Bycatch Handling

AFMA Bycatch handling and treatment Guide 2016/17
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Purpose of document

The Australian Fisheries Management Authority (AFMA) must pursue its legislative objectives as stated in the Fishery Management Act 1991. In relation to the handling and treatment of bycatch, this is relevant to both the sustainable harvest of fisheries resources and the maximising of net economic returns from fisheries. Unnecessary fishing mortality caused by mistreating bycatch can negatively affect both future catches and financial returns.

AFMA recognises the complexities involved in both the safe and effective handling of bycatch by operators in Australian commercial Commonwealth fisheries. In recognition of this it is necessary to provide fishers with a guide to assist in defining the acceptable treatment of bycatch species, to ensure chances of survival. Bycatch species may include fish, crustaceans, sharks, molluscs, marine mammals, reptiles and birds. Bycatch also includes listed protected species under the Environment Protection and Biodiversity Conservation Act 1999.

The purpose of this document is to:

- Remind fishers of the concession conditions surrounding the correct handling and treatment of bycatch, and
- Provide fishers with a guide on what is and what is not acceptable when it comes to the treatment and handling of bycatch.

This document will be periodically reviewed in response to feedback from industry and other stakeholders.

This guide will help fishers to operate within the provisions of their fishing concession (refer to Attachment A for detail in relation to bycatch requirements) and also assist in understanding when a breach of the bycatch handling and treatment condition may occur.
Guiding Principles

Fishers are responsible for handling bycatch species appropriately to maximise the chance of their survival. Mishandling bycatch species can significantly reduce their chances of survival and have long term impacts on the sustainability of the species.

Fishers should familiarise themselves with the six bycatch handling and treatment principles below to minimise the risk of breaching bycatch handling and treatment obligations as described in the conditions of their fishing concession (refer to Attachment A).

Principle 1: Safety of the boat and its crew are paramount

Mishandling does not include actions taken (or not taken), which are reasonably necessary\(^1\) to ensure the safety of the boat and or its crew.

Principle 2: All reasonable steps should be taken

Operators are expected to take all reasonable steps to ensure that bycatch is returned to the water as quickly as practicable and in a manner which does not reduce its chance of survival.

Principle 3: Minor gear recovery is not ‘reasonably necessary’

Actions taken for the sole purpose of recovering minor\(^2\) fishing gear, are not considered ‘reasonably necessary’.

Principle 4: Expediting removal from gear is not ‘reasonably necessary’

It is not ‘reasonably necessary’ to injure bycatch when removing it from fishing gear to save time.

Principle 5: Harm, injury or death caused during capture is not mishandling

Mishandling does not include where bycatch is already dead, injured or stressed when it is brought on-board\(^3\).

Principle 6: Compliance with approved bycatch management plans

Handling of bycatch in accordance with AFMA approved bycatch management plan(s) is not mishandling.

In addition, the handling of all bycatch should be in accordance with AFMA approved workplans and practices. These include:

- AFMA shark and ray handling practices.
- AFMA approved bycatch and discarding workplans.

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\(^1\) See principles 3 and 4.

\(^2\) Minor’ gear includes items such as hooks, which are unlikely to cause further harm to the bycatch, or marine pollution, if discharged/discarded attached to the bycatch.

\(^3\) Unless further deliberate action or inaction results in the death or further injury to the bycatch.
The Impact of different fishing methods

It is important to consider the nature of, and processes employed by, different fishing methods, when undertaking correct handling and treatment of bycatch species.

In particular, different fishing methods present different challenges in terms of crew safety and access to catch. For example some methods;

- restrict the ability of crew to safely access some of the catch during hauling, including bycatch, or
- result in large volumes of catch coming on board within a short period of time (thereby restricting the ability of crew to process/discard bycatch quickly), or
- have automated or semi-automated processing methods which can delay bycatch discarding.
Bycatch treatment and handling Guide – Gillnet methods

The following are examples of actions (or in-action) which do and do not constitute 'mistreatment', during gillnet operations.

If there is no risk to the safety of crew member(s), all reasonable steps must be taken to return bycatch to its natural environment in a manner which does not reduce chances of survival.

**Examples of conduct which is mistreatment (Gillnet)**

The following examples are considered mistreatment;

**Striking, clubbing or stabbing of bycatch**

The unnecessary striking, clubbing, stabbing or intentional maiming of bycatch, regardless of whether it results in death, is considered mistreatment.

**Unnecessarily removing the tail/barb of ray species**

If the animal does not present a safety risk to the crew member, removal of the tail/barb of any ray species is then considered mistreatment.

Specific handling of sharks and rays within gillnet fisheries should be in accordance with AFMA shark and ray handling practices.

**Failure to remove and/or discard**

Failure to promptly remove and discard bycatch species including; allowing them to become entangled within gear, remain entangled within stowed gear or lay on the deck for extended periods, is considered mistreatment.

- **Example 1: Leaving bycatch on deck**

Operators are required to return all bycatch to its natural environment promptly. Crew should consider wearing Personal Protective Equipment (PPE) to reduce the risk of injury. All reasonable steps must be taken to untangle bycatch and return it to its natural environment immediately.

Leaving bycatch on the deck throughout the haul, without reasonable explanation is considered mistreatment. In consideration of the above, failure to return bycatch to its natural environment promptly may be a breach of the concession requirement. Operators should also comply with their legislative Work Health and Safety (WHS) obligations with regards to the presence of large amounts of catch on deck.

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4 Such actions would only be considered necessary where they were necessary to ensure the safety of the crew.
- **Example 2: Allowing bycatch to enter the drum**

Bycatch species should not be allowed to enter the drum and remain entangled within the fishing gear. Crew should consider wearing Personal Protective Equipment (PPE) to reduce the risk of injury. All reasonable steps must be taken to untangle bycatch and return it to its natural environment immediately.

Gillnet vessel, looking forward.
Integrated Scientific Monitoring Program (ISMP), AFMA.
Examples of conduct which are not mistreatment (Gillnet)

The following examples are NOT generally considered ‘mistreatment’.

Delayed discarding

Where bycatch is not discarded for extended periods for legitimate crew safety reasons, this is not be considered as mistreatment.

- **Example 1: Leaving inaccessible bycatch on deck**

Inaccessible bycatch may be defined as bycatch on deck that, by its location relative to fishing gear and/or machinery, may present a reasonable risk to the safety of a crew member(s). In gillnet operations this can include bycatch individuals falling from the gear on the ‘far side’ of the net, where safe access is difficult or gear is under load. It is reasonable to assume that retrieving and returning these individuals would present a significant safety risk to the crew member(s). Actions of this type are not considered as an example of bycatch mistreatment.

Subduing hazardous bycatch species

Large sharks are inherently dangerous to handle as they have the potential to cause severe injury to crew. Where action is taken to subdue catch that is hazardous to crew safety, this is not considered mistreatment provided any action taken generally complies with AFMA shark and ray handling practices.

Mass entanglement

Operators will sometimes inadvertently interact with mass movement of smaller species such as crab. In these rare events it is impractical for operators to remove the bycatch without causing harm to the animals. Where the sheer volume of bycatch makes their removal (without harm) impracticable, this may not be viewed as mistreatment.

- **Example 1: Spider crab massing**

Gillnetters operating in the Bass Strait may inadvertently interact with large migrations of spider crabs.

The prime objective is to remove crabs as quickly and efficiently as possible. The use of an implement for the removal of spider crabs only (family Majidae) during gillnet haul, is not to be considered an example of bycatch mistreatment.
Bycatch handling and treatment Guide – Longline methods

For operators using longline methods, the following are examples of actions (or in-action) which do and do not constitute ‘mistreatment’.

If there is no risk to the safety of crew member(s), all reasonable steps must be taken to return bycatch to its natural environment in a manner which does not reduce chances of survival.

Those operating in Australian Tuna and Billfish Fisheries should be aware current longline boat Statutory Fishing Right (SFR) condition, also bycatch and discarding workplans include the mandatory carriage of line cutters and de-hookers on board fishing vessels. Operators are expected to use these devices to both ensure survivability of bycatch species or Threatened, Endangered and Protected (TEP) species and increase crew safety. When used properly these devices can easily and safely remove hooks, or cut line at the hook, without removing species from the water.

Eastern Tuna and Billfish Fishery, de-hooker in use.
Integrated Scientific Monitoring Program (ISMP), AFMA.
Examples of conduct which is mistreatment (Longline)

The following examples are considered mistreatment;

**Minor gear removal**
Where harm is caused to bycatch species in the process of removing/extracting minor fishing gear the activity is considered mistreatment.

- *Example 1: Extracting a hook*

Operators are responsible for handling bycatch species appropriately to maximise the chances of their survival. As specified by guideline principle 3, actions taken for the sole purpose of recovering minor fishing gear, are not considered ‘reasonably necessary’.

Handling of all bycatch should be in accordance with [AFMA approved bycatch and discarding workplans](#).

Animals should be kept in the water wherever possible (i.e. do not bring them on the deck). Longline fisheries are required to cut bycatch (shark and ray) species off close to the hook so that they are not trailing large amounts of line.

Specific handling of sharks and rays within longline fisheries should be in accordance with [AFMA shark and ray handling practices](#).

**NOTE:** All operators have been provided with (and are required to carry) line cutters and de-hookers. It is expected that these will be used wherever possible when dealing with bycatch species

**Failure to remove or discard**
The failure to promptly remove and discard bycatch species including; allowing them to lay on the deck for extended periods, is considered mistreatment.

- *Example 1: Leaving bycatch on deck*

Operators are required to return all bycatch to its natural environment promptly. Crew should consider wearing Personal Protective Equipment (PPE) to reduce the risk of injury. All reasonable steps must be taken to return bycatch to its natural environment immediately.

Leaving bycatch on the deck throughout the haul, without reasonable explanation is considered mistreatment. In consideration of the above, failure to return bycatch to its natural environment promptly may be a breach of the concession requirement. Operators should also comply with their legislative Work Health and Safety (WHS) obligations with regards to the presence of large amounts of catch on deck.
Striking, clubbing or stabbing of bycatch

The unnecessary\(^5\) striking, clubbing, stabbing or intentional maiming of bycatch, regardless of whether it results in the death of the bycatch species, is considered mistreatment.

- **Example 1: Unnecessarily removing the tail/barb of ray species**

If the animal does not present a safety risk to the crew member, removal of the tail/barb of any ray species is then considered mistreatment.

Specific handling of sharks and rays within longline fisheries should be in accordance with AFMA shark and ray handling practices.

Auto de-hooker - Gulper sharks or Dogfishes

For operators in the South East Scalefish and Shark Fishery (SESSF), all species of the *Centrophoridae* or *Squalidae* families (Gulper sharks or Dogfishes)\(^6\) must be handled within requirements of permit conditions applying to their Statutory Fishing Right (SFR) and the *Upper Slope Dogfish Management Strategy 2012*.

If a shark species is detected as being caught on any deployed fishing gear, the holder must assess the likelihood of the species being of the family *Centrophoridae* (excluding *Deania* sp.) or *Squalidae*\(^6\) and adjust the hauling rate so the specimen rises slowly. If the specimen is identified as being of the family *Centrophoridae* (excluding *Deania* sp.) or *Squalidae* or the specimen cannot be identified\(^6\), the hauler must be stopped so the specimen’s weight is supported by water where practicable.

Unless advised by AFMA or a research scientist, the SFR holder must return any Gulper sharks or Dogfishes (family *Centrophoridae* or *Squalidae*) to the water quickly and carefully. This is to be done by cutting the snood as close as possible to the mouth of the shark without injuring the shark (the hook may also be removed by hand from the shark).

The passing of Gulper sharks or Dogfishes (family *Centrophoridae* or *Squalidae*)\(^6\), or listed protected species under the Environment Protection and Biodiversity Conservation Act 1999 through an auto-longline de-hooker or roller is considered mistreatment.


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\(^5\) Such actions would only be considered necessary where they were necessary to ensure the safety of the crew.

\(^6\) Brier shark (*Deania calcea*) and longsnout dogfish (*Deania quadrispinosa*) are the only species exempt from this condition, and allowed under correct identification to pass through the hauler or de-hooker.
Examples of conduct which are not mistreatment (Longline)

The following examples are NOT to be considered 'mistreatment'.

Delayed discarding

Automatic longline vessels are often inundated with large volumes of catch and/or bycatch over a short period of time. In some instances it is unreasonable to expect all bycatch to be discarded straight away for operational reasons.

Where bycatch is not discarded immediately due to operational reasons, this is not to be considered mistreatment.

SESSF auto longline operation, correct removal of shark spp. before reaching auto de-hooker. Integrated Scientific Monitoring Program (ISMP), AFMA.
Bycatch handling and treatment Guide – Trawl methods

The following are examples of actions (or in-action) which do and do not constitute 'mistreatment', during trawl operations.

If there is no risk to the safety of crew member(s), all reasonable steps must be taken to return bycatch to its natural environment in a manner which does not reduce chances of survival.

Examples of conduct which is mistreatment (Trawl)

The following examples are considered mistreatment;

Failure to remove or discard

The failure to promptly remove and discard bycatch species including; allowing them to become entangled within gear, remain entangled within stowed gear or lay on the deck for extended periods, is considered mistreatment.

- **Example 1: Leaving bycatch on deck**

  As outlined in principle 2 operators are expected to take all reasonable steps to ensure that bycatch is returned to the water as quickly as practicable and in a manner which does not reduce its chance of survival.

In an instance where bycatch is:

- free from fishing gear, and
- in a readily accessible location, and
- does not present a risk to the safety of a crew member,
- but is not returned to its natural environment as quickly as practicable then this may be considered as mistreatment\(^7\).

![Correct handling, Skate species. Integrated Scientific Monitoring Program (ISMP), AFMA.](image)

\(^7\) Note: If the bycatch is dead at the time of being brought onto the deck (i.e. point of catch) this would not constitute mistreatment.
Examples of conduct which are not mistreatment (Trawl)

The following examples are NOT to be considered ‘mistreatment’.

**Delayed discarding**

Similar to automatic longline, trawl vessels are often inundated with large volumes of catch and/or bycatch over a short period of time. In some instances it is unreasonable to expect all bycatch to be discarded straight away for operational or safety reasons.

Where bycatch is not discarded immediately due to operational or safety reasons, this is not considered as mistreatment.

- **Example 1:** Delays due to catch volume

Where crew are actively processing the catch as quickly as possible this is not to be considered as mistreatment.

- **Example 2:** Delays due to gear re-deployment

Re-deploying gear following depositing the first haul on the deck is considered standard practice and as such the delayed discarding of bycatch in this circumstance may not be considered mistreatment.

**Offal batching (in accordance with bycatch Management Plans)**

Trawl operators are required to have a Seabird Management Plan (SMP) as part of the concession conditions. These SMPs generally contain the requirement that;

“The holder where practical, to discharge bycatch and offal when gear is out of the water to avoid interactions with seabirds”

As such the retention of bycatch on board whilst gear is deployed and/or redeployed is consistent with the requirement of the SMP and is not, therefore, bycatch mistreatment.

SMPs are vessel specific and tailored to an individual fishing boat’s identified threats to seabirds. SMPs also set out mitigation measures that the concession holder is required to implement to reduce the risk of seabird interactions.
Enforcement Measures

The *Fisheries Management Act 1991*, *Maritime Powers Act 2013* and regulations allow for a range of enforcement measures. These measures (or tools) can be used in combination, separately or for particular types of incidents in order to achieve the most appropriate outcome. AFMA will use the range of measures available in its “toolbox” in order to achieve the most efficient and cost effective outcome.

In its ‘compliance and enforcement’ role AFMA’s programs are principally concerned with ‘deter, detect and enforce’. It is important that when making decisions about the level of enforcement to be used AFMA considers not only the seriousness of the incident in itself but also what level of deterrence is necessary to prevent similar incidents (either by the individual entity or the fishing community generally).

More information about AFMA’s enforcement decisions for detected breaches of fisheries rules can be found in the *AFMA National Compliance and Enforcement Policy 2015*.

Enforcement measures are outlined below:

**Warning- Show Cause letter**

On detection of breach of condition, AFMA will issue the concession holder with a ‘show cause’ letter. This letter will provide the concession holder with the opportunity to explain the alleged actions or inaction and/or what measures they have taken to prevent further incidences.

**Further full investigation**

AFMA (via the Operations Management Committee) will make the decision to employ further enforcement action after both considering response to the show cause letter and the following criteria:

- the objectives of the *Fisheries Management Act 1991* and *Maritime Powers Act 2013*,
- the seriousness of the incident having regard to the extent of the impact caused and the implications for the administration of the *Fisheries Management Act 1991* and *Maritime Powers Act 2013* more generally,
- whether there has been failure to comply with any informal request, lawful direction or notice given by a fisheries officer,
- the culpability of the person, whether it be a corporation or employee, including any mitigating or aggravating circumstances,
- the previous history of the person, with particular regard to fisheries offences, including the frequency of offences,
- voluntary action by the person to mitigate any impacts and put in place mechanisms to prevent any recurrence,
- the level of public concern,
- the need for both specific and general deterrence,
- the precedent which may be set by any failure to take enforcement action,
- due diligence procedures already in place and used by the person,
• the enforcement measures necessary to ensure compliance with the Acts and those most likely to achieve the best environmental outcome,
• failure to notify or delayed notification of the incident by the person to AFMA,
• the co-operation given to AFMA by the person and willingness to commit to appropriate remedial action,
• the length of time since the incident,
• where more than one party has been involved, whether enforcement measures have been taken or are intended against others in relation to the same incident,
• the enforcement approach adopted to similar incidents in the past taking into account the specific circumstances.

**Further enforcement action**

Further enforcement action is as outlined in the *AFMA National Compliance and Enforcement Policy 2015*.

**Cautions**

Written cautions may be given by a fisheries officer where:

• the impact caused by an offence is minor,
• the breach of a legislative instrument or regulation is minor or a ‘first occurrence’,
• a caution is fair and appropriate,
• the matter is one which can quickly and simply be put right,
• it is appropriate to advise the responsible party that a repeat occurrence will lead to more serious action being taken.

Cautions are used for more serious matters and only if the officer believes there to be prima facie evidence of an offence. In deciding whether a caution is an adequate response the fisheries officer must have regard to the principles contained in the *AFMA National Compliance and Enforcement Policy 2015*. Where a caution is not complied with in the period specified further enforcement measures may be pursued.

**Commonwealth Fisheries Infringement Notices (CFINs)**

Fisheries Management Regulations 1992 provide for infringement notices to be issued for breaches of fisheries management rules. These infringement notices require payment of the fine within a specified timeframe.

The *AFMA National Compliance and Enforcement Policy 2015* considerations for issuing a Commonwealth Fisheries Infringement Notice (CFIN) rather than prosecution are:

• the offence is one that may be dealt with by imposition of a fine under the Fisheries Management Act 1991,
• the nature of the incident, whether it is well defined or not,
• the severity of the impact,
• the evidence discloses a prima facie case against the person with reasonable prospects of success,
• the previous history of the person,
- the culpability of the person,
- notification of the incident to AFMA, voluntary action to mitigate the impacts and a commitment to prevent future incidents.

**Directions by fisheries officers**

Fisheries officers (under section 69 of the *Maritime Powers Act 2013*) may direct that various actions are undertaken; these being:

- that fishing activity ceases,
- that a boat be taken to a particular place,
- that a boat stop to allow an at sea boarding.

Directions will be used where there is imminent risk of severe impacts or there are other reasonable grounds for doing so. Such reasonable grounds may include (but are not limited to) where further inspection of a boat is required for investigation of detected (or suspected) offences, or where it will directly assist in ensuring compliance for future fishing (e.g. to repair fishing gear or a VMS unit). However, as there are no appeal provisions, these powers should only be used where consideration has been given to the likely consequences of such a direction.

Failure to comply with an instruction from a fisheries officer, without reasonable excuse, is an offence.

**Suspension or cancellation of fishing concessions**

Pursuant to sections 38 and 39 of the *Fisheries Management Act 1991*, fishing concessions may be suspended or cancelled under certain circumstances where:

- a fee, levy, charge or other monies has not been paid by the due date,
- there are reasonable grounds that a condition has been breached,
- there are reasonable grounds false or misleading information has been furnished to AFMA,
- in accordance with a condition on the concession certain international sanctions have been applied and are not complied with.

Since, in most cases, this would result in ceasing of fishing activity and resultant loss of income, suspension or cancellation will be used in those circumstances that pose an unacceptable impact or where there is an attitude of non-compliance or evidence of a deliberate attempt to gain financial advantage from non-compliance.

The Chief Executive Officer or other delegate will, when exercising this enforcement measure, give the authorised person under the *Maritime Powers Act 2013* a reasonable opportunity to ‘show cause’ in writing why the power should not be exercised. Suspension or cancellation should only be used for serious offences.

Failure to comply with a suspension or cancellation of a fishing concession is an offence.
Prosecution

Prosecutions will be initiated, consistent with the principles and criteria of the *AFMA National Compliance and Enforcement Policy 2015*. Where there is evidence of prima facie breaches of the *Fisheries Management Act 1991* (or other relevant Commonwealth Acts) for offences on a case-by-case basis, where prosecution is, in the opinion of the AFMA Operation Management Committee, the most appropriate response to achieve personal and/or public deterrence.

The maximum fine payable for a domestic fishing offence is $42,500 and or imprisonment of two years (as per the *Crimes Act 1914*).
Definitions

**Bycatch Individual** - referring to single or separate bycatch animal.

**PPE** - Personal Protective Equipment (PPE) is anything used or worn by a person to minimise risk to the person's health or safety and includes a wide range of clothing and safety equipment. PPE includes boots, face masks, hard hats, ear plugs, respirators, gloves, safety harnesses, high visibility clothing etc. More information on PPE can be accessed at [Safe Work Australia](https://www.safeworkaustralia.gov.au).

**Bycatch and discarding workplans** - Bycatch and discarding workplans are developed in consultation with industry and research partners to find practical and affordable solutions to minimising bycatch and the discarding of target species.

These fishery specific workplans focus on 'high risk' bycatch and threatened, endangered and protected species identified through the [ecological risk assessment](https://www.ecologica.com/) process and in accordance with the [AFMA’s program for addressing bycatch and discarding in Commonwealth fisheries](https://www.afma.gov.au).  

**Seabird Management Plan** - Seabird management plans are tailored to individual fishing boats and identify the main threats posed to seabirds by that boat. It also sets out the mitigation measures the concession holder has agreed to implement to reduce the risk of seabird interactions. Seabird Management Plans are implemented in all Commonwealth trawl fisheries.
Condition: Handling and treatment of bycatch

1) The concession holder (or a person acting on the holder’s behalf) must not mistreat bycatch.

Definitions:

**Mistreat** means taking, or failing to take, any reasonable action or actions, which results, or is likely to result, in the;

i. death of, or
ii. injury to, or
iii. causing of physiological stress to

any bycatch.

**Bycatch** means any species that physically interact with fishing vessels and/or fishing gear (including auxiliary equipment) and which are not usually kept by commercial fishers. (**Bycatch** species may include fish, crustaceans, sharks, molluscs, marine mammals, reptiles and birds. **Bycatch** includes listed protected species under the Environment Protection and Biodiversity Conservation Act 1999.)

Notes: For the purposes of this condition ‘mistreat’ does not include the taking, or failing to take, action where it is reasonably necessary to take, or not take, the action;

- to ensure the safety of the boat and or its crew, or
- to comply with the requirements of any AFMA approved bycatch management plan(s) (these may include Seabird Management Plans, Vessel Management Plans etc.).