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Short Communication

A rejoinder to Shiffman et al., Trophy fishing for species threatened with extinction: A way forward building on a history of conservation

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ABSTRACT

Shiffman et al. assert that International Game Fish Association (IGFA) records are threatening imperiled fish populations. Here I report that 88% of the species identified by the authors were first listed as threatened within the last 20 years and, during this time, IGFA received a total of 15 All-Tackle record applications for these species. The low number of records placed within the appropriate context of total global landings for these species does not support the hypothesis that IGFA All-Tackle records have a disproportionately negative impact on imperiled species as the authors suggest, but rather a disproportionately low impact.

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In the 2014 Marine Policy article *Trophy fishing for species threatened with extinction: a way forward building on a history of conservation*, Shiffman et al. assert that the International Game Fish Association (IGFA) is responsible for stressing fish populations by rewarding anglers who target “trophy fish” for IGFA world records. They further contend that maintaining fishing records encourages anglers to target large, fecund individuals some of which are listed as Threatened with extinction by the IUCN. However the authors' lack of understanding of IGFA fishing records and incomplete analysis of IUCN and IGFA data results in a flawed interpretation of IGFA records' impacts on threatened species.

The authors correctly identify IGFA as the world's premier body for maintaining international fishing records and that the majority of IGFA records are certified on the basis of mass. The IGFA All-Tackle records that Shiffman et al. reference in their study represent the heaviest individual for a given species caught in accordance to IGFA angling rules and with line no heavier than 130 pounds in breaking strength. However, the authors' statement that the criterion of weighing fish necessitates transporting fish to an official land-based weigh station for weighing and, as such, “effectively precludes catch and release for trophy fishing” is incorrect. IGFA record requirements do state that fish may not be weighed on boats at sea or other bodies of water. What the authors were apparently unaware of, however, is that it is perfectly acceptable for anglers to weigh their catch using personal hand scales at or near the site of catch, as long as it is not done on a vessel. While this is not amenable to large pelagic species

such as billfish, tunas and some sharks it does indeed result in a large proportion of IGFA records being released. In the last five years that IGFA has been recording release fate of all record category catches, 30% of weight submissions have been released alive.

Shiffman et al.'s analysis of the 2011 IGFA World Record Game Fishes book reported that of the 1,222 IGFA All-Tackle records listed, 85 species (6.95%) were evaluated as Threatened by the IUCN. What the authors failed to include in their analysis was when these species were first listed as Threatened by the IUCN and how many IGFA records have been submitted since that time. An investigation of the IUCN website revealed that 75 of the 85 species were first listed as Threatened within the last 20 years, yet only 15 All-Tackle record applications were submitted to IGFA during that time period.

The authors' central argument is that “recreational trophy fishing occurring with the goal of earning an IGFA world record may have a disproportionate negative impact on the population dynamics of Threatened fish species by removing larger, more fecund individuals”. However, with a total of 15 All-Tackle records for Threatened species submitted for IGFA certification in the last 20 years, Shiffman et al. display an unfamiliarity with the basic principles of population dynamics in fishes as well as a limited grasp of the relative impacts of record fishing vs commercial fishing efforts for many of these threatened species. For example, according to the Commission for the Conservation of Southern Bluefin Tuna (CCSBT), total landings from 1991 to 2011 for southern bluefin tuna, which are listed as critically endangered, totaled 293,695 metric tons.² The only southern bluefin tuna (*Thunnus maccoyii*) that was submitted for an IGFA

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² The Commission for the Conservation of Southern Bluefin Tuna estimated total global landings of southern bluefin tuna: (<http://www.ccsbt.org/site/data.php>).

All-Tackle record during the same time period weighed 167.5 kg and represents 0.00005% of the total catch recorded by the CCSBT. Similarly, the Food and Agricultural Organization of the United Nations (FAO) landings data for mako sharks (*Isurus spp.*) during the same time period totaled 1264 metric tons³ and the only mako shark All-Tackle record submitted during this time weighed 533.84 kg, representing 0.04% of the estimated global catch. These examples give little credence to the authors' declaration that IGFA records have a disproportional impact on fish populations especially when viewed from the perspective of global fisheries.

In summary, Shiffman et al.'s assertion that IGFA records are creating a disproportional negative impact on threatened fish populations is

essentially indefensible. Can and does recreational fishing impact fish populations? Absolutely. However their conclusion that a cessation of IGFA All-Tackle records for IUCN threatened species would “result in an instantaneous reduction of fishing pressure on the most fecund members of these at-risk species, and would promote the recovery of their populations” lacks biological credibility when (1) IGFA All-Tackle record submissions for these species are a rare events and (2) commercial landings for many of these species are orders of magnitude higher than trophy fishing efforts.

³ Food and Agriculture Organization of the United Nations global fish production dataset (<http://www.fao.org/fishery/statistics/global-capture-production/query/en>).