STUDY SHOWS THAT THE 5% SHARK-FIN TO BODY-WEIGHT RATIO IS TOO HIGH

- Since the 1980s, shark populations worldwide have experienced rapid declines due to the growing demand from China and other Asian countries for shark fins to be consumed as shark fin soup.

- Sharks tend to grow slowly, reach maturity at a large size and late age, and have low fecundity, all traits which make them especially sensitive to overfishing.

- Shark fins have higher economic value than other shark products, so shark finning, the act of removing fins at sea and discarding the remainder of the carcass (the vast majority of the shark's total weight) overboard, is practiced both legally and illegally in fisheries worldwide.

- Globally, steps are being taken to improve shark management strategies and implement them where they do not yet exist, but challenges still remain. 59 countries have shark related legislation, 22 of which are members of EU. In addition, 9 RFMOs, which manage the fisheries on the high seas, have also adopted shark-related laws. However, much of this legislation is not comprehensive enough to fully prevent finning and protect shark species.

- Finning fails to utilize the entire shark, but vessels do it to maximize profit by taking only the most valuable part of sharks. As a measure against this waste, a number of countries, including some members of the EU, provide permits that allow fishers to remove fins prior to landing as long as the corresponding mass in carcasses is also on board. In such regulations, a 5% wet fin to total body mass ratio for all species is most common.

- This study finds that mean wet fin to total body mass ratios vary widely between species. Based on the literature and other available sources of information, ratios actually range from 1.1% to 10.9% for the 50 species examined (see reverse). The mean and median wet fin to body mass ratios were 3% and 2.2%, respectively - considerably lower than the 5% ratio currently legislated by the EU and other countries.

- The study shows that the 5% ratio is too high, which means current legislation provides an opportunity for fishers to harvest extra fins from more sharks without retaining 100% of the corresponding shark carcasses.

RESULTS AT A GLANCE

- 59 countries and 9 RFMOs have shark related legislation.
- Mean wet fin to total body weight ratios for all shark species included in the study was 3.0%.
- Median wet fin to total body weight ratio was 2.2%.
- Both these findings are considerably lower than the commonly legislated 5%.
- It is logistically unrealistic to enforce species-specific fin to body weight ratios; observers would need to be able to identify carcasses by species with or without the fins and the species of fins with or without the carcasses.
- A law requiring that all sharks be landed with fins attached is the best way to close current loopholes.

- Although wet fin to body mass ratios are available for many species, it would be logistically unrealistic to enforce species-specific fin to body mass ratios. Observers would need to be capable of identifying carcasses by species with or without fins, as well as the species of fins without carcasses, which is a difficult task that makes this type of enforcement particularly challenging to implement.

- The implementation of laws requiring that all sharks be landed in limited quantities with fins attached is the best way to close current loopholes and prevent finning, effectively protecting the future of sharks.

- For more details and information, see:

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

SEA AROUND US PROJECT

Mean wet fin to total body weight ratios by species, for species with available data, ranked from lowest to highest. Ratios are also available by genus and family in Biery and Pauly (2012).

Species	Common name	Mean wet fin to total body weight ratio
Carcharhinus cautus	Nervous shark	1.06
Carcharhinus signatus	Night shark	1.30
Carcharhinus taurus	Sand tiger shark	1.34
Carcharhinus dussumieri	Whitecheek shark	1.35
Carcharhinus perezii	Caribbean reef shark	1.37
Galeocerdo cuvier	Tiger shark	1.41
Carcharhinus sorrah	Spottail shark	1.42
Carcharhinus amblyrhynchoides	Graceful shark	1.47
Scymnodon ringens	Knifetooth dogfish	1.50
Carcharhinus tilstoni	Australian blacktip shark	1.53
Carcharhinus melanopterus	Blacktip reef shark	1.59
Carcharhinus amboinensis	Pigeye shark	1.68
Mustelus canis	Smooth dogfish	1.69
Squalus suckleyi	Spiny dogfish	1.69
Carcharhinus acronotus	Blacknose shark	1.71
Carcharhinus fitzroyensis	Creek whaler shark	1.71
Carcharhinus obscurus	Dusky shark	1.80
Rhizoprionodon terraenovae	Atlantic sharpnose shark	1.81
Rhizoprionodon acutus	Milk shark	1.92
Sphyrna mokarran	Great hammerhead	1.96
Carcharhinus altimus	Bignose shark	1.98
Centroscymnus coelolepis	Portuguese dogfish	2.00
Alopias vulpinus	Thresher shark	2.06
Sphyrna lewini	Scalloped hammerhead	2.13
Carcharhinus limbatus	Blacktip shark	2.18
Lamna nasus	Porbeagle shark	2.20
Carcharhinus brevipinna	Spinner shark	2.27
Negaprion brevirostris	Lemon shark	2.30
Sphyrna tiburo	Bonnethead shark	2.46
Eusphyra blochii	Winghead shark	2.47
Dalatias licha	Kitefin shark	2.50
Carcharhinus plumbeus	Sandbar shark	2.52
Isurus oxyrinchus	Shortfin mako shark	3.14
Centroscyllium fabricii	Black dogfish	3.40
Loxodon macrorhinus	Sliteye shark	3.69
Carcharhinus albimarginatus	Silvertip shark	3.48
Centrophorus squamosus	Leafscale gulper shark	3.80
Carcharhinus amblyrhynchos	Grey reef shark	4.00
Centroselachus crepidater	Longnose velvet dogfish	4.00
Carcharhinus falciformis	Silky shark	4.46
Galeorhinus galeus	Soupfin shark	4.50
Mustelus antarcticus	White-spotted gummy shark	4.50
Legislated ratio (EU and Canada)	**-**	**5.00**
Carcharhinus brachyurus	Bronze whaler	5.10
Deania calcea	Birdbeak dogfish	5.40
Nebrius ferrugineus	Tawny nurse shark	5.40
Prionace glauca	Blue shark	5.65
Negaprion acutidens	Sicklefin lemon shark	5.70
Sphyrna zygaena	Smooth hammerhead	5.74
Carcharhinus longimanus	Oceanic whitetip shark	7.34
*Pristis pectinata**	Smalltooth sawfish	10.90

* Although *pristis pectinata* is not technically a shark, it has been included due to the fact that accounts exist of its harvest and use in the shark fin trade.