

HAWAII IN HARMONY WITH THE SEA



ILLEGAL FISHING TECHNIQUES IN HAWAII

ILLEGAL FISHING

Fishing always has been very important to the people of Hawaii, either for recreation, for food, or as an occupation. It's not surprising, therefore, that over the years hundreds of different fishing techniques have been developed and employed in the islands.

Most of these techniques do not destroy Hawaii's fish resources, but provide an opportunity for the recreational fisherman to catch his limit, and the commercial fisherman to harvest the optimum sustainable yield of his fishery. Some fishing techniques, however, are destructive and if not regulated, could easily wipe out whole species or reef fishing areas for all time. Here are some destructive fishing practices to avoid to assure the continuation of fish resources in the future.

Explosives

The use of explosives to kill and catch fish probably began hundreds of years ago, as early as 1600. In Hawaii dynamite was used for fishing in the 1800's until 1872, when a law was passed prohibiting this practice.

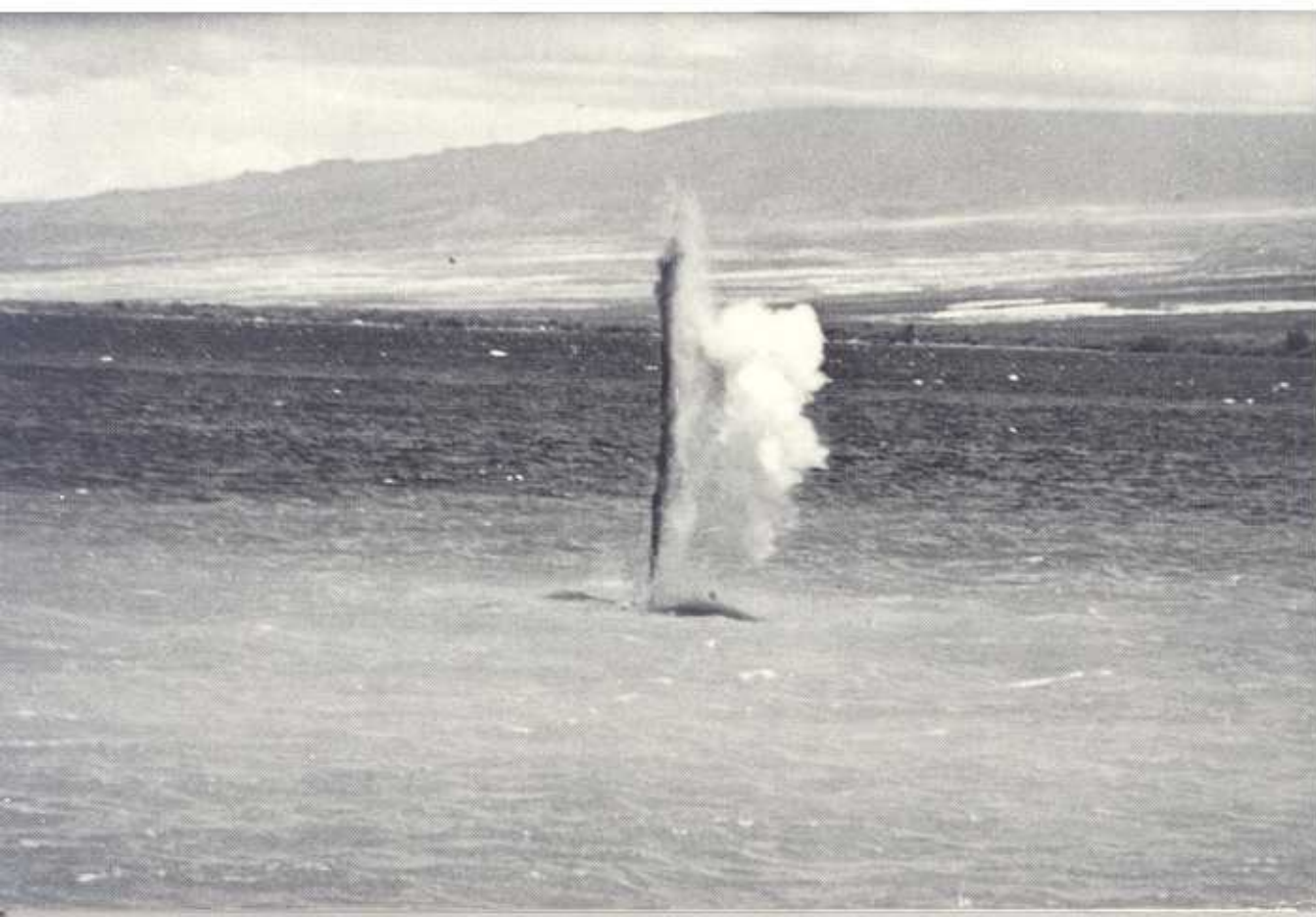
That law, which makes it *illegal to fish with, attempt to fish with, or to be in the possession of explosives on or near the shore*, is still in effect today throughout the State.

The reason for this law is obvious; explosives are indiscriminate killers. When there is an explosion in the water, all the animals in the area are killed, not just the desired fish. This means that unedible species and young fish also are destroyed. By wiping out the young before they can mature and reproduce, thousands of other fish are never born.

Many of the fish that are killed in underwater explosions sink to the sea floor, out of the fisherman's reach, because their air bladders have been destroyed. It has also been learned that many of the fish that initially are only stunned by underwater explosions die later of internal injuries.

FISHING WITH EXPLOSIVES

Explosives are indiscriminate killers and seriously damage living marine resources. Their use for fishing in Hawaii is strictly prohibited.

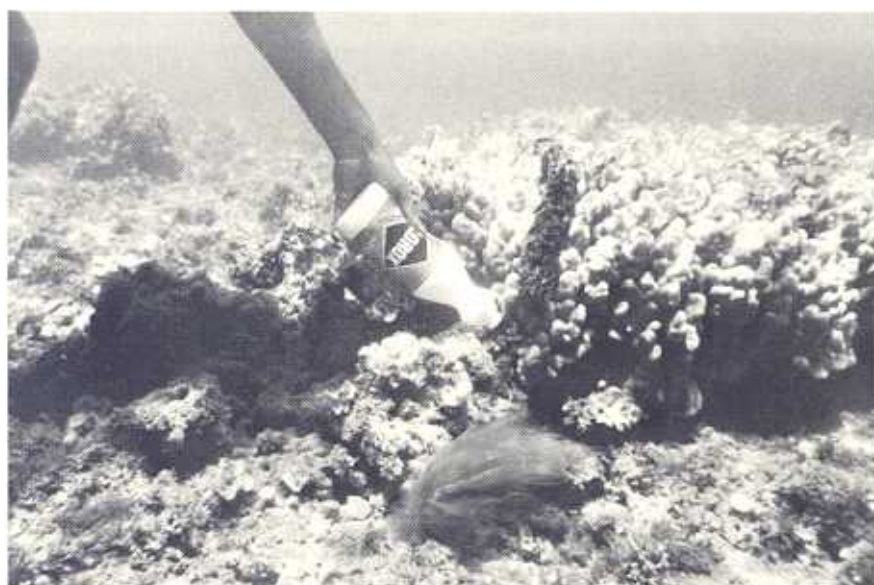


TECHNIQUES

Chemicals, Poisons, Intoxicants, Electricity

Another fishing technique that has been used for centuries throughout the world is poison or chemical fishing. The old Hawaiians practiced this type of fishing, using the leaves and seeds of the 'ākia shrub (*Wikstroemia sandwicensis*) or the 'ahūhū weed (*Tephrosia purpurea*). In present day Hawaii these poisons have been replaced by manufactured chemicals such as Chlorox or Rotenone. All of these poisons are extremely destructive to the ecology of

the reef, and therefore, all of them are outlawed. As with explosives, it is *unlawful to fish with, attempt to fish with, or to have in your possession, poisons, chemicals, or electrofishing devices on or near the water where fish or aquatic life can be taken*. The use of poisons in fishing, often causes permanent damage to the reef. A fish hole that has been "chloroxed" remains devoid of all life for an extremely long time. As with dynamite, chemicals are generally indiscriminate killers and deplete the fish resources for years to come.

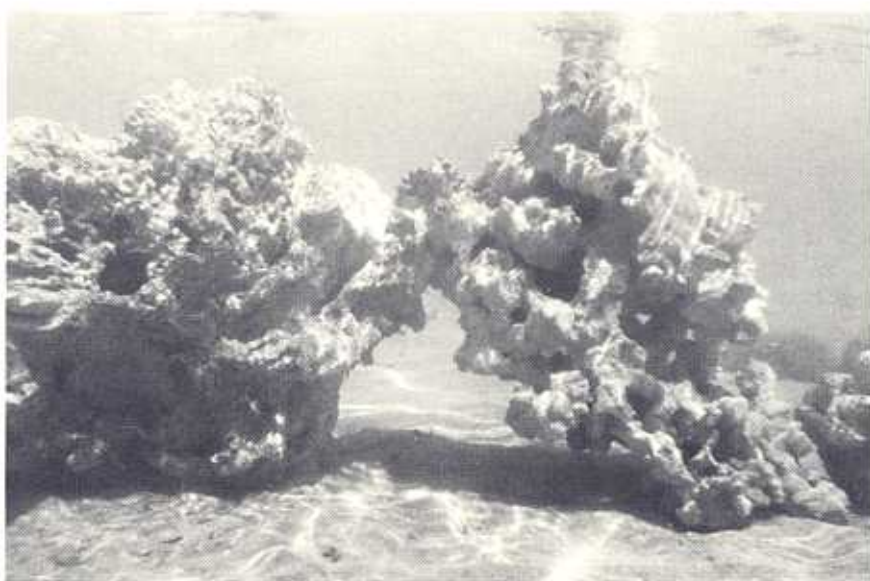


"CHLOROXYING" A LIVE CORAL HEAD

Poisoning fish with chemicals such as Chlorox is very destructive to the reef and is illegal in Hawaii.

DEAD CORAL HEAD

A coral head that has been "chloroxed," such as the one in the photograph to the right, often remains devoid of all life for a long period of time. Poisons such as Chlorox are indiscriminate killers.





ILLEGAL SHOTGUN FISHING

In Hawaii it is illegal to fish with firearms for all species of fish except sharks.

Firearms, Spears, Spear Guns

With the increased use of the aqualung in Hawaii, spear fishing has grown in popularity in the Islands. While it is legal to take or kill fish with a spear for home consumption, it is *unlawful to spear fish or be in the possession of speared fish which are smaller than the minimum size*. It is also *illegal to sell or offer to sell any speared turtle or fish (other than shark, 'ū'ū, uhu, and kūmū) at any time*. It should be noted that green sea turtles with the shell length of 36 inches or more can also be taken for home consumption with a permit.

Although it is tempting for the diver to spear lobsters that are lodged in holes, it is illegal to do so. In fact, it is *unlawful to pursue, take or kill any crustacean with a spear at any time*. Spear fishermen should be aware that any serious puncture wound on a bagged lobster is viewed as evidence in court of a violation.

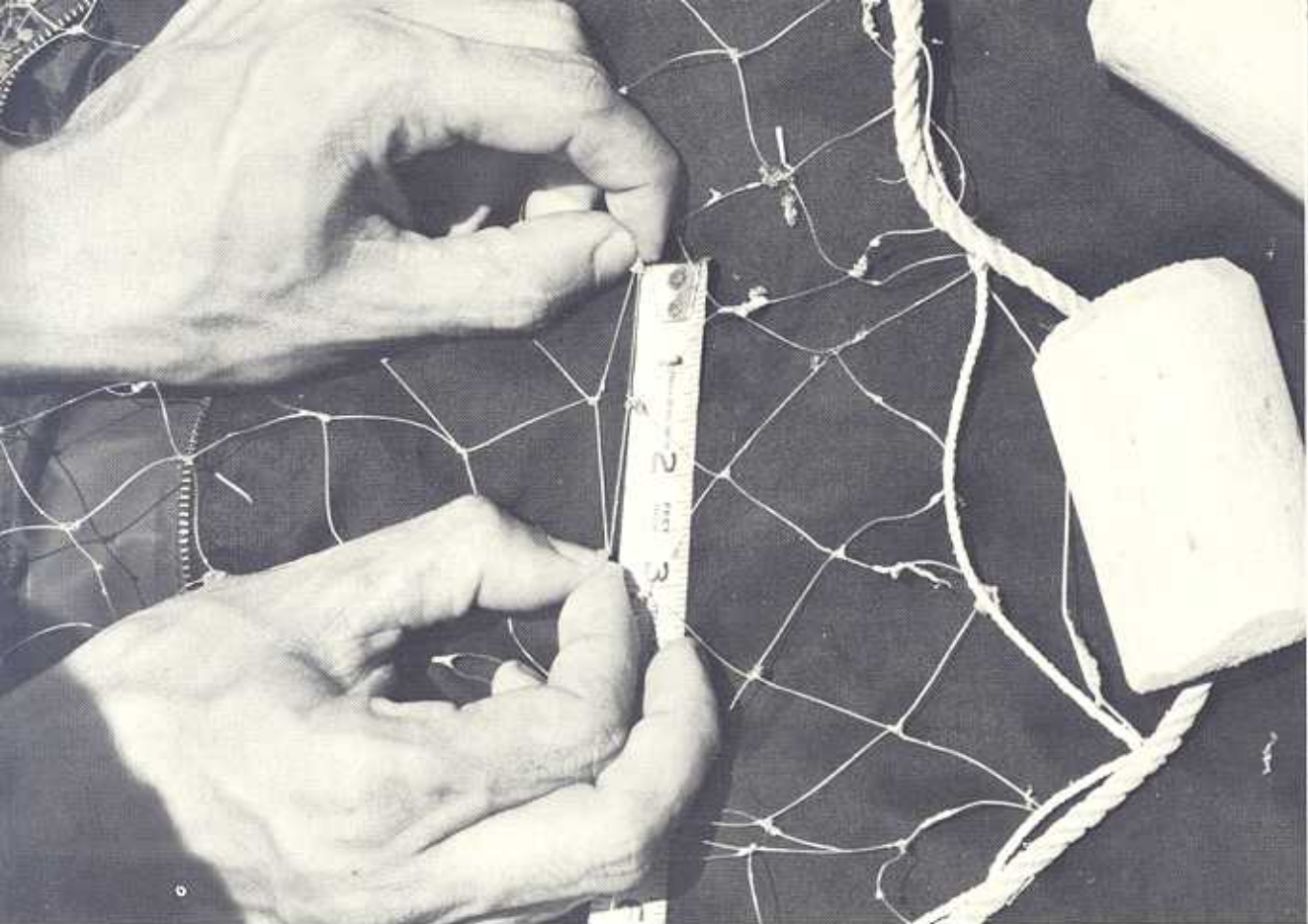
Laws regarding spear fishing also make it *unlawful for any person below the age of 14 to fish with a spear gun unless accompanied by an adult*.

SPEAR GUN SAFETY

Children under 14 years of age, such as the one in the photograph to the right, must always be accompanied by an adult when they use a spear gun.

Fishing with firearms is prohibited at all times, except when used for defense against sharks.





MEASURING THE "EYE" OF A NET

The "eye" or mesh measure of a net is determined by pulling the knots of an "eye" taut and measuring the distance between the knots. The net above has a 2¼ inch "eye."

Nets and Traps

Two popular fishing methods in Hawaii that are extremely efficient and can be destructive to fish populations, and therefore must be regulated, are netting and trapping. By using nets with small mesh, the fisherman catches small, juvenile fish before they have a chance to grow and reproduce. Of course, if the young of one generation are seriously depleted, it means far fewer fish in the succeeding generations. For this reason, the law requires that all gill, draw, drag, or seine nets have minimum mesh size of 2 inches stretched measure. The "eye" or mesh measure of a net is measured by first pulling the opposite knots of an "eye" taut, and then measuring the distance between the knots.

There are some exceptions to this 2 inch mesh law. Pond owners or operators with a license to sell pond-raised mullet may use nets of smaller mesh to take young mullet or pua to stock their fish pond. Licensed commercial fishermen may also use nets of smaller mesh to take nehu, 'iao, Marquesan sardine, tabai, piha, and threadfin shad for use as bait. Only aku fishermen can use a net longer than 50 feet to catch bait.

Anyone may use nets of smaller mesh to take shrimp or 'opae, 'opelu, makiawa or mikiawa, and nehu (50 foot net or less); a net with mesh of not less

than 1½ inches may be used to take akule. Akule less than 8½ inches, however, shall not be taken with a net during the months of July to October inclusive.

The mesh size of throw-nets is also regulated in Hawaii. Recreational fishermen may use throw nets with a 1½ inch mesh, while commercial fishermen must have at least a 2 inch mesh.

A recent law regulating the use of gill nets makes it *unlawful for any person engaged in gill net fishing to leave his net unattended for a period of more than twelve hours*. Any fisherman who violates this law shall be fined not less than \$100 nor more than \$500 or imprisoned not more than six months or both.

Traps must also have a minimum mesh size of 2 inches and they must be portable, not more than 10 feet in length or 6 feet in height or width.

Aquarium fishermen may use fine meshed traps or nets, other than throw-nets, to take non-game aquarium fish. To do this, however, the fisherman must first get a permit from the State Division of Fish and Game, and he must have facilities to maintain the captured fish alive and in reasonable health.

Be certain to learn and follow these basic conservation rules and practices the next time you go fishing. Remember, only if you obey today's kapu system, will you have fish for the future.

If you are interested in learning more about Hawaii's marine life and its conservation and management, *Native Use of Fish in Hawaii* by Margaret Titcomb is an excellent place to start. The following

selected reading list will provide you with additional information on various aspects of the marine environment.

SELECTED READING LIST

Anikouchine, Wm. A. and R.W. Sternberg, *The World Ocean. An Introduction to Oceanography*. New Jersey, Prentice Hall, 1973. 338 p.

Cousteau, J.Y. and P. Dirole, *Octopus and Squid, The Soft Intelligence*. New York, Doubleday, 1972. 302 p.

Edmonson, C.H. *The Ecology of the Hawaiian Coral Reef*. New York, Kraus Reprint Co., 1971. 38 p.

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Hobson, E.S. and E.H. Chave, *Hawaiian Reef Animals*, Honolulu, University Press of Hawaii, 1973. 135 p.

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Jordan, D.S. and B.W. Evermann, *The Aquatic Resources of the Hawaiian Islands*. U.S. Fish Commission Bulletin Vol. 23, Part 1, 1903.

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Jeremy Harris



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ILLEGAL FISHING TECHNIQUES IN HAWAII

Hawai'i in Harmony with the Sea

Illegal Fishing Techniques in Hawai'i

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1977

Revised — February 1980



University of Hawaii
Sea Grant College
Marine Advisory
Program

by Jeremy Harris

Introduction

Fishing always has been very important to the people of Hawai'i, either for recreation, for food, or as an occupation. It's not surprising, therefore, that over the years hundreds of different fishing techniques have been developed and employed in the islands.

Most of these techniques do not destroy Hawai'i's fish resources, but provide an opportunity for the recreational fisherman to catch his limit, and the commercial fisherman to harvest the optimum sustainable yield of his fishery. Some fishing techniques, however, are destructive and if not regulated, could easily wipe out whole species or reef fishing areas for all time. Here are some destructive fishing practices to avoid to assure the continuation of fish resources in the future.

Explosives

The use of explosives to kill and catch fish probably began hundreds of years ago, as early as 1600. In Hawai'i dynamite was used for fishing in the 1800's until 1872, when a law was passed prohibiting this practice.

That law, which makes it *illegal to fish with, attempt to fish with, or to be in the possession of explosives on or near the shore*, is still in effect today throughout the State.

The reason for this law is obvious; explosives are indiscriminate killers. When there is an explosion in the water, all the animals in the area are killed, not just the desired fish. This means that unedible

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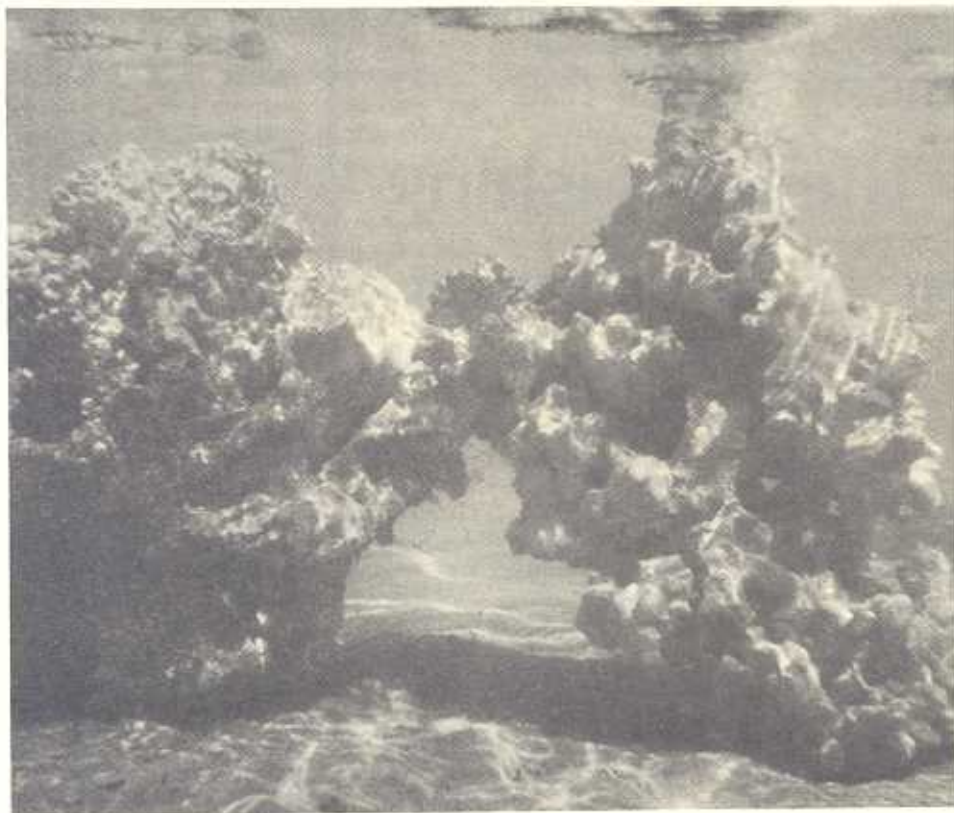
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A coral head that has been "chloroxed," such as the one shown above, often remains devoid of all life for a long period of time.

Chemicals, Poisons, Intoxicants, Electricity

Another fishing technique that has been used for centuries throughout the world is poison or chemical fishing. The old Hawaiians practiced this type of fishing, using the leaves and seeds of the 'ākia shrub (*Wikstroemia sandwicensis*) or the 'ahūhū weed (*Tephrosia purpurea*). In present day Hawai'i these poisons have been replaced by manufactured chemicals such as Chlorox or Rotenone. All of these poisons are extremely destructive to the ecology of the reef, and therefore, all of them are outlawed. As with explosives, it is *unlawful to fish with, attempt to fish with, or to have in your possession, poisons, chemicals, or electrofishing devices on or near the water where fish or aquatic life can be taken*. The use of poisons in fishing, often causes permanent damage to the reef. A fish hole that has been "chloroxed" remains devoid of all life for an extremely long time. As with dynamite, chemicals are generally indiscriminate killers and deplete the fish resources for years to come.



Poisoning fish with chemicals such as Chlorox is very destructive to the reef and is illegal in Hawai'i.

Firearms, Spears,

With the increased use of the aqua-lung, spear fishing has grown in popularity in Hawai'i. However, it is unlawful to spear fish or possess speared fish which are smaller than the minimum size. Only legal-sized fish may be sold by commercial fishermen and fish dealers, as well as fish retailers, markets, and restaurants until December 31, 1983. After that only speared ū'ū, uhu, and kūmū may continue to be sold. It is illegal to take turtles at any time, however.

Although it is tempting for the diver to spear lobsters that are lodged in holes, it is illegal to do so. In fact, it is *unlawful to pursue, take or kill any crustacean with a spear at any time*. Spear fishermen should be aware that any serious puncture wound on a bagged lobster is viewed as a violation of the law.

Laws regarding spear fishing also make it *unlawful for any person below the age of 14 to fish with a spear gun unless accompanied by an adult*.



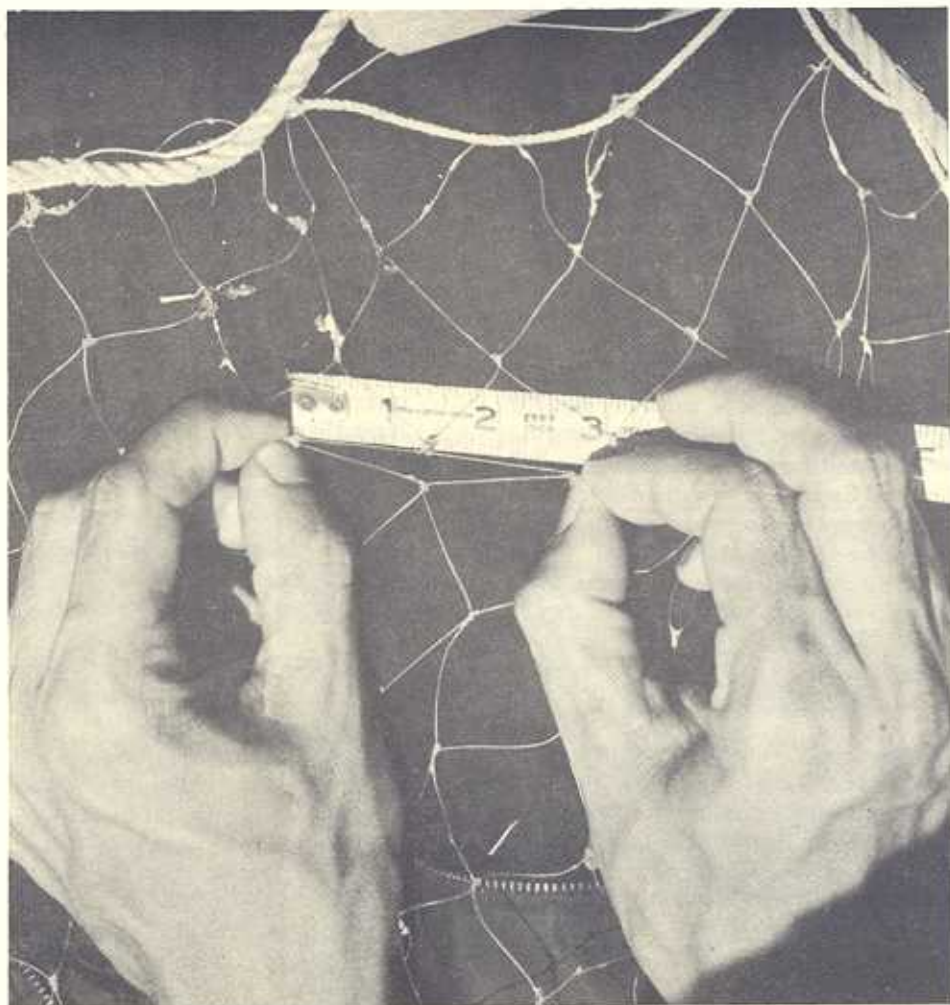
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Spear Guns



Currently, spears may be used to take legal-sized fish. In Hawai'i it is illegal to fish with firearms for species except sharks (below).



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The findings and views expressed in this pamphlet do not necessarily reflect those of the University of Hawaii or the University of Hawaii Sea Grant College Program. Any commercial product or tradename mentioned herein is not to be construed as an endorsement.

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