

At-risk fish species served in school canteens

*“90% of French cities surveyed
serve deep-sea fish in school
canteens.”*

A survey on the supply chain for fish in school canteen catering shows that no detailed information is available to parents about the sources and choice of sea-food products served to their children. Yet the six million school pupils in France who have daily school canteen meals regularly eat deep-sea fish species, some of which are in danger of extinction. The pupils are thus the unknowing and unconsenting accessories to over-fishing, to species extinctions and to the destruction of the marine environment.

Methodology

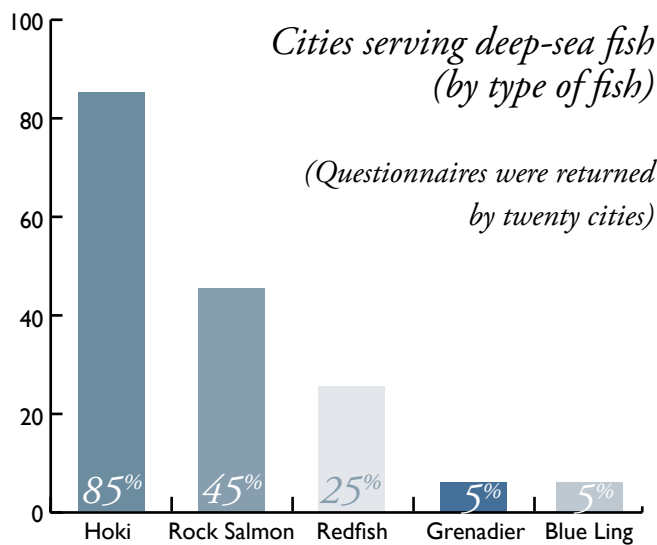
The study was carried out in State pre-schools and elementary schools in France's thirty largest cities and in the twenty districts ('arrondissements') of Paris, using questionnaires and telephone interviews with public authorities and contract catering companies. Out of the fifty questionnaires sent out, twenty were returned, representing 2.5% of schools and 5.92% of half-board pupils in France's pre-schools and primary schools.

*“Nearly half of the cities
serve 'rock salmon' which includes
shark species in danger of extinction.”*



Principal conclusions

- 90% of the cities in the data sample serve deep-sea fish in school canteens. The deep-sea species most commonly served in schools are hoki (*Macruronus novaezelandiae* and *Macruronus magellanicus*), redfish (*Sebastes marinus* and *Sebastes mentella*), roundnose grenadier (*Coryphaenoides rupestris*) and blue ling (*Molva dypterygia*). (See Chart).
- 85% of the cities sampled serve New Zealand hoki (*Macruronus novaezelandiae*), Patagonian hoki (*Macruronus magellanicus*) and Alaska Pollock (*Theragra chalcogramma*).
- Nearly half of the cities (nine out of twenty) serve “rock salmon”, a composite that includes several species of sharks, some of which are in danger of extinction, such as the spiny dogfish (*Squalus acanthias*) and the gulper shark (*Centrophorus granulosus*). (See Table).
- 85% of subjects questioned follow no particular sustainable development initiative.



“Many deepwater fish accumulate mercury and other heavy metals in their tissues.”

- On average, 76% of fish supply is bought frozen, rather than fresh.
- Some notable exceptions to this national trend: 90% of fish served in Rennes is bought fresh, 80% in Nantes and 67.7% in Le Havre. The higher levels of fresh fish in these towns may be explained by their proximity to the coast.
- New Zealand and Patagonian hoki and Alaska pollock are imported to France from very far-off geographical areas. The carbon footprint of the industrial fisheries that produce these fish, as well as that of fish importation, is undoubtedly higher than that of fish caught in European waters or by local artisanal fisheries.
- The three leading contract catering companies, Elior, Sodexo and Sogeres, cover 40% of the school market between them and buy as much fish as twelve French supermarkets¹.
- Some deepwater fish served to children appear on the French Agency for Food Safety’s list of species presenting a health risk for pregnant and lactating women and for children aged under 30 months, due to significant bioaccumulation of mercury and other heavy metals in their tissues (source : Agence française de sécurité sanitaire des aliments <http://www.afssa.fr/Poisson/Documents/AFSSA-Fi-Poisson-F2.pdf>).

¹ Note: There are 1500 supermarkets in France.

Conservation statuses of small shark species sold as “rock salmon” (saumonette)

(Table based on information from the website for the IUCN Red List of Threatened Species, <http://www.iucnredlist.org>, as well as on information from the Fishbase and ICES databases).

Common name	Scientific name	Global conservation status	Conservation status in the North-East Atlantic	Decline in biomass	Maximum longevity
Kitefin shark	<i>Dalatias licha</i>	Near-threatened	Vulnerable		?
Portuguese dogfish	<i>Centroscyllium coelelepis</i>	Near-threatened	Endangered		?
Smooth-hound	<i>Mustelus mustelus</i>	Vulnerable	Data Deficient		24 years
Tope shark	<i>Galeorhinus galeus</i>	Vulnerable	Data Deficient		55 years
Leafscale gulper shark	<i>Centrophorus squamosus</i>	Vulnerable	Endangered		21 to 70 years (Clarke et al. 2002)
Gulper shark	<i>Centrophorus granulosus</i>	Vulnerable	Critically Endangered	80 to 95% in the NE Atlantic	> 30 years (Guallart 1998)
Spiny dogfish	<i>Squalus acanthias</i>	Vulnerable	Critically Endangered	Over 95% in the NE Atlantic	40 years (ICES)

At-risk species on the menu in school canteens

- **'Rock salmon' (saumonette in French):**

Certain species sold under the market name 'rock salmon' (French term, saumonette) appear on the International Union for Conservation of Nature (IUCN) Red List. The Portuguese dogfish (*Centroscymnus coelolepis*) and the leafscale gulper shark (*Centrophorus squamosus*) are listed as "vulnerable or near-threatened". Furthermore, the gulper shark (*Centrophorus granulosus*) and the spiny dogfish (*Squalus acanthias*) are "critically endangered" in the North-East Atlantic, the latter having suffered a biomass decline of over 95% in this zone.

- **Redfish:**

Redfish essentially comprises two deep-sea fish species, both particularly long-lived: the golden redfish *Sebastes marinus* and the beaked redfish *Sebastes mentella*. According to International Council for the Exploration of the Sea (ICES) scientists, "*Sebastes marinus* is a deep-sea species with late maturation and slow growth and is hence considered to be vulnerable to overexploitation. It can therefore only sustain low exploitation and management should be based on that consideration."

- **Roundnose grenadier and blue ling:**

ICES estimates indicate that deep-sea trawling in the North-East Atlantic has caused an 80% decline in grenadier stocks and a 75% decline in blue ling stocks, compared to their "initial levels". However, the real decline is undoubtedly much greater, given that the estimates start with the analysis of catch data - long after fishing began.

Deep-sea fish from destructive fisheries

The deep-sea fish found on the French market are mostly the product of deep-sea trawling taking place at depths between 200 and nearly 2000 metres in the North-East Atlantic. In general, deep-sea fish are extremely vulnerable to exploitation, due to being long-lived and slow growing, and to reproducing late in life. In 2010, ICES scientists emphasised that 100% of the European deep-sea catch was outside safe biological limits².

As well as impacting upon fish stocks, bottom trawl nets make contact with the ocean floor and alter its physical and biological structures. Some of these, such as coral reefs that are thousands of years old, and sponge beds, are considered to be unique.

Conclusion

The general public does not currently see the protection of oceans and marine resources as an issue of great importance. There is as yet no systematic analysis of purchased species according to their conservation status or stock status, the fishing methods used to catch them, the associated carbon footprint or the impact of fisheries on ecosystems.

The responsibility therefore falls to suppliers and purchasers of school meals (local authorities and contract catering companies) to set precise requirements, in order to avoid a supply chain that draws upon endangered species or destructive fisheries.

² It is considered that a stock is within safe biological limits if its spawning stock biomass is above the value corresponding to a precautionary approach advocated by ICES.

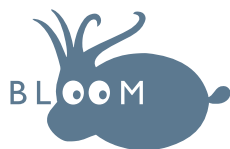


About the authors

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<http://www.bloomassociation.org/>



BLOOM is a non-profit organization whose mission it is to protect the oceans and the species that live in them, by informing the public about the current state of ocean environments and educating people about the way forward. The association also carries out independent research on marine issues.

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