

## Lesson 6. Mystery Fish Revealed!!!

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After following the show for five episodes, and now the sixth, your Mystery Fish will be given a name! Hopefully each student enjoyed and learned a lot about fish and fish ecology from this series, with or without fish. Follow along closely to find the name of your fish. If there are any questions, feel free to call Project Oceanography at 1-888-51-OCEAN.

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### Before the broadcast

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The students should re-familiarize themselves with the body shape of the fish, mouth location, teeth, fins and scales. This will make it easier for the students to prepare questions to call us with.

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### Conservation: Tag and Release

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#### Tag And Release = Fish For The Future

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Many areas believe strongly in the concept of tag and release.

But tag and release done wrong is just tag and death. Releasing fish is good for the resource, but if the fish doesn't survive, then releasing a fish is

nothing more than a feeble gesture.

There are things to know before going fishing to keep the fish alive. Survival rate depends on technique.

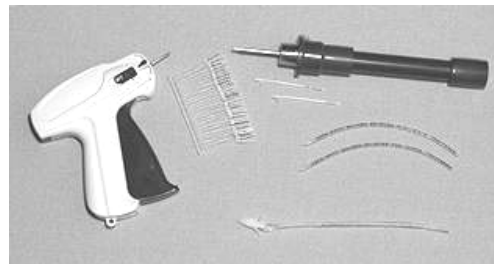
#### 1. Go Easy on the Fish

- Bait hooks are often swallowed and they are more likely to cause serious injury than lures, which tend to be mouth-hooked.
- Using single hooks will minimize lethal hooking and are easier and quicker to remove. Avoid using cadmium-plated hooks, which are toxic when they decompose.

- Catching the fish as quickly as possible will reduce exhaustion. Light tackle tends to prolong the fight.
- Exhaustion comes much quicker to the fish in warmer water.
- Handling should be kept to a minimum and be as gentle as possible.

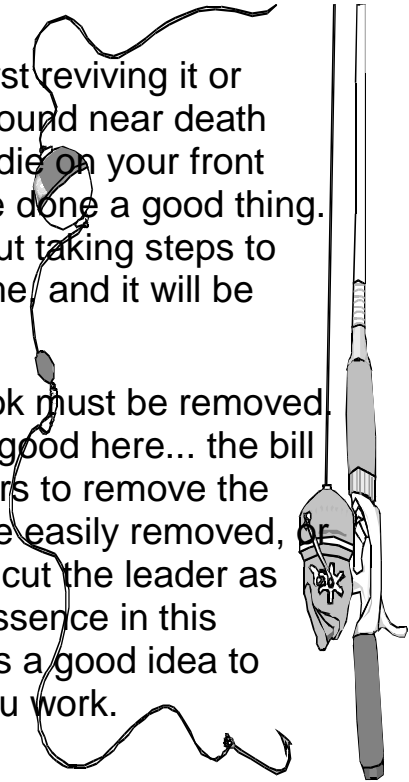
## 2. Know How To Tag

- The first thing to do is to have proper tagging gear. That means a tagging stick at least 4 feet long, and tags from NMFS or other local fish weigh stations. Contact local fishing clubs or other organizations for supplies.
- The preferred tagging zone is near the base of the dorsal fin. If the fish is large, no closer than a foot to the head and gill plate. Insert the tag below the dorsal fin, well above the lateral line running along the body. Placing the tag high on the body decreases the chance of causing serious injury to internal organs and reduces internal hemorrhaging, since the upper torso has fewer blood vessels than in the lateral line region.
- The four-foot long stick is preferred because the fish never leave the water. Sometimes other information is gathered and a shorter sticking device is used.
- The act of tagging is similar to gaffing in that you want to get it right the first time. Never try to tag the fish until the crew is fully prepared. Push the tag into the fish with a single strong thrust - the metal rod holding the tag should fully enter the flesh of the fish. And have a second tag unopened and standing by ... just in case.



### 3. Know How to Release

- Never, never, NEVER release a fish without first reviving it or moving water across its gills! Imagine you're found near death after a fight, and are brought home and left to die on your front porch by someone who leaves thinking they've done a good thing. That's what you do if you simply release without taking steps to insure its survival. It doesn't take that much time and it will be worth it.
- Once the fish is controlled and tagged, the hook must be removed. Grab the bill with one hand (cotton gloves are good here... the bill is just like a rasp) and use a pair of fishing pliers to remove the hook with the other hand. If the hook cannot be easily removed, the removal itself may cause excessive injury, cut the leader as close to the hook as possible. Time is of the essence in this operation. Since both hands are on the fish, it's a good idea to have someone hold you by your rod belt as you work.



### 4. Now it's time to revive the fish.

- Lean over the side, or lie on a swimstep. Hold the fish and push it down so the fish's entire mouth is underwater. At minimum throttle, put the engine in forward gear. If you have two engines, use only the one opposite the side from where the fish is in the water. As the boat starts forward, water will run through the mouth and over the gills. Now here's the reward...the fish come back to life, the color will come back into his body! It usually takes 30 seconds or less. The fish is telling you it's time to go. Gently release the fish and watch it gracefully sink out and swim away. It is the most incredible fishing experience to have ...and far better a memory than any picture of a trophy fish on a meathook.

### 5. Fill Out The Tag Card And Mail It In

### 6. If You Catch A Tagged Fish...

- According to David Holts, who runs the tagging program for the National Marine Fisheries Service (NMFS), clip and save the old tag, and retag the fish before release. If the fish is to be kept, the NMFS would like both the tag and a sample of the tissue around it, so they can study the healing process. Contact the local NMFS bureau for information on shipping the samples.

# Student Information Sheet 6.

## Handling a Live Fish

Knowing how to handle a live fish is one of those pieces of information that might come in handy one day (even if you are not a fisherperson!). When a live fish is near, and there is not a net to scoop the fish up with, care must be taken so that one is not bitten, nibbled by teeth or poked with a hazardous spine.

To grasp a wiggling fish:

- First put on a pair of gloves, if available.
- The best way to grasp the fish is from the front.
- If the fish is not a catfish, slide hand from the mouth backward. This will result in the fins, spines, and barbs to lay flat against the back of the fish.
- Return the fish to water quickly.

If the fish is large, two hands will be needed.

- Usually, the best location to place a second hand is near the caudal peduncle. This is the fleshy area before the tail.  
**WARNING:** use caution when doing this, as some fish have sharp barbs, or spines located here.
- Return the fish to water quickly.

If the fish has a hook in its mouth, it will need to be removed without hurting the fish.

- After the fish is under control in one hand, remove the hook with the other hand. This might be a little trickier, and take more than one person to help.
- To remove the hook from the mouth, move the fish around the hook to release it from the mouth. Try to move the fish in the same directions and angles that the hook went in. This will cause the least amount of damage to the fishes mouth or gills.