

Evaluation of a protocol to conduct a rapid assessment of marine mammal bycatch in global fisheries

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The bycatch of marine mammals in fishing gear is a global concern, but information on the magnitude and consequences of this conservation problem are lacking for many regions. Data limitation is particularly limited from artisanal fisheries in developing countries, where there is a dearth of basic observations of the number of fishers, types of gear used, and species taken as bycatch. To address this information need, we developed and tested a rapid bycatch assessment protocol to evaluate the magnitude of fishing effort and bycatch in several countries: Tanzania, Comoros, Nigeria, Cameroon, Sierra Leone and Malaysia. We sampled fishing communities of different sizes with varying characteristics and conducted short (five-minute) interviews with 30% of fishermen in these communities. We also collected more detailed information on gear characteristics, vessel specifications, catches, and distribution of effort from 10% of fishermen in these communities. We field tested this approach in a pilot study of five ports in Tanzania where we conducted 258 short and 268 long surveys. We then expanded the interviews to sample 50 ports in Comoros, 30 in Cameroon, 27 in Nigeria, 32 in Sierra Leone, and 35 in Malaysia. From the survey data, we characterized fishing effort and magnitude of bycatch for each country. This protocol is critical to characterize the magnitude and extent of the impact of fisheries bycatch on vulnerable species. We believe that this rapid assessment protocol can be implemented at a relatively low cost on a region-wide basis to aid managers in setting priorities for fisheries and bycatch management.