

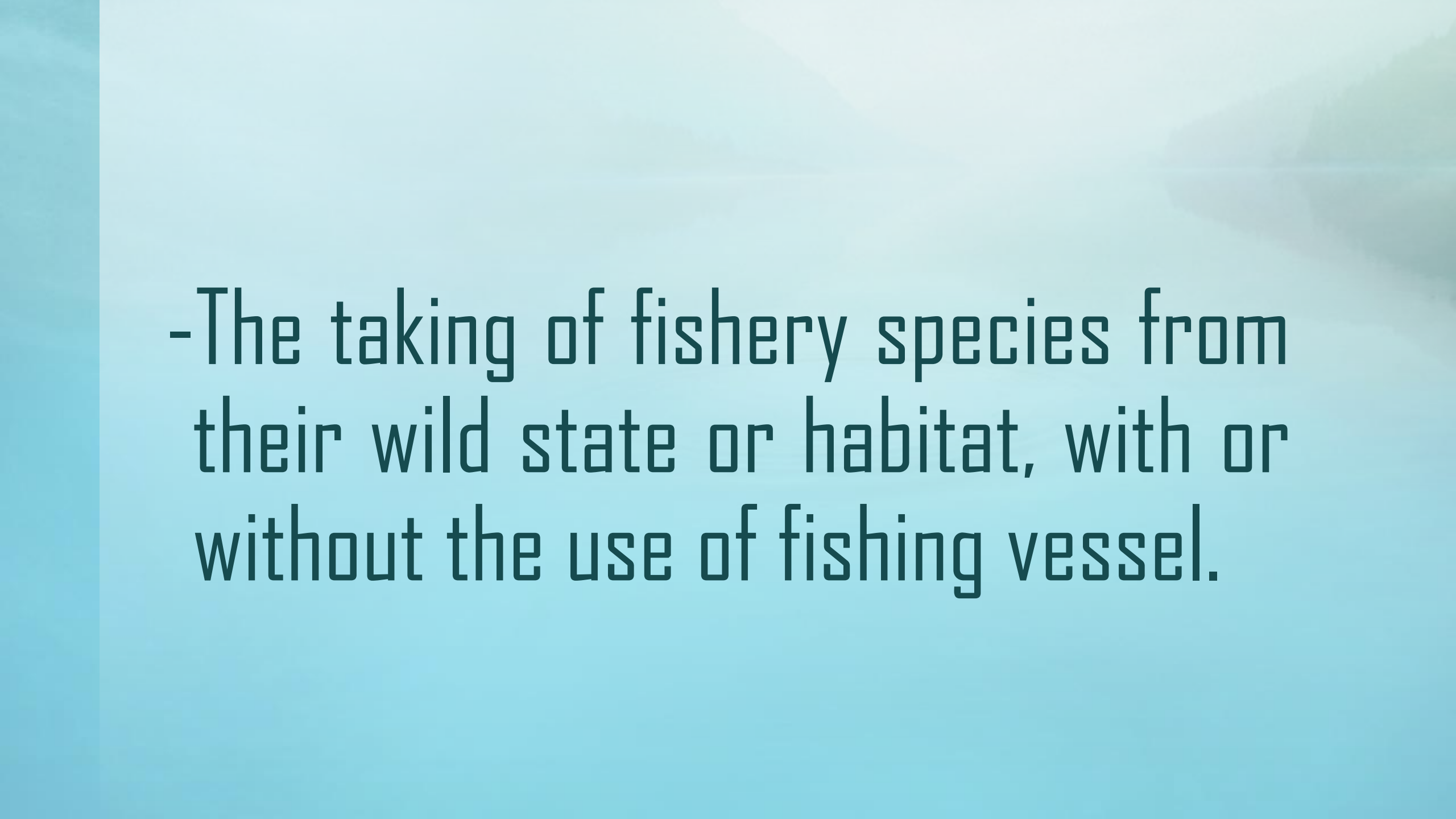


Fish Capture

Fishing Gears and Fishing Methods

What is **FISH CAPTURE**?

It refers to all kinds of harvesting of naturally occurring living resources in both marine and freshwater environments.

A background image showing a misty or foggy landscape. In the foreground, there's a calm body of water reflecting the light. In the background, there are rolling hills or mountains, some of which are partially obscured by the fog. The overall color palette is soft, with various shades of blue, teal, and light green.

-The taking of fishery species from their wild state or habitat, with or without the use of fishing vessel.

- **Municipal fishing** - refers to fishing within municipal waters using fishing vessels of three (3) gross tons or less, or fishing not requiring the use of fishing vessels.

- **Commercial Fishing** - the taking of fishery species by passive or active gear for trade, business or profit beyond subsistence or sports fishing

a. Small scale commercial fishing - fishing with passive or active gear utilizing fishing vessels of 3.1 gross tons (GT) up to twenty (20) GT;

b. Medium scale commercial fishing - fishing utilizing active gears and vessels of 20.1 GT up to one hundred fifty (150) GT; and

c. Large scale commercial fishing - fishing utilizing active gears and vessels of more than one hundred fifty (150) GT.

Fishing Vessel

- any boat, ship or other watercraft equipped to be used for taking of fishery species or aiding or assisting one (1) or more vessels in the performance of any activity relating to fishing, including, but not limited to, preservation, supply, storage, refrigeration, transportation and/or processing.



Classification of Fishing Gears and Fishing Methods

PASSIVE GEARS

- Refers to the stationary gears. It does not have to be dragged, pulled or towed to capture fish.

- is characterized by the absence of gear movements and/or the pursuit of the target species; such as, but not limited to, hook and line, fishpots, traps and gill nets across the path of the fish

Hooks and Lines

This is the simplest gear employed for fishing.

Hooks vary enormously in shape, size, type of point, thickness of wire and type of end of the shank.

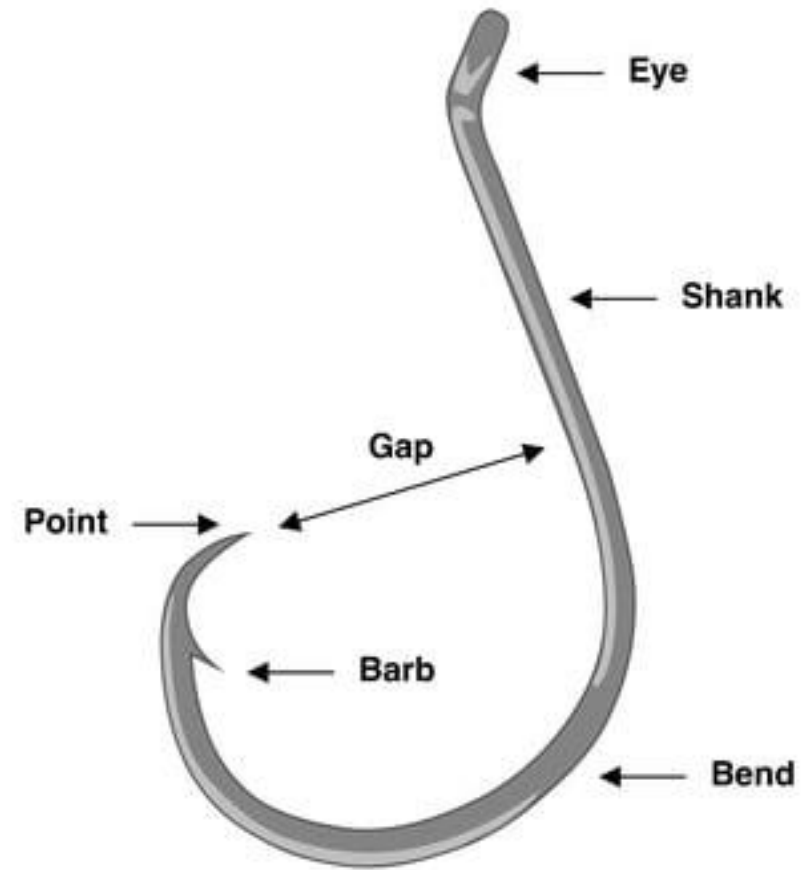
The line is cast into the water where the fish supposedly are; the fish swallows the bait and is hauled in.

Hooks and Lines

The line is wound around a stone and thrown from the bank/shore into the water. The stone acts as a sinker. Hooks and lines fishing is inexpensive and easy.

Anatomy of Fish Hook

Anatomy of a Fish Hook



1. Eye

- The eye is where you attach your fishing line or leader to. It is the link between your line and the hook. Some hooks like the Siwash hook actually come with an open section of the eye which allows you attach the hook on a lure.

2. Shank

- The shank is the longest part of the hook (liken it to your femur bone) and provides much of the strength and backbone of the hook. Some hooks like circle hooks have relatively short shanks whereas others like Aberdeen hooks have extremely long shanks.

3. Bend

- The bend is exactly like it sounds. It is the curvature of the hook and helps produce much of the torque used to drive the point into the fish. Some hooks like the circle hook have a twisting action in the bend making the point offset from the shank.

4. Point

- The point is the business end of the hook. Without the point, a hook is useless. The point is what buries itself into a fish's lip and secures it for the duration of the fight. The point can be compared to a shark's teeth or a boxer's fists. It's the business end.

5. Barb

- The barb is a secondary point at angles away from the point. It is designed to keep bait and a fish's lip firmly attached to the hook. Barbs can be problematic as they are very "sticky" by design. They have a tendency to keep the hook stuck to fish's lips, your shirt, your thumb, etc. Not all hooks have barbs. Some hooks are sold barbles which eliminates the damage and stickiness caused by barbs but makes it a bit tougher to keep the fish hooked for the entire fight.

- The **hook gap** refers to the distance between the shank and the point.
- The **hook gauge** refers to the thickness of the wire from which the hook was made from.
- And if a hook is **offset** it means the hook point is not parallel to the hook shank.

Common Types of Fishing Hook

Bait Hook

These are j-hooks with special barbs along the edge of the shank. These barbs are designed to keep the bait from sliding up and down the hook so that your point won't bury into the bait.



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Treble Hook

These are basically 3 j-hooks that share an eye. They are great for keeping soft bait and liver on the hook. They are fitted with a sharp point since they improve the hookup ratio. They can snag up easily, can tear up a fish's mouth, and are illegal in some waterways.



Common Types of Fishing Hook

Circle Hook

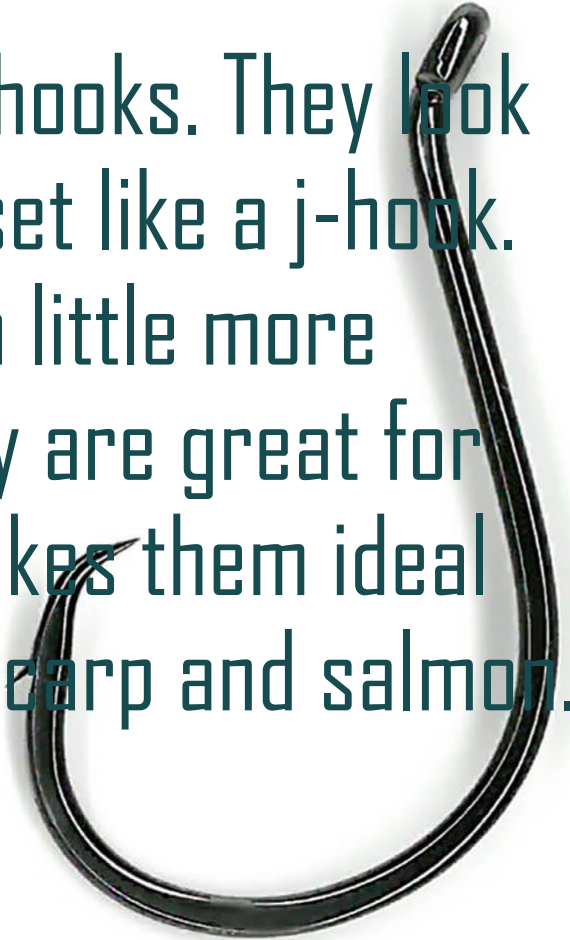
These are unique because the hook can twist and turn. The design of these hooks is ideal for catching fish in the corner of the mouth and a fisherman with circle hook will not have to pull the pole bends. All fish catch themselves.



point. The point is twisted so it is very secure. The design of these hooks is meant to snag in the corner of the mouth. **Remember, do not set the hook.** Let the fish pull the hook in itself and start reeling until the fish is close but circle hook set

Octopus Hook

- These are a cross between circle and j-hooks. They look a lot like circle hooks but they must be set like a j-hook. The design of these hooks makes them a little more forgiving than a standard bait hook. They are great for small baits and are very strong. This makes them ideal for powerful fish with small mouths like carp and salmon.



Siwash Hook

Siwash Fishing Hooks have a long shank and a large eye to ensure they sit properly on lures. They are often used on single-hook baits, such as spinnerbaits. They're also an excellent choice for factory-provided treble hooks on spoon baits.



Worm Hook

- These hooks have an indent eye and are ideal for soft plastic worms, not real worms. A hard hookset is required.



Common Types of Fishing Hook

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Two main type of Hook

J-hooks are manufactured with the point of the hook parallel to the shank of the hook creating a J-shape.

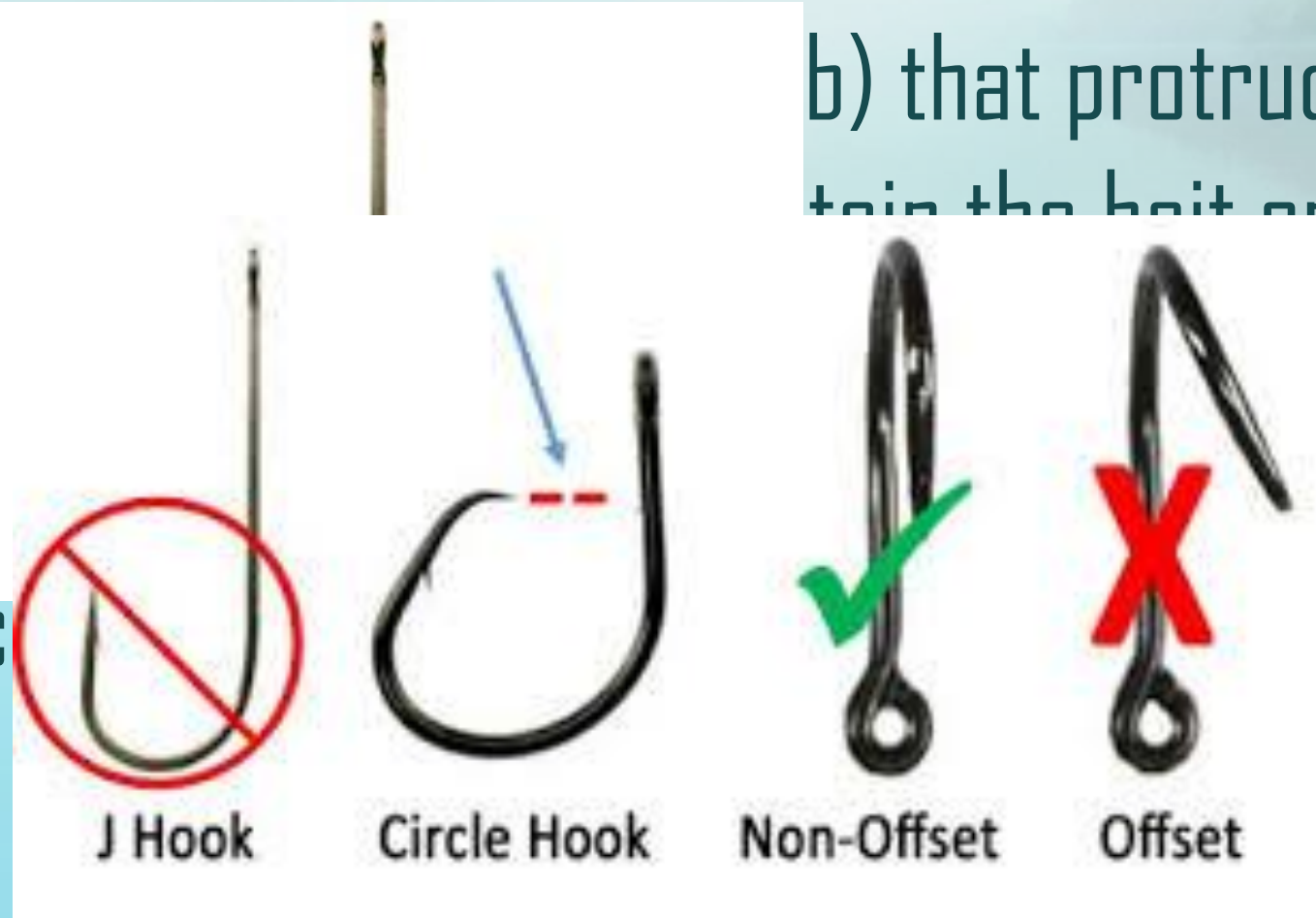
Circle hooks are manufactured with the point of the hook turned perpendicularly to the shank forming a circular shape.

Both J-hooks and circle hooks can be barbed or barbless

Two main type of Hook



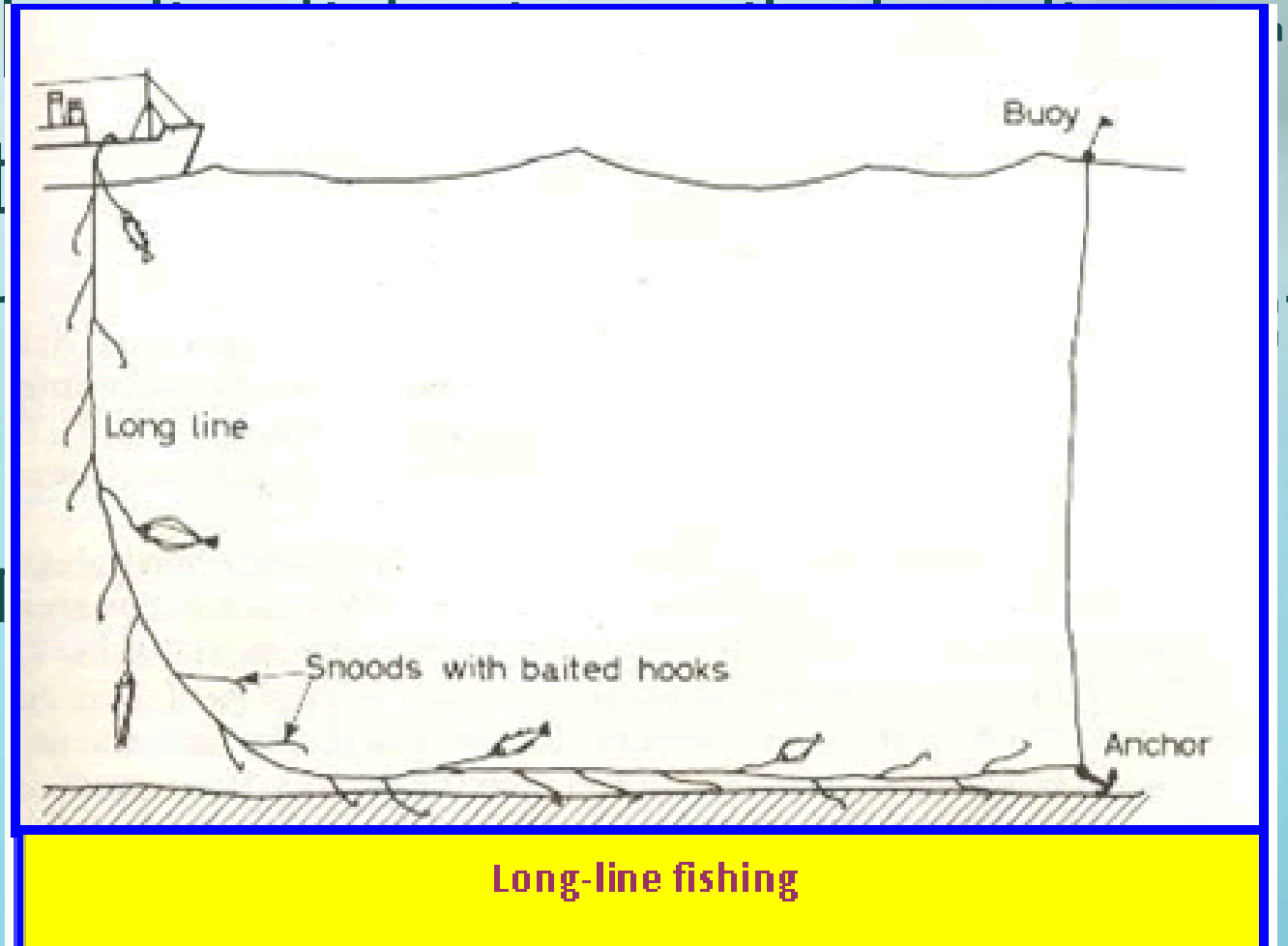
from the fish when caught to the fish.



b) that protrudes
to the bait on the
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move
aging

Longlines

- As the name suggests, a long main line, behind a boat
- Baited hooks are attached to the main line to catch the target species.
- Longlines can be set for surface (top) or bottom (bottom) fishing, depending on the target species.



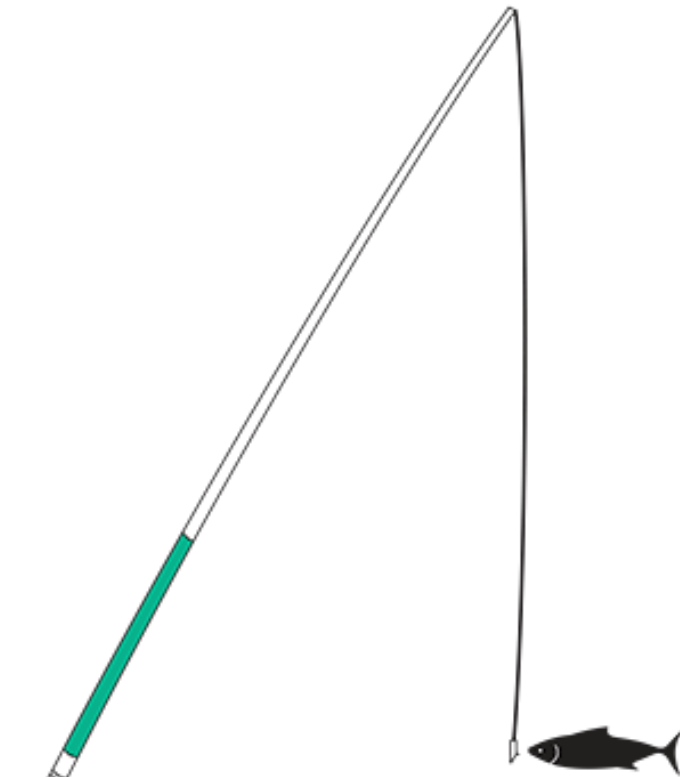
Classification of Long Lines on how they fished.

Set longlines are stationary lines that are anchored to the vessel, the seafloor or to an anchored buoy

Drift longlines are attached to floats that drift freely with the ocean currents.

Pole and line (also called poling)

Consists of a long pole and a line. The line is much longer than the pole. Poles are operated by hand. Pole and line is a depth gear.

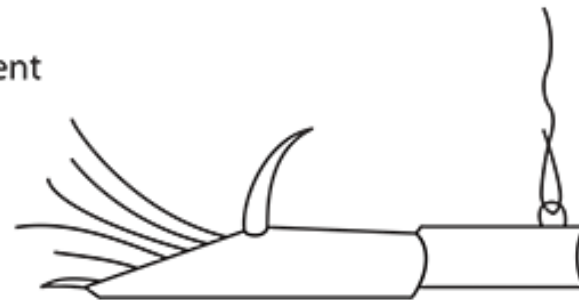


single poling arrangement



double poling arrangement

barbless lure



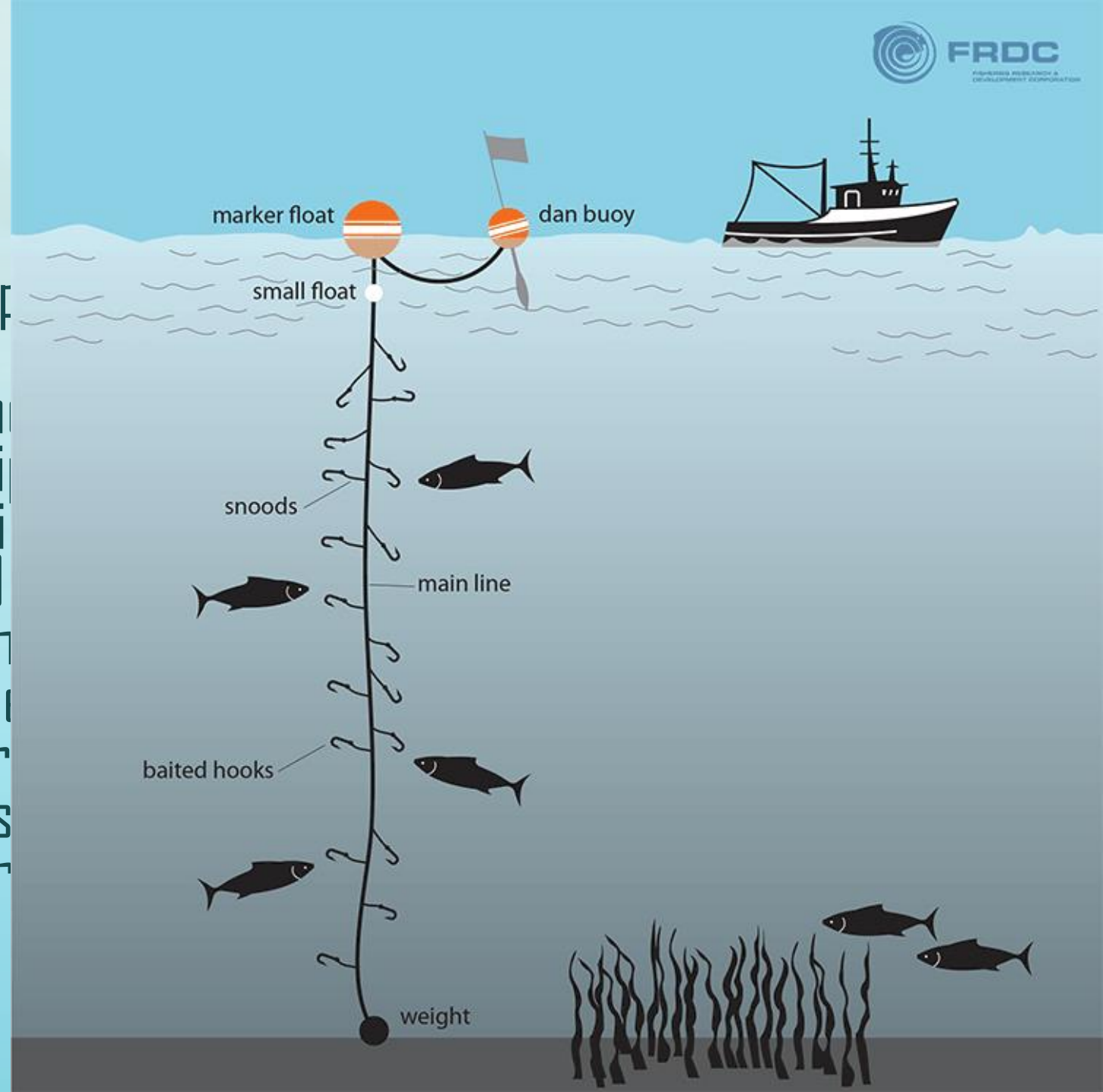
The line is a long line or moulinet. It can be used in a variety of ways. It is great for catching fish. This is a type of angling.

Anchored Lines

- Anchored longlines can be set vertically in the water column (dropline), horizontally along the seabed (bottom-set longline) or horizontally suspended off the seabed (trotline).

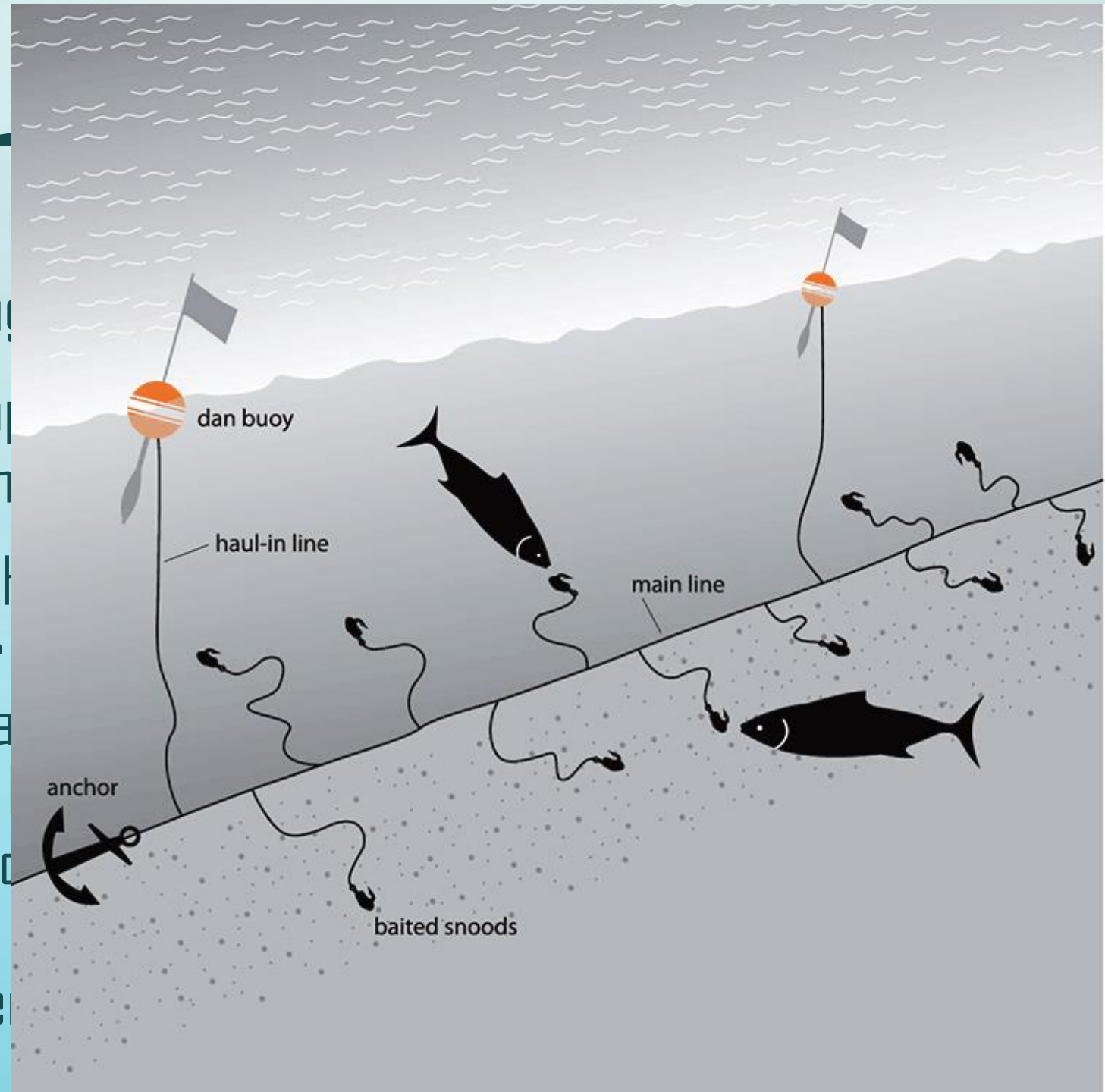
Drop Line

- consist of a *mainline* of rope vertically in the water with attached at the surface. Snoods or traces have a clip on the other. When being set for fish, the snoods (usually between 10 and 20) are lined up in order along the lower section of the mainline. When the vessel is heading for the fish, the snoods are dropped overboard, they are then set.



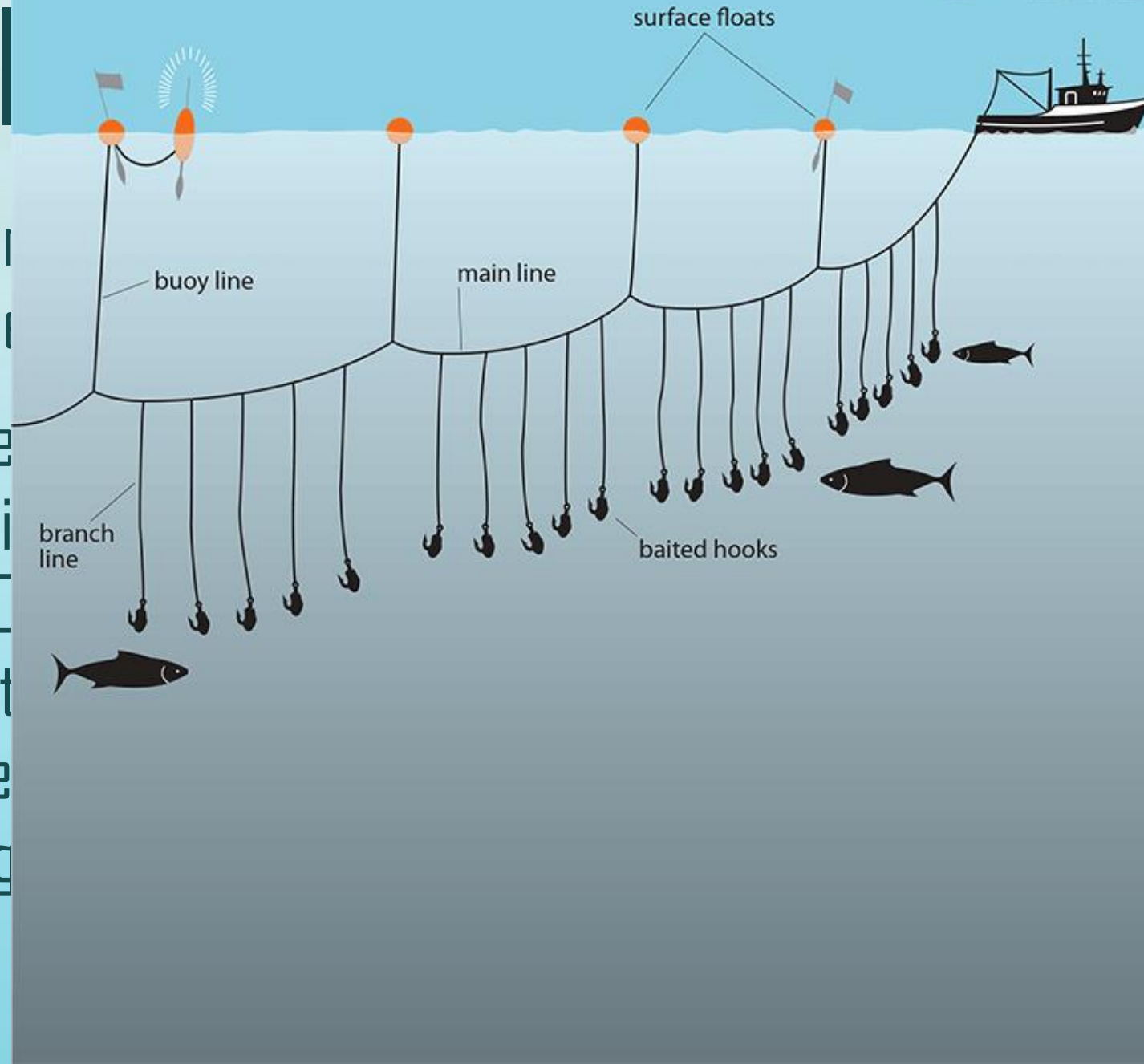
Demersal long

- (also called bottom-set long
- This line differs from a drop snoods attached is set along
- One end of the haul-in line is attached to the mainline, and the other end is used to temporarily mark a point to fish for up to 6 or more miles. It can be mechanised by hydraulic winches stored in magazines, and a hauler pulls the hooks as the line feeds over



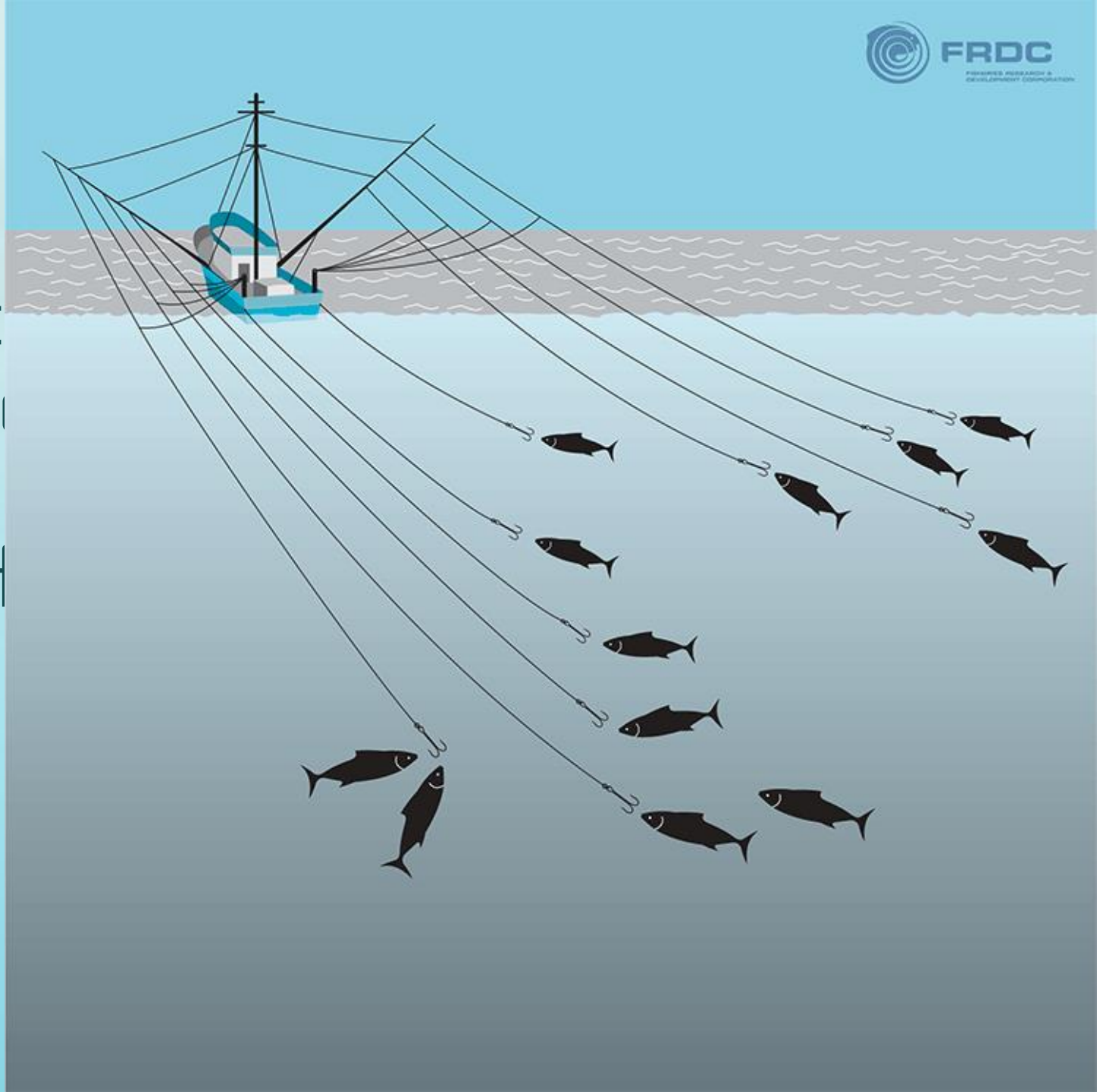
Drifting longline

- Drifting longlines are the most common type of longline used by commercial fleets targeting tuna in the Pacific Ocean.
- Drifting longlines have the mainline drifting in the water at a predetermined depth. Branch lines are spaced regularly every 20-30 m along the mainline. Each branch line is 25-50 m long and carries 10-15 hooks at different depths, depending on the target species and mainline between floats.



Trolling

- Trolling is a simple method where baits or lures are towed along. Most commercial vessels have a trolling system mounted to the stern of the boat, and troll 3–18 li



Maze Gear

Consist of equipment for leading fish into a situation or enclosure from which they cannot escape or from which the avenue of escape is not readily apparent. Maze gear includes many varieties of fishing pots, fyke nets, trap, pound nets and tidal weirs among other modifications.

Pot Gear and Traps

are portable traps that fish enter, usually through a small opening, and with or without enticement by bait.

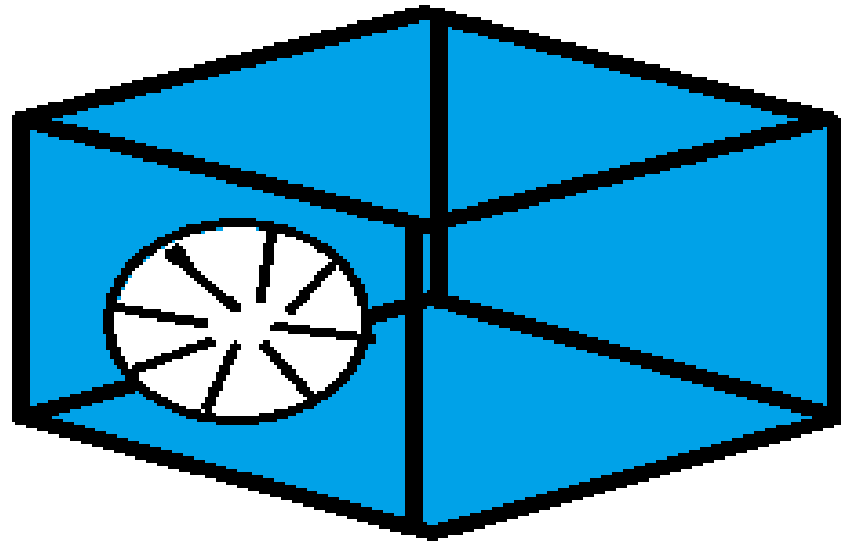
pot fishing is normally based on attracting target organisms by bait

Typical pot shapes are box, cone, cylinder, sphere or bottle.

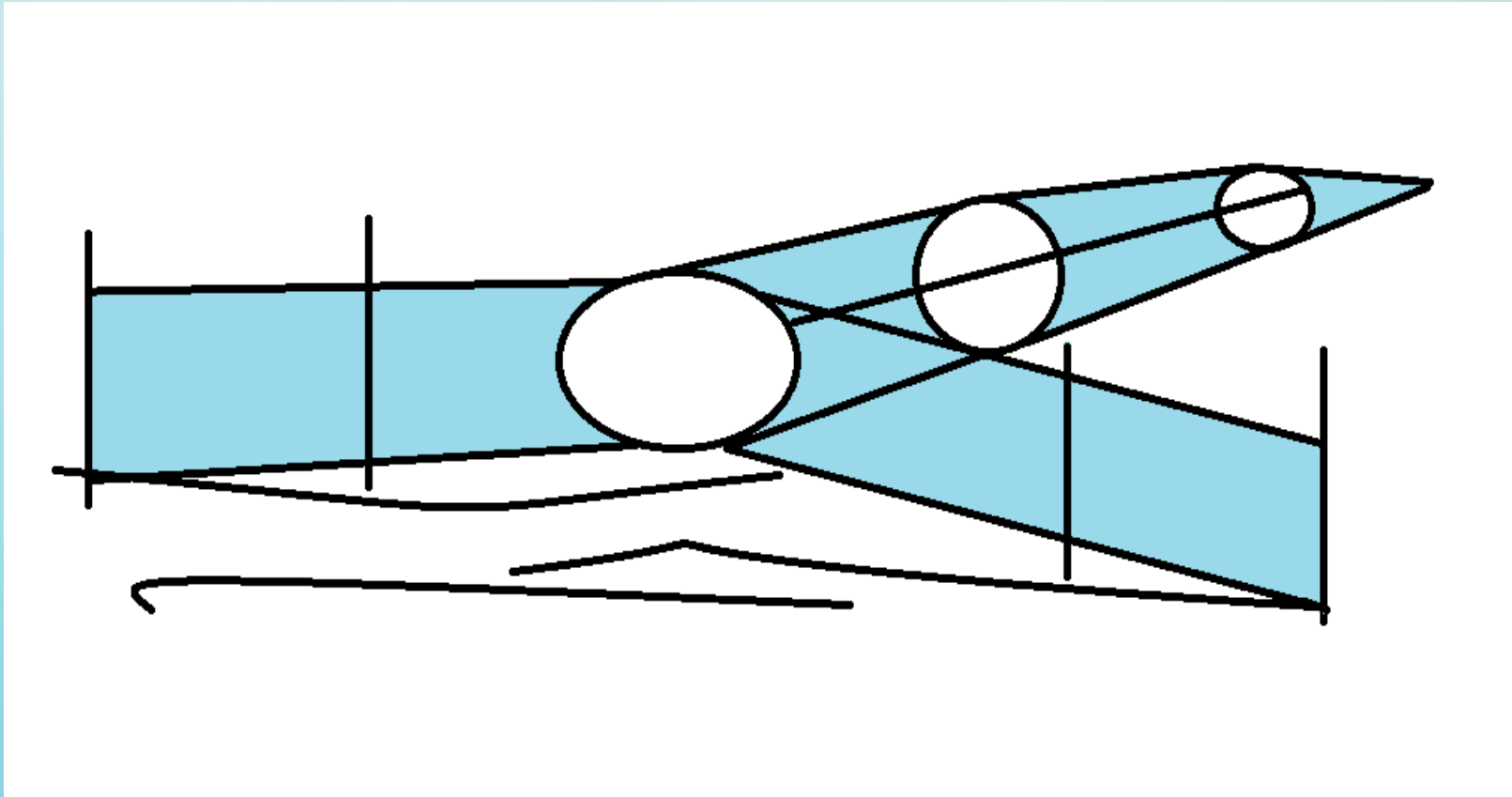
Fish traps and fish pots with usually non-return valve for easy entrance and difficult exit:

- **Fish corral** – baklad
- **Squid trap** – bobo
- **Fyke nets** - saluran

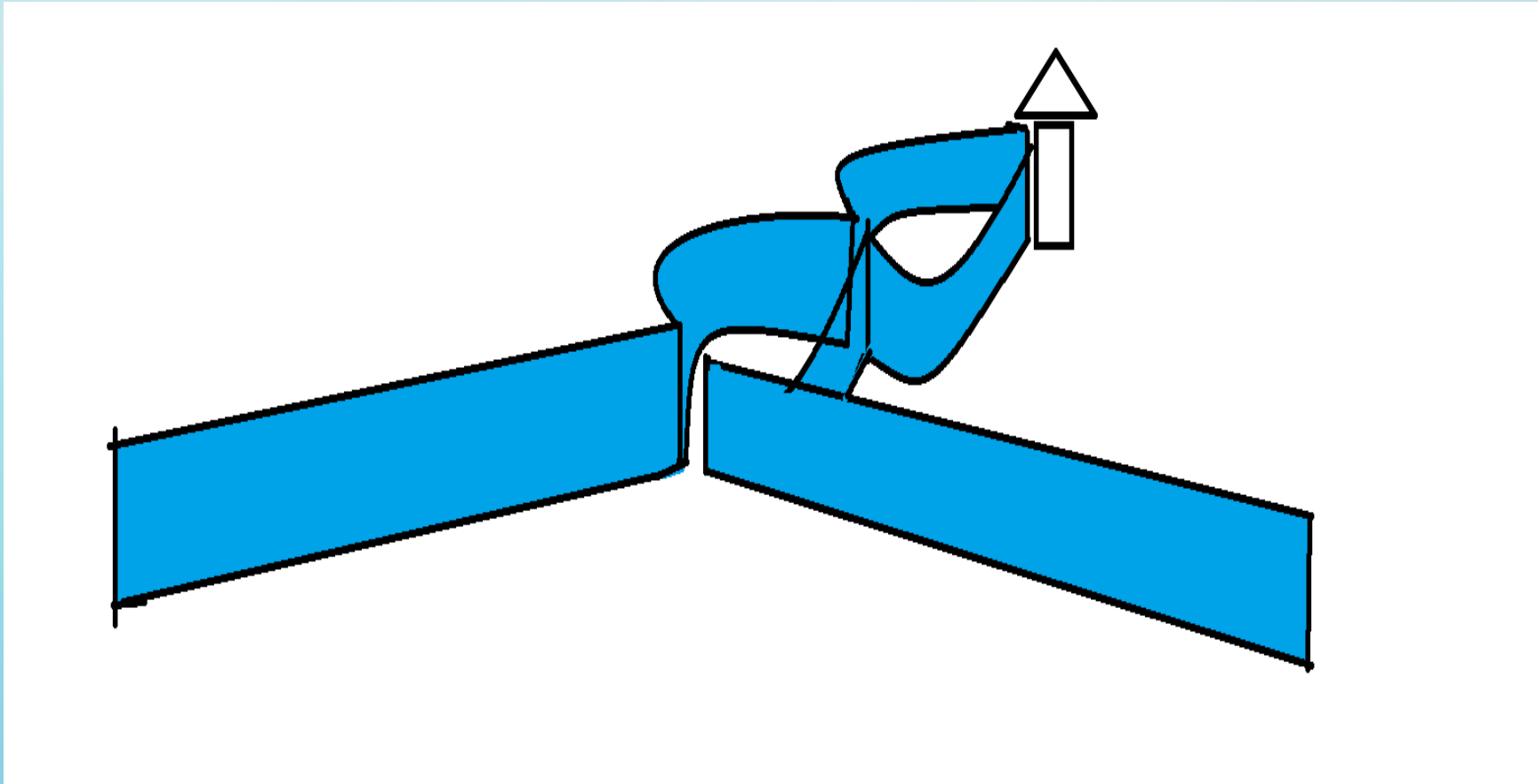
SQUID TRAP



FYKE NETS

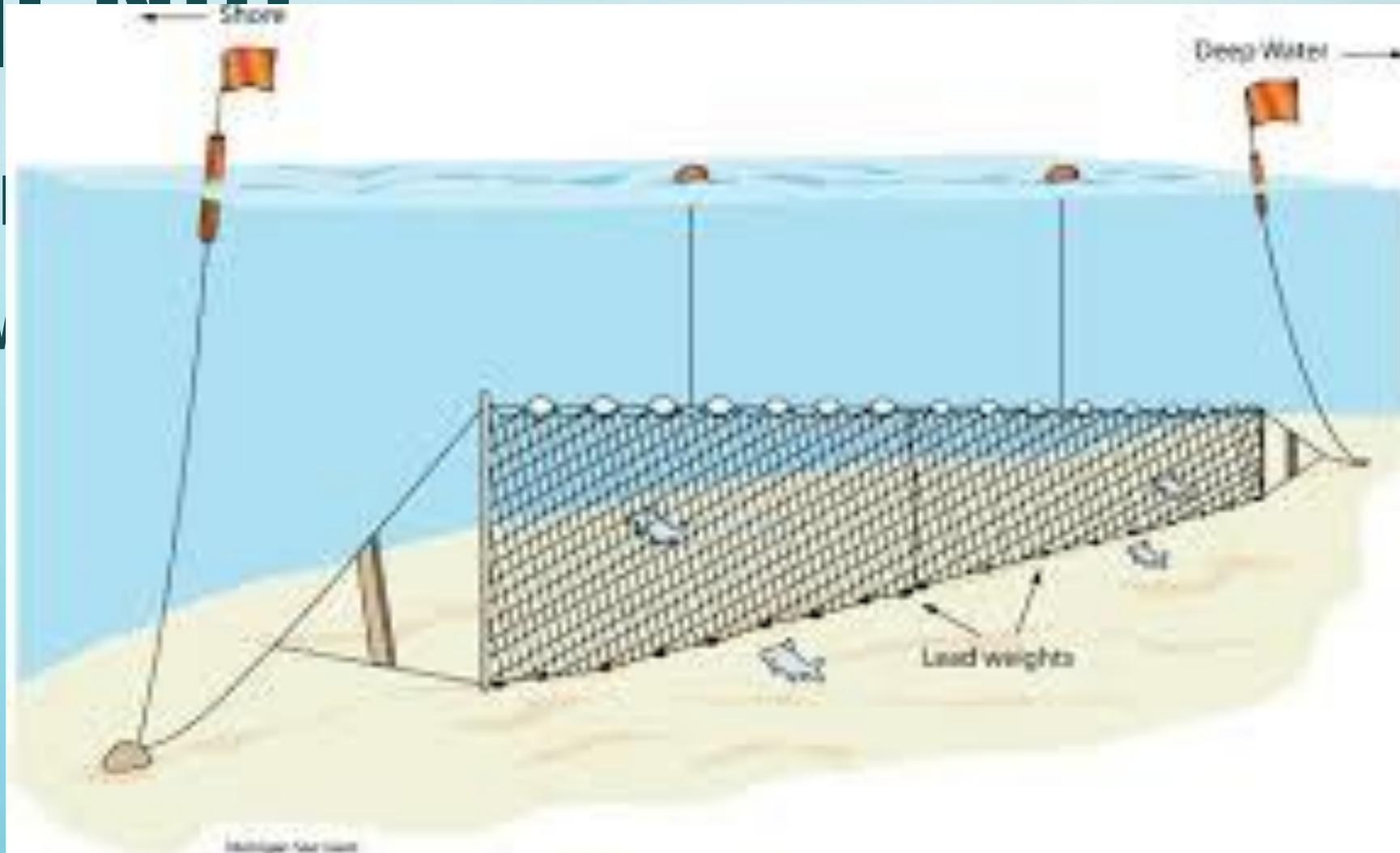


FISH CORRAL



Gill Net

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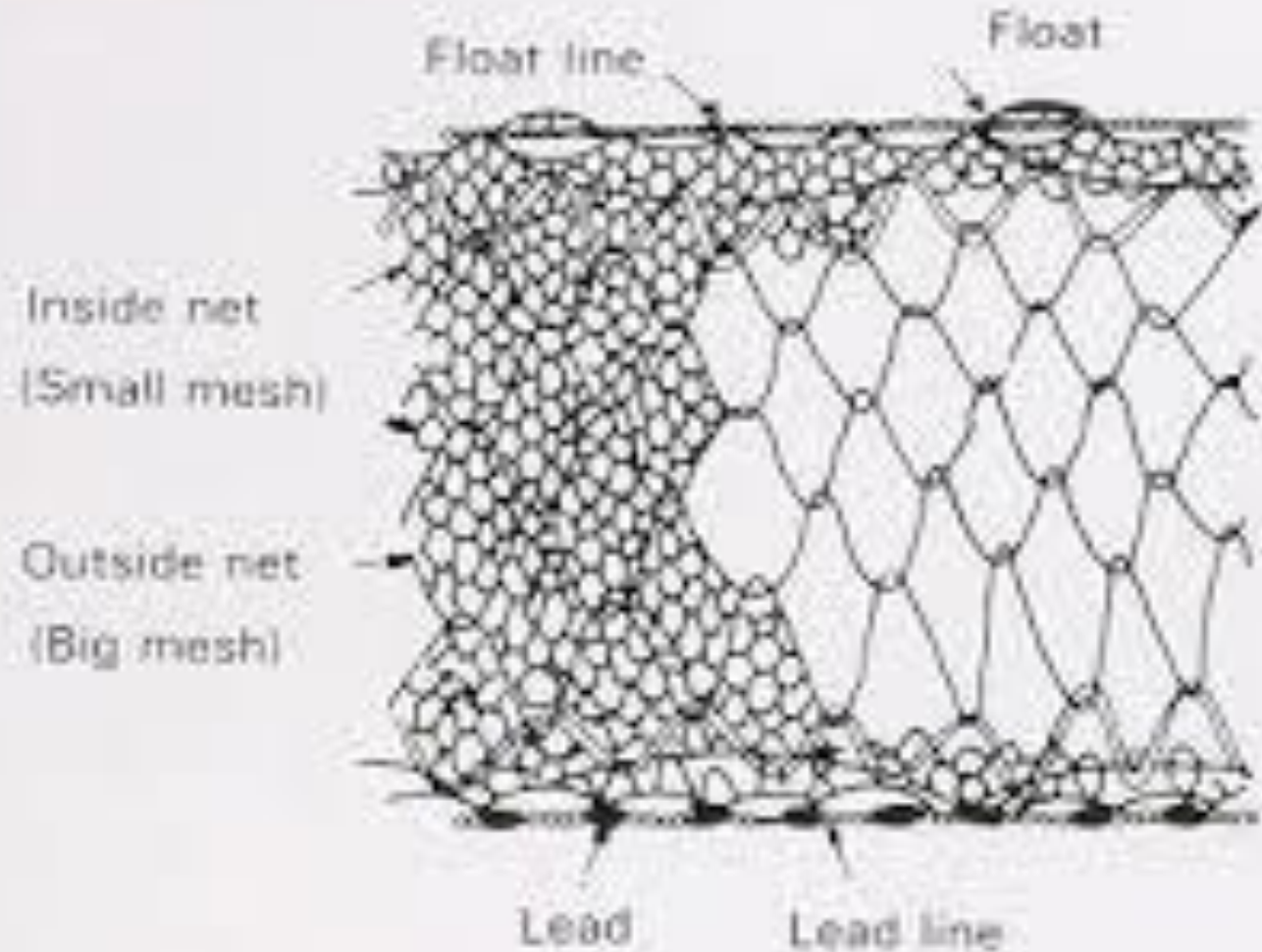
t line

Trammel

Trammel nets have a common row of floats

A trammel net is o

Trammel Net



Lift Nets (Atalla)

Lift nets
after fish
bamboo
netting



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- **SPEAR / HARPOONS** – MOST PRIMITIVE GEAR
- **CLAMPS**- HAND OPERATED STICK USED TO TAKE MUSSEL (TAHONG)
- **RAKES** – USED TO CATCH SEA URCHINS (BALAT) AND SHELLS

ACTIVE GEARS

Active gears has to be moved, dragged, or towed in order to capture fish. They usually require engine-propelled boats and usually involve additional investment over passive or stationary gears.

- is a fishing device characterized by gear movements, and/or the pursuit of the target species by towing, lifting and pushing the gears, surrounding, covering, dredging, pumping and scaring the target species to impoundments; such as, but not limited to, trawl, purse seines, Danish seines, bag nets, paaling, drift gill net and tuna longline.

Seine Nets (Baling)

Long net w
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Beach Seining

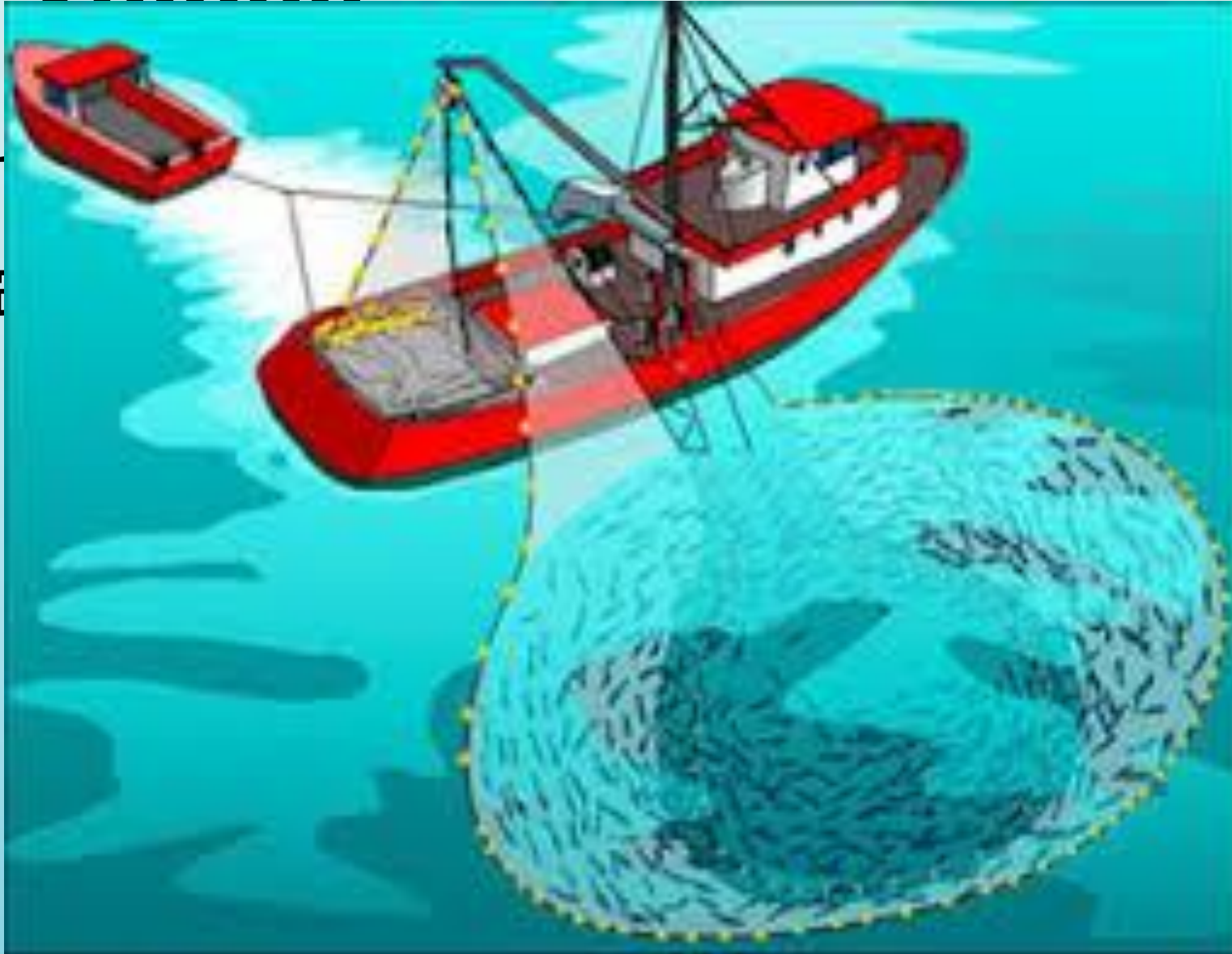
Beach seining is a pelagic fishing method often used in shallow, near-shore waters. It involves increasing the size of the net by using a pulley system to make it easier to pull in.



Beach seining is a seasonal fishing method that is most effective in shallow, near-shore waters. It is often used for catching small, pelagic fish species. The method is also used for catching larger fish species, such as snappers and groupers. Beach seining can be used in a variety of environments, including coastal waters, estuaries, and lagoons.

Boat Seining

Boat seining
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Hook and line

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Clap Nets

Clap nets
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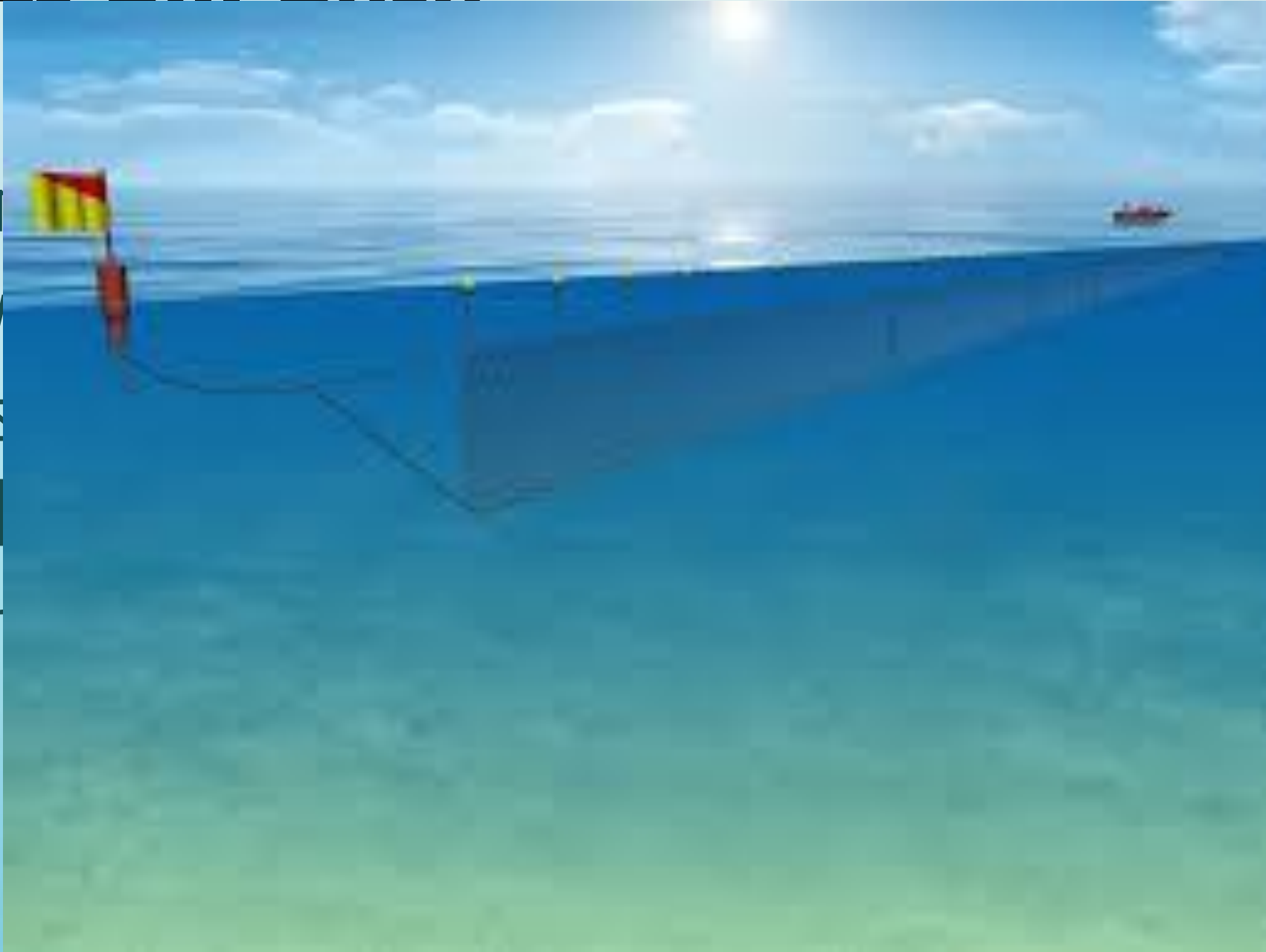
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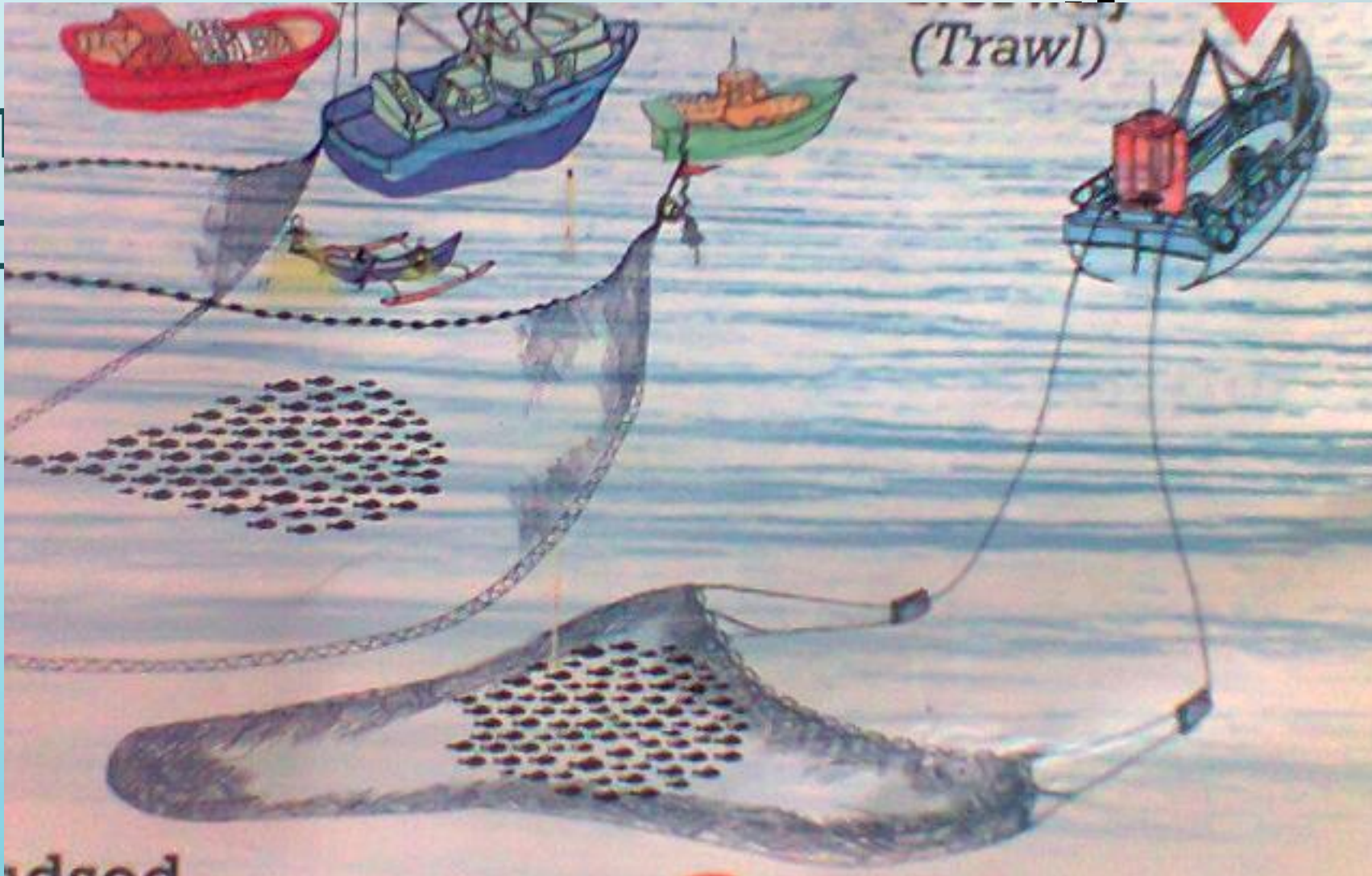
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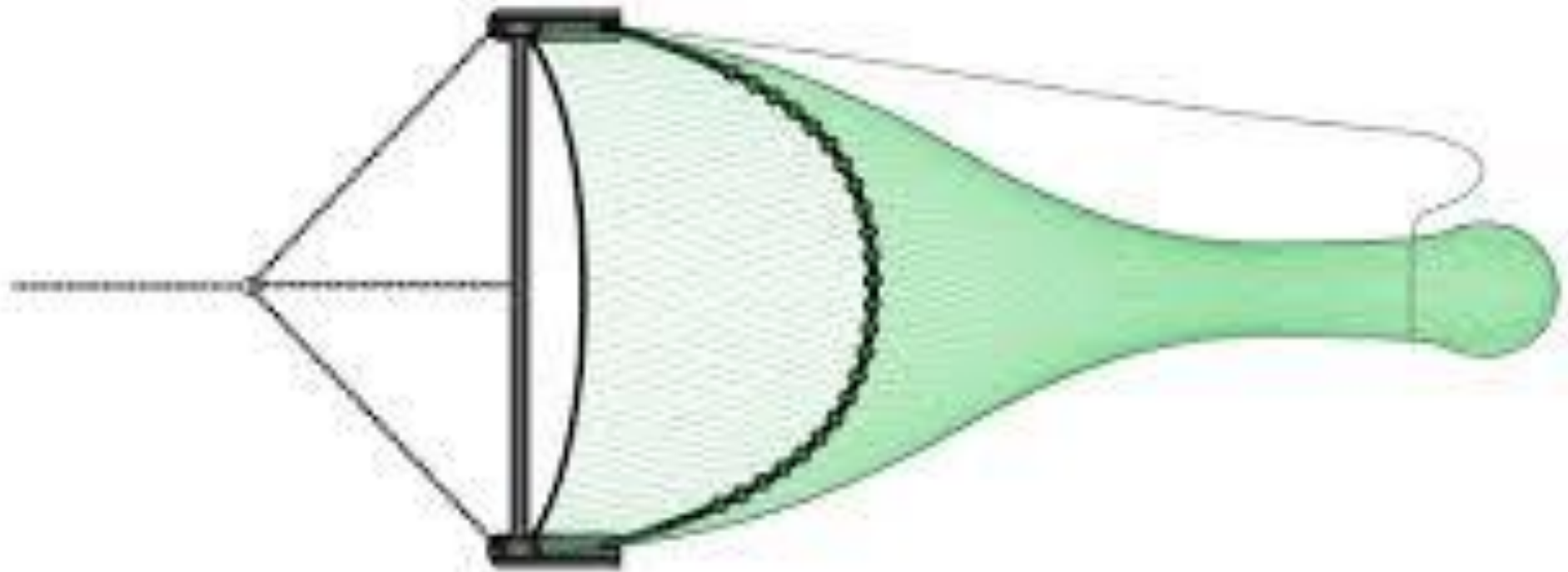
Trawl Nets and Trawling

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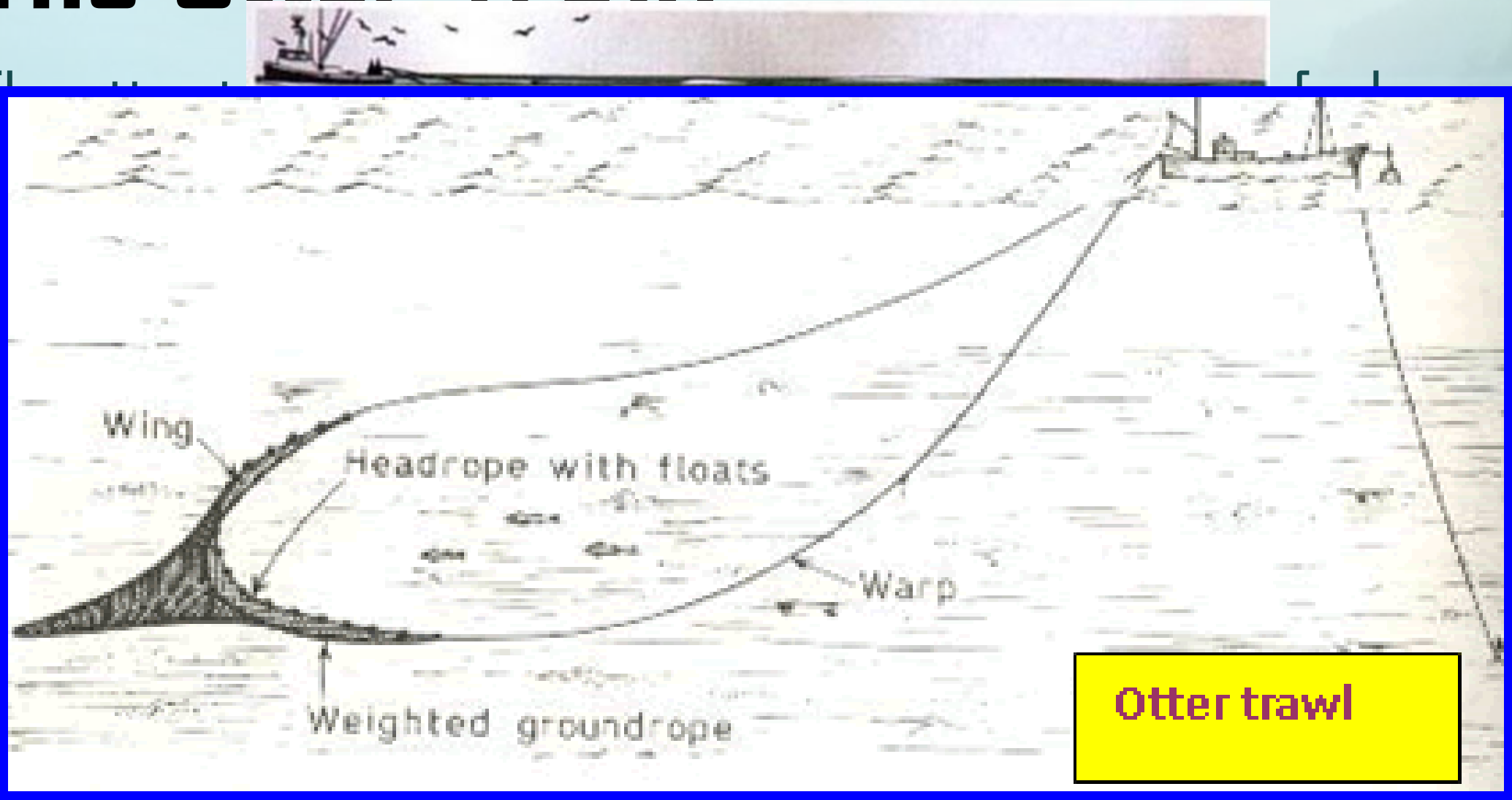


The Beam Trawl

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The Otter Trawl



Otter trawl

wide open horizontally.

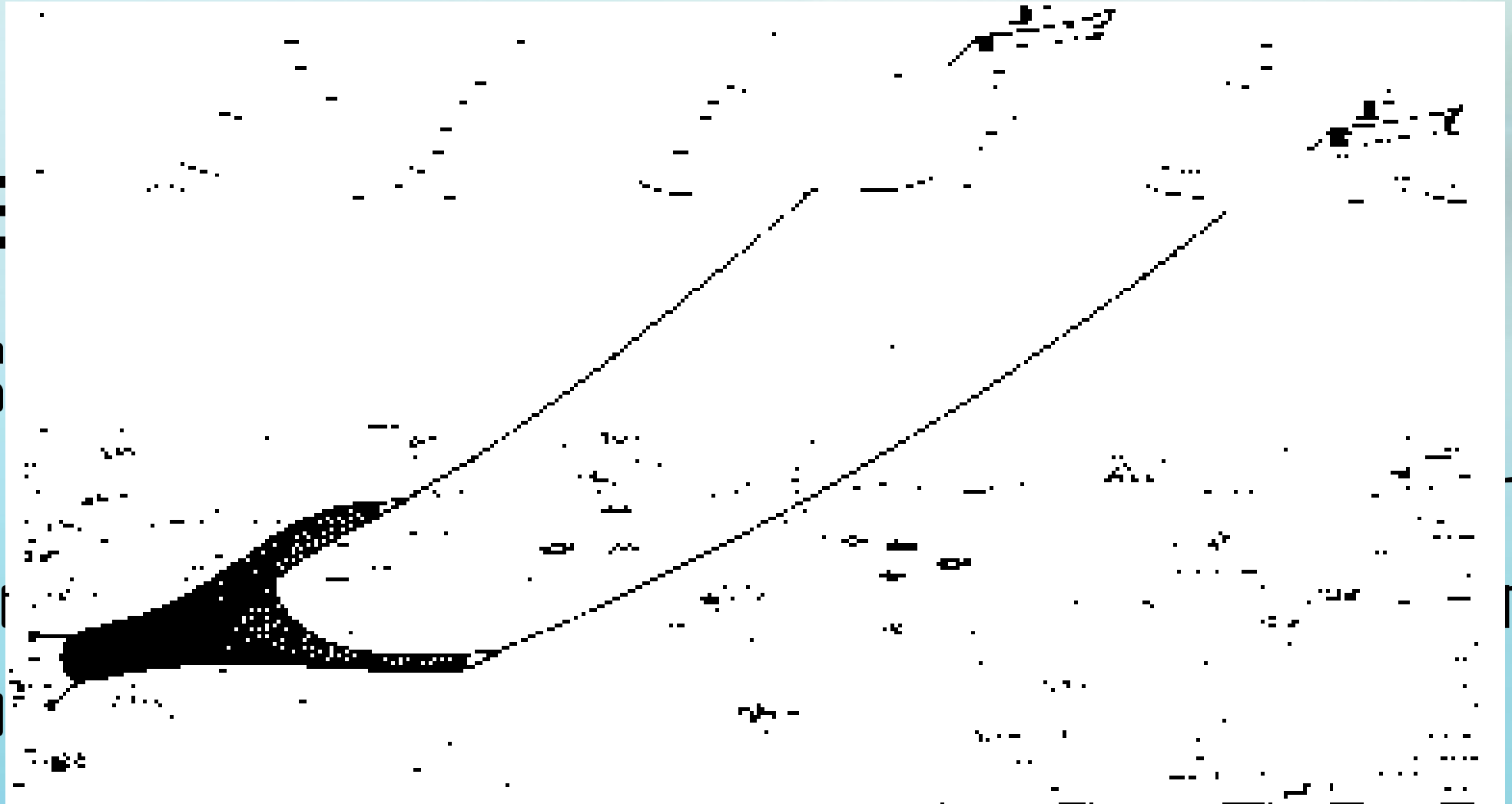
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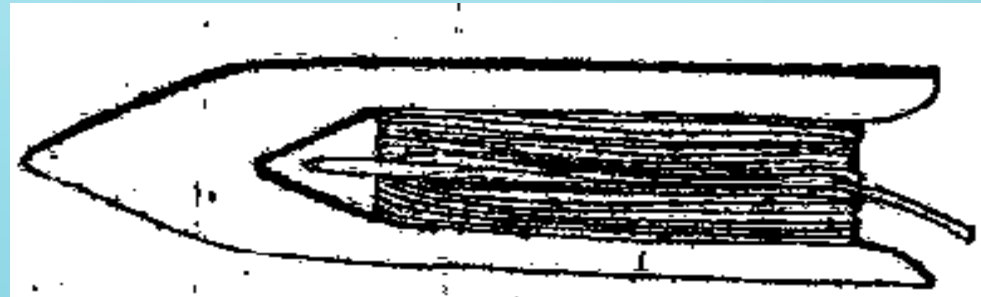
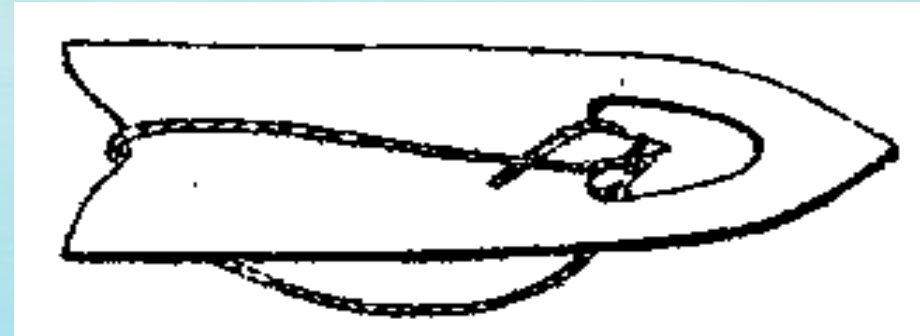
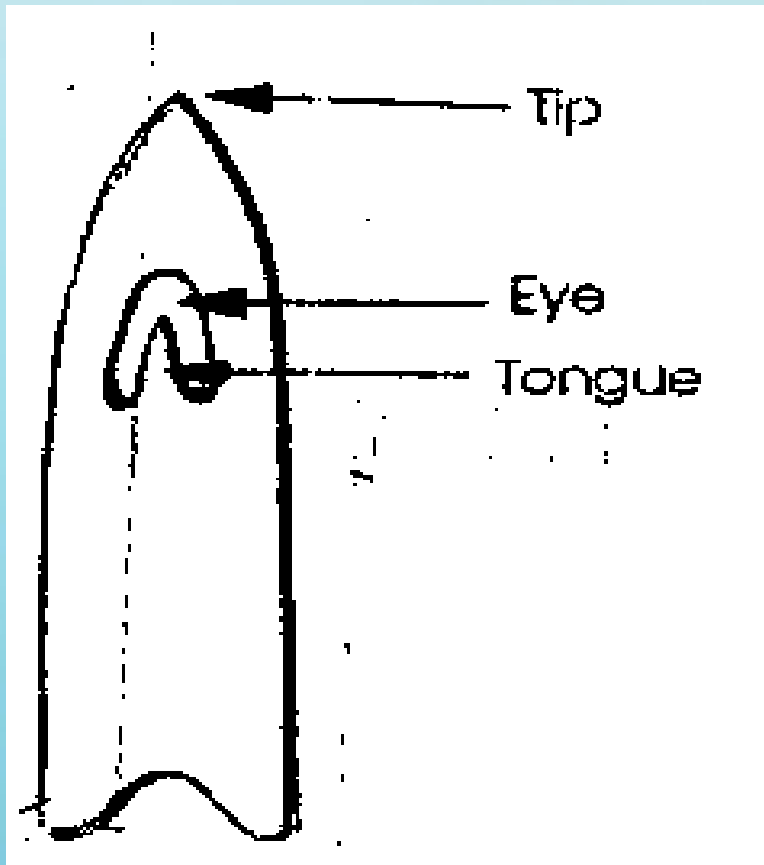
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BASIC TOOLS IN NET WEAVING

1. NETTING NEEDLE (SIKWAN)
2. MESH GAUGE (AGPANG)
3. CUTTER OR SCISSOR

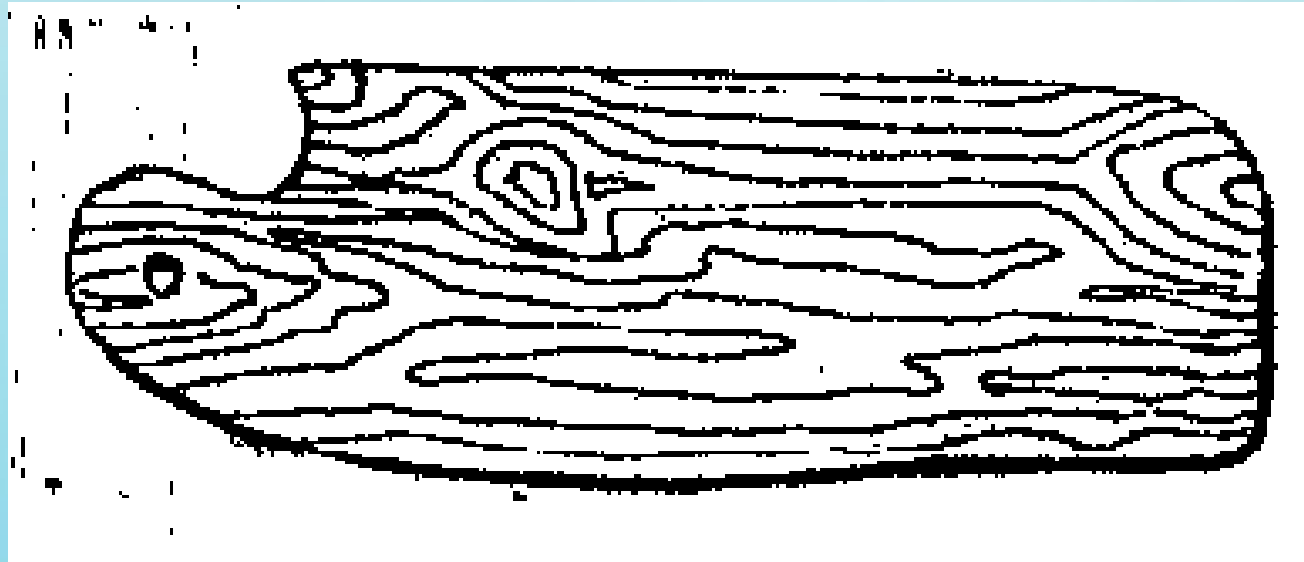
NETTING NEEDLE

This is spindle-like instrument loaded with twine and used in net making.



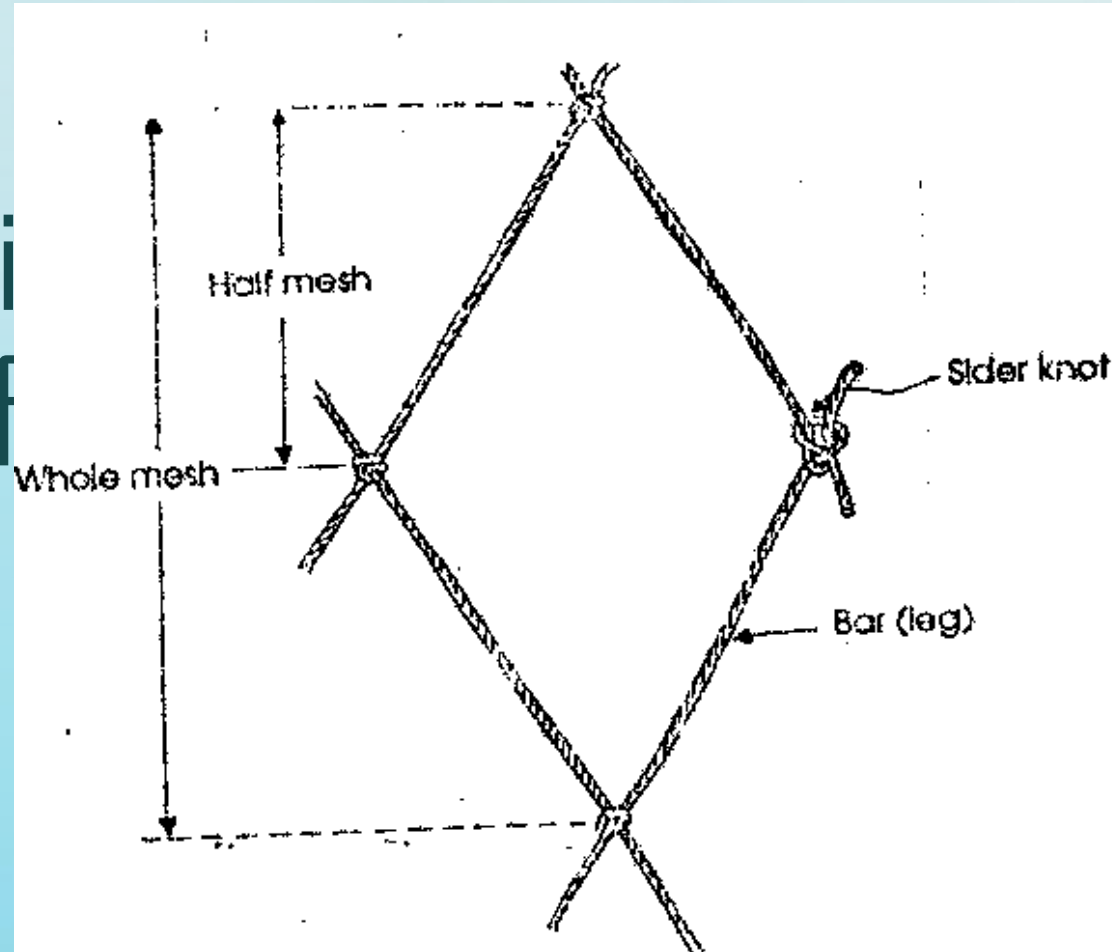
MESH GAUGE.

This is an instrument used to make the meshes of the net uniform in size.



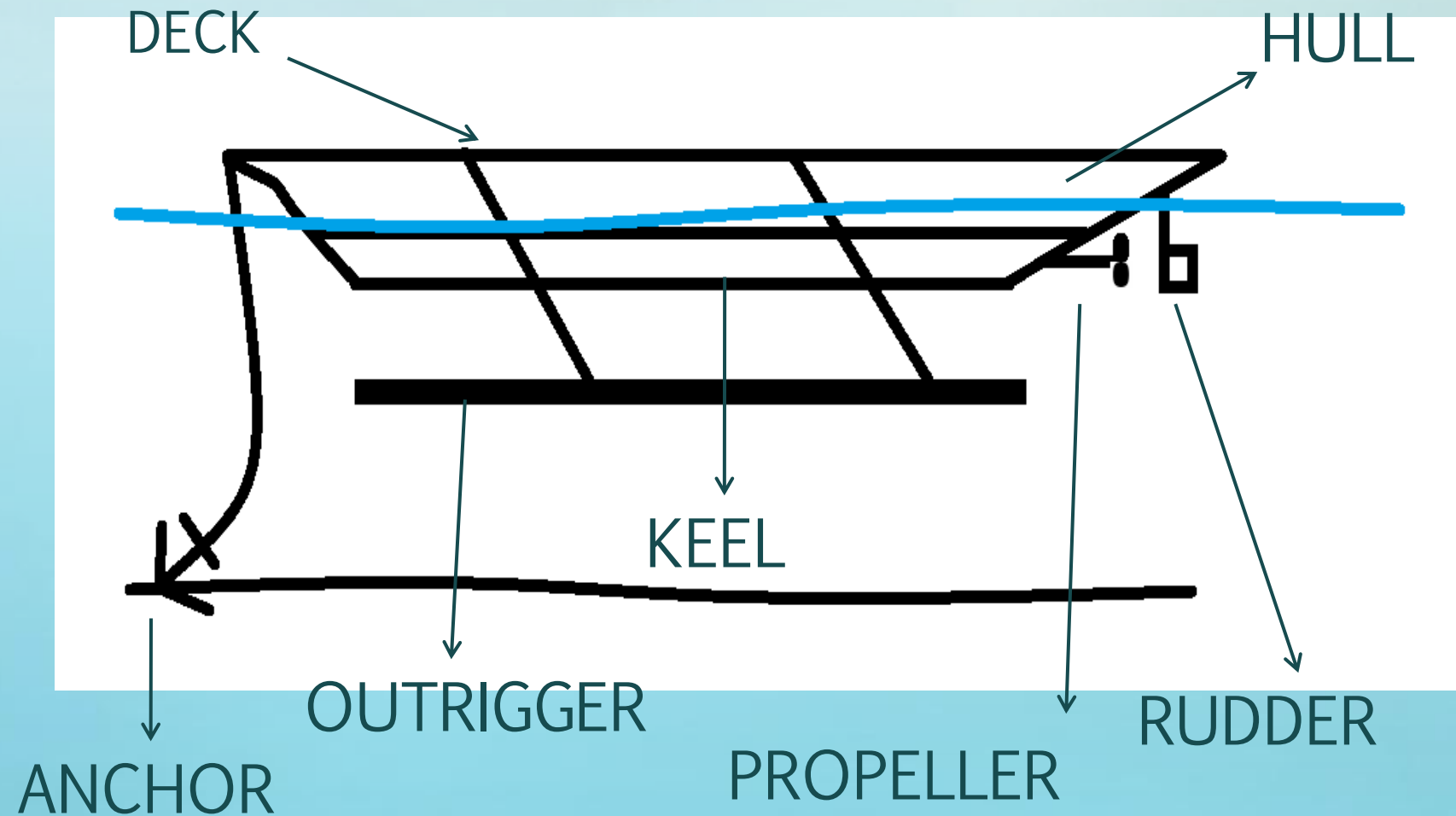
MESH.

A mesh is
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PARTS OF A FISHING BOAT



FUNCTION

ANCHOR - to hold the boat in position

OUTRIGGER – to balance the boat

RUDDER – to steer it to the left or right / direction

PROPELLER – propel/ push the boat (connected to an engine)

KEEL – serve as the backbone on the bottom part of the boat

HULL – the body of the boat (side)

DECK – the flooring of the boat

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