



Do Closed Areas Work?

In 1990, the spawning area for red hind groupers south of St. Thomas was closed to all fishing activities from December 1 to February 28 each year. The purpose of this regulation was to protect the hind during their spawning period to allow stocks of this species to recover from previous over harvest. Red hind, like most groupers, form spawning aggregations and are thus very easily caught in large numbers.

The closure was enacted due to data which indicated declining numbers of red hind being caught, declining size of fish and a decline in numbers of male fish in the population (all are born as females and change to males when they reach a certain size but were being caught before they could reach that size). Since the closure in 1990, the effectiveness of this management action had not been evaluated.

During January, 1997, an evaluation was made of the spawning aggregation closure. The evaluation used trap and handline sampling, video sampling and direct visual transect sampling. The data collected by these methods suggests that protection of spawning aggregations is a very effective management strategy. Numbers of fish caught per unit of gear (trap or handline) were higher than in 1988 (the last year where data was collected from the spawning area), the overall size of fish was greater and the number of males to females had increased to approximately one male to four females (1:15 in 1988). This increase in health of the spawning aggregation translates to more fish being caught outside of the closed area and during the rest of the year.

The success of this area closure suggests that other spawning aggregations should be identified and protected similarly. The conclusion of this study is that this management strategy appears to be very valuable for the conservation of species which form spawning aggregations. Continuation of this closure should result in more, larger fish in the future in all areas of the northern Virgin Islands waters. This will benefit not only fishermen but everyone who loves to eat fish.

Excerpted from: Beets, J and A. Friedlander. 1997. Evaluation of the spawning aggregation closure for red hind, St. Thomas, USVI. Report to the Caribbean Fishery Management

Gone Fishing



July is National Fishing month and the local fishing tournament season is in full swing. Fishermen of all ages have had the chance to participate in a variety of fishing tournaments during the month of July.

The Division of Fish and Wildlife attends these tournaments in order to obtain information on species, quantity, weight and length of fish caught. This very important information is used in determining the status of the fish populations and developing resource management strategies.

The July Open was held on July 5-6, at Sapphire Beach Resort. This tournament, organized by the V.I. Gamefish Club, featured three categories, Inshore, Offshore and Onshore. The Onshore category was aimed at getting the youngsters to enjoy the fishing experience. All of the participants took home prizes including tackle boxes, flashlights, cash and bikes.

July 12-13, the Northside Sportfishing Club hosted the Annual Bastille Day Tournament. This is probably the highlight of the fishing season, when fishing enthusiasts get a chance at a variety of prizes.

The Governor's Cup - Billfish Tournament was held at American Yacht Harbor on July 18-20. In this tournament, we saw a number of fishermen from Puerto Rico. There was even talk of a Virgin Islands vs. Puerto Rico Tournament since our neighbors tend to win quite a number of the tournaments each year.

The Boy Scout and Vitelcellular Tournaments will be held in August 15-18, 1997.

Quote

"If a child is to keep alive (their) inborn sense of wonder... (they) need the companionship of at least one adult who can share it, rediscovering with (them) the joy, excitement and mystery of the world we live in."

- Rachel Carson, The Sense of Wonder

Leatherback Turtles

The leatherback turtle (*Dermochelys coriacea*), lacks the hard shell or carapace normally associated with other turtles. It's back is covered with seven leather-like plates. It is the largest of the sea turtles - females grow to six feet in length and weigh over 1,000 pounds; males grow even bigger.

Adult leatherbacks usually live in temperate/subtropical waters where they feed mostly on jellyfish. Every two or three years, female leatherbacks head for tropical waters where they nest on warm sandy beaches like Sandy Point, St. Croix. Nesting usually takes place from March to July.

It is quite a struggle for this huge animal to move onto land to lay her eggs. She reaches out with her strong flippers and drags herself forward in the soft sand. It is thought that turtles normally return to nest on the very beaches on which they hatched, but no one knows how, out of the whole vast ocean, they are able to find that one beach.

The turtle tends to be nervous as she approaches the beach. This is the time when loud noises, lots of activity, movement, and especially light like camp fires, flood lights or even flash lights may upset her and send her back out to sea.

When the turtle finds a place on the beach that she likes she begins the first phase of the nesting ritual called- body pitting. Scientists are not sure how turtles decide where to nest; there are even times when the place she chooses is too close to the water or where the beach is likely to wash out. Body pitting is done with the long front flippers. The turtle flings loose sand away from herself and smooths the whole area around her nesting site. This helps keep the dry surface sand from falling into her nest.

The turtle now begins serious digging. Using her back flippers - first scooping sand out with one,

then the other - the turtle digs until she cannot reach any deeper. This is usually about two to three feet down into moist sand, and may take half an hour or so. If the turtle is satisfied with her nest, she begins to lay her eggs. If something is wrong with the nest - sometimes the sand caves in or water or roots may be in the nest - she may dig elsewhere or return to sea and try another night.

Each female lays between 60 and 100 eggs in each nest. The eggs are about 2.5 inches in diameter, round and white. After all the eggs are laid in the nest, the turtle uses her back flippers to cover the eggs with sand. Camouflaging is the last phase of the nesting ritual. When the turtle is satisfied that her nest is well hidden, she heads back into the sea. After about 10 days at sea, she will return again. She will probably repeat this pattern from three to eight times (up to 12) in a season.

After about two months in the sand, the eggs will hatch. These tiny turtles, which are no bigger than a child's hand, begin their journey to the sea. The hatchlings may be eaten by night herons or crabs. They can fall in a rut or footprint or become tangled in seaweed or beach trash. If they are trapped until day, mongoose or sea birds may eat them or they may be baked by the sun.

Once the hatchlings finally reach the sea, fish and sea birds prey on them. No one knows where these young turtles go to grow. But we do know it takes 12 to 14 years before they return to nest, and life is not easy for a baby turtle.

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This newsletter was funded by the US Fish and Wildlife Service, Sport Fish and Wildlife Restoration Acts, the Caribbean Fishery Management Council and the Government of the VI.

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