCUBA for commercial fishing however considerable effort goes into curtailing the illegal use of compressors without a permit and their use during the summer months (April to July) when these permits are not valid.

There is a growing network of MPAs aimed at protecting a variety of key habitats for multiple species. Conch surveys have been conducted in two MPAs. These include the Berry Islands Marine Reserve, however this newly created MPA does not contain densities and an age structure that allow for reproduction to take place (Stoner et al 2009). However, the Exuma Cays Land and Sea Park (ECLSP), no take since the 1980s, has relatively high conch densities of reproducing conch in the portion of the park surveyed. Hence the park has been somewhat successful in improving protection of queen conch. Nevertheless, surveys in the ECLSP conducted 18 years apart also show a reduction in ECLSP adult conch densities in the areas surveyed.

The Bahamas also currently utilizes an export quota system for its conch fishery. The quota is

shared between 9 exporters with each exporter's share determined by previous export amounts. Although the majority of conch landed in The Bahamas is consumed locally, the export quota system curtails conch harvests.

5.0 Consumption and Trade

Conch landings have risen gradually by decade since the 1980s (Table 1). The majority of commercial landings are consumed locally. Meat exports were introduced in 1992 and comprised 0.5% of landings at that time. Exports then peaked at 51% of landings by 1993 and have settled at 36% in 2010 and 2011. This equates to a local consumption of 1.3kg/capita/year in 2010 and 2011. There has also been a gradual rise in export amount (Table 1) and export value (Table 2) over the last decade. The primary export destination is the USA with 99% of exports going to the USA and the remainder to Canada in 2011.

Table 1: Queen Conch Meat Weight Landings and Exports

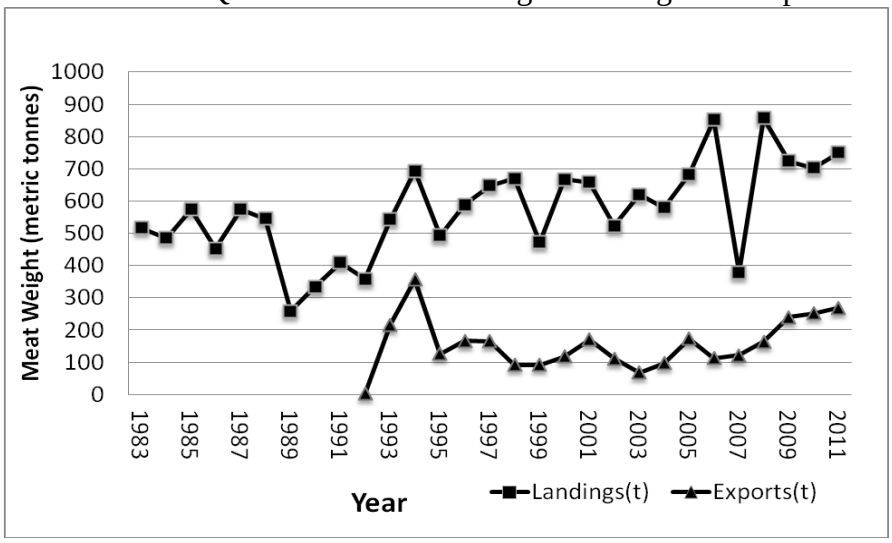
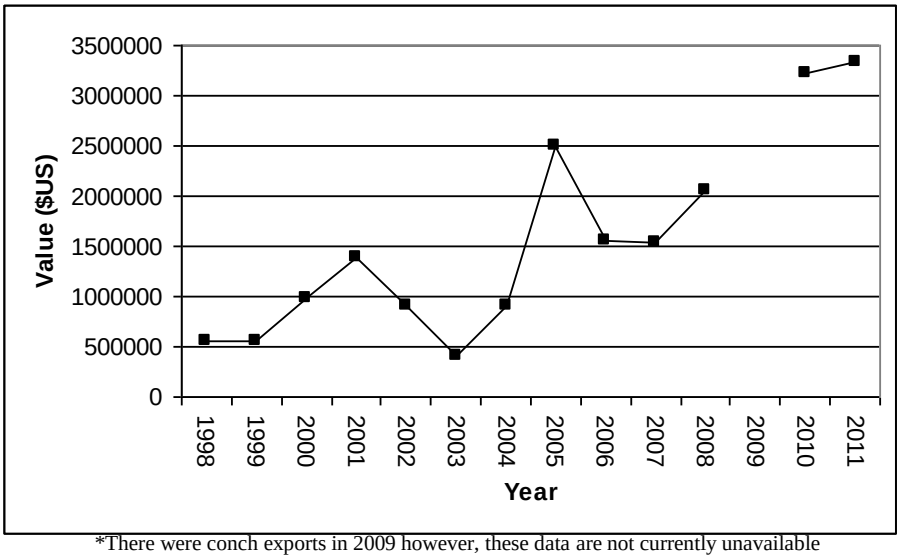


Table 2: Value of Exports



*There were conch exports in 2009 however, these data are not currently unavailable

6.0 Data collection systems: annual catch statistics, research and stock assessment

Landings data have been collected by data collectors that visit landing sites to conduct trip interviews and inspect catches. Coverage by data collectors is limited; however, landings data are supplemented by purchase reports submitted by processing plants that are located on most islands with major fishing communities. Data collected includes total weight of conch landed, the local value of landings, landings by major-island and fishing effort.

Commercial export amounts and value are also recorded and are considered accurate due to the export quota system in place as well as controls necessitated by CITES.

A number of research or assessment activities have taken place since 2009 by the non profit group Community Conch with lead scientist Allan Stoner. These activities took place with varying amounts of resources supplied year to year chiefly by Community conch, in addition to the Bahamas Government, the Bahamas National Trust and The Nature Conservancy. Activities included visual surveys of conch fishing grounds in the Berry Islands, Eastern through Southern Andros, a portion of the Exuma Cays Land and Sea Park, Lee Stocking Island and southwestern Abaco. Survey results for the Berry Islands showed that there was a major decline in juvenile densities compared to a 1987 study. In addition there were conch present in a newly created MPA within the study zone; however, at the time of the survey adult densities were not conducive to reproduction taking place. There were also higher densities of less desirable "samba" conch (Stoner et al 2009). In Andros conch densities were 118/ha thus allowing a minimum amount of reproduction to take place. However, these densities were only in a small portion of the areas studied. These few areas of higher densities were also dominated by "samba" conch (Stoner et al 2010).

The Exuma Cays Land and Sea Park showed that approximately 10% of adults were reproducing; however, densities were reduced by 6% in a shelf area and 69% in a bank area between 2011 and 1994 At Lee Stocking Island, which is nearby to the ECLSP, densities in 2011 represented a 91% decline since 1991 when densities were already very low(Stoner et al 2011).

Visual survey results for the southwestern Abaco area will soon be released.

Other aspects of the Community Conch research activities included examination of the relationship between lip thickness, maturity and the presence of a flared lip. Results indicate that the juveniles are not adequately protected in most Caribbean countries (Stoner et al 2012).

7.0 Final Considerations

The Bahamas has made recent progress in having assessments and other research completed for its conch fisheries. While many areas remain to be surveyed the results also now provide the opportunity to take focused and calculated corrective measures and have also given an appreciation of the urgency of the matter around the Caribbean.

References

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