



# “ By just sampling 2% of vessels you don't have the full picture. ”



## Aegean Sea case study

**Species:** Hake, striped red mullet, red mullet

**Research:** Density dependence environmental drivers



## Dr. Dimitrios Damalas

Hellenic Centre for Marine Research  
Crete, Greece

### What do you think is the most pressing issue unique to the area?

The most pressing issue is that you have a very peculiar situation; the Aegean sea has a huge fleet almost 1/5 of the European fleet.

Most of them are small scale vessels; we're talking about vessels less than 8 metres in length. They're very old vessels with low technology and high fuel consumption. The age of the owners is also quite high – around 58 or 60 on average. So we're talking about a fleet that is aging rapidly both from an infrastructure point of view as well as from a human resource point of view. There's no room for innovation in such an old fleet.

It's also shrinking rapidly; 15 years ago there were 25,000 vessels and now dropped to 15,000 vessels. So, no one takes the risk to invest. That's the big issue. Because all of these, we have ended up in having a huge fishing network of these vessels fishing in such a small area. So a huge fishing effort is exerted in a quite limited marine region. The continental shelf is very narrow and most of the Greek Aegean waters have depths above 500 metres, inaccessible to most fisheries.

Moreover, Aegean fisheries are multi-specific, catching more than 100 commercial species. Currently, hake is considered to be overfished, while the few others that are assessed are most likely sustainably fished. The majority of the rest of the species are of unknown stock status due to lack of data.

### What do you think is the biggest unknown at the moment?

Actually this is the black box for us; small scale fishers must declare their catch in a log book but they don't usually keep them. They may deliver a logbook perhaps once a month with very inaccurate readings in them to the local administrations. Information comes from the EU' Data Collection Framework which samples a minor 2% of the fleets' effort, which however is a quite large from an administrative point of view, since we are dealing with around 12,000 vessels landing in more than 800 ports.

We spend a lot, around €4 billion for fishery data collection in Greece and a lot of them go on monitoring small scale fisheries vessels. By just sampling 2% of vessels you don't have the full picture. We also cannot have long time series for this data.

The DCF data collection framework has run since 2002; in the last 19 years or so only in 11 of them could we actually implement it. The other years there was no money, or the administrative burden in the Ministry and the European Commission was so big that it ended up not realizing it at all. So actually we have huge gaps in this data sets; then of course we cannot do proper assessments.

Another anomaly is recreational fisheries. Fishers insist that it's huge, but it's only in the last two years that we have a pilot study in the data collection framework and the results are still preliminary. Anyway it's estimated that they catch about 15,000 tonnes of fish, which is quite a large chunk of the whole catch - between 60 to 80,000 tonnes. And so actually their impact might be higher than we expect. And at least for specific coastal species (e.g. groupers) of course they catch more than 50% of the catch because they're very vulnerable to anglers.

### I suppose that's an area for the new common fisheries policy to address.

It's very political competition as you can imagine. There's so many diverse countries in Europe especially when we're talking about fisheries. You cannot put them under one umbrella, you have to make many exceptions and derogations. Furthermore, the CFP in the Mediterranean is based on input (effort) rather than output (catch) control due to the 'peculiarities' of the Mediterranean fisheries, as acknowledged by the European Commission.

### Do you see any solutions that are starting to emerge in the region or any obvious changes that are starting to happen?

One of the positive things is that it's the fifth consecutive year with that we have data collection in Greece without any interruption. This has not happened in the past. Now we can probably start doing some proper assessments in the years to come.

Solutions have been put forward but it's so difficult to reach consensus. Everyone has an argument against for them. For example, everyone except certain fishers want to prohibit the bottom trawlers - everything that has an impact on the seabed. We don't have many such vessels; there are about 300 bottom trawlers in Greece. However, it's not that easy because although there are so few there, it's actually industrial fishing and they contribute almost 30 or 40% of total catch. So if they stop fishing, then there's going to be a gap in the market. So it must then be covered by importing fish.

Now the big issue is to improve selectivity which is one of the four pillars of the current common fisheries policy - larger mesh sizes. One peculiarity of Mediterranean fisheries is that the mesh sizes are very small compared to the mesh sizes in the Atlantic. In the Atlantic it's about 90 or 100 millimeters, while here in the Mediterranean we're talking 40 millimeters for the trawlers, and going down to 20 or 16 millimeters for small scale fisheries nets. We're catching very small fish. So selectivity is an issue and this could be improved in the years to come.

The other major solution that has been put forward by many is the designated fishery restricted areas; what we call MPAs or No Take Zones (NTZ). The problem is that fishers here are not for these solutions. They think that they're kicked out of specific traditional fishing areas. And apparently there are some voices of concern saying that MPAs/NTZs might not work.

There is an actual goal that by 2030 the Mediterranean is to have 20 or 30% of its region as a protected area which is actually very much a distant goal. Some argue that if you kick fishers out of these areas then you're going to increase the fishing effort and the impact on the remaining areas and actually end up depleting the resources in the areas outside the MPAs/NTZs.

And of course regulating recreational fishing. There was a regulation governing recreational fisheries licensing in Greece; however during the past 10 years or so it was abolished. Now there is no special permit, so we cannot estimate what's the impact of it. In a population of 10 million probably a million may go out to fish for fun a couple of times a year. But we also have around 20 million of tourists that come here and lots of them want to go out fishing. We have no idea what are they catching.

### It sounds as though researchers and industry are not communicating with each other well.

I would really appreciate seeing involved parties reaching a consensus and acknowledging that each and everyone of us is to be blamed. NGOs have also problems with scientists as well. The administration is a big mess. It's always very negative in any new proposal that will bring them; more work in front of their desk. So I think we don't trust each other. That's the issue.

(Interview has been edited for length and clarity)



@pandora\_project



pandora-fisheries-project.eu



shark@hcmr.gr