

POT FISHING IN THE VIRGIN ISLANDS

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Fish traps or pots are the basic unit of gear in the commercial fishery of the Virgin Islands (Fig. 1). Swingle and others reported in 1969 that of 187 fishermen interviewed 83% used pots at some point in their fishing operations. Pots are the primary unit of gear because they are inexpensive, easily built, and allow fishermen to pursue other interests or hold other jobs while the gear is fishing.

BOATS UTILIZED

The majority of boats used in the Virgin Islands pot fishery are 14 to 20 feet, out-board, and locally built. St. Croix fishing vessels tend to be somewhat larger, with in-board engines. Few boats are equipped with mechanical pot haulers. Most fishermen haul their pots by hand.

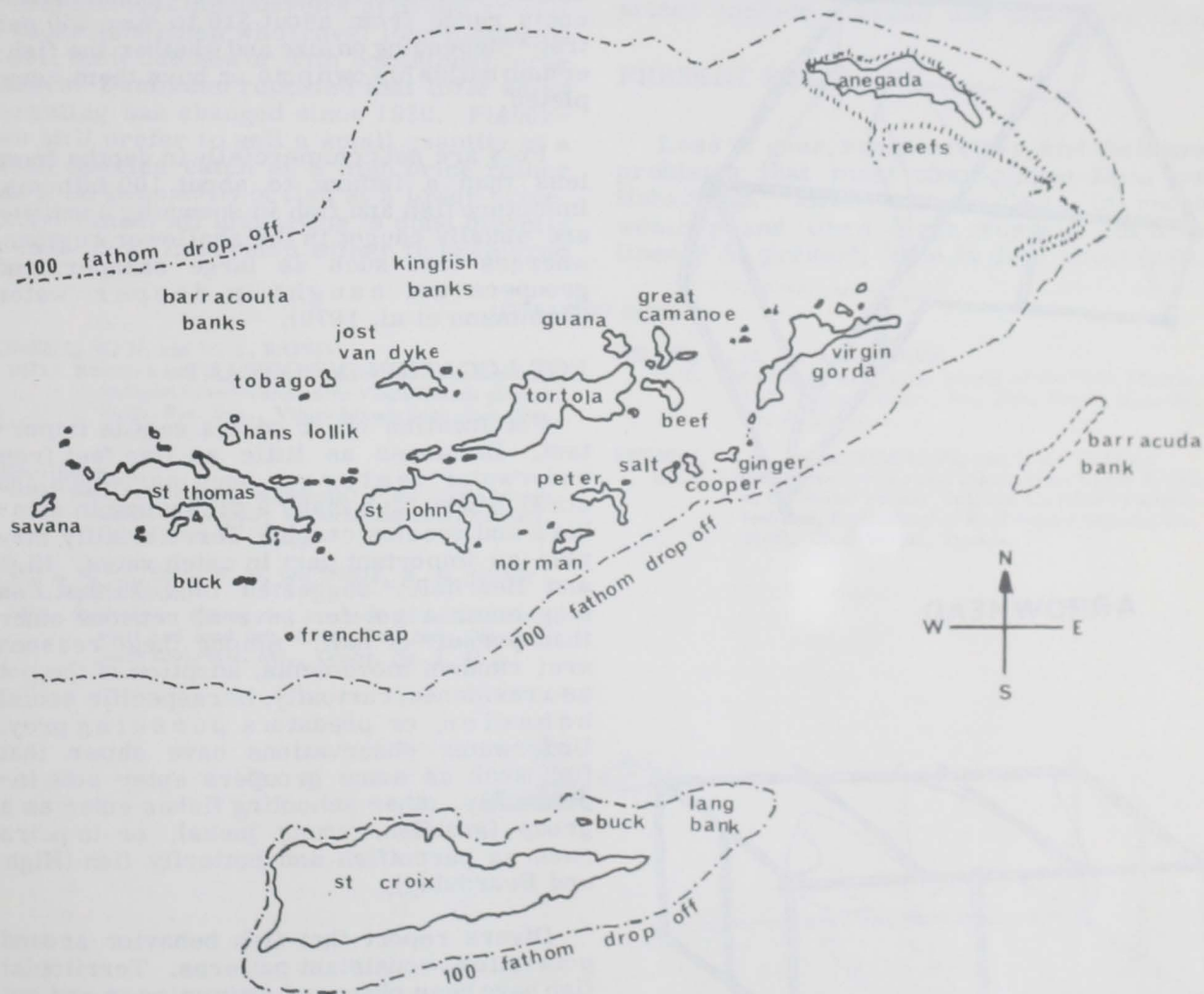


Fig. 1 - Location map of the Virgin Islands. St. Croix is 40 miles south of St. Thomas.

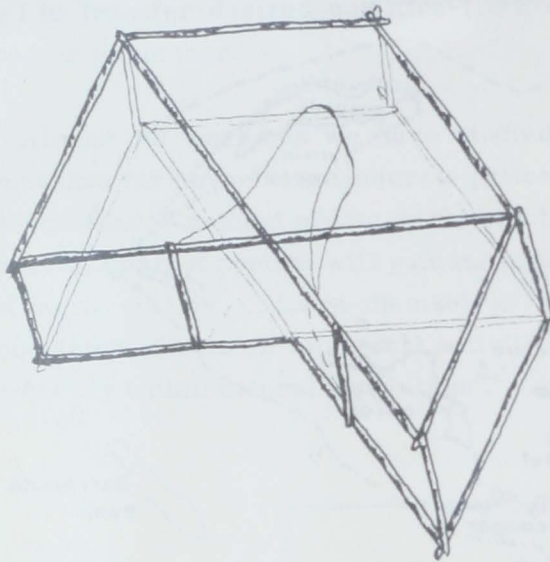
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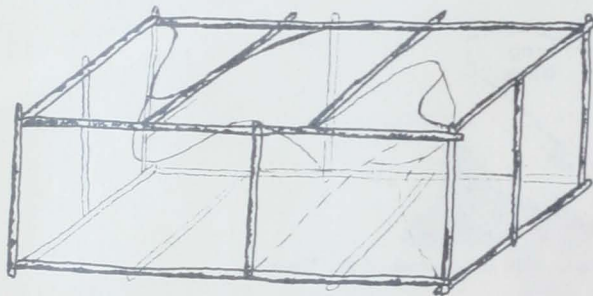
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MOST POPULAR POTS

The most popular fish pots in use today are the Arrowhead and 2-entrance Rectangular (Fig. 2). Other traps occasionally used are the Australian D, Jamaican Z, and Antillean S (Brownell and Rainey, 1971). The Arrowhead trap is usually constructed of 1½ to 2-inch mesh chickenwire. It is supported by wooden braces and has one entrance. Rectangular traps are made of the same



ARROWHEAD



RECTANGULAR

Fig. 2 - Diagram of most popular pot styles.

materials with two entrances. Some fishermen utilize metal bracing, but wood (tree saplings) is generally used. Funnels are oval and are terminated in a right angle facing the substrate. Hence, both types of traps have a "top" and a "bottom". Interviews with fishermen and our underwater observations point out that these traps catch few fish if they are not placed with the funnel opening facing down.

Pot dimensions vary. Larger traps are usually placed in deeper water. Construction costs range from about \$10 to over \$50 per trap--depending on size and whether the fishermen builds his own pots or buys them completed.

Pots are set commercially in depths from less than a fathom to about 100 fathoms. Immature fish and fish in spawning condition are usually caught in the shallower regions, whereas fish such as large snappers and groupers are caught in deeper water (Dammann et al. 1970).

POT LOCATION IMPORTANT

Pot location on or near a reef is important. Distances as little as five feet from underwater features, such as ledges and coral heads, can make a difference in numbers and species caught. Territoriality may play an important part in catch rates. High and Beardsley suggested in 1970 that fish may enter a pot for several reasons other than pursuit of bait. Among these reasons are: random movements, adoption of the pot as a residence, curiosity, intraspecific social behavior, or predators pursuing prey. Underwater observations have shown that fish such as some groupers enter pots individually, other schooling fishes enter as a group (goatfish, young jacks), or in pairs such as parrotfish and butterfly fish (High and Beardsley).

Divers report that fish behavior around pots follows consistent patterns. Territorial fish have been observed swimming in and out of pots (Dammann, 1969). Large numbers of fish in a pot frighten other fish from the vicinity of the pot and may contribute to the "saturation effect" (High and Beardsley). The "saturation effect" was observed by Dammann where serial pot hauls on a reef produced larger successive catches with a final sudden decline.

BAITS DEPEND ON AVAILABILITY

Some baits commonly used are fish, bread, cactus, animal skins, and fruit. Choice of bait probably depends more on availability than on fish-catching abilities. Local fishermen indicate that pots are often set without bait, and appreciable amounts of fish are caught.

MARKETING A PROBLEM

Marketing is considered a problem chiefly by those fishermen who travel long distances to sell their catches or with occasional large catches. Dammann reported that little about marketing has changed since 1930. Fishermen still prefer to sell a small quantity of a mixed species catch at a high price rather than a large quantity of fish at a lower price. Today, almost all marketing is done directly by individual fishermen either to preferred

customers or from selected areas, such as the waterfront in Charlotte Amalie, St. Thomas.

Local fishermen report that during 1964 to 1972 total catches per fishing trip either had remained the same or decreased--but that monetary return had increased. The price of fish in the Virgin Islands has increased from 10¢/lb maximum in 1930 (Fiedler and Jarvis, 1932), 50¢/lb in 1967-1968, and 85¢/lb as of August 1972. These prices include dressed and undressed fish.

PRESENT PROBLEMS

Loss of gear, rough weather, and theft are problems that most often plague local pot fishermen. Gear loss occurs in rough weather and when large vessels cut buoy lines. At present, little is done about theft.

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