

**Introduction of redbait into Quota Management System on
1 October 2009**

Initial Position Paper

30 January 2009

REDBAIT – INITIAL POSITION PAPER

Executive Summary

- 1 This paper proposes that the Minister of Fisheries make a determination under section 17B of the Fisheries Act 1996 (the Act) to introduce redbait (*Emmelichthys nitidus*) stocks into the Quota Management System (QMS) on and from 1 October 2009.
- 2 A consultation document was released on 10 June 2008 seeking stakeholders' views on whether redbait, as well as 9 other species or species groups, should be introduced into the QMS on 1 October 2009. No submissions in favour of redbait (RBT) being introduced into the QMS were received by MFish.
- 3 MFish's preliminary conclusion presented in the consultation document, based on the information available at the time, was that the current management regime for redbait was adequate. Additional information from the 2007/08 fishing year regarding the redbait fishery has now become available. Based on that information, and despite the initial lack of stakeholder support, MFish now believes that introduction of redbait into the QMS on 1 October 2009 would be desirable in order to create a framework allowing the utilisation potential of the fishery to be maximised.
- 4 Redbait is currently managed as an open access fishery. It is taken mainly as a bycatch in several fisheries targeting QMS species, although the majority (66% over the past 7 fishing years) was taken as bycatch of the jack mackerel trawl fishery. Some target fishing does occur and approximately 11% of estimated redbait catch was targeted during the 2007/08 fishing year.
- 5 MFish proposes two options for redbait quota management areas (QMAs). The first option is to have four main redbait stocks: RBT1 and RBT2, which would encompass fishery management areas 1 and 2 respectively; RBT3 which would encompass fishery management areas 3, 4, 5 and 6; and RBT7, which would encompass fishery management areas 7, 8 and 9 - see Figure 2. The second option is to have redbait QMAs the same as those for jack mackerel (RBT1, RBT3, RBT7 and RBT10, see Figure 3).
- 6 MFish also proposes that redbait stocks be subject to the 1 October to 30 September fishing year and that the unit of measurement for redbait be expressed in greenweight.
- 7 The key factor influencing the Minister's decision is whether he is satisfied that the current management of redbait is not providing for the utilisation of the species. Open access does provide for the utilisation of redbait however MFish believes that utilisation of what is apparently an excellent food fish would be maximised under the QMS. The security of rights and access provided by the QMS would enable rights holders to invest in developing the fishery.
- 8 Should the Minister agree to introduce redbait into the QMS MFish will commence a separate process for setting total allowable commercial catches (TACCs). Stakeholders will again be consulted on that process. If introduced into the QMS on 1 October 2009 redbait quota would be allocated to the fishing industry on the basis of

catch reported during the period 1 October 1990 – 30 September 1992. Depending on the TACCs that are subsequently set, some quota is also likely to be allocated to the Crown. That quota would be tendered at the earliest opportunity.

Regulatory Impact Analysis Requirements

- 9 A Regulatory Impact Statement has not been included as the process of introducing a species into the QMS does not require a decision from Cabinet.

The Issue

- 10 The issue is whether or not the current open access management regime for redbait is ensuring the sustainability or providing for the utilisation of the species. MFish has no information indicating concerns over redbait sustainability. However MFish believes that management of redbait under the QMS framework would ensure that the utilisation potential for this species is maximised.
- 11 In recent years it is clear that the nature of the redbait fishery has been changing. The proportion processed at sea has increased with a concurrent decrease in the proportion being mealed. MFish is also aware that some fishing companies are interested in securing rights to this fishery and that others are interested in developing both the fishery and a market for the product. Appendix 1 provides some background on the biological characteristics of redbait and the recent history of the fishery.
- 12 In June 2008 MFish released a consultation document regarding species under consideration for introduction into the QMS on 1 October 2009. Redbait was one of the 10 species or species groups under consideration. MFish's preliminary conclusion presented in the consultation document was that MFish would not be asking the Minister of Fisheries to make a determination to introduce redbait into the QMS on 1 October 2009.
- 13 Since the release of the consultation document the following additional information has become available regarding redbait catches for the 2007/08 fishing year:
- a) Catch was approximately 30% higher than that recorded during the previous fishing year although it was still less than the 2005/06 catch;
 - b) Approximately 27% of the 2007/08 catch was landed as "dressed" (headed and gutted with some additional trimming), the highest proportion on record. Only 10% of the 2006/07 catch was landed in this state;
 - c) 34% was mealed, which is the lowest proportion on record. In 2002/03 all landed redbait catch was mealed but this proportion has been declining steadily since then; and
 - d) Approximately 11% of the 2007/08 catch was reported as being targeted. In the previous year only 3% was reported as being targeted.
- 14 The increase in targeted catch, together with the increase in landings of dressed redbait, indicates that there is a developing fishery for this species. If the information

from the 2007/08 fishing year had been incorporated into the risk analysis contained in the June 2008 consultation document the risk score achieved by redbait would have been higher because of the risk of a potential impact on utilisation.

- 15 MFish believes that introducing redbait into the QMS now, in the early stages of developing the redbait fishery, would allow interested parties to purchase quota at a comparatively low price. Once rights have been allocated rights-holders would then be free to invest time and resources in catching and marketing this species.
- 16 The fishery appears to be developing at some speed. Because of this MFish considers that introduction into the QMS at the earliest possible opportunity is necessary to ensure that rights can be allocated so that fishers can invest in the development of the fishery with the confidence that the management framework is not going to change. Retaining the status quo is not seen as desirable as under open access there will always be uncertainty that the species may be introduced into the QMS at some point and existing fishers may not be able to acquire quota. Additionally open access does not provide an incentive for companies to invest in and develop the fishery if they don't believe they will be able to secure long term rights.

Summary of Options

Option 1 – Status Quo

- 17 Under the status quo redbait would remain as an open access species outside the QMS.

Option 2 – Introduce redbait into QMS on 1 October 2009 (MFish Preferred Option)

- 18 MFish's preferred option is to introduce redbait into the QMS on 1 October 2009 and within that option:
 - a) The quota management areas for redbait would be either:
 - i.) RBT1, RBT2, RBT3, RBT7 and RBT10; or
 - ii.) RBT1, RBT3, RBT7 and RBT10
 - b) The fishing year for redbait is 1 October to 30 September; and
 - c) The unit of measure for redbait is kilograms greenweight.

Consultation

- 19 The Minister's decision to make a stock or species subject to the QMS is made pursuant to section 17B of the Fisheries Act 1996 (the Act).
- 20 Section 17B(3) requires that before any determination under 17B is made the Minister must consult with those persons or organisations considered to be representative of the classes of persons who have an interest in the relevant determination. This IPP

satisfies that requirement. Additionally, in June 2008 MFish released a consultation document regarding species under consideration for introduction into the QMS on 1 October 2008. Redbait was one of the species included in that document.

- 21 Should the Minister decide that redbait would be better managed under the QMS, section 19(7) of the Act requires consultation with the persons or organisations considered by the Minister to be representative of those classes of persons having an interest in this issue.

Rationale for Management Options

- 22 The rationale for not bringing redbait into the QMS at this time and for retaining the existing open access management regime includes:
- a) General lack of stakeholder support;
 - b) No current concerns regarding sustainability or effects of redbait fishery on the environment;
 - c) Primarily a bycatch fishery meaning that fishers are unable to control the amount caught;
 - d) Administrative costs to Industry associated with acquiring Annual Catch Entitlement (ACE) or paying deemed values; and
 - e) May constrain target fisheries if deemed value rates are too high
- 23 The primary rationale for introducing redbait into the QMS is to maximise utilisation opportunities. Fishers wishing to catch and develop markets for this species are unlikely to invest significant resources as they cannot be sure that MFish will not introduce redbait into the QMS at some point in the future.
- 24 If redbait is introduced into the QMS after October 2009 all quota will be tendered by the Crown. This could mean that those fishers who had invested in developing the fishery, while it was an open access resource, may not be able to acquire redbait quota because they had been outbid. Any resources they may have invested would be unlikely to be recovered.
- 25 If redbait is introduced into the QMS on 1 October 2009 it would be at the relatively early stages of the fishery's development and the value of the quota at this time is likely to be comparatively low. This would provide the best opportunity for those companies wishing to develop the fishery to secure the long-term rights to the fishery before they make any substantial investment.
- 26 Management under the QMS would also provide a mechanism to ensure that catches can be constrained to a sustainable level.

Assessment of Management Options

Option 1 – Status quo: redbait remains open access species managed outside QMS

Impact

- 27 Until 2004 redbait was subject to the permit moratorium (it was not possible to obtain a permit to target the species). Since the moratorium was lifted some target fishing has occurred however most catch is still taken as bycatch to QMS fisheries. Retaining the status quo is unlikely to have a significant impact on catch taken as bycatch.
- 28 Companies wishing to target redbait will continue to be able to so, although they will be unwilling to invest significant resources without the long-term security of property rights.
- 29 As long as redbait remains outside the QMS it will be subject to the annual assessment process undertaken by MFish to determine whether non-QMS stocks or species should be considered for introduction into the QMS. The uncertainty around whether the species may or may not be introduced into the QMS could hinder development of the fishery.

Costs

- 30 Management outside the QMS is likely to discourage significant investment in either catching redbait or developing markets for this species. It also means MFish is unable to ensure that catches can be constrained to a sustainable level.

Benefits

- 31 As long as redbait remains an open access species outside the QMS fishers will be able to take as much of this species as they want. They will not be required to acquire ACE in order to balance their catch or to pay deemed values. They will also have the option of discarding any unwanted catch, which would be illegal if redbait entered the QMS

Option 2 – Introduction of redbait into the QMS on 1 October 2009

Impact

- 32 Should redbait enter the QMS fishers would be required to keep all catch (discarding QMS species is illegal) and to balance their catch with ACE. If they were unable to balance catch they would be required to pay deemed values for any catch in excess of ACE holdings.
- 33 All QMS species are subject to the Fisheries Assessment Plenary, which is an annual review of biological, fishery, stock assessment and stock status information. Redbait would become part of the Plenary process if it were to enter the QMS although concerns exist that MFish has insufficient resources available to undertake the necessary stock research.

- 34 Minor regulatory amendments would be necessary to specify the codes to be used by permit holders and licensed fish receivers when completing returns required by the Fisheries (Reporting) Regulations 2001 and to set the interim and annual deemed values.

Costs

- 35 If redbait entered the QMS fishers would be faced with the same costs they face for all other QMS species. These include the cost of acquiring ACE or paying deemed values and cost recovery levies (quota owners only).
- 36 It is possible that restrictive total allowable commercial catches (TACC) for the redbait QMAs could constrain other target fisheries. This could provide incentives for dumping or misreporting of redbait.

Benefits

- 37 The primary benefit of QMS introduction (and consequent allocation or tendering of quota) is that those parties who purchase quota will have appropriate incentives to invest in the fishery. The rights-based approach is likely to provide the best opportunity for maximising utilisation of the fishery as the security provided by quota ownership will allow owners to invest in catching and developing markets for this species.
- 38 Better quality information on redbait catches may arise as MFish believes that currently some redbait catch may be discarded without being reported.
- 39 Introduction of redbait into the QMS on 1 October 2009 would enable those fishers who reported taking redbait between 1 October 1990 and 30 September 1992 to be allocated Provisional Catch History (PCH). MFish estimates that between 600-700 tonnes of redbait PCH could be allocated. Any quota that is allocated to the Crown would be tendered at the earliest opportunity.

Other Management Controls

- 40 Should the Minister agree to introduce redbait stocks into the QMS, section 18 of the Act requires his decision to be accompanied by a notice in the *Gazette*. Section 19 specifies the matters to be included in such a notice and requires that the notice must:
- a) Define the quota management area to which the notice relates by reference to an area or areas defined in the First Schedule to this Act or in any other manner;
 - b) State the fishing year in respect of the stock, which shall be a 12-month period commencing on either the 1st day of April or the 1st day of October;
 - c) State whether, for the stock concerned, the total allowable commercial catch is, and annual catch entitlements are, to be expressed in meatweight or greenweight; and
 - d) Make provision for such other matters as may be contemplated by this Act.

- 41 MFish is not aware of other matters that the notice needs to make provision for. However the notice does need to specify QMAs, the fishing year and how the TACC and ACE are to be expressed.

Quota Management Areas

- 42 MFish has little information upon which to make an assessment of whether separate redbait stocks exist in New Zealand. Because of this MFish believes any decision regarding QMAs should be guided by sections 19(2) and 19(3) of the Act:

19(2) - in defining the quota management areas, the Minister shall, as far as practicable, maintain the same quota management areas for different species;

19(3) - if the Minister is satisfied that any species that occur in the waters around the Chatham Islands can, for fisheries management purposes, be managed effectively as a unit, a notice under section 18 of this Act may create around the Chatham Islands a separate quota management area for that species.

- 43 As detailed in Appendix 1, although the amount of redbait being targeted is increasing, it is still most often taken as a bycatch to the jack mackerel trawl fishery (66% of total estimated catch from the past 7 fishing years). The majority of the catch is taken from west coast (FMAs 7, 8 and 9) with 61% of the past 7 fishing years' catch coming from that area. Figure 1 below shows the fishery management areas (FMAs) referred to in this paragraph.
- 44 There is not a large jack mackerel fishery in the waters around the Chatham Islands (FMA4) and less than 1% of total redbait catch during the 2001/02 – 2007/08 fishing years was taken in FMA4. For this reason MFish recommends that a separate QMA for the waters around the Chatham Islands is not established.
- 45 MFish proposes two options for redbait QMAs. The first is to set four main QMAs as well as a Kermadec QMA (FMA10). RBT1 and RBT2 would consist of FMAs 1 and 2 respectively. RBT3 would consist of FMAs 3-6 while RBT7 would consist of FMAs 7-9. These proposed QMAs are shown in Figure 2.
- 46 The second option is to set the same QMAs for redbait as those for jack mackerel recognising that most redbait is taken as a bycatch to the jack mackerel fishery. These proposed QMAs are shown in Figure 3. Both options recognise that redbait catches to date have come from two main areas, the west coast (mainly FMAs 7 and 8) and the eastern and southern South Island (mainly FMA5).
- 47 Both options also recognise that very little redbait catch is reported from FMAs 1 or 2 despite there being an important jack mackerel fishery in this area. MFish believes there are several possible explanations for this.
- a) The first is that the jack mackerel fishery in this area is based on purse seining rather than trawling. Purse seining is a surface fishing method that does not extend to the depth range where redbait is most commonly found.

- b) The second is that vessels greater than 46m in length, those responsible for virtually all redbait catch to date, are prohibited by regulation from operating in almost the entire area encompassed by FMAs 1 and 2.
- c) An alternative explanation is that redbait is simply not widely distributed in FMAs 1 or 2. Advice from NIWA indicates that the oceanographic conditions in the vicinity of East Cape may preclude redbait from being widely distributed in FMA1 i.e. East Cape may form a barrier that tends to separate pelagic species such as redbait.

48 Creating redbait QMAs encompassing FMAs 1 and 2 either separately or collectively (RBT1 in Figure 3) would allow for the possible development of a fishery in this area without affecting the existing fishery in FMAs 3 and 5 (RBT3 in Figure 3).

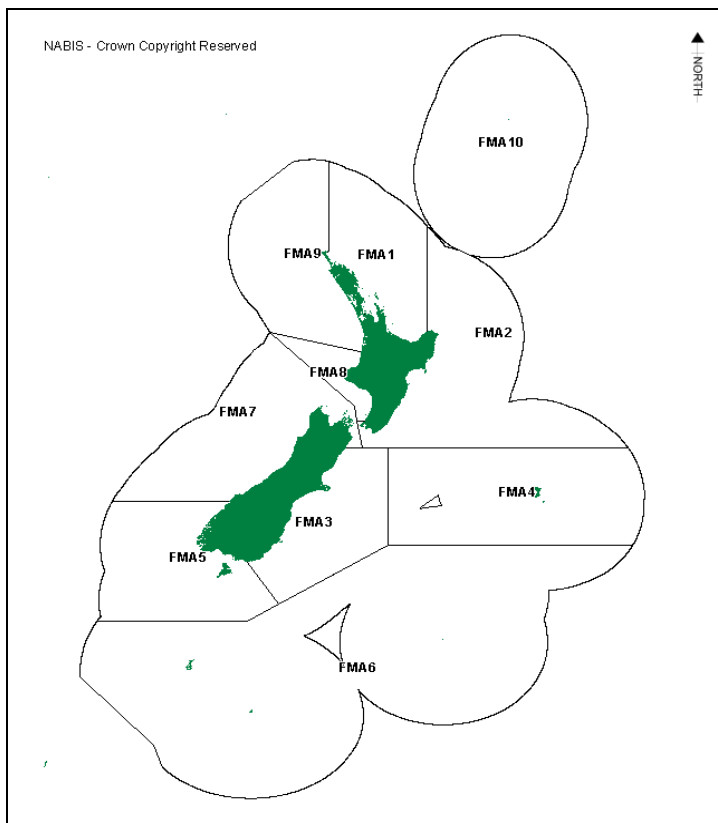


Figure 1. Diagram showing fishery management areas (FMAs)

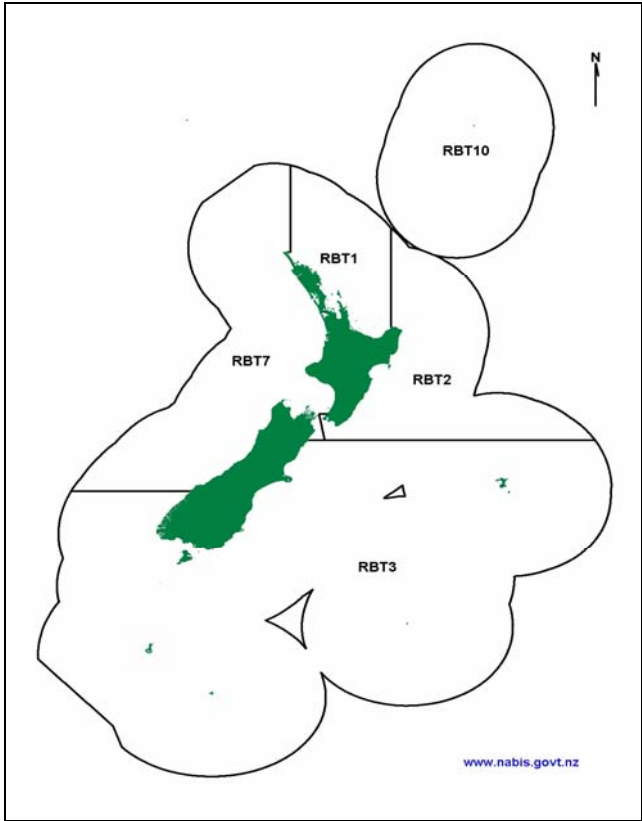


Figure 2. Diagram showing option 1 for proposed redbait quota management areas.

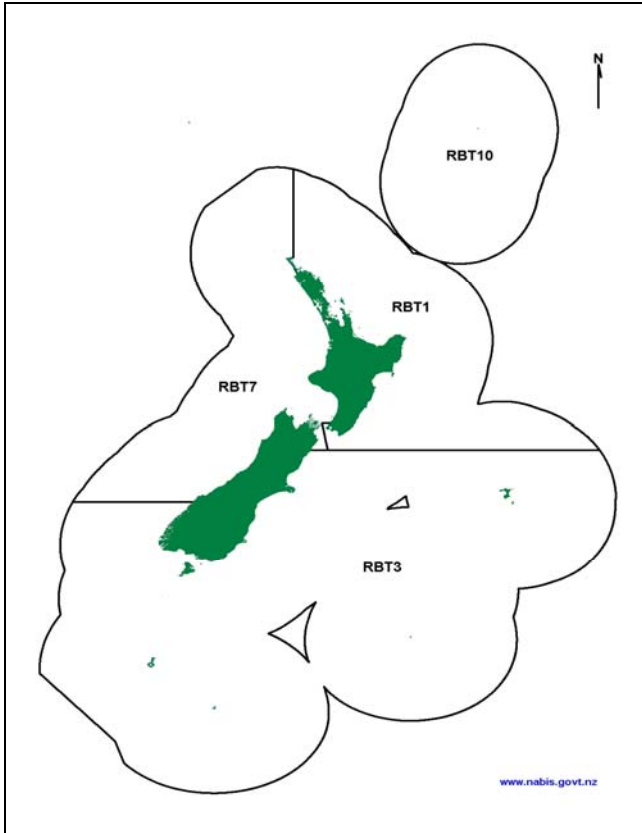


Figure 3. Diagram showing option 2 for proposed redbait quota management areas.

Fishing year

- 49 MFish proposes that redbait stocks be subject to the 1 October fishing year. The majority of finfish stocks are subject to the 1 October fishing year, including most of the target species where redbait is commonly taken as bycatch. MFish considers that the 1 October fishing year is most appropriate for redbait stocks.

Meatweight or greenweight

- 50 ACE and the TACC for all QMS species except scallop are expressed as greenweight. Consistent with this MFish proposes that the TACC and ACE for all redbait stocks be expressed as greenweight.

Statutory Considerations

- 51 **Section 17B.** The Minister's key decision, whether to make a determination to make redbait stocks subject the QMS is made pursuant to section 17B(1) and (2) of the Act. If satisfied that current management is a) not ensuring sustainability or b) is not providing for the utilisation of redbait the Minister must determine to make redbait subject to the QMS unless he determines that the purpose of the Act would be better met by setting one or more sustainability measures under section 11.
- 52 MFish believes that open access does not provide a suitable framework to enable stakeholders to provide for their economic well-being. Although open access does not prevent utilisation, without the security provided by property rights the potential of the fishery is unlikely to be fully realised. MFish believes that the 17B(1)(b) test is therefore met.
- 53 MFish has no information indicating sustainability concerns for redbait stocks.
- 54 If the 17B(1)(b) test is met, the Minister must then determine to make redbait subject to the QMS or whether the purpose of the Act would be better met by setting one or more sustainability measures under section 11. Generically, MFish considers the QMS is the best framework available within the Act to provide for the utilisation of fisheries resources while ensuring sustainability (purpose of the Act) regardless of the section 11 measure chosen. MFish notes that it is not lawful to use a section 11 measure to meet a utilisation obligation.
- 55 **Section 19.** Should the Minister agree to introduce redbait stocks into the QMS under 17B, he must then define the quota management areas. Section 19(2) requires that the Minister shall, as far as practicable, maintain the same quota management areas for different species. MFish considers that both the QMA options proposed in this paper are consistent with this obligation. MFish also considers that redbait in the waters around the Chatham Islands cannot be managed effectively as a unit and that, therefore, a separate QMA is not established around the Chatham Islands.

Other Management Issues

- 56 Should the Minister agree to introduce redbait stocks into the QMS on 1 October 2009 MFish will consult on additional management measures such as TACs/TACCs and

allowances, deemed values and consequential regulatory amendments. MFish is planning to commission NIWA to provide a characterisation of redbait, which will inform this process.

Appendix 1- Biological and fishery information

- 1 Redbait (*Emmelichthys nitidus*) is a schooling, bathypelagic species (near-bottom to midwater) that is closely related to rubyfish. It is found over favoured feeding sites – typically submarine rises and seamounts. It has been reported from depths of between 86m and 500m with juveniles occurring near the surface and adults found near the bottom in deeper water, including seamounts. It is also distributed worldwide.
- 2 Redbait feed mainly on larger zooplankton and grow to a maximum total length of 50cm. It is thought to have a maximum age of 10 years. The species is reddish in colour, darker (bluish grey) dorsally and silvery white below. Redbait is reported to be an excellent food fish. No New Zealand-based research has been undertaken on the reproduction or recruitment of this species.
- 3 Redbait distribution is summarised in Figure 1 below.



Figure 1. Redbait distribution.

4 Catch information for redbait is summarised in the table below.

Table 1. Catch of redbait by fishery management area (tonnes) reported on Monthly Harvest Returns for the past 7 fishing years.

Fishery management area	Fishing year							Total
	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	
FMA1	<1	<1	<1	1	2	3	<1	6
FMA2	1	1	1	<1	1	<1	5	8
FMA3	197	100	59	28	705	322	339	1,749
FMA4	78	40	24	15	17	1	9	185
FMA5	1,362	1,074	1,450	633	1,294	669	210	6,692
FMA6	1	5	2	<1	<1	106	2	117
FMA7	1,212	1,133	320	814	1,428	1,170	1,699	7,776
FMA8	457	848	1,468	522	480	313	673	4,759
FMA9	0	132	983	171	28	23	4	1,341
Total	3,308	3,332	4,308	2,185	3,954	2,607	2,941	22,635

5 Table 2 below shows the proportion of the total catch reported over the past 7 years that has come from each fishery management area.

Table 2. Proportion of total redbait catch reported over the past 7 years from each fishery management area.

	Fishery management area								
	FMA1	FMA2	FMA3	FMA4	FMA5	FMA6	FMA7	FMA8	FMA9
Proportion of catch	<0.1%	<0.1%	7.7%	0.8%	29.6%	0.5%	34.4%	21.0%	5.9%

6 Redbait has been reported as a target species since 1 October 2004 when the permit moratorium was lifted. However it is most often reported as a bycatch to a number of different QMS target species. The table below summarises the proportion of total estimated redbait catch taken during the 2001/02 – 2007/08 fishing by target species.

Table 3. Proportion of total estimated redbait catch taken over the past 7 fishing years and target species.

	Target species					
	Jack mackerel	Squid	Barracouta	<i>Redbait</i>	Hoki	All others
Proportion of redbait taken	66.1%	14.9%	13.6%	3.1%	1.2%	1.2%