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EVALUATION OF INTERACTION BETWEEN SEA TURTLES AND PELAGIC LONGLINE FISHERIES IN BRAZIL: HOMOGENEOUS FISHERIES AS MANAGEMENT UNITS

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Projeto TAMAR/IBAMA has been working on the conservation of 5 sea turtles species that occur in Brazil (*Caretta caretta, Chelonia mydas, Eretmochelys imbricata, Lepidochelys olivacea and Dermochelys coriacea*) for the past 26 years.
During the first 10 years, the work focused on nesting areas. Sea turtle interactions with the coastal fisheries have been the focus of Projeto TAMAR/IBAMA field activities since 1990 (Thomé et al, 2003), when TAMAR expanded conservation activities for sea turtles feeding areas. Conservation strategies and measures to mitigate sea turtles capture and mortality have been continuously implemented.
In 2001 Projeto TAMAR/IBAMA created the Brazilian National Action Plan to Reduce Incidental Capture of Sea Turtles in Fisheries. This federal action plan was designed to fulfill the following objectives: **i)** Fisheries monitoring, **ii)** Development of specific research, **iii)** Mitigation measures, **iv)** Support to sustainable fisheries, **v)** Establishing discussion forum. Through this Plan, the pelagic longline fishery has been the main investigated fishery and, in order to effectively manage it and improve the analysis about sea turtle interactions, Brazil's pelagic longline fishery was divided according to 13 parameters, into 4 distinct fisheries. **1)** the American model N/NE, **2)** the American model S/SE, **3)** the Chinese model, and **4)** the Itaipava model. In such case, the term "fishery" was defined as the unit upon which evaluation and management of interactions between sea turtles and fishing activity is based. These four different fisheries interact with sea turtles by different ways. Between 1999 and 2005 Projeto TAMAR – IBAMA, with collaboration of some partnership, sampled 11.415.492 hooks, the Chinese model longline was the principal fishery sampled, representing 64,85% of total amounted, followed by the American model N/NE longline (22,6%), American model S/SE longline (12,25%) and Itaipava model (0,3%). Despite the American model S/SE longline represents only 12,25% of total number of hooks sampled, this fishery answers by 71,5 % of the total number of turtles caught, followed by the American model N/NE (15,7%), Chinese model (9,1%) and Itaipava model (3,7%). The interaction of different species with these four fisheries are different too. The American model S/SE longline and Itaipava model catch primarily loggerhead followed by leatherback, green and olive ridley, while the American model N/NE longline catch mainly: leatherback followed by olive ridley, green and leatherback, while the Chinese model longline catch principally: olive ridley, followed by leatherback, green and loggerhead.

Considering that the Brazilian coastline has more than 8.500 Km with different climatic and oceanographic conditions, and that sea turtles species interact in distinct ways, both qualitative and quantitative, with different longline fisheries, we believe that to share this fishery, according to homogeneous parameters, in more than one fisheries is an important management tool of the problem; “Sea turtles x fisheries” and, contribute for better comprehension about the interaction between sea turtles and longline fisheries, helping future conservation strategies decisions.