

French Deep-Sea Fisheries: a historical and economic perspective

The non-profit organization BLOOM, based in Paris, has produced an in-depth analysis of the deep-sea situation in France using all publically available documents (EU and FAO statistics, figures from various French ministries, official notes from French administrations, governmental reports, studies by the French research institute IFREMER, Ph.D. theses, published accounts from companies...). The analysis of the economic performance of the French deep-sea fleet is based on the audited accounts of the

companies themselves. The full report (about 100 pages) is available on BLOOM's Website. Here we only present our principal findings.

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"It is difficult to get a man to understand something, when his salary depends upon his not understanding it."

Upton Sinclair

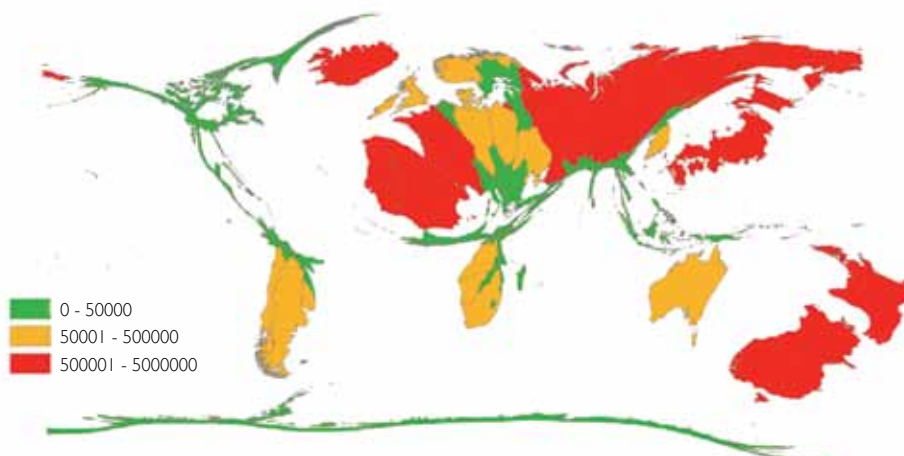


Key Findings

- 185 international scientific publications documenting the impact of bottom trawling on marine species and habitats prove this fishing activity to be extremely destructive. None, however, show any possibility of it being sustainable from an ecosystem perspective.
- Today, deep-sea fishing in France is a residual activity involving no more than ten ships. Their catch accounts for 90% of the value of all deep-sea fish landings in France.
- These ten trawlers belong to three fleets. The main deep-sea fishing fleet is Scapêche (Lorient), followed by Euronor (Boulogne-sur-Mer) and Dhellemmes (Concarneau).
- France's principal deep-sea fishing fleet, Scapêche, belongs to the distribution giant (supermarket chain): the Mousquetaires-Intermarché group. Every year, it catches around 6000 tonnes of deep-sea species in the North-East Atlantic.
- Deep-sea fish (including Patagonian toothfish) account for 56% of the Intermarché fleet's catch and up to 90% of Scapêche's turnover. Our estimates have produced the following brackets: from 48 to 72% of its turnover in 2008, 63 to 94% in 2007 and 59 to 89% in 2006.
- Large industrial trawlers over 40 metres long consume at least 7000 litres of fuel per day.
- Although the fishing industry benefits from tax-free fuel, expenditures on fuel account for at least 35% to 40% of turnover for deep-sea trawlers, impacting heavily upon their operating income.
- Profitability thresholds for recently constructed industrial trawlers were calculated on the basis of a fuel price comprised between €0.25 and €0.45 per litre. However, in the course of the 2004-2011 period alone, the average fuel price rose from €0.32 to €0.67 per litre (an increase of over 107%).
- The heavy reliance of deep-sea fishing businesses on State aid (tax exemptions on fuel) and low fuel prices constitutes a major structural weakness.
- Trawl fleets received fuel subsidies from the French State between 2004 and 2007, via the 'Fonds de Prévention des Aléas de la Pêche', or FPAP (the Fund for the Prevention of Hazards to Fisheries). The European Commission ordered fishing businesses to refund these subsidies, which it deemed to be illegal.
- The sums required to repay the FPAP subsidies are estimated at over €4 million for Euronor, around €2.15 million for Scapêche and €1.18 million for Dhellemmes.
- Scapêche and Euronor received massive public subsidies from the EU and the French State in the form of construction, modernisation and buy-back subsidies for vessels:
 - The aid given to Intermarché's deep-sea fishing fleet from 1996 to 2008 totalled 9.7 million euros.
 - In addition to the sums granted by the French State and Europe for the renewal of Scapêche's deep-sea fishing fleet in 2004, the French State subsidised the construction of the "Jack Abry II" deep-sea bottom trawler (shipwrecked in February 2011) by means of an Economic and Tax Interest Group, thus allowing a loan to be given with exceptional terms. This tax measure, deemed to constitute State financial aid, was condemned by the European Commission in December 2006.

Map showing the landings of deep-sea fish by nations between 1950 and 2008.

(The distortion is proportional to the importance of the catch. France occupies the 7th position after New Zealand, Russia, Japan, Iceland, Spain and Portugal. FAO 2008)¹



¹This cartogram was produced in ArcGIS 9.2 using the Cartogram Geoprocessing utility from ESRI. The utility is based on the density-equalizing method developed by M. Newman and M. Gastner (Gastner, M.T. and M. E. J. Newman, 2004, "Diffusion-based method for producing density-equalizing maps", Proceedings of the NAS 101: 7499-7504).



- Euronor received over 7.8 million euros for the deep-sea segment of its fleet. Nearly 4 million euros of this was allocated in the form of buy-back subsidies for just two ships (in 2008 and 2009).

- By receiving buy-back subsidies for its four old large industrial bottom trawlers and funding for the construction of new, more efficient vessels, Intermarché was able to renew its deep-sea fishing fleet in 2004, in spite of international scientific advice warning that the fishing effort for deep-sea species needed to be reduced, and of quotas being applied to these species on 1st January 2003.

- By replacing four 54-metre trawlers with three, new, 46-metre trawlers, Intermarché apparently reduced its fleet by 25%. Nevertheless, analysis of the technical coefficients (the relationships between the fishing power per ship and the tonnage) shows that in reality, the fishing capacity of the fleet of large trawlers has increased in all respects:

- +25.68% for the fishing power per ship (kW/vessel)
- +18.1% for the tonnage per vessel
- +6.3% for the fishing power per tonnage (kW/tonnage)

- Through massive reinvestment in high-performance trawlers that are deliberately specialised for deep-sea fishing, Scapêche, with the support of the French Ministry of Agriculture and Fisheries, has gone against European objectives to preserve marine resources, particularly vulnerable species. The Intermarché group succeeded in obtaining subsidies for the renewal of the most destructive and controversial segment of its fleet just before construction subsidies were banned by the European Union (on 1st January 2005). In doing this, the group committed to twenty-year pay-back plans to spread out the cost of its ships.

- From 2009 onwards, Scapêche failed to publish its annual accounts, in spite of the obligation, under French law, for businesses to do this.

- Despite the distortion of operating conditions by public subsidies, France's three deep-sea fishing fleets record chronic losses:

- Scapêche's cumulative operating losses totalled €7.32 million, or 6.8% of its turnover, from 2002 to 2008 (the period for which accounts are available).
- Euronor's cumulative losses totalled €5.58 million, or 5.2% of its turnover, from 2006-2009 (Euronor was founded in 2006) and
- Dhellemmes' totalled €12 million, or 14.9% of its turnover, from 2002-2009.

In Conclusion

- Public subsidies have given financial incentives to unprofitable fishing operations and resulted in the maintenance of an artificial financial viability. The vast majority of the French deep-sea fishing fleet would probably have disappeared without public financial aid.
- Public subsidies have thus directly aided and encouraged the most destructive and least sustainable fishing practices in existence today.
- These findings demonstrate the incoherence of the EU and French policies for allocating public subsidies. These policies are in conflict with the objectives of the Common Fisheries Policy (CFP) to 'reduce pressure on fish stocks', 'support the growth of economically viable companies' and 'protect the environment and marine resources'.



Key Facts & Figures

French deep-sea species catch

- In total, France landed 573 500 tonnes of deep-sea species over the 1950-2008 period, making it the world's 7th largest deep-sea fishing nation.
- The first deep-sea species to be landed was blue ling (16 523 tonnes) in 1976. It was not until 1989 that another deep-sea species was caught in any significant quantity: 2 690 tonnes of roundnose grenadier that year. This was followed by black scabbardfish (1 451 tonnes in 1990) and orange roughy (4 050 tonnes in 1992).
- Just four species (toothfish, blue ling, roundnose grenadier and black scabbardfish) accounted for over 85% of French catch in 2008.
- Excluding Patagonian toothfish, for which only 3% of catch is sent to Metropolitan France and the rest of Europe, the three North-East Atlantic Species (blue ling, roundnose grenadier, black scabbardfish) make up 77% of France's deep-sea species landings.
- Historically, blue ling and orange roughy catches peaked in the first or second year of these species being exploited. Both species form spawning aggregations, which facilitates substantial localised fishing and rapid stock decline. For other species, catches peaked in 2000 and 2001.
- Deep-sea species landings underwent phases of growth and decline before the introduction of quotas (on 1st January 2003). Falls in catch cannot, therefore, be attributed to the introduction of management measures.
- The port of Lorient market has the highest landings of deep-sea species, followed by that of Boulogne (with around half the quantity). Deep-sea fishing activity in Le Guilvinec has become marginal.

The French deep-sea fishing fleet

- In 2008, France's deep-sea fishing fleet was composed of almost 80% trawlers (equal to the proportions seen in fleets operating in international waters). Gill netters accounted for 19% of the fleet, but were responsible for only 0.9% of the total deep-sea species catch, whereas trawlers were responsible for over 99% of catch.
- From the mid 1980s, the French deep-sea fishing fleet grew, peaking in 1995 with a total of 58 vessels practising deep-sea fishing at least as a part of their activity, and around twenty specialised vessels. The fleet then shrank rapidly to 49 vessels in 1997, although the number of specialised ships remained stable.
- According to the European Commission, the French fleet represents 79% of the EU fishing effort, but has only eight boats operating in international waters. High seas catch represented just 0.12% of French landings for the 1993-2005 period.

The Intermarché fleet

The Intermarché group is:

- The only French distributor also to be a producer
- France's principal wholesale fish merchant
- France's principal fishing fleet for fresh fish
- France's principal deep-sea fishing fleet

The Intermarché fleet is made up of:

- The Comata (The Austral Regions Maritime Company), based in Réunion. Current fleet: one longliner targeting toothfish.
- The Scapêche (fleet belonging to the French supermarket giant, Intermarché), based in Lorient. Current fleet : 16 ships, including 14 trawlers.



What the experts say

“The simple quantitative parameters needed for sensible management are almost entirely lacking.”

Richard Haedrich, Memorial University, Newfoundland

“New Zealand has still not been able to answer all of the questions necessary to demonstrate sustainable deep-sea fisheries. (...) Certainly, the food resource that comes from deep-sea fishing does not, in my view, justify the scientific research and costs. (...) The New Zealand deep-sea orange roughy fisheries are the largest in the world, and I doubt many smaller fisheries elsewhere would be able to justify the level of scientific research required.”

Matthew Dunn, National Institute of Water and Atmospheric Research Ltd. (NIWA)

“The observational data for orange roughy, oreos, and cardinalfish, all show similar patterns that the current models cannot explain (...) and as a result, all of the models lack credibility.”

Matthew Dunn, National Institute of Water and Atmospheric Research Ltd. (NIWA)

“Certain ecosystems, such as deep-sea corals and sponge assemblages are (...) unlikely to withstand trawling impacts even if they happen once.”

Scientists from the European HERMIONE project (Hotspot Ecosystem Research and Man's Impact on European Seas).

What future for deep-sea fisheries?

Here are the answers produced by scientists when asked the question: “What do you figure the future of deep-sea fisheries will be by the year 2015, for example?”

“Local stocks will quickly collapse and can only be economically fished to destruction as has already been seen. Fishing to destruction (biological mining) or not fishing at all are the two economically viable options. Establishing economically viable sustainable fisheries seems unlikely.

As this approach has failed with shallow-water species, its chance of success with deep-sea species is vanishingly small due to the higher cost of fishing and lower sustainable yields. ‘Business as usual’ will result in continued depletion of biodiversity and fishing down the marine food web will intensify leading ultimately to the transformation of marine ecosystems into dead zones.”

Scientists from the European HERMIONE project (Hotspot Ecosystem Research and Man's Impact on European Seas).

“By 2015 I don't think things will be that different. But perhaps by 2020, I can envisage large-scale fisheries will be finished, and any remaining fisheries are likely to be “boutique” fisheries.”

Matthew Dunn, National Institute of Water and Atmospheric Research Ltd. (NIWA)

“It will dramatically depend on the fuel subsidies and prices. With no subsidies it will end shortly because it will no longer be economically viable. If countries keep subsidizing these fisheries, the stocks of many spp will most probably collapse quite fast.”

Telmo Morato, University of the Azores

“Deep-sea fisheries are a classic example of sequential depletion of resources in most regions, prosecuted by relatively few vessels with significant economic subsidies. The future is grim unless a more long-term view limits effort, area fished, and gear used.”

Peter Auster, University of Connecticut

“ [Deep-sea fishing] is a waste of resources, it's a waste of biodiversity, it's a waste of everything. In the end, there is nothing left.”

Daniel Pauly



Authors

Claire Nouvian in collaboration, for certain sections, with Professor Les Watling, Marleen Hoofd and Denis Berger.

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