**Appendix A: Logbook Re-entry Project**

In 2020 the ADF&G longline logbook and pot logbook applications were updated within the Zander database to include more fields that would allow staff to capture data as recorded by the fisherman in its raw format. From 2020–2023, the Groundfish Project staff individually pulled up the data associated with each state-managed sablefish logbook in the new application and re-entered raw logbook data as needed for each logbook. Some of the new modifications to the application now allow department staff to enter multiple gear types, specify target species by trip or set, enter numbers or pounds of released fish, and account for depredation, all of which were not possible in prior logbook applications. Previously, fields were omitted, averaged, or modified in someway to attempt to account for certain circumstances. Staff avoided making assumptions, extraneous calculations, and entering data that were not documented by the fisherman.

The main goals of the re-entry project were to:

1. Designate the target species at trip and set level(s) to the appropriate species, as originally specified by the fisherman
2. Enter mixed gear logbooks with gear specifications by set and by target species, as originally specified by the fisherman
3. Enter pounds/number of fish released and revert number of skates/hooks to raw data, as originally specified by the fisherman
4. Enter whether depredation occurred, and if so, how much gear was affected by the depredation, as originally specified by the fisherman
5. Update or edit any additional data as needed to capture raw information recorded by the fisherman

Beginning with Trip Details, staff entered the trip target species as recorded on the original logbook. Sometimes trips were dual-target trips in which the fisherman was targeting multiple species at the same time (e.g., sablefish and halibut). Staff entered both target species if a dual-target trip. Next, staff entered the longline system (conventional, snap on, autobaiter, or mixed) fished by the fisherman as reported on the logbook. Conventional gear may have been reported as “tub”, “stuck”, “fixed”, and “skate” gear. For snap on gear, staff entered the number of total hooks fished by set or entered the number of hooks per skate at the trip level with the number of skates recorded at the set level, if written in that manner by the fisherman. Autobaiter gear was entered as such. Mixed gear (e.g., different hook sizes, different hook spacing, different numbers of hooks per skate, etc.) was split apart into multiple gear configurations as necessary and designated by set and target species. If the fisherman did not specify the number of skates set for each gear configuration, then the gear configurations were listed as one configuration with each detail being separated by commas (e.g., hook size – 13, 14; hook spacing – 45, 72 inches; hooks per skate – 200, 120). If a gear configuration was specified for each target species, staff recorded this in the logbook application. Hook size was listed as the fisherman designated it on the logbook, and only converted if the old style of hooks were used, as follows:

|  |  |
| --- | --- |
| Old Size | Current Size |
| 3 | 16 |
| 4 | 15 |
| 5 | 14 |
| 6 | 13 |
| 7 | 12 |

Staff then updated the field for hook spacing. Hook spacing was entered in inches, so staff converted from feet to inches if the spacing was recorded in feet. Hook spacing was recorded for both conventional and snap on gear. The number of hooks per skate was recorded at the trip level if fishing conventional gear. Staff did not enter a number of hooks per skate for snap on gear if the fisherman did not provide the number of skates. Lastly, staff ensured the rest of the trip level details were entered correctly as documented on the logbook (e.g., vessel name, date left port/landed, bait, crew size, etc.).

For Effort (set) Details, staff reviewed latitude and longitude coordinates, statistical areas, time and date gear was set and hauled, and average depth for accuracy. Any errors in data entry were corrected. If depth were provided by the fisherman as a range of depths (e.g., 100-200 fathoms), staff took the average for the depth of the set (e.g., 150 fathoms). If the set was targeting a different species than the trip target species, staff assigned the target species to that set accordingly. If halibut-target sets were not entered, staff entered the sets and reported the set level target species as halibut. If the logbook designated two or more gear configurations and specified how many skates were set for each gear configuration, staff assigned the proper number of skates to each gear configuration by set as appropriate. The number of skates set was taken directly from the logbook. For snap on gear, if the fisherman did not specify the number of skates per set, staff entered the number of hooks set instead. If skates were lost, staff subtracted the number of lost skates from the total number of skates set and the difference was entered in the database (e.g., if the total number of skates set for an effort was 10 and the fisherman reported losing 2 skates, the number of skates entered for the set was 8). The number of hooks per set for conventional gear was recorded at the trip level and not entered at each effort or set level because the application and database automatically calculated this behind the scenes. For snap on gear, staff did not enter the total hooks by effort if previous staff had manually calculated this. During the re-entry project, staff only filled in this number if the fisherman provided the number of hooks on the logbook.

Final details entered by staff included documenting any depredation as noted on the logbook by the fisherman and accounting for retention and releases for target and bycatch species as specified by the fisherman. For depredation, if no depredation was noted, staff recorded “No depredation.” Otherwise, staff completed the appropriate depredation type and provided amount of gear affected by depredation as available. For retention and releases, if pounds of a species were released, staff entered the released pounds or numbers of fish in a new line to reflect what was written on the logbook. This includes sablefish that were released due to reaching quota limits or small/discarded sablefish. If the fisherman noted that the sablefish were released due to reaching their quota limit, staff assigned “Released (quota limit)” to the disposition of that sablefish line item. Previous staff may have subtracted a proportional number of skates from the total skates set for that effort, in which case current staff removed the calculated value and re-entered the original number of skates as recorded by the fisherman to account for the total catch (i.e., effort for those fish retained and released). Bycatch species were entered as recorded on the logbook to the most specific species possible; staff referred to the associated fish ticket to deduce which bycatch species were retained if a general description was listed like “red rockfish.”

Once the logbook was reviewed and re-entered to the specifications listed above, staff noted in red pen on the logbook that it had been re-entered and also typed their initials and date of re-entry in the logbook application. Logbooks were then scanned digitally, saved on the ADF&G Groundfish drive in the appropriate fishery and year folder, and the paper copies were shredded.