

FISHERIES

A series of VIRMC fisheries projects done from 1984-1987 had the following objectives: to study the role of fishing in the culture and economy of the VIBR, to assess the fish and shellfish stocks, to determine an ecologically realistic definition of fishery management zones around St. John, to determine if management zones should include the BVI or other areas outside VIBR, to see if fish and shellfish stocks within the VIBR or at Buck Island are declining, and to initiate an effective program for long-term monitoring of fisheries. Lesser Antillean fisheries were also characterized. In this section, these VIRMC studies and other pertinent reports are discussed. Mahon et al. (1986) prepared an annotated bibliography of references on fisheries in the Lesser Antilles.

SOCIOECONOMIC AND CULTURAL ROLE OF FISHING IN VIBR

Studies of fishing on St. John indicate that few people on the island made or make a living from fishing, but it is a very important part of island culture (Dammann, 1969; Koester, 1986). Most people catch fish for their families and sell or give away the surplus.

Fiedler and Jarvis (1932) interviewed fishermen on St.

Thomas and St. John in 1931. At that time 78 out of a total of 405 fishermen were from St. John, and all boats, with the exception of one motorboat, were powered by oar or sail. The island's population was about 765. Fish sold at 6 cents a pound. Fishermen used whelk, conch, and lobster to bait their traps. Ninety tangle nets were in use for catching turtles. The most extensively fished waters were those between St. Thomas and St. John.

In 1959, there were 11 fulltime fishermen and less than 75 parttime fishermen out of a population of about 800 (Idyll and Randall, 1959). Idyll and Randall (1959) estimated 500-560 traps were set by local and British Virgin Islands fishermen. Most of the catch was from traps, followed by handlines and beach seines. Apparently, only 5 seines were used around St. John, but these were about 360 feet long and 12 feet deep.

In 1959, demand for fish on St. John was not met. Apparently, most St. Thomas and BVI fishermen fishing around the island took their catch to Charlotte-Amalie, St. Thomas. At the time of this survey, residents did not feel fish populations had declined.

Dammann (1969) estimated about 400 people were involved in commercial fishing in the USVI in 1967, with 120 of them fulltime. He concluded that the reefish populations were not

being overfished at this time because while the number of fishermen was about the same as in 1930, the number of fish pots had decreased by about half, and the total catch had increased. Clavijo (1984) reported 454 licensed fishermen in 1982-1983. Olsen (1979) described recreational fishing in the USVI and concluded that the estimated combined landings from commercial and recreational fishing probably exceeded the maximum sustained yield.

Koester (1986) described the role of fishing in the economy and culture of St. John based primarily on interviews with 16 fishermen (13 of whom resided on the island) and 7 government agency employees in March 1984. He estimated a total of 25 to 30 artisanal fishermen lived on St. John, ranging from those who fish parttime for their own families to a few individuals who consider fishing their main occupation and sell their catches. All use relatively low technology methods. At the time of this study, only two people were fishing commercially, and they fished outside park waters.

An unknown number of people from the British Virgin Islands and St. Thomas use the waters around St. John. Some St. John residents go to the BVI to fish where lobsters, conchs and whelks are more abundant.

Fishermen primarily use fish pots or traps to catch reef

fish and lobsters, followed by hook and line methods for pelagic and bottom fish. Trapping has traditionally been the preferred fishing technique (Dammann, 1969; Boulon and Clavijo, 1986). People also SCUBA dive for conchs and lobsters.

The demand for fish on St. John consistently exceeds the supply. Fishermen ~~believe that populations of lobsters, conchs, whelks and reef fish have declined and~~ cite a variety of causes:

- 1) fewer people are fishing and they are parttime fishermen;
- 2) adverse environmental changes associated with tourism;
- 3) increased boat traffic, resulting in cutting and dragging of trap lines;
- 4) theft of fish traps;
- 5) restrictions imposed by the park.

It is difficult to assess the magnitude of the impact of park regulations on fishing. Trap fishing and hook and line fishing are still permitted. However, the fishermen are constrained by a variety of restrictions. For example, Title 36 CFR (Code of Federal Regulations) established quotas on lobsters, conchs, and whelks, prohibits spearfishing, restricts use of nets to those under 20' long, and prohibits all fishing in Trunk Bay.

The federal Endangered Species Act of 1973 prohibits catching of sea turtles. Other regulations, e.g. against cutting of certain plants used in fish trap construction, also limit

traditional activities.

The restrictions on the use of gill nets and longer seines for catching baitfish perhaps has had the greatest impact. The relative abundance of baitfish inside and outside park waters is not known.

The tourist industry has provided new employment opportunities, replacing the island's traditional subsistence economy. The park probably has had more of an effect on the island because of its role in increasing tourism and related industries than from its restriction of traditional uses of the land and sea. Koester (1986) recommends integration of fishermen into the management of VINP/BR.

In spite of protective legislation in the USVI and specifically within VINP, and a gradual decrease in the amount of fishing around the island as people have given up fishing for jobs in tourism and elsewhere, fish populations have drastically declined.

ASSESSMENT OF FISH AND SHELLFISH STOCKS

Estimation of most fishery stock parameters is extremely difficult. Stocks are a function of recruitment, growth, natural mortality, and fishing mortality. Stock estimates can be based

on 1) estimates of productivity in terms of carbon transfer through trophic levels, 2) length-weight frequencies of individual species, and 3) age, growth, and mortality rates. Fisheries information on catch per unit effort (CPUE) is also useful.

Dammann (1986) notes that although both biological and fisheries data are routinely used in stock assessment, the resulting estimates are often not entirely suitable for tropical shallow-water fisheries. It is especially difficult to assess stocks in shallow tropical seas because of the large number of species and the complex interrelationships of the coral reef, seagrass bed, and mangrove ecosystems which they inhabit.

Large assemblages of species often occur on narrow insular platforms separated from one another by deep ocean passages. In the Eastern Caribbean, each island platform is usually considered to contain its own fisheries stock despite the fact that there is obviously a great deal of gene exchange throughout the region. Most species in the Virgin Islands and Puerto Rico fisheries have pan-Caribbean distributions. There is recent evidence that marine planktonic larvae can maintain their position relative to a particular insular shelf without being swept downstream. Each insular platform apparently recruits new individuals both from within and outside its own system. There are no natural boundaries to the present VIBR, and, in light of daily and

seasonal migrations, it is not appropriate to treat the resources within the area as distinct stocks.

In the area of the VIBR the useable fisheries data are derived from the entire geological platform or relatively large sections of it, and at present are not suitable for estimating sustainable yields from such a small arbitrarily defined area as the waters within VINP. It is probably not appropriate to treat the marine resources within the biosphere reserve as distinct stocks.

Fisheries yields from shallow tropical reef, seagrass bed, and mangrove areas perhaps average about 4-5 metric tons/sq. kilometer/yr (Munro and Williams, 1985). Larger yields (up to 15 mt/km²/yr) come from well-developed reef areas in the Pacific where fishermen harvest almost all species of living organisms (Munro, 1984).

The Caribbean Fisheries Management Council represents the governments of the USVI, Puerto Rico, and the U.S. mainland. It works in cooperation with the BVI government to produce Fisheries Management Plans (FMP) for the local fisheries resources.

An analysis of the data contained in the FMPs of shallow-water reef fish (198) and lobsters (198) reveals that 1) local shallow water resources are heavily and in some cases over-

exploited, 2) fisheries productivity of the shelf is comparatively low (73 lbs/ha/yr), and 3) maximum sustainable yield (MSY) estimates are low (shallow water reef fish for PR and the USVI, 7.7 million lbs/yr; spiny lobsters for PR and USVI 830,000 lbs/yr; conchs, 364,000 lbs/yr for St. Thomas-St. John.)

FISH COMMUNITY STRUCTURE

Randall (1968) described 300 common reef fish species from the West Indies. He examined the food habits of 212 species based primarily on specimens from Puerto Rico and the USVI (Randall, 1967). For two study sites in St. John, the fringing reef in Lameshur Bay and one at Ram Head Bay, herbivores made up about 24%, omnivores about 16%, and carnivores 60% of the total fish biomass. Randall (1963) installed an artificial reef in Lameshur Bay in 1960 and found that it supported 11 times more fish than a nearby natural reef, probably because of the food provided by a nearby seagrass bed.

Boulon et al. (1986a) studied approximately 50 commercially important species from 20 different habitat types within VIBR using a visual census technique. They recorded number of individuals of each species and minimum/maximum length for each species. Grunts, groupers, goatfishes, snappers, triggerfishes, mackerels, squirrelfishes, and parrotfishes are some of the most

important commercial groups they observed.

Variations in the number of censuses done by Boulon et al. (1986) for each habitat type made comparisons difficult. In general, however, high species diversity was correlated with high habitat complexity. Of all habitats sampled, the lower forereef (the seaward extension of most reef systems) stands out because of a high number of species and the relatively larger size of individual fishes. Lobsters are also associated with reef areas with more complex structure, finding shelter in crevices and overhangs.

Bank pavement areas, often deeper than 20 m, also tend to have larger individuals and may be principal habitat for lobsters and queen triggerfish. Juvenile fishes tend to be associated with shallow mangrove areas while fish with planktonic eggs reproduce in deeper, offshore habitats. There is some evidence that deepwater algal plains and shallow grass beds serve as nursery areas as well. Migration of coastal pelagic fish species, lobsters, and conchs present sampling and monitoring difficulties. However, most reef fish are non-migratory which allows more management options.

Boulon et al. (1986) selected four long-term monitoring sites for fish: Fish Bay, Lameshur, Hawksnest, and Trunk Bay. Fish Bay was selected because of potential problems from land-

based sediment associated with watershed development. Lameshur has little impact from coastal development but has some artisanal fishing pressure. Previous scientific research carried out here can be used for some comparisons. Concern over development of the watershed (particularly building of the St. John clinic) and observation of heavy runoff led to selection of Hawksnest Bay. Trunk Bay was selected in an attempt to study visitor impact. To date, these areas have not been recensused.

FISHERIES LANDINGS ON ST. JOHN

Dammann (1969) and Olsen (1979) provide landings data for fish and shellfish in the USVI. More recently, Boulon and Clavijo (1986) looked at 6 months of fishing landings for commercial and subsistence fishermen specifically on St. John. It is impossible to determine the amount of catch landed on St. John that actually comes from within VINP waters. Data came from 28 commercial and 10 subsistence fishermen who landed catch on St. John. (Only 12 St. John fishermen had commercial licenses in 1984.) For the first 6 months of 1984, commercial fishermen landed over 16,000 lbs of fish and shellfish.

About 1400 lbs of lobsters were caught in a 6 month period in 1984 adjacent to or within VINP. Fishing for lobsters is concentrated around Fish Bay, Reef Bay and Johnson's Reef (north

side). Only 3 fishermen reported conch catches landed on St. John. Most of the conchs came from the south shore where seagrass beds are more extensive. Subsistence fishermen take the same species as found in the commercial catches, with each individual landing less than 50 lbs of fish per month. Most of their fishing takes place outside the park.

Boulon and Clavijo (1986) estimated that there are generally less than 2 dozen traps in NPS waters. However, recent observations by park staff indicate that the number of traps which lack buoys at the surface may exceed those which are marked and further work on intensity of trap fishing is necessary. Within the park, Lameshur appears to be the the most intensively fished bay.

FISH POISONING

Fish poisoning is a serious marketing concern in the USVI. Over half of the total weight of fish landed and half of the species in the fishery have some risk of carrying the ciguatera toxin which is associated with a benthic dinoflagellate (Olsen et al., 1982). About 3.5% of the species are very likely to contain the poison, including several of the jacks, the dog snapper, and the barracuda (Olsen et al., 1982; Dammann, 1969). Toxic fish are apparently unaffected and do not exhibit any signs to

indicate they are poisonous. No practical test for toxicity has yet been developed. Ciguatera occurs throughout the Caribbean but most frequently in the islands north of Martinique. One of the areas of highest risk is south of Norman and Peter Islands in the BVI. Development of an inexpensive and easy test to determine whether or not a fish is ciguatoxic would have dramatic consequences for local fisheries.

HABITATS OUTSIDE VIBR OF ECOLOGICAL IMPORTANCE TO BIOSPHERE RESERVE FISHERIES

Boulon (1986b) carried out a study to determine which habitats outside VIBR are of ecological importance to fisheries within it. VIBR can not be considered as a closed system because of the migration of organisms and the production of planktonic eggs and larvae by most food fishes.

Boulon (1986b) sampled the following areas: Pillsbury Sound, SW St. John, bank patch reef off Reef Bay, Hurricane Hole, Norman Islands, NE St. John bank pavement, Great Thatch, and Soper's Hole. Of these, he concluded that that only a few could have importance for the VIBR. Coral Bay is the largest and most

protected bay on St. John, and the most extensive mangrove communities on the islands occur here. This area may serve as a recruitment source for lobsters and fish for many reefs and near shore communities along the south coast of the island. Bank pavement areas northeast of St. John in the Narrows and off Southwest St. John provide good lobster habitat and support large populations of adult fish. The large bank patch reef off Reef Bay appears to be a good spawning location. Soper's Bay (Tortola) has suffered from dredging, but still may be an important nursery habitat.

LOBSTER AND CONCH FISHERIES

DuBois (1985) summarized the history of lobster and conch fisheries in the Caribbean, depletion of the stocks, and the constraints on effective management of the fishery. Lobsters and conchs are currently the Caribbean's most economically important fishery exports. Valencia (1978, cited in DuBois) estimated that the fisheries contributed less than 1% of the Gross National Product of the USVI. However, fishing is an important tradition in the islands, and its cultural and social value should not be overlooked.

In the past, the USVI exported lobsters to other countries. Lobsters were apparently so abundant that they were hard to give

away and often served as bait for fish traps. The USVI was exporting lobsters to Puerto Rico as late as 1960 (Caribo, 1961). Since the late 1960's, the USVI has been importing conchs and lobsters, primarily to meet the demands of tourism.

DuBois (1985) noted that attempts to reverse the decline of lobsters and conchs throughout the Caribbean have been largely ineffective. DuBois (1985) states "Within the region, the USVI perhaps represents the most dramatic example of depletion of stocks due to excessive demand associated with growth and tourism development". He concluded that Belize and Turks and Caicos have been relatively successful in managing lobster and conch fisheries largely because of effective fishermen cooperatives and environmental education. The USVI fishermen are not currently organized into effective cooperatives.

Conchs

Randall (1964) studied the basic biology of the conchs in St. John in the late 1950's and early 1960's. Conchs occur over a large depth range and in a wide variety of habitats including sand, rubble, and seagrass but most often in seagrass beds. They are herbivores which primarily eat algae but also ingest seagrass. Randall (1964) found that conchs tended to spawn in warm months, ceasing in November or December and beginning again in January, February, or March. Recent research suggest that the

flared lip on conchs may not necessarily indicate reproductive maturity (Wilkins et al., 198), which means that regulations which only permit taking of conchs with flared lips are not actually protecting the reproductive populations they were intended to.

Predators of conchs include spotted eagle rays, lobsters, queen triggerfish, and sharks. While some predators are only capable of consuming the animal after it is removed from its shell, a few species can crush small conch shells to get at the animal inside.

Deterioration of seagrass beds around St. John could be partly responsible for the observed depletion of conch populations. Randall (1964) referred to hundreds of conchs in Salt Pond Bay. Populations this large have not been seen there in the last several years.

Boulon (1987) monitored juvenile and adult conch populations in Reef Bay, Outer and Inner Fish Bay, Hawksnest Bay, and Threadneedle Bay monthly in 1985, finding very low numbers of individuals and widely fluctuating population sizes.

In 1985, Boulon (1987) used a diving sled to survey conchs around St. John, repeating surveys done four years earlier (Wood and Olsen, 1983). Numbers of conchs in 1985 were not

significantly different than in 1981, although Boulon (1987) suggests caution in drawing conclusions from these results because of small sample sizes. Spot checks at 14 other sites around the island which appeared to be good habitat (e.g., Inner Fish Bay and Reef Bay seagrass beds) revealed 5 sites with no conchs and the remainder with less than 15 each (Boulon, 1987). Piles of empty shells were found at several locations.

Absence or low numbers of conchs at sites known to have supported conch populations in the past (Hawksnest, Inner Fish Bay) could reflect migration or harvesting of the animals. The southern park waters, at least above 20 m, have more conchs than northern waters, with Outer Fish Bay having the largest population (Boulon, 1987). Number of conchs in this bay were significantly less in the summer months, and Boulon (1987) suggested conchs migrate offshore into deeper water during the summer reproductive season to mate and deposit eggs.

In contrast, Hesse (1979) and Coulston (1985) described migrations in the fall months in the Bahamas and St. Croix, respectively. Coulston (1985) saw reproductive activity from March through November in depths of 15 m to 21 m. Deepwater populations may move inshore into adjacent shallow bays such as Threadneedle. Coulston (1985) and Boulon (1987) agree that deepwater reproductive populations, which escape fishing pressure, may be essential to maintenance of the species in USVI

waters. Boulon (1987) suggests that the continuing take of immature conchs around St. John will result in near elimination of local populations. Recent research suggests that the flared lip on conchs may not necessarily indicate reproductive maturity (Wilkins et al., 198).

Lobsters

Boulon (1987) surveyed areas in Fish, Reef, and Hawksnest Bays for spiny lobsters (Panulirus argus) and spotted lobsters (Panulirus guttatus) in 1985 and 1986. Alarminglly low numbers of lobsters were found at all sites (Table), although the presence of ledges, overhangs, and holes in these reef areas would appear to provide good lobster habitat. For example, in Reef Bay, only 0 to 4 lobsters were observed in each of 9 censuses, with all of these having carapace lengths less than 3.5 inches (legal size). At Hawksnest, only 1 spiny lobster was seen in 11 monthly surveys. Spot checks for lobsters at 9 additional sites (Figure) in the summer of 1985, turned up exceptionally low numbers of both species as well (Table).

Knowledge of basic lobster biology is a prerequisite for effective management. Tektite studies provided information on population dynamics (growth and mortality), ecology, and behavior (Cooper et al., 1975; Herrnkind et al., 1975; Olsen et al., 1975; Olsen and Koblick, 1975). Olsen et al. (1975) studied lobster

distribution around all of St. John using SCUBA (Figure ; Table). In their survey, lobsters were rare from Hawksnest to Francis Bay and on the east end of the island. Mean lobster densities ranged from 0 to 19.4 individuals/ha. (This contrasts with an estimated mean density of 64.8 lobsters/ha in the Dry Tortugas in the early 1970's (Davis, 1975)). Their observations were confined to waters 18 m deep or less, and substantial lobster populations could occur deeper. Lobsters tended to inhabit areas near dropoffs to deep water.

The reproductive period for lobsters appears to be in the spring and fall according to Olsen et al. (1975) or just in the spring according to Davis (1977). The planktonic phase of the spiny lobster's life lasts an estimated 6 to 7 months (Sims and Ingle, 1966; cited in Olsen et al., 1975). Mortality may be over 99% (Buesa, 1966; cited in Olsen et al., 1975). Juveniles settle in shallow mangrove and seagrass bottoms. The long-spined black sea urchin Diadema antillarum commonly provides shelter for young lobsters (Davis, 1971). Olsen et al. (1975) suggest most juvenile lobsters in USVI waters occur in mangrove lagoons. Juveniles leave the mangroves after 2 years, after reaching a carapace length of about 80 mm. Some data suggest offshore movement of lobsters during fall and winter out to the reefs.

Olsen and Koblick (1975) found that female lobsters take up to 4 years to reach market size after settlement from the

plankton while males take 2 years. Survivorship was estimated at 52 to 66% per year. These authors felt that even within park waters the lobster population showed the effects of fishing.

Herrnkind et al. (1975) studied den occupancy and nocturnal movements of spiny lobsters. One study site in Greater Lameshur had population densities ranging from 4.8 to 15/ha. Lobsters leave dens at night to feed in reefs or sand-algal plains, returning before dawn. These authors suggest resident lobsters have home ranges of 200 to 300 m in diameter. Herrnkind et al. (1975) found indications that intensive handling of lobsters altered their distribution patterns after release (see also Davis, 1977).

Gut analysis revealed lobsters eat primarily molluscs (including small conchs) as well as Diadema, Echinometra, and hermit crabs through scavenging and active predation (Herrnkind et al., 1975). In his study at Dry Tortugas, Davis (1977) also found that lobsters eat molluscs and echinoids, including Tripneustes, and Lytechinus.

Davis (1977) showed the effects of intense recreational harvest of lobsters at Dry Tortugas (Fort Jefferson National Monument). Following prohibition of harvesting for over 2 years, sport fishing for lobsters was permitted for 8 months. Although the control population did not change, the trap catch rate in the

experimental area decreased 58% immediately after harvest. One year later, the catch rate had recovered to 78% of its former level. Full recovery could take several years. Davis (1977) documented seasonal movement between shallow and deep waters that appeared to be related to mating and reproduction.

OTHER FISHERIES

The whelk* or West Indian topshell, *Cittarium pica*, inhabits rocky coasts a few feet above and below the water line. Randall (1964) studied the general biology of the whelks in Europa Bay, St. John. Boulon (1986, 1987) studied density, seasonal distribution, and size classes of whelks between Windswept Beach and Peter Bay on St. John's north shore. The conspicuous lack of individuals larger than 6.9 cm suggests high levels of harvesting. The local government established a size limit of 2 and seven-sixteenth inches (6.2 cm) for whelks effective on Feb. 1, 1988 and announced a closed season from April 1 to Sept. 30 of each year.

Several species of fish are used as bait in local reef and pelagic fisheries, including dwarf herring, redear sardine, false pilchard, flying fish, ballyhoo, and mackerel scad. The Division of Fish and Wildlife surveyed baitfish in the USVI from 1984 to 1987. In St. Thomas and St. John, fishermen primarily use haul

seines to catch bait, while St. Croix fishermen generally use cast nets. Some species of baitfish may show seasonality in abundance.

FISHERIES OF BUCK ISLAND REEF NATIONAL MONUMENT

Tobias et al. (1988) studied lobsters, conchs and reeffish at Buck Island from November 1985 to June 1986 to determine the effectiveness of NPS regulations in protecting fish and shellfish populations and to assess the impact of commercial trap fishing. Censuses similar to those carried out previously by Gladfelter et al. (1977) and Simpson (1979) at the same locations led them to conclude that reeffish are decreasing in abundance. Park rangers and concessioners feel there has been a severe decline. The average density of conchs in seagrass beds west of the island was 0.14 individuals/m² which compares to a density of 0.17/m² reported by Boulon et al. (1986) for VINP. Less than 2% of the animals censused were adults. The mean density of lobsters at 3 small reef areas was only 0.008/m².

Fewer species and fewer fish overall were caught at Buck Island in experimental traps than at Teague Bay, an unprotected area south of Buck Island. Commercially important reef fishes do not appear to be any more abundant than at Teague Bay or

elsewhere around St. Croix.

LESSER ANTILLEAN REGIONAL FISHERIES

Goodwin (1986) provides information on regional trends in Lesser Antillean fisheries and the implications of these trends for management of the VIBR and other protected areas in the region. Sustainable conservation of regional ecosystems requires effective inter-institutional and international cooperation.

Few data exist on the abundance and sustainable yields of Lesser Antillean fishery resources. Shallow-water reef fishes are apparently overfished in most of the Lesser Antilles. Habitat destruction associated with coastal construction will become an increasingly important threat to fisheries. However, current landings could be moderately increased through attention to underexploited resources (deep water snapper-grouper stocks, migratory pelagic fishes). Management of the resources is presently secondary to considerations of improved local income, employment and nutrition. Biosphere Reserves could benefit fisheries by 1) including protected breeding and nursery areas, 1) managing zones to increase local availability of fish, and 3) developing strategies for use of underused resources.

The Organization of Eastern Caribbean states has drawn up a draft set of fishery regulations which provides for the

establishment of marine reserves, thereby providing a legal foundation for designating components of a multi-site reserve. Strategies which involve the participation of local people have been successful in the BVI, Dominica, St. Lucia, and elsewhere and may provide a valuable starting point for development of a regional biosphere reserve network. Case studies of successful marine resource management strategies and research projects which result in clear benefits are needed. The Draft Fisheries Regulations include specific management measures for fish, lobster, conchs, sea turtles and coral.

FISHERIES REGULATIONS IN THE USVI

The Division of Fish and Wildlife in the Dept. of Planning and Natural Resources has responsibility for managing the fisheries in the USVI. Territorial Act 3330, in 1972, established many regulations, including minimum size of lobsters and gear restrictions. The Territorial Government also adopted federal regulations in the Exclusive Economic Zone (EEZ) which establish a minimum size limit of 8 inches for yellowtail snappers (with a one inch per year increase to 12 inches) and 12 inches for Nassau grouper (with a one inch per year increase to 24 inches). There is also a closed season for Nassau groupers from January 1 to March 31 to protect spawning individuals.

"Fisheries in Crisis" was the title of a conference held by the Division of Fish and Wildlife in St. Thomas in Sept. 1987. This conference provided momentum for the rejuvenation of Fisheries Advisory Committees. The St. Thomas-St. John Committee submitted a proposal to the Governor to declare a 5 year moratorium on the taking of conch and a size limit and closed season for whelks. With the Governor's signature, these regulations went into effect February 1988. Prior to this, there had been no regulations at all on conchs or whelks, with the exception of those inside VINP. Inside the park, people were allowed to take 2 conchs per person per day, and 1 gallon of whelks. The National Park Service and the local government have concurrent jurisdiction over park waters, and the park has adopted the more restrictive regulations.

In addition to regulations discussed above, the park prohibits seines longer than 20', allows use of traditional design fish traps, permits the taking of 2 lobsters per person per day, and prohibits all fishing within Trunk Bay (Title 36 CFR).