



Department of  
**Primary Industries and  
Regional Development**

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**Fisheries Occasional Publication No. 136**

**Bait guidelines for  
commercial fisheries in  
Western Australia**

August 2018

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### **Important disclaimer**

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## Purpose

These guidelines reflect the commitment of the Department of Primary Industries and Regional Development - Fisheries (the Department) to all aspects of sustainable and responsible fisheries, and are designed to:

- (i) Assist the State's fishing industry to select sustainably sourced bait; and
- (ii) Provide the tools to assess the bait type and source used by commercial fisheries for the purposes of third-party sustainability certification.

The key principles of The Guidelines have been designed to be applicable across all of the State's bait-based fisheries and to be relevant whether or not a fishery is seeking sustainability certification.

Part 1 of this document outlines the key principles intended to inform bait selection and usage by all of WA's commercial fishers. Bait selection in line with these principles will ensure that the majority of bait comes from well managed and sustainable stocks.

Part 2 of this document is aimed at providing a more in-depth assessment of bait sources in the context of those commercial fisheries that are seeking certification or are currently certified through an independent sustainability certification framework. Part 2 provides the tools necessary to robustly assess the sustainability of specific bait species and their source fisheries. The Marine Stewardship Council (MSC) Fisheries Certification Requirements (FCR) v2.0 has been used as the basis for Part 2 as several of the State's fisheries have already been certified under that framework, however, the guidelines are fit to provide guidance across a range of sustainability assessments.

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## 1. Part 1: Key principles

When selecting bait, fishers are encouraged to take into account the following three principles:

- **Preferred bait should be fish processing waste products (such as heads and frames which would be otherwise discarded) rather than fish caught specifically for this purpose.** Using bait that is waste from a fishery or aquaculture activity reduces the need to specifically target fish for bait, as well as reduces the wastage from the fishery/activity that the bait was sourced from.
- **If specifically-caught bait fish are used, they should be sourced from fisheries that are sustainably managed.** This ensures the ongoing viability of the bait fish stocks. Bait stocks may be considered sustainable through several means including third-party certification such as MSC or a “Sustainable” rating through The Status of Australian Stocks (SAFS) report series. A selection of common bait sources has been compiled in Appendix 1 with an indication of how their sustainability may have been assessed at the time of this document’s publication. Bait sources other than those identified as sustainable above may be individually assessed using the tools provided in the second part of this document.
- **Use of bait from data-deficient fisheries should be avoided or, where that isn’t practical, minimised.** Avoiding or minimising using bait from fisheries with insufficient data to complete a robust sustainability assessment minimises the potential for inadvertent impacts on stock health and the environment. In cases where there is insufficient information to robustly assess a bait’s sustainability it may still be used providing that the use of that bait can be demonstrated not to be detrimental to its source stock.

### 1.1 Out-of-Scope baits

Two bait types are classed as out-of-scope and as such may be used unless specifically prohibited. Also, usage of out-of-scope bait does not require further sustainability assessment. Out of scope baits include (i) bait of terrestrial origin such as kangaroo meat or pig fat, and (ii) waste products of fishery/aquaculture activities such as heads or frames.

### 1.2 Prohibited baits

Baits that should not be used by a commercial fishery include those which are specifically prohibited for certain fisheries (such as hides in certain fisheries), protected (protected and listed species), diseased (e.g. with crustacean white-spot virus) or sourced from recreational activities (recreationally caught fish). Consideration should be given to the source of baits in terms of the biosecurity and pathogen transfer risk they represent. If baits have been imported they should conform to the appropriate import and translocation regulations.

### **1.3 Reporting bait use**

To ensure that commercial fishers are not impacting on bait fisheries and to assess the sustainability criteria required, see Part 2, it is important to keep records of the species and quantities of bait used as well as their source. While reporting of this information in logbooks is optional, doing so is considered best practice and will assist with the information requirements for third party certification.

### **1.4 Self-harvesting of bait**

The practice of self-harvesting of bait is discouraged and where an authorisation is required, it will only be granted under exceptional circumstances.

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## 2. Part 2: Sustainability of specific bait sources for fishery certification

This part of the guidelines is designed to provide advice on determining the sustainability of bait sources in a manner consistent with Principle 2 (P2) of the MSC Fisheries Certification Requirements (FCR). Within these guidelines, fisheries are referred to as either bait-supply or bait-use fisheries, based on the distinction that “**bait-supply**” fisheries are the source of the bait (and not the direct subject of the certification), while “**bait-use**” fisheries are those that use bait (and are the direct subject of certification). In cases where a fishery catches its own bait it would be considered both the bait-supply and bait-use fishery. N.B. The terminology of “bait-supply” and “bait-use” fishery is not used in the MSC documentation, as the assessment of bait sources is not the primary purpose of the P2 assessment criteria. Those terms have been included in this document to assist in the interpretation of the standard in this specific context. Note also that adherence to the MSC standard is not the only means to consider a bait species sustainable. For instance, a “Sustainable” rating under The Status of Australian Stocks (SAFS) report series is acceptable, as are equivalent international reporting structures.

### 2.1 Use of The Guidelines for purposes of certification

The sustainability of the bait sources in Appendix 1 have been assessed by Departmental staff against the Key Principles in Part 1 and against criteria set out in Part 2 of this document. They may be considered to meet the Department’s general principles of sustainable bait usage.

While these guidelines are consistent with the MSC FCR v2.0, assessments of the bait sources in Appendix 1 have not been conducted by an independent assessor (except where noted). As such, the Department does not warrant that an independent assessment would likewise consider them sustainable during a formal and independent certification process.

For those fisheries undergoing MSC assessment, compliance with relevant MSC FCR standard will still need to be verified by the auditors for each bait species and source during the certification process.

### 2.2 Consideration of bait by the MSC Fisheries Certification Requirements v2.0

Under the MSC FCR v2.0 framework, bait may be considered as either out-of-scope or within-scope, depending on the following considerations.

**Out-of-scope** baits include all terrestrial baits as well as baits that are waste products of other fisheries such as frames and heads, which would otherwise be discarded. Provision exists for assessing the use of species that are non-native in their location of capture (Annex SD of the FCR) providing they were caught as part of an eradication program. These introduced species may also be considered out-of-scope. Note that while terrestrial and waste products may be used as bait, introduced aquatic species are not recommended due to the risk of translocating pest species and pathogens.



**Within-scope** baits will be classified according to two different features. The first set will distinguish whether the bait comes from a Primary or Secondary bait fishery, while the second will distinguish whether the bait species is a Main or Minor bait. The classification of bait according to these rules will determine which set of assessment criteria are used to determine its sustainability (Tables 1-4).

### ***Primary vs Secondary bait sources***

Bait sources will first be classed as primary or secondary based on whether there are management tools used for the fisheries that catch those species.

Principle 2 is an area of the FCR that assesses the impact of a fishery on species other than the target species, including retained species, bycatch and the broader environment, but is also extended to incorporate bait. In the context of retained species and bycatch, management tools are usually embedded in each fisheries' own harvest and bycatch management strategies. However, when applied to bait, the bait-supply fishery is likely to be completely separate to the bait-use fishery and may have its own management tools. It is the management strategy of the bait-supply fishery that is examined to determine its sustainability, which then informs the assessment of the bait-use fishery. Baits from managed fisheries are classed as Primary but if the bait-supply fishery is unmanaged or unknown they are classed as Secondary.

As this division is based on the characteristics of the **bait-supply fishery**, designation of Primary or Secondary will remain consistent across various assessments and time periods, unless the bait-supply fishery undergoes significant changes in its sustainability and/or management structure. Provision exists for assessing the sustainability of Secondary bait sources, but they may be more difficult to prove sustainable as they often lack the information needed. The criteria used to assess Primary and Secondary differ in that Primary bait sources have quantitative and formal assessment criteria while Secondary bait sources may be assessed using a less quantitative approach, e.g. in the form of a Productivity/Susceptibility Analysis (compare tables 1 and 3).

### ***Main vs Minor bait sources***

The division into main or minor depends on how much of a bait type is used in the bait-use fishery. As this division is based on a characteristic of the **bait-use fishery**, the classification of Main or Minor may change from year to year and among bait-use fisheries. It will depend on the accurate recording of the amounts and proportion of the various bait types used and the total catch of the fishery being assessed. **Note that the amount of the bait is measured against the catch of target species of the bait-use fishery, not the bait-supply fishery.** Baits that weigh >5% of the total catch of the target species are classed as Main, while those < 5% are Minor. The exception to this is where the bait species is identified as 'less resilient' (see below), in which case the threshold is a more conservative 2%. Additionally, with sufficient rationale assessors may assign Main status to bait source that may otherwise be Minor. **Note that Minor bait species meet the minimum sustainability criteria without**

**requiring further assessment**, see section on “Sustainability Criteria” below for further details.

### ***Less resilient***

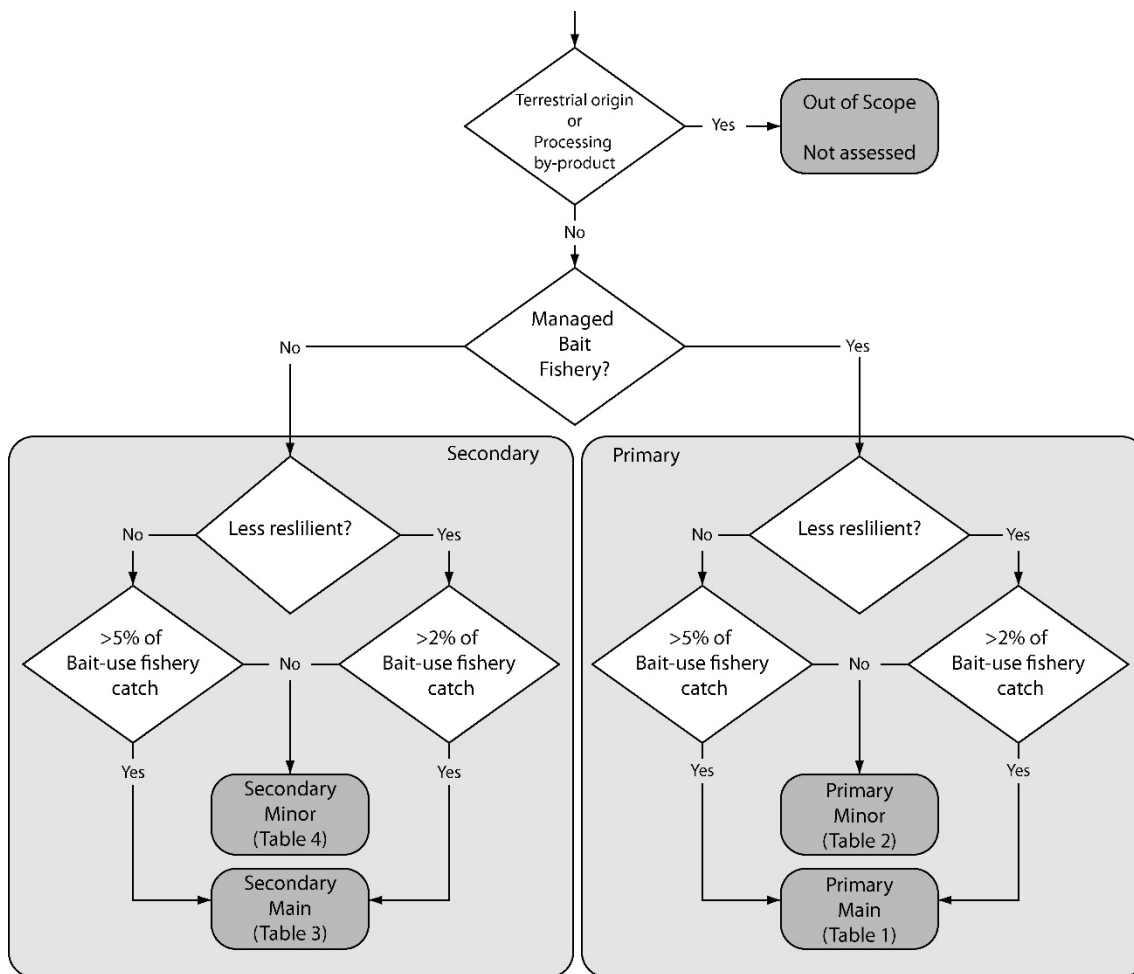
The term ‘less resilient’ is used for bait species that are likely to be more susceptible to or have been subjected to overharvesting. Species should be identified as less resilient if they have naturally low productivity or have known anthropogenic changes to their life histories (see Guidance for the FCR for further information on identifying less resilient species). Less resilient species may comprise a Minor bait species but are generally not recommended for use as Main bait species.

### ***Determining which set of sustainability criteria to use***

Using the above rules, four categories of in-scope baits can be identified, and the applicable set of sustainability criteria determined:

- *Primary-Main* – bait sourced from a **managed** bait-supply fishery and for which the quantity used (in tonnes) is equal to or **more than 5%** of the total catch of the target species by the bait-use fishery (or 2% if a ‘less resilient species’). Use Table 1;
- *Primary-Minor* – bait sourced from a **managed** bait-supply fishery and for which the quantity used (in tonnes) is **less than 5%** of the total catch of the target species by the bait-use fishery (or 2% if a ‘less resilient species’). Use Table 2;
- *Secondary-Main* – bait sourced from an **unmanaged** bait-supply fishery and for which the quantity used (in tonnes) is equal to or **more than 5%** of the total catch of the target species by the bait-use fishery (or 2% if a ‘less resilient species’) Use Table 3; and
- *Secondary-Minor* – bait sourced from an **unmanaged** bait-supply fishery and for which the quantity used (in tonnes) is **less than 5%** of the total catch of the target species by the bait-use fishery (or 2% if a ‘less resilient species’) Use Table 4.

The decision tree depicted in Figure 1 visually represents the decision making process to classify bait into the above four groups.



**Figure 1:** Decision tree for classifying bait sources into assessment categories. Adapted from the Principle 2 decision tree: MSC Guidance for Fisheries Certification Requirements v2.0.

## 2.3 Sustainability criteria

There are three levels of MSC certification criteria, referred to as Scoring Guideposts, i.e. SG60, SG80 and SG100. In order to achieve an unconditional pass under an MSC full assessment, the bait-use fishery is required to achieve an aggregate score of 80 (out of 100) across the performance indicators for each of the three principles. Hence, the criteria presented in this document are based on the SG80 scoring guideposts as defined by MSC.

**For the purposes of these guidelines, individual baits designated as minor meet the sustainability threshold SG80 without requiring further assessment.** However, in the context of an MSC full assessment, baits are assessed against the criteria as a unit, not individually. That means that all baits used in a fishery will contribute to the overall score. To achieve SG100 overall, minor baits must be scored against their scoring issues which will in turn contribute to the overall P2 aggregate score.

Further information on the scoring guideposts is available in the *MSC Fisheries Certification Requirements (V2)* under performance indicators 2.1 and 2.2. That document specifies higher (SG100) and lower (SG60) scoring guideposts for all scoring issues and which may inform

the interpretation of SG80. Interpretation and guidance can be found in the *MSC Guidance for the Fisheries Certification Requirements* document.

Specific criteria for all four categories of bait source are presented in Tables 1 and 2. For main species, SG80 for each scoring guidepost has been used as the minimum criterion required to achieve an unconditional pass under an MSC full assessment. Note that SG100 is presented for the Minor groups, the rationale for which is presented above.

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**Table 1:** Scoring guideposts for **Primary Main** bait sources. Guideposts adapted from section 2.1 of the MSC Fishery Certification Requirements v2.0

Performance indicator	Scoring issue	Scoring Guidepost	Description
2.1.1	a	SG80	Bait species are <b>highly likely</b> to be above Point of Recruitment Impairment (PRI) ( <i>default reference point of 20% <math>B_0</math> / 50% <math>B_{MSY}</math></i> ), <b>OR</b> If the species is below the PRI there is either <b>evidence of recovery</b> or a <b>demonstrably effective strategy</b> in place between all bait-use fisheries which categorise this bait species as main, to ensure that they collectively do not hinder recovery and rebuilding.
2.1.2	a	SG80	There is a <b>partial management strategy</b> in place for the bait-use fishery, if necessary, that is expected to maintain or to not hinder rebuilding of the bait species at/to levels which are highly likely to be above the PRI.
	b	SG80	There is <b>some objective basis for confidence</b> that the management strategy measures/ partial strategy will work, based on some information directly about the bait-use fishery and/or species involved.
	c	SG80	There is <b>some evidence</b> that the management strategy measures / partial strategy is being <b>implemented successfully</b> .
	d	SG80	It is <b>highly likely</b> that shark finning is not taking place in the bait-supply fishery.
2.1.3	a	SG80	Some quantitative information is available and is <b>adequate to assess</b> the impact of the bait-use fishery on the bait species with respect to status. <b>OR</b> <b>If Risk-Based Framework is used to score PI 2.1.1 for the bait-use fishery:</b> Some quantitative information is adequate to assess productivity and susceptibility attributes of the bait species.
	c	SG80	Information is adequate to support a <b>partial strategy</b> to manage bait species.

**Table 2:** Scoring guideposts for **Primary Minor** bait sources. Guideposts adapted from section 2.1 of the MSC Fishery Certification Requirements v2.0

Performance indicator	Scoring issue	Scoring Guidepost	Description
2.1.1	b	SG100	For bait species that are below the Point of Recruitment Impairment (PRI), there is evidence that the bait-use fishery does not hinder the recovery or rebuilding of bait species
2.1.3	b	SG100	Some quantitative information is adequate to estimate the impact of the bait-use fishery on bait species with respect to status.

**Table 3:** Scoring guideposts for **Secondary Main** bait sources. Guideposts adapted from section 2.1 of the MSC Fishery Certification Requirements v2.0

Performance indicator	Scoring issue	Scoring Guidepost	Description
2.2.1	a	SG80	Bait species are <b>highly likely</b> to be above biologically based limits <b>OR</b> If below biologically based limits, there is either <b>evidence of recovery</b> or a <b>demonstrably effective partial strategy</b> in place such that the bait-use fishery does not hinder recovery and rebuilding. <b>AND</b> Where catches of a bait species outside of biological limits are <b>considerable</b> , there is either <b>evidence of recovery</b> , or a <b>demonstrably effective strategy in place between those bait-use fisheries that have considerable catches of the species</b> , to ensure that they collectively do not hinder recovery and rebuilding.
2.2.2	a	SG80	There is a <b>partial strategy</b> in place in the bait-use fishery, if necessary, for the bait-use fishery that is expected to maintain or not hinder rebuilding of bait species at/to levels which are highly likely to be above biologically based limits or to ensure that the bait-use fishery does not hinder their recovery.
	b	SG80	There is <b>some objective basis for confidence</b> that the measures/ partial strategy will work, based on some information directly about the bait-use fishery and/or species involved.
	c	SG80	There is <b>some evidence</b> that the measures/ partial strategy is being <b>implemented successfully</b> .
	d	SG80	It is <b>highly likely</b> that shark finning is not taking place in the bait-supply fishery
2.2.3	a	SG80	Some quantitative information is available and is <b>adequate to assess</b> the impact of the bait-use fishery on the bait species with respect to status. <b>OR</b> <b>If RBF is used to score PI 2.2.1 for the bait-use fishery:</b> Some quantitative information is adequate to assess productivity and susceptibility attributes for bait species.
	c	SG80	Information is adequate to support a <b>partial strategy</b> to manage the bait species.

**Table 4:** Scoring guideposts for **Secondary Minor** bait sources. Guideposts adapted from section 2.1 of the MSC Fishery Certification Requirements v2.0

Performance indicator	Scoring issue	Scoring Guidepost	Description
2.2.1	b	SG100	For bait species that are below biologically based limits there is evidence that the bait-use fishery does not hinder the recovery and rebuilding of the bait species.
2.2.3	b	SG100	Some quantitative information is adequate to estimate the impact of the bait-use fishery on the bait species with respect to status.

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## Appendix 1: Current bait sources

The Department has established the following ‘snapshot’ list of in-scope bait-supply fisheries commonly used in the State’s fisheries at the time of this document’s publication. If a bait-supply fishery has been evaluated in a recent MSC full assessment, the results of that assessment have been included. In the remainder of cases bait-supply fisheries have been evaluated by Departmental staff using the scoring guideposts in the previous section of this document.

This list is not exhaustive and there may be bait-supply fisheries that meet the sustainability criteria that are not listed. The list is provided as guidance only. The Department considers that the sustainability criteria used to assess the fisheries are consistent with the MSC FCR v2.0 and that they may therefore also be considered as likely to meet MSC sustainability criteria. However, unless otherwise stated, assessments have not been conducted by an accredited Certification Assessment Body under the MSC program and their sustainability outcome cannot be guaranteed to meet MSC criteria in a formal MSC assessment.

As the list is a collation of information from bait-supply fisheries, the information should be applicable across a variety of bait-use fisheries and will determine the Primary/Secondary classification of the bait-supply fishery. In addition, the suitability of each bait type as Main or Minor has been determined, but the actual amount of bait at which Minor becomes Main will be relative to the catch of the bait-use fishery. In situations where a bait type is identified as suitable for Minor but not Main, usage should be kept to less than the threshold value of the catch of the bait-use fishery (e.g. a fishery that catches 100T of its target species should not use more than 5T of a 5% threshold bait type).

**Table 5:** Common bait-types / sources used in Western Australian commercial fisheries and the recommendation on the sustainability of the bait source. Information current as of January 2017. SAFS – Status of Australian Fish Stocks report; PSA Productivity/ Sensitivity Analysis; SOFAR - State Of the Fisheries and Aquatic Resources report; MPI plenary – NZ Fisheries Assessment Plenary series: Stock assessments and Stock Status.

Bait Type	Source Location	Species	Primary / Secondary	Threshold Main / Minor	Past Performance in a MSC Certification	Recommended Main/Minor	Notes on Recommendation
Australian Herring	Western Australia	<i>Arripis georgianus</i>	Primary	2%	Passed as Minor	<b>No / No</b>	Less resilient - stock rebuilding (SAFS)
Australian Salmon	Western Australia	<i>Arripis truttaceus</i>	Primary	5%	Passed as Minor	Yes / Yes	SAFS “Sustainable”
Blue Mackerel	New Zealand	<i>Scomber australasicus</i>	Primary	5%	Condition as Main	<b>No / Yes</b>	Stock status not adequately known
Bullet Tuna	Taiwan/China/Korea	<i>Auxis rochei</i>	Secondary	5%	Passed as Main	Yes / Yes	Passed with PSA
Kahawai	New Zealand	<i>Arripis trutta</i>	Primary	5%	Passed as Minor	Yes / Yes	Stock levels above target (MPI plenary)
Pilchards	South Australia	<i>Sardinops sagax</i>	Primary	5%	Passed as Minor	Yes / Yes	SAFS “Sustainable”
Pilchards	Western Australia	<i>Sardinops sagax</i>	Primary	5%	Passed as Minor	Yes / Yes	SAFS “Sustainable”
Pilchards	New Zealand	<i>Sardinops sagax</i>	Primary	5%	Passed as Minor	<b>No / Yes</b>	Stock status not adequately known
Scaly mackerel	Western Australia	<i>Sardinella lemuru</i>	Primary	5%	Not assessed	Yes / Yes	Stock status adequate (SOFAR)
Sea/yellow eye mullet	West coast stock W.A.	<i>Mugil cephalis / Aldrichetta forsteri</i>	Primary	5%	Passed as Main	Yes / Yes	MSC certified fishery
Sea/yellow eye mullet	Gascoyne and South Coast stocks, W.A.	<i>Mugil cephalis / Aldrichetta forsteri</i>	Primary	5%	Passed as Minor	Yes / Yes	SAFS “Sustainable”
Squid	New Zealand	<i>Nototodarus gouldi / N. sloanii</i>	Primary	5%	Not assessed	Yes / Yes	Likely to pass with PSA
Squid	USA	<i>Doryteuthis opalescens</i>	Primary	5%	Not assessed	Yes / Yes	Likely to pass with PSA