

FISH OR POISSON IDENTIFICATION & FABRICATION

Classification of Fish :-

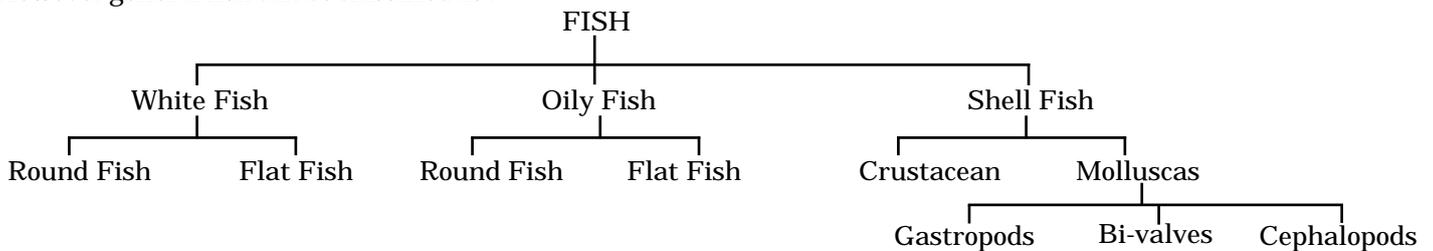
In general terms fish for recognition are divided into the following categories:

By Habitat : Salt Water & Fresh Water

By Physical Shape : Round Fish & Flat Fish

By Flesh Type : Oily Fish & White Fish

However general fish can be classified as :-



Aquatic vertebrates with fins (for swimming) and gills (for breathing), which represent an important source of food. At present, more than 30,000 species are known (as many as all other vertebrates put together). Most fish live in the seas and oceans, at varying depths. Freshwater fish are much less numerous. Some fish, such as Eels and Salmon, are migratory, spending part of their life in the sea and part in fresh water.

A staple food all over the world, fish come in a variety of shapes, sizes and colors. Broadly speaking, however, they may be divided into 2 distinct groups - those that live in the sea and those that live in fresh water rivers and lakes - although some migratory species, such as Salmon and Eels, spend part of their time in the sea and part in rivers. The shape of the round fish is generally considered as the classic fish shape - a rounded tapering body with one eye on each side of the head. Types of round fish includes many common varieties, such as Cod, Haddock, Herring and Mackerel, as well as other less familiar species, such as Red Mullet, Sturgeon and Bream. The flat fish group includes some of the most highly rated fish such as Dover and Lemon Sole, Plaice, Turbot and Halibut. Flat fish have both eyes on one side and in fact, swim on their sides, though they spend much of their time lying flat on the seabed.

Fish are an excellent source of protein and are low in saturated fats and carbohydrates. Most of the fat they do contain is polyunsaturated (unlike animal fat which is saturated). White fish have a more delicate flavor than oily fish. They have less than 2% fat and contain approximately 80 calories/100gms. Oily fish, such as Mackerel, generally have darker, richer flesh. They have 8 - 20% fat and contain approximately 160 calories/100gms.

It is as useful a source of animal protein as meat. The oily fish (Sardines, Mackerel, Herring, Salmon etc) contain fat soluble vitamins (A & D) in their flesh and Omega 3 fatty acids. These are unsaturated fatty acids that are essential for health. It is recommended that we eat more oily fish.

The flesh of white fish does not contain any fat. Vitamins A & D are only present in the liver (Cod Liver or Halibut Liver oil). The small bones in Sardines, Whitebait and tinned Salmon provide the body with calcium / phosphorus.

Owing to its fat content oily fish is not so digestible as white fish and is not suitable in cooking for invalids.

WHITE FISH

All the general fish which is available in the market, white in color are white fish. It is divided into two groups:-



1. Round Fish - Tapering, adapted to swimming in the open water - these are most numerous. Very white in color or may not, but it should show a round nature and the eyes should be on both the sides of the head, maximum two number of fillet can be taken out, swims by their side like a snake, e.g., Rohu, Cattle, Haddock, Cod, Bombay Duck etc.

2. Flat Fish -

* Compressed vertically, with the eyes on the darker dorsal (upper) surface (e.g. Skates & Rays) - the ventral (lower) surface is white, 4 fillet from the fish, swims like a wave.

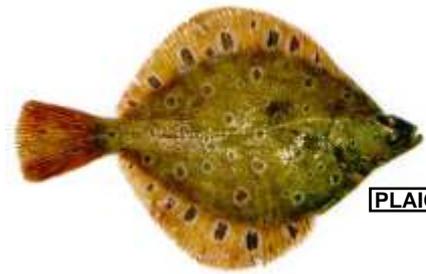
* Compressed laterally, with both eyes either on the right side of the head (e.g. Plaice, Flounder, Dab, Sole) or on the left (e.g. Turbot, Brill), the blind side usually being without pigment, 4 fillet from the fish, swims like a wave.



HALIBUT



Filleting Flat Fish



PLAICE

OILY FISH

These are also either round or flat fish but very much oily in nature, moreover it contains heavy amount of fat in their body, E.g. - Salmon, Mackerel, Cod, Hilsa etc.



SHELL FISH

In this case the flesh of the fish should be covered with shells. This again has got divisions :-

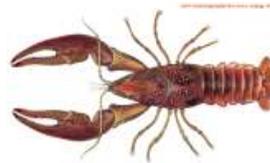
A) Crustaceans - These are arthropods and most of them are marine. The marine crustaceans include Lobsters, Langoustes (Spiny Lobsters), Crabs And Shrimps; the only freshwater crustaceans used in cookery is the Crayfish. Crustaceans must be bought very fresh and are best bought live if one is to Prepare them oneself.



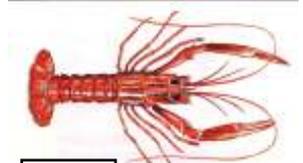
CRAB



CRAWFISH



CRAYFISH



SCAMPI

B) Molluscas - The general name for a group of creatures that have soft bodies and mostly live inside hard, solid shells. The molluscas can be divided into three smaller groups:

i) Gastropods (Uni-valves) - Single shelled molluscas are those with just one solid shell, Such as Snails, Abalone, Whelks & Winkles etc.



BLACK ABALONE



WINKLES



WHELKS



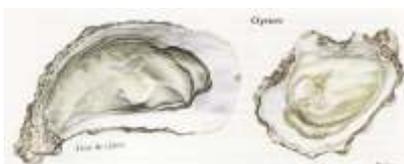
Snails



ii) Bivalves - All have a hinged shell that is in 2 parts such as Mussels, Clams, Oyster & Scallops etc.



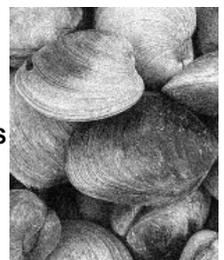
OYSTER



MUSSELS



CLAMS



i) Cephalopods - These are not easily recognizable as molluscas since they have no external shell. The group includes Squid, Octopus and Cuttle Fish etc.



SQUID



OCTOPUS

Selection Point of Fish :- From the selection point of view fish is generally classified in two ways; General Fish & Shell Fish.

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|-----------------|-----------------|---|--|
| General Fish :- | 1. Skin | - | Should be shiny and of good color. |
| | 2. Color | - | In case of white fish, the color should be absolutely white, not faintly yellow. |
| | 3. Weight | - | The body weight should be proportionate in comparison with the length of the fish and should be springy. |
| | 4. Eyes | - | It should be absolutely fresh and bright, not shrunken. |
| | 5. Gills | - | It should be bright red in color. |
| | 6. Finger Marks | - | If the finger marks remain after it has been pressed then it is not fresh. |
| | 7. Flesh | - | Raw flesh should not come out from the bone. |
| | 8. Scales | - | Should not come out very easily. |
| | 9. Tails | - | The tail should be stiff in nature. |

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| Shell Fish :- | 1. Freshness | - | Can be recognized by the brightness of the eyes and stiffness of flesh and tail. |
| | 2. Claws | - | When pulled, should spring back and both the claws are attached. |
| | 3. Smell | - | There should not be any bad smell. |
| | 4. Weight | - | The weight should be proportionate with the body. |

Storage :-

Freshness in the fish is of utmost importance. The period of storage should be reduced to a minimum and if at all it has to be stored, fish must be clean, washed and dried with a fresh dry cloth. Placed on a clean tray and stored under a suitable refrigeration with the temperature limit 35°F (1.5°C) - 45°F (7.2°C).

In case of shellfish if possible they should be purchased alive so as to ensure absolute freshness and stored in a cool room and cooked as fast as possible.

Cleaning :-

To remove the entrails from round fish, such as herring or trout, make a slit along the abdomen from the gills to the tail vent. Draw out the insides and clean away any blood. Rub with a little salt to remove the black skin and blood. Rinse under cold running water and pat dry with absorbent kitchen paper.

To remove the entrails from flat fish, such as sole and plaice, open the cavity which lies in the upper part of the body under the gills and clean out the entrails in the same way as round fish. Rinse under cold running water. Cut off the fins and gills, if wished. The head and tail may also be cut off, if wished.

Fabrication :-

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| 1. De-skinning | - | a) Dip the fillet in vinegar solution for a few moments. Take it out and by pulling method, take off the skin.
b) Place the fish in such a way that the tail part is near to your body. Keeping the knife in a 45° angle cut it very finely from tail to head to remove the skin. |
| 2. Fillet | - | A fillet is a boneless cut such as a side of a fish. A round fish yields two where as flat fish yields four fillets. |
| 3. Tronçon | - | Slice of (large) flat fish on the bone; B.B.Q, grilled, pan fry, en papillote, poach, baked. |



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| 4. Darne |  | - | A slice of round fish cut on the bone; B.B.Q ,grilled, pan fry, en papillote, poach, baked. |
| 5. Supreme |  | - | A supreme is a slice cut off a fillet, sometimes cut at a slant. This cut is now commonly called a pavé which means 'a slab or block' and usually applied to cake or dessert - but now is fashionably applied to fish! |
| 6. Goujons |  | - | Strips of fillet cut 8 x .5 cm; Deep fried(with coating), stir fry. This cut is sometimes also known as 'Finger Cut'. |
| 7. Goujonettes |  | - | As for goujons but half the length; Deep fried(with coating), stir fry. |
| 8. Paupiette |  | - | Fillet of fish, spread with a farce and rolled; Poached. 'Cravatte' is also a cut which is from the same cut as Paupiette. It is a fillet tied in a knot. |
| 10. Delice |  | - | Fillet of fish neatly folded in half; Poached. |
| 11. En Tresse |  | - | Also known as 'Plaited'. Fillet of fish cut lengthwise into three and plaited; Shallow fried, panéed and deep fried. |
| 12. Butterfly Prawn | | - | After discarding the head, shell and vein, cut deep to open it with the help of the sword in the tail, give a butterfly shape by pricking the flesh in the tail. |
| 13. Tempura | | - | For keeping the prawn straight after frying make light slit or put a frying stick straight through the tail to head. |

Marination - Putting the item in a mixture for certain period of time to change the texture, flavor and appearance of the material. This is basically done by two following process for the fish.

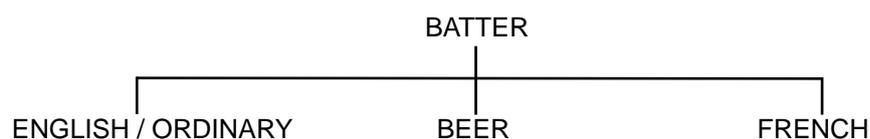
First Marination - Take the fish in a container and apply certain amount of salt and lime juice with some water and mix them properly. Keep it for at least 20 minutes. After 20 minutes drain out the mixture and wash the fish under running water thrice at least.

Second Marination - In a container add some salt, white pepper powder, french mustard and refined oil. Make a paste. Add some white wine. Mix the marinated fish and keep it for at least 20 minutes.

- Merits of Marination** -
1. Development of taste.
 2. Tenderizing effect.
 3. To reduce bad smell.

Batter :- It is a mixture made out of flour, egg, salt, pepper powder and moisture to develop a coating from outside to protect from excess heat to go inside food items.

Fish Batter :-



1. English/Ordinary - It is a mixture made out of egg, salt, pepper powder and water followed by coating with breadcrumbs. This batter is basically for the deep fry products such as Fried Fish, Fish Finger etc.
2. Beer - It is a mixture made out with egg, salt, pepper powder and beer.
3. French - For this first we take the egg white and beat it to a frothy condition. Make a mixture with the egg yolk, salt, pepper powder and moisture. Mix both the mixture together well.

Merits of Batter - Oil or fat is not coming in direct contact with the food items and it dose not allow any juices to come out from the food item.

Poaching Liquor or Court Bouillon for Fish :-

This is actually a well flavored juice which enhance the flavor to the poaching ingredients. It has got 3 variations:

1. Ordinary - At the time of poaching, add some aromatic vegetables, herbs, lime juice or vinegar, bay leaf and whole peppercorn to the moisture to extract flavor.
2. White - Instead of adding water we add milk to get the white color with same ingredients used for ordinary poaching liquor.
3. Red/White Wine - Instead of adding moisture add red or white wine with the same ingredients used for any other poaching liquor.