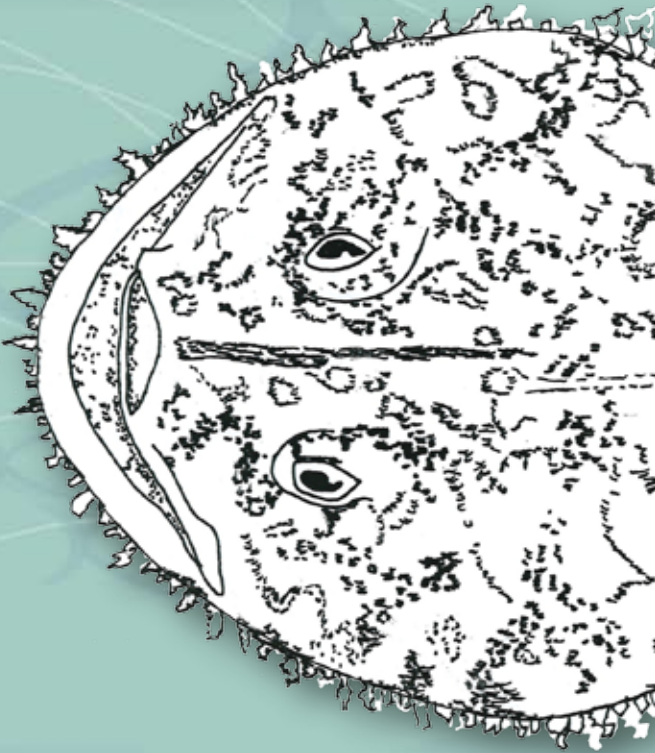


Monkfish

(Lophius piscatorius)

Quality Guide

Monkfish



Bord Iascaigh Mhara
Irish Sea Fisheries Board

Introduction

Optimal handling and storage practices at sea and ashore are essential elements in the management of fish quality and the achievement of maximum return on national and international markets.

Defining fish quality, however, is not easy. The process includes the understanding and assessment of a range of factors, many of which depend on market preferences such as: species, size, capture method, seasonal condition and freshness.

Freshness, describes the degree of spoilage a fish has undergone since capture and is an important indicator for consumers. Very importantly, and unlike many other quality attributes, this is an area within the management of the catch, over which the fishing industry exerts significant control.

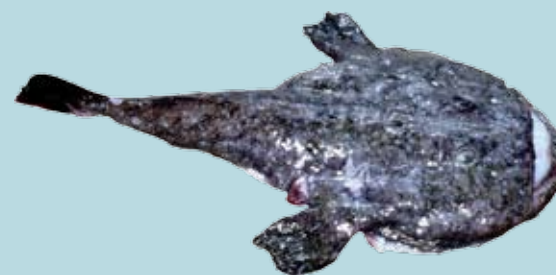
Sensory assessment remains the most popular method of assessing freshness. This type of assessment uses smell, texture and visual appearance to determine the quality of fish. It is a particularly useful technique as it is low cost and requires nothing other than careful and exact training. It is a widespread and reliable assessment method and provides the foundation for the design and application of this guide.

Lophius piscatorius

Angler/Monkfish	– English
Láimhíneach	– Irish
Rape	– Spanish
Crapaud	– French
Diabo-marinbo, Tambori	– Portuguese
Żabnica, Nawęd	– Polish
морской уёрт / удияьщик	– Russian

Lophius budegassa

Black-bellied Angler	– English
Rape negro	– Spanish
Tamboril-preto	– Portuguese
Ditto	– Polish
уёрнобрюхий удияьщик	– Russian



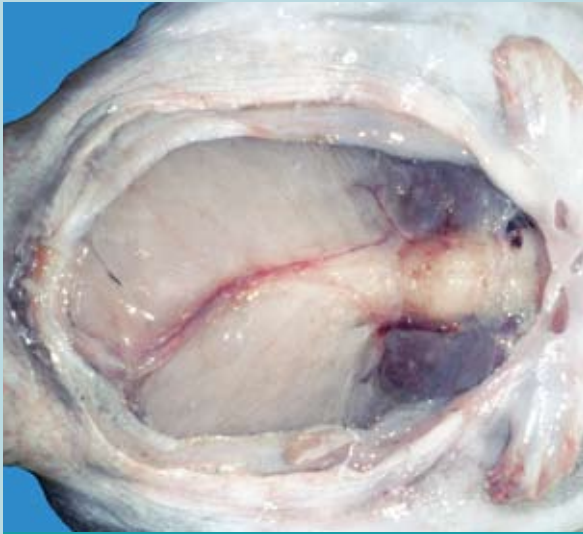
The skin around the head and along the body bears fringed appendages resembling short fronds of seaweed. These structures, along with the ability of the monkfish to change body colour to that of its surroundings, allows the animal to blend into the background and hide in wait for its prey.

The monkfish has three long filaments sprouting from the middle of its head. The longest filament terminates in an expanded and irregular growth, which acts as a lure to attract prey species towards the mouth.

There are two separate species of monkfish caught by Irish vessels that are difficult to distinguish until they are gutted. *Lophius piscatorius* (white-bellied monkfish) has a white gut lining, whereas *Lophius budegassa* (black-bellied monkfish) has a black gut lining.

Certain markets prefer the black-bellied species as the flesh texture is considered to be superior. As a result this species commands a higher price in the fresh market than the white-bellied species. When frozen, however, there is no price differentiation between the species.

Excellent Quality



Excellent Quality Blood Vessels: blood vessels are bright red.



Excellent Quality Gill: bright red, little or no mucus, seaweed odour.

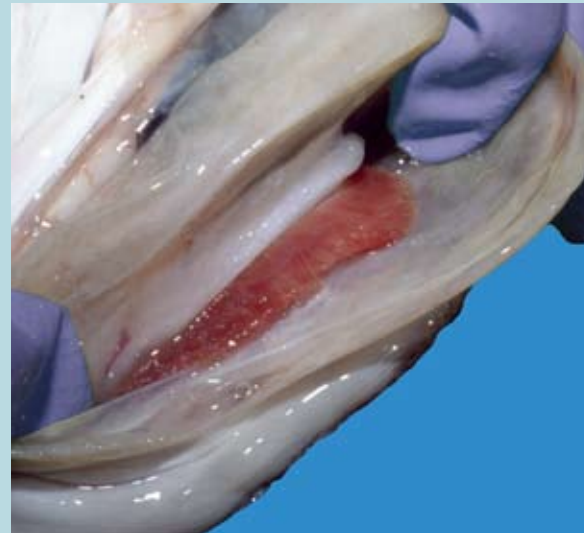


Excellent Quality Skin: bright, shiny, good colours, mucus transparent.

Good Quality



Good Quality Blood Vessels: blood vessels turning pale red, slightly brown.



Good Quality Gill: pale red, traces of clear mucus, neutral odour.



Good Quality Skin: reduced brightness, less colourful, mucus slightly cloudy.

Good Quality

Excellent Quality

Poor Quality



Poor Quality Blood Vessels: blood vessels are brown.



Poor Quality Gill: pale in colour, losing shape, mucus cloudy, sour odour.



Poor Quality Skin: discoloured, dull, mucus milky.

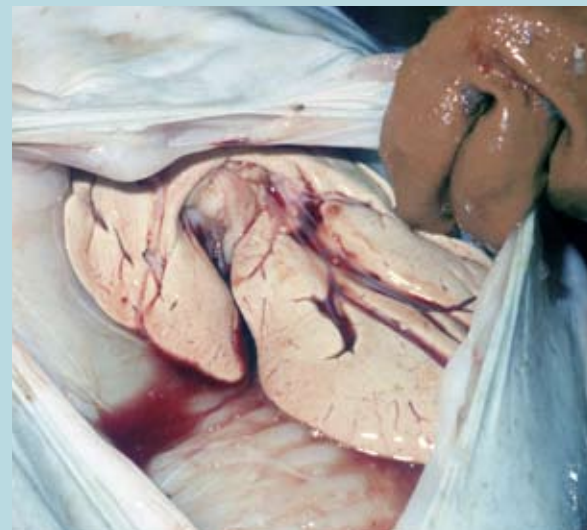
Gutting



Well gutted. All liver, heart and intestines have been removed.



Badly gutted. Traces of liver and intestines have been left behind.



Some markets dictate that the liver should be left in the body cavity of the monkfish. Check with your buyer if this form of presentation is required.

Washing



If gills are dirty, the cheeks can be cut open to ensure they are properly washed.



Expose the gills if necessary.



Wash the gills and belly of the monkfish.

Traditional Boxing & Icing



A layer of ice is placed in the bottom of the box.



Fish are placed gutted-side down, in neat rows. A covering of ice is used to separate each layer of fish.



Another layer of fish is placed in the box. Care is taken to prevent overfilling. The box is finished off with a layer of ice, which does not extend past the rim of the box.

Hygiene & Cleaning

In addition to correct handling, a high standard of hygiene and cleaning is essential to ensure production of a safe, high quality, seafood product.

- After every haul, the deck, hopper, boxes, gutting area, knives, oilskins, aprons and all other equipment, should be washed down with seawater to remove fish blood, scales, offal, dirt and any other fouling substances.
- At the end of every trip, the deck, fish hold, hoppers, boxes, gutting area, knives, oilskins, aprons and other equipment, should be washed down using a power hose and detergent to remove fish blood, scales, offal, dirt and any other fouling substances.



- A chlorine-based bleach should be used to thoroughly clean working areas and equipment, and inhibit any bacterial growth. To show the importance of this, sample swabs were taken from a hold of a boat where no bleach was used and from a hold of a boat where bleach was used. Under laboratory conditions bacterial growth was greater on the sample swab from the deck where no bleach was used. All residual bleach should be rinsed away with clean seawater.



This is bacterial growth in a hold cleaned without using bleach.

This is bacterial growth in a hold cleaned with bleach.

- Detergents and sanitizing agents should be from the approved list issued by the Sea-Fisheries Protection Authority (SFPA) and should be used to the product specifications.

Tailing Onboard

Tailing exposes the flesh of fish to a higher risk of contamination compared to conventional onboard handling. Consequently your vessel must qualify as a factory vessel. The Sea Fisheries Protection Authority (SFPA) will check if the vessel has a Food Safety Management System (FSMS), which the crew are adequately trained to implement. The vessel will be assessed for layout and hygiene also.

These requirements are easily implemented on most whitefish vessels, with appropriate training and commitment from the skipper and crew. For vessels wishing to tail monkfish onboard, please refer to the BIM 'User Friendly Guide to Tailing Monkfish for Spanish Markets' (BIM User Friendly Guide Series, No. 3, 2007).



Blast freezer trays are lined with food grade liners. Monkfish tails are placed in two opposing rows.



Frozen blocks of monkfish tails are 'shattered' to separate individual pieces.



Fresh monkfish tail.

Blast frozen, glazed monkfish tail are packed into cardboard boxes.

Filled cardboard boxes are then weighed and labelled. The label contains information such as product name, size grade, batch number, weight, FAO area and approval number.

FROZEN MONKFISH TAILS (500g- 1 kg)	
Batch:	SA001
Species:	<i>Lophius piscatorius</i>
Net Weight:	10.4 kg
Best Before end:	May 2008
Caught at sea in FAO 27	
IE 7CN 94 FV	
Store @ min -20°C	
Do not refreeze if thawed	

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FINANCIAL INSTRUMENT
FOR FISHERIES GUIDANCE



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