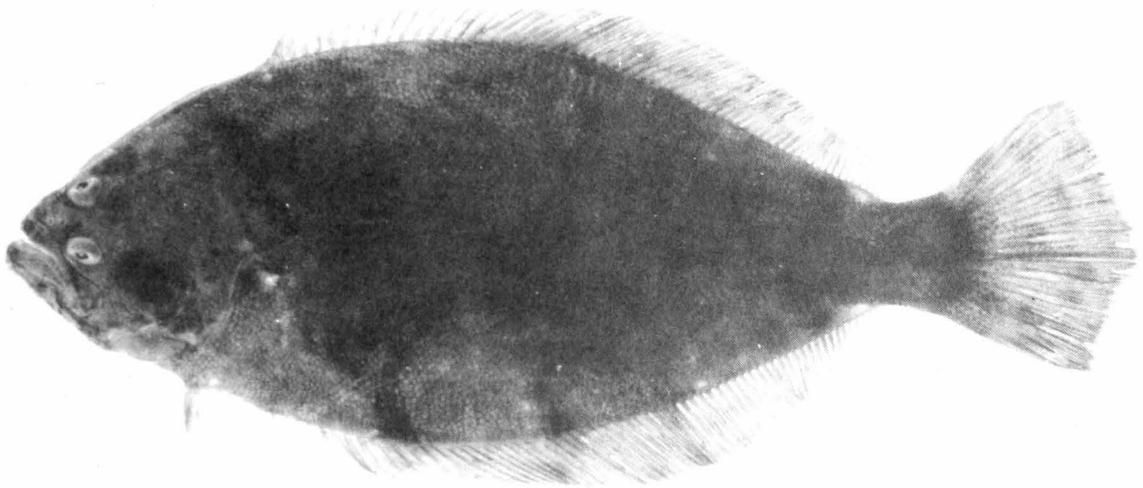


Commercial Flounder Gigging

By

Hilton M. Floyd



**UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
BUREAU OF COMMERCIAL FISHERIES**

Fishery Leaflet 586

Cover photo.--Southern flounder (Paralichthys lethostigma).

UNITED STATES DEPARTMENT OF THE INTERIOR

Stewart L. Udall, *Secretary*

John A. Carver, Jr., *Under Secretary*

Stanley A. Cain, *Assistant Secretary for Fish and Wildlife and Parks*

FISH AND WILDLIFE SERVICE, Clarence F. Pautzke, *Commissioner*

BUREAU OF COMMERCIAL FISHERIES, Donald L. McKernan, *Director*

Commercial Flounder Giggling

By

HILTON M. FLOYD

Fishery Leaflet 586

Washington, D.C.
February 1966

CONTENTS

	Page
Methods	1
Gear	1
Gig	1
Lights	2
Wood fire	2
Oil light	3
Electric light.	4
Gasoline lantern.	5
Summary	5
Literature cited.	5

FIGURES

1. Flounder gig.	2
2. Fire rack for flounder gigging	2
3. Shoulder-supported oil light.	3
4. Boat-supported oil light	3
5. Boat- or float-supported underwater electric light	4
6. Hand gasoline lantern.	5

Commercial Flounder Gigging

By

HILTON M. FLOYD

Fishery Methods and Equipment Specialist
Bureau of Commercial Fisheries
Exploratory Fishing and Gear Research Base
Pascagoula, Mississippi

ABSTRACT

The leaflet describes a commercial method of spearing southern flounder (Paralichthys lethostigma), and the gear used. The essential equipment is a spear and a light.

INTRODUCTION

The information on southern flounder (Paralichthys lethostigma) spearing presented in this leaflet was gained through personal experience and close association with the commercial fishing industry in the southeastern United States.

For many years the commercial spearing of flounder has played a noteworthy role in the commercial fishermen's livelihood along the southeastern and Gulf coasts of the United States. For example, in 1940 according to Fishery Statistics of the United States" (Welder, 1943), 177,300 pounds of flounders, worth \$21,716, were caught with spears along the coasts of the Gulf States (these figures include the east coast of Florida but do not include Louisiana). In 1960 in all the Gulf States, 118,200 pounds of flounder, worth \$7,655, were caught with spears (Power, 1962).

Since the gear is inexpensive and readily available, more commercial fishermen might use this method were they better acquainted with it. The purpose of this paper, therefore, is to describe the commercial spearing of flounder.

The first part of the paper will describe the methods of fishing; and the second part, the kinds of gear used.

The one-prong spear used in the commercial flounder fishery is known as a gig and will be referred to as such in this paper.

METHODS

Flounder gigging is done at night when the flounder moves near the shore and lies motionless on the bottom, well camouflaged (dark side up), waiting for small fishes to feed on.

Ideal conditions for flounder gigging are clear, still waters and dark nights. If the wind

is blowing, the ripples on the water will greatly reduce the visibility. Often, where the bottom is soft, the flounder will appear to be completely covered except for the head, and the fisherman has to look very closely to distinguish it from a mud spot, rock, or shell.

During bright moonlight nights the flounder seems to be more alert or more able to detect predators, and if gigging is done during this time, it is best, when possible, to move in the direction of the moon to prevent casting a shadow over the search area.

Where there is a pronounced rise and fall of the tide, it is better to fish during the rising tide. When the tide is falling the flounder seems to go offshore to deeper water. If flounders are gigged in a current, one should always work against the current to prevent the turbidity from obstructing the bottom view.

Since flounders are gigged in water from several inches to several feet deep, it is best to try varying depths until the most productive depth is found.

In most areas where flounders are gigged, there are also stingrays. These triangular-shaped fish have one or more sharp, barbed spines, near the base of a whiplike tail, that are capable of inflicting severe and very painful wound. The stingrays are not aggressive, but it pays to keep a good lookout to avoid stepping on one. The stingray spine will penetrate most shoes.

GEAR

Essentially, the only gear needed to catch flounder is a gig and a light.

Gig

Many different types of gigs can be used, but the most popular is a straight, barbless, metal

rod, about 8 inches long and a 1/4-inch diameter, with a very sharp, long, tapered point on one end and with a wood shaft, about 5 feet long and a 1-1/2-inch diameter, attached to the other end (fig. 1). Outstanding advantages of the straight barbless gig is that it does not damage the flounder as much as multipronged spears and is easily removed from the fish.

Materials needed to construct a flounder gig are:

1. One piece, metal rod, 10 inches long and 1/4-inch diameter.
2. One piece, wood shaft, 5 feet long and 1-1/2-inches diameter.

To make a gig, drill a 3/16-inch-diameter by 2-inches-deep hole in the center of one end of the wood shaft. Then using a file, slightly taper one end of the metal rod and drive it into the hole in the end of the shaft. NOTE: Soaking the wood shaft in water before driving the rod will help to prevent splitting.

The gig is stuck through the flounder very quickly and held firmly against the bottom until the fish stops struggling. Then, the gig is held down with one hand and the other hand

is slipped under the flounder to grasp the part of the rod which has passed through. Now the flounder can be pulled off the gig and placed in a container or on a stringer. An ideal spot to gig the flounder is in the center of the body just behind the gill cover.

Lights

Actually, any light capable of showing the bottom may be used for flounder gigging. This paper will describe four types that have been used successfully within the past century: wood fire, oil light, electric light, and gasoline lantern:

Wood fire.--The oldest and cheapest light for flounder gigging is a wood fire. In the early fishery, a lighted wood torch was probably carried in the fisherman's hand. Then in later years, the fire was contained on a rack extended over the water from the bow of a shallow-draft boat. The rack, or fire container, can be constructed of metal rod or pipe and a piece of meshed, heavy-gauge fence wire (fig. 2).

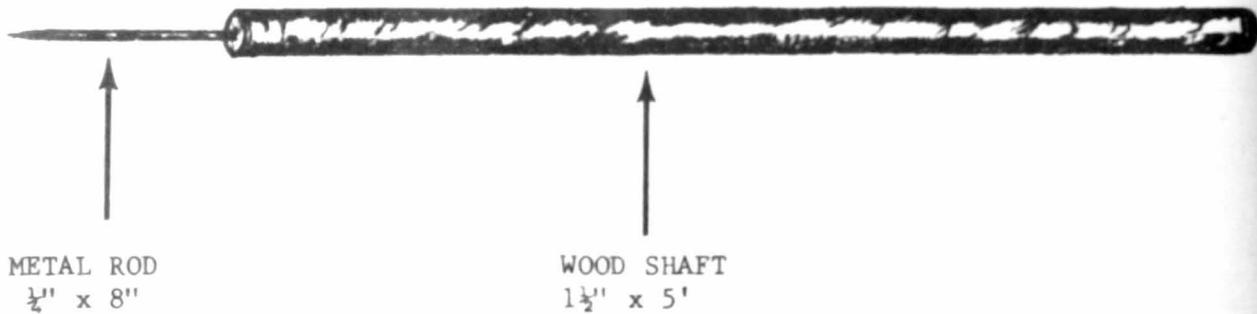


Figure 1.--Flounder gig.

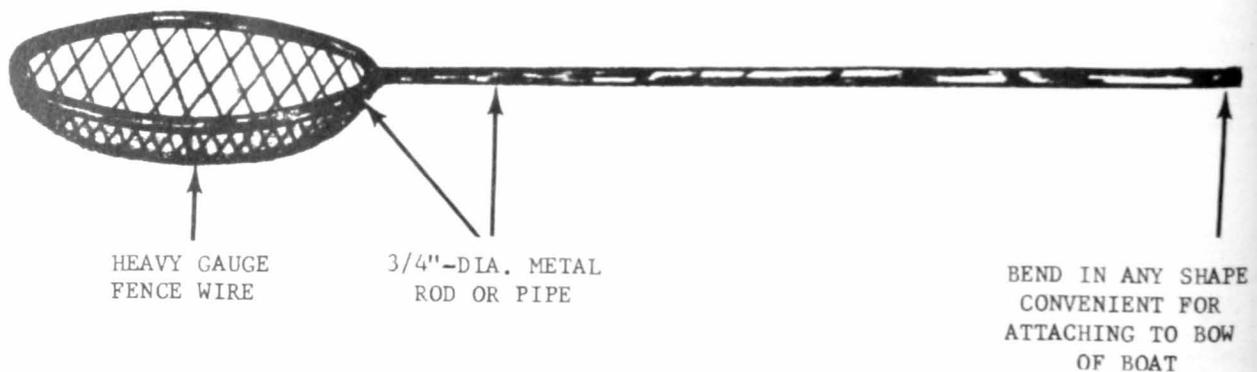


Figure 2.--Fire rack for flounder gigging.

Materials needed to construct a fire rack for flounder gigging are:

1. One 3/4-inch-diameter metal rod, or 3/4-inch pipe, 14 feet long.
2. One piece of circular shaped, heavy-gauge fence wire, about 3 feet in diameter (almost any mesh size from 2 to 5 inches will suffice).
3. One piece of 1/16-inch-diameter wire, 10 feet long.

To make a fire rack, bend one end of the rod into a circle about 2-1/2 feet in diameter, then bend the remaining rod out on a 90-degree angle from the circle. Place the fence wire over the circle of rod and push down in the center until the edge is even with the rod, forming a dish shape. Next, lash the edge of the fence wire to the circle of rod, using the 1/16-inch-diameter wire. (The end of the rod can be bent in a hook shape or any other form for convenience in attaching it to the bow of a boat.)

Fat pine, or any other wood containing pitch, is suitable for making a fire in the rack.

When using the wood fire light, the fisherman wades behind the fire, holding the bow of the boat with one hand and the gig with the other.

Oil light.-- There are two types of oil lights: shoulder supported and boat supported.

A. Shoulder-supported oil light.-- The shoulder-supported oil-burning light has a distinct advantage in that it is self-contained; therefore, a boat is not required. This style of light is slung over the fisherman's shoulder on a leather strap or a piece of rope. It consists primarily of a fuel tank, fuel feeder pipe, and an asbestos wick (fig. 3).

Materials needed to construct a shoulder-supported oil light are:

1. A cylindrical tank about 16 inches long and 6 inches in diameter constructed of thin metal (aluminum is ideal), and fitted with a 1-1/2-inch threaded capped opening in the center of one end and a 1/2-inch gate valve on the side 1 inch from the other end. The tank is also fitted with a 1-inch-diameter metal ring, or padeye, on the end with the filler cap, one-half inch from the outer edge and in line with the valve. NOTE: If available, or so desired, a different shaped tank can be used.
2. One 1/2-inch-diameter by 5-foot-long standard galvanized pipe, threaded on one end.
3. One-half pound of narrow asbestos tape (or twine).
4. One piece of baling wire, 3 feet long.
5. One 3/4-inch-wide leather strap, or 1/2-inch-diameter rope, 36 inches long.

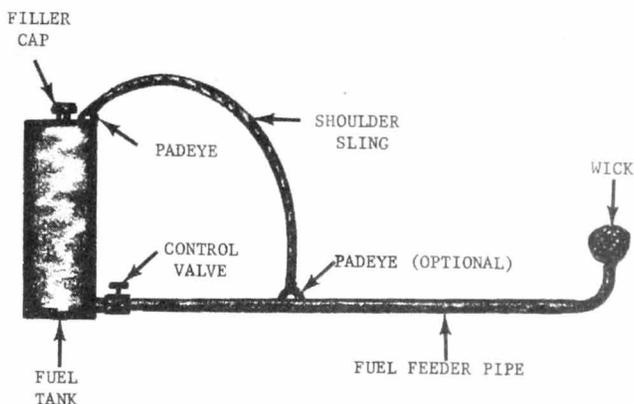


Figure 3.--Shoulder-supported oil light.

To construct the oil light, make a gradual bend in 6 inches of the unthreaded end of the pipe to form a 90-degree angle, and screw the threaded end tightly into the control valve (on the tank), with the bent end in line with the tank, pointing up towards the filler cap end. Next, using a 3-cornered file, make a few notches about 1 or 2 inches from the bent end of the pipe. Then, with the end of the pipe for a center point, wrap tightly with narrow strips of rags, forming a ball 3 to 4 inches in diameter. Then, continue the wrapping with asbestos until the ball is completely covered with about one-quarter inch of asbestos. Next, to hold the ball in shape, wrap tightly with the baling wire.

Secure one end of the leather strap to the padeye on the end of the fuel tank and adjust and secure the other end to the fuel feeder pipe, about 1-1/2 feet from the fisherman's body.

The tank is filled with kerosene or a high-grade diesel oil; the control valve is opened for just a moment to saturate the asbestos ball, then the valve is turned off. Now, the asbestos ball is ignited and the strap is slung over one shoulder. The tank should rest against the fisherman's back, and the fuel feeder pipe held horizontally, directly in front. The flame is controlled with the fuel control valve.

B. Boat-supported oil light.-- The boat-supported oil light rests on the bow of a shallow draft boat and consists primarily of a fuel tank, fuel feeder pipe, and an asbestos wick (fig. 4).

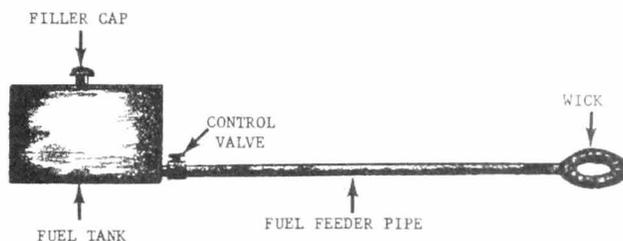


Figure 4.--Boat-supported oil light.

Materials needed to construct a boat-supported oil light are:

1. A tank constructed of thin metal--cube shaped, and fitted with a 1-1/2-inch, threaded, capped opening on the top and a 1/2-inch gate valve centered on one side 1 inch from the bottom. Size of tank is optional.
2. One piece, standard galvanized pipe, 1/2-inch diameter by 9 feet long, threaded on both ends.
3. One 1/2-inch galvanized pipe cap.
4. About 1 pound of asbestos tape.
5. 10 feet of baling wire.

To make this type of oil lamp, screw the cap onto one end of the pipe. Bend 3 feet of the capped end into a circle. Then bend the remaining 6 feet at a 90-degree angle to the circle. Next, screw the straight end of the pipe into the control valve on the tank until it is tight and the circle end lies on a horizontal plane to the bottom of the tank. Drill 1/8-inch-diameter holes, 4 inches apart, into the pipe all the way around the circle. Then wrap the pipe circle with the asbestos tape to a thickness of about one-half inch and wrap the baling wire to hold the asbestos in place.

The fuel tank is filled with kerosene or a high-grade diesel oil and placed on the bow of the boat with the feeder pipe extending horizontally over the water. It is safest to lash the tank to the boat. Open the control valve for a moment to saturate the asbestos. Now ignite the asbestos and control the flame with the valve. The fisherman proceeds the same as with a wood fire light.

Electric light.-- The boat- or float-supported underwater electric light is ideal for use when flounders are found in water several feet deep. The waterproof light can be submerged, greatly increasing the visibility (fig. 5).

Materials needed to construct the underwater electric light are:

1. One automotive sealed-beam headlamp (6- or 12-volt). NOTE: Many older sealed-beam headlamps contain a double filament. When one filament fails, the whole unit has to be replaced for safe driving. Since only one filament is needed for flounder lights, the discarded lamps can be used. These lamps can sometimes be purchased inexpensively from automotive service stations.
2. One 6- or 12-volt, automotive type, storage battery. NOTE: Battery and lamp must be of the same voltage.
3. One wood shaft, 1 to 1-1/2 inches in diameter and 5 feet long.
4. One 2-conductor, insulated, waterproof, 14- or 16-gauge electric wire, 12 feet long.

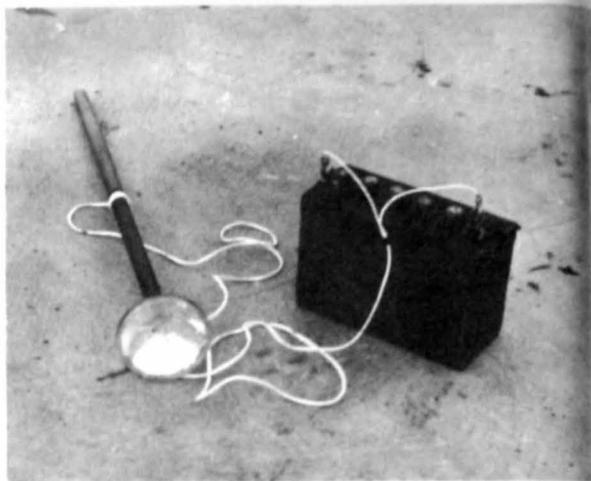


Figure 5.--Boat- or float-supported underwater electric light.

5. One roll (about 12 feet) of electrical insulation thermosetting adhesive tape.
6. Two battery clips (for temporary connections).
7. One 8-ounce tube of sealing compound.

To construct this underwater light, peel the insulation off about 3 inches of one end of the 2-conductor wire. Then separate the two wires for about 8 inches and secure one to each of the battery clips (for a good connection use solder). Use the thermosetting tape to insulate the exposed wires. Peel the insulation off about 3 inches of the other end of the 2-conductor wire, separate the two wires, and secure one to each of the electrical contact posts on the rear of the sealed-beam lamp. In the case of a double-filament lamp, use only one of the positive posts and the ground post. If the lamp is a new double-filament unit and you have a choice, use the high-beam filament. The post not in use can be cut off flush and covered with sealing compound or insulated and used to help hold the wood shaft (or handle) in place. For a good connection solder the wires to the electrical contact posts. To insulate the exposed wires use the thermosetting tape. Next, using a sharp knife, shape one end of the wood shaft so that it fits snugly in between the electrical contact posts on the rear of the lamp. NOTE: A sturdier fit can be made by welding a 2- or 3-inch extension to the ends of the contact posts.

Apply several thick coats of sealing compound over all electrical contacts and wire within 3 or 4 inches of the rear of the lamp. Then, tightly wrap all the contacts and the wood handle from the rear of the lamp for a distance of about 2 feet with thermosetting tape.

To use the underwater lamp, place the battery on a float or a shallow-draft skiff.

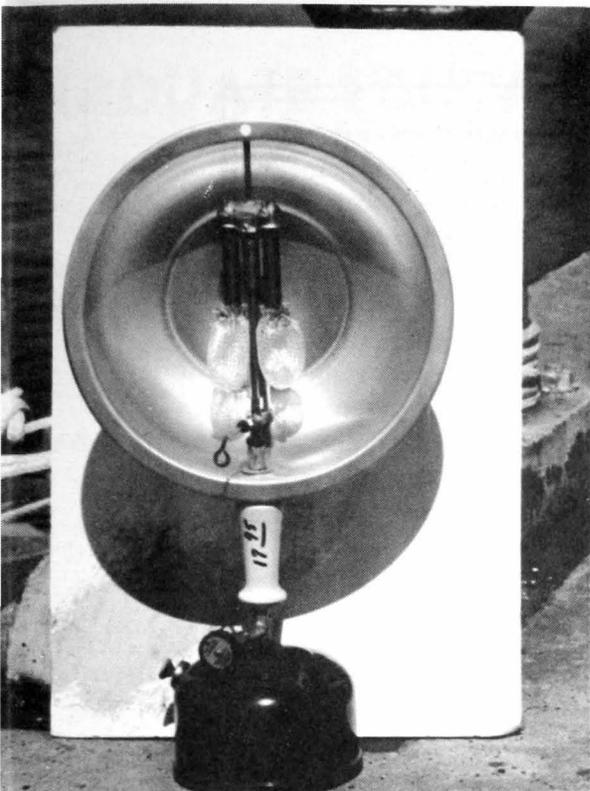


Figure 6.--Hand gasoline lantern.

If only one fisherman is using the rig, the boat or boat can be towed by a short length of rope tied to the fisherman's waist, thus leaving both hands free for holding the light and gig. One advantage of using a boat is that it can be used to cross areas of water too deep to wade.

Gasoline lantern.-- A gasoline lantern fitted with a reflector is the most popular light used for flounder gigging. It can be purchased from most hardware and sporting goods stores.

There are many types of gasoline lanterns on the market, but most flounder fishermen prefer the two-mantle unit with a built-in pump (fig. 6).

This light is used in the same manner as the shoulder-supported oil light. It is very compact, and if a popular make is purchased, parts are readily available.

As mentioned earlier, any light capable of showing the bottom can be used for flounder gigging. For example, the miner's headlight is sometimes used and has the distinct advantage of leaving both hands free for handling the gig and catch.

Other lights that can be used include a battery-powered hand lantern or an ordinary flashlight.

SUMMARY

The method of catching fish presented here can be applied in most areas where flounders exist.

In an endeavor to acquaint the apprentice commercial fisherman, with the methods and gear employed in commercial flounder gigging, the information contained here is presented in an elementary manner.

The gear is inexpensive, readily available, or easily constructed, and thus, is attractive to the commercial fisherman.

LITERATURE CITED

- FIELDER, R. H.
1943. Fishery statistics of the United States, 1940. U.S. Dep. Int., Fish Wildl. Serv. Stat. Dig. 4, 225 p.
- POWER, E. A.
1962. Fishery statistics of the United States, 1960. U.S. Fish Wildl. Serv. Stat. Dig. 53, 529 p.

MS. #1439