



# Marine Education Poster Contest 2014

Sponsored by Blue Lagoon Island & Vendors from Nassau

Dolphin Encounters-Project BEACH

Contest Deadline: February 28th, 2014

## Dive Into Conch: Protecting Our Conch for Future Generations!



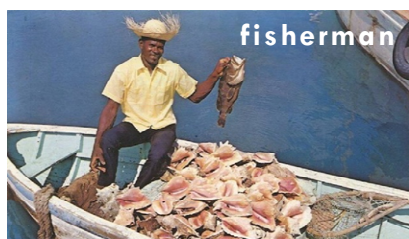
Could you imagine The Bahamas without conch? You walk up to order your juicy conch salad, only to find out, conch stall after conch stall, there's NO more conch in The Bahamas?!?!?

Sadly, in some countries, the Queen Conch has become commercially extinct. Let's not let our conch disappear. Dive into learning about the Queen Conch and find ways to protect it for future generations!

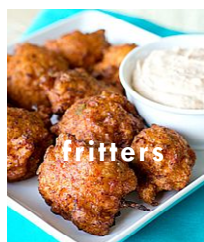


### A Cultural Icon

Conch are native to the coasts of the Caribbean, the Florida Keys, the Bahamas, and Bermuda. The Queen Conch has been a staple food in the diet of Bahamians for hundreds of years, as well as an important fishery resource.



Harvesting conch, selling it locally and exporting it bring millions of dollars annually to the Bahamian economy. In 2012, over 546,000 pounds of conch meat were exported!



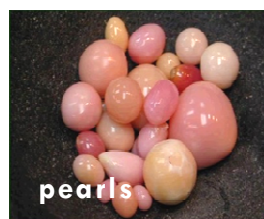
Unique conch souvenirs created by Bahamian artists bring local flavor to our marketplaces. The conch is also considered an important cultural symbol, seen in The Bahamas' Coat of Arms.



### The Life of a Sea Snail

The Queen Conch is a mollusk – a large sea snail -- related to land snails. Its tan outer shell is often covered with algae and debris with spines that deter many predators. The inner shell is a shiny, rosy pink colour. Conchs can produce valuable natural pearls that come in a range of hues, including white, brown, orange and pink.

Conchs are herbivores, eating algae and other tiny marine plants. Beneath the shell is a strong foot with a pointed toenail called the operculum. It uses this claw to drag its way across the ocean floor. Yellow eye spots extend on stalks helping the animal to see as it crawls along. The conch builds its hard shell from calcium carbonate extracted from the sea. As it ages, the conch adds to the spiral each year. Once the lip is formed, it continues to thicken. Queen Conch live an average of 7 years but are known to live as long as 20 – 30 years!



During the first year of life, conch live under the sand during the day and come out to feed on the surface of the sand at night. Juvenile conch – rollers – are eaten by crawfish, crabs, sea snails, turtles, octopus and rays.

Around 6 years of age, a mature Queen Conch can produce an egg mass that contains hundreds of thousands of eggs. Even though mature conch may breed up to 9 times a year, only 1 of every 500,000 eggs from a single egg mass will mature into an adult. Those are some tough odds!



## Conchservvation

Queen conch are vulnerable to **overfishing** because they are relatively slow to grow, late to mature, aggregate to mate, and are easily harvested in shallow waters. In Florida, fishing of conch has been banned since the 1980's after conch populations became severely depleted. In the Bahamas, illegal **poachers** and **fishermen using dive compressors** to hunt for conch pose a serious threat to our



conch populations. Listed as a **threatened** species, Queen Conch numbers will continue to decline if we don't step up to protect these animals now!

Current Bahamian regulations allow for conch to be harvested with a well-formed, flared lip. However, recent research by **Community Conch** suggests that unless the lip is 15mm thick, the conch is probably still a juvenile and has not had a chance to reproduce. Until the fishing regulations change, Bahamians can do their part by sharing this knowledge and only supporting vendors that fish mature conch.

*The thickness of the flared lip should be the size of the new Bahamian penny!*

**Marine Protected Areas** (MPA's) also play a crucial role in conchservvation. Conch eggs disperse via local currents. As a result, MPA's need to be located so that they feed into the circular currents within the Bahamas. Also, because MPA's are no-fishing zones, healthy conch are abundant in them and **spillover** into surrounding waters supporting local fisheries.

## Sustainable Art

**The Tree of Trees**, recently completed by artist Antonius Roberts, raises awareness about overfishing through art. Close to 200 conch shells were collected from conch shell piles for the art work. The thickness of the shell's lip was measured, recorded on the lip and the shells hung at the base of the tree. More than half the shells measured less than 15mm, which means fishermen harvested more than



## My Science, My Conch!



**My Science, My Conch** is a hands-on experience for everyday people who want to help ensure that we will have Queen Conch for generations to come.

Participants complete a training session and conduct supervised surveys of **conch middens** (conch shell piles) in the field. Participants measure shell length and lip thickness and discuss the data afterward.

Communities and schools are encouraged to get involved in this effort to collect important scientific data and learn more about that giant, delicious, sea snail we all love, the Queen Conch.



## Conchy Tips...

- ONLY harvest conch that has a flared, well-formed lip at least 15mm thick
- Support vendors who are committed to harvesting only mature conch by free-diving
- Report poachers or illegal fishing activities to your local police
- Only purchase conch shell products that are made from mature conch shells
- Participate in My Science, My Conch or make a donation at [www.bnt.bs](http://www.bnt.bs) or [www.communityconch.org](http://www.communityconch.org)
- Learn more about our marine protected areas by contacting the Department of Marine Resources
- Participate in MEPC 2014!