

Estimation of catches at size for IOTC species

Equations used to convert from non-standard measurement to fork length and from fork length to round weight for some shark's species

Species	From type measurement – To type measurement	Equation	Parameters	Sample size	Length
Blue shark	Fork length – Round Weight(kg) ^A	$RND=a*L^b$	a= 0.0000031841 b= 3.1313	4529	Min: 52 Max: 288
	Precaudal length – Fork Length ^C	$FL=\frac{PCL+a}{b}$	a= 0.3956 b= 0.9075		Min: Max:
	Total length – Fork length ^D	$FL=a*TL+b$	a= 0.822 b= 1.754	10	Min:217 Max:265
					Min:70 Max:187
Shortfin Mako Shark	Fork length – Round Weight ^A	$RND=a*L^b$	a= 0.0000052432 b= 3.1407	2081	Min:65 Max:338
	Precaudal length – Fork Length ^C	$FL=a*PCL+b$	a= 1.100 b= 0.766	n/a	n/a
	Total length – Fork length	$FL=a*TL+b$	a= 0.9286 b= -1.7101		Min: Max:
Oceanic whitetip shark	Fork length – Round Weight ^B	$RND= a*L^b$	a= 0.000018428 b= 2.9245		Min: Max:
	Total length – Fork length	$FL=a*TL+b$	a= 0.7847 b= 1.211		Min: Max:
Porbeagle	Fork length – Round Weight ^A	$RND=a*L^b$	a= 0.000014823 b= 2.9641	15	Min:106 Max:227
	Precaudal length – Fork Length ^C	$FL=a*PCL+b$			
Silky Shark	Fork length – Round Weight ^A	$RND=a*L^b$	a= 0.000015406 b= 2.9221	85	Min:73 Max:212
Bigeye Thresher Shark	Fork length – Round Weight ^A	$RND=a*L^b$	a= 0.0000091069 b= 3.0802	55	Min:100 Max:228
Thresher Shark	Fork length – Round Weight ^A	$RND=a*L^b$	a= 0.00018821 b= 2.5188	88	Min:154 Max:262
Crocodile Shark	Fork length – Round Weight ^B	$RND= a*L^b$	a= 0.00033532 b= 2.1156		

A: Data from Western North Atlantic: NOAA Technical Memorandum NMFS-NE-110 (May 1996)

B: Data from Indian Ocean: Length-weight relationships, conversion factors and analyses of sex-ratio, by length-range, Observers onboard Spanish Longliners in South Western Indian Ocean during 2005; Ariz J, A Delgado de Molina, M.L Ramos, J.C Santana

C: Inverse equation from WCPFC Analysis of North Pacific Shark Data from Japanese Commercial Longline and Research/Training Vessels Record; Shelley Clarke, Kotaro Yokawa, Hiroaki Matsunaga and Hideki Nakano

D: Indian Ocean : Maldivian Oceanic Shark Longline Fishery; R.C. Anderson, M.S. Adam & M. Saleem