



GOVERNMENT OF THE U.S.V.I. DEPARTMENT
OF PLANNING & NATURAL RESOURCES
DIVISION OF FISH AND WILDLIFE

Fishing VI style It's catching on

The Virgin Islands Division of Fish and Wildlife is thankful to Florida Fish and Wildlife Conservation Commission and to the Missouri Department of Conservation for developing the original material in this publication and allowing us to use it as the basis for our own fishing workbook.

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Saltwater fish identity art by Diane Rome Peebles

This workbook is funded through the Sport Fish Restoration (SFR) Program. Money for the SFR program comes from excise taxes on boating and fishing equipment, duties on imported boats and tackle and sales of motorboat fuel.

Department of Planning & Natural Resources

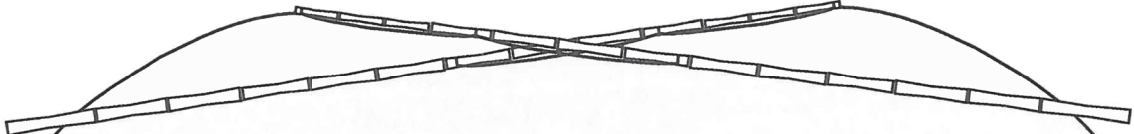
Division of Fish and Wildlife

Mission Statement: The Division of Fish and Wildlife is charged with the assessment and monitoring of fish and wildlife resources within the United States Virgin Islands. The division provides scientific advice to the Commissioner of the Department of Planning and Natural Resources on the condition of the marine resources and the best strategies to sustain these resources for all citizens of the USVI.

The Division is 100% federally funded by the US Department of Interior, US Fish and Wildlife Service, Federal Aid Service (USFWS/FA) and by the National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA/ NMFS).

The Division is composed of three bureaus: (1) Bureau of Fisheries, (2) Bureau of Wildlife, and (3) Bureau of Environmental Education. This activity book is produced through the Bureau of Environmental Education funded by the USFW Sports Fish Restoration Fund. Money for the SFR fund comes from excise taxes on boating and fishing equipment, duties on imported boats and tackle and sales of motorboat fuel throughout the United States.





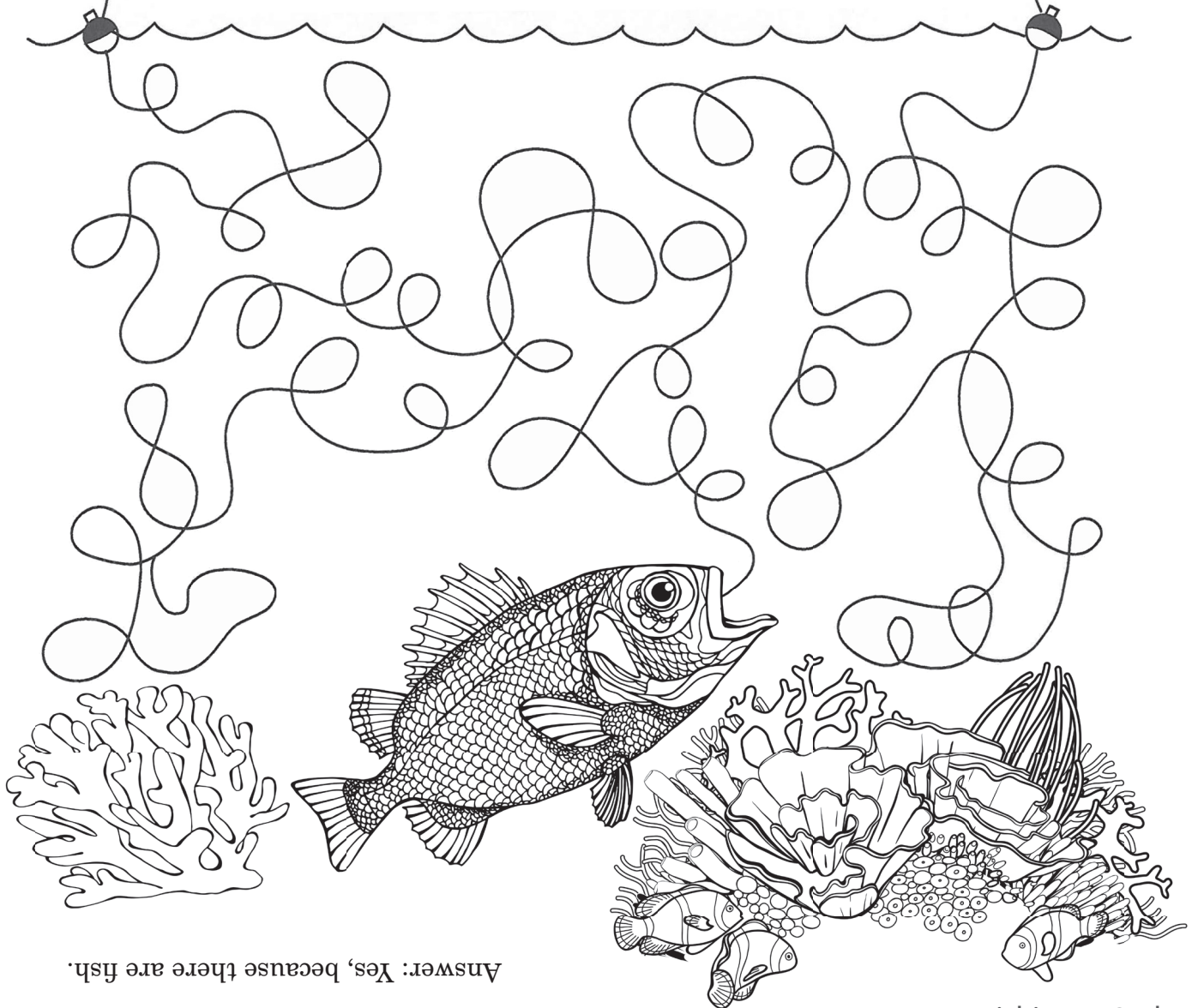
Fishing has always been a way of life in the Virgin Islands. People come from all over the world to fish in the waters of the Virgin Islands. Everyone who enjoys fishing, follows the rules and practices good outdoor manners is an ethical angler. Ethical anglers help protect our resources and make fishing safe for everyone.

Ethical anglers:

- Help protect places for fish to live, eat and reproduce
- Bring their trash back after a fishing trip
- Know fishing regulations and follow them
- Know about fish and how to catch them

Which line has a fish on it?

Do you think the water in this ocean is clean? Why?



Answer: Yes, because there are fish.

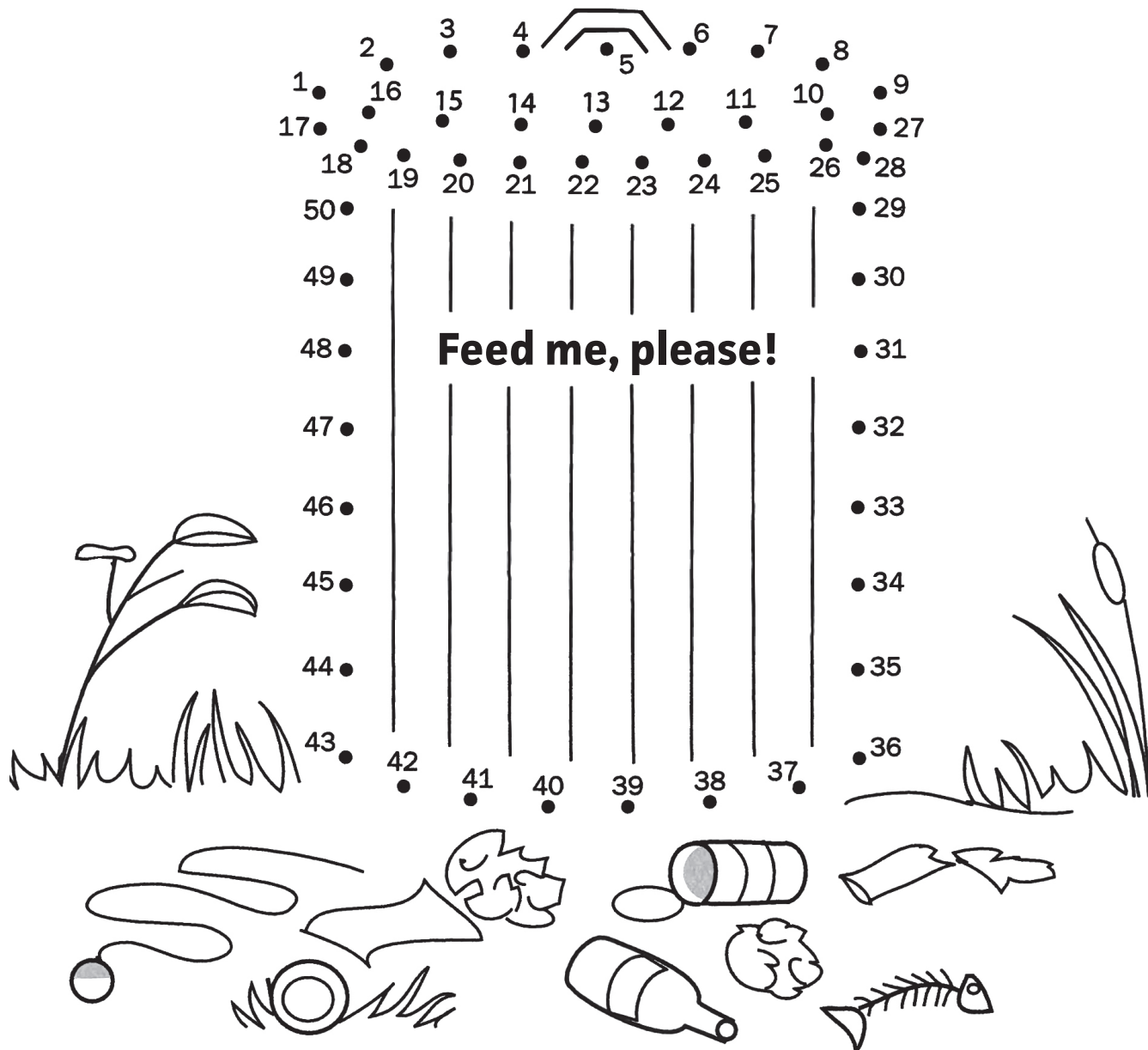
**“Wherever you go to fish, if you do not find me,
carry out everything you brought with you.”**

What am I?

Your fishing location is a special place.

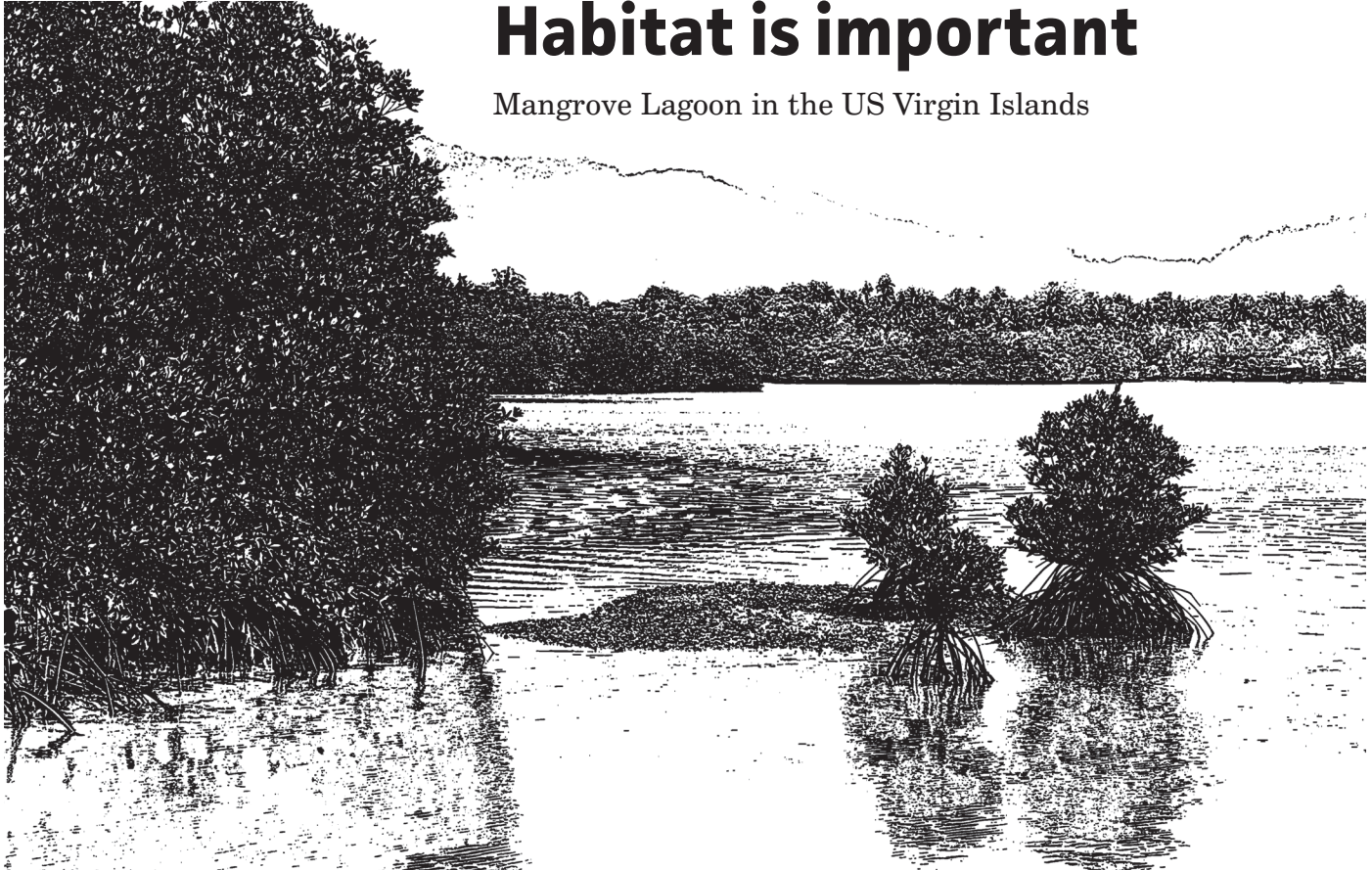
Keep it clear of trash and a natural space.

Used fishing line belongs in a recycle container. Properly
throwing away bottles, cans and paper is a “no-brainer”.



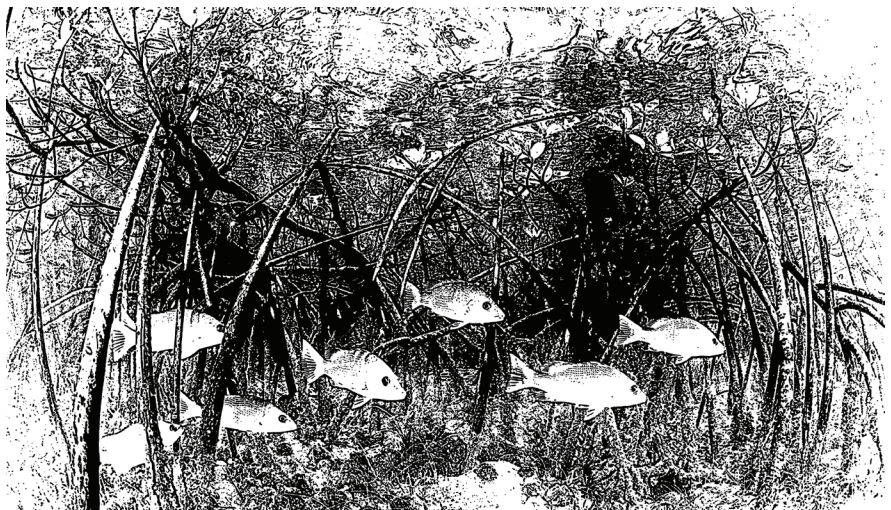
Habitat is important

Mangrove Lagoon in the US Virgin Islands



Surrounded by small islands built up of mangrove trees, these areas play an important role in providing a home for organisms to live and flourish. The result is healthy offshore coral reefs, diverse reef fish populations, and shoreline stabilization.

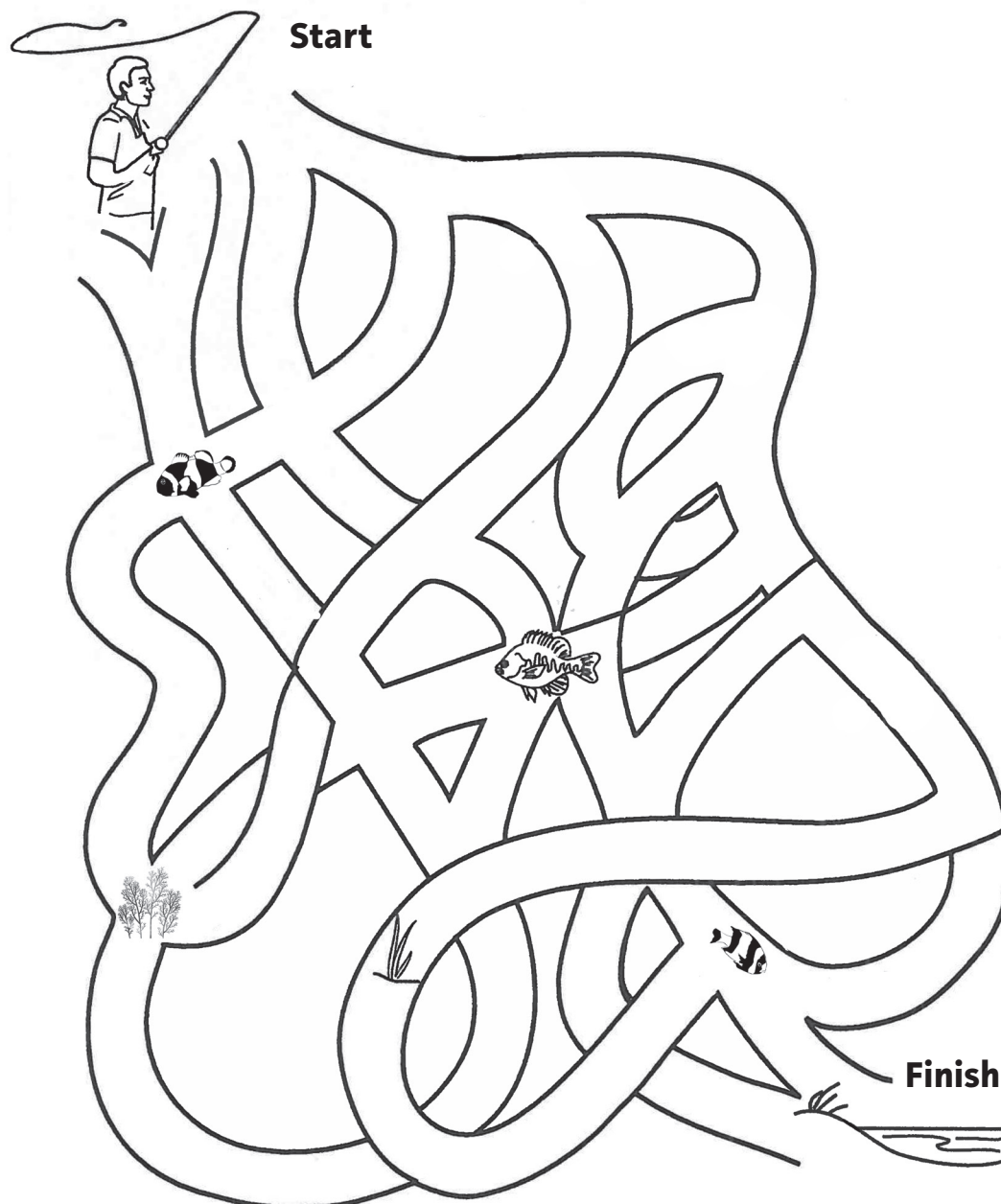
Mangrove trees thrive on saltwater and are adapted to live in coastal environments. Acting as a sort of “nutrient switchboard operator,” mangrove forests transfer matter and energy from the land in the form of leaves and branches to marine ecosystems as food. And their dense and complicated root systems provide a home for many different types of underwater creatures, including juvenile fish, who use the nooks and crannies to hide from potential predators.



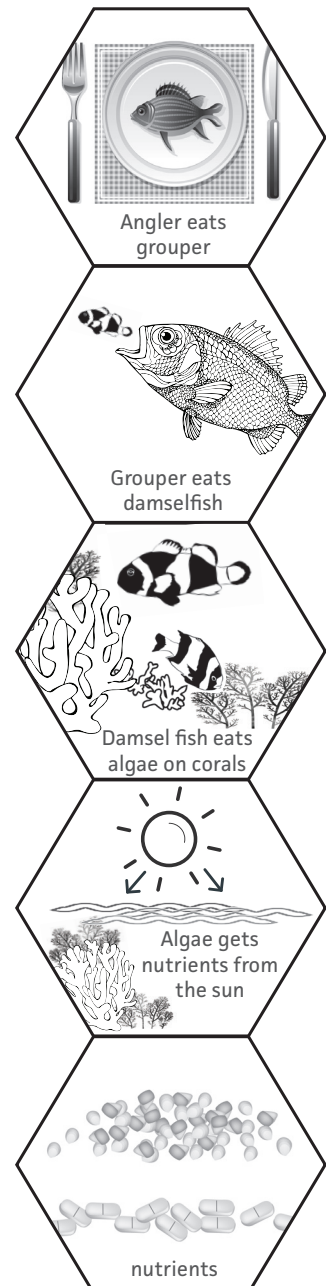
Fishing for facts

Fish play a special role in our islands. They provide revenue and food for numerous virgin islanders. Fishing is also a very popular pass time sport enjoyed by many generations. The balance of an ecosystem maybe easily thrown out of whack by the impact of humans. This is why Fish and Wildlife monitors the local fisheries and has programs to educate everyone on being ethical anglers. Through the division's Aquatic Education Program, anyone can learn how to become an ethical angler. It is very important for everyone to learn the fishing rules and regulations for anywhere they may fish. Keeping the balance of nature in check is up to us all.

Try to follow the Grouper through the food chain.



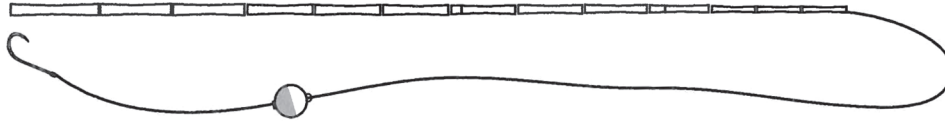
Saltwater food chain



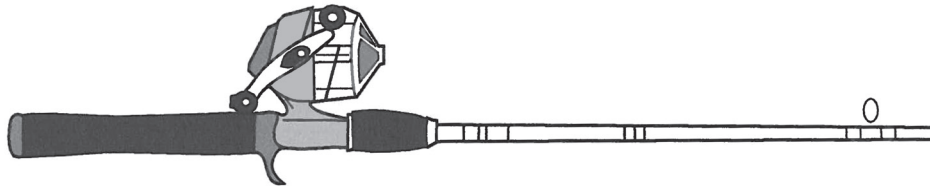
How do I get ready to go fishing?

Choose the rod and reel for your fishing needs.

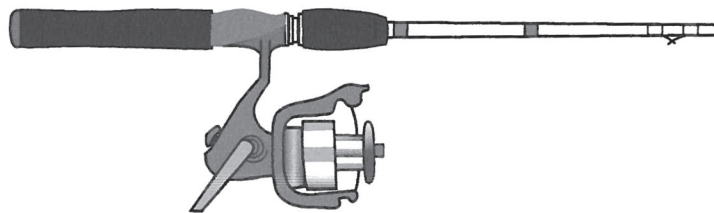
A cane pole is a simple fishing rod you can use to catch freshwater or saltwater fish. A piece of fishing line (the same length as the cane pole) is attached to the cane pole, along with a float and a hook.



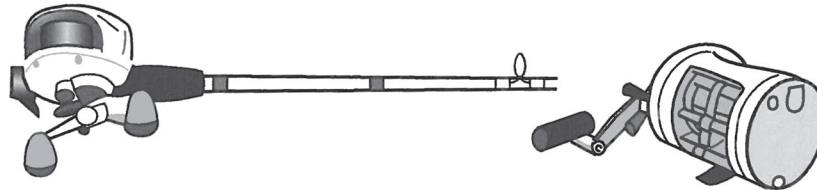
A spin-cast rod and reel is a very simple combo that will enable you to cast to fish. The reel has a push-button control for releasing the line off the covered spool. These reels are good to use for young children and beginners.



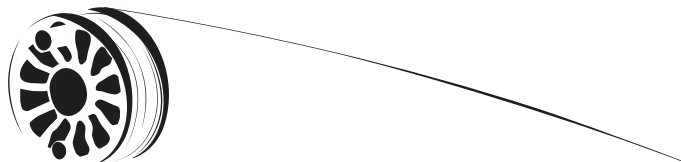
Spinning rods and reels are designed for use in either fresh water or salt water. They are available in a wide range of sizes, depending on where you want to use them. These rods and reels have a bail that winds the fishing line onto the reel. To cast, lift the bail, hold the fishing line between your finger and the rod and cast while letting go of the fishing line.



Bait-casting and conventional rods and reels can be used in either fresh water or salt water. They are designed so the spool that holds the line rotates when letting line out or retrieving line. These rods and reels are available in a wide variety of sizes and styles for use in many situations. Some of these reels have a device to wind the line neatly onto the spool.



Handline fishing, or handlining, is one of the oldest and still practiced forms of fishing here in the VI. Take your fishing line and tie one end around the middle of your spool. Wrap the rest evenly around the center and attach your hook and weight. Place your bait on the hook and off you go.



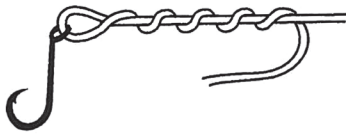
How do I tie that knot?

Things to remember: match knot to function, tie the knot correctly, wet the knot prior to fully tightening it. Trim tag end to $\frac{1}{8}$ inch after completely tightening the knot.

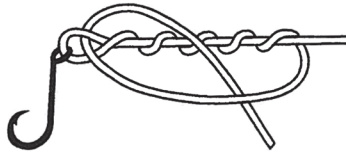
Improved clinch knot - Used for tying line to a hook, swivel and some artificial lures



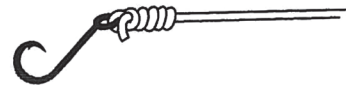
1. Put the tag end of the line through the eye of the hook and bring it back toward the line.



2. Make five twists around the standing line.

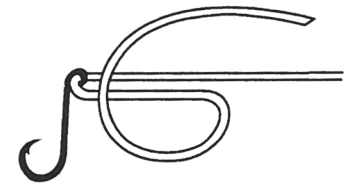


3. Take the tag end back toward the hook and push it through the first loop nearest the eye. Bring the tag end back through the big loop you made in the previous step.



4. Holding the hook and the line, pull the knot tight until it looks like the knot at left.

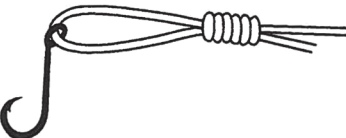
Uni-knot - Used for tying line to hook, light line to heavy line and many other applications



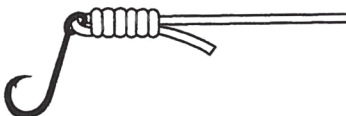
1. Run line through eye of hook at least 6" and fold to make two parallel lines. Bring end of line back in a circle toward hook.



2. Make six turns with the tag around the double line and through the circle. Hold the double line at the point where it passes through the eye and pull the tag to snug up turns.



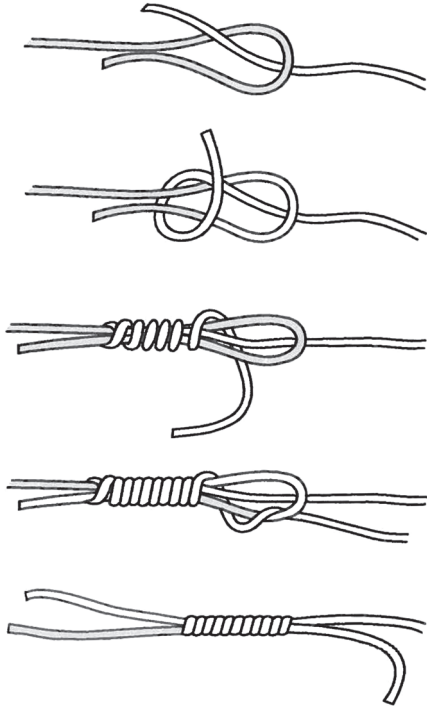
3. Pull standing line to slide knot up against eye.



4. Continue pulling until knot is tight. Trim tag end flush with closest coil of knot. The uniknot will not slip.

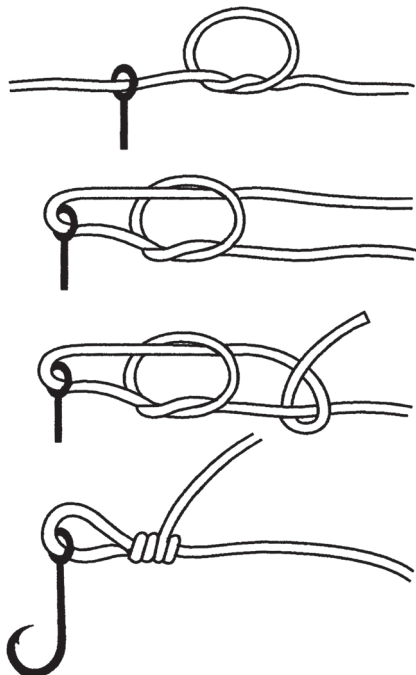
More knots to tie

Albright special - Used to tie light line to heavier line, such as a leader



1. Make a loop with the heavier line. Pass about 10-12 inches of the lighter line through the loop.
2. Wrap the lighter line around the base of the loop, opposite the side of the loop where the line came out.
3. Wrap the light line back over itself and the doubled leader line. Make 10-15 turns.
4. Insert the light line back through the loop in the opposite direction it was previously inserted into the loop.
5. Pull gently on the standing part of the line to remove slack; then pull gently on the tag end of the leader. Finally, pull the tag end of the line as tight as possible and then pull the standing line tight.

End-loop knot - Used to tie leader to lures that require freedom of movement, like jigs and plugs



1. Tie a simple overhand knot in the line several inches from the end; do not tighten the knot at this point.
2. Insert the line through the lure eye, turn and insert the end of the line through the wide portion of the overhand knot.
3. Loop size is determined at this point by moving the overhand knot the desired distance from the lure eye. Make a simple half-hitch with the tag end around the standing part of the line ABOVE the over hand knot.
4. Pull tight on the lure and on the line to cinch the knot.

Terminal tackle for fishing

Hooks

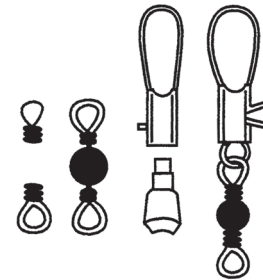
Hooks keep the fish attached to your fishing line. Hooks are available in a wide variety of sizes, styles and coatings for many different applications.

Hook hints

Match the size of the hook to the size of your bait. Always make sure your hook points are sharp. If you are getting bites and no fish, try a smaller hook. When bait fishing, use non-offset circle hooks to prevent gut-hooking fish. Crimping the barb will make it easier to release an unwanted fish. Avoid using hooks that will not rust if they remain in a fish. If a fish is guthooked or you cannot easily remove a hook, cut the line as close to the mouth as possible.

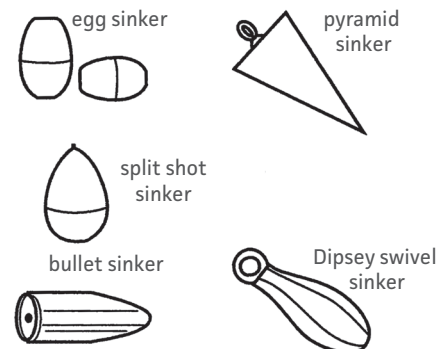
Snaps and swivels

These items reduce or prevent line from twisting and provide a quick connection between other tackle. The two major types of swivels are barrel and ball-bearing. Either type is available in a variety of sizes and with or without snaps. Match swivels to your tackle and the fish you are targeting.



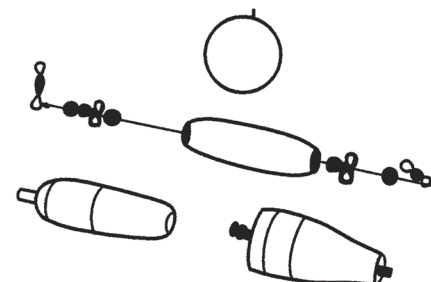
Weights/sinkers

Weights are used to cast bait or keep it at a certain depth. They come in a variety of sizes and shapes for use in different fishing situations. Non-lead sinkers are also available to help prevent lead from entering aquatic systems. Egg sinkers are used in fishing rigs to allow the bait to move away once the sinker is on the bottom. Split shot sinkers can be added at any point along the fishing line when you need a small amount of weight. Pyramid sinkers dig into the bottom and prevent the bait from moving to another area. Dipsey swivel sinkers are commonly used for trolling or bottom fishing with live bait.



Floats

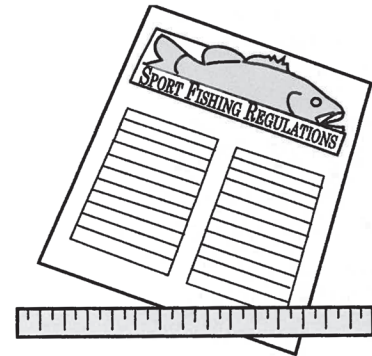
Floats are used to keep bait off the bottom and tells the angler when a fish is biting the hook. Floats should match the bait and tackle you are using. Different colors, sizes, materials and styles are available for floats. Some floats have noise makers to attract fish while others have a small amount of weight in them to aid in casting the bait.



Other tackle box items

Regulations/identification manual

Good anglers always carry a copy of the current fishing regulations to know the size and bag limits of the fish in their area. Carrying a manual to identify any fish you do not know is part of being a good angler. You can pick up a copy of the fishing rules and regulations at the Division of Fish and Wildlife.

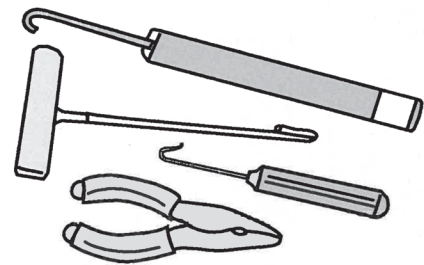


Measuring device

A measuring device is needed to check your fish with the current fishing regulations. It is up to all of us to help manage our fish populations.

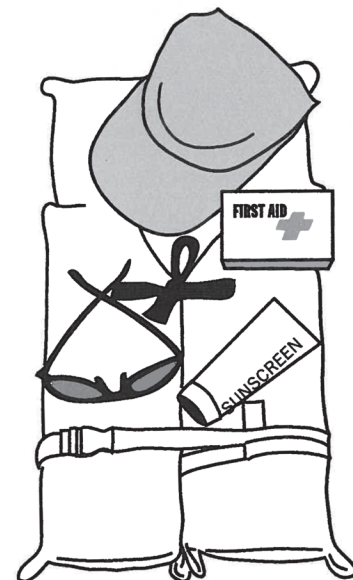
Pliers and de-hooking devices

Needle-nosed pliers are useful for cutting line, pulling line tight when tying knots, holding items, removing hooks and crimping split shot. De-hooking tools allow you to remove hooks from fish without touching them. If this tool is used properly, much of the slime covering a fish will remain on a fish when released, giving the fish a much better chance of living.



Safety equipment

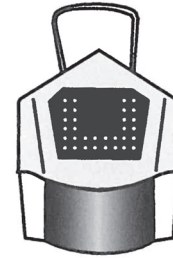
A hat, sunglasses and sunscreen are necessary to protect you from the sun. Polarized sunglasses also give you the ability to see into the water and observe grass beds and other underwater habitats. A small first aid kit is also recommended for the tackle box. If you are fishing from a boat, it is your duty to have the required safety equipment. A personal flotation device (PFD) is required for every person on a boat. Be certain you know all the safety requirements before boating.



Other tackle box items (continued)

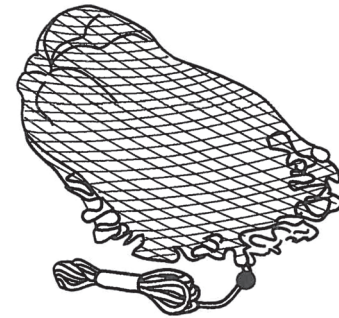
Flow-through baitwell

These containers can be used from shore, while wading or from a boat. The design allows them to be tied off and placed in the water to exchange the water in the baitwell with outside water. This procedure keeps baitfish or shrimp alive for fishing. It can also be used to attract fish by filling it with chopped up bait and placing it into the water.



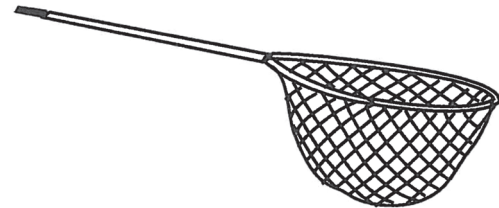
Cast net

Cast nets are used to catch bait fish for live bait fishing or chumming. They are available in a variety of lengths and mesh sizes. A great deal of practice is required to throw these nets correctly. Care is important when throwing them from a boat.



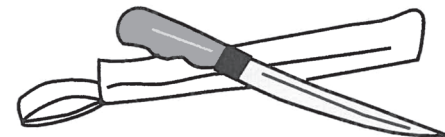
Landing net

Landing nets are used to land large fish or fish with teeth. Care should be taken to remove fish quickly from the net. If fish are to be released, they should be handled with care. Knot-less nets are better for fish because these nets remove less fish slime and do not scratch the fish. There is a wide assortment of landing nets.

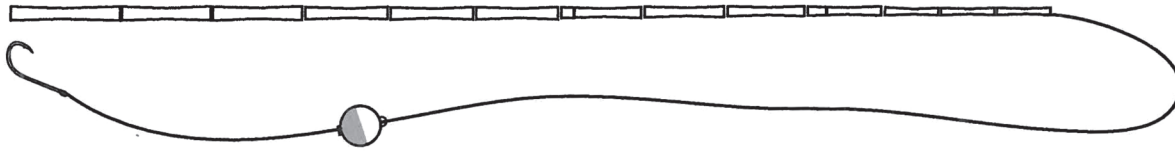


Fillet knife

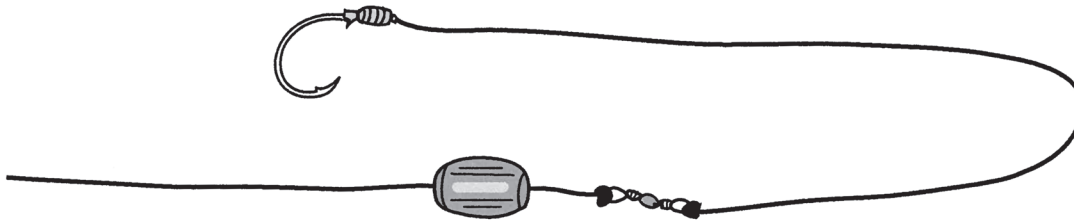
Fillet knives are used for cleaning fish to eat. A fillet knife should be thin and kept very sharp. Knives should be washed and dried thoroughly after each use. Be careful when using any knife.



Fishing rigs



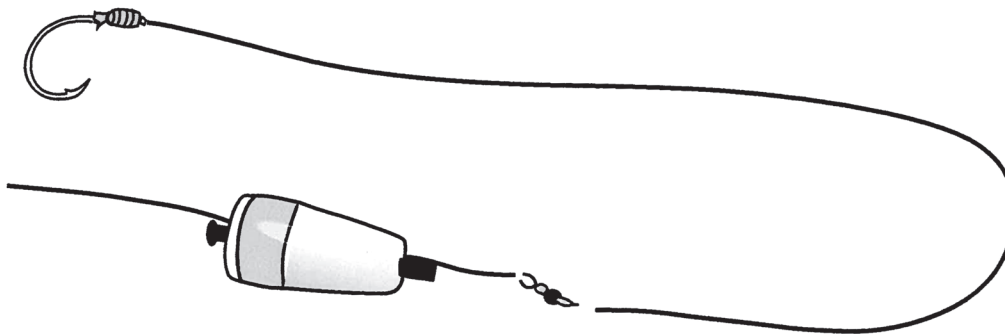
Cane poles should have the fishing line attached to them, not only at the tip, but should be tied back down the pole with the first tie being about one foot down from the tip and the second tie three feet down from the tip. If you have a two-piece cane pole, the second tie should be tied to the base or bottom piece of the pole. To complete a cane pole rig, the free line that will be cast should be the same length as the pole, just as shown in the picture.



Slip-sinker or fish-finder rig

This rig can be used for bottom fishing from shore or on a boat. The design of this rig allows the bait to move once the egg sinker is on the bottom. The swivel prevents the egg sinker from sliding to the hook.

Tying: First, slide a sinker onto the fishing line, then attach a swivel using a clinch or uni-knot. Next, tie a leader to the other loop on the swivel and finally tie the desired hook at the end of the leader.

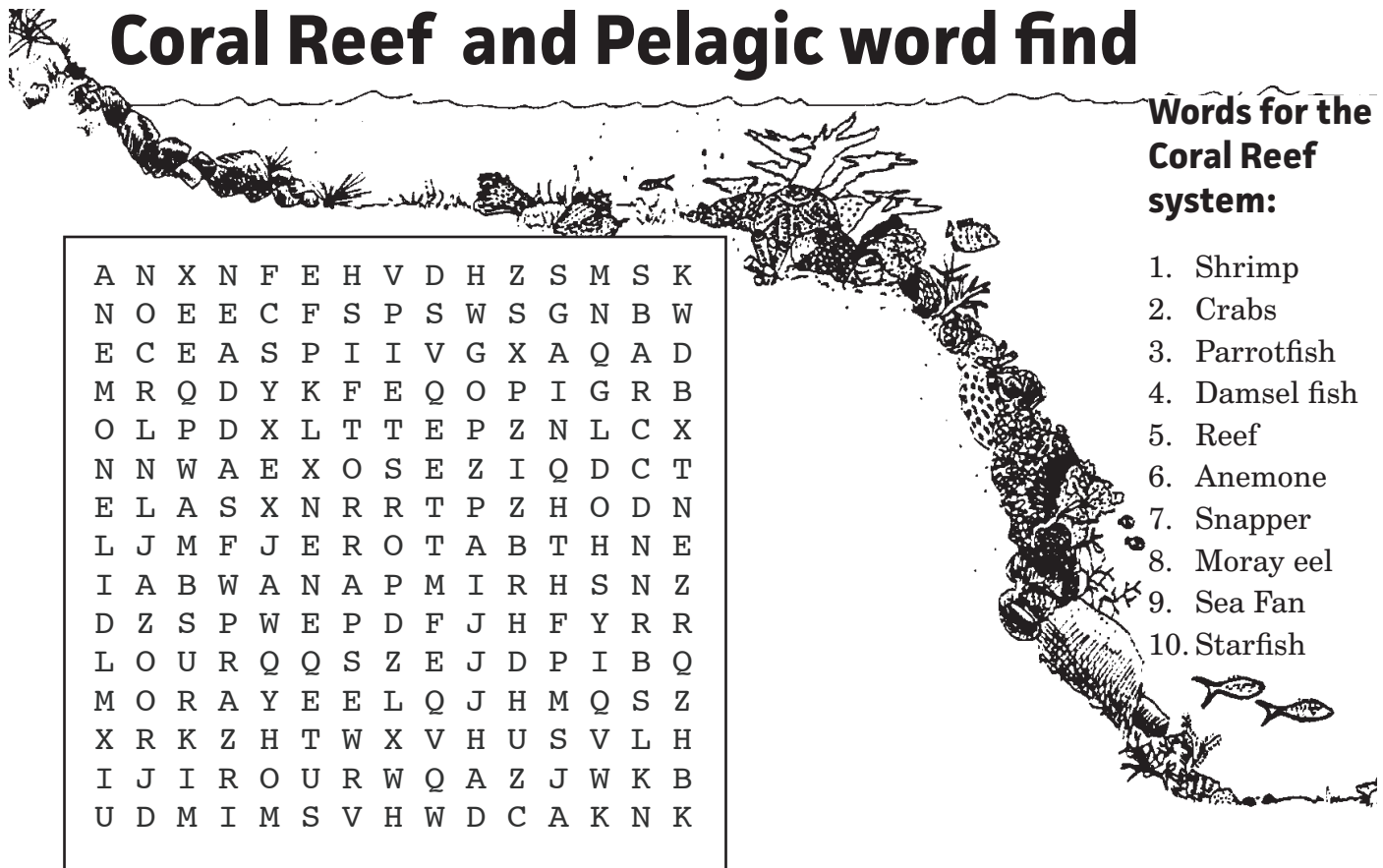


Float rig

This rig is used when the targeted fish feed away from the bottom. A variety of floats are available; they differ in the construction and the methods used to attach them.

Tying: If the float does not have a quick-attachment mechanism, slide the fishing line through the float, then slide the plastic securing pin into the float. Tie a swivel on the end of the line and attach a leader with a hook to complete the float rig. Adjust the float to the desired height above the bait.

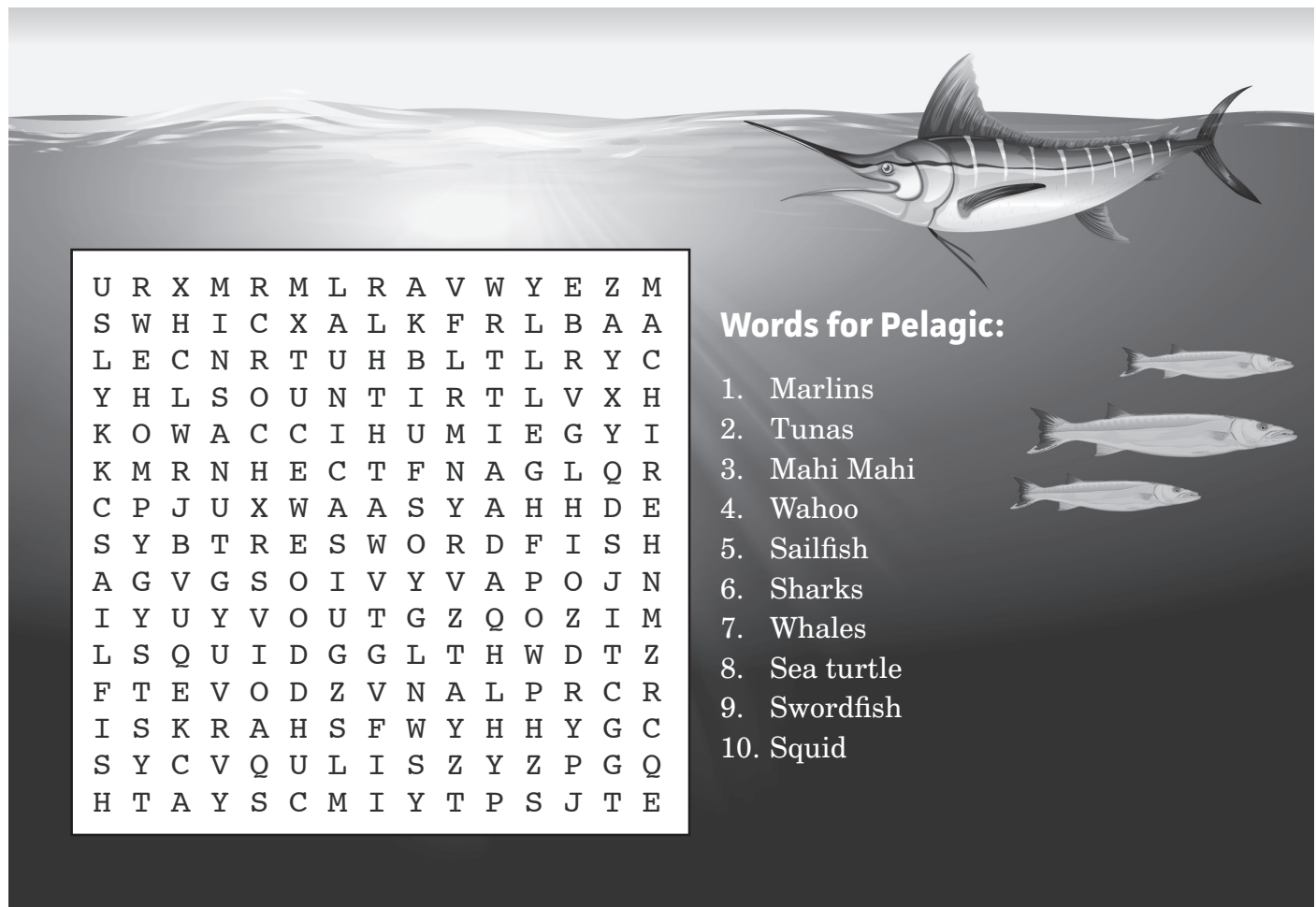
Coral Reef and Pelagic word find



Words for the Coral Reef system:

1. Shrimp
2. Crabs
3. Parrotfish
4. Damsel fish
5. Reef
6. Anemone
7. Snapper
8. Moray eel
9. Sea Fan
10. Starfish

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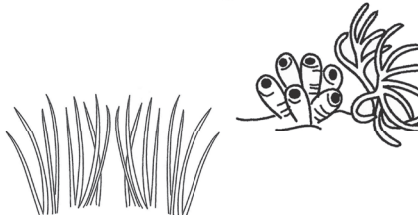
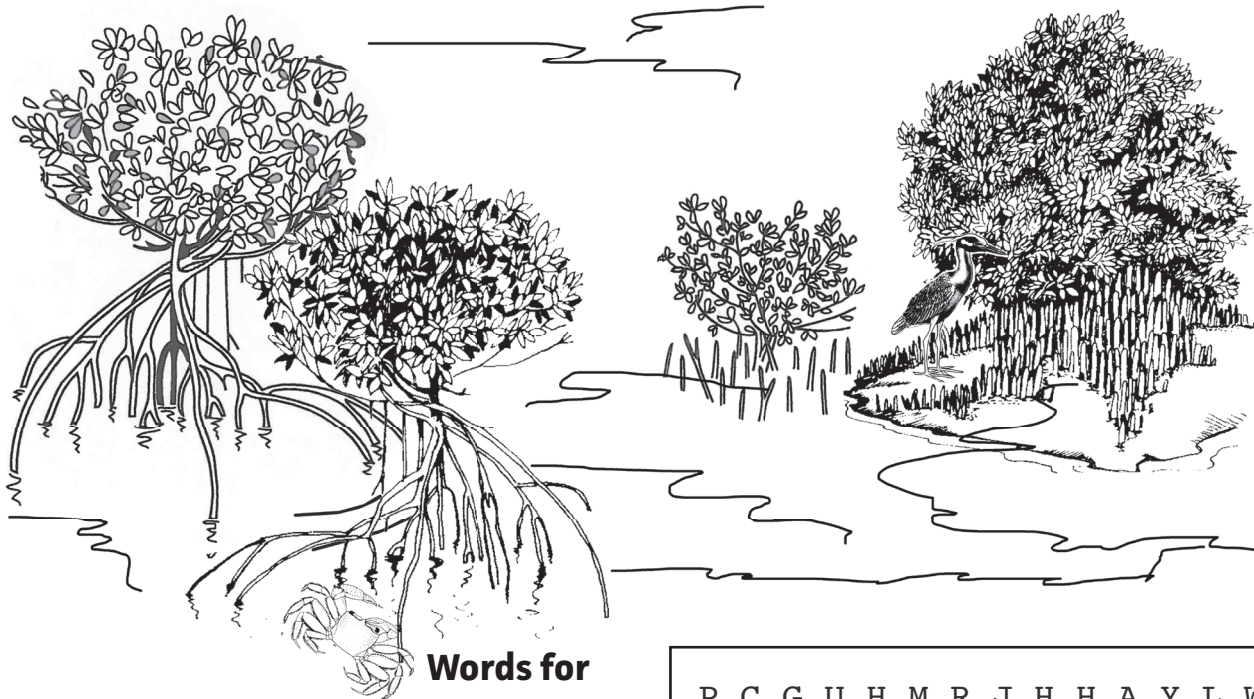


Words for Pelagic:

1. Marlins
2. Tunas
3. Mahi Mahi
4. Wahoo
5. Sailfish
6. Sharks
7. Whales
8. Sea turtle
9. Swordfish
10. Squid

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

Mangrove word find



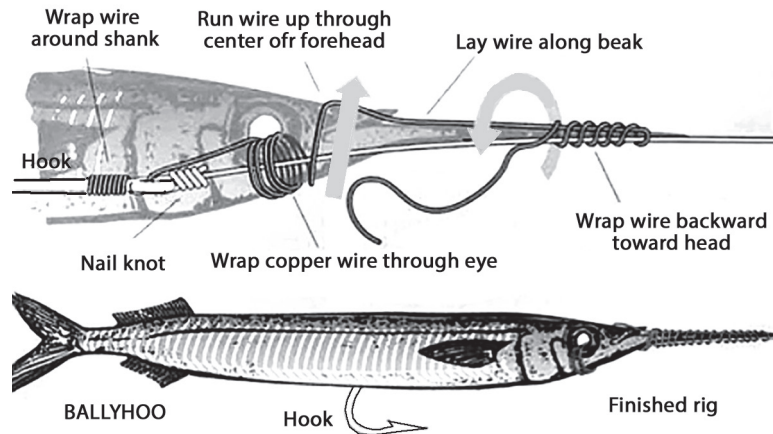
Words for Mangrove System:

1. Mangroves
2. Sea grass
3. Snapper
4. Lobster
5. Conch
6. Baitfish
7. Grunt
8. Pufferfish
9. Propagule
10. Egret

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

What do I use for bait?

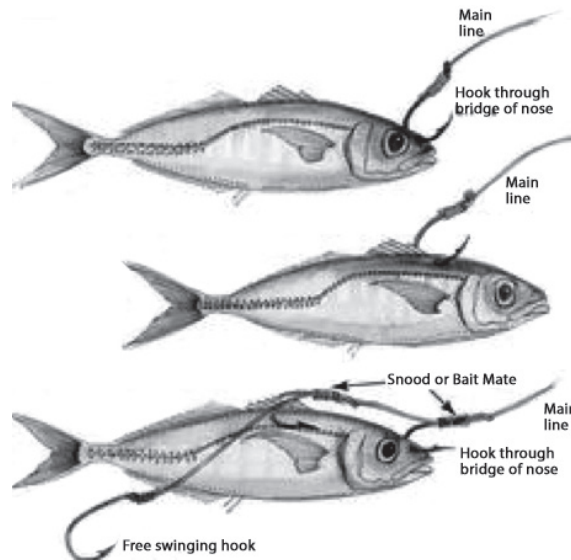
Ballyhoo and **Flying Fish** are frequently used as whole or cut bait and for trolling purposes by saltwater sportsmen.



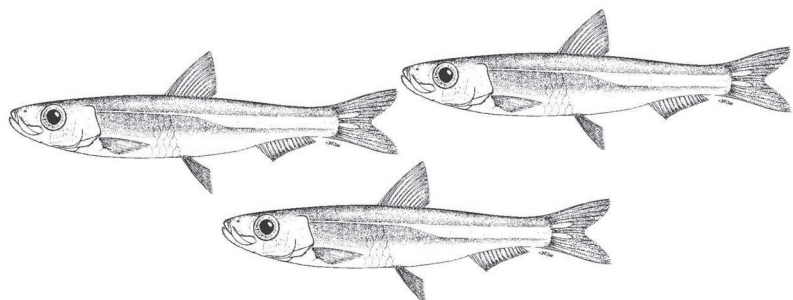
Squid are sold frozen and will have to be cut into pieces for fishing. They make a very good bait for bottom fishing.



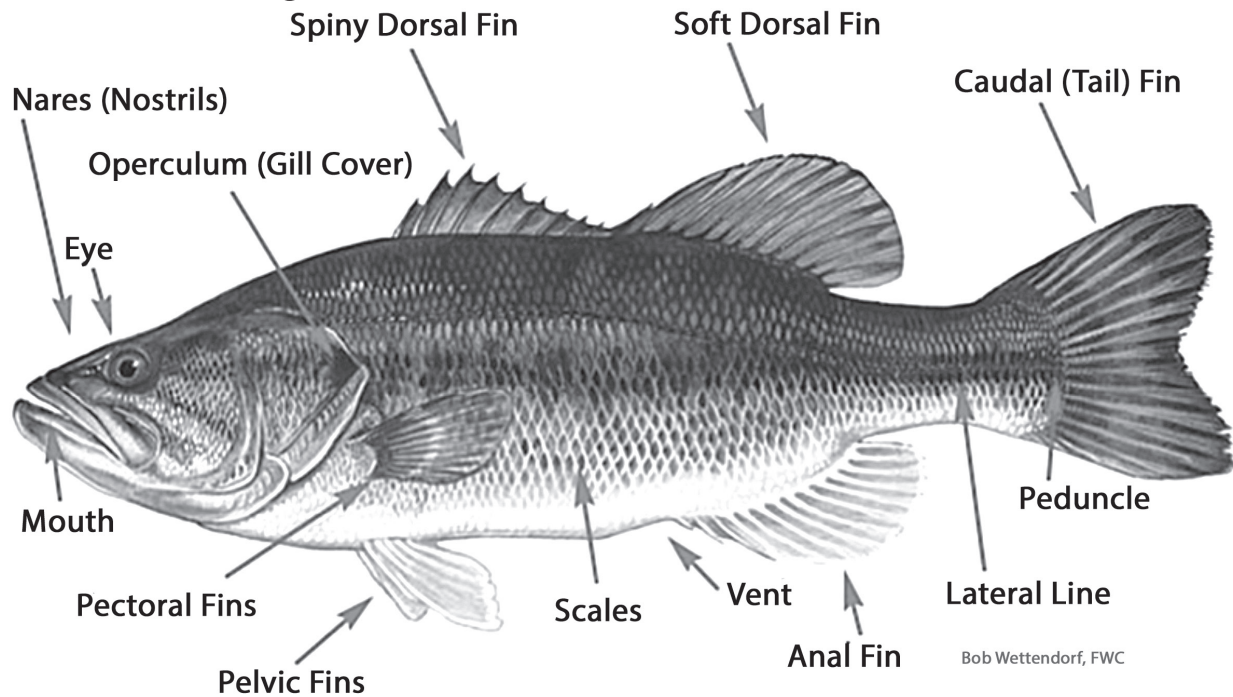
Sprat (False herring): insert a circle hook across the nose of the fish, upward through the top of the mouth or across the fish.



Fry (dwarf herring) are crushed with sand and rolled into balls to be thrown in the water as chum. Sometime a hook can be placed through the eye sockets of the fry and can be used as bait.



Fish anatomy



Glossary

Anatomy - The parts of a fish.

Anal fin - The median fin on the midventral line behind the anus.

Bar - A short, straight color mark, oriented vertically unless otherwise stated.

Barbel - A fleshy sensory appendage on the head, usually on the snout, around the mouth or on the chin.

Caudal fin (tail) - The median fin at the rear end of the body.

Caudal peduncle - The rear, usually slender, part of the body between the caudal fin base and the base of the last dorsal- and anal-fin rays.

Dorsal fin - The median fin on the back. There are many variations of this fin in fish.

Gill cover (Operculum) - The various bones which cover the gills and open and close at the rear during respiration.

Gill rakers - Structures which project forward from the gill arches, like the teeth of a comb. Very fine to coarse in appearance based on what the fish eats.

Isthmus - The triangular fleshy region extending forward on the throat between the gills.

Lateral line - A canal along the body, filled with sensory organs that detect pressure changes.

Ocellus - An eyespot in which the central color is bordered by a ring of another color, which is also different from the adjacent body color or fin.

Pectoral fins - A pair of fins generally located in the shoulder region of the fish.

Pelvic fins - A pair of fins on the lower part of the body. These fins can vary in their placement on the body in different fish species.

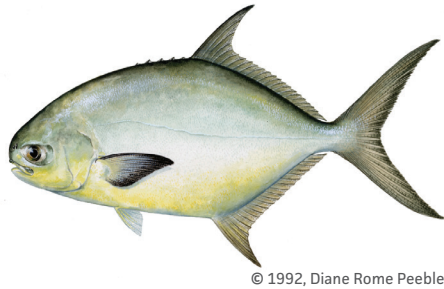
Ray - One of the supporting elements, soft or spiny, in a fin.

Snout - Portion of the head in front of the eyes and above the mouth.

Vent - The opening through which waste products are expelled.

Common saltwater fish

These fish are some of the more common inshore fish found in Virgin Islands' coastal waters.



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Florida Pompano

Trachinotus carolinus

Description: Compressed body and short snout, color ranges from blue-green and silver from the top to silver yellow on bottom. Where Found: Inshore and nearshore waters around sandy beaches, oyster bars and seagrass beds where it feeds on mollusks and crustaceans. Size: average 18in and 3lbs.



Coney (Butterfish)

Cephalopholis fulva

Description: curved body and large, round eyes above a pointed snout, several color phases including bright yellow, red, and bi-colored orange and tan, with has mild to intense amount of speckles on its body. Where Found: Coral Reefs throughout the Caribbean and the Gulf of Mexico depths ranging from 6 ft to 492 ft in clear water conditions. Size: maximum size is 16 inches.



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Red Hind

Epinephelus guttatus

Description: Reddish brown spots spread over a white like undercoat, Females possess a pale complexion and have swollen abdomens. males appear dusky, mottled patterns with two or three dark bars above the anal fin and pale heads with dark areas on the sides of their lips. Where Found: Usually solitary and territorial. Females live on reefs of shallow to moderate depths, whereas larger males inhabit much deeper waters. Size: common length 40cm Maximum length 76cm.

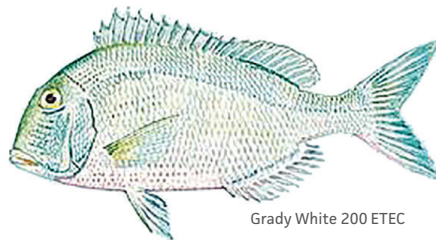


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Hogfish

Lachnolaimus maximus

Description: Body deep, strongly compressed; color varies, but never bicolored; usually reddish, sometimes bright brick red; soft dorsal fin with a large dark spot at base; entire top of head nape purplish brown in large males; this patch of color continuous with blackish area that extends along entire base of dorsal fin; large blackish crescent through base of caudal fin; pelvic fin with dusky tip; 14 spines in dorsal fin – first 3 elongate, bladelike; rays at front of soft dorsal and anal fins and lower lobes of caudal fin elongate; mouth very protruding. Young: Greenish or brownish, mottled with dark. Where Found: Western Atlantic from Nova Scotia Canada to South America including the Gulf of Mexico and the Caribbean. They are reef dwellers. Size: To 91 centimeters (3 feet).



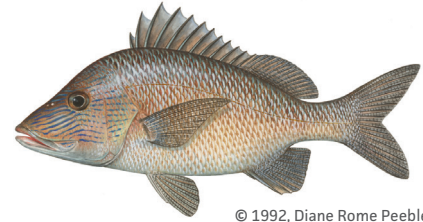
Grady White 200 ETEC

Saucereye Porgy

Calamus calamus,

Other Names: Big-eye Porgy, Saucer-Eye Porgy

Description: The body is oval, compressed and very deep. The color is generally silvery, with the scales being bluish in the center and having a brassy edge. A blue line is found under the eye and the unscaled portions of the cheeks are blue with yellow spots. Saucer-eye porgies are bottom-feeders, dining on worms, clams, mussels, snails, brittle stars, crabs, and sea urchins. Where Found: Found in offshore waters of 30-250 feet deep. Adults are more common in the deeper waters, on coral or other reef structures. Size: Commonly runs 2-3 pounds and can grow to 7 pounds.



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White Grunt

Haemulon plumieri

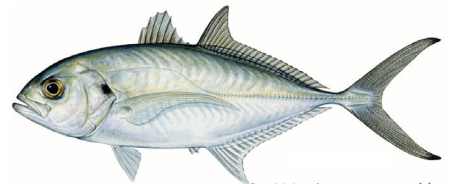
Description: Body color light bluish-gray, head with horizontal blue stripes, white underbelly; black blotch on gill plate; margin of each scale bronze; large bright orange mouth; scales above lateral line larger than scales below lateral line. Where Found: From shore to the outer reef edge or on offshore hard bottom to 115 feet; most abundant in water less than 80 feet deep; juveniles inshore. Size: Most catches 1.5 pounds (15 inches).



Blue striped Grunt

Haemulon sciurus

Description: Yellow tapered body with blue stripes along entire length. Rear dorsal fin and caudal fin are darkly colored. Interior of mouth is colored bright orange. Centrally forked caudal fin. Where Found: found in mangroves, seagrass beds, and coral reefs at depths up to 30 meters. Its range includes the Western Atlantic, Florida, Gulf of Mexico, and the Caribbean down to Brazil. Size: 8 to 14 inches in length.



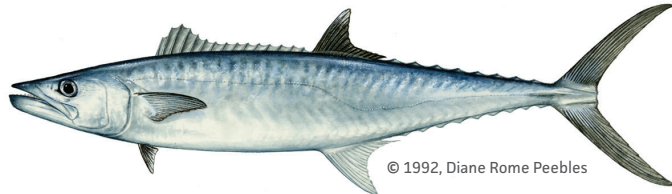
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Blue Runner (Hardnose)

Caranx crysos

Description: Color light olive to bluish green above, silvery gray to golden below; large, round eyes over a pointed snout; frequently black spot on operculum; readily distinguished from crevalle jack by lack of a dark blotch on the pectoral fin; tail tips blackish. Where Found: They are found distributed throughout the Atlantic Ocean. Juveniles found offshore; adult nearshore in schools, but sometimes ranging inshore as well. Size: Usually less than 1 pound and about 11 inches in length.

Common saltwater fish (continued)



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King Mackerel (Kingfish)

Scomberomorus cavalla

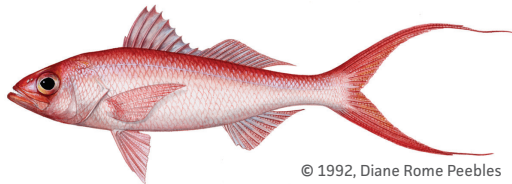
Description: back iridescent bluish green, sides silvery; streamlined body with tapered head; no black pigment on front of the first dorsal fin; lateral line starts high and drops sharply below the second dorsal fin; young fish often have yellowish spots like those of Spanish mackerel. Where Found: Near shore and offshore; depths ranging from 40 to 150ft. Size: Common to 20 pounds.



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Wahoo *Acanthocybium solanderi*

Description: Body slender; elongate jaws form a pointed beak; dark bluish above, with about 30 dark bars; whitish below first dorsal fin long and low, with 21 to 27 spines; no gill rakes. Size: To 2.1 meters (83 inches) and 83 kilograms (183 pounds). Where Found: offshore Gulfstream; bluewater.



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Queen Snapper

Etelis oculatus

Description: Color of back and upper sides red, lower sides; silvery body long and slender; dorsal fin distinctly notched; large eyes; caudal fin deeply forked; no dark lateral spot. Where Found: Offshore over rocky reefs of the continental shelf; young suspend at mid-depths. Size: Small species, usually less than 20 inches.



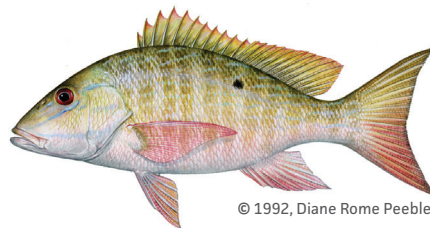
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Red Grouper

Epinephelus morio

Description: Color brownish red; lining of mouth scarlet-orange; blotches on sides in unorganized pattern; second spine of dorsal fin longer than others; pectoral fins longer than pelvic fins; squared-off tail; margin of soft dorsal black with white at midfin; black dots around the eyes. Where Found: Bottom dwelling fish associated with hard bottom; juveniles offshore along with adults greater than 6 years old; nearshore reefs. Size: They can grow up to 48 inches in length and weigh up to 15 pounds.

Restriction: No Harvest between February 1st to April 30th.



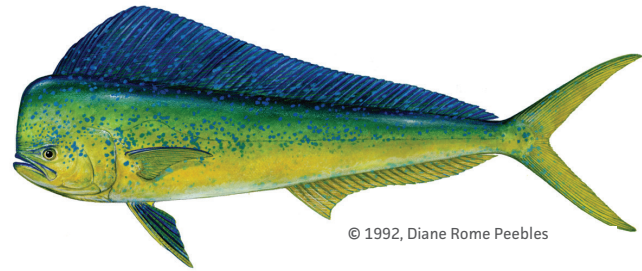
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Mutton Snapper

Lutjanus analis

Description: Color olive green on back and upper sides, all fins below the lateral line having reddish tinge; bright blue line below eye, following contour of operculum; anal fin pointed; small black spot below dorsal fin; V-shaped tooth patch on roof of mouth. Similar Fish: Lane snapper, *L. synagris* (anal fin pointed in mutton snapper, rounded in lane). Where Found: Inshore associated with grassbeds, mangroves, and canals; larger adults found on offshore reefs. Size: Inshore they average 1-2 pounds. In deeper waters they can range on average up to 15 pounds.

Restriction: No Harvest between April 1st to June 30th.

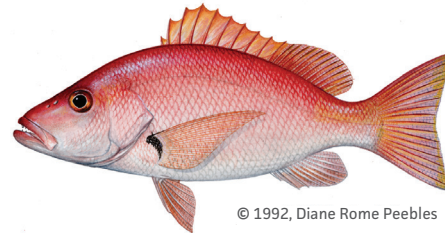


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Dolphin (Mahi Mahi)

Coryphaena hippurus

Description: Bright greenish blue above, yellow on sides, with capability of flashing purple, greenish yellow, and a wide range of other colors; body tapers sharply from head to tail; irregular blue or golden blotches scattered over sides; anterior profile of head on adult males is nearly vertical; head of females more sloping; the single dark dorsal fin extends from just behind the head to the tail; anal fin margin concave and extending to tail. Where Found: Offshore in warm waters. Size: Common to 30 pounds.



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Blackfin Snapper

Lutjanus buccanella

Description: Color is generally red, with yellowish caudal, anal, and pelvic fins; Distinctive and prominent dark crescent-shaped blotch at the base of the pectoral fins, which gives the fish its common name; The anal fin is rounded; No black spot found on the side underneath dorsal fin. Where found: Offshore near continental shelf throughout the Caribbean. Size: They can grow up to 30 inches and can weigh up to 31 pounds.

Restriction: No Harvest between October 1st to December 31st



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Yellowtail Snapper

Ocyurus chrysurus

Description: Back and upper sides olive to bluish with yellow spots; lower sides and belly with alternating narrow, longitudinal pink and yellow stripes; prominent mid lateral yellow stripe begins at mouth and runs to tail, broadening as it passes the dorsal fins; caudal fin yellow and deeply forked; no dark lateral spots. Where Found: Juveniles inshore on grass beds and back reefs; adults nearshore or offshore over sandy areas near reefs. They are commonly found throughout the Caribbean and South Florida. Size: 1 to 3 pounds.

Restriction: All fish must be 12 inches in length from mouth to fork of tail.

How do I cast a fishing rod?

Illustrations and text are for casting a push-button spin-cast rod and reel.



1. Point the rod at the target. For spin-cast reels, push and **HOLD** the button. The rod should be held firmly and your body in a squared position.



2. Look behind you to make sure the area is clear. Bring the rod over your shoulder in a straight line until the rod is parallel to the ground and the reel is beside your ear. Keep an eye on your loose line so it does not get tangled on the fishing rod.

3. Swing the rod forward until the rod is at a 90-degree angle with the ground; the rod tip should be pointing over your head. At this point, release the button. This movement should be a very smooth motion. If the lure hits the ground in front of you, the button was released too late. If it lands in back of you, the button was released too early. Adjust your cast to release the button when the rod tip is above your head.

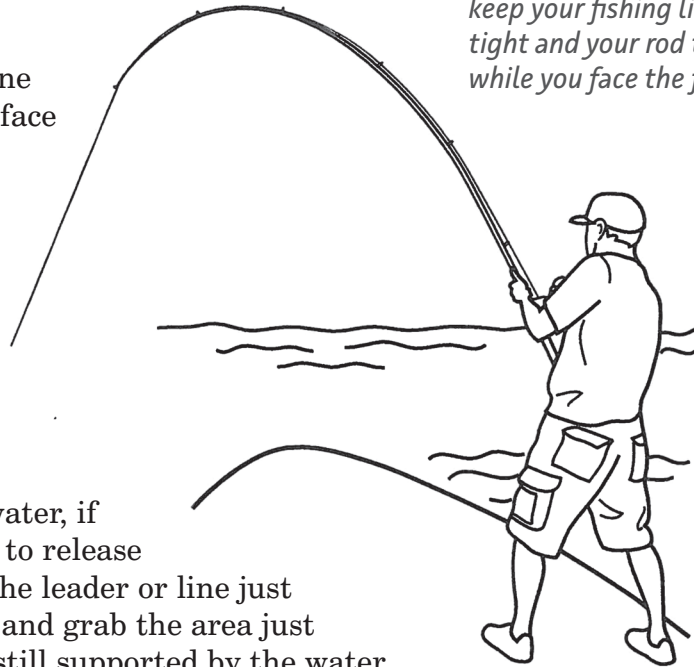


4. Follow through the casting motion until your rod is parallel to the ground and your rod tip is pointed at your target. If you are using live or natural bait to fish, always keep the line taught. If using a lure, retrieve the lure in the desired manner.

Fighting a fish

Once the fish is hooked, keep your fishing line tight and your rod tip pointed up while you face the fish. Always position yourself and your rod in the direction of the fish. If it moves to the left you turn yourself to the left. Slowly reeling in the fish, keeping the rod tip bent will maintain constant pressure on the fish. Constant pressure is required when using barbless hooks to keep the fish hooked. Different situations are described below if you have to land the fish.

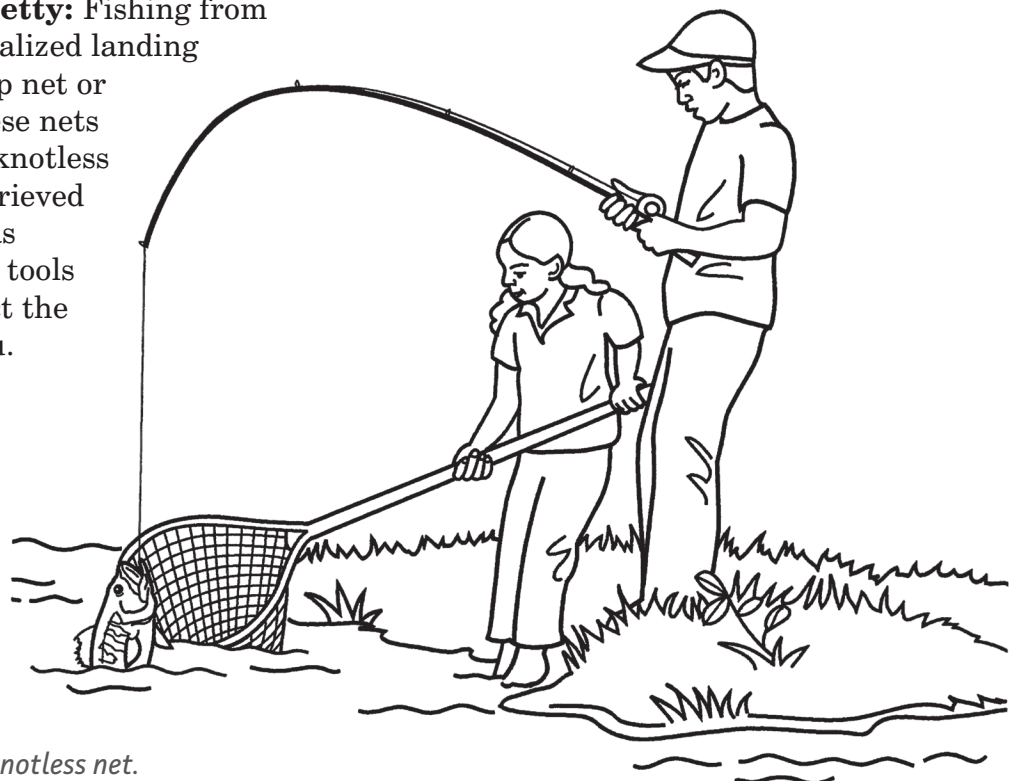
Once a fish is hooked, keep your fishing line tight and your rod tip up while you face the fish.



From Shore: While the fish is still in the water, if you are not keeping it, use a dehooking tool to release it. If you think you will keep the fish, grab the leader or line just in front of the fish, pull the fish toward you and grab the area just in front of the tail, while its body weight is still supported by the water. Now slide your hand holding the leader under the fish and lift the fish horizontally from the water. Another option to land the fish is using a knotless net.

From a Boat: While the fish is still in the water, if you are not keeping it, use a dehooking tool to release it. If you think you will be keeping the fish, lean over the gunwale while it is in the water, and grab the leader just in front of the hook or lure with one hand. With your other hand grab the area just in front of the tail firmly. Now slide your hand holding the leader under the fish and lift the fish horizontally from the water. Another option to land the fish is using a knotless net.

From a Pier, Dock or Jetty: Fishing from these areas involves specialized landing equipment such as: a hoop net or long handled dip net. These nets should be constructed of knotless netting. Once a fish is retrieved as close to the structure as possible, use either of the tools mentioned about to collect the fish and bring it up to you.

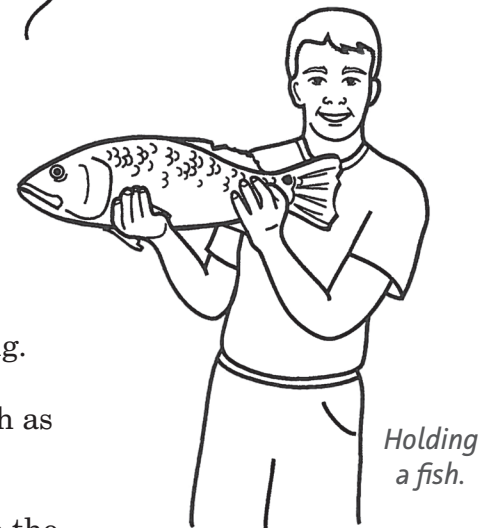
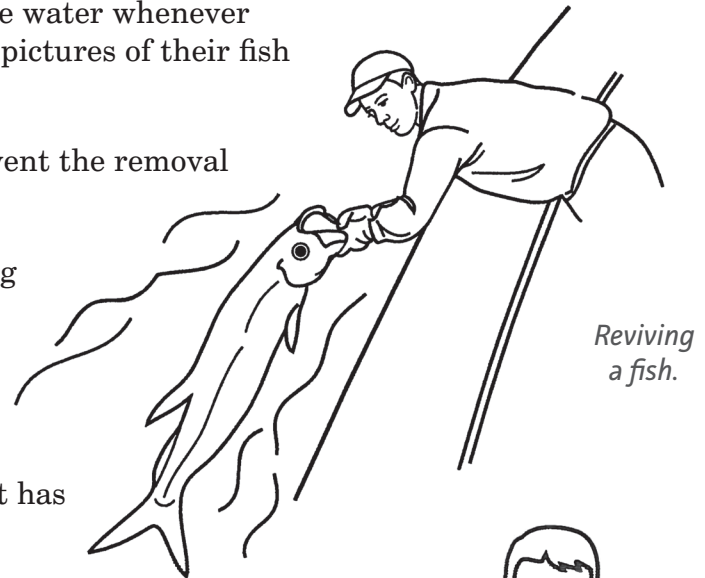


Landing a fish using a knotless net.

Catch-and-release techniques

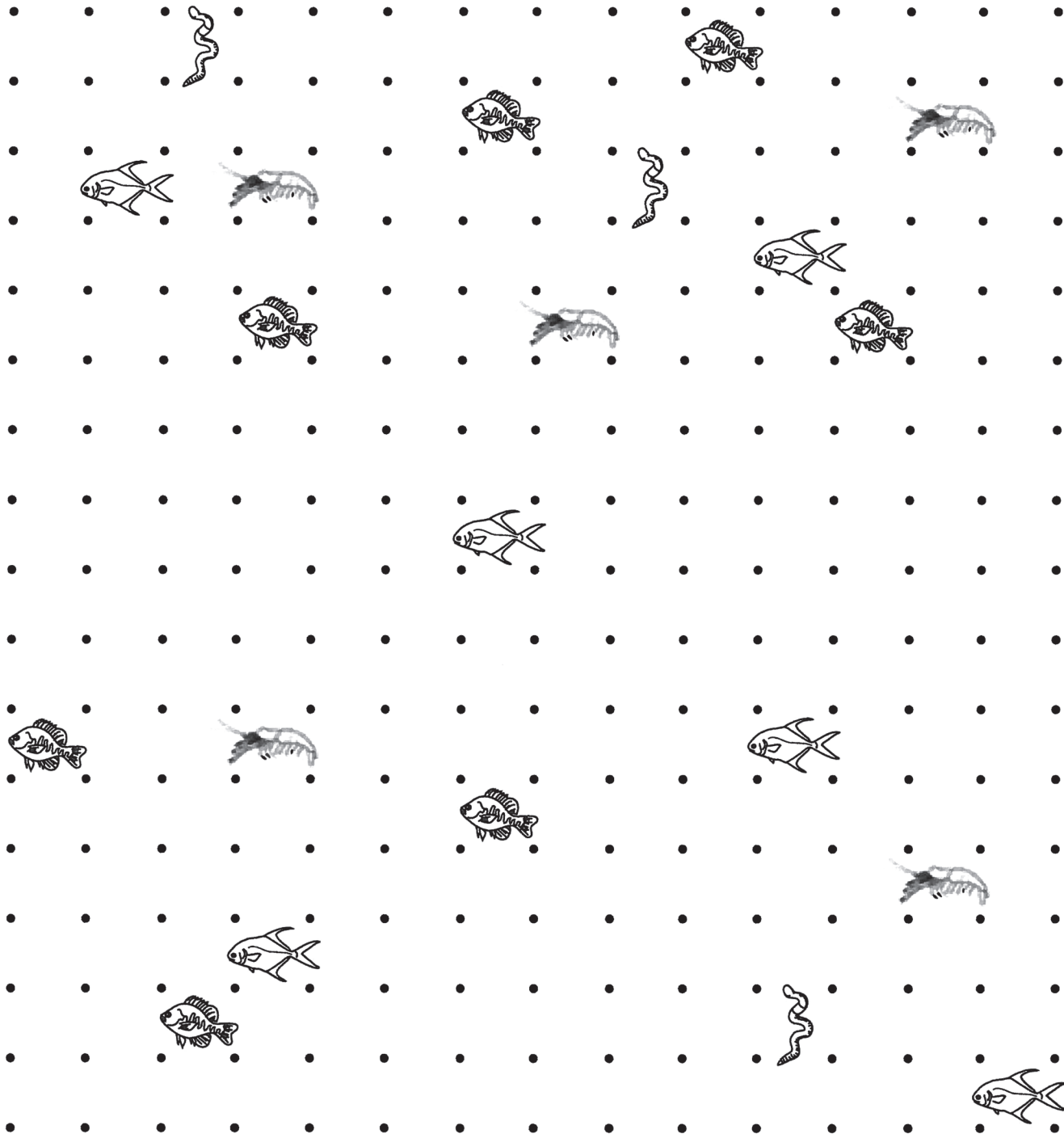
What you need to practice to ensure a healthy future for fisheries in the Virgin Islands.

- Be able to identify fish in the region and know the current regulations.
- Use tackle heavy enough to quickly land and minimize tiring out the fish.
- Use non-offset (in-line) circle hooks when fishing with live or natural bait.
- Release the fish without removing it from the water whenever possible. The most ethical anglers even take pictures of their fish in the water!
- Use wet hand when handling the fish to prevent the removal of the fish's protective slime coating.
- Revive a tired fish before releasing by holding it horizontally in the water and moving it forward with its mouth open to allow water to flow over its gills until it can swim away under its own power.
- Release the fish as quickly as possible after it has recovered.
- Avoid removing very large fish from the water. If the fish must be lifted from the water, support the weight horizontally to prevent internal injury.
- Do not put fingers or other objects in the gills or eyes of the fish.
- Use de-hooking devices to release fish with minimal handling.
- If the fish is hooked deeply, cut the line as close to the mouth as possible.
- If you must use a net, use a knotless landing net to preserve the fish's slime coat.
- Crimp the barbs on all hooks to give the fish a fighting chance and aid in removal of the hook.
- Lures with multiple treble hooks should be modified to leave one remaining treble hook.
- Employ effective venting of deepwater fish that exhibit swim bladder expansion to enable these fish to return to the depth where they were caught.



How many fish can you catch?

Players take turns connecting 2 dots. Lines go across or down, not diagonally. Complete as many small squares as you can. Initial each square you complete and take another turn. Squares in which a fish is caught count 5 points. Squares where bait is caught count 3 points. All other squares count 1 point.



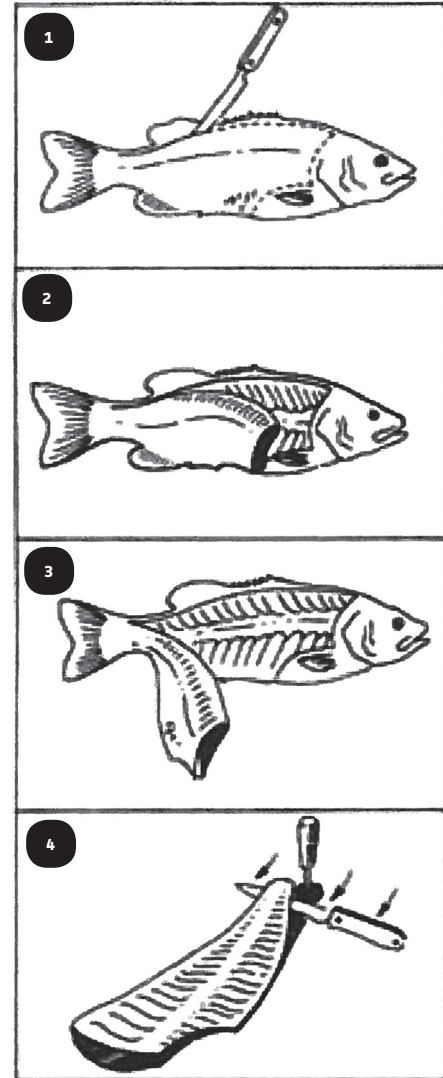
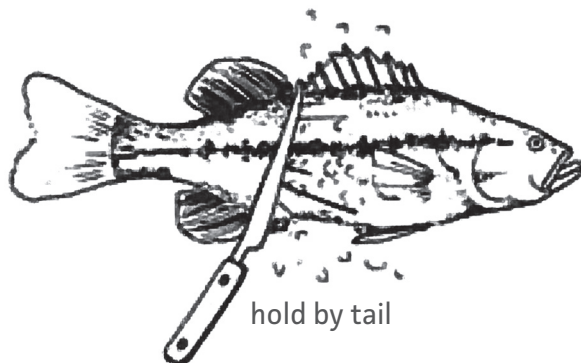
Fish for dinner!

You will want to help clean and cook your fish! Always ask for help from an adult when using a knife to clean your fish or when using the stove to cook your fish.

Filleting

To make boneless fish fillets:

1. Cut down to the backbone behind the head along the backside or side of the fish.
2. Slice off the meat, leaving the bones.
3. Turn the fish over and repeat.
4. If you want to skin the fillet, place it flat on the cutting surface, scales facing down. With a firm stroke of the knife, slice the meat off the attached skin and scales.



Scaling

Sunfish, crappie and bass need to have their scales removed if they are not filleted. To scale a fish, hold it by its tail and scrape from tail to head with a fish scaler or dull knife. Cut around the head with a sharp knife and remove the head and insides.

Skinning

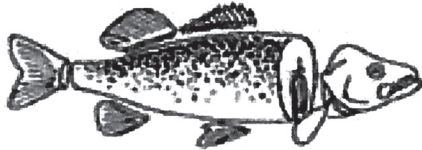
Catfish need to be skinned if they are not filleted, but make sure your fish is dead before you skin it. To skin a fish, cut around the head with a very sharp knife. Pull the skin back with pliers. Remove the head and insides.



Cooking your catch

Each fish species has a different texture, flavor and appearance. The manner in which you cut and prepare your fish is a matter of personal preference. Below are some suggestions on cuts and cooking methods. Ask an adult to help you with cutting and preparing your fish.

Three basic cuts of fish



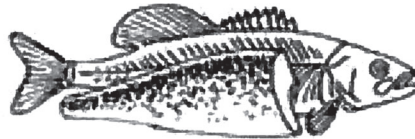
Dressed, or pan-dressed

Scaled, drawn with head, tail, and fins removed



Steaked

Cross-sectional slices are cut from larger fish



Filleted

Sides of fish are cut lengthwise along the backbone

Helpful Hints:

- Fish is fully cooked when the flesh can be easily flaked with a fork. Avoid overcooking fish.
- Do not over handle fish when cooking or serving.
- Never soak fresh fish in water. Wash fish quickly, drain and dry carefully.
- To freeze fish, place it in a freezer bag with enough water to cover the fish. Remove the air from the bag, seal it and place the bag in the freezer.

Broiling is a good method of cooking for most fish. Herbs and spices can be added to the fish according to your taste. Squeeze lemon over the top when cooked.

Deep-frying fish involves coating the fish with egg then rolling the fish in bread or cracker crumbs, corn meal or flour. Cook in hot oil until golden brown.

Blackened fish adds a spicy flavor to any meal. Lightly coat a fish fillet with butter, roll in blackening spices and drop into a very hot frying pan.

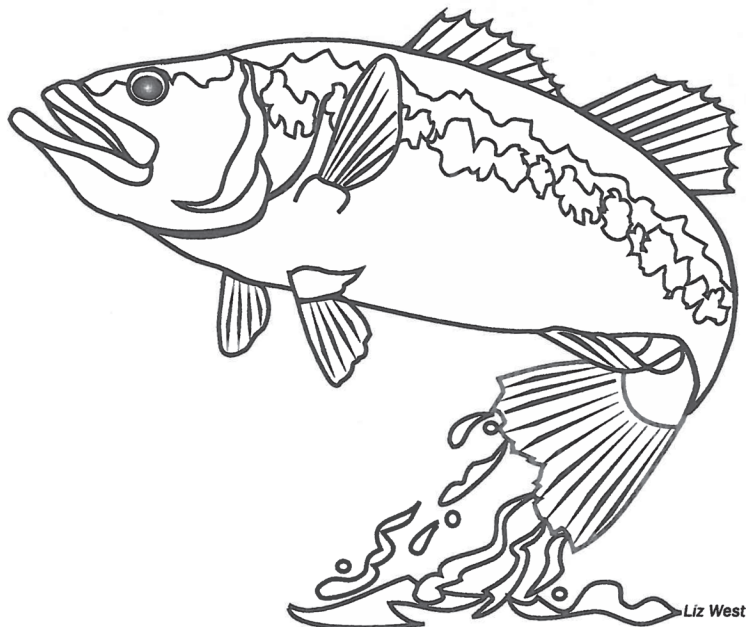
Baking is an alternative to deep-frying. Use seasonings and lemon juice or the fish can be dipped in a bread crumb and spice mixture and baked for a tasty meal.

Grilled fish is a great way to prepare a summer meal. Place a fish fillet with the skin on the grill and top with seasonings. Cook the fish and slide it off the skin.

Pan-fried fish uses a variety of methods: breaded, coated with spices or lightly sprinkled with lemon juice.

The ethical angler:

- **Protects all outdoor natural areas.** They do not teach trash to swim. Instead they put trash in garbage cans. Old fishing line is placed in fishing line recycling bins.
- **Knows the current fishing regulations.** They know how to identify fish and have the equipment needed to measure their catch correctly. Ethical anglers always fish by the rules!
- **No habitat - no fish! Ethical anglers protect the habitats of all plants and animals.** Poling through grass flats, leaving natural areas undisturbed and respecting the placement of fish attractors and artificial reefs are all ways to protect habitat.
- **Practices catch-and-release.** Use circle hooks for bait fishing to limit gut hooking fish, use a de-hooking tool to release unwanted fish, and handle fish with wet hands to keep fish slime on the fish. Never stick hands or fingers into the gills or eyes of a fish.
- **Limit your take; do not take your limit is the motto of every ethical angler.** Take what you need for several dinners and release the rest. Vary your catch, take one or two of several species instead of several of one species.
- **Always practices safety afloat.** Carry a first aid kit, sunglasses, a hat and sunscreen in your tackle box. When fishing from a boat make sure there is a personal flotation device (PFD) for everyone on the boat. Watch your hooks when fishing around people.
- **Shows courtesy and respect toward other anglers, giving everyone a good day.** Obey speed zones, slow down for people fishing and give people room while you are on the water.
- **Shares what they know to help fishing grow!**
Healthy fish populations and clean habitat is ultimately up to all of us. Information helps everyone make good decisions about fishing.



What did I learn?

1. An angler is someone who _____.
2. A _____ knot is used to tie fishing line to a hook.
3. Using this type of hook for live or dead bait fishing will decrease gut hooking a fish.

4. After any outdoor trip trash should be placed in a _____ and recyclable items should be recycled.
5. Habitat provides animals with _____ and _____.
6. Always look _____ you before casting a fishing rod.
7. All animals need clean _____, _____ and _____.
8. Practicing good _____ and _____ techniques helps increase fish numbers.
9. Fish eat plants and animals and, in turn, become food for other plants and animals. This system is called a _____.
10. Call _____ if you see a problem involving fish or wildlife resources.
11. Water is polluted when _____ change the water in a way that hurts living things.
12. Conservation of our natural resources is a job for _____.
13. A _____ reel hangs below a fishing rod when you use it correctly.
14. The best way to handle a fish that will be released is with _____.
15. A de-hooking tool will help you release a fish without touching the fish and removing its _____.
16. People who study fish and wildlife and their habitats to learn more about them are called _____.
17. Fish, wildlife, forests, guts, lagoons, coral reefs, and mangroves are all _____ that we should preserve.
18. Grasses, in both fresh and salt water, provide fish and wildlife with places to hide, food for some animals, have _____ to trap sediments and they also produce _____ so fish can breathe.
19. Always make sure that _____ are tied tight so they will not slip and snap your fishing line.
20. _____ are rules that tell an angler how many fish to keep, when not to keep fish and how many each day they are allowed to take home to eat.
21. When fishing from a boat, everyone on board should have their own personal _____ device.
22. A _____ holds your hooks, lures, fishing regulations, floats, swivels and weights.

Fishing diary

Take a few minutes after each fishing trip to complete a fishing diary. Writing down this information will show what bait works best at catching a certain fish species during any given condition. By charting the information from each trip, you will establish a pattern that will help you to be more successful and enable you to enjoy your time fishing better.

Site fished: _____

GPS coordinates: _____

Date: _____

Habitat description: _____

Time: (circle one) Early morning Mid-morning Early afternoon Late afternoon Evening

Wind conditions: (circle one) Calm Gentle breeze Occasional gust Strong winds

Weather conditions: (circle one) Cloudy Clear Light rain Stormy

Bait used: _____

Fish caught: (species and numbers) _____

Tides: _____

Depth: _____

Notes: _____

Page 28 Answers

1. Fishes
2. Clinch or uni
3. Circle Hook
4. Trash (or garbage) can
5. Shelter and food
6. Behind
7. Water, habitat and food
8. Catch-and-release
9. Food chain
10. Fish and Wildlife
11. Humans (or people)
12. Everyone
13. Spinning
14. Wet hands
15. Slime
16. Biologists
17. Natural resources
18. Roots, oxygen
19. Knots
20. Regulations
21. Flotation
22. Tackle box

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