



DISCOVERY OF THE FISHING  
RESOURCES OF  
PROFESSIONAL FISHING  
AND MARKETING

Geography | Biology



MARITIME ECONOMY



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## PEDAGOGIC CONTENT:

- Blue economy
- Fisheries resources
- Traditional activities: fishing, aquaculture

## PRE-REQUISITES:

No specific requisites

## NEW COMPETENCIES TARGETED/LEARNING OUTCOMES:

### STUDENTS WILL BE ABLE TO:

- Improve their spatial, map-reading, and observation skills
- Recognize the varieties of fish resources
- Discover the economic sector of professional fishing
- Understand the supply channels for fish products
- Making the difference between professional fishing and marine farming







DISCOVERY OF THE  
FISHING RESOURCES  
OF PROFESSIONAL  
FISHING AND  
MARKETING







## DESCRIPTION:

### PREPARATION

-  #1: Get a map of Mediterranean fish on the internet (many free sources of rights available on the Internet easily downloadable) to be distributed in the class;
-  #2: Get a world map which will be displayed on the board,
-  #3: Have a map (plan) of the city that will be displayed on the board;
-  #4: Take in reference the elements of the chapter on the economy of the sea.


### IMPLEMENTATION

-  #1: Teacher, animator or expert introduces the main concepts of professional fishing (artisanal fishing, industrial fishing, marine farming) and the problem of depletion of fish stocks.
-  #2: Bring students together in groups of 4 and ask them to answer collectively the following four questions:
  - Which fish species do you know? Which one do you eat? Circle them if you find them on the map of Mediterranean fish.
  - Where can we buy these fish? Supermarkets, fish/local market, fish shops etc.
  - Why some fish are not on the map?
  - Who fished Mediterranean fish and how are they sold?
-  #3: A representative of one of the groups explains the results to the class. As the student explains, the teacher places on the map the places where the fishes are caught and sold, and from where are the other fishes which not come from Mediterranean Sea (i.e.: salmon, scallop shells...).
-  #4: At the end of the restitution, the teacher summarizes the work of the groups which allow him/her to address issues related to the class curriculum:
  - Fisheries resources management (stock depletion),
  - Production methods: industrial fishing, local artisanal fishing, aquaculture (salmon, sea bream, sea bass),
  - Consumption of renewable resources: industrial fish processed in factories (breaded fish squares), local fishery products and different market prices...
  - Fisheries diversification measures, preservation of stocks... (quota).


Type of activity  Experimental activity


Target audience  From 11 years old

Place  Classroom, school library

Material needed  World map  
Map of Mediterranean fish to print for students (appendix 1)  
Map, city plan (in order to place the supermarket, local markets etc.)  
Video projector to display videos, pictures of fishing from the links provided

Duration of activity  Implementation : 2-3 hours

Authorship  Petra Patrimonia  
No authorization required

Links  <http://www.fao.org/fishery/technology/en>  
<https://www.wffmmi.org/?364345/WWF-urges-FAO-to-chart-a-new-course-for-fisheries-and-aquaculture>  
<http://www.fao.org/assets/infographics/FAO-infographic-SOFIA-2014-en.pdf>  
<http://www.fao.org/3/i9540fr/I9540FR.pdf>  
<http://www.fao.org/fisheries/en/>  
<https://www.fishipedia.fr/fishinews/>  
<https://www.greenpeace.org.uk/challenges/sustainable-fishing/>



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Discovery of the fishing  
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## Appendix 1





# Discovery of the fishing resources of professional fishing and marketing

## Appendix 2



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### Fisheries and aquaculture technology

- Fish capture technology
- Aquaculture technology

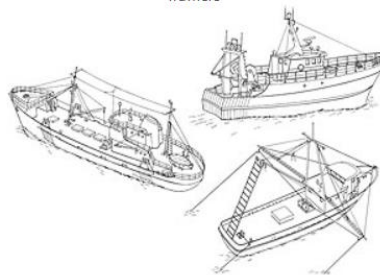
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Search vessel types



### Fishing Vessel Types Trawlers

Trawlers



See Tree Map [↔](#)



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### Fishing Vessel Types Gillnetters

Gill netter



See Tree Map [↔](#)



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### How to consume Mediterranean fisheries resources in a sustainable manner?

The Mediterranean Sea is the richest marine ecosystem in the world in terms of species diversity. It represents only 0.82% of the surface of the oceans, but it is home to 8 to 9% of marine biodiversity. It is a treasure that must be preserved.

But unfortunately, fish and shellfish (known as halieutic resources) are fished too much in the Mediterranean. The Food and Agriculture Organisation (FAO), the UN's specialised agency for food and agriculture, estimates that **"75% of fish stocks are overexploited" in the Mediterranean and Black Sea.**

If we fish too much and don't give the living species time to reproduce, we risk making them disappear.

In the past, we respected the seasonality of fish. We used to buy fish in the harbours from the fishermen and not in the supermarkets. We did not fish all year round and we ate all kinds of fish.

Today, consumption is concentrated on the most noble species such as **tuna, sea bream, swordfish, red mullet, lobster or whiting**, which can be found all year round in supermarkets.

However, **fishermen are increasingly practising sustainable fishing in order to better manage fish resources.** Small-scale fishermen in the Mediterranean practice several trades. They use different fishing techniques throughout the year to catch different fish according to the season: for example, tuna in the summer and gilthead sea bream from the autumn onwards, etc.

To help preserve fish stocks, it is important **to eat a wide variety of fish and not to stick to a single species.** The diversity of species and products allows us to enjoy the flavors of fish all year round, on any occasion. It is also an opportunity to discover little-known species, for original and tasty recipes.

The main fish caught in the Mediterranean are the following:

Anchovy - Eel - Badèche - Baliste - Sea bass - Speckled bass - Yellowmouth barracuda - European barracuda - Bonito - Chinchards - Conger - Corb - Toothfish - Gilthead bream - King bream - Girelle - Pearl gurnard - Green wrasse - Pollack - Pollack - Mackerel - Marbled grouper - Grouper - Grey grouper Marbled - Brown grouper - Grey grouper - King grouper - Motelle - Oblade - Umbra - Pageot arcane - Pageot rouge - Pagre commun - Rascasse rouge - Petite rascasse rouge - Rason - Rouget rouge - Sar commun - Sar à grosses lèvres - Sar à museu pointu - Sar à tête noire - Sardine - Serran chèvre - Serran écriture - Soles - Sparailon - Tacaud - Thon rouge.



**Fish, like fruit and vegetables, have a season** when it is best to eat them in order to contribute to good management of the fisheries resource. To do this, it is important **to recognise them, to learn the ways in which they are caught, to know their seasonality and the different recipes** for eating them:

January	Sea bass, periwinkle, whelk, scallop, shrimp, gilthead bream, haddock, herring, oysters, bass, mussel, whiting, cod, pollack, skate.
February	Sea bass, cod, hake, scallops, shrimps, gilthead bream, haddock, haddock, herring, oysters, dab, wolfish, monkfish, mackerel, whiting, cod, mussels, skate, salmon, sole.
March	Sea bass, anglerfish, pike, whelk, cod, carp, horse mackerel, coalfish, scallops, shrimps, gilthead bream, haddock, oysters, lobster, pollack, monkfish, wolfish, mackerel, whiting, hake, cod, mussels, perch, skate, salmon, sole, turbot.
April	Anglerfish, pike, cod, horse mackerel, hake, scallops, conger eel, shrimp, lobster, pollock, mackerel, hake, skate, salmon, cuttlefish, sole, pout, turbot.
May	Anchovy, monkfish, cod, hake, scallops, prawns, lobster, langoustine, pollack, mackerel, hake, skate, sardine, salmon, sole, albacore tuna, crab, pout, turbot.
June	Anchovy, hake, horse mackerel, conger eel, shrimp, crayfish, lobster, lobster, langoustine, pollack, mackerel, hake, skate, stingray, sardine, salmon, albacore tuna, crab, turbot.
July	Hake, conger eel, prawns, crayfish, lobster, lobster, langoustine, pollack, mackerel, skate, St. Pierre, sardine, salmon, albacore tuna, turbot.
August	Anchovies, shrimps, gilthead bream, crayfish, lobster, lobster, langoustine, mackerel, skate, sardine, salmon, albacore tuna.
September	Shrimps, gilthead bream, crayfish, lobster, lobster, langoustine, mackerel, mussels, prawn, ray, cuttlefish, sardine, albacore tuna.
October	Shrimps, sea bream, herring, lobster, lobster, mackerel, mussels, skate, sardine.
November	Sea bass, scallops, shrimps, sea bream, herring, lobster, oysters, mussels, sea urchin, skate.
December	Sea bass, sea bream, herring, mussels, skate.