

Expert Advice on Shark Fin-to-Carcass Ratios & Finning Ban Enforcement



As the European Parliament debates the European Commission's proposal to amend the EU regulation that bans shark "finning" (slicing off a shark's fins and discarding the body at sea), many are looking to scientists and other experts for advice.

In April 2012, the *Journal of Fish Biology* – a leading, international, peer-reviewed scientific journal -- published a special issue on "The Current Status of Elasmobranchs: Biology, Fisheries and Conservation" that includes two papers about shark fin-to-carcass ratios used to enforce finning bans.

- 1) European experts focusing on blue shark (*Prionace glauca*) fin to carcass ratios in Spain¹ found that:
 - Varying fin sets and fin cutting techniques result in significant differences in fin-to-carcass ratios across fleets and even among vessels;
 - There are problems with using such ratios to enforce finning bans;
 - Requiring EU fishermen to land all sharks with fins still naturally attached to bodies (as is already practiced for fresh-chilled shark landings in Vigo) would facilitate proper, cost-effective enforcement as this policy is the *"most reliable method for preventing undetected finning"*;
 - Landing sharks with fins attached can improve shark catch data by easing carcass identification to the species level;
 - Given Spain's vast fleet and the EU's strong influence on international fishing policies, a sound and enforceable EU finning regulation is a *"critical step towards sustainability in shark fisheries not just in Europe, but around the world."*

- 2) Scientists at the esteemed University of British Columbia Fisheries Centre conducted a global review of species-specific shark fin to body weight ratios and relevant legislation². Their paper and an associated summary sheet report that:
 - Mean and median wet fin to body mass ratios were 3% and 2.2%, respectively, considerably lower than the current EU 5% ratio limit;
 - The 5% ratio is too high, meaning that *"current legislation provides an opportunity for fishers to harvest extra fins from more sharks without retaining all of the corresponding shark carcasses"*;
 - The generalized 5% ratio used in existing regulations presents a *"dangerous loophole"*;
 - Species and/or fleet-specific ratios are not a practical solution due to difficulties associated with high-grading and accurate species identification;
 - Requiring that all sharks be landed with fins attached is the best way to close loopholes in finning regulations;
 - Landing sharks with fins attached makes it *"easier for trained observers at landing sites to record the number, mass and species of sharks landed, making data collection and monitoring more straightforward and accurate."*

These new papers draw heavily from and support the findings of previous expert reports produced by the European Elasmobranch Association (EEA) in coordination with the Shark Specialist Group of the International Union for Conservation of Nature (IUCN).

¹ Santana-Garcon, J., Fordham, S. and Fowler, S. (2012). Blue shark *Prionace glauca* fin-to-carcass-mass ratios in Spain and implications for finning ban enforcement *Journal of Fish Biology*. DOI:10.1111/j.1095-8649.2012.03233.x

² Biery, L. and Pauly, D. (2012). A global review of species-specific shark fin to body weight ratios and relevant legislation. *Journal of Fish Biology*. DOI: 10.1111/j.1095-8649.2011.03215.x

In particular, a 2010 study on shark fins in Europe³ notes that the first fin-to-carcass ratio (5% of dressed weight), established in the 1990s in the U.S., represents an *upper limit* for mixed shark fisheries based on U.S. fishing practices, and that the EU's 5% fin to whole weight ratio, based on Spanish cutting techniques, is "roughly twice as lenient and can therefore lead to undetected finning if alternative cutting practices are employed." This report concluded, *inter alia*, that:

- Raising the ratio would widen loopholes and increase opportunities for undetected finning;
- Setting different ratios for different species and/or fleets, in addition to requiring a great deal of research, would be costly, time consuming and particularly difficult to implement;
- Shared shark populations should be managed consistently throughout their ranges, making harmonised regulations preferable; and
- Prohibiting the removal of shark fins on board vessels is the "*only fail-safe, most reliable, least expensive means to prevent finning and measure compliance; this method is viable for freezer vessels and can facilitate the collection of much-needed, species-specific catch data.*"

An extensive 2007 EEA study⁴ on European shark fisheries concluded that:

- A fin:carcass ratio is a complicated and usually inadequate tool for preventing finning because of differences in fin cutting techniques and variability among shark species' fin sizes and values; these create loopholes to fin;
- Setting ratios at the upper end of (or above) scientifically derived ratios, as is often the case, exacerbates this problem and leaves species with small fins and/or low value meat at particular risk of finning;
- Lack of information and inconsistency in fin removal practices prevent scientific determination of a single optimal fin to carcass ratio;
- Given the uncertainty and complexity of the situation, the current EU Shark Finning Regulation cannot be characterized as effective;
- To ensure finning cannot take place, sharks should be landed with their fins attached.

The above mentioned analyses all back up the ultimate conclusion of a 2006 assessment of the validity of the 5% fin-to-carcass ratio⁵ published within a collective volume of scientific papers produced by the International Commission for the Conservation of Atlantic Tunas (ICCAT):

"The only guaranteed method to avoid shark finning is to land sharks with all fins attached."

Blue & shortfin mako sharks dominate Spanish & Portuguese shark catches, but are **not regulated**.

Shortfin mako sharks (*Isurus oxyrinchus*) are:

- threatened under IUCN criteria (*Vulnerable* globally, *Critically Endangered* in the Mediterranean)
- being overfished and approaching an overfished condition in the North Atlantic
- among the three most vulnerable and least productive shark species taken in ICCAT fisheries.

Blue sharks (*Prionace glauca*) are:

- classified by IUCN as *Near Threatened* globally and *Vulnerable* in the Mediterranean Sea
- the dominant species in the global shark fin trade (17% of fins identified in Hong Kong market)
- under increasing fishing pressure.

³ Fowler, S. & Seret, B. (2010). *Shark Fins in Europe: Implications for Reforming the EU Finning Ban*. Available at http://cmsdata.iucn.org/downloads/sharks_fins_in_europe_implications_for_reforming_the_eu_finning_ban_pdf/.

⁴ Hareide N. R., Carlson J., Clarke M., Clarke S., Ellis J., Fordham S., Fowler S., Pinho M., Raymakers C., Serena F., Seret B. & Polti S. (2007). *European Shark Fisheries: a preliminary investigation into fisheries, conversion factors, trade products, markets and management measures*. European Elasmobranch Association.

⁵ Cortes, E. & Neer, J. A. (2006). Preliminary reassessment of the validity of the 5% fin to carcass weight ratio for sharks. *ICCAT Collective Volume of Scientific Papers* **59**, 1025–1036.