Ministry of Fisheries

WAREHOU Database Documentation
Catch Effort Base Views and Fields

(Adapted from CATCHEFF database documentation Part 2 - Base views and fields)

Version 9

Unclassified Sensitive

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Base views and Fields

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1.0 Document Information

The **warehou** database has been constructed primarily to facilitate reporting. This document describes **warehou's** Catch Effort base *fields* and *views*; the *event* concept; and the *keys* used to link views.

This document is adapted from part 2 in a series covering aspects of the Ministry of Fisheries Catch Effort system.

This document is not intended to be a comprehensive guide to the database but has been written as basic background material for report writers. A solid foundation in database concepts, and a basic understanding of the business of commercial fishing are assumed.

It is possible that factual errors will exist within this document. Please report any such factual errors that you find to the Ministry of Fisheries Research Data and Reporting Group so that we may correct these in subsequent versions.

Further information that is useful when interpreting New Zealand's Catch Effort data is available on the Ministry of Fisheries **'Catch Effort Reference Library' CD**. A copy of the CD can be obtained from the Research Data and Reporting Team Leader on phone: 04 8194714 or email rdm@fish.govt.nz

2.0 The Information Provided by the Fishers

The Catch Effort system stores catch, effort, landings, production and environment information provided to the Ministry of Fisheries by commercial fishers.

- Estimated catch data are rough estimates of the catch (kg of each species) made by fishers as they fish. For example, a fisher may haul a line onboard and visually estimate that they have caught 300 kg of Bluenose, 50 kg of Ling and 25 kg of Spiny Dogfish.

- Effort data summarise the amount of effort that a fisher/vessel put into catching fish; specify what method the fisher was using; and what species they were targeting. For example, a vessel mid-water trawling for Hoki towed a 50 metre wide net for 3 hours at a speed of 4 knots.

- Landing data summarises the actual quantity of fish landed at a wharf, retained at the end of the trip or transferred to another vessel at sea. Landings data are considerably more accurate than estimated catch data.

- Production data summarises the estimated quantity of fish processed onboard a vessel during a day. This will usually be more accurate than estimated catch but less accurate than actual landings.

- Environment data summarises sea and fishing activity, depth, wind speed, cloud conditions, and water temperature at the time of fishing.

The information received from fishers is recorded on one of the following forms:

CELR - Catch Effort Landing Return (called CEL within the database)

Records estimated catch, effort and actual landings for approximately 30 different fishing methods. Because so many different methods of fishing are covered, many parts of the form are labelled in a generic manner. The fishers superimpose one of seven cardboard templates over the form depending on the actual fishing method used. These templates specify what information a fisher should enter in each field on the form (refer to the "CELR" table in Chapter 5.0 Meanings of Effort Variables) for a list of effort fields that are collected for each method type). Fishers that fill in a CELR do not fill in any other type of form for the same fishing. One form is used for each trip (unless multiple pages are needed). Over the years small changes have been made to the form. In 2008 the CELR form had a new field "Non-fish / Protected species catch? (Y/N)" added.

TCEPR - Trawl Catch Effort Processing Return (called TCP within the database)

Records estimated catch, effort, processing and environment data for deep sea trawlers. Deep sea trawlers are defined as vessels that are over 28 metres in overall length. Fishers that carry out trawling on vessels less than 28 metres in overall length are required to complete either a CELR using the trawl template or the TCER form. The TCEPR form requires more detail than CELR trawl forms. As no landing data is recorded, any fisher that fills in a TCEPR must also fill in a CLR. One form is used for each day (unless multiple pages are needed). On 01 October 2008 the field "Non-fish / Protected species catch? (Y/N)" was added.

TCER – Trawl Catch Effort Return (called TCE within the database)

Records estimated catch and effort data for trawlers that are between 6m and 28m in overall length. Fishers that carry out trawling on vessels less than 6 meters in length or have a multiple method exemption are required to complete a CELR using the trawl template, and larger trawl vessels are required to complete a TCEPR. As no landing data is recorded, any fisher that fills in a TCER must also fill in a CLR. This form was introduced on 01 October 2007. Prior to this the information was entered on a CELR form.

TLCER - Tuna Long - lining Catch Effort Return (called TUN within the database)

Records effort, processing and environment data for surface long liners targeting tuna or swordfish. Records more detail than the CELR form. Estimated catch is not recorded because processing data may be used for this purpose. As no landing data is recorded, any fisher that fills in a TLCER must also fill in a CLR. One form is used for each long line set (commonly 1 per day). Note: there is four different versions of this form (1991, 2001, 2003 (March/April) & 2008). Refer to the "Calendar of Changes" on the Catch Effort Reference Library CD for further information. On 01 October 2008 the field "Non-fish / Protected species catch? (Y/N)" was added.

SJCER - Squid Jigging Catch Effort Return (called SJC within the database)

Records effort, processing and environment data for squid jiggers. Estimated catch is not recorded because processing data may be used for this purpose. As no landing data is recorded,

any fisher that fills in a SJCER must also fill in a CLR. One form is used for each day. On 01 October 2008 the field "Non-fish / Protected species catch? (Y/N)" was added.

LCER – Lining Catch, Effort Return (called LCE within the database)

Records effort and estimated catch data for vessels greater than 28 metres in overall length where the method of fishing is bottom longlining, surface longlining (targeting species other than tuna), or trot lining. This is a daily form that was introduced in January 2004. This information was previously recorded on CELR forms. Fishers that carry out bottom longlining or trot lining on smaller vessels are required to complete either a CELR using the lining template or the LTCER form, while fishers that carry out surface longlining (targeting tuna or swordfish) are required to complete a TLCER. As no landing data is recorded, any fisher that fills in a LCER must also fill in a CLR at the end of each trip. On 01 October 2008 the field "Non-fish / Protected species catch? (Y/N)" was added.

LTCER – Lining Trip Catch, Effort Return (called LTC within the database)

Records effort and estimated catch data for vessels that are between 6m and 28m in overall length where the method of fishing is bottom longlining, surface longlining (targeting species other than tuna), or trot lining. This form was introduced on the 01 October 2007. This information was previously recorded on CELR forms. Fishers that carry out bottom longlining or trot lining from vessels less than 6 meters, or who have a multiple method exemption are required to complete a CELR using the lining template, while fishers that carry out surface longlining (targeting tuna or swordfish) are required to complete a TLCER. As no landing data is recorded, any fisher that fills in a LTCER must also fill in a CLR at the end of each trip.

NCELR – Netting Catch, Effort and Landing Return (called NCE within the database)

Records estimated catch, effort and landing information for those fishing using the set netting (SN), inshore drift netting (DN) or pair set netting (PSN) methods using a vessel 6 metres or more in overall length. This form was introduced on 01 October 2006. Prior to this the information was entered on a CELR form.

CLR - Catch Landing Return (called CLR within the database)

Records actual landings data for a vessel. Only filled in if a fisher also filled in TCEPR, TCER, TLCER, LCER, LTCER, HS LCER, HS TCER, HS TLCER or SJCER forms. One form is used for each trip (unless multiple pages are needed).

ECER - Freshwater Eel Catch Effort Return (called ECE within the database)

Records estimated catch and effort information from those fishing for freshwater eels (EEU, LFE and SFE species). This is a monthly form that was introduced on 01 October 2001. Prior to this, fresh - water eel data was recorded on CELR forms (refer to the "Calendar of Changes" on the Catch Effort Reference Library CD for further information). As no landing data is recorded, any fisher that fills in a ECER must also fill in a ECLR.

ECLR – Freshwater Eel Catch Landing Return (called ECL within the database)

Records actual landings data for freshwater eels and eel by-catch species. Only filled in if a fisher also filled in ECER form. This is a monthly form that was introduced on 01 October 2001. Prior to this, freshwater eel landing data was recorded on CELR forms.

PCELR – Paua Catch, Effort and Landing Return (called PCE within the database)

Records estimated catch, effort and landing information from those fishing for Paua (PAA and PAI species). This is a daily form that was introduced on 01 October 2001. Prior to this, Paua information was recorded on CELR forms in a different manner.

HS CELR – High Seas Catch Effort & Landing Return (called HCE within the database)

Records estimated catch, effort and actual landings for vessels that have fished outside the NZ EEZ area. The cardboard templates used for the CELR form are also used with this form to cater for the wide range of fishing methods. This form was introduced on 01 October 2001. Prior to this, all extra territorial information was recorded on standard CELR forms.

HS TCER – High Seas Trawl Catch Effort Return (called HTC within the database)

Records estimated catch, effort and environment data for vessels that have trawled outside the NZ EEZ area. This form does not require processing details unlike the TCEPR. This form was introduced on 01 October 2001. Prior to this, all extra territorial information was recorded on TCEPR forms. As no landing data is recorded, any fisher that fills in a HSTCER must also fill in a CLR if they are landing catch into NZ.

HS TLCER – High Seas Tuna Longlining Catch Effort Return (called HTU within the database)

Records effort, processing and environment data for surface long liners targeting tuna outside the NZ EEZ area. This form was introduced on 01 October 2001. Prior to this, all extra territorial information was recorded on standard TLCER forms. As no landing data is recorded, any fisher that fills in a HS TLCER must also fill in a CLR if they are landing catch into NZ.
Note: there is also a 2003 version of this form. Refer to the "Calendar of Changes" on the Catch Effort Reference Library CD for further information.

HS SJCER – High Seas Squid Jigging Catch, Effort Return

Records effort, processing and environment data for squid jiggers that have fished outside the NZ EEZ area. This form was introduced on 01 October 2001. Prior to this, all extra territorial information was recorded on standard SJCER forms. As no landing data is recorded, any fisher that fills in a HS SJCER must also fill in a CLR if they are landing catch into NZ.
NOTE: This form is currently not used in practise, as there are no NZ squid jigging vessels fishing outside the NZ EEZ.

HS LCER – High Seas Lining Catch, Effort Return (called HLC within the database)

Records effort and estimated catch data for vessels greater than 28 metres in overall length fishing outside the NZ EEZ where the method of fishing is bottom longlining, surface longlining (targeting species other than tuna), or trot lining. This is a daily form that was introduced in January 2004. This information was previously recorded on HS CELR forms.

Fishers that carry out bottom longlining or trot lining on smaller vessels are required to complete a HS CELR using the lining template, while fishers that carry out surface longlining (targeting tuna) are required to complete a HS TLCER. As no landing data is recorded, any fisher that fills in a HS LCER must also fill in a CLR if they are landing catch into NZ at the end of the trip.

NFPSCR – Non-fish / Protected Species Catch Return (called NPC within the database)

The NPC form was introduced on 01 October 2008 to record the estimated catch of non-fish and/or protected species caught during commercial fishing. On 01 October 2008 the commercial fishing forms, CEL, SJC, TCP, LCE and TUN had a new field "Non-fish / Protected species catch (Y/N)" added to them. The TCE, LTC and NCE forms already had this tick box. The NPC form is only required to be completed when this field has been entered with 'Y'.

Earlier form types
This document describes the situation for the current generation of forms filled in by fishers. Some of these forms have been in use since 1990 or 1991 while others are more recent. The earlier generations of forms stored similar but not identical information. Sometimes more information was stored, sometimes less. There are many fields in the **warehou** database which store information only covering a particular time period (relating to a generation of forms), and outside this period contain NULL values.

Refer to **Appendix 1** for a copy of the current catch effort returns with information about the associated fields.

Copies of some of the older catch effort returns versions of returns are available in **Appendix 2** or in the Catch Effort Reference Library CD.

3.0 The Catch Effort System

The Catch Effort system stores the information recorded on CELR, TCEPR, TCER, TLCER, SJCER, NCELR, CLR, PCELR, ECER, ECLR, LCER, LTCER, NFPSCR, High Seas forms and their predecessors. Approximately 400,000 forms are entered into the system each year. For reasons which are explained in section 3.3, multiple versions exist for many of these forms.

This information is used primarily for fisheries resource management and law enforcement purposes.

The Catch Effort information is stored in the following databases:

- The **form** database (on Surimi server) accepts data entry, checks for errors and passes all but fundamentally flawed records across to the **catcheff** database. Individual fields that are clearly incorrect may also be withheld.

- The **catcheff** (on Surimi server) database stores the data taken from the forms provided by fishers.

- The **ref and corporat** databases store relatively static reference information such as valid species codes (three letters), fishing methods (currently up to 3 letters but was a numeric code in the past), vessel names and characteristics, and details relating to each fisher.

- The **warehou** database (on Moby server) is essentially a copy, taken daily, of the catcheff database, along with selected data from the form, ref, corporat and a range of other databases.

3.1 The Warehou Database

Warehou is structured in a similar fashion to **catcheff**. One major difference being that processing and landing data, which is stored in the one table named **specprod_act** in **catcheff**, is broken down into four separate tables in **warehou**. These tables are;

- **ce_processed_catch**: containing on board processing data (TCEPRs, SJCERs and TLCERs);
- **ce_landings**: containing landing and transhipping data (CELRs, CLRs, ECLRs, PCELRs, NCELRs, HS CELRs);
- **ce_tuna_individual_catch** (historical)containing Southern Bluefin Tuna processed weights (TLCERs and HS TLCERs prior to April 2003); and
- **ce_squid_tally**: containing squid tray tally data (SJCERs and HS SJCERs).

Warehou contains data from nil returns, previously not available in **catcheff**. A nil return confirms that a fishing trip did not take place during a calendar month. All clients are required to provide a nil return for each vessel under their operation for months where there was no fishing activity.

Warehou incorporates person and vessel fields and tables from the **ref** and **corporat** databases.

3.2 The Concept of an Event

Central to the Catch Effort system is the concept of an event. An event is a specific temporal occurrence for a vessel or fisher. As such an event will always have an associated vessel and/or fisher identifier, a start time, and will frequently have an end time and a location.

The Catch Effort system defines 4 types of events:

- **Fishing events** (operational event type = "F"). Are associated with estimated catch and effort data. For example, one *set* or *tow* and all its effort data constitutes a fishing event.
- **Production events** (operational event type = "P"). Are associated with processing and actual landings data[1].
- **Environmental events** (operational event type = "E"). Are associated with environmental and vessel activity data. Environmental records are made on a daily basis.
- **Trip events** (operational event type = "T"). Associates all of the fishing events from a single trip with its landing (processing event type) events. This means that a **trip event** is made up of all the **fishing events**, **processing events** and **environmental events** recorded by a vessel and fisher during a single fishing trip.

All of this data is stored in the **ce_event** view. The **ce_event** view is at the centre of all relationships within the **warehou** databases.

Despite all event data being stored in the **ce_event** view, it is considerably easier to understand the relationships between views within the database if the **ce_event** view is conceptualised as being 4 separate views, one for each type of event.

This principal is illustrated in diagram 1 (Relationships Between Views in the Warehou Database) and diagram 2 (Indexes in the Warehou Database).

3.3 Versions of Forms

For law enforcement purposes there is a business requirement that the Catch Effort system store exactly the data that was submitted to the Ministry by the fishers. If the fisher made an error then this must be retained in the data.

For fisheries resource management purposes there is a business requirement that the Catch Effort system store the best information available. If the fisher makes an error, which FishServe is entitled to interpret, then the data should be corrected.

These different requirements have resulted in a need to store multiple versions of a single form. Because fishers frequently make mistakes in the forms that they return to the Ministry it is very common for two versions of a single form to exist on the Catch Effort system.

The "literal" version of a form contains the latest version of the information that a fisher provided to the Ministry.

[1] However, if a new form is required to accommodate all the fish being processed or landed then the new form constitutes a new *processing event* within the *trip event.*

The “interpreted” version of a form should contain at least 1 field of data that has been changed from the literal version. A FishServe Information Officer is entitled to make some interpretations without contacting the fisher. For example, if a fisher wrote “snapper” this could be interpreted to the species code “SNA”.

Because scientists often disagree on how to interpret an erroneous item of data there was also a possible need for different people be able to interpret data in different ways. To cope with this requirement provision was made for “Research” and “Personal” versions to be created although this has not been implemented.

To prevent a query from double counting multiple versions of the same form it is essential that the user specify whether they wish to use the literal, interpreted or research version of the form.

3.4 The Concept of a Trip

Vessels frequently undertake fishing trips that last for more than one day. A mechanism for associating actual landings data with the processing, estimated catch, effort and environment data that occurred during the trip is therefore needed.

The start and end trip dates provided by the fisher on CLR, NCELR and CELR forms define the trips done by a vessel. Effort forms such as TCEPR forms can also be associated with a trip. A system generated number, a **trip** key, is assigned to all forms that are provided by that vessel between the start and end date of the trip. The same trip key is assigned to all events recorded on forms where there is an overlap in trip dates for a particular vessel.

A trip may be terminated by either landing or transhipping. At any given time a vessel can only be participating in one trip.

It is important to be aware that fisher errors on the forms (for example incorrect dates) can result in some events being incorrectly grouped together as the same trip.

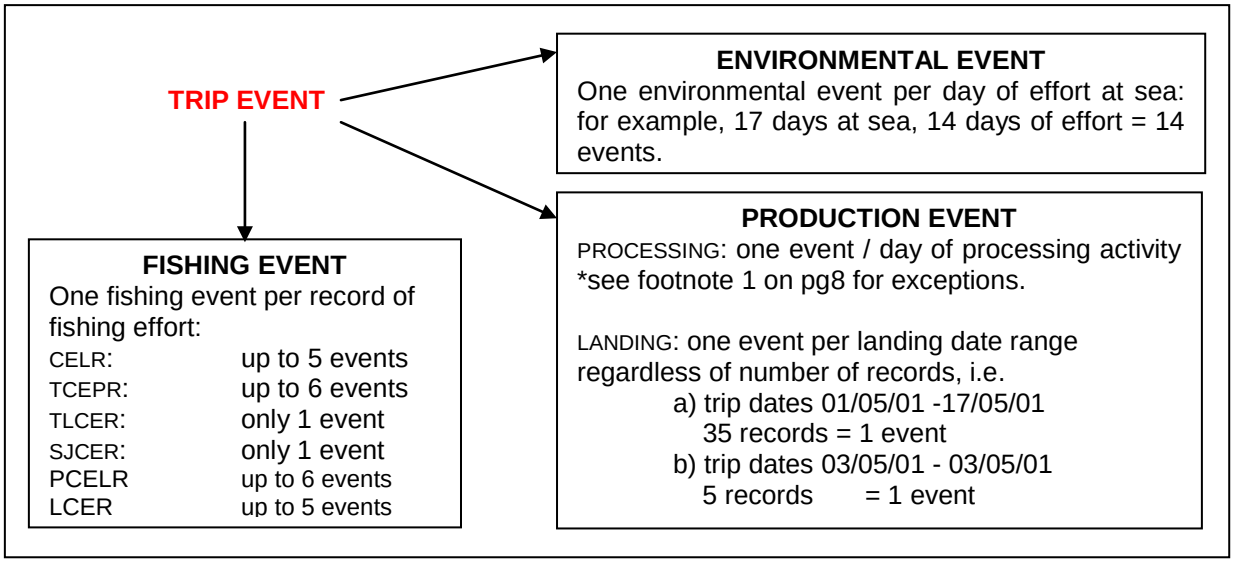
Note: PCE, ECE and ECL forms do not have trip keys as these are daily or monthly forms that are not trip based. Initially this was also the case for High Seas forms, as there is often no landing return to link to (i.e. when fish is landed outside of New Zealand). This was later changed and trip keys are now generated for High Seas forms when possible.

3.5 Trip Breakdown

Every event record has a unique identifier attached to it so that events can be linked together. For example, *ce_fishing_event* can be linked to *ce_estimated_subcatch* using the event_key.

A trip event identifies all the fishing, processing and environmental events that occur during a single trip (whether it is one day or several weeks). Below is a basic breakdown of what makes a trip event.

Relationship between events

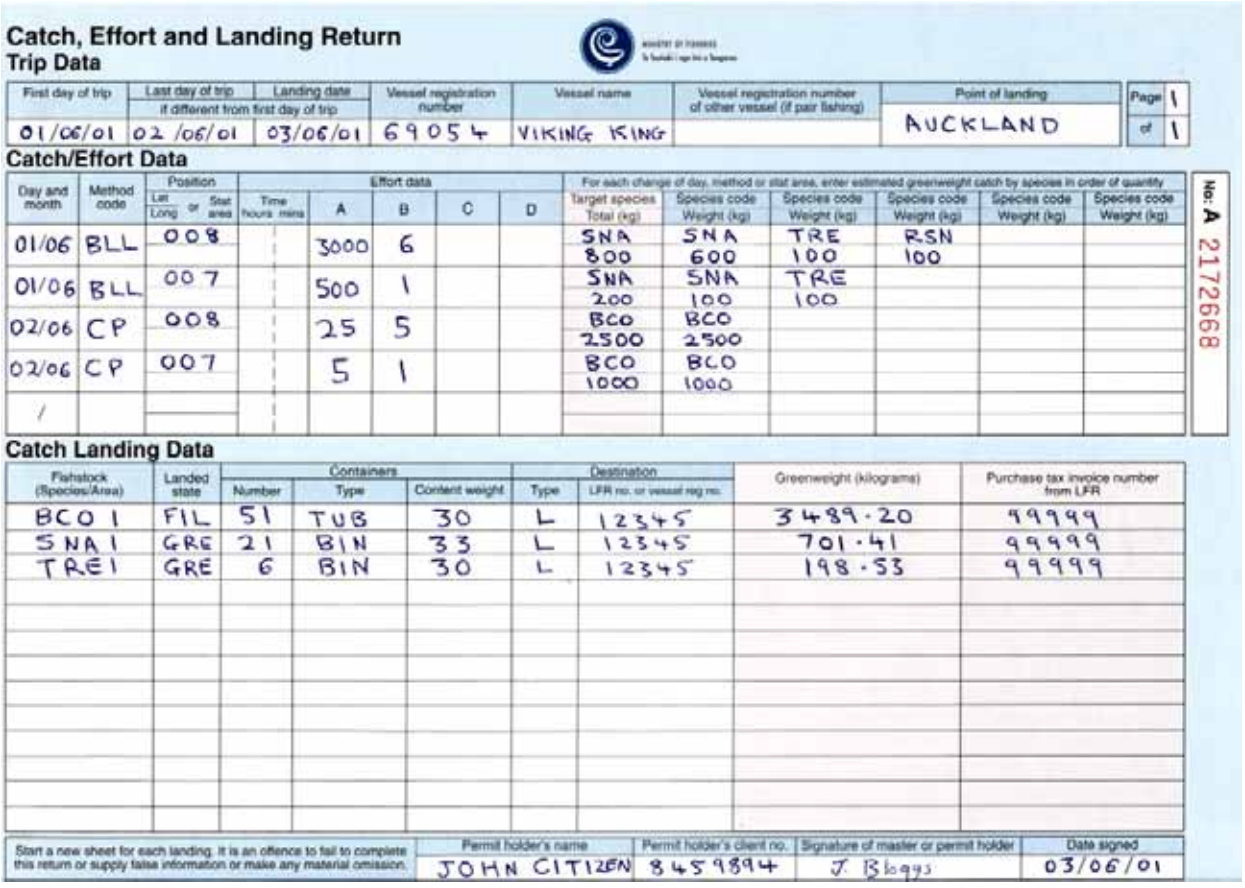


For example:

CELR - The form below shows the following:

Trip Dates: 01/06/01 - 02/06/01
No. of days fishing: 2 effort days (2 sets/day)
Landing Date: 03/06/01

This results in 1 trip event, 4 fishing events; 1 production(landing) event*;
(no environmental data on CELRs)



Catch, Effort and Landing Return

Trip Data

First day of trip	Last day of trip (if different from first day of trip)	Landing date	Vessel registration number	Vessel name	Vessel registration number of other vessel (if pair fishing)	Point of landing	Page / of
01/06/01	02/06/01	03/06/01	69054	VIKING KING		AUCKLAND	1 / 1

Catch/Effort Data

Day and month	Method code	Position Lat or Long	Stat area	Time hours	mins	Effort data A	B	C	D	For each change of day, method or stat area, enter estimated greenweight catch by species in order of quantity: Target species Total (kg)	Species code Weight (kg)	Species code Weight (kg)	Species code Weight (kg)	Species code Weight (kg)	Species code Weight (kg)
01/06	BLL	008				3000	6			SNA 800	SNA 600	TRE 100	RSN 100		
01/06	BLL	007				500	1			SNA 200	SNA 100	TRE 100			
02/06	CP	008				25	5			BCO 2500	BCO 2500				
02/06	CP	007				5	1			BCO 1000	BCO 1000				
/															

No: A 2172668

Catch Landing Data

Fishstock (Species/Area)	Landed state	Containers Number	Type	Content weight	Destination Type	LFR no. or vessel reg no.	Greenweight (kilograms)	Purchase tax invoice number from LFR
BCO 1	FIL	51	TUB	30	L	12345	3489.20	99999
SNA 1	GRE	21	BIN	33	L	12345	701.41	99999
TRE 1	GRE	6	BIN	30	L	12345	198.53	99999

Start a new sheet for each landing. It is an offence to fail to complete this return or supply false information or make any material omission.

Permit holder's name	Permit holder's client no.	Signature of master or permit holder	Date signed
JOHN CITIZEN	8459894	J. Bloggs	03/06/01

Other examples:

TLCER -	No. of forms/trip:	3
	Set/Haul Dates:	01/06 - 02/06 and 02/06 - 03/06 and 03/06 - 04/06
	Environmental:	1 per form
	No. of sets:	1 per form
	Processing:	1 processing event (several species processed) per form
	Landing:	1 CLR per trip*
	One Trip:	3 fishing events; 3 days environmental data; 3 processing events; 1 landing event*

TCEPR -	No. of forms/trip:	15
	No. of tows:	90 (6 tows per form)
	Environmental:	1 per day of effort
	Processing:	1 per day of effort
	Landing:	1 CLR per trip*
	One Trip:	90 fishing events; 15 environmental; 15 processing; 1 landing event*

*Please see footnote 1 on p.8 re more than one form / processing event

General Guide to linking between event types

Event View

Four Conceptual Divisions

	Fishing	Production	Environment	Trip
←— **LINK:** event_key —→	ce_fishing_event	ce_squid_tally	ce_environment_data	ce_trip_event
	ce_estimated_subcatch	ce_tuna_individual_catch (historical)	ce_vessel_log_data	
	ce_bait	ce_processed_catch		
	ce_event_assoc_object	ce_landing		
L	← **LINK:** dcf_key (if forms are different e.g. CLR linked to TCP use trip) →			

Remember:

These are general rules of application and there are some exceptions.

Linking between 'conceptual' events with dcf_key will only work if the form number and type are the same. So if you have a CLR that you are trying to link to a TCP, SJC or TUN you would have to use trip key.

Confirm each link before entering code.

All links must include version_seqno - or you'll get double counting through multiple versions of forms. This means you must also specify which version of the form you want to extract (literal, interpreted, legal, personal, research): normally interp_yn ="Y"

4.0 Views within the Warehou Database

There are 11 core views in the **warehou** database. Below is a description of these views. Refer to Diagram 1 for an illustration of how these views relate to the event table.

- **ce_event** - Stores information on the timing and location of an event that occurred to a particular vessel or fisher.
- **ce_fishing_event** - Stores effort and some environment data relating to a particular event of type "fishing".
- **ce_estimated_subcatch** - Stores estimated catch data relating to a particular event of type "fishing".
- **ce_landing** - Stores landings data and data on the location of landing or transhipping relating to a particular event of type "production" recorded on a CLR, CELR, PCELR, NCELR, HS CELR or ECLR.
- **ce_processed_catch** - Stores production data relating to a particular event of type "production" recorded on a TCEPR, TLCER, SJCER, HS TLCER, HS SJCER or HS TCER.
- **ce_squid_tally** - Stores squid tray tally data relating to a particular event of type "production" recorded on a SJCER or HS SJCER.
- **ce_tuna_individual_catch** - Stores historical Southern Bluefin Tuna individual processed weight data relating to a particular event of type "production". This information was recorded on older versions of the TLCER form but is no longer collected on the latest versions of this form (2003 & 2008 versions).
- **ce_environment_data** - Stores environment data relating to a particular event of type "environment".
- **ce_vessel_log_data** - Stores vessel activity data relating to a particular event of type "environment".
- **ce_trip_event** - Stores trip duration data relating to a particular event of type trip based on what was originally recorded on the catch effort return. Note: it is recommended that the derived trip details are used from the trip_details table rather than the original form based data in this table.
- **ce_trip_details** – Stores the main details relating to a trip based on derived trip data.

There are 2 other seldom used views (**ce_bait** and **ce_event_assoc_object**) which store data on the bait used (1990 and 2003 versions of TLCER forms only) and the 2nd vessel in pair fishing (CELR, TCER or TCEPR forms only) respectively.

Each of the 11 core views has fields storing vessel and person/organisation identifiers. These fields have referential integrity checks imposed upon them and must have an equivalent identifier in the **vessel_specification** and **person_organisation** views, which reside in the **corporat** and **ref** databases respectively.

The tables **vessel_specification** and **person_organisation** are replicated in **warehou** and selected fields from these tables have been added to the core views. The replicated fields are detailed in the field descriptions in section 4.4.

There are further views, which store lists of valid values for various fields in the other databases views.

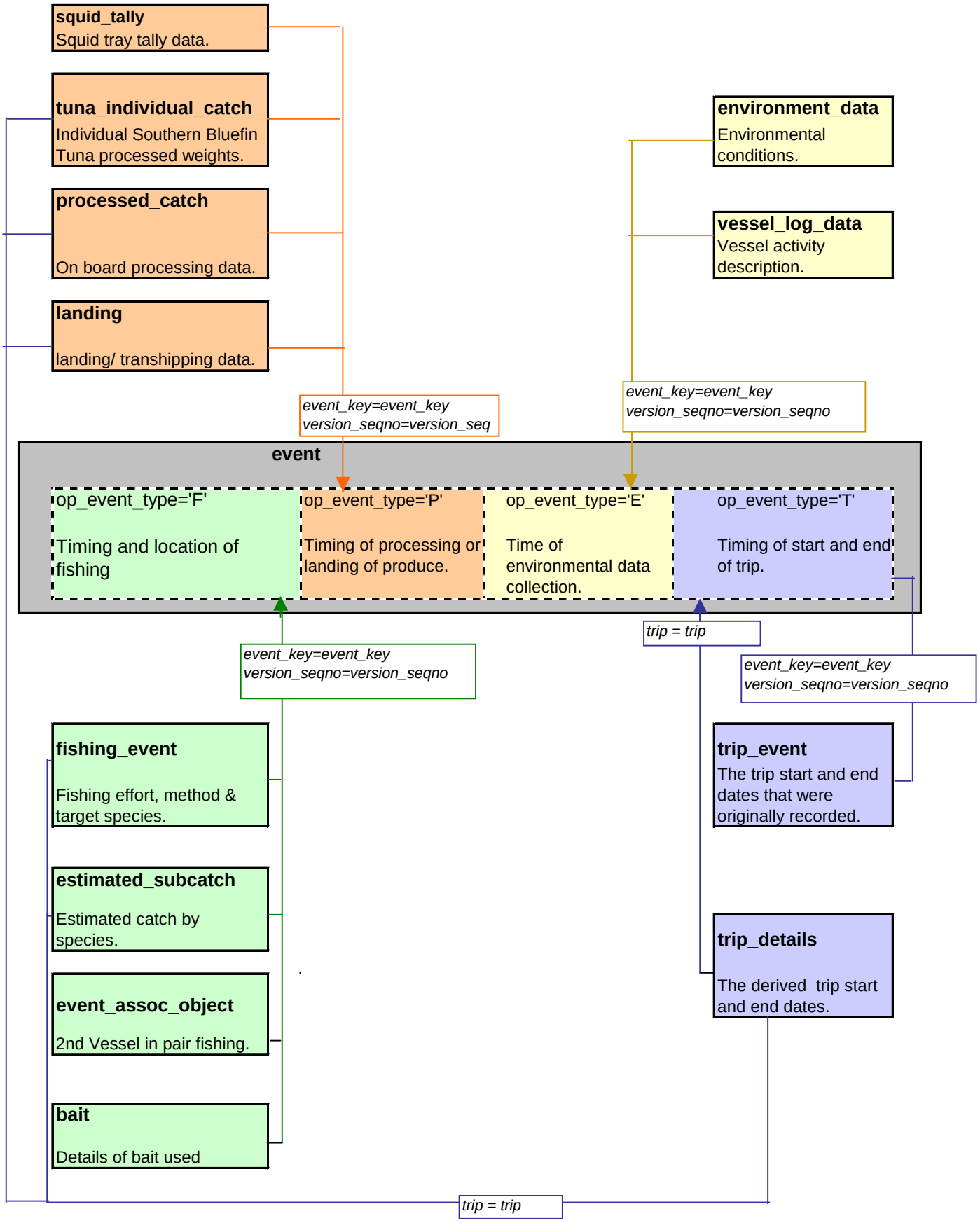
4.1 External Access to Warehou

Data is made available to clients external to the Ministry (such as NIWA) through the use of views that work as a filter on the core views. These views have the same name as the core views but are prefixed with "x_", e.g. the view **ce_landing** when accessed by an external client is referred to as **x_ce_landing**.

The external views do not allow access to any vessel or client identifying data and store latitude and longitude data truncated to $1/10^{th}$ of a degree only.

Diagram 1 illustrates the relationships between core views in the **warehou** database.

Diagram 1: Relationships between views in the warehou database



4.2 The Keys used to Link Views

The keys commonly used to link views in the **warehou** database are described below:

dcf_key + version_seqno - Dcf_key is a system generated number which uniquely identifies every form.
Multiple pages that are used for a trip will have separate dcf_keys. Version_seqno identifies which version of a particular form a record on the database relates to. The "literal" version of a form always has a **version_seqno** of 1. Because multiple versions of a form can exist on the database **dcf_key** must be combined with **version_seqno** to provide a key uniquely identifying a particular version of a particular form.

Dcf_key + version_seqno should be used when retrieving information from a form that relates to more than 1 type of event.

event_key + version_seqno - Each form can have many events recorded on it. As an example a single TCEPR form can have 1 environment event, 1 processing event and up to 6 fishing events associated with it. Event_key is a system generated number used to identify a particular event, (of type fishing, production, environment or trip), recorded on a particular form. Because multiple versions of a form can exist on the database **event_key** must be combined with **version_seqno** to provide a key uniquely identifying a particular version of a particular event on a particular form.

Event_key + version_seqno should be used when retrieving information from a form that relates to 1 type of event.

Note: If a new form is required to accommodate all the fish being processed or landed for a single trip then the new form constitutes a new **processing event (or landing_event)** within the **trip event** i.e. the processing/landing event will be different for each form that is used for a trip.

vessel_key - A system generated number used to uniquely identify a particular vessel.

client_key - A system generated number used to uniquely identify a particular person or organisation.

The client and vessel keys are consistent over time i.e. the same vessel key will always represent the same vessel.

4.3 The Indexes within the Warehou Database

Diagram 2 shows the indexes on the core views in the **warehou** database. Due to space constraints the diagram often only shows the first part of multi-part indexes.

This diagram also shows the keys that should be used to link views.

For example - The table **ce_estimated_subcatch** can be linked to **ce_fishing_event** or **ce_event** using **event_key** and **version_seqno**. Events of different types belonging to the same form can be linked using **dcf_key** and **version_seqno**.

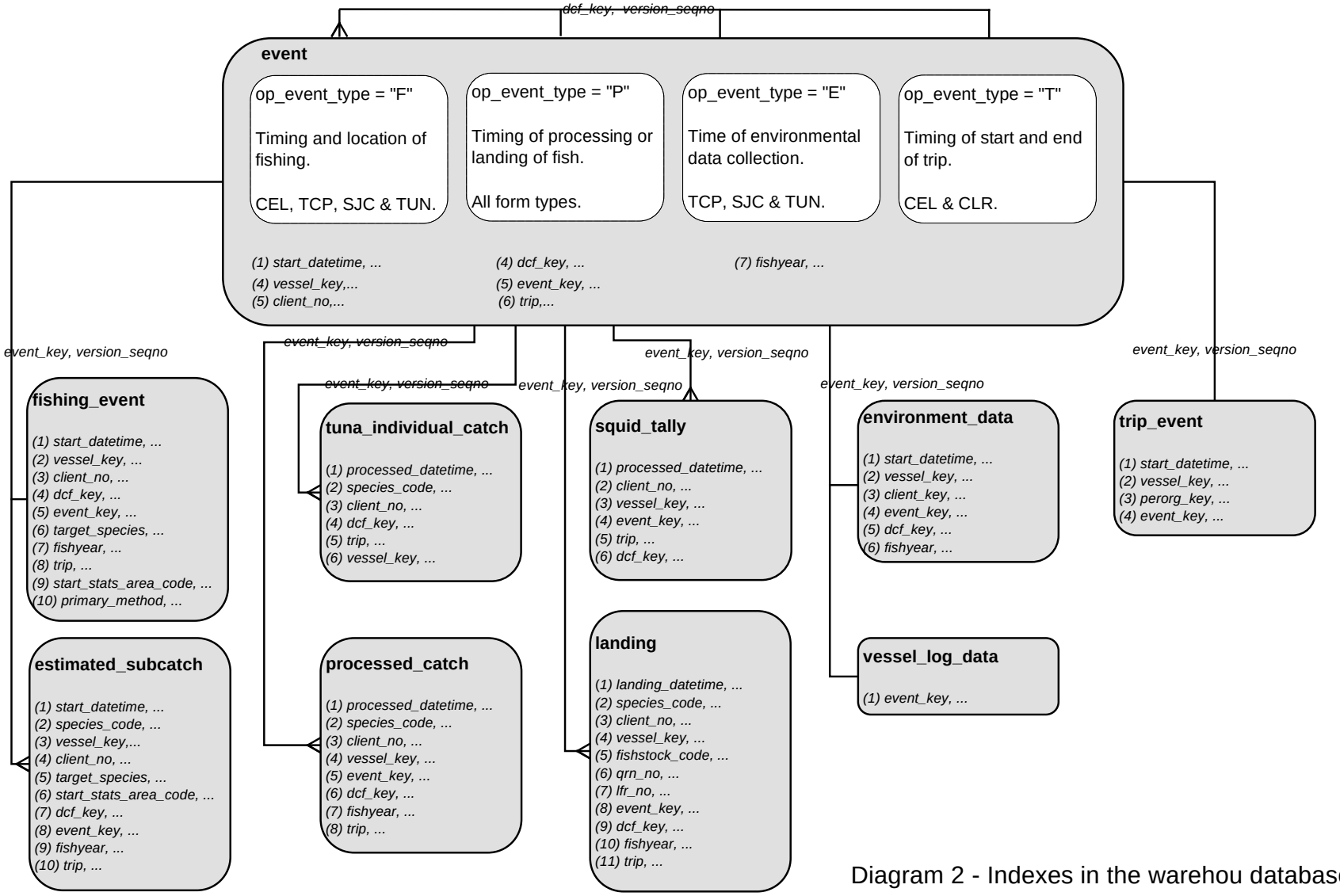


Diagram 2 - Indexes in the warehou database

4.4 The Fields in the Warehou Database

Some fields that are available in the **catcheff** core views are not available in **warehou** as they are not considered necessary for reporting.

To increase the performance of queries, many of the most frequently used fields are duplicated across the 11 core views.

Fields that have an historical reason for existing, but no longer store meaningful data, are marked as “Not used” in the comments column.

Fields which are the first part of an index are marked * in the field column.

Fields that are available in the external views are marked 4 in the Ext column, 8 means not available in external views.

A full description of the contents of each field in the 11 core views, plus **ce_bait, ce_event_assoc_object, ce_npc_fishing_event** and **ce_npc_estimated subcatch** follows :

Mfish View Name: **ce_event**

External View Name: **x_ce_event**

Description: Stores information on the timing and location of an event that occurred to a particular vessel or fisher.

Field	Ext	Usage	Comments	Field Type
event_key *	4	System generated number identifying a single fishing, production, environmental or trip event.	Unique key when combined with version_seqno.	keys
version_seqno	4	System generated number identifying the version of a single fishing, production, environmental or trip event.	Unique key when combined with event_key.	seqno
start_datetime *	4	The start date & time for an event. Note: the start date for an event of type "T' is a derived date that is created when the trip key is generated.	Important to select an op_event type	datetime
end_datetime	4	The end date & time for an event. Note the end date for an event of type "T' is a derived date that is created when the trip key is generated.	Important to select an op_event type	datetime
event_type	4	Used when linking catch effort data with that from external systems.	Not used in reporting.	type
confidence_scale	4	Confidence in forms data.	No longer used.	code
event_confidence _scale	4	Confidence in events data.	No longer used.	code
start_latitude	8	Decimalised latitude of start of event.		lat
start_longitude	8	Decimalised longitude of start of event.		long
end_latitude	8	Decimalised latitude of end of event.		lat
end_longitude	8	Decimalised longitude of end of event.		long
display_start_latitude	8	Latitude of start of event in degrees and minutes.		clat
display_start _longitude	8	Longitude of start of event in degrees and minutes..		clong
display_end_latitude	8	Latitude of end of event in degrees and minutes..		clat
display_end _longitude	8	Longitude of end of event in degrees and minutes..		clong
trunc_start_lat	4	Decimalised latitude of start of event truncated to $1/10^{th}$ of a degree.		numeric (4,1)
trunc_start_long	4	Decimalised longitude of start of event truncated to $1/10^{th}$ of a degree.		numeric (5,1)
trunc_end_lat	4	Decimalised latitude of end of event truncated to $1/10^{th}$ of a degree.		numeric (4,1)
trunc_end_long	4	Decimalised longitude of end of event truncated to $1/10^{th}$ of a degree.		numeric (5,1)
trunc_disp_start_lat	4	Latitude of start of event truncated to $1/10^{th}$ of a degree reported in minutes.		varchar (6)
trunc_disp_start _long	4	Longitude of start of event truncated to $1/10^{th}$ of a degree reported in minutes.		varchar (7)
trunc_disp_end_lat	4	Latitude of end of event truncated to $1/10^{th}$ of a degree reported in minutes.		varchar (6)
trunc_disp_end _long	4	Longitude of end of event truncated to $1/10^{th}$ of a degree reported in minutes.		varchar (7)
start_stats_area_code	4	Statistical area in which event started.		areacode

***ce_event** field descriptions continued...*

start_area_code	4	Whether event occurred inside 12 mile zone, EEZ or on the High Seas · 12 = within 12 mile zone · EZ = within the EEZ (200 miles) but outside the 12 mile zone. · NZ = on land in New Zealand · ET = Outside the EEZ Note: fishing in the keyholes within the EEZ will be ET but have a start_fma_code of either 6 or 4	Derived only when a lat/long combination entered.	areacode
op_event_type	4	The type of event being stored (**F**ishing, **P**roduction, **E**nvironment or **T**rip).		type
pos_confidence _scale	4	Confidence in position data.	No longer used.	code
start_fma_code	4	The fisheries management area in which an event started.	Derived only when a lat/long combination entered.	areacode
client_key	4	System generated number identifying the permit holder.		keys
client_no*	8	Number assigned to a permit holder by the Ministry of Fisheries.		id
client_name	8	Legal name of permit holder.		perorgname
registry_code	4	An office or region code	Historic	code
vessel_key *	4	System generated number identifying the vessel fishing.		keys
vessel_id	8	Vessel registration number or call sign if foreign licensed.		id
vessel_no	8	Vessel registration number.		id
vessel_name	8	Registered vessel name.		name
vessel_reg_type	4	Vessel registration type, (**D**omestic, **C**harter, **F**oreign licensed or **U**nknown).		type
fishyear*	4	Fishing year (e.g. 1 Oct 1996 to 30 Sep 1997 = 1997).	Won't be correct for species which have a different fishing year e.g. rock lobsters.	smallint
display_fishyear	4	Formatted fishing year (e.g. 1 Oct 1996 to 30 Sep 1997 = 1996/97).	See fishyear.	varchar (7)
dcf_key *	4	System generated number identifying a single form.	When combined with version_seqno will identify all of the events relating to a single form.	keys
form_number	4	The ID number printed on each form.	Not unique because there are many different types of forms. Referred to in **catcheff** views as dcf_id_number.	id_int
form_type	4	The type of the form. CELR is abbreviated to **CEL**, TCEPR to **TCP**, TCER to **TCE**, LCER to **LCE**, LTCER to **LTC**, CLR to **CLR**, SJCER to **SJC**, TLCER to **TUN,** PCELR to **PCE**, NCELR to **NCE**, NFPSCR to **NPC**, ECER to **ECE,** ECLR to **ECL,** HSCELR to **HCE**, HSTCER to **HTC**, HSTLCER to **HTU** and HSLCER to **HLC**.	Referred to in **catcheff** views as dcf_defn_group_type.	type
dcf_status	4	Validation status of this form.	Not used	status
trip*	4	A system generated number allocated to each of the events that took place for one vessel between its trip start and end dates.		keys

***ce_event** field descriptions continued...*

literal_yn	4	Boolean - This is the literal version of the data.		yn
interp_yn	4	Boolean - Either an interpreted version of the data does not exist, or it does exist and this is it. When selecting "Y", the interpreted version of the form will be retrieved if there is one , otherwise the literal version will be provided.		yn
resrch_yn	4	Boolean - Either a research version of the data does not exist, or it does exist and this is it.		yn
event_catcher_id	4	Fisher's name (TUN, HTU, LCE, HLC, LTC, TCE and ECE forms only)		ccode

Mfish View Name: **ce_fishing_event**

External View Name: **x_ce_fishing_event**

Description: Stores effort and some environment data relating to a particular event of type "fishing".

Field	Ext	Usage	Comments	Field Type
event_key *	4	System generated number identifying a single fishing event.	Unique key when combined with version_seqno.	keys
version_seqno	4	System generated number identifying the version of a single fishing event.	Unique key when combined with event_key.	seqno
group_key	4	System generated number used to link to tables in the form database.		keys
return_seqno	4	The page number of a multipage form.	Not used.	seqno
start_datetime *	4	The start date & time for fishing.		datetime
end_datetime	4	The end date & time for fishing.		datetime
primary_method*	4	Code for fishing method used (TCP = gear code).		method
method_system_type	4	Always "**FIC**".	Not used.	type
target_species *	4	Target species.		species
fishing_duration	4	# Usage varies - see contents of effort fields table. The fishing duration is decimalised e.g. 30 minutes will be recorded as 0.5		duration
fishing_day_duration	4	Number of hours spent fishing during daylight. Early squid jigging forms only.	Historical - Stores data which is no longer collected.	duration
fishing_night _duration	4	Number of hours spent fishing at night. Early squid jigging forms only.	Historical - Stores data which is no longer collected.	duration
catch_weight	4	The **total** weight of catch for this fishing event as estimated at the time.	Do not confuse with catch_weight from the estimated subcatch table which represents weights for individual species.	weight
catch_weight_other	4	The total weight of **all other** species caught in a set that were not recorded as one of the first eight species caught (by weight). Collected on LCE , HLC, NCE, TCE and LTC forms only.		weight
non_fish_yn	4	Flag to indicate if there was any non-fish incidental catch for the fishing event.	First introduced in Oct 2006 on the NCE form and then on other forms at later dates.	yn
fishing_event_effort_ type	4	Very general method code **(S** = SQJ, **L** = TUN, **T** = others).		type
confidence_scale	4	Confidence in the method & target species data.	No longer used.	code
effort_depth	4	TCP/TCE - Groundrope depth, SJC - Deepest lure.		depth
effort_height	4	# Usage varies - see contents of effort fields table at the end of this document.		height
effort_num	4	# Usage varies - see contents of effort fields table at the end of this document.		num
effort_num_2	4	Currently number of meshes as recorded on the NCE form.	Introduced on the NCE form in Oct 2006.	num
effort_seqno	4	The set or tow number since the start of the trip. This is only collected on LCE, TCE & LTC forms.		seqno
effort_total_num	4	# Usage varies - see contents of effort fields table at the end of this document.		number
effort_width	4	# Usage varies - see contents of effort fields table at the end of this document.		width
effort_length	4	Length of line (TUN form only) in nautical miles.	Introduced Apr/May 2003.	length

effort_speed	4	Estimated speed of trawl (TCP/TCE forms only).		speed
surface_temp	4	Sea surface temperature (CEL forms with method PS only).		temperature
effort_time	4		Not used.	duration
total_hook_num	4	# Usage varies – see contents of effort fields table.		number
total_basket_num	4	Number of baskets, (TUN forms only).	Not collected after April 2003.	num
set_end_datetime	4	Date/time setting of longline finished, (TUN forms only).		datetime
haul_start_datetime	4	Date/time hauling of longline started (TUN, HTU, LCE, LTC and HLC forms only).		datetime
haul_start_wind_speed	4	Wind speed (m/s) at time hauling of longline started (TUN forms only).	Not collected after April 2003.	speed
haul_end_wind_speed	4	Wind speed (m/s) at time hauling of longline ended, (TUN forms only).		speed
set_start_wind_speed	4	Wind speed (m/s) at time setting of longline started (TUN form only).	Introduced Apr/May 2003.	speed
set_start_wind_direction	4	Wind direction at time setting of longline started (TUN form only).	Introduced Apr/May 2003.	direction
haul_end_wind_direction	4	Wind direction at time hauling of longline ended (TUN form only).	Introduced Apr/May 2003.	direction
haul_end_surface_temp	4	Sea surface temperature at time hauling of longline ended (TUN form only).	Introduced Apr/May 2003.	temperature
float_num	4	Number of floats (TUN form only).	Introduced Apr/May 2003.	num
light_stick_num	4	Number of light sticks (TUN form only).	Introduced Apr/May 2003.	num
line_shooter_yn	4	Line shooter (Y/N) (TUN form only).	Introduced Apr/May 2003.	yn
catcher_id	4	Diver's name (PCE only).	Introduced 01 Oct 2001.	varchar (5)
condition_type	4	Diving conditions (PCE only).	Introduced 01 Oct 2001.	flag
total_net_length	4	# Usage varies – see contents of effort fields table.		length
double_reel_num	4	Number of double reel jigging machines in use, (SJC forms only).		num
pair_trawl_yn	4	This was a pair trawl event Y = yes or N = no.		yn
bottom_depth	4	Depth below sea level of sea floor (TCP, TCE, HTC, LCE, HLC & SJC forms only).		depth
effort_confidence_scale	4	Confidence in the effort data.	No longer used.	code
spotter_callsign	4	Call sign of spotter aircraft (CEL forms with method PS only).		id
bottom_temp	4		Not used.	temperature
days_fished_num	4		Not used.	num
effort_1_days_num	4		Not used.	num
effort_2_days_num	4		Not used.	num
column_a	4	The information recorded in the effort A column of a form type CEL.	Repeats information stored in one of the fields marked #.	descript
column_b	4	The information recorded in the effort B column of a form type CEL.	Repeats information stored in one of the fields marked #.	descript
column_c	4	The information recorded in the effort C column of a form type CEL.	Repeats information stored in one of the fields marked #.	descript
column_d	4	The information recorded in the effort D column of a form type CEL.	Repeats information stored in one of the fields marked #.	descript

ce_fishing_event *field descriptions continued...*

start_latitude	8	Decimalised latitude of start of event.		lat
start_longitude	8	Decimalised longitude of start of event.		long
end_latitude	8	Decimalised latitude of end of event.		lat
end_longitude	8	Decimalised longitude of end of event.		long
display_start_latitude	8	Latitude of start of event in degrees and minutes.		clat
display_start _longitude	8	Longitude of start of event in degrees and minutes.		clong
display_end_latitude	8	Latitude of end of event in degrees and minutes.		clat
display_end _longitude	8	Longitude of end of event in degrees and minutes.		clong
trunc_start_lat	4	Decimalised latitude of start of event truncated to $1/10^{th}$ of a degree.		numeric (4,1)
trunc_start_long	4	Decimalised longitude of start of event truncated to $1/10^{th}$ of a degree.		numeric (5,1)
trunc_end_lat	4	Decimalised latitude of end of event truncated to $1/10^{th}$ of a degree.		numeric (4,1)
trunc_end_long	4	Decimalised longitude of end of event truncated to $1/10^{th}$ of a degree.		numeric (5,1)
trunc_disp_start_lat	4	Latitude of start of event truncated to $1/10^{th}$ of a degree reported in minutes.		varchar (6)
trunc_disp_start _long	4	Longitude of start of event truncated to $1/10^{th}$ of a degree reported in minutes.		varchar (7)
trunc_disp_end_lat	4	Latitude of end of event truncated to$1/10^{th}$ of a degree reported in minutes.		varchar (6)
trunc_disp_end _long	4	Longitude of end of event truncated to $1/10^{th}$ of a degree reported in minutes.		varchar (7)
start_stats_area_code *	4	Statistical area in which event started.		areacode
vessel_key *	4	System generated number identifying the vessel fishing.		keys
vessel_id	8	Vessel registration number or call sign if foreign licensed.		id
vessel_no	8	Vessel registration number. Recommended use vessel_id rather than this field.		id
vessel_name	8	Registered vessel name.		name
vessel_reg_type	4	Vessel registration type (**D**omestic, **C**harter, **F**oreign licensed or **U**nknown).		type
client_key	4	System generated number identifying the permit holder.		keys
client_no*	8	Number assigned to a permit holder by the Ministry of Fisheries.		id
client_name	8	Legal name of permit holder.		perorgname
fishyear*	4	Fishing year (e.g. 1 Oct 1996 to 30 Sep 1997 = 1997).	Won't be correct for species which have a different fishing year e.g. rock lobsters.	smallint
display_fishyear	4	Formatted fishing year (e.g. 1 Oct 1996 to 30 Sep 1997 = 1996/97).	See fishyear.	varchar (7)
dcf_key *	4	System generated number identifying a single form.	When combined with version_seqno will identify all of the events relating to a single form.	keys

ce_fishing_event *field descriptions continued...*

form_number	4	The ID number printed on each form.	Not unique because there are many different types of forms. Referred to in **catcheff** views as dcf_id_number.	id_int
form_type	4	The type of the form. CELR is abbreviated to **CEL**, TCEPR to **TCP**, TCER to **TCE**, LCER to **LCE**, LTCER to **LTC**, CLR to **CLR**, SJCER to **SJC**, TLCER to **TUN,** PCELR to **PCE**, NCELR to **NCE**, ECER to **ECE,** ECLR to **ECL,** HSCELR to **HCE**, HSTCER to **HTC**, HSTLCER to **HTU** and HSLCER to **HLC**.	Referred to in **catcheff** views as dcf_defn_group_type.	type
trip*	4	A system generated number allocated to each of the events that took place for one vessel between its trip start and end dates.		keys
literal_yn	4	Boolean - This is the literal version of the data.		yn
interp_yn	4	Boolean - Either an interpreted version of the data does not exist, or it does exist and this is it. When selecting "Y", the interpreted version of the form will be retrieved if there is one , otherwise the literal version will be provided		yn
resrch_yn	4	Boolean - Either a research version of the data does not exist, or it does exist and this is it.		yn

Mfish View Name: **ce_estimated_subcatch**
External View Name: **x_ce_estimated_subcatch**
Description: Stores estimated catch data relating to a particular event of type “fishing”.

Field	Ext	Usage	Comments	Field Type
event_key*	4	System generated number identifying a single fishing event.	Because multiple catches can occur for 1 fishing event this is not a unique key even when combined with version_seqno.	keys
version_seqno	4	System generated number identifying the version of a single fishing event.		seqno
group_key	4	System generated number used to link to tables in the form database.		keys
start_datetime*	4	The start date & time for fishing.		datetime
species_code*	4	Three letter code for species caught.		species
catch_weight	4	Estimated weight (kg) caught of the species. Note: the number of fish caught rather than the weight is recorded for tuna species and swordfish on CELR forms for some methods of fishing.		weight
catch_num	4	Number of fish caught for tuna species and swordfish by lining methods on CELR forms.	Not used - currently stored in catch_weight.	num
confidence_scale	4	Confidence in the data.	No longer used.	code
target_species*	4	Target species.		species
primary_method	4	Code for fishing method used (Gear code on a TCEPR).		method
start_latitude	8	Decimalised latitude of start of event.		lat
start_longitude	8	Decimalised longitude of start of event.		long
end_latitude	8	Decimalised latitude of end of event.		lat
end_longitude	8	Decimalised longitude of end of event.		long
display_start_latitude	8	Latitude of start of event in degrees and minutes.		clat
display_start _longitude	8	Longitude of start of event in degrees and minutes.		clong
display_end_latitude	8	Latitude of end of event in degrees and minutes.		clat
display_end _longitude	8	Longitude of end of event in degrees and minutes.		clong
trunc_start_lat	4	Decimalised latitude of start of event truncated to $1/10^{th}$ of a degree. .		numeric (4,1)
trunc_start_long	4	Decimalised longitude of start of event truncated to $1/10^{th}$ of a degree.		numeric (5,1)
trunc_end_lat	4	Decimalised latitude of end of event truncated to $1/10^{th}$ of a degree.		numeric (4,1)
trunc_end_long	4	Decimalised longitude of end of event truncated to $1/10^{th}$ of a degree.		numeric (5,1)
trunc_disp_start_lat	4	Latitude of start of event truncated to $1/10^{th}$ of a degree reported in minutes.		varchar (6)
trunc_disp_start _long	4	Longitude of start of event truncated to $1/10^{th}$ of a degree reported in minutes.		varchar (7)
trunc_disp_end_lat	4	Latitude of end of event truncated to $1/10^{th}$ of a degree reported in minutes.		varchar (6)
trunc_disp_end _long	4	Longitude of end of event truncated to $1/10^{th}$ of a degree reported in minutes.		varchar (7)
start_stats_area _code*	4	Statistical area in which the fish were caught.		areacode

ce_estimated_subcatch *field descriptions continued…*

vessel_key*	4	System generated number identifying the vessel fishing.		keys
vessel_id	8	Vessel registration number or call sign if foreign licensed.		id
vessel_no	8	Vessel registration number. Recommend use vessel_id.		id
vessel_name	8	Registered vessel name.		name
vessel_reg_type	4	Vessel registration type (**D**omestic, **C**harter, **F**oreign licensed or **U**nknown).		type
client_key	4	System generated number identifying the permit holder.		keys
client_no*	8	Number assigned to a permit holder by the Ministry of Fisheries.		id
client_name	8	Legal name of permit holder.		perorgname
fishyear*	4	Fishing year (e.g. 1 Oct 1996 to 30 Sep 1997 = 1997).	Won't be correct for species which have a different fishing year e.g. rock lobsters.	smallint
display_fishyear	4	Formatted fishing year (e.g. 1 Oct 1996 to 30 Sep 1997 = 1996/97).	See fishyear.	varchar (7)
dcf_key *	4	System generated number identifying a single form.	When combined with version_seqno will identify all of the events relating to a single form.	keys
form_number	4	The ID number printed on each form.	Not unique because there are many different types of forms. Referred to in **catcheff** views as dcf_id_number.	id_int
form_type	4	The type of the form. CELR is abbreviated to **CEL**, TCEPR to **TCP**, TCER to **TCE**, LCER to **LCE**, LTCER to **LTC**, CLR to **CLR**, SJCER to **SJC**, TLCER to **TUN,** PCELR to **PCE**, NCELR to **NCE**, ECER to **ECE,** ECLR to **ECL,** HSCELR to **HCE**, HSTCER to **HTC**, HSTLCER to **HTU** and HSLCER to **HLC**.	Referred to in **catcheff** views as dcf_defn_group_type.	type
trip*	4	A system generated number allocated to each of the events that took place for one vessel between its trip start and end dates.		keys
literal_yn	4	Boolean - This record is the literal version of the data.		yn
interp_yn	4	Boolean - Either an interpreted version of the data does not exist, or it does exist and this is it. When selecting "Y", the interpreted version of the form will be retrieved if there is one , otherwise the literal version will be provided		yn
resrch_yn	4	Boolean - Either a research version of the data does not exist, or it does exist and this is it.		yn

Mfish View Name: **ce_landing**

External View Name: **x_ce_landing**

Description: Stores landings data and data on the location of landing or transhipping relating to a particular event of type “production”

Field	Ext	Usage	Comments	Field Type
event_key*	4	System generated number identifying a single landing or transhipping event.	Because multiple species can occur for one landing or transhipping event this is not a unique key even when combined with version_seqno.	keys
version_seqno	4	System generated number identifying the version of a single landing or transhipping event.	.	seqno
group_key	4	System generated number used to link to tables in the form database.		Keys
specprod_seqno	4	System generated number used in conjunction with the above three fields to create a unique key.		Seqno
return_seqno	4	Intended to be used to track landings across multiple forms.	Not used.	Seqno
specprod_action_type	4	General nature of event, will always be ‘**LAN**’ = landing.		Type
landing_datetime*	4	The start date for landing or transhipping.		Datetime
landing_name	4	Point of landing or call sign of transhipment vessel (CEL, NCE and CLR only).		Name
species_code*	4	Three letter code identifying the species being landed or transhipped.		Species
species_name	4	Species common name.		Name
species_class	4	Species class name (list available in appendix 3).		Code
fishstock_code*	4	Fishstock code.		Areacode
state_code	4	Processed state of fish.		Code
destination_type	4	Type of destination for fish e.g. landed, transhipped etc.		Type
unit_type	4	Type of packaging e.g. container, box, sack, single fish etc.		Type
unit_num	4	Number of containers.		Number
unit_num_latest	4	Number of containers from latest trip.	Introduced on NCE form currently not collected on other form types.	Number
unit_num_other	4	Number of containers from other trips	Introduced on NCE form currently not collected on other form types.	Number
unit_weight	4	Average weight of each container.		Weight
conv_factor	4	Conversion factor.		Factor
green_weight	4	Green weight of fish.		Weight
green_weight_type	4	How green weight was calculated by MFish (**ACT**ual, **F**isher **B**ack **C**alculated, **BAC**k calculated, calculated from **CON**tainers, **EST**imated).		type
processed_weight	4	Processed weight of fish (processed weight x conversion factor = green weight).		weight
processed_weight_type	4	How processed weight was calculated (see green_weight_type).		type

ce_landing *field descriptions continued...*

qrn_key	4	System generated number identifying the Quota Registration Key of the person/organisation that the fish was caught against. This is a historical variable that is only relevant to pre Oct 2001 returns.	Generated for QRN details provided on forms used prior to 01 Oct 2001.	keys
qrn_no*	8	Quota Registration Number. This is no longer collected unless an older version of the form is provided.	Collected on the forms used prior to 01 Oct 2001.	id
qrn_name	8	Legal name of the person/organisation the fish was caught against. This is no longer collected unless an older version of the form is provided.	Collected on the forms used prior to 01 Oct 2001.	perorgname
lfr_key	4	System generated number identifying the Licensed Fish Receiver that received the fish.		keys
lfr_no*	8	Licensed Fish Receiver number.		id
lfr_name	8	Legal name of the Licensed Fish Receiver that received the fish.		perorgname
invoice_num	4	Purchase tax invoice number from LFR.		cinvoice
tranship_vessel_key	4	System generated number identifying the vessel receiving a transhipment.		keys
tranship_vessel_id	8	Vessel registration number, or call sign if foreign licensed, of vessel receiving a transhipment.		id
tranship_vessel_no	8	Vessel registration number of vessel receiving a transhipment.		id
tranship_vessel_name	8	Registered vessel name of vessel receiving a transhipment.		name
tranship_reg_type	4	Vessel registration type of vessel receiving a transhipment.		type
land_confidence_scale	4	Confidence in landing/transhipping data.	No longer used.	code
proc_confidence_scale	4	Confidence in processing data.	Not used.	code
days_caught_num	4	Number of days of fishing which resulted in the catch now being landed/transhipped.	Not used.	num
vessel_key *	4	System generated number identifying the vessel landing/transhipping.		keys
vessel_id	8	Vessel registration number or call sign if foreign licensed.		vesid
vessel_no	8	Vessel registration number.		id
vessel_name	8	Registered vessel name.		name
vessel_reg_type	4	Vessel registration type, (**D**omestic, **C**harter, **F**oreign licensed or **U**nknown).		type
flag_nationality	4	Nationality code identifying flag state/original port of registry of vessel.		type
owner_nationality	4	Nationality code identifying nationality of vessel owner.		type
boat_nationality	4	Nationality code identifying nationality of vessel.		type
registered_owner_key	4	System generated number identifying the registered owner.		keys
client_key	4	System generated number identifying the permit holder.		keys
client_no*	8	Number assigned to a permit holder by the Ministry of Fisheries.		id
client_name	8	Legal name of permit holder.		perorgname
fishyear*	4	Fishing year (e.g. 1 Oct 1996 to 30 Sep 1997 = 1997).	Won't be correct for species which have a different fishing year e.g. rock lobsters.	year

ce_landing *field descriptions continued...*

display_fishyear	4	Formatted fishing year (e.g. 1 Oct 1996 to 30 Sep 1997 = 1996/97).	See fishyear.	Varchar (7)
dcf_key *	4	System generated number identifying a single form.	When combined with version_seqno will identify all of the events relating to a single form.	keys
form_number	4	The ID number printed on each form.	Not unique because there are many different types of forms. Referred to in **catcheff** views as dcf_id_number.	id_int
form_type	4	The type of the form. CELR is abbreviated to **CEL**, CLR to **CLR**, PCELR to **PCE**, NCELR to **NCE**, ECLR to **ECL** and HSCELR to **HCE**.	Referred to in **catcheff** views as dcf_defn_group _type.	type
trip*	4	A system generated number allocated to each of the events that took place for 1 vessel between its trip start and end dates.		keys
trip_start_datetime	4	Derived start date for the trip that the landing relates to. This is created when the trip key is generated		datetime
trip_end_datetime	4	Derived end date for the trip the landing relates to. This is created when the trip key is generated		datetime
entered_trip_start_ datetime	8	Start date for the trip as it was originally recorded on the catch effort return. Note: it is recommended that the derived trip dates be used for reporting.		datetime
entered_trip_end_ datetime	8	End date for the trip as it was originally recorded on the catch effort return. Note: it is recommended that the derived trip dates be used for reporting.		datetime
literal_yn	4	Boolean - This record is the literal version of the data.		yn
interp_yn	4	Boolean - Either an interpreted version of the data does not exist, or it does exist and this is it. When selecting "Y", the interpreted version of the form will be retrieved if there is one , otherwise the literal version will be provided		yn
resrch_yn	4	Boolean - Either a research version of the data does not exist, or it does exist and this is it.		yn
est_greenweight	4	Estimated landed green weight (by fisher). PCE and ECL forms only	Introduced Oct 2001	weight

Mfish View Name: **ce_environment_data**
External View Name: **x_ ce_environment_data**
Description: Stores environment data relating to a particular event of type “environment”.

Field	Ext	Usage	Comments	Field Type
event_key*	4	System generated number identifying a single environmental event.	Unique key when combined with version_seqno.	keys
version_seqno	4	System generated number identifying the version of a single environmental event.	Unique key when combined with event_key.	seqno
group_key	4	System generated number used to link to tables in the form database.		keys
surface_temp	4	Sea surface temperature (TCP, SJC & TUN forms).		temperature
bottom_temp	4	Sea bottom temperature (TCP forms only).		temperature
wind_speed	4	Wind speed metres/second (SJC forms only).		speed
wind_direction	4	Wind direction (SJC forms only).		direction
windforce _beaufortnum	4	Wind force/ beaufort scale.	Not used.	beaufortnum
cloud_type	4	2 letter code for type of cloud (old TUN forms only).	Not collected after April 2003.	type
cloud_cover_amount	4	Numeric code showing number of eighths cloud cover (old TUN forms only).	Not collected after April 2003.	amount
bottom_depth	4		Not used.	depth
confidence_scale	4	Confidence in environment data.	No longer used.	code
start_datetime*	4	The start date for the event.		datetime
vessel_key*	4	System generated number identifying the vessel fishing.		keys
vessel_reg_type	4	Vessel registration type (**D**omestic, **C**harter, **F**oreign licensed or **U**nknown).		type
client_key*	4	System generated number identifying the permit holder.		keys
fishyear*	4	Fishing year (e.g. 1 Oct 1996 to 30 Sep 1997 = 1997).	Wont be correct for species which have a different fishing year e.g. Rock Lobsters.	smallint
display_fishyear	4	Formatted fishing year (e.g. 1 Oct 1996 to 30 Sep 1997 = 1996/97).	See fishyear.	varchar (7)
dcf_key*	4	System generated number identifying a single form.	When combined with version_seqno will identify all of the events relating to a single form.	keys
form_number	4	The ID number printed on each form.	Not unique because there are many different types of forms. Referred to in **catcheff** views as dcf_id_number.	id_int
form_type	4	The type of the TLCER form is abbreviated to **TUN**, HSCELR to **HCE,** HSTCER to **HTC** and HSTLCER to **HTU.**	Referred to in **catcheff** views as dcf_defn_group_type.	type
literal_yn	4	Boolean – This record is the literal version of the data.		yn
interp_yn	4	Boolean - Either an interpreted version of the data does not exist, or it does exist and this is it.		yn
resrch_yn	4	Boolean - Either a research version of the data does not exist, or it does exist and this is it.		yn

Mfish View Name: **ce_processed_catch**

External View Name: **x_ ce_processed_catch**

Description: Stores production data relating to a particular event of type “production”

Field	Ext	Usage	Comments	Field Type
event_key*	4	System generated number identifying a single processing event.	Because multiple species can occur for one processing event this is not a unique key even when combined with version_seqno.	keys
version_seqno	4	System generated number identifying the version of a single processing event.		seqno
group_key	4	System generated number used to link to tables in the form database.		keys
specprod_seqno	4	System generated number used to in conjunction with the above 3 fields to create a unique key.		seqno
return_seqno	4	Intended to be used to track landings across multiple forms.	Not used.	seqno
specprod_action _type	4	General nature of event, will only contain events with specprod_action_type of **PRO** = processing , **OFF** = offal production or **DIS** = discarded.		type
processed_datetime*	4	The start date for processing.		datetime
species_code*	4	Three letter code identifying the species being processed.		species
species_name	4	Species common name.		name
species_class	4	Species class name.		code
state_code	4	Processed state of fish.		code
unit_type	4	Type of packaging (container, box, sack, single fish etc).		type
unit_num	4	Number of containers or litres of oil produced where specprod_action_type = “OFF”.		number
unit_weight	4	Average weight of each container.		weight
conv_factor	4	Conversion factor.		factor
processed_weight	4	Processed weight of fish (processed weight X conversion factor = green weight).		weight
processed_weight _type	4	How processed weight was calculated, (see green_weight_type).		type
green_weight	4	Green weight of fish.		weight
green_weight_type	4	How green weight was calculated by MFish, (**ACT**ual or calculated from **CON**tainers).		type
proc_confidence _scale	4	Confidence in processing data.	No longer used.	code
days_caught_num	4	Number of days of fishing which resulted in the catch now being landed.	Not used.	num
vessel_key*	4	System generated number identifying the vessel fishing.		keys
vessel_id	8	Vessel registration number or call sign if foreign licensed.		vesid
vessel_no	8	Vessel registration number.		id
vessel_name	8	Registered vessel name.		name
vessel_reg_type	4	Vessel registration type (**D**omestic, **C**harter, **F**oreign licensed or **U**nknown).		type

ce_processed_catch *field descriptions continued...*

flag_nationality	4	Nationality code identifying flag state/original port of registry of vessel.		type
owner_nationality	4	Nationality code identifying nationality of vessel owner.		type
boat_nationality	4	Nationality code identifying nationality of vessel.		type
registered_owner _key	4	System generated number identifying the registered owner.		keys
client_key	4	System generated number identifying the permit holder.		keys
client_no*	8	Number assigned to a permit holder by the Ministry of Fisheries.		id
client_name	8	Legal name of permit holder.		perorgname
fishyear*	4	Fishing year (e.g. 1 Oct 1996 to 30 Sep 1997 = 1997).	Won't be correct for species which have a different fishing year e.g. rock lobsters.	year
display_fishyear	4	Formatted fishing year (e.g. 1 Oct 1996 to 30 Sep 1997 = 1996/97).	See fishyear.	varchar (7)
dcf_key *	4	System generated number identifying a single form.	When combined with version_seqno will identify all of the events relating to a single form.	keys
form_number	4	The ID number printed on each form.	Not unique because there are many different types of forms. Referred to in **catcheff** views as dcf_id_number.	id_int
form_type	4	The type of the form. TCEPR is abbreviated to **TCP**, SJCER to **SJC,** TLCER to **TUN** and HS TLCER to **HTU.**	Referred to in **catcheff** views as dcf_defn_group_type.	type
trip*	4	A system generated number allocated to each of the events that took place for 1 vessel between its trip start and end dates.		keys
trip_start_datetime	4	Start date for the trip that the processing relates to. Note: this is the derived date that is created when the trip key is generated.		datetime
trip_end_datetime	4	End date for the trip the processing relates to. Note: this is the derived date that is created when the trip key is generated.		datetime
literal_yn	4	Boolean - This record is the literal version of the data.		yn
interp_yn	4	Boolean - Either an interpreted version of the data does not exist, or it does exist and this is it. When selecting "Y", the interpreted version of the form will be retrieved if there is one, otherwise the literal version will be provided		yn
resrch_yn	4	Boolean - Either a research version of the data does not exist, or it does exist and this is it.		yn

Mfish View Name: **ce_tuna_individual_catch**

External View Name: **x_ ce_tuna_individual_catch**

Description: Stores **historical** Southern Bluefin Tuna individual processed weight data relating to a particular event of type "production" recorded on the old version of the TLCER (prior to April 2003).

Field	Ext	Usage	Comments	Field Type
event_key*	4	System generated number identifying a single processing event.	Because multiple weights can occur for one event this is not a unique key even when combined with version_seqno.	keys
version_seqno	4	System generated number identifying the version of a single event.		seqno
group_key	4	System generated number used to link to tables in the form database.		keys
specprod_seqno	4	System generated number used to in conjunction with the above 3 fields to create a unique key.		seqno
return_seqno	4	Intended to be used to track landings across multiple forms.	Not used.	seqno
specprod_action _type	4	General nature of event, will only contain events with specproc_action_type of **SIN** = single fish count.		type
processed_datetime*	4	The start date for processing.		datetime
species_code*	4	Three letter code identifying the species being processed - will be STN.		species
species_name	4	Species common name.		name
species_class	4	Species class name.		code
processed_weight	4	Processed weight of each Southern Bluefin Tuna.		weight
proc_confidence _scale	4	Confidence in processing data.	Not used.	code
vessel_key*	4	System generated number identifying the vessel fishing.		keys
vessel_id	8	Vessel registration number or call sign if foreign licensed.		vesid
vessel_no	8	Vessel registration number.	Not used.	id
vessel_name	8	Registered vessel name.		name
vessel_reg_type	4	Vessel registration type (**D**omestic, **C**harter, **F**oreign licensed or **U**nknown).		type
flag_nationality	4	Nationality code identifying flag state/original port of registry of vessel.		type
owner_nationality	4	Nationality code identifying nationality of vessel owner.		type
boat_nationality	4	Nationality code identifying nationality of vessel.		type
registered_owner _key	4	System generated number identifying the registered owner.		keys
client_key	4	System generated number identifying the permit holder.		keys
client_no*	8	Number assigned to a permit holder by the Ministry of Fisheries.		id
client_name	8	Legal name of permit holder.		perorgna me

ce_tuna_individual_catch *field descriptions continued...*

fishyear	4	Fishing year (e.g. 1 Oct 1996 to 30 Sep 1997 = 1997).	Won't be correct for species which have a different fishing year e.g. rock lobsters.	year
display_fishyear	4	Formatted fishing year (e.g. 1 Oct 1996 to 30 Sep 1997 = 1996/97).	See fishyear.	varchar (7)
dcf_key*	4	System generated number identifying a single form.	When combined with version_seqno will identify all of the events relating to a single form.	keys
form_number	4	The ID number printed on each form.	Not unique because there are many different types of forms. Referred to in **catcheff** views as dcf_id_number.	id_int
form_type	4	The type of the form. TLCER is abbreviated to **TUN**.	Referred to in **catcheff** views as dcf_defn_group_type.	type
trip*	4	A system generated number allocated to each of the events that took place for one vessel between its trip start and end dates.		keys
trip_start_datetime	4	Start date for the trip the processing relates to. Note: this is the derived date that is created when the trip key is generated.		datetime
trip_end_datetime	4	End date for the trip the processing relates to. Note: this is the derived date that is created when the trip key is generated.		datetime
literal_yn	4	Boolean - This record is the literal version of the data.		yn
interp_yn	4	Boolean - Either an interpreted version of the data does not exist, or it does exist and this is it. When selecting "Y", the interpreted version of the form will be retrieved if there is one , otherwise the literal version will be provided		yn
resrch_yn	4	Boolean - Either a research version of the data does not exist, or it does exist and this is it.		yn

Mfish View Name: **ce_squid_tally**

External View Name: **x_ ce_squid_tally**

Description: Stores squid tray tally data relating to a particular event of type “production” recorded on a SJCER or HS SJCER

Field	Ext	Usage	Comments	Field Type
event_key*	4	System generated number identifying a single processing event.	Because multiple species can occur for one event this is not a unique key even when combined with version_seqno.	keys
version_seqno	4	System generated number identifying the version of a single event.		seqno
group_key	4	System generated number used to link to tables in the form database.		keys
specprod_seqno	4	System generated number used to in conjunction with the above 3 fields to create a unique key.		seqno
return_seqno	4	Intended to be used to track landings across multiple forms.	Not used.	seqnoo
specprod_action _type	4	General nature of event, will only contain events with specproc_action_type of **TTL** = tray tally or**TTT**= tray total.		type
processed_datetime*	4	The start date for processing.		datetime
species_code	4	Three letter code identifying the species.		species
species_name	4	Species common name.		name
species_class	4	Species class name.		code
state_code	4	Processed state of fish.		code
unit_type	4	Size of tray (number of squid per tray) e.g. T0 represents 0-10 squid, T1 is 11-20, T3 is 21-30 etc.		type
unit_num	4	Number of containers.		number
proc_confidence _scale	4	Confidence in processing data.	No longer used.	code
vessel_key*	4	System generated number identifying the vessel fishing.		keys
vessel_id	8	Vessel registration number or call sign if foreign licensed.		vesid
vessel_no	8	Vessel registration number.	Not used.	id
vessel_name	8	Registered vessel name.		name
vessel_reg_type	4	Vessel registration type (**D**omestic, **C**harter, **F**oreign licensed or **U**nknown).		type
flag_nationality	4	Nationality code identifying flag state/original port of registry of vessel.		type
owner_nationality	4	Nationality code identifying nationality of vessel owner.		type
boat_nationality	4	Nationality code identifying nationality of vessel.		type
registered_owner _key	4	System generated number identifying the registered owner.		keys
client_key	4	System generated number identifying the permit holder.		keys
client_no*	8	Number assigned to a permit holder by the Ministry of Fisheries.		id
client_name	8	Legal name of permit holder.		perorgna me

ce_squid_tally *field descriptions continued...*

fishyear	4	Fishing year (e.g. 1 Oct 1996 to 30 Sep 1997 = 1997).	Won't be correct for species which have a different fishing year e.g. rock lobsters.	year
display_fishyear	4	Formatted fishing year (e.g. 1 Oct 1996 to 30 Sep 1997 = 1996/97).	See fishyear.	varchar (7)
dcf_key*	4	System generated number identifying a single form.	When combined with version_seqno will identify all of the events relating to a single form.	keys
form_number	4	The ID number printed on each form.	Not unique because there are many different types of forms. Referred to in **catcheff** views as dcf_id_number.	id_int
form_type	4	The type of the form, SJCER is abbreviated to **SJC.**	Referred to in **catcheff** views as dcf_defn_group_type.	type
trip*	4	A system generated number allocated to each of the events that took place for 1 vessel between its trip start and end dates.		keys
trip_start_datetime	4	Start date for the trip that the processing relates to. Note: this is the derived date that is created when the trip key is generated.		datetime
trip_end_datetime	4	End date for the trip the processing relates to. Note: this is the derived date that is created when the trip key is generated.		datetime
literal_yn	4	Boolean - This record is the literal version of the data.		yn
interp_yn	4	Boolean - Either an interpreted version of the data does not exist, or it does exist and this is it. When selecting "Y", the interpreted version of the form will be retrieved if there is one, otherwise the literal version will be provided.		yn
resrch_yn	4	Boolean - Either a research version of the data does not exist, or it does exist and this is it.		yn

Mfish View Name: **ce_vessel_log_data**

External View Name: **x_ ce_vessel_log_data**

Description: Stores vessel activity data relating to a particular event of type "environment".

Field	**Ext**	**Usage**	**Comments**	**Field Type**
event_key*	4	System generated number identifying a single vessel activity event.	Unique key when combined with version_seqno.	keys
version_seqno	4	System generated number identifying the version of a single vessel activity event.	Unique key when combined with event_key.	seqno
vessel_activity_type	4	Two letter code summarising the activity that the vessel was involved in e.g. **FI**shing, **S**tea**M**ing, **S**earc**H**ing (TCP & SJC forms only).		type
vessel_activity_name	4	What the fisherman actually wrote in the Activity field (TCP & SJC forms only).	Need to report this and the above field to get a represen - tation of activity. In various cases either may be NULL.	name

Mfish View Name: **ce_trip_event**

External View Name: **x_ ce_trip_event**

Description: Stores the trip data that was originally recorded on the catch effort return. Note: it is recommended that the derived trip details are used from the 'trip_details' table rather than the original form based data in this table. Refer to 'Tips and Traps' for further info.

Field	Ext	Usage	Comments	Field Type
event_key*	4	System generated number identifying a single trip event.	Unique key when combined with version_seqno.	keys
version_seqno	4	System generated number identifying the version of a single trip event.	Unique key when combined with event_key.	seqno
group_key	4	System generated number used to link to tables in the form database.		keys
trip_type	4	Type of trip (always **FIS**hing).		type
trip_sub_typ	4	Sub type of trip (**CELR**, **CLR** or **RES**earch).		type
confidence_scale	4	Confidence in trip data.	No longer used.	code
start_datetime*	4	The **original** start date for a trip that was recorded on the fishing return.		datetime
end_datetime	4	The **original** end date for a trip that was recorded on the fishing return.		datetime
vessel_key*	4	System generated number identifying the vessel fishing.		keys
vessel_reg_type	4	Vessel registration type (**D**omestic, **C**harter, **F**oreign licensed or **U**nknown).		type
client_key*	4	System generated number identifying the permit holder.		keys
fishyear	4	Fishing year (e.g. 1 Oct 1996 to 30 Sep 1997 = 1997).	Won't be correct for species which have a different fishing year e.g. rock lobsters.	smallint
display_fishyear	4	Formatted fishing year (e.g. 1 Oct 1996 to 30 Sep 1997 = 1996/97).	See fishyear.	varchar (7)
dcf_key *	4	System generated number identifying a single form.	When combined with version_seqno will identify all of the events relating to a single form.	keys
form_number	4	The ID number printed on each form.	Not unique because there are many different types of forms. Referred to in **catcheff** views as dcf_id_number.	id_int
form_type	4	The type of the form. CELR is abbreviated to **CEL**, TCEPR to **TCP**, TCER to **TCE**, LCER to **LCE**, LTCER to **LTC**, CLR to **CLR**, SJCER to **SJC**, TLCER to **TUN,** PCELR to **PCE**, NCELR to **NCE**, ECER to **ECE,** ECLR to **ECL,** HSCELR to **HCE**, HSTCER to **HTC**, HSTLCER to **HTU** and HSLCER to **HLC**.	Referred to in **catcheff** views as dcf_defn_group_type.	type
literal_yn	4	Boolean - This is the literal version of the data.		yn
interp_yn	4	Boolean - Either an interpreted version of the data does not exist, or it does exist and this is it. When selecting "Y", the interpreted version of the form will be retrieved if there is one , otherwise the literal version will be provided		yn
resrch_yn	4	Boolean - Either a research version of the data does not exist, or it does exist and this is it.		yn

Mfish View Name**: ce_trip_details**
External View Name: **x_ ce_trip_details**
Description: Stores the main details relating to a trip based on derived trip data.

Field	Ext	Usage	Comments	Field Type
trip*	4	A system generated number allocated to each of the events that took place for 1 vessel between its trip start and end dates.		keys
trip_version	4	System generated number identifying the version of a single trip.		seqno
start_datetime *	4	The start date & time for fishing. Note: this is the **derived** date that is created when the trip key is generated. The original trip dates are available in the trip event view.		datetime
end_datetime	4	The end date & time for fishing. Note: this is the **derived** date that is created when the trip key is generated. The original trip dates are available in the trip event view.		datetime
client_key*	4	System generated number identifying the permit holder.	Not usually populated i.e. NULL	keys
vessel_key*	4	System generated number identifying the vessel fishing.		keys

Mfish View Name: **ce_bait**
External View Name: **x_ ce_bait**
Description: Stores data on the bait used. This is recorded on the 1990 and 2003 versions of TLCER forms only. The 1991 and 2001 version of the tuna form did not record bait used. For the 2003 version this table stores 4 rows per event for each of the 4 unit_type

Field	Ext	Usage	Comments	Field Type
event_key*	4	System generated number identifying a single fishing event.	Unique key when combined with version_seqno.	keys
version_seqno	4	System generated number identifying the version of a fishing event.	Unique key when combined with event_key.	seqno
group_key	4	System generated number used to link to tables in the form database.		keys
species_code*	4	Standard 3 letter code identifying the species used as bait.		species
equip_item_key	4	?	Not used.	keys
unit_type	4	A one letter code indicating the general nature of the bait used. The bait types are: **S**quid or **S**aury (old forms), **L**ure (collected on pre 1995 forms), **A**rtificial, **F**ish or **U**nspecified. Note: bait type was not collected between ~1995 and 2000		type
unit_num	4	1991 tuna form: represents the number of hooks baited with this type of bait. 2003 tuna form: represents the percentage of this bait type.		num
confidence_scale	4	Confidence in the data.	No longer used.	code

Mfish View Name: **ce_event_assoc_object**
External View Name: **x_ ce_event_assoc_object**
Description: Stores details of vessels involved in pair fishing (CEL, TCP or TCE forms) and is only used to link pair vessel to a fishing event.

Field	Ext	Usage	Comments	Field Type
event_key*	4	System generated number identifying a single fishing event.	Unique key when combined with version_seqno.	keys
version_seqno	4	System generated number identifying the version of a fishing event.	Unique key when combined with event_key.	seqno
vessel_key*	4	The key identifying the other vessel in a pair fishing event.	Referred to as object_key in the corresponding view in **catcheff**.	keys
event_assoc_object _type	4		Always has the value "PRV"	type

Mfish View Name: **ce_catcher**
External View Name: **X_ce_catcher**
Description: Stores the catcher_key derived from the catcher id for PCELR, ECER, LTCER, TCER, TLCER, HS LCER and HS TLCER forms.

Field	Ext	Usage	Comments	Field Type
catcher_key	4	System generated key identifying a unique catcher id.	Unique key.	keys
catcher_id	4	The name of the diver as entered on the form.		ccode

Mfish View Name: **ce_npc_fishing_event**
External View Name: **X_ce_npc_fishing_event**
Description: Stores effort data reported on the NPC form relating to a particular event, when a non fish or protected species has been caught.

Field	Ext	Usage	Comments	Field Type
event_key	4	System generated number identifying a single NPC fishing event.	Unique key when combined with version_seqno.	keys
version_seqno	4	System generated number identifying the version of a fishing event.	Unique key when combined with event_key.	seqno
group_key	4	System generated number used to link to tables in the form database.		keys
method_system_type	4	Always "**FIC**".	Not used.	type
fishing_event_effort_ type	4	Always "X".		type
confidence_scale	4	Confidence in the data.	No longer used.	code
return_seqno	4	The page number of a multi-page form. Always 1 for NPC forms	Not used	seqno
effort_confidence_ scale	4	Confidence in the effort data.	No longer used.	code
start_datetime	4	The start date & time for fishing.		datetime
end_datetime	4	Always "NULL" (The end date & time for fishing).		datetime

vessel_key	4	System generated number identifying the vessel fishing.		keys
client_key	4	System generated number identifying the permit holder.		keys
fishyear	4	Fishing year (e.g. 1 Oct 1996 to 30 Sep 1997 = 1997).	Won't be correct for species which have a different fishing year e.g. rock lobsters.	smallint
dcf_key	4	System generated number identifying a single NPC form.	When combined with version_seqno will identify all of the events relating to a single form.	keys
form_number	4	The ID number printed on each form.	Not unique because there are many different types of forms. Referred to in **catcheff** views as dcf_id_number.	id_int
form_type	4	Always "**NPC**".	Referred to in **catcheff** views as dcf_defn_group_type.	type
vessel_reg_type	4	Vessel registration type, (**D**omestic, **C**harter, **F**oreign licensed or **U**nknown).		type
literal_yn	4	Boolean - This is the literal version of the data.		yn
interp_yn	4	Boolean - Either an interpreted version of the data does not exist, or it does exist and this is it. When selecting "Y", the interpreted version of the form will be retrieved if there is one , otherwise the literal version will be provided		yn
resrch_yn	4	Boolean - Either a research version of the data does not exist, or it does exist and this is it.		yn
client_name	8	Legal name of permit holder.		perorgname
client_no	8	Number assigned to a permit holder by the Ministry of Fisheries.		id
vessel_id	8	Vessel registration number or call sign if foreign licensed.		vesid
vessel_name	8	Registered vessel name.		name
ce_form_type	4	The type of the Catch effort form the commercial fishing effort is reported on. CELR is abbreviated to **CEL**, TCEPR to **TCP**, TCER to **TCE**, LCER to **LCE**, LTCER to **LTC**, CLR to **CLR**, SJCER to **SJC**, TLCER to **TUN,** PCELR to **PCE**, NCELR to **NCE**, ECER to **ECE,** ECLR to **ECL,** HSCELR to **HCE**, HSTCER to **HTC**, HSTLCER to **HTU** and HSLCER to **HLC.**	Referred to in **catcheff** views as dcf_defn_group_type.	type
ce_form_number	4	The ID number printed on the associated Catch Effort form.	Not unique because there are many different types of forms. Referred to in **catcheff** views as dcf_id_number.	id_int
ce_dcf_key	4	System generated number identifying the Catch Effort form.	When combined with version_seqno will identify all of the events relating to a single form.	keys
ce_event_key	4	System generated number identifying the associated Catch Effort fishing event. *See notes below about derivation rules used.	Unique key when combined with version_seqno.	keys
ce_trip	4	A system generated number allocated to the Catch Effort trip.		keys

npc_event_key	4	Identical to event_key (system generated number identifying a single NPC fishing event).	Unique key when combined with version_seqno.	keys

* Rules used to match the NPC data to the associated fishing event reported on the catch effort form.

For all form_types except CELR

- Form type and number of effort form must match the one listed on the NPC form
- The start_datetime of the NPC event must match the start_datetime of the effort form fishing event
- The effort form fishing event non_fish_yn flag must be 'Y'
- The effort form fishing event interp_yn flag must be 'Y'

For CELR forms

- Form number of the CELR must match the CELR one listed on the NPC form
- The start_datetime of the CELR fishing event must be on the same day
- The CELR fishing event non_fish_yn flag must be 'Y'
- The CELR fishing event interp_yn flag must be 'Y'
- The CELR fishing event must be the only one on the form meeting the above critieria

Mfish View Name: **ce_npc_estimated_subcatch**

External View Name: **X_ce_npc_estimated_subcatch**

Description: Stores estimated catch data when a non fish or protected species has been reported caught on a NPC form.

Field	Ext	Usage	Comments	Field Type
event_key	4	System generated number identifying a single NPC fishing event.	Unique key when combined with version_seqno.	keys
version_seqno	4	System generated number identifying the version of a fishing event.	Unique key when combined with event_key.	seqno
group_key	4	System generated number used to link to tables in the form database.		keys
catch_weight	4	Estimated weight (kg) of corals, sponges or bryozoans that has been caught.		weight
catch_num	4	Total number of seabirds, mammals, reptiles or protected fish caught.		num
species_code	4	Three letter code for species caught.		species
species_name	4	Species common name.		Name
confidence_scale	4	Confidence in the data.	No longer used.	code
start_datetime	4	The start date & time for fishing.		datetime
vessel_key	4	System generated number identifying the vessel fishing.		keys
client_key	4	System generated number identifying the permit holder.		keys
dcf_key	4	System generated number identifying a single form.	When combined with version_seqno will identify all of the events relating to a single form.	keys
literal_yn	4	Boolean - This is the literal version of the data.		yn

interp_yn	4	Boolean - Either an interpreted version of the data does not exist, or it does exist and this is it. When selecting "Y", the interpreted version of the form will be retrieved if there is one , otherwise the literal version will be provided		yn
resrch_yn	4	Boolean - Either a research version of the data does not exist, or it does exist and this is it.		yn
fishyear	4	Fishing year (e.g. 1 Oct 1996 to 30 Sep 1997 = 1997).	Won't be correct for species which have a different fishing year e.g. rock lobsters.	smallint
client_name	8	Legal name of permit holder.		perorgname
client_no	8	Number assigned to a permit holder by the Ministry of Fisheries.		id
vessel_id	8	Vessel registration number or call sign if foreign licensed.		vesid
vessel_name	8	Registered vessel name.		name
form_type	4	Always "**NPC**".	Referred to in **catcheff** views as dcf_defn_group_type.	type
form_number	4	The ID number printed on each form.	Not unique because there are many different types of forms. Referred to in **catcheff** views as dcf_id_number.	id_int
vessel_reg_type	4	Vessel registration type, (**D**omestic, **C**harter, **F**oreign licensed or **U**nknown).		type
caught_uninjured_num	4	The number of seabirds, mammals, reptiles or protected fish that were caught uninjured.		num
caught_injured_num	4	The number of seabirds, mammals, reptiles or protected fish that were caught injured.		num
caught_dead_num	4	The number of seabirds, mammals, reptiles or protected fish that were caught dead.		num
ce_event_key	4	System generated number identifying a single fishing event.	Unique key when combined with version_seqno.	keys
ce_trip	4	A system generated number allocated to each of the events that took place for one vessel between its trip start and end dates.		keys
npc_event_key	4	Identical to event_key (system generated number identifying a single NPC fishing event).	Unique key when combined with version_seqno.	keys

5.0 Meanings of Effort Variables

The meaning of the data stored in the various effort related fields in the **ce_fishing_event** view also change depending on the form type and fishing method used.

The following table describes the contents of these fields for each form type and fishing method.

CELR:

Form type and method		**fishing_ duration**	**effort_ height**	**effort_ num**	**effort_ total_ num**	**effort_ width**	**total_ hook_ num**	**total_ net_ length**	**effort_ depth**	**effort_ length**
CEL	BT, BPT, MW & MPT	Time that gear was at target depth.	Headline height (m)	Number of tows in the day	Number of nets	Wing spread (m)				
	D MH	Time between start of first shoot and finish of last.		Number of shots in the day *(not for method MH)*		Dredge width (m)				
	SN & DN	Time from start of setting first net until end of hauling last.				Mesh size (mm)		Total length of nets hauled that day (m)		
	RLP, CP, EP, FP & FN			Number of pots/traps/ nets in water at midnight	Number of pot/trap lifts in the day					
	SLL, BLL, DL, SCP, CRP, OCP & TL			Number of sets hauled in the day.			Number of hooks hauled in the day			
	HL, T & PL	Total catching time		Maximum number of lines used at 1 time			Maximum number of hooks used at a time			
	PS, DS, DPS, L, BS, DPN, SCN & RN			Number sets/shots in the day				Total length of net used (m)*	**not for DPN & SCN*	
	H, DI	Total person hours spent gathering/ diving		Number of people gathering or diving						

Other Form Types:

Form type	fishing_ duration	effort_ height	effort_ num	effort_ num2	effort_total_ num	effort_ width	total_hook _num	total_net_ length	effort_ depth	effort_ length
TCP	Calculated from the start and end time of the shot	Headline height (m)	Defaults to one per tow.		Number of nets	Wing spread (m)			Ground rope depth	
TCE	Calculated from the start and end time of the shot	Headline height (m)	Defaults to one per tow.		Number of nets	Wing spread (m)			Ground rope depth	
TUN							Number of hooks	Length of longline (km). Prior to Apr/May 2003		Length of longline (nautical miles) From Apr/May 2003
SJC			Number of single reels in use							Deepest lure
LCE			Defaults to one per event (set)			Hook spacing (0.0 m)	Number of hooks set.			Length of line (m). Derived by multiplying the number of hooks by the hook spacing.
LTC			Defaults to one per set			Hook spacing (0.0 m)	Number of hooks set.			Length of line (m). Derived by multiplying the number of hooks by the hook spacing.
NCE	Time from start of setting to end of hauling	Derived effort_width (* effort_num2/ 1000)	Number of nets	Net height (number of meshes)		Smallest mesh size		Total length of all nets set		
ECE	Total number of house spent fishing if not using SN, FN, EP or FP				Number of fyke nets, eel pots, or fish traps lifted.			Total number of metres of nets hauled if set netting		
PCE	Time spent in water									

6.0 Meanings of Multiple Use Fields

The meaning of the date stored in the **start_datetime** and **end_datetime** fields will change depending on the type of event being considered.

For example - A CELR form can have fishing, landing and trip events associated with it. The field start_datetime within the event view could store the date of fishing for CELR fishing events, the date of landing for CELR landing events, or the date of the first day of the trip for CELR trip events.

The contents of the **start_datetime** and **end_datetime** fields, for each type of event, are given in the following table:

Form type	Event type	start_datetime	end_datetime
CELR	Fishing	Date of catch/effort data.	
(CEL)	Processing	Landing date.	
	Trip	First day of trip.	Last day of trip.
TCEPR	Fishing	Date and time trawl started.	Date and time trawl finished.
(TCP)	Processing	Date, (top left of form).	
	Environment	Date, (top left of form).	
TCER (TCE)	Fishing	Date and time trawl started.	
CLR	Processing	Landing date.	
(CLR)	Trip	First day of trip.	Last day of trip.
SJCER	Fishing	Date and time fishing started.	Date and time fishing finished.
(SJC)	Processing	Date fishing started, (middle left of form).	
	Environment	Date fishing started, (middle left of form).	
TLCER (TUN)	Fishing	Date and time line setting started.	Date and time line hauling finished.
	Processing	Date line setting started, (middle left of form).	
	Environment	Date line setting started, (older versions of TUN form only).	
ECER (ECE)	Fishing	Date gear was lifted.	
ECLR (ECL)	Processing	Landing date.	
	Trip	First day of the month stated on the return	Last day of the month stated on the return
PCELR	Fishing	Date of catch/effort data.	
(PCE)	Processing	Landing date.	
	Trip	Start of the day that the return was dated.	End of the day that the return was dated.
LCER (LCE)	Fishing	Date and time of the start of each set.	
LTCER (LTC)	Fishing	Date and time the set started	
NCELR	Fishing	Date and time of the start of set.	
(NCE)	Processing	Landing date.	
	Trip	First day of trip.	
NPC	Fishing	Date and time that the tow/set started	

APPENDIX 1: CURRENT CATCH, EFFORT AND LANDING RETURNS.

RELATIONSHIP BETWEEN FORMS AND FIELDS

The following diagrams illustrate the relationship between the information recorded by fishers on the forms, and where this data is stored on the warehou database.

Much of the data is duplicated in several places on the database. This is especially true of dates and times. The diagrams usually show only one storage location for any item of information from a form. In each case an attempt has been made to guess the location that would be most commonly used to extract this item of information. It is this location that is shown on each diagram. Users should be aware that under some circumstances an easier option for extracting the date or time information that they require may exist. This information is available in the field descriptions given in section 4.4 of the documentation.

View names have been abbreviated as follows:

ev	ce_event
ev(F)	ce_event with op_event_type = “F” (fishing)
ev(P)	ce_event with op_event_type = “P” (processing)
ev(E)	ce_event with op_event_type = “E” (environment)
ev(T)	ce_event with op_event_type = “T” (trip)
fi	ce_fishing_event
ca	ce_estimated_subcatch
la	ce_landing
pr	ce_processed_catch
tu	ce_tuna_individual_catch
sq	ce_squid_tally
nv	ce_environment_data
ac	ce_vessel_log_data
tr	ce_trip_event
ba	ce_bait
ob	ce_event_assoc_object
ve	vessel_specification
td	ce_trip_details
rd	ce_dcf_return_and_data
nl	ce_nil_return
nf	ce_npc_fishing_event
nc	ce_npc_estimated_subcatch

Catch, Effort and Landing Return

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fi.form_type = "CEL"

Trip Data

First day of trip	Last day of trip if different from first day of trip	Landing date	Registration number of vessel	Name of vessel	Registration number of other vessel (if pair fishing)	Point of landing	Page	rd.page_seqno
tr.start_datetime or la.entered_trip_start_datetime	tr.end_datetime or la.entered_trip_end_datetime	la.landing_datetime	fi.vessel_id	fi.vessel_name	ve.vessel_id [ob.vessel_key]	la.landing_name	of	rd.page_count

Catch/Effort Data - Start a new effort line for each change of day, method, position, or target species.

Day and month	Method code	Position: Lat / Long or Stat area	Effort data: Time hours mins	A	B	C	D	Non-fish / Protected species catch? (Y/N)	Enter estimated greenweight catch by species in order of quantity: Target species Total (kg)	Species code Weight (kg)	Species code Weight (kg)	Species code Weight (kg)	Species code Weight (kg)	Species code Weight (kg)
fi.start_date time /		fi.start_stats_area_code or fi.start_latitude / fi.start_longitude		Location of effort data varies, see Meanings of Effort Variables table chapter 5.0 of the documentation				fi.non_fish_yn	fi.target_species	ca.species_code				
/	fi.primary_method								fi.catch_weight	ca.catch_weight or ca.catch_num				
/			fi.fishing_duration											
/														
/														

No: A fi.form_number

Catch Landing Data - Start a new sheet for each landing

Fishstock (Species/Area)	Landed state	Containers: Number	Type	Content weight	Destination: Type	LFR no. or vessel reg no.	Greenweight (kilograms)	Purchase tax invoice number from LFR
la.fishstock_code *for species only* la.species_code	la.state_code	la.unit_num	la.unit_type	la.unit_weight	la.destination_type	la.lfr_no or la.tranship_vessel_id	la.green_weight	la.invoice_num

I declare that the information I have given on this return is correct and complete, and that I have read and understood the explanatory notes supplied with this return.	Name of permit holder	Client number of permit holder	Signature of permit holder or authorised person	Date signed
	fi.client_name	fi.client_no	*not captured electronically*	rd.signed_date

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la.form_type = "CLR"

Catch Landing Return

la.form_number

Trip Data

2860153

First day of trip tr.start_datetime	Last day of trip tr.end_datetime	Landing date	Vessel registration number	Vessel name	Vessel registration number of other vessel (if pair fishing)	Point of landing	Page	rd.page_seqno
or la.entered_trip start_datetime / /	or la.entered_trip end_datetime / /	la.landing_ datetime / /	la.vessel_id	la.vessel_name	ve.vessel_id [ob.vessel_key]	la.landing_name	of	

Catch Landing Data

Fishstock (Species/Area)	Landed state	Containers			Destination		Greenweight (kilograms)	Purchase tax invoice number from LFR
		Number	Type	Content weight	Type	LFR no. or vessel reg no.		
la.fishstock_code for species only la.species_code	la.state_code	la.unit_num	la.unit_type	la.unit_weight	la.destination_type	la.lfr_no or la.tranship_vessel_id	la.green_weight	la.invoice_num

Start a new sheet for each landing. It is an offence to fail to complete this return or supply false information or make any material omission.	Permit holder's name	Permit holder's client number	Signature of master	Date signed
	la.client_name	la.client_no		/ /

fi.form_type = "SJC"

Squid Jigging Catch, Effort Return

SJC 1234567

To be completed on each day at sea

Registration number of vessel	Name of vessel
fi.vessel_id	fi.vessel_name

Fishing Operation - To be completed at 01:00 hours

Date			Latitude			Longitude			Depth	
Day	Month	Year	Degrees	Minutes		Degrees	Minutes	E/W	Deepest lure (m)	Sea bottom (m)
fi.start_datetime or pr.processed_datetime			°	'	S	°	'		fi.effort_depth	fi.bottom_depth

Sea surface temperature (°C)	Wind speed (m/s)	Wind direction (°T)
nv.surface_temp	nv.wind_speed	nv.wind_direction

Fishing Effort

Time fishing		Number of jigging machines in use	
Time at start of fishing	Time at end of fishing	Single reel (No.s)	Double reel (No.s)
fi.start_datetime	fi.end_datetime	fi.effort_num	fi.double_reel_num

Catch - To be completed at 12:00 hours

Non-fish/Protected Species Catch? (Y / N)
fi.non_fish_yn

	Total catch (kg)
Arrow squid	pr.green_weight
Other squid	*pr.specprod_action_type = "PRO"*

Other species (specify)	Total catch (kg)

Tray Tally - For Arrow squid to be completed at 12:00 hours

sq.specprod_action_type = 'TTL' (for tray tally)

Number of squid per tray	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	101-150	151+	Total
Number of trays of whole squid	sq.state_code = "GRE" for this row			sq.unit_num									*sq.specprod_action_type = "TTT" (for tray totals)*
Number of trays of legless squid	sq.state_code = "DRE" for this row												

I declare that the information I have given on this return is correct and complete, and that I have read and understood the explanatory notes supplied with this return.

Not fishing (transhipping, steaming, etc.)	Name of permit holder	Client number of permit holder	Signature of permit holder or authorised person	Date
ac.vessel_activity_name	fi.client_name	fi.client_no	*not captured electronically*	rd.signed_date

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fi.form_type = "TCP"

Trawl, Catch, Effort and Processing Return

To be completed on each day at sea

fi.form_number *is listed here on the return*

ev.op_event_type = "E"

Date	Registration number of vessel (your vessel)	Name of vessel (your vessel)
fi.start_datetime or pr.processed_datetime	fi.vessel_id	fi.vessel_name
	Registration number of other vessel (if pair fishing)	
	pair vessel information in ce_event_assoc_object table	

Position at midday (noon)			Water temperature at shot 1		Page rd.page_seqno
Latitude	Longitude	E/W	Surface	Bottom	of rd.page_count
ev(E).start_latitude S	ev(E).start_longitude		nv.surface_temp	nv.bottom_temp	

Shot	Time	Latitude			Longitude			Gear code / Headline height	Depth groundrope / Depth bottom	Trawling speed / Target species	Non-fish / protected species catch? (Y / N)	Estimated catch by species in order of quantity					
		Deg	Min		Deg	Min	E/W					Quantity	Species code / Quantity (kg)	Species code / Quantity (kg)	Species code / Quantity (kg)	Species code / Quantity (kg)	Species code / Quantity (kg)
1 START	fi.start_datetime	fi.start_latitude		S	fi.start_longitude			fi.primary_method & fi.effort_width = gear code / fi.effort_height	fi.effort_depth (depth groundrope) / fi.bottom_depth	fi.effort_speed / fi.target_species	fi.non_fish_yn	Total (kg)		ca.species_code			
END	fi.end_datetime	fi.end_latitude		S	fi.end_longitude							fi.catch_weight		ca.catch_weight			
2 START				S								Total (kg)					
END				S													
3 START				S								Total (kg)					
END				S													
4 START				S								Total (kg)					
END				S													
5 START				S								Total (kg)					
END				S													
6 START				S								Total (kg)					
END				S													

Daily Processing Summary

Species	Processed state	Number of processed units	Unit weight (kg)	Processed catch weight (kg)	Conversion factor	Calculated weight before processing (kg)
pr.species_code	pr.state_code	pr.unit_num	pr.unit_weight	pr.processed_weight	pr.conv_factor	pr.green_weight

Species	Processed state	Number of processed units	Unit weight (kg)	Processed catch weight (kg)	Conversion factor	Calculated weight before processing (kg)
	pr.specprod_action_type = "PRO"					

I declare that the information I have given on this return is correct and complete, and that I have read and understood the explanatory notes supplied with this return.

pr.specprod_action_type = "OFF"

Product from offal only		Activity comment (Transhipping, steaming etc)	Name of permit holder	Client number of permit holder	Signature of permit holder or authorised person	Date signed
Meal (kg)	Oil (litres)					
pr.state_code = "MEA" pr.processed_weight	*pr.state_code = "OIL"* pr.unit_num	ac.vessel_activity_name	fi.client_name	fi.client_no	*not captured electronically*	/ / rd.signed_date

Trawl Catch Effort Return

TCE 1234567

fi.form_type fi.form_number

1. Complete **separate returns for each fishing trip** and a **separate column for each shot**. Start a new return if you change gear during a trip.
2. Write the gear code fi.primary_method design wingspread fi.effort_width m and design headline height fi.effort_height m of gear used for these shots. fi.effort_total_num

Shot number (since start of trip) and target species	Shot no. fi.effort_seqno	Target species fi.target_species	Shot no.	Target species	Shot no.	Target species	Shot no.	Target species
Date: start of shot (dd/mm/yy)	/ /	fi.start_datetime	/ /		/ /		/ /	
Time: start of shot (24-hr clock)	:	fi.start_datetime	:		:		:	
Latitude: start of shot (degrees minutes)	° '	S fi.start_latitude	° '	S	° '	S	° '	S
Longitude: start of shot (degrees minutes E/W)	° '	E/W fi.start_longitude	° '	E/W	° '	E/W	° '	E/W
Depths at start of shot: Groundrope / Bottom		fi.effort_depth m / fi.bottom_depth m	m /	m	m /	m	m /	m
Average trawling speed (knots)	. knots	fi.effort_speed	. knots		. knots		. knots	
Time: end of shot (24-hr clock)	:	fi.end_datetime	:		:		:	
Non-fish / Protected species catch?	Yes No	fi.non_fish_yn	Yes No		Yes No		Yes No	
Write the species code and **estimated greenweight** of each **quota and non-quota** species caught during each shot. *For example, if you catch 1100 kg of snapper, write:* S N A 1 1 0 0 0kg	ca.species_code	ca.catch_weight .0kg		.0kg		.0kg		.0kg
		.0kg		.0kg		.0kg		.0kg
		.0kg		.0kg		.0kg		.0kg
		.0kg		.0kg		.0kg		.0kg
More than 8 species? List the 8 species that you caught most of (by greenweight).		.0kg		.0kg		.0kg		.0kg
		.0kg		.0kg		.0kg		.0kg
		.0kg		.0kg		.0kg		.0kg
		.0kg		.0kg		.0kg		.0kg
Weight of **all other** species caught this shot	All other species	fi.catch_weight_other .0kg	All other species	.0kg	All other species	.0kg	All other species	.0kg

3. Permit holder and vessel details

Name of permit holder: fi.client_name

Client number of permit holder: fi.client_no

Name of fisher *(first letter of first name then first four letters of surname)*: ev.event_catcher_id

Name of vessel: fi.vessel_name

Registration number of vessel: fi.vesel_id

Registration number of other vessel (paired fishing): ve.vessel_id [ob.vessel_key]

I declare that the information I have given on this return is correct and complete, and that I have read and understood the explanatory notes supplied with this return.

Signature of permit holder or authorised person

Date signed / /20

Do not forget that you need to complete a landing return. Send completed returns to PO Box 297, Wellington (NZ).

Lining Catch, Effort Return

fi.form_type = "LCE"

LCE 1234567

fi.form_number

1. Complete a **separate return for each day** you start setting. Complete a **separate column** of catch and effort information **for each line set**.
2. Write the date these sets started fi.start_datetime fishing method fi.primary_method hook spacing *(metres)* fi.effort_width and name of fisher *(first letter of first name then first four letters of surname)* ev.event_catcher_id

Set number and Target species	fi.effort_seqno and fi.target_species	and	and	and	and
Time: start of set (24-hr clock)	fi.start_datetime	:	:	:	:
Latitude: start of set (degrees minutes)	° ' S	° ' S	° ' S	° ' S	° ' S
Longitude: start of set (degrees minutes E/W)	° ' East / West	° ' East / West	° ' East / West	° ' East / West	° ' East / West
Bottom depth: start of set	fi.bottom_depth metres	metres	metres	metres	metres
Number of hooks set	fi.total_hook_num				
Date: start of haul (dd/mm/yy)	fi.haul_start_datetime / /	/ /	/ /	/ /	/ /
Time: start of haul (24-hr clock)	:	:	:	:	:
Non-fish / Protected species catch?	fi.non_fish_yn Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
Write the species code and estimated greenweight of each species caught during each set. *For example, if you catch 500kg of ling, write:* LIN 500 .0kg	ca.species_code ca.catch_weight .0kg	.0kg	.0kg	.0kg	.0kg
	.0kg	.0kg	.0kg	.0kg	.0kg
	.0kg	.0kg	.0kg	.0kg	.0kg
	.0kg	.0kg	.0kg	.0kg	.0kg
	.0kg	.0kg	.0kg	.0kg	.0kg
More than 8 species? List the 8 species that you caught most of (by greenweight).	.0kg	.0kg	.0kg	.0kg	.0kg
	.0kg	.0kg	.0kg	.0kg	.0kg
	.0kg	.0kg	.0kg	.0kg	.0kg
Weight of all other species caught this set	All other species fi.catch_weight_other .0kg	All other species .0kg	All other species .0kg	All other species .0kg	All other species .0kg

3. Permit holder and vessel details

Name of permit holder: fi.client_name

Name of vessel: fi.vessel_name

Client number of permit holder: fi.client_no

Registration number of vessel: fi.vessel_id

I declare that the information I have given on this return is correct and complete, and that I have read and understood the explanatory notes supplied with this return.

Signature of permit holder or authorised person: X *not captured electronically*

Date signed: rd.signed_date / / 20

Lining Trip Catch Effort Return

LTC 12345678

fi.form_type fi.form_number

1. Complete **separate returns for each fishing trip** and a **separate column for each set.** ev.event_catcher_id

2. Write the fishing method fi.primary_method hook spacing fi.effort_width . m and name of fisher *(first letter of first name then first four letters of surname)* .

Set number (since start of trip) and target species	Set no. fi.effort_seqno	Target species fi.target_species	Set no.	Target species	Set no.	Target species	Set no.	Target species
Date: start of set (dd/mm/yy)	/ /	fi.start_datetime	/ /		/ /		/ /	
Time: start of set (24-hr clock)	:	fi.start_datetime	:		:		:	
Latitude: start of set (degrees minutes)	° ' S	fi.start_latitude	° ' S		° ' S		° ' S	
Longitude: start of set (degrees minutes E/W)	fi.start_longitude ° ' E/W		° ' E/W		° ' E/W		° ' E/W	
Bottom depth: start of set (metres)	fi.bottom_depth metres		metres		metres		metres	
Number of hooks in this set	fi.total_hook_num							
Date: start of haul (dd/mm/yy)	fi.haul_start_datetime		/ /		/ /		/ /	
Time: start of haul (24-hr clock)	:	fi.haul_start_datetime	:		:		:	
Non-fish / Protected species catch?	Yes No	fi.non_fish_yn	Yes No		Yes No		Yes No	
Write the species code and **estimated greenweight** of each **quota and non-quota** species caught during each set. *For example, if you catch 40 kg of blue maomao, write:* B M A 4 0 .0kg	ca.species_code	ca.catch_weight .0kg		.0kg		.0kg		.0kg
		.0kg		.0kg		.0kg		.0kg
		.0kg		.0kg		.0kg		.0kg
		.0kg		.0kg		.0kg		.0kg
		.0kg		.0kg		.0kg		.0kg
More than 8 species? List the eight species that you caught most of (by greenweight).		.0kg		.0kg		.0kg		.0kg
		.0kg		.0kg		.0kg		.0kg
		.0kg		.0kg		.0kg		.0kg
Weight of **all other** species caught this set	All other species	fi.catch_weight_other .0kg	All other species	.0kg	All other species	.0kg	All other species	.0kg

3. **Permit holder and vessel details**

Name of permit holder fi.client_name

Name of vessel fi.vessel_name

Client number of permit holder fi.client_no

Registration number of vessel fi.vesel_id

I declare that the information I have given on this return is correct and complete, and that I have read and understood the explanatory notes supplied with this return.

Signature of permit holder or authorised person

Date signed / /20

Do not forget that you need to complete a landing return at the end of the trip. Send completed returns to PO Box 297, Wellington (NZ).

default primary_method is "SLL"

fi.form_type = "TUN"

Tuna Longlining Catch, Effort Return

TUN 1234567

1. Complete a separate return for each set. → Enter the intended target species code fi.target_species

2. Setting and hauling line

	Date	Time (24-hr clock)	Latitude (Degrees Minutes)	Longitude (Degrees Minutes)	E/W	Wind speed	Direction of wind	Sea surface temperature
Start of set	/ / fi.start_datetime or pr.processed_datetime	:	° ' fi.start_latitude S	° ' fi.start_longitude		knots fi.set_start_wind_speed	fi.set_start_wind_direction	° C fi.surface_temp
End of set	fi.set_end_datetime	:	° ' fi.end_latitude S	° ' fi.end_longitude				
Start of haul	fi.haul_start_datetime	:						
End of haul	fi.end_datetime / /	:				knots fi.haul_end_wind_speed	fi.haul_end_wind_direction	fi.haul_end_surface_temp . C

3. Gear

Length of line	Number of hooks	Number of floats	Number of light sticks	Line shooter? (Y or N)	Percentage of bait that was: Fish	Squid	Artificial	Other
fi.effort_length n.miles	fi.total_hook_num	fi.float_num	fi.light_stick_num	fi.line_shooter_yn	% ba.unit_type	%	ba.unit_num %	%

4. Non-fish/Protected species catch?

fi.non_fish_yn Yes ✓ No ✓

5. Catch kept

pr.specprod_action_type = "PRO"

Species code	Processed state	Processed weight	Number of fish
pr.species_code	pr.state_code	pr.processed_weight .0kg	pr.unit_num
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	

6. Catch discarded or released

pr.state_code = "GRE"
pr.specprod_action_type = "DIS"

Species code	Greenweight	Number of fish
pr.species_code	pr.green_weight .0kg	pr.unit_num
	.0kg	
	.0kg	
	.0kg	
	.0kg	
	.0kg	
	.0kg	
	.0kg	
	.0kg	

7. Permit holder and vessel details

Name of fisher - *first letter of first name then first four letters of surname*: ev.event_catcher_id .

Name of permit holder: fi.client_name

Client number of permit holder: fi.client_no

Name of vessel: fi.vessel_name

Registration number of vessel: fi.vessel_id

I declare that the information I have given on this return is correct and complete, and that I have read and understood the explanatory notes supplied with this return.

Signature of permit holder or authorised person: *not captured electronically*

Date signed: / / rd.signed_date 20

Do not forget that you also need to complete a Catch Landing Return. Send completed returns to PO Box 297, Wellington (NZ).

fi.form_number

Netting Catch Effort Landing Return

form_type NCE 1234567

1. Complete separate returns for each fishing trip.
2. Complete a separate column of catch and effort information for each set. One set may include setting a net; immediately steaming to other places within 2 n.miles and setting more nets. If you move more than 2 n.miles from the first net you must start a new column.

Fishing method	fi.primary_method				
Target species	fi.target_species				
Date: at start of set (dd/mm/yy)	fi.start_datetime	/ /	/ /	/ /	/ /
Time: at start of set (24-hr clock)	fi.start_datetime	:	:	:	:
Latitude: at start of set (degrees minutes)	fi.start_latitude	° ' S	° ' S	° ' S	° ' S
Longitude: at start of set (degrees minutes E/W)	fi.start_longitude	° '	° '	° '	° '
Fishing duration (Start of set to end of haul)	fi.fishing_duration	hrs mins	hrs mins	hrs mins	hrs mins
Number and total length of nets set	fi.effort_num nets	fi.total_net_length m	nets m	nets m	nets m
Mesh size (mm)	fi.effort_width mm	mm	mm	mm	mm
Net height (number of meshes)	fi.effort_num2 meshes	meshes	meshes	meshes	meshes
Non-fish incidental catch?	Yes fi.non_fish_yn No	Yes No	Yes No	Yes No	Yes No
Write the species code and estimated greenweight of each quota and non-quota species caught during each set. *For example, if you catch 200kg of rig, write:* SPO 200 .0kg	ca.species_code	ca.catch_weight .0kg	.0kg	.0kg	.0kg
		.0kg	.0kg	.0kg	.0kg
		.0kg	.0kg	.0kg	.0kg
		.0kg	.0kg	.0kg	.0kg
		.0kg	.0kg	.0kg	.0kg
		.0kg	.0kg	.0kg	.0kg
More than 8 species? List the 8 species that you caught most of (by greenweight).		.0kg	.0kg	.0kg	.0kg
		.0kg	.0kg	.0kg	.0kg
Weight of all other species caught this set	All other species fi.catch_weight_other .0kg	All other species .0kg	All other species .0kg	All other species .0kg	All other species .0kg

Use additional pages if you run out of space to record fishing from this trip

3. Enter first day of trip la.entered_trip_start_datetime landing date / / la.landing_datetime and point of landing la.landing_name NCE 1234567

4. Catch Landing data → Include all species taken during this trip. Also include all species held from previous trips that are now being landed to an LFR

Fishstock (Species code / Area)		Landed state	Number of containers from latest trip	Number of containers from other trips	Container type	Container content weight	Destination type	Licensed Fish Receiver client number	Greenweight (kg)	Tax invoice number *when advised by LFR*
						.0kg			.0kg	la.invoice_num
la.species_code	la.fishstock_code	la.state_code	la.unit_num_latest	la.unit_num_other	la.unit_type	la.unit_weight .0kg	la.destination_type	la.lfr_no	la.green_weight .0kg	
						.0kg			.0kg	
						.0kg			.0kg	
						.0kg			.0kg	
						.0kg			.0kg	
						.0kg			.0kg	
						.0kg			.0kg	
						.0kg			.0kg	
						.0kg			.0kg	
						.0kg			.0kg	
						.0kg			.0kg	
						.0kg			.0kg	
			la.unit_num = la.unit_num_latest + la.unit_num_other			.0kg			.0kg	
						.0kg			.0kg	
						.0kg			.0kg	
						.0kg			.0kg	
						.0kg			.0kg	

5. Permit holder and vessel details

Name of permit holder la.client_name

Name of vessel la.vessel_name

Client number of permit holder la.client_no

Registration number of vessel la.vessel_id

This return is page number la.return_seqno for this trip. Is this return the last page for this trip? → Yes No

I declare that the information I have given on this return is correct and complete, and that I have read and understood the explanatory notes supplied with this return.

Signature of permit holder or authorised person

Date signed / /20

Send completed returns to PO Box 297, Wellington (NZ).

MINISTRY OF FISHERIES
Te Tautoki i ngā Hīnā o Tangaroa

fi.form_type = "PCE"

fi.form_number

Default target species is "PAU

Paua Catch Effort Landing Return

Form number **PCE**

1. If this is a NIL return for an entire calendar month, then you only need to provide one PCELR for that month. Otherwise, provide a separate return for each day (in which diving for paua, or landing of paua, or both, occurred).

Is this a NIL return for a month?

Yes ◯ → Enter that month (e.g. "FEB") ___ and year. **20**__ available via the nil_return view in warehou → Go to section 5.

No ◯ → Enter the date that this return is for. __ / __ / **20**__

fi.start_datetime

2. Enter the paua quota management area dived. Complete a separate return for each QMA dived. **PAU**__

la.fishstock_code

3. Complete a separate line for each diver and each paua statistical area that they dived.

Name of diver *first letter of first name then first four letters of surname*	Paua statistical area	Time spent in water (h:mm)	Estimate (by fisher) of catch of blackfoot paua	Estimate (by fisher) of catch of yellowfoot paua	Diving conditions
.		:	.0kg	.0kg	
.	fi.start_stats_area_code	:	ca.catch_weight ca.species_code="PAI" .0kg	ca.catch_weight ca.species_code="PAA" .0kg	
. fi.catcher_id		: fi.fishing_duration	.0kg	.0kg	fi.condition_type
.		:	.0kg	.0kg	
.		:	.0kg	.0kg	
.		:	.0kg	.0kg	

Use an additional page if you run out of space when recording this day's diving.

4. Complete a separate line for: • each landing (do not forget paua transhipped, or lost, or retained); and • any change in destination, or container, or LFR, or invoice details.

Estimate (by permit holder or fisher) of greenweight	Destination type	Containers		*For destination types L and T only*	*For destination type L only*	
		Number	Type	Licensed Fish Receiver client number *(or receiving vessel reg no. for transhipped paua)*	Greenweight ***when advised by the LFR***	Tax invoice number ***when advised by the LFR***
la.est_green_weight .0kg	la.destination_type	la.unit_num	la.unit_type	la.lfr_no	la.green_weight .0kg	la.invoice_num
.0kg					.0kg	
.0kg					.0kg	

Use an additional page if you run out of space when recording this day's landings.

5. Permit holder and vessel details

rd.page_seqno

Name of permit holder: fi.client_name

Client number of permit holder: fi.client_no

Name of vessel: fi.vessel_name

Registration number of vessel *(enter "**None**" if no vessel was used)*: fi.vessel_id

This return is one of ___ pages submitted for the date entered at the top of this page.

I declare that the information I have given on this return is correct and complete, and that I have read and understood the explanatory notes supplied with this return.

Signature of permit holder or master

Date signed __ / __ / **20**__

Send completed returns to PO Box 297, Wellington (NZ).

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fi.form_type = "ECE"

Default target species is "EEU"

Freshwater Eel Catch Effort Return

Form number **ECE** 016332

1. Complete a separate return for each month of fishing for freshwater eels. fi.form_number

Enter the month (e.g. "FEB" for February) _____ and year of fishing. **20** fi.start_datetime

2. Enter a cross in ONE of the circles below to show the fishing method used. If more than one method was used then complete a separate return for each method used.

Fyke net ◯ **Eel pot** ◯ **Fish trap** ◯ **Other** ◯ → If "Other" then enter the method code for the method used. _____

3. Complete a separate line for: • each day that fishing gear was lifted; and fi.primary_method
• any change in the eel statistical area being fished.

Date gear was lifted	Eel statistical area	Number of Fyke nets, Eel pots, or Fish traps lifted*	Estimate (by fisher) of catch of eels		Estimate (by fisher) of catch of other species *Enter the species codes in the next row*		
			S F E	L F E		ca.species_code	
fi.start_datetime	fi.start_stats_area_code	fi.effort_total_num	ca.catch_weight ca.species_code=SFE	ca.catch_weight ca.species_code=LFE	ca.catch_weight	ca.catch_weight	ca.catch_weight
			.0kg	.0kg	.0kg	.0kg	.0kg
			.0kg	.0kg	.0kg	.0kg	.0kg
			.0kg	.0kg	.0kg	.0kg	.0kg
			.0kg	.0kg	.0kg	.0kg	.0kg
			.0kg	.0kg	.0kg	.0kg	.0kg
			.0kg	.0kg	.0kg	.0kg	.0kg
			.0kg	.0kg	.0kg	.0kg	.0kg
			.0kg	.0kg	.0kg	.0kg	.0kg
			.0kg	.0kg	.0kg	.0kg	.0kg
			.0kg	.0kg	.0kg	.0kg	.0kg
			.0kg	.0kg	.0kg	.0kg	.0kg
			.0kg	.0kg	.0kg	.0kg	.0kg
			.0kg	.0kg	.0kg	.0kg	.0kg
			.0kg	.0kg	.0kg	.0kg	.0kg
			.0kg	.0kg	.0kg	.0kg	.0kg
			.0kg	.0kg	.0kg	.0kg	.0kg
			.0kg	.0kg	.0kg	.0kg	.0kg

Use an additional page if you run out of space when recording this month's fishing.

** If not Fyke netting, Eel potting, or Fish trapping, then refer to the explanatory notes for instructions on how to complete this column.*

4. Permit holder details

I declare that the information I have given on this return is correct and complete, and that I have read and understood the explanatory notes supplied with this return.

Name of permit holder: fi.client_name

Signature of permit holder or fisher: _____

Client number of permit holder: fi.client_no

Date signed: / /20

Name of fisher – *Enter the first letter of the fisher's first name, then the first four letters of their surname.* ev.event_catcher_id

Do not forget that you also need to complete a Freshwater Eel Catch Landing Return. Send completed returns to PO Box 297, Wellington (NZ).

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la.form_type = "ECL"

la.form_number

Freshwater Eel Catch Landing Return

Form number **ECL** 006304

1. Complete a separate return for each month.

Enter the month (e.g. "FEB" for February) [ ] and year that this return is submitted for. **20** [ ]

la.landing_datetime

2. Is this a NIL return for the month? **Yes** ( ) → Complete sections 1, 2 and 4. **No** ( ) → Complete all sections.

nl.dcf_key (if a dcf_key is present in this view then the form is a nil return)

3. Complete a separate line for:
- each landing (do not forget discards or fish retained); and
- any change in fishstock, destination, LFR, or invoice details.

Date of landing	Fishstock		Estimate (by permit holder or fisher) of greenweight	Destination type	*Complete these three columns only for fish that were disposed of to a Licensed Fish Receiver.*		
	Species code	Area			Licensed Fish Receiver's client number	Greenweight ***when advised by the LFR***	Tax invoice number ***when advised by the LFR***
			.0kg			.0kg	
			.0kg			.0kg	
			.0kg			.0kg	
			.0kg			.0kg	
			.0kg			.0kg	
			.0kg			.0kg	
			.0kg			.0kg	
			.0kg			.0kg	
			.0kg			.0kg	
			.0kg			.0kg	
			.0kg			.0kg	
			.0kg			.0kg	
			.0kg			.0kg	
			.0kg			.0kg	
			.0kg			.0kg	
			.0kg			.0kg	
			.0kg			.0kg	
			.0kg			.0kg	
			.0kg			.0kg	
			.0kg			.0kg	

la.landing_datetime
la.fishstock_code for species only la.species_code
la.est_green_weight
la.destination_type
la.lfr_no
la.green_weight
la.invoice_num

Use an additional page if you run out of space when recording this month's landings.

I declare that the information I have given on this return is correct and complete, and that I have read and understood the explanatory notes supplied with this return.

4. Permit holder details

Name of permit holder: fi.client_name

Signature of permit holder or fisher: [ ]

Client number of permit holder: fi.client_no

Date signed: [ ] / [ ] / **20** [ ]

Do not forget that you may also need to complete a Freshwater Eel Catch Effort Return. Send completed returns to PO Box 297, Wellington (NZ).

nf.form_type nf.form_number

Non-fish / Protected Species Catch Return

NPC 1234567

1. Complete **separate returns** for each fishing trip where non-fish / protected species incidental catch occurs.
2. Non-fish / protected species include: corals, sponges, bryozoans, seabirds, marine mammals, marine reptiles and protected fish (see explanatory notes for a detailed list of species).
3. **Non-fish / Protected species incidental catch**
   Complete a **separate row** for each non-fish / protected species caught in a fishing event.

Date tow / set began (dd/mm/yy)	Time tow / set began (24-hr clock)	Form number from catch effort return	Species code	Estimated weight of corals, sponges or bryozoans (kg)	Seabirds /Mammals /Reptiles / Protected fish		
					Number alive, uninjured	Number alive, injured	Number dead
/ / nf.start_datetime	:	nf.ce_form_number	nc.species_code	nc.catch_weight .0kg	nc.caught_uninjured_num	nc.caught_injured_num	nc.caught_dead_num
/ /	:			.0kg			
/ /	:			.0kg			
/ /	:			.0kg			
/ /	:			.0kg			
/ /	:			.0kg	nc.catch_num = nc.caught_uninjured_num + nc.caught_injured_num + nc.caught_dead_num		
/ /	:			.0kg			
/ /	:			.0kg			
/ /	:			.0kg			
/ /	:			.0kg			
/ /	:			.0kg			
/ /	:			.0kg			
/ /	:			.0kg			
/ /	:			.0kg			
/ /	:			.0kg			
/ /	:			.0kg			
/ /	:			.0kg			
/ /	:			.0kg			

Use additional pages if you run out of space to record non-fish / protected species incidental catch from this trip.

4. Enter a cross in **one** of the circles to show the MFish catch effort form type used during the trip.

TCEPR ○ CELR ○ LCER ○ TLCER ○ NCELR ○ Other ○ → If other, enter the form type used: nf.ce_form_type

5. **Permit holder and vessel details**

Name of permit holder: nf.client_name

Client number of permit holder: nf.client_no

Name of vessel: nf.vessel_name

Registration number of vessel: nf.vessel_id

I declare that the information I have given on this return is correct and complete, and that I have read and understood the explanatory notes supplied with this return.

Signature of permit holder or authorised person: *not captured electronically*

Date signed: rd.signed_date / / 20

Send completed returns to PO Box 297, Wellington 6140.

APPENDIX 2: OLDER VERSIONS OF CATCH, EFFORT AND LANDING RETURNS.

The following returns were published in earlier versions of the warehou documentation. For further information about form changes that have occurred since 1989 refer to the 'calendar of changes' document on the catch effort reference library CD.

Catch, Effort and Landing Return

MINISTRY OF FISHERIES
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fi.form_type="CEL"

Trip Data

First day of trip tr.start_datetime or la.entered_trip start_datetime	Last day of trip if different from first day of trip tr.end_datetime or la.entered_trip _end_datetime	Landing date la.landing_datetime	Vessel registration number fi.vessel_id	Vessel name fi.vessel_name	Vessel registration number of other vessel (if pair fishing) ve.vessel_id [ob.vessel_key]	Point of landing la.landing_name	Page of rd.page_seqno

Catch/Effort Data

Day and month	Method code	Position Lat / Long or Stat area	Effort data Time hours mins	A	B	C	D	For each change of day, method or stat area, enter estimated greenweight catch by species in order of quantity Target species Total (kg)	Species code Weight (kg)	Species code Weight (kg)	Species code Weight (kg)	Species code Weight (kg)	Species code Weight (kg)
/													
/													
fi.start_datetime	fi.primary_method	fi.start_stats_area_code fi.start_latitude fi.start_longitude	fi.fishing_duration	Location of effort data varies, see meaning of effort field table pg 39 of the documentation				fi.target_species fi.catch_weight	ca.species_code ca.catch_weight				

No: A 2173154

fi.form_number

Catch Landing Data

Fishstock (Species/Area)	Landed state	Containers Number	Type	Content weight	Destination Type	LFR no. or vessel reg no.	Greenweight (kilograms)	Purchase tax invoice number from LFR
la.fishstock_code *for species only* la.species_code	la.state_code	la.unit_num	la.unit_type	la.unit_weight	la.destination_type	la.lfr_no or la.tranship_vessel_id	la.green_weight	la.invoice_num

Start a new sheet for each landing. It is an offence to fail to complete this return or supply false information or make any material omission.	Permit holder's name	Permit holder's client no.	Signature of master or permit holder	Date signed
	fi.client_name	fi.client_no		/ /

First day of trip	Last day of trip if different from first day of trip	Landing date	Vessel registration number	Vessel name	Vessel registration number of other vessel (if pair fishing)	Point of landing	Page / of
tr.start_datetime or la. trip_start_datetime	tr.end_datetime or la.trip_end_datetime	la.landing_datetime	fi.vessel_id	fi.vessel_name	ve.vessel_id [ob.vessel_key]	la.landing_name	

also in all other views

fi.form_type = "CEL" *also in all other views*

No: A 1405005

Catch/Effort Data

Day and Month	Method Code	Position: Lat / Long or Stat Area	Effort data: Time hours mins	A	B	C	D	For each change of day, method or stat area, enter estimated greenweight catch by species in order of quantity: Target Species Total (kg)	Species code Weight (kg)	Species code Weight (kg)	Species code Weight (kg)	Species code Weight (kg)	Species code Weight (kg)
/													
/													
/													
/													
/													
fi.start_datetime	fi.primary_method	fi.start_stats_area_code fi.start_latitude fi.start_longitude	fi.fishing_duration	*Location of effort data varies, see meaning of effort field table page 42*				fi.target species fi.catch_weight	ca.species_code	ca.catch_weight or ca.catch_num			

Catch Landing Data

Fishstock (Species / Area)	Landed state	Containers: Number	Type	Content Weight	Quota registration no. fish caught against	Destination: Type	LFR no. or vessel reg no.	Greenweight (kilograms) when advised by LFR	Purchase Tax Invoice number from LFR
la.fishstock_code *for species only* la.species_code	la.state_code	la.unit_num	la.unit_type	la.unit_weight	la.qrn_no	la.destination_type	la.lfr_no or la.tranship_vessel_id	la.green_weight	la.invoice_num

fi.form_number *also in all other views*

Start a new sheet for each landing. It is an offence to fail to complete this return or supply false information or make any material omission.	Permit holders name	Permit holder FIN number	Signature of master or permit holder	Date signed
	fi.client_name	fi.client_no		/ /

also in all other views

MINISTRY OF FISHERIES

fi_form_type = "TCP"

Trawl, Catch, Effort and Processing Return

To be completed on each day at sea

515304 fi.form_number

rd.page_seqno

Date	Vessel's registration number (your vessel)	Vessel name (your vessel)
fi.start_datetime or pr.processed_datetime	fi.vessel_id	fi.vessel_name

op_event_type = "E"

Vessel registration number of other vessel (if pair fishing)
fi.vessel_id

Position at midday (noon)				Water temperature at shot 1	
Latitude		Longitude	E/W	Surface	Bottom
ev(E). start_latitude	S	ev(E). start_longitude		nv. surface_temp	nv. bottom_temp

Page	
of	

Shot	Time	Latitude			Longitude			Gear code / Headline height	Depth groundrope / Depth bottom	Trawling speed	Target species	Estimated catch by species in order of quantity					
		Deg	Min		Deg	Min	E/W					Quantity	Species code / Quantity (kg)	Species code / Quantity (kg)	Species code / Quantity (kg)	Species code / Quantity (kg)	Species code / Quantity (kg)
1 START	fi.start_datetime			S				fi.primary_method (gear code)	fi.effort_depth (dpth gdrope)	fi.effort_speed	fi.target_species	Total (kg)					
END	fi.end_datetime			S				fi.effort_width (wingspread)	fi.bottom_depth (dpth bottom)								
2 START		fi.start_latitude		S	fi.start_longitude			fi.effort_height (headline hgt)				Total (kg)		ca.species_code			
END		fi.end_latitude		S	fi.end_longitude									ca.catch_weight			
3 START				S								Total (kg)					
END				S													
4 START				S								Total (kg)					
END				S								fi.catch_weight					
5 START				S								Total (kg)					
END				S													
6 START				S								Total (kg)					
END				S													

Daily Processing Summary

Species	Processed state	Number of processed units	Unit weight (kg)	Processed catch weight (kg)	Conversion factor	Calculated weight before processing (kg)
pr.species_code	pr.state_code	pr.unit_num	pr.unit_weight	pr.processed_weight	pr.conv_factor	pr.green_weight

Species	Processed state	Number of processed units	Unit weight (kg)	Processed catch weight (kg)	Conversion factor	Calculated weight before processing (kg)
specprod_action_type = "PRO"						

I declare that the information I have given on this return is correct and complete, and that I have read and understood the explanatory notes supplied with this return.

Product from offal only	Activity comment (Transhipping, steaming etc)	Permit holder's name	Permit holder's client number	Signature of master	Date signed
pr.state_code = "MEA" pr.state_code = "OIL" specprod_action_type = "OFF" pr.processed_weight pr.unit_num	ac.vessel_activity_name	fi.client_name	fi.client_no		/ /

also in all other views

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TE MANATU AHUWHENUA AHUMOANA

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Trawl, Catch, Effort and Processing Return

fi_form_type = "TCP"
also in all other views

To Be Completed On Each Day At Sea 288055

fi.form_number
also in all other views

Date	Vessel's registration number (your vessel)	Vessel name (your vessel)
/ /	fi.vessel_id	fi.vessel_name

fi.start_datetime or pr.processed_datetime

also in all other views

Vessel registration number of other vessel (if pair fishing)
ve.vessel_id [ob.vessel_key]

Midday position can only be found in the event view

op_event_type = "E"

Position at Midday (noon)				
ev(E).Latitude		ev(E).ongitude		E/W
start_latitude	S	start_longitude		

Water temperature at shot 1		Page of	
nv. Surface	nv. Bottom_temp		
surface_temp			

Shot	Time	Latitude Deg	Latitude Min		Longitude Deg	Longitude Min	E/W	Gear code / Headline height	Depth groundrope / Depth bottom	Trawling speed	Target species	Estimated catch by species in order of quantity: Quantity	Species code / Quantity (kg)	Species code / Quantity (kg)	Species code / Quantity (kg)	Species code / Quantity (kg)	Species code / Quantity (kg)
1 START	fi.start_datetime			S				fi.primary_method (gear code)	fi.effort_depth (dpth gdrope)	fi.effort_speed	fi.target_species	Total (kg)	ca.species_code / ca.catch_weight				
END	fi.end_datetime			S				fi.effort_width (wingspread)	fi.bottom_depth (dpth bottom)								
2 START				S				fi.effort_height (headline hgt)				Total (kg)					
END				S													
3 START				S								Total (kg)					
END				S													
4 START				S								Total (kg)					
END				S													
5 START				S								Total (kg)					
END				S													
6 START				S								Total (kg)					
END				S													

fi.start_latitude / fi.end_latitude
fi.start_longitude / fi.end_longitude
fi.catch_weight

Daily Processing Summary

Species	Processed state	Number of processed units	Unit weight (kg)	Processed catch weight (kg)	Conversion factor	Calculated weight before processing (kg)
pr.species_code	pr.state_code	pr.unit_num	pr.unit_weight	pr.processed_weight	pr.conv_factor	pr.green_weight

specprod_action_type = "PRO"

Species	Processed state	Number of processed units	Unit weight (kg)	Processed catch weight (kg)	Conversion factor	Calculated weight before processing (kg)

pr.state_code = "MEA"
pr.state_code = "OIL"
specprod_action_type = "OFF"

Product from offal only: Meal (kg)	Oil (litres)	Activity comment (Transhipping, steaming etc)	Permit Holder FIN number	Permit Holder's Name	Signature of Master	Date Signed
pr.processed_weight	pr.unit_num	ac.vessel_activity_name	fi.client_no	fi.client_name		/ /

also in all other views

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Catch Landing Return

Trip Data

208004

la.form_type = "CLR"
also in all other views

la.form_number
also in all other views

First day of trip	Last day of trip	Landing date	Vehicle registration number	Vessel name	Vessel registration number of other vessel (if pair fishing)	Point of landing	Page	
tr.start_datetime or **la.trip_start_datetime** / /	**tr.end_datetime** or **la.trip_end_datetime** / /	**la.landing_datetime** / /	**la.vessel_id**	**la.vessel_name**	**ve.vessel_id [ob.vessel_key]**	**la.landing_name**	of	

Catch Landing Data

also in all other views

Fishstock (Species/Area)	Landed state	Containers			Quota registration number fish caught against	Destination		Greenweight (kilograms) when advised by LFR	Purchase tax invoice number from LFR
		Number	Type	Content Weight		Type	LFR number or vessel reg number		
la.fishstock_code ***for species only*** **la.species_code**	**la.state_code**	**la.unit_num**	**la.unit_type**	**la.unit_weight**	**la.qrn_no**	**la.destination_type**	**la.lfr_no** **or** **la.tranship_vessel_id**	**la.green_weight**	**la.invoice_num**

MINISTRY OF FISHERIES
Te Tautiaki i nga tini a Tangaroa

Lining Catch, Effort Return

fi.form_type="LCE"

LCE 001165

1. Complete a **separate return for each day** you start setting. Complete a **separate column** of catch and effort information **for each line set.** fi.form_number

2. Write the date these sets started fi.start_datetime fishing method fi.primary_method hook spacing *(metres)* fi.effort_width and name of fisher *(first letter of first name then first four letters of surname)* ev.event_catcher_id

Set number (since start of trip)	fi.effort_seqno					
Target species	fi.target_species					
Time: start of set (24-hr clock)	fi.start_datetime	:	:	:	:	
Latitude: start of set (degrees minutes)	fi.start_latitude ° ' S	° ' S	° ' S	° ' S	° ' S	
Longitude: start of set (degrees minutes E/W)	fi.start_longitude ° ' East / West	° ' East / West	° ' East / West	° ' East / West	° ' East / West	
Bottom depth: start of set	fi.bottom_depth metres	metres	metres	metres	metres	
Number of hooks set	fi.total_hook_num					
Date: start of haul (dd/mm/yy)	fi.haul / /	/ /	/ /	/ /	/ /	
Time: start of haul (24-hr clock)	start_datetime	:	:	:	:	
Write the species code and **estimated greenweight** of each species caught during each set. *For example, if you catch 500kg of ling, write:* L I N 5 0 0 .0kg	ca.species_code / ca.catch_weight .0kg	.0kg	.0kg	.0kg	.0kg	.0kg
		.0kg	.0kg	.0kg	.0kg	.0kg
		.0kg	.0kg	.0kg	.0kg	.0kg
		.0kg	.0kg	.0kg	.0kg	.0kg
		.0kg	.0kg	.0kg	.0kg	.0kg
More than 8 species? List the 8 species that you caught most of (by greenweight).		.0kg	.0kg	.0kg	.0kg	.0kg
		.0kg	.0kg	.0kg	.0kg	.0kg
		.0kg	.0kg	.0kg	.0kg	.0kg
Weight of **all other** species caught this set	All other species / fi.catch_weight_other .0kg	All other species .0kg	All other species .0kg	All other species .0kg	All other species .0kg	

3. Permit holder and vessel details

Name of permit holder fi.client_name

Name of vessel fi.vessel_name

Client number of permit holder fi.client_no

Registration number of vessel fi.vessel_id

I declare that the information I have given on this return is correct and complete, and that I have read and understood the explanatory notes supplied with this return.

Signature of permit holder or authorised person

Date signed / /20

MINISTRY OF FISHERIES
Te Tautiaki i nga tini a Tangaroa

fi.form_type = "SJC"

Squid Jigging Catch, Effort Return

To be completed for each day of a trip

147058

Vessel registration number	Vessel name
fi.vessel_id	fi.vessel_name

Fishing Operation To be completed at 01:00 hours

Date			Latitude			Longitude			Depth	
Day	Month	Year						E/W	Deepest lure (m)	Sea bottom (m)
fi.start_datetime or pr.processed_datetime			fi.start_latitude	°	' S	fi.start_longitude	°	'	fi.effort_depth	fi.bottom_depth

Sea surface temperature °C	Wind speed m/s	Wind direction °T
nv.surface_temp	nv.wind_speed	nv.wind_direction

Fishing Effort

Time fishing	
Time at start of fishing	Time at end of fishing
fi.start_datetime	fi.end_datetime

Number of jigging machines in use	
Single reel (No.s)	Double reel (No.s)
fi.effort_num	fi.double_reel_num

Catch To be completed at 12:00 hours

pr.species_code

	Total catch (kg)
Arrow squid	pr.green_weight
Other squid	*pr.specprod_action_type = "PRO"*

Other species (specify)	Total catch (kg)

sq.specprod_action_type = "TTL"
(for tray tally)

Tray Tally For Arrow Squid to be completed at 12:00 hours

Number of squid per tray	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	101-150	151+	Total
Number of trays of whole squid	sq.state_code = "GRE" for this row				sq.unit_num								*sq.specprod_action_type = "TTL"* *(for tray totals)*
Number of trays of legless squid	sq.state_code = "DRE" for this row												

Not fishing (transhipping, steaming, etc)	Permit holder's name	Permit holder's client number	Signature of master	Date		
				Day	Month	Year
ac.vessel_activity_name	fi.client_name	fi.client_no				

It is an offence to fail to complete this return or supply false information or make any material omission.

MINISTRY OF AGRICULTURE AND FISHERIES
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Squid Jigging Catch, Effort Return

fi.form_type = "SJC" ***also in all other views***

TO BE COMPLETED FOR EACH DAY OF A TRIP

107403

fi.form_number ***also in all other views***

VESSEL REGISTRATION NUMBER	VESSEL NAME
fi.vessel_id	**fi.vessel_name**

also in all other views

FISHING OPERATION TO BE COMPLETED AT 01:00 HOURS

DATE (DAY MONTH YEAR)	LATITUDE			LONGITUDE			DEPTH	
	°	′	S	°	′	E/W	Deepest Lure (m)	Sea Bottom (m)
fi.start_ datetime or pr.processed _datetime	**fi.start_latitude**			**fi.start_longitude**			**fi.effort_ depth**	**fi.bottom_ depth**

SEA SURFACE TEMPERATURE °C	WIND SPEED m/s	WIND DIRECTION °T
nv.surface_temp	**nv.wind_speed**	**nv.wind_direction**

FISHING EFFORT

TIME FISHING	
TIME AT START OF FISHING	TIME AT END OF FISHING
fi.start_ datetime	**fi.end_ datetime**

NUMBER OF JIGGING MACHINES IN USE	
SINGLE REEL (No.s)	DOUBLE REEL (No.s)
fi.effort_ num	**fi.double_ reel_num**

CATCH TO BE COMPLETED AT 12:00 HOURS

	TOTAL CATCH (kg)
ARROW SQUID	**pr.green_weight**
OTHER SQUID	***pr.specprod_action_type = "PRO"***

pr.species_ code

OTHER SPECIES (SPECIFY)	TOTAL CATCH (kg)

TRAY TALLY FOR ARROW SQUID TO BE COMPLETED AT 12:00 HOURS

sq.specprod_action_type = "TTL" (for tray tally)

NUMBER OF SQUID PER TRAY	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	101-150	151+	TOTAL
NUMBER OF TRAYS OF WHOLE SQUID	***sq.state_code = "GRE" for this row***				**sq.unit_num**								***sq.spreprod_ action_ type = "TTT" (for tray totals)***
NUMBER OF TRAYS OF LEGLESS SQUID	***sq.state_code = "DRE" for this row***				**sq.unit_num**								

NOT FISHING (Transhipping, Steaming, etc)	PERMIT HOLDER FIN NUMBER	PERMIT HOLDERS NAME	SIGNATURE OF MASTER	DATE (DAY MONTH YEAR)
ac.vessel_activity_name	**fi.client_no**	**fi.client_name**		

also in all other views

It is an offence to fail to complete this return or supply false information or make any material omission.

MINISTRY OF AGRICULTURE AND FISHERIES
TE MANATU AHUWHENUA AHUMOANA

MAF

Tuna Longlining Catch, Effort Return

TO BE COMPLETED FOR EACH SET

95451

Default primary_method is "SLL"

fi.form_type = "TUN"
also in all other views

fi.form_number
also in all other views

VESSEL REGISTRATION NUMBER	VESSEL NAME
fi.vessel_id	fi.vessel_name

also in all other views

POSITION AT START OF SET					
LATITUDE	°	′	LONGITUDE	°	′ E/W
fi.start_latitude			fi.start_longitude		

TARGET SPECIES CODE
fi.target_species

SETTING LINE

START OF SET			
DATE DAY	MONTH	YEAR	TIME	SEA SURFACE TEMP (°C)
fi.start_datetime or pr.processed_datetime				nv.surface_temp

FINISH OF SET					
DATE DAY	MONTH	YEAR	TIME	CLOUD COVER AMOUNT	CODE
fi.set_end_datetime				nv.cloud_cover_amount	nv.cloud_type

HAULING LINE

START OF HAULING				
DATE DAY	MONTH	YEAR	TIME	WIND SPEED (m/s)
fi.haul_start_datetime				fi.haul_start_wind_speed

FINISH OF HAULING				
DATE DAY	MONTH	YEAR	TIME	WIND SPEED (m/s)
fi.end_datetime				fi.haul_end_wind_speed

GEAR		
TOTAL LENGTH OF LINE (km)	TOTAL NUMBER OF HOOKS	TOTAL NUMBER OF BASKETS
fi.total_net_length	fi.total_hook_num	fi.total_basket_num

CATCH

PROCESSED WEIGHT OF EACH SOUTHERN BLUEFIN TUNA (kg)																							

tu.processed_weight

tu.specprod_action_type = "SIN" for all of this section

SPECIES CODE	PROCESSED CATCH WEIGHT (kg)	NUMBER OF FISH
Southern Bluefin STN		
Northern Bluefin NTL		
Bigeye BIG		
Butterfly Tuna BTL		
Striped Marlin STM		
Moonfish MOO		

pr.species_code
pr.processed_weight
pr.unit_num

SPECIES CODE	PROCESSED CATCH WEIGHT (kg)	NUMBER OF FISH
Albacore ALB		
Yellowfin YFN		
Broadbill Swordfish SWO		
Mako Shark MAK		
Blue Shark BWS		
Rays Bream RBM		

pr.specprod_action_type = "PRO"

SPECIES CODE	PROCESSED CATCH WEIGHT (kg)	NUMBER OF FISH

SPECIES CODE	PROCESSED CATCH WEIGHT (kg)	NUMBER OF FISH

IT IS AN OFFENCE TO FAIL TO COMPLETE THIS RETURN OR SUPPLY FALSE INFORMATION OR MAKE ANY MATERIAL OMISSION	PERMIT HOLDERS NAME	PERMIT HOLDER FIN NUMBER	SIGNATURE OF MASTER OR PERMIT HOLDER	DATE SIGNED DAY	MONTH	YEAR
	fi.client_name *also in all other views*	fi.client_no				

Default primary_method is "SLL" fi.form_type = "TUN"

Tuna Longlining Catch, Effort Return

TUN fi.form_number

1. Complete a separate return for each set. → Enter the intended **target species code** fi.target_species

2. **Setting and hauling line**

	Date	Time 24-hr clock	Latitude Degrees Minutes	Longitude Degrees Minutes E/W	Wind speed	Direction of wind	Sea surface temperature
Start of set	fi.start_datetime or pr.processed_datetime	:	fi. ° ' start_latitude S	fi. ° ' start_longitude	fi. knots set_start_wind_speed	fi. set_start_wind_direction	fi. °C surface_temp
End of set	fi.set_end_datetime	:	fi. ° ' end_latitude S	fi. ° ' end_latitude			
Start of haul	fi.haul_start_datetime	:			fi.haul_start_wind_speed		
End of haul	fi.end_datetime	:	→		fi. knots haul_end_wind_speed	fi. haul_end_wind_direction	fi. °C haul_end_surface_ter

3. **Gear**

Length of line	Number of hooks	Number of floats	Number of light sticks	Line shooter? (Y or N)	Percentage of bait that was: Fish	Squid	Artificial	Other
fi.effort_length n.miles	fi.total_hook_num	fi. float_num	fi.light_stick_num	fi.line_shooter_yn	%	ba.unit_type ba.unit_num %	%	%

4. **Catch kept**

pr.specprod_action_type="PRO"

Species code	Processed state	Processed weight	Number of fish
pr.species_code	pr.state_code	pr.processed_weight .0kg	pr.unit_num
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	
		.0kg	

5. **Catch discarded or released**

pr.state_code="GRE"
pr.specprod_action_type="DIS"

Species code	Greenweight	Number of fish
pr.species_code	pr.green_weight .0kg	pr.unit_num
	.0kg	
	.0kg	
	.0kg	
	.0kg	
	.0kg	
	.0kg	
	.0kg	
	.0kg	

6. **Permit holder and vessel details**

Name of fisher – *first letter of first name then first four letters of surname* ev.event_catcher_id

Name of permit holder fi.client_name

Client number of permit holder fi.client_no

Name of vessel fi.vessel_name

Registration number of vessel fi.vessel_id

I declare that the information I have given on this return is correct and complete, and that I have read and understood the explanatory notes supplied with this return.

Signature of permit holder or authorised person

Date signed / / 20

Do not forget that you also need to complete a Catch Landing Return. Send completed returns to PO Box 297, Wellington (NZ).

APPENDIX 3: REFERENCE TABLE DESCRIPTORS

A description of the contents, of some of the useful non core views in the **warehou** database follows:

Mfish View Name: **ce_bait_type**
External View Name: **x_ce_bait_type**

unit_type	unit_type_description
A	Artificial
F	Fish
L	Lure (collected on old forms)
S	Squid (also stood for Saury on old forms)
U	Unspecified

Note: Bait type was not collected between 1995 and 2003.

Mfish View Name: **ce_event_assoc_object_type**
External View Name: **x_ ce_event_assoc_object_type**

event_assoc_object_type	event_assoc_object_desc
CLI	NULL
PRV	NULL
SAC	NULL
VES	NULL

Mfish View Name: **ce_fishing_event_type**
External View Name: **x_ ce_fishing_event_type**

fishing_event_effort_type	fishing_event_eff_type_desc
D	Dredge
G	Gathering
J	Squid Jigging
L	Lining
N	Passive Netting
O	Other Methods
P	Potting
S	Seine
T	Trawl

Mfish View Name: **nationality_type**
External View Name:

nationality_type	nationality_type_desc
AUS	Australia
BZE	Belize
CHI	China (People's Republic of)
JAP	Japan
KOR	Korea
MLT	Malta
NOR	Norway
NZL	New Zealand
PAN	Panama (Republic of)
POL	Poland (Republic of)
RUS	Russian Federation
SNG	Singapore (Republic of)
TAI	Taiwan
UKR	Ukraine
USA	U.S.A
VAN	Vanuatu (Republic of) etc...

(166 further nationality types listed in the view)

Mfish View Name: **ce_operational_event_type**
External View Name: **x_ ce_operational_event_type**

op_event_type	op_event_type_desc	dcf_convert_invokeid
E	Environment	convert_environment_event
F	Fishing Event	convert_fishing_event
L	Land or Transhipment	convert_landing_event
O	Observer Event	convert_observer_event
P	Log Processing	convert_landing_event
T	Trip	convert_trip_event

Mfish View Name: **species_class**
External View Name: **x_species_class**
note corporat..species_defn_desc has further species sub_class

species_class	species_class_name
A	Seaweed
B	Birds
C	Crustacea
E	Echinoderms
F	Fish
G	Rubbish and Garbage
H	Marine Mammals
M	Molluscs
N	Cnidaria e.g. Corals
O	Other
P	Proifera
R	Reptiles
W	Worm
Z	Zoo and Phytoplankton

Mfish View Name: **specprod_dest_type**
External View Name: **x_specprod_dest_type**

destination_type	destination_type_desc	destination_indicator
A	Accidental loss	N
B	Stored as Bait	N
C	Disposed to crown	L
D	Discarded (NON-ITQ)	N
E	Eaten	N
F	Section 111 Recreational Catch	N
H	Loss from Holding Pot	N
L	Landed in NZ (to LFR)	L
M	QMS returned to sea (Part 6A)	N
O	Conveyed outside NZ	O
P	Holding receptacle in the water	N
Q	Holding receptacle on land	N
R	Retained on board	N
S	Seized by crown	L
T	Transfer to another vessel	V
U	Used for Bait	N
W	Sold at wharf	O
X	QMS returned to sea, except 6A	N

Mfish View Name: **ce_specprod_unit_type**
External View Name: **x_ ce_specprod_unit_type**

specprod_unit_type	specprod_unit_type_desc
BAG	Bag
BAS	Basket
BIN	Bin
BLO	BLO
BOX	Box
CAG	Cage
CAR	Carton
SAC	Sack
SIN	Single Fish
STR	String
T0	Tray containing 1-10
T1	Tray containing 11-20
T10	Tray containing 101-150
T15	Tray containing >150
T2	Tray containing 21-30
T3	Tray containing 31-40
T4	Tray containing 41-50
T5	Tray containing 51-60
T6	Tray containing 61-70
T7	Tray containing 71-80
T8	Tray containing 81-90
T9	Tray containing 91-100
TRA	Tray

*This view also has fields **specprod_unit_type_min** and **specprod_unit_type_max**

Mfish View Name: **ce_specprod_act_type**
External View Name: **x_ ce_specprod_act_type**

specprod_action_type	specprod_action_type_desc
DIS	Discarded
ECA	Estimated Catch (No Processed available)
GRE	Greenweight
LAN	Landed
MOV	Moved
OFF	Offal
PRO	Processed
PRT	Processed Total
SIN	Single Fish
SLD	Sold
TTL	Tray Tally
TTT	Tray Total

Mfish View Name: **ce_specprod_act_wgt_type**
External View Name: **x_ ce_specprod_act_wgt_type**

weight_type	weight_type_desc
ACT	Actual
BAC	Back Calculated
CON	Calculated from Containers
EST	Estimated
FBA	Fisher Back Calculated

Mfish View Name: **ce_trip_type**
External View Name: **x_ ce_trip_type**

trip_type	trip_type_desc
FIS	Fishing Trip
OBS	Observer Trip

Mfish View Name: **ce_trip_subtype**
External View Name: **x_ ce_trip_subtype**

trip_type_type	trip_sub_type	trip_sub_type_desc
FIS	CEL	CELR Trip
FIS	CLR	CLR Trip
FIS	ECE	ECELR Trip
FIS	ECL	ECLR trip
FIS	NCE	NCELR Trip
FIS	PCE	PCELR Trip

Mfish View Name: **vessel_reg_type**
External View Name: **x_vessel_reg_type**

vessel_reg_type	vessel_reg_type_desc
C	Charter
D	Domestic
F	Foreign License
U	Unknown

APPENDIX 4: VESSEL SPECIFICATION DATA

Information about the fishing vessel is not collected on the catch effort forms but as part of the vessel registration/update process and this data is stored in a separate database. Listed below is the main table that contains the vessel specification information. Note some vessels have records dating back to before 01 October 1989 and at certain times some of the information fields listed below have not been collected.

Table: vs_vessel_history

Field	Description	Field Type
vessel_history_key	Unique internal identifier.	keys
history_start_datetime	The date that the data in the main table was updated with the details in this history record.	startdatetime
history_end_datetime	The date on which the data in the main table was updated with new data replacing the data in this history record.	endatetime
vessel_key	Unique internal identifier that identifies a vessel.	keys
vessel_id	Vessel Number, issued by FishServe. A unique number that identifies a vessel. For a registered vessel – this becomes the vessel's registration number.	id20
call_sign_id	The vessel's call sign.	id20
vessel_name	Name of the vessel.	name50
previous_name	Name the vessel was previously known as.	name50
lloyds_imo_id	Lloyds IMO number.	id20
forum_fisheries_id	Forum fisheries number for the vessel.	id20
flag_nationality_code	Code of the country that the vessel is registered in.	code20
previous_flag_code	Code of the immediately preceding flag of the vessel.	code20
overall_length_metres	Overall length of the vessel in metres.	metres2
registered_length_metres	Registered length of the vessel. This may be different from the overall length.	metres2
draught_metres	Measure of how far the vessel extends below the waterline in metres.	metres2
beam_metres	Width of the vessel at its widest point (in Metres).	metres2
gross_tonnes	The gross tonnage of the vessel.	tonnes4
max_speed_knots	The maximum speed of the vessel in knots.	knots
service_speed_knots	Speed the boat normally travels at when cruising (knots).	knots
engine_kilowatts	Power output of the main engine in kilowatts.	kilowatts
max_duration_days	The maximum number of days the vessel can remain at sea.	duration
super_colour	The colour of the vessel's superstructure.	code20
funnel_colour	The colour of the vessel's funnel.	code20
hull_colour	The colour of the vessel's hull.	code20
built_year	The year the vessel was built.	code5
tenders_number	The number of tenders on board the vessel.	number
resale_value_currency	The monetary value of the vessel including gear if resold.	value
total_crew_number	Total number of crew the vessel carries.	number
superstructure_position	The position of the vessel's superstructure.	keys
superstructure_position_desc	The description of the vessel's superstructure.	description20
base_region_code	Code identifying the region in New Zealand in which the base port is located.	code4
base_port_code	Code of the port in New Zealand the vessel uses as a base.	code4
hull_material_id	Identifies the material the hull is comprised of.	id20

Field	Description	Field Type
hull_material_desc	Describes the material the hull is comprised of.	description20
plotter_key	Identifies the type of plotter carried on the vessel.	keys
plotter_description	Describes the plotter carried on the vessel.	description50
meal_processing_yn	Identifies whether the vessel is capable of processing fishmeal.	yn
meal_daily_max_tonnes	The maximum amount of fishmeal that can be processed daily.	tonnes4
freeze_product_yn	Identifies whether the vessel can freeze product while at sea.	yn
freeze_daily_max_tonnes	The vessel's maximum daily freezing capacity in tonnes.	tonnes4
holds_number	Number of fish holds vessel has.	number
holds_size_cubicmeters	Total hold capacity of the vessel in cubic metres.	cubicmeters4
port_registry	Code of the vessel's port of registry.	id50
data_origin_code	Code specifying the origin of the vessel data e.g. **CONVERSION**, **REGISTRATION**.	code20
data_origin_key	A unique identifier of the source data. Relates directly to the data_origin_code.	keys
data_error_code	Error scale from data exchange.	code20
security_control_code	A code to control who can access this data.	int
origin_change_type	Origin of the change e.g. **I** - insert **U** - update	type1
origin_username	Source of change e.g. **sa** - system administrator, **dataex** - data exchange	username
history_update_datetime	The date and time this record was created.	endatetime
msa_number	Maritime Safety Authority number	id20