

## G 5.3 FISHING AND AQUACULTURE



### G5.3.6

#### **Aquaculture**

To understand the advantages of this method over other traditional fishing methods. To talk about the Aquaculture Centre in Malta and the types of fish grown in fish farms.

Research: Etienne Vella / Thanks: Dept. of Fisheries and Aquaculture

#### **A. What is Aquaculture?**

Aquaculture is the breeding and farming of fish, shellfish and algae which are grown on land in ponds and tanks. People choose what kind of fish, or other species they want to breed, such as sea bream, sea brass, tuna and others. This depends on the market demand (what the people and shops want).



When the fish are small, they are grown in ponds and tanks on land. When the fish grow enough, they are taken to net cages in the sea (fish farms). The fish are then kept in these cages until they grow enough to be sold.

#### **B. Why is Aquaculture Important?**

For various reasons, the number of fish being caught is constantly decreasing. Aquaculture helps to provide a supply of fish for the market (people, restaurants and hotels) throughout the year, without increasing the risks for the fish, or having negative effects on the environment.

Catching fish is also made safer for fishermen, because the work to farm fish through aquaculture is much less dangerous.

Fish can also be sold to other countries. Indeed, Malta only keeps a small amount of the fish it produces. The rest of the fish farmed in fish farms are exported to other countries, such as Italy.

## **San Luċjan Tower**



Aquaculture in Malta started in 1988. **The Aquaculture Centre** was founded in **San Luċjan Tower**, in Marsaxlokk.

Grandmaster Wignacourt built San Luċjan Tower in the 17<sup>th</sup> century to defend the bay of Marsaxlokk. Since 1988 many large and small tanks have been built - with seawater running through them.

At San Luċjan Tower, apart from fish farming...

- ❖ Experiments are carried out on fish in the laboratory.
- ❖ Tests on water quality are carried out in the laboratory.
- ❖ Projects for the conservation of sea urchins, sea turtles, etc., are also carried out.

### **C. What is overfishing, and what damage can it bring?**

**Overfishing is when people catch more fish from the sea than they are supposed to. When this happens, fishermen do not give enough time for the fish to reproduce.**

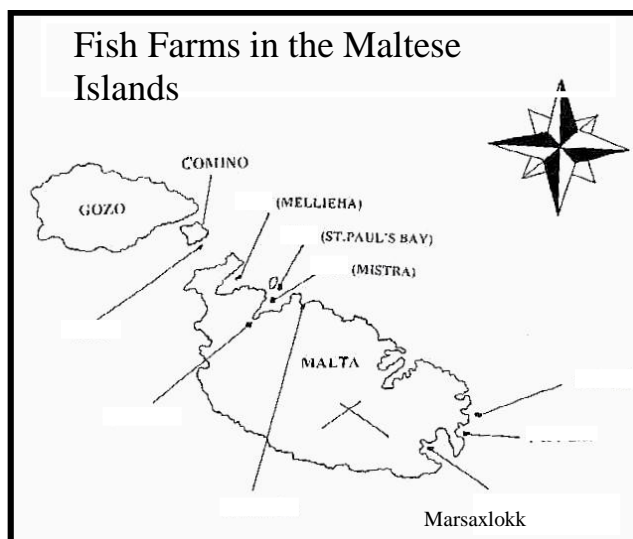
Overfishing happens also when fish which are too small to be sold are caught. Generally, these fish are thrown back into the sea - dead.

### The damage caused by overfishing is huge:

- ❖ Fish are prevented from reproducing since they are small and caught too early.
- ❖ This lack of fish hinders the work of fishermen. Their lives depend on the sale of the fish they catch.
- ❖ Certain types of fish, and other sea species, can become extinct forever! One of these is the sea turtle, which is a reptile - this is now protected by law.

### D. The Aquaculture Centre and other fish farms

- ❖ When the fish in the tanks of the fish hatcheries begin to grow, they are then taken to the fish farms. Fish farms are placed in the open sea and the fish are kept in cages made out of nets.
- ❖ The first private Maltese fish farming company is found in Mistra.



- ❖ Nowadays, we find around four private fish farms which produce blue fin tuna, and two fish farms which produce sea bream and sea bass. They are in both Northern and Southern areas of Malta.
- ❖ The fish in these fish farms are fed food made from natural ingredients daily to keep growing until they become the right size to be sold.

- ❖ The tuna from these fish farms is mostly exported to Japan, while the sea bream and sea bass are mostly exported to Italy.

## E. The main fish grown in Aquaculture.

The type of fish that is mostly grown in Malta's Aquaculture is the **sea bream**.

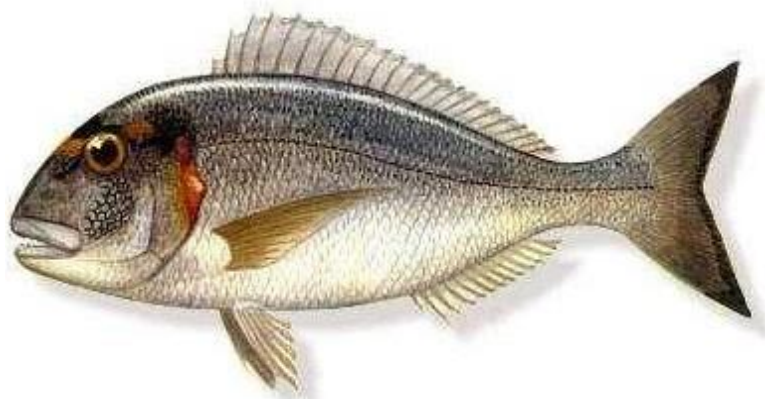
In Malta we can grow other types of fish and sea creatures, like sea bass, tuna, amberjack, sea urchins, octopus and shrimps.



### The Sea Bream

- ❖ It is the most farmed fish in the Maltese aquaculture industry.
- ❖ It takes one and a half years to grow from an egg to around 350 grams.
- ❖ It is round and short.
- ❖ It has white meat, and it is very popular in Mediterranean cooking.
- ❖ It chews and breaks snails and small shells.

### The Sea Bream (awrata)



*Sparus auratus*