

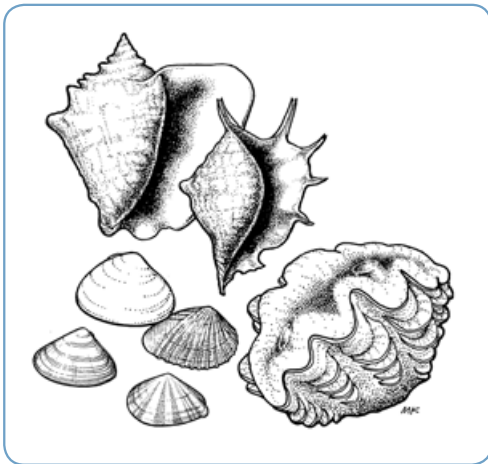


The culture of Kiribati is Micronesian in origin and traditions exist and thrive, particularly on the outer islands. Traditionally living on what can be sourced from the sea, I-Kiribati have had to become expert sailors and fishers.

Traditional fishing methods used by our ancestors ranged from gleaning (or collecting by hand) on reefs for seafood to fishing offshore from sailing canoes for tuna and deeper water fish.

1. Gleaning and collecting

A range of invertebrates are collected along shorelines. Peanut worms (*Sipunculus*) and bivalve molluscs (*Asaphis*) are dug up from silty sand. A number of filter feeding bivalve molluscs can be collected just below high tide. In deeper water, clams (*Hippopus* and *Tridacna*) and spider conches (*Lambis*) are found. At the times of the month when tides are at their lowest (spring tides) it is possible to catch octopus from the fringing reefs.



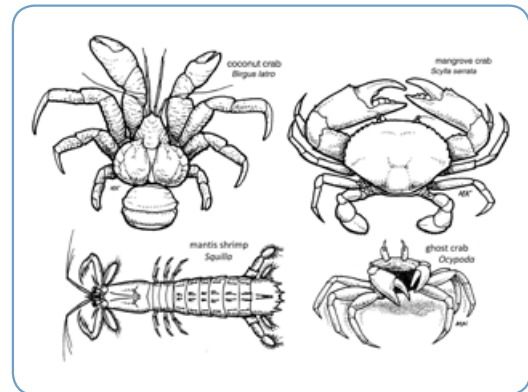
Crustaceans collected include the ghost crabs (*Ocypoda*) which scurry along the beaches at night. Large coconut crabs (*Birgus latro*), which were common before the introduction of dogs and pigs, were found in coastline shrubs usually in a hole covered by a partly-husked coconut. Each crab is taken by surprise and its two large claws are twisted off. Lands crabs were a particularly valuable food item when storms lasted for weeks and disrupted fishing.

2. Spears

Men use spears to catch fish from canoes or off the reef edge. Sometimes coconut fronds would be used to drive fish into the shallower water of a lagoon where they could be more easily speared.

3. Encircling nets

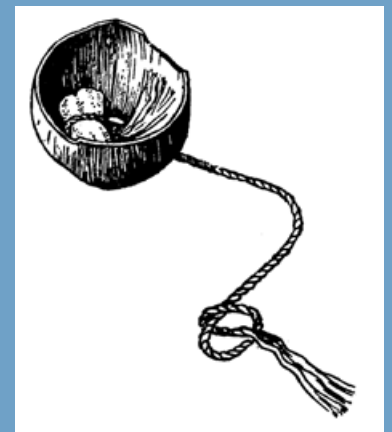
A large drag-net (*karaun*) about 20 to 50 m long and about 2-3 m deep is knotted from coconut fibre string and fitted with floats of *Scaevola* wood and sinkers made from cowrie shells. At a high flood tide, several people (men and women) carry the net into the water of the lagoon. When they are about 100 m from the shore they separate, unfold the



Catching the mantis shrimp

The mantis shrimp (*Squilla*) is also dug out from the lagoon mud, not far from the shore. Capturing the mantis shrimp with its razor-sharp claws requires considerable skill. A rig is made up of the upper half of a coconut shell with a coconut fibre string passed through the eye. One end of the string is tied round a small piece of coral which acts as a toggle and the other end is tied around a small bait fish.

Several of these rigs are made and the coconuts with baits beneath them are placed on the mud near the burrows of the mantis shrimps. A watch is then kept until one of the coconut shells tilts and moves towards the burrow, indicating that a mantis shrimp has taken the fish. Next the lure is slowly raised and the fisher carefully feels with his right hand down into the hole and very gradually pulls to the surface the struggling crustacean, which is about 30 cm long. Great care is needed to avoid the sharp claws.



Lure (*bai ni kaun waro*)

From: Koch G. 1986. The material culture of Kiribati. 270 p.

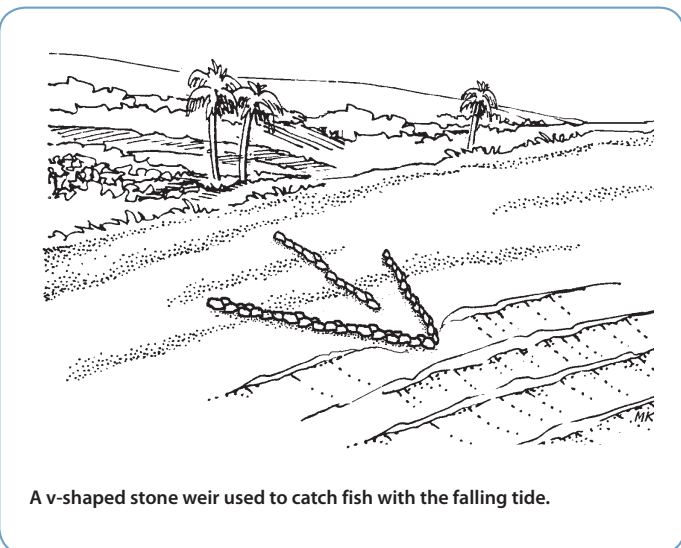
net and form a large circle with it. They then move closer together, encircling a number of fish. With the help of children who have come along, the fish are removed from the mesh of the net. The process is then repeated further down the shore.

Fish drives usually involve dragging a net to either surround fish or drive them into a small area. Traditionally, the dragnet is made from coconut fronds weaved on vines and may be over 100 m long. Many men, often over 30, are needed to drag the net either in a semi-circle facing the shoreline or a full circle about 20 m in diameter. Fish that are trapped inside the coconut frond enclosure are removed by hand or speared.

Fish drives usually involve many people moving across the reef and this is likely to damage corals and the habitats of marine organisms.

4. Weirs, fish fences and traps

The simplest traditional traps are based on v-shaped or semi-circular walls of stone or coral inside which fish are stranded by the falling tide. Fence traps are built at right-angles from shore-lines and reefs to guide migrating coastal fish into a large retaining area.



A v-shaped stone weir used to catch fish with the falling tide.

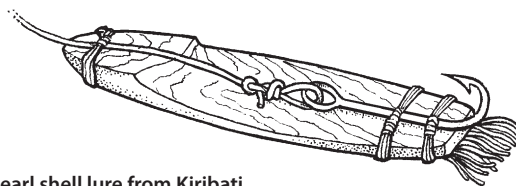
5. Traps and nets

Using traps to catch fish and moray eels (te 'uu') are also traditional fishing methods. The traps made for catching moray eels are beautifully made by master builders. Construction involves the use of wood tightly bound by coconut fibre string. After the walls and roof have been completed an entrance is worked into one end.

Nets with long handles are used by men for night-time fishing expeditions using burning torches made by women from dried coconut fronds

6. Hooks and lures

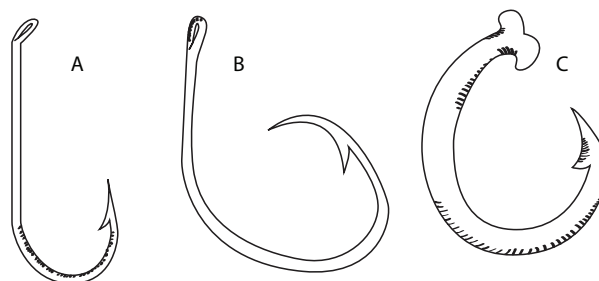
Tuna, including skipjack and yellowfin, were caught by towing lures attached to wooden poles. Lures were made from mother-of-pearl shell or feathers with hooks originally made from hard wood or coconut shell and attached to lines made from plant fibres. Besides being used for fishing, carved fish hooks were worn as personal ornaments.



A pearl shell lure from Kiribati

From: King M. 2007. Fisheries biology, assessment and management. UK: Wiley Blackwell. 400 p.

Modern fishing hooks are often J-shaped. However, in many commercial fisheries, circular steel hooks are used and these are similar in design to the bone or shell hooks which have been used since prehistoric times by Pacific Islanders. When a fish strikes a circle hook, the point rotates around the jawbone, ensuring that the fish remains caught without the fisher having to maintain pressure on the line.



Fish hooks. A) a common J-shaped hook, B) a modern circle hook, and C) a traditional bone hook.

From: King M. 2007. Fisheries biology, assessment and management. UK: Wiley Blackwell. 400 p.

Over time, traditional fishing methods have mostly given way to more modern ones in order to make fishing more effective and increase fish catches. Monofilament fishing line with plastic lures and steel hooks have replaced fibre lines with bone hooks. And monofilament gill nets have replaced the traditional ones. Modern vessels with outboard engines have replaced sailing canoes and decreased the time and effort required for fishing. However, beautifully built traditional canoes are still used in many parts of Kiribati.

Many modern fishing methods and gear are so efficient that many stocks of fish have been overfished* and their populations reduced to low levels.



A trap for catching moray eels

From: Koch G. 1986. The material culture of Kiribati. 270 p.