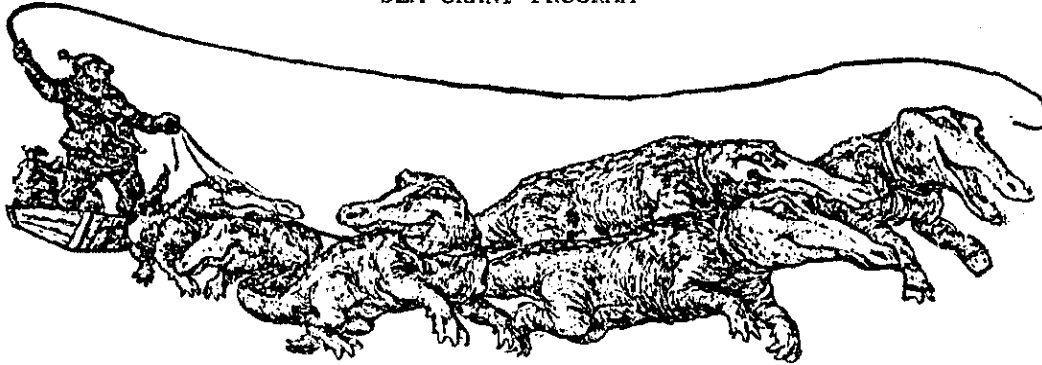


SEA GRANT PROGRAM



LAGNIAPPE

SQUID WORKSHOP

Based on exploratory fishing efforts by the National Marine Fisheries Service, many biologists feel that there are enough squid off of the Louisiana coast for a commercial fishery. A meeting for commercial fishermen and seafood dealers will be held on this potential fishery on January 23, 1984 at the New Orleans Airport Hilton on Airline Highway.

The meeting will be from 6 to 10 p.m. and will begin with a reception, serving dishes prepared with squid and a cash bar. This will be followed by the following presentations:

"Introduction and Potential of a Squid Fishery"
"So You Think You Want To Fish For Squid"
Roger Anderson, GSAFDF
Hank McAvoy, NMFS

"A Review of the Squid Resource in the Southeastern U.S."
"Where Them Critters Are Located and How Many Are Out There?"
Gil Voss, University of Miami

"Harvesting Methods and Onboard Handling"
"How Do You Get 'Em in the Boat and Keep 'Em Fresh?"
Warren Rathjen, NMFS

"Processing and Marketing"
"Once I Got 'Em, What Do I Do With 'Em?"
"Who Wants 'Em and Can I Make Any Money After I Catch 'Em?"
Tony Klos, Ocean Side Fisheries Inc.

The meeting will end with a detailed question and answer session. From my brief conversation with Roger Anderson, he explained that we have plenty of squid offshore, but the thickest concentrations are made on the bottom, so we don't make large clean catches with standard shrimp trawls. I'm sure that mid-water trawls will be one of the harvesting methods discussed at the meeting.

This workshop is sponsored by the Sea Grant Marine Advisory Service, the National Marine Fisheries Service and the Gulf and South Atlantic Fisheries Development Foundation.

COMMERCIAL FISHERMEN'S RECORD BOOKS

I have a few more commercial fishermen's record books for the new year in stock. If you didn't get yours last month, call or write my office and I'll drop one in the mail to you.

FOOD HABITS OF SALTWATER FISH

Recently, biologists from the Gulf Coast Research Laboratory in Ocean Springs, completed a study of the food habits of fish found in Mississippi Sound. Some of the results were expected but others were a surprise.

Of 340 speckled trout examined that had food in their stomachs, almost 73% had fish, 21% had shrimp, 14% had crabs and 7% had worms in their stomachs. (This adds up to more than 100% because some fish had fed on two or three different things. The most common fish eaten were anchovies and menhaden (pogies). Speckled trout fed most heavily on shrimp in the summer and anchovies in the fall.

Black drum fed most heavily on clams and oysters, with 93% of the fish having some in their stomachs. The other item drum had fed on were crabs 60%, shrimp 33%, barnacles 27%, fish 27%, and marine worms 20%.

Flounders were found to have eaten mostly fish, with over 80% of the stomachs containing some sort of fish remains. By far the most common fish identified were anchovies. Shrimp were the only other food items heavily consumed, with 32% of the stomachs having shrimp remains.

Sheepshead had the widest diet of all, with over 113 different kinds of animals being eaten. They even ate dead clam shells to get the growths off of them. Clams and snails were found in 59% of the sheepshead, crabs 48%, marine worms 30%, shrimp 29%, fish 17%, and plants 10%.

Source: Food Contents of Six Commercial Fishes From Mississippi Sound. Gulf Research Reports. Vol. 7, No. 2. 1982. Robin W. Overstreet and Richard W. Heard.

SELL THE SMELL

Fishy odors, a real killer for retail seafood markets, may be replaced by the smell of fresh ocean breezes according to the Winter, 1983 edition of "Seafood Leader".

A perfume making branch of the Squibb Corporation has introduced a device called the "aroma-disk" which can produce smells instead of sounds. The aroma-disk player is about the size of a club sandwich and costs \$20. The disks are actually scented pads which are heated by the player. A two-minute play produces a scent that lasts for several hours and each \$5 disk is good for 150 plays.

Besides "Smell-of-the-Ocean Breeze," the company has several other disks and will be introducing more. The company plans to limit distribution to 2,500 stores. At present, the aroma-disk player is being sold at Macy's and Bloomingdales.

NEW FISHERMAN'S DIGEST AVAILABLE

The revised 1983 Fisherman's Digest is now available from the Marine Safety Division of the First Coast Guard District. The booklet covers subjects such as documentation, life jacket regulations, fire extinguishers, backfire flame arresters, ventilation systems, navigation lights and sound signals, pollution prevention, reporting marine accidents, fishing numbers, radios, explosives, medical and evacuation advice and Coast Guard towing policies.

For a free copy of this booklet, write to Marine Safety Division, First Coast Guard District, 150 Causeway Street, Boston, Mass. 02114 or call (617) 223-6915 and request the Fisherman's Digest '83'.

TEXAS ALLIGATOR SEASON

The U.S. Fish and Wildlife Service has officially changed the status of the Texas coastal alligator to allow harvesting. This opens the door for the state of Texas to set an alligator season. When the season will be and how large of a harvest is expected is not known yet, but it will surely put more hides on the market.

FISHING METHODS OF THE WORLD - HOOKS

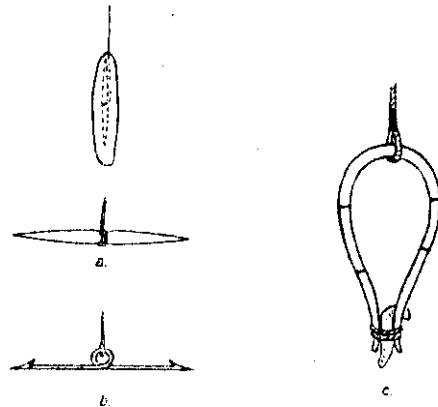
One of the biggest advances in primitive man's fishing ability was using a line to fish with. The most primitive method of line fishing does not use a hook, but rather a bundle of spider webs or strings at the end of a line. Bait may be tied to the string or webs. When the fish grabs the bait, its teeth get tangled and the fish is brought in.

The first fish device used on the end of a line that worked like a hook were gorges. While gorges were used by primitive people mostly for fish, they were also used to catch other animals like birds or crocodiles.

Gorges have been used all over the world and in Europe since the early Stone Age. They have been made of wood, bone, horn, flint and later metal.

Gorges don't hook a fish but rather turn crossways in their mouth, stomach or throat, when the line is pulled by the fisherman.

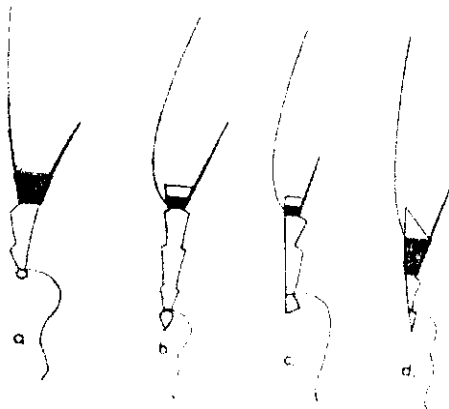
Figure 1



Gorges were used before hooks: (a) wooden gorge hidden in a bait which, when swallowed, is pulled across the gullet of the fish; (b) modern French gorge for eel, made of steel; (c) Chinese spring-gorge made of bamboo

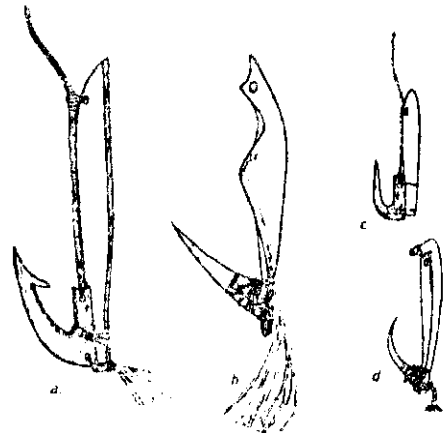
Gradually, the gorge was modified to look and work more and more like a hook as we know it today.

Figure 2



Gorge-like implements from Botel Tobago to catch flying fishes (*Pteropus*). The small yarn on one end is for fastening the bait.

Figure 3



Composed hooks used in the spin fishery for Bonito in Oceania: (a) Big hook—the shank is made of whalebone and mother-of-pearl, the bend with barb of tortoiseshell; (b) hook is made of mother-of-pearl; (c) small hook is made of bone and mother-of-pearl; (d) small hook of mother-of-pearl and tortoiseshell.

Primitive composed hooks were used very early in northern Europe and Asia, but their use rapidly spread to all parts of the world. Hooks made of thorns from plants were used in Europe until the 1800's. The use of composed hooks reached their finest development in the south Pacific Islands (Fig. 3). They were most commonly made of seashells, turtle shells, whale bone and human bones.

These hooks were gradually replaced by longer-lasting hooks made of stone, bronze or even gold. The modern curved hooks used nowadays in commercial fishing are always well-tempered steel hooks. Hooks not properly tempered will be too soft and straighten, or too hard and will easily break under strain. Steel hooks also need protection from rust especially in saltwater. This is done by galvanizing,

tinning, bronzing, enameling, lacquering, gold or silver plating, or blueing.

Figure 4

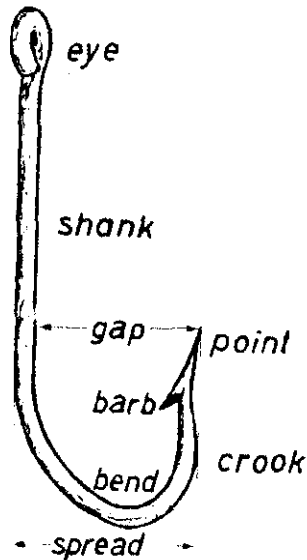
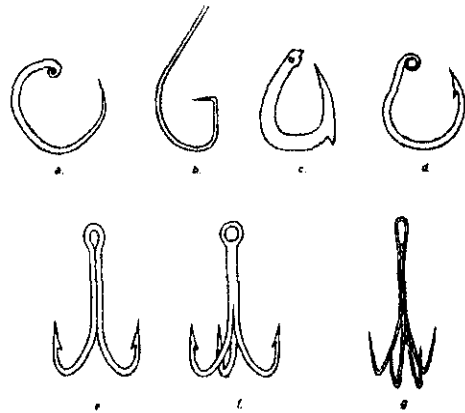


Figure 5



More variations of the simple hook: (a) Hand-made iron hook without barb from Lake Tanganyika; (b) hook made in Norway for the Japanese tuna-fishery with a point like a barb; (c) shellfish hook of Oceania with the barb outside from the Island of Yap; (d) handmade Japanese iron tuna-hook with the barb inside; (e) double-hook; (f) triple-hook; (g) Chinese quadruple-hook.

The modern hook (Fig. 4) has many variations for the many different types of fishing. Most of the variations are in shank length, gap and spread. Some of the variations are also on the barb. Pole and line tuna fishermen use barbless hooks, so that the fish un-hooks itself in the boat when the line goes slack. Some hooks also have barbs on the outside of the hook to hold the bait on the hook.

Sources: Fish Catching Methods of the World; A. Brandt; 1c, La Pêche de la Pré-histoire dans L'antiquité et Chez les Peuples Primitives. A. Gruvel.

THE GUMBO POT

Leola's Crab Stew

Recently, while visiting Dickie and Leola Guidry of Lafitte, I was treated to a real good crab stew. I had to do a lot of talking to get the recipe out of her, but she gave it to me and I'd like to share it with you.

- | | |
|-----------------------------|------------------------|
| 1 dozen crabs | 4 cloves minced garlic |
| 4 medium white potatoes | 1 bay leaf |
| 1 large onion | 2/3 cup cooking oil |
| 1/3 cup chopped shallots | 1 1/2 cup flour |
| 1/3 cup chopped parsley | salt |
| 1/3 cup chopped bell pepper | pepper |

Remove back and legs from crabs and break crabs in half. Save the claws. Make a roux with oil and flour. Add the onions to the roux and cook 3 minutes or until onions are transparent. Then add parsley, bell pepper, shallots and garlic and cook 3 more minutes. Add 5 pints of water and boil for 45 minutes. Add crabs, potatoes, bay leaf, salt and pepper and cook until potatoes are done. Serve with rice. Serves 4 to 6.

Sincerely,

Jerald Horst
Assoc. Area Agent (Fisheries)
Jefferson, Orleans, St. Charles