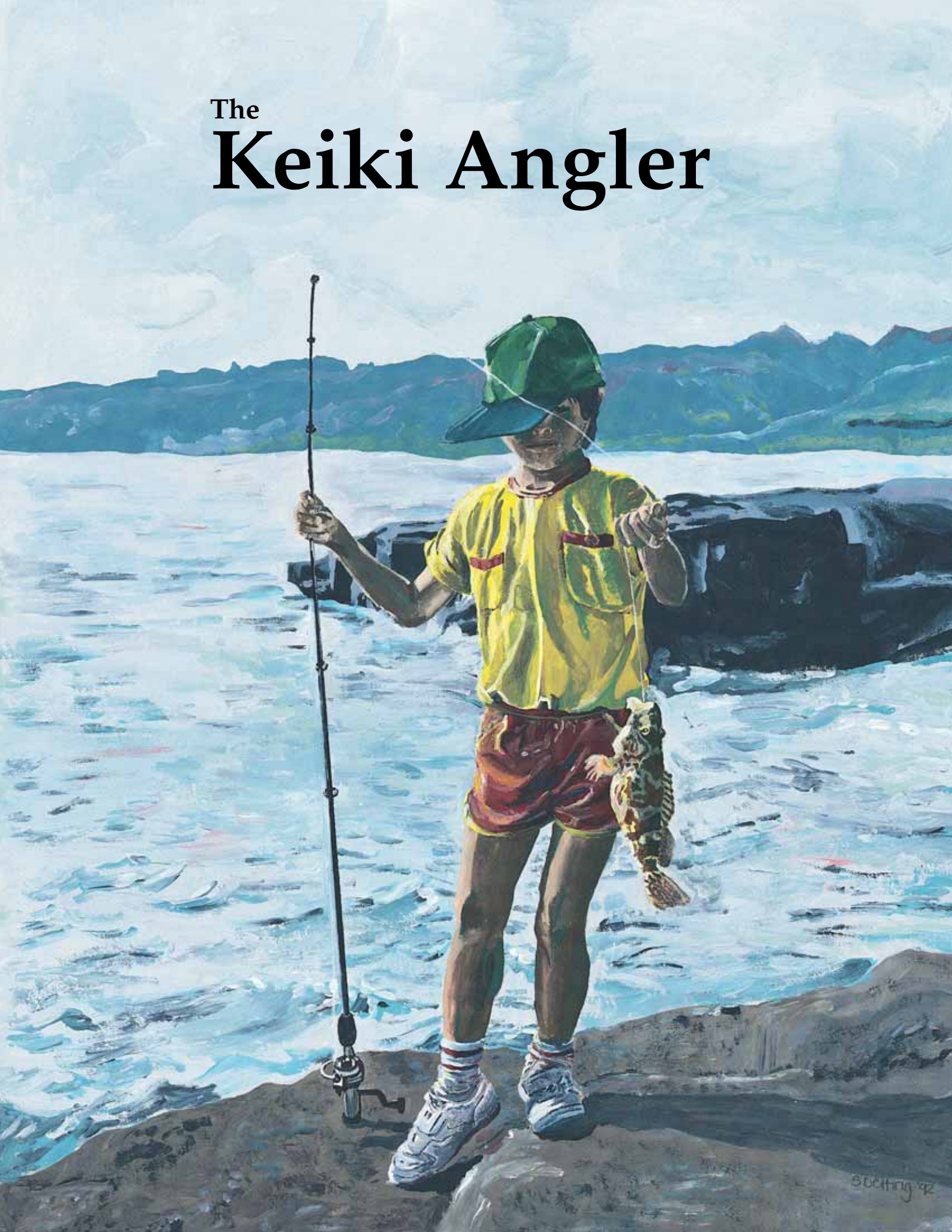
The Keiki Angler



Linda Lingle, Governor

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Illustrated by Sharon Oetting

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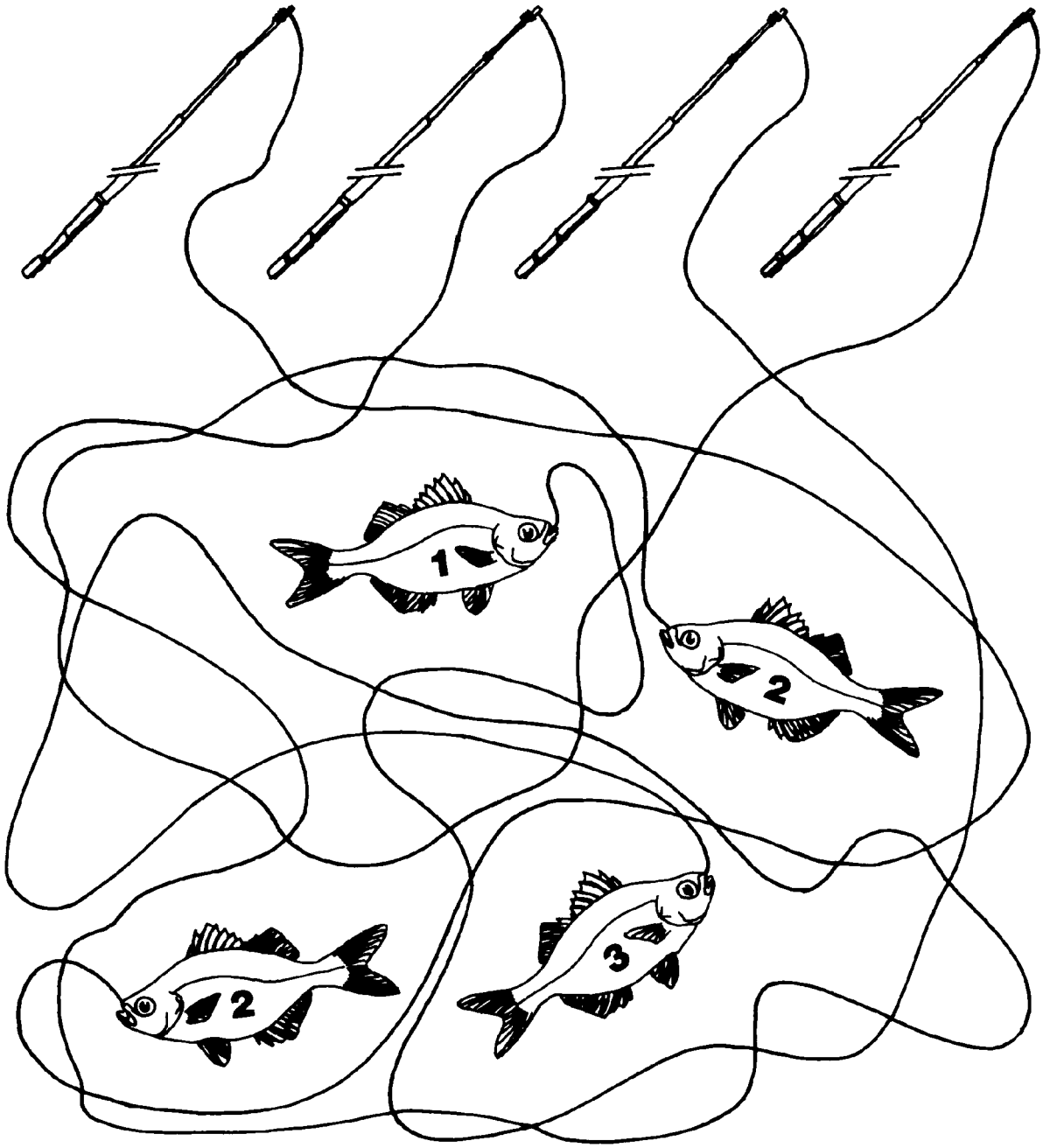
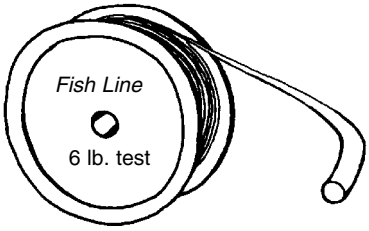
Keiki Angling — A game for two players

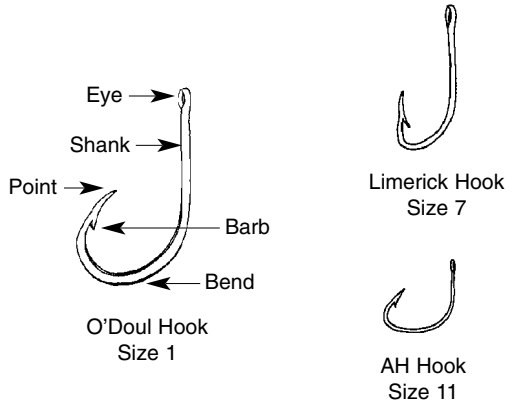
An *"angler"* is somebody who fishes using a hook and line (the old word for fish hook was "angle." In this game, players take turns choosing a fishing pole and following its line to a fish. Each player wins the number on each fish he or she "catches." When all four of the fish are caught, the player with the highest score is the winner.



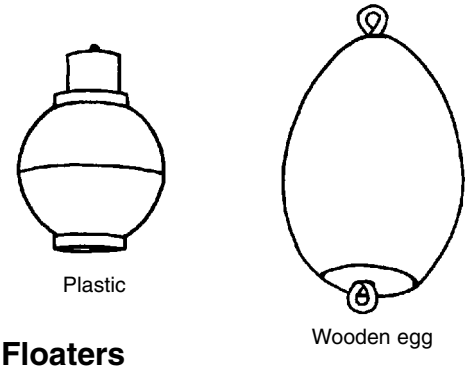
Fishing Gear: What you'll need to catch fish



Line
The *"pound test"* is a number that tells you how strong the line is. Thinner line is harder for fish to see. But it breaks more easily, too.



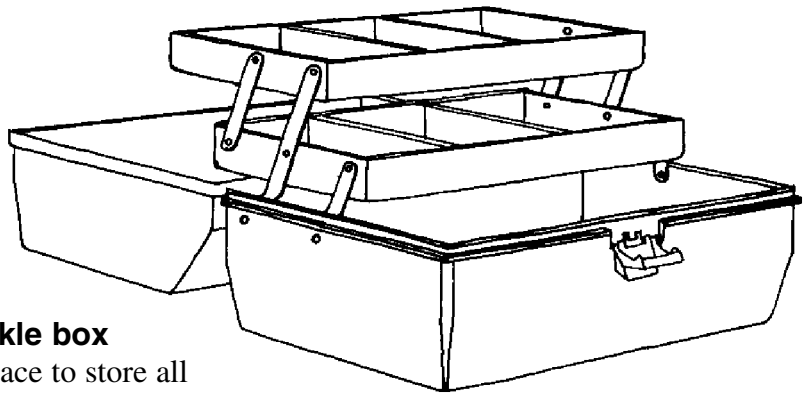
Hooks
They come in many shapes and sizes. It's better to use smaller hooks. A hook size about 10 or 12 is good for many reef fishes. With most hook sizes, the bigger the number, the smaller the hook.



Floaters
They keep your bait off the bottom, and as deep as you want.
Use the plastic type with a bamboo pole. Use the wooden egg type with a rod and reel.

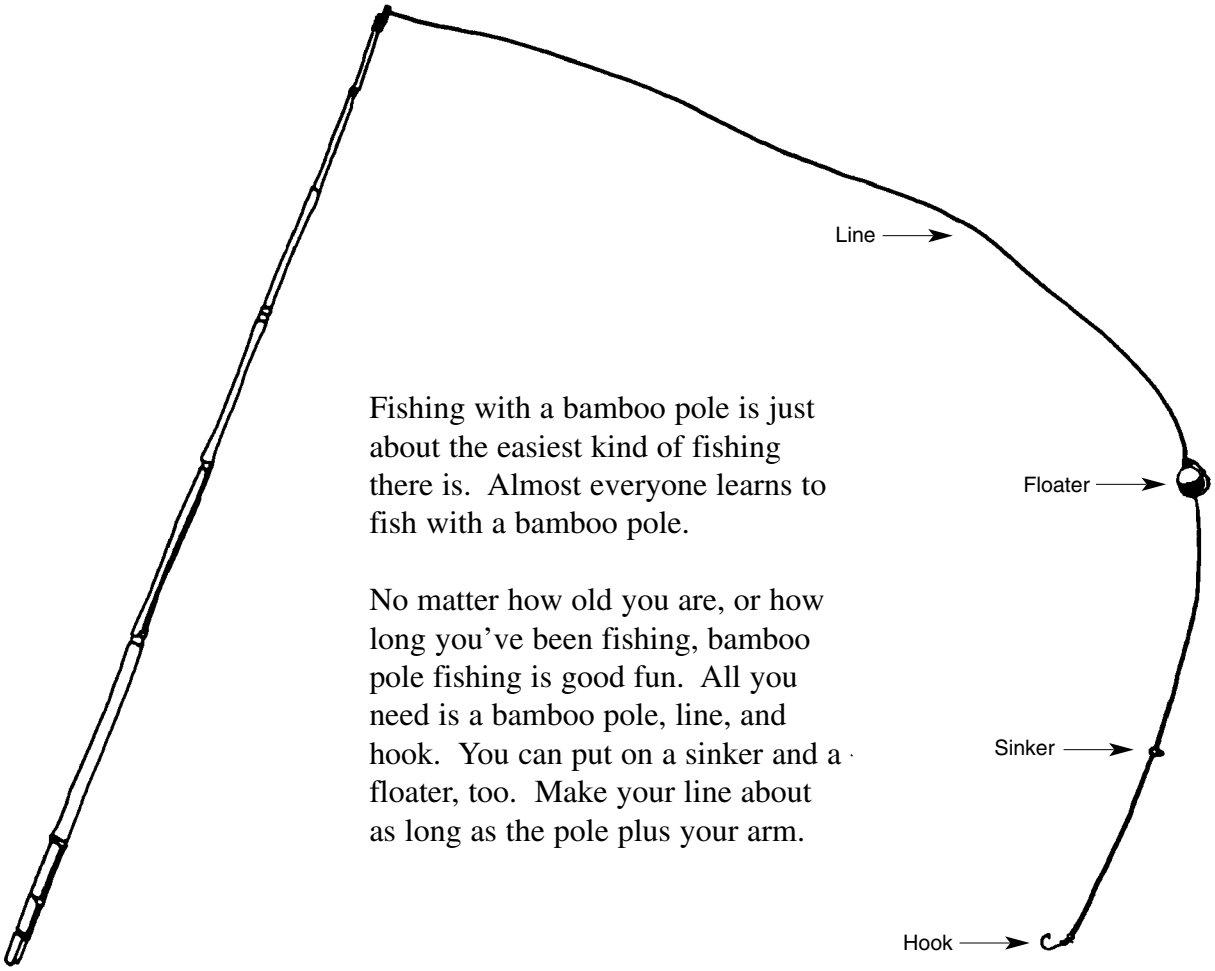
Swivel
Use this with a rod and reel; tie it to the end of your mainline. This kind is called a snap swivel. The swivel keeps your line from getting twisted. You can clip a floater on the snap.

Sinker
This keeps you bait under the water, where the fish are. This kind is a split shot. Just squeeze it onto your line.



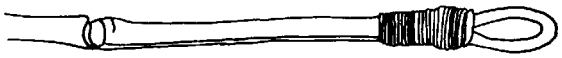
Tackle box
A place to store all your fishing gear.

Bamboo Pole Fishing



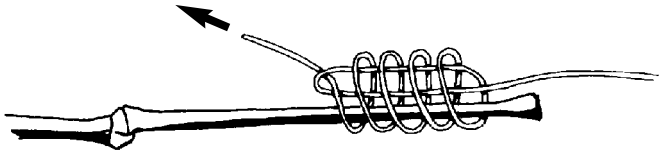
Fishing with a bamboo pole is just about the easiest kind of fishing there is. Almost everyone learns to fish with a bamboo pole.

No matter how old you are, or how long you've been fishing, bamboo pole fishing is good fun. All you need is a bamboo pole, line, and hook. You can put on a sinker and a floater, too. Make your line about as long as the pole plus your arm.

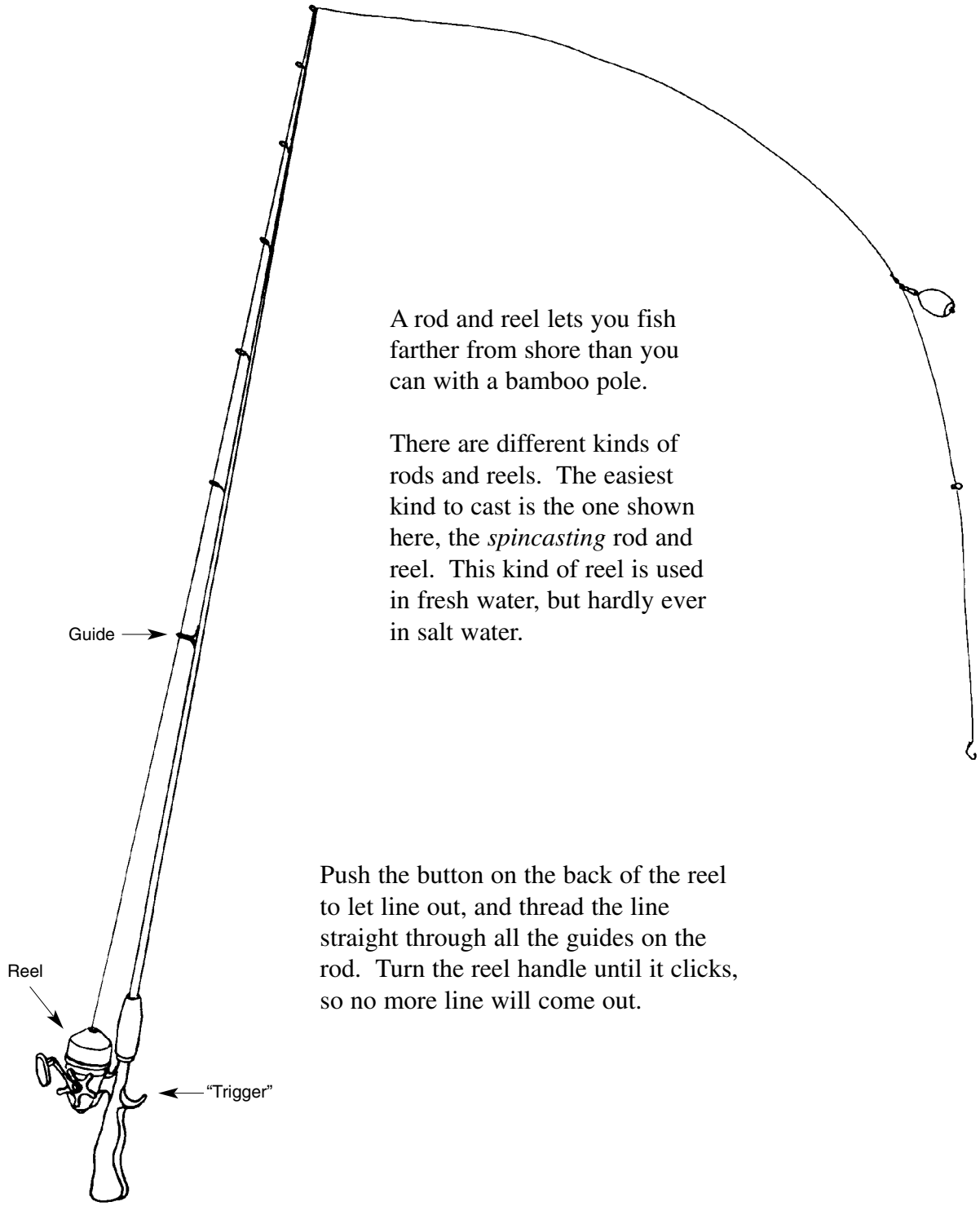


Some bamboo poles come with a loop of cord at the tip end. Tie your line to that loop, using the clinch knot on page 5.

If your pole doesn't have a cord, tie your line to the tip with a knot like the one shown here. This knot is kind of like the Japan knot on page 6.



Fishing with Rod and Reel



A rod and reel lets you fish farther from shore than you can with a bamboo pole.

There are different kinds of rods and reels. The easiest kind to cast is the one shown here, the *spincasting* rod and reel. This kind of reel is used in fresh water, but hardly ever in salt water.

Push the button on the back of the reel to let line out, and thread the line straight through all the guides on the rod. Turn the reel handle until it clicks, so no more line will come out.

How do I tie a knot?

You can use one of these three knots to tie a hook or swivel to your line. Fishing line is made of nylon, and regular knots (like a "Granny" knot) won't work. Before you tighten a knot, you should make the line wet. The easiest way to do that is to wet the knot with your mouth. A knot is the weakest part of your fishing line, so that's where lines break most often.

Whenever you tie a knot, start out with lots of line. Then follow these steps:

Palomar knot

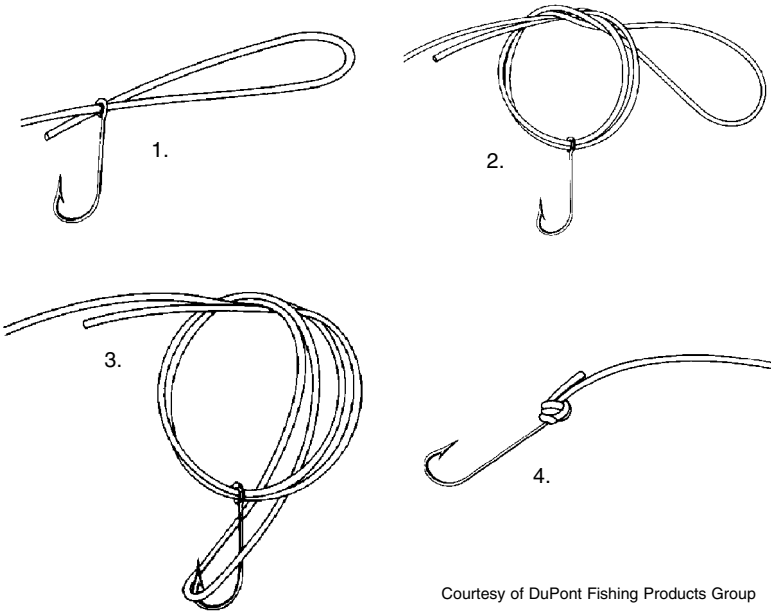
This is the easiest knot to tie.

1. Pass the line through the hook's eye, then double it back again through the eye.

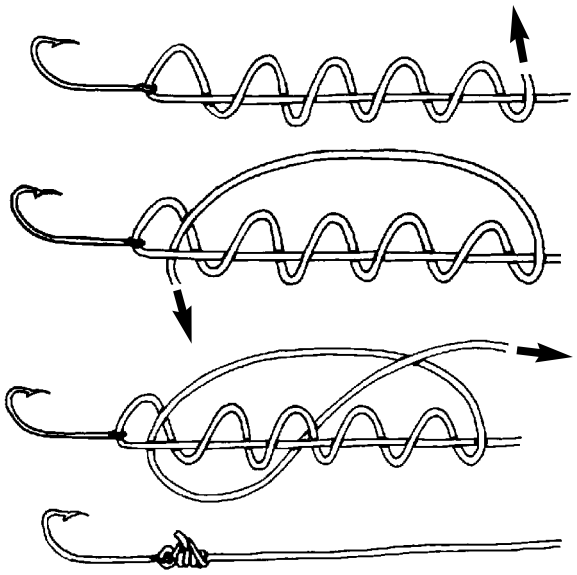
2. Tie an overhand knot (just like the first part of tying your shoes), but don't pull it tight yet.

3. Pass the hook through the loop.

4. Pull the loose end of the line, and tighten the knot (don't forget to make it wet). Trim the end of the line.



Courtesy of DuPont Fishing Products Group



Improved clinch knot

1. Pass the end of the line through the hook's eye, then wrap it around the line about five times.

2. Bring the end of the line back toward the hook and pass it through the first loop by the eye.

3. Pass the end back through the big loop you just made.

4. Hold the hook and line, and pull the knot tight. Trim the end of the line.

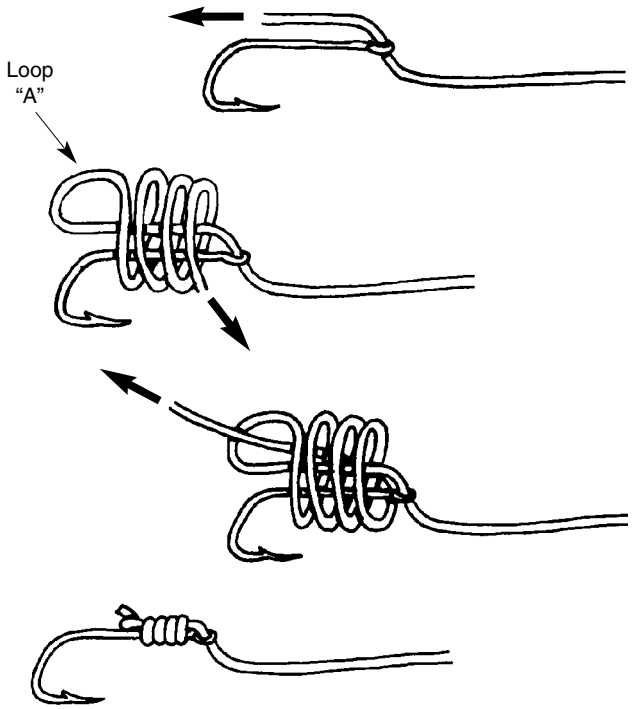
Japan knot
This knot is used on hooks only.

1. Pass the line through the hook's eye from the point side, and run it along the shank of the hook.

2. Make a loop ("A") and wrap 3 or 4 times around the line and the hook's shank. Keep your fingers on this part of the knot until it's tight.

3. Pass the end back through the loop ("A") and pull tight.

4. Hold the hook and line, and pull the knot tight. Trim the end of the line.



Word Search

How many angling words can you find? Words go left to right, top to bottom, and diagonally, and they can overlap each other. Circle each word that you can find from the list.

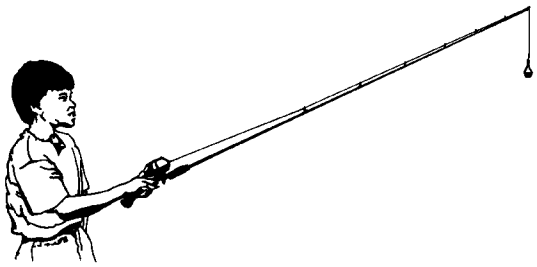
A L I H A B I T A T R O U N H
B I K A S H C A S T I N G S O
A N D O K N O T C O N S E W A
R E E L S A F L O A T E R I M
B O O P I N T S E G B I E V A
E O P M N F R E S H W A T E R
L P E A K B A M B O O N I L I
S U I M E K N O C O R L A T N
E F C O R A L R E K C L E S E

Words to find:
aholehole
bait
bamboo
barbels
casting
coral
floater
freshwater
habitat
hook
ika
knot
line
mamo
marine
oama
oopu
opae
reel
sinker
swivel

How do I cast a rod and reel?

It's a good idea to practice casting before you go fishing with a rod and reel for the first time. You can tie a practice plug or a wooden floater to your line for weight. Then go out to an open area and practice till you're (almost) perfect. This is how to cast with a small spincasting reel.

1. Let the plug hang down a few inches below the rod tip. Make sure the line isn't wrapped around the rod. Put your index finger on the rod's "trigger" to make sure the rod doesn't go flying away when you cast.

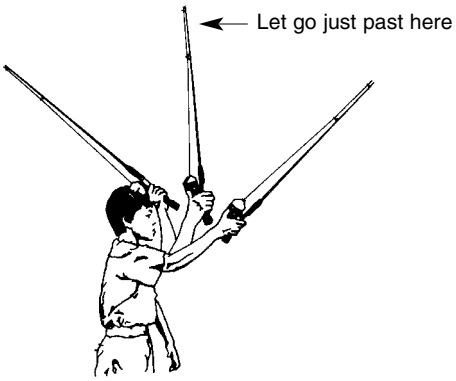


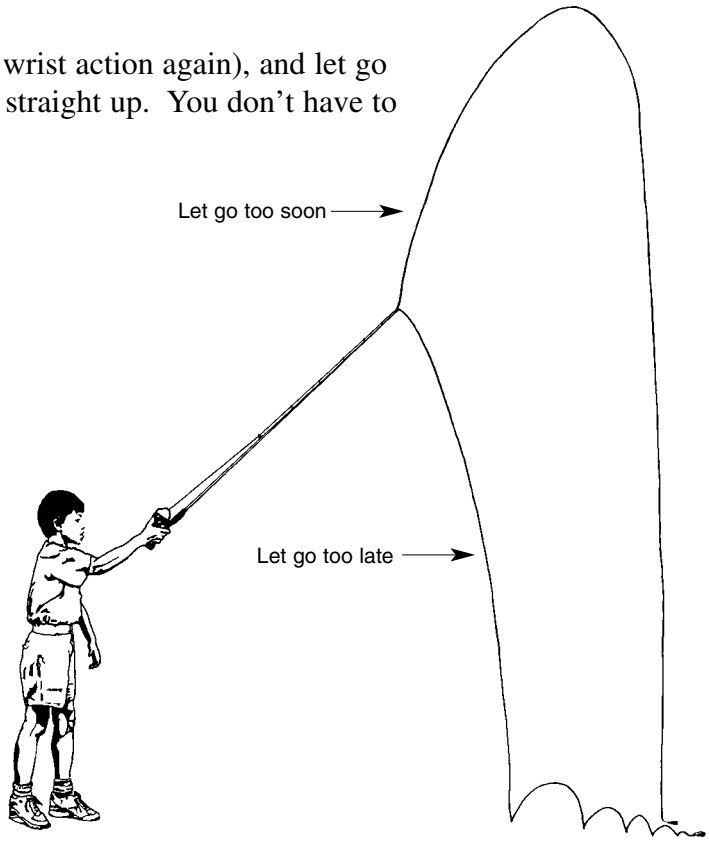
2. Look behind and around you, and make sure no one is standing too close. Also look to see that you won't get your line tangled in any trees or bushes.

3. Push and hold down the release button on the back of the reel.

4. Using mostly your wrist (not your whole arm), bring the rod back over your shoulder.

5. Gently swing the rod forward (using wrist action again), and let go of the release button just after the rod is straight up. You don't have to throw hard to make the plug go far.



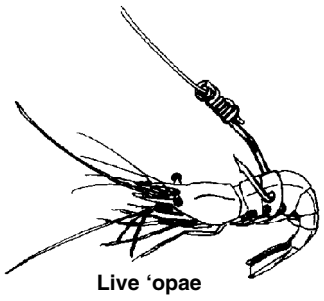


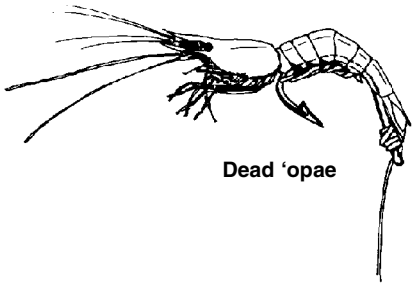
6. If the plug goes high into the air, you're letting go of the button too soon. If the plug plops onto the ground in front of you, you're letting go too late. Just keep practicing until you get it right.

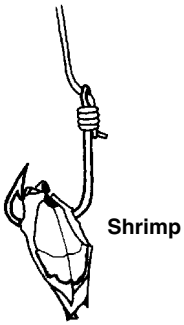
What can I use for bait?

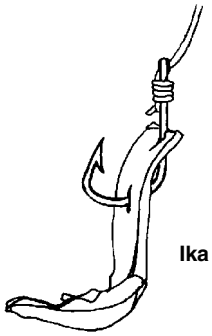
What you use for bait depends on what kind of fish you want to catch. Some fish eat plants, some eat animals, some eat just about anything. Always be careful when you put on bait, so you don't poke yourself with the hook.

Most small reef fish love ***'opae*** (shrimp), especially when it's alive. The only problem is you have to catch the 'opae and keep them alive. Hook live 'opae through the tail. If the 'opae is dead, put the hook through the tail the long way.





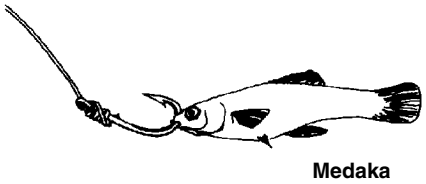


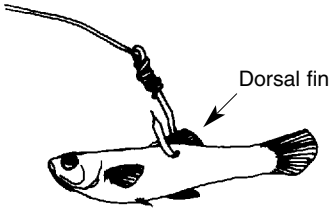


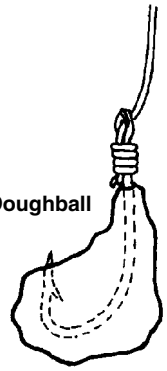
Frozen shrimp works well with many fish. You can use the shell to help hold the meat on the hook.

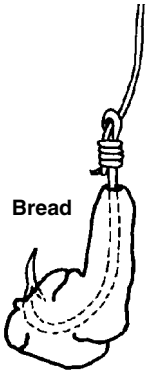
Ika (cuttlefish) is also a very good bait. Just cut it into little pieces and put it on your hook. Both frozen shrimp and ika are found in your supermarket.

Fish that only eat other fish will go for live ***medaka*** (minnow) as bait. Hook the medaka either through the mouth just behind the lips, or through the back just below the dorsal fin.





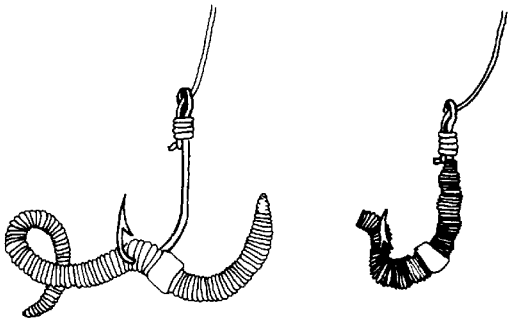


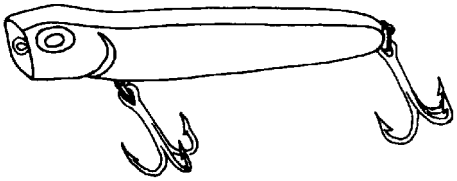


Doughballs can be used to catch fish that aren't too picky about what they eat. Doughballs are made from flour, water, and some kind of fish sauce (like canned sardines).

Bread works well for some fish. The bread needs to be soft, so you can wrap it around the hook and it will stay together. Pinch it tight around the shank so it stays on. Leave it kind of fluffy around the bend of the hook.

Worms are good bait for many freshwater fish. Push your hook sideways through the worm for fish with large mouths, like bass or catfish. For fish with smaller mouths, like ‘o‘opu, push your hook through the worm the long way.





Lures aren’t bait, but look like something a fish would want to eat. There are many types of lures. The best way to use a lure is to move it kind of quickly through the water so the fish has to attack it. If a fish has too much time to check out a lure, the fish will figure out that the lure isn’t real food after all. Lures are used with a rod and reel, but not a bamboo pole.

The table below shows what kind of bait works well with certain types of fish:

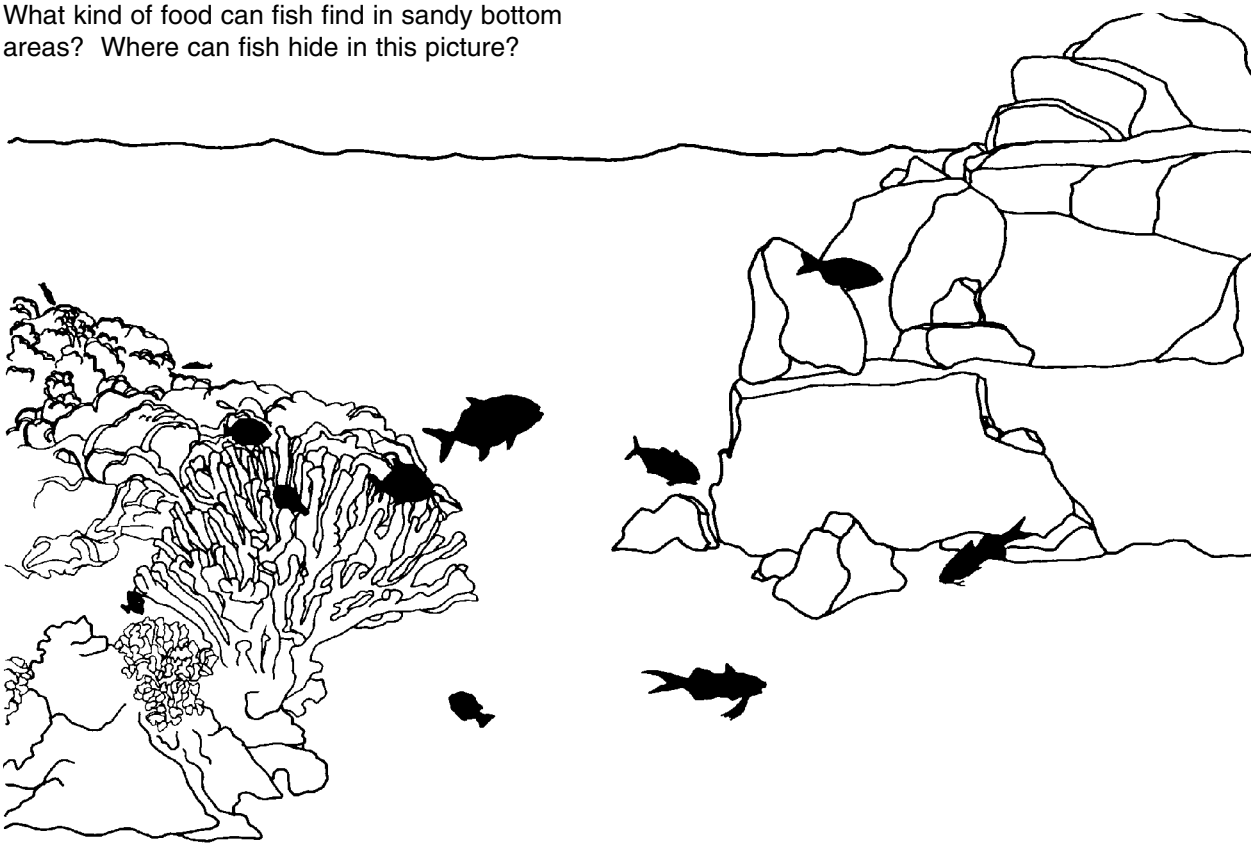
Fish	**Line** (leader) (pound test)	**Hook** (type, size)	**Bait**
*Saltwater**			
Aholehole	2 - 4	AH 13	Shrimp, ika
Hinalea	2 - 4	Limerick 12	Shrimp, ika, bread
Kupipi	2 - 4	Limerick 12-15	Shrimp, ika
Mamo	2 - 4	Limerick 12-15	Shrimp, ika
‘U‘u (menpachi)	4 - 6	AH 13	Shrimp
‘Oama	1 - 2	Limerick 18-20	Shrimp
			*All of these fish will go for live ‘opae
Freshwater			
Largemouth bass	6 - 8	Limerick 6	Crayfish, medaka
Channel catfish	6 - 10	O’Doul 1	Liver, worm
Tilapia	4 - 6	Limerick 7	Bread, doughballs
Trout	4 - 6	Limerick 6	Worm, medaka
Tucunare	4 - 6	Limerick 4	Medaka
‘O‘opu nakea	4 - 6	Limerick 10	Worm

Where do fish live?

If you want to catch fish, you have to know where to look for them. Fish will usually be found in places that have food for them to eat, places to hide from bigger fish, and clean water. Fish need these things in order to survive.

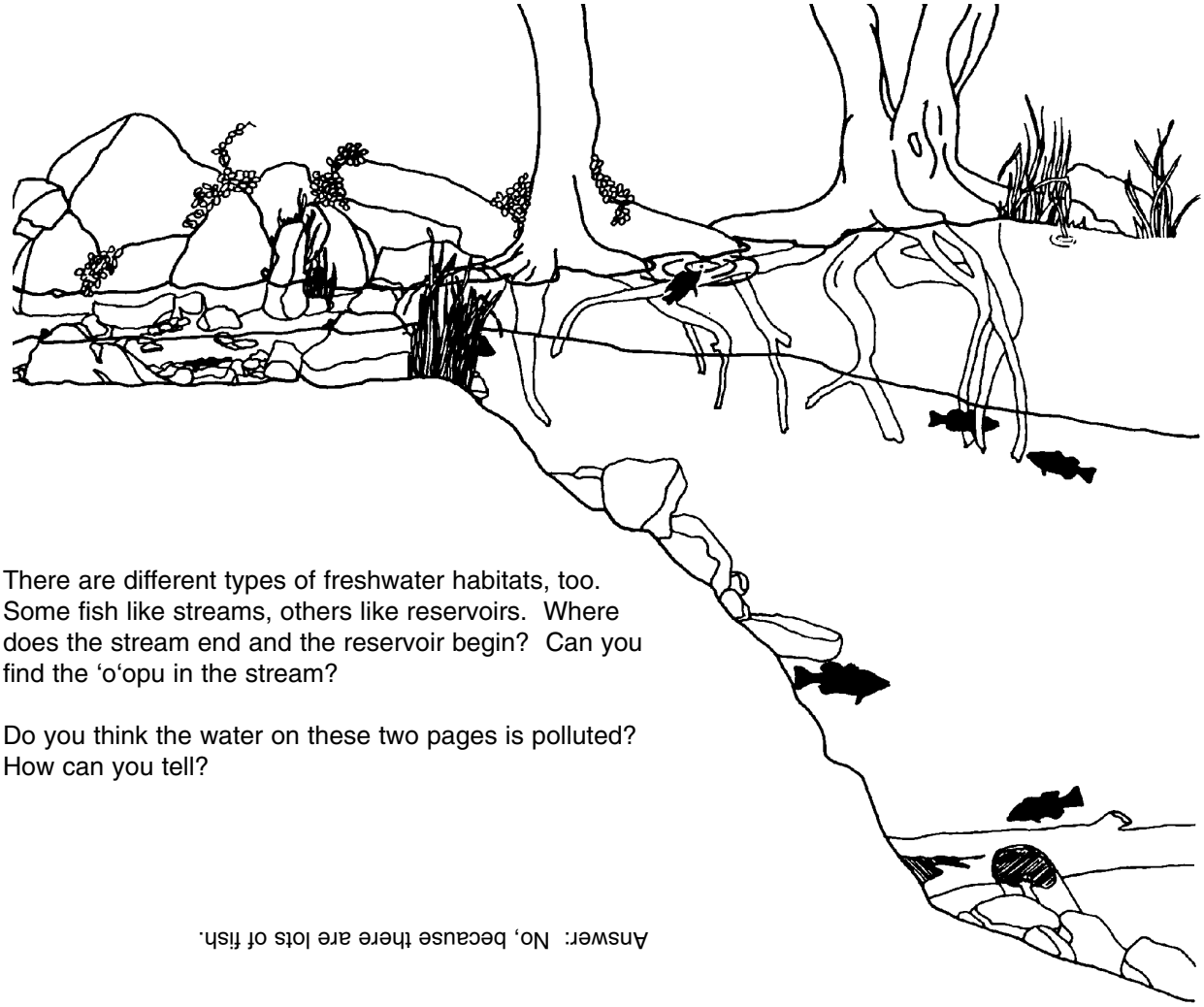
Where a fish lives is called its *habitat*. Fish live in either freshwater or saltwater habitats. In Hawai‘i there are many more kinds of saltwater (*marine*) fish than freshwater fish. Many fish like to feed and hide near underwater objects. In the ocean, fish are attracted to coral reefs or other places that give them shelter. Many types of fish will be able to find food on and above healthy coral reefs. In streams and reservoirs, fish like to hide and feed near weeds, fallen trees, or behind rocks and boulders.

The ocean has different types of habitats for fish. Many fish like coral reefs, but others stay around boulders or sandy bottom areas. Which type of habitat do your think will attract the most fish? What kind of food can fish find in sandy bottom areas? Where can fish hide in this picture?



Clean water is very important to fish. Most seaweeds and water plants can only grow in clean water. Seaweeds and plants are food for some fish. Coral also needs clean water to live and grow. You won't find very many fish in places where coral or plants can't survive, like in polluted water. Most of the plants and animals that can live in dirty water are not good food for fish (or people).

Pollution isn't the only thing that can mess up a fish's home. In some places, people catch fish by putting bleach into the water and waiting for the stunned fish to come out of their holes. This is a terrible thing to do to fish and their habitat, because it will kill part of the reef and keep other fish away for a long time. Dropping anchors on coral, or taking coral out of the water, also takes away habitat. When habitats are messed up or destroyed, fish have to move away and find someplace else to live.



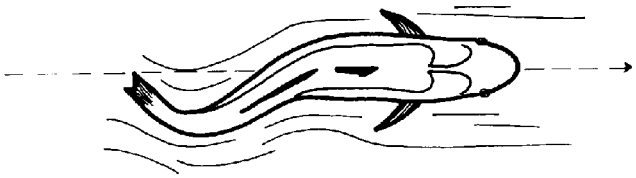
There are different types of freshwater habitats, too. Some fish like streams, others like reservoirs. Where does the stream end and the reservoir begin? Can you find the ʻoʻopu in the stream?

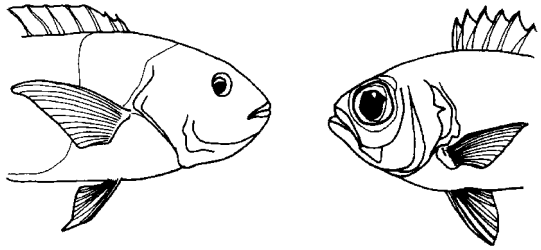
Do you think the water on these two pages is polluted? How can you tell?

Answer: No, because there are lots of fish.

How do fish...

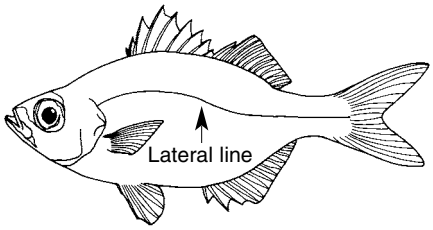
Swim? A fish swims by moving its tail from side to side. It uses its other fins to help it steer, swim backwards, and keep itself right-side-up in the water.

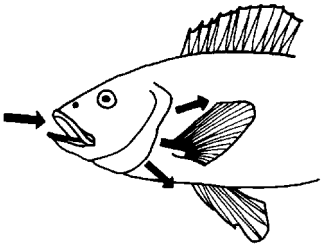




See? Fish have very good vision, and many fish can probably see colors. Fish see best at close range. Fish that are active mostly at night will have big eyes to let in more light.

Hear? Fish have ear bones inside their heads, and can hear pretty well. A fish also has a lateral line that runs along both sides of the body and acts a little like an ear. It lets the fish know when something is moving in the water nearby.



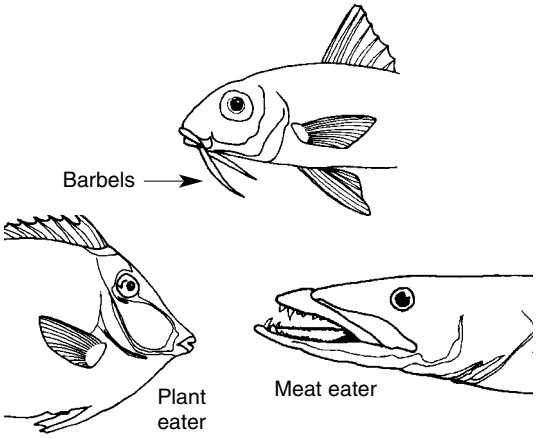


Breathe? A fish has gills on each side of its head. The fish takes water in through its mouth, passes it over the gills, and out through the gill opening. The gills take oxygen out of the water and put it into the fish's blood.

Smell? A fish has two nostrils on its head. Each nostril has two openings. Water goes in one opening and out the other. A fish does not breathe through its nostrils. Fish have a very good sense of smell.

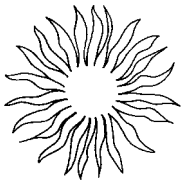
Taste? A fish has tastebuds on its tongue and inside its mouth. Some fish, like goatfish, have *barbels* ("whiskers") near their mouths. The barbels also have tastebuds, and help the fish find its food.

Eat? Fish that eat plants usually have small mouths with fine teeth, and bite off little parts of a plant at a time. Fish that eat other fish have big mouths with sharp teeth, which keep the prey from escaping.

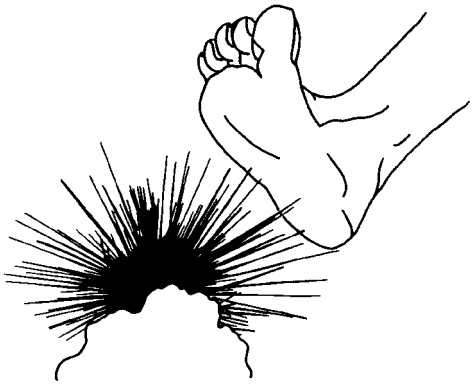


Safe Fishing

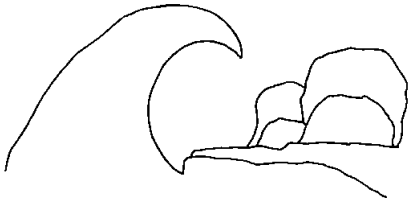
Whenever you go fishing, tell someone (an adult) where you're going and when you think you'll be back. Don't go fishing alone — take along a friend or a parent.



Fishing is an outdoor sport, so you need to watch out for the sun. Wear a hat and shirt, and put on sunscreen. Wear sunglasses to protect your eyes.



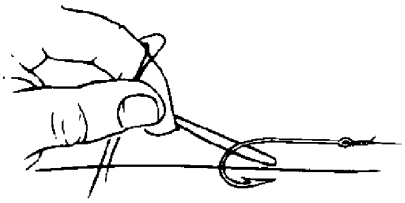
Bare feet are not a good idea when you go fishing. Wear shoes, not slippers. Be careful where you step.



Watch out for waves. They can get big real fast. Stay off wet rocks by the water's edge. Never turn your back on the ocean.

Wear a life preserver when you fish at reservoirs with steep banks, on boats, or other places where you could fall into deep water. Learn to swim if you don't know how.

Be careful with hooks — when you're tying them on and when you're casting. If you get poked, and the hook doesn't go in past the barb, just pull it out. If the hook is in past the barb, it's best to have a doctor remove it. If you can't wait that long, you could have an adult remove it. One way is by looping a string or line around the bend of the hook. Push down on the shank and pull the line (see the diagrams below). See a doctor afterwards in case you need a tetanus shot.



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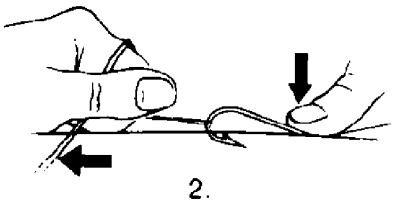

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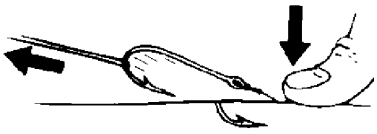

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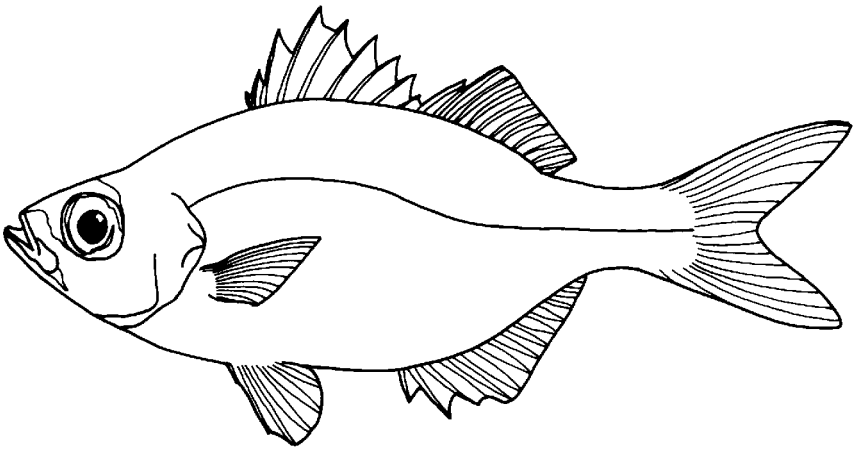
Courtesy of O. Mustad & Son (U.S.A.) Inc.

What kind of fish can I catch?

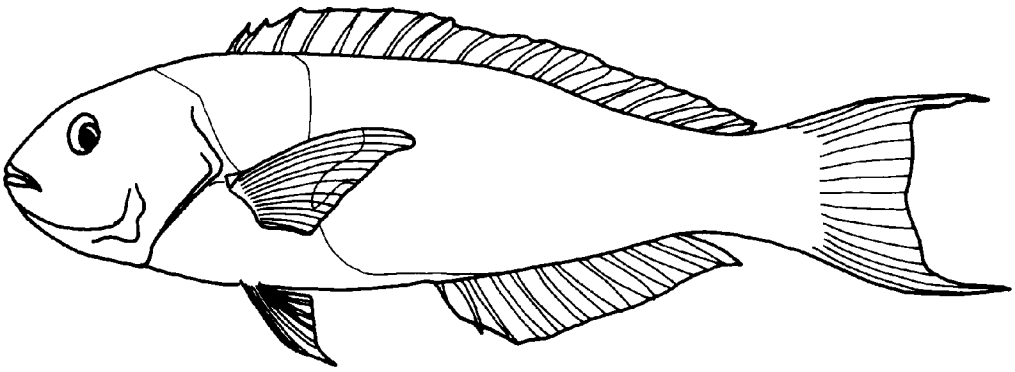
Saltwater fish



Aholehole

The aholehole is a silver fish that is often found swimming in schools. It likes to swim around rocks and coral heads, and is usually caught in the late evening and at night.

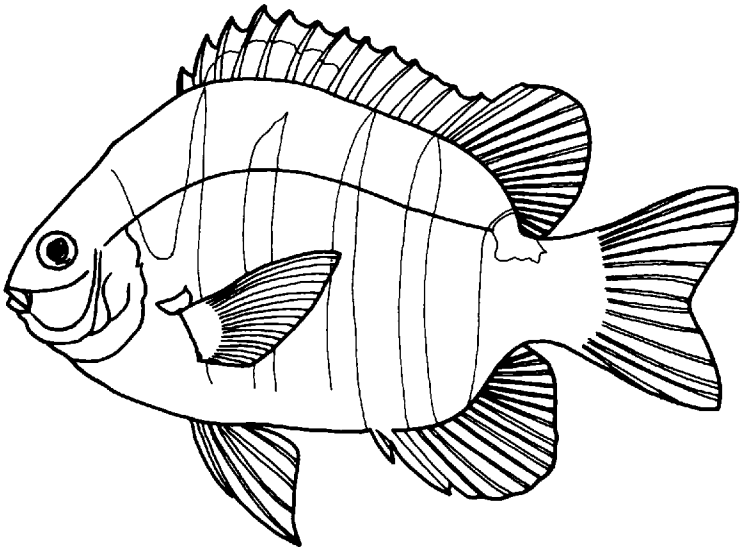
Aholehole eat small crabs and shrimp, so shrimp is a good bait. Aholehole can grow to be about 12 inches long. The aholehole is found in Hawai‘i and nowhere else.



Hinalea

The hinalea is a very common fish in Hawai‘i, and is one of the easiest fish to catch on the reef. It has a purplish blue head, orange “saddle” behind the head, and a green body.

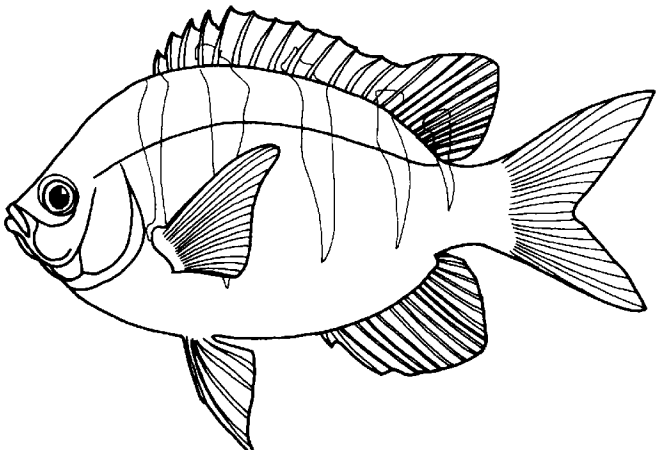
Hinalea feed mostly during the day, and eat seaweed and small crabs. Shrimp is good bait. Hinalea can grow to be about 12 inches long. The hinalea is found only in Hawai‘i.



Kupipi

The kupipi is a small fish, found in shallow reef and boulder areas. It usually swims alone or in small groups. Young kupipi are often found in tidepools.

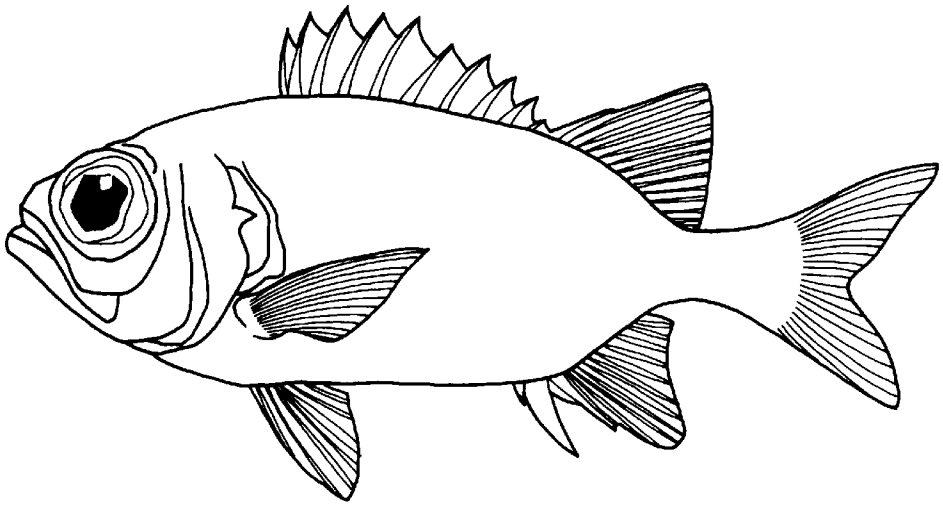
The kupipi's color is grayish brown with lighter stripes, and it has dark spots on its tail and dorsal fin. It can grow to be about 9 inches long. It eats mostly during the day, and likes seaweed and small crabs. You can catch kupipi using shrimp or ika for bait.



Mamo

The mamo is another common fish on Hawai'i's reefs. It is found in shallow water, and often swims in small groups. Young mamo are very common in tidepools.

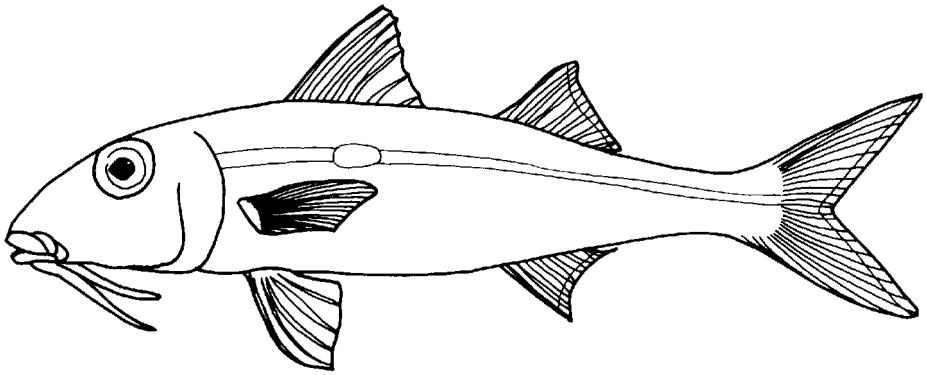
The mamo is a pale greenish color with black bars. The lower sides are often yellow, but not always. It can grow to be about 9 inches long. Mamo eat mostly during the day, and like small crabs and other shellfish. You can catch it on shrimp or ika. The mamo is found only in Hawai'i.



‘U‘u (menpachi)

The Hawaiian name for this fish is *‘u‘u*, but most people call it by its Japanese name, *menpachi*. This fish is brick red, and at night its lower sides become a silvery color.

The menpachi is a schooling fish, and during the day it hides in caves. It feeds at night, and likes to eat small crabs and shrimp, so shrimp is a good bait to use. Some menpachi can grow to be about 14 inches long.

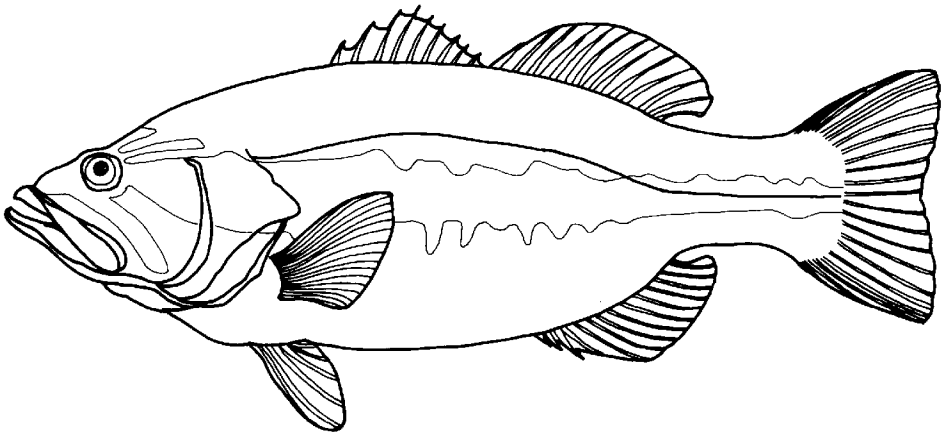


‘Oama

The ‘oama is a baby weke, and is a fun fish to catch with a bamboo pole. Its color is silvery white with a yellow stripe along the side, and it has barbels under its chin. When an ‘oama grows to be more than 7 inches, it is a weke.

‘Oama are found in shallow sandy areas during late summer, usually in large schools. They feed by night and day, and eat small crabs and shrimp. ‘Opae is the best bait to use for ‘oama. Some people like to eat ‘oama; others like to use them as bait for larger fish (like papio).

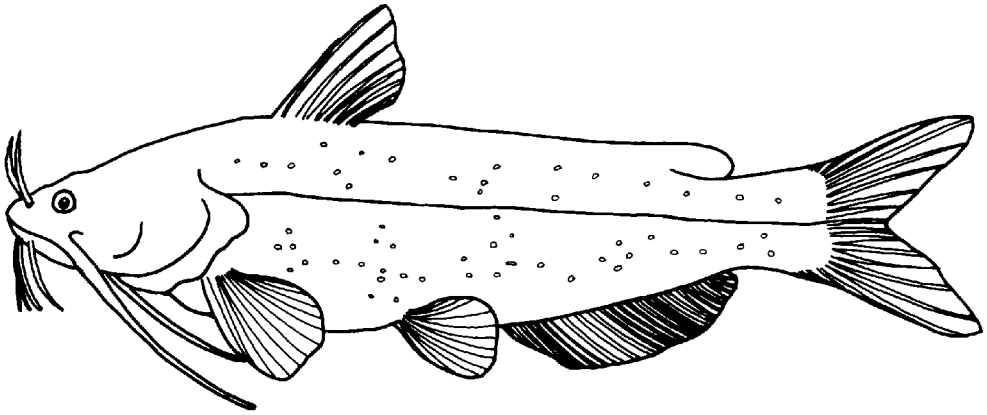
Freshwater fish



Largemouth bass

The largemouth bass lives mostly in reservoirs in Hawai‘i, and is usually found close to shore near underwater logs or weeds. Its color is dark green above and white below, with a dark stripe or blotches along the side.

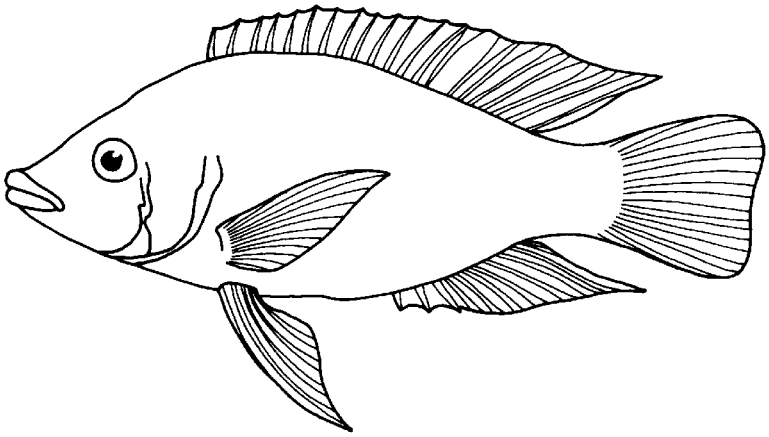
Bass feed mostly in the early morning and late evening, and like to eat small fish, crayfish and frogs. Crayfish and medaka make good bait. Largemouth bass were first brought to Hawai‘i in 1896.



Channel catfish

The channel catfish has barbels around its mouth. It uses them to help find food. The channel catfish’s color is a dark bluish gray above, and lighter below. It has dark spots on its sides, and its color gets darker as the fish gets older.

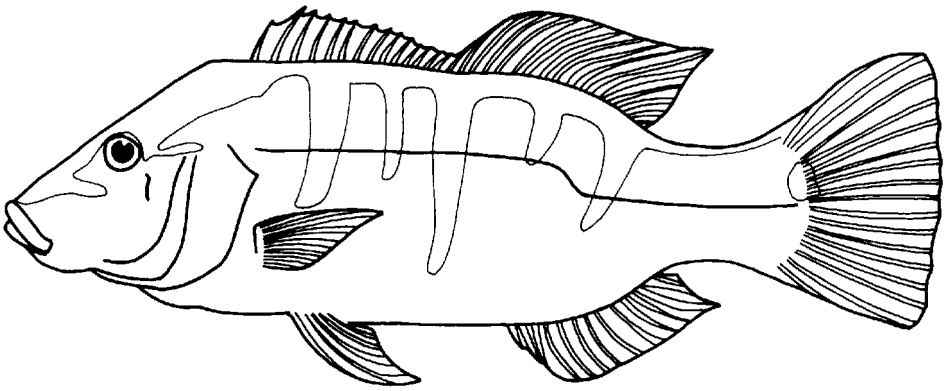
Channel catfish live mostly in reservoirs in Hawai‘i. They feed on the bottom, so that’s where you need to put your bait. Catfish like to eat small fish, clams, and snails. Liver is a good bait, and many people soak the bait in their own secret recipes to make it smell strong (“stinkbait”) and attract more fish. Channel catfish were first brought to Hawai‘i in 1958.



Tilapia

The tilapia is a fish that you can find all over the place, in many streams and reservoirs. Tilapia are usually a dark gray color, but some types are orange or yellow.

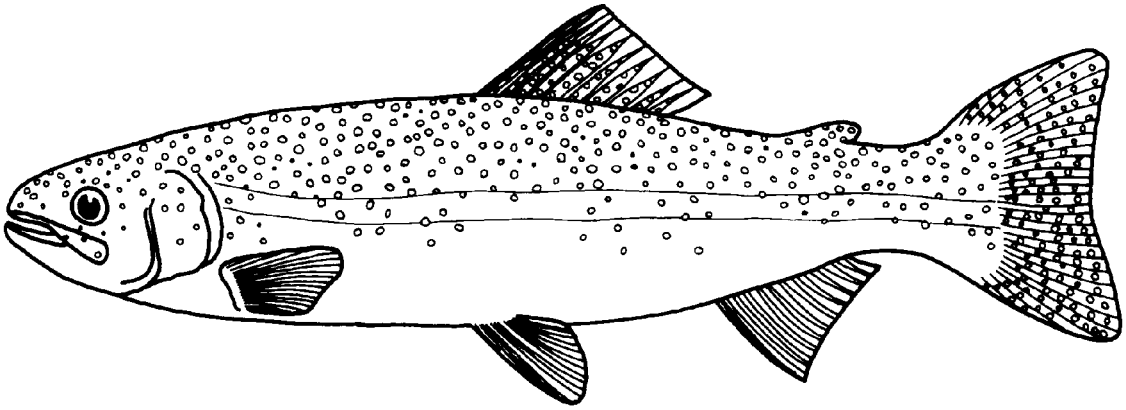
The tilapia mostly eats algae, but isn't a very picky eater and will eat just about anything it can. It is an easy fish to catch, and doughballs make good bait. Tilapia were first brought to Hawai'i in 1951.



Tucunare

The tucunare is one of the most fun fish to catch in fresh water. The tucunare's color is yellow with a green back and white belly, and it has dark bars on the sides. It also has a black spot on its tail.

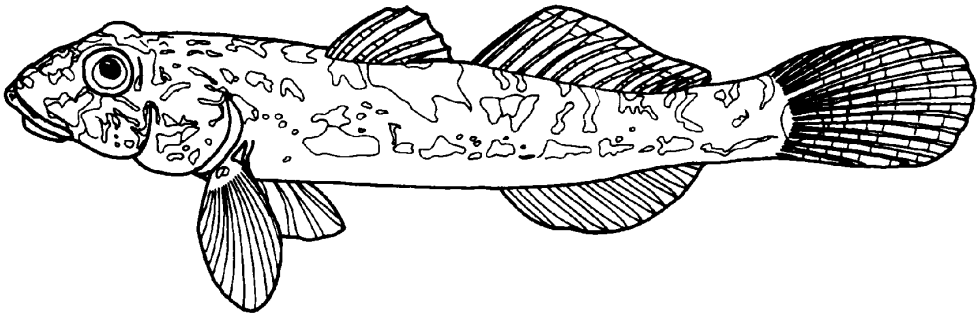
Tucunare live mostly in the larger reservoirs in Hawai'i. They feed on small fish, so medaka is a good bait to use. Tucunare were first brought to Hawai'i in 1957.



Rainbow trout

The rainbow trout is a fish that likes cold water. In Hawai‘i it lives on the islands of Kaua‘i and Hawai‘i, in cold water streams and a few reservoirs. The rainbow trout is bluish green above and silvery below, with a pink stripe along the sides. Its back, sides, and fins have small black spots.

Rainbow trout feed on fish eggs and small fish. Worms or medaka can be used for bait, and salmon eggs work well. Rainbow trout were first brought to Hawai‘i in 1920.



‘O‘opu nakea

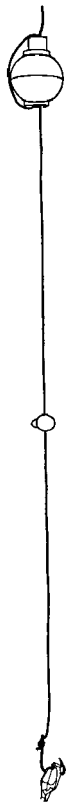
The ‘o‘opu nakea is one of only five freshwater fishes that are native to Hawai‘i. All of these native fish are called *‘o‘opu*, and live most of their lives in streams.

After adult ‘o‘opu lay their eggs, and the eggs hatch, the young ‘o‘opu are swept out to sea. After a few months, when they are still pretty small, they return and make their way back up the streams. At this time they are called *hinana*.

The ‘o‘opu nakea is the largest ‘o‘opu, and can grow to be 11 to 14 inches long. It is a light brown color, with dark blotches. It has a dark patch on its tail, and dark stripes on its fins. ‘O‘opu eat algae, worms, and snails. Worms are the best bait. The other ‘o‘opu are found only in Hawai‘i, but nakea is also found in the South Pacific.

How do I catch a fish?

First of all, find a place where you think there might be fish to catch (see pages 10-11). There are some areas where fishing is illegal, or where you can only fish with certain types of gear. These places are listed in the *Hawai'i Fishing Regulations* booklet. If you have to cross over private property to get to a fishing spot, be sure to get permission from the people who own the property. Once you're at the spot:



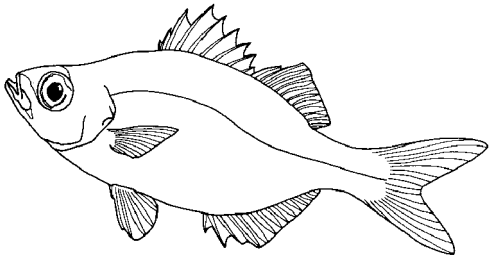
Set up your bamboo pole or rod and reel. Bait the hook.

If you're using a rod and reel, cast out your line. Set the drag tight enough so you can set the hook, but loose enough so a fish won't break your line. (*"Setting the hook"* means pulling back on your line fast to poke the hook through the fish's mouth.)

If you're using a bamboo pole, just flip the line into the water.

Watch your floater. When it starts to wiggle, a fish is nibbling at your bait.

It takes practice to know when to set the hook, but when the floater goes under water you pull back on your rod and hope the hook gets set in the fish's mouth. If you pull back too soon, you'll just pull the hook out of the fish's mouth. If you wait too long, the fish might swallow it.



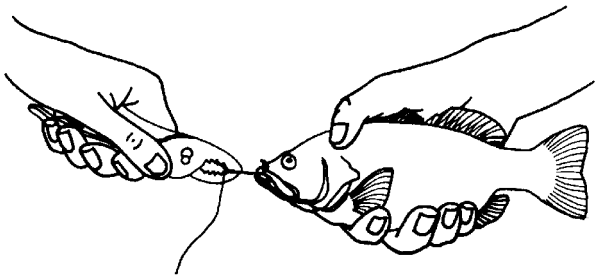
It's easy to pull in a fish with a bamboo pole. With a rod and reel you need to keep the line tight so the hook can't come back out. Pull the rod back, then reel in line as you lower the rod. Keep doing that until the fish is close enough for you to land.

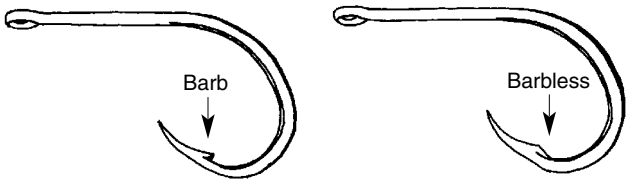
If the fish is small, you can just lift it out of the water with your pole. If it's big enough that it might break the line, scoop it out of the water with a landing net.

I caught a fish. Now what do I do?

You need to decide whether or not you want to keep your fish. If you're not going to eat it, or if it's pretty small, release it carefully and let it go. **Be careful when you handle fish, because they often have sharp spines on their fins.**

To release a fish, keep it in the water as much as you can, handle it gently, and don't touch the eyes. Take the hook out with your fingers or pliers. If the fish has swallowed the hook, cut the line as close to the hook as you can. The fish will be all right. Get the fish back in the water as quick as you can.





It's a good idea to use barbless hooks if you plan to let your fish go. You can make a barbless hook by just squeezing the barb flat with a pair of pliers. Barbless hooks are easier to remove from a fish, and don't hurt the fish as much when pulled out.

If you're going to keep your fish and eat it, you should throw it into a cooler on ice if possible. Or you can keep it alive by putting it in a wire basket or on a stringer and leaving it in the water. Otherwise, keep it wet and out of the sun so it doesn't start to spoil. The fish will need to be cleaned, but you should let an adult do that.

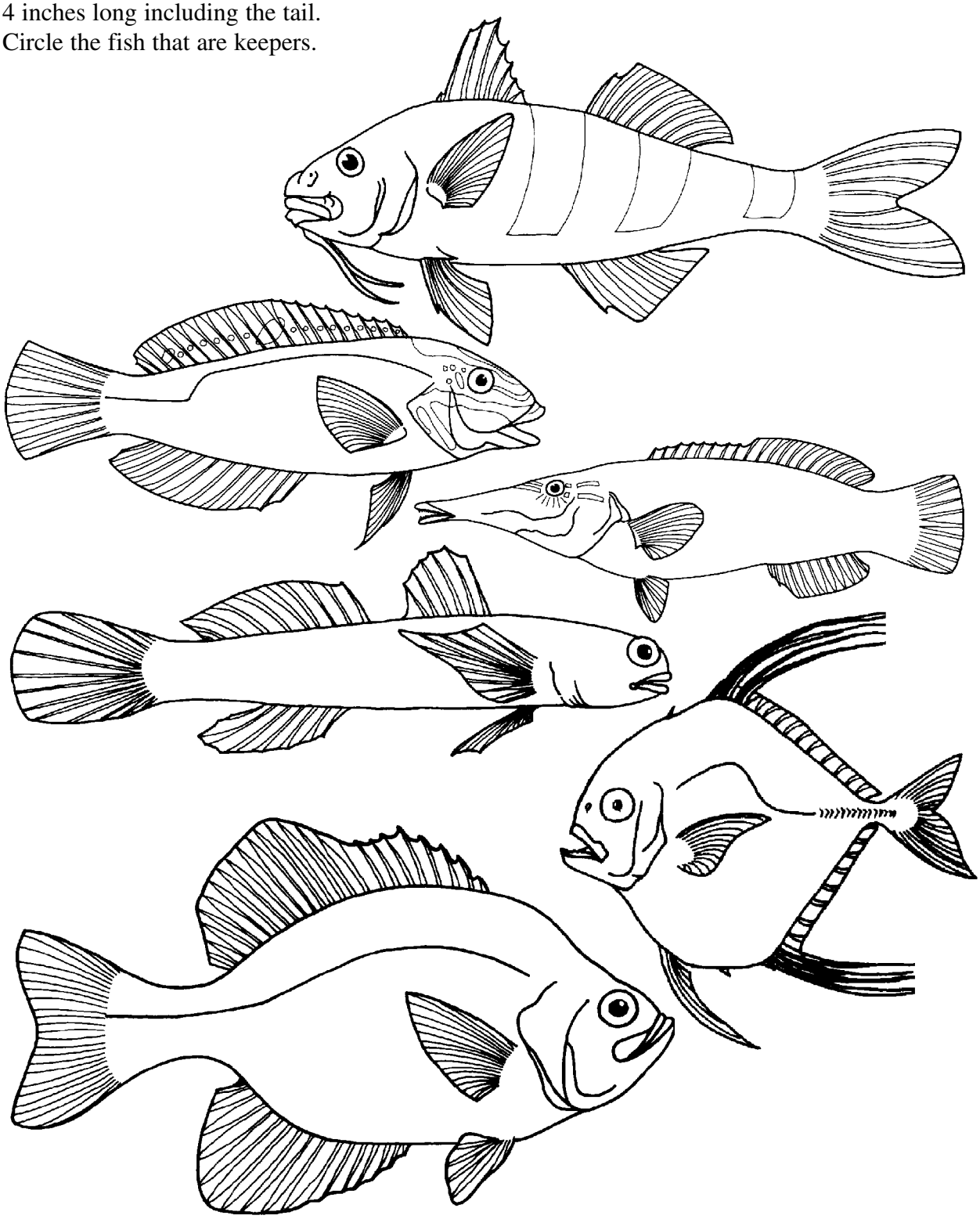
What fish can I keep?

Only keep fish that you are going to eat. Also, there are laws that tell you what fish you can't keep. Some fish have a ***minimum size*** — if they're too small you have to let them go so they can grow big enough to spawn (lay eggs) at least once. Aholehole and many freshwater fishes have a minimum size.

Some fish can't be kept during their ***closed seasons***, certain months of the year when they spawn. And some fish have ***bag limits***, which means you can only keep a certain number of that kind of fish. It's important to know the rules for fishing. You should get a copy of the *Hawai'i Fishing Regulations* from a fishing store or the Division of Aquatic Resources.

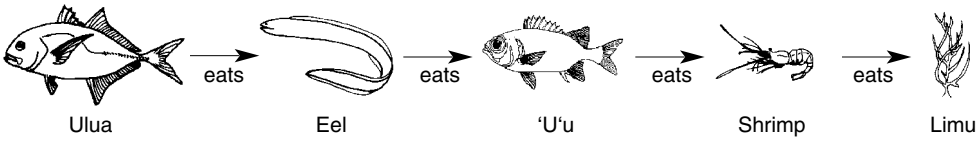
Which fish are keepers?

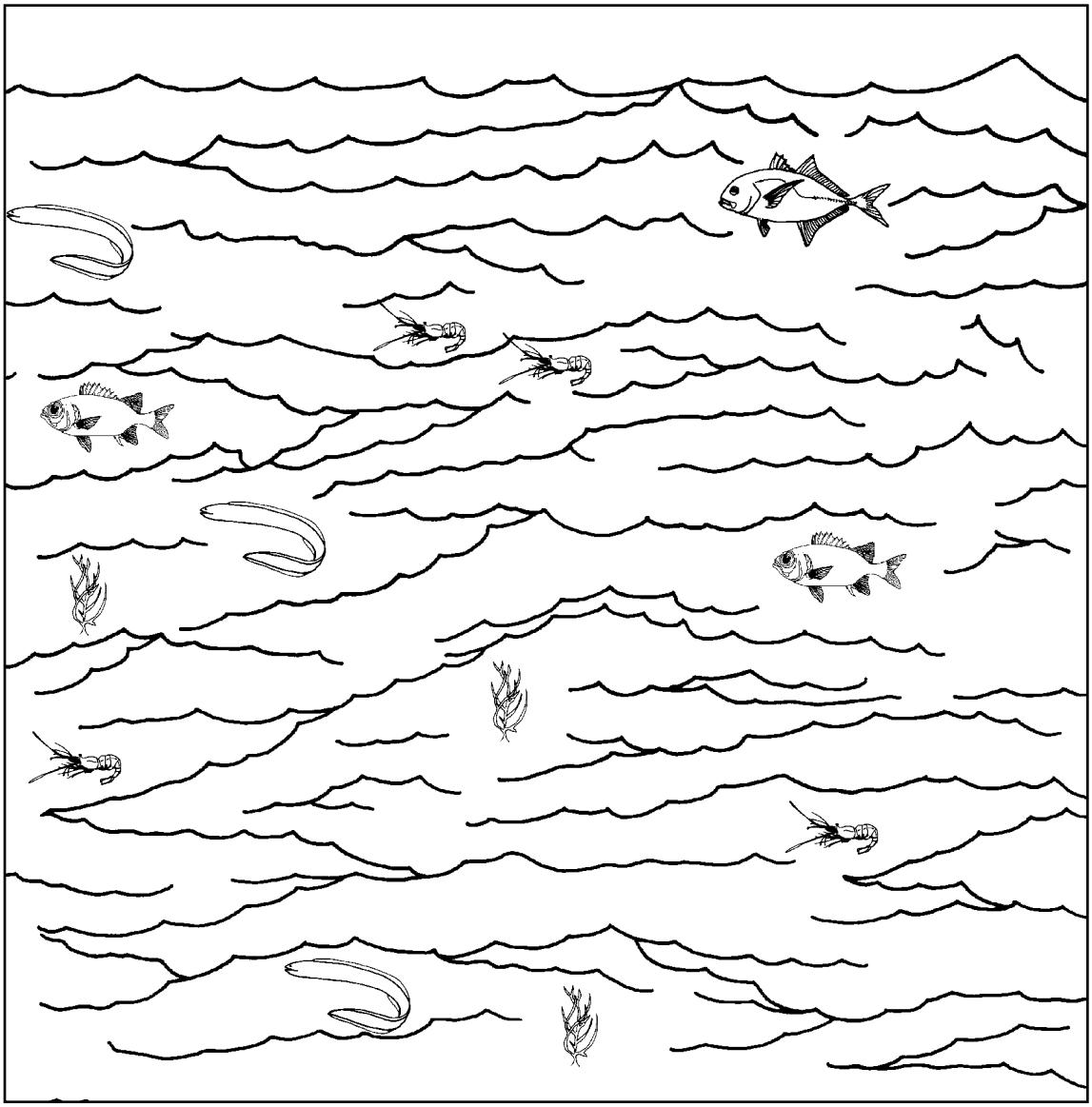
In Hawai‘i, some fish have to be a certain length (minimum size) in order for an angler to keep them. It’s important to know the rules. In our fishpond the rule is that the fish has to be at least 4 inches long including the tail.
Circle the fish that are keepers.



Food chain maze

Fish and other water animals need food, and they like to stay around places where there's lots to eat. A *food chain* tells us what gets eaten by what. Try to follow the ulua through its food chain.





How can I help make fishing better in Hawai‘i?

Be safe. Be careful when casting, and pick up all your fish hooks.

Know the rules. Fishing regulations protect fish, mostly to help them spawn. They also help more people to catch fish. The idea behind all fishing rules is to keep the numbers of fishes in Hawai‘i’s waters from becoming too low. So following the rules is very important.

Be courteous. Fish quietly so you don’t bother other anglers. Don’t crowd other anglers, cross your line over theirs, or disturb them in other ways. Treat other anglers the way you’d like them to treat you.

Don’t litter. Pick up your old fishing line, leftover bait, and anything else on the ground. Some of these things can be dangerous to people, and some can harm fish if blown into the water. Leave your fishing area a little cleaner than it was when you came.

Catch and release. Keep only the fish you’re going to eat, and carefully let others go. Use barbless hooks whenever you can. The fun of fishing is in catching the fish. If you let your fish go, it will live to fight another day.

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