Paper	Oceanic Whitetip	Number of species	Location	Time	Time Length	Fishing Method	Hook type	Data Type	Study Type	Theme	Main Result	Notes	WoS
Aguilar et al 2014	Y	17	North Atlantic	2009-2011	2	hook-and-line	J	landing samples	species composition	population	18 young ows caught by sport fishing		Y
Baum et al 2004	Y	11	North Atlantic	1950-1990	40	longline: deep	J	observer, survey	population trend	population	99% decline from 1950		Y
Baum et al 2010	Y	35	North Atlantic	1992-2005	13	longline: shallow	J, C	observer,logbook	population trend	population	OWS CPUE 0.15/1000 hooks. Ocean depth significant.	Large combined dataset from multiple other studies. Mostly J hooks	Y
Begue et al 2020	N	1	East Pacific	2011-2019	8	longline: ns	J	ind. observers	residual hook impacts	fishery impacts	<10% at vessel mortality, >97% post-release survival (55 sharks, 21 with at least one hook)	Interaction with longline fishery is high, corrodible hooks are recommended	Y
Bonfil et al 2008	Y	1	multiple	2008	past	multiple	NA	lit: review	biology and conservation	general	Better understanding needed to indentify management and conservation management.		N
Bowlby et al 2020	N	2	North Atlantic	2001-2018	17	longline: ns	C	observer, tag	post release mortality	fishery impacts	Mortality rates: 14% porbeagle, 28% shortifn mako	Overall finding is that bringing a shark onboard leads to longer recovery times - important to mimic fisheries tagging to obtain valid results, i.e. tag in water	N
Brodziak et al 2013	Y	20	East Pacific	1995-2010	15	longline: both	J, C	observer	variables influencing catch rate	fishery impacts	time of year, surface temperature and set type (shallow/deep) were significant factors	Predictive modeling (negative binomial and poisson models), shows improvement from 1995-2010 less catching of sharks	Y
Bromhead et al 2012	Y	22	West Pacific	2005-2009	4	longline: shallow	NS	observer, logbook	catch rate: factors	catch rate	discarded finned: 97.4% discarded: 40.3% died: 30.6% num obs: 917	C. longimanus are caught in higher numbers when shark lines are used or hooks are set at a shallow depth. Results not great for OWT due to large number of zero catch records. More research needed. Recommendations: banning finning, retention, use of shark lines. Changing depth and time of day is complicated due to sharks being different.	Y
Campana et al 2016	N	3	North Atlantic	2010-2014	4	longline: ns	C	observer, tag	post release mortality	fishery impacts	Hooking mortality rates (mean per year): 14.7% blue sharks, 43.8% porbeagles, 26.2% mako. Post-release mortality rates (mean per year): 0% healthy blue sharks, 33% injured blue sharks, 10% healthy porbeagles, 75% injured porbeagles, 30% healthy makos, 33% injured makos.	Findings indicate that a substantial portion of fishing-induced mortality of pelagic sharks in Canadian waters is not accounted for by landed catch.	N
Carruthers et al 2009	N	5	North Atlantic	2001-2004	3	longline: ns	J, C	observer	hooking mortality	fishery impacts	Swordfish, yellowfin tuna, porbeagle and blue shark were 2–5 times more likely to survive the capture process on circle hooks than on J-hooks	Circle hooks decrease odds of gut hooking in sharks.	N
Clarke et al 2008	Y	4	Atlantic	1980-2006	26	longline: both	NS	observer, trade	shark removal	population	0.6 million owt		Y
Clarke et al 2013	Y	4	West Pacific	1995-2010	15	longline: both, purse seine	NS	observer	population assessment	population	population declines per year: 5% for blue, 7% for mako, 17% for oceanic whitetip	Study on if prohibition of shark finning reduces mortality. Conclusion, it does not. Recommendation: focus on other aspects of mortality due to gear or retention.	Y
Clarke et al 2014	Y	1	multiple	1970-2011	41	longline: both, purse seine	J, C	observer	conservation status	conservation	Significant variation of species and fishing technique, as well as implementation and enforcement of mitigation, requires further study and consideration of specific habitats	Global review (hundreds of species included)	N
Coelho et al 2012	Y	8	Atlantic	2008-2011	3	longline: shallow	J, C, O	observer	hooking mortality	fishery impacts	Hooking mortality rates: 14.3% blue sharks, 13.3% crocodile shark, 35.6% mako, 50.6% bigeye thresher, 1% pelagic stingray, 71% smooth hammerhead, 55.8% silky shark, 34.2% oceanic whitetip	Logistic GLM applied to compare mortality between sexes - more species included (with <300 observations each)	N
Coelho et al 2020	N	1	South Atlantic	2008-2016	8	longline: shallow	NS	observer	variables influencing catch rate	fishery impacts	GLMMs (generalized linear mixed models) performed best for fishery data, both with goodness-of-fit and model validation	Compared statistical techniques (GLM versus mixture models and generalized estimating equations), found no major differences but mixture models performed best	N
Compagno 1984	Y	many	multiple	1984	past	NA	NA	survey	biology	biology	Biology, life-history and distribution of OWS from 1984	Historical source, widely cited	N
Cortes et al 2010	Y	10	Atlantic	1950-2005	55	longline: ns	NS	observer, tag	fishery impacts on sharks	fishery impacts	Top mortality sharks: bigeye thresher (78%), blue shark (79%), longfin mako (88%), oceanic whitetip (77%), scalloped hammerhead (83%), smooth hammerhead (85%), silky (86%), shortfin mako (92%)	Included fleets from USA, Venezuela, Brazil, Uruguay, Portugal, and Namibia	Y

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Cortes et al 2015	Y	10	Atlantic	1950-2005	55	longline: both	NS	observer	fishery impacts on sharks	fishery impacts	Most susceptible (to bycatch mortality) sharks - shortfin mako, blue, porbeagle, bigeye thresher, oceanic whitetip	Expansion of Cortes 2010 (more southern hemisphere information, more biological parameters, inclusion of Canada, Japan, Mexico, and South Africa data)	N
Cox et al 2002	Y	6	West Pacific	1952-1998	46	multiple	NS	observer	ecosystem impacts	fishery impacts	Depletion of large predators lead to decreased mortality particularly for yellowfin tuna (smaller than other tuna)	Time-series analysis of biomass, mortality, and bycatch	Y
Cruz et al 2011	Y	9	East Pacific	2006-2007	1	NS	NA	landing samples	biology	biology	Shark fishery area does not coincide with nursery since one one pregnant oceanic whitetip landed.		Y
Curran et al 2011	Y	18	East Pacific	2005-2006	1	longline: ns	J, C	observer	bycatch reduction	bycatch	Large circle hooks have effect on catch rate and conservation potential	Paper focuses on tuna more than bycatch - employed resampling techniques to augment data	N
D'Alberto et al 2017	Y	1	West Pacific	2014	1	longline: shallow	NA	observer, samples	catch rate, species composition	catch rate	Males mature earlier (10 years, 193cm TL) than females (15.8 years, 224cm TL)	Data from 103 individuals (70 males, 33 females)	Y
Dharmadi et al 2015	Y	4	East Pacific	2000-2013	13	multiple	NA	other	fishery impacts on sharks	fishery impacts	Greater awareness of the ecological importance of sharks and regulation of shark fisheries is needed to coordinate relevant authorities and stakeholders	Research of shark and ray fishing (due to value of fins) as well as bycatch	Y
Dos Santos Tambourgi et al 2013	Y		South Atlantic	2003-2010	7	longline: ns	NS	observer, samples	fishery impacts on sharks	fishery impacts	Oceanic whitetip sharks, as well as other pelagic species, have life history (reproductive cycle length - low fecundity) parameters that makes them particularly vulnerable to overfishing.	234 individuals, 118 females and 116 males, with a focus on fecundity (status in reproductive cycle) - females give birth only once every two years	Y
Dulvy et 2008	Y	10	multiple	2000-2008	8	multiple	NA	observer	conservation status	conservation	Implement and enforce finning bans and catch limits to guide effective conservation and management of shark and rays.	The most threatened species, such as shortfin mako, have low population increase rates and high fishing mortality	N
Ellis et al 2017	Y	4	multiple	Varies (review paper)		multiple	NA	lit: review	post release mortality	fishery impacts	Females have higher survival than males, and hammerhead and thresher sharks are particularly prone to high mortality	Paper frames research with European Union fishery policy	N
Essington et al 2006	N		multiple	1950-2001	51	NA	NA	landing samples	ecosystem impacts	fishery impacts	Considering the full food web leads to more sustainable use of marine resources	See citations for details of specific species status	N
Ferreti et al 2010	Y	7	multiple	1950-2005	55	multiple	NA	lit: meta-analysis	ecosystem impacts	fishery impacts	Effects of sharks cascade through coastal ecosystems, but may be masked or reversed by fishing pressure	Particular focus on predatorial role of sharks	N
Fiedler et al 2017	Y	4	South Atlantic	1996-2011	15	longline: ns	NA	observer	policy	laws	The lack of fishery regulation increases a risk of species extinction, both target and bycatch		Y
Fredou et al 2015	Y	5	South Atlantic	2004-2010	6	longline: both	NA	observer	bycatch distribution	bycatch	High fishing effort zones of the southern Atlantic Ocean overlap with some nursery areas, creating direct risk particularly for oceanic whitetip shark. Deep longline hooks mitigate their bycatch.		Y
Gallagher et al 2014	N	5	North Atlantic	2010-2012	2	longline: ns	C	tag	post capture stress	fishery impacts	Hammerhead sharks are more inherently vulnerable to capture stress and mortality and should receive more attention in conservation		N
Gallagher et al 2014b	Y	11	North Atlantic	1995-2012	17	longline: both	C	observer	bycatch vulnerability	bycatch	Survival estimates range from 33% (night shark) to 97% (tiger shark), hook depth matters, and considering species traits shows promise for designing effective conservation measures (highly vulnerable species need to have reduced fishery interaction)		N
Game et al 2009	N	many	West Pacific	2009	past	NA	NA	other	policy	laws	MPAs are defensible and feasible instruments for pelagic conservation, and should be further implemented		N
Gilman et al 2014	Y	4	West Pacific	2012 (survey), 1992-2009 (observer)	17	longline: both	J, C	observer, survey	ecosystem impacts	fishery impacts	Switching from J hooks to Circle benefits sea turtles significantly and outweighs the possible small increase in elasmobranch catch rates		Y
Gilman et al 2016	Y	3	multiple	2016	past	longline: both	J, C	lit: meta-analysis	fishery impacts on sharks	fishery impacts	Circle hooks increase elasmobranch catch but reduced haulback mortality and deep hooking. Fish vs. squid for bait increased shark catch and deep hooking.	Species variation warrants fishery-specific assessments for relative risks.	N
Gilman et al 2020	N	2	multiple	2020	past	longline: both	C	lit: meta-analysis	bycatch: bait	bycatch	Squid bait is more effective at catching tuna but also higher risk for bycatches		N
Henderson et al 2016	Y	52	Indian	2015	1	NS	NA	landing samples	genetics	biology	Taxonomic assessment		Y

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Howey-Jordan el al 2013	Y	1	North Atlantic	2011		longline: both	NA	tag	behavior	behavior	Whitetip sharks are most vulnerable to pelagic fishing gear 0-125m in depth, and leave the protected waters of the Bahamas from June to October	11 mature oceanic whitetip sharks (10 females, 1 male)	N
Howey-Jordan el al 2016	Y	1	North Atlantic	2011-2013	2	NA	NA	tag	behavior	behavior	Whitetips may regularly survey extreme environments (deep depths, low temperatures) as a foraging strategy, with variable behavioral response (presence/absence of prey)	16 tagged sharks, 610 mesopelagic (deeper water) excursions	N
Hutchingson et al 2019	Y	4	West Pacific	2016-2019	3	longline: ns	NS	tag	post release mortality	fishery impacts	Sharks released in good health and with no trailing gear have higher chances of survival	Gear removal increased mortality rates for oceanic whitetip sharks.	N
Jordaan et al 2020	Y	9	South Atlantic	2013-2015	2	longline: ns	NS	logbook	bycatch: mortality estimation	population	Focused on blue and shortfin mako. Increase in shortfin mako mortality, landings increased from 869 in 200 to 37946 in 2015.	Sharks may be puposefuly killed to avoid depredation. Oceanic whitetip are more hardy and my survive better post discard.	N
Jordan et al 2013	N	4	multiple	1980-2010	30	multiple	J, C	lit: review	bycatch: sensory	bycatch	Species have varied sensory strengths (chemical, aural, visual, electrical), which causes different cues to have varied effectiveness at reducing bycatch - ideally, choose a cue based on the species you wish to avoid catching.	Different fishing techniques may or may not be compatible with different cues - longline and gillnet have widest compatibility.	N
Joung et al	Y	1	West Pacific	2002-2006	4	NS	NA	specimens	biology	biology	Estimates of life history parameters		Y
Lessa et al 1999	Y	1	South Atlantic	1992-1997	5	longline: ns	NA	specimens	biology	biology	Biology and morphometry of the oceanic whitetip shark		Y
Li et al 2014	Y	5	East Pacific	2014	1	longline: ns	NA	specimens	trophic ecology	biology	Oceanic whitetip has lowest tropic level and mean delta N-15; and a significantly higher level of delta C-13.		Y
Liu et al 2013	Y	20	West Pacific	2013	1	longline: ns	NA	landing samples	genetics	biology	DNA barcoding of shark meats		Y
Matsunaga et al 1999	Y	4	West Pacific	1967-1970 and 1992-1995	6	longline: deep	NS	observer	population trend	population	Oceanic whitetips occupied larger part in 0-10 degress north (than 10-20 N), it also decrease in shark catches in all areas. More catches at the shallow layer (100-150 m). For bigeye thresher, whose population increased the catch rate was higher at deeper layer (200-300m).		Y
Mendes et al 2015	Y	1	North Atlantic	2014	1	NA	NA	specimens	genetics	biology	Identifying oceanic whitetip sharks illegally retained using genetic data		Y
Mitchell et al 2019	Y	5	West Pacific	2016-2017	1	hook-and-line	NS	ind. observers	fishery impacts on sharks	fishery impacts	It is necessary to identify specific species involved to mitigate depredation, and video data is a promising approach that could be applied to commercial fisheries.		Y
Mohan et al 2020	N	1	North Atlantic	2016-2017	1	longline: ns	J, C	tag	post capture stress	fishery impacts	Higher immediate mortality exhibited by sharks with higher lactate and lower hematocrit, but there is no significant difference between survivors and delayed mortalities.		N
Molina et al 2012	N	many	multiple	2012	past	multiple	J, C	lit: review	bycatch: patterns	bycatch	Early literature focused on trawl fisheries, recent on longline and reduction strategies. Early used population-level parameters while recent have included a variety of biological datapoints.		N
Musyl et al 2011	Y	5	East Pacific	2001-2002	1	longline: shallow	C	tag	post release mortality	fishery impacts	5.3% ows mortality with circle hooks, compared to 13.6% fatality from commercial fishery		N
Musyl et al 2018	N	2	West Pacific	2016-2017	1	longline: both	C	tag	post release mortality	fishery impacts	87% of fatalities occur within 2 days of release, health condition at haulback is only significant risk variable		N
Musyl et al 2019	N	2	multiple	2002-2016	14	multiple	J, C	tag	post release mortality	fishery impacts	Meta-analysis - across studies, most fatalities occur within 2 days of release, and condition at tagging was a strong predictor.		N
Myers et al 2005	Y	11	North Atlantic	2002-2005	3	longline: ns	NS	lit: meta-analysis	population trend	population	Sharks have been globally depleted at least 90% over the past 50-100 years, across papers and methodologies - but rapid recovery usually occurs when fishing mortality is reduced.		N
Nakano et al 1997	Y	22	West Pacific	1992-1995	3	longline: both	NS	ind. observers	catch rate	catch rate	13 of 22 species had significant differences in catch rate by depth.		N

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Oliver et al 2015	N	many	multiple	2014	past	multiple	NA	lit: meta-analysis	bycatch: patterns	bycatch	Gear type was the most important predictor for shark bycatch. Longlines have the most effect. Blue sharks dominated the total bycatch. South Atlantic Ocean has the highest catch ratios. Fisheries with the largerst bycatch were large international fisheries.		N
Poisson et al 2010	Y	2	Indian	1998-2000	2	longline: both	J	logbook	bycatch: lunar cycle	bycatch	Swordfish was caught during weak lunar illumination soon after soaking. Lunar illumination didn't have effect on sharks. Sharks were caught after longer soaking periods.		Y
Poisson et al 2010b	Y	3	Indian	1997-2000	3	longline: ns	NS	logbook	bycatch	bycatch	41.2% oceanic whitetip were retrieved alive.		Y
Queiroz et al 2016	N	6	North Atlantic	9 years period, before 2016	9	longline: deep	NS	tag	fishery impacts on sharks	fishery impacts	80% of blue and mako tracked ranges overlaped with fisheries, about 3 days per month in the same grid overall, 20 days per month in high space-use areas, thermal fronts and availability of fish areas		N
Reinhardt et al 2017	Y	43	multiple	2014	past	longline: ns	J, C	lit: meta-analysis	hooking mortality	fishery impacts	Catch rate was high for six shark species when using circle hooks, however at vessel mortality (incl. oceanic whitetip) was lower for three shark species (incl. oceanic whitetip) and for the others it was not significantly higher than with j hooks.		N
Rigby et al 2020	Y	1	multiple	2018	past	longline: ns	NA	observer, logbook	population trend	population	CPUE indicates significant decline (>80% reduction over three generations) of the oceanic whitetip shark.		N
Seki et al 1998	Y	1	West Pacific	1995	1	longline: ns	NS	specimens	biology	biology	Oceanic whitetip sharks have a wide range of birth size, and possibly lack a well defined reproductive cycle.		Y
Shiffman et al 2016	N	many	multiple	2016	past	multiple	J, C	NA	policy	laws	Policies have varied pros and cons and should be selected to balance conservation with other needs and constraints.		N
Solana et al 2001	Y	3	East Pacific	1993-1997	4	multiple	NA	observer	fishery impacts on sharks: floating objects	fishery impacts	No significant differences for the oceanic whitetip		Y
Sreelekshmi et al 2020	Y	1	Indian	2020	1	NA	NA	specimens	genetic structure	biology	Significant connectivity and gene flow among populations between Indian and East Atlantic, but lack between Indian and West Atlantic.		Y
Tolotti et al 2013	Y	1	South Atlantic	2004-2010	6	longline: both	NS	logbook	fishery impacts on sharks: depth	fishery impacts	Found higher catch rates from fishing efforts using Spanish fishing strategy (relative to Japanese strategy) which deploy hooks at shallower depths.		Y
Tolotti et al 2015	Y	1	South Atlantic	1999-2011 (logbooks), 2004-2010 (on-board observers), 2010-2012 PSAT data	12	longline: both	NS	observer, logbook, tag	fishery impacts on sharks: depth	fishery impacts	All tagged sharks spent over 70% of the time above the thermocline and 95% of the time above 120 meters deep.	Removal of shallow hooks may reduce bycatch of oceanic whitetip sharks	Y
Tolotti et al 2017	Y	1	multiple	2011-2012	1	longline: ns	NS	tag	behavior	behavior	When sea surface temperature was above average, oceanic whitetip sharks increased thier veritcal amplitude, that is they were closer to the surface during the day.		Y
van Osch 2012	N	many	multiple	2012	past	NA	NA	NA	policy: laws	laws	Regional fisheries need to be coordinated with international law to effectively conserve sharks.		N
Varghese et al 2016	Y	7	Indian	2013-2014	1	multiple	J, C	specimens	biology	biology	For oceanic whitetip only: size 65-265 cm, brood size: 3-9.		Y
Walsh et al 2009	Y	6	East Pacific	1995-2000 and 2004-2006	7	longline: both	J, C	observer	fishery impacts on sharks: depth	fishery impacts	Catch rates were reduced due to deeper set hooks, ban on finning. For blue sharks, they seem better able to endure the stress of capture. Circle hooks adopted in 2004		Y
Ward et al 2012	N	25	multiple	2012	past	NA	NA	lit: review	conservation options	conservation	Recovery of elasmobranchs is possible but only with strong and dedicated management action.		N

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Watson et al 2014	Y	4	West Pacific	2007-2011	4	longline: both	NS	logbook	fishery impacts on sharks: depth	fishery impacts	Substantial bycatch reduction can be attained by eliminating shallow hooks, but will also reduce target catch. Redistribution of hook effort for shallowest hooks (<100 m) can be reduce bycatch and still be economical.		Y
Wilson et al 2014	N	many	multiple	2014	past	longline: ns, trawl, gillnet	NS	lit: review	post capture stress	fishery impacts	Little research found on sublethal fitness endpoints. Several studies indicated physiological disturbance, injury or behavior impairments, but the focus is on quantifying bycatch mortality and there is difficulty of following the fitness longterm post-release.		N
Worm et al 2012	N	many	multiple	1970-2008	38	longline: both	NS	lit: meta-analysis	shark removal	population	63 to 273 million sharks per year. However, not much discard data.		N
Young et al 2020	Y	1	multiple	2020	past	all	NA	lit: review	biology and conservation	general	More data on the oceanic whitetip is needed in many parts of the world, esp south Atlantic and Indian oceans. Overall, more information on its life history, genetics, population structure and factors affecting post-release mortality rates.		Y