Wildlife Conservation Society

A Guide for Proper Post-Harvest Handling of Fish

This manual was supported by a grant from the Kerrest Johnson Family Charitable Fund

DOI: 10.19121/2021.Report.39694

Cover photograph: Fish ready to be gutted and filleted. © Moko Productions
Photographs: Unless stated otherwise, all photographs were taken by Moko Productions.
Layout and design: Kate Hodge

Citation: WCS (2021) A guide for proper post-harvest handling of fish. Wildlife Conservation Society. Suva, Fiji. 14 pp.

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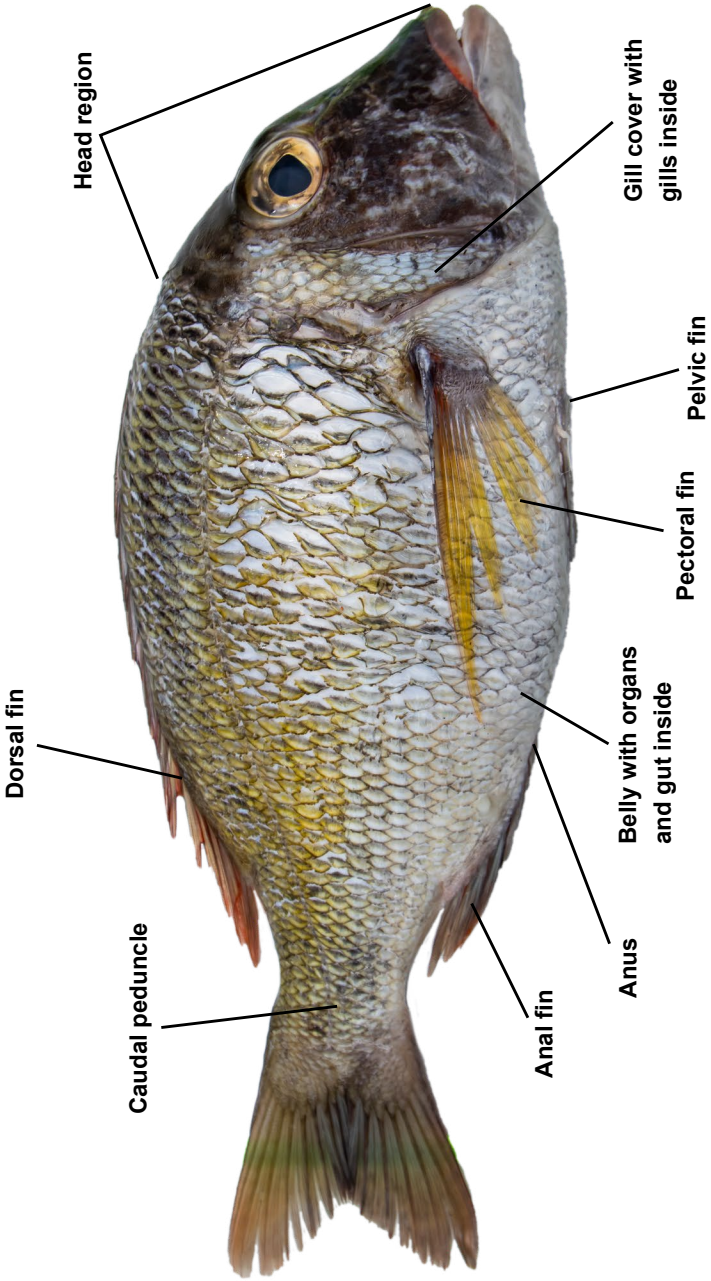
Acknowledgements

We thank Dr Jimaima Lako, Associate Professor/Associate Dean Research College of Engineering, Science & Technology, Fiji National University for providing technical expertise required to develop the content for this manual.

Contents

Parts of a fish



Determining freshness of fish

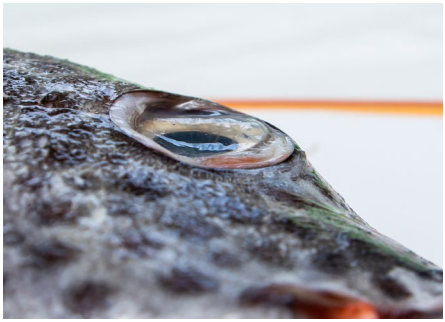
Fresh fish will have bright coloured, glossy and clear skin, transparent flesh and undamaged body.

Check the eyes

A bad/spoiled fish eye will look:

- Cloudy and dull

- Sunken



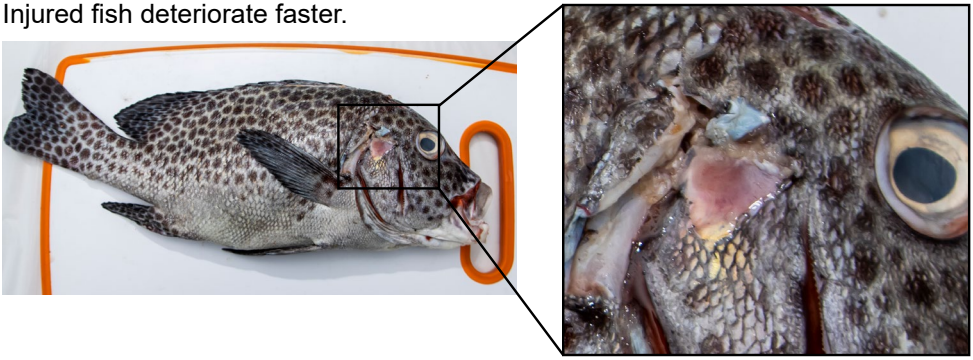
A fresh fish eye will be:

- Shiny and clear

- Bulging out

Look for abrasions on the fish body

Injured fish deteriorate faster.



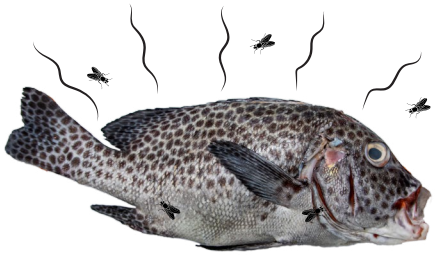
Check the gills

Bad/spoiled/old fish will have discolouration on the gills and it will also be slimy.

Fresh fish will have bright pink or red gills. They should also be slightly wet and not slimy or dry.

Notice the smell

If the fish has a strong foul ‘fishy’ smell, the fish is decomposing. Fresh fish in good condition has a clean slightly fishy smell, not unpleasant, and not strong.



Practicing good personal hygiene

Purpose: To ensure fish are handled in a clean and safe manner, avoid transferring of germs and diseases from person to the fish being prepared or sold.

Good personal hygiene practices include:

1. Frequent and thorough washing of hands before and after handling fish
2. Keeping fingernails short and clean
3. Wearing clean clothes
4. Wearing clean footwear
5. Avoiding fishing or preparing fish to sell or eat if you are ill (for example coughing, diarrhoea)
6. Covering cuts, sores and infections with a gauze, plaster or clean Band-Aid

Good work hygiene practices include:

1. Using soap and water to clean your hands, especially if you have used medication, creams, lotions immediately before preparing your fish. Showering and changing of clothes after handling poisons/fertilisers is necessary before preparing fish.

2. Having a clean area to prepare your fish means cleaning your workstation with soap/detergent and water to kill any bacteria that may be present.
3. Ensuring all tools and utensils are clean and disinfected prior to use.

4. Using gloves when handling and preparing fish (optional).

Preparing brine solution

Purpose: To preserve the quality of fish upon capture as salt helps prevent spoilage by removing water needed for bacteria and enzyme activity.

Materials

- Ice (if available)
- Seawater/salt and freshwater
- Clean container, icebox, storage unit

For proper fish storage, prepare a brine solution in a clean ice box. Brine is made by adding two parts ice to one part seawater. If you do not have access to seawater, you can use 210 grams of salt for every litre of water to prepare your brine (saltwater).

Step 1

Thoroughly clean fish ice box you will be taking on the fishing trip by washing with cleaning detergent and water and wiping it dry.

Step 2

Add two parts ice to one part seawater or brine in an ice box (2:1) until the ice box is full. You can use other measuring equipment such as jugs, basins or containers as long as you follow the 2:1 ratio.

Step 3

Catch fish, kill quickly and place in brine solution as soon as possible. Avoid leaving the fish out in the open, especially in the heat and places where flies can land on it. You can gut your fish then place in brine solution or you can gut later after placing in ice.

Step 4

A well-iced brine solution can keep your fish fresh for up to 6 hours before the quality of fish starts to deteriorate.

Icing fish

Purpose: To slow down the decomposition or degrading of fish.

Materials

- Ice
- Clean icebox

Ice boxes should be cleaned, disinfected and dried under the sun to prevent the build-up of bacteria when not in use. If you use disinfectants, make sure you wash well with fresh water to remove all traces of chemicals.

Step 1

Wash hands with soap and water.

Step 2

Place some ice at the bottom of the ice box.

Step 3

Place fish belly side down on the ice followed by another layer of ice on the fish. Ice must be layered under, around and on top of the fish.

Step 4

Place more ice around fish so that the sides are sufficiently covered.

Step 5

Cover fish completely with ice ensuring no part of the fish is exposed to air.

Gutting fish

Purpose: To reduce and remove bacteria present in the fish stomach and intestines thus slowing the spoilage process.

Materials

- Sharp knife
- Clean chopping board or clean flat surface
- Gloves (optional)

Step 1

Thoroughly clean chopping board or flat surface, and knife you will be using to gut your fish.

Step 2

Wash your hands, remove fish from brine solution or ice box and place the fish with the belly facing you on a clean chopping board or flat clean surface.

Step 3

Make a slit from the anus, along the belly of the fish to the gills (or just under the pelvic fins), taking care not to puncture the internal organs or gut.

Step 4

Lift gill cover and carefully cut gill attachments for easy removal.

Step 5

Carefully grab hold of the gills and remove fish gills pulling the entire gut along. The gut and gills should come out as one complete piece making sure the stomach does not burst open. Take care, as some gills can be sharp and may pierce your gloves and cause cuts.

Step 6

Note that the fish gut has been removed with the gills intact, without puncturing any internal organs such as the stomach and intestines.

Clean fish thoroughly in fresh running water before icing or cooking.

Filleting fish

Purpose: For convenience when preparing boneless fish dishes as they are easier to eat, and safer for young children.

Materials

- Filleting knife
- Clean cutting board/stable surface
- Knife file
- Gloves (optional)

Prior to dressing the fish all equipment and utensils to be used must be properly cleaned and sanitised. Special sharp pointed knives which are not too heavy are easiest for filleting.

Step 1

A properly sharpened knife is key to good filleting. Use a knife file to sharpen your knife before you start filleting your fish.

Step 2

Make a cut on the caudal peduncle (the spot where the fish body ends, just before the start of the fish tail). Ensure the cut is deep enough to go through all the flesh but not through the bones.

Step 3

Hold the fish firmly by the head. Slant the fillet knife and cut upwards as close as possible to the back bone towards the pectoral and pelvic fin.

Step 4

Push the knife slowly through the fish until you reach the pectoral fin.

Step 5

Make a cut across the body underneath the pectoral fin and remove fillet.

Step 6

Turn the fish over and repeat Steps 2-5 on the other side.

Optional: Removing the skin

Step 7

Place fillet, skin down on a clean surface. Holding the tail end firmly, make a small angled cut through the flesh, holding firmly to the edge of the skin, slant your knife slightly and continue to cut along the length of the fillet, taking care not to cut through the skin.

Step 8

After skinning the fish fillets, feel along the area where the ribs were. Sometimes there are small bones to be removed. You can remove them using clean tweezers or with your fingers.

Step 9

All done. Cook or place in an ice box ready for your next meal.

Founded in 1895, the Wildlife Conservation Society (WCS) saves wildlife and wild places worldwide through science, conservation action, education, and inspiring people to value nature by conducting wildlife research and conservation projects in more than 60 countries.

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