

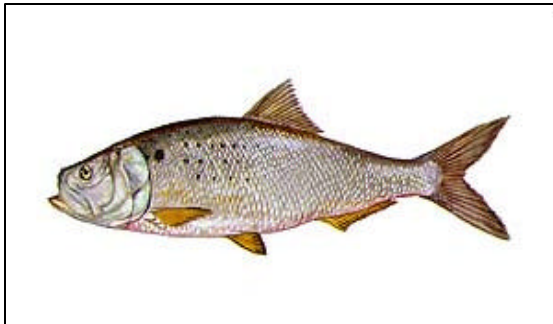
Artisanal Fishing in The Gambia

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Introduction

The Gambia is a small coastal country in West Africa. It is made up of a small population on the north or the south bank of the River Gambia and along the coast of the Atlantic Ocean. The Gambia is a fairly poor country with GNP of 330 U.S. dollars per capita. This classifies it as one of the poorest and most underdeveloped countries in the world.

In a country such as The Gambia, most people rely on the land for their livelihood. As I was selecting my project, I wanted to study something that was in some way associated with the majority of the population and which involved something I love to do. Based on these criteria, I considered doing a project on farming and cultivation. After further thought, I chose something more unique and personally more interesting. I decided to do a project on the artisanal fishing industry in the Gambia. The term "Artisanal" is a good description because these fishermen are accomplished craftsman or artisans in their trade.



A close relative of our Herring & Menhaden, the West African Bonga Fish, is a staple of The Gambian "Artisanal" Fishing Industry.

A former St.Mary's College student, Tom Moore, did a study in 1996 on the community fisheries, but I thought I could further that work through a detailed eye-witness description of their fishing methods and traditions. Fishermen and fishing villages around the world are based on generations of experience and traditions. The techniques, traditions, and economies of fishing are excellent ways of learning about other people and their cultures.

Study Objectives and Methodologies

An artisanal fisherman is categorized as such mainly by the type of fishing he does as well as the total amount of catch and profit yielded. For example, an artisanal fisherman in Gambia has a lot in common with a small farmer in the U.S.A. or even a small-scale fisherman. American artisanal fishermen don't make a lot of money, just enough to support their families and feed themselves. This being my main interest of study, I wanted to be able to give an accurate description of the following:

- What types of fishing equipment used
- The structure and performance of the local boats
- The basic fishing methods as well as the species caught
- The distribution of the profits from the catch
- How the fish are processed
- The constraints on fisherman as well as safety at sea



The hardest part of my project was probably deciding where to begin my studies. There were eleven government-funded fishing Co-Ops in the Banjul area, including one in the town of Bakau which was within walking distance from our hotel. This fishing port was relatively modern with an ice house and a rescue station located on the premises. My first contact was Lamin Bojang. He

was 20 years old and proved himself to be an excellent guide. At first, I was wary about trusting him to be fair with me, but once I realized that he was truly trying to help, we established a good relationship. We walked around the first couple of days at the port trying to establish myself as a common bystander rather than a tourist. However, when establishing a rapport with new people, you must always be aware of the people's social status. For instance, if you find yourself getting close to one person who is viewed by the rest of the community as irresponsible and untrustworthy, then you will be viewed the same. That's why it is always effective to survey the group of people first and pick out the leaders and the followers and try to spend equal amounts of time with each social class to learn the most from that village.

I wanted most of my information to be based on my own observations, avoiding prerecorded data, for more current and accurate information. This would classify my research style as a "participant observation" form of ethnography. For the most part, I tried to interview as many people as possible at the ports and compare what I learned with the information I obtained by interviewing the head officer as well as many other employees at the Department of Fisheries.

My research at Bakau was conducted independently before I established connections with the Department of Fisheries. The staff of the Department of Fisheries welcomed me; with their assistance it was much easier to find a good guide and accurate, complete data of past studies to allow for a comparison to my findings. The help of the Department of Fisheries made my time spent at each of the fishing sites more efficient. Their personal support, the contacts they provided, and the attention of their staffs helped me be prepared to jump right into the fishing action.

Findings

Much like the fishing vessels in the U.S.A., each boat in The Gambia is run by a captain, crew, and sometimes the owner of the boat. The captain is responsible for locating the fish and safely returning the boat and crew back to shore after every trip. The captain does not usually fish himself. He more or less oversees the crew and watches for potential hazards and possible mishaps that could result in injury of a crewmember or equipment being damaged or lost. The crew is responsible for catching the fish and obeying the captain's orders. Once on the boat, ideally they are a team, and if the crew cannot work together there is a higher risk of accidents. These crewmembers share jobs. Sometimes they are bowmen acting as a spotter, or they can be pulling the net in. They switch jobs often to avoid fatigue. I did not observe any significant job specialization besides that which separates the crew from the captain.



Unlike their counterparts in the United States, Gambian captains need no certification at all. In the Gambia, the captain is always someone who has served many years as a crewmember and has a good reputation for decisions made on the open seas. If you're a captain who has no experience or has not acquired a good reputation, chances are you won't be able to find a crew that is willing to risk their lives in order to fish with you. Some entrepreneurs invest in a fleet of boats. In the Gambia, they will then hire a captain and crew to fish those boats for him. The captain and crew are generally locals during the fishing season. In the off-season, some migratory fisherman disperse to other countries as they move with the fish.

Fishing Equipment

For a boat to have a successful season of fishing, it needs to have good equipment as well as a good captain and crew. The first thing that is needed is the hull itself, which is the shell of the boat to which any cabin or deck is connected.



The hull accounts for the total length and width. The majority of the boats I encountered during my research were between 15 and 50 feet long and rigged for whatever type of fish they were after. They usually had a rather skinny beam (width) and were shaped like a canoe.

On the stern (or rear) of the hull there is a small hole and block where the outboard engine is attached to the boat. I observed mainly Yamaha engines ranging from fifteen-horsepower to ninety-horsepower. In most cases, the boats were outfitted with outboard engines ranging from twenty-five to forty-horsepower. The nets vary greatly in size and cost depending on the type of fishing the boat was rigged to carry out.

Fishing Strategies and Methods

This was by far the most interesting part of the project for me. I conducted this part of my research at the Tanji fishing center where Mr.Bojang, who is a retired but very experienced fisherman, was able to show me everything I wanted to know. Three main fishing methods are used by the artisanal fishermen today. The first and most common method of fishing is the drift gill net. This technique accounts for the most fish and food for people. The captain takes the crew out about 3 three to five miles offshore and finds a pod of bonga fish, which usually congregate in large schools just under the surface in order to stay safe from predators.

The spotter on the bow of the boat locates the fish and tells the captain. The captain then pulls the boat into a hard circle around the fish while the net is fed out overboard in a semi circle. Once the net is out and in good position, the crew begins to slap the water from the leeward side of the school in order to scare the fish into the net. After retrieving the nets and the “primary” catch, the crew pulls up the nets and sets them again, once the remainder of the school is re-located. This method works best when there is a thick concentration of fish in the area. When the fish cannot be located due to rough seas, low light, or other complications, another



method is used. This consists of the same strategy except after the primary set, the crew fastens the net to the hull of the boat and waits...drifting along with it for a few hours, letting the fish swim into it. These two types of fishing methods are possible with a small crew and a smaller boat, and using this method occasionally produces by-catches of white fish which go for top dollar at the markets.

The second type of fishing needs two boats: one to carry the net, and one to carry the fish. This method accounts for almost all of the catfish as well as mackerel, small tuna, and a mixed bag of other small pelagic fish. In my experiences with this method, the first boat carries the crew of 15, as well as the huge purse net needed for these fish.

The net is made of nylon along the purse section and some monofilament along the belly of the net. Along the top there are floats about every six feet attached to the main line; this is the float section. The second section is the belly of the net and is attached directly to the floating section and spans the circumference of the net. The belly section is not necessarily used to catch the fish per se. It is primarily used to funnel



the trapped fish into the purse. In the middle of the belly section the purse or pocket of the net is spliced in. This is the most important part of the net, where all of the fish are captured and then unloaded into the second boat. Along the bottom of the net, spanning the entire circumference, are small weights and three-inch-wide, doughnut-shaped stainless steel rings with a large rope threaded through the rings all the way around the net. These are used to give it a drawstring effect and lock the fish in the purse. The Captain reaches the fishing site (usually about 15 miles from shore) and sets the net very quickly in a circle with the purse section the farthest away from where the two ends come together. Once the crew gets to the end of the net (which would also be the first part that went overboard), they grab the float and tie it to the bow. A crewmember then takes the large line that is threaded through the rings on the bottom of the boat and pitches it over to boat number two.



Once the second boat makes the line fast to their stern, they begin to run full throttle with the line in order to create the drawstring effect along the bottom, sealing it off so none of the fish can escape. This is perhaps the most dangerous part of the fishing because of the speed of the line being pulled over the first boat. The boat is now adrift, making it completely susceptible to any waves that may hit it broadside.

With the first boat sitting sideways with her beam into the sea, the crew begins to hoist up the belly of the net in order to get to the purse. Once the purse is raised the fish come into view as does boat number two. The second boat positions herself parallel with the gunwale of boat number one and grabs the floating section of the net that is attached to the purse of the net. They tie the floating section to their boat and begin pulling up their side, causing the fish to span the two boats for unloading.



The unloading process is pretty simple. A few members of the crew hop over to the second boat and begin to gaff the fish and throw them onto the deck of the second boat. Once the net is light enough, the crew on the first boat lift their side of the net higher in the air, dumping all the remaining fish into the second boat. Once the net is emptied, the process is repeated in another area. This method takes a great deal of expertise and manpower and is not very common. At the fishing sites I visited there were usually only one or two purse seine crews in action at the same time.



In the fishing sites I visited, there were a few offshore hand-liners, known locally as “Mare” fishermen (from the French word for “sea”). This is probably the most dangerous type of fishing still in practice among the artisanal fishing villages of The Gambia. These small crews of three to five venture over 15 miles offshore for four days at a time to hand-line for large pelagic species. This is

how most of the dolphin, tuna and larger fish are caught for the market. They bait their lines with small fish that are usually caught on the way out and drift along with the tides while catching their fish. The fishing itself isn't the dangerous part. It is the fact that they are between 15 and 20 miles offshore with no radio, no lights, no life preservers, no flares -- nothing to keep them safe in case of an emergency. They usually equip themselves only with rice, adequate fuel, lots of ice for the fish, charcoal, the local green tea, and a lot of water. They usually go out for three to five days. They return for a few days to restock the boat, mend their nets, and perform repairs on their engines. They soon return to the open seas for another shot at their fish. I was invited to accompany an offshore hand-lining vessel, but the risk was too high. Maybe in a future study, I will find a boat and crew I trust and accompany them.

Fish Processing

What happens once the fish get captured and brought back to port? Usually the fishermen sell the catch to a fishmonger who plays the middleman. The monger re-sells the fish in smaller quantities to make a profit. On the bonga boats, I observed some of the distribution and processing of the fish themselves. For example,





once we arrived on shore in Bakau, a fishmonger jumped on the boat and began scooping the bonga fish from the hull of the boat into the baskets of the women who were in charge of processing the fish and selling them.

The monger who jumped on the boat keeps track of the number of scoops of bonga he gives to each woman, and the fish processors pay him for the fish. He in turn

gives the captain and crew their money for the fish they caught. This whole process takes place waist-deep in water, clinging to the rail of the boat, and surrounded by fifty loud people, and it differs greatly from boat to boat. A crewmember or a

fishmonger sells larger fish individually to patrons as opposed to the local smoke houses or the fish dryers. Boats fortunate enough to catch whitefish usually don't sell their fish to processors; they prefer to take their catch and sell it fresh. Once the fish are dried or smoke-cured, the women sell them to a fish merchant who transports them to a market away from the coast.



While in Bakau, I learned the basics of the different methods, as well as some background on the traditional system for the fisherman before the CO-OP's were started. The co-ops are small fleets of boats donated by the Japanese government. I observed that these fleets consist of five fiberglass canoes outfitted with the needed outboard engine as well as the nets. At present, the distribution of the profit differs greatly from that of the traditional method although it does still exist between the migrant fishermen and the Gambians not involved in the CO-OP.

Distribution Of Profits

Among the traditional artisanal fishermen, after all the expenses are properly deducted from the gross sales, the rest is then split up into 5 equal shares -- one going to the boat for maintenance, one going to the engine for maintenance, one being spent towards the maintenance of the net, one for the crew to be divided up equally, and one for the captain to do with as he pleases. The Japanese government, in exchange for access to Gambian waters, established CO-OPs along the coast of Gambia. These CO-OPs are a way for the local fishermen to

be able to contribute to the artisanal fishing industry without having to buy a boat, nets, and an engine. Instead of dividing the entire profit up equally after the expenses have been deducted, the fisheries department immediately takes 60% of the profit to go towards the cost of the boat and motor. The crew has 40% of their initial profit to be distributed among the crew as they see fit. Usually the captain makes twice as much as the individual crewmembers.

The crews on the artisan fishing vessels differ greatly in size from boat to boat. The boats that mainly targeted the Bonga fish usually had three to four crewmembers along with the captain. The crew size is dependent on the type of net they plan to use. For instance, the Bonga fishermen are using a drift gill net which mainly targets smaller fish; although the net is very long, it does not have a very big girth. Only a crew of three to four people is needed. The purse seine fishermen who target the offshore pelagic species have an enormous net. It spans almost three kilometers in length and has a huge belly "purse" to hold the fish. Their crew is much larger, ranging from 15 -19 people and two large boats.