

Model Catch Certificate - Justification for Data Elements and Format for Electronic Reporting

Data Element	Purpose	Mandatory/ Optional	Proposed Format/Code for NMFS Message Set in ACE
Section 1- Applicable to both Wild-capture and Aquaculture Operations			
Catch Document Identifier	<p>Unique identifier of a catch or landing or harvest certificate provided by the competent authority which authorizes the wild capture or aquaculture operation.</p> <p>The record identifier enables trace back to a unique harvest event and allows an association between the harvest and the specific authorization by the competent authority as well as the details of the harvest event that may be supported by other records (VMS reports, vessel logbooks, observer reports, processor receipts, etc). Verification of fishing authorization and the records supporting the catch certificate allow the determination of lawful acquisition.</p>	Optional	<p>As the identifier format used by all of the competent authorities in their respective jurisdictions cannot be known, free text format will be required.</p> <p>In certain cases, a competent authority may not assign a unique identifier to each harvest event or record the harvest event on a uniquely numbered certificate. This may be more prevalent in the case of aquaculture deliveries than in wild capture fisheries, but likely also prevalent in artisanal/small scale fisheries.</p> <p>A simplified catch record may be generated by consolidating catches of several small scale vessels landing catch at a common collection point.</p>
Wild Harvest or Farm Raised	This information will enable the US to assess the regulatory environment in which the harvest occurred. Based on the source, we will consider different factors in determining lawful acquisition and will not collect gear data for aquaculture products.	Mandatory	A check box on the form will be translated into a code for ACE. A code of "WC" (wild capture) or "AQ" (aquaculture) will be used to identify the source of product.
Section 2 - Applicable to Wild-capture Operations			
Flag State of vessel	Only applicable to wild harvest. Needed to confirm the vessel authorization and to determine the regulations (national and/or regional) pertaining to the vessel at the time of the recorded fishing operation.	Mandatory	Standardize data format on 2 alpha ISO country code.
Name of Harvesting Vessel	This information is needed to determine if the vessel or facility was authorized by the relevant authorities.	Mandatory	Free form text will be necessary because all potential names cannot be determined in advance.
Unique Vessel Identifier	Needed to positively identify the vessel and link the	Optional	Because this information is used to discern lawful

(registration, documentation, or license number	vessel to the fishing authorization issued by the competent authority.		acquisition under the competent authority for the area of the fishing operation, the format should correspond to the convention of the vessel registration authority. If registration is not required in the local jurisdiction, some locally meaningful description or disclaimer (“identifier not applicable”) is needed. Free form text will be necessary because all potential formats cannot be determined in advance. In the event the vessel has an IMO Number, this should be used as the identifier. A prefix of “IMO” or “OTH” could precede the identifier.
Fishing Permit or Authorization	Needed to confirm that the competent authority has issued a vessel fishing permit/authorization or has licensed the aquaculture facility.	Optional	In certain cases, a competent authority may not require a permit for each vessel or facility. This may be more prevalent in the case of aquaculture facilities than with fishing vessels, but likely also prevalent in artisanal/small scale fisheries. Free form text will be necessary because all potential fishing authorization or aquaculture licensing formats cannot be determined in advance. If a permit or license is not required in the local jurisdiction, some locally meaningful description or disclaimer (“license not applicable”) is needed.
Catch Area	It is necessary to identify the fishing area where the catch occurred to determine the scope of foreign laws and/or regulations which pertain to the activity/operation in that jurisdiction. If an RFMO has competency in the stated area for the species reported, the RFMO measures would pertain to a flag vessel of a contracting or cooperating party.	Mandatory	Because this information is used to discern lawful acquisition under the competent authority for the area of the fishing or aquaculture operation, this information should correspond to the reporting areas of the local jurisdiction or applicable regional management body. If a catch report is not required in the local jurisdiction, or the catch area is not required to be specified, some locally meaningful description is needed or the US could specify use of FAO fishing area codes with an additional note regarding within or beyond the EEZ of a Coastal State (ISO 2 character country code). Free form text will be necessary because all potential fishing areas cannot be determined in advance. In some cases, use of an RFMO list of fishing areas may be applicable. A prefix of “FAO” or “OTH” could precede the area text, followed by “HS” or “EZ” and descriptive text.
Fishing Gear	Only applicable to wild harvest. This is needed to	Mandatory	Because this information is used to discern lawful

	determine lawful acquisition in fisheries where certain gear types are prohibited or restricted in use to certain time periods or certain fishing areas. In some fisheries, vessels may be authorized to fish only with certain gear.		acquisition under the competent authority for the area of the fishing operation, codes or formats should correspond to the reporting convention for gear types of the local jurisdiction or applicable regional management body. If a catch report is not required in the local jurisdiction, or the gear type is not required to be specified, some locally meaningful description is needed or the US could specify use of FAO gear codes. Free form text will be necessary because all potential fishing gears cannot be determined in advance. In some cases, use of an RFMO list of fishing gears may be applicable. A prefix of "FAO" or "OTH" could precede the gear text.
Section 3 - Applicable to Aquaculture Operations Only			
State of Jurisdiction of Aquaculture Facility	It is necessary to identify the area where the aquaculture operation is located to determine the scope of foreign laws and/or regulations which pertain to the activity/operation in that jurisdiction.	Mandatory	Because this information is used to discern lawful acquisition under the competent authority for the area of the aquaculture operation, this information should correspond to the reporting areas of the local jurisdiction. Free form text will be necessary because all potential licensing areas cannot be determined in advance. Alternatively, ISO 2 character country code could be used.
Facility License or Authorization	Needed to confirm that the competent has licensed the aquaculture facility.	Optional	In certain cases, a competent authority may not require a permit for each facility. This may be more prevalent in the case of small scale aquaculture facilities. Free form text will be necessary because all potential aquaculture licensing formats cannot be determined in advance. If a permit or license is not required in the local jurisdiction, some locally meaningful description or disclaimer ("license not applicable") is needed.
Name and Address of Aquaculture Facility	This information is needed to determine if the facility was authorized by the relevant authorities.	Mandatory	Free form text will be necessary because all potential names cannot be determined in advance.

Section 4 - Applicable to both Wild-capture and Aquaculture Operations			
Company Name of Landing Recipient, Processor or Buying Entity and Contact Information	This information is needed to record disposition of the fish in the first transaction and is needed to support the “one up – one back” approach to auditing the supply chain. In many cases, a landing ticket or weigh-out slip is issued by the first receiver and is submitted to competent management authorities via dealer reporting. The buyer or processor may be licensed and identifying information about the buyer recorded with authorities can be used to verify the transaction.	Mandatory	Free form text will be necessary to capture company names and addresses of varying formats. Phone number and email address could be constrained to prescribed formats. Note that small scale buyers in remote coastal locations may not have formal or standardized contact information.
Facility or Vessel Landed/Delivered To	This information is needed to record disposition of the fish in the first transaction and is needed to support the “one up – one back” approach to auditing the supply chain. In the case of wild capture fisheries, catch may be transshipped at sea or in port (unloaded directly from catching vessel to transport vessel) or may be delivered to a dealer (cold storage) or processor. In the case of aquaculture, harvested product may be delivered to a dealer (cold storage) or processor	Mandatory	Free form text will be necessary to capture company names and addresses of varying formats. Phone number and email address could be constrained to prescribed formats. In the case of transshipment vessels, the vessel name and identifier (IMO #, flag state registration #) should be provided. Free form text will be necessary because all potential vessel number formats used by flag states cannot be determined in advance.
Harvest Date	This information is needed to accurately identify the harvest event and associate it with any certificate that may have been issued by the competent authority. In the absence of a local requirement for a catch or harvest certificate, the harvest date together with the vessel/facility name and the location would establish a unique identifier for the harvest event. This would normally be the date of unloading from a catching vessel or removal from the aquaculture facility.	Mandatory	This data element will be constrained to a date format. Harvest date to be reported for wild capture fisheries is the date of landing/offloading at the end of a fishing trip, or the date of transshipment at-sea or in-port.
Landing Port or Delivery Location	This information is needed to accurately identify the harvest event and associate it with any certificate that may have been issued by the competent authority. In the absence of a local requirement for a numbered catch or harvest certificate, the harvest date together with the vessel/facility name and the location would establish a unique identifier for the harvest event.	Mandatory	Free form text will be necessary because all potential landing ports or delivery locations cannot be determined in advance.
Species Name and ASFIS	This is needed to determine whether the inbound	Mandatory	Format would be free form text to capture the local

Code	shipment is comprised of species subject to additional data collection at entry into commerce. HTSUS codes that are used to make entry may not be specific enough to ascertain the species.		common name or the Latin binomial (genus and species). The ASFIS 2 alpha code would be added based on the scientific name supplied or the association with the local common name. The ASFIS 2 alpha coding system may not be familiar to local fishers and aquaculturists, so it may be added by a port sampler or processing plant employee.
Total Weight of Product at Landing/Harvest	Weight is needed to establish the volume of catch originally unloaded/delivered and reported to competent authorities. Without this basic information, it would be impossible to exclude IUU product from markets because there would not be an upper bound on a harvest event and unauthorized product could later be associated with that authorized event when introduced to the supply chain.	Mandatory	Requires both reporting a numeric value and the reporting unit. Coded as "LB" or "KG".
Product Form at Landing	<p>The form of product is needed to accurately estimate the round weight of the fish captured on the fishing trip when some or all of the catch is processed on board prior to offloading or harvested from the aquaculture facility when some or all of the harvest is processed at the facility prior to shipment.</p> <p>If all or some of the product has been processed at sea, or at the aquaculture facility, the finished product weight is needed to provide a baseline catch amount for evaluation of amounts reported further down the supply chain.</p> <p>These two values are needed to meet the objective of precluding IUU product infiltration after the initial landing. A baseline catch amount is provided by total weight landed, whether processed or not. As processing reduces weight, if the reported total weight at landing reflects unprocessed product, but is not recorded as round weight, there is a possibility of associating product of IUU origin with the authorized harvest event reported on the catch certificate as processed product moves through the supply chain.</p>	Mandatory	It is necessary to know the type of processing that has occurred on board the vessel or at the aquaculture facility (e.g., headed and gutted) or the form of the processed product in order to assess the relationship between round weight at harvest and processed weight delivered (recovery rate). A standard set of codes will be developed (e.g., round = RND; headed and gutted = H&G; gilled and gutted = G&G; other forms = OTH).

Model Catch Certificate for Traceability - Harvest and Landing/Receipt

(1) Unique Catch or Production Document Identifier*		<input type="checkbox"/> Wild Capture Fishery (Complete Section 2) <input type="checkbox"/> Farm Raised (Complete Section 3)
(2) Complete this section for <u>wild capture</u> fish products		
Flag State of vessel	Name of Harvesting Vessel**	Vessel Registration or Documentation Number**
Fishing Permit Number**	Fishing/Catch Area:	Fishing Gear:
(3) Complete this section for <u>farm raised</u> fish products		
State of jurisdiction:	Facility License or Authorization**	Name and Location of Aquaculture Facility**
(4) Complete this section for receipt of fish products		
Name of Recipient, Processor or Buyer	Telephone: Email:	Business Address
Receiving Facility or Vessel	Date of Landing/Transshipment	Landing Port or Delivery Location
Species of Fish (ASFIS 3 alpha code)	Landed or Delivered Weight	Product Form
1. _____	1. _____ () lb or () kg	1. _____
2. _____	2. _____ () lb or () kg	2. _____
3. _____	3. _____ () lb or () kg	3. _____
4. _____	4. _____ () lb or () kg	4. _____
5. _____	5. _____ () lb or () kg	5. _____

*Note: Unique Document Identifier is provided by the harvester or landing recipient or competent authority.

** Not required if completing an aggregated catch certificate for small-scale vessels or aquaculture facilities.

Instructions for Recording Harvest Events on Model Catch Certificate

Section 1. If applicable, record a catch or harvest document number assigned by the competent authority. A competent authority may not assign a unique identifier to each harvest event or record the harvest event on a uniquely numbered certificate. In such case, a buyer or receiver may assign a document number to identify the harvest event. A simplified catch record may be generated by consolidating catches of several small scale vessels landing catch at a common collection point or small deliveries from aquaculture facilities at a processing plant. Indicate whether the fish were produced in a wild capture fishery or at an aquaculture facility. Complete section 2 or 3 accordingly.

Section 2. For wild-capture fisheries, record the nation that has authorized the fishing vessel to fly its flag or fish in waters under its jurisdiction. Include the name of the vessel, the registration or documentation number issued by the competent authority for the vessel and the vessel's fishing permit number, if applicable. If a receiver or processor is completing an aggregated catch document, vessel names and registration/permit numbers are not required, but the flag state must be indicated. The fishing area of catch and the type of fishing gear must be noted for either an individual catch certificate or an aggregated catch certificate. Record fishing areas and gear according to local reporting requirements or, if not applicable, use FAO fishing area and gear codes.

Section 3. For aquaculture facilities or farms, record the nation that has authorized the facility to operate under its jurisdiction. Include the name of the facility, and the registration or license number issued by the competent authority for the operation, if applicable. If a receiver or processor is completing an aggregated catch document, facility names and license numbers are not required, but the state exercising jurisdiction over the facility must be indicated.

Section 4. This section must be completed for wild capture or aquaculture landings/deliveries, whether reported individually or in aggregate. The receiver, buyer or processor must record the business entity information, location of the receiving facility, the date of the landing or transshipment (vessel) or delivery (aquaculture) and the port or delivery location (land) or latitude and longitude (at-sea offloading). For each species of fish received, record the common name and ASFIS 3-alpha code the weight of each species received. Indicate the unit of weight and the product form as delivered (e.g., round weight, headed and gutted).

Model Reprocessing Certificate for Traceability - Primary or Secondary Processing

() Wild Harvest or () Farm Raised

Referenced Unique Catch Document Identifier(s)*		Company Product Received From:	
Processor Name	Processor Address	Processor Approval or Registration Number	Phone: Email:
Commodity Scientific Name	Commodity Market Name		Product ASFIS#
Received Weight [(<input type="checkbox"/>)lbs or (<input type="checkbox"/>) kg]	Received Lot Identifier(s) ^a	Received Product Form	
Processed Weight [(<input type="checkbox"/>)lbs or (<input type="checkbox"/>) kg]	Finished Product Lot Identifier(s) ^a	Finished Product Form	
Finished Product Weight [(<input type="checkbox"/>)lbs or (<input type="checkbox"/>) kg]			
Production Date(s)		# of Packages	Type of Packaging

*Note: A Unique Document Identifier is provided by the harvester or landing recipient and should reflect the unique identifier of a catch or landing certificate.

^aNote: A Lot Identifier is generated by the processor based on its product tracking and record-keeping protocols.

Model Transshipping Certificate for Traceability

() Wild Harvest or () Farm Raised

Referenced Unique Catch Document Identifier(s)*

Port or Storage Location of Loading/Unloading

Name of Vessel/Cold Storage Unloaded from	Unique Unloaded Vessel Identifier (registration, documentation, or license number)	Date(s) of Unloading/Loading
Name of Vessel/Cold Storage Loaded to	Unique Receiving Vessel Identifier (registration, documentation, or license number)	
Commodity Scientific Name	Commodity Market Name	Product ASFIS#
Transshipped Weight [()lbs or () kg]	Transshipped Lot Identifier(s) ^b	Transshipped Product Form
Production Date(s)	# of Packages	Type of Packaging

*Note: A Unique Document Identifier is provided by the harvester or landing recipient and should reflect the unique identifier of a catch or landing certificate.

^bNote: A Lot Identifier is generated by the shipper based on its cargo tracking and record-keeping protocols.

Table 1. Upper Bound Compliance Cost Estimate at \$32.00 per Hour Labor Cost

Species	Country and Harvest Technique	Cost Per Container	2015 Containers	Cost Per Year	Supply Chain Audit Costs	Total Cost
Swordfish	Singapore, Longline/ Harpoon	\$1,725	750	\$1,293,750	\$200,000	\$1,493,750
King Crab (Red)	Russia, Pot	\$73	3991	\$291,343	\$30,000	\$321,343
Farmed Shrimp	Thailand, Aquaculture	\$32	39116	\$1,251,712	\$4,460,000	\$5,711,712
Atlantic Cod Trawl	Norway, Iceland, Russia	\$274	1868	\$511,832	\$840,000	\$1,351,832
Atlantic Cod Inshore	Norway, Iceland, Russia	\$993	467	\$463,680	\$0	\$463,680
Pacific Cod	U.S., Russia	\$274	877	\$240,298	\$0	\$240,298
Mahi-Mahi	Ecuador, Panga	\$872	1309	\$1,141,448	\$770,000	\$1,911,448
Blue Crab	Mexico, Day Boats	\$17,668	54	\$954,072	\$40,000	\$994,072
Grouper	Indonesia, Small boats	\$4,155	763	\$3,170,265	\$290,000	\$3,460,265
Red Snapper	Mexico and Brazil, longline	\$421	1131	\$476,151	\$150,000	\$626,151
Sea Cucumber	Canada, Divers	\$4,361	167	\$728,287	\$110,000	\$838,287
Shark	Thailand, Otter trawl	\$237	5	\$1,185	\$40,000	\$41,185
Abalone	Australia, Divers	\$2,701	38	\$1,202	\$360,000	\$361,202
			Total	\$10,525,225	\$7,290,000	\$17,815,225

National Fisheries Institute methodology as modified by NMFS. Includes reporting, recordkeeping and auditing.

Table 2. Upper Bound Burden Hour Estimate at \$32.00 per Hour Labor Cost

Species	Country and Harvest Technique	Hrs Per Container	2015 Containers	Hrs Per Year	Supply Chain Audit Costs	Total Cost
Swordfish	Singapore, Longline/Harpoon	54	750	40430	6250	46680
King Crab (Red)	Russia, Pot	2	3991	9104	938	10042
Farmed Shrimp	Thailand, Aquaculture	1	39116	39116	139375	178491
Atlantic Cod Trawl	Norway, Iceland, Russia	9	1868	15995	26250	42245
Atlantic Cod Inshore	Norway, Iceland, Russia	31	467	14490	0	14490
Pacific Cod	U.S., Russia	9	877	7509	0	7509
Mahi-Mahi	Ecuador, Panga	27	1309	35670	24063	59733
Blue Crab	Mexico, Day Boats	552	54	29815	1250	31065
Grouper	Indonesia, Small boats	130	763	99071	9063	108133
Red Snapper	Mexico and Brazil, longline	13	1131	14880	4688	19567
Sea Cucumber	Canada, Divers	136	167	22759	3438	26196
Shark	Thailand, Otter trawl	7	5	37	1250	1287
Abalone	Australia, Divers	84	38	38	11250	11288
			Total	328,913	227,813	556,726

National Fisheries Institute methodology as modified by NMFS. Includes reporting, recordkeeping and auditing.