

# Fishery Basics – Fishing Gear

## Gear Types

All types of fishing gear, regardless of how it might be used, are designed to lure and capture fish. Fishing gears are defined as tools used to capture marine/aquatic resources, whereas how the gear is used is the **fishing method**. Additionally, a single type of gear may also be used in multiple ways. Different target **species** require different fishing gear to effectively catch the target species.

Fishing gears fall under two general categories, active gear and passive gear. Active gears are designed to chase and capture target species, while passive gears generally sit in one place allowing the target species to approach the capture device. The [United Nations Food and Agriculture Organization \(FAO\)](#) further classifies fishing gear into 11 categories primarily based on how the gear are fished, we have provided detailed information about each category [See Fishing Gear](#). To browse a partial list of fishing methods and marine zones where they might be used [click here](#).

## Traps

**Traps** are maze-like structures of netting or cage-like enclosures, made of metal or other strong materials. All traps have the same basic operating principle, allow the prey to enter but prevent them from escaping. There are two general trap designs:

1. Large stationary traps, like [fyke nets](#), [stow nets](#), and [fences or corrals](#). Stationary traps are typically set in coastal waters, estuaries, and **inland waters** to target migrating **pelagic** and **demersal** fishes.
2. Mobile traps that are more commonly referred to as [pots](#). Pots can be set from relatively shallow coastal waters to depths greater than 100 m (328 ft) along the **continental shelf**, targeting **shellfish** like [Dungeness Crabs](#) (See California Fisheries) and [Spot Prawns](#) (See California Fisheries), as well as Octopus and some species of demersal fishes. Pots vary in size, ranging from 0.5 m (1.6 ft) to 2 m (6.6 ft) in a single dimension, and are typically made into the shape of cages or baskets.

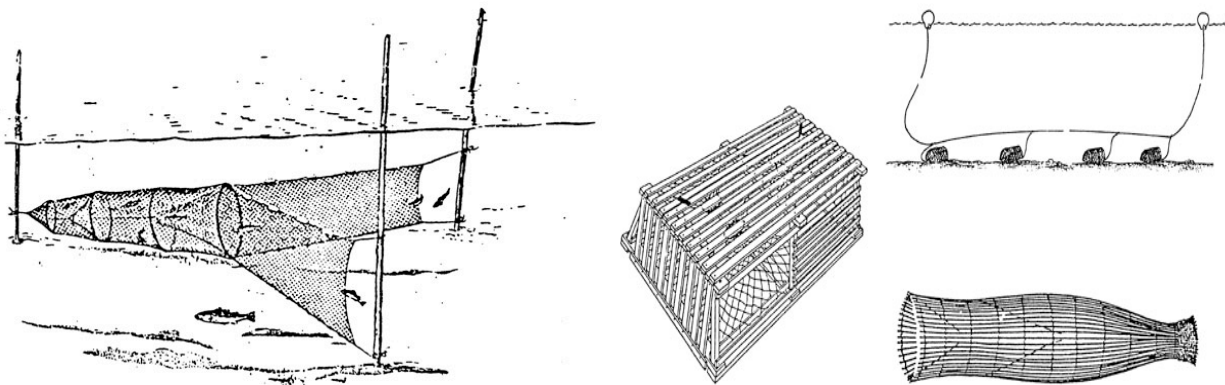
Until recently, most traps were made of natural materials that tended to decay rapidly. To create more durable traps, fishermen began constructing traps made of galvanized steel or plastic coated welded wire. However, when modern traps are lost they no longer naturally break down.

Therefore, in an effort to prevent **ghost-fishing**, traps also must be equipped with a destruction device in case the trap is lost or cannot be retrieved. Typically the destruction device is a piece of biodegradable cotton twine that is used to secure the latch that keeps the trap door closed. In the event that a trap is lost, the twine will erode and open the trap door. Thus the organisms inside the trap are able to escape.

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Additionally, design changes have been made to traps to only target specific species or size classes of species. For example, the [California's Fish and Game Code Section 9000-9024](#) requires that all traps be outfitted with escapement rings, which allow for non-target species and smaller individuals of the targeted species to escape. Escapement rings must be a minimum size, determined by the fishery, and must be placed on the vertical sides of the trap.

Baited pots may be set on the seafloor individually by hand from small boats or in a long string, sometimes up to 50 m (164 ft) long from **trap setters** (See Fishing Vessels – Trap Setters). The location of the traps must be marked with buoys, which have the commercial fishing license of the fisherman. Pots and traps may be set and left in the water for a few hours up to a few days (usually no longer than four days) before being retrieved.



Illustrations of a fyke net, a type of stationary trap (left), and two types of pot designs and a string of pots (right). (Credit: Food and Agriculture Organization of the United Nations)

## References

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## Additional Resources

### [Bycatch Reduction Database](#)

FAO – [The Use of Technical Measures in Responsible Fisheries: Regulation Of Fishing Gear](#)

Marine Conservation Society – [Fishing Methods](#)

Rhode Island Sea Grant – [Bycatch Fact Sheet](#)