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# FISHING FOR SHARKS

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Today, the most potent symbol for shark conservation is arguably that of a finned shark—staring out helplessly from black eyes with its appendages sliced off for use in a soup prized in Chinese cuisine before its body is tossed back into the ocean, dead or alive. Despite receiving far less attention, sportfishing also poses a growing threat to these creatures. By tracing the historical origins of this pursuit, we can better understand its internal dynamics and ecological ramifications. In the early twentieth century, with entrepreneurs already having established industrial fisheries to convert shark bodies into commodities such as leather, oil, and meat, anglers found a new value for sharks as sources of recreation. They suggested that certain shark species constituted outstanding big game fish, stressing their spectacular fighting ability and the added benefit of ridding the waters of a menace. Despite the conservationist ethos and reverence for nature held by many proponents of sportfishing, angling for sharks often proved ecologically disastrous. At the same time, the claims of some recreational shark fishers that rescuing bathers justified depleting shark populations do not align with historical records of fatal human encounters with sharks.



Humans have likely derived some pleasure from fishing since taking up the pursuit tens of thousands of years ago, but sportfishing as we understand it today has a specific genealogy. The vision of recreational angling explored here first emerged in early modern England and then spread throughout the Anglosphere, often by displacing (but never entirely erasing) Indigenous practices. In 1653, Englishman Izaak Walton published his popular volume *The Compleat Angler, or, The Contemplative Man's Recreation*. Focusing primarily on angling in rivers and streams, he extolled the pastime's relaxing, salubrious effects. Over the course of the nineteenth century, in popular publications such as *Forest and Stream* and *Field & Stream*, American sportfishers further refined


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the notion of recreational fishing and exchanged ideas on what it meant to fish for sport. Urbanites seeking a respite from frenetic city life, the readers of these magazines embraced fishing for its regenerative qualities. Their carefully defined sportsman's code entailed never killing for profit, especially during breeding season, limiting the number of fish caught, and always giving their target a sporting prospect of escape.[1]

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By enhancing the difficulty of the catch, this code placed sportfishers at the vanguard of early conservation efforts, but race, gender, and class prejudices permeated the activity. Recreational fishing with a rod and reel became, for many, an assertion of an affluent, masculine Anglo-American identity—part of a broader movement in the English-speaking world, which proposed that "Anglo-Saxons" possessed a proclivity for outdoor sporting pursuits and nature conservation. Desiring to reserve as much quarry as possible for their own recreation, sportfishers developed hostility towards commercial harvesters pursuing livelihoods or subsistence fishers catching a meal. As sportfishers increasingly embraced catch-and-release angling, they grew still more frustrated with those who nearly always killed their catch, attitudes that frequently placed recreational anglers at odds with Indigenous groups. Although recreational anglers had recognized that they could deplete fish numbers, they generally blamed others, especially commercial harvesters, for plummeting stocks.[2]

From the late nineteenth century, sportfishing for sharks mirrored popular narratives of big game hunting for land-based predators. Early accounts often emphasized the dangers that sharks posed to humans (and more desirable marine life) and the service fishers performed by killing them. As a turn-of-the-century Australian commenter stated, "Although it is possible that it would not find favour with the devotees of Isaak Walton's gentle art, shark fishing has much to recommend it to lovers of sport." The author added that "those who indulge in it have the additional satisfaction of knowing that they are doing a public service in assisting to exterminate these pests." Many other writers made similar claims.[3]


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(Left) Shark and billfish hanging on dock. Early proponents of recreational shark fishing contended that sharks should be recognized as game fish equivalent to the billfish co-displayed here. Photo by Tudor Washington Collins, 1945. Wikimedia Commons. CC BY 4.0. (Right): Shortfin mako (a.k.a. bonito) shark caught on rod and reel, 1905. Owing to the mako's explosive speed and power, shark fishing proponents have long touted it as an outstanding game fish. Photo published in Charles Frederick Holder, **Fisheries of the Pacific Coast: A Handbook for Sportsmen and Tourists** (New York: Dodge Publishing Company, 1912). Wikimedia Commons. Public domain.

Sportfishing for sharks received a further boost when Zane Grey and Ernest Hemingway, two US authors perceived as embodying manliness, recounted their shark-hunting adventures. After first angling for sharks in New Zealand in the 1920s, Grey resumed the sport in Australia in the 1930s but appeared torn in his attitude toward targeting sharks. Although he contended that makos, tiger sharks, and white sharks were legitimate quarry, testing the angler's strength, skill, and nerve, he endorsed abandoning the rules of sportfishing to protect people from sharks. Well-versed in the sportsman's code, Grey noted that shooting or harpooning a shark would disqualify the catch from game-fish records. Whenever possible, he advocated bringing the shark alongside the boat with a rod and reel before gaffing it: "the most thrilling method, and the one that gives the man-eater, terrible as he is, a chance for his life." Yet his loathing for sharks also made him receptive to less sporting methods: "Certainly it would be better to fish for sharks and shoot them on sight than not fish at all. For, every shark killed may save one or more lives."[4] Like Grey, Hemingway also considered sharks legitimate angling quarry. In his 1949 article "Cuban Fishing," he identified the mako shark as a fish that tested an angler's skill and stamina.[5] However, he also wrote of humans' struggles with sharks in his Pulitzer Prize-winning novel *The Old Man and the Sea* (1951). It narrates the tale of an aged Cuban fisherman who captures a giant marlin and tethers it to his boat, only to have sharks reduce it to a skeleton as he rows back to shore. An avid big game fisherman, Hemingway had experienced his own frustrations with sharks attacking his catches in the Gulf Stream. He reportedly responded by bringing a Thompson machine gun with him and firing at any sharks that disrupted his play.


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Both Hemingway and Grey viewed the mako shark as especially well-suited to sportfishing. Among the most athletic sharks, makos engage in the type of spectacular aerial acrobatics prized by anglers. As Hemingway stated, "The mako shark, which can jump as high as any fish, run faster than most, and pull as hard as any, seems to me to be a true fighter." Grey also described the mako, with its "great curved fangs, his round body, potent, with tremendous power, his utter lack of fear of man or boat" as a particularly worthy opponent. Beginning in the early twentieth century and spanning through the present, numerous other anglers have identified the mako as perhaps the ultimate shark for sportfishing. But this adrenaline rush has come at an ecological cost.[6]

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Although both writers, and many historical accounts, generally describe a singular mako shark, makos consisted of two closely related species, the shortfin mako shark (*Isurus oxyrinchus*)—the more common, which anglers would have primarily encountered—and the longfin mako (*Isurus paucus*). Shortfin makos are exceptionally athletic, measuring about four meters, with muscular, torpedo-shaped bodies that can propel them over 95 kilometers per hour in short spurts, possibly the fastest speed reached by any sharks. True apex predators, shortfin makos feed on large bony fish like swordfish and tunas, sea turtles, and even other sharks. With their semi-camouflaged blue backs (contrasting with their white bellies), shortfin makos approach their prey from below and then seize on it with their distinctively large and jagged teeth. These explosive ascents contribute to the fishes' extraordinary leaping abilities. Highly migratory, they occupy temperate and tropical coastal and oceanic waters around the globe.[7]

Despite their extraordinary speed, shortfin makos, like most shark species, do not rapidly mature and reproduce. As opposed to "R-selected" species, which reproduce copiously and thus rebound quickly from harvests, nearly all sharks are, in the parlance of ecologists, "K-selected" organisms. This means they birth few young and grow slowly, thriving in undisturbed conditions but ill-suited to recover from population declines. Male makos reach reproductive maturity at around eight years of age and females at around twenty years. After a 15- to 18-month gestation period, shortfin makos give birth to litters typically numbering between 10 and 18. Female makos then require up to sixteen months of recovery before their next pregnancy, meaning the reproductive cycle lasts three years in total. With an estimated maximum age of 28–32 years, female shortfin makos only birth two to three litters over their lifetime. For these biological reasons, makos are not suited to surviving sustained human harvests. Because of sportfishing, targeted food fisheries, and incidental bycatch, shortfin-mako populations have plummeted globally, mirroring other shark populations. They are presently identified as endangered on the IUCN Red List.[8]

These declines in shark numbers have presented serious risks for marine ecosystems. Like all predator species, sharks help maintain healthy prey populations by removing weak and sickly individuals. As apex predators, large sharks play a pivotal role in preserving ecosystem stability. Researchers have shown that the removal of such species frequently results in "trophic cascading," which involves shifts in population ratios and feeding patterns as the organisms within each level of a food web adapt to new threats and opportunities. Observing such processes has convinced ecologists that some sharks represent "keystone" species, and their elimination might disrupt entire ecosystems. Ecocritic Sid Dobrin has made a strong case that sport fisheries can be ethical, sustainable, and edifying. But even this staunch advocate of recreational fishing states that we need to take into consideration fishes' biology and their place in the broader ecosystem. In the case of most shark species, such analysis argues against killing them for sport.[9]


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Although the mako and several other species of sharks possess the size, strength, and athleticism prized in big game fish, sharks have presented multiple challenges to anglers over the past century. With most people perceiving large sharks as threatening to humans, sportfishers struggle with the morality of giving these fish a sporting opportunity to escape when it might endanger a bather or surfer. Nonetheless, recreational shark fishing gradually took hold, owing in part to endorsements from Grey and Hemingway. In the mid-twentieth century, Alf Dean and Frank Mundus, from Australia and the US, respectively, further expanded the sport by landing massive white sharks that awed and terrified the public. Nonetheless, as a bloody pastime dependent on buckets of chum, sometimes with cetacean origins that disgusted early environmentalists, shark fishing continued to fit uneasily within the genteel world envisioned by Walton. This became doubly true at the shark-fishing tournaments—often frenzied, chaotic, and violently competitive—that exploded in popularity in much of the English-speaking world from the 1950s onwards. By the 1980s, as researchers learned more about sharks' limited reproduction, and the public became more environmentally aware, anglers increasingly turned to catch-and-release methods, but researchers have debated the survival rates of freed sharks.[10]

As data became available, the numbers did not support recreational anglers' initial position that any declines in shark populations resulted from commercial overfishing. By the 1980s, sportfishing accounted for over 40 percent of the total reported US shark catch. If we exclude dogfish and focus on large sharks, the statistics are even more astonishing. Between 1981 and 2001, US recreational anglers landed more large coastal sharks than did their commercial counterparts in fifteen out of twenty years. Given that much of the global shark-fin catch has historically gone unreported, we should take such numbers with a grain of salt, by they are still startling.[11]


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Today, an account of sharks as "engines of destruction" rings false. Negative shark encounters have increased mainly because of recreational swimming, diving, and surfing, raising the probability of a shark mistaking a person for natural prey. Even so, fatal shark bites typically measure in the single digits annually, while humans kill an estimated 100 million sharks per year. For every person killed by a shark, 10 million or more sharks lose their lives to nets and hooks. Such figures do not include the millions of interactions facilitated by shark cages, scuba gear, or public aquariums, which do not involve an injury to either party, or the innumerable incidents in which sharks perceive us in their environment, and we have no idea they are there.[12]

The development of recreational shark fisheries speaks to the central dangers that these creatures have faced since industrial fisheries emerged in the early twentieth century. Nearly all species of sharks are poorly suited to withstand any sustained exploitation, and despite repeated claims that killing sharks makes human bathers safer, sharks pose a statistically negligible risk to people. However, their removal from marine ecosystems threatens unforeseen and cascading consequences for our oceans. Despite sportfishers' claims of moral superiority over their commercial counterparts, numerous individuals have benefitted financially from recreational fisheries for sharks. For charter-fishing captains, boat and gear manufacturers, resort-town business operators, and even outdoor adventure writers, sportfishing represented an opportunity to commodify a group of fish that resisted easy incorporation into the market. These individuals sold the experience of killing or tormenting sharks as surely as other entrepreneurs sold sharkskin, liver oil, meat, or fins. Once again, the desire to profit from sharks ran up against biological limits, resulting in plummeting populations of some of the most ecologically significant marine species on the planet.

## Notes

[1] Although men predominated in recreational angling, historian Nancy Unger has demonstrated that women also participated in such sporting activities, with men sometimes welcoming their female counterparts for adding further respectability to the pursuit; see Nancy C. Unger, *Beyond Nature's Housekeepers: American Women in Environmental History* (New York: Oxford University Press, 2012), 79–80. Izaak Walton, "The Compleat Angler," in *The Ocean Reader: History, Culture, Politics*, edited by Eric Paul Roorda, 387–91 (Durham: Duke University Press, 2020), 387–88; Joseph E. Taylor III, *Making Salmon: An Environmental History of the Northwest Fisheries Crisis* (Seattle: University of Washington Press, 1999), 166, 167; John F. Reiger, *American Sportsmen and the Origins of Conservation* (Corvallis: Oregon State University Press, 2001), 3, 6, 36; Kevin Kokomoor, "'In the Land of the Tarpon': The Silver King, Sport, and the Development of Southwest Florida, 1885–1915," *The Journal of the Gilded Age and Progressive Era* 11, no. 2 (2012): 191–224, p. 212, https://www.jstor.org/stable/23249073; Myra E. Wright, *The Poetics of Angling in Early Modern England* (New York: Routledge, 2019), 134-55; Sidney I. Dobrin, *Blue Ecocriticism and the Oceanic Imperative* (London: Routledge, 2021), 47.

[2] Joseph E. Taylor III, "El Niño and Vanishing Salmon: Culture, Nature, History, and the Politics of Blame," *Western Historical Quarterly* 29, no. 4 (Winter 1998): 437–57, https://doi.org/10.2307/970403; Louis S. Warren, *The Hunter's Game: Poachers and Conservationists in Twentieth-Century America* (New Haven: Yale University Press, 1999), 12, 168; Paul Schullery, "Frontier Fly-Fishing in the New West," *Montana: The Magazine of Western History* 52, no. 2 (Summer 2002): 2–9, p. 3; Robert Arlinghaus, Steven J. Cooke, Jon Lyman, David Policansky, Alexander Schwab, Cory Suski, Stephen G. Sutton, and Eva B. Thorstad, "Understanding the Complexity of Catch-and-Release in Recreational Fishing: An Integrative Synthesis of Global Knowledge from Historical, Ethical, Social, and Biological Perspectives," *Reviews in Fisheries Science* 15, no. 1–2 (2007): 75–167, p. 83, https://doi: 10.1080/10641260601149432; Jen Corrinne Brown, *Trout Culture: How Fly Fishing Forever Changed The Rocky Mountain West* (Seattle: University of Washington Press, 2015), 14, 16, 20; Miles A. Powell, *Vanishing America: Species Extinction, Racial Peril, and the Origins of Conservation* (Cambridge: Harvard University Press, 2016), 93–94; Loren McClenachan, "Recreation and the 'Right to Fish' Movement: Anglers and Ecological Degradation in the Florida Keys," *Environmental History* 18, no. 1 (January 2013): 76–87, pp. 77–78, https:// doi:10.1093/envhis/ems110.

[3] "Shark Fishing," *Manilla Express*, 16 March 1901, 6; "The Thrills of Shark Fishing"; *Nambour Chronicle*, 21 May 1926, 4; T. C. Roughley, "Catching Sharks for Profit," *The Australian Museum Magazine*, January-March 1928, 149–155, p. 149; "Shark Fishing: Thrills at Bondi," *Noosa Advocate and Cooroora Advertiser*,16 January


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1931, 3; "Shark Fishing: A Titan Sport," *Queensland Times*, 6 January 1933, 5; "J. M. McLachlen to 'Sir'," Australian National Archives (hereinafter ANA), 18 June 1934, "Shark Fisheries" ser. # A461, control symbol F345/1/2.

[4] See Zane Grey, *An American Angler in Australia* (1937; repr., Warsaw: Ktoczyta, 2018), 47, 57–58; Sidney I. Dobrin, *Fishing, Gone? Saving the Ocean through Sportfishing* (College Station: Texas A&M, 2019), 102–103.

[5] Ernest Hemingway, "Cuban Fishing," in *Game Fish of the World*, edited by Brian Vesey-Fitzgerald and Francesca Lamonte, 156–160 (London: Nicholson & Watson, 1949), 156–157; Id., *The Old Man and the Sea* (New York: Scribner, 1952); Jennifer Adams Martin, "Slicing Fins: The Transformation of Sharks from Killing Machines to Endangered Species in Twentieth-Century American Culture," (PhD diss., University of Wisconsin-Madison, 2013), 88.

[6] "Fishing for the Leaping Shark," *Forest and Stream*, January–June 1903, 54; Charles Smith, "Shark Fishing Society," *The Courier-Mail*, 9 May 1934, 7; Grey, *American Angler in Australia*, 17; "Only One Shark 'Game,' Says Fisherman," *Newcastle Morning Herald and Miner's Advocate*, 9 April 1947, 2; Hemingway, "Cuban Fishing," 157; Harold W. McCormick and Tom Allen with Captain William E. Young, *Shadows in the Sea: The Sharks, Skates and Rays* (New York: Chilton Books, 1963), 101; Captain Frank Mundus and Bill Wisner, *Sportfishing for Sharks* (1971; repr. New York: Collier Books, 1976), 226; Nelson Bryant, "The Highs and Lows of Shark Fishing," *New York Times*, 6 July 1981, 9.

[7] Steven E. Campana, Linda Marks, and Warren Joyce, "The Biology and Fishery of Shortfin Mako Sharks (*Isurus oxyrinchus*) in Atlantic Canadian Waters," *Fisheries Research* 73, no. 3 (July 2005): 341–52, p. 341, https://doi.org/10.1016/j.fishres.2005.01.009; David A Ebert, Marc Dando, and Sarah Fowler, "Lamnidae: Mackerel Sharks," in *Sharks of the World: A Complete Guide*, 319–23 (Princeton: Princeton University Press, 2021), 321.

[8] Campana, Marks, and Joyce, "The Biology and Fishery of Shortfin Mako Sharks," 341–352; Ebert, Dando, and Fowler, "Lamnidae: Mackerel Sharks," 321.

[9] Manon Osseweijer, "A Toothy Tale: A Short History of Shark Fisheries and Trade in Shark Products in Twentieth-Century Indonesia," in *A World of Water: Rain, Rivers, and Seas in Southeast Asian Histories*, edited by Peter Boomgaard, 103–121 (Leiden: KITLV Press, 2007), 114; Michelle R. Heupel and Colin A. Simpfendorfer, "Shark Biology, Ecology and Management: Introduction," *Marine and Freshwater Research* 62, no. 6 (January 2011): 519, https://doi:10.1071/MF11049; A. Peter Klimley, *Biology of Sharks and Rays* (Chicago: The University of Chicago Press, 2013), 443; Hugo Bornatowski, Andrés Felipe Navia, Raul Rennó Brage, Vinícius Abilhoa, and Marco Fábio Maia Corrêa, "Ecological Importance of Sharks and Rays in a Structural Foodweb Analysis in Southern Brazil," *ICES Journal of Marine Science* 71, no. 7 (September/October 2014): 1586–92, https://doi.org/10.1093/icesjms/fsu025; Dobrin, *Fishing, Gone?*, 231.

[10] For survival rates from catch and release fisheries, see Austin J. Gallagher, Neil Hammerschlag, Andy J. Danylchuk, and Steven J. Cooke, "Shark Recreational Fisheries: Status, Challenges, and Research Needs," *Ambio* 46, no. 4 (May 2017): 385–98, pp. 386–90, https://doi:10.1007/s13280-016-0856-8; David S. Shiffman, Austin J. Gallagher, Julia Wester, Catherine C. Macdonald, Andrew D. Thaler, Steven J. Cooke, and Neil Hammerschlag, "Trophy Fishing for Species Threatened with Extinction: A Way Forward Building on a History of Conservation," *Marine Policy* 50, no. 1 (December 2014): 318–22, https://doi.org/10.1016/j.marpol.2014.07.001.

[11] Gregory Weingarten, "Shark Anglers Reject Over-Fishing Accusation," *The Times*, 25 January 1988; Dockerty, *International Trade in Shark Fins*, 1; Taylor, "El Niño and Vanishing Salmon," 437–57; Id. *Making Salmon*, 167; Juliet Eilperin, *Demon Fish: Travels Through the Hidden World of Sharks* (New York: Anchor Books, 2012), 67; Gallagher et al., "Shark Recreational Fisheries," 387.

[12] Jennifer Adams Martin, "When Sharks Don't Attack: Wild Animal Agency in Historical Narratives," *Environmental History* 16, no. 3 (July 2011): 451–55; Id., "Slicing Fins"; Id., "Seeing Jaws: The Role of Shark Science in Ocean Conservation," *Historical Studies in the Natural Sciences* 46, no. 1 (February 2016): 67–100, https://doi.org/10.1525/hsns.2016.46.1.67; Michaela Jane Thompson, "Governing the Shark: Predators and People in the Twentieth Century and Beyond," (PhD diss., MIT, 2016); Vivienne Westbrook, Shaun Collin, Dean Crawford, and Mark Nicholls, *Sharks in the Arts: From Feared to Revered* (London: Routledge, 2018), 16.


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