## Assessment of Incidental Interactions with Marine Mammals in the American Samoa Permitted Longline Fishery from 2015 through 2019

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The attached Excel Workbook (pir.asll.ceta.1519.xlsx) includes annual estimates of take and number of takes with a dead or serious injury determination (DSI) in the American Samoa permitted longline fishery for years 2015–2019 and the estimated 5-year average for these estimates. The workbook includes a worksheet labeled "key" that provides definitions of the column headings and the items being estimated.

McCracken (2019) describes the sample design used to sample the American Samoa longline fleet, estimators of bycatch, and the caveats of the design and estimators. For 2015-2019, the synthetic combine ratio estimator was used. A comparison of the American Samoa Trip Log (Pacific Islands Regional Office 2020a) and American Samoa Longline Logbook Data Set (Pacific Islands Fisheries Science Center 2020) showed some discrepancies between the two data sets. For example, trips would be recorded in one of the data sets but not in the other, or one trip in one data set would be represented by multiple trips in the other. The ratio used represents the bycatch rate per trip where the number of trips were based on the American Samoa Trip Log with the few trips in the American Samoa Longline Logbook Data Set that were not represented in the trip log added to this list. To estimate DSI the number of DSI determinations on observed trips was used as the variable of interest. All observed 2015-2019 interactions occurred within American Samoa's EEZ. Based on the Longline Logbook Data Set, approximately 1% of sets were outside of the American Samoa EEZ. As all observed 2015-2019 interactions occurred within American Samoa's EEZ, estimates of take and DSI outside of the American Samoa EEZ are 0 if the number of takes and DSI outside the EEZ's are used as the variables of interest. The observed and estimated numbers were derived using American Samoa Trip Log and Longline Logbook Data Set along with the Longline Observer Data System (Pacific Islands Regional Office 2020b).

## References

- Pacific Islands Fisheries Science Center. 2020. American Samoa Longline Logbook. <u>https://inport.nmfs.noaa.gov/inport/item/2721</u>.
- Pacific Islands Regional Office. 2020a. American Samoa Longline Trip Log. https://inport.nmfs.noaa.gov/inport/item/16869.
- Pacific Islands Regional Office. 2020b. Longline Observer Data System. <u>https://inport.nmfs.noaa.gov/inport/item/9027</u>.
- McCracken ML. 2019. American Samoa Longline Fishery Estimated Anticipated Take Levels for Endangered Species Act Listed Species. Pacific Islands Fisheries Science Center. PIFSC Data Report DR-19-028. https://doi.org/10.25923/b8gs-j441.