Where Food Comes From® Seafood:
CAPTURE FISHERY STANDARD

Introduction and Purpose

The WFCF Seafood: Capture Fishery Standard has two components, each having its own set of standard criteria:

1. **Animal Husbandry:** The purpose of the Animal Husbandry Standard is to reinforce care measures taken in capture fishery production. Operations use species specific indicators to ensure that fish's needs are being fulfilled.
2. **Environmental Stewardship:** The purpose of the Environmental Stewardship Standard is to support the maintenance of a sustainable environment for future generations by promoting practices that encourage waste reduction and the management of natural and renewable resources, while reducing the carbon footprint and optimizing capture fishery productivity. Good environmental management practices help ensure the longevity and success of the capture fishery industry.

Fisheries certified under the WFCF program maintain a quality manual describing how the operation meets the program criteria. The WFCF Standard is modified as necessary to continually integrate improved practices and environmental stewardship techniques. Recommendations for updates to standard criteria are brought forward to an external advisory committee for consideration/approval. Any necessary changes are made on an annual basis.

Table of Contents

Definitions	3
Using the Standard	5
ANIMAL HUSBANDRY STANDARD FOR CAPTURE FISHERY OPERATIONS	6
CFAH1 Capture, retrieval, and landing	6
CFAH2 Onboard handling	6
CFAH3 Stunning and slaughter	6
CFAH4 Non-target species	7
ENVIRONMENTAL STEWARDSHIP FOR	8
CAPTURE FISHERY OPERATIONS	8
CFES1 Status of stocks	8
CFES2 Bycatch	8
CFES3 Management	9
CFES4 Ecosystem	11

Definitions

Best management practices: Measures designed to promote sustainable and responsible fishing practices and ensure the long-term viability of fish stocks and fishing communities. They can include setting catch limits, gear restrictions, enforcing regulations, and monitoring and reporting fishing activities.

Cumulative fishing mortality: The total amount of fish that have been removed from a stock due to fishing activities over a certain period, accounting for both direct and indirect mortality caused by fishing.

Data-limited indicators: Available indicators such as trends in catch-per-unit effort, size structure of the catch, etc.

Detrimental food web impacts: Refers to ecological events such as trophic cascades in which depletion of a certain level of the food chain (e.g., forage species or apex predators) leads to knock-on effects throughout the ecosystem. In lieu of evidence to the contrary, this should be considered a potential concern for fisheries targeting forage species or apex predators.

Ecosystem-based management: Ecosystem-based fisheries management has been defined as "an approach that takes major ecosystem components and services - both structural and functional - into account in managing fisheries". Examples include spatial management strategies such as Marine Protected Areas and Marine Spatial Planning, quotas and harvest control rules based on ecosystem models that take requirements of predators into account, etc.

Highly selective gear: Fishing gear that has a high degree of selectivity in catching only certain species, sizes, or sexes of fish, while avoiding or minimizing the catch of non-target species or undersized or immature fish. This type of gear can be used to reduce unwanted bycatch and minimize impacts on non-target species and ecosystems.

Highly vulnerable: Species that are at higher risk of becoming depleted or being unable to recover from overfishing, due to inherent life history traits such as longevity, low fecundity, or older age at reproduction. Defined using the MSC's Productivity-Susceptibility Analysis approach.

Overfished: abundance of the population is depleted below a limit reference point.

Rebuilding plan: a time-bound plan to reduce fishing pressure or otherwise adjust management measures so that it is probable (at least a 50% chance) that the depleted stock will recover within the assigned timeline.

Resilient habitat: Habitats that are unlikely to be affected by or can quickly recover from damage from impacts such as bottom trawling, including sand and mud habitats in areas with high natural disturbance rates.

Small-Scale Fishery: No universal definition currently exists for small-scale fisheries. Instead, the fishery should be evaluated against a scoring matrix[1] to determine if characteristics justify classification of small-scale.

Unit of Certification (UoC): The vessel, or group of vessels, being evaluated against this standard. If the UoC consists of multiple vessels, the target stock and fishing gear/method must be the same.

Vulnerable habitat: Habitats most susceptible to damage and least able to recover from impacts such as bottom trawling, including rocky reef, coral reef, seagrass bed, and seamount habitats.

[1] Box 3.1 https://openknowledge.fao.org/server/api/core/bitstreams/ff886dc2-833d-4118-9500-5508a74afe5b/content

Using the Standard

This standard is divided into two pillars: Animal Husbandry and Environmental Stewardship. Each pillar is divided into key attributes that identify and address challenges in capture fisheries to promote improved production practices, highlight the need for consideration of animal safety and well-being, and recognize capture fisheries that minimize their environmental impact. Each attribute is followed by relevant criteria which the operation must meet to be considered compliant with the goals of this document.

The format of the standard is laid out as follows:

Criterion #	WFCF Criterion
Key Attribute	
No.	*Defines the specific requirement that the operation is expected to comply with or work towards to reflect the underlying goals of the key attributes and components.*

ANIMAL HUSBANDRY FOR CAPTURE FISHERY OPERATIONS

Criterion #	Criterion
CFAH1 Capture, retrieval, and landing	
CFAH1a.	Gear used is designed to minimize harm and stress to the target species (e.g. **highly selective gear** and/or gear that reduces the likelihood of injury to the fish).
CFAH1b.	Gear and practices minimize the amount of time the fish are trapped or held prior to retrieval (e.g. limiting gear soaking time, using gear that allows for rapid retrieval, smaller nets).
CFAH1c.	Retrieval of gear and catch take into consideration the safety and well-being of captured species (e.g. surfacing deep-water species slow to reduce risk of barotrauma).
CFAH1d.	Handling practices and equipment minimize harm and stress to the fish during landing, (e.g. using appropriate equipment and techniques to minimize handling time and prevent damage to the gills, eyes, or other organs).
CFAH1e.	Gaffing of live fish is prohibited.
CFAH1f.	Live bait is not used.
CFAH2 Onboard handling	
CFAH2a.	Species suitable holding spaces are available once fish are landed (e.g. ensuring that the fish are kept in oxygenated water and protected from extreme temperatures or rough handling).
CFAH2b.	Time live fish spend out of water is minimized.
CFAH2c.	Only undamaged fish are stored alive.
CFAH2d.	Removal of live fish body parts is prohibited.
CFAH3 Stunning and slaughter	
CFAH3a.	Species-appropriate humane stunning methods are applied prior to slaughter (e.g., electrical or percussive stunning to render the fish

	unconscious quickly and effectively to minimize pain and distress to the fish).
CFAH3b.	Slaughter techniques appropriate for the capture species are used; methods that cause prolonged suffering or fail to ensure rapid and complete death1 are prohibited.
CFAH3c.	All staff involved with slaughter are specifically trained in the process.
CFAH4 Non-target species	
CFAH4a.	Gear and fishing practices minimize the capture of non-target species (e.g. **highly selective gear** or modifying fishing practices to avoid areas or times where non-target species are likely to be present).
CFAH4b.	Handling minimizes the harm and stress of non-target species that are caught incidentally.
CFAH4c.	Release practices minimize harm and stress and improve survival probability of discarded fish (e.g. the use of descending devises for deepwater species).
CFAH4d.	Time out of water is minimized.

[1] Prohibited methods include non-stunned aerial/ice slurry suffocation and non-stunned live bleeding.

ENVIRONMENTAL STEWARDSHIP FOR CAPTURE FISHERY OPERATIONS

Criterion #	Criterion
CFES1 Status of stocks	
CFES1a.	The fishery under consideration has up-to-date stock information, which accounts for the structure and composition of the stock, and classifies the population as: Stock is assessed, and it is not **overfished**, OR Not assessed and not **highly vulnerable**, OR Stock has ≥ 2 appropriate **data-limited indicators** suggesting it is healthy.
CFES1b.	The management authority has processes[2] in place to respond if the stock status in CFES1a shows a decline in health status.
CFES1c.	Fishing mortality (F) of the fishery's main capture species is described as: Overfishing is not occurring on the stock (F less than, equal to or fluctuating around F at maximum sustainable yield (FMSY) or equivalent), OR F is unknown but it is not suspected that **cumulative fishing mortality** is too high
CFES2 Bycatch	
CFES2a.	The fishery uses **highly selective gear** (typically pole/troll, harpoon, or diver) OR >95% of the catch is the target species, AND no **highly vulnerable** taxa (e.g. seabird, sea turtle, marine mammals, sharks) or overexploited species are caught as bycatch.
CFES2b.	If the fishery is NOT compliant with CFES2a, the abundance of bycatch species[3] is assessed and classified as: Stock is assessed, and it is not **overfished**, OR Stock is **overfished** and in a **rebuilding plan**, OR Stock is not assessed, and not **highly vulnerable**, OR Stock has ≥ 2 appropriate data limited indicators suggesting it is healthy

[2] The management authority has a set of decision rules that mandate remedial action to be taken if target reference points are exceeded and/or limit reference points are approached.
[3] All bycatch species known or likely to have stock abundance or fishing mortality concerns must be considered. If interactions with species of concern are suspected, those species must be addressed.

CFES2c.	If bycatch represents >5% of catch (including retained non-target species if they are not managed, and/or were not assessed under CFES1), it does not include one or more **highly vulnerable** taxa (e.g. seabird, sea turtle, marine mammals, sharks) or overexploited species.
CFES2d.	Volume of discarded catch is less than volume of landed catch. This Includes sum of any marine species used as bait plus dead discards, whether of target species or non-target species, and any discards that are released alive but with questionable post-release survival.
CFES2e.	There is no evidence that shark finning occurs.
CFES2f.	Fishing gear is handled, stored and disposed of appropriately and there is no evidence that ghost fishing occuring (i.e. lost or abandoned gear that is entangling marine life).
CFES2g.	Gear that is likely to result in ghost fishing (e.g. traps, gillnets), is tagged and inventory is tracked. Procedures for gear retrieval are in place to respond when inventory shows gear is missing.
CFES3 Management	
CFES3a.	The fishery is managed by a designated organization or authority[4] at local, national, or regional[5] level, responsible for establishing management measures which are legally enforceable.
CFES3b.	The management authority operates a management system which is transparent and incorporates stakeholder feedback.
CFES3c.	The management authority publishes fishery information on consultation activities in a publicly available place, with clear pathways and appropriate timelines for stakeholders to provide feedback.
CFES3d.	The management authority defines and makes publicly available its fishery-specific management objectives. Objectives are precautionary and include target and limit reference points consistent with achieving MSY[6] and avoiding overfishing.
CFES3e.	The management authority continuously collects information on stock health, catch data, and other scientific information to assess the health of stocks, the adequacy of management measures[7] and to make timely[8] justified and informed management

[4] The fisheries management organization or arrangement may also be part of relevant traditional, fisher or community approaches to the management of the stock under consideration, provided their performance can be objectively verified.
[5] Includes the flag state of the fishery being a member or participant in relevant regional fisheries management organizations.
[6] Reference points must be set at levels consistent with achieving maximum sustainable yield (MSY) (or a suitable proxy) on average. A proxy is a surrogate or substitute approach that results in acceptable outcomes consistent with the primary approach.
[7] A past record of good management performance could be considered as supporting evidence of the adequacy of the management measures and the management system, especially relevant to data poor or small-scale fisheries.
[8] The periodicity should be linked to the management needs of the specific fishery.

	decisions[9] and update regulations as required.[10] This continuous review process considers the multipurpose nature of marine water use.
CFES3f.	Data related to stock abundance and health are collected and analyzed and are sufficient to monitor and maintain the target stocks.
CFES3g.	Stock is assessed using appropriate methods (including data-limited assessment strategies) OR Management relies on an appropriate strategy that requires only minimal monitoring and assessment.
CFES3h.	The management authority has the flexibility to utilize risk-based management approaches and/or relevant traditional management approaches[11] in situations where a fishery is data poor or **small-scale** in nature.
CFES3i.	The management authority takes a precautionary approach to conservation, utilizing the best scientific advice, to protect aquatic ecosystems
CFES3j.	If the **UoC** is part of a transboundary, straddling, highly migratory or high seas fishery, the management authority proactively engages with relevant fisheries management organizations to ensure management decisions account for the entire stock across its distribution.
CFES3k.	The management authority uses best available evidence to set scientific limits on all target species with the intent of preventing overfishing. The process, methodologies and legal framework guiding these targets are current, documented, and expected to be effective.
CFES3l.	The management authority has defined quantitative indicators to meet management objectives and reports progress against the indicators at regular[12] intervals. Uncertainty in the indicators is considered in the management of risk, especially in data-poor or **small-scale fisheries**.[13]
CFES3m.	The fishery complies with all legal requirements, including requirements of regional management organizations that exercise international jurisdiction over the stocks.
CFES3n.	Evidence is available to conclude that monitoring, surveillance, and enforcement of fishing activities are effective.

[9] Management decisions adopt the precautionary approach, where appropriate.
[10] Information and advice used in the decision-making process is made publicly available. The publication of this information may be constrained by legitimate rules governing confidentiality.
[11] Traditional management is highly dependent on the location and history of the fishery, best practices can be found at https://www.fisheries.noaa.gov/s3/dam-migration/traditional_knowledge_in_decision_making_508_compliant.pdf.
[12] The frequency of data collection must be adequate to discern variations in the indicators, relative to the scale and intensity of the fishery. This ensures that changes can be detected within timeframes pertinent to the fishery's management.
[13] Adequate, reliable and current data and/or other information can include relevant traditional, fisher or community knowledge, provided its validity can be objectively verified.

CFES3o.	The management authority collects adequate[14] data[15] on any endangered, threatened or protected (ETP) species encountered by the fishery. Fishery objectives state that impacts on non-target species (bycatch, discards, and any ETP species potentially encountered) are unlikely to result in overfishing or impacts which are irreversible or slowly reversible.
CFES3p.	If bycatch (including discards) represents >5% of catch (i.e. the fishery is not classified as highly selective)), all bycatch impacts are sufficiently managed considering potential impacts of the fishery (e.g., fishery implements **Best Management Practices** for all species of concern that are caught)
CFES3q.	Bycatch monitoring or assessment is sufficient given potential bycatch impacts of the fishery (e.g. observer coverage may be needed for fisheries encountering endangered species, whereas fisheries with selective gear, comprehensive studies demonstrating low concern with bycatch or data- limited management strategies such as area closures that limit bycatch potential may not need a high level of monitoring)
CFES3r.	The management authority has defined quantitative indicators to ensure that adverse impacts by the **UoC** on ETP species do not occur, and it reports progress against these goals at regular[16] intervals.
CFES3s.	If any main species are unassessed, fishing mortality of these species is constrained in some way (e.g. using precautionary quotas, gear modifications, closed areas, etc.)
CFES3t.	The management authority incorporates collection of data of effects of the fishery on ecosystem structure and function, and provides evidence that results are incorporated into management decisions.
CFES3u.	The management authority enacts directives which aim to avoid, minimize or mitigate impacts of the fishery on essential or **vulnerable habitats**.
CFES4 Ecosystem	
CFES4a.	The management authority maps sensitive or **vulnerable habitats** within the full spatial range of the stock and identifies habitat types which could be impacted by fishing gear. This information is made available to stakeholders.
CFES4b.	The management authority has defined quantitative indicators to meet management objectives that avoid, minimize, or mitigate the impacts of the **UoC** on relevant habitats and reports progress against these goals at regular[17] intervals.

[14] The sampling system should be commensurate with the level of risk that the UoC poses to the potentially encountered ETP species. Historic data is valid and important but current data is required to ensure the sampling system is appropriate.
[15] Data collection will explicitly focus on the impact of the UoC on the encountered ETPs, including both direct and indirect effects.
[16] The frequency of data collection must be adequate to discern variations in the indicators, relative to the scale and intensity of the fishery. This ensures that changes can be detected within timeframes pertinent to the fishery's management.
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CFES4c.	Gear has no to low impact on seafloor (e.g., no contact, or contact only with stationary gear contacting **resilient habitat**).
CFES4d.	For fisheries that do contact the seafloor, the impact of gear on seafloor habitat is sufficiently mitigated and is constrained to **resilient habitat**; (i.e., if trawling or dredging occurs): It is limited to sand/mud habitat AND **Vulnerable habitats** are strongly protected AND Gear impacts are sufficiently constrained (either there are demonstrated effective gear modifications are in place or at least 20% of all representative habitats in the fishery area are protected from bottom fishing and no expansion is occurring).
CFES4e.	The management authority collects data to understand the role the target stock plays in the ecosystem food web. This information is utilized to determine the existence of and mitigate detrimental **food web impacts**.
CFES4f.	The management authority has defined qualitative indicators[18] which demonstrate that adverse impacts on predators resulting from removal of prey species are mitigated and reports progress against these goals at regular[19] intervals.
CFES4g.	If there is potential for **detrimental food web impacts**, **ecosystem-based management** is in place.
CFES4h.	The fishery does not catch one or more species of exceptional importance to the ecosystem (e.g. top predators or forage species) without **ecosystem-based management** in place.
CFES4i.	The management authority has defined objectives to minimize adverse impacts on ecosystem structure, process and function, and reports progress against these goals at regular[20] intervals.

[18] Greater uncertainty is to be expected in assessing possible adverse ecosystem impacts of fisheries than assessing the state of target stocks, hence the outcome indicators should consider appropriate risk and uncertainty and adhere to the precautionary approach.
[19] The frequency of data collection must be adequate to discern variations in the indicators, relative to the scale and intensity of the fishery. This ensures that changes can be detected within timeframes pertinent to the fishery's management.
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