Pacific Fisheries Information Network

Comprehensive Fish Tickets Table

Version History

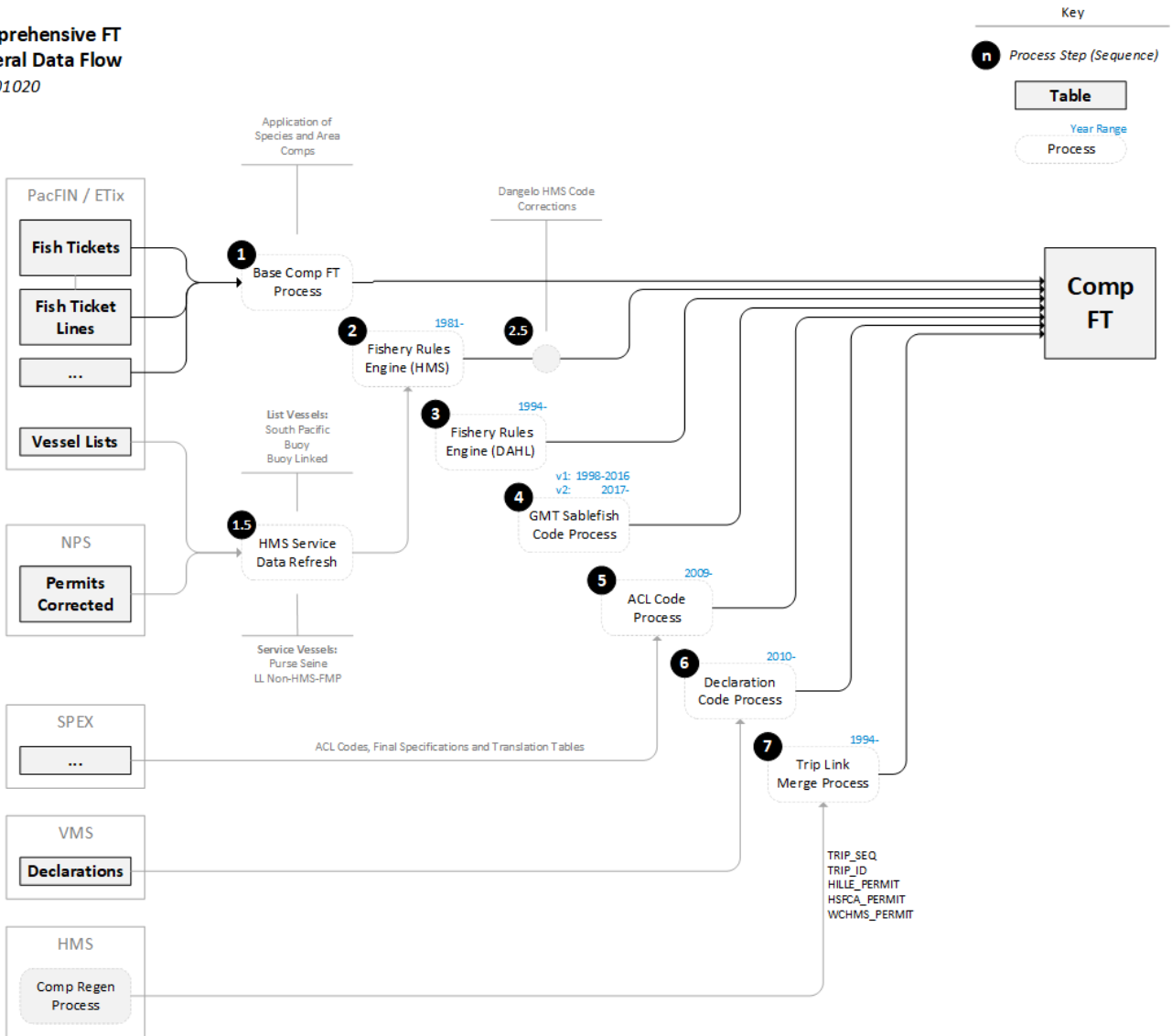| Date	Author	Change Comments	Version
09/15/2021	Suter et al.	Documentation overhaul	2.0
04/28/2022	Brad Stenberg/ Rob Ames	Final edits and formatting	2.1

Contents

Introduction

The Comprehensive Fish Ticket table (COMP FT) includes all shoreside landings on the West Coast, and is designed for both retrospective analyses and in-season management. The COMP FT is a standardized table of state agency fish tickets, and is generated by using a collection of base data sources along with auxiliary data and value-added information from federal and state agencies to further define records and associated entities. These enhancements are built alongside the original source data to allow PacFIN users the ability to query both the enhanced, as well as raw data from the same table. For the groundfish landings, the COMP FT is enhanced by applying the catch-by-area and species composition proportions (supplied by the state agencies) to improve reporting of catch areas, nominal species categories, and multispecies market categories. Other value-added information includes landing classifications into fisheries or sectors, federal permit information, vessel registrations, and Office of Law Enforcement vessel declarations. Fish ticket data entered through the PSMFC Electronic Fish Tickets (i.e. Etickets) program are incorporated into the COMP FT to provide near real-time monitoring of catch share fisheries, such as the IFQ groundfish fishery.

The COMP FT table currently has 124 columns that were initially organized into groups of like data fields; however, more recent data fields were added in the order in which they were created. For example, all gear codes and descriptions were initially grouped together to allow users to easily find the appropriate fields to query. This document regroups those similar columns when possible. Additional documentation on data collection can be found on the PacFIN website.

Industry-standard performance enhancements (table partitioning and indexing) are added to improve querying and reporting performance. The partitions are on year, PACFIN_YEAR and the indexes are local within each partition. The PACFIN_YEAR should be used in all queries instead of LANDING_YEAR to improve performance.

The COMP FT table is built in a stepwise process, first aggregating the agency fish ticket information, then integrating other source data and creating the value-added information as shown in Figure 1.

Comprehensive FT
General Data Flow
v20201020

Key

n Process Step (Sequence)

Table

Year Range
Process

PacFIN / ETix

Fish Tickets

Fish Ticket Lines

...

Vessel Lists

NPS

Permits Corrected

SPEX

...

VMS

Declarations

HMS

Comp Regen Process

Application of Species and Area Comps

Dangelo HMS Code Corrections

List Vessels:
South Pacific
Buoy
Buoy Linked

Service Vessels:
Purse Seine
LL Non-HMS-FMP

ACL Codes, Final Specifications and Translation Tables

1 Base Comp FT Process

2 Fishery Rules Engine (HMS) 1981-

2.5

3 Fishery Rules Engine (DAHL) 1994-

1.5 HMS Service Data Refresh

4 GMT Sablefish Code Process v1: 1998-2016 v2: 2017-

5 ACL Code Process 2009-

6 Declaration Code Process 2010-

7 Trip Link Merge Process 1994-

TRIP_SEQ
TRIP_ID
HILLE_PERMIT
HSFCA_PERMIT
WCHMS_PERMIT

Comp FT

Figure 1. The Comp FT process

4

1. Base Data

1.1. Fish Tickets and Fish Ticket Lines (FT & FTL)

The State Agencies provide data to PacFIN at regular intervals. It is the responsibility of each state to make sure the agency database and PacFIN database remain in sync. The COMP FT combines fish tickets (FT) and fish ticket line (FTL) details into a flattened out table that combines codes and their descriptions or names to provide users an easy way to access west coast ticket data without the need to join to multiple database tables.

Data fields with similar attributes in the base data are grouped and identified by the section names.

Dates, Ticket identifiers, Agency, Participation types

COLUMN_NAME	COLUMN_DESCRIPTION	SOURCE
PACFIN_YEAR	Year the catch was delivered. The COMP FT is partitioned by PACFIN_YEAR and should be used in all queries instead of LANDING_YEAR to improve performance. Format: yyyy Year(LANDING_DATE)	PacFIN
LANDING_YEAR	See PACFIN_YEAR. Format: yyyy Year (LANDING_DATE)	Agency
LANDING_MONTH	Month the catch was delivered, Format: mm Month (LANDING_DATE)	Agency
LANDING_DAY	Day the catch was delivered, Format: dd Day(LANDING_DATE)	Agency
LANDING_DATE	Date of fish ticket when the catch was delivered, Format: dd-MMM-yy	Agency
NUM_OF_DAYS_FISHED	Source agency number of days fished (WDFW and ODFW only)	Agency
FISH_TICKET_ID	PacFIN assigned unique number for each fish ticket	PacFIN
FTID	Source agency fish ticket identifier. This number is unique within a year and agency, but not necessarily across years or agencies.	Agency
AGENCY_CODE	Source agency identifier (C = CDFW, O = ODFW, W = WDFW)	Agency
PARTICIPATION_GROUP_CODE	Type of participant (A = Aquaculture , C = commercial fisher, non-Indian, I = Treaty Indian commercial fisher, U = Unknown or Unspecified)	PacFIN
PARTICIPATION_GROUP_NAME	Participation group name	PacFIN
FISHER_LICENSE_NUM	State-issued fisherman license number (CA and WA only)	Agency
FLEET_CODE	Groundfish fleet type (LE = limited entry, OA = open access, TI = tribal Indian, R = research, XX = unknown)	PacFIN

Dealer Information

COLUMN_NAME	COLUMN_DESCRIPTION	SOURCE
DEALER_ID	PacFIN unique dealer identifier	PacFIN
DEALER_NUM	Source agency identifier for the processor company or buyer that processed or received the delivery of fish. For CDFW this column contains a buyer-id and the processor-id is derived by taking the first five characters only	Agency
DEALER_NAME	Source agency dealer name or description	Agency

Ports, Areas, Regions

COLUMN_NAME	COLUMN_DESCRIPTION	SOURCE
PORT_CODE	Source agency port code (the port-of-landing)	Agency
PORT_NAME	Source agency port code name (the port-of-landing)	Agency
PACFIN_PORT_CODE	Standardized port code (see PacFIN Port Code list)	PacFIN
PACFIN_PORT_NAME	Standardized port code abbreviated name (see PacFIN Port Code list)	PacFIN
PACFIN_PORT_DESCRIPTION	Standardized port code name/description (see PacFIN Port Code list)	PacFIN
PACFIN_GROUP_PORT_CODE	Standardized port groupings	PacFIN
IOPAC_PORT_GROUP	IOPAC port groupings SQL JOIN ON PACFIN_PORT_CODE = IOPAC_PORT_GROUPS.PACFIN_PORT_CODE	PacFIN
COUNTY_CODE	County code	PacFIN
COUNTY_CODE_NAME	Name of county	PacFIN
COUNTY_STATE	County state	PacFIN
SUBREGION_CODE	Standardized grouping of counties into sub-regions	PacFIN
SUBREGION_NAME	Name of sub-region	PacFIN
REGION_CODE	Standardized grouping of counties into regions	PacFIN
REGION_NAME	Name of region	PacFIN

Catch Areas

The CATCH_AREA_CODE contains a mixture of agency areas, International North Pacific Fisheries Commission (INPFC) areas, and PSMFC statistical areas. The type of code is defined in the AREA_TYPE_CODE. The ORIG_PACFIN_CATCH_AREA_CODE is the direct PacFIN area translation of the CATCH_AREA_CODE before the CATCH_AREA_PROPORTIONS for grounfish landings are applied. The CATCH_AREA_PROPORTIONS process is described in section 1.6.

In California, dealers are required to report the catch location by CDFW Commercial Fishing Block (3 or 4-digit numeric codes) on the fish tickets. When the Etickets are reconciled by CDFW from their Marine Landings Data System (MLDS) to the PacFIN database, a procedure converts the CDFW Fishing Blocks to CATCH_AREA_CODES (groundfish only) and ORIG_PACFIN_CATCH_AREA_CODE for all species. Previous to Etickets, the CATCH_AREA_CODE from the 'paper' tickets was populated based on the specified business rules for combinations of SPECIES_CODE, PORT_CODE, and GEAR_CODE.

COLUMN_NAME	COLUMN_DESCRIPTION	SOURCE
CATCH_AREA_CODE	Catch area (see AREA_TYPE_CODE)	Agency/ PacFIN
CATCH_AREA_DESCRIPTION	Description of the CATCH_AREA_CODE	Agency
AREA_TYPE_CODE	Type of catch area code (1 = CDFW fishing block, 2 = WDF statistical area, 4 = PSMFC statistical area, 5 = INPFC statistical area, 8 = PacFIN salmon area, 10 = multiple areas)	PacFIN
AREA_TYPE_NAME	Description of the AREA_TYPE_CODE	PacFIN
ORIG_PACFIN_CATCH_AREA_CODE	Coastwide standardized catch area code (see PacFIN Catch Area Code list)	PacFIN
CDFW_AREA_BLOCK	CDFW Fishing Block Number	Agency

Species, Gears, and Groupings

COLUMN_NAME	COLUMN_DESCRIPTION	SOURCE
SPECIES_CODE	Source agency species identifier (i.e. market category)	Agency
SPECIES_CODE_NAME	Source agency species name (i.e. market category)	Agency
ORIG_PACFIN_SPECIES_CODE	Coastwide standardized species code (see PacFIN Species Code list)	PacFIN
PACFIN_SPECIES_CODE	Coastwide standardized species code. For groundfish and salmon, if IS_SPECIES_COMP_USED = T, the PACFIN_SPECIES_CODE may differ from the agency SPECIES_CODE (see PacFIN Species Code list)	PacFIN
PACFIN_SPECIES_COMMON_NAME	Standardized species common name for groundfish and salmon, if IS_SPECIES_COMP_USED = T and/or IS_AREA_COMP_USED = T, the PACFIN_SPECIES_CODE may differ from the agency SPECIES_CODE (see PacFIN Species Code list, and see sector 1.6)	PacFIN
PACFIN_SPECIES_SCIENTIFIC_NAME	Standardized species scientific name. For groundfish and salmon, if IS_SPECIES_COMP_USED = T, the PACFIN_SPECIES_CODE may differ from the agency SPECIES_CODE (see PacFIN Species Code list)	PacFIN
MANAGEMENT_GROUP_CODE	Standardized species management group based on PACFIN_SPECIES_CODE (see PacFIN Species Code list)	PacFIN
GEAR_CODE	Source agency type of fishing gear used	Agency
GEAR_NAME	Source agency type of fishing gear name	Agency
ADJUSTED_GEAR_CODE	PacFIN adjusted gear code for legacy groundfish	PacFIN
PACFIN_GEAR_CODE	Standardized gear code (see PacFIN Gear Code list)	PacFIN
PACFIN_GEAR_DESCRIPTION	Standardized gear code code (see PacFIN Gear Code list)	PacFIN
PACFIN_GROUP_GEAR_CODE	Standardized gear grouping code (see PacFIN Gear Code list)	PacFIN

Grade, Condition, Disposition, Removal type

COLUMN_NAME	COLUMN_DESCRIPTION	SOURCE
REMOVAL_TYPE_CODE	C = commercial (non-EFP), D = commercial (direct sales), E = exempted fishing permit (EFP), O = other, R = research, P = personal use, U = unknown	Agency
REMOVAL_TYPE_NAME	Removal type name	Agency
IS_REMOVAL_LEGAL	Boolean (T/F); = 'T' if the removal was legal	Agency
GRADE_CODE	Standardized grade category (size grouping) code of the catch at the point it is weighed and recorded by the dealer (see PacFIN Grade Code list)	PacFIN
GRADE_NAME	Standardized grade name (see PacFIN Grade Code list)	PacFIN
CONDITION_CODE	Standardized condition code (round, dressed, alive, etc) of the catch at the point it is weighed and recorded (see PacFIN Condition Code list)	PacFIN
CONDITION_NAME	Standardized condition code name (round, dressed, alive, etc) of the catch at the point it is weighed and recorded (see PacFIN Condition Code list)	PacFIN
DISPOSITION_CODE	Standardized disposition code (intended use or discard) of the catch at the point it is weighed and recorded (see PacFIN Disposition Code list)	PacFIN
DISPOSITION_NAME	Standardized disposition code name (intended use or discard) of the catch at the point it is weighed and recorded (see PacFIN Disposition Code list)	PacFIN

COLUMN_NAME	COLUMN_DESCRIPTION	SOURCE
PRODUCT_USE_CODE	Standardized product use code (human food, research, animal food, etc) of the catch at the point it is weighed and recorded (see PacFIN Product Use Code list)	PacFIN
PRODUCT_USE_NAME	Standardized product use code name (human food, research, animal food, etc) of the catch at the point it is weighed and recorded (see PacFIN Product Use Code list)	PacFIN
PRODUCT_FORM_CODE	The form of the product (C = canned, F = fresh, frozen, L = live, M = meal/dried, U = unknown)	Agency
PRODUCT_FORM_NAME	Name of PRODUCT_FORM_CODE	Agency
IS_OVERAGE	Boolean (T/F); = 'T' if the catch exceeds the limit	Agency

Landed Weight, Number of fish, Conversion factors

COLUMN_NAME	COLUMN_DESCRIPTION	SOURCE
NUM_OF_FISH	Number of fish caught (nominally for salmon only). For CDFW salmon (i.e. chinook) for 1986 thru the present this statistic is a derived value based on average weights developed from samples. For CDFW for 1981-1985 num_fish for salmon are not available (i.e. num_fish is set to null). For ODFW num_fish NOT provided for Columbia River and Troll landings and NOT consistently before 2015. For WDFW salmon the num-fish values are actual counts of fish (i.e. no sampling for average weight) and is provided for a few non-salmon species such as albacore)	Agency
LANDED_WEIGHT_LBS	Source agency landed weight in pounds	Agency
LANDED_WEIGHT_MTONS	Source agency LANDED_WEIGHT_LBS converted to metric tons LANDED_WEIGHT_LBS / 2204.62262	PacFIN
CONVERSION_FACTOR	Agency round weight conversion factor scaled nn.nnn, based on CONDITION_CODE	AGENCY
ROUND_WEIGHT_LBS	Source agency LANDED_WEIGHT_LBS converted to round weight LANDED_WEIGHT_LBS * NVL(CONVERSION_FACTOR,1)	PacFIN
ROUND_WEIGHT_MTONS	ROUND_WEIGHT_LBS converted to metric tons ROUND_WEIGHT_LBS/ 2204.62262	PacFIN

1.2. Electronic Fish Tickets (ETickets)

Etickets are included in the COMP FT and the data are refreshed nightly. Etickets are replaced by reconciled tickets from the state agencies at regular intervals. PacFIN updated the previous logic to remove unreconciled Etickets after 180 days and now Etickets will remain in the COMP FT until they are reconciled by the state agencies.

Etickets are identified within the COMP FT by the TICKET_SOURCE_CODE column, which further categorizes the data from the original IS_ETIX_DATA column.

COLUMN_NAME	COLUMN_DESCRIPTION	SOURCE
IS_ETIX_DATA	If landing was from Etickets, flag = 'T'; if not, flag is = 'F'	PacFIN
TICKET_SOURCE_CODE	PacFIN ticket source code (E = Eticket, R = reconciled Eticket that was replaced by an agency ticket, T = ticket from an agency system that does not have corresponding Eticket, C = vessel number missing on reconciled ticket, replaced with vessel number on Eticket)	PacFIN

Some attributes from Etickets remain in the COMP FT after the reconciliation process since they are not available from the agency source tickets and support in-season groundfish fisheries management, such as the Groundfish Management Team (GMT) Scorecard process, monitoring the Individual Fishing Quota (IFQ) fishery, and sablefish tiers. Value-added information from Etickets associated with electronic monitoring (EM) and permits are also included in the COMP FT.

COLUMN_NAME	COLUMN_DESCRIPTION	SOURCE
IS_IFQ_LANDING	If landing was part of the groundfish IFQ fishery, flag = 'T'; if not an IFQ landing, flag is = 'F'	Etickets
IFQ_ACCOUNT_NUM	Groundfish vessel's IFQ account ID, which is registered to a specific vessel and a specific vessel owner in the IFQ fishery.	Etickets
FIRST_RECEIVER_NUMBER	Groundfish unique permit number created and assigned by NMFS permits office based on Etickets. Identifies a unique business and physical landing location combination	Etickets
IS_SABLEFISH_TIER	If the ticket includes sablefish stacked tier permitted landing, flag = 'T'; if not flag is = 'F'	Etickets
GF_PERMIT_NUMBER	If IS_SABLEFISH_TIER = T, then permit number is required	Etickets
IFQ_MANAGEMENT_AREA	Management area for groundfish IFQ landings when IS_IFQ_LANDING field = 'T' and location includes: "36 to 34'27", "40'10 to 36", Multiple Areas, "N of 40'10", "S of 34'27", else NULL if IS_IFQ_LANDING = 'F'	Etickets
IS_EM_LANDING	If landing was from electronic monitoring (EM) groundfish vessel, flag = 'T'; if not, NULL	Etickets

1.3. Vessel Information

The VESSEL_NUM is a vessel's number, which is the U.S. Coast Guard (USCG) documentation number (ex: 1234567) for vessels over 5 metric tons or the individual state registration number (e.g., WN12345) for vessels under 5 metric tons. For foreign vessels the number is the Country's vessel ID (e.g., a Canadian VID). If not provided or is invalid the number is 'MISSING' or 'UNKNOWN'.

The VESSEL_REGISTRATION_NUM is the PacFIN ID linking the landing to PacFIN's VESSEL_REGISTRATION database table. A vessel must register with the state to obtain a fishing license number to fish in state waters. If a vessel fishes in the state waters of more than one state, for example Washington and Oregon waters, it needs to get a license from both WDFW and ODFW and thus will have 2 different VESSEL_REGISTRATION_NUMs.

The VESSEL_TYPE_CODE identifies the source of the VESSEL_NUM. 1 = USCG >= 5 net tons, 2 = USCG < 5 net tons, 3 = State Agency Plate number (registration), 4 = Indian tribe identification, 5 = Canadian Vessel, 7 = illegal or unregistered vessel, 8 = confiscated catch, U = unknown or unidentified vessel (missing), W = WDFW Registration Number.

PacFIN creates two unique vessel identifiers to standardize data across states, VESSEL_ID and VESSEL_REGISTRATION_ID. The VESSEL_ID is the unique vessel identifier in the COMP FT and can be used for aggregating data. The VESSEL_REGISTRATION_ID identifies the unique vessel registration records by year and agency. The combination of LANDING_YEAR (or PacFIN YEAR) and VESSEL_REGISTRATION_ID should be used to link the COMP FT to the VESSEL_REGISTRATIONS_TABLE.

COLUMN_NAME	COLUMN_DESCRIPTION	SOURCE
VESSEL_NUM	Coast Guard (USCG) Documented Vessel Number or state registration number. Format: 1234567, CF1234nn, OR1234nn, WN1234nn, etc), 'MISSING' = not provided, 'UNKNOWN' = invalid, 'NULL' if no vessel associated with landing	PacFIN
VESSEL_NAME	Vessel name provided by the state agency that licensed the vessel to commercially land fish into the state.	Agency
VESSEL_ REGISTRATION_ID	Unique identifier to link to the PACFIN_MARTS.VESSEL_REGISTRATIONS table	PacFIN
VESSEL_ID	PacFIN unique vessel identifier	PacFIN
VESSEL_TYPE_ CODE	1 = USCG >= 5 net tons, 2 = USCG < 5 net tons, 3 = State Agency Plate number (registration), 4 = Indian tribe identification, 5 = Canadian Vessel, 7 = illegal or unregistered vessel, 8 = confiscated catch, U = unknown or unidentified vessel (missing), W = WDFW Registration Number	PacFIN

1.4. Thompson Fishery Code

The THOMPSON_FISHERY_CODE characterizes all commercial landings (fish tickets) on the Pacific coast into 43 different fisheries. The fishery codes are assigned at the FTL level and not at the FT level, allowing for landings to be classified into more than one fishery. The fishery rules are based on species and gear combinations. No outside source data (e.g., permits or catch share eligibility) are used in the fishery assignments making these definitions simplistic, but easily understood and ideal for holistic examinations of all West Coast fisheries. These fishery codes are typically considered to be a broad classification of landings and are used by fishery managers and researchers.

COLUMN_NAME	COLUMN_DESCRIPTION	SOURCE
THOMSON_FISHERY_CODE	This field has fishery codes or sectors that allow for a comprehensive characterization of all commercial landings on the Pacific coast during 1981-to present. These fishery definitions will take the form of species/gear combinations – based on the species and gear codes used in PacFIN.	PacFIN

Thompson Fishery Codes

Code	Fishery	Code	Fishery
01	Dungeness Crab Pot	23	CPS Seine
02	Other Crab Pot	24	Pacific Herring
03	Lobster Pot	25	White Sea Bass
04	Prawn Pot	26	Tuna Troll
05	Pink Shrimp Trawl	27	Tuna Seine
06	Prawn Trawl	28	Shark Net
07	Whiting Trawl	29	Hagfish Pot
08	DTS Trawl	30	Swordfish Net
09	Other Groundfish Trawl	31	Swordfish Other
10	Sablefish Pot	32	Clam Dredge
11	Sablefish Hook & Line	33	Clam Scallop Other
12	Nearshore Rockfish Pot	34	Oyster
13	Nearshore Rockfish Hook & Line	35	Scallop Trawl
14	NNS Rockfish Pot	36	Abalone
15	NNS Rockfish Hook & Line	37	Urchin
16	Pacific Halibut Hook & Line	38	Sea Cucumber
17	California Halibut Trawl	39	Groundfish Net
18	California Halibut Net	40	Groundfish Line
19	Sturgeon Net	41	Bait Shrimp
20	Salmon Troll	42	Bait Shrimp Other
21	Salmon Net	0	Everything Else
22	Squid Seine		

1.5. Pricing and Revenue

Currently there are two columns in the COMP FT for pricing details, PRICE_PER_POUND and IS_VALUE_ESTIMATED. The PRICE_PER_POUND column contains either the original prices from agency source tickets or the modified price estimated by the PacFIN pricing procedure. The PacFIN pricing procedure is used to estimate a price when the original PRICE_PER_POUND is unknown or missing (i.e., NULL) or is identified as an outlier (prior to 2020). The IS_VALUE_ESTIMATED column is used to differentiate original prices from modified prices. Starting from 2020, PacFIN no longer estimates prices for outliers or unknown prices.

Prices and revenues are provided with and without the annual 'adjusted for inflation' (AFI) adjustment.

COLUMN_NAME	COLUMN_DESCRIPTION	SOURCE
IS_VALUE_ESTIMATED	Boolean (T/F); ='T' if PRICE_PER_POUND dollar value is estimated	PacFIN
PRICE_PER_POUND	Price per pound in U.S. dollars of the catch at the point it is weighed and recorded	Agency
EXVESSEL_REVENUE	Actual or estimated revenue in dollars LANDED_WEIGHT_LBS * PRICE_PER_POUND	PacFIN
AFI_PRICE_PER_POUND	PRICE_PER_POUND adjusted for inflation PRICE_PER_POUND * INFLATION_FACTOR.INFLATION_ADJUSTER	PacFIN

AFI_EXVESSEL_REVENUE	EXVESSEL_REVENUE adjusted for inflation	PacFIN
	EXVESSEL_REVENUE * INFLATION_FACTOR.INFLATION_ADJUSTER	

1.6. Area and species compositions for groundfish and salmon

The catch-by-area proportion was originally proposed to distribute groundfish landings to PSMFC areas by using the catch records from individual vessel logbooks since they contain the basic or lowest-level data. The inclusion of catch-by-area proportions for salmon species was a result of the specification review process that uncovered the need to similarly calculate these proportions in order to produce the "best available data" given individual fish tickets as the lowest level data.

The CATCH_AREA_PROPORTIONS table contains proportions that are stratified by time period (quarterly), composition (COMPOSITION_CODE), port (PACFIN_PORT_CODE), gear (PACFIN_GEAR_CODE), species (PACFIN_SPECIES_CODE), grade (GRADE_CODE), and the type of trip (TRIP_TYPE_CODE) to fishing areas specified in the column PACFIN_CATCH_AREA_CODE of the COMP FT. Of these seven attributes that describe a strata only the GRADE_CODE, and TRIP_TYPE_CODE may be NULL. The GRADE_CODE is typically used only for sablefish and salmon species and TRIP_TYPE_CODE is used exclusively for salmon. Catch-by-area proportions are used by both WDFW and ODFW to distribute catch of groundfish species categories and they are used by ODFW to distribute catch of salmon species in a similar manner.

COLUMN_NAME	COLUMN_DESCRIPTION	SOURCE
IS_AREA_COMP_USED	If groundfish catch area proportions were applied, flag = 'T'; if not flag is = 'F'	PacFIN
ORIG_PACFIN_CATCH_AREA_CODE	PacFIN catch area code corresponding to the agency CATCH_AREA_CODE (see PacFIN Catch Area Code list)	PacFIN
PACFIN_CATCH_AREA_CODE	PacFIN area code after application of groundfish area comps. The value of this area code is different than ORIG_PACFIN_CATCH_AREA_CODE (see PacFIN Catch Area Code list)	PacFIN
PACFIN_CATCH_AREA_NAME	Name of PacFIN catch area code after application of groundfish area comps (see PacFIN Catch Area Code list)	PacFIN
PACFIN_CATCH_AREA_DESCRIPTION	Description of PacFIN catch area code after application of groundfish catch area proportions (see PacFIN Catch Area Code list)	PacFIN
PACFIN_GROUP_CATCH_AREA_CODE	PacFIN catch area group code after application of groundfish catch area proportions (see PacFIN Catch Area Code list)	PacFIN
INPFC_AREA_TYPE_CODE	INPFC area code after application of groundfish catch area proportions NVL(INPFC_AREA_TYPE_CODE, 'XX') AS INPFC_AREA_TYPE_CODE	Agency
COUNCIL_CODE	PacFIN groundfish area designation based on PACFIN_AREA_CODE (P = PFMC, N = NPFMC, * = neither)	PacFIN

The SPECIES_PROPORTIONS table contains proportions that are stratified by time period (quarterly), port (PACFIN_PORT_CODE), fishing area (PACFIN_CATCH_AREA_CODE), gear (PACFIN_GEAR_CODE), and unspecified species assemblage (PACFIN_UNSP_SPECIES_CODE) to the species specified in column PACFIN_SPECIES_CODE of the COMP FT. Of these five attributes that describe a strata only the PACFIN_PORT_CODE or the PACFIN_CATCH_AREA_CODE may be NULL, but not both. Species-composition proportions are used by CDFW,

ODFW, and CDFW to distribute rockfish assemblages to individual species. These proportions are estimated from rockfish samples taken at selected west coast ports and/or from groundfish trawl logbooks. For example, nominal dover sole, "DVR1" would be converted to "DOVR".

Rockfish species complexes are typically considered as a group of close, but distinct species.

COLUMN_NAME	COLUMN_DESCRIPTION	SOURCE
IS_SPECIES_COMP_USED	If groundfish species proportions were applied, flag = 'T'; if not flag is = 'F'	PacFIN
PACFIN_SPECIES_CODE	Standardized species code after the application of species proportions (see PacFIN Species Code list)	PacFIN
PACFIN_SPECIES_COMMON_NAME	Standardized species common name after application of species proportions (see PacFIN Species Code list)	PacFIN
PACFIN_SPECIES_SCIENTIFIC_NAME	Standardized species scientific name after application of species proportions (see PacFIN Species Code list)	PacFIN
MANAGEMENT_GROUP_CODE	Standardized species management group after application of species proportions (see PacFIN Species Code list)	PacFIN
NOMINAL_TO_ACTUAL_PACFIN_SPECIES_CODE	This field converts all PacFIN nominal species codes to PacFIN actual species codes. For example, nominal dover sole, "DVR1" would be converted to "DOVR".	PacFIN
NOMINAL_TO_ACTUAL_PACFIN_SPECIES_NAME	This field converts all PacFIN nominal species names to PacFIN actual species names.	PacFIN
MARKET_CATEGORY	Same as PacFIN nominal species code (SPECIES_CODE), which is the grouping of group fish by the buyer and reported on the fish ticket. The grouping can be either a true species or an aggregation of several similar species that fetch the same market value.	PacFIN
MARKET_CATEGORY_NAME	Same as PacFIN nominal species name (SPECIES_CODE_NAME), which is the grouping of group fish by the buyer and reported on the fish ticket. The grouping can be either a true species or an aggregation of several similar species that fetch the same market value.	PacFIN
COMPLEX	PacFIN species groupings after application of species proportions	PacFIN
COMPLEX2	Additional PacFIN species grouping after application of species proportions	PacFIN
COMPLEX3	Additional PacFIN species grouping after application of species proportions	PacFIN
COMPLEX4	Additional PacFIN species grouping after application of species proportions	PacFIN

1.7. West Coast Groundfish Observer Program (WCGOP) Codes

The FOS_GROUNDFISH_SECTOR_CODE characterizes all commercial landings (fish tickets) on the Pacific coast into 23 different fisheries. The fishery codes are assigned at the FTL level and not at the FT level, allowing for landings on a single fish ticket to be classified into more than one fishery. The fishery rules are based on participation group, removal type, agency, vessel, landing date, gear, species, and other attributes defined on the fish ticket, as well as outside source data from state and federal permits, the West Coast Groundfish Observer Program (WCGOP), and the International Pacific Halibut Commission. The defined fisheries focus on those targeting or incidentally impacting groundfish and largely reflect the fisheries observed by the WCGOP.

COLUMN_NAME	COLUMN_DESCRIPTION	SOURCE
FOS_GROUNDFISH_SECTOR_CODE	This field contains groundfish fishery codes as defined by the West Coast Groundfish Observer Program.	WCGOP

1.8. Groundfish Trawl EFP Code

The EFP_CODE checks for tickets that are part of the groundfish trawl exempted fishing permit (EFP). The process uses a table of vessels enrolled in this fishery each year and uses ticket data, declarations data, and a table of corrections to determine if the ticket was part of the trawl EFP fishery.

COLUMN_NAME	COLUMN_DESCRIPTION	SOURCE
EFP_CODE	Groundfish trawl fishery identifier, 'TWL' when true	Agency
EFP_NAME	Groundfish trawl fishery identifier name, 'Trawl Gear EFP' when true	Agency

1.9. Fleet Code and Groundfish Limited Entry Permits

The combination of participation group (PARTICIPATION_GROUP_CODE) and groundfish limited entry permits (NWR/LE) are used to assign landings to a groundfish fleet.

COLUMN_NAME	COLUMN_DESCRIPTION	SOURCE
COUNT_LE_PERMITS	Distinct count of groundfish NWR/LE permits under which the vessel fished	PacFIN/ NWR
IS_TRAWL_ENDORSED	If groundfish NWR/LE permit is trawl endorsed, flag = 'T'; if not flag is = 'F'	PacFIN/ NWR
IS_LONGLINE_ENDORSED	If groundfish NWR/LE permit is longline endorsed, flag = 'T'; if not flag is = 'F'	PacFIN/ NWR
IS_TRAP_ENDORSED	If groundfish NWR/LE permit is trap endorsed, flag = 'T'; if not flag is = 'F'	PacFIN/ NWR

2. HMS Fishery Codes with Data Corrections

Highly Migratory Species (HMS) are defined by the fishery management plans (HMS FMP and Pelagics FMP), the High Seas Fishing Compliance Act, and the U.S.-Canada Albacore Treaty. Classifying FTL level landings into these fishery categories is based on a set of rules (vessel, day, gear, permit, and species) for each HMS fishery that are reviewed and updated when necessary. Additionally, fishery managers review these DANGELO_HMS_CODES during the annual spring reporting cycle. If a code is found to be in error, it can be manually overwritten through the HMS Data Correction application. Once the fisheries managers are satisfied with the annual summarizations by fishery, a snapshot of the COMP FT is taken (aka Comprehensive HMS), filtering on all fish tickets by all vessels that caught HMS in a given year. The Comprehensive HMS table is the basis for the PFMC SAFE reports, the U.S.-Canada Albacore Treaty reports, the data submissions to the Pacific RFMOs, and most of the PacFIN HMS Apex reports (except for the in-season reports).

COLUMN_NAME	COLUMN_DESCRIPTION	SOURCE
DANGELO_HMS_CODE	HMS fisheries are defined by the fishery management plans (HMS FMP & Pelagics FMP), the High Seas Fishing Compliance At, and the U.S.-Canada Albacore Treaty. See HMS Fishery Code.	PacFIN

3. DAHL Groundfish Sectors

The field DAHL_GROUNDFISH_CODE in the COMP FT contains codes identifying groundfish "sectors." These sectors are meant to identify landings according to fishery components, or sectors, used in management. Sectors are defined through a combination of species composition of landings, gear type, and permit status, among other factors.

COLUMN_NAME	COLUMN_DESCRIPTION	SOURCE
DAHL_GROUNDFISH_CODE	This field contains numeric codes identifying groundfish "sectors." These sectors are meant to identify landings according to fishery components, or sectors, used in management. Sectors are defined through a combination of species composition of landings, gear type, and permit status, among other factors.	PacFIN

4. Groundfish Management Team Sablefish Code Process

The Groundfish Management Team (GMT) Sablefish Code process uses vessel, permit, and landings data to identify tickets that are part of the *primary* sablefish fishery. Tickets that qualify as primary are assigned the code 'PRI' while tickets that meet the basic criteria but are not primary are assigned both a fishery code prefix and an area (North/South) indicator suffix.

The basic criteria required to qualify for *primary* include:

- COUNCIL_CODE = 'P' (Pacific)
- PARTICIPATION_GROUP_CODE = 'C' (Commercial)
- Is not IFQ Landing (except in cases where the IFQ code is assigned – see below)
- REMOVAL_TYPE_CODE not in ('R' (Research) or 'E' (EFP))
- PACFIN_GEAR_GROUP_CODE not in ('TWL' or 'TWS' (Trawl))
- PACFIN_SPECIES_CODE = 'SABL'
- ROUND_WEIGHT_LBS (of SABL) > 0

The following *prefixes* are possible for non-Primary:

- LE (Limited Entry)
- OA (Open Access)
- IFQ (Individual Fishing Quota)

The following North/South *suffixes* are possible for non-Primary:

- N (North) includes (MT: Monterey, EK: Eureka, CL: Columbia, VN: Vancouver, OC: Oregon Coast)

- S (South) includes CP: Conception
- U (Unknown) includes UI: Unknown
- E (Error) includes None of the above

Examples of the final code assignment for a non-primary landing include 'LEN' (Limited Entry North), 'OAS' (Open Access South), and 'IFQU' (Individual Fishing Quota Unknown).

COLUMN_NAME	COLUMN_DESCRIPTION	SOURCE
GMT_SABLEFISH_CODE	This field contains fishery codes for identifying sablefish fisheries. Primary = 'PRI', DTL Limited Entry South = 'LES', DTL Limited Entry North = 'LEN', DTL Limited Entry Unknown Area = 'LEU', DTL Open Access South = 'OAS', DTL Open Access North = 'OAN', DTL Open Access Unknown Area = 'OAU'.	PacFIN

5. Groundfish Annual Catch Limit Code Process

The Groundfish Annual Catch Limit (ACL) Code process uses PacFIN species, catch area, and landing year to identify tickets that fall into *stock* designations that are part of the biennial Stock Specification (SPEX) process. FT and FTL with attributes that match those in the SPEX system receive an ACL Code that may be used to reference additional specification data.

COLUMN_NAME	COLUMN_DESCRIPTION	SOURCE
ACL_CODE	Groundfish FMP stocks and stock complexes assigned based on Species/Area/Year as defined in the SPEX database.	PacFIN

6. Declaration Code Process

The DECLARATION_CODES that are associated with the declaration report (DECLARATION_TYPES) submitted by the fishermen or vessel operator. The report description provided by the fishermen before the fishing trip to identify the vessel operator's intent to operate within a conservation area, identify which gear type will be used for fishing, and which fishery or fisheries they will participate. These declarations are date and time specific, whereas fish tickets are date specific. Thus, a one-day offset is added to these declarations to prevent incorrect declaration on a landing. For example, if the vessel lands groundfish, and then declares and leaves for a crab trip on the same day the declaration for that particular day will show crab, which is inconsistent with the groundfish landing.

COLUMN_NAME	COLUMN_DESCRIPTION	SOURCE
DECLARATION_CODES	The declaration code that is associated with the declaration report submitted by the fishermen or vessel operator to the NOAA Office of Law Enforcement.	OLE
DECLARATION_TYPES	The report description provided by the fishermen before the fishing trip to identify the vessel operator's intent to operate within a conservation area, identify which gear type will be used for fishing, and which fishery or fisheries they will participate. These	OLE

	declarations are date and time specific, whereas fish tickets are date specific. Thus, a one-day offset is added to these declarations to prevent incorrect declaration on a landing. For example, if the vessel lands groundfish, and then declares and leaves for a crab trip on the same day the declaration for that particular day will show crab, which is inconsistent with the groundfish landings.	

7. HMS Trip-link and Permit Merge Process

The Trip-link Merge Process is a set of rules used to link albacore logbooks (SWFSC) to landings records by comparing date ranges and the amount of albacore landed between the two sources. This method was initially created for logbook compliance then was further adopted as a basis for international reporting of albacore catch and landings data. The logbook unique trip identifier for each matched trip-landing is inserted into the TRIP_ID column in the COMP FT, which is replacing the TRIP_SEQ column.

Vessels that participate in West Coast HMS fisheries have a West Coast HMS permit (WCHMS_PERMIT) and/or a High Seas Fisheries Compliance Act permit (HSFCA_PERMIT). Hawaii Longline vessels that land fish to the West Coast have a Hawaii Longline permit (HILLE_PERMIT). These permits are maintained in the National Permit System (NPS) database and data are pulled daily into PacFIN through a web service.

COLUMN_NAME	COLUMN_DESCRIPTION	SOURCE
TRIP_SEQ	HMS Trip unique Identification (Sequence) number based on HMS Trip-Link business rules for matching logbook trips to landings, through 2018 only	SWFSC
TRIP_ID	HMS logbook Trip unique identification number, based on HMS Trip Link business rules and for matching logbook trips to landings	SWFSC
HILLE_PERMIT	HMS Hawaii Longline Limited Entry Permit (HILLE) Number based on Trip-Link business rules for matching permits to vessels for a given time period	NPS
WCHMS_PERMIT	HMS West Coast Highly Migratory Species (WCHMS) Permit Number based on Trip-Link business rules for matching permits to vessels for a given time period	NPS
HSFCA_PERMIT	HMS High Seas Fishing Compliance Act (HSFCA) Permit Number based on Trip- Link business rules for matching permits to vessels for a given time period	NPS

Appendix I – Acronyms

Acronym	Description
ACL	Annual Catch Limit
ADFG	Alaska Department of Fish and Game
AFI	Adjusted for Inflation
CDFW	California Department of Fish and Wildlife
EFP	Exempted Fishing Permit
ETIX	Electronic Fish Tickets or Etickets
GMT	PFMC Groundfish Management Team
HILLE	Hawaii Longline (HMS)
HSFCA	High Seas Fishery Compliance Act (HMS)
IFQ	Individual Fishing Quota
INPFC	International North Pacific Fisheries Commission (defunct)
NOAA	National Oceanographic and Atmospheric Administration
NWFSC	Northwest Fisheries Science Center (NOAA)
NWR	Northwest Regional Office (NOAA)
NWR/LE	Northwest Region/Limited Entry
ODFW	Oregon Department of Fish and Wildlife
OLE	Office of Law Enforcement (NOAA)
PacFIN	Pacific Fishery Information Network
PFMC	Pacific Fisheries Management Council
PSMFC	Pacific States Marine Fisheries Commission
SWFSC	Southwest Fisheries Science Center (NOAA)
USCG	United States Coast Guard
WCGOP	West Coast Groundfish Observer Program
WCHMS	West Coast Highly Migratory Species
WCR	West Coast Region (NOAA)
WCROP	West Coast Regional Observer Program (HMS)
WDFW	Washington Department of Fish and Wildlife