



Earth Island International Marine Mammal Project (Dolphin Safe)

Proposal for undertaking research analyses to inform discussions of mitigating impacts on cetaceans in the WCPFC purse seine tuna fishery

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Cetaceans Caught in Purse Seine Nets in WCPO from 2012-2019

(Based on Observer Data from WCPFC Annual Report WCPFC -TCC19-2023-RP02, Table A5)

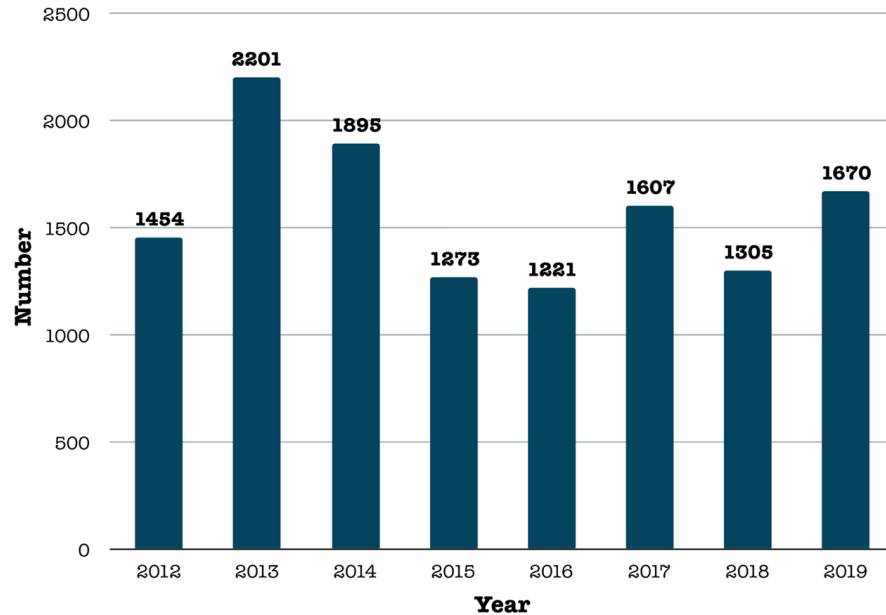


Figure 1 shows a range from 1221 – 2201, with an average of 1578 cetaceans caught. Years 2020-2022 have been excluded as COVID-19 caused reduction of observers preventing accurate yearly data.

Cetaceans Dead in Purse Seine Nets in WCPO from 2012-2019

(Based on Observer Data from WCPFC Annual Report WCPFC-TCG19-2023-RP02, Table A5)

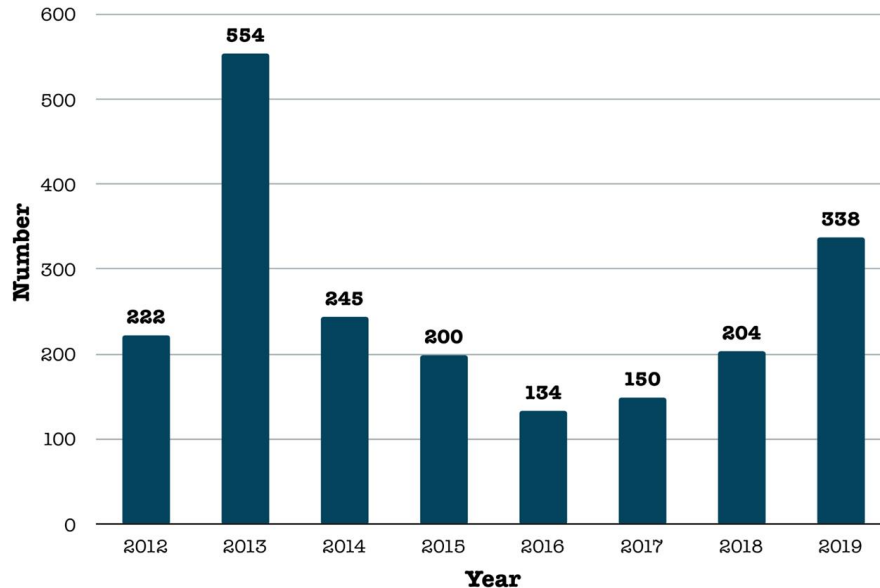


Figure 2 shows a range from 134 – 554, with an average of 256 cetacean mortalities. Years 2020-2022 have been excluded as COVID-19 caused reduction of observers preventing accurate yearly data.

INTERNATIONAL REVIEW PANEL

50TH MEETING

DEL MAR, CALIFORNIA (USA)
20 OCTOBER 2011

DOCUMENT IRP-50-10

POSSIBLE EFFECTS OF MODIFYING THE REQUIREMENTS OF THE
AIDCP REGARDING NIGHT SETS

1. INTRODUCTION

The operational requirements set out in Annex VIII of the AIDCP prohibit making night sets, defined as those sets in which the backdown maneuver is not completed within thirty minutes after sunset.

During the 23rd Meeting of the Parties in September 2010, the Secretariat was asked to "evaluate the impact on dolphin mortality of increasing by 30 minutes the time for determining whether a set was a night set", and was also asked for "information on dolphin mortality in sets defined as night sets."

1. DEFINITIONS

For this analysis, two categories of sets on dolphins were defined, night sets and daytime sets. Daytime sets are defined as sets on schools of tunas associated with dolphins in which dolphins were captured and in which the backdown maneuver finished 30 minutes or less after the moment at which the sun goes down below the horizon (sunset); night sets, identified in Annex VIII, paragraph 3.d of the AIDCP, are those in which the backdown maneuver finishes more than 30 minutes after sunset.

2. DATA COLLECTED BY OBSERVERS

Table 1 summarizes the data for the last period before the ban on night sets (1991) from the AIDCP database (including all the data from national programs), and the same data for 2010. It shows the number of sets in each of the categories defined above, the total mortality of dolphins in those sets, the index of mortality by category (MPS), the total tonnage caught (t) of the three commercially important species of tunas (yellowfin, bigeye, and skipjack), the proportion of the total catch (as a percentage), by set type, and the catch rate per set (CPS). The data for 1991, the last year during which there were no restrictions on making night sets for the international fleet, are shown in bold type. 1991 was chosen as the base year for projecting the additional mortality that might result from a modification of the prohibition of night sets; it was not considered appropriate to use a range of years as a base case due to the strong tendency over time in the frequency of night sets in the years prior to the ban. Data for United States flag vessels were excluded, since during various years there were regulations in force regarding night sets for some fishing captains, and this could bias the results. Therefore, the data used were those for when it is certain that there were no restrictions and for when there were, in order to compare the years.

The last two columns of the table identify the quotient of the mortality rates by category. For example, the mortality per set observed for night sets in 1991 was 3.18 times greater than for daytime sets.

ESTIMATES

Two estimates were obtained. In the first, it was assumed that there were no restrictions of the time backdown with captured dolphins finished; in the second, the frequency of sets in 1991 with a backdown that lasted more than 30 minutes after sunset was calculated.